

Answers to the Frequently Asked Questions (F.A.Q.)





Home > F.A.Q. > Answers

- Ozone Generators & Accessories
- Ozone Destructors, Monitors & Gas Analyzers
- Ozone in the Air
- Ordering Information

Ozone Generators & Accessories

Will all of your Ozone Accessories work with any Ozone Generator? - Answer

I am considering purchasing a Cold Plasma Ozone Generator because I've been told that it produces no heat. Is this true? - *Answer*

I have noticed that your ozone generators are not CSA or UL approved. Why is that, and are they any less safe than those that are? - **Answer**

We believe that ozone levels in a particular air filled enclosure is contributing to deterioration of components sharing the same housing. We know that some components in the housing generate ozone, yet are unsure how to quantify the levels. Can you suggest the appropriate hardware to use? - *Answer*

Having 12 volt systems is really great. I know that I can use cigarette lighters in cars, boats, etc. to power my 12VDC Ozone Generator, but what if I need something even more portable? - *Answer*

I own a 12VDC GE60 Ozone Generator. I will be using it in places where there is only a 12VDC system, but I have other electrical devices which require standard household current. Do you have any suggestions? - **Answer**

The silicone tubing provided with your products appears to be stronger then the silicone tubing I have seen offered by other suppliers. I would appreciate your feedback. - **Answer**

Is it safe to use other than silicon or PTFE-Teflon TM tubing on the OUTLET (ozone side) of your ozone instruments? -
<u>Answer</u>

Ozone Destructors, Monitors & Gas Analyzers

We believe that ozone levels in a particular air filled enclosure is contributing to deterioration of components sharing the same housing. We know that some components in the housing generate ozone, yet are unsure how to quantify the levels. Can you suggest the appropriate hardware to use? - **Answer**

Will the ozone analyzer OGA/C you suggested for measuring of ozone generator output produce the reading in pounds per day? - <u>Answer</u>

How effective is the ozone destructor and how would I know if it still effective? Do I need to change the element in the destructor? If yes, how often? - <u>Answer</u>

I would like to know when I should replace my catalytic ozone destructor with a new one? I know what the destructor is made of - how long does it function normally? - Answer

What are the safety issues associated with ozone exposure in a laboratory setting? My main concern is personnel health effects. I've heard that ozone affects mucous membranes and can cause minor discomfort, but are there more serious health effects? My ozone exposure is from operating a Tesla coil in room air. Should I be concerned about breathing the ozone from this for extended periods (intermittent exposure for up to 30-60 minutes, possibly several times per day)? - Answer

Ozone in the Air

What are the safety issues associated with ozone exposure in a laboratory setting? My main concern is personnel health effects. I've heard that ozone affects mucous membranes and can cause minor discomfort, but are there more serious health effects? My ozone exposure is from operating a Tesla coil in room air. Should I be concerned about breathing the ozone from this for extended periods (intermittent exposure for up to 30-60 minutes, possibly several times per day)? - Answer

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Ozone & Water

Couldn't someone "preserve" the ozone in the water they make by simply capping the bottle tightly with a silicon rubber cork or equivalent? I wonder how long water would remain "ozonated" if this is done? - <u>Answer</u>

Can you please tell me more about the following: In general, does Bromine & Ozone do a better job than Chlorine & Ozone for pools? Also, where would I purchase a device to test the ozone levels in my pool and hot tub. - **Answer**

We have a hot tub and are comparing Ozone versus Hydrogen Peroxide. Which do you feel is better? - **Answer**

What determines the final levels of ozone in water? - Answer

What is Gamma and its conversion to ozone levels in water? - Answer

I am concerned about my drinking water. Would it be better to use a RO unit to treat the water along with or separate from the ozone generator? - <u>Answer</u>

I would like to know how to mix Ozone into water - I need the easiest and best way? - Answer

I am looking for the least toxic, healthiest way to maintain a hot tub without chemical shock. I an using a copper/silver sanitation system, but am still told I need an "oxidizer" to burn off organics when I exit the spa (bromine, chlorine, potassium monopersulphate). - <u>Answer</u>

Can you tell me more about Ozonation with Bromine or Chlorine in pools. - Answer

H₂O₂ - More information on Food Grade Hydrogen Peroxide can be found in our Articles Area.

Why don't more people use H_2O_2 in their pools? I would like to switch, how expensive is it, is it difficult to switch, etc. - **Answer**

Do you know of a device that can test the level of hydrogen peroxide in water? Also I am interested in testing the level of hydrogen peroxide in 35% food grade hydrogen peroxide. - *Answer*

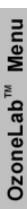
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Ordering Information

My order is overdue. What would you suggest that I do? - Answer

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OzoneLab™ Site Help & Search



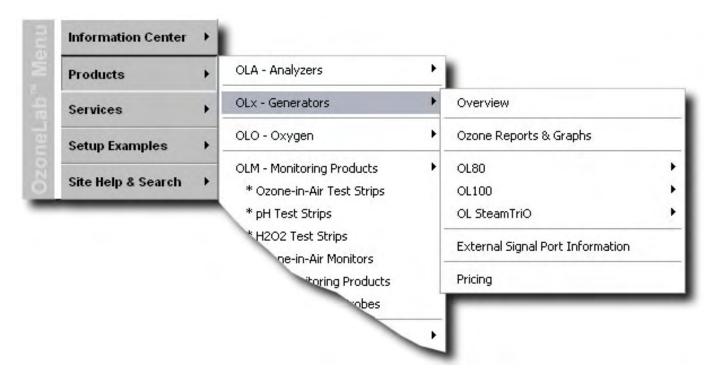
Home > Site Help & Search



OzoneLab™ Menu

In the upper left corner of each page within our site, you will find the OzoneLab™ Menu.

Note: the appearance of the menu differs per operating system since it uses the standard popup menu's as provided by the OS you are using.



If this menu does not appear, then you're missing the <u>JAVA</u> plugin.

Java often comes with your browser, if this is not the case, <u>download it at Sun.</u>

Note: Windows XP by default does not come with JAVA, although Internet Explorer will automatically download it.

Using this menu, you can instantly jump from one page to another.

Example: Ozone Reports & Graphs can be accessed using the menus **Products - OLx Generators - Ozone Reports & Graphs**.

A menu item (A is the mainmenu button, B is a sub-item of the mainmenu) can be clicked as you are use to in your Operating System.

An arrow (visible at A and B, and stressed at C) indicates that a menu-item has a sub-menu and when clicked upon by your mouse, will expand further.

Navigation Bars



The above navigation bar shows the user exactly where they are within the site, and provides linking information to related pages such as Products, Product Pricing and Frequently Asked Questions. Depending on the specific page, you may see any combination of the following clickable icons:



How to contact Ozone Services.



Takes you to where vou can conduct a site search.



Pricing on the product contained on the page you are looking at.



Shows that there is a Frequently Asked Question relating to the topic or product on the page.



Shows that there is an Article relating to the topic or product on the page.



Shows that there is a PDF formatted document relating to the topic or product on the page.



Shows that there is a 360° Product View available.



Shows that there is a Video File available relating to the topic or product on the page.



Shows that there is an Setup Example relating to the topic or product on the Example page.

Website Search:

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Site Search



Home > Site Search



Website Search:

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Contacting Ozone Services



Home > Contact Us



We can be contacted through the following means:

Postal Mail:	Ozone Services A Div. of Yanco Industries Ltd. 390 Silver Queen Road, Burton, B.C., V0G 1E0, Canada <u>Driving Directions / Map</u>		
Voice Telephone:	250-265-4461		
Fax Machine: (24/7/365)	250-265-4482		
Business Hours:	Monday to Friday - 8:30 am to 3:30 PM		
Burton	4:56 ^M on 12-07-2007		
New York	7:56 ^{AM} on 12-07-2007		
London	12:56 [™] on 12-07-2007		
Malaysia	7:56° on 12-07-2007		

E-mail:

We are always here to help. It has been our experience that answers to many inquiries made to us can be found within our web site. Please consider looking through our site menu or <u>conducting a site search</u> prior to sending an e-mail inquiry.

General inquiries & Support	info@ozoneservices.com
Custom design & production / engineering support	tech@ozoneservices.com
Web Site Problems	webmaster@o3zone.com

E-mail's directed to Ozone Services:

- 1. Should be as specific as possible
- 2. Should include full name, Tel/Fax
- 3. Please, check your return address to ensure it is working correctly
- 4. When already communicating with someone form Ozone Services via e-mail, please, do not delete the responses provided. By keeping the text intact, we are able to refresh our memory in respect to topic discussed, so we can process the e-mail inquiry without unnecessary delays resulting from the need to search for and to review the previous correspondence.

More In	formation	on Ozone S	3ervices
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Jump Menu:

Website Search:

OzoneLab™ News Flashes

Upcoming Holiday Hours

To prevent complications with shipping during the most busy time of the year for all couriers, we do not ship in December.

More External Control Tools

We encourage clients designing ozone projects to review our recently expanded selection of ozone generator control tools.

UV Irradiation Products

We offer U.V. Irradiation Instruments and Supplies, including custom produced UV Cuvettes.

Ozone Exposure Services

We offer custom exposure testing as well as testing specified by many of the most common ASTM standards.

Ozone Services

A Division of Yanco Industries Ltd. 390 Silver Queen Road Burton, B.C., V0G 1E0 Canada Telephone: 250-265-4461



Welcome to OzoneLab™ Instruments

Since 1993, activities of our company have revolved around the development, production and distribution of customizable, modular, oxygen fed Ozonation Equipment and UV Irradiation Instrumentation for Ultra Pure Applications.

Our <u>CE marked</u> OzoneLab™ products - Ozone Analyzers and Monitors, Ozone Generators, UV Instruments, Controllers, Specialized Glassware and peripheral accessories are currently used in various <u>research laboratories</u> and medical facilities in <u>70 countries</u>. From frigid conditions characterizing atmospheric research done on South Pole, to humid and warm conditions our clients face in Malaysia, Cameroon or Ecuador, our products help to complete diverse range of projects, in which the precision and reliability of instruments are basic necessity, not a luxury.

The OzoneLab™ world we have created is full of ideas mixing physics and chemistry, buzzing & glowing instruments, shining beauty of scientific glassblowing, and a never ending drive for innovation - a world blending new technologies with proven know-how and old fashion craftsmanship.

I invite you to explore it...

Den Rasplicka
Founder of Yanco Industries Limited



Product Order Form

OzoneLabTM Manufacturers of Ozone Generators, Ozone Analyzers and UV Instruments

Fax: 250-265-4482 info@ozonelab.com info@ozoneservices.com

Business Hours

Monday - Friday 8:30 am - 3:30 pm

4:55 P.D.T. Current Time

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OzoneLab™ Frequently Asked Questions (F.A.Q.)





Home > Frequently Asked Questions (F.A.Q.)

This area was created in order to deal with questions you may have and which can be of interest to other visitors of our web site.

Please, note following:

- 1. Not all questions and answers submitted will be published in this area, however, questions and answers which we feel will benefit others will be made available.
- 2. All questions must be signed and accompanied by a valid return e-mail address.
- 3. We do not provide answers to questions requesting medical advice.
- View the Frequently Asked Questions
- Submit your question

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<u>Home</u> > <u>F.A.Q.</u> > <u>Answers</u> > Question 13



Question:

Will all of your Ozone Accessories work with any Ozone Generator?

Answer:

OzoneLab™ accessories and peripherals are strictly designed to operate with OzoneLab™ Ozone Generators. In the design process:

- our main focus is achieving the maximum performance and problem-free compatibility of individual components of our customizable ozone systems.
- there is no consideration given to compatibility of OzoneLab™ accessories and peripherals with ozone generators/ozone systems produced by other companies. To investigate such issues is outside our company focus and capacity as there are literally thousands of ozone generators on the market.

Because we can't guarantee the compatibility and the performance of our accessories and peripherals with ozone generators other than our own, it is our preference not to accept purchase orders from clients using ozone generators produced by other companies.

=== Den Rasplicka - Ozone Services

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Question:

I am considering purchasing a Cold Plasma Ozone Generator because I've been told that it produces no heat. Is this true?

Answer:

=== First at all - I would like to point out that my following post is not being written with the intention to change anyone's decision.

There is no doubt in my mind that Cold Plasma ozone generators made their positive mark on the progress of ozone applications (including ozone therapies), however I believe the future belongs to advanced Corona Discharge systems or new combination (hybrid) ozonation systems.

=== It is puzzling to me how people are always seeking possibility to make things sound more simple then they really are. At the same time, people in general tend to prefer simplistic explanations over more complicated and complex answers.

It is a question of individual choice.

For those of you who prefer "simple as that" style info - please, stop reading now.....because I am about to present you with information which is considered by most people as too technical and consequently - not attractive.

Before I will start I should point out that a heat is just one of many forms of energy.

In general, less efficient electrical devices (appliances) will produce more heat then appliances with better efficiency. This is based on following:

incoming energy = energy used by appliance + residual energy (usually heat)

Example #1 - 100W light bulb

I assume most of you would be surprised to hear that standard light bulbs have efficiency as low as 2%. That means:

100W incoming energy => 2W energy changed to light and 98W of energy in form of heat

.... actually, standard light bulbs are quite energy efficient heaters.

Example #2 - 100W luminescent tube

have usually efficiency around 35%. That translates to:

100W incoming energy => 35% (+/-)W of energy changed to light and 65(+/-)W energy in form of heat

From listed examples is clear, Example #2 (35%) has better efficiency then Example #1 (2%)

Now, the discussion about "production of heat / no heat produced" by cold plasma generators can be resolved very easily. I know at least of three pathways how to reach some reasonable conclusions. Please, allow me to share them with you:

1. Theoretical path

a. Cold plasma generators are strikingly similar to Neon sign tubes. High voltage is applied to two poles between which one of noble gases will create cold plasma field (inside the cold plasma tube). Efficiency of the cold plasma tube is by no means 100%, there are number of different reasons for energy loses associated with cold plasma tube, however I would like to list just one as an example - losses due to random movement of charged particles in the gas which are bouncing of the walls of the tube. This random bouncing is virtually impossible to eliminate and it "eats up" the energy and it is releasing this energy in form of heat generated by impact of particles bombarding the walls of the cold plasma tube.

*****	Your own test - find the neon sign and touch the tube to check if it is warmer then the t	temperature
of the	environment they are operated in. There will not be significant difference, however _	there
is	a difference.	

b. High voltage feeding the cold plasma tube with energy is produced by high voltage transformer. Transformers are (as well as light bulbs) known for their notorious inefficiency which is in literature stated usually around 30-40%. This is due to double conversion of the energy:

Low voltage => magnetic field (primary winding)
Magnetic field => high voltage (secondary winding)

On top of it, there is a resistance of wire creating the winding, resistance to magnetic flow, resistance to

***** Your own test - find the neon sign and touch the high voltage (PROPERLY INSTALLED, ENCAPSULED - in other words SAFE) transformer to check if it is warmer then the temperature of the

environment they are operated in. There will be significant difference.

If you will take time and follow this theoretic path I outlined you must reach the conclusion that Cold Plasma is anything but "heat free".....

2. Comparison of energy INTAKE used by cold plasma and other ozone generators versus ozone production.

I am talking about measuring Voltage & Current needed to make these generators work, where:

Current is measured in Amp. (better in -mA-) Voltage is measured in Volts

I do not have available this type of data for all Cold Plasma Units. However I did have an opportunity to test a few units produced by a manufacturer 2-3 years ago. Because the manufacturer claims that their products are based on Tesla technology, I assume there was no significant change in last two years.....

Please, allow me to provide you with comparison of the Cold Plasma Unit with an ozone generator which I would like to list as "No Name" unit:

	Cold Plasma Unit	"No Name" - 97 Model
Ozone production based on	Cold Plasma	High Frequency Corona Discharge
Size of the generator	15x13x7" (MIN)	11x6x4"
Ozone Output with 1/2LPM	29 gamma	22 gamma
Ozone Output with 1/4LPM	42 gamma	39 gamma
Ozone Output with 1/8LPM	53 gamma	60 gamma
Ozone Output with 1/16LPM	50 gamma	82 gamma
Ozone Output with 1/32LPM	43 gamma	91 gamma
Voltage	120VAC/60Hz	120VAC/60Hz
Current WITHOUT FAN connected	175-180mA (22Watts)	95-100mA (12Watts)
Current WITH FAN connected	N/A	195-200mA (24watts)
Cooling fan	No cooling fan	12W/120V,(34CFM)

From all what I can see I can draw following conclusions:

- a. "No Name" unit is smaller
- b. "NO Name" unit is has O₃ output curve going always up (and higher)
- c. "No Name" unit has smaller current draw (almost 1/2 of Cold Plasma Unit)
- d. "No Name" unit total draw (including the cooling fan) is comparable with Cold Plama Unit

So, the question I would ask is simple.....I bet you think I would ask which ozone generator is better - NO, I WILL NOT:):)

....I will ask:

If "No Name" unit needs only 95-100mA to produce more ozone then what the Cold Plasma Unit produces with

175-180mA, then what is the efficiency of the Cold Plasma system?

Lets ASSUME for a while that "No Name" unit has 100% efficiency and these 95-100mA are FULLY "used up" to produce ozone, then the only logical conclusion is that Cold Plasma Unit has its efficiency just around 50% the rest must be the heat (which Cold Plasma Manufacturers deny to have problem with - and consequently - do not incorporate cooling fan to their design). After all, how can someone incorporate the cooling fan into the design of their product(s) if all marketing is based on "NO heat" claim?

The fact that Cold Plasma Generators do not "burn out" does not necessary translates to "there is no heat generated". Generation of heat and generation of excessive heat resulting in "burn out" are two completely different things.

Do not forget - over all power consumption of Cold Plasma Units are 175-180mA => 21-22watts. With my theoretical assumption that efficiency of the Cold Plasma Unit is 50% try to put 10W (50% from 21W) light bulb into the enclosure 15x13x7" and evaluate if it will create enough heat to burn out anything....

I am sure you will observe the temperature increase of the enclosure, but you will not burn your hands.... however this temperature increase is going to be big enough to effect ozone output because ozone is very temperature sensitive (decomposing faster in warmer environment).

The extreme sensitivity of ozone to temperature (heat) was the reason why "No Name" generator were equipped with cooling fan blowing 34CFM (cubic feet per minute) of air trough the enclosure. Without this cooling fan the ozone output for flow rates 1/2, 1/4, and 1/8 will stay virtually the same, however ozone output with flow rate 1/16 and 1/32 would be compromised from 82 -> 75 and from 91 to 70 gamma respectively. Cooling fan provides:

- a stability of ozone output over long period of time (no gradual temperature increase of the ozone producing electrode resulting in gradual decrease of the ozone output - this is quite handy specifically with treatments longer then 30 seconds.
- b. conditions under which higher ozone output is achievable.

"No Name corona discharge ozone module" draws only 95-100mA => less then 12Watts. If we will consider the efficiency of "No Name" corona discharge module to be similar to Cold Plasma generator (50%) - it translates to approximately 6Watts of heat which is dispersed by the cooling fan with flow rate 34CFM => the volume of the air inside the cabinet is exchanged approximately 2x every second.... I would say that exchange of the air in the enclosure 2x per second is rather serious attempt to deal with possible 6W of heat - perhaps it can be even considered as "overkill"....

3. Evaluation of ozone output curve

	Cold Plasma Unit	"No Name"- 97'model
Ozone Output with 1/2LPM	29 gamma	22 gamma
Ozone Output with 1/4LPM	42 gamma	39 gamma
Ozone Output with 1/8LPM	53 gamma	60 gamma
Ozone Output with 1/16LPM	50 gamma	82 gamma
Ozone Output with 1/32LPM	43 gamma	91 gamma

It may seem that the value(s) of maximum ozone output produced by these two generators (43 & 91 gamma)

are the most important and significant numbers in this table..... Nothing is farther from the truth..... The most important is the relationship and the "up & down" tendencies of different flow rates and correlating ozone outputs.

Cold Plasma Unit has a peek output with 1/8LPM with ozone output dropping with flow rate 1/16 and 1/32LPM. This is a clear evidence that unit is a subject to internal overheating - or is there any other logical explanation?

Needless to say - ozone output curve of "No Name" generator has "claiming " tendency on all its steps.

======= >>>> make your own conclusions about information I just presented you with.

=== Den Rasplicka - Ozone Services

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Home > F.A.Q. > Answers > Question 2

Question:

I have noticed that your ozone generators are not CSA or UL approved. Why is that, and are they any less safe than those that are?

=== Most clients considering the purchase of electric or electronic device(s) tend to believe that CSA, UL or any other type of approval automatically guarantees:

- 1. Quality of product design
- 2. Quality of workmanship
- 3. Suitability of materials used in manufacturing process of the product.
- 4. Many clients also believe that organizations in position to certify products also tests the performance and the suitability of the product in relationship to intended use.

Needless to say, the truth is different....

Laboratories providing testing and certification usually focus at one aspect only - electrical safety of the device they test. This means their attention is directed primarily at insulation properties of different components, grounding and generation of heat within the device (which may result in melting insulation at wire connections....)

Performance testing or the suitability of the product for different applications is not included in the scope of services provided by these organizations.

Consequently CSA, UL or other certifications provide very limited "protection" for prospect buyers of ozonation equipment.

It is also important to state, that certification process is relatively expensive venture. In general, there is a charge for initial testing and also a regular yearly charge for follow up evaluation if manufactured products complies with certification requirements.





In our search for maximum protection & safety of our clients we at Ozone Services evaluated number of different options including the CSA/UL certifications and we concluded that the best way to serve our clients would be to develop new line of products or to modify our existing line of ozone generators with the goal to have suitable selection of ozone generators for Ultra Pure Applications which would be operated from 12VDC.

0-24VDC and specifically 12VDC is internationally recognized as "LOW VOLTAGE" and devices utilizing these voltages have an excellent track record in terms of end user safety...we talk about REAL SAFETY, not "artificial" safety resulting from passing the test and being compliant with government regulations.

Furthermore, simple wall plug-in adapters which convert AC voltage to 12VDC are available world wide, therefore our ozone generators operating from 12VDC will prove to be very versatile and in full accord with trends leading us towards global economy.

Clients who travel extensively or clients who need to operate ozone generators in remote areas will appreciate that our ozone generators powered by 12VDC are distributed with AC/DC adapters as well as "cigarette lighter" 12VDC adapter making our products truly portable instruments which can be safely operated directly from standard car or RV 12VDC battery.

=== I hope this helps,

=== Take Care

=== Den Rasplicka - Ozone Services

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Home > F.A.Q. > Answers > Question 3



Question:

We believe that ozone levels in a particular air filled enclosure is contributing to deterioration of components sharing the same housing. We know that some components in the housing generate ozone, yet are unsure how to quantify the levels. Can you suggest the appropriate hardware to use?

Answer:

=== Believe it or not, the problem you have outlined is very frequently overlooked by designers and producers of ozone generators. Needless to say, it is very embarrassing for them to find out that their ozone generator is not "ozone resistant" - at least in respect to by-production of ozone within the unit enclosure.

This may be considered a good joke, but it is not. It is a fact of life and to find such ozone equipment is usually not very difficult. In most cases (not all), all you have to look for is "no fan" design. What is even more pathetic, most producers of such ozone generators are very proud of the fact that they do not use any fan....

O.K. back to your original question.

If you know for sure that some components in the housing generate ozone, then whole idea of measuring how much ozone is produced is standing on wooden leg. In other words, there is no "safe" level of ozone. Over long period of time even very low ozone concentration can accumulatively create extensive damage.

So, the basic rule we employ in our company is "zero tolerance" for ozone accumulation within the enclosure of our products...that does not necessary mean you have to incorporate a fan...different products and different usage of your products may call for different solutions...

In case that you still insist on measuring ozone levels within the enclosure, the selection of suitable product to do such test will depend on:

- 1. Range of ozone concentrations created / accumulated within the enclosure
- 2. Amount and precision of testing you wish to do

3. Your budget

...there are three products I have in my mind:

1. Ozone Test strips - inexpensive, simple, limited accuracy and range (0-0.105ppm)

A-21 Z is the most versatile unit, however it is also the most expensive one.

- 2. OS-2, electronic device with "remote sensor" (2FT) which can be inserted directly into the enclosure. Range 0.5-20ppm
- 3. A-21Z, electronic device without "remote sensor", but it has a port to attach "sniff tube" up to 12" long. Range 0.02 to 10 ppm

=== I hope this helps,	
=== Take Care	
=== Den Rasplicka - Ozone Services	

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 $\underline{\text{Home}} > \underline{\text{F.A.Q.}} > \underline{\text{Answers}} > \text{Question 4}$



Question:

Having 12 volt systems is really great. I know that I can use cigarette lighters in cars, boats, etc. to power my 12VDC Ozone Generator, but what if I need something even more portable?

Answer:

=== There are several different options available to you. I shall outline two for you.

The first is using a 12 volt battery and the following device:



The battery post clamps allow you to have a cigarette plug wherever there is a 12 volt battery. This is a product which we carry as apart of our <u>product line</u>.

The second option is using a portable battery pack.



We did tests using a device which draws 10% more power (1.55Amp) than our standard GE60 Ozone Generator at setting #10 (highest). The portable battery pack (pictured above) provided 15 hours and 47 minutes of continuous power. This is not a product that we carry, but similar units are available from many department and automotive supply stores.

=== I hope this helps,

=== Take Care

=== Den Rasplicka - Ozone Services

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Home > F.A.Q. > Answers > Question 5



Question:

I own a 12VDC GE60 Ozone Generator. I will be using it in places where there is only a 12VDC system, but I have other electrical devices which require standard household current. Do you have any suggestions?

Answer:

=== You didn't mention in your email what type of electrical devices you need to use, but provided the draw is not too heavy (see chart below), you might consider using a *DC to AC Power Inverter*.

A Power Inverter is an electronic device that converts low voltage DC (direct current) electricity from a battery or other power source to standard 115 volt AC (alternating current) household power.

The power inverter converts power in two stages. The first stage is a DC-to-DC converter that raises the low voltage DC at the inverter input to 16 volts DC. The second stage is the actual inverter stage. It converts the high voltage DC into 115 volts, 60 Hz AC.





			Battery Size	
Output Power (watts)	Typical Load	22NF (Small Car)	24 (Full-Size Car)	27 (Van, RV, or Boat)

50	Stereo System	9 hours Operating Time	14 hours Operating Time	20 hours Operating Time
100	19" Colour TV	4 hours Operating Time	6 hours Operating Time	10 hours Operating Time
200	Computer System	2 hours Operating Time	3 hours Operating Time	4.5 hours Operating Time
300	Blender	1.3 hours Operating Time	2.2 hours Operating Time	3 hours Operating Time

Ozone Services Products

Instrument	Direct Power Draw		Inverter Power Draw from 12VDC battery	
mstrament	120VAC	12VDC	when powering listed instrument(s)	
AquaTriO	0.175Amp	N/A	2.45Amp	
SteamTriO	0.17Amp	N/A	2.45Amp	
OXY500	0.8Amp	N/A	10Amp	
GE60	0.25Amp (AC/DC Adapter)	1.45Amp	N/A (can be powered directly from 12VDC)	

Technical Information (for above unit - please check the packaging of the unit you are considering for technical specifications:

Max. Continuous Power	300 W
Surge Capacity (peak power)	500 W
Optimum Efficiency	90%
No Load Current Draw	0.18A
Wave Form	Modified Sine Wave
Input Voltage Range	10-15 VDC
Low Voltage Alarm	Yes (10.7 Volts)
Low Voltage Cut-Out	Yes (10 Volts)
AC Receptacles	Dual
Weight	1.8 lbs / 3.96 kg
Dimensions (L x W x H)	6.0 x 4.7 x 1.8

This is not a unit which we sell, but is available for purchase at many department and automotive supply stores.

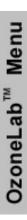
=== I hope this helps,

=== Take Care

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The silicone tubing provided with your products appears to be stronger then the silicone tubing I have seen offered by other suppliers.





Frequently Asked Question 11



<u>Home</u> > <u>F.A.Q.</u> > <u>Answers</u> > Question 11



Question:

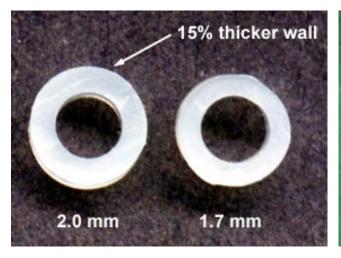
The silicone tubing provided with your products appears to be stronger then the silicone tubing I have seen offered by other suppliers. I would appreciate your feedback.

Answer:

=== Thank you for your question.

=== By examining the below pictures, you will see that the silicone tubing used by Ozone Services is thicker than the standard silicone tubing available on the market. The thicker wall silicone tubing is custom made for us. We decided to go with custom ordering of silicone tubing (back in 1996) to....

- improve the durability of ozone tubing
- tubing with thicker wall does not kink so easily as thinner wall tubing





An extra step that we take when preparing tubing included with our ozone generators is to include protective cups. These cups prevent prevent contamination of the ozone generator and accessories during transport and

The silicone tubing provided with your products appears to be stronger then the silicone tubing I have seen offered by other suppliers.

storage.





=== I hope this helps,

=== Take Care

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<u>Home</u> > <u>F.A.Q.</u> > <u>Answers</u> > Question 26



Question:

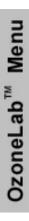
Is it safe to use other than silicon or PTFE-Teflon™ tubing on the OUTLET (ozone side) of your ozone instruments?

Answer:

=== The usage of other the silicone or PTFE-Teflon™ tubing for ozone delivery is not recommended and may cause contamination to the ozone output (ozone reacting with the specific composition of the tubing). We encourage you to review Material Compatibility with Ozone Table for more details.

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Search



Home > F.A.Q. > Answers > Question 7

Question:

Will the ozone analyzer OGA/C you suggested for measuring of ozone generator output produce the reading in pounds per day?

Sorry, if I sound a little ignorant, I am. BUT I'm the only one here who has a good grasp on English, so I get stuck with the duty.

Karen D.

Answer:

=== We have a full line of ozone monitors for monitoring of ozone gas concentrations.

The OGA/C ozone analyzer in the suggested configuration (Base model + Enclosure with 4-digit LCD display and Ozone IN/OUT ports) will produce a digital reading in the form of [mg/l].

It is important to understand, that Ozone Concentration is measured. However, the Total Ozone Output is calculated. In the calculation you will employ the following variables:

Ozone Concentration [mg/l] milligram per liter

Ozone Flow Rate [LPM] liter per minute

Conversion from minutes to hours [x 60]

Conversion from hours to 1 day [x 24]

....and you will be using the following formula:

Ozone Concentration [mg/l] x Ozone Flow [LPM] x 60 x 24 => [mg/day]

If you wish to convert [mg/day] to [Lb/day], then you have to take into consideration, that the conversion is rate is 1Lb = 454,000mg

Ozone Output Calculation example:

Ozone Concentration 12mg/l

Ozone Flow Rate 20LPM

12x 20x 60 x 24=> 345,600 [mg/day]

345600 / 454000 => 0.76 [Lb/day]

=== I hope this helps,

=== Take Care

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Home > F.A.Q. > Answers > Question 8



Question:

How effective is the ozone destructor and how would I know if it still effective? Do I need to change the element in the destructor? If yes, how often?

Answer:

- === Thank you for your question(s).
- === I believe the best way to answer your question is to provide you with following basic facts:
- 1). Average human can detect ozone levels in air in concentrations as low as 0.01ppm. Some more sensitive individuals have their noses more sensitive and they can detect levels as low as 0.001ppm levels which are quite difficult to register on standard electronic based ozone monitoring systems.
- 2). Ozone concentrations produced by GE60 ozone generator reach levels exceeding 90 gamma, which corresponds with 62,910ppm (90 gamma x 699 coefficient).
- 3). Ozone destructors are designed to eliminate up to 100,000 ppm with flow rate up to 500ml/min and it has a safety factor K=3. In other words, 1/3 of the catalytic agent volume housed inside the ozone destructor cartridge was sufficient to effectively reduce concentrations of ozone gas, channeled for destruction, below detection level of the average human (less then 1/2 of the safety limit standard 0.05ppm).
- 4). Because the Ozone Destructor is utilizing Catalytic agent for ozone destruction, there is no need for the replacement of the catalytic agent.
- 5). The only instance when the catalytic agent will have to be changed would be if the ozone destructor cartridge will be flooded with oil, or it would be exposed to some very specific chemical reactions not usually encountered in water ozonation applications.

For this reason the Ozone Destructor cartridge has removable threaded cap, which allows an easy access for

catalytic agent replacement.

Pricing on our standard 12" Ozone Destructor and agent refill is available in our pricing area.

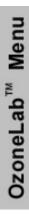
=== I hope this helps,

=== Take Care

How effective is the ozone destructor and how would I know if it still effective? Do I need to change the element in the destructor?

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Home > F.A.Q. > Answers > Question 10



Question:

I would like to know when I should replace my catalytic ozone destructor with a new one? I know what the destructor is made of - how long does it function normally?

Answer:

=== Thank you for your question(s).

=== Ozone Destructor we designed and produce uses a very simple principle - ozone channeled into the destructor is passing trough the catalytic agent. Direct contact between the agent and ozone results in oxidation process converting ozone (O_3) to oxygen (O_2) which is then released from the destructor.

Safety of our clients is very important to us as well as product reliability. Consequently, during the design process we took following steps:

- 1). we selected 1/2" clear PVC tube for the tubular section of destructor because of good handling properties, excessive thickness of the wall and durability. Clarity of the tube allowing the visual control of the catalytic agent inside the destructor was also important....
- 2). we selected 1/2" SCH 40 PVC end cups because of good handling properties, excessive thickness of the wall and durability.
- 3). we determined minimum thickness of catalytic agent bed (column) needed for effective destruction of ozone. This was done by simulating various ozone applications and monitoring off-gas coming out from ozone destructor with ozone gas monitor.
- 4). after minimum required thickness of agent bed was determined (3.25"), we used safety factor K=3 to determine the actual length of the destructor (3.25" x 3 => 9.75")

Under normal operating conditions, the destructor will provide years of service, actually, in theory there should

not be any time limit...and from our personal experience based on a track record starting back in 1994 & over 1300 systems sold and no "destructor problem" I would be inclined to believe that ozone destructor we designed and produce is extremely reliable.

Compromised function of the destructor would be exhibited by inadequate ozone conversion to oxygen and consequent ozone leakage. Most humans can detect ozone concentrations in air as low as 0.02 PPM - well bellow 0.05 PPM limit.

=== I hope this helps,	
=== Take Care	
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Home > F.A.Q. > Answers > Question 9

Question:

What are the safety issues associated with ozone exposure in a laboratory setting? My main concern is personnel health effects. I've heard that ozone affects mucous membranes and can cause minor discomfort, but are there more serious health effects?

My ozone exposure is from operating a Tesla coil in room air. Should I be concerned about breathing the ozone from this for extended periods (intermittent exposure for up to 30-60 minutes, possibly several times per day)?

Answer:

=== Thank you for your question(s).

=== There is an evidence supporting the view that repeated or the long term accumulative exposure to <u>ozone</u> <u>concentrations in the air</u> in excess to national standards (0.05 and 0.1 ppm) can (and very likely will) have the negative / irritation / damaging effects on the mucous membranes.

=== The real question you should focus your attention on first is how much ozone is created and present in the air during the tests you conduct with Tesla Coil(s). You may be interested to know that the Ozone Test Strips suitable for detection of ozone in air are available from our company and they are relatively inexpensive and they are very easy to use. Various electronic ozone monitors are available as well, but their cost is much higher than the cost of ozone Test Strips.

=== What is important to understand is the fact, that when ozone is produced from air, the production of ozone is accompanied with by-production of NO₂(toxic). Therefore, sometimes the discomfort is associated with the exposure to NO₂, rather then exposure to ozone.

=== In any case, an efficient ventilation is always a good idea...if it is possible. In many buildings the improvements in terms of ventilation unfortunately can not be done. In situations like that many people opt for air filters which utilize carbon filters. The selection of desktop air filtration units is relatively good and their cost

What are the safety issues associated with ozone exposure in a laboratory setting? My main concern is personnel health effects.

went down in last a few years due to their introduction to residential market. Naturally, the correct size/flow capacity filter must be selected in order to be effective.	
=== I hope this helps,	
=== Take Care	

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Home > F.A.Q. > Answers > Question 14



Question:

Couldn't someone "preserve" the ozone in the water they make by simply capping the bottle tightly with a silicon rubber cork or equivalent? I wonder how long water would remain "ozonated" if this is done?

Answer:

=== If we will take a sterile glass container and pump ozone gas into it, seal the container with Teflon closure - ozone will still dissipate - actually - it will convert back to oxygen. This process can be slowed down by storing the container in cold. The speed of this process can be also increased by exposing the container to high temperatures.

There are number of other factors which will effect the speed of "conversion process" - light, UV exposure, etc. (Needless to say that some UV wavelengths create ozone, some are used for ozone destruction...)

=== So, the answer to question above should be:

"Decomposition of ozone (in air or water) is not going to be stopped by sealing the container".

In terms of time - there is too many variables to give you a simple answer to this simple question. Personally, I use ozonated water as soon as it is produced and I do not make any attempts to store it.

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Home > F.A.Q. > Answers > Question 15



Question:

Can you please tell me more about the following: In general, does Bromine & Ozone do a better job than Chlorine & Ozone for pools? Also, where would I purchase a device to test the ozone levels in my pool and hot tub.

Answer:

Chlorine and ozone have the tendency to eliminate each other. Bromine and ozone cooperate to some degree. For regular pool owner is completely irrelevant what chemical processes are taking place, but the result is rather interesting - bromine usage with ozone is almost 1/2 of what would be chlorine usage with ozone in the same pool - while maintaining recommended residuals.....

Some people can tolerate bromine better then chlorine (and opposite). Chlorine is usually the 1st choice for most pool guys active in this field on commercial level mainly because the chlorine based products are cheaper. Using the cheaper supplies keeps their profit margins higher.... so, most people will not be given an opportunity to try bromine....

=== That does not mean bromine is safe and/or environmentally sound solution for swimming pools......

=== The usage of bromine as a disinfectant is very similar to chlorine usage. However, for the testing of bromine residual in water you will need Bromine test kit - should be available from your local pool product supplier. In regards to dosages you should refer to product info labels. There are too many different producers and products, therefore it is completely pointless to discuss any details about specific products I know about and we have available locally in my area.

=== An Ozone test kit (chemical test) is produced by LaMotte company and it can be ordered directly from them (sorry, I do not have their tel.# available at this time) or you may ask them for reference to a nearest distributor. Everyone should be able to find their info on the Net. Perhaps your local pet store will carry ozone test kit (for aquariums) - you should be looking for test range between 0 - 0.1 ppm with target reading around 0.08 ppm of ozone.

There are also some electronic tests available, however, the test probes (ORP) and meters [mV] can be quite expensive. mV meters (preferably digital with range 0-1000mV) can be sometimes found on sale in Radio Shack for 40-50U\$......However, the testing of residual ozone levels when utilizing additional disinfecting agent (H2O2, Chlorine, Bromine, etc.) is not as simple as we would like to see it. You will find that most tests simply are not suitable (or as accurate as it should be) for applications when more then one disinfecting agent is used.

Then, there is number of ORP automatic controllers - most of them quite costly. In time when I was active in this field I was using pH and ORP combination unit which took care of both - pH levels as well as disinfecting by ozone. This controller had adjustable set points and built in relay, so acid pump and ozone generators were plugged directly into this unit. It made installation relatively simple and it sure worked very well - unless there was a ground problem and some electric current was leaking trough whole pool installation. Then, these controllers got wild and they become useless...but that is a completely different subject:)

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<u>Home</u> > <u>F.A.Q.</u> > <u>Answers</u> > Question 16



Question:

We have a hot tub and are comparing Ozone versus Hydrogen Peroxide. Which do you feel is better?

Answer:

=== We used to produce and install ozonation units for hot tubs, however we found the installation to be tricky due to changing pressures and flow rates (different number of jets, different pumps, different stage of plug-up of the filter, etc). so, I started to focus more on Hydrogen Peroxide. I found following:

- 1. Start-up & installation is much cheaper and easier then with ozone
- 2. Operation and the maintenance is also simpler
- 3. The cost of H_2O_2 is usually around 100\$/year
- 4. When H₂O₂ is added to water you simply KNOW it is there even if the electricity will be interrupted for a few hours or days....

Over all, H_2O_2 is in my opinion far better way to treat the hot tub then ozone. The action of H_2O_2 and ozone is almost identical - both are utilizing oxidation (2O3 + C => CO2 + 2 O2 // 2 H_2O_2 + C => 2H2O + CO2)

H₂O₂ level in water can be monitored by dip-in test strips.

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Home > F.A.Q. > Answers > Question 24



Question:

What determines the final levels of ozone in water?

Answer:

=== Many people are under the impression the flow of oxygen/ozone mixture is what determines the final levels of ozone in water. This assumption is only partly correct. There are many additional aspects which have the same or grater effect at the final result of water ozonation as ozone flow does:

- 1. Ozone concentration
- 2. Water & ozone mixing (that includes a size of bubbles)
- 3. Water purity, temperature, pH, etc.

Water used for the rapeutic applications is usually produced:

- 1. from high purity water (distilled, RO treated, etc).
- 2. in small quantity less then 1 liter
- 3. by "passive" bubbling of ozone (no additional mixers are used)
- 4. room temperature or colder

I listed all these aspects with one intention only - to show how many of main factors are pre-determined.

As you can see we can still "play" with the concentration and flow of ozone gas, which will ultimately decide what will be the final result...

Let me outline a few important points:

- a. Virtually all ozone generators produce higher concentrations of ozone gas with low flow. Lower concentrations of ozone gas are produced with high flow rate....
- b. Higher flow rates usually produce larger bubbles and opposite smaller flow rates usually produce

- smaller bubbles (if the diffuser is properly designed. / By the way, the diffuser should be ozone resistant....)
- c. Ozone transfer from the bubble to water is happening only on the surface of the bubble where ozone is in a direct contact with water. Ozone trapped inside the bubble does not do anything....it just creates problem with strong ozone off-gas. Small bubbles are preferable because of more favorable "surface: volume" ratio => more ozone in the bubble will be in a direct contact with water.
- d. Ozone of higher concentration will have the ability to produce water with higher levels of dissolved ozone.

So, the trick is to find the flow rate & concentration which will deliver the best over all results. That means:

- 1. flow will must be large enough to ozonate water in reasonable time....
- 2. but must be low enough to
 - a. create bubbles as small as possible and
 - b. to produce ozone concentrations as high as possible.

Rather tricky task..... which can be solved quite easily if proper tools are used. Ozone dissolved in water is usually measured in "ppm" or/and "mg/l" (chemical tests) or electronically in [mV] of ORP (Oxygen Reduction Potential). I use primarily electronic ORP test because I am colorblind, therefore I can not use tests based on a change of the color.

Just for your information - following are a few samples of different applications requiring different ORP levels:

0-150 ORP	No practical use
150-250 ORP	Aquaculture
250-350 ORP	Cooling Towers
400-475 ORP	Swimming pools
450-550 ORP	Hot Tubs
600 ORP	Water Disinfection
800 ORP	Water Sterilization
950 AND UP	Water for therapeutic use

985 ORP was the level of ozone in water produced by Hansler setup during the training I went trough with R. Viebahn and Dr. Wasser

Many ozone generators currently on the market do not exceed ozone concentrations 50-60 gamma with even the lowest flow rate (1/32LPM). On top of it, majority of producers will provide their clients with following general recommendation:

For ozonation of water use - flow rate 1/8-1/4LPM with maximum concentration which can be delivered by the ozone generator with this particular flow rate(s) that is most of the time less then 40 gamma. Consequently, maximum ORP levels delivered by these systems are usually less then 800-850 ORP - too low for serious therapeutic application. Yes, water with 800 ORP will be sterile, however there will not be enough "ozone stored in water" to deliver substantial therapeutic results.

On other hand, systems which can deliver high ozone concentrations (up to 90-95 gamma) and can be used with very low flow rates (as low as 1/32) are subject to certain drawbacks which are mainly represented by three factors:

- 1. ozonation of water with flow rate as low as 1/32 take longer
- 2. low flow rates and high ozone concentrations require special miniature ozone resistant diffusers
- 3. container which is used for ozonation of water should be properly sealed during the ozonation process and ozone off-gas must be properly destroyed.

ORP levels achievable by systems utilizing 90 gamma concentrations are in range of 1100-1150 [mV] - far more then what could be achieved with concentrations in 50-60 gamma range.

By the way, I believe that all containers used for ozonation of water should be always sealed and excess ozone destroyed - regardless of ozone concentration used for ozonation of water.

I am slowly reaching the end of this ozone & water story.

For those facing the same ozone & water dilemma, I would like to encourage you to do following:

1. Take your existing ozone setup and try to determine what is the __lowest__ flow rate your diffusing stone can handle - still producing relatively uniform bubbles.

In case that your diffusing stone does not produce any decent bubbles (pores of the diffuser are too large and ozone is diffused in one large bubble which was "collected and accumulated" from ozone which stayed "hanging on the surface of the diffuser) with flow rate 1/8 LPM and less then you should look for a different style of ozone resistant diffuser.

- Check the ozone output from your ozone generator with the flow rate you will determine from your "bubble test".
- 3. You may try to use following very rough table I created for you for ozonation of water (1 liter) in a GLASS container which is less the 3" wide:

Flow [LPM]	1/32 LPM	1/16 LPM	1/8 LPM
Flow [cc.min]	31cc/min	62cc/min	125cc/min
Time	15-20 min	10-15 min	7-10 min

By the way....cc/min => ml/min

As you see, I did not elaborate on ORP levels produced by different ozone concentrations. The reason is that there are too many variables which will effect the final result.

=== One more thing before I will go - keep water as cold as possible. It will "hold more" ozone and it will get saturated faster.

By the way, if you will hear that water can be saturated to a certain point and then it does not "take & hold" any more regardless of ozone concentration used - it is correct. However, saturation point is far above 1300 ORP and it is far above levels of dissolved ozone achievable by simple bubbling of ozone trough water even with very sophisticated passive diffusers (passive diffusers are diffusers which do not employ any additional means to agitate water).

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Home > F.A.Q. > Answers > Question 17



Question:

What is Gamma and its conversion to ozone levels in water?

Answer:

=== First at all I would like to encourage you to review the copy of our presentation at International Oxidative Medical Association conference, (San Antonio, TX, April 17-19th, 1998) - <u>Technical Aspects of Ozonation</u> Equipment for Ozone Therapies.

There is a section clearly describing what "gamma" is.....

=== Second, you should realize that relation of gamma to ozone levels in water is similar as relationship of heating element (with specific output in Watts) to temperature of water.....

.... where Watts represent gamma

and

....temperature of water represent ozone levels in water.

In other words - direct conversion is not possible. There are too many variables which will have strong influence on the end result.

Following are just a few variables to give you an idea what is involved in ozonation of water:

- 1. water pH, temperature, quality, volume....
- 2. container holding water size, shape, material....
- 3. Mixing of ozone size of bubbles, circulation....
- 4. External "forces" barometric pressure, sun exposure, temperature..

..... in short, the only reasonable way how to determine the ozone levels in water is to test it directly by ORP (oxygen reduction probe) or by chemical test....

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Home > F.A.Q. > Answers > Question 18



Question:

I am concerned about my drinking water. Would it be better to use a RO unit to treat the water along with or separate from the ozone generator?

Answer:

=== I would encourage everyone trying to sort out their drinking water problem to do following:

- 1. To buy a bottle of *** distilled *** water
- 2. Empty the bottle and immediately fill it with water from the source you want to treat. (Let water run for 3-5 minutes before you will take a sample). Fill the bottle to the very top, so there will be almost no air left.
- 3. Deliver this sample ASAP to your *** LOCAL *** water lab (check your Yellow Pages (under "Water") and ask them for standard water analysis.
- 4. Ask the lab for reference for a local "water guy"
- 5. Contact your local water guy and explore all options.....

Of course, this is just a small part of the homework, however it is a part which must be taken in order to get good understanding what is the extend of the problem you are trying to deal with. "Water guy" in your area may or may not offer you a solution which would sound reasonable, however it is always good idea to start searching for the solution with people who work directly in your region (water contamination depends greatly on local conditions, therefore it is always better to talk to people who have experience with treatment of water in your area). In any case, people working in the "water lab" are usually very good source of info.

In regards to questions about R.O., ozone or combination R.O. and ozone - every system has its own advantages and week points. In general I follow these three simple guidelines:

- 1. For pretreated "city" water => R.O.
- 2. Water from the well or creek => ozone & filtration
- 3. Commercial applications (bottled water production) => R.O. & ozone

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Home > F.A.Q. > Answers > Question 19



Question:

I would like to know how to mix Ozone into water - I need the easiest and best way. Thank you.

Answer:

=== There are number of different ways how to mix ozone (gas) into water (liquid). The difference between these different mixing processes is mainly reflected in :

- 1. the simplicity -> cost
- 2. effectiveness

In general, the most simple mixing processes tend to be the cheapest.

Please, keep in your mind that following list represents only a quick "crosscut" of the field which deals with mixing of gasses to liquids:

- a. Diffusing ozone via air stone or any other porous material (aquariums)
- b. Using a special design chamber filled with ozone gas where water is cascading over multiple layers of fill with high surface:volume ratio imitating waterfall with stones.
- c. using injector (ventury) a special design "T" in witch water rushing trough the straight part of the "T" creates a suction in the 3rd port trough ozone is introduced. Mixing process utilizing injector is far more effective then A & B, however additional pump is usually used to deliver the energy for water flow and pressure needed for correct operation of injector. Needless to say, injectors are produced from different materials in different sizes. The smallest I have seen was 1/2" with orifice 1/16", the largest one was over 4".....

In order to further increase effectiveness of mixing process delivered by injectors many installations call for additional installation of:

a. in-line mixers which further break (mix) ozone bubbles already introduced to water. These in-line mixers

- are produced in a huge variety and it would be very difficult to describe most of them.
- b. in-line "ozone mixing chambers" which in most cases have multiple chambers. Total volume of these chambers is usually calculated from a water flow, ozone mixing and desired time exposure. To my knowledge, vast majority of "ozone mixing chambers" also act as off-gas chambers. In other words, undissolved ozone is separated in the ozone mixing chamber from water and released for further use or its destruction (in ozone destructor) trough some form of off-gasing valve.

I would like to also point out one more aspect of water ozonation which is closely related to materials used to construct the ozone generator and ozonation system.

With the technological progress namely in the development and the production of new materials the family of so called ozone resistant materials is slowly, but steadily growing.

Before I will list ozone resistant materials I know about, we should try to understand what is the real meaning of the term "ozone resistant".

From my practical experience with ozone I can honestly say that most people active in ozone field would provide you with different definition of this term. Most definitions will be rather confusing and there is almost 100% guarantee that what ever definition I will present you with, this definition will be challenged as soon as I will make this answer public.

As far as I see it, the problem with the definition of what is and what is not ozone resistant should be seen in the context of the application for which particular materials are used for.

Following is a very simple overview of different applications and the estimated range of concentrations of ozone gas used for these applications:

Application Description	Estimated ozone ppm	Concentration µg/ml [gamma]	Range % - Volume
Air Treatment	0 - 0.1	N/A	N/A
Water Treatment residential & light commercial	0 - 28,000	0 - 40	< 2% (*)
Ozone Therapies	0 - 63,000	0 - 90	< 5%
Water Treatment commercial	0 - 210,000	0 - 300	<15%
Special Applications	0 - ???	0 - ???	0 - ???

(*) to my knowledge there are very sophisticated systems in operation which reach ozone concentrations as high as 25%, however vast majority of applications (including commercial applications) operate in ozone concentration range 0 - 2%

As you can see the differences between applications are huge and huge will be also the differences in requirements for the ozone resistance of materials used to construct ozone generator, tubing connections, mixing chambers for water treatment on so on.

In order to reach some reasonable conclusion I started to divide ozone resistant materials into three groups:

- Materials with fair resistivity to ozone which can be used for applications dealing with concentrations as high as 40gamma Stainless steel, Neoprene, EPDM, Karlez,
- Materials with good resistivity to ozone in concentrations up to 90 gamma silicone, LDPE, Viton®,

How do you mix ozone into water?

Kynar (also known as PVDF)

• Materials with theoretically unlimited resistivity to any ozone concentration - Teflon, glass

=== I hope this helps...

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<u>Home</u> > <u>F.A.Q.</u> > <u>Answers</u> > Question 21



Question:

I am looking for the least toxic, healthiest way to maintain a hot tub without chemical shock. I an using a copper/silver sanitation system, but am still told I need an "oxidizer" to burn off organics when I exit the spa (bromine, chlorine, potassium monopersulphate). I wanted to test the level of ozone in our water to see if the unit is putting out enough. Do you have test strips that I can use in my spa? I am told that ozone is a great oxidizer (my unit came with an ozone generator) but it isn't doing the trick. My question is could the ozone be at too low a level (i.e. an inferior generator) or would I be able to use hydrogen peroxide as a shock (and would that be compatible with the copper/silver system? What would you recommend if I wanted to boost the levels of ozone with one of your machines? (which model would you recommend?)

=== Hello

=== You have number of very good questions....so, I will try my best to deal with them one by one:

I am looking for the least toxic, healthiest way to maintain a hot tub without chemical shock.

=== That will be in my opinion ozone or hydrogen peroxide.

I an using a copper/silver sanitation system, but am still told I need an "oxidizer" to burn off organics when I exit the spa (bromine, chlorine, potassium monopersulphate).

=== That is correct.

I wanted to test the level of ozone in our water to see if the unit is putting out enough. Do you have test strips

that I can use in my spa?

=== Ozone in water is relatively difficult to test because of the presence of copper/silver ions and chlorine in water will effect ozone readings. However, there are chemical tests for ozone produced by LaMotte Co. and there are also electronic tests called ORP (Oxygen Reduction Potential). To my knowledge, there are no simple "test strips" for ozone levels in water (similar to pH test strips).

=== By the way - the copper/silver sanitation is based on toxicity of these two metals to microorganisms.... consequently, I would be inclined to believe copper/silver sanitation systems as toxic to humans as well.

I am told that ozone is a great oxidizer (my unit came with an ozone generator) but it isn't doing the trick.

=== To my knowledge ozone is very powerful oxidation agent, however there are number of aspects to consider when dealing with ozonation:

- concentration of ozone gas
- 2. total impurity load
- 3. efficiency of mixing process (ozone & water)
- 4. exposure time (ozone & water)

=== I am not surprised at all to read that ozone generator which was an integral part of your spa, does not do the job....this is because of following reasons:

- 1. ozone concentrations produced by ozone generators usually used for spa is simply too low spa producers and dealers prefer to use UV ozone generators because they are dirt cheap....
 - a. adding UV generator to spa package "free of charge" is actually very nice looking marketing trick....
 - b. you will still need chemicals guaranteed sales for spa retailers
 - c. you will need replacement UV bulbs even more sales for retailers
- 2. Total impurity load can be very high due to relatively small volume of water for relatively large number of people bathing in water. Plus high water temperature has very negative effect at efficiency of ozone.
- 3. recirculation in standard spas is usually not sufficient for ozonation (too slow). To make whole situation even worse, spa producers usually use low cost/low efficiency injectors (ventury) to mix ozone to water.
- 4. exposure time between ozone and water is also limited by fast decomposition of ozone in warm water.

My question is could the ozone be at too low a level (i.e. an inferior generator) or would I be able to use hydrogen peroxide as a shock (and would that be compatible with the copper/silver system?

=== There is no doubt in my mind that an ozone generator supplied with your spa is UV based unit - which simply is not powerful enough to deliver any better results than you already observed even if you will improve mixing and circulation (costly).

=== I would prefer not to use copper/silver sanitation....

===and I would focus my attention to a combination of your existing ozone generator with H₂O₂.....

I personally used to be involved in installations of small corona discharge ozone generators (200mg/hr with 2LPM flow) for spas, however we do not use "ozone alone" any longer. There are high risks involved when dealing with ozone only......bacteria will start to multiply in warm water really fast as soon as ozonation will be disrupted. That can be result of:

- 1. failure of the pump
- 2. failure of the ozone generator
- 3. power outage
- 4. any possible problem with ozone tubing & connections
- 5. etc....

....and these are just a few examples.

=== When H_2O_2 is used as a primarily sanitation agent all problems associated with vulnerability of ozone systems are eliminated. When regular H_2O_2 dose is delivered to water, then we know that H_2O_2 is there....and ozonation can be used as a support treatment to lower the expenses for H_2O_2 .

What would you recommend if I wanted to boost the levels of ozone with one of your machines? (which model would you recommend?)

=== The boost of ozone levels by adding an other ozone unit (or replacing existing ozone generator) may improve significantly the quality of water in your spa, however this solution is not going to give you any protection against the problems with ozonation of spa I outlined earlier.

In any case, I would like to encourage you to consider H₂O₂ as a primarily sanitation agent.

You may wish to check out our infomration about H₂O₂ test strips.

We also have an article in our Articles Area specifically on H_2O_2 which you may find useful...

=== Take Care

=== Den Rasplicka - Ozone Services

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<u>Home</u> > <u>F.A.Q.</u> > <u>Answers</u> > Question 20

Question:

I work for a hospital that is getting ready to build a healthplex with a Lap Pool, Therapy Pool and two Whirlpools. We are getting conflicting stories on how to use ozonation in these applications. Do you have any suggestions? Money is a concern and space to put the equipment is of concern. Right now Ozonation with Bromine is being recommended. We have been told that ozone reactivates Bromine as it passes through the ozonating process, cutting Bromine use 20-30%. Another consultant is telling us that we should not use Bromine but Chlorine with the ozonation equipment. Let me know what you recommend.

=== Startup cost and also the cost of operation & preventive maintenance for ozonation systems is usually higher than what would be the cost for sanitation of water utilizing chlorine or bromine. From this simple perspective, most pools currently in construction are still being equipped by instruments for handling and dispersing chemicals..... Needless to say, only very few people in position(s) to make decision(s) about the design and operation of pool(s) have enough wisdom to include into a simple financial equation the "hidden costs" for using chemicals which are represented by damage created by chlorine and bromine to health of people operating & using the pool(s) and the environment in general.

=== The combination of Ozone & Bromine delivers far superior results over the combination of Ozone & Chlorine.

=== Properly designed and operated Ozone & Bromine system can cut the usage of bromine up to 80-90%...... Actually, ozonation systems our company installed are operated in "Ozone Only" regime and bromine injection backup is activated automatically by ozone ORP monitor only if residual ozone levels in water will drop below the preset ORP level. Consequently, if ozonation system is correctly designed and proper attention is directed towards early maintenance, pools should have virtually no usage of bromine....

=== I hope this helps,

=== Take Care

=== Den Rasplicka - Ozone Services

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35% Hydrogen Peroxide



Home > Articles > 35% Hydrogen Peroxide



Please Note: Ozone Services only supplies/sells <u>Hydrogen Peroxide</u> (H_2O_2) <u>test strips</u> - we do not supply/sell Hydrogen Peroxide (H_2O_2) itself.

Hydrogen Peroxide (H₂O₂) an unstable very powerful oxidant is water (H₂O) with an extra oxygen molecule. It

is a natural substance which can be found in trace amounts in rain and snow. Rain combines with ozone (O_3) in the upper atmosphere. When the two mix, the ozone loses one oxygen molecule to the water and hydrogen peroxide is formed. Hydrogen peroxide is very unstable and breaks down readily into water and a single oxygen molecule. Oxygen is stable only when the molecules are paired (O_2) .



A single oxygen molecule is a strong oxidizing and disinfecting agent. Hydrogen peroxide is a simple yet effect substance due to its ability to release this single oxygen molecule.

Merck s index indicates that hydrogen peroxide can be used as a water disinfectant. In the medical world it is used as a topical disinfectant. The FDA in the US has approved 35% food grade hydrogen peroxide to be used in a production of "aseptic" packaging for the food industry. The range of applications for hydrogen peroxide is steadily growing and H₂O₂ is finding its way to our daily lives in form of mouth rinse products for cleaning and healing mouth injuries as well as environmentally sound alternative to toxic chlorine based bleach. Hydrogen peroxide is also starting to be accepted as a healthy alternative to chlorine for water disinfection. A growing

number of hot tub and swimming pool owners take advantage of the extraordinary ability of H₂O₂ to maintain

water bacteria & odor free.

Hydrogen peroxide is produced and distributed in number of different grades and concentrations. Commonly known 3% and 6% H₂O₂ which can be found in almost every drug store has its place in your medicine cabinet, however it is not considered to be suitable for any applications outlined in this text.

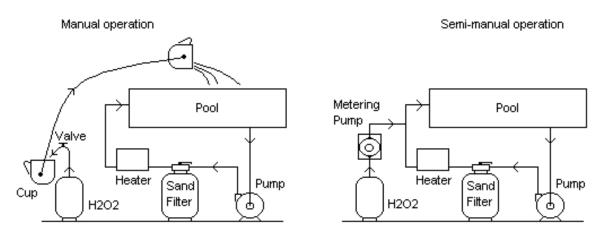
35% Technical Grade Hydrogen Peroxide and Hot Tubs & Swimming Pools

Some dissolved substances, particularly iron and organics will use up the hydrogen peroxide rapidly making

the treatment of large volume of water with H_2O_2 (swimming pools) cost prohibitive. This problem can be usually solved by installing additional ozone generator which works very well in conjunction with H_2O_2 .

However, vast majority of hot tub owners are dealing with volume of water in range of 500-800 gallons and as such, they will not experience problems usually related to swimming pool applications. If you are unsure of the mineral content of your water, try the hydrogen peroxide and test the concentration frequently. Hydrogen Peroxide will not control Algae in your hot tub. To reduce the possibility of algae contamination, keep the tub covered when it is not in use and add water only from a chlorinated water source. Should an Algae bloom occur shock with chlorine or an Algae control chemical recommended by your hot tub supplier. When Algae is under control return to using hydrogen peroxide.

Swimming Pool & H2O2



Levels of Hydrogen Peroxide in water are monitored with H2O2 Test Strips

"Shocking" your tub to get started - To start your hot tub on hydrogen peroxide it is necessary to shock the water with a high dosage. For every 1000 liters of water in your tub add 250 ml of hydrogen peroxide (250 ml (1 cup) to every 250 gallons of water). Let the tub stand for one day with the circulation pump running intermittently. Clean the filters before you start and check them frequently after shocking. The peroxide will oxidize any material in the water and the filters can quickly plug causing damage to the pump. H₂O₂ may not work if the water has a high dissolved mineral or organic content.

Maintaining the hydrogen peroxide levels - The amount of hydrogen peroxide used depends on the quality of the water, the number of people using the tub, the frequency of use, and the amount of sunlight the tub gets. Check the level of hydrogen peroxide frequently with the test strips until you are familiar with how much hydrogen peroxide to add and when to add it. Then check at least once per week. When the level dips to 50 ppm add 250 ml (1 cup) of hydrogen peroxide per 2000 liters (500 gallons) of water in the tub. The level should jump up to 100 ppm. Maintain the level between 50 and 100 ppm. Check and clean filters frequently. Hydrogen peroxide can be added to water manually, by a special injection system or by a metering pump. Ask us for technical details.

Peroxide Test Strips are a plastic strip with a reactive pad on one end. They are used to test the concentration of hydrogen peroxide in a solution. Dip the pad into the solution for 1 second. After 5 seconds compare the color of the pad to the color scale on the bottle. Test strips measure from 0 to 100 parts per million. Swimming pools are kept usually in range 30-60ppm and hot tubs between 50 to 100 ppm hydrogen peroxide in water.

HANDLING OF HYDROGEN PEROXIDE:







More information on Safety and Handling Guidelines of Hydrogen Peroxide

35% Hydrogen peroxide is extremely corrosive and a strong oxidizer. It can cause severe burns. Handle with care and keep out of reach of children. The vapor is extremely irritating. Avoid contact with skin, eyes, and hair. Do not take internally. For fire or spill flood with water immediately. Toxic or fatal if swallowed at full strength.

PRECAUTIONS:

Keep in cool, dry and well ventilated area, keep away from heat, combustibles, oxidizers, metallic powders, and acids. Never dispense hydrogen peroxide into an unlabeled container. Do not use pressure to empty container. Do not add water to container. When empty rinse container with water before discarding. Never return unused hydrogen peroxide to the container.

FIRST AID:

If inhaled, remove to fresh air. If breathing is difficult or discomfort occurs call physician. In case of eye contact: Immediately flush with large amount of water for at least 15 minutes, lifting upper and lower lids intermittently. See physician. In case of skin contact: Wash with large amounts of water. If irritation occurs, see physician. If ingested: drink plenty of water immediately to dilute. Do not induce vomiting or give anything by mouth to an unconscious person. Note to physician: If swallowed large amounts of oxygen may be released quickly. The distention of the stomach or esophagus may be injurious. Insertion of a nasogastric or orogastric tube may be advisable.

Additional Uses For 35% Technical Grade Hydrogen Peroxide

(To dilute to 3% solution - Mix 11 parts of distilled water with 1 part 35% H2O2)

- **To freshen kitchen:** Keep a spray bottle of 3% H2O2 in the kitchen. Use to wipe off counter tops and appliances, it will disinfect and give the kitchen a fresh smell.
- In the dishwasher: Add 50 ml (2 oz.) of 3% H2O2 to your regular washing formula.
- House plants: Add 30 ml (1oz.) of 3% H2O2 in liter of water. Use to mist plants.
- Laundry: Add 250 ml (1 cup) of 3% H2O2 in place of bleach.
- Humidifiers and Steamers: Mix 500 ml of 3% H2O2 to 4 liters of water.
- Facial: Use 3% H2O2 on a cotton ball after washing. Avoid eyebrows and eyes.
- Detox Bath: Use 250 ml (1cup) of 35% H2O2 to a tub. Soak at least for 30 minutes

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OzoneLab™ Articles

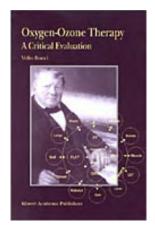


Home > Articles

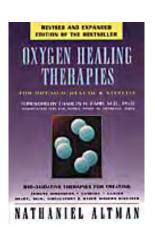


- Comparison of physical data of ozone, oxygen and air
- Conversion Charts Vacuum, Length, Volume and Pressure Conversion Tables
- Material Compatibility with Ozone
- Material Compatibility with Hydrogen Peroxide
- Ozone Conversion Chart
 - o .gif Image File (13,477 bytes)
 - o PDF File (6,824 bytes)
 - o Excel File (179,712 bytes)
- Ozone In the Air Ozone Levels and Their Effects Data from IOA and Edited by Den Rasplicka
- Ozone Sensing and Leak Detection By Lawrence B. Kilham
- Technical Aspects of Ozonation Equipment for Ozone Therapies By Den Rasplicka
- What Is Ozone?
- 35% Hydrogen Peroxide

The following three books offer information related to use of ozone as a therapeutic agent:







Oxygen-Ozone Therapy - A Critical Evaluation The Use of Ozone in Medicine by Renate Viebahn-Haensler

Oxygen Healing Therapies - 2nd
Edition
by Nathaniel Altman

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by Velio Bocci, PhD.





<u>Home</u> > <u>F.A.Q.</u> > <u>Answers</u> > Question 22



Question:

Why don't more people use H_2O_2 in their pools? I would like to switch, how expensive is it, is it difficult to switch, etc.

Answer:

=== Utilizing ozone or H₂O₂ for swimming pools and spas makes a lot of sense to anyone who knows how toxic Chlorine (Bromine) can be not only to a human body, but also to the environment.

There are some general aspects to consider when thinking about pool or spa "conversions".

1. The conversion of spa or pool to H₂O₂ is usually very simple. H₂O₂ can be introduced to water manually or via 2-3 different semi-automatic or fully automatic injection systems.

The treatment of large volume of water with H_2O_2 is usually quite cost prohibitive.

Recommended H_2O_2 dosage for POOLS is in range 30-60 ppm (100ppm for therapeutic pools). Recommended H_2O_2 dosage for SPAS is in range 50-100 ppm (125-150ppm for therapeutic pools). Higher dosages for spa are due to warmer water.

H₂O₂ test strips with range 0-100ppm are available for manual "low-tech" testing....

2. The conversion of spa or pool to ozone is usually rather tricky task.

Ozone installations (if properly done) will have relatively low cost of maintenance, however the startup cost is significant.

Pools with sluggish circulation (turn around of all water in the system longer then 8-10 hours) should not be converted to ozone at all, unless the circulation will be improved (maximum 4-5 hours turn-around). The same applies for pools or spas with Copper piping, heaters and other components and materials which can not be considered as ozone resistant.

In any case, owners of pools and spas with a lot of sun exposure should think twice before they will go ahead with ozone conversions => algae likes oxygen rich water & sun.... and ozone, or H_2O_2 in concentrations used in pools or spas does not kill algae....

Each	pool a	and s	spa is	different =>	it is	hard	to	go	into	details.
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=== I hope this helps.....a little :)

=== Den Rasplicka - Ozone Services

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<u>Home</u> > <u>F.A.Q.</u> > <u>Answers</u> > Question 23



Question:

Do you know of a device that can test the level of hydrogen peroxide in water? Also I am interested in testing the level of hydrogen peroxide in 35% food grade hydrogen peroxide.

Answer:

=== I personally do not like hand held ORP or pH meters due to their very bad track record in terms of the quality of these instruments. Also a precision of the measurement is somehow questionable. I did run an extensive test of these hand held units (manufactured by number of different companies) and after the test I simply stopped using them.... on top of it - they are quite costly (they are definitely too expensive when considering the results I have got).

=== Most people need to perform just a few tests - to satisfy their curiosity or just to make sure they did not mess up calculations for dilution of H_2O_2 . H_2O_2 test strips I use are sold in packaging of 100 tests strips/1 capsule. I believe 100 tests is going to provide enough answers to satisfy even the most curious folks:)

=== Den Rasplicka - Ozone Services

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Home > F.A.Q. > Answers > Question 6



Question:

My order is overdue. What would you suggest that I do?

Answer:

=== For packages sent by postal service, please contact us to confirm the shipping date and the tracking number.

=== For packages sent by UPS, please click on the <u>UPS tracking link</u> and enter you tracking number into the input box provided.



If you do not have the tracking number for your package, <u>contact us</u> and we will provide it to you.

=== I hope this helps,

=== Take Care

=== Den Rasplicka - Ozone Services

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OzoneLab™ Products Quick Reference Listing



Home > Products









Ozone Analyzers

- OzoneLab™ OLA
 - OLA/L
 - OLA/DLS
- OzoneLab™ OL80A with built in Ozone Generator
 - OL80A/DLS

Ozone Generators

- OzoneLab™ OL80 Wall Mounted Line
 - OL80W/FM500
 - OL80W/FM500T
- OzoneLab[™] OL80 Desktop Line (45° panel series)
 - OL80 (Basic) 45° panel
 - OL80 45° panel
 - OL80T 45° panel
 - OL80F/S 45° panel
 - <u>OL80F/ST 45° panel</u>
- OzoneLab[™] OL80 Desktop Line (90° panel series)
 - OL80F/DS 90° panel
 - OL80F/DST 90° panel
 - OL80F/DSTR 90° panel
 - OL80F/DST-2S 90° panel
- OzoneLab™ OL80 Combination Instruments
 - OL80A/DLS
 - OL80M
- OzoneLab™ OL100
 - OL100/Basic
 - OL100/DS
 - OL100/T

Oxygen Items

OzoneLab™ M9 (240L) Oxygen Tank

Ozone & UV System Peripherals (con't)

- Ozonation Containers
 - 30 & 60ml Glass Containers
 - 30ml Trap & Ozonation Container
 - 1500ml with Stopcock
 - Glass Containers (Assorted)
- Syringe Components
 - Manual Filling Adapter
 - Semi-automatic Filling Adapter
- Ozone Destructors
- Power Supply Items
 - 12VDC Power Supply
 - Extension Cord for 12VDC Adapter
 - Car 12VDC Plug Adapter
 - Hand Switch Power Controller
 - 12VDC Battery Extension Cord
 - External 220 -> 120 Power Converter
- EXT Port Accessories
 - 3.5mm Stereo Cords
 - 3.5mm Stereo Splitters
 - 3.5mm Stereo Plugs & Jacks
 - OLW Wireless Controller
 - Foot Switch Control
 - External Ozone Concentration Regulator (OCR)
- OL80 Ozone Generator Cases & Stands
 - OL80 Desktop Line ABS Plastic Case
 - OL80 Wall Mounted Line ABS Plastic Case
 - OL80 Wall Mounted Line Acrylic Demo Stand

OLW Wireless Controller

Ozonated Olive Oil

- OzoneLab™ Oxygen Flow Regulators
 - CGA540 Fitting
 - CGA870 Fitting
- OzoneLab™ BS No. 3 British Standard Fittings for Oxygen Connections
- OzoneLab™ Oxygen Transfer Adapters
- OzoneLab™ Oxygen Manifolds
- Oxygen Tubing and Fittings
 - 1/8ID 1/4OD and 1/8ID 3/16 Items
 - 3/16ID 5/16OD Items
 - 0.22µm Filters

Ozone Monitoring Items

- Ozone in air Test Strips
- H₂O₂ Test Strips
- Ozone Monitors
 - C-30Z Ozone Monitor
- Y-Series Meters & Probes
 - Y-ORP Meter
 - Y-pH Meter
 - Y-340UV Meter

Timers

• OEM Digital Countdown Timer Modules

Ultra Violet Irradiation Products

- OzoneLab™ UV Irradiation Instrument
 - 4-8-12W/12VDC
 - Spare UV Bulbs
- OzoneLab™ UV Quartz Cuvette
- OzoneLab™ UV Accessories
 - Injection T-Site
 - 3-way Valve
 - 0.22µm Filters
 - Red Locking Forceps
- Spare UV Bulbs

Ozone & UV System Peripherals

- Tubing, Fittings, and Clamps
 - 1/8ID 1/4OD and 1/8ID 3/16 Items
 - 3/16ID 5/16OD Items
 - 0.22µm Filters
- Ozone & Oxygen Check Valves
- Fluid Ozonation
 - 1500ml High Efficiency Diffusion Column with Stopcock
 - "J" & "I" Diffusers
 - Diffusion Columns with Cooling Jackets
 - Flow-through Diffusion Columns

We have launched a new **ozonatedoils.com** web site to handle our OOO/LOOO product line. All information, distribution and payments inquiries related to OOO/LOOO must be made through <u>www.ozonatedoils.com</u>

- 000 50 and 100ml Containers
- 000 Oil Sticks
- LOOO Liquid Ozonated Olive Oil

Medical Research Items

- Bagging and Cupping
 - Disposable ArmBag
 - Disposable BootBag
 - Disposable UniBag
 - Glass Cups
 - Ozone Destructor
- Colon Therapy
 - Simple Y In-line Mixer
 - High Efficiency In-Line Mixer
 - Ozone Check Valves
- Dental Attachments & Accessories
- Health Care Provider Supplies
 - Injection T-Site
 - 3-way Valve
 - <u>0.22μm Filters</u>
 - Red Locking Forceps
 - Glass Syringes
 - Manual Filling Adapter
 - Semi-automatic Filling Adapter
- Inhalations
 - Nasal Cannula
 - 30ml Glass Container
 - Glass Containers (Assorted)
 - Ozone Destructor
- Insufflations
 - Ozone Insufflation Set
 - Catheters
 - Ear Insufflation Modified Stethoscopes
 - Red Locking Forceps
- Oxygen & Ozone Tubing, Fittings, & Clamps
 - 1/8ID 1/4OD and 1/8ID 3/16 Items
 - 3/16ID 5/16OD Items
 - 0.22µm Filters
- Water Applications
 - Water Snakes 500 & 1000ml
 - Simple Y In-line Mixer
 - High Efficiency In-Line Mixer
 - Ozone Check Valves
 - 30ml Glass Container
 - Glass Containers (Assorted)
 - Ozone Destructor

- Ozone Destructor
- Cupping
- In-line mixers
 - Simple Y
 - High Efficiency Diffuser
 - Ozone Check Valves
- Oxygen/Ozone Manifolds

- Miscellaneous
 - Digital Shirtpocket Countdown Timer
- Books
 - Oxygen-Ozone Therapy: A Critical Evaluation
 - The Use of Ozone in Medicine
 - Into the Light
 - Cancer Action Plan

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OzoneLab™ Pricing & Ordering Information



<u>Home</u> > Pricing & Ordering Information



Product Order Form

- Product Selection
- Return of Products
- Product Lead Time
- How to Order Products
 - Online Ordering
 - o By Facsimile
 - By Telephone
- Payment Options
 - TT Information
 - Credit Cards
 - Payments in EURO
- Shipping Information
- Global Pricing Policy
- How We Package our Shipping Boxes
 - Online UPS Tracking Service

- Pricelist's
 - OLO Oxygen Products
 - OLx Ozone Generators
 - OLC Controllers
 - OLA Analyzers
 - OLM Monitoring Products
 - OLP Peripherals / Accessories
 - Laboratory Research

Search

Us

- Medical Research
- o OLT Timers
 - OEM Timers
- OLW Wireless Controller
- OLU Ultra Violet Products

Product Selection:

Ozonation Systems are not sold as complete "packages" with a standard configuration Customer has the obligation and opportunity to customize his/her system by selecting individual products which are utilized as modules to "build" the ozonation system to meet his/her own specific needs and preferences.

If you have any doubts about the correct selection of products, feel free to:

- review detailed product information
- request our product brochures and/or specific Product Technical Data Sheet
- · request assistance from our trained sales staff

We do not assume the responsibility:

- for product selection errors
- compatibility or functional errors resulting from attempts to use our accessories (designed & produced specifically for our GE and OzoneLab[™] systems) with other than GE and OzoneLab[™] ozone generators/ systems.

Return of Products

In order to protect our company against "resourcefulness" of some individuals, and to effectively deal with loses associated with incorrect product selection and/or impulsive shopping (loses which would have to be incorporated into the cost of our products and services), our company general stand on the issue of returns is the best described as:

"You voluntarily selected and purchased the product "you keep the product"

Due to the nature of our view outlined above, our company WILL NOT ACCEPT any product returns. Consequently, we encourage every prospect client to:

- carefully review all relevant information about the product(s) they intend to purchase from our company.
- to contact us repeatedly if you will need more information or data, which would allow you to make the right choice.
- to request engineering assistance from our Technical Support Team to verify that our product will work for your targeted project/application - be prepared to provide detail application specifications (our company is strictly following and enforcing non-disclosure policy, keeping all information and data confidential).

Product Lead Time

- a. The lead time for standard "in stock" hardware & supplies is 1-2 business days per order.
- b. The production of customized OzoneLab™ hardware with options listed on our web site is usually completed in 5-10 business days.
- c. The lead time for special orders vary with the nature of the order.

...in any case, we do our best to specify the Lead Time in the quotation.

How to Order Products

We reserve the right to change our products design and pricing, to refuse to provide information about our products & services, and we also reserve the right to refuse to accept the purchase order(s).

We encourage all prospect clients to:

- locate and carefully review information on the product(s) considered for purchase.
- contact us repeatedly if more information or product data is needed to make the right choice.
- familiarize themselves with our ordering policies prior to placing an order.



All orders are reviewed by trained sales representative and if there are any obvious shortfalls/mistakes in terms of a product selection and/or pricing listed, we contact the prospect client before we will accept and process the order.

We discourage clients from sending their Credit Card information over unsecured e-mail, consequently, we do not accept e-mail orders. We suggest that those interested in ordering online use our Secure Order Form.

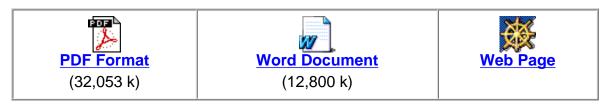
Online Ordering

Online Ordering is available through our Online Order Page.

By Facsimile

Download and complete our fax order form. Fax the completed form to us at 250-265-4482 (24 hours)

Fax Order Form



By Telephone

We can be reached:

E-mail: info@ozoneservices.com Fax: Canada/250-265-4482

Telephone: Canada/250-265-4461

Direct assistance: 8:30-3:30 PST / Monday - Friday

Voice mail: 24/7/365

4:55 ^{AM} P.S.T.
Current Time

Payment:

- · All prices are in US Dollars
- · All orders must be prepaid

Payment Options:

Orders up to US \$2,750.00 can be paid by VISA, Mastercard, Discovery credit cards. Orders valued higher then US \$2751.00 must be paid by TT (Direct transfer from a bank to bank), money order, bank draft, or certified check.

	Fast and Convenient	Accepted through our Order Form	Will be subject to delays	Additional fee may apply
VISA	√	✓		
Mastercard	√	✓		
Discovery Credit Card	✓	✓		
American Express Credit Card	✓	✓		
Money order			✓	
Certified check			✓	
Bank Money Transfer				✓

TT Information:

We accept TT payments in EURO, USD\$ and CAD\$. TT Information is available upon request.

Shipping Information:

Our products are in operation <u>70 countries</u>world-wide, so consequently, our office staff has accumulated an extensive experience dealing with various shipping alternatives and courier/freight service providers. We encourage all our prospect clients to discuss with us the product transportation arrangements before placing an order.

To some destinations the transport of our products may require a review of local import regulations, however, we believe it is possible to deliver our shipments to almost any location.

Air Mail: Catalogs, small components / up to 1kg (2.2Lbs) & value US \$100.00

Shipped Monday through Thursday.

Express Mail: Packages up to 15 kg (33Lbs.) & value up to US \$600.00

Shipped Monday through Thursday.

UPS/standard: Packages with products valued over US \$600.00

Shipped Monday and Thursdays only.

2nd day Air: Due to our remote location, we discourage our clients to consider and/or request

this type of service. In general, from the pick-up point in Burton, BC, it takes 24-36 hours for parcels to reach the UPS hub in Vancouver. It is important to point

out that our experience with 2nd day Air type service is strongly negative

regardless of service provider.

Vast majority of our products are delivered to our clients using United Parcel Service (UPS).

S & H Charge to destinations in Canada usually includes:

- UPS / standard (ground) service
- Insurance for a full value

S & H Charge to destinations in USA usually includes:

- UPS / standard (ground) service
- . Insurance for a full value
- · Customs clearance fee

S & H Charge to destinations outside Canada and USA usually includes:

- UPS / standard (ground) service
- Insurance for full value
- Customs clearance fee and a duty (if applicable) is a responsibility of the client.

The minimum shipping and handling charge is US \$18.00.

Global Pricing Policy

Ozone Services does its best to provide quality products at a reasonable price. We advise all our distributors to follow the List Price Schedule when selling our products and to adopt very clear & transparent billing system, which will provide their client with accurate and detail information about all charges.

However, it is important to state that we co-operate with a large number of distributors in over <u>70 countries</u> world-wide, therefore there will be variations in product availability, transportation cost, local tax regulations and the scope of training provided by our associates and will be reflected in the final price quoted for our equipment.

Global Pricing Policy Outlines:

- Prices listed on our web site must be honored by all distributors
- Each client must receive from the distributor a paper copy invoice with charges clearly listed for all individual products, as well as charges for services rendered.
- Any additional charges (if applicable) must be clearly and individually listed on the invoice for example, charges for:
 - o transport
 - taxes
 - duty
 - customs charges
 - personal delivery
 - personal training
 - o personal hardware setup assistance
 - o etc.

Please <u>notify us</u> immediately if you find that our equipment is being quoted or sold for higher than the official List Prices published on our web site.

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Ozone Services Burton Location 1



<u>Home</u> > <u>Company</u> > Burton Location 1



Please click on the below map for a more detailed map of our Burton location!



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Company Information



Home > Company Information



Prime Focus:	Development and production of Ozonation Systems for Ultra Pure Applications				
Secondary Focus:	Broad range of activity in The "Ozone field"	Broad range of activity in The "Ozone field"			
More Information:	OzoneLab™ Website - www.ozonelab.com				
Business Hours:	8:30 - 3:30 PST / Monday to Friday				
Address:	390 Silver Queen Road, Burton, BC, V0G 1E0, Canada				
Driving Directions/Map:	Click Here				
Telephone:	250-265-4461				
Fax:	250-265-4482				
E-mail:	General inquiries & Support info@ozoneservices.com				
	Custom design & production / engineering support tech@ozoneservices.com				
	Web Site Problems webmaster@o3zone.com				

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OzoneLab™ News - January - December 2007







Home > Site News

September 12, 2007	On November 23rd, our office and technical support team will be leaving for an assignment. Production of hardware will not be effected, however our ability to accept &
	process new purchase orders and/or to provide our clients with technical support would be limited - telephone (messages), faxes as well e-mail will be monitored, however, we will respond to emergencies only.
	We encourage all our clients to order all products and supplies as soon as possible (before November 16th) to avoid any disappointment(s). Last shipping days for this year will be:
	 Orders outside Canada/USA - November 23rd, 2007 USA Orders - November 23rd, 2007 Canada Orders - November 30th, 2007
	Normal operations will resume on January 7th, 2008.
January 15, 2007	We are are pleased to introduce the <u>OL80F/DST-2S</u> - a new Ozone Generator which is apart of our customizable line of OL80F-90° instruments.
January 1, 2007	We would like to wish all of our clients, associates and web site visitors a safe and healthy New Year!

News Archives

<u>2006</u> <u>2005</u> <u>2004</u> <u>2003</u> <u>2002</u> <u>2001</u> <u>2000</u> <u>1999</u> <u>1998</u> <u>1997</u>

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OzoneLab™ External Signal Ports



<u>Home</u> > <u>Products</u> > EXT Signal Ports



All OzoneLab™ OL80 and OL100 Ozone Generators and some selected OzoneLab™ Ozone Analyzers are equipped with an External Ozone Production Control Port and/or an External Syringe Control Port.

A growing selection of peripheral control tools offers our clients greater flexibility when designing their ozone projects.

- External Ozone Production Control Port (EXT O3 Control)
- External Syringe Control Port (EXT Syringe)

Examples of External Ozone Production & Ozone Flow Control Devices



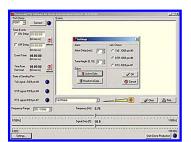
Foot Switch Control



OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLab™ Software

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OzoneLab™ UV Irradiation Products



<u>Home</u> > <u>Products</u> > U.V. Irradiation Products







Search



UV Irradiation Instruments	UV4-8-12W/12VDC	TERE OF
	UV-A & UV-C Replacement Bulbs	
Cuvettes	OzoneLab™ UV Quartz Cuvettes	
Accessories	Injection "T" Site	Sec.
	3-Way Luer Lock Valve	
	0.22μm Filters	
	Red Forceps	8
Replacement / Spare Bulbs	UV-A & UV-C Replacement Bulbs	
Books	Into the Light	Linto Light

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OzoneLab™ Ozone Exposure Services

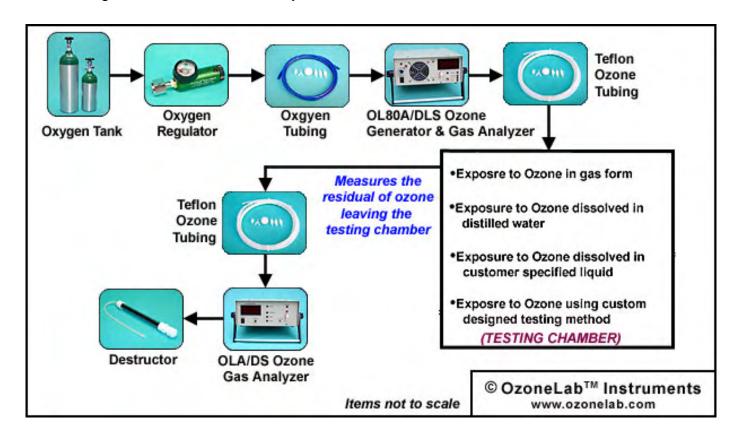




<u>Home</u> > <u>Services</u> > Ozone Exposure Services

The OzoneLab™ Team has offered Ozone Exposure Services since 1999. We can help clients in designing custom exposure test(s) and/or we can execute the tests specified by any of the most common ASTM standards dealing with material ozone exposure:

- D 518 Test Method for Rubber Deterioration Surface Cracking
- D 1149 Test Method for Rubber Deterioration Surface Ozone Cracking in a Chamber
- D 1171 Test Method for Rubber Deterioration Surface Ozone Cracking Outdoors or Chamber (Triangular Specimens)
- D 3395 Test Method for Rubber Deterioration Dynamic Ozone Cracking in a Chamber
- D 4575 Standard Test Methods for Rubber Deterioration Reference and Alternative Method(s) for Determining Ozone Level in Laboratory Test Chambers



We are able to provide the following types of Material Exposure services:

- Exposure to Ozone in gas form
- Exposure to Ozone dissolved in distilled water
- Exposure to Ozone dissolved in customer specified liquid

Upon the completion of the exposure testing, Ozone Services provides you with a report specifying the type of exposure conducted.

For more information about our Ozone Exposure Services, please <u>contact us</u> at <u>tech@ozoneservices.com</u>. It would be helpful if you can provide us with some information on the material sample (i.e. size, shape, etc.) you are seeking to have tested.

Exposure to Ozone in gas form

Maximum Sample sizes: up to 12x 12x 12"

Ozone Concentration/standard testing: up to 100mg/l (7% or 70,000ppm by weight O2/O3)

Ozone Concentration/special arrangements: up to 140mg/l (10% or 100,000ppm by weight O2/

O3)

Regulation of temperature in range: 15-100°C / 60-212°F

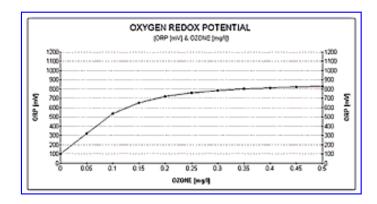
Exposure to Ozone dissolved in distilled water

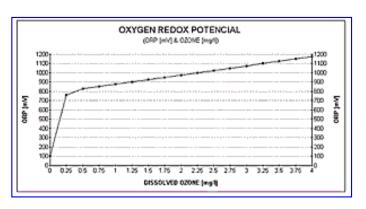
Maximum Sample sizes: up to 12x 12x 12"

Ozone Concentration/standard testing: up to 800mV ORP

Ozone Concentration/special up to 1200mV ORP arrangements:

Regulation of temperature in range: 1-75°C / 32-167°F





Exposure to Ozone dissolved in customer specified liquid

Maximum Sample sizes: up to 12x 12x 12"

OzoneLab $^{\text{TM}}$ Ozone Exposure Services

Ozone Concentration: depends on the chosen liquid saturation limitations

Regulation of temperature in range: 15-100°C / 60-212°F

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CE Marking



Home > Company Information > CE Marking





A **CE Marking** is a European marking of conformity that indicates that a product complies with the essential requirements of the applicable European laws and/or directives with respect to safety, health, environment and consumer protection.

For example, there are rules for medical devices, machines with moving parts, electronic devices, etc. A product in one of the controlled product categories cannot legally be sold in the EU unless it has passed the tests to receive the CE marking.

In general, environment and safety regulations in Europe are historically more strict compared to regulations applicable in other regions of the world. As European Union is progressively taking more important role in world economics, many standards created in Europe are becoming a benchmark for other countries to follow. In this process, "CE" become over last 10-12 years a base for many national and regional safety standards, and a preferential standard, which is universally recognized in today global economic market.

OzoneLab[™] products have been designed with "CE" specifications in our mind ever since our company was established in 1993. However, due to substantial expense associated with "CE" testing done by an independent laboratory, we did not get the first group of OzoneLab[™] instruments CE" tested until February 2003. The "CE" testing project was completed in August 2003 by tests of all remaining OzoneLab[™] ozone and UV instruments.

We wish to share with you the fact, that all our instruments passed all tests in the first round of testing. In other words, all our ozone & UV instruments were fully compliant with existing CE regulations and directives without the need for any additional last minute modifications or changes of our serial production instruments. This fact supports our claim, that we always designed and produced our instruments with a high degree of responsibility towards the safety of the client.

We also wish to point out that one of very important CE testing procedures our OzoneLab™ ozone and UV instruments were subjected to was the examination of electro magnetic interference/emissions (EMI/EME) created by the instrument, and the susceptibility of the instrument to the same. This crucial aspect is virtually omitted by standard UL and CSA certification tests in North America, yet they have vital importance on two different levels:

- 1. excessive electro magnetic radiation effects negatively human health and represents serious health issue
- 2. laboratory as well as medical facilities are frequently equipped with sensitive electronic devices, which may multifunction when exposed to electromagnetic radiation

We are glad to specifically report that all OzoneLab[™] ozone & UV instruments passed EMI/EME tests, proving that our equipment is safe not only to human personal operating it, but also to sensitive systems located in close proximity to our ozone & UV hardware.

Glossary of terms:

EU

The European Union - consisting of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the United Kingdom.

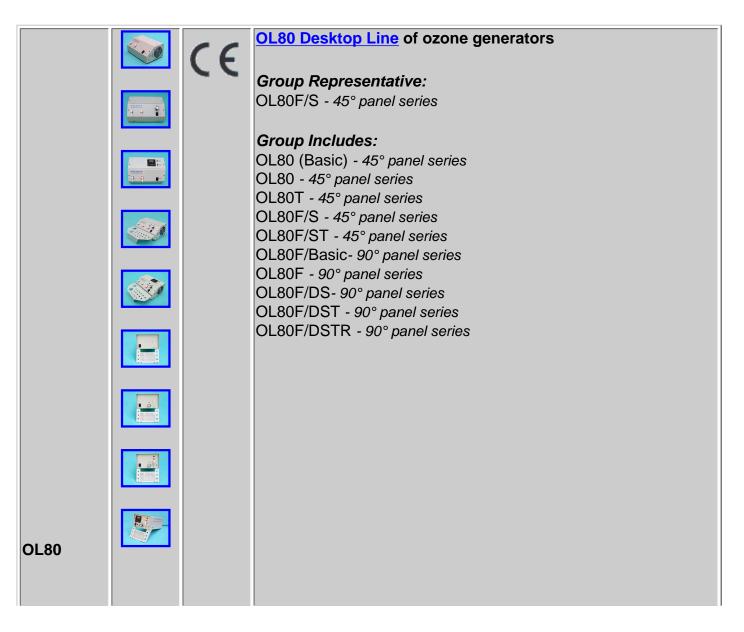
CE

CE stands for Conformité Européenne, which is French for "European Conformity."

OzoneLab™

Trade mark registered by Ozone Services A Division of Yanco Industries Ltd.

OzoneLab™ Ozone, UV Instruments:



	mod.		
	The second secon	({	OL80 Wall Mounted Line line of ozone generators Croup Representatives
			Group Representative: OL80W/FMxxx-T (with timer panel) OL80W/FMxxx (without timer plate)
			Group Includes: OL80W (no timer & no flowmeter)
		ϵ	OL80A line of ozone generators/gas analyzer
			Group Representative: OL80A/DLS
			Group Includes: OL80A/L
		ϵ	OL80M line of ozone generators
			Group Representative: OL80M
	Ŷ÷ ⊕	$C \in$	OL100 line of ozone generators
			Group Representative: OL100/DS
OL100			Group Includes: OL100 Basic
			OL100/S Basic with syringe port only OL100/D Basic with destructor only
			OL100/TB Basic with Timer & Buzzer
		CE	OLA line of ozone analyzers
			Group Representative: OLA/DLS
			Group Includes:
OLA			OLA/L Basic OLA/D Basic with Destructor
			OLA/L Basic with Computer Link (COM1) OLA/S Basic with Syringe port
			and combinations of all variations listed all the way to full

			configuration - OLA/DLS.
UV4-8-12W	THE STATE OF THE S	CE	UV irradiation instrument

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OzoneLab™ Clients / Research Applications



Home > Company Information > Research & Medical Facilities



The following is a partial list of clients OzoneLab™ Team provided technical support and/or ozone instrumentation to:



- · Dalhousie University, Halifax, NS
- Ecole Polytechnique, Montreal, QC
- McGill University, Montreal, QC
- National Research Council Canada, Ottawa, ON
- Universite du Quebec, Montreal, QC
- University of Ottawa, Ottawa, ON
- University of Toronto, Toronto, ON
- University of Waterloo, Waterloo, ON
- York University, Toronto, ON
- A&T State University, Greensboro, NC
- · Amherst College, Amherst, MA
- Brookhaven National Laboratory, Upton, NY
- California Institute of Technology, Pasadena, CA
- California State University, Bakersfield, CA
- Cambridge NanoTech Inc.
- Carnegie Mellon University, Pittsburgh, PA
- Columbia University, New York, NY
- · Dartmouth College, Hanover, NH
- · FAU, Jupiter, FL
- Florida International University, Miami, FL
- · Georgia Institute of Technology, Atlanta, GA
- Harvard University, Cambridge, MA
- · Humboldt State University, Arcata, CA
- Iowa State University, Ames, IA
- Kansas State University, Manhattan, KS
- Lawrence Berkeley National Laboratory, Berkeley, CA
- Massachusetts Institute of Technology, Cambridge, MA
- Miami University, Oxford, OH
- Michigan Technological University, Houghton, MI
- Mt. Sinai School of Miedicine, New York, NY
- National Center for Atmospheric Research, Boulder, CO
- National Istitute of Standards and Technology of USA, Gaithersburg, MD
- National Oceanic and Atmospheric Administration Laboratory, Boulder, CO







- NOAA Aeronomy Laboratory, Boulder, CO
- NOAA Earth System Research Laboratory, Boulder, CO
- Oak Ridge National Laboratory, Oak Ridge, TN
- Princeton University, Princeton, NJ
- · Purdue University, West Lafayette, IN
- Rice University, Houston, TX
- Sandia National Laboratories, Albuquerque, NM
- · Stanford University, Stanford, CA
- State University of New York, New York, NY
- Texas A&M University, College Station, TX
- The Ohio State University, Columbus, OH
- UC/LLNL, Livermore, CA
- University of Alabama, Tuscaloosa, AL
- University of California, Irvine, CA
- University of California, Los Angeles, CA
- University of California, Santa Barbara, CA
- University of Chicago, Chicago, IL
- University of Connecticut, Storrs, CT
- · University of Georgia, Athena, GA
- University of Minnesota, Minneapolis, MN
- University of NE Lincoln, Lincoln, NE
- University of North Carolina, Chapel Hill, NC
- University of Pennsylvania, Philadelphia, PA
- University of South Florida, Tampa, Fl
- University of Teledo, Toledo, OH
- University of Texas, Austin, TX
- University of Texas, Dallas, TX
- University of Texas, Galveston, TX
- University of Vermont, Colchester, VT
- University of Washington, Seattle, WA
- USDA, Glenside, PA
- Vanderbilt University, Nashville, TN
- Western Michigan University, Kalamozoo, MI



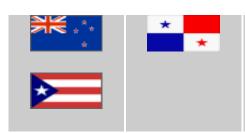








- Chemical Research Center Institute of Chemistry, Budapest, Hungary
- Cork University, Cork, Ireland
- Gangwon National University, Chuncheon, South Korea
- Goteborg University, Goteborg, Sweden
- Hewlett Packard Caribe, Aquadilla, Puerto Rico
- · HUJI, Jerusalem, Israel
- · Imperial College London, London, U.K.
- Institute of ORganic Chemistry PAS, Warsaw, Poland
- Max-Planck-Institut fuer Mikrostructure, Weinberg, Germany
- NTNU, Trondheim, Norway
- · Smithsonian Tropical Research Institute, Panama City, Panama
- · The University of Melbourne, Australia
- Universitat Autonoma de Barcelona, Bellaterra, Spain
- Universite de Rennes, Rennes, France
- University of Cambridge, Cambridge, United Kingdom
- University of Cantenbury, Christchurch, New Zealand
- University of Cyprus, Nicosia, Cyprus
- University of Glasgow, Glasgow, United Kingdom



- University of Limerick, Limerick, Ireland
- University of Queensland, St. Lucia, Australia
- University of Sydney, Sydney, Australia

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Company Information Countries Active In



<u>Home</u> > <u>Company Information</u> > Countries

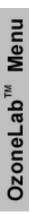


Our company has clients, and our OzoneLab™ equipment is now in operation, in the following 70 countries around the world.

Argentina	Armenia	* Australia	Austria	Bahamas
Belgium	Bolivia	Brazil	Cambodia	Cameroon
Canada	Chile	China	© Costa Rica	Croatia
Cyprus	Czech Republic	Denmark	Dominican Republic	Ecuador
Egypt	El Salvador	Finland	France	Georgia
Germany	★ Ghana	Greece	% Hong-Kong	Hungary
Iceland	India	Indonesia	Ireland	İsrael
Italy	Jamaica	Japan	Kenya	Lebanon



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OzoneLab™ Online Order Page



Home > Thank You



Before you place your order...

We encourage you to <u>review our ordering policies</u> **PRIOR** to placing an order for any of our <u>products</u>. Special attention should be given to the paragraphs dealing with:

- · Selection of Products
- Return of Products and Restocking Charges

Please select which Order Form best suits your order:

- Products Order Form
 Use this form for any products except when ordering U.V. equipment and/or U.V. peripherals (see below).
- <u>U.V. Products Order Form</u>
 For ordering U.V. equipment and/or U.V. peripherals.

Please note that 2nd day shipping service is NOT available from our location.

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OzoneLab™ Frequently Asked Questions (F.A.Q.)





Home > F.A.Q. > Answers > Ask a question

We do not provide answers to questions which are requesting medical advice.

Your Name

Your Email Address

Question Topic

Your Question:

© Ozone Services

IT'S Intertek Testing Services

February 19, 1999

Mr. Zdenek Rasplicka Ozone Services A Division of Yanco Industries Ltd. 390 Silver Oueen Road Burton BC V0G 1E0 Phone: (250)-265-4461

Fax: (250)-265-4482

ITS Project No. 473-5969

Dear Mr. Rasplicka:

Intertek Testing Services (ITS) is pleased to present this proposal for evaluating your product(s). This proposal is based upon the descriptive information Ozone Services A Division of Yanco Industries Ltd. provided to ITS. Upon acceptance of our proposal and your sample ready date, ITS will forward a letter indicating the project start and completion dates, along with any supporting documentation required, prior to testing. We estimate that your report will be sent to you by the completion date and also at that time you will be sent an invoice which will be due 30 days from the date of issue.

Product Listing Evaluation (ETL/cETL):

Your specific product(s) will be evaluated to the standard(s) below and a findings report will be issued. Components not previously recognized by a nationally recognized testing laboratory may be subject to additional evaluation and testing at an additional charge.

Once your specific product(s) is found to be in conformance with the requirements of the standard(s) evaluated to, and upon our receipt of all information required for completion of an ITS listing report, your specific product will be eligible for ETL/cETL labeling and listing in the ITS Directory of Listed Products. Prior to labeling your products the Certification Agreement needs to be executed by both parties and all its requirements must be adhered to.



CSA C22.2 NO 151 -M1986 - Laboratory Equipment General Instruction No 1-2 R(1992) OZONE GENERATORS FOR LABORATORY USE Notes: Ozone generators, Model Nos. GE30 & GE60.

\$3,500.00



UL 3101-1 - UL Standard for Safety Electrical Equipment for Laboratory Use; Part 1: General Requirements First Edition; Bulletins Dated 2/1/94, 2/5/97

\$3,500.00



OZONE GENERATORS FOR LABORATORY USE

Package price for above Canadian DollarTotal:

\$4,200.00



Expenses: For evaluations performed at the client's request in a location other than an ITS facility, it is understood that travel and miscellaneous expenses will be billed in addition to the evaluation



Intertek Testing Services NA Ltd.

211 Schoolhouse Street, Coquitlam, BC V3K 4X9 Canada Telephone 604-520-3321 Fax 804-524-9186 Home Page www.worldlab.com

Page 1

Quote # 1448999



http://www.ozoneservices.com/faq/images/csa1-b.gif

fee, unless specifically included. For evaluations performed at an ITS facility, the cost of product shipments to and from that location is the responsibility of the client.

7% GST is applicable.

This proposal is valid for thirty (30) days from the date of its issuance.

To initiate this project, sign and return this proposal along with the purchase order. Depending on your credit line with ITS a deposit may be required. Your account manager can provide you with this information.

Thank you for choosing Intertek Testing Services.

Sincerely,

Signature Removed for Web Display

Issued by: Kavinder Dhillon, A.Sc.T. Account Representative Intertek Testing Services NA, Ltd.

Signature Removed for Web Display

Reviewed by: Vlast Riedl, P.Eng. Electrical/Sales Manager Intertek Testing Services NA, Ltd.

By signing below you accept this proposal and the terms within.

Ozone Services A Division of Yanco Industries Ltd. 390 Silver Queen Road Burton, BC V0G 1E0

Printed Name:	
Signature:	
P.O. #:	
Requested Completion Date:	
Sample Ready Date:	

Quote # 1448999





OzoneLab™ OLM Pricelist



<u>Home</u> > <u>Pricing & Information</u> > OLM Pricelist









Online Order Page

All prices are in US Dollars and do not include shipping and handling.

Hydrogen Peroxide Test Strips - 100 tests - Range 0-100ppm	US \$33.50	I Printed of the control of the cont
Ozone Test Strips - 12 tests - Range 0-0.105ppm	US \$22.00	
Category 5e UTP 24AWG stranded cable - 15 Foot Length	US \$15.00	
Self crimping IDC CAT5 - RJ45F terminals.	US \$7.50	
C-30Z Ozone monitor/controller - (Range 0.0-0.14ppm)	US \$525.00	Transition 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Y-ORP Meter Currently out of Stock	US \$169.00	1999
Y-pH Meter	US \$139.00	200
Y-340UV Meter	US \$159.00	[999]

Data Logging products

4EXT Data Logger - 4 channel with total 32520 readings storage adjustable sampling rate, EEPROM memory 2.4x 1.9x 0.8 / 1oz./27gr.	US \$143.00	
0-2.5VDC cable	US \$10.00	
4-20mA cable	US \$22.00	
Temperature sensor (6FT cable)	US \$42.00	
Stainless Steel Temperature Probe (-40°C - 100°C +/- 0.5°C)	US \$118.00	
State/AC field sensor	US \$117.00	
Cable for 4EXT Data Logger to C30Z ozone monitor	US \$15.00	
Y 3.5 Stereo for C-30Z signal	US \$5.00	
Spare batteries	US \$3.00 each	
Spare PC (COM1) to 4EXT Data Logger cable	US \$16.00	
3.6 software & COM1 computer cable	US \$23.00	
4.0 software & COM1 computer cable	US \$160.00	

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OzoneLab™ OLP - Laboratory Research Peripherals Price List



<u>Home</u> > <u>Pricing & Information</u> > OLP Pricelist



Online Order Page

All prices are in US Dollars and do not include shipping and handling.

- Oxggen Tanks & Oxygen Regulators
- Tubing 1/8ID & 1/4OD and Luer Lock Fittings
- Pre-Selected Tubing & Fitting Sets for OzoneLab™ OL80 and OL100 systems
- Tubing 3/16ID & 5/16OD, Clamps, Q-connectors
- Water Ozonation
- Glass Containers
- In-line Mixers
- Oxygen/Ozone Manifolds
- Syringe Filling Adapters
- OzoneLab™ Power Supply Accessories
- EXT Port Accessories & Peripherals
- OzoneLab™ UV & Ozone Generator Cases, Stands and Wall Mounted Racks
- Programmable Controller Module Peripherals

Tubing - 1/8ID & 1/4OD, Luer Lock Fittings

New OL80 and OL100 ozone systems are designed to work exclusively with Kynar™ Luer Lock fittings (connectors), and 1/8"ID tubing.

Oxygen (OXY) tubing - 1/8ID & 1/4OD (Clear or Blue) / per 1FT	US \$0.60	畫
Oxygen (OXY) tubing - 1/8ID & 1/4OD (Clear or Blue) / 100FT roll	US \$50.00	臺

Oxygen & Ozone Silicone (Milky) tubing - 1/8"ID & 1/4"OD / per 1FT Oxygen & Ozone Silicone (Milky) tubing - 1/8"ID & 1/4"OD / 100FT roll US \$1.75 Oxygen & Ozone Teflon™ tubing - 1/8"ID & 3/16"OD / per 1FT US \$1.75 Oxygen & Ozone Teflon™ tubing - 1/8"ID & 3/16"OD / 100FT roll US \$1.45.00 Kynar™ Male Luer Lock Fitting 1/8" for 1/8" I.D. tubing / 1pc. US \$1.50 Kynar™ Male Luer Lock Fitting 1/8" for 1/8" I.D. tubing / bag of 10pcs. US \$1.50 Kynar™ Female Luer Lock Fitting for 1/8" I.D. tubing / 1pc. US \$1.50 US \$1.50	
Oxygen & Ozone Teflon™ tubing - 1/8"ID & 3/16"OD / per 1FT US \$1.75 Oxygen & Ozone Teflon™ tubing - 1/8"ID & 3/16"OD / 100FT roll US \$145.00 Kynar™ Male Luer Lock Fitting 1/8" for 1/8" I.D. tubing / 1pc. US \$1.50 Kynar™ Male Luer Lock Fitting 1/8" for 1/8" I.D. tubing / bag of 10pcs. US \$12.50 Kynar™ Female Luer Lock Fitting for 1/8" I.D. tubing / 1pc. US \$1.50 Kynar™ Female Luer Lock Fitting for 1/8" I.D. tubing / 1pc. US \$1.50	
Oxygen & Ozone Teflon™ tubing - 1/8"ID & 3/16"OD / 100FT roll US \$145.00 Kynar™ Male Luer Lock Fitting 1/8" for 1/8" I.D. tubing / 1pc. US \$1.50 Kynar™ Male Luer Lock Fitting 1/8" for 1/8" I.D. tubing / bag of 10pcs. US \$12.50 Kynar™ Female Luer Lock Fitting for 1/8" I.D. tubing / 1pc. US \$1.50 Kynar™ Female Luer Lock Fitting for 1/8" I.D. tubing / 1pc. US \$1.50	
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Kynar™ Female Luer Lock Fitting for 1/8" I.D. tubing / 1pc. US \$1.50 Kynar™ Female Luer Lock Fitting for 1/8" I.D. tubing / bag of 10pcs. US \$12.50	
Kynar™ Female Luer Lock Fitting for 1/8" I.D. tubing / bag of 10pcs. US \$12.50	
Kynar™ Luer Lock Connectors for 1/8" I.D. tubing / 1 set - female & male) US \$3.00	emale
Kynar™ Luer Lock Connectors for 1/8" I.D. tubing / bag of 10 sets) US \$25.00	emale →
Kynar™ Female-Female Luer Lock Coupler / 1pc. US \$1.50	
Kynar™ Female-Female Luer Lock Coupler / bag of 10pcs. US \$12.50	
Kynar™ "Y" Fitting for 1/8"ID Tubing / 1pc. US \$1.50	
Kynar™ "Y" Fitting for 1/8"ID Tubing / bag of 10 sets) US \$12.50	
Kynar™ "T" Fitting 3/16" - 1/8" - 3/16" US \$1.50	
Ozone Resistant Diaphragm Check Valve Specify 1/8" ID or 3/16" ID tubing US \$7.50	•
Ozone Resistant Diaphragm Check Valve Specify 1/8" ID or 3/16" ID tubing - 10pcs. US \$67.50	=
Kynar™ Adapter for 1/8"ID Tubing / 1pc. 1/8" ID to 3/16" ID US \$1.50	•

Kynar™ Adapter for 1/8"ID Tubing / 10pcs. 1/8" ID to 3/16" ID	US \$12.50	11 11 ex
Kynar™ Adapter for 1/8"ID Tubing / 1pc. 1/8" ID to 5/32" ID	US \$1.50	A A ve
Kynar™ Adapter for 1/8"ID Tubing / 10pcs. 1/8" ID to 5/32" ID	US \$12.50	H H vo
Kynar™ Adapter for 1/8"ID Tubing / 1pc. 1/8" ID to 1/16" ID	US \$1.50	H H ve
Kynar™ Adapter for 1/8"ID Tubing / 10pcs. 1/8" ID to 1/16" ID	US \$12.50	H H ve More information
Oxygen compatible Check Valve with Luer Lock Fittings	US \$2.00	Orypus Clark Valve Large Larg
Oxygen compatible Check Valve with Luer Lock Fittings - 10pcs.	US \$16.50	Organ Check Valve Larries 4-27-4 Larries Valve 4-27-4 Larries
0.22µm filters with Luer Lock fittings / sterile	US \$3.00	
0.22µm filters with Luer Lock fittings / sterile - pack of 12pcs.	US \$33.00	

<u>Pre-Selected Tubing & Fitting Sets</u> for OzoneLab™ OL80 and OL100 systems

	20FT Laboratory	5FT Medical	10FT Medical
Kynar™ Male Luer Lock Fitting for 1/8"ID Tubing	6 pcs	6 pcs	6 pcs
Kynar™ Female Luer Lock Fitting for 1/8"ID Tubing	6 pcs	6 pcs	6 pcs
Kynar™ Luer Lock Coupler w/Female-Female	2 pcs	2 pcs	2 pcs
Kynar™ "Y" Fitting for 1/8"ID Tubing	2 pcs	2 pcs	2 pcs
0.22µm "O3" Filters w/Male-Female Luer Lock Fittings	2 pcs	2 pcs	2 pcs
"O2" PVC Tubing (Clear or Blue / 1/8"ID & 1/4"OD)	N/A	5FT	10FT
"O2" & "O3" Silicone Tubing (Milky / 1/8"ID & 1/4"OD)	N/A	5FT	10FT
"O2" & "O3" Teflon Tubing (1/8"ID & 3/16"OD)	20FT	N/A	N/A
Ozone Insufflation Bag StartSet / OIB (1) & Catheter (3)	N/A	N/A	1 Set

Price per set	US \$53.00	US \$33.00	US \$53.00
---------------	------------	------------	------------

Tubing - 3/16ID & 5/16OD, Clamps, Q-connectors

All components listed in this section are available primarily as replacement components for our older GE60 ozone systems (manufactured until October 2002).

Oxygen (OXY) tubing - 3/16ID & 5/16OD - 10Ft	US \$7.00	
Oxygen (OXY) tubing - 3/16ID & 5/16OD - 100Ft	US \$50.00	=
OZONE tubing - 3/16ID & 5/16OD - 10Ft	US \$28.00	
OZONE tubing - 3/16ID & 5/16OD - 100Ft	US \$250.00	
Plastic Clamps (bag - 10pcs.)	US \$5.00	200
Plastic Clamps (bag - 100pcs.)	US \$40.00	20
Q-connectors - 1 set (female & male)	US \$3.00	200
Q-connectors - (bag - 10 sets)	US \$25.00	20
SET - 12x clamp and 3x Q-connector	US \$15.00	200
SET - 5Ft "OXY" Tubing, 5Ft "OZONE" Tubing, 10pcs Plastic Clamp, 2 sets of Q-connector	US \$28.00	
SET - 10Ft "OXY" Tubing, 10Ft "OZONE" Tubing, 15pcs Plastic Clamp, 5 sets of Q-connector	US \$46.00	
Quick Connector Female to Luer Lock Female Adapter	Contact Us	Quick Connector Female Luer Lock Female
Ozone Resistant Diaphragm Check Valve 3/16" I.D. tubing	US \$7.50	
0.22μm filters with Luer Lock fittings / sterile	US \$3.00	

Water Ozonation

1500ml High Efficiency Diffusion Column (with diffuser, water inlet and Teflon stopcock)	US \$375.00	2 T T
Glass Diffuser - STR (I-shape)	US \$33.00	
Glass Diffuser - USD (J-shape)	US \$38.00	
4-port 11" Flow-through Diffusion Column	US \$127.00	The state of the s
U Clips for 11 Flow-through Diffusion Column	US \$3.00 each	
Diffusion Columns with Cooling Jackets	Contact Us	120
Glass Diffuser - Mini	US \$15.00	
Standard Catalytic Ozone Destructor - 12" long	US \$55.00	
Standard Catalytic Ozone Destructor Agent Refill	US \$20.00	-
In-Line Custom Ozone Destructors	Contact Us	-
Glass Fitting - "T", "Y", "- -" tubing - 7mm O.D.	US \$7.50	

Glass Containers

Acrylic desktop 1-chamber stand for 1 x 30ml container (Size 4x 3.25x 4.25" / WxHxD)	US \$18.00	3-chamber stand shown
Acrylic desktop 2-chamber stand for 2 x 30ml container (Size 8x 3.25x 4.25" / WxHxD)	US \$26.00	3-chamber stand shown
Acrylic desktop 3-chamber stand for 3 x 30ml container (Size 8x 3.25x 4.25" / WxHxD)	US \$31.00	
30ml Glass Container for Oil	US \$54.00	

30ml Glass Container - Trap	US \$54.00	
60ml Glass Container for Oil	US \$54.00	
60ml Glass Container - Trap	US \$54.00	
125ml or 250ml Glass Container (Dim 54mm) w/o scale	US \$66.00	
250ml Glass Container (Dim 54mm) with scale	US \$100.00	

In-line Mixers

Simple "Y" In-line Mixer	US \$7.50	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 10mm OD -Ozone IN port - 7mm OD	US \$75.00	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 10mm OD - Ozone IN port - 3mm OD	US \$75.00	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 7mm OD -Ozone IN port - 7mm OD	Custom Order Contact Us	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 7mm OD - Ozone IN port - 3mm OD	Custom Order Contact Us	

Oxygen/Ozone Manifolds

Ozone and Oxygen Manifold [OM-12/2 x 1/8"-O]	Contact Us	THIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Ozone and Oxygen Manifold [OM-7/2 x 1/4"]	Contact Us	THIRITIE.

Syringe Filling Adapters

Syringe Filling Adapter / Manual (Luer Lock 3-way valve)	US \$19.00	
Syringe Filling Adapter / Semi-automatic	US \$455.00	lang
0.22µm Filters - Non Sterile - bulk (QTY: 1-9)	US \$2.50 each	
0.22µm Filters - Non Sterile - bulk (QTY: 10-49)	US \$2.25 each	
0.22µm Filters - Non Sterile - bulk (QTY: 50 or more)	US \$2.00 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 1-9)	US \$3.00 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 10-49)	US \$2.75 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 50 or more)	US \$2.50 each	

OzoneLab™ Power Supply Accessories

12VDC Power Adapter for OzoneLab™ 12VDC Systems	US \$39.00	
Extension Cord for Car 12VDC Plug Adapter	US \$7.00	9
Car 12VDC Plug Adapter for OzoneLab™ 12VDC Systems	US \$6.00	
Hand Switch Power Controller 12 foot tubing length	US \$111.00	
Extension Cord for 12VDC Battery (with Battery Post Clamps)	US \$28.00	Q
External 220VAC to 120VAC Power Converter	US \$38.00	

EXT Port Accessories & Peripherals

OLW Wireless Controller Includes: 1x Receiver Module 2x Transmitter Modules 1x Standard: 3.5mm M/M plug, Stereo, 6FT 1x Standard: OzoneLab™ Power Adapter	US \$295.00	
External Ozone Concentration Regulator (OCR)	US \$195.00	
OzoneLab™ Foot Switch Control STANDARD configuration - 6 Foot cord	US \$195.00	
OzoneLab™ Foot Switch Control STANDARD configuration - 12 Foot cord	US \$199.00	
3.5mm Stereo Plug to 3.5mm Stereo Jack (Male - Female) - 6 foot (12 foot cable available upon special request)	US \$6.75	
3.5mm Stereo Plug to 3.5mm Stereo Plug (Male - Male) - 6 foot (12 foot cable available upon special request)	US \$6.75	Red Constant
3.5mm Stereo Plug to Red/White 3.5mm Stereo Jack (Y)	US \$4.00	No. advantage
3.5mm Stereo Plug to Red/White 3.5mm Stereo Plug (Y)	US \$4.00	Non-administra
3.5mm Stereo Plug with strain relief	US \$1.75	
3.5mm Stereo Jack - Panel Mount	US \$3.00	

OzoneLab™ UV & Ozone Generator Cases, Stands and Wall Mounted Racks

ABS Plastic Case with foam Standard color - gray, size - 17 x 14 x 6" (WxHxD)	US \$220.00	
ABS Plastic Case w/o foam Standard color - gray, size - 17 x 14 x 6" (WxHxD)	US \$174.00	
Custom die-cut foam for ABS Plastic case	US \$46.00	

Acrylic Desktop Demo Stand with oxygen tank compartment Size - 19 x 17 x 7" (WxHxD)	US \$129.00	
Acrylic Desktop Stand #2 with oxygen tank compartment Size - 12 x 22 x 12" (WxHxD) - special order - serial production was discontinued	US \$144.00	
Acrylic Wall Mounted Rack #1 w/o oxygen tank comp. Size - 15 x 27 x 7" (WxHxD) - special order - serial production was discontinued	US \$213.00	
Acrylic Wall Mounted Rack #2 with oxygen tank comp. Size - 24 x 27 x 7" (WxHxD) - special order - serial production was discontinued	US \$225.00	
Wall mount base for ozone generator, 30ml container and destructor	US \$30.00	
Acrylic wall mount cover for GE & OL80W ozone generators	US \$64.00	
Acrylic desktop stand for 30ml containers 1-chamber for 1x 30ml container (Size 4x 3.25x 4.25 / WxHxD) Does Not include glass 30ml container	US \$18.00	
Acrylic desktop stand for 30ml containers 2-chamber for / 2x 30ml container (Size 8x 3.25x 4.25 / WxHxD) Does Not include glass 30ml containers	US \$26.00	

Programmable Controller Module Peripherals

OzoneLab™ Thermal Printer	US \$390.00	12.32
Power Supply for Thermal Printer (120VAC/6.5VDC/2000mA)	US \$55.00	
Rechargeable Battery Pack	US \$74.00	
OzoneLab™ Intsrument> Thermal Printer Cable	US \$20.00	
Roll of Thermal Paper	US \$6.00 each	

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Material Compatibility with Ozone









Home > Articles > Material Compatibility with Ozone

Material	Theoretical rating (Cole Parmer) [Ozone Concentrations not specified]	Practical rating (by Ozone Services) [Ozone Concentrations up to 100mg/l]
304 stainless steel	B - Good	С
316 stainless steel	A - Excellent	В
ABS plastic	B - Good	D
Acetal (Delrin®)	C - Fair	С
Aluminum	B - Good	С
Brass	N/A	С
Bronze	B - Good	С
Buna N (Nitrile)	D - Severe Effect	DD
Carbon graphite	N/A	
Carpenter 20	N/A	
Cast iron	N/A	
Ceramic Al203	N/A	
Ceramic magnet	N/A	
Copper	A - Excellent	С
CPVC	A - Excellent	В
EPDM	A - Excellent	В
Ероху	N/A	

Hastelloy-C®	N/A	
Hypalon®	A - Excellent	С
Hytrel®	C - Fair	С
Kel-F®	A - Excellent	?
LDPE	C1 - Fair	В
Natural rubber	D - Severe Effect	DD
Neoprene	C - Fair	В
NORYL®	N/A	
Nylon	D - Severe Effect	D
Polycarbonate	A1 - Excellent	В
Polypropylene	B - Good	С
PPS (Ryton®)	N/A	
PTFE (Teflon®)	A - Excellent	AA
PVC	B - Good	D
PVDF (Kynar®)	A - Excellent	AA
Silicone	A - Excellent	А
Titanium	N/A	
Tygon®	N/A	
Viton®	A - Excellent	А

Ratings -- Chemical Effect

- A. Excellent.
- B. **Good** -- Minor Effect, slight corrosion or discoloration.
- C. **Fair** -- Moderate Effect, not recommended for continuous use. Softening, loss of strength, swelling may occur.
- D. Sever Effect, not recommended for ANY use.

N/A = Information Not Available.

Explanation of Footnotes

- 1. Satisfactory to 72°F (22° C)
- 2. Satisfactory to 120°F (48° C)
- 3. Satisfactory for)-rings

DANGER!

Variations in chemical behavior during handling due to factors such as temperature, pressure, and concentration can cause equipment to fail, even though it passed an initial test.

SERIOUS INJURY MAY RESULT

Use suitable guards and/or personal protection when handling chemicals

WARNING!

The information in this chart has been supplied to Cole-Parmer by other reputable sources and is to be used **ONLY** as a guide in selecting equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.

Ratings of chemical behavior listed in this chart apply to a 48-hr exposure period; Cole-Parmer has no knowledge of possible effects beyond this period. Cole-Parmer does not warrant (neither express or implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.

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Ozone in the Air



Home > Articles > Ozone in the Air



Associated Product: Ozone Test Strips

OZONE LEVELS AND THEIR EFFECTS

Data from IOA

Edited by Den (Zdenek) Rasplicka - Ozone Services

ppm = Parts per million volume air concentration

0.001 ppm

Lowest value detectable by hypersensitive humans. Too low to measure accurately with elaborate electronic equipment.

0.003 ppm

Threshold of odor perception in laboratory environment, 50 per cent confidence level.

0.003 ppm to 0.010 ppm

The threshold of odor perception by the average person in clean air. Readily detectable by most normal persons. These concentrations can be measured with fair accuracy. Ozone levels measured in typical residences and offices equipped with a properly operating electronic air cleaner when outdoor ozone level is low. Infiltrating outdoor ozone could cause higher indoor concentrations.

0.020 ppm

Threshold of odor perception in laboratory environment, 90 per cent confidence level.

0.001 to 0.125 ppm

Typical ozone concentrations found in the natural atmosphere. These levels of concentration vary with altitude, atmospheric conditions and locale.

0.020 to 0.040 ppm

Representative average total oxidant concentrations in some major cities in 1964. Approximately 95 per cent or greater of these oxidants are generally accepted to be ozone.

0.040 ppm

CSA maximum limit for devices for household use. Measured as sustained concentration in test room.

0.050 ppm

Maximum allowable ozone concentration recommended by ASHRAE in an air conditioned and ventilated space.

0.050 ppm

Maximum ozone concentration produced by electronic air cleaners and similar residential devices according to the proposed amendment of the Federal Food, Drug and Cosmetic Act.

0.064 ppm

Proposed national ambient air quality standards for photochemical oxidants (maximum 1 hour concentration not to be exceeded more than once per year).

0.100 ppm

The maximum allowable ozone concentration in industrial working areas: permissible human exposure - 8 hours per day, 6 days a week.

0.100 ppm

Continuous maximum ozone concentration allowable (per U.S. Navy_ in confined quarters such as atomic submarines.

0.100 ppm

Maximum allowable limit for industrial, public, or occupied spaces in England, Japan, France, the Netherlands and Germany.

0.15 to 0.51 ppm

Typical peak concentrations in American cities.

0.200 ppm

Prolonged exposure of humans under occupational and experimental conditions produced no apparent ill effects. The threshold level at which nasal and throat irritation will result appears to be about 0.300 ppm.

0.300 ppm

The ozone level at which some species of plant life began to show signs of ozone effects. Foliage injury appears as dark stipples, light flecks, dead patches and general discoloration. The stomata (pores) of adult leaves are the first areas to show signs of damage.

0.500 ppm

The ozone level at which Los Angeles, California, declares its Smog Alert No. 1. Can cause nausea and headaches in some individuals. Extended exposure could cause lung edema (an abnormal accumulation of serous fluid in connective tissue or serous cavity). Enhances the susceptibility to respiratory infections.

1.00 to 2.00 ppm

Los Angeles, California, declares its Smog Alert No. 2 at 1.00 ppm ozone concentration and Smog Alert No. 3 at 1.500 ppm. When this range of ozone concentration was inhaled by human volunteers for 2 hours, it caused symptoms which could be tolerated without incapacitation with the symptoms subsiding after a few days. The symptoms were headache, pain in the chest, and dryness of the respiratory tract.

1.40 to 5.60 ppm

The pinto bean exposed to 1.4 to 5.0 ppm ozone concentrations for 70 minutes showed some signs of severe

injury to mature leaves.

5.00 to 25.00 ppm

Experimentation showed that a 3 hour exposure at 12 ppm was lethal for Guinea pigs. Welders who were exposed to 9 ppm concentration plus other air pollutants developed pulmonary edema. Chest X-rays were normal in 2 to 3 weeks, but 9 months later they still complained of fatigue and exertional dyspnea (labored respiration).

25.00 ppm and up

Ozone concentrations that are immediately hazardous to human life are unknown but on the basis of animal experimentation, and exposure at 50 ppm concentration for 60 minutes would probably be fatal.

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The file http://www.ozonelab.com/downloads/files/TAOT01.pdf is a secure document that has been embedded in this document. Double click the pushpin to view.





Hydrogen Peroxide Test Strips



<u>Home</u> > <u>Products</u> > <u>Monitors</u> > Hydrogen Peroxide Test Strips







Ozone Test Strips

Test Strips are not intended for applications requiring high accuracy readings, rather, they are designed and used for semi-quantitative and for screening purposes.

QUANTOFIX® Peroxide 100

Test sticks for the semi-quantitative determination of hydrogen Peroxide (H_2O_2) and peroxides in solution.

Range: 1-100 mg/l H₂0₂

QUANTOFIX® Peroxide 100 is also suited for determination of other inorganic and organic hydroperoxides. For determination of hydroperoxides in organic solvents the test field is moistened with a drop of water after evaporation or drying of the solvent.

Between pH 2 and 9 the reaction is independent of the pH value of the test solution. Strongly acidic solutions should be buffered with sodium acetate and strongly basic solutions buffered with citric acid to about pH 5-7. Apart from this only strong oxidizing reagents can interfere.



100 tests / capsule

Gradation of Scale: 0 - 1 - 3 - 10 - 30 - 100 mg/l H_20_2

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Comparison of physical data of ozone, oxygen and air







Home > Articles > Comparison of physical data of ozone, oxygen and air

measuring value	unit	ozone	oxygen	air
Molecular weight		48	32	28,96
Mol volume	Nm3/kmol	21,6	22,39	22,4
spec. gravity:				
Gas	kg/Nm3	2,144	1,4298	1,2928
Fluid	kg/l	1,574	1,14	0,86
Temperature	°C	-183	-183	-194,4
solid	kg/l	1,728		
Temperature	°C	-196		
Boiling Point	°C	-112	-183	-193
Point of evaporation	kJ/Nm3	641	305	265
critical points				
Temperature	°C	-12,1	-118,8	-140,7
Pressure	bar	54,6	48,7	36,5
spec. gravity	kg/l	0,437	0,43	0,31

			1	1
Volume	1/Mol	0,147	0,0745	
Tripelpoint				
Temperature	°C	-252	-218	-213
Steam pressure	mbar		1,6	
Spec. warmth	kJ/Nm3 °C		1,312	1,303
Melting point	°C	-192	-218,4	-213
Surfacetension	dyncm	38,4	13,2	
at temperature of	°C	-183	-183	
Viscosity at -183 °C	сР	1,55	0,18	
Viscosity at -195 °C	сР	4,2		
Dielectrical constant at -183 °C		4,79		
Magn. Suszeptility				
Gas	cgs	0,002	106,2	
Fluid	cgs	0,15	260	
Dipolmoment	Debye	0,55		

Table was re-created by Ozone Services from technical data sheets supplied by Erwin Sander GmbH, Germany.

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Conversion Charts







Home > Articles > Conversion Charts

% Vacuum	inHg (rel)	ft H2O (rel)	Torr (abs) mmHg (abs)	mbar (abs)	psia (abs)	
0%	0.00	0.00	760.0	1013.3	14.70	
10%	2.99	3.39	684.0	911.7	13.23	
20%	5.98	6.78	608.0	810.4	11.76	
30%	8.98	10.17	532.0	709.1	10.29	
40%	11.97	13.56	456.0	607.8	8.82	
50%	14.96	16.95	380.0	506.5	7.35	
60%	17.95	20.34	304.0	405.2	5.88	
70%	20.94	23.73	228.0	303.9	4.41	
80%	23.94	23.94 27.12		202.6	2.94	
90%	26.93	26.93 30.51 76		101.3	1.47	
91%	27.23	30.85	68.4	91.2	1.32	
92%	27.53	31.19	60.8	81.0	1.18	
93%	27.83	31.53	53.2	70.9	1.03	
94%	28.13	31.87	45.6	60.8	0.88	
95%	28.42	32.21	38.0	50.6	0.73	
96%	28.72	32.54	30.4	40.5	0.59	
97%	29.02	32.88	22.8	30.4	0.44	
98%	29.32	33.22	15.2	20.3	0.29	
99%	29.62	33.56	7.6	10.1	0.15	
99.1%	29.65	33.59	6.8	9.1	0.13	
99.2%	29.68	33.63	6.1	8.1	0.12	
99.3%	29.71	33.66	5.3	7.1	0.10	
99.4%	29.74	33.70	4.6	6.1	0.09	

99.5%	29.77	33.73	3.8	5.1	0.07
99.6%	29.80	33.76	3.0	4.1	0.06
99.7%	29.83	33.80	2.3	3.0	0.04
99.8%	29.86	33.83	1.5	2.0	0.03
99.9%	29.89	33.87	0.8	1.0	0.01
<100%	29.92	33.90	0.0	0.0	0.00

Vacuum Conversion Table

JAVASCRIPT	CALCULATOR

Javascript must be enabled on your browser for the above calculator to work

LENGTH	to mm to cm		to m	to ft	to in
from mm	1	.1	.001	.0033	.0394
from cm	10	1	.01	.0328	.0394
from m	1000	100	1	3.281	39.37
from ft	304.8	30.48	.304	1	12
from in	25.4	2.54	.0254	.0833	1

Temperature: F=9/5C+32 C=5/9(F-32)

VOLUME	to cc	to L	to cu in	to cu ft	to US gal
from cc	1	.001	.061	.0000353	.00026
from L	1000	1	61	.0353	.264
from cu in	16.39	.0164	1	.00058	.0043
from cu ft	28317	28.32	1730	1	7.47
from US gal	3785.4	3.785		.1337	1

PRESSURE	to bar	to lb/sq in	to atm	to mm Hg Torr	to m Hg	to in Hg	to ft water	to m water	to in water
from bar	1	14.5	.986	750	.75	29.53	33.46	10.2	401.5
from lb/sq in	.068	1	.068	51.7	.051	2.036	2.307	.703	27.68

from atm	1.01	14.7	1	760	.76	29.921	33.9	10.3	406.8
mm Hg/Torr	.0013	.019	.001	1	.001	.039	.045	.0135	.535
from m Hg	1.33	19.34	1.32	1000	1	39.37	44.6	13.6	535.25
from in Hg	.034	.491	.033	25.4	.0254	1	1.133	.345	13.59
from ft water	.029	.433	.0259	22.42	.022	.882	1	.305	12
from m water	.098	1.422	.096	73.55	.0735	2.89	3.28	1	39.37
from in water	.00249	.0361	.00245	1.868	.00186	.073	.083	.0225	1

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Material Compatibility with Hydrogen Peroxide (H₂O₂)





 $\underline{\text{Home}}$ > $\underline{\text{Articles}}$ > Material Compatibility with Hydrogen Peroxide (H_2O_2)

Theoretical rating (Cole Parmer)

Material	Compatibility 10% H ₂ O ₂	Compatibility 30% H ₂ O ₂	Compatibility 50% H ₂ O ₂	Compatibility 100% H ₂ O ₂	
304 stainless steel	B2 - Good	B2 - Good	B2 - Good	B2 - Good	
316 stainless steel	B - Good	B - Good	A2 - Excellent	A2 - Excellent	
ABS plastic	A - Excellent	N/A	N/A	A - Excellent	
Acetal (Delrin®)	D - Severe Effect	D - Severe Effect	D - Severe Effect	D - Severe Effect	
Aluminum	A - Excellent	A - Excellent	A - Excellent	A - Excellent	
Brass	N/A	N/A	N/A	D - Severe Effect	
Bronze	B1 - Good	B1 - Good	B1 - Good	B1 - Good	
Buna N (Nitrile)	D - Severe Effect	D - Severe Effect	D - Severe Effect	D - Severe Effect	
Carbon graphite	C - Fair	C - Fair	C - Fair	C - Fair	
Carpenter 20	C - Fair	B - Good	B - Good	D - Severe Effect	
Cast iron	C - Fair	B - Good	N/A	B - Good	
Ceramic Al203	N/A	N/A	N/A	A - Excellent	
Ceramic magnet	A - Excellent	A - Excellent	A - Excellent	A - Excellent	
Copper	D - Severe Effect	D - Severe Effect	D - Severe Effect	D - Severe Effect	
CPVC	A - Excellent	A - Excellent	A - Excellent	A - Excellent	
EPDM	A - Excellent	B - Good	B - Good	D - Severe Effect	

Ероху	C1 - Fair	B - Good	N/A	A - Excellent
Hastelloy-C®	A - Excellent	A - Excellent	A - Excellent	A - Excellent
Hypalon®	D - Severe Effect			
Hytrel®	N/A	N/A	N/A	N/A
Kel-F®	A - Excellent	B - Good	A - Excellent	B - Good
LDPE	A - Excellent	C2 - Fair	C2 - Fair	C2 - Fair
Natural rubber	B - Good	C - Fair	C - Fair	C - Fair
Neoprene	D - Severe Effect			
NORYL®	A2 - Excellent	A2 - Excellent	N/A	A - Excellent
Nylon	C1 - Fair	D - Severe Effect	D - Severe Effect	D - Severe Effect
Polycarbonate	A2 - Excellent	A2 - Excellent	A2 - Excellent	A - Excellent
Polypropylene	A - Excellent	B1 - Good	B1 - Good	B1 - Good
PPS (Ryton®)	A - Excellent	A1 - Excellent	N/A	C - Fair
PTFE (Teflon®)	A - Excellent	A - Excellent	A - Excellent	A - Excellent
PVC	A1 - Excellent	A1 - Excellent	A1 - Excellent	A - Excellent
PVDF (Kynar®)	A - Excellent	A - Excellent	A1 - Excellent	A1 - Excellent
Silicone	A - Excellent	B - Good	B - Good	B - Good
Titanium	A - Excellent	B1 - Good	A - Excellent	B - Good
Tygon®	B - Good	B - Good	B - Good	B - Good
Viton®	A - Excellent	A - Excellent	A - Excellent	A - Excellent

Ratings -- Chemical Effect

- A. Excellent.
- B. **Good** -- Minor Effect, slight corrosion or discoloration.
- C. Fair -- Moderate Effect, not recommended for continuous use. Softening, loss of strength, swelling may occur.
- D. Sever Effect, not recommended for ANY use.

N/A = Information Not Available.

Explanation of Footnotes

- 1. Satisfactory to 72°F (22° C)
- 2. Satisfactory to 120°F (48° C)
- 3. Satisfactory for)-rings

DANGER!

Variations in chemical behavior during handling due to factors such as temperature, pressure, and concentration can cause equipment to fail, even though it passed an initial test.

SERIOUS INJURY MAY RESULT

Use suitable guards and/or personal protection when handling chemicals

WARNING!

The information in this chart has been supplied to Cole-Parmer by other reputable sources and is to be used **ONLY** as a guide in selecting equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.

Ratings of chemical behavior listed in this chart apply to a 48-hr exposure period; Cole-Parmer has no knowledge of possible effects beyond this period. Cole-Parmer does not warrant (neither express or implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.

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Ozone Conversion Table



Ozone Services A Division of Yanco Industries Ltd. 390 Silver Queen Road, Burton, B.C., V0G1E0, Canada

Tel: 250-265-4461

E-Mail: ozoneden@o3zone.com

Web Site: http://www.p3zone.com/ozoneser

We design, produce, calibrate and service Ozonation Equipment for Ultra Pure Applications

Ozone Conversion Table

Enter the value you wish to convert to any field marked:

1

g/m3		mol/m3	ppmVol	pp:mW-Air	pp:mW-C2	Vol %	ppm%-Air	pp:m/%-02
1	=	0.0208	466.4	773.5	699.8	0.04664	0.0773	0.0699
mol/m3		g/m3	ppm//ol	pp:mW-Air	pp:m/W-C02	Vol %	ppm%-Air	pp m/% -C2
1	=	48	22387	37128	33590	2.2387	3.71	3.36
ppmVol		g/m3	mol/m3	pp:mW-Air	pp mW-O2	Vol %	ppm%-Air	pp m4%-C02
1	=	0.00214	0.0000446	1.658	1.5	0.0001	0.000166	0.00015
pp:mW-Air		g/m3	mol/m3	ppm∀ol	pp mW-O2	Vol %	ppm%-Air	pp m4%-C02
1	=	0.00129	0.0000268	0.603	N/C	0.0000603	0.001	N/C
pp:m///-C02		g/m3	mol/m3	ppm∀ol	pp:mW-Air	Vol %	ppm%-Air	pp m4%-C02
1	=	0.00143	0.0000297	0.666	N/C	0.0000666	N/C	0.0001
Vol %		g/m3	mol/m3	ppm//ol	pp:mW-Air	pp mW-02	pp m%-Air	pp m/% -C2
1	=	21.44	0.47	1000	16600	15000	1.658416	1.5
ppm % -Air		g/m3	mol/m3	ppmVol	pp:mW-Air	pp:mW-02	Vol%	pp.m%-02
1	=	12.928	0.27	6029.7	1000	N/C	0.6029	N/C
pp:m2%-02		g/m3	mol/m3	ppmVol	pp:m///-Air	pp mW-O2	Vol%	ppm%-Air
1	=	14.2895	0.298	6664.6	N/C	1000	0.66648	N/C

Table was re-created by Ozone Services from technical data sheets supplied by Erwin Sander GmbH, Germany.



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Ozone Conversion Table

Enter the value you wish to convert to any field marked:

1

g/m3		mol/m3	ppm/Vol	ppm/W-Air	ppm/W-O2	Vol %	ppm/%-Air	ppm/%-O2
1	=	0.0208	466.4	773.5	699.8	0.04664	0.0773	0.0699
mol/m3		g/m3	ppm/Vol	ppm/W-Air	ppm/W-O2	Vol %	ppm/%-Air	ppm/%-O2
1	=	48	22387	37128	33590	2.2387	3.71	3.36
ppm/Vol		g/m3	mol/m3	ppm/W-Air	ppm/W-O2	Vol %	ppm/%-Air	ppm/%-O2
1	=	0.00214	0.0000446	1.658	1.5	0.0001	0.000166	0.00015
ppm/W-Air		g/m3	mol/m3	ppm/Vol	ppm/W-O2	Vol %	ppm/%-Air	ppm/%-O2
1	=	0.00129	0.0000268	0.603	N/C	0.0000603	0.001	N/C
ppm/W-O2		g/m3	mol/m3	ppm/Vol	ppm/W-Air	Vol %	ppm/%-Air	ppm/%-O2
1	=	0.00143	0.0000297	0.666	N/C	0.0000666	N/C	0.0001
Vol %		g/m3	mol/m3	ppm/Vol	ppm/W-Air	ppm/W-O2	ppm/%-Air	ppm/%-O2
1	=	21.44	0.47	1000	16600	15000	1.658416	1.5
ppm/%-Air		g/m3	mol/m3	ppm/Vol	ppm/W-Air	ppm/W-O2	Vol %	ppm/%-O2
1	=	12.928	0.27	6029.7	1000	N/C	0.6029	N/C
ppm/%-O2		g/m3	mol/m3	ppm/Vol	ppm/W-Air	ppm/W-O2	Vol %	ppm/%-Air
1	=	14.2895	0.298	6664.6	N/C	1000	0.66648	N/C

Table was re-created by Ozone Services from technical data sheets supplied by Erwin Sander GmbH, Germany.



Ozone Sensing and Leak Detection





<u>Home</u> > <u>Articles</u> > Ozone Sensing and Leak Detection

Measuring ozone at a leak site is like eating Jell-O with chop sticks: you sort of know what you're doing, but it never seems to work as planned!

By Lawrence B. Kilham

Reprinted from Water Conditioning & Purification Magazine September 1995

Ozone is rapidly becoming the water treatment method of choice for bottled water, swimming pools, aquariums and many other water purification applications. In comparison to chlorine, it creates less, if any, toxic byproducts, is generated on-site, and the finished water is generally more attractive.

Free ozone from leaks, however, is toxic, and safe workplace levels are specified by various government regulations. In most countries, including the United States, the limits are 0.05 ppm for continuous exposure and 0.1 ppm for short term exposure. (See <u>Table 1</u> for common conversion factors.) According to the American Lung Association, ozone exposure at the 0.1 ppm level leads to decreased lung function due to the erosion of lung tissue and to the encouragement of various lung diseases.

The toxic borderline is hard to define. In the highlands of New Mexico, 0.05 to 0.08 ppm ozone levels are common as a result of the intense high-altitude sunlight's catalysis of hydrocarbons of pine trees. Yet for centuries people have boasted of their great longevity of life here.

How is ozone detected at hazardous levels? Many who work with ozone say that the "sniff test" is sufficient due to ozone's distinct odor, even at low concentrations. Leaks can be detected quickly and disaster will be adverted. The sniff test is not a responsible industrial safety practice, however. People who work around ozone often lose their sensitivity to its odor, at least a low levels. The sniff test is not an accurate means of locating leak sites in a maze of plumbing, or of determining whether the leak is increasing or subsiding. If there has been a major ozone area flooding, the sniff test doesn't indicate when it is safe to return to the work area.

Therefore, it is necessary to have an ozone sensor or monitor. Many are available on the market, ranging from several hundred to several thousand dollars. These instruments are also helpful for system engineering and management. They help trace the ozone flow from the generator to its emergence from the water, making sure that the whole transmission process is efficient. Ozone, which under the best of conditions has a half-life of hours, breaks down rapidly in confined spaces, valves, filters and hot and humid areas. Once the system is running, sensing instruments ensure that it continues to produce and properly deliver ozone.

Problem solved? Not quite.

Ozone Sensing Precautions

Measuring ozone at a leak is like eating Jell-O with chop sticks: you sort of know what you're doing, but it never seems to work out as if should. Furthermore, modern instruments with digital readouts tend to lull us into believing that the reading is the truth.

Ozone does not instantly diffuse in air to create a uniform concentration for easy measurement. If you could see ozone, it might look like cigarette smoke, sort of swirling around according to various influences and then disappearing. (Ozone has a half-life as low as minutes in confined spaces.) When your trusty instrument reads 0.076, are you at the center of the swirl or off at a fuzzy edge? Is your instrument, which takes a certain amount of time to process the ozone, analyzing a transient and presenting the data as if it were a steady state, or is it missing a rapid change altogether?

There are some common sense things you can do to make more meaningful ozone measurements.

Getting a Representative Sample

As a start in good sampling technique, try to avoid drafts between the leak and the sensor. Even slight crosspath air movement can head the ozone off track. In the petrochemical industry where they check gas leaks at hundreds of valves per plant, the have learned by experience to bag the valves with canvas enclosures. You don't necessarily need to go to this extreme, but you can follow the same principle by shielding the ozone leak path with one hand while holding the instrument or probe with the other.

Avoid Chemical Interferences

The pathway between the ozone leak and the measuring instrument must be free of VOCs (volatile organic compounds) and other chemicals that will reduce or eliminate the ozone. Ozone, after all, is used commercially to neutralize VOC-based fumes and odors. Among the VOCs that are so common that you might overlook their interference in the measuring process are aftershave lotion, perfume, cigarette smoke and various solvents.

While VOCs are generally reducing agents and will cause the sensor reading to decrease as they are oxidized by ozone, oxidizing gases such as chlorine and fumes of chlorine compounds will cause many ozone sensor readings to increase. This generally is the case for electrochemical and semiconductor sensors.

Be Aware of the Effects of Materials

Ozone is unaffected by glass buy will seem to cling to the surfaces of many plastics and fabrics. It chemically reacts with some metals such as brass, but is inactive in the presence of some plating materials such as nickel. Some common tubing materials are reactive with ozone; check tubing material reactivity charts carefully before selecting one for your application. Ozone aggressively attacks and disintegrates rubber; this is the source of many gasket leaks!

Environmental Issues

The great outdoors is a veritable witch's brew of influences on ozone measurement. Lightning and corona discharge can significantly raise ozone levels even when storms are miles away and when measurements are

made hours later in dry climates.

Automobiles can significantly affect ozone measurements either way. The oxides of nitrogen emissions can be catalyzed by the summer sun to create the well-known ozone alerts. On the other hand, VOCs generated by automobiles can neutralize some of the ozone generated by the sunlight-catalyzed hydrocarbon emissions by evergreens.

The sun's intense ultraviolet energy can affect ozone sensors if it reaches the sensor's area of sensitivity. Heat and humidity reduce ozone's half-life and can also change readings, even if the ozone level didn't change. Before going outside, review the manufacturer's limits on the operation of their instrument.

Chlorine, chlorine compounds, acid gases and other industrial chemical emissions can be very persistent indoors and outside, and as discussed above, you should be aware of their presence and effects.

Instrument Response Times

Some ozone sensing and measuring equipment responds and comes to a full reading in a few seconds after exposure to ozone. Other equipment takes a few minutes. Therefore, if you are moving around the ozone plumbing looking for leaks, a fast-response instrument would be best to detect the ozone and estimate its concentration. A slow response instrument would be better for continuous area monitoring where confusing ozone concentration measurements, caused by such influences as shifting air currents, would be averaged out.

Periodic Sensing or Continuous Monitoring?

Another consideration is whether to check for leaks or changing ozone levels periodically (portable sensing) or continuously (monitoring). Periodic checks with a hand-held sensor scanned over potential leak locations are likely to find leaks not detected by fixed location monitors because ozone does not diffuse or propagate quickly or completely.

The fixed and continuous monitors, however, are useful to catch a leak developing in work areas with relatively untrained and unconcerned personnel, or in areas where no one is present for long periods of time. <u>Table 1</u> illustrates the ozone concentration conversion factors.

Meaningful Readings

If the sensing precautions outlined above are followed when measuring ozone, a leak can be readily detected and measured. While the "sniff test" may work in isolated cases, a more accurate means of locating leak sites and measuring concentrations can be obtained with the proper ozone sensing or monitoring equipment.

Ozone monitoring can be simple and inexpensive, but before purchasing equipment it is important to analyzed your ozone system and needs in order to specify the appropriate kind of sensor or monitor. Plan ahead for the most effective operation.

Table 1: Ozone concentration conversion factors

Exposure

Continuous Short Term

ppm (parts per million) 0.05 0.1

Ozone Sensing and Leak Detection

ppb (parts per billion) 50 100 (ppm/1000)

ug/m3 (micrograms per 120 240 cubic meter) (ppb x 2.4)

(1 gram of ozone per cubic meter = 467 ppm by volume)

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What Is Ozone?



Home > Articles > What Is Ozone?



Ozone - General Information

Ozone is a naturally occurring component of fresh air. It can be produced by the ultraviolet rays of the sun reacting with the Earth's upper atmosphere, which creates a protective ozone layer, or it can be created artificially with an ozone generator. The ozone molecule contains three oxygen atoms whereas the oxygen molecule contains only two. Ozone is a very reactive and unstable gas with a short half-life before it reverts back to oxygen. Ozone is the most powerful and rapid acting oxidizer man can produce, and will oxidize all bacteria, mould and yeast spores, organic material and viruses.

A Brief History Of Ozone

Ozone has played a significant role in the waste treatment process in the past and will continue to do so in the future. The utilization of ozone in industrial situations has a long and impressive history, one that predates current environmental concerns. The American Indians, for whom fishing was a central industry, recognized a correlation between a successful catch and a strange odor released by the action of lightning after an electric storm. On the other side of the globe the ever astute Greeks had also noticed the odor (and so defined it "ozein") and like the Indians, preferred fishing after a storm, which is still practiced today. The explanation for this natural phenomenon is that after an electric storm the upper layer of water in lakes is enriched with diluted oxygen and therefore naturally ozonated. The positive influence of ozone on the digestive system of different species of fish has been scientifically documented. The closed loop for fish-farming is only possible with ozone because of its ability to destroy viruses responsible for many diseases in fish culture. The most common use of ozone is for the treatment of water. In 1906 group of scientists and doctors studied the ozonation system at the Oudshoorn plant in Holland and later constructed a 19,000 m3/day (5 mgd) plant using ozonation for disinfection - at Nice, France. Nice is therefore referred to as "the birthplace of ozonation for drinking water treatment".

Formation Of Ozone

The formation of oxygen into ozone occurs with the use of energy. This process is carried out by an electric discharge field as in the CD-type ozone generators (corona discharge - simulation of the lightning), or by ultraviolet radiation as in UV-type ozone generators (simulation of the ultraviolet rays from the sun). In addition to these commercial methods, ozone may also be made through electrolytic and chemical reactions.

Ozone And Its Applications

Ozone is not only a very powerful oxidizing agent but also a very powerful non-chemical disinfectant. It has the unique feature of decomposing to a harmless nontoxic environmentally safe material, namely oxygen. In Europe, ozone is used for many purposes: color removal, taste and odor removal, turbidity reduction, organics removal, microflocculation, iron and manganese oxidation, and most commonly, bacterial disinfection and viral inactivation. Most of these applications are based on ozone's high oxidizing power. Ozone can be introduced at different points in the water treatment process, depending on its intended application. When used for iron and manganese oxidation or to induce flocculation, it is usually introduced early, and when used for taste and odor removal it is introduced at an intermediate point. In European water treatment practices, ozonation is recognized as a preferred method of virus inactivation rather then just an alternative to the use of chlorine for disinfection.

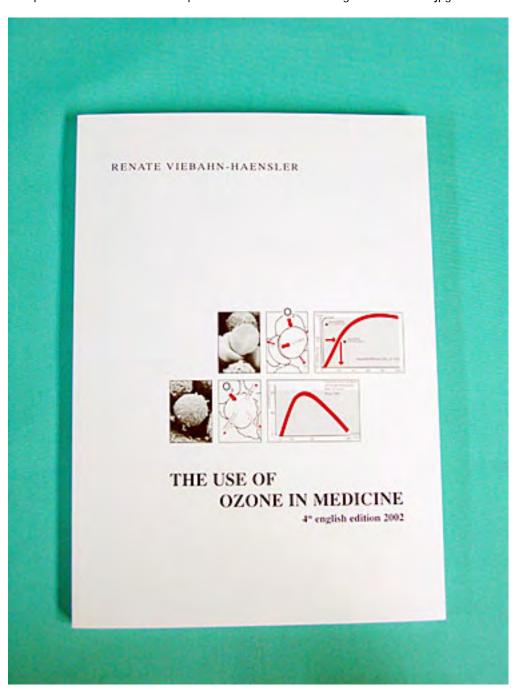
Nine out of ten diseases, including the common cold and the flu, are caused by water or airborne bacteria and viruses. Like chlorine, ozone kills microorganisms. The sterilization action of ozone is by "direct kill attack" and oxidation of the biological material. The rate of bacteria killed by Ozone is 3500 times faster than with chlorine. Virus destruction with ozone is instantaneous, safe and foolproof, as ozone is nature's own purifier. Chlorine's reactive oxidant is hypochloric acid which is formed when chlorine is dissolved in water. This powerful oxidant will have significant long term negative effects on our water sources. Ozone, on the other hand, has no side effects as far as the treatment of water is concerned. It has properly been described as the "add-nothing" sterilant.

In Eastern Canada, there are approximately 100 ozone plants for the treatment of municipal water, as well as many large industrial plants for water processing and waste water treatment. The principal applications for ozonation systems (single ozone generators are rarely sold) are as follows:

Air Treatment Fish canneries Process water
Aquaculture Fish hatcheries Pools and Spas
Bottled water Hot springs pools Potable water
Cooling towers Industrial waste Therapeutic use
Fish boats Odor Control Waste water

There are hundreds of commercial applications and new emerging applications being developed.

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OzoneLab™ Books and Videos



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Books and Videos

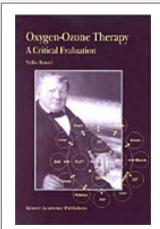








Below is a list of the books which we carry in stock. We feel that they are some of the best which are available on the subject of Ozone.



Oxygen-Ozone Therapy A Critical Evaluation

by Velio Bocci, PhD. Institute of General Physiology, University of Siena, Italy

This book represents the first serious attempt to explain the fundamental basis of ozonetherapy and is a relevant step towards achieving further progress. Ozone is now considered a real drug and, after reacting with body fluids, releases messengers and activates several mechanisms which are able to elicit multiple biological effects. The therapeutic window has been defined and, contrary to the dogma that `ozone is toxic any way you deal with it', it has been shown that ozone toxicity can be tamed and even totally avoided.

New powerful methodologies have been devised and astonishing clinical results in vascular and infectious diseases have already been achieved. An exciting novelty is the induction of an adaptive response that implies the unsuspected possibility of arresting cell degeneration due to endogenous chronic oxidative stress. However, further basic and controlled clinical studies need to be performed to fully exploit ozone's therapeutic potentials and to establish the real validity of this therapy. Authoritative scientists and clinicians should abandon their prejudice and consider the profound difference between endogenous oxidative stress and the new concept of ozonetherapeutic `shock'. If this happens, we could soon have a simple and inexpensive tool to restore health in millions of patients.

This book has been written in a plain scientific language and can be read by scientists and clinicians, as well as by patients keen on regaining a state of well being

Publisher: Kluwer Academic Publisher

ISBN: 1402005881

1st edition: May 15, 2002, Hardcover, 440 pages (0.98 x 9.76 x 6.46")



Ozone, A new medical drug

by Velio Bocci, PhD.

This book is the second edition of the above Bocci book (*Oxygen-Ozone Therapy - A Critical Evaluation*). We feel that *Oxygen-Ozone Therapy - A Critical Evaluation* provides our clients with more complex information and better overall value, so we have chosen not to carry this publication.

2005, XXVII, 295 p., Hardcover ISBN: 1-4020-3139-4

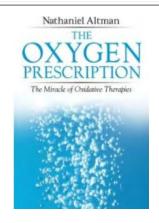


The Use of Ozone in Medicine

by Renate Viebahn-Haensler (4th revised edition)

The Use of Ozone in Medicine is one of the most comprehensive books to come out of Germany. Contains information on Ozone in the preparation of drinking water, the basic biochemical facts underlying ozone therapy, the principals of ozone therapy, and dosage guidelines and procedures.

"The Use of Ozone in Medicine" written by R. Viebahn has quickly become a basic source of information for everyone who is interested in digging deeper into the field of Ozone Therapies. It includes chapters on the history of ozone therapy and its biochemical, technical and different clinical applications such as autohemotherapy, rectal and vaginal insufflation, injections, ozonized water and olive oil with recommended dosages and treatment frequencies and contraindications.



The Oxygen Prescription: The Miracle of Oxidative Therapies by Nathaniel Altman

A complete guide to oxygen therapies as a path to optimum health

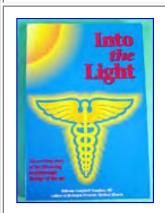
- Presents new scientific findings of the effectiveness of oxidative therapies in treating heart disease, cancer, herpes, HIV, hepatitis, and diabetes
- Presents the evolution of these therapies, including positive trends and challenges for the future
- Includes new chapters on using the therapies in dentistry and veterinary medicine

Scientists now agree that most disease states are caused by oxygen starvation at a cellular level. Polluted air, devitalized foods, poor breathing habits, all can lead to chronic oxygen

deficiency, a bodily environment in which toxins thrive as the overall immune response is weakened. Though we receive most of our oxygen from the air around us, even deep breathing may not be enough to improve oxygen-starved cells. Oxidative therapies generate the oxygen needed to fight disease and delay the aging process.

The Oxygen Prescription is the only book to place oxidative therapies in the context of holistic health. Completely updated and expanded to include the use of these therapies in dentistry and veterinary medicine, it explores the latest scientific findings that show how ozone interacts with cells when introduced into the bloodstream. It presents treatments that stimulate the body's own ability to produce ozone to fight cancer, osteoporosis, and hepatitis and provides the evidence of how oxidative therapies are being used to treat heart disease, herpes, HIV, and diabetes. The Oxygen Prescription also shows how to enhance the effectiveness of these treatments through diet and the use of minerals, herbs, exercise, and visualization.

Available through Amazon.com or your local bookstore.



Into the Light

by William Campbell Douglas, M.D.

From the back cover of the book...

Would you cover it up?

It's unthinkable that what could be the best solution ever to stopping the world's killer diseases is being ignored, scorned, and rejected. But that is exactly what's happening right now.

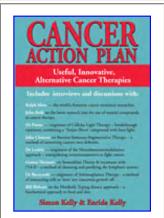
The procedure is called "photoluminescence." It's a thoroughly tested, proven therapy that uses the healing power of light to perform almost miraculous cures.

This remarkable treatment works its incredible cures by stimulating the body's own immune responses. That's why it cures so many ailments – and why it's been especially effective against AIDS! Yet, 50 years ago, it virtually disappeared from the halls of medicine.

Why has this incredible cure been ignored by the medical authorities of this country? You'll find the shocking answer here in the pages of Into The Light, the new book by William Campbell Douglass, MD."

William Campbell Douglass, MD has led a colorful, rebellious, and crusading life. Not many physicians would dare put their professional reputations of the line as many times as this courageous healer has. A vocal opponent of "business-as-usual" medicine, Dr. Douglass has championed patients' rights and physician commitment to wellness for the past two decades. For a year, he endured economic and physical hardship to work with physicians at the Pasteur Institute in St. Petersburg, Russia where advanced research on photoluminescence is being conducted.

Dr. Douglass comes from a distinguished family of physicians. He is the fourth generation Douglass to practice medicine, and his son is also a physician. Dr. Douglass graduated from the University of Rochester, the Miami School of Medicine and the Naval School of Aviation and Space Medicine. He has been named the National Health Federation's "Doctor of the Year." Dr. Douglass is a popular speaker who appears often on radio and television. The author of five books and Editor-in-Chief of Second Opinion, his monthly alternative medicine newsletter, he also travels widely.



Cancer Action Plan - Useful, Innovative, Alternative Cancer Therapies by Simon & Enrida Kelly

Cancer Action Plan is unique because it is easy to read and includes all of the following:

- Outlines the most important therapies to follow from home as well as therapies you can carry out in your local area.
- Provides in-depth information about leading alternative cancer clinics who offer innovative cutting edge therapies.
- Lets you hear direct from cancer therapy experts who have treated 1000's of individuals with their unique therapies.
- Explains how you can go about obtaining an individualised independent report about your chances with conventional treatments.
- Provides you with the facts you should know about chemotherapy as well as details of a unique test which can indicate how likely it is that chemotherapy will work for an individual.
- The latest research about using natural compounds against cancer.
- The best way to ensure the food you are eating is working to heal you.
- Provides you with a responsible, balanced and accurate picture of the value of controversial cancer therapies such as oxygen-ozone therapy and others...

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OzoneLab™ Example Setups



Home > Setup Examples



Ozone Services provides setup examples in both the Laboratory and Medical Research & Clinical Applications fields to assist clients in the selection and operation of our complete line of <u>Ultra-Pure Laboratory Ozone</u> <u>Generators</u>, <u>Ozone Gas Analyzers</u>, <u>Ozone Accessories</u>, and <u>U.V. Irradiation Instruments and Accessories</u>.



Laboratory Setup Examples

- By Ozone Generator / UV Instrument (Hardware)
- By Application



Medical Research and Clinical Applications Setup Examples

- By Ozone Generator / UV Instrument (Hardware)
- By Application

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OzoneLab™ OLA Line of Ozone Gas Analyzers



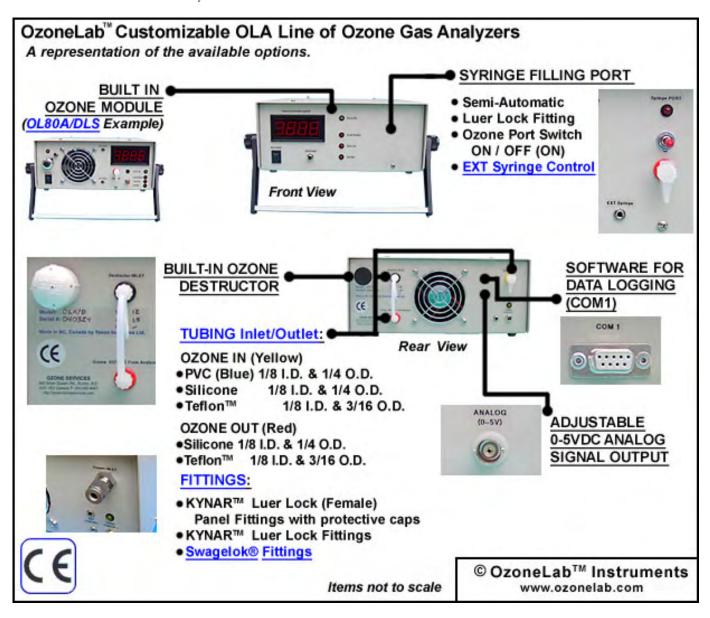
Home > Products > OLA Line of Ozone Gas Analyzers



The OLA Line of Ozone Gas Analyzers are very mobile and easy to use instruments designed and produced specifically for laboratory and medical research applications. The main characteristics of the OLA Ozone Gas Analyzers are:

- Fast response time and high precision
- Availability of wide range of customizable and custom-designed modifications
- Possibility to create <u>OzoneLab™ Tower(s)</u> by combining various types of OzoneLab™ instruments





Pricing and model comparison chart

S = Standard | O = Optional | N/A = Not Applicable

Printer Friendly Version	OLA	OLA/D	OLA/L	OLA/DL	OLA/DS	OLA/DLS	OL80A/DLS
Generator, Analyzer or Combination	Analyzer Only	Analyzer Only	Analyzer Only	Analyzer Only	Analyzer Only	Analyzer Only	Generator & Analyzer
360 Degree View Available	N/A	N/A	N/A	N/A	N/A	360° View	360° View
Setup Example Available	N/A	N/A	N/A	N/A	N/A	N/A	<u>Examples</u>
Model Picture		1 7 -					
OL80 Ozone Module (Single Stage)	N/A	N/A	N/A	N/A	N/A	N/A	S

OL100 Ozone Module (Double Stage)	N/A						
Flowmeter - 500cc/min (Standard) or Customer Specified	N/A						
10-Step Ozone Output Regulation	N/A						
10-Turn High Resolution Ozone Output Regulation	N/A	N/A	N/A	N/A	N/A	N/A	S
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	N/A						
External Ozone Output Regulation (EXT O3 Control Port)	N/A	N/A	N/A	N/A	N/A	N/A	S
Internal Ozone Destructor	O (+60U\$)	S	O (+60U\$)	S	S	S	S
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	O (+425U\$)	O (+425U\$)	O (+425U\$)	O (+425U\$)	S	S	S
Countdown Timer & Buzzer	N/A						
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	200µg/ml (200mg/l) (200g/m3)						
Repeatability (% scale) Zero Drift (% scale) Response (to 95% - Flow Dependant)	1% 1% 2sec.						
Compensation Pressure & Temp	3bar/ 43psi 5-45°C						
LED Ozone Concentration Display	S	S	S	S	S	S	S
Microprocessor OzoneLab™ Programmable Controller Module	N/A						
Banana Clip Ground Connection	S	S	S	S	S	S	S
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 5.0 LPM	0.005 LPM 1.0 LPM					
Adjustable 0-5VDC Analog Signal Output	O (+60U\$)						

Software for Data Logging (COM1)	O (+60U\$)	O (+60U\$)	S	S	O (+60U\$)	S	S
Luer Lock Kynar® Ozone Resist Fittings	S	S	S	S	S	S	S
Swagelok® Fittings	O (+245U\$)						
Wall Mounted Enclosure	N/A						
Desktop Tower Enclosure with Handle/ Stand - Stackable	S	S	S	S	S	S	S
Desktop Enclosure with 45° front panel	N/A						
Folding Table for Desktop Enclosure with 45° front panel	N/A						
Instrument Weight	3.1kg/7.0Lb	3.3kg/7.3Lb	3.3kg/7.3Lb	3.3kg/7.3Lb	3.3kg/7.3Lb	3.3kg/7.3Lb	3.8kg/8.0Lb
Power Requirements	12VDC 0.7 Amp	12VDC 2.0 Amp					
100-240AC/12DC/4Amp Universal Adapter	Included						
Marking	Yes						
Base Price [U\$]	\$5,345.00	\$5,405.00	\$5,405.00	\$5,465.00	\$5,830.00	\$5,890.00	\$7,595.00

All prices are in US Dollars and do not include shipping and handling.

OLA Technical Data:

The "heart" of the OLA Ozone Analyzer is a microprocessor based, high precision ozone detection module working on UV absorption principle.

O₃ Measuring Principle: UV Absorption (Beer Lambert Law)

Ozone Detection Range: 0 - 200 [µg/ml] | 0 - 13.5% by weight

Response Time: 2 seconds to 95% Precision: +/-1% of full scale

Linearity: 1%

Zero Drift: 1% of full scale /month, non-cumulative Compensation: Up to 3 p.s.i. pressure compensation

Visual Data Output: High visibility LED display || 0 - 200 [µg/ml]

O2/O3 Ports: Kynar® (PVDF) Female Luer Lock

Sample Flow: 0.1 - 1 [LPM] / 100 [ml/min] - 1000[ml/min]

Ozone Gas Fittings: Kynar® (PVDF) Female Luer Lock

Gas Pressure: Standard Range 0-3 p.s.i.

Flow Range: Standard Range 31-1000ml/min || Extended range 5-2000ml/min (MAX)

Temperature: Standard range 16-26C || Extended Range 10-30C

Cooling: Air cooled instrument

Power: 12VDC/3000mA (100-240VAC/12VDC Power Adapter w/IEC320 receptacle is

included)

Enclosure: Aluminum construction with laboratory grade heat tempered coating

Enclosure Only: 10.00x 11.00x 4.00" || 102x 254x 279mm (WxDxH)

Size w/handle-stand

Size Wilandie-Stand

12.00x 12.00x 4.75" || 120x 305x 305mm (WxDxH)

(folded): Weight:

Warranty:

3.0kg/6.6Lbs

12 months

Compliance: CE

For applications exceeding outlined conditions of operation, please <u>contact us</u> for more information on custom produced instruments and accessories.

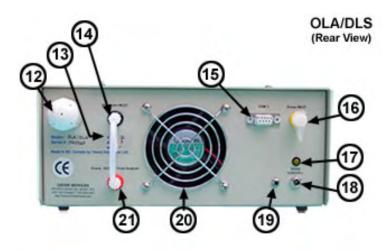
The below illustrated example is a standard OLA which has been equipped with a built-in Ozone Destructor, Data Logging Port, and Syringe Filling Port (OLA/DLS)

Front Panel View

1 2 3 4 5 6 7 OLA/DLS (Front View) 11 10 9 8

- 1. Main Power Switch
- 2. High Visibility LED Display
- 3. Automatic Zeroing Button (Oxygen)
- 4. Ozone Analyzer Module Status Lights
- 5. Syringe Port Status LED
- 6. Syringe Port ON/OFF/(ON)
- 7. Syringe Port / Ozone Outlet Luer Lock (Red)
- 8. Adjustable Handle/Stand
- 9. Enclosure Bumpers
 (1/2"DIM & 1/4" High /Grey Non-Marking Flexible
 Polylastomer)
- 10. EXT Syringe Port
- 11. Powdered Coated Aluminum Case

Rear Panel View



- 12. Ozone Destructor Vent
- 13. Removable Teflon™ tubing "BRIDGE"
- 14. Ozone Destructor Inlet Luer Lock (Black)
- 15. Computer Data Logging and Communication Port
- 16. Ozone Inlet Luer Lock (Yellow)
- 17. 12VDC Power Supply Pilot Light
- 18. 12VDC Power Jack 2.1mm/Center "+"
- 19. Banana Clip Ground Connection
- 20. 3" Cooling Fan
- 21. Ozone Outlet from Analyzer- Luer Lock (Red)

Most Frequently Ordered Models







Ozone Analyzer Setup Examples

An example of an OzoneLab™ Tower by stacking an OL100/T Ozone Generator and an OLA/DS Ozone Gas Analyzer.



For more information on OzoneLab™ Towers, click on above image

A full selection of optional ozone accessories is available to clients through our Ozone & UV
Accessory Area.

Examples of External Ozone Production & Ozone Flow Control Devices



Foot Switch Control



OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLab™ Software

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OzoneLab™ OL80A Ozone Generator & Gas Analyzer



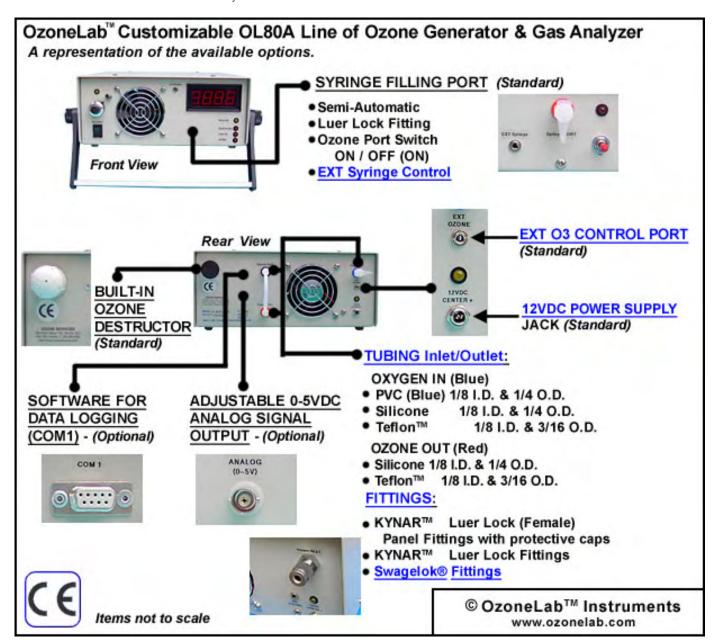
Home > Products > Generators > OL80A



The OL80A Line of Ozone Generator with built in Gas Analyzer is a very mobile and easy to use instrument designed and produced specifically for laboratory and medical research applications. The main characteristics of the OL80A Ozone Generator and Gas Analyzer are:

- Fast response time and high precision
- Availability of wide range of customizable and custom-designed modifications
- Possibility to create OzoneLab[™] Tower(s) by combining various types of OzoneLab[™] instruments





Pricing and model comparison chart

S = Standard | O = Optional | N/A = Not Applicable

Printer Friendly Version	OL80A/DLS
Generator, Analyzer or Combination	Generator & Analyzer
360 Degree View Available	360° View
Setup Example Available	<u>Examples</u>
Model Picture	
OL80 Ozone Module (Single Stage)	S
OL100 Ozone Module (Double Stage)	N/A

Flowmeter - 500cc/min (Standard) or Customer Specified	N/A
10-Step Ozone Output Regulation	N/A
10-Turn High Resolution Ozone Output Regulation	S
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	N/A
External Ozone Output Regulation (EXT O3 Control Port)	S
Internal Ozone Destructor	S
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	S
Countdown Timer & Buzzer	N/A
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	200μg/ml (200mg/l) (200g/m3)
Repeatability (% scale) Zero Drift (% scale) Response (to 95% - Flow Dependant)	1% 1% 2sec.
Compensation Pressure & Temp	3psi 5-45°C
LED Ozone Concentration Display	S
Microprocessor OzoneLab™ Programmable Controller Module	N/A
Banana Clip Ground Connection	S
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 1.0 LPM
Adjustable 0-5VDC Analog Signal Output	O (+60U\$)
Software for Data Logging (COM1)	S
Luer Lock Kynar® Ozone Resist Fittings	S
Swagelok® Fittings	N/A
Wall Mounted Enclosure	N/A
Desktop Tower Enclosure with Handle/Stand - <u>Stackable</u>	S
Desktop Enclosure with 45° front panel	N/A
Folding Table for Desktop Enclosure with 45° front panel	N/A
Instrument Weight	3.8kg/8.0Lb
Power Requirements	12VDC 2.0 Amp
100-240AC/12DC/4Amp Universal Adapter	Included

Marking	Yes
Base Price [U\$]	\$7,595.00

All prices are in US Dollars and do not include shipping and handling.

OL80A/DLS Technical Data

OzoneLab™ OL80 ozone production module:

Ozone Module: OL80

Ozone Production
• 3 minutes to 90% of reference output is reached
• 6 minutes to 100% of reference output is reached

after 10 minutes - 105% of reference output is reached

O2/O3 Ports: Kynar® (PVDF) Female Luer Lock

Gas Pressure: Standard Range 0-3 p.s.i.

Flow Range: Standard Range 31-1000ml/min || Extended range 5-1000ml/min (MAX)

Humidity: below 90% R.H.

Cooling: Air cooled instrument, 2x 3" fan in "PUSH/PULL" configuration

Ozone Detection Module:

O₃ Measuring Principle: <u>UV Absorption</u> (Beer Lambert Law)

Ozone Detection Range: 0 - 200 [µg/ml] | 0 - 13.5% by weight

Response Time: 2 seconds to 95% Precision: +/-1% of full scale

Linearity: 1%

Zero Drift: 1% of full scale /month, non-cumulative Compensation: Up to 3 p.s.i. pressure compensation

Visual Data Output: High visibility LED display || 0 - 200 [µg/ml]

O2/O3 Ports: Kynar® (PVDF) Female Luer Lock

Sample Flow: 0.1 - 1 [LPM] / 100 [ml/min] - 1000[ml/min]

Ozone Gas Fittings: Kynar® (PVDF) Female Luer Lock

Gas Pressure: Standard Range 0-3 p.s.i.

Flow Range: Standard Range 31-1000ml/min || Extended range 5-2000ml/min (MAX)

Analyzer Module: 316L Stainless Steel, Sapphire, Teflon™, Kynar® (PVDF)

Peripheral Functions and parameters:

Temperature Range: 5°C - 45°C Gas Pressure: 0-3 p.s.i.

Ozone Destructor:

(If Installed)

Kynar® (PVDF) fitting, Catalytic Agent, PVC housing & vent cap

Syringe Port/Valve:

(If Installed)

Kynar® (PVDF)fittings, Teflon™ valve body and tubing

Visual Data Output: High visibility LED display | 0 - 200 [µg/ml]

COM1 Data Output:

(If Installed) DB-9/Female, OEM software

Power: 12VDC/1000 - 2500 mA, Center Positive

Ext. Power Adapter: Universal Input (100-240VAC/12VDC - 4Amp.) Power Adapter with a standard

IEC320 modular AC receptacle. A North American standard 3 prong power cord

included.

For applications exceeding outlined conditions of operation, please <u>contact us</u> for more information on custom produced instruments and accessories.

Ozone Output Information

OL80 Module (Single Stage)

T_{V}	pical Ozone	Output for	r single stage	OL80 O	zone Gener	ator
- ,						

Flow LPM	Flow ml/min	Output µg/ml	Output [mg/hr]
0	0	0	0
1/32	31	0 - 161	0 - 299
1/16	62	0 - 131	0 - 487
1/8	125	0 - 93	0 - 698
1/4	250	0 - 57	0 - 855
1/2	500	0 - 33	0 - 990
3/4	750	0 - 23	0 - 1035
1	1000	0 - 17	0 - 1020

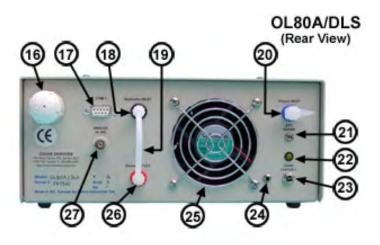
- OL80 Sample Output Test Report
- OL80 Ozone Output Graphs
- OL100 Typical Ozone Output Table
- Compare OL80 & OL100
- Compare OL80, OL100, and GE60 units produced between 1994 & 1999
- How we test our Instruments
- Creating Complex Tower Systems
- Note that we are able to provide Custom Ozone Output adjustments in the range of 10% 100% of the Typical Ozone Output. <u>Contact us</u> for details.
- Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.
- OzoneLab™ instruments are designed for low flow/high output applications and are not suitable for flow rates
 above 1000ml/min due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For
 applications dealing with higher pressures please contact us for more info and/or consultation)

OL80A/DLS Illustration:

Front Panel View

- 1. Main Power Switch
- 10 Turn High Resolution Ozone Concentration Regulator
- 3. Ozone Production Status LED
- 4. Ozone Concentration Regulator ON/OFF
- 5. Automatic Zeroing Button (Oxygen)
- 6. High Visibility LED Display
- 7. Ozone Analyzer Module Status Lights
- 8. Syringe Port ON/OFF/(ON)
- 9. Syringe Port Status LED
- 10. Syringe Port / Ozone Outlet Luer Lock (Red)
- 11. External Syringe Control Port
- 12. 3" Cooling Fan
- 13. Powdered Coated Aluminum Case
- 14. Enclosure Bumpers (1/2"DIM & 1/4" High /Grey Non-Marking Flexible Polylastomer)
- 15. Adjustable Handle/Stand

Rear Panel View



- 16. Ozone Destructor Vent
- 17. Computer Data Logging and Communication Port (Optional)
- 18. Ozone Destructor Inlet Luer Lock (Black)
- 19. Removable Teflon™ tubing "BRIDGE"
- 20. Oxygen Inlet Luer Lock (Blue)
- 21. EXT O3 Control
- 22. 12VDC Power Supply Pilot Light
- 23. 12VDC Power Jack 2.1mm/Center "+"
- 24. Banana Clip Ground Connection
- 25. 3" Cooling Fan
- 26. Ozone Outlet Luer Lock (Red)
- 27. BNC Analog Output (Optional)

Most Frequently Ordered Models



Ozone Generator and Analyzer Setup Examples

An example of an OzoneLab™ Tower by <u>stacking</u> an <u>OL100/T</u> <u>Ozone Generator</u> and an <u>OLA/</u> <u>DS Ozone Gas Analyzer</u>.



For more information on OzoneLab™ Towers, click on above image

A full selection of optional ozone accessories is available to clients through our Ozone & UV Accessory Area.

Examples of External Ozone Production & Ozone Flow Control Devices



Foot Switch Control



OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLab™ Software

© Ozone Services

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OzoneLab™ Ozonation Equipment



<u>Home</u> > <u>Products</u> > Generators









Hardware Selection Charts - Laboratory

- Setup Examples
- How we test our instruments

Main characteristics of OzoneLab™ Instruments:

Oxygen/Ozone Gas Flow Range: 0-1000ml/min

Ozone Concentration Range: 0-180mcg/ml (0-12.5 % by weight)

Ozone Output Range: 0-2000mg/hr from single unit 0-4000 or even 0-6000mg/hr from

OzoneLab™ Tower systems

Gas Purity Requirements: Laboratory/Medical

If your ozone project falls within above outlined boundaries, it is very likely that you will be able to find an OzoneLab™ instrument that would meet your needs. We encourage you to start your search for the most suitable model right on this page.

OL80 Module (Single Stage) OL80 Wall Mounted Line OL80 Desktop Line 45° Front Panel Enclosure OL80 Desktop Line 90° Front Panel Enclosure OL80 Desktop Line 90° Front Panel Enclosure OL80 Desktop Line - DST-2S Series 90° Front Panel Enclosure OL80 A Ozone Generator & Gas Analyzer in Desktop Tower Enclosure



OL80M Ozone Generator & Controller

in Desktop Tower Enclosure

Typical Ozone Output for single stage OL80 Ozone Generator

Flow LPM	Flow ml/min	Output µg/ml	Output [mg/hr]
0	0	0	0
1/32	31	0 - 161	0 - 299
1/16	62	0 - 131	0 - 487
1/8	125	0 - 93	0 - 698
1/4	250	0 - 57	0 - 855
1/2	500	0 - 33	0 - 990
3/4	750	0 - 23	0 - 1035
1	1000	0 - 17	0 - 1020

- OL80 Sample Output Test Report
- OL80 Ozone Output Graphs

Creating complex Tower Systems

Typical Ozone Output for double stage OL100 Ozone Generator

Flow LPM	Flow ml/min	Output µg/ml	Output [mg/hr]
0	0	0	0
1/32	31	0 - 183	0 - 340
1/16	62	0 - 174	0 - 647
1/8	125	0 - 144	0 - 1080
1/4	250	0 - 100	0 - 1500
1/2	500	0 - 63	0 - 1890
3/4	750	0 - 44	0 - 1980
1	1000	0 - 34	0 - 2040

- OL100 Sample Output Test Report
- OL100 Ozone Output Graphs

Creating complex Tower Systems

- Compare OL80 & OL100
- Compare OL80, OL100, and GE60 units produced between 1994 & 1999
- How we test our Instruments
- Note that we are able to provide Custom Ozone Output adjustments in the range of 10% 100% of the Typical Ozone Output. <u>Contact us</u> for details.
- Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.
- OzoneLab™ instruments are designed for low flow/high output applications and **are not suitable for flow rates above 1000ml/min** due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For applications dealing with higher pressures please <u>contact us</u> for more info and/or consultation)

Examples of External Ozone Production & Ozone Flow Control Devices



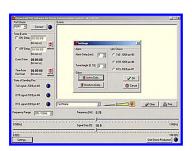
Foot Switch Control



OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLab™ Software



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OzoneLab™ OL80 Wall Mounted Line of Ozone Generators

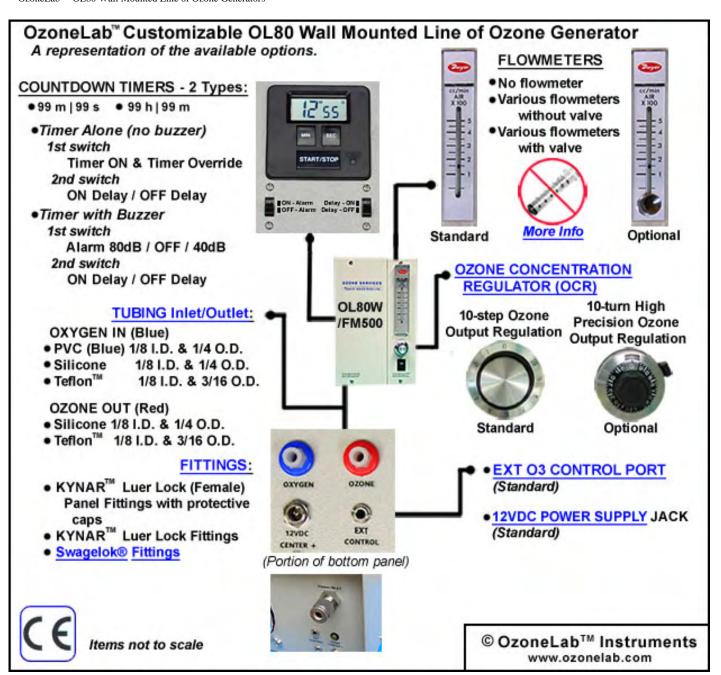


<u>Home</u> > <u>Products</u> > <u>Generators</u> > OL80 Wall Mounted Line

360* F.A.Q. Setup How to View Topic Example Order Search Us

The OzoneLab™ OL80W the main representative instrument model in our Wall Mounted Line of Ozone Generators, which are designed specifically for laboratory and medical research applications. OzoneLab™ ozone generators are designed to work in conjunction with Oxygen Flow Regulators providing an output of between zero and 1LPM.





Pricing and model comparison chart

S = Standard | O = Optional | N/A = Not Applicable

	OL80W No Flowmeter	OL80W/ FMxxx	OL80W/ FMxxxT
Generator, Analyzer or Combination	Generator Only	Generator Only	Generator Only
360 Degree View Available	360° View	360° View	N/A
Setup Example Available	Examples	Examples	N/A
Model Picture	The second of th		
OL80 Ozone Module (Single Stage)	S	S	S
OL100 Ozone Module (Double Stage)	N/A	N/A	N/A
Flowmeter - 500cc/min (Standard) or Customer Specified (No Valve)	O (+75U\$)	S	S
Flowmeter - 500cc/min (Standard) or Customer Specified (With Valve - 6-8 week delivery time)	O (+150U\$)	O (+75U\$)	O (+75U\$)
10-Step Ozone Output Regulation	S	S	S
10-Turn High Resolution Ozone Output Regulation	O (+110U\$)	O (+110U\$)	O (+110U\$)
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	N/A	N/A	N/A
External Ozone Output Regulation (EXT O3 Control Port)	S	S	S
Internal Ozone Destructor	N/A	N/A	N/A
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	N/A	N/A	N/A
Countdown Timer & Buzzer	O (+85U\$)	O (+85U\$)	S
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	N/A	N/A	N/A
Repeatability (% scale) Zero Drift (% scale)	N/A N/A	N/A N/A	N/A N/A
Response (to 95% - Flow Dependant)	N/A	N/A	N/A
Compensation Pressure & Temp	N/A	N/A	N/A
LED Ozone Concentration Display	N/A	N/A	N/A
Microprocessor OzoneLab™ Programmable Controller Module	N/A	N/A	N/A
Banana Clip Ground Connection	N/A	N/A	N/A
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 1.0 LPM	0.005 LPM 1.0 LPM	0.005 LPM 1.0 LPM
Adjustable 0-5VDC Analog Signal Output	N/A	N/A	N/A



Standard
50 - 500
cc/min
Without
valve standard
With valve
+\$75

OL80W/FM500 - No Valve OL80W/FM500V - Valve



Optional
10 - 100
cc/min
Without
valve standard
With valve
+\$75

OL80W/FM100 - No Valve OL80W/FM100V - Valve



Optional
30 - 230
cc/min
Without
valve standard
With valve
+\$75

OL80W/FM230 - No Valve OL80W/FM230V - Valve



Optional
100 1000 cc/
min
Without
valve standard
With valve

+\$75

OL80W/FM1000 - No Valve OL80W/FM1000V - Valve

Software for Data Logging (COM1)	N/A	N/A	N/A
Luer Lock Kynar® Ozone Resist Fittings	S	S	S
Swagelok® Fittings	O (+245U\$)	O (+245U\$)	O (+245U\$)
Wall Mounted Enclosure	S	S	S
Desktop Tower Enclosure with Handle/Stand - Stackable	N/A	N/A	N/A
Desktop Enclosure with 45° front panel	N/A	N/A	N/A
Folding Table for Desktop Enclosure with 45° front panel	N/A	N/A	N/A
Instrument Weight	1.5kg/3.0Lb	1.5kg/3.0Lb	1.5kg/3.0Lb
Power Requirements	12VDC 0.7 Amp	12VDC 0.7 Amp	12VDC 0.7 Amp
100-240AC/12DC/4Amp Universal Adapter	Included	Included	Included
Marking	Yes	Yes	Yes
Base Price [U\$]	\$1,895.00	\$1,970.00	\$2,055.00



Please Note: Clients attempting to fill syringes

from the **OL80W/Fxxx** with a built in flowmeter are risking that repeated and frequent pressurizing of the unit may result in the gradual development of an internal leak.

This is especially the case with clients who reuse plastic syringes; the plunger looses its lubrication and the rubber boot on the plunger becomes sticky causing the whole plunger to become stuck in the syringe barrel. Very high pressure is required to push the plunger out which causes the "O" rings in the flowmeter to "pop" which in turn causes a leak.

Those clients considering purchasing an OL80W might wish to consider ordering an alternative generator without a flowmeter such as our OL80F/S or OL80F/DST.

All prices are in US Dollars and do not include shipping and handling.

OzoneLab™ OL80W Technical Data:

Ozone
• 3 minutes to 90% of reference output is reached
• 6 minutes to 100% of reference output is reached

Stabilization Time: • after 10 minutes - 105% of reference output is reached

O2/O3 Ports: Kynar® (PVDF) Female Luer Lock

Gas Pressure: Standard Range 0-3 p.s.i.

Flow Range: Standard Range 31-1000ml/min || Extended range 5-1000ml/min

(MAX)

Humidity: below 90% R.H.

Temperature: Standard range 16-26C || Extended Range 10-30C

Cooling: Air cooled instrument - 3" fan

Enclosure: Aluminum construction with laboratory grade heat tempered

coating

Enclosure Size: 5.75 x 11 x 3.75" (W x H x D)

Weight: 4.5 lbs / 2 kg
Warranty: 12 months

Compliance: CE



OL80W Mounting Template

For applications exceeding outlined conditions of operation, please <u>contact us</u> for more information on custom produced instruments and accessories.

Ozone Output Information

OL80 Module (Single Stage)

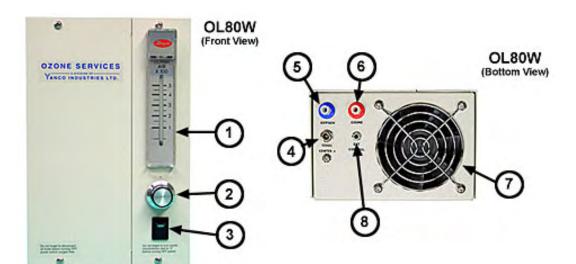
Typical Ozone Output for single stage OL80 Ozone (Generator
----------------------------------------------------	-----------

Flow LPM	Flow ml/min	Output µg/ml	Output [mg/hr]
0	0	0	0
1/32	31	0 - 161	0 - 299
1/16	62	0 - 131	0 - 487
1/8	125	0 - 93	0 - 698
1/4	250	0 - 57	0 - 855
1/2	500	0 - 33	0 - 990
3/4	750	0 - 23	0 - 1035
1	1000	0 - 17	0 - 1020

- OL80 Sample Output Test Report
- OL80 Ozone Output Graphs
- OL100 Typical Ozone Output Table
- Compare OL80 & OL100
- Compare OL80, OL100, and GE60 units produced between 1994 & 1999
- · How we test our Instruments
- Creating Complex Tower Systems
- Note that we are able to provide Custom Ozone Output adjustments in the range of 10% 100% of the Typical Ozone Output. Contact us for details.
- Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.
- OzoneLabT instruments are designed for low flow/high output applications and **are not suitable for flow rates above 1000ml/min** due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For

applications dealing with higher pressures - please contact us for more info and/or consultation)

OL80W Illustrations:



- 1. Flowmeter
- 2. 10-step Ozone Output Flow Regulation
- 3. Main Power Switch
- 4. <u>12VDC Power</u> Jack 2.1mm/ Center "+"
- Oxygen Inlet Luer Lock (Blue)
- Ozone Outlet Luer Lock (Red)
- 7. 3" Cooling Fan
- 8. EXT O3 Control Port



Base of OL80W showing Oxygen Input (Blue), Ozone Output (Red), 12VDC power connection and EXT O3

Control Port



All Luer Lock fittings on OzoneLab™ Ozone Generators and Analyzers are made of ozone resistant Kynar® and come standard with removable reusable protective caps. Specialized colour coded panel fittings are also available.

Most Frequently Ordered Models





http://www.ozoneservices.com/products/OLx/OL80/wall/index.htm (6 of 7) [12/7/2007 1:59:00 PM]

Ozone Generator Setup Examples

OzoneLab™ Mobility offers clients options for mobile situations.

- ABS Plastic Case.
- 240L Oxygen Tank & Flow Regulator
- Car 12VDC Adapter



A full selection of optional ozone accessories is available to clients through our Ozone & UV Accessory Area.

Available Stands



Acrylic Demo Stand

Examples of External Ozone Production & Ozone Flow Control Devices



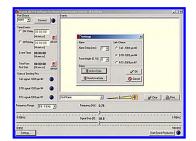
Foot Switch Control



OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLabT Software

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OzoneLab™ OL80 Desktop Line of Ozone Generators (45° panel series)



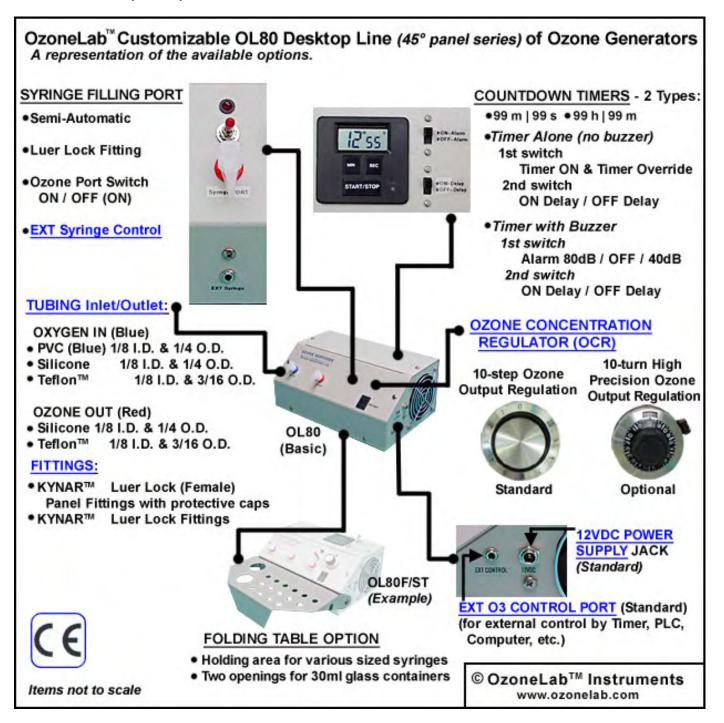
<u>Home</u> > <u>Products</u> > <u>Generators</u> > **OL80 Desktop Line (45° panel series)**



The OzoneLab™ OL80 Desktop Line (45° panel series) has been discontinued and replaced with our OzoneLab™ OL80 - 90° panel series. We feel that the OL80 90° panel series provides clients with more features and a versatile design.

The OzoneLab[™] OL80 Desktop Line (45° panel series) of Ozone Generators are designed specifically for laboratory and medical research applications. OzoneLab[™] ozone generators are designed to work in conjunction with Oxygen Flow Regulators providing an output of between zero and 1LPM.





Pricing and model comparison chart

S = Standard | O = Optional | N/A = Not Applicable

Availability	OL80 (Basic)	OL80B/T	OL80	OL80F/S	OL80F/ST
	45° panel	45° panel	45° panel	45° panel	45° panel
	Discontinued	Discontinued	Discontinued	Discontinued	Discontinued
Generator, Analyzer or Combination	Generator	Generator	Generator	Generator	Generator
	Only	Only	Only	Only	Only
360 Degree View Available	<u>360 View</u>	N/A	N/A	<u>360 View</u>	N/A
Setup Example Available	Examples	N/A	N/A	<u>Examples</u>	N/A

Model Picture		Table Manager	**************************************		
OL80 Ozone Module (Single Stage)	S	S	S	S	S
OL100 Ozone Module (Double Stage)	N/A	N/A	N/A	N/A	N/A
Flowmeter - 500cc/min (Standard) or Customer Specified	N/A	N/A	N/A	N/A	N/A
10-Step Ozone Output Regulation	N/A	N/A	S	S	S
10-Turn High Resolution Ozone Output Regulation	N/A	O (+110U\$)	O (+110U\$)	O (+110U\$)	O (+110U\$)
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	N/A	N/A	N/A	N/A	N/A
External Ozone Output Regulation (EXT O3 Control Port)	S	S	S	S	S
Internal Ozone Destructor	N/A	N/A	N/A	N/A	N/A
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	N/A	O (+425U\$)	O (+425U\$)	S	S
Countdown Timer & Buzzer	N/A	S	O (+85U\$)	O (+85U\$)	S
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	N/A	N/A	N/A	N/A	N/A
Repeatability (% scale) Zero Drift (% scale) Response (to 95% - Flow Dependant)	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A
Compensation Pressure & Temp	N/A	N/A	N/A	N/A	N/A
LED Ozone Concentration Display	N/A	N/A	N/A	N/A	N/A
Microprocessor OzoneLab™ Programmable Controller Module	N/A	N/A	N/A	N/A	N/A
Banana Clip Ground Connection	N/A	N/A	N/A	N/A	N/A
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 1.0 LPM	0.005 LPM 1.0 LPM	0.005 LPM 1.0 LPM	0.005 LPM 1.0 LPM	0.005 LPM 1.0 LPM
Adjustable 0-5VDC Analog Signal Output	N/A	N/A	N/A	N/A	N/A
Software for Data Logging (COM1)	N/A	N/A	N/A	N/A	N/A
Luer Lock Kynar® Ozone Resist Fittings	S	S	S	S	S
Swagelok [®] Fittings	N/A	N/A	N/A	N/A	N/A
Wall Mounted Enclosure	N/A	N/A	N/A	N/A	N/A
Desktop Enclosure with Handle/Stand - Stackable	N/A	N/A	N/A	N/A	N/A
Desktop Enclosure with 45° front panel	S	S	S	S	S
Folding Table for Desktop Enclosure with 45° front panel	O (+50U\$)	O (+50U\$)	O (+50U\$)	S	S
Desktop Enclosure with 90° front panel	N/A	N/A	N/A	N/A	N/A

Folding Table for Desktop Enclosure with 90° front panel	N/A	N/A	N/A	N/A	N/A
Instrument Weight	1.5kg/3.0Lb	1.5kg/3.0Lb	1.5kg/3.0Lb	1.5kg/3.0Lb	1.5kg/3.0Lb
Power Requirements	12VDC 0.7 Amp				
100-240AC/12DC/4Amp Universal Adapter	Included	Included	Included	Included	Included
Marking	Yes	Yes	Yes	Yes	Yes
Base Price [U\$]	Discontinued	Discontinued	Discontinued	Discontinued	Discontinued

All prices are in US Dollars and do not include shipping and handling.

OzoneLab™ OL80 (45° panel series) Technical Data:

Ozone Production
• 3 minutes to 90% of reference output is reached
• 6 minutes to 100% of reference output is reached

• after 10 minutes - 105% of reference output is reached

O2/O3 Ports: Kynar® (PVDF) Female Luer Lock

Gas Pressure: Standard Range 0-3 p.s.i.

Flow Range: Standard Range 31-1000ml/min || Extended range 5-1000ml/min (MAX)

Humidity: below 90% R.H.

Temperature: Standard range 16-26C || Extended Range 10-30C

Cooling: Air cooled instrument - 3" fan

Power: 12VDC/1500mA (100-240VAC/12VDC Power Adapter w/IEC320 receptacle is included)

Enclosure: Aluminum construction with laboratory grade heat tempered coating

Enclosure Size: 5.75 x 9.5 x 3.75" (WxHxD)

Weight: 1.5kg / 3Lb Warranty: 12 months

Compliance: CE

For applications exceeding outlined conditions of operation, please <u>contact us</u> for more information on custom produced instruments and accessories.

Ozone Output Information

OL80 Module (Single Stage)

Output for si	ngle stage OL8	0 Ozone Generator
Flow ml/min	Output µg/ml	Output [mg/hr]
0	0	0
31	0 - 161	0 - 299
62	0 - 131	0 - 487
125	0 - 93	0 - 698
250	0 - 57	0 - 855
500	0 - 33	0 - 990
750	0 - 23	0 - 1035
1000	0 - 17	0 - 1020
	Flow ml/min 0 31 62 125 250 500 750	ml/min μg/ml 0 0 31 0 - 161 62 0 - 131 125 0 - 93 250 0 - 57 500 0 - 33 750 0 - 23

- OL80 Sample Output Test Report
- OL80 Ozone Output Graphs
- OL100 Typical Ozone Output Table
- Compare OL80 & OL100
- Compare OL80, OL100, and GE60 units produced between 1994 & 1999
- How we test our Instruments
- Creating Complex Tower Systems
- Note that we are able to provide Custom Ozone Output adjustments in the range of 10% 100% of the Typical Ozone Output. Contact us for details.
- Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.
- OzoneLabT instruments are designed for low flow/high output applications and are not suitable for flow rates
 above 1000ml/min due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For
 applications dealing with higher pressures please contact us for more info and/or consultation)

Built-in External Control Ports

These pictures show the locations of the <u>EXT Syringe Control Port</u> and <u>EXT O3 Control Port</u>. Available options for these ports are available in our <u>Accessories area</u>.



EXT Syringe Port



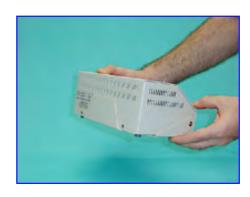
EXT O3 Control Port

Folding table

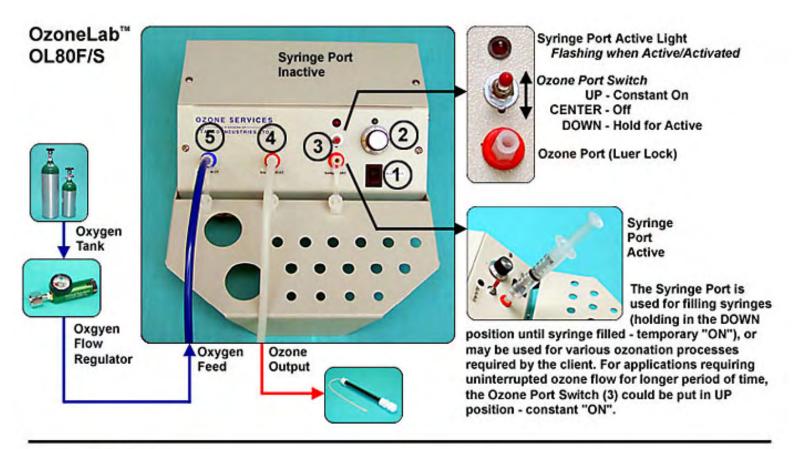
The folding table folds up under the generator for storage.







This diagram shows how to setup the OL80F/S - our most frequently ordered model.



Legend

- 1. Main Power Switch
- 2. 10 Step Ozone Output Regulator
- 3. Semi-Automatic Syringe Filling Port
- 4. Ozone Outlet Port
- 5. Oxygen Inlet Port

The OzoneLab™ OL80F/S ozone generator has both an Ozone Outlet Port (4) as well as a Semi-Automatic Syringe Filling Port (3). While the instrument is going through it's ozone production stabilization period (4-5 minutes), ozone should be channeled through the Ozone Outlet Port (4) into the Ozone Destructor for safe elimination.

The Ozone Outlet Port can also be used for applications which the client feels does not require the Syringe Filling Port.

The Syringe Port is used for filling syringes (holding in the DOWN position until syringe filled - temporary "ON"), or may be used for various ozonation processes required by the client. For applications requiring uninterrupted

ozone flow for longer period of time, the Ozone Port Switch (3) can be put in UP position - constant "ON".

Small LED associated with Ozone Concentration Regulator(2) indicates ozone production duty. More intensive light signifies higher ozone production setting, with the highest intensity being with #10 setting on the OCR dial.

Most Frequently Ordered Models











OL80 (Basic)

OL80B/T

OL80

OL80F/S

OLOUF/51

Ozone Generator Setup Examples

OzoneLab[™] Mobility offers clients options for mobile situations.

- ABS Plastic Case.
- 240L Oxygen Tank & Flow Regulator
- Car 12VDC Adapter



A full selection of optional ozone accessories is available to clients through our Ozone & UV Accessory Area.

Examples of External Ozone Production & Ozone Flow Control Devices







OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLabT Software

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For problems pertaining to our Web Site, please contact our WebMaster



OzoneLab™ OL80 Desktop Line of Ozone Generators (90° panel series)



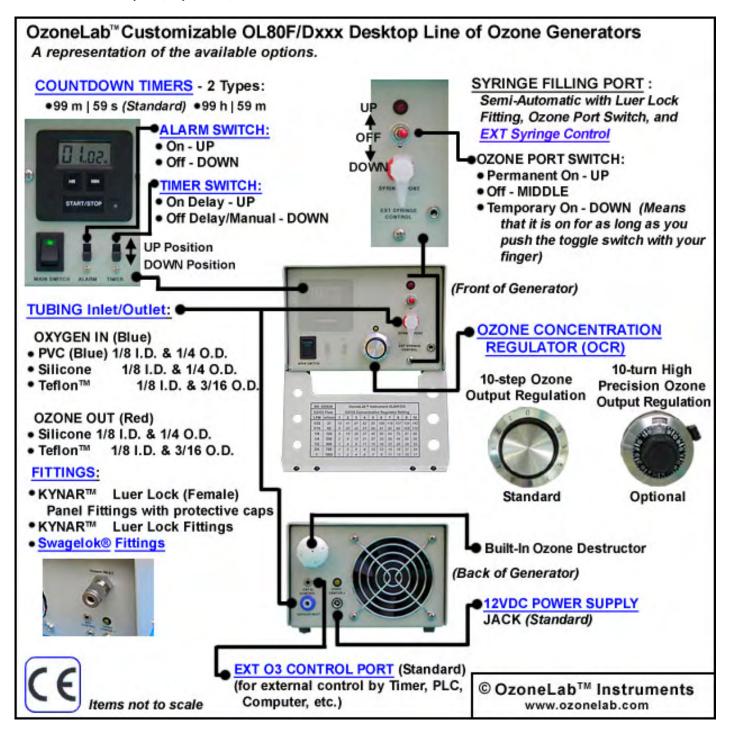
<u>Home</u> > <u>Products</u> > <u>Generators</u> > OL80 Desktop Line (90° panel series)



The OzoneLab™ OL80 Desktop Line (90° panel series) of Ozone Generators are designed specifically for laboratory and medical research applications. OzoneLab™ ozone generators are designed to work in conjunction with Oxygen Flow Regulators providing an output of between zero and 1LPM.

Aside for a newly designed ozone generator enclosure, this OL80 Desktop Line series has a built-in <u>ozone destructor</u> where our <u>OL80 Desktop Line</u> with 45 degree sloping front panel does not.





Pricing and model comparison chart

S = Standard | O = Optional | N/A = Not Applicable

	OL80F/Basic	OL80F	OL80F/DST	OL80F/DSTR	OL80F/DST-2S
	90° panel	90° panel	90° panel	90° panel	90° panel
Generator, Analyzer or Combination	Generator	Generator	Generator	Generator	Generator
	Only	Only	Only	Only	Only
360 Degree View Available	N/A	N/A	N/A	N/A	N/A
Setup Example Available	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>

Model Picture		0.			
OL80 Ozone Module (Single Stage)	S	S	S	S	S
OL100 Ozone Module (Double Stage)	N/A	N/A	N/A	N/A	N/A
Flowmeter - 500cc/min (Standard) or Customer Specified	N/A	N/A	N/A	N/A	N/A
10-Step Ozone Output Regulation	N/A	S	S	N/A	S
10-Turn High Resolution Ozone Output	N/A	0	0	S	0
Regulation	14/73	(+110U\$)	(+110U\$)		(+110U\$)
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	N/A	N/A	N/A	N/A	N/A
External Ozone Output Regulation (EXT O3 Control Port)	S	S	S	S	S
Internal Ozone Destructor	N/A	O (+60U\$)	S	S	S
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	N/A	O (+425U\$)	S	S	S
Countdown Timer & Buzzer	N/A	O (+85U\$)	S	S	S
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	N/A	N/A	N/A	N/A	N/A
Repeatability (% scale) Zero Drift (% scale) Response (to 95% - Flow Dependant)	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A
Compensation Pressure & Temp	N/A	N/A	N/A	N/A	N/A
LED Ozone Concentration Display	N/A	N/A	N/A	N/A	N/A
Microprocessor OzoneLab™ Programmable Controller Module	N/A	N/A	N/A	N/A	N/A
Banana Clip Ground Connection	N/A	N/A	N/A	N/A	N/A
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 1.0 LPM				
Adjustable 0-5VDC Analog Signal Output	N/A	N/A	N/A	N/A	N/A
Software for Data Logging (COM1)	N/A	N/A	N/A	N/A	N/A
Luer Lock Kynar® Ozone Resist Fittings	S	S	S	S	S
Swagelok® Fittings	O (+245U\$)	O (+245U\$)	N/A	N/A	N/A
Wall Mounted Enclosure	N/A	N/A	N/A	N/A	N/A
Desktop Enclosure with Handle/Stand - Stackable	N/A	N/A	N/A	N/A	N/A
Desktop Enclosure with 45° front panel	N/A	N/A	N/A	N/A	N/A
Folding Table for Desktop Enclosure with 45° front panel	N/A	N/A	N/A	N/A	N/A

Desktop Enclosure with 90° front panel	S	S	S	S	S
Folding Table for Desktop Enclosure with 90° front panel	S	S	S	S	S
Instrument Weight	1.5kg/3.5Lb	1.5kg/3.5Lb	1.5kg/3.5Lb	1.5kg/3.5Lb	1.5kg/3.5Lb
Power Requirements	12VDC 0.7 Amp				
100-240AC/12DC/4Amp Universal Adapter	Included	Included	Included	Included	Included
Marking	Yes	Yes	Yes	Yes	Yes
Base Price [U\$]	\$1,780.00	\$1,945.00	\$2,515.00	\$2,625.00	\$2,995.00

All prices are in US Dollars and do not include shipping and handling.

OzoneLab™ OL80 (90° panel series) Technical Data:

Ozone Production
• 3 minutes to 90% of reference output is reached
• 6 minutes to 100% of reference output is reached

• after 10 minutes - 105% of reference output is reached

O2/O3 Ports: Kynar® (PVDF) Female Luer Lock

Gas Pressure: Standard Range 0-3 p.s.i.

Flow Range: Standard Range 31-1000ml/min || Extended range 5-1000ml/min (MAX)

Humidity: below 90% R.H.

Temperature: Standard range 16-26C || Extended Range 10-30C

Cooling: Air cooled instrument - 3" fan

Power: 12VDC/1500mA (100-240VAC/12VDC Power Adapter w/IEC320 receptacle is

included)

Enclosure: Aluminum construction with laboratory grade heat tempered coating

Enclosure Size: 5.75 x 9.5 x 4.00" (WxHxD)

Weight: 1.5kg / 3.5Lb Warranty: 12 months

Compliance: CE

For applications exceeding outlined conditions of operation, please <u>contact us</u> for more information on custom produced instruments and accessories.

Ozone Output Information

OL80 Module (Single Stage)

ypical Ozone Output for single stage OL80 Ozone Generator						
Flow LPM	Flow ml/min	Output µg/ml	Output [mg/hr]			
0	0	0	0			
1/32	31	0 - 161	0 - 299			
1/16	62	0 - 131	0 - 487			
1/8	125	0 - 93	0 - 698			
1/4	250	0 - 57	0 - 855			
1/2	500	0 - 33	0 - 990			
3/4	750	0 - 23	0 - 1035			
1	1000	0 - 17	0 - 1020			
1	1000	0 - 17	0 - 1020			

- OL80 Sample Output Test Report
- OL80 Ozone Output Graphs
- OL100 Typical Ozone Output Table
- Compare OL80 & OL100
- Compare OL80, OL100, and GE60 units produced between 1994 & 1999
- How we test our Instruments
- Creating Complex Tower Systems
- Note that we are able to provide Custom Ozone Output adjustments in the range of 10% 100% of the Typical Ozone Output. Contact us for details.
- Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.
- OzoneLabT instruments are designed for low flow/high output applications and are not suitable for flow rates
 above 1000ml/min due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For
 applications dealing with higher pressures please contact us for more info and/or consultation)

Filling Syringes

Oxygen gas is supplied to a BLUE port. Syringes are filled using "Syringe Filling Port" (RED), which is activated by Syringe Port Switch.

When Syringe Filling Port is not active, the ozone gas is channeled directly to the Ozone Destructor.

When Syringe port is activated by the Syringe Port Switch or via EXT Syringe Signal Port, red LED light is flashing and ozone gas flow is redirected from the built-in Ozone Destructor to the Syringe Filling Port.



Built-in External Control Ports

These pictures show the locations of the <u>EXT Syringe Control Port</u> and <u>EXT O3 Control Port</u>. Available options for these ports are available in our <u>Accessories area</u>.



EXT Syringe Port



EXT O3 Control Port



TIMER & ALARM Control Information



Folding table

Most Frequently Ordered Models



OL80F/DS 90° panel



OL80F/DST 90° panel



OL80F/DST-2S 90° panel

Ozone Generator Setup Examples

OzoneLab™ Mobility offers clients options for mobile situations.

- ABS Plastic Case.
- 240L Oxygen Tank & Flow Regulator
- Car 12VDC Adapter



A full selection of optional ozone accessories is available to clients through our Ozone & UV Accessory Area.

Examples of External Ozone Production & Ozone Flow Control Devices



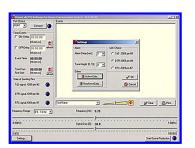




OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLabT Software

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OzoneLab™ OL80F/DST-2S Desktop Ozone Generator (90° panel series)





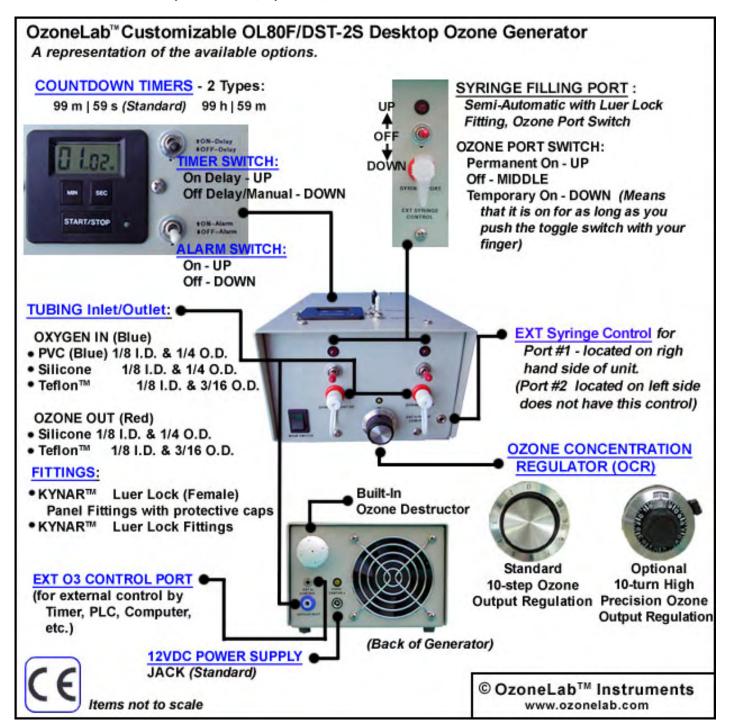
<u>Home</u> > <u>Products</u> > <u>Generators</u> > OL80F/DST-2S Desktop Ozone Generator (90° panel

series)

The most recent edition to our existing OzoneLab™ OL80 Desktop Line (90° panel series) of Ozone Generators is OL80F/DST-2S Ozone Generator. This model was introduced upon special request from clients in need of dual ozone outlet ports.

As all OzoneLab™ ozone generators, OL80F/DST-2S unit is designed to work in conjunction with Oxygen Flow Regulators and/or Flow Mass Controllers supplying oxygen output in flow range zero to 1LPM. ((0.005ml/min) - 1000ml/min), and has a built-in ozone destructor.





Pricing and model comparison chart

S = Standard | O = Optional | N/A = Not Applicable

	OL80F/DST-2S 90° panel
Generator, Analyzer or Combination	Generator Only
360 Degree View Available	N/A
Setup Example Available	Yes

Model Picture	100
OL80 Ozone Module (Single Stage)	S
OL100 Ozone Module (Double Stage)	N/A
Flowmeter - 500cc/min (Standard) or Customer Specified	N/A
10-Step Ozone Output Regulation	S
10-Turn High Resolution Ozone Output Regulation	O (+110U\$)
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	N/A
External Ozone Output Regulation (EXT O3 Control Port)	S
Internal Ozone Destructor	S
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	S
Countdown Timer & Buzzer	S
Ozone Analyzer Module Standard Range 0-200 μg/ml (0-15% by weight)	N/A
Repeatability (% scale) Zero Drift (% scale) Response (to 95% - Flow Dependant)	N/A N/A N/A
Compensation Pressure & Temp	N/A
LED Ozone Concentration Display	N/A
Microprocessor OzoneLab™ Programmable Controller Module	N/A
Banana Clip Ground Connection	N/A
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 1.0 LPM
Adjustable 0-5VDC Analog Signal Output	N/A
Software for Data Logging (COM1)	N/A
Luer Lock Kynar® Ozone Resist Fittings	S
<u>Swagelok[®] Fittings</u>	N/A
Wall Mounted Enclosure	N/A
Desktop Enclosure with Handle/Stand - Stackable	N/A
Desktop Enclosure with 45° front panel	N/A
Folding Table for Desktop Enclosure with 45° front panel	N/A
Desktop Enclosure with 90° front panel	S

Folding Table for Desktop Enclosure with 90° front panel	S
Instrument Weight	1.5kg/3.5Lb
Power Requirements	12VDC 0.7 Amp
100-240AC/12DC/4Amp Universal Adapter	Included
Marking	Yes
Base Price [U\$]	\$2,995.00

All prices are in US Dollars and do not include shipping and handling.

OzoneLab™ OL80 (90° panel series) Technical Data:

Ozone Production
• 3 minutes to 90% of reference output is reached
• 6 minutes to 100% of reference output is reached

• after 10 minutes - 105% of reference output is reached

O2/O3 Ports: Kynar® (PVDF) Female Luer Lock

Gas Pressure: Standard Range 0-3 p.s.i.

Flow Range: Standard Range 31-1000ml/min || Extended range 5-1000ml/min (MAX)

Humidity: below 90% R.H.

Temperature: Standard range 16-26C || Extended Range 10-30C

Cooling: Air cooled instrument - 3" fan

Power: 12VDC/1500mA (100-240VAC/12VDC Power Adapter w/IEC320 receptacle is

included)

Enclosure: Aluminum construction with laboratory grade heat tempered coating

Enclosure Size: 5.75 x 9.5 x 4.00" (WxHxD)

Weight: 1.5kg / 3.5Lb Warranty: 12 months

Compliance: CE

For applications exceeding outlined conditions of operation, please <u>contact us</u> for more information on custom produced instruments and accessories.

Ozone Output Information

OL80 Module (Single Stage)

ypical Ozone Output for single stage OL80 Ozone Generator				
Flow LPM	Flow ml/min	Output µg/ml	Output [mg/hr]	
0	0	0	0	
1/32	31	0 - 161	0 - 299	
1/16	62	0 - 131	0 - 487	
1/8	125	0 - 93	0 - 698	
1/4	250	0 - 57	0 - 855	
1/2	500	0 - 33	0 - 990	
3/4	750	0 - 23	0 - 1035	
1	1000	0 - 17	0 - 1020	

- OL80 Sample Output Test Report
- OL80 Ozone Output Graphs
- OL100 Typical Ozone Output Table
- Compare OL80 & OL100
- Compare OL80, OL100, and GE60 units produced between 1994 & 1999
- How we test our Instruments
- Creating Complex Tower Systems
- Note that we are able to provide Custom Ozone Output adjustments in the range of 10% 100% of the Typical Ozone Output. Contact us for details.
- Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.
- OzoneLab™ instruments are designed for low flow/high output applications and are not suitable for flow rates
 above 1000ml/min due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For
 applications dealing with higher pressures please contact us for more info and/or consultation)

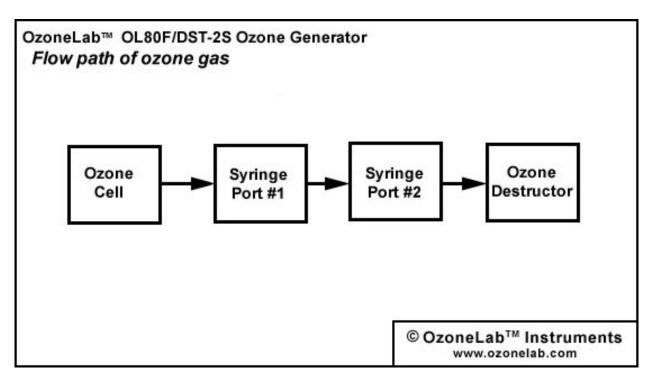
Gas Ports:

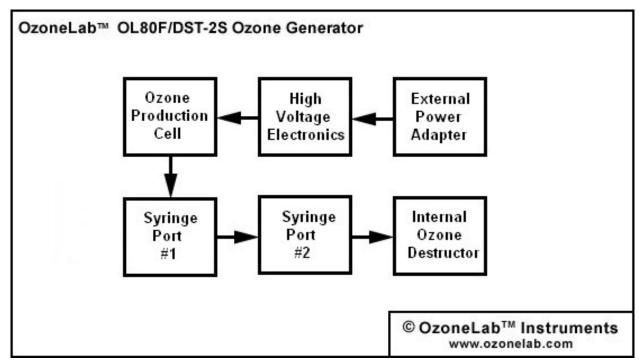
Oxygen INLET Port:

- Color code: Blue
- Oxygen gas is supplied to Oxygen Inlet Port located at the back side of the ozone generator.

Ozone OUTLET Ports:

- Color Code: Red
- Port #1 (right hand side)
 - Preferable choice for filling syringes (Syringe Filling Port)
 - o Can be activated by corresponding Syringe Filling Switch or via EXT Syringe Control
- Port #2 (left hand side)
 - Should be used for all secondary applications (water ozonation, etc.)
 - Can be activated only by corresponding Syringe Filling Switch
- When neither Syringe Filling Port (#1 or #2) is active, the ozone gas is channeled directly to the Ozone Destructor.





Built-in External Control Ports

These pictures show the locations of the <u>EXT Syringe Control Port</u> and <u>EXT O3 Control Port</u>. Available options for these ports are available in our <u>Accessories area</u>.



EXT Syringe Port



EXT O3 Control Port

Most Frequently Ordered Model



OL80F/DST-2S 90° panel

Ozone Generator Setup Examples

OzoneLab™ Mobility offers clients options for mobile situations.

- ABS Plastic Case.
- 240L Oxygen Tank & Flow Regulator
- Car 12VDC Adapter



A full selection of optional ozone accessories is available to clients through our Ozone & UV Accessory Area.

Examples of External Ozone Production & Ozone Flow Control Devices



Foot Switch Control



OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with **OLS OzoneLab™ Software**

© Ozone Services



OzoneLab™ OL80M Ozone Generator & Controller



Home > Products > OL80M Ozone Generator & Controller



The OzoneLab™ OL80M is our first programmable combination instrument, based on proven design platforms:

- OzoneLab™ OL80 ozone production module
- OzoneLab™ desktop "tower" enclosure

The OL80M is very mobile and easy to use instrument designed and produced specifically for laboratory and medical research applications, addressing three basic needs of clients active in the outlined fields:



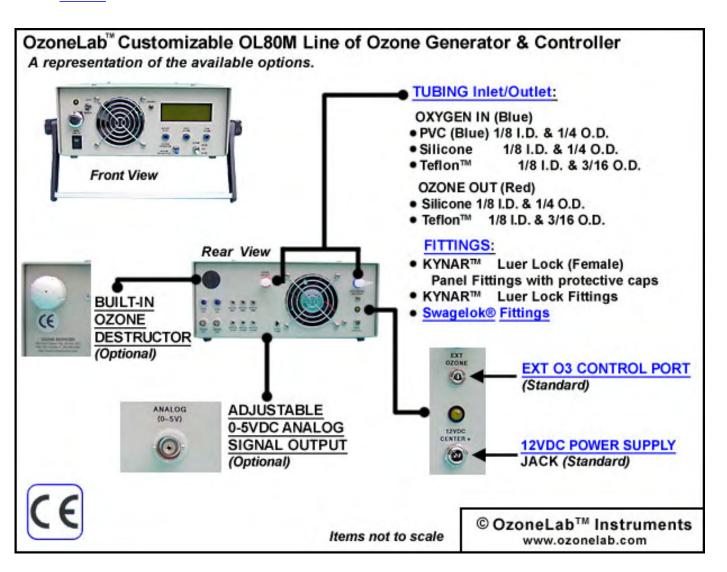
- Production of ultra-pure, concentrated ozone gas
- Monitoring & Controlling of the production of ozone gas via a dynamic response to detected conditions, according to pre-defined set of instructions (program).
- Monitoring & Controlling of peripheral functions via a dynamic response to detected conditions, according to pre-defined set of instructions (program).

OzoneLabTM Team developed a program for OL80M instruments to meet the most frequent requirements of our clients. Existing pre-wired and pre-programmed functions give to the OL80M combination unit an ability to easily interface with other peripherals, and to act as a command center not only for ozone production but also for numerous peripheral functions. However, unique application tasks may call for custom programming services, which are available directly from our company. We encourage all prospect clients considering the purchase of OL80M instrument(s), to review carefully all information presented and to consult our tech-team.

To meet the above outlined requirements, the OzoneLab™ OL80M Generator & Controller is equipped with:

- Standard OL80 ozone production module based on High Frequency Corona Discharge principle
- Microprocessor based programmable logic controller with:
 - Built-in controls and information screen:
 - 6x A/D (0-5VDC / 10 bit)
 - 5x Digital Input
 -and 4x 20 LCD (illuminated
 - External user accessible I/O's to interface OL80M instrument with various peripherals:
 - 1x A/D (0-5VDC / 10 bit)
 - 1x D/A (8 bit / 0-5VDC) or secondary A/D (0-5VDC / 10 bit)

- 3x Digital Input (NPN)
- 3x Digital Output (NPN)



Pricing and model comparison chart

S = Standard | O = Optional | N/A = Not Applicable

Printer Friendly Version	OL80M
Generator, Analyzer or Combination	Generator & Controller
360 Degree View Available	N/A
Setup Example Available	N/A
Model Picture	
OL80 Ozone Module (Single Stage)	S
OL100 Ozone Module (Double Stage)	N/A

Flowmeter - 500cc/min (Standard) or Customer Specified	N/A
10-Step Ozone Output Regulation	N/A
10-Turn High Resolution Ozone Output Regulation	S
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	N/A
External Ozone Output Regulation (EXT O3 Control Port)	S
Internal Ozone Destructor	O (+60U\$)
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	N/A
Countdown Timer & Buzzer	N/A
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	N/A
Repeatability (% scale) Zero Drift (% scale) Response (to 95% - Flow Dependant)	1% 1% 2sec.
Compensation Pressure & Temp	3bar/ 43psi 5-45°C
LED Ozone Concentration Display	N/A
Microprocessor OzoneLab™ Programmable Controller Module	S
Banana Clip Ground Connection	S
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 1.0 LPM
Adjustable 0-5VDC Analog Signal Output	O (+60U\$)
Luer Lock Kynar® Ozone Resist Fittings	S
Swagelok® Fittings	O (+245U\$)
Wall Mounted Enclosure	N/A
Desktop Tower Enclosure with Handle/Stand - <u>Stackable</u>	S
Desktop Enclosure with 45° front panel	N/A
Folding Table for Desktop Enclosure with 45° front panel	N/A
Instrument Weight	3.1kg/7.0Lb
Power Requirements	12VDC 0.7 Amp
100-240AC/12DC/4Amp Universal Adapter	Included

Marking	Yes
Base Price [U\$]	\$3,395.00 + <u>Programming</u>

All prices are in US Dollars and do not include shipping and handling.

OzoneLab™ OL80M Technical Data:

Ozone Production: OzoneLab™ OL80 ozone production module

Ozone Production Range: 0 – 150 [µg/ml] | 0 – 10% by weight

Oxygen/Ozone Flow: 0.03 - 1 [LPM] / 30 [ml/min] - 1000[ml/min]

Ozone Gas Fittings: Kynar™ (PVDF) Female Luer Lock

Wetted Materials: Ozone Cell: QUARTZ glass

Internal Tubing: Teflon™

Panel Fittings: Kynar™ (PVDF)

Ozone Destructor: Kynar™ (PVDF), Catalytic Agent, PVC housing & vent cap

Controller I/O's (total):

Digital Inputs: 8
Digital Outputs: 8

A/D/ & D/A: 8x A/D (or 6x A/D and 2x D/A)

Visual Data Output: LCD display (4lines x 20 characters)
Audio Output: Built-in buzzer (OFF/40dB/80dB)

Humidity Range: up to 90% R.H.

Temperature Range: Standard 16°C - 26°C || Extended 10°C - 31°C

Instrument Cooling: 2x 3" Fan in Push-Pull configuration

Feed Gas: Oxygen, 0.22micron filtration

Gas Pressure: Standard 0-3 p.s.i.

Overall Size w/handle 4.75x 12.00x 12.00" || 120x 305x 305mm (HxWxD) Enclosure Only 4.00x 10.00x 11.00" || 102x 254x 279mm (HxWxD)

Power: 12VDC/1000 - 2500 mA, Center Positive

OzoneLab™ Universal Input (100-240VAC, 50-60 Hz) Power Adapter with a

External Power Adapter: standard IEC320 modular AC receptacle. A North American standard 3 prong power

cord included.

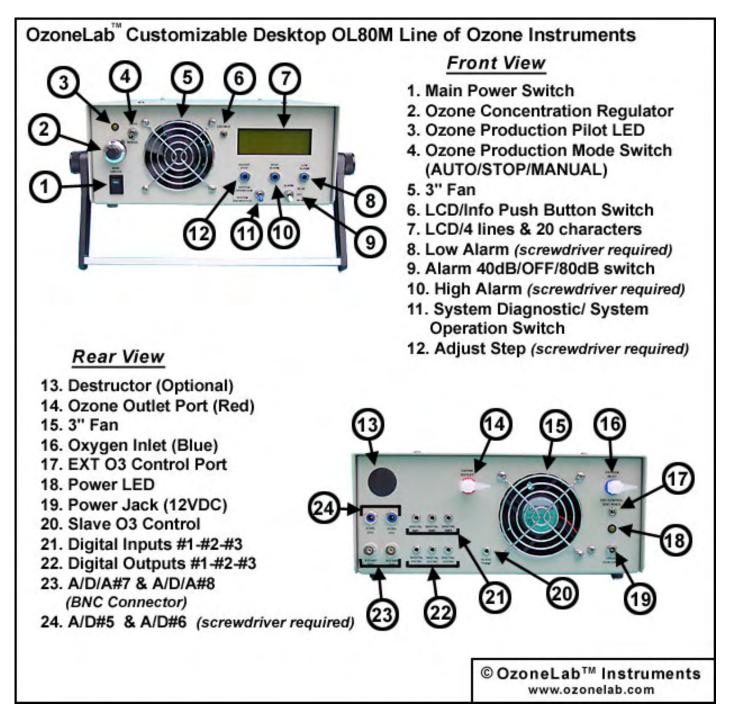
For applications exceeding outlined conditions of operation, please <u>contact us</u> for more information on custom produced instruments and accessories.

Ozone Output Information

OL80 Module (Single Stage)

ypical Ozone Output for single stage OL80 Ozone Generator				
Flow LPM	Flow ml/min	Output µg/ml	Output [mg/hr]	
0	0	0	0	
1/32	31	0 - 161	0 - 299	
1/16	62	0 - 131	0 - 487	
1/8	125	0 - 93	0 - 698	
1/4	250	0 - 57	0 - 855	
1/2	500	0 - 33	0 - 990	
3/4	750	0 - 23	0 - 1035	
1	1000	0 - 17	0 - 1020	

- OL80 Sample Output Test Report
- OL80 Ozone Output Graphs
- OL100 Typical Ozone Output Table
- Compare OL80 & OL100
- Compare OL80, OL100, and GE60 units produced between 1994 & 1999
- How we test our Instruments
- Creating Complex Tower Systems
- Note that we are able to provide Custom Ozone Output adjustments in the range of 10% 100% of the Typical Ozone Output. Contact us for details.
- Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.
- OzoneLab[™] instruments are designed for low flow/high output applications and are not suitable for flow rates
 above 1000ml/min due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For
 applications dealing with higher pressures please contact us for more info and/or consultation)



Built-In Catalytic Ozone Destructor / OPTIONAL

The Ozone Destructor housed inside the OL80M instrument is designed to safely handle the task of elimination of ozone gas up to a maximum flow rate 4000 [ml/min] or 1250 [mg/hr]. The process of ozone gas "destruction" is carried out using a special catalytic agent, which induces the conversion of ozone to oxygen.

Ozone Destructor built into OzoneLab™ OL80M instrument can be used as:

- an integral part of the OL80M unit when the **Red Green** tubing bridge is installed, channeling the ozone gas from the Ozone Production Module directly to the Ozone Destructor (Ozone Outlet Port Ozone Destructor Inlet Port).
- an independent component for ozone gas elimination when the tubing bridge is removed, and the gas intended for the destruction is fed into the Ozone Destructor Inlet Port (Green).

LCD Display:

The visual interpretation of pre-programmed processes is displayed on the LCD module, that offers 4 lines & 20 characters per line off the text. LCD Programmable Controller Module has also back panel illumination, with three levels of intensity (OFF-50%-100%) the operator can select from.

Software & Programming Services:

OzoneLab™ Controllers and combination units are supplied with standard resident program stored in EPROM. If special programming is required, programming services are provided directly by OzoneLab™ Technical Team. However, this service is considered as a custom order.

The integration of Programmable Controllers into existing OzoneLab™ family of products opens the door for a creation of OzoneLab™ Tower hardware sets, that are able to cope with more complex control and monitoring tasks and are able to provide dynamic response to changing conditions in real time.

Most Frequently Ordered Model



Ozone Generator and Analyzer Setup Examples

An example of an OzoneLab™ Tower by <u>stacking</u> an <u>OL100/T</u> <u>Ozone Generator</u> and an <u>OLA/</u> <u>DS Ozone Gas Analyzer</u>.



For more information on OzoneLab™ Towers, click on above image

A full selection of optional ozone accessories is available to clients through our Ozone & UV Accessory Area including an the OzoneLab™ Thermal Printer

Examples of External Ozone Production & Ozone Flow Control Devices







OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLab™ Software

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OzoneLab™ OL100 Desktop Line of Ozone Generators



Home > Products > Generators > OL100 Desktop Line







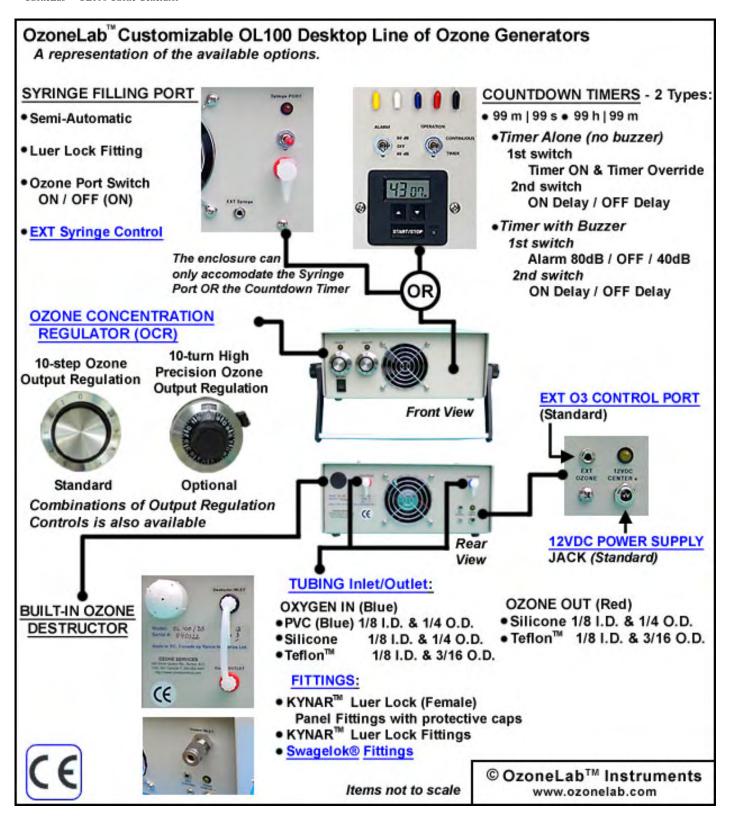


The OzoneLab™ OL100 Desktop Line of Ozone Generators has three main representative instrument models and are designed specifically for laboratory and medical research applications. OzoneLab™ Ozone Generators are designed to work in conjunction with Oxygen Flow Regulators providing an output of between zero and 1LPM.

The main characteristics of the OL100 line of generators are:

- Wide range of ozone output due to 2-stage ozone production modular design.
- Availability of wide range of customizable and custom-designed modifications.
- Possibility to create OzoneLab[™] Tower(s) by combining various types of OzoneLab[™] instruments





Pricing and model comparison chart

S = Standard | O = Optional | N/A = Not Applicable



Generator, Analyzer or Combination	Generator Only	Generator Only	Generator Only
360 Degree View Available	360° View	360° View	360° View
Setup Example Available	Examples	N/A	Examples
Model Picture			
OL80 Ozone Module (Single Stage)	N/A	N/A	N/A
OL100 Ozone Module (Double Stage)	S	S	S
Flowmeter - 500cc/min (Standard) or Customer Specified	N/A	N/A	N/A
10-Step Ozone Output Regulation	S	S	S
10-Turn High Resolution Ozone Output Regulation	O (+2x110U\$)	O (+2x110U \$)	O (+2x110U \$)
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	O (+110U\$)	O (+110U\$)	O (+110U\$)
External Ozone Output Regulation (EXT O3 Control Port)	S	S	S
Internal Ozone Destructor	O (+60U\$)	O (+60U\$)	S
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	O (+425U\$)	N/A	S
Countdown Timer & Buzzer	O (+85U\$)	S	N/A
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	N/A	N/A	N/A
Repeatability (% scale)	N/A	N/A	N/A
Zero Drift (% scale) Response (to 95% - Flow Dependant)	N/A N/A	N/A N/A	N/A N/A
Compensation Pressure & Temp	N/A	N/A	N/A
LED Ozone Concentration Display	N/A	N/A	N/A
Microprocessor based Programmable Controller with LCD	N/A	N/A	N/A
Banana Clip Ground Connection	N/A	N/A	N/A
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 1.0 LPM	0.005 LPM 1.0 LPM	0.005 LPM 1.0 LPM
Adjustable 0-5VDC Analog Signal Output	N/A	N/A	N/A
Software for Data Logging (COM1)	N/A	N/A	N/A
Luer Lock Kynar® Ozone Resist Fittings	S	S	S
Swagelok® Fittings	O (+245U\$)	O (+245U\$)	N/A

Wall Mounted Enclosure	N/A	N/A	N/A
Desktop Tower Enclosure with Handle/Stand - Stackable	S	S	S
Desktop Enclosure with 45° front panel	N/A	N/A	N/A
Folding Table for Desktop Enclosure with 45° front panel	N/A	N/A	N/A
Instrument Weight	3.5kg/8.0Lb	3.5kg/8.0Lb	3.5kg/8.0Lb
Power Requirements	12VDC 3.0 Amp	12VDC 3.0 Amp	12VDC 3.0 Amp
100-240AC/12DC/4Amp Universal Adapter	Included	Included	Included
Marking	Yes	Yes	Yes
Base Price [U\$]	\$3,695.00	\$3,780.00	\$4,180.00

All prices are in US Dollars and do not include shipping and handling.

OL100 Technical Data:

Ozone Production
• 3 minutes to 90% of reference output is reached
• 6 minutes to 100% of reference output is reached

• after 10 minutes - 105% of reference output is reached

O2/O3 Ports: Kynar® (PVDF) Female Luer Lock

Gas Pressure: Standard Range 0-3 p.s.i.

Flow Range: Standard Range 31-1000ml/min || Extended range 5-1000ml/min (MAX)

Humidity: below 90% R.H.

Temperature: Standard range 16-26C || Extended Range 10-30C

Cooling: Air cooled instrument, 2x 3" fan in "PUSH/PULL" configuration

Power: 12VDC/3000mA (100-240VAC/12VDC Power Adapter w/IEC320 receptacle is

included)

Enclosure: Aluminum construction with laboratory grade heat tempered coating

Enclosure Only: 10.00x 11.00x 4.00" || 102x 254x 279mm (WxDxH)

Size w/handle-stand

(folded):

12.00x 12.00x 4.75" || 120x 305x 305mm (WxDxH)

Weight: 3.5kg/8Lbs Warranty: 12 months

Compliance: CE

For applications exceeding outlined conditions of operation, please <u>contact us</u> for more information on custom produced instruments and accessories.

Ozone Output Information

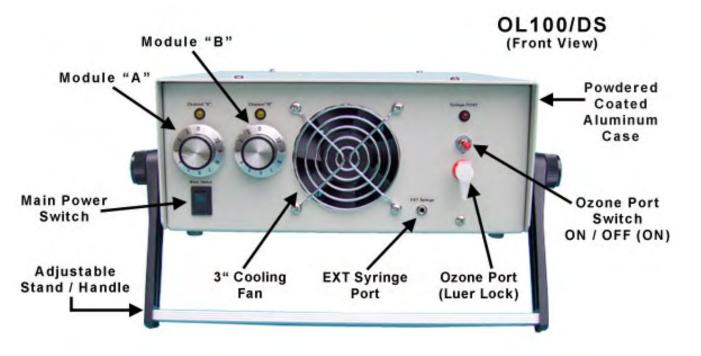
OL100 Module (Double Stage)

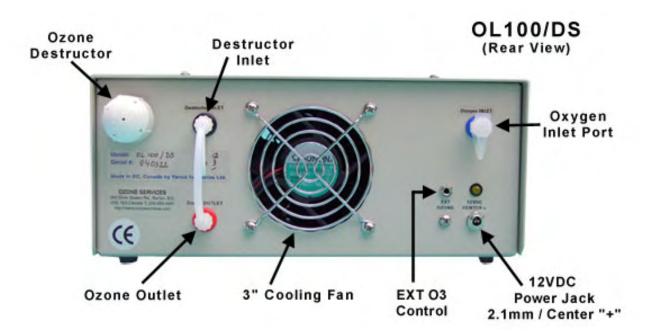
Typical Ozone Output for double stage OL100 Ozone Generator

Flow LPM	Flow ml/min	Output µg/ml	Output [mg/hr]
0	0	0	0
1/32	31	0 - 183	0 - 340
1/16	62	0 - 174	0 - 647
1/8	125	0 - 144	0 - 1080
1/4	250	0 - 100	0 - 1500
1/2	500	0 - 63	0 - 1890
3/4	750	0 - 44	0 - 1980
1	1000	0 - 34	0 - 2040

- OL100 Sample Output Test Report
- OL100 Ozone Output Graphs
- OL80 Typical Ozone Output Table
- Compare OL80 & OL100
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- · How we test our Instruments
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- Note that we are able to provide Custom Ozone Output adjustments in the range of 10% 100% of the Typical Ozone Output. <u>Contact us</u> for details.
- Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.
- OzoneLab[™] instruments are designed for low flow/high output applications and are not suitable for flow rates
 above 1000ml/min due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For
 applications dealing with higher pressures please contact us for more info and/or consultation)

The below illustrated example is a standard OL100 which has been equipped with a built-in Ozone Destructor and Syringe Filling Port (OL100/DS)





Syringe Port Information

The below pictures provide a visualization of how syringes are filled using the Syringe Port. You may also view a <u>RealPlayerT video</u> (343 KB) showing a syringe being filled. This port can be also used for filling other vessels such as gas sampling bags.



To fill a syringe, move it to the syringe port



Insert syringe into port



Press toggle switch



Continue holding down toggle switch while filling. When the syringe is full, the release of the downpressure on the toggle switch turns the syringe port OFF





Most Frequently Ordered Models



OL100/Basic



OL100/DS



Ozone Generator Setup Examples

An example of an OzoneLab™ Tower by combining an OL100/T Ozone Generator and an OLA/DS Ozone Gas Analyzer.



For more information on OzoneLab™ Towers, click on above image

A full selection of optional ozone accessories is available to clients through our Ozone & UV
Accessory Area.

Examples of External Ozone Production & Ozone Flow Control Devices



Foot Switch Control



OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLab™ Software

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OzoneLab™ Oxygen Products



<u>Home</u> > <u>Products</u> > Oxygen Products



Example





Search

Pricing



Oxygen Products

All of the Oxygen Equipment we carry can be used with any Ozone Generator which requires an Oxygen Feed

Oxygen Tanks	M9 Tank (240L Capacity)	
	CGA540 Regulator Information for International Clients	
Oxygen Regulators	CGA870 Regulator	Oxygen Flow Regulator with GGA879 Fitting
	Oxygen Flow Regulator with BS No. 3 Fitting	
Tubing, Connections & Clamps	1/8ID - 1/4OD and 1/8ID & 3/16OD Tubing For use with OzoneLab OL80 and OL100 systems	
	3/16ID - 5/16OD Tubing Replacement components(s) for older systems (GE line manufactured until October 2002).	
	Glass Fittings	FYK
	Oxygen Manifolds	THIRITING
Filters	0.22μm Filters	
Check Valves	Ozone & Oxygen Check Valves	Organs Check Valve Lurr Lock Fermite 4-37 Mais 4-200*
,		

<u>Transfer Adapters</u>	CGA540 to CGA540	
	CGA540 Splitter	
	CGA870 to CGA540/Female	
	CGA870 to CGA870	
	CGA870 to CGA540	OFA
	BS No. 3 Straight Adapter for an Oxygen Flow Regulator	
	BS No. 3 Straight to CGA540 Transfer Adapter	A
Replacement Components	Seal for CGA870 regulators	•
	Handle for CGA870 tanks	

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OzoneLab™ Oxygen Tanks



<u>Home</u> > <u>Products</u> > <u>Oxygen</u> > Oxygen Tanks







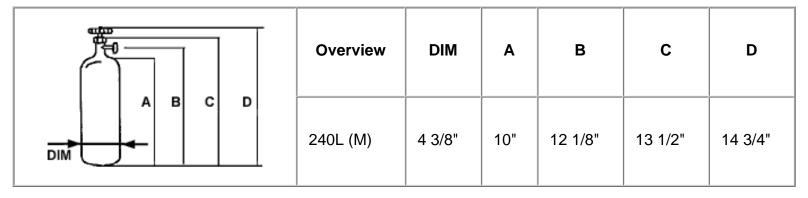
Us

Associated Product: Oxygen Flow Regulators

"M9" Tank:

- Aluminum tank
- Dim. 4-3/8" / H. 15"
- Weight 2.5kg / 5.5Lb.
- 240L capacity
- CGA540 fitting (ind. standard)





Aluminum Tanks have an INTERNAL coating to prevent direct contact between the oxygen and aluminum. This effectively prevents the contamination of the oxygen. The tank has external coating as well to prevent the direct contact between Aluminum and the skin.

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OzoneLab™ Ozone & UV System Peripherals



<u>Home</u> > <u>Products</u> > Ozone & UV System Peripherals







Pricing



Oxygen Tanks	M9 Tank (240L Capacity)	
Oxygen Regulators	CGA540 Regulator Information for International Clients	
	CGA870 Regulator	Cryst Five Register
	Oxygen Flow Regulator with BS No. 3 Fitting	
Tubing, Connections & Clamps	1/8ID - 1/4OD and 1/8ID - 3/16OD For use with OzoneLab OL80 and OL100 systems 3/16ID - 5/16OD Replacement components(s) for older systems (GE line	
	manufactured until October 2002).	
Check Valves	Oxygen & Ozone Check Valves	+
	Containers with Stopcock High Efficiency Diffusion Columns / Containers with Stopcocks - 1000 & 1500ml	
	OEM Diffusers	TY STO Brought Orner "Ly Size Cover" Orner

Fluid Ozonation / Diffusers	Custom Diffusers	
	Diffusers with Cooling Jackets	250
	Flow-through Ozone Diffusers	The state of the s
	30ml & 60ml Glass Containers	
	Glass Containers (Assorted Sizes)	
	Ozone Destructor	
Cupping	Glass Cups	
Сарринд	Ozone Destructor	
In-line Mixers Ozone & Water	Simple "Y" In-line Mixer	
	High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser	
	Ozone Check Valve	- -
Oxygen/Ozone Manifolds		THIRD THE
Syringe Components	MANUAL Syringe Filling Adapter (Luer Lock Adapters)	
	Semi-automatic Syringe Filling Adapter	The state of the s
	Precision Flow Delivery Pumps	
Filters	0.22μm Filters	
Ozone Destructors	Ozone Destructor	
	12VDC Power Adapter for OzoneLab™ 12VDC Systems	*

	Extension Cord for Car 12VDC Plug Adapter	9)
Power Supply	Car 12VDC Plug Adapter for OzoneLab™ 12VDC Systems	
	Hand Switch Power Controller	
	Extension Cord for 12VDC Battery (with Battery Post Clamps)	Q
	External 220VAC to 120VAC Power Converter	
	External Ozone Concentration Regulator (OCR)	
	OLW - Wireless Control	
External Signal Port Accessories	Footswitch Control	
	3.5mm Stereo Plug to 3.5mm Stereo Jack (Male - Female)	
	3.5mm Stereo Plug to 3.5mm Stereo Plug (Male - Male)	Res alternation
	3.5mm Stereo Plug to Red/White 3.5mm Stereo Jack (Y)	Mana Information
	3.5mm Stereo Plug to Red/White 3.5mm Stereo Plug (Y)	Marc Information
	3.5mm Stereo Plug with Strain Relief	
	3.5mm Stereo Jack - Panel Mount	
UV & Ozone Generator Cases & Stands	OL80 Desktop Line - ABS Plastic Case	
	OL80 Wall Mounted Line - ABS Plastic Case	
	OL80 Wall Mounted Line - Acrylic Demo Stand	
	UV4-8-12W ABS Plastic Case	

Programmable Controller Module Peripherals	OzoneLab™ Thermal Printer	
Ozone Monitors		The market
Ozone Analyzers		
Custom Accessories	Please Contact Us	

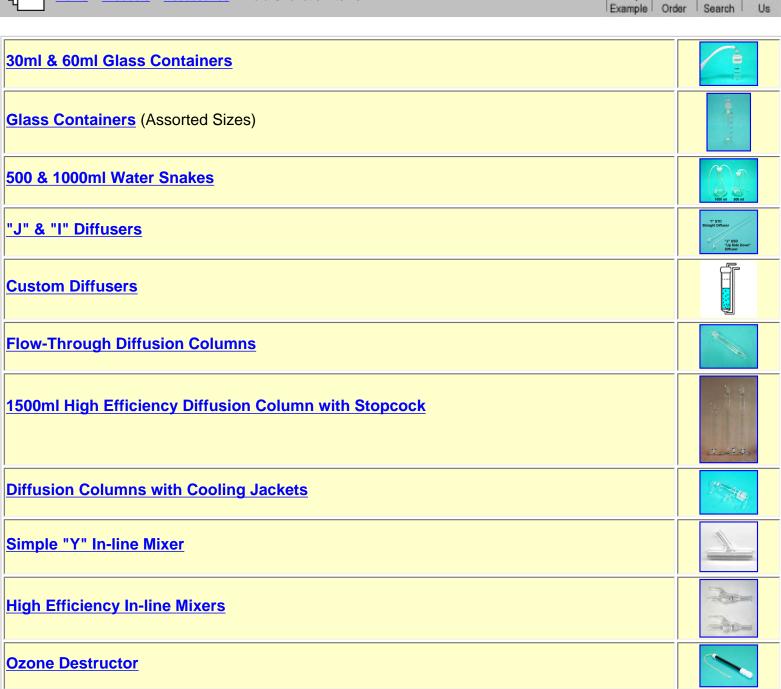
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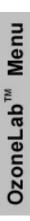
OzoneLab™ Fluid Ozonation Items



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > Fluid Ozonation Items



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OzoneLab™ Ozonation Containers



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Fluid Ozonation Items</u> > Ozonation Containers









Ozonation Containers are available in the following sizes:

- 30ml / Dim. 1-1/4"
- 60ml / Dim. 1-1/4"
- 125ml / Dim. 2-1/8"
- 250ml / Dim. 2-1/8"





30 and 60ml Container (available in both marked and unmarked / blank versions)



125 and 250ml Container (available in both marked and unmarked / blank versions)

30ml Container (and Acrylic Stand - 2 chambers)







30ml Containers (and Acrylic Stand - 3 chambers)





Acrylic desktop stands are available in the following sizes:

- 1-chamber for 1 x 30ml container (Size 4 x 3.25 x 4.25" / WxHxD)
- 2-chamber for 2 x 30ml containers (Size 8 x 3.25 x 4.25" / WxHxD)
- 3-chamber for 3 x 30ml containers (Size 8 x 3.25 x 4.25" / WxHxD)

30ml Container with 7mm OD ports (Custom order - used as a condenser - shown with "U" clips for acrylic wall or stand mounting)







60ml Container (Fits into acrylic stand shown in 30ml picture above)



- A. Marking 15-30-45-60ml
- B. 6mm OD ports
- C. 1/8"OD ports

Marked bodies can be combined with 6mm or 1/8" ports



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OzoneLab™ 30ml Trap



 $\underline{\mathsf{Home}} > \underline{\mathsf{Products}} > \underline{\mathsf{Accessories}} > \underline{\mathsf{Fluid Ozonation Items}} > 30\mathsf{ml Trap}$









Search

30ml Trap

The 30ml Trap allows clients considering ozonating fluids the ability to prevent back flow into the Ozone Generator.



30ml Trap & Ozonation Container

This demonstrates a 30ml liquid ozonation container and the 30ml Trap in an acrylic stand.



Customized traps are available upon request in 60, 125, and 250ml sizes. Please contact us for more information.

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OzoneLab™ Glassware



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > Glassware



Example







Search Us

Glassblowing Services:

We provide repairs, custom design & manufacturing of special glassware and glass components. Please contact us for details.



Fluid Ozonation	1500ml High Efficiency Diffusion Column with Stopcock	
	"J" & "I" Diffusers	Straight Diffuser "J" USD "J" US Did Down" Diffuser
	Diffusion Columns with Cooling Jackets	174
	Flow-Through Diffusion Columns	
	500ml & 1000ml Water Snakes	1000 ml 500 ml
	30ml & 60ml Glass Containers	
	Glass Containers (Assorted Sizes - 80ml - 250ml)	
Glass Cups	Glass Cups for Ozone Cupping	

Glass Fittings	Assorted Glass Fittings Can be custom made through out glassblowing department	FXX
	Oxygen & Ozone Manifolds	OM-12/2 x 1/8"-O
	Simple "Y" In-line Mixer	
In-line mixers	High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser	

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OzoneLab™ Syringe Components



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > Syringe Components



MANUAL Syringe Filling Adapter (Luer Lock Adapters)



Semi-automatic Syringe Filling Adapter



Precision Flow Delivery Pumps

© Ozone Services





OzoneLab™ Syringe Filling Adapters



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Syringe Components</u> > Syringe Filling Adapters



Products listed are used for special applications provided by trained professionals only!

- Syringe Filling Adapter Manual (Luer Lock 3-way valve)
- Syringe Filling Adapter Semi-automatic
- 0.22µm filters with Luer Lock fittings

Glass Syringes:

Ozone Services no longer carries glass syringes.

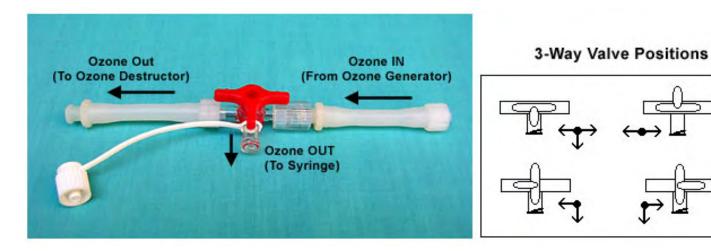


Syringe Filling Adapter / Manual (Luer Lock" 3-way valve) :

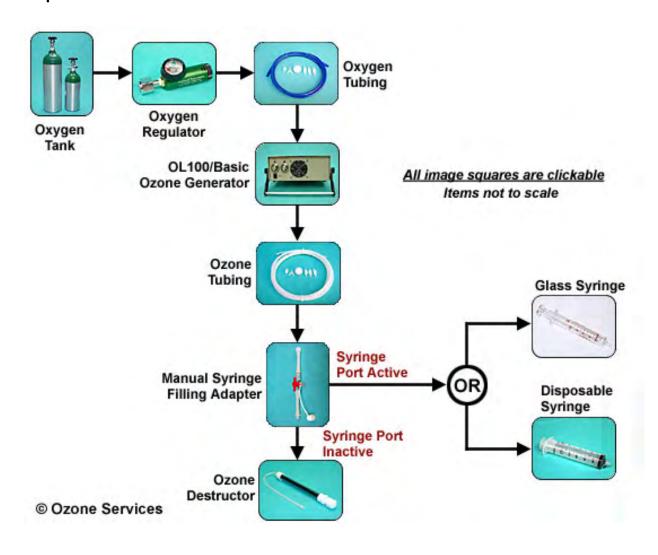
Luer Lock adapter is an assembly of:

Miniature ozone resistant (PVDF) 3 way valve with

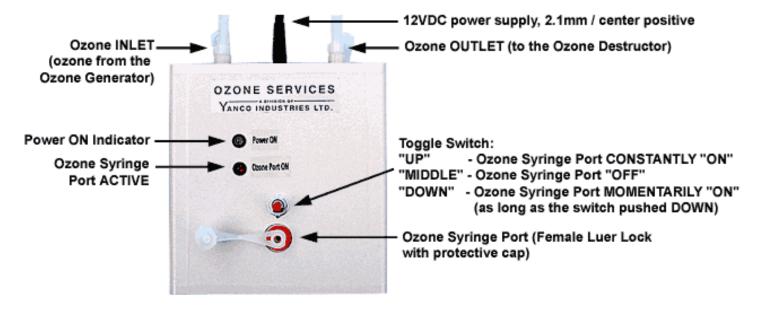
- a. Ozone IN port (Luer Lock fitting)
- b. 1st Ozone OUT port (Luer Lock fitting)
- c. 2nd Ozone OUT port (Luer Lock fitting)



Example Setup



Syringe Filling Adapter (Semi-automatic)















To fill a syringe - place syringe onto 'Ozone Syringe Port', then depress the toggle switch to the down position, holding down until the syringe is filled to desired level.







The above pictures show a <u>0.22µm filters with Luer Lock fittings</u> being used.

Product Technical Specifications:

Power Supply: 12VDC power supply, 2.1mm / center positive

International Universal 100-240VAC/12VDC adapter

included with each unit.

Size: 5x 5x 2" // 125x 125x 50mm // (WxLxH)

Weight: 0.5Lbs.

Materials in direct contact with Ozone Gas:

External components:

Tubing: Silicone

Fittings: Kynar (PVDF)

Internal Components:

Tubing: Teflon

Valve: Teflon

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OzoneLab™ Catalytic Ozone Destructor



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > Catalytic Ozone Destructor



The OzoneLab™ Ozone Destructor is the last connection used in many applications. When ozone is passed through the destructor, it neutralizes the ozone into oxygen.

- 12" Long / DIM 1/2" cartridge
- Granulated filling / Ozone is eliminated by catalytic reaction.
- "OZONE-IN" 1/8" barbed fitting



Important note:

Ozone Destructor granulated filling is NOT BASED ON CARBON!!! Never replace with charcoal!!!

Operation Limits for "Standard" OzoneLab™ Ozone Destructors:

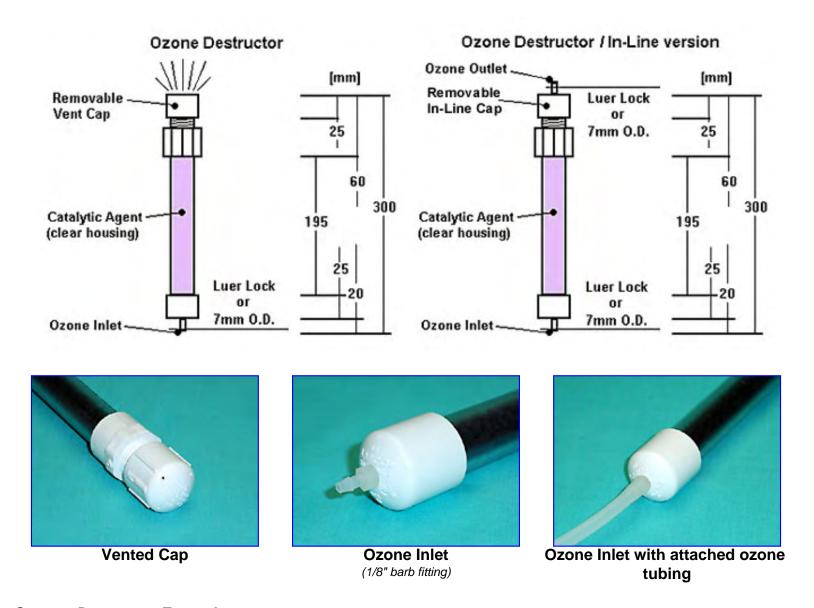
Maximum Flow Rate: 2LPM

Maximum Ozone Destruction Capacity: 3000mg/hr

Maximum Ozone Concentration: 200mg/l (14% by weight O3 in O2)

Temperature: 10-40 C
Pressure: 0-30 psi
Humidity: 0-75% RH

Ozone Services is able to provide custom made ozone destructors - please contact us for more information.



Custom Destructor Example

The below pictures illustrate how clients can double the capacity of our standard Ozone Destructor. Please contact us for more details.







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For problems pertaining to our Web Site, please contact our WebMaster



OzoneLab™ Power Supply Items

Hand Switch Power Controller



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > Power Supply Items

12VDC Power Adapter for OzoneLab™ 12VDC Systems



Car 12VDC Plug Adapter for OzoneLab™ 12VDC Systems



Extension Cord for 12VDC Battery (with Battery Post Clamps)



External 220VAC to 120VAC Power Converter

Extension Cord for Car 12VDC Plug Adapter



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OzoneLab™ 12VDC Power Adapter



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Power Supply Items</u> > 12VDC Power Adapter









Ozone Services uses an International Universal power adapter which works with any input voltage in the range of 100-240VAC/47-63Hz with all of its 12VDC systems. Clients may specify which plug they require.

Why do we use 12VDC power systems?







12VDC Power Adapter with EMI ferrite core

Power Supply Technical Specifications:



Model: IUSPS/4000mA (International Universal Switching Power

Supply)

Input Voltage: 100-240VAC Input Current: 1100mA Input Frequency: 47-63Hz

Input Connector: IEC - 3 prong (grounded) (6FT/180cm long AC power

cord included)

Output Voltage: stabilized 12VDC

Output Current: 0-4000mA

Output Frequency: N/A

Output Connector: 6Ft long (180cm) cord with 2.1mm jack / Center positive

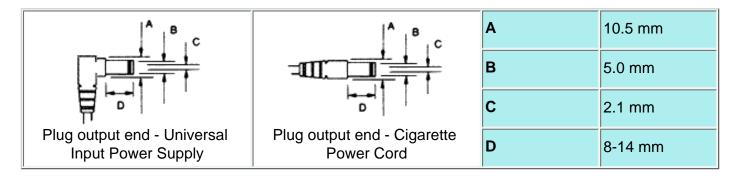
Approvals: UL-US, UL-C, CE, TUV, GS

Dimensions: 5"x 2.25"x 1.5" // 125x 60x 35mm // L x W x H
Weight: 1Lbs / 0.45kg (adapter + AC power cord)



In recent years, electronic equipment has made phenomenal advances with regard to performance. Although much more sophisticated than before, electronic equipment has also become more susceptible to EMI (electromagnetic interference) problems, and therefore, growing attention is being directed to noise interference caused by external equipment and by various components inside the same equipment. As a result, we have added an EMI ferrite core to our power adapters.

Output Plug - 12VDC Systems



International - Adapter Input Plugs



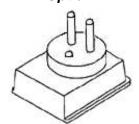
U.S.A., Canada, Japan *Option 1*





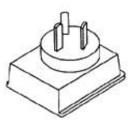
Germany, Central Europe

Option 2





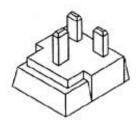
Australia
Option 3





U.K., Malaysia, Etc.

Option 4



Clients should select which plug option meets the requirements of their country voltage.

Country	Voltage	Option	Country	Voltage	Option	Country	Voltage	Option

					_			_
Algeria	110/220	1, 2, 4	Guatemala	110	1	Norway	220	2
Argentina	220	3	Guinea	240	3	Panama	110	1
Australia	220	3	Holland	220	2	Philippines	110/220	1, 2
Austria	240	3	Honduras	110/220	1	Poland	220	2
Bangladesh	220	2	Hong Kong	220	4	Portugal	220	2
Belgium	220	1	Hungary	220	2	Romania	220	2
Bolivia	115/230	1, 2	Iceland	220	2, 3	Saudi Arabia	110/220	2
Brazil	127/220	2	India	230	2	Singapore	220	4
Bulgaria	220	2	Indonesia	110/220	2	South Africa	220	2
Burma	220	2	Iraq	220	2, 3	Spain	220	2
Canada	120	1	Ireland	220	2	Sweden	220	2
Chile	220	2	Iran	220	2	Switzerland	220	2
China	220	1, 2, 3	Italy	127/220	2	Taiwan	110/220	1
Columbia	110	1	Japan	100	1	Thailand	220	1
Costa Rica	110/220	1, 4	Korea	110/220	1	Turkey	110/220	2
Denmark	230	2	Kuwait	240	2, 4	United Kingdom	240	2, 4
Dominican	110/220	1	Laos	110/220	2, 4	Uruguay	220	2, 4
Egypt	110/220	2, 4	Luxembourg	220	2	U.S.A.	120	1
Finland	230	2	Malaysia	220	2, 4	U.S.S.R.	110/220	1, 2
France	230	2	Mexico	127/220	1	Venezuela	110	1, 2
Germany	230	2	Netherlands	220	2	Yugoslavia	220	2
Greece	127/220	2	New Zealand	230	3	J		
		_						



12VDC Cigarette Plug

Ozone Services provides a 12VDC Cigarette Plug with all new Ozone or UV systems. This allows clients to use their system in automobiles, recreational vehicles (R.V.'s), Trucks and Boats.

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OzoneLab™ Power Supply Assorted Accessories



<u>Home</u> > <u>Products</u> > > <u>Accessories</u> > <u>Power Supply Items</u> > Assorted Accessories







Search



Extension cord for car 12VDC plug adapter



Car 12VDC plug adapter for OzoneLab™ 12VDC systems



Extension cord for 12VDC battery (with battery post clamps)



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OzoneLab™ Hand Switch



<u>Home</u> > <u>Products</u> > > <u>Accessories</u> > <u>Power Supply Items</u> > Hand Switch

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The Hand Switch is recommended for steam sauna's as a safety device, providing the client (from within the sauna) control of heat & ozone production in case of emergency.

It is also ideal for virtually any application (limited by 12Amp/110-120VAC) that would benefit from remote switching without exposing the switch or extended wires/cables to danger of being damaged OR risking electrical shock in unfavorable environments.

Product Notes:

- For indoor use only
- Main unit size is 3.5 x 2 x 2.5 (H x W x D) + air inlet & power cord not included in measurements
- Air balloon size is 2 x 5" (DIMxL)
- Tubing size is 1/8"ID & 1/4"OD and 12FT length (tubing lengths up to 50FT available upon request)
- Maximum load is 12Amp/120VAC (1400W)
- UL listed

How it works:

- 1. The Tubing of the air balloon assembly must be attached to the switch port on the bottom side of the main unit.
- 2. The unit is plugged into a standard North American power outlet (110-120VAC)
- 3. The appliance to be controlled ON/OFF is plugged into the main unit 110-120VAC power outlet.
- 4. The action of alternated switching ON/OFF the appliance is achieved by squeezing the air balloon (ozone resistant).





Pictures do not illustrate the 12 foot included tubing (shortened for picture purposes)





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OzoneLab™ External Power Converter



Home > Products > > Accessories > Power Supply Items > External Power Converter







- Suitable for clients who will travel with their ozonation system randomly to countries with 120 and 220VAC service
- transformer can be also used for fax and answering machines, shavers, curling irons, tape recorders, radios, camcorder battery recharges, computers, etc.
- Fuse protected. Fuse compartment is located at the back of the power converter enclosure.



Technical data:

3-pin grounded high impact plastic enclosure

Input: 220/240VAC

110/120VAC - 85W Output:

Protection: replaceable fuse (0.8Amp)

Indication: "Ready" LED Light

Size: 4.5" x 3" x 3" (L x W x H)

Weight: 1.25kg/ 2.75Lbs

Recommendations:

- Always connect power converter only to properly grounded power outlet.
- Do not overload power converter. The wattage of the appliance connected to power converter must not exceed the wattage capacity of the transformer.
- If the converter is going to be used in continuous duty it should be only used to 80% of its capacity - 80% from 85W (68W)
- Power converter is equipped with safety fuse in the event of a power surge from the power supply. The fuse can be easily replaced if burned out. However, the fuse will not prevent damage to appliance connected to the power converter.



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OzoneLab™ External Signal Port Accessories

External Ozone Concentration Regulator (OCR)



OLW - Wireless Control

Foot Switch Control

<u>Home</u> > <u>Products</u> > <u>Accessories</u> > EXT Port Accessories

3.5mm Stereo Plug to 3.5mm Stereo Jack (Male - Female)

3.5mm Stereo Plug to 3.5mm Stereo Plug (Male - Male)

3.5mm Stereo Plug to Red/White 3.5mm Stereo Jack (Y)

3.5mm Stereo Plug to Red/White 3.5mm Stereo Plug (Y)

3.5mm Stereo Plug with Strain Relief

3.5mm Stereo Jack - Panel Mount



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OzoneLab™ Ext Signal Port - Cables, Plugs & Jacks



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>EXT Port Accessories</u> > Ext Signal Port - Cables, Plugs & Jacks









3.5mm Stereo Plug to 3.5mm Stereo Jack (Male - Female)

6 foot length (12 foot available upon special request)



3.5mm Stereo Plug to 3.5mm Stereo Plug (Male - Male) 6 foot length (12 foot available upon special request)



3.5mm Stereo Plug to Red/White 3.5mm Stereo Jack (Y)



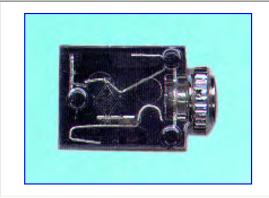
3.5mm Stereo Plug to Red/White 3.5mm Stereo Plug (Y)



3.5mm Stereo Plug with strain relief



3.5mm Stereo Jack - Panel Mount



C-30Z Upgrade Port (Setup Example)



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OzoneLab™ Wireless Control



Home > Products > Wireless Control



The versatility of OLW design allows the use of this product for wide variety of OEM applications. However, the main driving force behind the inclusion of Wire-Less Control unit & hardware to our OzoneLab™ line of products is to increase the versatility of our instruments. The following are simple examples of a remote control of three functions, which can be easily executed using OzoneLab™ OLW modules:

- Main Power ON/OFF
- Ozone production ON/OFF
- Syringe port ON/OFF
- Etc.





OLW - Transmitter Module

- Number of channels: 4
- Operation Range: up to 50FT, 75FT in open area
- Operation Frequency: 433.9MHz
- Power Requirement: Internal 12VDC battery
- Enclosure: hand-held, "key-chain" style



OLW - Receiver Module

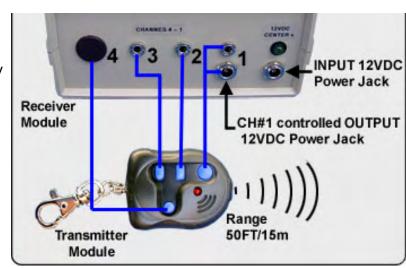
- Factory settings of 4 channels:
 - o #1
- #1-A 2.1mm jack, Center positive, 2A, "NO" (Normally Open)
- #1-B 3.5mm jack, Stereo, 100mA, "NO"



- #2 3.5mm jack, Stereo, 100mA, "NO"
- #3 3.5mm jack, Stereo, 100mA, "NO"
- o #4 customer select, 10Amp SPDT relay
- Control Function: latching or momentary (client select)
- Operation Range: up to 50FT, 75FT in open area
- Operation Frequency: 433.9MHz
- Power Requirement: 12VDC / 150mA
 - EXT Ports: via cable 3.5mm M/M plug
 - o Independent: OzoneLab™ 12VDC

Power Adapter

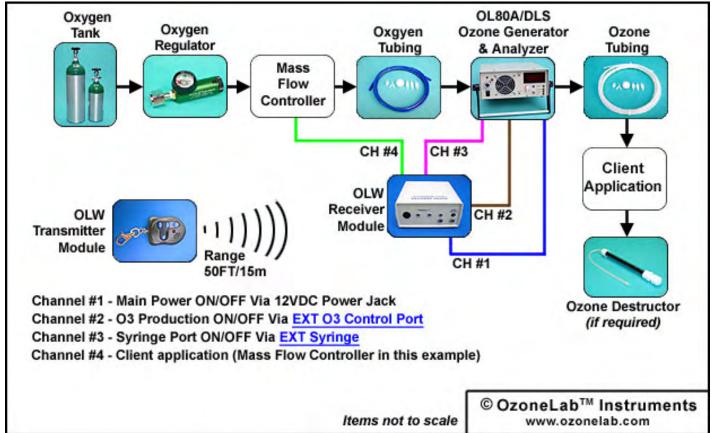
- Size 135x 135x 60mm / 5.25x 5.25x2.5" (WxLxH)
- Weight: 300gr. / 0.75Lbs



OLW - Cables & Power Supply

- · Cables:
 - Standard: 3.5mm M/M plug, Stereo, 6FT
 - o Optional: 3.5mm M/M plug, Stereo, 12Ft
 - Optional: extensions, "Y" splitters, etc.
- Power Supply:
 - Standard: OzoneLab™ Power Adapter
 - o Optional: 2.1mm M/M plug, Center Positive, 2FT

Setup Example



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OzoneLab™ Foot Switch Control



<u>Home</u> > <u>Products</u> > Foot Switch Control



This small, foot operated device allows for the use of OzoneLab™ instruments in a wide variety of applications requiring external control of the release/dispensing of ozone gas. Each footswitch is supplied with molded-on-cord connectors and are directly compatible with EXT ports.

Usage conditions:

- Before turning the OzoneLab[™] instrument "ON", establish connection between selected EXT Port and the Foot Switch
- The Foot Switch can be used only with OzoneLab™ ozone generators equipped with:
 - EXT Ozone Control Port
 - The ozone production ON/OFF control
 - The flow of ozone gas ON/OFF control
 - Standard on all OzoneLab[™] instruments produced after 1.1.2004
 - EXT Syringe Control Port
 - The flow of ozone gas ON/OFF control
 - Standard on OzoneLab™ instruments equipped with "S" option and produced after 1.1.2005.

Technical Data:

Power Requirement: 12VDC supplied by the OzoneLab™ instruments
Connection to EXT Ports: 12FT (6FT) double insulated cord with 3.5mm jack

Enclosure: Fiber filled reinforced plastic enclosure with anti-skid pad Size | Weight: 4.50x 3.50x 1.25" (115x 90x 32mm) | 0.4Lbs. / 0.20kg



Top/Bottom/Side Views

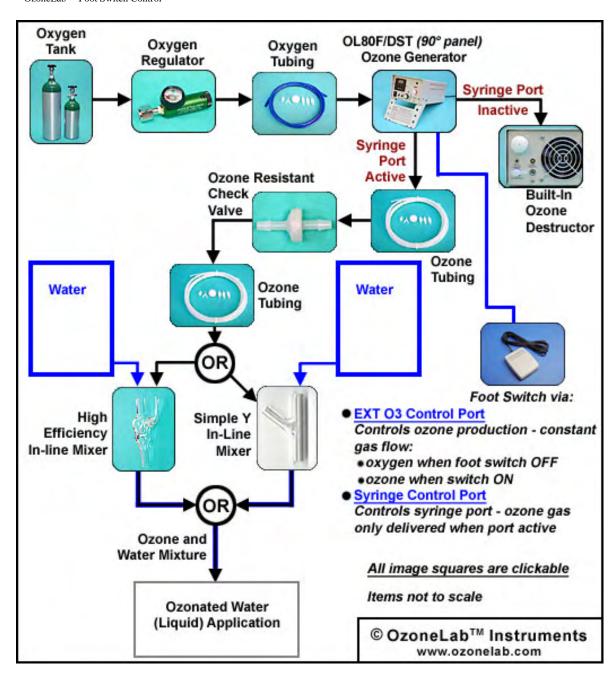


Attached to OL80F/DST

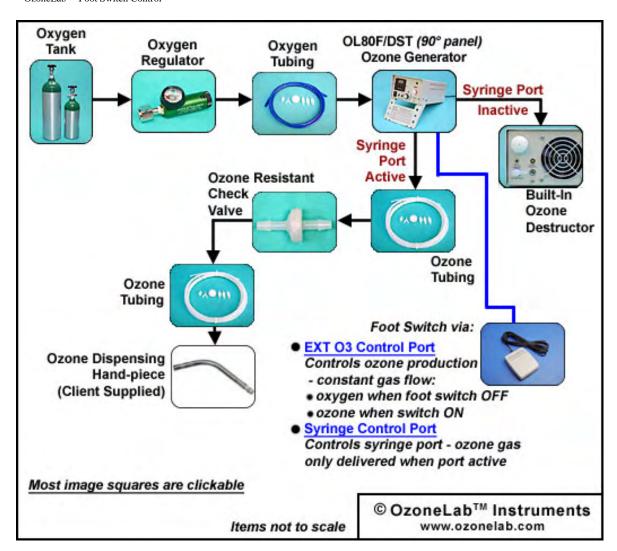
Setup Examples

The below highlighted examples are an attempt to try and allow clients to visualize a specific ozone generator application setups. These examples represent two of many different possible applications.

Colon Therapy Setup using a <u>High Efficiency Diffuser</u> to mix water and ozone from an <u>OL80F/DST Ozone</u> <u>Generator</u> fed with oxygen from an <u>Oxygen Tank</u>. The ozone flow and production is controlled via the Foot Switch through either the <u>EXT O3 Control Port</u> or by way of the <u>Syringe Control Port</u>.



Ozone Dispensing Hand-piece fed with ozone using the <u>OL80F/DST Ozone Generator</u> fed with oxygen from an Oxygen Tank. The ozone flow and production is controlled via the Foot Switch through either the <u>EXT O3</u> Control Port or by way of the Syringe Control Port.



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OzoneLab™ External OCR



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>EXT Port Accessories</u> > External OCR



The External Ozone Concentration Regulator is a device designed specifically for controlling the OzoneLab™ instruments in special Ultra-Low Ozone Production Mode (0-1% of Nominal Output), extending the use of our instruments. This small hand-held device is powered directly from controlled ozone generator and does not require an independent power source.





Operation:

The ozone concentration delivered by the ozone generator is determined by many factors. However, for the purpose of outlining the function of External OCR device, the focus should be directed on two variables closely associated with the High Voltage Discharge within the ozone production cell, a process directly responsible for production of ozone:

Duration of the "Discharge Cycle"

External OCR is equipped with 10-Turn Precision Dial located on the front panel. The precision dial is further equipped with "setting lock", allowing the operator to secure the desired value. By increasing the values set on the 10-turn precision dial represent increased duration of the high voltage discharge cycle. Ultimately, the maximum setting "10.00" results in full time uninterrupted sequence of discharges delivering MAXIMUM ozone concentration/output.



Frequency of the repetition of "Discharge Cycle"

External OCR unit has built-in internal timing circuit that offers a wide range of adjustable repetition frequencies. The selection of suitable frequency is done by connecting/removing jumpers "A-K". The jumpers can be accessed by removing a back cover of the unit.

Conditions for the use of External OCR unit:

- OzoneLab[™] ozone generator must be equipped with <u>EXT O3</u>
 Control Port
 - EXT O3 Control Port is a standard on all OzoneLab[™] ozone generators produced after 1.1.2004. Before this date, EXT O3 Control Port was optional.
- OzoneLab™ Link Cable (included with each External OCR unit).



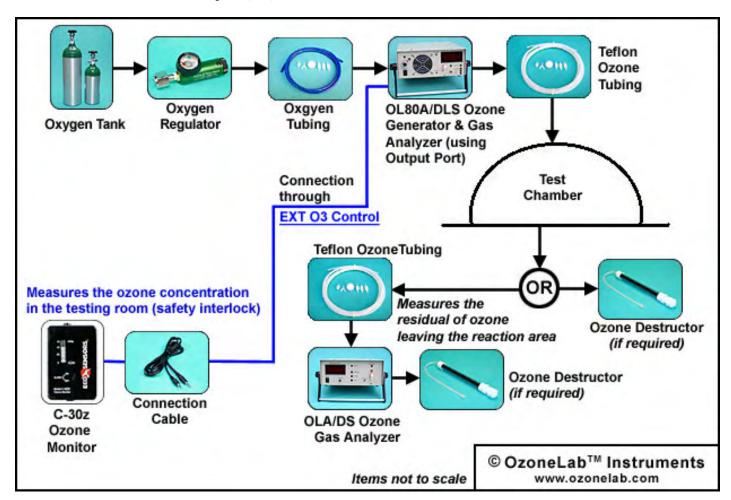
Technical Data:

Power Requirement: 12VDC provided by the OzoneLab™ Ozone Generators

Enclosure: ABS plastic

Size & Weight: 2.5x 3.5 x 1-1/8" (66x 92x 28mm) | 0.3Lbs. / 0.15kg

Setup Example



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OzoneLab™ UV & Ozone Generator Cases & Stands



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > UV & Generator Cases & Stands



OL80 Line - ABS Plastic Case

OL80 Wall Mounted Line - Acrylic Demo Stand





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OzoneLab™ OL80 ABS Plastic Case



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Case & Stands</u> > OL80 ABS Plastic Case









The durable yet attractive watertight ABS plastic carry case is an optional item for the OzoneLab™ OL80 Line of Ozone Generators. It is designed and intended for those who require portable ozonation for field testing allowing for an optional 240L Oxygen Tank fitted directly into it.

ABS plastic water tight case is lightweight, durable and easy to clean. During transportation, custom die cut foam secures and protects all optional components of your system (ozone generator, glass humidification containers, ozone destructor, and a 240L oxygen tank with a regulator)



OzoneLab™ OL80F/S
Ozone Generator
(45° panel series)



OzoneLab™ OL80F/DST
Ozone Generator
(90° panel series)



OzoneLab™ OL80W Ozone Generator

Please note: Airline regulations do not allow portable oxygen tanks to be transported on airplanes unless they are empty. Please check with your airline prior to traveling.

Technical Data:

Case Size: 17 x 14 x 6" (W x H x D)

OzoneLab™ OL80 ABS Plastic Case for OL80W Ozone Generator	

Optional Accessories shown in picture:

- Ozone Generator
- 240L Oxygen Tank
- Oxygen Flow Regulator
- 2 x 30ml Glass Containers
- Ozone Destructor

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OzoneLab™ Acrylic Demo Stand



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Case & Stands</u> > Acrylic Demo Stand



The Acrylic Demonstration stand is an optional item for the OzoneLab™ OL80W Ozone Generator. It is designed for those clients who feel they won't need to operate their OL80W outside their testing facility or lab and require a portable oxygen source. A convenient cutout at the top of the stand makes it simple to move this ozone system from one work station to an other.



Technical Data:

Demo Stand Size: 19 x 17 x 7" (W x H x D)

Optional Accessories shown in picture:

- OzoneLab™ OL80W/FM500 Ozone Generator
- 240L Oxygen Tank
- Oxygen Flow Regulator
- 11" Glass Diffuser
- Ozone Destructor

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OzoneLab™ Products - Ozonated Olive Oil - OOO & LOOO





<u>Home</u> > <u>Products</u> > Ozonated Olive Oil - OOO & LOOO Information

On November 25, 2005, we launched a new <u>ozonatedoils.com</u> web site to handle our OOO/LOOO product line.

All information, distribution and payments inquiries related to OOO/LOOO must be made through www.ozonatedoils.com

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OzoneLab™ Oxygen Flow Regulators



<u>Home</u> > <u>Products</u> > <u>Oxygen</u> > Regulators





The Ozone Services Brass Core Adjustable Flow Oxygen Regulator is a small, lightweight device that delivers oxygen through an integral flow control valve at selectable metered flow rates.

High pressure cylinder oxygen is regulated to 50 psi (345 kPa) before passing through the flow control valve and barbed outlet fitting. To ensure safe operation, each regulator is equipped with an internal safety relief valve.

Oxygen tanks with the oxygen flow regulator with North America standard oxygen CGA540 cylinder valve connections are supplied with the majority of GE and OL ozonation systems produced by our company. Oxygen tanks with CGA540 fitting are accepted for refill in most medical as well as welding supply outlets. We are able to provide our United Kingdom clients with the following CGA540 adapted oxygen flow regulators for use with U.K. oxygen tanks. International clients should consult our information page prior to considering a purchase.

Oxygen tanks with the oxygen flow regulators with CGA870 pin-index cylinder valve connections are supplied with GE and OL ozonation systems upon special request only. The regulator inlet has a reusable rubber and metal seal washer that requires only "fingertight seal".

Specifications:

- Dimensions CGA540: L x O.D. => 5.5x 1.25" (140x 32mm)
- Weight CGA540: & 20oz (550gr.)
- Dimensions CGA870: L x O.D. => 6.0x 1.25" (153x 32mm)
- Weight CGA870: 20oz (550gr.)
- Materials: brass (core), anodized aluminum (body)
- Indicators: Cylinder contents, oxygen flow rate
- Relief valve pressure: 125 psi (862 kPa)
- Flow data: "OFF", 1/32, 1/16. 1/8, 1/4, 1/2, 1, 1.5, 2, 2.5, 3, 4 LPM
- Storage temperature: -40°F to 140°F (-40°C to 60°C)
- Operating temperature: 0°F to 125°F (-18°C to 52°C)
- Filtration: 66 micron



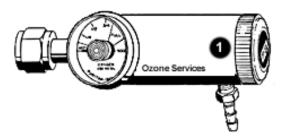
Supply pressure: 250 to 2500 psi (1724 to 17,240 kPa)

• Operating pressure: 50 psi (345 kPa)

• Outlet connection: Barbed connector - 3/16" O.D. tubing

• Inlet connections: CGA540 or CGA870

Oxygen Flow Regulator with CGA540 Fitting











OzoneLab™ Adapted British Standard No. 3 Oxygen Flow Regulators

In North America, the Compressed Gas Association (CGA) provides recommendations on cylinder valve outlet connections for specific gas services based on safety considerations. When talking about oxygen fittings, the two standard cylinder fittings are CGA 540 and CGA 870.

In the United Kingdom, including some of the Asian Countries with a British Colonial past (Hong Kong, Malaysia), it is the British Standards Institution (BSI) which provides recommendations on cylinder valve outlet connections for specific gas services based upon safety considerations. When talking about oxygen, the standard cylinder fitting is BS No. 3.

With the majority of GE and OL ozonation systems, Ozone Services provides the North American standard CGA 540 cylinder valve connection. For those that require the BS No. 3 standard, we are able to provide the following regulators adapted for this market:





Oxygen Flow Regulator with BS No. 3 fitting

Specifications:

- Materials: brass (core), anodized aluminum (body)
- · Indicators: Cylinder contents, oxygen flow rate
- Relief valve pressure: 125 psi (862 kPa)
- Flow data: "OFF", 1/32, 1/16. 1/8, 1/4, 1/2, 1, 1.5, 2, 2.5, 3, 4 LPM
- Storage temperature: -40°F to 140°F (-40°C to 60°C)
- Operating temperature: 0°F to 125°F (-18°C to 52°C)
- · Filtration: 66 micron
- Supply pressure: 250 to 2500 psi (1724 to 17,240 kPa)
- Operating pressure: 50 psi (345 kPa)

Regulator Accessories:

0.22µm filters with Luer Lock fittings / sterile

- 0.22µm (micron)
- PTFE Filtration media (17mm diameter)
- Acrylic Housing (26 mm diameter)
- Male Luer Lock & Female Luer Lock



Luer Lock Protective Caps with strap



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OzoneLab™ Oxygen Transfer Adapters



<u>Home</u> > <u>Products</u> > <u>Oxygen</u> > Transfer Adapters



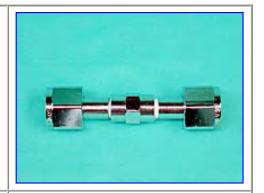




Oxygen Transfer Adapters allow the transfer of oxygen between two oxygen tanks. The user of Oxygen Transfer Adapter (OTA) should exercise maximum caution when proceeding with the transfer of oxygen gas from one pressurized oxygen tank to an other oxygen tank with lower or no oxygen pressure (empty tank).

CGA540 to CGA540

Allows the transfer of oxygen from one tank to another.



CGA540 to CGA870



CGA870 to CGA870

Allows the transfer of oxygen from one tank to another.



CGA 540 to "BS No. 3 straight"



CGA540 Splitter

Allows the use of two CGA540 Flow Regulators from one oxygen tank. (Example Picture)



CGA870 to CGA540/Female

This adapter is designed to allow the use of a standard regulator with CGA540 fitting on the tank with a CGA870 valve.



"BS No. 3 straight" adapter for an Oxygen Flow Regulator



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OzoneLab™ Oxygen and Ozone Manifolds



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > Oxygen and Ozone Manifolds









Oxygen and Ozone Manifold [OM-12/2 x 1/8"-O]

Technical Specification:

Material: Pyrex 12 + 2Number of Ports:

Size of the Ports: for 1/8" ID tubing (+ olive)

Length of the

1/2" (12mm) Ports:

Body Diameter: 1/4" (7mm)

Length: 14-1/2" (365mm) Width: 1-3/8" (42mm)

Input Flow: 1LPM

Oxygen and Ozone Manifold [OM-7/2 x 1/4"]

Technical Specification:

Material: Pyrex Number of Ports: 7 + 2

Size of the Ports: for 1/4" ID tubing (no olive)

Length of the

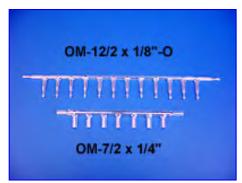
Ports:

1/2" (12mm)

Body Diameter: 3/8" (10mm)

Length: 8-3/4"" (222mm) Width: 1-1/4" (32mm)

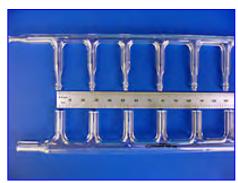
Input Flow: 5LPM



Larger Picture 375x500



Larger Pictures 375x500 | 1125x1500



Larger Pictures 375x500 | 1125x1500

Highlighted manifolds are regular stock item.

Feel free to <u>contact us</u> if you need custom produced manifold(s). Do not forget to specify in your <u>e-mail</u> technical specifications (as outlined above).

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OzoneLab™ Tubing, Fittings, and Clamps



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > Tubing









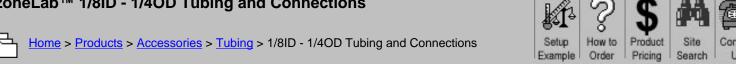
	Example Order Pricing	Search Us
	Oxygen (OXY) Tubing - Food Grade PVC	
	Oxygen (OXY) Tubing	
	OZONE Silicone Tubing	
	OZONE Teflon™ Tubing	
	Pre-Selected Tubing & Fitting Sets	
1/8ID - 1/4OD and 1/8ID - 3/16OD	Kynar™ Luer Lock Fittings	4 — 125" —> Male Female 4 — 50" → 4 — 50" →
For use with OzoneLab OL80 and OL100 systems	Oxygen & Ozone Check Valves	
	Kynar™ Female & Female Luer Lock Coupler	==
	Kynar™ Adapters for 1/8"ID Tubing	H H 44 More information
	Kynar™ "T" Fitting with (2x) 3/16" Barb & (1x) 1/8" barb	4
	Luer Lock Caps with Strap	
	Oxygen (OXY) Tubing - Food Grade PVC	
3/16ID - 5/16OD	OZONE Silicone Tubing	
Replacement components(s) for older systems (GE line	LDPE Quick Connector Fittings & Plastic Clamps	90

manufactured until October 2002).	Oxygen & Ozone Check Valves	++
	Quick Connector Female to Luer Lock Female Adapter	Quick Connector Female Larr Lock Female
Oxygen/Ozone Manifolds		minning.
Filters	0.22μm Filters	

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OzoneLab™ 1/8ID - 1/4OD Tubing and Connections

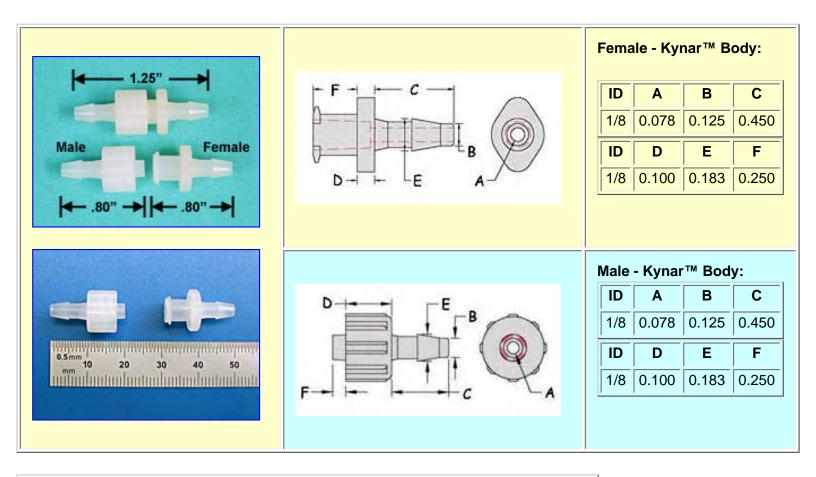


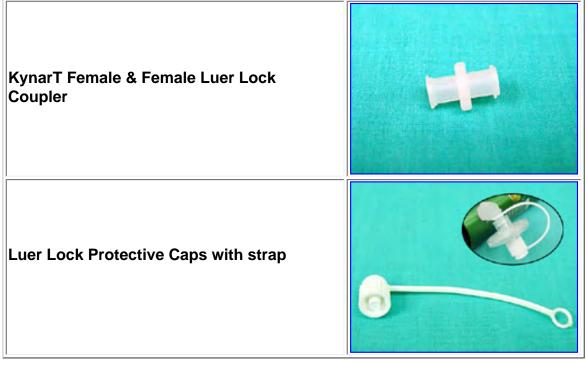
1/8ID - 1/4OD tubing and connections is fully compatible with our new OzoneLab™ OL80 and OL100 ozone systems. 3/16ID - 5/16OD tubing is available primarily as a replacement component(s) for our older GE60 systems models. (manufactured until October 2002).

- Tubing Comparison
- Kynar™ Luer Lock Fittings
- **Tubing Sets**
- Miscellaneous Kynar™ Fittings
- **Tubing & Fitting Assembly Example**

OzoneLab™ Oxygen and Ozone Tubing	5 Foot	10 Foot	Custom Lengths to 100 Feet
1/8ID & 1/4OD OXY Tubing - Food Grade PVC (Clear)	✓	V	v
1/8ID & 1/4OD OXY Tubing (Blue)	V	V	✓
1/8ID & 1/4OD OZONE Silicone Tubing (Milky White)	V	V	✓
1/8ID & 3/16OD OZONE Teflon™ Tubing (White)	✓	V	✓

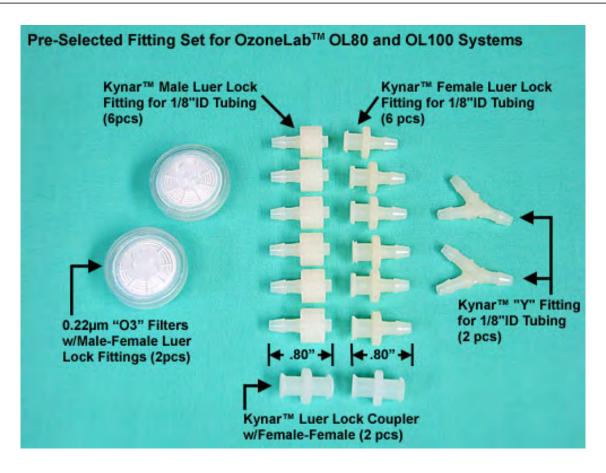
Kynar™ Luer Lock Fittings - (For 1/8ID & 1/4OD tubing only)



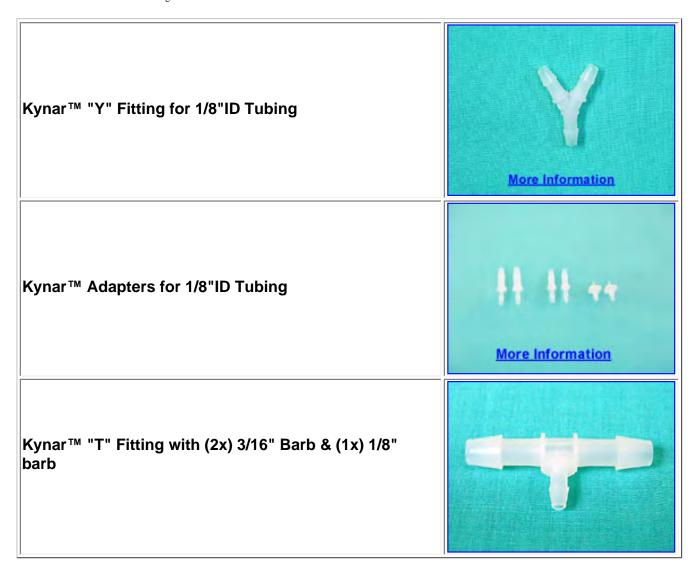


Pre-Selected Tubing & Fitting Sets for OzoneLab™ OL80 and OL100 systems

	20FT Laboratory	5FT Medical	10FT Medical
Kynar™ Male Luer Lock Fitting for 1/8"ID Tubing	6 pcs	6 pcs	6 pcs
Kynar™ Female Luer Lock Fitting for 1/8"ID Tubing	6 pcs	6 pcs	6 pcs
Kynar™ Luer Lock Coupler w/Female-Female	2 pcs	2 pcs	2 pcs
Kynar™ "Y" Fitting for 1/8"ID Tubing	2 pcs	2 pcs	2 pcs
0.22µm "O3" Filters w/Male-Female Luer Lock Fittings	2 pcs	2 pcs	2 pcs
"O2" PVC Tubing (Clear or Blue / 1/8"ID & 1/4"OD)	N/A	5FT	10FT
"O2" & "O3" Silicone Tubing (Milky / 1/8"ID & 1/4"OD)	N/A	5FT	10FT
"O2" & "O3" Teflon Tubing (1/8"ID & 3/16"OD)	20FT	N/A	N/A
Ozone Insufflation Bag StartSet / OIB (1) & Catheter (3)	N/A	N/A	1 Set



Miscellaneous Kynar™ Fittings



Tubing & Fitting Assembly Example

Because every client has different needs for different lengths of tubing, it is impossible for us to provide all tubing lines already assembled.

In this example, we are using Blue Oxygen Tubing. In each tubing set, there will be the tubing itself, and a number of Female and Male Luer Lock Connectors. Use Male connectors to make needed tubing connections.

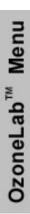


Inserting Male Luer Lock Connector into tubing



Attaching tubing to generator

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OzoneLab™ 3/16ID - 5/16OD Tubing, Connections, and Clamps



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Tubing</u> > 3/16ID - 5/16OD Tubing and Connections



3/16ID - 5/16OD tubing is available primarily as a replacement component(s) for our older <u>GE60 systems</u> <u>models</u>. (manufactured until October 2002). New clients should focus their attention on new, <u>smaller diameter tubing</u> which is fully compatible with our new <u>OzoneLab™ OL80 and OL100 ozone systems</u>.

- Tubing Comparison
- LDPE Quick Connector Fittings
- Miscellaneous Fittings

OzoneLab™ Oxygen and Ozone Tubing	5 Foot	10 Foot	Custom Lengths to 100 Feet
3/16ID & 5/16OD OZONE Silicone Tubing (Milky White)	V	v	✓
3/16ID & 5/16OD OXY Tubing - Food Grade PVC (Clear)	✓	V	✓

LDPE Quick Connector Fittings (3/16ID & 5/16OD tubing only) and Plastic Clamps





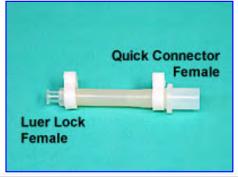


Miscellaneous Fittings

Kynar™ "T" Fitting with (2x) 3/16" Barb & (1x) 1/8" barb



Quick Connector Female to Luer Lock Female Adapter



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OzoneLab™ 0.22µm Filters with Luer Lock fittings / sterile



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > **0.22µm Filters**



- 0.22µm (micron)
- PTFE Filtration media (17mm diameter)
- Acrylic Housing (26 mm diameter)
- Male Luer Lock & Female Luer Lock



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OzoneLab™ Monitors, Data Loggers and Test Strips



<u>Home</u> > <u>Products</u> > Monitors





Example





Pricing



	Ozone in Air	Ozone in Oxygen	Ozone in Water	рН	H ₂ O ₂	U.V.	Data Logger Compatible
Ozone Test Strips	✓						
H ₂ O ₂ Test Strips					✓		
C-30Z Ozone Monitor	✓						✓
Y-ORP Meter			✓				
Y-pH Meter				✓			
Y-340UV Meter						✓	

Product	Range	Power System
Ozone Test Strips	 up to 0.045 ppm from 0.045 to 0.075 ppm from 0.075 to 0.105 ppm over 0.105 ppm 	None
H ₂ O ₂ Test Strips	Marked Levels of: 1, 3, 10, 30, 100 mg/l	None
C-30Z Ozone Monitor	.0114 ppm .0136 ppm via external data readout	Universal 120-240VAC/12VDC Power Adapter
Y-ORP Meter	-1999mV to +1999mV	9 Volt Battery
Y-pH Meter	0 to 14pH with 0.01pH resolution	9 Volt Battery
Y-340UV Meter	2mW/cm2 or 20mW/cm2	9 Volt Battery
Data Logger	Displays through PC	Replaceable Battery / CR2032

We have an excellent article on Ozone Sensing and Leak Detection in our articles section which is recommended reading.

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Ozone Test Strips



<u>Home</u> > <u>Products</u> > <u>Monitors</u> > Ozone Test Strips



<u>Hydrogen Peroxide (H₂O₂) Test Strips</u>

Test Strips are not intended for applications requiring high accuracy readings, rather, they are designed and used for semi-quantitative and for screening purposes.

Ozone Test Strips are designed to provide a quick indication of ambient levels of ozone in both indoor and outdoor air.

- Economical and easy-to-use
- Direct-reading
- Can be used in any location
- Fast, on-the-spot results

Specifications:

Test Time : 10 minutes
Results : Colorimetric

Measuring range: 0.045 ppm to over 0.105 ppm

Interferences: Oxidizing reagents such as chlorine

Relative humidity

range:

30 to 60% RH



Principle of Operation:

Ozone test strips are chemically treated to react with ozone. Easy-to-use, place a test strip in the area to be tested. After 10 minutes, compare the test strip with the color scale on the test strip package. Results display in four distinct colors from light yellow to dark yellow. Each represents a certain level of ozone concentration. Ranging from 0.045 ppm to over 0.105 ppm.

Ozone Concentrations

 $A \sim up \text{ to } 0.045 \text{ ppm } (45 \text{ ppb})$

B ~ from 0.045 ppm to 0.075 ppm (45 - 75 ppb)

C ~ from 0.075 ppm to 0.105 ppm (75 - 105 ppb)

D ~ over 0.105 ppm (105 ppb)

ppm = parts per million ppb = parts per billion

Packaging: 12 Ozone Test Strips packaged in a moisture-proof tube with instructions.

Ozone Test Strips have a three-month shelf-life after the container is opened.

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C-30Z Ozone Monitor



<u>Home</u> > <u>Products</u> > <u>Monitors</u> > C-30Z Ozone Monitor



C-30Z ozone level monitor with audio alarm has a very fast and continuous response. It is rugged and versatile. There are no touchy controls.



The C-30Z is perfect for water treatment plants, pulp bleaching mills, ozone generator monitors, photocopier and laser printer centers, fumigation projects, HVAC and indoor air quality systems, vehicular pollution monitors, research labs and pilot plants and wherever ozone exposure is possible.



C30Z Ozone Monitor linked with Ozone Instrument EXT port. More Info

Benefits

- Constantly monitors your work environment. Shows the situation by a multicolor graphical display, and alarms when there is a health hazard.
- No installation typically required. Easily understood by non-technical personnel.
- · Virtually no maintenance.

Features

- LED readout changes color as ozone level increases.
- Audio alarm and output for <u>data logger</u>.
- Connections for external equipment control.
- For general monitoring and ozonator control.

Technical data:

Range: 0.02 - 0.14ppm (LED scale); .02 - .30 via external data readout

Response time: within 10's of seconds of ozone reaching the sensor

Accuracy: 15-20% within the specified standard operation range of the instrument

Measurement principle: HMOS (heated metal oxide semiconductor) sensor

Power requirements: 12VDC / 300mA

Outputs: - LED multi-color bargraph

- 0-2VDC analog signal for PLC and/or Data loggers

Adjustable Outputs: - Audio alarm

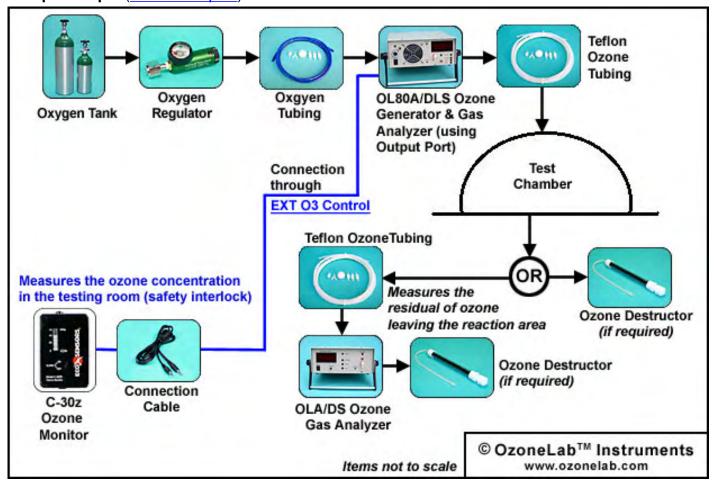
- Signal for external relay (up to 30V / 130mA)

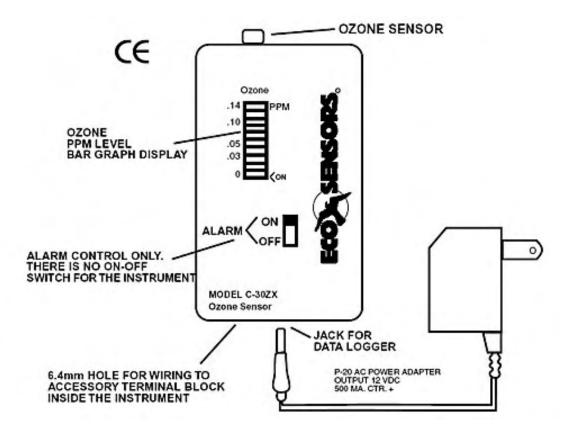
Indicators: Normally green. Yellow at 0.05ppm (caution). Red at 0.1ppm (danger)

Size & Weight: 3 1/4x 1 3/8x 2 3/" (85x 35x 60mm) & 5oz. (140grams)

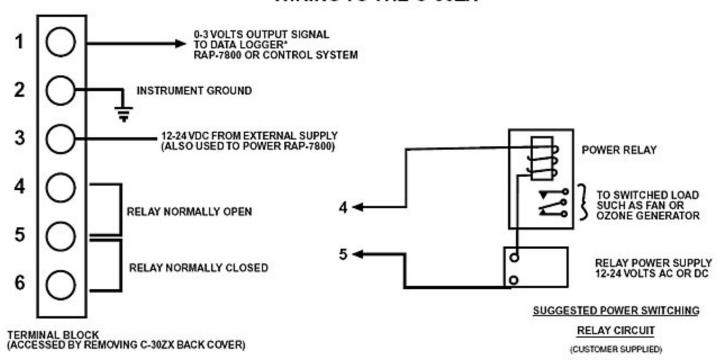
Not recommended for: Outdoor and the use in presence of acid gases

Setup Example (more examples)





WIRING TO THE C-30ZX



The C-30ZX internal relay is a low power device. It will handle up to 30 volts AC or DC at up to 1 amp so it will switch low voltage alarms directly. For switching power loads an intermediate relay and power supply should be used such as shown above.

CALIBRATION

Eco Sensors Model C-30ZX

BAR GRAPH CALIBRATION

BAR GRAPH	PPM
C-30Z	OZONE
1st green	"on" indicator
2nd green	.02
3rd green	.03
4th green	.04
1st yellow	.05
2nd yellow	.07
3rd yellow	.08
1st red	.10
2nd red	.12
3rd red	.14

ALARM SET POINT ADJUSTMENT

The set-point for the alarm and relay can be changed by opening the instrument case and locating the 8 toggle DIP switch near the sensor. The programming is:

Switch No.	PPM Ozone
1	.14
2	.12
3	.10 (standard setting)
4	.08
5	.07
6	.05
7	.04
8	.03

Please note that no more than one switch should be down (on) at a time.

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OzoneLab™ Y-Series Meters & Probes



<u>Home</u> > <u>Products</u> > <u>Monitors</u> > Y-Series Meters & Probes







Search



Our Y-Series Meters and Probes provide good value as well as versatility.

All Y-Series instruments share the same enclosure design which is dominated by 1" LCD. Units can be used/operated as

- Hand-held instrument
- Desktop instrument in horizontal or 45% position supported by "flipstand"
- Field instrument attached to tri-pot via "photography" screw receptacle



Applications:

Laboratory and research projects, waste water monitoring, aquariums, fish hatcheries, food processing, photography, swimming pools, etc.

Pricing and model comparison chart

S = Standard | O = Optional | N/A = Not Applicable

	Y-ORP Meter	Y-pH Meter	Y-340UV Meter
Purpose:	Water	Water	UltraViolet (UV-A, UV-B)
Setup Example Available	N/A	N/A	N/A
Model Picture	1999		[599]

1" High visibility LCD display	S	S	S
Data HOLD function	S	S	S
High input impedance	S	N/A	N/A
Sampling time:	N/A	N/A	0.5sec
Range:	-1999mV to +1999mV	0 to 14pH with 0.01pH resolution	2mW/cm2 or 20mW/cm2
Peek Spectral Sensitivity:	N/A	N/A	290-390nm peek at 340nm detachable probe included
Operating Temperature:	32 to 122F (0 to 50C)	32 to 122F (0 to 50C)	32 to 122F (0 to 50C)
Operating Humidity:	Max 85% R.H	Max 85% R.H	Max 85% R.H
Power:	9VDC Battery (Included)	9VDC Battery (Included)	9VDC Battery (Included)
Power Consumption:	Approx. 3.1mA	Approx. 3.1mA	Approx. 3.1mA
Main Instrument Dimensions:	8 x 2.75 x 1" (200x 70x 25mm)	8 x 2.75 x 1" (200x 70x 25mm)	8 x 2.75 x 1" (200x 70x 25mm)
Weight:	0.6Lbs (0.27kg)	0.6Lbs (0.27kg)	0.6Lbs (0.27kg)
Probe Connections:	DIM 1/2" OD & 6" long with 6FT cord	DIM 1/2" OD & 6" long with 6FT cord	Detachable probe with "coiled" 12" cord (24" extended)
Probe Head Dimensions:	N/A	N/A	8 x 2.75 x 1" (200x 70x 25mm)
Probe Handle Dimensions:	N/A	N/A	3.9 x 0.8" (98 x 20mm)
Probe Weight:	0.1Lbs (0.05kg)	0.1Lbs (0.05kg)	0.1Lbs (0.05kg)
Marking	Yes	Yes	Yes
Base Price: 1 probe included	\$169.00 Currently out of Stock	\$139.00	\$159.00
Shipping & Handling:	Not Included	Not Included	Not Included
Replacement Probe:	\$79.00	\$49.00	N/A

All prices are in US Dollars and do not include shipping and handling.

Logistics of ORP, pH and UV measurement:

The probe is placed temporarily or installed permanently into the stream of water (ORP or pH) or UV radiation path (UV).

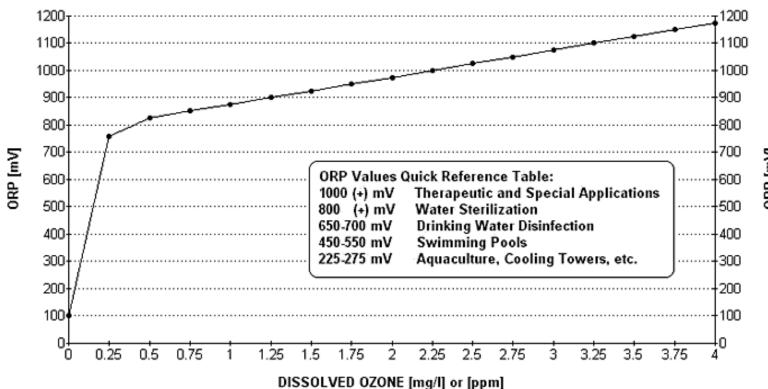
- The signal from the probe is fed into the ORP, pH or UV Monitor
- ORP, pH or UV intensity value is displayed on the LCD display



Slim ORP (or pH) Probe installed in a pipe

OXYGEN REDOX POTENCIAL

(ORP [mV] & OZONE [mg/l])



Most Frequently Ordered Models



Y-pH Meter & Probe



Y-340UV Meter & Probe

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For problems pertaining to our Web Site, please contact our $\underline{\textit{WebMaster}}$



OzoneLab™ Timers



<u>Home</u> > <u>Products</u> > Timers







OEM Digital Countdown Timer / 1.5VDC (Timer only)



OEM Digital Countdown Timer (with PCB)



Shirtpocket Timer - [M/S]



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OzoneLab™ OEM Timers



<u>Home</u> > <u>Products</u> > OEM Timers



Digital Countdown Timers	OEM Digital Countdown Timer / 1.5VDC (Timer only)	us sc surratos
	OEM Digital Countdown Timer (with PCB)	
	Shirtpocket Timer - [M/S]	OCC CONTRACTOR

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OzoneLab™ UV Instrument 4-8-12W/12VDC



<u>Home</u> > <u>Products</u> > <u>U.V. Products</u> > UV Irradiation Instrument 4-8-12W/12VDC





Spare & Replacement Bulbs

UV Quartz Cuvettes

UV Accessories

Versatile U.V. Irradiation Instrument utilizing three (3) channel design, allowing easy control of the UV light intensity as well as UV bulb exchange and UV bulb service life monitoring. This product is an important addition to our existing product line, which already includes UV Cuvettes.

UV 4-8-12W/12VDC Instrument Description

Front Panel (left to right)

- Toggle switches (numbered left to right)
 - o #1 turns "ON" the first UV bulb closest to the front of the unit
 - #2 operates the lower middle bulb of the unit
 - #3 operates the UV bulb to the rear of the unit
- Digital Hour Meter (EEPROM memory) showing the service hours of the UV bulbs
- Cooling fan provides ample air flow to cool electronics as well as the UV bulbs
- · Main power switch









The Lid:

• When the lid is closed, the pin located at the bottom side of the lid activates the built-in safety microswitch, which turns "ON" pre-selected UV bulbs.

Back Panel:

12VDC power jack (center positive) / 1.5Amp

UV Wavelength Selection

The UV instrument is designed to accept up to three (3) UV bulbs. The selection of the UV bulbs installed and their configuration must match the requirements of the application targeted. In general, UV-C is best for destruction of bacteria and viruses and UV-A is often used in combination with UV-C for special applications. UV-B bulbs are available upon special request.

UV Intensity Selection

The regulation of UV light intensity is done by selectively turning "ON" the toggle switches (#1, #2 and #3). Each toggle switch is operated independently of the other, or all three can be turned "ON" at the same time. The greatest intensity of UV light of a specific wavelength will be obtained if:

- All three UV bulbs will have the same UV wavelength
- All three bulbs will be activated / turned "ON"

Modes of operation:

• 4 Watt: "A" or "C"

• 8 Watt: "A-A" or "A-C" or "C-C"

12 Watt: "A-A-A" or "A-A-C" or "A-C-C" or "C-C-C"







Changing the UV Bulb:

To change the UV bulb grasp the bulb at each metallic end (with the machine turned "OFF") and slightly twist the bulb to remove it from the slot. The installation of the UV bulb is done by sliding the UV bulb pins (located at each end) into the UV bulb socket, and gently rotating the bulb 90° (axially). A special care should be taken not to touch the glass part of the bulbs with your fingers as this can deposit oils on the glass and shorten the life of the UV bulb.

Important Note: Due to a frequent switching "ON/OFF" of the UV bulbs, the service life of UV bulbs is greatly diminished. This is caused by a surge of an electrical current that wears out the elements in the UV bulb(s). For the above outlined reasons it is recommended to change the UV bulbs in regular intervals, which would not

exceed 300 hours. UV bulbs can be marked (on the metallic end caps) using the permanent marker. Such UV bulb identification along with the written log will help prevent confusion when using bulbs with various UV wavelengths, and will help to keep a track of the total amount of service hours logged by different UV bulbs.

Technical Specifications:

Power Input: 12VDC (Universal 100-240VAC/12VDC power adapter supplied)
Power Consumption: 18Watt / 1500mA/12VDC in 3x4Watt mode (three lamps "ON")

Size: 7.5x 6x 3" / 190x 150x 75mm (WxDxH)

Weight: 1.0kg / 2.2Lbs. | Unit + Power Adapter - 1.5kg / 3.2 Lbs.

Cooling: Air stream / 17CFM

Enclosure: Desktop model, aluminum with powder coated finish

UV Exposure Safety: UV lights deactivate when the cover (lid) of the unit opens

UV-A bulb (white): 352nm / T5 housing / 300 hours "precision output" service span
UV-C bulb (clear): 254nm / T5 housing / 300 hours "precision output" service span

Service Span Monitoring by digital Hour Meter, with non-volatile (EEPROM) memory

UV 4-8-12W/12VDC Set consists of:

- 1x UV 4-8-12W/12VDC instrument
- 1x Universal 100-240VAC/12VDC power adapter & cord
- 1x "Car/cigar lighter" 12VDC power cord
- 1x "A" lamp (white) installed
- 2x "C" lamp (clear) installed
- 2x "A" lamp (white) spare
- 1x "C" lamp (clear) spare
- Manual & Warranty Registration Form

We also carry the following replacement UV bulbs (T5 Bi-pin/4Watt):

- UV-A / 365nm" bulb (white)
- UV-B (305nm) bulb (clear)
- UV-C / 254nm" bulb (clear)



OzoneLab™ Mobility offers clients options for mobile situations.

- ABS Plastic Case
- Car 12VDC Adapter



A full selection of optional ozone accessories is available to clients through our Ozone & UV Accessory Area.



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OzoneLab™ UV Quartz Cuvette



Home > Products > Ultra Violet Products > UV Quartz Cuvette

- UV Accessories
- Place an Order for UV Products

- UV4-8-12W Instrument
- Spare & Replacement Bulbs
- OzoneLab™ UV Quartz Cuvette:
 - · Designed and produced by Ozone Services, BC, Canada
 - Adjustable holding rings (Compatible with various UV instruments)
 - 6-1/4" (159mm) active exposure length (high purity Quartz)
 - Cuvette insert designed to allow gentle flow and even exposure to UV
 - 2x24" flexible connection lines with standard Female and Male Luer Lock fittings
 - . 100% LATEX free
 - All parts are securely attached and guaranteed to be LEAK free
 - Each UV Cuvette is individually packaged in a 7x12" sterilizable pouch

Sterilization of UV Cuvettes:

- Pre-sterilization process was done using:
 - Ozone Concentration 90 [µg/ml]
- Sterilization by EtO by a certified facility
- Sterilization Validation done by an independent laboratory

Standard Packaging:

- 30 Quartz Cuvettes per box
- Box size 12x12x7" (WxDxH)
- Box weight 1.25kg / 2.9Lbs.

Shipping:

Priority Mail, unless specified otherwise



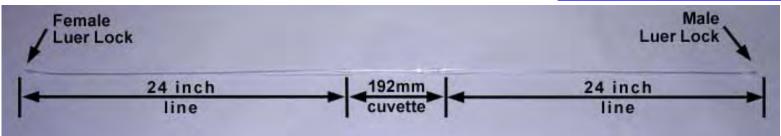


Protective Caps Attached



Protective Caps Removed

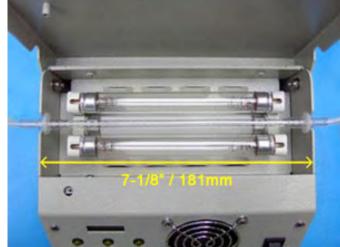


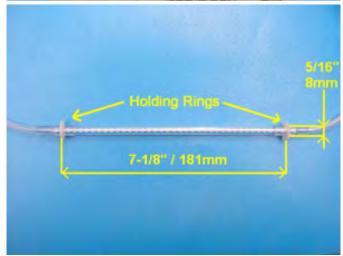


Compatibility with various UV instruments

In standard configuration, two holding rings preventing axial movement of the OzoneLab™ UV Cuvette in the holding/exposure slot of OzoneLab™ UV instrument have the distance 7-1/8" (181mm).

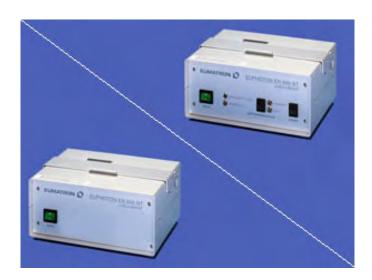
The holding rings can be easily removed or they may be spread wider apart to maximum distance of 7-1/2" (190mm).





The above outlined simple modification makes our Latex Free OzoneLab™ UV Cuvette compatible with other UV instruments:

- OzoneLab™ UV4-8-12W unit (standard configuration)
- Eumatron units (UVB, HOT) [see image]
- Aquatron units (UVB, HOT) [see image]





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OzoneLab™ Ultra Violet Accessories



<u>Home</u> > <u>Products</u> > <u>Ultra Violet Products</u> > Accessories

- Order





- UV4-8-12W Instrument
- **Spare & Replacement Bulbs**

- UV Quartz Cuvettes
- Place an Order for UV Products

Packaging and Sterilization of UV disposable accessories:

- Packaged in Tyvek T pouches specifically produced for sterilization
- Sterilization by EtO by a certified facility
- Sterilization Validation done by an independent laboratory

Injection "T" site / Sterile:

- Luer Lock fittings
- LATEX FREE
- Sterile / individually packaged
- Fully compatible with UV Quartz Cuvette and other disposable supplies using standard Luer Lock fittings





3-Way Valve / Sterile:

- Luer Lock fittings
- LATEX FREE
- Sterile / individually packaged
- Fully compatible with UV Quartz Cuvette and other disposable supplies using standard Luer Lock fittings

0.22micron In-line Filter / Sterile:

- 0.22µm
- PTFE Filtration media (17mm diameter)
- Acrylic Housing (26 mm diameter)
- Male Luer Lock & Female Luer Lock
- LATEX FREE
- Sterile / individually packaged
- Fully compatible with supplies using standard Luer Lock fittings





Locking Forceps / Non-Sterile:

Can be used during:

- Various Ozone / UV applications
- Etc.



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OzoneLab™ Check Valves



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > Check Valves











Ozone Resistant Diaphragm Check Valve - Barb Fittings

ID	A	В	С	L
1/8	0.080	0.750	0.125	1.300
3/16	0.125	0.750	0.187	1.680

Ozone Resistant Diaphragm Check Valve

- Kynar™ Body
- VitonT Diaphragm

DIRECTION OF FLOW

Flow Coefficient - Cv 0.12

Closing Pressure: 0.1 psi Braking pressure: 0.2 psi Working Pressure: up to 25 psi

Important Note:

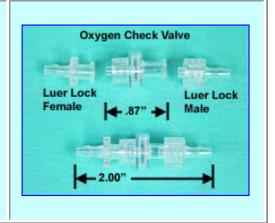
Diaphragm Check Valves require 1.0 psi back pressure for a tight seal

Operating Temperature: 0-90°C (200°F)



Oxygen Check Valve

- Male/Female luer lock, low pressure valve
- 420 mL/min flow rate @ 1 meter head
- 30 psi back pressure
- 1/4 psi cracking pressure inlet
- PolyCarbonate Body
- Silicone Diaphrgam
- Latex free



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OzoneLab™ Glass Diffusers



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Fluid Ozonation Items</u> > Glass Diffusers









- "I" STD Straight diffuser, L = 10"
 "J" USD "Up side down" diffuser, L = 10"









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OzoneLab™ Diffusers with Cooling Jackets



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Fluid Ozonation Items</u> > Diffusers with Cooling Jackets



Diffusers with Cooling Jackets are custom made through out <u>glass blowing department</u>. Please <u>contact us</u> for more information.







250ml Capacity







250ml Capacity - Spring Secured Lid







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OzoneLab™ Flow-Through Ozone Diffusers



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Fluid Ozonation Items</u> > Flow-Through Ozone Diffusers





11" Flow-Through Ozone Diffuser



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Home

Product Information Prices & Order Form

<u>Client</u> Feedback <u>Laboratory</u> Test Reports

Ozonated Olive Oil

OZONATED

<u>Translations</u>

Contact Us

Ozonated Oils News

Upcoming Holiday Hours

To prevent complications with shipping during the most busy time of the year for all couriers, we do not ship in December. Normal operations will resume on January 7, 2008.

Ozonated Oils 390 Silver Queen Road Burton, BC, V0G1E0, Canada

info@ozonatedoils.com

Welcome to Ozonated Oils

We offer to our clients high quality <u>Ozonated Olive Oil</u> (OOO) and <u>Liquid Ozonated Olive Oil</u> (LOOO), easy on-line <u>ordering & payment</u> using all major credit cards, and prompt processing of all orders.

We also welcome and process OEM orders.

Ozonated Oils Team

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OzoneLab™ Medical Research Items



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > Medical Research









This menu is broken down into common Medical Research applications. Clients are encouraged to view our <u>Laboratory Research menu</u> for a complete hardware listing.

Oxygen Tanks	M9 Tank (240L Capacity)	
	CGA540 Regulator Information for International Clients	
Oxygen Regulators	CGA870 Regulator	Cryptor First Regulators with COANTS Finding
	Oxygen Flow Regulator with BS No. 3 Fitting	
	Disposable "ArmBag"	
Bagging	Disposable "BootBag"	
	Disposable "UniBag"	
	Catalytic Ozone Destructor - 12" long	
Cupping	Glass Cups	A A
Capping	Ozone Destructor	

	Simple "Y" In-line Mixer	
Colon Therapy	High Efficiency In-line Mixers	
	Ozone Resistant Diaphragm Check Valve	-
Dental Attachments & Accessories	Aseptico Dental Systems with Peristaltic Pump	
	11" Dental Ozone Diffuser	The state of the s
	Injection "T" Site	
	3-Way Luer Lock Valve	
Health Care Provider	0.22μm Filters	
Supplies	Red Forceps	8
	MANUAL Syringe Filling Adapter (Luer Lock Adapters)	
	Semi-automatic Syringe Filling Adapter	The Stay
	Nasal Cannula	
	30ml Glass Container	
Inhalation	Glass Containers (Assorted Sizes)	S. Carrier
	Catalytic Ozone Destructor - 12" long	
	Ozone Insufflation Set	
Insufflations	<u>Catheters</u>	The Control of the Co

II		
	Ear Insufflation Attachment - Modified Stethoscopes	8
	Red Forceps	8
	1/8ID - 1/4OD and 1/8ID - 3/16OD For use with OzoneLab OL80 and OL100 systems	
Tubing, Connections	3/16ID - 5/16OD	
& Clamps	Replacement components(s) for older systems (GE line manufactured until October 2002).	
	Oxygen/Ozone Manifolds	THIHIHIT.
	0.22μm Filters	
	500 & 1000ml Water Snakes	1000 rat 800 rat
	Containers with Stopcock High Efficiency Diffusion Columns / Containers with Stopcocks - 1000 & 1500ml	2
	Simple "Y" In-line Mixer	
Water Applications	High Efficiency In-line Mixers	
	Ozone Resistant Diaphragm Check Valve	
	30ml Glass Container	
	Glass Containers (Assorted Sizes)	
	Catalytic Ozone Destructor - 12" long	
	Digital Shirtpocket Countdown Timer	00 00

Miscellaneous	External Ozone Concentration Regulator (OCR)	
	OLW - Wireless Control	
	Footswitch Control	
	OzoneLab™ Thermal Printer	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Ozone, A new medical drug	OZONE AND PRODUCTION MATERIAL PRODUCTION OF THE PROPERTY OF TH
	Oxygen-Ozone Therapy: A Critical Evaluation	Ougashawa Dinger Can Andreas
Books	The Use of Ozone in Medicine	STATE AND ADDRESS.
	Into the Light	Into the Light
	Cancer Action Plan - Useful, Innovative, Alternative Cancer Therapies	CANCER ACTION PLAN Manufacture Tourist Control of the Control of t

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OzoneLab™ Bagging and Cupping Items



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Bagging and Cupping



Bagging	Disposable "ArmBag"	
	Disposable "BootBag"	
	Disposable "UniBag"	
	Catalytic Ozone Destructor - 12" long	
Cupping	Glass Cups	A A
	Catalytic Ozone Destructor - 12" long	

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OzoneLab™ Plastic Bags for Bagging



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > <u>Bagging</u> > Plastic Bags for Bagging



Example





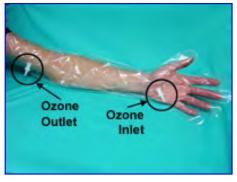


Search

OzoneLab™ Bags are offered in three versions (and are available in sets - see below):

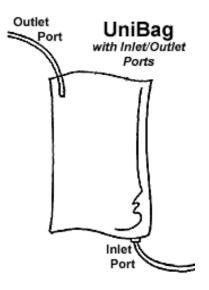
- ArmBags
- BootBags
- UniBags (20" and 32" long)







Ozone Inlet



Fittings:

- Disposable plastic "ArmBags", "BootBags" and "UniBags" are distributed without ozone INLET and OUTLET fittings attached.
- Ozone INLET and OUTLET fittings are reusable and they should be installed in accord with individual need of the client (as close as possible to a part of the arm/hand or foot which should benefit from close proximity to ozone discharge point).
- Installation of INLET and OUTLET fitting does not require any special tools or skills. After the best location for the INLET fitting is selected, small hole (1/8" +/-) should be punctured trough the plastic wall

and male part of the fitting set should be inserted from inside of the plastic bag trough the hole. Female part of the fitting set (with barb section serving for attaching the ozone tubing) should be pressed against the male part penetrating the plastic bag wall.

Disposable plastic "ArmBags", "BootBags" and "UniBags" as well as "Ozone INLET & OUTLET fittings are available in bulk or individual packaging directly from Ozone Services.

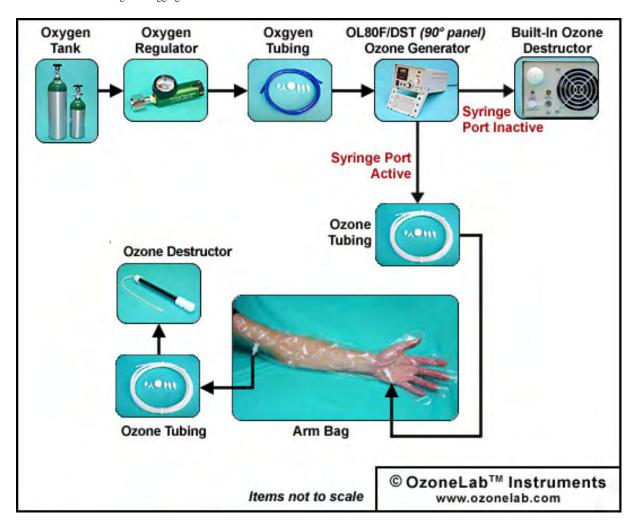
Important Notes:

- The opening of plastic "ArmBags", "BootBags" and "UniBags" should be properly sealed before the ozone will be discharged into the bag, to prevent ozone leakage to surrounding air.
 - It is recommended to keep the oxygen flow as low as possible to prevent extensive leakage of ozone from plastic "ArmBags", "BootBags" and "UniBags". At the same time the oxygen (ozone) flow must be high enough to deliver sufficient amount of ozone into to fill up the "ArmBag", "BootBag" or "UniBag".

The	The following Limb Bagging Sets are also available:		
1x	ArmBag with Ozone Inlet & Outlet ports installed		
1x	BootBag with Ozone Inlet & Outlet ports installed		
25x	20" UniBag without Ozone Inlet & Outlet ports		
25x	36" UniBag without Ozone Inlet & Outlet ports		
2x	2FT Velcro double sided		
1x	Connectors for Limb Bagging Inlet and Outlet Port		

Connectors and tubing as well as associated peripherals are available in both our <u>Medical Research Area</u> as well as our Health Care Provider Supplies Area.

Setup Example (more examples)



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OzoneLab™ Cups and Suction Cups



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Cups and Suction Cups



Example



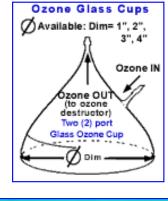




Search Us

Cup & suction cups are available in the following sizes

- . Dim. 1"
- Dim. 2"
- Dim. 3"
- . Dim. 4"



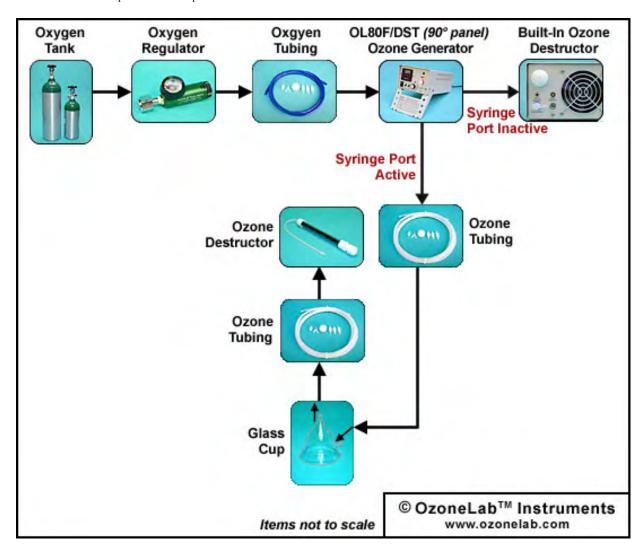






Shown without protective caps

Setup Example (more examples)



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OzoneLab™ Colon Therapy Items



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Colon Therapy Items

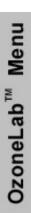


Simple "Y" In-line Mixer

High Efficiency In-line Mixers

Ozone Resistant Diaphragm Check Valve

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OzoneLab™ In-line Ozone & Water Mixers



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>In-line Mixers</u> > In-line Ozone & Water Mixers

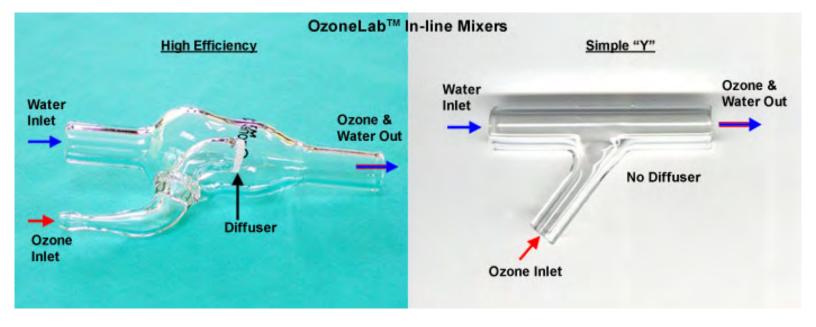








Ozone Services provides in-line mixers in both high efficiency and simple "Y" versions.



High Efficiency In-line Mixer





Material: Pyrex

Ozone Diffuser: Fused Glass // 40-50 micron

Standard: 10mm OD (for 3/8" ID Tubing)

Water IN/OUT Ports: Custom Order: 7mm OD

Standard: 3mm OD (for 1/8" ID Tubing)

Ozone INLET Port: Custom Order: 7mm OD

Size: L = 75 // W = 35 mm

Simple "Y" In-line Mixer



Material: Pyrex Ozone Diffuser: None

Water IN/OUT ports: Standard - 10mm

OD

Size: L = 50 // W = 30 mm

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OzoneLab™ Dental Ozone Attachments



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Dental Ozone Attachments



Heavily ozonated water is recognized as a powerful sanitation agent used in food processing and the electronic industry. Ozonated water, when used as a disinfectant (antiseptic), has three unique characteristics:

- extreme potency / if ORP levels are above 1000[mV] level
- oxygenation of the tissue
- leaves no residuals

Traditionally, our technical solutions to design problems are based on a modular (LEGO) principle. The same approach was adopted when creating Dental Ozone Attachment set - an attachment fully compatible with:



- o OL80 line
- o OL100 line
- o GE60 line
- Aseptico dental systems with peristaltic pump:
 - Model AEU-267
 - o Model AEU-707A
 - o Model AEU-757

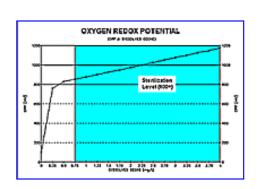
Standard Dental Attachment set includes:

- Dental Ozone Diffuser
- Ozone Destructor
- Set of U Clips (4+1 spare)
- Custom modifications to match other dental instruments are available upon request.

Parameters of operation:

- Oxygen/Ozone Flow:
 - o 1/32LPM (2liters/hour)





- Ozone Concentrations:
 - o 50-90 μg/ml
- Ozone Levels in the liquid:
 - o 850-1200 ORP
- ORP levels reached depend on the temperature & chemical composition of the liquid, ozone concentrations used & ozonation time.

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OzoneLab™ Health Care Provider Supplies



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Health Care Provider Supplies



Injection "T" Site	
3-Way Luer Lock Valve	
0.22μm Filters	
Red Forceps	28
MANUAL Syringe Filling Adapter (Luer Lock Adapters)	
Semi-automatic Syringe Filling Adapter	Mary 19

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OzoneLab™ Inhalation Items



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Inhalations



Nasal Cannula	
30ml Glass Container	
Glass Containers (Assorted Sizes)	
Catalytic Ozone Destructor - 12" long	

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OzoneLab™ Nasal Cannula



 $\underline{\mathsf{Home}} > \underline{\mathsf{Products}} > \underline{\mathsf{Peripherals}} > \underline{\mathsf{Medical Research}} > \underline{\mathsf{Inhalation Items}} > \underline{\mathsf{Nasal Cannula}}$



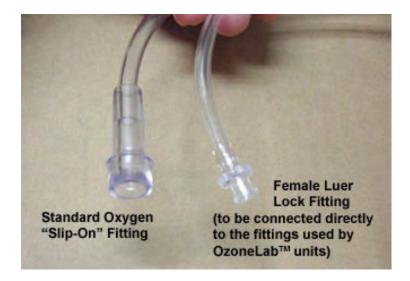








- Latex Free
- Curved, Non-flared Tips
- 7ft (2.1m) Tubing
- Female Luer Locke Fitting
- Over-the-Ear Style
- For Single Patient Use Only



Cannula's are supplied in two different versions:

- a). With standard "funnel" type connector for 1/4" barb fittings, as used by oxygen respiratory market.
- b). With Female Luer Lock fitting, for the use with OzoneLab™ systems.

Directions for Use:

- Prepare the hardware, for an inhalation protocol by following closely the recommendations given by the physician.
- Attach cannula to the patient's face by inserting tips into nostrils, and by
 passing cannula tubing over both ears, positioning the part of the tubing with
 the adjustment ring under the chin.
- To secure the nasal cannula in its correct position, slide adjustment ring up/down as needed, while keeping in mind patient's comfort.

Packaging:

Individually packaged in plastic

Size: 5 x 8.5"Box: 50 units

Bulk





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OzoneLab™ Insufflation Items



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > <u>Insufflations</u>



Ozone Insufflation Set	
Catheters	Oracle Control
Ear Insufflation Attachment - Modified Stethoscopes	8
Red Forceps	20

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OZONE INSUFFLATION BAG & CATHETER SET

OzoneLab™ Insufflation Bags



Home > Products > Peripherals > Medical Research > Insufflation Items > Insufflation Bags











In order to meet the pressing need for disposable ozone insufflation supplies which eliminate all possibilities for cross-contamination, we have designed, performed functional tests as well as tests targeting the ozone resistance of used materials, and initiated the production of Ozone Insufflation Bags as well as Ozone Insufflation Catheters.

Ozone Insufflation Bags have the following features:

- Multi-Chamber design allowing the user to select from three possible options - 200 / 400 / 750ml volume of ozone gas.
- Male Luer Lock (MLL) Inlet/Outlet connection.
- Slide-Closure
- Dosage Quick Reference Table with:
 - Ozone Concentration Range 15-40 [µg/ml]
 - Volume Range 200-750 [ml]

Slide Closure Female Luer Lock (FLL) Chamber 1 connector (200ml) Chamber 2 (400ml) Chamber 3 (750ml) Dosage Quick 2 eyes Reference Table (openings) Male Luer Lock (MLL) Inlet/Outlet connection

Ozone Insufflation Catheters have the following features:

- Length 14"
- Size 14FR.
- 2 eyes (openings) in last 1"
- Female Luer Lock (FLL) connector

Packaging:

- Ozone Insufflation Bag & Catheter Set / 5x 8" sealed plastic bag / non-sterile
 - One (1) Ozone Insufflation Bag with Slide-Closure

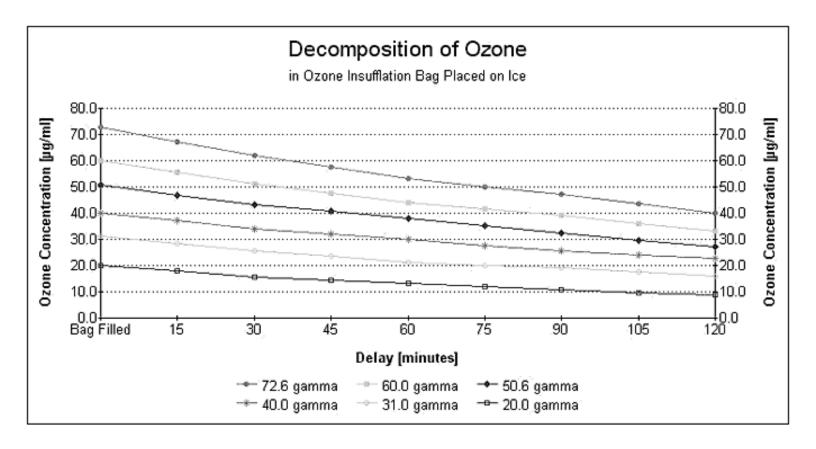
- o One (1) 14" long 14FR catheter
- Ozone Insufflation Catheters / 3x 15" sealed plastic bag / non-sterile
 - Quantity 3 or 5 or 10 catheters per bag
- Bulk packaging is also available. Please contact us for details.

Note:

Some ozonation systems produced by other companies and available on the market do not have the independent controls for regulation of the concentration of ozone gas produced by these instruments. The users of such instruments are usually advised to use flow regulators to control the ozone concentration. However, they are facing the fact that flow rates delivering ozone in concentrations suitable for ozone insufflations, are usually in the range of 1/4-1/2 and even as high as 3/4-1LPM. These flow rates are too high to be safely used for Ozone Insufflations performed by the so called "Direct Link" technique. Ozone Insufflation Bags developed, produced and supplied by our company effectively solve the problems associated with instruments lacking independent ozone concentration regulation, because Ozone Insufflation Bags can be inflated using any flow rate. The delivery of ozone gas via catheter is done manually and therefore, safely and under the complete control of the individual handling the bag.

Decomposition of Ozone

For those clients that may be considering the necessity of transporting ozone gas from the area where ozone generating equipment is located, to another location where ozone gas will be actually used, the below chart shows the rate of decomposition of the ozone gas contained in the Ozone Insufflation Bag placed in an Ice Chest filled with ice chips.



10 Steps (for the safe use of Ozone Insufflation Bags and Catheters)

1. Open the Ozone Insufflation Set protective packaging. Check if slide-clamp is included and if Male Luer Lock (bag) and Female Luer Lock (catheter) fittings mate correctly.





- 2. Insert the Ozone Insufflation Catheter in accordance with the treatment protocol.
- 3. Move the Ozone Insufflation Bag slide-clamp to the OPEN position.
- **4.** Use the Male Luer Lock (MLL) fitting to connect the Ozone Insufflation Bag to the source of ozone gas (O₃ generator) equipped with the Female Luer Lock (FLL) fitting. If the ozone source does not have FLL fitting, a custom made adapter(s) may be needed.

5. The Ozone Insufflation Bag has three chambers, allowing the user to use 200ml, 400ml or 750ml of ozone gas. The separation of the individual chambers is done by squeezing the 3/4" wide channel marked with the "hand image" between the index finger and the thumb (usually left hand). <u>Locking Forceps</u> can be used as an alternative.



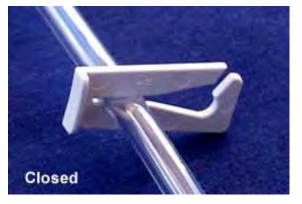


6. Inflate one (200ml), two (200+200m) or all three (200+200+350ml) chambers of the Ozone Insufflation Bag with ozone gas using ozone concentration and the total gas volume according to the selected treatment protocol and dosage. For your convenience and safety, a Dosage Quick Reference Table is printed directly on the Insufflation Bag.



7. Move the slide-clamp to the CLOSED position and disconnect the MLL from the ozone source.

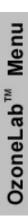




- 8. Use the MLL to attach the Ozone Insufflation Bag to the FLL of the Insufflation Catheter.
- **9.** When ready, move the slide-clamp to the OPEN position. By gradually and gently deflating the Ozone Insufflation Bag, ozone gas is transferred via the Ozone Insufflation Catheter. Start rolling the bag at the bottom, and progress all the way to the upper seam, where the ozone INLET/OUTLET tubing is connected.

10. Safely remove and DISPOSE the Ozone Insufflation Bag and Catheter.	

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OzoneLab™ Catheters



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > <u>Insufflation Items</u> > Catheters



Catheters are DISPOSABLE SUPPLIES.

Consequently, they are designed to be used only once (1x), and should NEVER be shared.

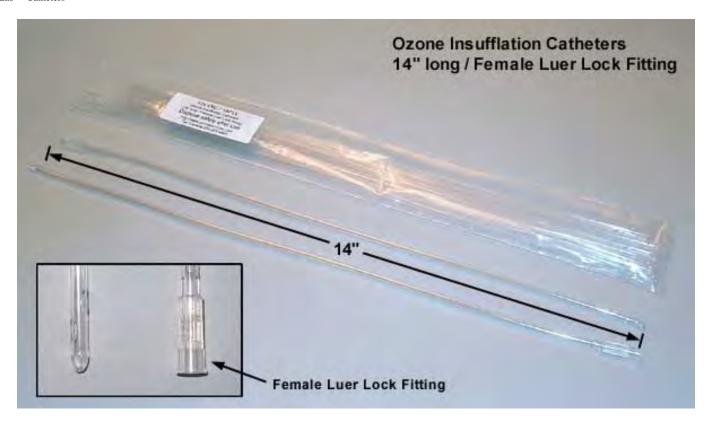
Associated Product: Ozone Insufflation Bags

When selecting catheter, the following aspects should be taken into consideration:

- Length & diameter
- · Catheter adapter and tip style
- . The resistance of the catheter to ozone

We have tested the catheters we sell for ozone resistance and have found no negative results with ozone concentrations up to 60 gamma.

Bulk Catheters - FLL / 14" long / 14Fr. - Non Sterile



Individually Packaged& EtO Sterilized Catheters FLL / 14" long / 14Fr.



Catheter Safety Tips:

- . Never use a catheter which was not properly packaged
- . Never share the same catheter with others
- . Never use the same catheters for different purposes
- . Never use the catheter which shows any sign of deterioration
- . Always store each catheter separately

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OzoneLab™ Modified Stethoscopes

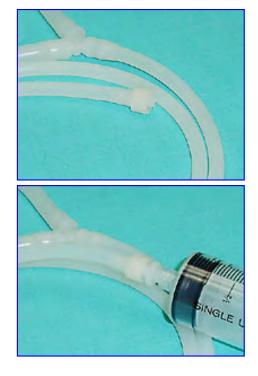


<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Modified Stethoscopes



Modified stethoscopes conveniently split the ozone flow to treat both ears at the same time. Plastic ear "plugs" provide snug fit and limit the leakage of ozone. Inlet port with <u>Luer Lock</u> connector (also available with <u>Quick Connector</u> connections) allows easy connection to an Ozone Services <u>Ozone Generator or System</u> or to a 60ml syringe.





Replacement / spare ear plugs for modified stethoscopes





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For problems pertaining to our Web Site, please contact our <u>WebMaster</u>



OzoneLab™ Locking Forceps



 $\underline{\mathsf{Home}} > \underline{\mathsf{Products}} > \underline{\mathsf{Peripherals}} > \underline{\mathsf{Medical Research}} > \mathsf{Locking Forceps}$







- · Non-Sterile
- Can be used during MAHT, POT, etc.
- Great for Ozone Insufflation Bags (pictured below)





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OzoneLab™ Water Applications



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Water Applications



Containers with Stopcock	11
High Efficiency Diffusion Columns / Containers with Stopcocks - 1000 & 1500ml	_1_1111 ₃ 1
500 & 1000ml Water Snakes	1000 ml 500 ml
Simple "Y" In-line Mixer	
High Efficiency In-line Mixers	
Ozone Resistant Diaphragm Check Valve	
30ml Glass Container	
Glass Containers (Assorted Sizes)	
Catalytic Ozone Destructor - 12" long	

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OzoneLab™ 500ml & 1000ml Water Snakes



Home > Products > Peripherals > Medical Research > 500ml & 1000ml Water Snakes







The Ozone Services Water Snake and Ozone Destructor (not included) makes the preparation of ozonated water very easy and safe:

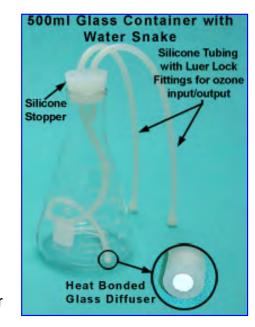
- no ozone off-gas will leak out from open containers
- our Heat Bonded Glass Mini Diffuser will not disintegrate, therefore it will not release impurities into the water.

Technical Data:

- Silicone stopper (Small DIM 1-1/16", Large DIM 1-5/16")
- 2 Ft silicone tubing with Luer Lock or Q-connector (female) "OZONE-IN"
- 1 Ft silicone tubing with Luer Lock or Q-connector (male) "OZONE-OUT"
- GLASS MINI DIFFUSER (Special design. Diffuser is custom made for our company and it is inserted into the open end of the silicone tubing, therefore well protected against breakage)
- 500ml Glass Container (Standard)
- 1000ml Glass Container (Custom Order)







How to Prepare Ozonated Water

Ozonated water can be prepared by bubbling highly concentrated ozone gas trough pure water. Following are the basic guidelines:

- Use pure water only (distilled, treated with R.O. or filtration)
- · Water must be as cold as possible
- Use glass container to prepare ozonated water (tall & narrow container is better then short & wide)
- Ozone bubbles must be as small as possible
- Diffuser must be placed sideways or "face up" near the bottom of the container.
- For best therapeutic results use freshly ozonated water.
- Use an Ozone Destructor to prevent ozone escaping into the air.

Volume and Time

Almost all ozone generators will produce highest concentration of ozone with lowest flow of oxygen passing trough the system. Our OzoneLab™ ozone generators produce:

Ozone Output Information

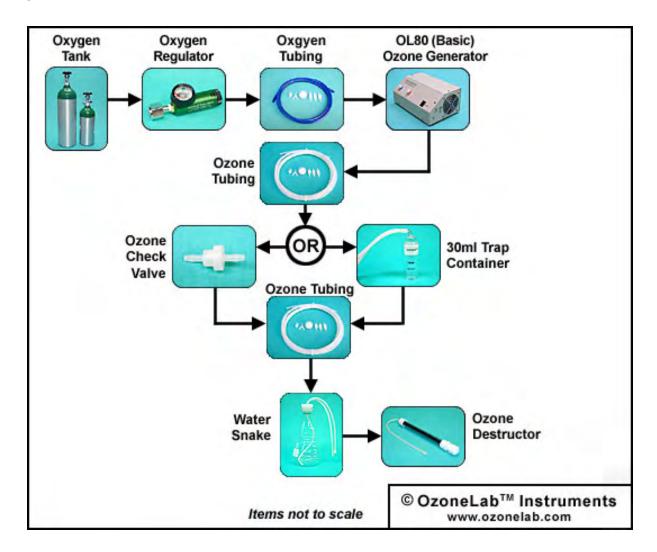
OL80 Module (Single Stage)

Flow LPM	Flow ml/min	Output µg/ml	Output [mg/hr]
0	0	0	0
1/32	31	0 - 161	0 - 299
1/16	62	0 - 131	0 - 487
1/8	125	0 - 93	0 - 698
1/4	250	0 - 57	0 - 855
1/2	500	0 - 33	0 - 990
3/4	750	0 - 23	0 - 1035
1	1000	0 - 17	0 - 1020

- OL80 Sample Output Test Report
- OL80 Ozone Output Graphs
- OL100 Typical Ozone Output Table
- Compare OL80 & OL100
- Compare OL80, OL100, and GE60 units produced between 1994 & 1999
- · How we test our Instruments
- Creating Complex Tower Systems
- Note that we are able to provide Custom Ozone Output adjustments in the range of 10% 100% of the Typical Ozone Output. Contact us for details.
- Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.
- OzoneLab[™] instruments are designed for low flow/high output applications and are not suitable for flow rates
 above 1000ml/min due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For
 applications dealing with higher pressures please contact us for more info and/or consultation)

Higher ozone concentration will "charge" water with "stronger" ozone, therefore 1/32 flow rate with 154 gamma output will be preferable to 1/8 flow and 93 gamma ozone concentration.

Setup Example



Our tests with "WATER SNAKE" suggest following:

Recommended flow rate for 500 and 1000ml Water Snakes is 1/32 and 1/16 flow and should deliver ozone concentrations 100 gamma +

Volume Liter Volume US Gallon		Container Diameter Less than 3"	Container Diameter More than 3"	
0.5	0.12	Minimum 15 minutes	Minimum 20 minutes	
1.0	0.25	Minimum 20 minutes	Minimum 30 minutes	
1.5	0.37	Minimum 30 minutes	Minimum 40 minutes	
2.0	0.5	Minimum 45 minutes	Minimum 55 minutes	
4.0	1	Minimum 95 minutes	Minimum 120 minutes	

Mix occasionally water inside wider containers.

Flow rate 1/16 will cut the time needed for ozonation approximately in half, but levels of ozone dissolved in the water will be lower then with 1/32 flow.

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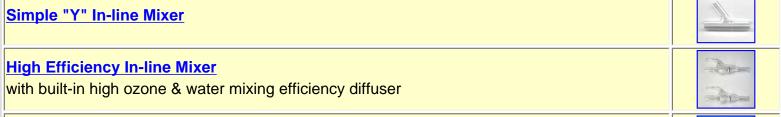


OzoneLab™ In-line Mixers



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > In-line Mixers





Ozone Check Valve



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OzoneLab™ Miscellaneous Items



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Miscellaneous Items



Miscellaneous

Digital Shirtpocket Countdown Timer



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OzoneLab™ Shirt Pocket Countdown Timer



Home > Products > Peripherals > Medical Research > Shirt Pocket Countdown Timer

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A small, battery operated, versatile and simple to use unit suitable for keeping track of time intervals in the range of 00[Min] 01[Sec] to 99[Min] 59[Sec].

The ALARM OUTPUT selection switch offers the user to select the type of alarm signal, which is initiated at the end of each countdown cycle:

- · Visual output / Blinking LED
- Audio output / Beeping (40-50dB)
- · Visual and Audio output combined

All other functions of the timer are associated with the additional three buttons:

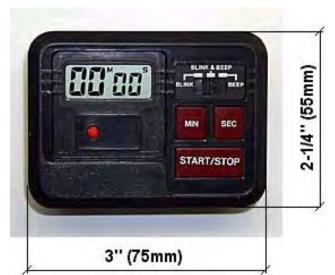
- MIN [Minutes]
- SEC [Seconds]
- START/STOP

Operation of the Countdown Timer:

- To set the time, MIN and SEC buttons are pressed to display the total time duration.
- Then the START/STOP button is pressed and the countdown will be initiated.
- Countdown function active)...
- Countdown reaches to 00-00 and ALARM is activated
- By pressing START/STOP, the timer will:
 - deactivate the ALARM
 - reset to preset time interval
- By pressing START/STOP again, the original countdown sequence will be initiated.

Additional Notes:

• If the countdown was interrupted (pressing START/STOP), the countdown process will be stopped and the remaining time interval will be displayed on the LCD.



• If the START/STOP botton will be pressed again, the countdown will resume.

Resetting the TIME INTERVAL:

- Make sure the countdown function is completed or suspended (pressing START/STOP)
- Press MIN and SEC together Ë the display will show 00-00
- Using MIN and SEC buttons, enter the new time interval

Technical Data:

- Time Range: 00[Min] 01[Sec] Ë 99[Min] 59[Sec]
- Size/Weight: 3x 2-1/4x 5/8 | 75x 55x 15mm (WxLxH) // 2oz | 60gr.
- Battery: Alkaline Cell GPA76 / 9C

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OzoneLab™ Packaging Information



<u>Home</u> > <u>Pricing & Information</u> > Packaging Information



We at Ozone Services feel that packing our products for transport is one of the most important jobs in our whole operation.

We also believe that the way the product is packed by the supplier for transport tells a lot about the care given to all aspects of product design, manufacturing, testing as well as customer support and service.

Ordering products from mail-order companies, catalogs and on the Internet is becoming routine, and we all complain about the cost of shipping, which seems almost always too high. Therefore, it is no surprise that most of our clients feel the same way about our S&H charges. However, all clients who have visited our facility, and who have had an opportunity to see all steps involved in the process of packing for transport products they purchased, agree - "I will never complain about your S&H charge again".

- 1. Most products / items are individually packed and labeled using strip-labels, which are a part of custom designed packing slip. By using this technique we eliminated:
 - a. the confusion associated with identification of individual items / products
 - b. the possibility of overlooking/missing the item/product scheduled for transport
- 2. We stock 36 sizes of cardboard boxes....from 4x4x4" to 30x 30x 30", so, we always have suitable box, regardless what the final configuration of the order is.....and never forget UPS requires 1.5-2" of packaging material all around the product!
- 3. The bottom of the box is always carefully glued first....and "bottom layer" of protective cushioning is prepared. We mostly use loose fill (chips), but sometimes we also use Insta-Pack foam system.....
- 4. Products are placed into the box, "buried" by chips, and if required, packing chips or Insta-Pack foam is used also as cushioning between individual products
- 5. Product information/manual, sale & packing slips are placed on the top layer of protective cushioning...
- 6. Boxes are closed and glued
- 7. ...and taped
- 8. ...and strapped (if larger than 16x10x10")
- 9. ...and labeled
- 10. ...and shipped.

Some boxes contain one item only, and some orders consist of up to 30-35 different items/products, reaching the total weight of 150Lbs. However, outlined process is almost always the same, and in year 2002 alone it was repeated over 1450 times....





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For problems pertaining to our Web Site, please contact our <u>WebMaster</u>



OzoneLab™ OLO Pricelist



Home > Pricing & Information > OLO Pricelist







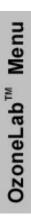
Online Order Page

All prices are in US Dollars and do not include shipping and handling.

240L Aluminum Oxygen Tank - CGA540 fitting Size - 4.5 x 15" (O.D.xH) / 5.5Lbs	US \$225.00	
OzoneLab™ Oxygen Flow Regulator - CGA540 "OFF", 1/32, 1/16. 1/8, 1/4, 1/2, 1, 1.5, 2, 2.5, 3, 4 LPM	US \$236.00	
OzoneLab™ Oxygen Flow Regulator - CGA870 "OFF", 1/32, 1/16. 1/8, 1/4, 1/2, 1, 1.5, 2, 2.5, 3, 4 LPM	US \$236.00	Oxygen Flow Requision with COAPTO Printing
Adapted BS No. 3 OzoneLab™ Oxygen Flow Regulator "OFF", 1/32, 1/16. 1/8, 1/4, 1/2, 1, 1.5, 2, 2.5, 3, 4 LPM	US \$270.00	
Oxygen Transfer Adapter - CGA540/M —➤ CGA540/M	US \$37.00	
Oxygen Regulator "T" Adapter - CGA540/M -> 2x (CGA540/F)	US \$57.00	
Oxygen Regulator Adapter - CGA870/M CGA540/F	US \$45.00	-01
Oxygen Transfer Adapter - CGA870 - CGA870	US \$81.00	
Oxygen Transfer Adapter - CGA540/M	US \$59.00	OFFICE
Oxygen Transfer Adapter - "BS No. 3 straight" — CGA 540	US \$59.00	3

Oxygen Tank main valve (CGA540)	US \$42.00	
0.22µm Filters - Non Sterile - bulk (QTY: 1-9)	US \$2.50 each	
0.22µm Filters - Non Sterile - bulk (QTY: 10-49)	US \$2.25 each	
0.22µm Filters - Non Sterile - bulk (QTY: 50 or more)	US \$2.00 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 1-9)	US \$3.00 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 10-49)	US \$2.75 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 50 or more)	US \$2.50 each	
Plastic handle for CGA870 Oxygen Tanks	US \$5.00 each	
Replacement seal for CGA870 Regulators	Contact Us for Pricing	•

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OzoneLab™ Ozone Instrument Pricelists



<u>Home</u> > <u>Pricing & Information</u> > Ozone Instrument Pricelists







Online Order Page

All prices are in US Dollars and do not include shipping and handling.

OL80 Wall Mounted Line Ozone Generator

Model & Product Link	OL80W	OL80W/	OL80W/
	(No Flowmeter)	FMxxx	FMxxxT
Generator, Analyzer or Combination	Generator	Generator	Generator
	Only	Only	Only
Model Picture	Total Statement	Total State of the Control of the Co	Total Andrews (Control of the Control of the Contro
Base Price [U\$]	\$1,895.00	\$1,970.00	\$2,055.00

The OzoneLab™ OL80 Desktop Line (45° panel series) has been discontinued and replaced with our OzoneLab™ OL80 - 90° panel series. We feel that the OL80 90° panel series provides clients with more features and a versatile design.

Model & Product Link	OL80 (Basic)	OL80B/T	<u>OL80</u>	OL80F/S	OL80F/ST
Wodel & Floudet Lilik	45° panel	45° panel	45° panel	45° panel	45° panel
Generator, Analyzer or Combination	Generator	Generator	Generator	Generator	Generator
	Only	Only	Only	Only	Only
Model Picture		The state of the s	Open distance Op		
Base Price [U\$]	Discontinued	Discontinued	Discontinued	Discontinued	Discontinued

OL80 Desktop Line Ozone Generator (90° panel series)

Model & Product Link	OL80F/Basic	OL80F	OL80F/DST	OL80F/DSTR	OL80F/DST-2S
	90° panel	90° panel	90° panel	90° panel	90° panel
Generator, Analyzer or Combination	Generator	Generator	Generator	Generator	Generator
	Only	Only	Only	Only	Only
Model Picture		O			100
Base Price [U\$]	\$1,780.00	\$1,945.00	\$2,515.00	\$2,625.00	\$2,995.00

OL80 Combination Instruments

Model & Product Link	OL80A/DLS	OL80M
Generator, Analyzer or Combination	Generator & Analyzer	Generator & Controller
Model Picture		
Base Price [U\$]	\$7,595.00	\$3,395.00 + <u>Programming</u>

OL100 Desktop Line of Ozone Generators

Model & Product Link	OL100/ Basic	OL100/T	OL100/ DS
Generator, Analyzer or Combination	Generator Only	Generator Only	Generator Only
Model Picture			
Base Price [U\$]	\$3,695.00	\$3,780.00	\$4,180.00

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OzoneLab™ Ozone Controllers Pricelist



<u>Home</u> > <u>Pricing & Information</u> > Ozone Instrument Pricelists

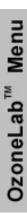


Online Order Page

All prices are in US Dollars and do not include shipping and handling.

Model & Product Link	OL80M
Generator, Analyzer or Combination	Generator & Controller
Model Picture	
Base Price [U\$]	\$3,395.00 + <u>Programming</u>

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OzoneLab™ Ozone Analyzer Pricelist



<u>Home</u> > <u>Pricing & Information</u> > Ozone Analyzer Pricelist



Online Order Page

All prices are in US Dollars and do not include shipping and handling.

Model & Product Link	OLA	OLA/D	OLA/L	OLA/DL	OLA/DS	OLA/DLS	OL80A/ DLS
Generator, Analyzer or Combination	Analyzer Only	Analyzer Only	Analyzer Only	Analyzer Only	Analyzer Only	Analyzer Only	Generator & Analyzer
Model Picture							
Base Price [U\$]	\$5,345.00	\$5,405.00	\$5,405.00	\$5,465.00	\$5,830.00	\$5,890.00	\$7,595.00

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OzoneLab™ OLP - Medical Research Peripherals Price List



<u>Home</u> > <u>Pricing & Information</u> > OLP Pricelist



Online Order Page

All prices are in US Dollars and do not include shipping and handling.

- Oxggen Tanks & Oxygen Regulators
- Tubing 1/8ID & 1/4OD and Luer Lock Fittings
- Pre-Selected Tubing & Fitting Sets for OzoneLab™ OL80 and OL100 systems
- Tubing 3/16ID & 5/16OD, Clamps, Q-connectors
- Bagging Supplies
- Cupping
- Colon Therapy
- Dental Attachments & Accessories
- Health Care Provider Supplies
- Inhalations
- Insufflations
- Water Applications & Ozonation
- Glass Containers
- In-line Mixers
- Oxygen/Ozone Manifolds
- Syringe Filling Adapters
- OzoneLab[™] Power Supply Accessories
- EXT Port Accessories & Peripherals
- OzoneLab™ UV & Ozone Generator Cases, Stands and Wall Mounted Racks
- Programmable Controller Module Peripherals
- Miscellaneous Products
- Books and Videos

Tubing - 1/8ID & 1/4OD, Luer Lock Fittings

New OL80 and OL100 ozone systems are designed to work exclusively with Kynar™ Luer Lock fittings (connectors), and 1/8"ID tubing.

Oxygen (OXY) tubing - 1/8ID & 1/4OD (Clear or Blue) / per 1FT	US \$0.60	≣
Oxygen (OXY) tubing - 1/8ID & 1/4OD (Clear or Blue) / 100FT roll	US \$50.00	≣
Oxygen & Ozone Silicone (Milky) tubing - 1/8"ID & 1/4"OD / per 1FT	US \$1.75	
Oxygen & Ozone Silicone (Milky) tubing - 1/8"ID & 1/4"OD / 100FT roll	US \$145.00	量
Oxygen & Ozone Teflon™ tubing - 1/8"ID & 3/16"OD / per 1FT	US \$1.75	臺
Oxygen & Ozone Teflon™ tubing - 1/8"ID & 3/16"OD / 100FT roll	US \$145.00	≣
Kynar™ Male Luer Lock Fitting 1/8" for 1/8" I.D. tubing / 1pc.	US \$1.50	-
Kynar™ Male Luer Lock Fitting 1/8" for 1/8" I.D. tubing / bag of 10pcs.	US \$12.50	-
Kynar™ Female Luer Lock Fitting for 1/8" I.D. tubing / 1pc.	US \$1.50	
Kynar™ Female Luer Lock Fitting for 1/8" I.D. tubing / bag of 10pcs.	US \$12.50	
Kynar™ Luer Lock Connectors for 1/8" I.D. tubing / 1 set - female & male)	US \$3.00	4
Kynar™ Luer Lock Connectors for 1/8" I.D. tubing / bag of 10 sets)	US \$25.00	4
Kynar™ Female-Female Luer Lock Coupler / 1pc.	US \$1.50	
Kynar™ Female-Female Luer Lock Coupler / bag of 10pcs.	US \$12.50	
Kynar™ "Y" Fitting for 1/8"ID Tubing / 1pc.	US \$1.50	Man Information
Kynar™ "Y" Fitting for 1/8"ID Tubing / bag of 10 sets)	US \$12.50	Y
Kynar™ "T" Fitting 3/16" - 1/8" - 3/16"	US \$1.50	~

1		
Ozone Resistant Diaphragm Check Valve Specify 1/8" ID or 3/16" ID tubing	US \$7.50	-
Ozone Resistant Diaphragm Check Valve Specify 1/8" ID or 3/16" ID tubing - 10pcs.	US \$67.50	+
Kynar™ Adapter for 1/8"ID Tubing / 1pc. 1/8" ID to 3/16" ID	US \$1.50	### ### WAY More Information
Kynar™ Adapter for 1/8"ID Tubing / 10pcs. 1/8" ID to 3/16" ID	US \$12.50	More information
Kynar™ Adapter for 1/8"ID Tubing / 1pc. 1/8" ID to 5/32" ID	US \$1.50	## ## www.
Kynar™ Adapter for 1/8"ID Tubing / 10pcs. 1/8" ID to 5/32" ID	US \$12.50	## ## www
Kynar™ Adapter for 1/8"ID Tubing / 1pc. 1/8" ID to 1/16" ID	US \$1.50	H H ex
Kynar™ Adapter for 1/8"ID Tubing / 10pcs. 1/8" ID to 1/16" ID	US \$12.50	H H va
Oxygen compatible Check Valve with Luer Lock Fittings	US \$2.00	Orygan Clark Valve Law force force force force force
Oxygen compatible Check Valve with Luer Lock Fittings - 10pcs.	US \$16.50	Orygan Check Yoles Learning Age 27 - 2 Learning Lands Ferrore 4-2.27 - 4 Learning Lands
0.22μm filters with Luer Lock fittings / sterile	US \$3.00	
0.22μm filters with Luer Lock fittings / sterile - pack of 12pcs.	US \$33.00	

<u>Pre-Selected Tubing & Fitting Sets</u> for OzoneLab™ OL80 and OL100 systems

	20FT Laboratory	5FT Medical	10FT Medical
Kynar™ Male Luer Lock Fitting for 1/8"ID Tubing	6 pcs	6 pcs	6 pcs
Kynar™ Female Luer Lock Fitting for 1/8"ID Tubing	6 pcs	6 pcs	6 pcs
Kynar™ Luer Lock Coupler w/Female-Female	2 pcs	2 pcs	2 pcs
Kynar™ "Y" Fitting for 1/8"ID Tubing	2 pcs	2 pcs	2 pcs

0.22µm "O3" Filters w/Male-Female Luer Lock Fittings	2 pcs	2 pcs	2 pcs
"O2" PVC Tubing (Clear or Blue / 1/8"ID & 1/4"OD)	N/A	5FT	10FT
"O2" & "O3" Silicone Tubing (Milky / 1/8"ID & 1/4"OD)	N/A	5FT	10FT
"O2" & "O3" Teflon Tubing (1/8"ID & 3/16"OD)	20FT	N/A	N/A
Ozone Insufflation Bag StartSet / OIB (1) & Catheter (3)	N/A	N/A	1 Set
Price per set	US \$53.00	US \$33.00	US \$53.00

Tubing - 3/16ID & 5/16OD, Clamps, Q-connectors

All components listed in this section are available primarily as replacement components for our older GE60 ozone systems (manufactured until October 2002).

Oxygen (OXY) tubing - 3/16ID & 5/16OD - 10Ft	US \$7.00	
Oxygen (OXY) tubing - 3/16ID & 5/16OD - 100Ft	US \$50.00	
OZONE tubing - 3/16ID & 5/16OD - 10Ft	US \$28.00	=
OZONE tubing - 3/16ID & 5/16OD - 100Ft	US \$250.00	=
Plastic Clamps (bag - 10pcs.)	US \$5.00	20
Plastic Clamps (bag - 100pcs.)	US \$40.00	200
Q-connectors - 1 set (female & male)	US \$3.00	200
Q-connectors - (bag - 10 sets)	US \$25.00	88
SET - 12x clamp and 3x Q-connector	US \$15.00	200
SET - 5Ft "OXY" Tubing, 5Ft "OZONE" Tubing, 10pcs Plastic Clamp, 2 sets of Q-connector	US \$28.00	
SET - 10Ft "OXY" Tubing, 10Ft "OZONE" Tubing, 15pcs Plastic Clamp, 5 sets of Q-connector	US \$46.00	
	,	

Quick Connector Female to Luer Lock Female Adapter	Contact Us	Quick Connector Female Lear Lock Female
Ozone Resistant Diaphragm Check Valve 3/16" I.D. tubing	US \$7.50	
0.22µm filters with Luer Lock fittings / sterile	US \$3.00	

Bagging

Limb Bag Inlet Outlet Port(s) - QTY: 1-9 (reusable / 2 ports are needed per one bag)	US \$3.50 each	
Limb Bag Inlet Outlet Port(s) - QTY: 10+ (reusable / 2 ports are needed per one bag)	US \$3.00 each	
Connector for I/O Port (QTY: 50 and more)	Call for Pricing	
Disposable "ArmBag" with INLET/OUTLET port (QTY: 1-9)	US \$5.30 each	
Disposable "ArmBag" with I/O Port (QTY: 10-49)	US \$4.40 each	
Disposable "ArmBag" with I/O Port (1 box - 50 QTY)	US \$198.75	Crone
Disposable "ArmBag" without I/O Port (QTY: 1-9)	US \$0.60 each	Outlet Inlat
Disposable "ArmBag" without I/O Port (QTY: 10-49)	US \$0.50 each	
Disposable "ArmBag" without I/O Port (1 box - 50 QTY)	US \$22.50	
Disposable "BootBag" with I/O Port (QTY: 1-9)	US \$6.80 each	
Disposable "BootBag" with I/O Port (QTY: 10-49)	US \$5.20 each	
Disposable "BootBag" with I/O Port (1 box - 50 QTY)	US \$255.00	
Disposable "BootBag" without I/O Port (QTY: 1-9)	US \$1.80 each	Ozone Outset Ozone Inlet
Disposable "BootBag" without I/O Port (QTY: 10-49)	US \$1.45 each	
Disposable "BootBag" without I/O Port (1 box - 50 QTY)	US \$67.50	
Disposable "UniBag" with I/O Port (QTY: 1-9) L=20" or L=36"	US \$5.30 each	
Disposable "UniBag" with I/O Port (QTY: 10-49) L=20" or L=36"	US \$4.40 each	
Disposable "UniBag" with I/O Port (1 box - 100 QTY) L=20" or L=36"	US \$397.50	Outer UniBag all intercoper
Disposable "UniBag" without I/O Port (QTY: 1-9) L=20" or L=36"	US \$0.30 each	in the state of th

Catalytic Ozone Destructor - 12" long	US \$55.00	
1x ArmBag with Ozone Inlet& Outlet ports installed 1x BootBag with Ozone Inlet& Outlet ports installed 25x 20" UniBag without Ozone Inlet& Outlet ports 25x 36" UniBag without Ozone Inlet& Outlet ports 25x 2FT Velcro double sided 1x Connectors for Limb Bagging Inlet and Outlet Port Total US \$5.30 US \$6.80 US \$6.25 US \$6.25 US \$5.00 US \$7.00 US \$7.00	US \$36.60	
Disposable "UniBag" without I/O Port (1 box - 100 qty) L=20" or L=36" Limb Bagging Set	US \$22.50	
Disposable "UniBag" without I/O Port (QTY: 10-49) L=20" or L=36"	US \$0.25 each	

Cupping

Glass Ozone Cup with two ports / Dim 1"	US \$44.00	
Glass Ozone Cup with two ports / Dim 2"	US \$46.00	
Glass Ozone Cup with two ports / Dim 3"	US \$50.00	
Glass Ozone Cup with two ports / Dim 4"	US \$54.00	

Colon Therapy

Simple "Y" In-line Mixer	US \$7.50	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 10mm OD -Ozone IN port - 7mm OD	US \$75.00	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 10mm OD - Ozone IN port - 3mm OD	US \$75.00	

High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 7mm OD -Ozone IN port - 7mm OD	Custom Order Contact Us	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 7mm OD - Ozone IN port - 3mm OD	Custom Order Contact Us	
Ozone Resistant Diaphragm Check Valve 1/8" ID or 3/16" ID tubing	US \$7.50	-
Ozone Resistant Diaphragm Check Valve 1/8" ID or 3/16" ID tubing - 10pcs.	US \$67.50	

Dental Attachments & Accessories

Aseptico Dental Systems with Peristaltic Pump	Call for pricing	
4-port 11" Diffuser / DENTAL Applications	US \$127.00	No.
U Clips for 11 DENTAL Glass Diffuser	US \$3.00 each	

Health Care Provider Supplies

Injection "T" Site	US \$3.00 each	6
3-Way Luer Lock Valve / Individually packed, sterile	US \$3.00 each	
0.22µm Filters - Non Sterile - bulk (QTY: 1-9)	US \$2.50 each	
0.22µm Filters - Non Sterile - bulk (QTY: 10-49)	US \$2.25 each	
0.22µm Filters - Non Sterile - bulk (QTY: 50 or more)	US \$2.00 each	
0.22μm Filters - Sterile - Individually Packed (QTY: 1-9)	US \$3.00 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 10-49)	US \$2.75 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 50 or more)	US \$2.50 each	
Red Forceps Non-sterile - (QTY: 1-9)	US \$2.00 each	
Red Forceps Non-sterile - (QTY: 10-49)	US \$1.70 each	2

Red Forceps Non-sterile - (QTY: 50 and more)	US \$1.35 each	
Syringe Filling Adapter / Manual (Luer Lock 3-way valve)	US \$19.00	
Syringe Filling Adapter / Semi-automatic	US \$455.00	-thu -

Inhalations

Nasal Cannula with 7' crush resistant tubing - Female Luer Lock (QTY: 1-9)	US \$2.25 each	
Nasal Cannula with 7' crush resistant tubing - Female Luer Lock (QTY: 10-49)	US \$2.00 each	
Nasal Cannula with 7' crush resistant tubing - Female Luer Lock (QTY: 50 and more)	US \$1.75 each	
Nasal Cannula with 7' crush resistant tubing - standard push-on female barrel type fitting (QTY: 1-9)	US \$1.50 each	
Nasal Cannula with 7' crush resistant tubing - standard push-on female barrel type fitting (QTY: 10-49)	US \$1.25 each	
Nasal Cannula with 7' crush resistant tubing - standard push-on female barrel type fitting (QTY: 50 and more)	US \$1.00 each	
Acrylic desktop 1-chamber stand for 1x 30ml container (Size 4x 3.25x 4.25" / WxHxD)	US \$18.00	
Acrylic desktop 2-chamber stand for / 2x 30ml container (Size 8x 3.25x 4.25" / WxHxD)	US \$26.00	Containers not included
30ml Glass Container for Oil	US \$54.00	
30ml Glass Container - Trap	US \$54.00	
60ml Glass Container for Oil	US \$54.00	
60ml Glass Container - Trap	US \$54.00	

Catalytic Ozone Destructor - 12" long	US \$55.00	
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Insufflations

Ozone Insufflation Set (1 bag & 1 catheter/ non-sterile) (QTY: 1-9)	US \$4.90 each	
Ozone Insufflation Set (1 bag & 1 catheter/ non-sterile) (QTY: 10-49)	US \$4.10 each	
Ozone Insufflation Set (1 bag & 1 catheter/ non-sterile) (QTY: 50 and more)	US \$3.25 each	
Ozone Insufflation Bags only (bulk packaging / non-sterile) (QTY: 1-9)	N/A	
Ozone Insufflation Bags only (bulk packaging / non-sterile) (QTY: 10-49)	US \$2.85 each	
Ozone Insufflation Bags only (bulk packaging / non-sterile) (QTY: 50 and more)	US \$2.25 each	
Catheters - FLL / 14" long / 14Fr Bulk - Non Sterile (QTY: 1-9)	US \$1.50 each	
Catheters - FLL / 14" long / 14Fr. Bulk - Non Sterile (QTY: 10-49)	US \$1.25 each	The Management of the Control of the
Catheters - FLL / 14" long / 14Fr. Bulk - Non Sterile (QTY: 50 and more)	US \$1.00 each	
Catheters - FLL / 14" long / 14Fr. Individually Packaged& EtO Sterilized (QTY: 1-9)	US \$2.00 each	
Catheters - FLL / 14" long / 14Fr. Individually Packaged& EtO Sterilized (QTY: 10-49)	US \$1.75 each	THESE.
Catheters - FLL / 14" long / 14Fr. Individually Packaged& EtO Sterilized (QTY: 50 and more)	US \$1.50 each	
Ear Insufflation Attachment - Modified Stethoscopes	US \$26.00	
Replacement / Spare ear plugs - Modified Stethoscopes	US \$2.10 / pair	• •
Red Forceps Non-sterile - (QTY: 1-9)	US \$2.00 each	
Red Forceps Non-sterile - (QTY: 10-49)	US \$1.70 each	8
Red Forceps Non-sterile - (QTY: 50 and more)	US \$1.35 each	

Water Applications & Ozonation

500ml Water Snake Includes stopper (OD - 1.25 ->1.5"), Mini diffuser, & 500 ml glass container	US \$35.00	1500 pt 500 psi
500ml glass flask for Water Snake	US \$8.00	VOO at SO soul
Silicone Stopper & Tubes & Diffuser replacement set for 500ml Water Snake	US \$27.00	
1000ml Water Snake Includes - stopper (OD - 1.25 ->1.75"), Mini diffuser, & 1000 ml glass container	US \$40.00	
Temporarily out of stock	Temporarily out of stock	
1000ml glass flask for Water Snake	US \$9.00	150 nt 500 nt
Silicone Stopper & Tubes & Diffuser replacement set for 1000ml Water Snake	US \$31.00	
Mini Frit Diffuser (Water Snake end)	US \$8.00	
1500ml High Efficiency Diffusion Column (with diffuser, water inlet and Teflon stopcock)	US \$375.00	
Simple "Y" In-line Mixer	US \$7.50	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 10mm OD -Ozone IN port - 7mm OD	US \$75.00	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 10mm OD - Ozone IN port - 3mm OD	US \$75.00	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 7mm OD -Ozone IN port - 7mm OD	Custom Order Contact Us	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 7mm OD - Ozone IN port - 3mm OD	Custom Order Contact Us	
Ozone Resistant Diaphragm Check Valve 1/8" ID or 3/16" ID tubing	US \$7.50	-

Ozone Resistant Diaphragm Check Valve 1/8" ID or 3/16" ID tubing - 10pcs. Acrylic desktop 2-chamber stand for / 2x 30ml container (Size 8x 3.25x 4.25" / WxHxD)	US \$67.50 US \$26.00	
	US \$26.00	
		Containers not included
30ml Glass Container for Oil	US \$54.00	
30ml Glass Container - Trap	US \$54.00	
60ml Glass Container for Oil	US \$54.00	
60ml Glass Container - Trap	US \$54.00	
Glass Diffuser - STR (I-shape)	US \$33.00	
Glass Diffuser - USD (J-shape)	US \$38.00	
4-port 11" Flow-through Diffusion Column	US \$127.00	The state of the s
U Clips for 11 Flow-through Diffusion Column	US \$3.00 each	
Diffusion Columns with Cooling Jackets	Contact Us	200
Glass Diffuser - Mini	US \$15.00	
Catalytic Ozone Destructor - 12" long	US \$55.00	
Standard Catalytic Ozone Destructor - 12" long	US \$55.00	
Standard Catalytic Ozone Destructor Agent Refill	US \$20.00	-
In-Line Custom Ozone Destructors	Contact Us	-
Glass Fitting - "T", "Y", "- -" tubing - 7mm O.D.	US \$7.50	

Glass Containers

Acrylic desktop 1-chamber stand for 1 x 30ml container (Size 4x 3.25x 4.25" / WxHxD)	US \$18.00	3-chamber stand shown
Acrylic desktop 2-chamber stand for 2 x 30ml container (Size 8x 3.25x 4.25" / WxHxD)	US \$26.00	3-chamber stand shown
Acrylic desktop 3-chamber stand for 3 x 30ml container (Size 8x 3.25x 4.25" / WxHxD)	US \$31.00	
30ml Glass Container for Oil	US \$54.00	
30ml Glass Container - Trap	US \$54.00	
60ml Glass Container for Oil	US \$54.00	
60ml Glass Container - Trap	US \$54.00	
125ml or 250ml Glass Container (Dim 54mm) w/o scale	US \$66.00	
250ml Glass Container (Dim 54mm) with scale	US \$100.00	

In-line Mixers

Simple "Y" In-line Mixer	US \$7.50	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 10mm OD -Ozone IN port - 7mm OD	US \$75.00	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 10mm OD - Ozone IN port - 3mm OD	US \$75.00	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 7mm OD -Ozone IN port - 7mm OD	Custom Order Contact Us	
High Efficiency In-line Mixer with built-in high ozone & water mixing efficiency diffuser - 7mm OD - Ozone IN port - 3mm OD	Custom Order Contact Us	

Oxygen/Ozone Manifolds

Ozone and Oxygen Manifold [OM-12/2 x 1/8"-O]	Contact Us	70000
Ozone and Oxygen Manifold [OM-7/2 x 1/4"]	Contact Us	

Syringe Filling Adapters

Syringe Filling Adapter / Manual (Luer Lock 3-way valve)	US \$19.00	
Syringe Filling Adapter / Semi-automatic	US \$455.00	Mary
0.22µm Filters - Non Sterile - bulk (QTY: 1-9)	US \$2.50 each	
0.22µm Filters - Non Sterile - bulk (QTY: 10-49)	US \$2.25 each	
0.22µm Filters - Non Sterile - bulk (QTY: 50 or more)	US \$2.00 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 1-9)	US \$3.00 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 10-49)	US \$2.75 each	
0.22µm Filters - Sterile - Individually Packed (QTY: 50 or more)	US \$2.50 each	

OzoneLab™ Power Supply Accessories

12VDC Power Adapter for OzoneLab™ 12VDC Systems	US \$39.00	1
Extension Cord for Car 12VDC Plug Adapter	US \$7.00	9
Car 12VDC Plug Adapter for OzoneLab™ 12VDC Systems	US \$6.00	×
Hand Switch Power Controller 12 foot tubing length	US \$111.00	

Extension Cord for 12VDC Battery (with Battery Post Clamps)	US \$28.00	QA
External 220VAC to 120VAC Power Converter	US \$38.00	

EXT Port Accessories & Peripherals

 OLW Wireless Controller Includes: 1x Receiver Module 2x Transmitter Modules 1x Standard: 3.5mm M/M plug, Stereo, 6FT 1x Standard: OzoneLab™ Power Adapter 	US \$295.00	
External Ozone Concentration Regulator (OCR)	US \$195.00	
OzoneLab™ Foot Switch Control STANDARD configuration - 6 Foot cord	US \$195.00	
OzoneLab™ Foot Switch Control STANDARD configuration - 12 Foot cord	US \$199.00	
3.5mm Stereo Plug to 3.5mm Stereo Jack (Male - Female) - 6 foot (12 foot cable available upon special request)	US \$6.75	
3.5mm Stereo Plug to 3.5mm Stereo Plug (Male - Male) - 6 foot (12 foot cable available upon special request)	US \$6.75	
3.5mm Stereo Plug to Red/White 3.5mm Stereo Jack (Y)	US \$4.00	Ann. Achandes
3.5mm Stereo Plug to Red/White 3.5mm Stereo Plug (Y)	US \$4.00	Ann. Alexandre
3.5mm Stereo Plug with strain relief	US \$1.75	
3.5mm Stereo Jack - Panel Mount	US \$3.00	

OzoneLab™ UV & Ozone Generator Cases, Stands and Wall Mounted Racks

ABS Plastic Case with foam Standard color - gray, size - 17 x 14 x 6" (WxHxD)	US \$220.00	
ABS Plastic Case w/o foam Standard color - gray, size - 17 x 14 x 6" (WxHxD)	US \$174.00	
Custom die-cut foam for ABS Plastic case	US \$46.00	
Acrylic Desktop Demo Stand with oxygen tank compartment Size - 19 x 17 x 7" (WxHxD)	US \$129.00	
Acrylic Desktop Stand #2 with oxygen tank compartment Size - 12 x 22 x 12" (WxHxD) - special order - serial production was discontinued	US \$144.00	
Acrylic Wall Mounted Rack #1 w/o oxygen tank comp. Size - 15 x 27 x 7" (WxHxD) - special order - serial production was discontinued	US \$213.00	
Acrylic Wall Mounted Rack #2 with oxygen tank comp. Size - 24 x 27 x 7" (WxHxD) - special order - serial production was discontinued	US \$225.00	
Wall mount base for ozone generator, 30ml container and destructor	US \$30.00	
Acrylic wall mount cover for GE & OL80W ozone generators	US \$64.00	
Acrylic desktop stand for 30ml containers 1-chamber for 1x 30ml container (Size 4x 3.25x 4.25 / WxHxD) Does Not include glass 30ml container	US \$18.00	
Acrylic desktop stand for 30ml containers 2-chamber for / 2x 30ml container (Size 8x 3.25x 4.25 / WxHxD) Does Not include glass 30ml containers	US \$26.00	

Programmable Controller Module Peripherals

OzoneLab™ Thermal Printer standard set contains:		
 Thermal Printer Power Supply (120VAC/6.5VDC/2000mA) Rechargeable Battery Pack 6FT DB9M/DB9M Cable 3 Rolls of Thermal Paper 	US \$495.00	132

Miscellaneous Products

<u>Digital Shirtpocket Countdown Timer</u> with LCD display - [M/S]

US \$15.00



Books and Videos

Book - Oxygen-Ozone Therapy: A Critical Evaluation Velio Bocci, PhD. Hardcover, 440 pages (0.98 x 9.76 x 6.46")	US \$143.00	Organ-Grown Therepy or and analysis
Book - The Use of Ozone in Medicine Renate Viebahn-Haensler (4th revised edition)	US \$34.00	Wilden Assessed
Book - Oxygen Healing Therapies Nathaniel Altman (201 pages) (Temporarily out of stock)	US \$15.00 Temporarily out of stock	OTYPEN HEALTH OTTHER THE PROPERTY OF THE PROPE
Book - Into the Light by William Campbell Douglas, M.D.	US \$15.00	into the Light
Book - <u>Cancer Action Plan</u> by Simon & Enrida Kelly	US \$20.00	CANCER ACTION PIAN Local Constitution Local

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OzoneLab™ OLT Pricelist



<u>Home</u> > <u>Pricing & Information</u> > OLT Pricelist

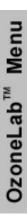


Online Order Page

All prices are in US Dollars and do not include shipping and handling.

OEM Digital Countdown Timer / 1.5VDC (Timer only)	US \$20.00	START/STOP
OEM Digital Countdown Timer (with PCB)	US \$85.00	
Shirtpocket Timer - [M/S]	US \$15.00	OUCC COMPANY

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OzoneLab™ OLW Pricelist



<u>Home</u> > <u>Pricing & Information</u> > OLW Pricelist







Online Order Page

All prices are in US Dollars and do not include shipping and handling.

OLW Wireless Controller	US \$295.00	
Includes:		

 1x Receiver Module 2x Transmitter Modules

• 1x Standard: 3.5mm M/M plug, Stereo, 6FT

1x Standard: OzoneLab™ Power Adapter

EXT Port Accessories

3.5mm Stereo Plug to 3.5mm Stereo Jack (Male - Female) - 6 foot (12 foot cable available upon special request)	US \$6.75	Non-Lifermation
3.5mm Stereo Plug to 3.5mm Stereo Plug (Male - Male) - 6 foot (12 foot cable available upon special request)	US \$6.75	A second second

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OzoneLab™ Order Form



<u>Home</u> > Order Form







Upcoming Holiday Hours

To prevent complications with shipping during the most busy time of the year for all couriers, we do not ship in December.

We will resume taking orders effective January 7, 2008.

Thank you.

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Embedded Secure Document

The file http://www.ozoneservices.com/downloads/files/faxorder.pdf is a secure document that has been embedded in this document. Double click the pushpin to view.



Ozone Services Purchase Order Fax Form

Quantity		Product	Price
======	=======================================	=======================================	===== ======
			
			
	S&H as quot	ted by Ozone Services	
	-		
		Т	OTAL:
Billing Name:			
7 4 4 •			
Address.			
City:		State:	Zip:
Phone No:		Email Address:	
Ear No:			
rax no.			
Shipping Name:			
Address: _			
City:		State:	Zip:
Phone No: _		Email Address:	
Fax No: _		<u></u>	
Payment Method:	VisaMastercard	DiscoveryMoney Orde	rPersonal Cheque
Credit Card No:		Expiry Date: _	
vame on Credit C	aru:		

I understand that by completing and signing this form, that Ozone Services will debit my credit card for the total amount indicated in U.S. Dollars plus applicable S & H charges.

Date: Signature:
US Combany no minor the fellowing for all phinneys and all and are 1200US and are USA.
US Customs requires the following for all shipments valued over 1200U\$ entering USA: Businesses - Tax Identification No:
Individuals - Social Security No:
If you are using your credit card, please fax this form to Ozone Services at 250-265-4482.
If you are not using a credit card, please Postal Mail this form with your CERTIFIED personal cheque or money order to (DO NOT SEND CASH):
Ozone Services, 390 Silver Queen Road, Burton, B.C., VOG 1E0, Canada
Please feel free to add a second page for your suggestions or comments!



TT Information Request Form



<u>Home</u> > <u>Pricing</u> > TT Information Request Form







TT Information Request Form

Your Name:	
Company Name:	
Address:	
City:	
Prov/State:	
Postal / Zip Code:	
Country:	
Your Email Address:	
Telephone:	
Fax Number:	
TT Information requested to	process the payment for:
Quotation Date:	
Quotated Total Amount:	

Comments:	

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Contacting Ozone Services







Home > OTTP > Contact Us

We can be contacted through the following means:

Postal Mail:	Ozone Services A 390 Silver Queen F Burton, B.C., V0G 1E0, Canada	_	Yanco Industries Ltd.	
	Driving Directions /	<u>/ Map</u>		
Voice Telephone:	250-265-4461			
Fax Machine: (24/7/365)	250-265-4482			
Business Hours:	Monday to Friday -	8:30 a	ım to 3:30 PM	
Burton	6:02 ^{AM}	on	12-07-2007	
New York	9:02 ^M	on	12-07-2007	
London	(2:56™	on	12-07-2007	
Malaysia	9:02™	on	12-07-2007	

E-mail:

We are always here to help. It has been our experience that answers to many inquiries made to us can be found within our web site. Please consider looking through our site menu or <u>conducting a site search</u> prior to sending an e-mail inquiry. You may also use our <u>Mail Message Page</u> to send us an email.

General inquiries & Support	info@ozoneservices.com
Custom design & production / engineering support	tech@ozoneservices.com
Web Site Problems	webmaster@o3zone.com

Mail Message Page

E-mail's directed to Ozone Services:

- 1. Should be as specific as possible
- 2. Should include full name, Tel/Fax
- 3. Please, check your return address to ensure it is working correctly
- 4. When already communicating with someone form Ozone Services via e-mail, please, do not delete the responses provided. By keeping the text intact, we are able to refresh our memory in respect to topic discussed, so we can process the e-mail inquiry without unnecessary delays resulting from the need to search for and to review the previous correspondence.

More Information on Ozone Services

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Ozone Services Burton Location 2



<u>Home</u> > <u>Company</u> > Burton Location 2



Please click on the below map for a zoomed in view of our Burton location! We also have a more detailed topographical map of the general area <u>available here</u>.

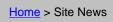


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November 28, 2006	The last shipping dates for 2006 will be December 14 for UPS/FedEx and December 21 for Postal Service.
June 10-11, 2006	The OTTP/Basic in Kelowna, BC. Medical professionals from BC were also introduced to combination O ₃ &UVBI treatments.
May 6-7, 2006	The OTTP/Basic in Burton attracted licensed medical professionals from Ontario, British Columbia and California.
April 25, 2006	Plans are drafted for next Ozone Therapy Training Program (OTTP) scheduled for September 17-22, 2006.
February 20, 2006	Plans have been finalized for an OTTP/Basic workshop in Burton, B.C. between May 6-7th, 2006
February 15, 2006	The 6th OTTP educational event took place in Culiacan, Sinaloa, on February 4-10th, 2006 and it attracted 32 licensed medical professionals from various states of Mexico, as well as Venezuela and Peru.
January 1, 2006	We would like to wish all of our clients, associates and web site visitors a safe and healthy New Year!

News Archives

<u>2006</u> <u>2005</u> <u>2004</u> <u>2003</u> <u>2002</u> <u>2001</u> <u>2000</u> <u>1999</u> <u>1998</u> <u>1997</u>

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Home > Site News

The presented information is the reflection of our past activity. Some links may no longer be active due to the continuous development of our web site.

November 22, 2005	We have launched a new ozonatedoils.com web site to handle our OOO/LOOO product line. All information, distribution and payments inquiries related to OOO/LOOO must be made through www.ozonatedoils.com
October 23, 2005	On November 28th, our office and technical support team will be leaving for an assignment in Central America.
	Production of hardware will not be effected, however our ability to provide our clients with support would be limited - telephone (messages), faxes as well e-mail will be monitored, however, we will respond to emergencies only.
	We encourage all our clients to order all products and supplies as soon as possible (before November 15th) to avoid any disappointment(s).
	Last shipping days for this year will be:
	 Orders outside Canada/USA - November 15th, 2005 USA Orders - November 21st, 2005 Canada Orders - November 24th, 2005
October 7, 2005	We are are pleased to introduce the OL80F/DST representing a new customizable line of OL80F-90° instruments.
September 16-22, 2005	The 5th OTTP educational project was completed in Mexico City which attracted 24 participants rom Costa Rica, Panama, Columbia, and Mexico.
September 9-10, 2005	Conference/exhibition - International Academy of Oral Medicine and Toxicology, Las Vegas

June 1, 2005	We shall not be accepting any new orders for Ozonated Olive Oil and Liquid Ozonated Olive Oil until September 1st. Distribution/shipping is scheduled to restart after September 30th.
May 15, 2005	We are pleased to announce the introduction of our new OL80M Combination Instrument integrating ozone generation and programmable control functions into compact design, further expanding capabilities of our modular OL100 and OLA instruments.
April 1, 2005	Each year we suspend our Ozonated Olive Oil and Liquid Ozonated Olive Oil distribution from June 1 through to September 30. Ozonated Olive Oil is best kept in a cold state. We have found that trying to ship the product is difficult in the summer heat, and to alleviate this problem, we suspend our distribution during the North American summertime.
	Please consider ordering early and avoiding disappointment!
	We would also like to add that we have doubled our production capacity of our Ozonated Olive Oil and Liquid Ozonated Olive Oil.
March 11, 2005	Ozone Services / OzoneLab™ Instruments held prices steady for 8.5 years (since October 1996). However, the reality on the international markets is forcing our company to announce of immediate implementation of new Pricing Structure.
	PRICE INCREASE EFFECTS: Ozone Generators Ozone Analyzers Ozone Combination Units OEM Ozone Modules
	PRICE INCREASE DOES NOT EFFECT: • UV Instruments & supplies • Ozone Monitors and Test Strips • Wireless Products • Data Logging and Recording products • Ozone hardware/peripherals: • Oxygen Tanks, regulators, adapters, etc. • Glassware and Acrylic Stands • Tubing, fitting, filters, valves, check valves, etc. • Disposables • Sauna Tent sets

February 28, 2005	Update on plans for OTTP event in Canada	
	The interest in OTTP is slowly but steadily growing between English speaking licensed medical professionals in Canada, USA as well as overseas. To accommodate the needs of this group our company (Ozone Services / OzoneLab) is considering the possibility of teaming up with selected medical professionals from Canada and USA to prepare first OTTP in Canada.	
	The final decision about this project will be done based on the response to this announcement. The minimum number of licensed medical professionals required for OTTP to go ahead with this event is twenty (20), maximum number of participants accepted for OTTP will be 35.	
	Targeted term is:	June 5-11, 2005 (not final), 6x 7.5 hours => 45 hours total
	Targeted Location:	Vancouver (Richmond area, near Vancouver International Airport)
	Language:	English
	Pre-requisites:	Licensed MD or equivalent, registration paid in full
	Estimated cost:	CDN\$ 1080 - 1200 (U\$900 - 1000)
Fabruary 20 20 2005	a). Copy of a medical b). CDN\$ 600 (U\$ 50) Contact: <info@ozone< td=""><td>0) deposit eservices.com > SUBJECT: "OTTP in Vancouver"</td></info@ozone<>	0) deposit eservices.com > SUBJECT: "OTTP in Vancouver"
February 20-26, 2005		tional project was completed in Mexico City (February 20-26, over 40 participants from Brazil, Guatemala, Venezuela and
February 20, 2005		clients the Aeroqual S-series (S100, S200, S300, and S500) s and Sensors. More information is available on our Ozone e.
January 26, 2005	Ozone Services is ple Ozone, A new medica	eased to be carrying Dr. Velio Bocci's new book called al drug.
January 26, 2005	1	evaluation of the U.S. currency in relationship to the Euro is to increase prices for products importing from Europe or

January 15, 2005	OEM Ozone Production Modules were made available for qualified hardware integrators serving laboratory field.
January 2005	We would like to wish all of our clients, associates and web site visitors a safe and healthy New Year!

News Archives

<u>2006</u> <u>2005</u> <u>2004</u> <u>2003</u> <u>2002</u> <u>2001</u> <u>2000</u> <u>1999</u> <u>1998</u> <u>1997</u>

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December 6-11, 2004	The first hosting of OTTP in Kuala Lumpur, Malaysia attracted 24 participants from 8 countries. The team of five speakers covered wide range of topics linked with Bio-Oxidative therapies and complimentary medicine. OTTP also included Hands-on training.
October 2004	Development of OLS (OzoneLab Software) for Ozone Concentration Control (OCC) was commenced and first version of OLS/OCC was successfully tested.
September 2004	OTTP in Mexico originally scheduled for September 13-18, 2004 was re-scheduled for February 20-26, 2005.
August 2004	Changes have been made to our site to reflect our strong focus on Ultra Pure Applications targeting Clinical and Laboratory Research. As with any change, we would love to hear your feedback on the changes we've made
May 11, 2004	We suspend our Ozonated Olive Oil and Liquid Ozonated Olive Oil production from June 1 though to September 30. Ozonated Olive Oil is best kept in a cold state. We have found that trying to ship the product is difficult in the summer heat, and to alleviate this problem, we suspend our production during the North American summertime. Due to a higher than normal demand, orders for OOO have depleted the stock
	we have on hand. We are unable to fill any more orders for OOO at this time. Production of OOO will resume in late August for projected shipping dates of the first week of September. Orders will continue to be accepted, however they will not be filled until September.
April 2004	We are pleased to introduce the OzoneLabT OLW - Wireless Control Unit to our clients.

March 1, 2004	We are pleased to introduce the OzoneLabT OL80 (Basic) ozone generator. It is a desktop unit, which is intended specifically for applications not requiring Ozone Concentration Regulation independent from flow and applications where Ozone Concentration/Production would be controlled externally.
February 23-29, 2004	The second educational project co-hosted by Ozonotherapia Mexico and Ozone Services has continued to introduce the OTTP to licensed medical professionals. 22 doctors & nurses representing 9 countries attended the OTTP/Basic. Most continued onward with the OTTP/Intermediate, and they were joined by 6 doctors & nurses from the September 2003 OTTP taking the OTTP/Advanced workshop. Plans are currently under way to hold all three OTTP workshops once again in Mexico City, MX between September 12 - 18, 2004 (dates to be confirmed).
January 2004	We would like to wish all of our clients, associates and web site visitors a safe and healthy New Year!

News Archives

<u>2006</u> <u>2005</u> <u>2004</u> <u>2003</u> <u>2002</u> <u>2001</u> <u>2000</u> <u>1999</u> <u>1998</u> <u>1997</u>

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Home > Site News

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October 31, 2003

In order to expand the services to our clients and to meet the demand for Ozonated Olive Oil in liquid form, the production and distribution of partially ozonated olive oil was initiated. The new product is marketed as <u>Liquid Ozonated</u> Olive Oil"LOOO" for short.

October 9, 2003

Christmas Holiday Hours

Orders & Shipping:

- Last day / Orders OVER 200U\$: December 5th, 2003(Friday)
 - UPS shipping / Last Day: December 8th, 2003 (Monday)
- Last Day / Orders 0-200U\$: December 8th, 2003(Monday)
 - Postal Service / Last Day: December 10th, 2003 (Wednesday)

Office Information:

- Telephone: Discontinued between December 15th January 2nd.
- Voice Messages: 24/7/365 service
- Faxes: Accepted but not processed until January 5th
- E-Mail: e-mail will be monitored, however, we will respond to emergencies only.

The office will be closed from December 15th to January 2nd. All activities will resume on January 5th, 2003.

September 21, 2003

The production and distribution of Ozonated Olive Oil has resumed. Please feel free to place your order, which will be filled on a first come, first serve basis.

September 10-14, 2003	This was the first educational project co-hosted by Ozonotherapia Mexico and Ozone Services and it introduced the OTTP to licensed medical professionals in Mexico. Plans are being drawn for next OTTP workshops in Mexico, with targeted term February 2004.
September 10-14, 2003	Gracias por habernos acompañado en este pasado Programa de Entrenamiento (Niveles Básico e Intermedio). Fue muy agradable haber trabajado con Uds. Esperamos contar con su presencia en próximos encuentros. Mayor información.
September 5-7, 2003	Thanks to Dr. Gordon and his team for organizing the New Dimensions Conference in Phoenix, AZ and to all who came to visit our exhibition booth and/ or attended our presentation. Special thanks to Dr. Frank George for his hospitality and for taking and initiative to form the group interested in Ozone Therapy Training Program workshop in Phoenix, AZ (February 2004). Licensed medical professionals interested in this event should request more information via e-mail.
August 31, 2003	We are pleased to announce that many of our products now have the CE marking. Please see our CE page for more details.
July 12, 2003	We have started providing clients with currency conversion to assist in pricing products in other than US dollars. We would appreciate any feedback you might have.
July 10, 2003	There is an Ozone Therapy Training Program for licensed medical professionals Basic Level September 10/11/12, 2003 (English translated to Spanish) Intermediate Level September 12/13/14, 2003 (Spanish) More information available here or contact us for more information.
July 10, 2003	Come to meet us at New Dimensions in Medicine & HealthT Conference - September 5/6/7th, 2003 Phoenix Airport Marriott Hotel 1101 North 44th, Street Phoenix, Arizona USA (Tel: 602-273-7373) Our presentation is scheduled for 17:15 on September 5th.

Technical Aspects of Ozone Therapies workshops were conducted near the end
of June in cooperation between:
* CNM - College of Naturopathic Medicine, London, UK * Simon & Enrida Kelly, London, UK *and our company (Ozone Services, BC, Canada) London #1 / 15 people
London #2 / 17 people Dublin, Ireland / 10 people
Custom manufacturing services were added to our existing production program of OzoneLabT UVBI cuvettes. Please contact us for more details.
We are pleased to announce that we are now carrying the book <u>Cancer Action Plan - Useful, Innovative, Alternative Cancer Therapies</u> by Simon & Enrida Kelly. More information is available in our <u>book section</u> .
A 3 day Ozone Therapy Workshop (Basic) was conducted in Mexico City, Mexico. Participants were exposed to information related (but not limited) to Technical Aspects of Ozone Therapies. Thanks to all for the warm welcome and hospitality - Den
As we have done in past years, Ozonated Olive Oil production will be discontinued between June 1 and September 30. We have found that trying to ship the product is difficult in the summer heat. We encourage everyone using/distributing OOO to consider the possibility to create some reserves.
2nd generation of OzoneLabT International Universal Power Adapters (100-240VAC/12VDC) were introduced. Upgraded power adapters include EMI Ferrite Core to comply with "CE" electromagnetic interference regulations.
The sale of an Ozonation System to Ghana brought the total number of countries in which our ozone equipment is in operation to 56.
A two day workshop was hosted by Ozone Services in Panama City, Panama. Participants from Costa Rica, Panama and Paraguay were exposed to information focused on <u>Technical Aspects of Ozone Therapies</u> .
We have added a specific <u>Secure On-line Registration page</u> for the registration and credit card payment for our <u>Weekend Workshops</u> .
We have discontinued our GE Product Line of Ozone Generators (GE30 & GE60). The GE60/FMxx has been replaced by the OL80W/FMxx which is a more energy efficient product with better performance and increased versatility (EXT port). The price for the OL80W/FMxx is the same as the GE60/FMxx.

January 25, 2003	In order to increase the efficiency of packaging and distribution of <u>UV Cuvettes</u> , the number of UV Cuvettes per box was increased from the original 25 to 30 units per box. The single <u>unit price</u> remains the same.
January 1, 2003	We would like to wish all of our clients and visitors a safe and healthy New Year!

News Archives

<u>2006</u> <u>2005</u> <u>2004</u> <u>2003</u> <u>2002</u> <u>2001</u> <u>2000</u> <u>1999</u> <u>1998</u> <u>1997</u>

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Home > Site News > 2002

The presented information is the reflection of our past activity. Some links may no longer be active due to the continuous development of our web site.

November 16 - 23, 2002	On November 16, 17 and 18, 2002, Den taught a 3 day ozone workshop in Kuala Lumpur, Malaysia. On November 20, 2002 he lectured at the School of Medical Sciences, Universiti Sains Malaysia, Kota Bharu, Kelantan, Malaysia (which is 450-500km NORTH from KLnear the Thailand border on the South China Sea shore). On November 22 and 23, 2002, he taught a 2 day ozone workshop which was organized in a cooperation with KBMC, Kuala Lumpur, Malaysia. Attendees included people from Jakarta, Indonesia and Singapore.
November 1, 2002	Ozone Services is pleased to be carrying a new "ozone therapy" book which is without any doubt surpassing (in respect to a scope as well as the depth of the content) most available books on the market today: Oxygen-Ozone Therapy: A Critical Evaluation by Velio Bocci, Ph.D.
October 30, 2002	We will be holding an on-site Ozone Workshop on November 22 & 23, 2002 in Kuala Lumpur, Malaysia - more information is available here.
October 15th, 2002	The functions of the OzoneLabT instrument OL80A/DLS were further enhanced by the computer supported functions for data logging and real time monitoring.
October 21st, 2002	A special one day workshop for students & staff at Capital University of Integrative Medicine in Washington DC was held on October 18th, 2002.

September 30, 2002	Christmas Holiday Hours Orders & Shipping:
	 Last day / Orders OVER 200U\$: December 6th, (Friday) UPS shipping / Last Day: December 9th, 2002 (Monday) Last Day / Orders 0-200U\$: December 9th, (Monday) Postal Service / Last Day: December 11th, 2002 (Wednesday)
	Office Information:
	 Telephone: Discontinued between December 14th - January 6th. Voice Messages: 24/7/365 serviceFaxes: Accepted but not processed until January 6th E-Mail: e-mail will be monitored, however, we will respond to emergencies only.
	The office will be closed from December 14th to January 3rd. All activities will resume on January 6th, 2003.
September 26, 2002	We have made arrangements for a special 3 day workshop in Jalapa (Veracruz region), Mexico on December 18, 19, 20, 2002. Workshop will be conducted in English with translation to Spanish. Estimated cost is 455U\$/person. Contact us for more details.
	We are also conducting a special one day workshop for students & staff at Capital University of Integrative Medicine in Washington DC on October 18th.
September 20, 2002	Our LGE60 sale is now over. We thank all those clients that expressed interest.
September 12 - 15, 2002	We actively participated at the 1st Symposium of Academy of Bio-Energetic and Integrative Medicine (ABEIM) in Dallas, TX.
September 6, 2002	We are please to bring our redesigned Website online today. We hope that the new menu system will assist our clients in navigating the site. Please do not hesitate to provide your feedback on our new look.
August 19, 2002	The serial production of new UV irradiation instrument <u>UV4-8-12W/12VDC</u> was initiated, expanding further our UV product line.
August 3 & 4, 2002	We held our second Technical Aspects of Ozonation Equipment for Ozone Therapy - workshop in Burton, BC for 2002. It attracted participants from Idaho, Australia, Brazil, and South Korea.
	Our next and last weekend workshop for 2002 is September 21 & 22, 2002
July 15, 2002	The final tests of <u>OL80A/DLS</u> combination instrument were completed. The production of this new unit in various customizable versions is scheduled to start September 2nd, 2002.

June 30, 2002	The first ozone generator from new "OL80" line of instruments was brought into serial production - OL80F/S. More information on the OL80 Product Line can be found in the <u>ozone generator section</u> of our site.
June 24, 2002	We are pleased to announce that our new OL100/DS is now contained in a metal enclosure. More information on our OL100 line of products is available in the ozone generator section of our site.
June 8 & 9, 2002	We held our first Technical Aspects of Ozonation Equipment for Ozone Therapy - workshop in Burton, BC for 2002. It attracted participants from Whitehorse, Edmonton, Washington State and Washington DC. Our next weekend workshop is August 3 & 4, 2002.
	Our flext weekend workshop is August 3 & 4, 2002.
April 27, 2002	As we have done in years past, Ozonated Olive Oil production will be discontinued between June 15 and September 15. We have found that trying to ship the product is difficult in the summer heat. We encourage everyone using/distributing OOO to consider the possibility to create some reserves.
April 1, 2002	We are pleased to announce the latest addition to our line of custom Ozone Gas Analyzers - the OLA/DLS.
March 10, 2002	We activated our <u>Secure Credit Card Order Form</u> today. This form allows clients to use their Visa, Mastercard or Discover credit cards to order products online.
January 1, 2002	We would like to wish all of our visitors a safe and healthy New Year!

News Archives

<u>2006</u> <u>2005</u> <u>2004</u> <u>2003</u> <u>2002</u> <u>2001</u> <u>2000</u> <u>1999</u> <u>1998</u> <u>1997</u>

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Home > Site News > 2001

The presented information is the reflection of our past activity. Some links may no longer be active due to the continuous development of our web site.

November 5, 2001	For those that might be ordering products for the holiday season, our last shipping day will be Monday December 10th, 2001. Over the holiday season, our offices will be closed between December 22, 2001 and
	Sunday January 6, 2002.
November 1, 2001	We are pleased to be able to offer a limited number of LGE60 Systems for \$1,595 plus Shipping and Handling. Each system includes a Steam Sauna TENT and a larger enclosure GE60/FM500 Ozone Generator (LGE60) with accessories (oxygen flow regulator, tubing, ozone destructor and water snake). We only have 25 of these larger enclosure GE60 style ozone generators, and once they are gone, the sale will end.
October 31, 2001	We are pleased to announce the introduction of our OzoneLabT OGA/C-10% Ozone Analyzer.
September 23, 2001	On September 21 & 22, we held our last Technical Aspects of Ozonation Equipment for Ozone Therapy - workshop in Burton, BC for 2001. It attracted participants from Canada, USA and Malaysia, but was a smaller group than usual due to the September 11 events. Our next weekend workshop is March 23 & 24, 2002.
September 17, 2001	We have completed the update of our web sites. We hope you enjoy the new look,
September 17, 2001	and we encourage any <u>feedback or comments</u> you might have.

September 10, 2001 Our "summer break" in the production and the distribution of Ozonated Olive Oil ended. All OOO orders accumulated during July and August will be processed on a First Placed - First Shipped bases.... and that will keep us busy until 1st week in October. Then, the regular distribution of the OOO will resume. September 7, 2001 The production and the distribution of SteamTriO/12VDC was initiated. The size and the layout of the instrument remains the same. The ozone output and the price (including AC/DC power adapter) is identical to SteamTriO/120VAC as well. August 30, 2001 The production and the distribution of AquaTriO ozone generator was discontinued. This product was the only air fed instrument manufactured by our company. Our intention is to focus fully in the future on the development and the production of oxygen fed Ozonation Equipment for Ultra Pure Applications - laboratory and therapeutic use of ozone. August 26, 2001 On August 24 & 25, we hosted an Ozone Therapy Weekend in Burton. This was a gathering of several Ozone Services long term business clients we brought together to discuss Ozone, UV and various other treatment modalities in a very private setting. We soaked in the 107°F pool in the Halcyon Hot Springs; watched thousands of 2day old sturgeons in the Hill Creek Hatchery; hiked to the St. Leon waterfall and Snow Creek Trail; paddled kayaks on Arrow Lake; and enjoyed fine food at Monica's Restaurant. Great events along with lots of laughter provided an ideal atmosphere for the discussions as well as treatment demonstrations, which were sweetened by the sharing of personalized tricks not normally discussed during regular lectures/ seminars... August 11, 2001 Over the past several weeks, we started updating the look our web sites. This page is how the new look appears, and over the next month, you will slowly see all of our pages change. We are confident that this design will assist you in navigating the various sections of our web sites. We ask you to be patient with us during the changes, and please don't hesitate to give your feedback on how it looks and navigates. August 4 & 5, 2001 Technical Aspects of Ozonation Equipment for Ozone Therapy - workshop in Burton, BC attracted health care providers from Canada, USA and Malaysia. This 2 day event provided an opportunity for those that attended to meet their colleagues with a professional interest in ozone therapies. In the practical "hands-on" segment of the workshop, all participants had also an opportunity to become closely familiar with wide range of ozone instruments and ozone therapy related disposable supplies designed and produced by our company. Our next weekend workshop is September 21 - 23, 2001 and will have an emphasis on Ozone Steam Sauna Applications.

August 1, 2001	We have included several new items to our Limited Time Sale Items area. Our current sale ends November 30, 2001 - so don't delay.
June 16, 2001	Our latest newsletter is now available for downloading in PDF format.
June 11, 2001	We are pleased to announce that we now carry <u>Dental Ozone Attachment Sets</u> .
June 4, 2001	Technical Aspects of Ozonation Equipment for Ozone Therapy - 2 day workshop in Burton, BC attracted people primarily from California and provided an opportunity to meet others with interest in health and ozone instruments.
May 15, 2001	In order to meet the pressing needs for disposable <u>ozone insufflation supplies</u> eliminating all possibilities for cross-contamination, we have designed, performed functional tests as well as tests targeting the ozone resistance of used materials, and initiated the production as well as full scale distribution of <u>Ozone Insufflation Bags</u> as well as Ozone Insufflation Catheters.
May 12 & 13, 2001	Technical Aspects of Ozonation Equipment for Ozone Therapy - 2 day workshop in Vernon, BC attracted 49 people and provided an opportunity to meet others with interest in health and ozone instruments.
April 30, 2001	Technical Aspects of Ozonation Equipment for Ozone Therapy - <u>2 day workshop</u> in Burton, BC is fully booked. Please, consider alternative terms: August 3 - 5, 2001 September 21 - 23, 2001
April 29, 2001	We have made available <i>The Personal Notebook</i> - a booklet designed to help keep track of ozone dosages and treatment results. It is available from our Download Center.
April 26, 2001	This is just a short note to let you know that Ozonated Olive Oil production will be discontinued for July and August. So, we encourage everyone using/distributing OOO to consider the possibility to create some reserves.
March 12, 2001	PB Oxygen Flow Regulators (CGA540 as well as CGA870 models) used by our company for the last 6 years were replaced with new , higher quality BRASS CORE oxygen flow regulators.
February 14, 2001	Den Rasplicka, the founder of Ozone Services will be attending the International Oxidative Medicine Association Conference (IOMA) Conference in Las Vegas, NV - February 23, 24, and 25th. His presentation will be focused on Technical Aspects of Ozonation Equipment for Ozone Therapies, the topic which was presented first time by Den Rasplicka at the IOMA Conference held in Texas in 1998.
January 15, 2001	We are pleased to introduce our Ozonated Olive Oil Sticks which have been redesigned with new packaging.
January 8, 2001	New customizable research grade OzoneLabT OL100 ozone generators were brought into a production.

January 1, 2001	Happy New Year!
	We have archived our news page for 2000 which is available for reading here.

News Archives

<u>2006</u> <u>2005</u> <u>2004</u> <u>2003</u> <u>2002</u> <u>2001</u> <u>2000</u> <u>1999</u> <u>1998</u> <u>1997</u>

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Search



Home > Site News > 2000

The presented information is the reflection of our past activity. Some links may no longer be active due to the continuous development of our web site.

December 18, 2000	Our holiday hours have arrived and are in effect until January 5, 2001.
November 17, 2000	We are providing a limited time offer on our AquaTrio system (effective between November 8th, 2000 to December 8, 2000) where the regular price for the product applies, however we pay the ground shipping within continental North America.
November 14, 2000	We would like to encourage everyone to stock up on Ozonated Olive Oil (OOO) before the Christmas holiday. OOO makes a great gift for those you care about.
October 24, 2000	The holiday season is quickly approaching. Those that are thinking of purchasing products in late November or early December should make themselves aware of our Holiday Hours.
October 23, 2000	We have set the following dates for our upcoming lectures in 2001: • April 27 - 29 • June 1 - 3 • August 3 - 5 • September 21 - 23 Space is limited for these lectures. More information is located on our Lecture Page.
October 9, 2000	Information about the final outcome of the Ozone Therapy Certification Course held in Vancouver, BC
October 7, 2000	We are pleased to announce the release of our new line of <u>CUSTOMIZABLE</u> research grade Ozone Generator for Laboratory and Therapeutic Applications - the <u>OL100</u> .

September 8, 2000	DexTher is back!
	We are once again pleased to offer The DexTher Bundle at a very attractive price. DexTher provides a complete set for Detoxification and Therapeutic Steam & Ozone Applications. This offering is only available at a reduced price from September 8 through until December 8, 2000.
	You may also download the DexTher PDF file which provides complete details and specifications of the included products.
June 15, 2000	Ozone Services is hosting an Ozone Course with Certification for Health Care Providers. This course is being taught by Dr. H. G. Eberhardt (Germany), October 6 - 8,2000 in Vancouver, B.C., Canada.
June 12, 2000	Due to the heat associated with the summer months, we have suspended the shipping of Ozonated Olive Oil. We will resume shipping of OOO as soon as summer "heat wave" is overthat will be very likely around September 15, 2000.
May 12, 2000	Ozone Services is pleased to introduce the OXY500 Oxygen Concentrator / Separator. This instrument is suitable for on-demand oxygen production and it is intended primarily for Laboratory Applications as well as for Ozone Steam Sauna Applications. OXY500 delivers on demand 0-0.5 LPM (1.5 LPM Maximum) of Oxygen with 89 - 95% purity while consuming a mere 0.8A/100W of power. For serious field researchers with the need for mobile oxygen source we can upgrade OXY500 with the 12VDC/120VAC invertor which will allow the operation of OXY500 from any standard 12VDC car or RV battery.
March 31, 2000	For those that may have had trouble finding a way to send through an order to us, we have created a simple fax order form available in two styles:
	PDF Format 7216 k MS Word Format 12800 k
March 30, 2000	In response to a letter our company received on March 20th, 2000, from the Health Protection Branch of Canada, we have decided to post the following information within our web site:
	The devices advertised within our web site are not licensed in accordance with Canadian regulations as medical devices.
January 15, 2000	In our attempt to make product information more accessible, we are proud to introduce our Ozonated Olive Oil Information Package in PDF format (384,537 k).
January 14, 2000	We have created a Download Center to assist you in finding the different files that we make available.

January 1, 2000

We are pleased to announce the release of the DexTher Bundle, which provides a complete set for Detoxification and Therapeutic Steam & Ozone Applications. This offering is only available at a reduced price from January 1 to March 31, 2000.

You may also download the DexTher PDF file which provides complete details and specifications of the included products.

News Archives

<u>2006</u> <u>2005</u> <u>2004</u> <u>2003</u> <u>2002</u> <u>2001</u> <u>2000</u> <u>1999</u> <u>1998</u> <u>1997</u>

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Search



Home > Site News > 1999

The presented information is the reflection of our past activity. Some links may no longer be active due to the continuous development of our web site.

December 24, 1999	Hour Holiday hours are now in effect.
	Our company is closed for holidays between:
	December 24th, 1999 and January 3rd, 2000
	Shipping will be resumed on January 6th, 2000
November 28, 1999	Our latest newsletter is now online. You can view it as a web page, or download it in PDF Format.
November 21, 1999	In our attempt to make product information more accessible, we have brought three PDF files online.
	Complete Price List - Includes all products carried by Ozone Services
	Ozone & Steam Sauna Guide
	Technical Aspects of Ozonation Equipment for Ozone Therapies
November 5, 1999	With the upcoming year end rush approaching fast, we have set the following cutoff dates for the shipping of our products:
	 December 9 - Last shipping date for orders above 1000U\$. December 16 - Last shipping date for orders above 250U\$.
	Unrestricted shipping will be restored on January 6, 2000.

October 31, 1999	With the number of clients we have throughout the world, we have had many requests for a US currency exchange link. We have added a link to The Oanda_Currency Converter in all of our Component Price Lists.		
October 5, 1999	In an attempt to streamline our site, we have divided up the existing site and brought online new domain names. All of these sites have been brought together through our Ozone Gateway Page.		
	Therapeutic Ozone Applications	www.ozonelab.com	
	Laboratory Ozone Applications	www.ozonelab.com	
	Ozone Steam Sauna Applications	www.ozonelab.com	
	Ozone Services Company Information Site	www.ozonelab.com	
October 1, 1999	With the release of our new GE60FM/12VDC Ozone Generator, we are offering a limited time price reduction of 20% on our GE60 Case configuration. Act fast as supplies are limited! Please follow this link for more details.		
August 29, 1999	Starting September 1st, and continuing through until September 30, we will be offering 20% off our GE60 Stand 1 configuration. Please follow this link for more details.		
August 5, 1999	We have opened our latest area - Original Equipment Manufacturer (O.E.M.) which we feel is the growing trend in small scale ozone applications.		
July 19, 1999	We are please to announce the arrival of a new product - Steam Sauna "Tent". This low cost (\$249 US) unit provides an alternative to our higher priced Steam Sauna Cabinet Plus.		
June 4, 1999	We currently have seven (7) <i>GE60 rental resales</i> available at a substantially discounted price. These units come complete with all accessories and a full warranty. Those that are interested should check out the <i>Rental Resale</i> section of our Market Area.		
June 2, 1999	We have approximately 14-15 capsules (QTY 12) of Ozone Test Strips with expired dates. These test strips are still perfectly O.K. and we are willing to donate them to anyone who would be doing chemistry class projects targeting ozone. For those interested in obtaining one of these capsules should contact us.		
June 1, 1999	Due to the heat associated with the months of July and August, we will be suspending the shipping of Ozonated Olive Oil. Please consider ordering yours today before the heat hits!		
May 17, 1999	Introducing the latest addition to our Support Programs - <u>Lecturing Program</u> . The main focus is directed towards sharing our technical experience and knowledge related to Technical Aspects of ozonation equipment used for Ozone Therapies with practitioners and researchers active in the field of ozone therapies.		

Over the next several weeks, the Ozone Services Site will be undergoing some small appearance changes. We will also be bringing online several new areas which we hope will enhance the site. The new areas will be announced here, so please check back regularly.		
We opened our Y2K Area to assist those that may be concerned about potential problems. We have also created a section within our <u>F.A.Q. Area</u> to for Y2K specific questions.		
We are pleased to announce the release of our SteamTriO Ozone Generator specifically designed and produced for ozonation of Steam Sauna / Steam Embrace Sauna and our Steam Sauna "Tent" enclosures.		
We have tried to simplify the navigation of our growing site by providing you with a Site Map. This page contains all of our area navigation bars on one page. We have also updated all of the navigation bars within the site so they all contain an easy link back to this page. If you have any suggestions which might further simplify the navigation of our site, please do not hesitate to contact our Webmaster.		
We are pleased to announce the release of our GE30/12VDC Ozone Generator. The GE30 operates on 12 Volts DC and allows the use of ozonation equipment in regions or locations where 120VAC or 220VAC power service is not available. The GE30 is available as a lower cost option to our GE60/FM Ozone Generator, and can be easily incorporated into any of our preselected sets.		
Due to a problem with the manufacturer, we have been forced to change our supplier of the Ozone Steam Sauna which we carry. We are confident that you will be pleased with the features of this new unit.		
We are pleased to announce the release of our AquaTriO air feed ozone generator. It was designed mainly for "small scale" water purification applications, however it can be also used for selected air ozonation. We believe the small size of the unit along with a regulated ozone output and reasonable cost will make this product more attractive then conventional low frequency or UV ozone systems.		

News Archives

2006 2005 2004 2003 2002 2001 2000 1999 1998 1997

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OzoneLab™ News - January - December 1998







Home > Site News > 1998

The presented information is the reflection of our past activity. Some links may no longer be active due to the continuous development of our web site.

November 10, 1998	We have brought our Ozone Generator Testing area online. This area is a simple "gallery" of ozone generators which were accepted for repairs or ozone output testing by our company. This gallery does not fully represent the scope of repairs and ozone output testing activity done since 1993. The presented list reflects just ozone generator models which pass most frequently through our hands.	
October 7, 1998	In celebration of our 5th year in business, we have created and made available to visitors of our web site a simple <i>Ozone Notebook</i> . We hope this notebook will help those using ozone to record and track their ozone progress.	
Sept 18, 1998	We are pleased to announce the opening of our <u>Frequently Asked Questions (FAQ)</u> area. It contains some of the frequent questions posed to Den, with of course his answers. You also have the opportunity to pose your question(s) to Den.	
Sept 1, 1998	We started carrying Modified Stethoscopes for ear insufflations.	
Aug 14, 1998	We started carrying pH Test Strips, as well as Ozone Test Strips in packages of 12.	
July 21, 1998	We have installed an Information Survey and encourage everyone visiting out site to participate in it.	
June 22, 1998	Today we completed a restructuring of the website. This enabled us to break down our product line into logical categories. Should you find that a page you bookmarked is no longer available, please conduct a <i>Site Search</i> to locate the page.	
June 17, 1998	Your opinion is very important to us. We have installed an Ozonated Olive Oil Survey and encourage those interested to participate in it.	

June 15, 1998	Our moving day finally arrived. Effective today, all correspondence, telephone and fax communication should be directed to our new location:	
	Ozone Services A Div. of Yanco Industries Ltd.	
	390 Silver Queen Road, Burton, B.C.,	
	V0G 1E0, Canada	
	250-265-4461 Voice	
	250-265-4482 24 hour fax	
	Please feel free to view the <u>maps</u> we have online for our new location.	
June 3, 1998	We brought our Ozonated Olive Oil Section online. This brings all of our OOO	
	information into one area, which includes two test reports which were commissioned	
	by us, as well as a list of some of our OOO Distributors.	
June 1, 1998	The <i>PureAir</i> unit was discontinued and we commenced development of modified version of PureAir Unit which should allow a regulation of the ozone output and consequently, allow adjustment of ozone concentrations in accord with specific ozone demand in areas treated with this instrument. (<i>The development of PureAir instrument was completely scrapped in August 1998 due to problems associated with the Oxides of Nitrogen produced as by-product of ozone production when air is used</i>	
	as fed gas).	
April 27, 1998	As of today's date, we have added the Discover Card to the other two credit cards we accept (Mastercard and Visa).	
April 17, 1998 to April 19, 1998	We attended the 9th International Oxidative Medicine Association in San Antonio, Texas and presented the article <u>Technical Aspects of Ozonation Equipment for Ozone Therapies</u> .	
March 25, 1998 to March 29, 1998	Due to a hard drive crash, our site was unavailable. If you attempted to access our site during the outage, we apologize for the inconvenience.	
March 23, 1998	In an attempt to expand our Ozonated Olive Oil database, we have added an	
Maron 20, 1000	Ozonated Olive Oil Feedback Form. We ask that if you are using Ozonated Olive Oil	
	to please consider sharing your results.	
March 16, 1998	We are attempting to clear out some of the stock we have on the <i>Air Supply and PureAir</i> units. We are including shipping and handling in our low price to anywhere in Canada or the United States. Please check the above pages for details.	
February 14, 1998	New Pricing & Ordering section of Ozone Services Web Site was activated.	
1 Gbruary 14, 1990	Consequently, Ozone Services On-line web store and Fast Track ordering was removed from the system.	
February 5, 1998	Rental program was expanded. Limited number of GE60 ozonation systems are now available for rent to residents of Canada and USA.	

January 25, 1998	Information about GE60 Basic #1 & #2 pre-selected systems were added to product section of Ozone Services Web Site.	
January 15, 1998	IX. International Oxidative Medicine Association (IOMA) conference will be held in San Antonio, Texas on April 17-19, 1998	
	Ozone Services plans to actively participate at this event as exhibitors. We are also scheduled to deliver a presentation - "Technical Aspects of Ozonation Equipment Used for Ozone Therapies".	
	We hope this conference will prove to be as successful as XIII. IOMA conference we attended in Anchorage, Alaska	

News Archives

<u>2006</u> <u>2005</u> <u>2004</u> <u>2003</u> <u>2002</u> <u>2001</u> <u>2000</u> <u>1999</u> <u>1998</u> <u>1997</u>

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OzoneLab™ News - January - December 1997



Search



Home > Site News > 1997

The presented information is the reflection of our past activity. Some links may no longer be active due to the continuous development of our web site.

December 27, 1997	Ozone Conversions of existing Colon Therapy Equipment	
December 5, 1997	Ozone Services is pleased to announce that it will be holding it's current prices for another year.	
	We haven't had a price increase since 1996, and we feel it's important to keep our prices as reasonable as possible, so our 1998 rates will be frozen.	
November 1, 1997	In order to simplify the process of ordering our products via telephone, fax or e-mail we took steps necessary to be able to accept major credit cards - VISA, Mastercard and Discover.	
October 3, 1997	Material Ozone Exposure Testing	
October 3, 1997	GE60 Rental Program	
July 2, 1997	An Important Notice on Pricing	
June 19, 1997	Alternative Health Insurance Information	

News Archives

<u>2006</u> <u>2005</u> <u>2004</u> <u>2003</u> <u>2002</u> <u>2001</u> <u>2000</u> <u>1999</u> <u>1998</u> <u>1997</u>

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OzoneLab™ External Ozone Production Control Port





<u>Home</u> > <u>Products</u> > <u>EXT Ports</u> > External Ozone Production Control Port

All new generation OzoneLab™ Ozone Generators are equipped with the External Ozone Production Control Port (EXT O3 Control), which allows the high precision and/or remote control of the ozone production from external instruments, such as timers, limit switches, function generators, computers, PLC's (Programmable Logic Controllers), etc. (EXT accessories are available in our Accessories Area.)

EXT O3 Control works in conjunction with Ozone Concentration Regulation (OCR) signal in an "AND" relationship. In other words, the manual OCR dial on the front panel of the Ozone Generator should be set to MAXIMUM (#10 or 10-00) to allow the use of EXT O3 Control in the full 0-100% duty range.

Locating the EXT O3 Control:

All OzoneLab™ Ozone Generators have the EXT O3 Control port located in a very close proximity to the ozone generator 12VDC power supply jack.



OzoneLab™ <u>OL80F/S</u> Ozone Generator



OzoneLab™ <u>OL80F/DST</u> Ozone Generator



OzoneLab™ <u>OL80W</u> Ozone Generator



OzoneLab™ <u>OL100/DS</u> Ozone Generator



OzoneLab™ <u>OL80A/DLS</u> Ozone Generator & Gas Analyzer



OzoneLab™ <u>OL80M</u> Ozone Generator & Controller

Type of External Signal Port:

Ozone Generator EXP plug: 3.5mm Jack (Female)

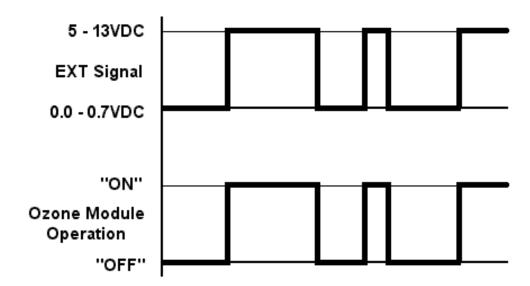
• EXP Signal source: 3.5mm "STEREO" Plug (Male)

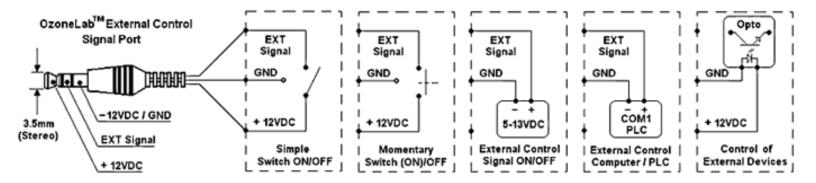
Logic "0"

Voltage: 0.0-0.7VDCFunction: Ozone "OFF"

Logic"1"

Voltage: 5.0-13.0VDCFunction: Ozone "ON"





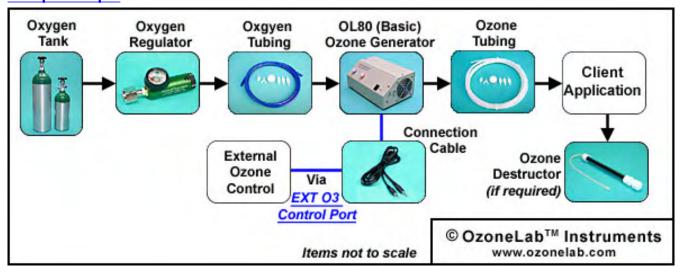
EXT O3 Control Signal:

For Ozone Concentration Regulation, a signal base frequency must be kept in a relationship to the O_2/O_3 gas flow to prevent ozone concentration instability.

Flow [ml/min]	[Hz]	Do Not Forget
0 - 125	2+	· ·
125 - 500	8+	For EXT Control Signal to work correctly, the
500 - 1000	16+	Manual Ozone Concentration
Ozone Services Standard	16	Regulator MUST be set to MAXIMUM (#10 or 10-00)

Low flow rates (slow speed of gas passing through the instrument ozone production cell) have the least demanding requirements for the Frequency of the discharge. Faster the speed of the gas, higher the minimal discharge frequency must be. Standard OzoneLab™ instruments utilize 16Hz Frequency, which covers nicely the whole flow rate range 0-1000ml/min, producing very uniform/stable ozone concentration.

Setup Example



EXT accessories are available in our Accessories Area.

Examples of External Ozone Production & Ozone Flow Control Devices



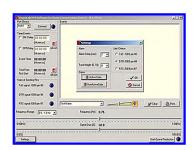




OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLab™ Software

© Ozone Services



OzoneLab™ EXT Syringe Control Port



<u>Home</u> > <u>Products</u> > <u>EXT Ports</u> > EXT Syringe Control Port



All new generation OzoneLab™ Ozone Generators are equipped with a EXT Syringe Port and can be located close to the syringe filling luer lock connection. The EXT Syringe Port allows for remote access functions of the syringe port.



OzoneLab™ <u>OL80F/S</u> Ozone Generator



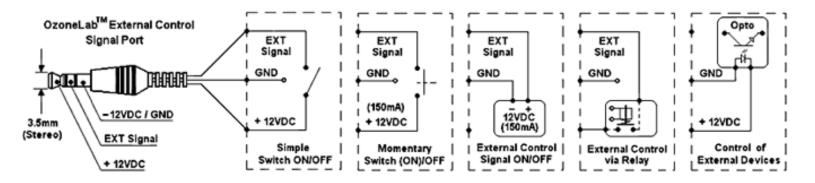
OzoneLab™ <u>OL80F/DST</u> Ozone Generator



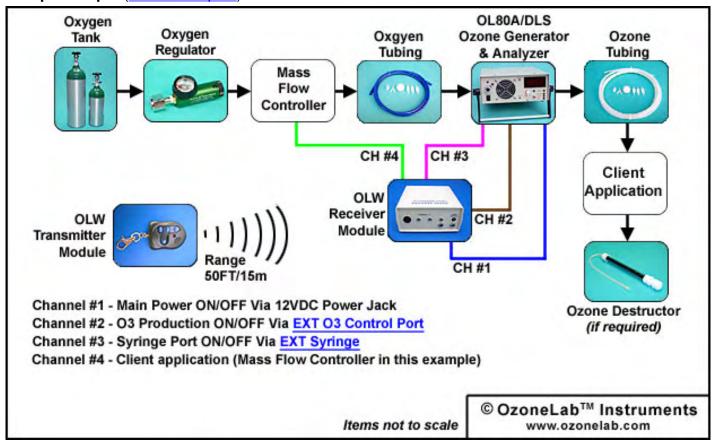
OzoneLab™ <u>OL80A/DLS</u> Ozone Generator & Gas Analyzer



OzoneLab™ <u>OL100/DS</u> Ozone Generator



Setup Example (more examples)



EXT accessories are available in our Accessories Area.

Examples of External Ozone Production & Ozone Flow Control Devices







OLW - Transmitter Module



C-30Z Ozone Monitor



Computer with OLS OzoneLab™ Software

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OzoneLab™ OLS - Software



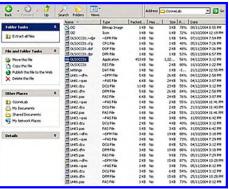
Home > Products > OLS - Software



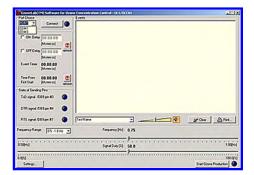
Software for computer controlled Ozone Concentration Control is on enclosed CD, in ZIP format.

- Check your computer for COM1 DB9 port:
 - If available, software will run on COM1
 - o If not available, use USB-COM1 adapter
 - Keep in your mind that USB will assign different identification for "COM1" according to your hardware setup controlling the port assignment.
 - On the example presented, the adapter was assigned COM3 identification.



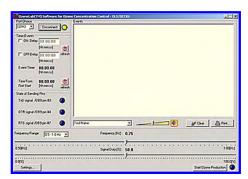


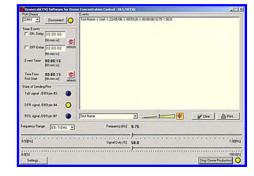
- Open the CD
- Review images on the CD, outlining important steps of getting software ready for operation:
 - Extract ZIP files
 - Run installation script (OLSCC01 / application)
 - Run OLSOCC01 program
 - Select the correct communication port (you may try a few....)
 - Select DTR as communication pathway between the computer and the ozone generator (that is what the cable is wired for)
 - Click Connect/Disconnect to establish the link between the computer and ozone generator
 - Click on START/STOP to activate the program & ozone generator Ozone Concentration Control function:
 - High pitch buzzing sound together with the pilot light on the front panel of the ozone generator will indicate that ozone production is active / cycling
 - Adjust Frequency and Duty according to your needs



- · You may wish to explore other functions of the software such as
- Timer
 - o Delay-ON
 - o Delay-OFF
- Alarm
- · Record keeping & printout of records







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http://www.ozoneservices.com/products/OLU/cuvettes/images/02.jpg

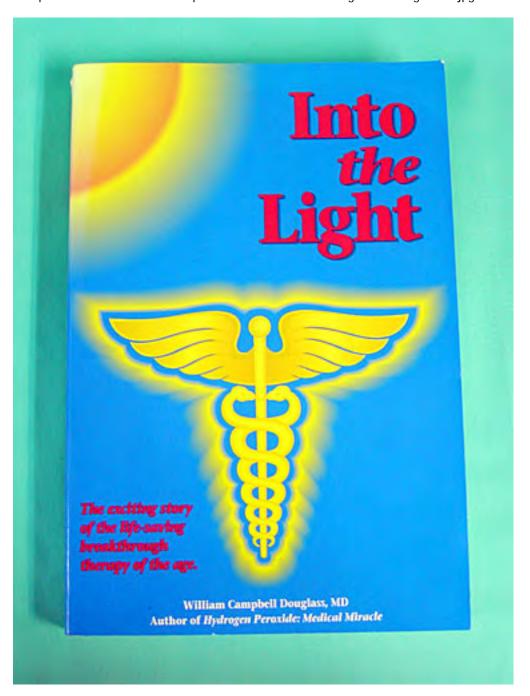














OzoneLab™ Services

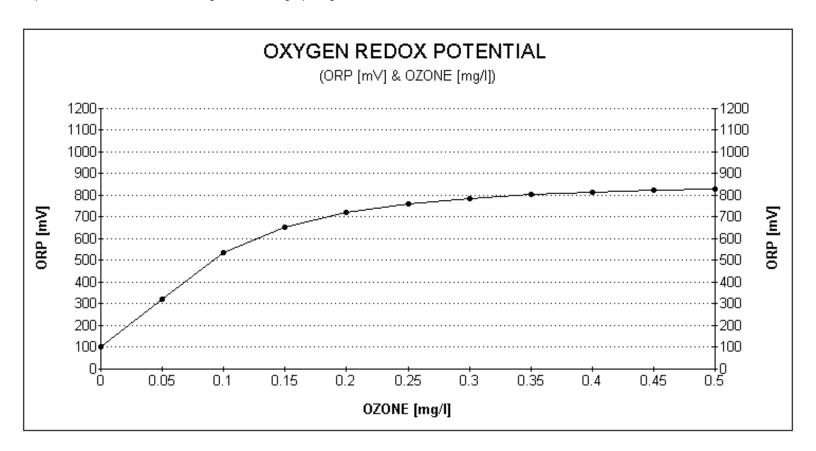


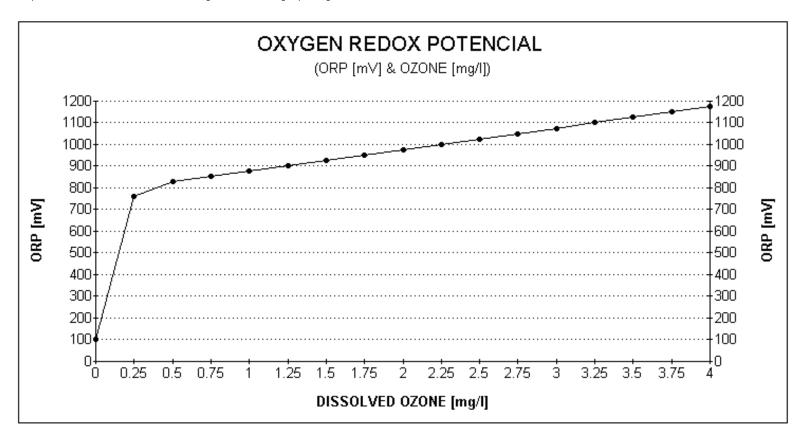
Home > Services



- Consulting Services, Custom Design and Custom Production services are available.
- Custom Scientific Glassblowing Services
- Ozone Exposure Services Ozone Services is able to provide those in the research and development community with valuable information on how ozone reacts with different materials. We can tailor the exposure testing to meet with your specific requirements just send us a sample and specify your requirements.
- Ozone Output Testing & Calibration Ozone Services is able to provide you with output testing of existing ozone generators and ozonation systems.

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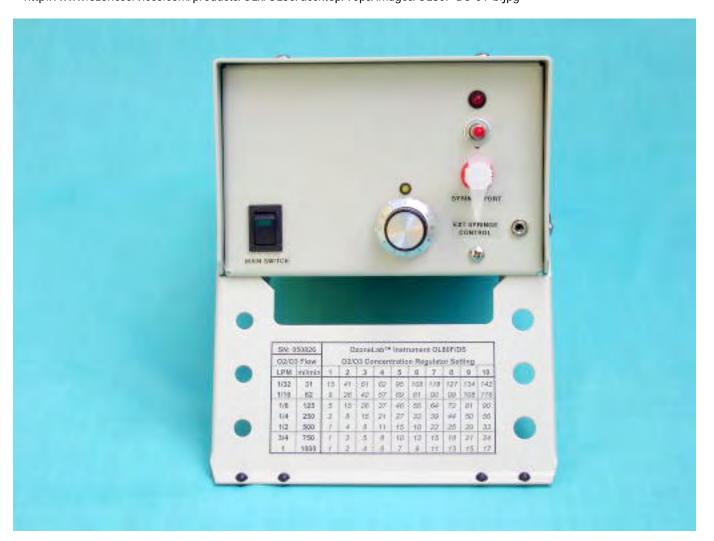


































http://www.ozoneservices.com/products/OLM/images/sx00-extras/RJ45F.jpg













Data Logger/ 4 External Channels



Home > Products > Monitors > Data Logger/ 4 External Channels









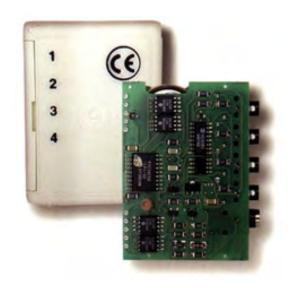


Features and specifications:

- Accepts external sensors and input cables for temperature, AC current, 0-2.5 Volt DC and 4-20 mA
- Total "data capacity" is 32,520 measurements
- Programmable start time/date
- Memory modes: stop when full, wrap-around when full
- User-selectable sampling interval: 0.5 sec. to 9 hours, recording times up to 1 year
- Nonvolatile EEPROM memory retains data even if battery fails
- Blinking LED light confirms operation
- Mounting kit included (hook/loop, magnet, and tape)
- Readout and re-launch with optional HOBO Shuttle
- Drop-proof to 5'
- Size/Weight: 2.4 x 1.9 x 0.8" (60 x 48 x 19 mm) /approx. 1 oz (27 grams)
- User-replaceable battery lasts 1 year + Battery level indication at launch
- Operating range: -4°F to +158°F (-20°C to +70°C), 0 to 95% relative humidity, non-condensing, nonfogging
- Time accuracy: ±1 minute per week at +68°F (+20°C)
- NIST-traceable temperature accuracy certification available, compliance certificate available

Accepts following external sensors and input cables:

- Temperature
 - Wide Range sensors (40° to 212°F / 4° to 100°C)
 - temperature sensors lengths from 1' to 50'
 - High Accuracy sensors (32°F to 110°F / 0° to 44°C)
 - Stainless steel temperature probe
- AC Current Split-core AC current sensors ranges
 - o 0-20 Amp, 0-50 Amp, 0-100 Amp
 - o 0-200 Amp, 0-600 Amp
- 4-20 milliamps (18" / 45cm long)
- 0 to 2.5 Volts DC (6 / 180cm long)

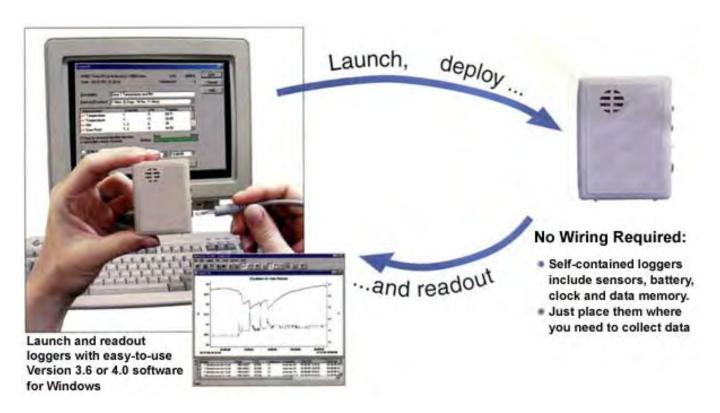




Accuracy: ±10 mV ±1% of reading

o Resolution: 10 mV (8-bit)

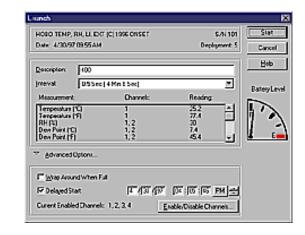
Data Logger Software



Version 3.6

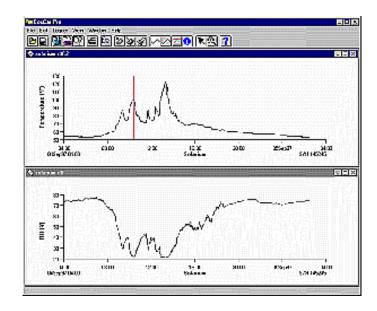
Easy Logger Setup

- Select from predefined sampling intervals (0.5 seconds to 9 hours) or program your own custom intervals
- Set start time and memory modes (e.g., stop when full, wraparound when full)
- Verify logger operation before launching
- Synchronizes logger and data shuttle clocks to computer clock
- · Checks battery status



General Features

- Toolbar provides quick access to commonly used functions
- Runs in Windows 3.1x or Windows 95/98/NT (Data archive reader utility for Pro Series only runs in Windows 95/98/NT)
- On-line help
- Readout log provides a summary of saved data logger files
- DOS Utility allows you to launch, readout and save files from PCs that only have MS-DOS



Readout and Data Analysis

- View data in tabular and graphical formats (for the Event, it plots cumulative event data)
- Zoom in on data of interest
- Display multiple plot windows at once
- Copy and paste graphs into other Windows applications
- · Cursor highlights points on graph
- Displays alarm lines (loggers)

Export Data files to Spreadsheets

Microsoft Excel, Lotus 1-2-3 or any ASCII-compatible program

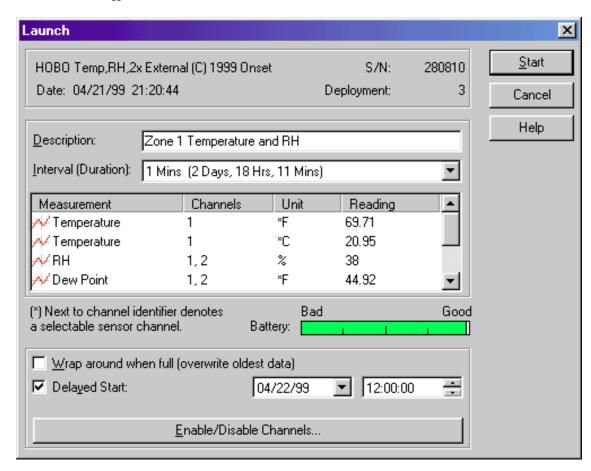
Version 3.6 System Requirements

386 or better processor with at least 4M of RAM running Windows 3.1x or Windows 95/98/NT, with at least one available serial port.

Version 3.6 is designed for single users, and has not been tested, and therefore not warranted to run in a network environment.

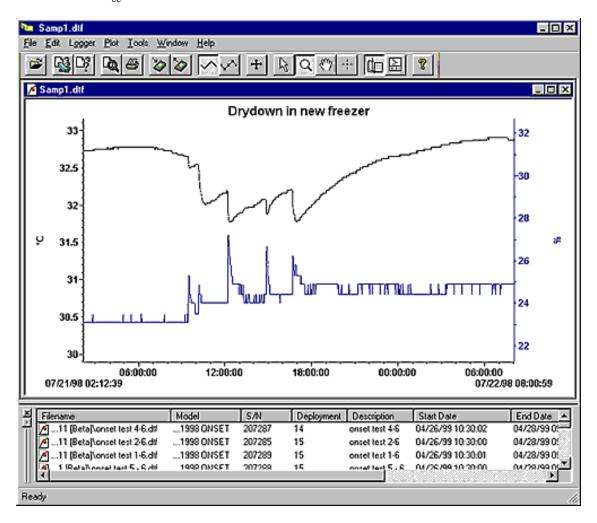
Version 4.0

Easy Logger Setup



- Select from predefined sampling intervals (0.5 seconds to 9 hours) or program your own custom intervals
- Set start time and memory modes (e.g., stop when full, wrap-around when full)
- Verify logger operation before launching
- Synchronizes logger and data shuttle clocks to computer clock
- · Checks battery status

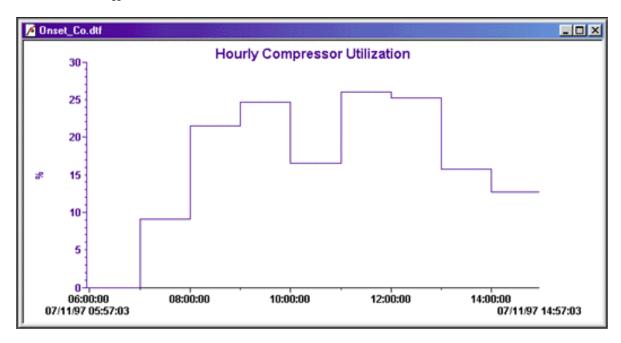
Graphing



Powerful new graphing capabilities allow you to compare multiple parameters on one graph, including data from multiple loggers or successive deployments. Then use the zoom and axis-control tools to focus in on the data of interest.

- Add new data series from stored files or drag-and-drop from one plot onto another
- Multiple value axis on one graph, such as temperature and RH
- · View data from successive deployments on one graph to see long-term trends
- · Overlay data from different deployments, to compare month-to-month, or before-and-after
- Focus on data of interest with powerful zoom and drag tools
- Set axis ranges
- Use cursor to display specific plot values
- · Display series data and details such as launch parameters and series statistics
- · Add limit lines to the graph
- · Copy and paste graphs into other Windows programs
- Control axis, series and legend properties

Analysis Functions



The following analysis functions can be used to extract key information from logged data. These functions actually create new data series, which can be graphed or exported. These functions filter data over user-specified intervals that can be in seconds, minutes, hours or days.

· Min, max and average values per interval

On/off and State logger data:

- Run time and off time (closed time and open time) in seconds
- Percent on and percent off (percent closed and percent open)
- Number of ons and offs (number of opens and closes)

Event logger data:

- Rainfall per time interval
- Number of events

Export Data to other Programs

- Control bar tool for Microsoft Excel export (.TXT format)
- Lotus 1-2-3 and custom export
- · International data format options
- Batch export utility

Other Features

- · Print graphs and series details
- Print preview
- Multiple logger launch
- Long file names (up to 255 characters)

- International data format options
- Thumbnail view for showing many plots on screen at once

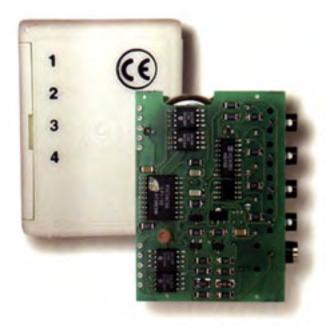
Version	4.0	System	Requirem	ents:
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Minimum system requirement is 486/66Mhz with at least 16M of RAM running Windows 95/98/NT4 or later with 16-bit color. A Pentium 90 or higher with 24M of RAM is recommended. The system must have at least one available serial COM port and a CD-ROM Drive.

Version 4.0 is designed for single users, and has not been tested, and therefore not warranted to run in a network environment.

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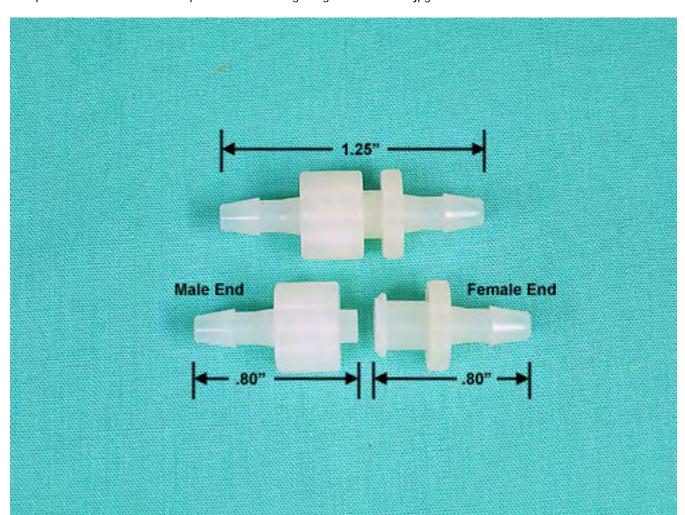
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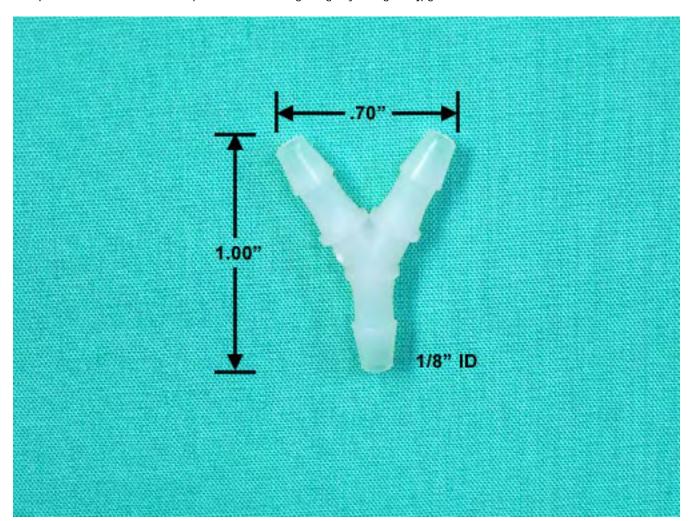
OzoneLab™ Oxygen and Ozone Tubing	5 Foot	10 Foot	Custom Lengths to 100 Feet
1/8ID & 1/4OD OXY Tubing - Food Grade PVC (Clear)	V	V	✓
1/8ID & 1/4OD OXY Tubing (Blue)	V	V	✓
1/8ID & 1/4OD OZONE Silicone Tubing (Milky White)	V	✓	✓
1/8ID & 3/16OD OZONE Teflon™ Tubing (White)	V	V	✓





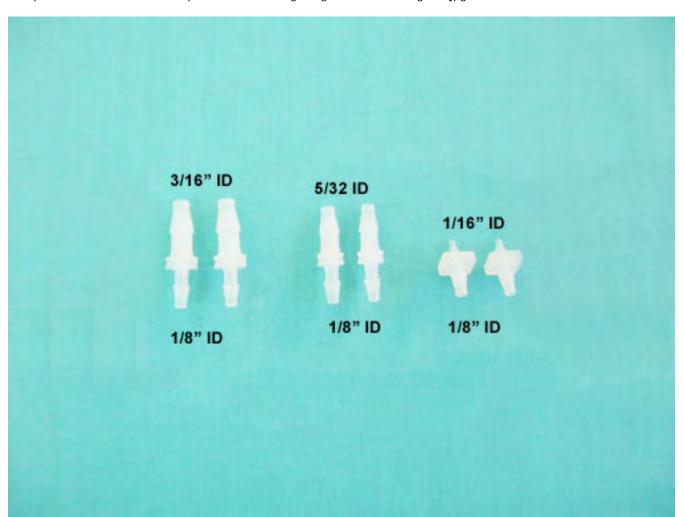


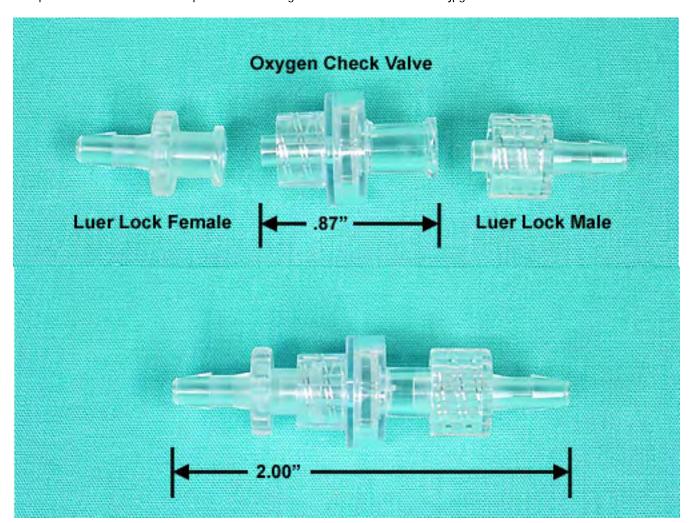






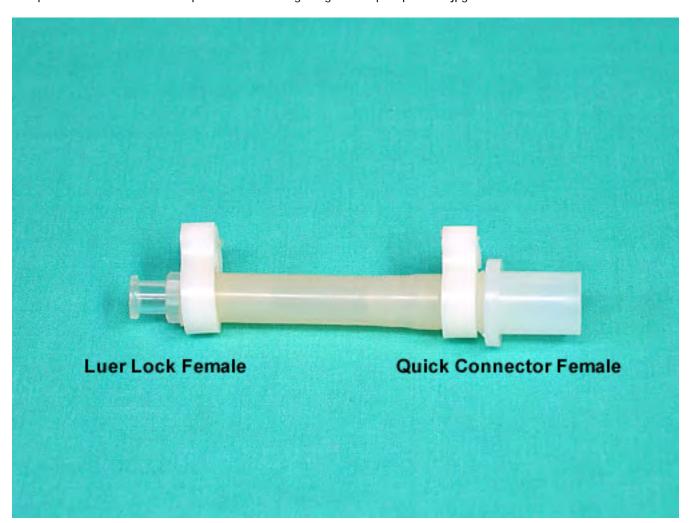






OzoneLab™ Oxygen and Ozone Tubing	5 Foot	10 Foot	Custom Lengths to 100 Feet
3/16ID & 5/16OD OZONE Silicone Tubing (Milky White)	V	V	✓
3/16ID & 5/16OD OXY Tubing - Food Grade PVC (Clear)	V	V	✓



















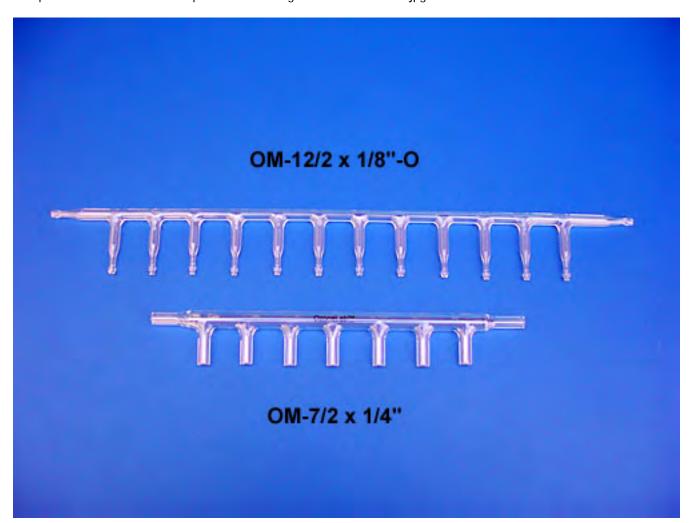




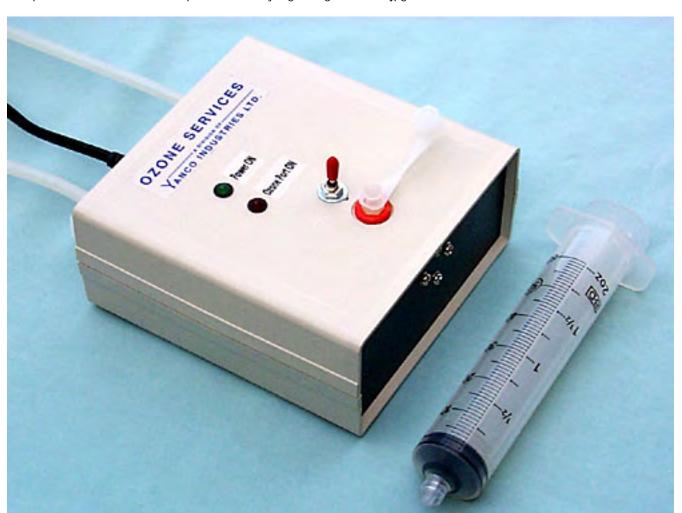




















http://www.ozoneservices.com/products/OLP/power/images/batt-ext-1b.jpg



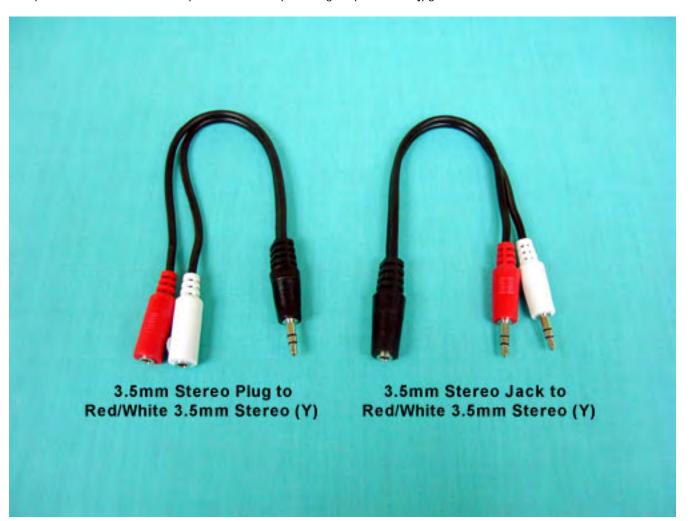




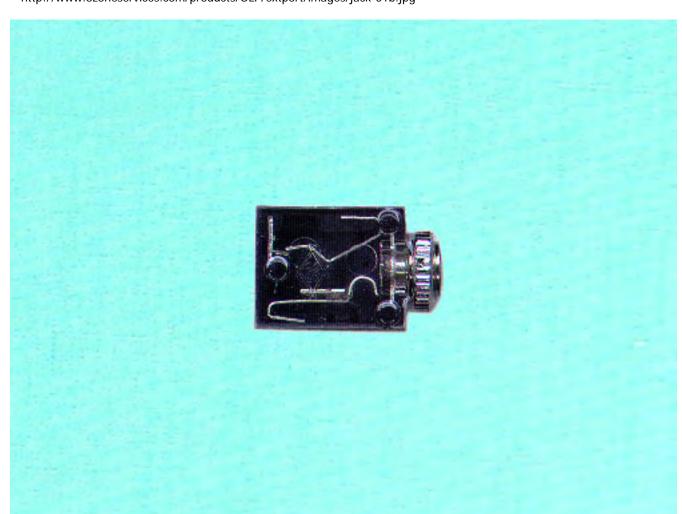




















OzoneLab™ Ozone & UV System Peripherals



<u>Home</u> > <u>Products</u> > Ozone & UV System Peripherals



- Laboratory Items
- Medical Research Items

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CANCER ACTION PLAN

Useful, Innovative, Alternative Cancer Therapies

Includes interviews and discussions with:

Ralph Moss — the world's foremost cancer treatment researcher.

John Boik on the latest research into the use of natural compounds in cancer therapy.

Dr Porter — originator of Cellular Light Therapy – breakthrough treatment combining a 'Trojan Horse' compound with laser light.

John Clement on Burtons Immuno-Augmentative Therapy – a method of outwitting cancers own defenses.

Dr Lechin — originator of the Neuroimmunomodulation approach – manipulating neurotransmitters to fight cancer.

Gaston Naessen's on Somatidian Theory & treatment with 714-X – a method of cleansing and purifying the lymphatic system.

Dr Burzynski — originator of Antineoplaston Therapy - a method of instructing cells to 'turn' any cancerous growth off.

Bill Wolcott on the Metabolic Typing dietary approach – a biochemical approach to food and diet.

Simon Kelly & Enrida Kelly



OzoneLab™ Laboratory Example Setups



Search



<u>Home</u> > <u>Setup Examples</u> > Laboratory Example Setups

OzoneLab™ Instrument Example	Picture	Wall or Desktop	Ozone Production	Built-in Analyzer	Syringe Port	Built In Destructor		EXT Control Port Option
OL80A/DLS	.0	Desktop	<mark>0-1000 mg/h</mark> r	Yes	Standard	Standard	N/A	Standard
OL80F/DST (90° panel series)		Desktop	0-1000 mg/hr	No	Standard	Standard	N/A	Standard
OL80 (Basic) (45° panel series)		Desktop	0-1000 mg/hr	No	Optional	N/A	N/A	Standard
OL80F/S (45° panel series)		Desktop	0-1000 mg/hr	No	Standard	N/A	N/A	Standard
OL80W		Wall or Desktop Stand	0-1000 mg/hr	No	N/A	N/A	Optional	Standard
OL100/Basic		Desktop	0-2000 mg/hr	No	Optional	Optional	N/A	Standard
OL100/DS	*** 3	Desktop	0-2000 mg/hr	No	Standard	Standard	N/A	Standard
4-8-12W/12VDC UV Irradiation Instrument		Desktop	N/A	N/A	N/A	N/A	N/A	N/A

The below highlighted examples are an attempt to try and allow clients to visualize different ozone generator application setups. Each example represents only one of many different possible applications.



OzoneLab™ OL80A/DLS

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
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Back flow protection example using the O80A/DLS Ozone Generator/Gas Analyzer with built in syringe port	Web Page Link	Tank & Regulator	OL80A/DLS	Back Flow Protection (Trap)
Syringe Filling example using the O80A/DLS Ozone Generator/Gas Analyzer with built in syringe port	Web Page	Tank & Regulator	OL80A/DLS	Syringe Filling
Ozone Test Chamber example using an OL80A/DLS Ozone Generator/Gas Analyzer.	Web Page Link	Tank & Regulator	OL80A/DLS	Test Chamber
Ozone Test Chamber example using an OL80A/DLS Ozone Generator/Gas Analyzer. Utilizes a C-30z Ozone Monitor to measure room ozone levels.	Web Page Link	Tank & Regulator	OL80A/DLS with a C-30z Ozone Monitor connected through generator EXT Port	Test Chamber
Ozonation of fluids using an OL80A/DLS Ozone Generator & Ozone Gas Analyzer.	Web Page Link	Tank & Regulator	OL80A/DLS	Ozonation Containers
Ozonation of fluids using a Flow-through Diffuser (open loop) and an OL80A/DLS Ozone Generator & Ozone Gas Analyzer.	Web Page	Tank & Regulator	OL80A/DLS	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser (closed loop) and an OL80A/DLS Ozone Generator & Ozone Gas Analyzer.	Web Page Link	Tank & Regulator	OL80A/DLS	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser with a Cooling Jacket and an OL80A/DLS Ozone Generator & Ozone Gas Analyzer.	Web Page Link	Tank & Regulator	OL80A/DLS	Flow-through Diffuser with Cooling Jacket



OzoneLab™ OL80F/DST (90° panel series)

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection example using glass ozonation containers and an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Back Flow Protection (Trap)

Ozone Test Chamber example using an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Test Chamber
Ozone Test Chamber example using an OL80F/DST Ozone Generator. Utilizes a C-30z Ozone Monitor to measure room ozone levels.	Web Page Link	Tank & Regulator	OL80F/DST with a C-30z Ozone Monitor connected through generator EXT Port	Test Chamber
Syringe Filling example using the OL80F/DST Generator with built in syringe port	Web Page Link	Tank & Regulator	OL80F/DST	Syringe Filling
Ozonation of fluids using an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Ozonation Containers
Ozonation of fluids using a Flow-through Diffuser (open loop) and an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser (closed loop) and an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser with a Cooling Jacket and an OL80F/ DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Flow-through Diffuser with Cooling Jacket



OzoneLab™ OL100/Basic

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection example using an OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Back Flow Protection (Trap)
Syringe Filling example using the OL100/ Basic Ozone Generator feeding the OLA/ DLS Gas Analyzer with built in syringe port	Web Page Link	Tank & Regulator	OL100/Basic & OLA/DLS	Syringe Filling
Ozone Test Chamber example using an OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Test Chamber

Ozone Test Chamber example using an OL100/Basic Ozone Generator. Utilizes a C-30z Ozone Monitor to measure room ozone levels.	Web Page Link	Tank & Regulator	OL100/Basic with a C-30z Ozone Monitor connected through generator EXT Port	Test Chamber
Ozonation of fluids using an OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Ozonation Containers
Ozonation of fluids using a Flow-through Diffuser (open loop) and an OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser (closed loop) and an OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser with a Cooling Jacket and an OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Flow-through Diffuser with Cooling Jacket



OzoneLab™ OL100/DS

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection example using an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Back Flow Protection (Trap)
Syringe Filling example using the OL100/DS Ozone Generator with built in syringe port	Web Page Link	Tank & Regulator	OL100/DS	Syringe Filling
Ozone Test Chamber example using an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Test Chamber
Ozone Test Chamber example using an OL100/DS Ozone Generator. Utilizes a C-30z Ozone Monitor to measure room ozone levels.	Web Page Link	Tank & Regulator	OL100/DS with a C-30z Ozone Monitor connected through generator EXT Port	Test Chamber

Ozonation of fluids using an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Ozonation Containers
Ozonation of fluids using a Flow-through Diffuser (open loop) and an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser (closed loop) and an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser with a Cooling Jacket and an OL100/ DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Flow-through Diffuser with Cooling Jacket



OzoneLab™ OL80 (Basic) (45° panel series)

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection example using an OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Back Flow Protection (Trap)
Water ozonation using glass ozonation containers and an OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Ozonation Containers
Ozonation of fluids using a Flow-through Diffuser (open loop) and an OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser (closed loop) and an OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser with a Cooling Jacket and an OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Flow-through Diffuser with Cooling Jacket



OzoneLab™ OL80F/S (45° panel series)

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection example using glass ozonation containers and an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Back Flow Protection (Trap)
Syringe Filling example using the OL80F/S Generator with built in syringe port	Web Page Link	Tank & Regulator	OL80F/S	Syringe Filling
Ozonation of fluids using an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Ozonation Containers
Ozonation of fluids using a Flow-through Diffuser (open loop) and an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser (closed loop) and an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser with a Cooling Jacket and an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Flow-through Diffuser with Cooling Jacket



OzoneLab™ OL80W

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection example using an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Back Flow Protection (Trap)
Ozone Test Chamber example using an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Test Chamber
Ozone Test Chamber example using an OL80W Ozone Generator. Utilizes a C-30z Ozone Monitor to measure room ozone levels.	Web Page Link	Tank & Regulator	OL80W with a C-30z Ozone Monitor connected through generator EXT Port	Test Chamber

Ozonation of fluids using an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Ozonation Containers
Ozonation of fluids using a Flow-through Diffuser (open loop) and an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser (closed loop) and an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Flow-through Diffuser
Ozonation of fluids using a Flow-through Diffuser with a Cooling Jacket and an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Flow-through Diffuser with Cooling Jacket



OzoneLab™ 4-8-12 UV Irradiation Instrument

Description	More Information	Oxygen Source	Instrument	Highlighted Application(s)
U.V. Fluid Irradiation fed from a disposable syringe.	Web Page Link	None	4-8-12W UV Instrument	Syringe Fed Fluid Source
U.V. Fluid Irradiation fed from a gravity fed fluid source.	Web Page Link	None	4-8-12W UV Instrument	Gravity Fed Fluid Source Gravity Fed Fluid Source

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OzoneLab™ Laboratory Example Setups - By Application





<u>Home</u> > <u>Setup Examples</u> > By Application

- Back Flow Protection (Trap)
- Filling Syringes with Ozone Gas
- Ozonation of Fluids
- Ozone Test Chamber
- Ozone Test Chamber utilizing a Room Ozone Monitor
- . U.V. Irradiation of Fluids

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OzoneLab™ Medical Research & Clinical Applications Example Setups





Us



Home > Setup Examples > By Hardware

OzoneLab™ Wall or **Ozone Built-in Built In** Flowmeter EXT Control **Syringe** Instrument **Picture** Desktop **Modules Analyzer** Port **Option Port Option Destructor Example** OL80A/DLS Standard Desktop One Yes Standard N/A Standard OL80F/DST One No Standard Standard N/A Standard Desktop (90° panel series) OL80F/DST-2S 2 Standard Standard Desktop One No N/A Standard (90° panel series) OL80 (Basic) Desktop One No Optional N/A N/A Standard (45° panel series) OL80F/S N/A Desktop One No Standard N/A Standard (45° panel series) Wall or OL80W Optional One No N/A N/A Standard Desktop Stand OL100/Basic N/A Standard Desktop Two No Optional Optional **OL100/DS** Standard Standard N/A Standard Desktop Two No 4-8-12W/12VDC **UV** Irradiation N/A N/A N/A N/A N/A N/A Desktop Instrument

The below highlighted examples are an attempt to try and allow clients to visualize different ozone generator application setups. Each example represents only one of many different possible applications.



OzoneLab™ OL80A/DLS

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection example using an O80A/DLS Ozone Generator/Gas Analyzer with built in syringe port	Web Page Link	Tank & Regulator	OL80A/DLS	Back Flow Protection (Trap)
Inhalation / Back flow protection example using an O80A/DLS Ozone Generator/Gas Analyzer with built in syringe port	Web Page Link	Tank & Regulator	OL80A/DLS	Inhalation / Back Flow Protection
Dental Attachment Setup using an OL80A/DLS Ozone Generator.	Web Page Link	Tank & Regulator	OL80A/DLS	Dental Attachment
Syringe Filling example using an O80A/ DLS Ozone Generator/Gas Analyzer with built in syringe port.	Web Page Link	Tank & Regulator	OL80A/DLS	Filling Syringes
Filling Insufflation Bags with ozone using an OL80A/DLS Ozone Generator/Gas Analyzer.	Web Page Link	Tank & Regulator	OL80A/DLS	Filling Insufflation Bag
Arm Bagging using the OL80A/DLS Ozone Generator/Gas Analyzer.	Web Page Link	Tank & Regulator	OL80A/DLS	Ozone Arm Bagging
Boot Bagging using the OL80A/DLS Ozone Generator/Gas Analyzer.	Web Page Link	Tank & Regulator	OL80A/DLS	Ozone Boot Bagging
Cupping using the OL80A/DLS Ozone Generator/Gas Analyzer.	Web Page Link	Tank & Regulator	OL80A/DLS	Ozone Cupping
Water ozonation using a water snake and an OL80A/DLS Ozone Generator/Gas Analyzer.	Web Page Link	Tank & Regulator	OL80A/DLS	Water Ozonation (Water Snake)
Water ozonation using glass ozonation containers and an OL80A/DLS Ozone Generator & Ozone Gas Analyzer.	Web Page Link	Tank & Regulator	OL80A/DLS	Ozonation Containers



OzoneLab™ OL80F/DST (90° panel series)

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection (Trap) example using an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Back Flow Protection (Trap)
Inhalation / Back flow protection example using an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Inhalation / Back Flow Protection
Colon Therapy Setup using a High Efficiency Diffuser to mix water and ozone from an OL80F/ DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Colon Hydro Therapy (High Efficiency Diffuser)
Dental Attachment Setup using the OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Dental Attachment
Syringe Filling example using an Oxygen Tank and Regulator and the OL80F/DST Generator with built in syringe port	Web Page Link	Tank & Regulator	OL80F/DST	Filling Syringes
Filling Insufflation Bags with ozone using an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Filling Insufflation Bag
Arm Bagging using the OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Ozone Arm Bagging
Boot Bagging using the OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Ozone Boot Bagging
Cupping using the OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Ozone Cupping
Steam Sauna setup using an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Steam Sauna Units
Water ozonation using a water snake and an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Water Ozonation (Water Snake)
Water ozonation using glass ozonation containers and an OL80F/DST Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST	Ozonation Containers



OzoneLab™ OL80F/DST-2S (90° panel series)

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Inhalation / Back flow protection example using an OL80F/DST-2S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST- 2S	Inhalation / Back Flow Protection
Syringe Filling example using an Oxygen Tank and Regulator and the OL80F/DST-2S Generator with built in syringe port	Web Page Link	Tank & Regulator	OL80F/DST- 2S	Filling Syringes
Water ozonation using a water snake and an OL80F/DST-2S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/DST- 2S	Water Ozonation (Water Snake)



OzoneLab™ OL80 (Basic) (45° panel series)

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection (Trap) example using glass ozonation containers and an OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Back Flow Protection (Trap)
Inhalation / Back flow protection example using glass ozonation containers and an OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Inhalation / Back Flow Protection
Steam Sauna setup using an OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Steam Sauna Units
Arm Bagging using the OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Ozone Arm Bagging
Boot Bagging using the OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Ozone Boot Bagging
Cupping using the OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Ozone Cupping

Water ozonation using a water snake and an OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Water Ozonation (Water Snake)
Water ozonation using glass ozonation containers and an OL80 (Basic) Ozone Generator.	Web Page Link	Tank & Regulator	OL80 (Basic)	Ozonation Containers



ozoneLab™ OL80F/S (45° panel series)

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection (Trap) example using an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Back Flow Protection (Trap)
Inhalation / Back flow protection example using an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Inhalation / Back Flow Protection
Colon Therapy Setup using a High Efficiency Diffuser to mix water and ozone from an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Colon Hydro Therapy (High Efficiency Diffuser)
Dental Attachment Setup using the OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Dental Attachment
Syringe Filling example using an Oxygen Tank and Regulator and the OL80F/S Generator with built in syringe port	Web Page Link	Tank & Regulator	OL80F/S	Filling Syringes
Filling Insufflation Bags with ozone using an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Filling Insufflation Bag
Arm Bagging using the OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Ozone Arm Bagging
Boot Bagging using the OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Ozone Boot Bagging
Cupping using the OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Ozone Cupping

Steam Sauna setup using an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Steam Sauna Units
Water ozonation using a water snake and an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Water Ozonation (Water Snake)
Water ozonation using glass ozonation containers and an OL80F/S Ozone Generator.	Web Page Link	Tank & Regulator	OL80F/S	Ozonation Containers



OzoneLab™ OL80W

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection (Trap) example using an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Back Flow Protection (Trap)
Inhalation / Back flow protection example using an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Inhalation / Back Flow Protection
Colon Therapy Setup using a High Efficiency Diffuser to mix water and ozone from an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Colon Hydro Therapy (High Efficiency Diffuser)
Filling Insufflation Bags with ozone using an OL80W Ozone Generator with an external syringe filling adapter	Web Page Link	Tank & Regulator	OL80W & External Syringe Filling Adapter	Filling Insufflation Bag
Filling Insufflation Bags with ozone using an OLA/DLS Ozone Gas Analyzer supplied with ozone from an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W & OLA/DLS	Filling Insufflation Bag
Arm Bagging using the OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Ozone Arm Bagging

Boot Bagging using the OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Ozone Boot Bagging
Cupping using the OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Ozone Cupping
Steam Sauna setup using an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Steam Sauna Units
Water ozonation using a water snake and an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Water Ozonation (Water Snake)
Water ozonation using glass ozonation containers and an OL80W Ozone Generator.	Web Page Link	Tank & Regulator	OL80W	Ozonation Containers



OzoneLab™ OL100/Basic

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection (Trap) example using an OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Inhalation / Back Flow Protection
Inhalation / Back flow protection example using an OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Inhalation / Back Flow Protection
Syringe Filling example using an OL100/ Basic Ozone Generator feeding the OLA/ DLS Gas Analyzer with built in syringe port	Web Page Link	Tank & Regulator	OL100/Basic & OLA/DLS	Filling Syringes
Arm Bagging using the OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Ozone Arm Bagging
Boot Bagging using the OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Ozone Boot Bagging

Cupping using the OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Ozone Cupping
Steam Sauna setup using an OL100/ Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Steam Sauna Units
Water ozonation using a water snake and an OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Water Ozonation (Water Snake)
Ozonation of fluids using an OL100/Basic Ozone Generator.	Web Page Link	Tank & Regulator	OL100/Basic	Ozonation Containers



OzoneLab™ OL100/DS

Description	More Information	Oxygen Source	Ozone Generator	Highlighted Application(s)
Back flow protection (Trap) example using an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Back Flow Protection (Trap)
Inhalation / Back flow protection example using an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Inhalation / Back Flow Protection
Colon Therapy Setup using a High Efficiency Diffuser to mix water and ozone from an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Colon Hydro Therapy (High Efficiency Diffuser)
Dental Attachment Setup using the OL100/ DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Dental Attachment
Filling Insufflation Bags with ozone using an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Filling Insufflation Bag
Syringe Filling example using an OL100/ DS Ozone Generator with built in syringe port	Web Page Link	Tank & Regulator	OL100/DS	Filling Syringes

Arm Bagging using the OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Ozone Arm Bagging
Boot Bagging using the OL100/DS Ozone Generator.	Web Page	Tank & Regulator	OL100/DS	Ozone Boot Bagging
Cupping using the OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Ozone Cupping
Steam Sauna setup using an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	or Steam Sauna Units
Water ozonation using a water snake and an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Water Ozonation (Water Snake)
Water ozonation using glass ozonation containers and an OL100/DS Ozone Generator.	Web Page Link	Tank & Regulator	OL100/DS	Ozonation Containers



OzoneLab™ 4-8-12 UV Irradiation Instrument

Description	More Information	Oxygen Source	Instrument	Highlighted Application(s)
U.V. Fluid Irradiation fed from a disposable syringe.	Web Page Link	None	4-8-12W UV Instrument	Syringe Fed Fluid Source
U.V. Fluid Irradiation fed from a gravity fed fluid source.	Web Page Link	None	4-8-12W UV Instrument	Gravity Fed Fluid Source Gravity Fed Fluid Source

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OzoneLab™ Medical Research & Clinical Applications Example Setups





<u>Home</u> > <u>Setup Examples</u> > By Application

Shown by application:

- Back Flow Protection (Trap)
- Colon Hydro Therapy
- Dental Attachment
- Filling Insufflation Bags
- Filing Syringes
- Inhalation / Back Flow Protection

- Modified Stethoscope
- Ozone Bagging (Arm & Boot)
- Ozone Cupping
- U.V. Irradiation of Fluids
- Steam Sauna
- Water Ozonation

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OzoneLab™ Towers using Desktop Tower Enclosures

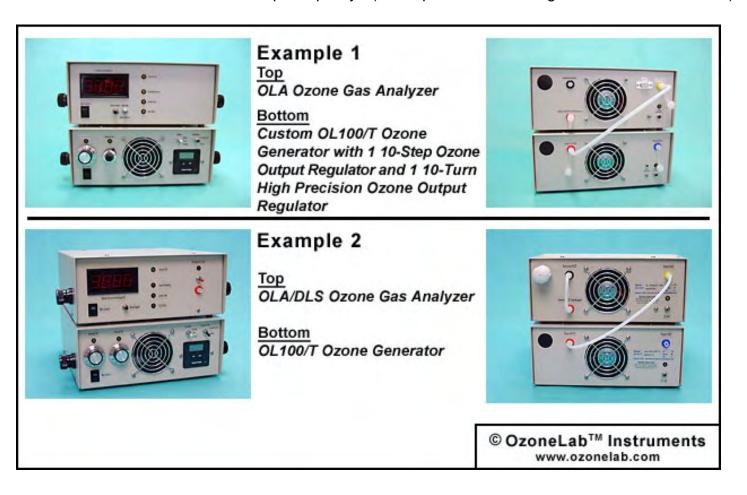


<u>Home</u> > <u>Products</u> > Towers Products



OzoneLab™ Products contained in desktop tower enclosures can be stacked on top of one another in order to create towering systems suitable:

- 1. To perform multiple tasks ozone production, ozone monitoring, timing the ozone production, excess ozone gas destruction, etc.
- 2. To increase over all ozone output capacity (if multiple OL100 ozone generators would be used).



For more information about OzoneLab™ Towers, please do not hesitate to contact us.





OzoneLab™ Stainless Steel Swagelok® Upgrade



<u>Home</u> > <u>Products</u> > Swagelok[®] Upgrade



Swagelok[®] is a registered trademark of <u>Swagelok Company of Solon</u>, <u>Ohio</u>, <u>USA</u> producing a wide variety of high quality compression fittings. OzoneLab[™] Instruments are exclusively using Swagelok[®] fittings where indicated.

The Stainless Steel Swagelok® compression fitting option is available to laboratory clients only upon request. (This is not a standard option as it does introduce metal into the ozone stream).

Our "STANDARD" OzoneLab™ Teflon tubing is 1/8"ID & 3/16"OD. Consequently "STANDARD" Swagelok® fittings are offered for the 3/16"OD Teflon tubing.

For clients insisting on 1/4"OD, we can provide 3/16"OD to 1/4"OD coupler.

The "Swagelok® Option" is offered on all units in large enclosure (OL100's, OLA's, OL80A's, OL80M's, OL80W's and selected OL80 desktop's. This option is not applicable for "Syringe Ports".

For more information about OzoneLab $^{\text{TM}}$ Swagelok $^{\text{@}}$ upgrade, please do not hesitate to contact us.





Pricing

"3/16"OD Swagelok[®] Upgrade" (working with OzoneLab™ Standard 1/8"ID & 3/16"OD Teflon tubing)

US \$245.00 / unit



Set of two (2) 3/16"OD to 1/4"OD couplers.

US \$42.00 (21.00U\$/each)



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OzoneLab™ Protective Gas Port Caps and Color Coding





Home > Products > Generators > Protective Gas Port Caps and Color Coding

Luer Lock Protective Caps

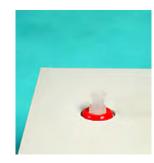
All Luer Lock fittings on OzoneLab™ Ozone Generators and Analyzers are made of ozone resistant Kynar® and come standard with removable reusable protective caps.











Luer Lock Protective Cap in closed position Cap in open position

Luer Lock Protective

Luer Lock Protective Cap in open position with ozone tubing attached

Luer Lock Protective Cap in open position with filter & syringe attached

Luer Lock Protective Cap removed (can be easily re-attached)

Important notes:

- Protect the equipment against excessive vibrations, heat, dust and humidity.
- Protect the equipment against the back-flow of water and/or any other liquids & gases.
- Be very gentle with all fittings/connectors. Using excessive force will result in complications of removing/ disconnecting the connectors, or even breaking the connectors (not covered by a warranty)

Panel Fittings Color Coding Information



The above colors are used by Ozone Services for intensification of individual gas ports:

Standard	Color Coding Identification:	The following colors are used only if needed (for special custom applications)
Blue Yellow Black Red	Oxygen INLET Ozone INLET Ozone Destructor INLET Ozone OUTLET	WhiteOrangeGreen

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S = Standard | O = Optional | N/A = Not Available

Model	OLA	OLA/D	OLA/L	OLA/DL	OLA/DS	OLA/DLS	OL80A/DLS
Generator, Analyzer or Combination	Analyzer Only	Analyzer Only	Analyzer Only	Analyzer Only	Analyzer Only	Analyzer Only	Generator & Analyzer
Model Picture							
OL80 Ozone Module (Single Stage)	N/A	N/A	N/A	N/A	N/A	N/A	S
OL100 Ozone Module (Double Stage)	N/A						
Flowmeter - 500cc/min (Standard) or Customer Specified	N/A						
10-Step Ozone Output Regulation	N/A						
10-Turn High Resolution Ozone Output Regulation	N/A	N/A	N/A	N/A	N/A	N/A	S
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	N/A						
External Ozone Output Regulation (EXT O3 Control Port)	N/A	N/A	N/A	N/A	N/A	N/A	S
Internal Ozone Destructor	O (+60U\$)	S	O (+60U\$)	S	S	S	S
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	O (+425U\$)	O (+425U\$)	O (+425U\$)	O (+425U\$)	S	S	S
Countdown Timer & Buzzer	N/A						
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	200µg/ml (200mg/l) (200g/m3)						
Repeatability (% scale) Zero Drift (% scale) Response (to 95% - Flow Dependant)	1% 1% 2sec.						
Compensation Pressure & Temp	3bar/ 43psi 5-45°C						
LED Ozone Concentration Display	S	S	S	S	S	S	S
Microprocessor OzoneLab™ Programmable Controller Module	N/A						
Banana Clip Ground Connection	S	S	S	S	S	S	S
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 5.0 LPM	0.005 LPM 1.0 LPM					
Adjustable 0-5VDC Analog Signal Output	O (+60U\$)						
Software for Data Logging (COM1)	O (+60U\$)	O (+60U\$)	S	S	O (+60U\$)	S	S

Luer Lock Kynar® Ozone Resist Fittings	S	S	S	S	S	S	S
Swagelok® Fittings	O (+245U\$)						
Wall Mounted Enclosure	N/A						
Desktop Tower Enclosure with Handle/Stand - Stackable	S	S	S	S	S	S	S
Desktop Enclosure with 45° front panel	N/A						
Folding Table for Desktop Enclosure with 45° front panel	N/A						
Instrument Weight	3.1kg/7.0Lb	3.3kg/7.3Lb	3.3kg/7.3Lb	3.3kg/7.3Lb	3.3kg/7.3Lb	3.3kg/7.3Lb	3.8kg/8.0Lb
Power Requirements	12VDC 0.7 Amp	12VDC 2.0 Amp					
100-240AC/12DC/4Amp Universal Adapter	Included						
Base Price [U\$]	\$5,345.00	\$5,405.00	\$5,405.00	\$5,465.00	\$5,830.00	\$5,890.00	\$7,595.00

Base Price [U\$] \$5,345.00 \$5,405.00 \$5,405.00 \$5,465.00 \$5,830.00 \$5,890.00 \$7 **Ozone Services -** Tel: 250-265-4461 // Fax: 250-265-4482 // www.ozonelab.com // info@ozonelab.com 390 Silver Queen Road, Burton, B.C., V0G 1E0 Canada









Ozone Output Regulation



Home > Products > Ozone Output Regulation





10-Step Ozone Output Regulation

The "10-Step Ozone Output Regulation" has exactly defined "click-in" steps for which the ozone generator (ozone production) is tested and measured. That data is used to create an Ozone Output Test Report for the specific instrument. Consequently, ozone generators with "10-Step" regulation are frequently used without ozone gas analyzers.



10-Turn High Precision Ozone Output Regulation

The "10-Turn High Precision Ozone Output Regulation" (listed as "R" option) does not have exactly defined "click-in" steps for which the ozone generator can be calibrated. However, the advantage of the 10-turn regulation is in almost unlimited number of ozone output setting options. Consequently, 10-Turn Precision Ozone Output Regulation is mainly for applications where the end users have an independent ozone gas analyzer available.

Ozone Generators equipped with "R" type regulation are calibrated only for 10 settings defined on the scale of the regulator knob in numeric form, and the precession of dialing this setting can vary greatly with each user.

If the client has an independent ozone gas analyzer, ozone generators with R option would be better choice offering more ozone production regulation flexibility.

However, if the client does not have (or does not plan on using) independent ozone gas analyzer, and if it is important for client's targeted application(s) to keep track of ozone concentrations produced, the ozone generator with standard 10-step ozone concentration regulator will be better choice, as each of 10 steps is exactly defined and linked with the calibration data outlined in the Ozone Output Test Report.

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OzoneLab™OLA Theory of Ozone Module Operation

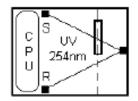


<u>Home</u> > <u>Products</u> > <u>Analyzers</u> > Theory of Ozone Module Operation



The detection of ozone molecules is based on the absorption of 254 nm UV light due to an internal electronic resonance of the O_3 molecule. The model OLA/DS uses a mercury lamp constructed so that a large majority of the light emitted is at the 254 nm wavelength.

Light from the UV lamp shines through an absorption cell through which the sample gas being measured is passed. The ratio of the intensity of light passing through the gas is calculated from the UV light intensity measured by a sensor [S] and a reference measurement provided by the reference sensor [R], which does not pass through the gas, forms the ratio I/I0. This ratio forms the basis for the calculation of the ozone concentration.



The Beer-Lambert equation, shown below, calculates the concentration of ozone from the ratio of light intensities.

$$C_{O3} = \frac{1}{a \times L} \times \frac{T}{273^{\circ}K} \times \frac{14.695 \text{ psi}}{P} \times \ln \frac{S1}{S2}$$

Where:

- **S1** Intensity of light passed through the sample
- **S2** Intensity of light through ozone free gas sample
- a Absorption coefficient
- L Path length
- C₀₃ Concentration of ozone
- T Sample temperature in degrees Kelvin
- P Pressure in pounds per square inch (absolute)

As can be seen the concentration of ozone depends on more than the intensity ratio. Temperature and pressure influence the density of the sample. The density changes the number of ozone molecules in the absorption cell, which impacts the amount of light, removed from the light beam. These effects are addressed by directly measuring temperature and pressure and including their actual values in the calculation. The absorption coefficient is a number that reflects the inherent ability of ozone gas to absorb 254 nm wavelength of the UV light. Lastly, the absorption path length determines how many molecules are present in the column of

gas in the absorption cell.

The intensity of light is converted into a voltage by the detector/preamplifier. The voltage is converted into a number by a voltage-to-frequency (V/F) converter capable of 80,000 count resolution. The digitized signal, along with the other variables, is used by the CPU to compute the concentration of ozone using the above formula.

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S = Standard | O = Optional | N/A = Not Applicable

Model	OL80A/DLS
Generator, Analyzer or Combination	Generator & Analyzer
Model Picture	
OL80 Ozone Module (Single Stage)	S
OL100 Ozone Module (Double Stage)	N/A
Flowmeter - 500cc/min (Standard) or Customer Specified	N/A
10-Step Ozone Output Regulation	N/A
10-Turn High Resolution Ozone Output Regulation	S
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	N/A
External Ozone Output Regulation (EXT O3 Control Port)	S
Internal Ozone Destructor	S
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	S
Countdown Timer & Buzzer	N/A
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	200µg/ml (200mg/l) (200g/m3)
Repeatability (% scale) Zero Drift (% scale) Response (to 95% - Flow Dependant)	1% 1% 2sec.
Compensation Pressure & Temp	3psi 5-45°C
LED Ozone Concentration Display	S
Microprocessor OzoneLab™ Programmable Controller Module	N/A
Banana Clip Ground Connection	S
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 1.0 LPM
Adjustable 0-5VDC Analog Signal Output	O (+60U\$)

Software for Data Logging (COM1)	S
Luer Lock Kynar® Ozone Resist Fittings	S
Swagelok® Fittings	N/A
Wall Mounted Enclosure	N/A
Desktop Tower Enclosure with Handle/Stand - Stackable	S
Desktop Enclosure with 45° front panel	N/A
Folding Table for Desktop Enclosure with 45° front panel	N/A
Instrument Weight	3.8kg/8.0Lb
Power Requirements	12VDC 2.0 Amp
100-240AC/12DC/4Amp Universal Adapter	Included
Base Price [U\$]	\$7,595.00

Ozone Services - Tel: 250-265-4461 // Fax: 250-265-4482 // www.ozonelab.com // info@ozonelab.com

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OzoneLab™ OL80 Output Graphs



<u>Home</u> > <u>Products</u> > <u>Products</u> > <u>Generators</u> > <u>Output & Graphs</u> > OL80 Output Graphs



Sample Ozone Output Test Report

Comparison
OL80 & OL100

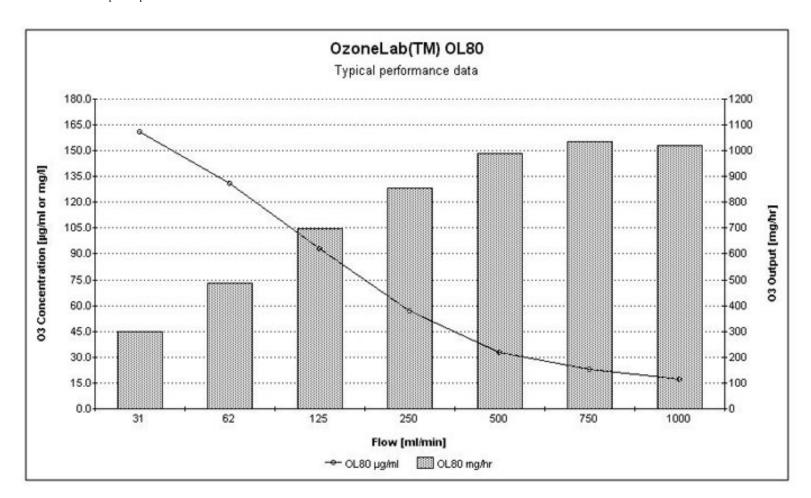
Comparison
GE60 & OL80 & OL100

OL80 Information

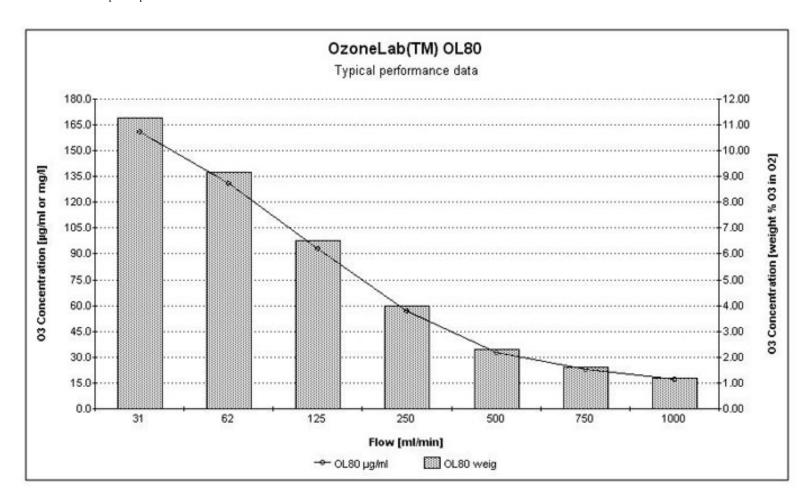
Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.

OzoneLabTM instruments are designed for low flow/high output applications and **are not suitable for flow rates above 1000ml/min** due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For applications dealing with higher pressures - please contact us for more info and/or consultation).

Ozone Concentration [µg/ml] versus Ozone Output [mg/hr]



Ozone Concentration [µg/ml] versus Ozone Concentration [weight $\%~0_3$ in 0_2]





Comparison of OzoneLab™ OL80 & OL100





 $\underline{\mathsf{Home}} > \underline{\mathsf{Products}} > \underline{\mathsf{Products}} > \underline{\mathsf{Generators}} > \underline{\mathsf{Output \& Graphs}} > \mathsf{Comparison of OL80 \& OL100}$

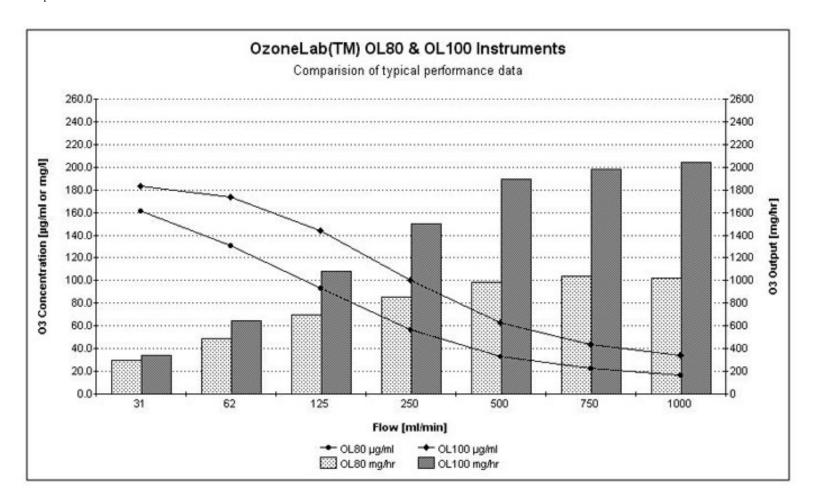
OL80 Information

OL100 Information

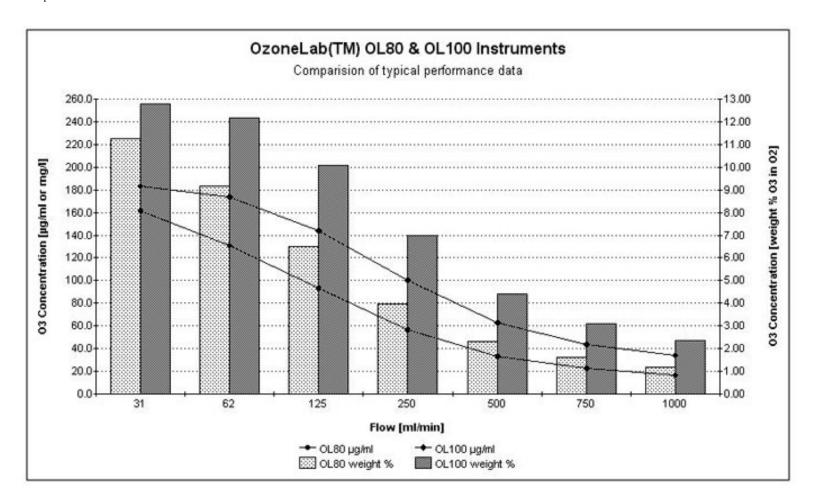
Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.

OzoneLab™ instruments are designed for low flow/high output applications and **are not suitable for flow rates above 1000ml/min** due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For applications dealing with higher pressures - please <u>contact us</u> for more info and/or consultation).

Ozone Concentration [µg/ml] versus Ozone Output [mg/hr]



Ozone Concentration [μ g/ml] versus Ozone Concentration [weight % 0_3 in 0_2]





Comparison of OzoneLab™ GE60 & OL80 & OL100





<u>Home</u> > <u>Products</u> > <u>Products</u> > <u>Generators</u> > <u>Output & Graphs</u> > Comparison of GE60 & OL80 & OL100

Please Note: We have discontinued our <u>GE Product Line</u> of Ozone Generators (GE30 & GE60). The GE60/FMxx has been replaced by the <u>OL80W/FMxx</u> which is a more energy efficient product with better performance and increased versatility (<u>EXT port</u>).

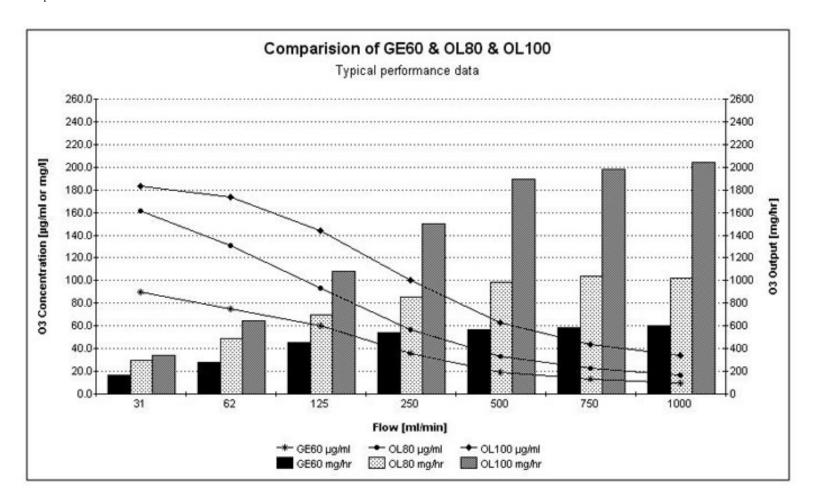
OL80 Information

OL100 Information

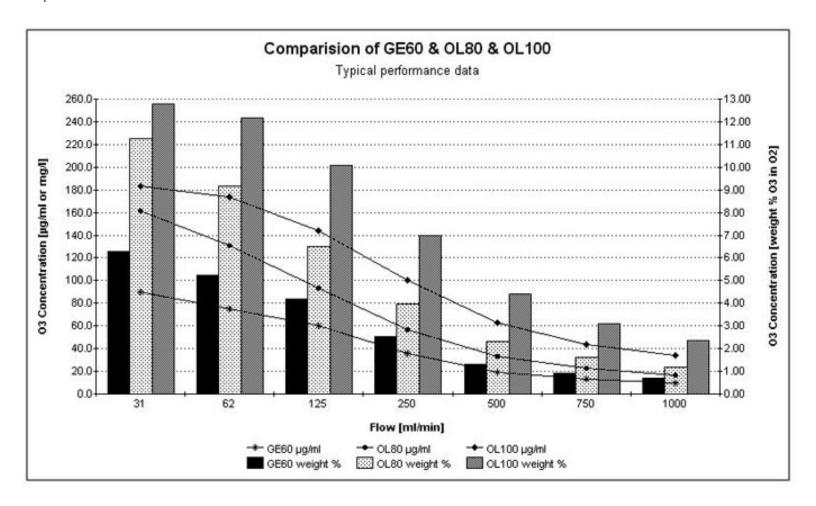
Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.

OzoneLab™ instruments are designed for low flow/high output applications and **are not suitable for flow rates above 1000ml/min** due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For applications dealing with higher pressures - please <u>contact us</u> for more info and/or consultation).

Ozone Concentration [µg/ml] versus Ozone Output [mg/hr]



Ozone Concentration [μ g/ml] versus Ozone Concentration [weight % 0_3 in 0_2]





OzoneLab™ How We Analyze Ozone Output

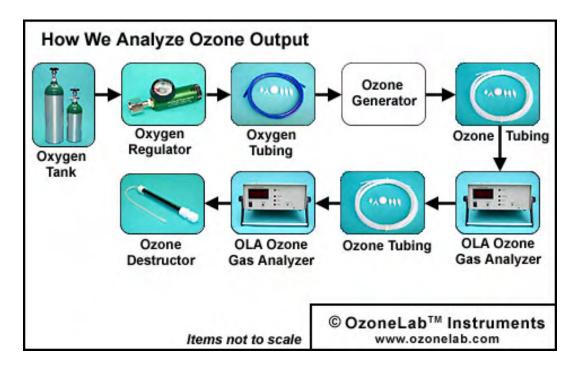


<u>Home</u> > <u>Products</u> > <u>Products</u> > <u>Generators</u> > <u>Output & Graphs</u> > How We Analyze Ozone Output



Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.

OzoneLab™ instruments are designed for low flow/high output applications and **are not suitable for flow rates above 1000ml/min** due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For applications dealing with higher pressures - please <u>contact us</u> for more info and/or consultation).



As you can see on the picture, we channel ozone produced by the ozone generator to 1st analyzer and then to 2nd unit. Naturally, additional distance (tubing) between two analyzers creates some minor differences in the ozone concentration readings, however these differences are carefully monitored. If the difference between individual readings is more then +/-1% from ozone output tested, we start to look for reasons why the difference exists:

 Usually it means that "zero point" of one or both analyzers drifted due aging of UV light source lamps (UV lamp) and it needs to be adjusted. This is usually done every 2 weeks. UV bulbs are replaced every 12 months. 2. During our involvement in Ultra Pure Ozone Applications we also encountered situations when drift of the measurement was not due to simple "zero point" drift, which can be easily detected and adjusted. "Linearity" of produced reading can be also negatively effected by aging of UV light source and changing sensitivity of UV light receivers.

Important Note:

It is our obligation to disclose that some producers of ozone equipment rent an ozone analyzer for 1-2 days, test a few "sample units" from their production and then they create a generic ozone output test report, which is then supplied with each ozone generator produced. Needless to say, this practice is in our opinion irresponsible because manufacturing tolerances of individual components naturally result in differences in ozone output produced by individual instruments.

The purchase of quality testing instruments reflects a commitment to quality of product(s) and service(s) provided to the client, and it is in our opinion not a luxury or a marketing trick as some of our competitors claim.

For cross referencing purposes, we are also using in our test laboratory ozone analyzers produced by Anseros Company in Germany.

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The file http://www.ozoneservices.com/downloads/files/OL100-output.pdf is a secure document that has been embedded in this document. Double click the pushpin to view.







OzoneLab™ OL100 Output Graphs





<u>Home</u> > <u>Products</u> > <u>Products</u> > <u>Generators</u> > <u>Output & Graphs</u> > OL100 Output Graphs

Sample Ozone Output Test Report

Comparison
OL80 & OL100

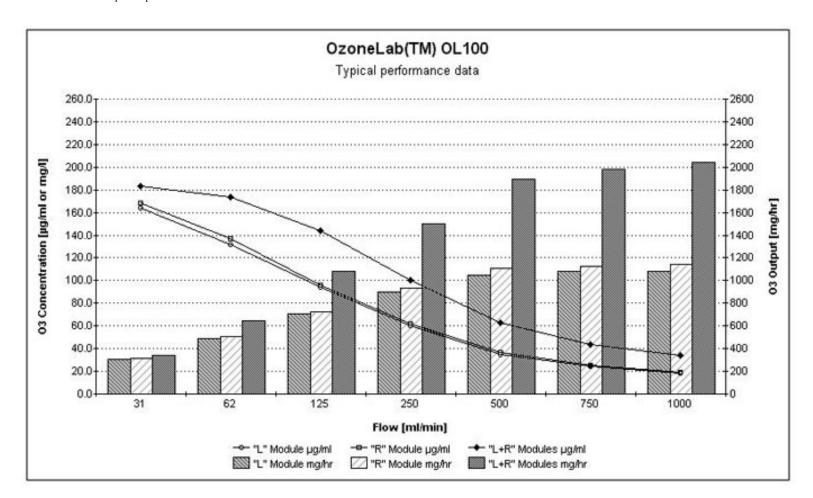
Comparison
GE60 & OL80 & OL100

OL100 Information

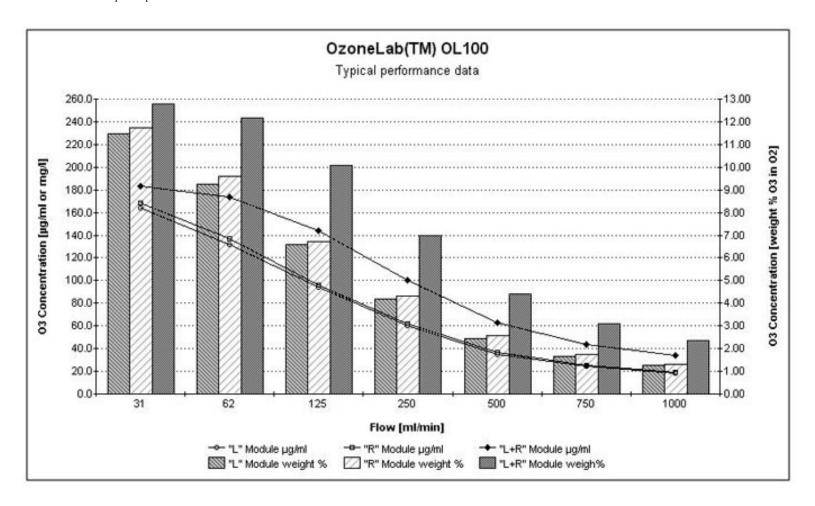
Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.

OzoneLabTM instruments are designed for low flow/high output applications and **are not suitable for flow rates above 1000ml/min** due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For applications dealing with higher pressures - please contact us for more info and/or consultation).

Ozone Concentration [µg/ml] versus Ozone Output [mg/hr]



Ozone Concentration [μ g/ml] versus Ozone Concentration [weight % 0_3 in 0_2]









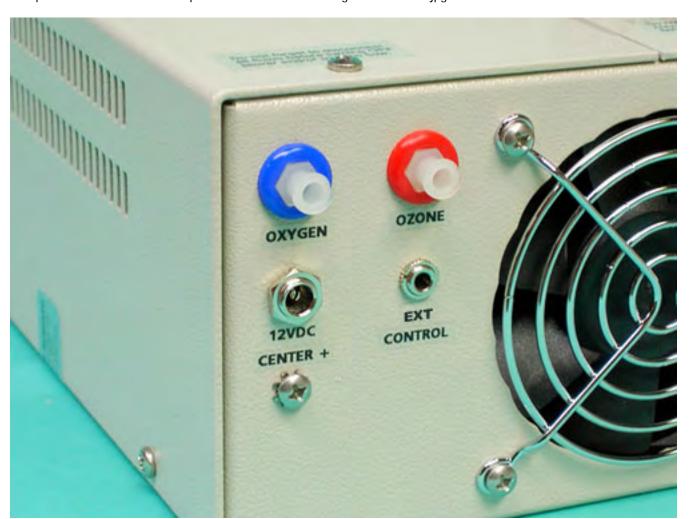




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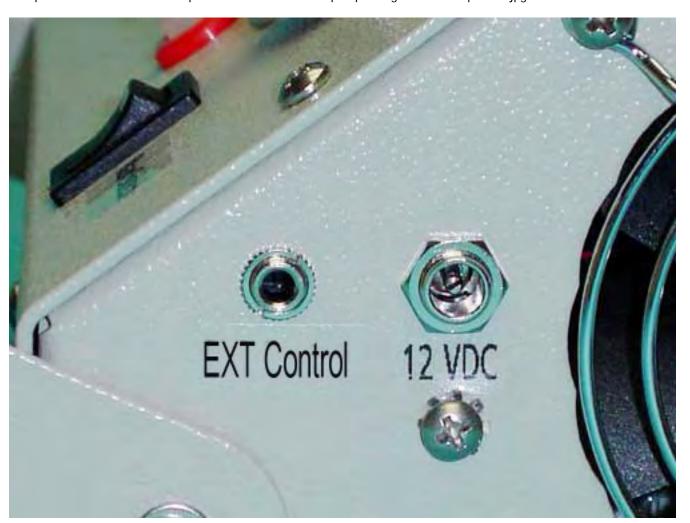
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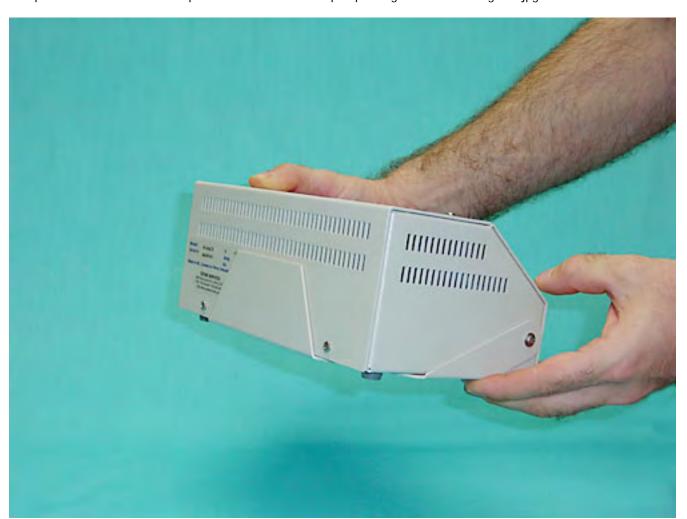


















OzoneLab™ OL80 Desktop Line of Ozone Generators (90° panel series)



<u>Home</u> > <u>Products</u> > <u>Generators</u> > <u>OL80 Desktop Line (90° panel series)</u> > Timers



Timer:

- Standard is M&S
- Optional (upon special request) is H&M

ALARM Switch on the LEFT (below the Timer):

- · Position UP Buzzer active
- Position DOWN Buzzer not active

TIMER Switch on the RIGHT (below the Timer):

- Position UP "ON" Delay (ozone will be produced while timer counting down to zero)
 This position should be used if the user wants to start ozone
 - production immediately and to produce ozone for example for 5 minutes, and after 5 minutes the ozone production should be stopped.
- Position DOWN "OFF Delay (ozone production suspended while timer counting down to zero)
 This position should be used if:
 - a). the user of the hardware does not want to use the timer at all
 - b). the user wants to start ozone production with (for example) 10 minute delay.....for example, waiting for 10 minutes for sauna heat to build-up, and then activating the ozone production.

TIMER INFO:

Small, simple to use timer with the range:

- a). Standard for OL80F/DST instruments 00[Min] 01[Sec] to 99[Min] 59[Sec].
- b). Optional for OL80F/DST instruments 00[Hr] 01[Min] to 99[Hr] 59[Min].

All other functions of the timer are associated with the additional three buttons:

- MIN [Minutes] or SEC [Seconds]
- HR [Hours] or MIN [Minutes]
- START/STOP

Operation of the Countdown Timer:





- To set the time, HR and MIN or MIN and SEC buttons are pressed to display the total time duration.
- Then the START/STOP button is pressed and the countdown will be initiated.
- Countdown function active.....
- Countdown reaches to "00-00" and ALARM is activated
- By pressing START/STOP, the timer will:
 - · deactivate the ALARM
 - reset to preset time interval
- By pressing START/STOP again, the original countdown sequence will be initiated.

Additional Notes:

- If the countdown was interrupted (pressing START/STOP), the countdown process will be stopped and the remaining time interval will be displayed on the LCD.
- If the START/STOP button will be pressed again, the countdown will resume.

Resetting the TIME INTERVAL:

- Make sure the countdown function is completed or suspended (pressing START/STOP)
- Press HR and MIN or MIN and SEC together => the display will show 00-00
- Using HR and MIN or MIN and SEC buttons, enter the new time interval

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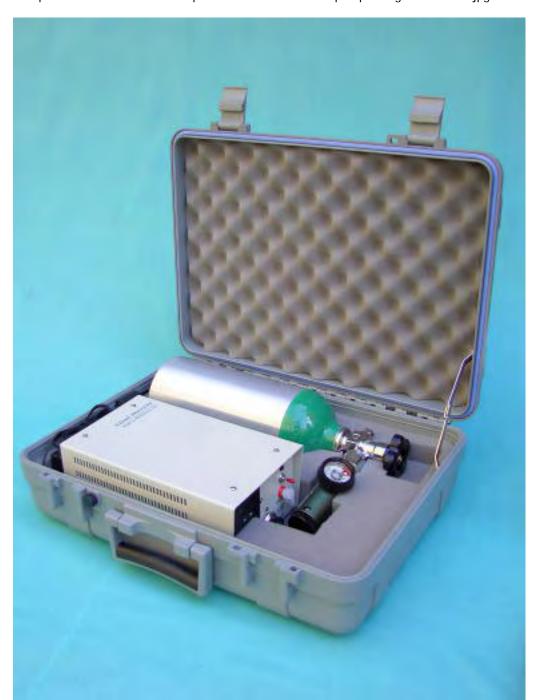
















OzoneLab™ Thermal Printer



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > Thermal Printer









The OzoneLab™ Thermal Printer is a small desktop unit, which can be used to produce almost silently high quality printed records of all activities of the OzoneLab™ Instruments equipped with OzoneLab™ Programmable Controller Module.

OzoneLab™ Thermal Printer standard set contains:

- Thermal Printer
- Power Supply (120VAC/6.5VDC/2000mA)
- Rechargeable Battery Pack
- 6FT DB9M/DB9M Cable
- 3 Rolls of Thermal Paper



Printing	Method	Thermal serial head system	
	No. of dots/line	320	
	No. of characters/line	40 (normal), 80 (condensed)	
	Character matrix	9 x 7 dot matrix (normal)	
	Width (mm)	90	
	Resolution	3.57 x 3.57 dots/mm, 7.14 x 3.57 dots/mm (90.7 x 90.7 dpi, 181.4 x 90.7 dpi)	
	Speed (cl/s)	1.3 - normal, 1 - condensed	
	Speed (cps)	52.2 - normal, 80 - condensed	
Data input method	Serial	Serial (RS-232C) 9-pin D-SUB	
	Parallel	8-bit parallel (Centronics) 36-pin	
Dimensions (WxDxH) m	m	160 x 170 x 66.5	
Weight (g)	Approx.	580 (excluding battery)	
Power supply	Included	6.5 VDC @ 2.0 A	
Service life	Pulse activation	500,000 lines	
	Abrasion resistance	1 x 10E-6/line max	

Paper	Width	(mm) 112 +0/-1
	Cut method	Tear bar
Operating temperature		(°C) 0 to 40
Storage environment		(°C) -20 to 60
Input buffer size		28 Kbytes

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S = Standard | O = Optional | N/A = Not Applicable

Model	OL80M
Generator, Analyzer or Combination	Generator & Controller
Model Picture	
OL80 Ozone Module (Single Stage)	S
OL100 Ozone Module (Double Stage)	N/A
Flowmeter - 500cc/min (Standard) or Customer Specified	N/A
10-Step Ozone Output Regulation	N/A
10-Turn High Resolution Ozone Output Regulation	S
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	N/A
External Ozone Output Regulation (EXT O3 Control Port)	S
Internal Ozone Destructor	O (+60U\$)
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	N/A
Countdown Timer & Buzzer	N/A
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	N/A
Repeatability (% scale) Zero Drift (% scale) Response (to 95% - Flow Dependant)	1% 1% 2sec.
Compensation Pressure & Temp	3bar/ 43psi 5-45°C
LED Ozone Concentration Display	N/A
Microprocessor OzoneLab™ Programmable Controller Module	S
Banana Clip Ground Connection	S
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 1.0 LPM
Adjustable 0-5VDC Analog Signal Output	O (+60U\$)
Luer Lock Kynar® Ozone Resist Fittings	S
<u>Swagelok®</u> Fittings_	O (+245U\$)
Wall Mounted Enclosure	N/A

Desktop Tower Enclosure with Handle/Stand - Stackable	S	
Desktop Enclosure with 45° front panel	N/A	
Folding Table for Desktop Enclosure with 45° front panel	N/A	
Instrument Weight	3.1kg/7.0Lb	
Power Requirements	12VDC 0.7 Amp	
100-240AC/12DC/4Amp Universal Adapter	Included	
Base Price [U\$]	\$3,395.00 + <u>Programming</u>	

Ozone Services - Tel: 250-265-4461 // Fax: 250-265-4482 // www.ozonelab.com // info@ozonelab.com



Ozone Services - Instrument Programming



<u>Home</u> > <u>Services</u> > Programming



Ozone Services provides programming for the OzoneLab™ OL80M Instrument. The estimated cost of this programming is US \$300.00.

Basic custom programming is US \$250 per hour.

Please feel free to contact us for more information.

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S = Standard | O = Optional | N/A = Not Applicable

Model	OL100/Basic	OL100/T	OL100/DS
Generator, Analyzer or Combination	Generator Only	Generator Only	Generator Only
Model Picture		9000	
OL80 Ozone Module (Single Stage)	N/A	N/A	N/A
OL100 Ozone Module (Double Stage)	S	S	S
Flowmeter - 500cc/min (Standard) or Customer Specified	N/A	N/A	N/A
10-Step Ozone Output Regulation	S	S	S
10-Turn High Resolution Ozone Output Regulation	O (+2x110U\$)	O (+2x110U \$)	O (+2x110U \$)
Combination of 10-Step Ozone Output Regulation and 10-Turn High Precision Ozone Output Regulation	O (+110U\$)	O (+110U\$)	O (+110U\$)
External Ozone Output Regulation (EXT O3 Control Port)	S	S	S
Internal Ozone Destructor	O (+60U\$)	O (+60U\$)	S
Semi-Automatic Syringe Adapter with EXT Syringe Control Port	O (+425U\$)	N/A	S
Countdown Timer & Buzzer	O (+85U\$)	S	N/A
Ozone Analyzer Module Standard Range 0-200 µg/ml (0-15% by weight)	N/A	N/A	N/A
Repeatability (% scale) Zero Drift (% scale) Response (to 95% - Flow Dependant)	N/A N.A N/A	N/A N.A N/A	N/A N.A N/A
Compensation Pressure & Temp	N/A	N/A	N/A
LED Ozone Concentration Display	N/A	N/A	N/A
Microprocessor based Programmable Controller with LCD	N/A	N/A	N/A
Banana Clip Ground Connection	N/A	N/A	N/A
Minimum & Maximum Ozone Gas Flow Requirements	0.005 LPM 1.0 LPM	0.005 LPM 1.0 LPM	0.005 LPM 1.0 LPM

Adjustable 0-5VDC Analog Signal Output	N/A	N/A	N/A
Software for Data Logging (COM1)	N/A	N/A	N/A
Luer Lock Kynar® Ozone Resist Fittings	S	S	S
Swagelok® Fittings	O (+245U\$)	O (+245U\$)	N/A
Wall Mounted Enclosure	N/A	N/A	N/A
Desktop Tower Enclosure with Handle/Stand - Stackable	S	S	S
Desktop Enclosure with 45° front panel	N/A	N/A	N/A
Folding Table for Desktop Enclosure with 45° front panel	N/A	N/A	N/A
Instrument Weight	3.5kg/8.0Lb	3.5kg/8.0Lb	3.5kg/8.0Lb
Power Requirements	12VDC 3.0 Amp	12VDC 3.0 Amp	12VDC 3.0 Amp
100-240AC/12DC/4Amp Universal Adapter	Included	Included	Included
Base Price [U\$]	\$3,695.00	\$3,780.00	\$4,180.00

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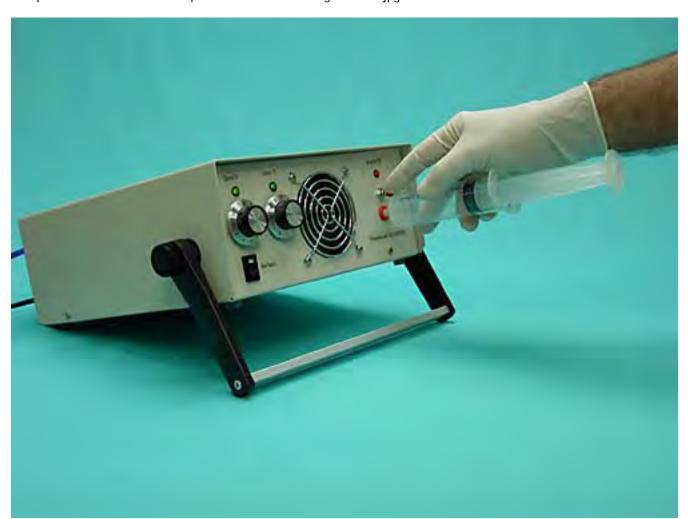


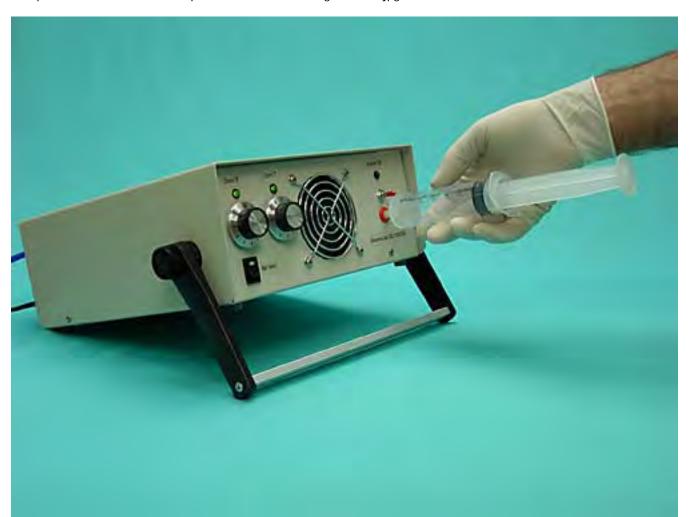


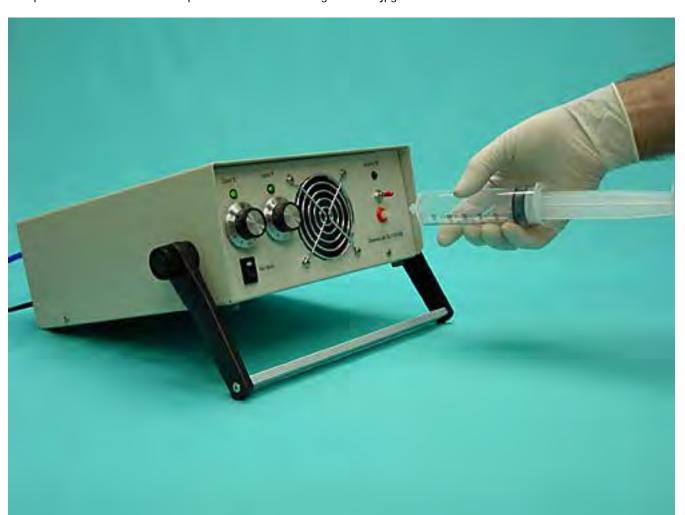
















OzoneLab™ International Oxygen Flow Regulators





 $\underline{\mathsf{Home}} > \underline{\mathsf{Products}} > \underline{\mathsf{Oxygen}} > \mathsf{Regulators}$ - International Considerations

Ozone Services currently offers CGA540, CGA870, and BS#3 type connections for our Oxygen Flow Regulators.

The fittings on our CGA540 Oxygen Flow Regulators have a 1/4" MN PT threading and this allows the CGA540 fitting to be removed and replaced with an adapted regional oxygen fitting (provided it has the 1/4" MNPT threaded connection).



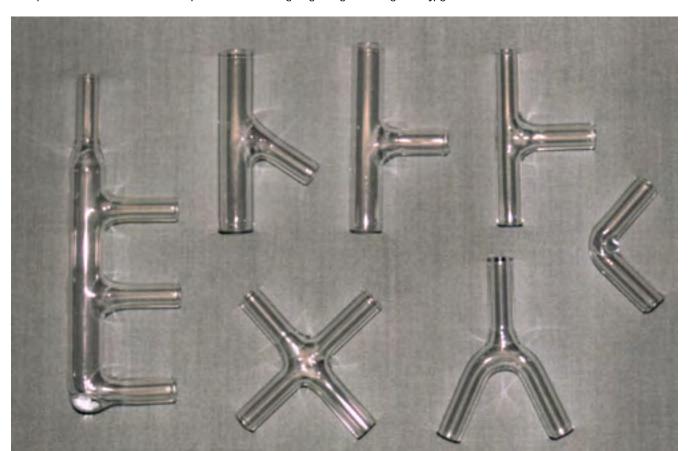
If you are an international client, we would suggest that you contact us for more information.

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OzoneLab™ CGA540 to CGA540 Transfer Adapter



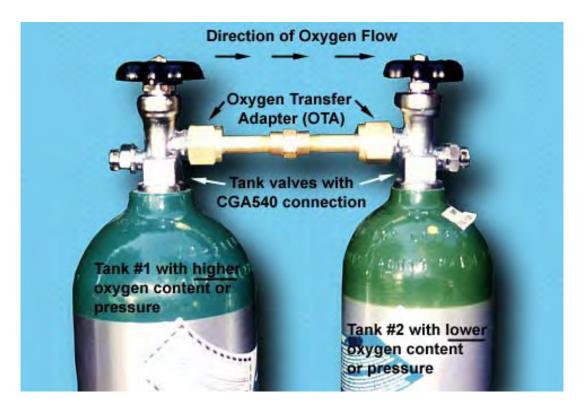
Home > Products > Oxygen > Transfer Adapters > CGA540 to CGA540 Transfer Adapter







Oxygen Transfer Adapters allow the transfer of oxygen between two oxygen tanks with CGA540 industrial standard oxygen fittings. The user of Oxygen Transfer Adapter (OTA) should exercise maximum caution when proceeding with the transfer of oxygen gas from one pressurized oxygen tank to an other oxygen tank with lower or no oxygen pressure (empty tank).



Oxygen Transfer Process:

- Make sure that main valves located at the top of Tank #1 & #2 are properly closed.
- Never transfer oxygen to a tank which was not used for oxygen, has compromised structural integrity, leaky or otherwise damaged main valve or shows any other signs of damage or possible abuse.
- Check all CGA540 oxygen tank valve and OTA fittings for damage.
- Clean carefully all oxygen tank valve and OTA fittings with dry & clean cloth.
- Never lubricate with oil any parts of oxygen valves or oxygen transfer



adapter

- Lay both oxygen tanks on the floor to prevent tipping of tanks
- Locate the INLET side of Oxygen Transfer Adapter with filtration inlay.
 Attach the side of OTA with filtration inlay to the Tank #1 the source of oxygen. Secure fitting firmly.
- Attach firmly OUTLET side of OTA (without filtration inlay) to Tank #2.
- Open main valve at the top of Tank #2 (tank which will "receive" oxygen)
- GRADUALLY & VERY SLOWLY open main valve at the top of Tank #1
- Sound of rushing oxygen through OTA will clearly indicate the transfer of oxygen from one tank to an other. This process usually takes 10-15 seconds.
- Close both main valves at the top of oxygen tanks #1 & #2. Disconnect Transfer Adapter.

Technical data:

Filtration: 66 micron filter inlay

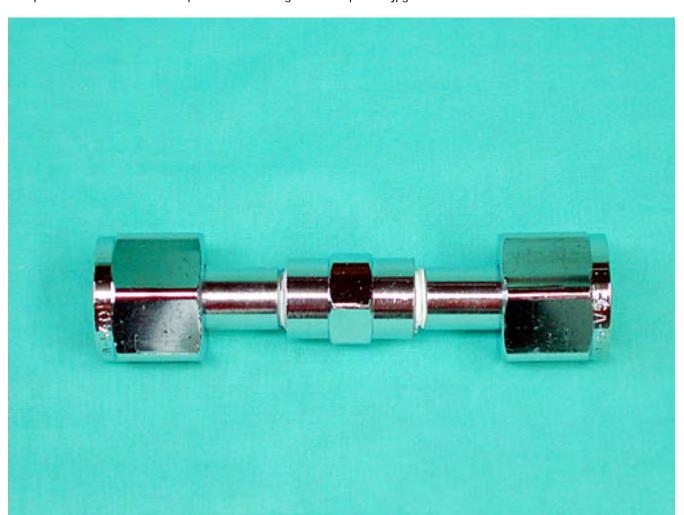
Size: L = 5.5"

DIM 1.25"

Weight: 0.25kg / 0.5Lb.

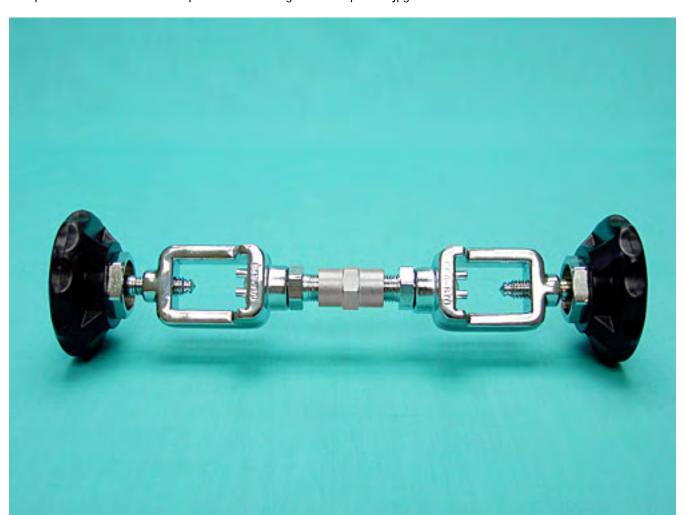
Wrench size: 29mm / 1-1/8"

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OzoneLab™ Oxygen Replacement Components



<u>Home</u> > <u>Products</u> > <u>Oxygen</u> > Oxygen Replacement Components







Search







Replacement seal for CGA870 regulators Replacement handle for CGA870 tanks

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Custom Design & Production



<u>Home</u> > <u>Services</u> > Custom Design & Production



Ozone Services provides custom design and custom development services for clients active in the field of Ultra Pure Ozone applications.

We provide the following custom services:

- Custom Glassware (Glassblowing)
- Custom Test Chambers
- · Custom Ozone Generators
- Custom Ozone Analyzers
- Custom Controllers

Due to confidentiality agreements, we are unable to provide a true representation of all the custom development projects we have provided. Please feel free to contact us to discuss your custom needs.

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OzoneLab™ UV4-8-12W ABS Plastic Case



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Case & Stands</u> > UV4-4-12W ABS Plastic Case









The durable yet attractive watertight ABS plastic carry case is an optional item for the OzoneLab™ UV Instrument 4-8-12W. It is designed and intended for those who require portability in their instrument.

ABS plastic water tight case is lightweight, durable and easy to clean. During transportation, custom die cut foam secures and protects all optional components (UV Instrument, Power Adapter, and 10 UV Cuvettes).



Case Size: 17 x 14 x 6" (W x H x D)



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OzoneLab™ Glass fittings



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > Glass fittings



Ozone Services supplies glass fittings for oxygen supply and ozone delivery from most ozone generators and ozonizers. The following glass fittings are available:

- L 7mm O.D.
- T 7mm O.D.
- Y 7mm O.D.
- 45°T
- Cross
- Manifold



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OzoneLab™ Disposable Plastic Syringes



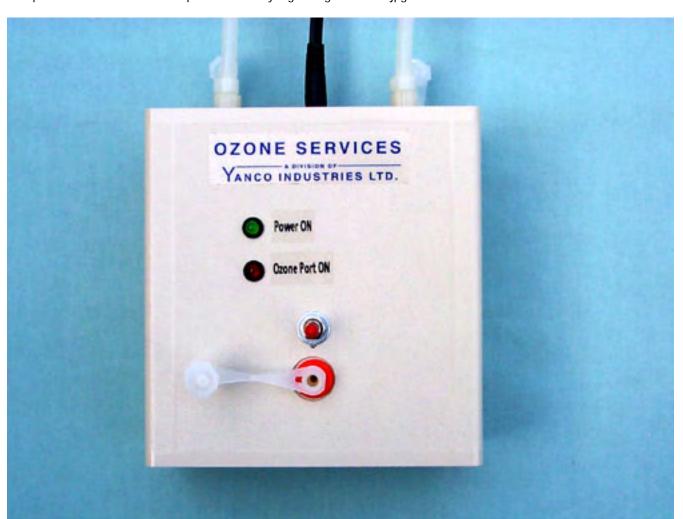
<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Syringe Components</u> > Disposable Plastic Syringes



Ozone Services does not supply disposables such as syringes, needles, etc. These types of items must be used by a trained professional and are available from Medical Supply Houses.



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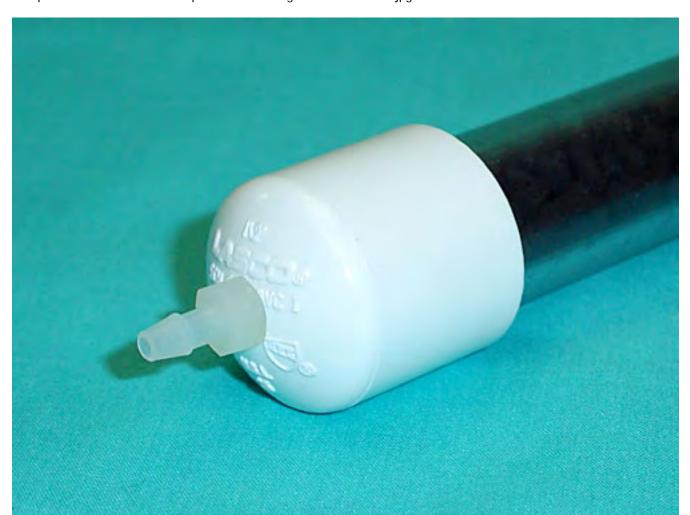






















Why did we use 12VDC power systems?



<u>Home</u> > <u>Products</u> > <u>Accessories</u> > <u>Power Supply Items</u> > <u>12VDC Power Adapter</u> > Why 12VDC systems?



In January of 1998, we realized that a long term focus on any AC power supply was going to represent a natural barrier which would prevent our company in expanding into international markets, and would also prevent us from reaching the prospective markets with an extreme demand for safety and mobility.

Our commitment to supplying our clients with the quality and innovative products resulted in the decision to redesign our main products High Frequency Corona Discharge Ozone Generators for Ultra Pure Ozone Applications. In the Summer of 1998, after almost 5 months of design modifications and testing, we introduced the latest version of Ozone Generators powered by 12VDC.

The introduction of this new line of ozone generators powered by 12VDC became a turning point in our activity. This step also set a new benchmark for versatility and safety for everyone involved in the design, production, as well as operation of ozonation equipment. We hope that through this approach, we are helping to set a new standard. After all, no regulatory agency has the patent for wisdom, and no CSA, UL, CE, or any other approval provides the real guarantee of safety.

Just remember that there was a time when DDT was approved...

Five good reasons to look for Ozone Instruments "Powered by 12VDC":

- 1. **SAFETY** just consider the following fact Many of the most volatile industrial operations we can even imagine have the control mechanisms powered by 12VDC and/or 24VDC.
- TROUBLE FREE / COST EFFECTIVE Electrical safety approvals for instruments powered by AC
 voltages represent a serious financial burden for the producer, which in turn are passed on through the
 purchasers price.

There is currently no world-wide unified international electrical safety standard. Consequently, international sales of electric and electronic devices operated from AC voltages always come into question if the equipment holds the electrical safety certification acceptable by regulatory agency overlooking the region to which the equipment will be exported to (and operated in). Needless to say, CSA (Canada) and/or UL (USA) approvals are worthless in countries like (for example) Germany or Egypt.

On the other hand, electric and electronic devices operated from 12VDC are completely removed from electrical safety testing due to the simple fact that all devices powered by 0-42VDC are considered (world-wide) completely safe...so safe the devices operated from above listed voltages are not even accepted for electrical safety testing.

From the outlined perspective, it is clear the electric and electronic devices operated from 12VDC can be operated anywhere in the world without risking a conflict with local regulatory agencies which are always on the search for instruments which do not carry their stamp of approval. When such an instrument is found, the owner is usually forced to submit the instrument for electrical safety testing (a rather costly proposition) and/or the owner is forced to stop using the instrument (even more costly).

High quality, custom designed and produced universal 100-240VAC/12VDC-4Amp., switching power adapters supplied with all our instruments have UL/USA, UL/Canada, CE, TUV, and GS approvals.

- 3. **EQUIPMENT PROTECTION** Quality solid state power adapters used for the conversion of AC voltage to DC voltage eliminate all problems associated with the power fluctuation as well as power "spikes" effecting the performance of sensitive electronic equipment.
- 4. **MOBILITY** Imagine that you can power the instrument from any AC voltage currently used in any country in the world..... and if you will find yourself in remote area, you still have the option to use any 12VDC car battery as the power source.
- VERSATILITY Combine all information provided above and you simply must conclude that Ozone Instruments powered by 12VDC are far more versatile then Ozone Instruments operated from any AC power supply.

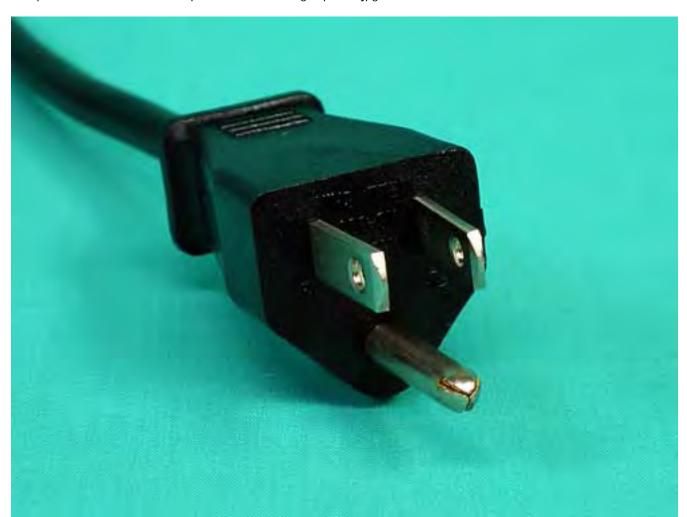
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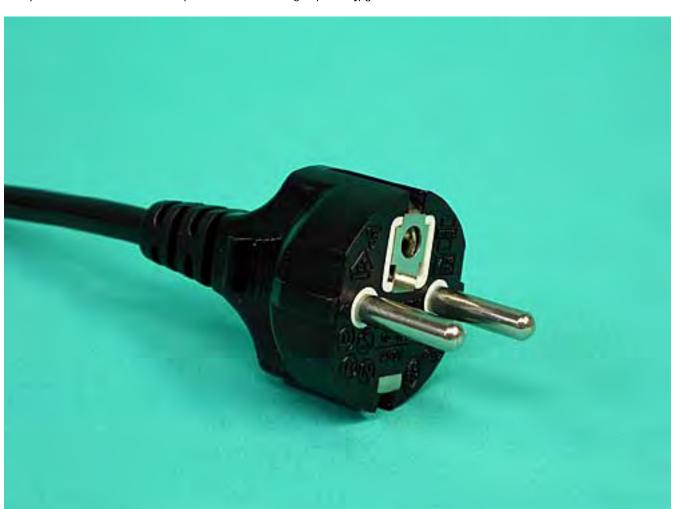
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OzoneLab™ - Hand Switch & Steam Sauna TENT Example

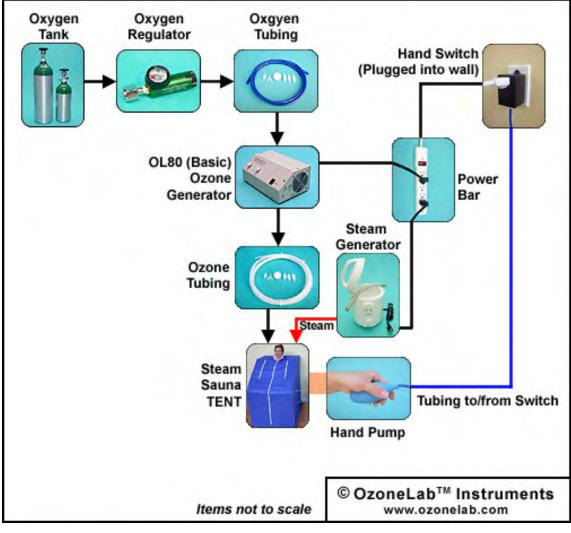




<u>Home</u> > <u>Setup Examples</u> > Hand Switch and Steam Sauna Setup Example

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Hand Switch controlling Steam Sauna and an <u>OL80 (Basic) Ozone Generator</u> using an oxygen feed (<u>Tank</u> & <u>Regulator</u>).



How to turn the ozonizer off while inside the sauna tent

Items not to scale

www.ozonelab.com

The <u>OL80 (Basic) Ozone Generator</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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C-30Z Ozone Monitor



<u>Home</u> > <u>Products</u> > <u>Monitors</u> > C-30Z Ozone Monitor



The following example shows the <u>C30Z Ozone Monitor</u> attached to an Ozone Generator through the generator <u>EXT port</u>. This provides a hardware link which is designed to DE-ACTIVATE (stop) the ozone production of any OzoneLab™ instrument if the monitor will detect pre-set ozone level in the air.



OzoneLab™ EXT. Port Cable + C-30Z Upgrade Port.



Upgrade port connected to terminal.

- Black --> #4 Terminal
- Gray --> #5 Terminal
- Red --> #6 Terminal



Side View of wires and connector.



Side View of connector installed.



Side view of closed unit with no cords/cables attached.

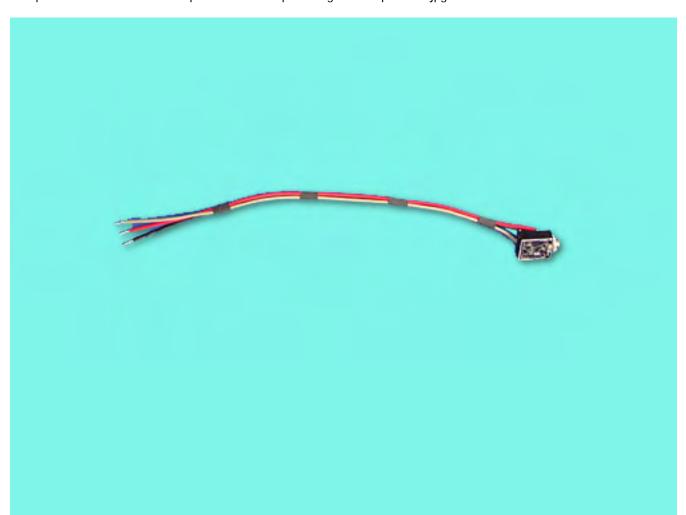


Please Note:

Accidental connection of EXT. port link into C-30Z data logging port may result in damage of the data logging/analog output from C-30Z.

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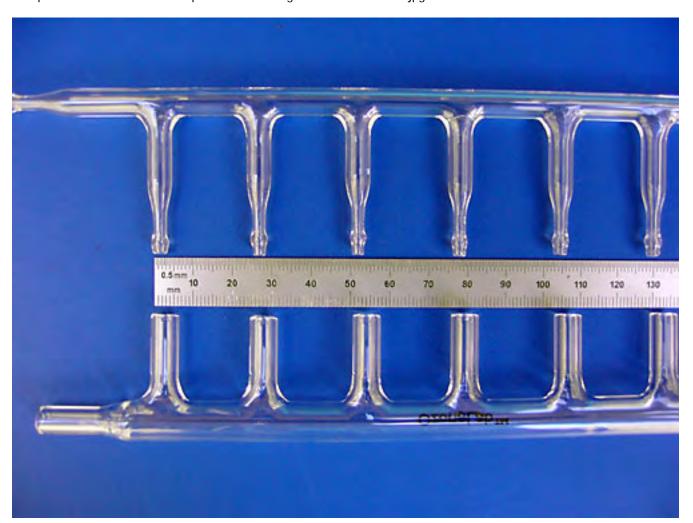


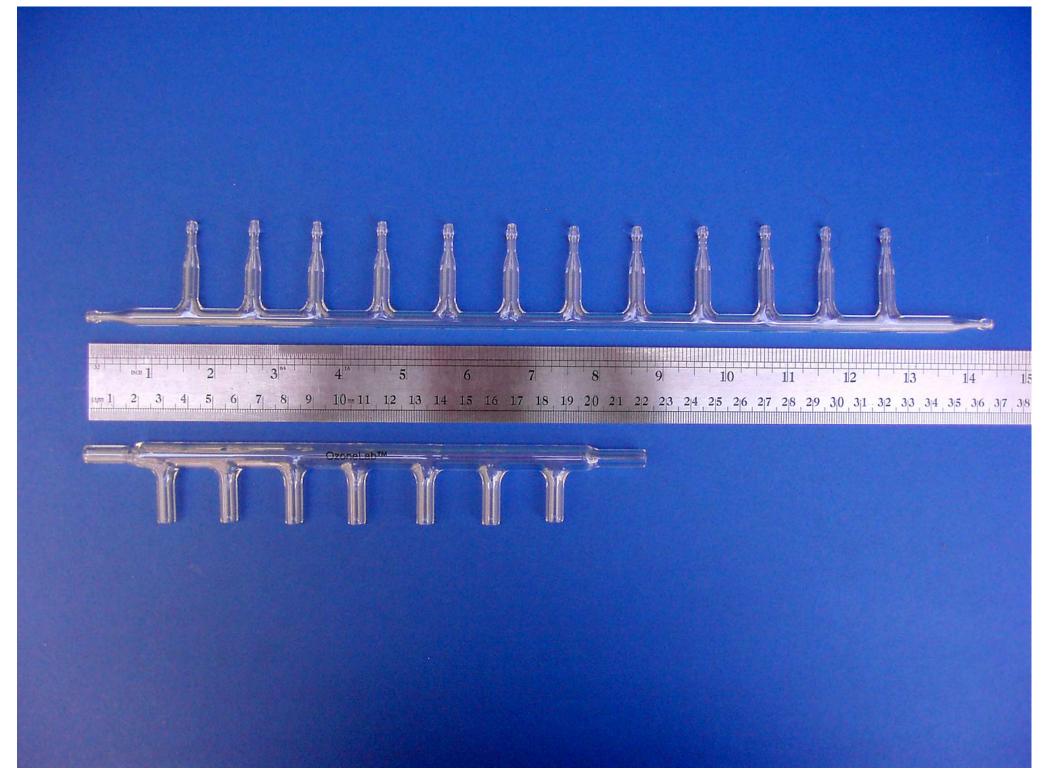


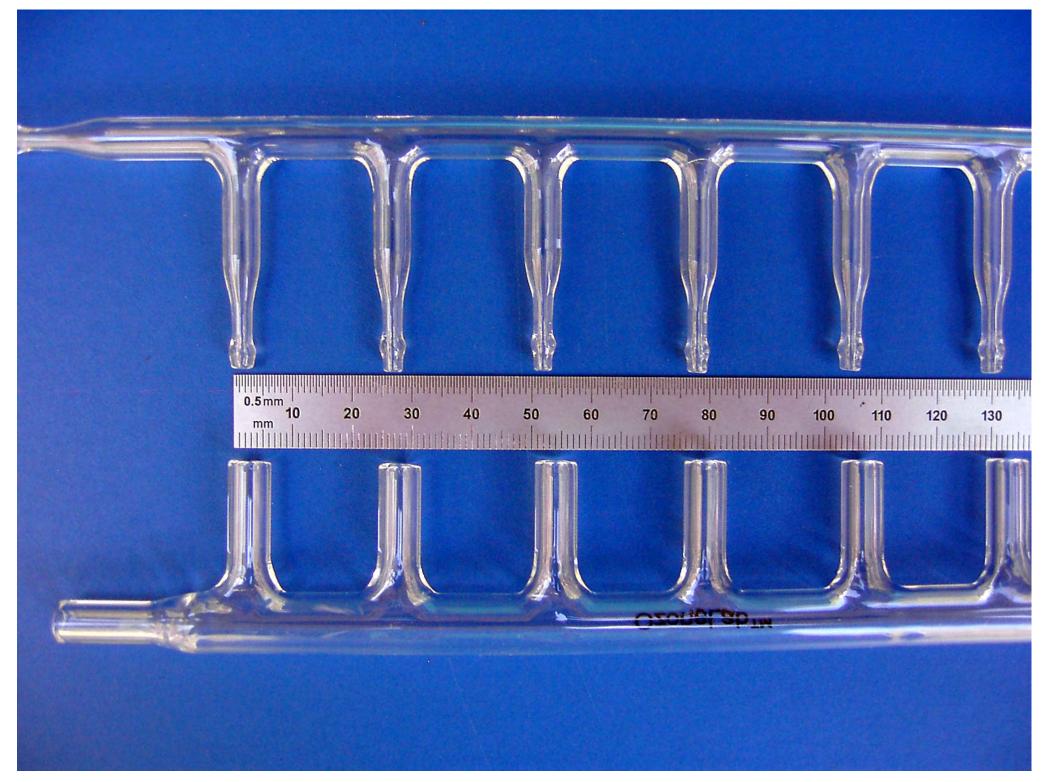














OzoneLab™ GE Ozone Generators



Home > Products > Generators > GE Ozone Generators



DISCONTINUED ITEM - REPLACED BY OzoneLab™ OL80W

General Design Information

Due to the specific design and durability of the GE ozone generators, each instrument is able to provide ultra pure, highly concentrated ozone for individual needs, laboratories, and wide variety of special applications. GE ozone generators are designed to work in conjunction with Oxygen Flow Regulators 0 --> 4LPM.



The **GE30FM** Ozone Generator is a 12VDC unit which allows the use of ozonation equipment in locations where 12VDC is only available power service (car battery). Unit is supplied with <u>International Universal power adapter</u> which works with any input voltage in range 100-250VAC/50-60Hz and produces stabilized 12VDC suitable for powering GE30 instrument.

- Ozone Output Test Report Example
- Ozone Output Graphs
- Compare GE30 & GE60 Ozone Output

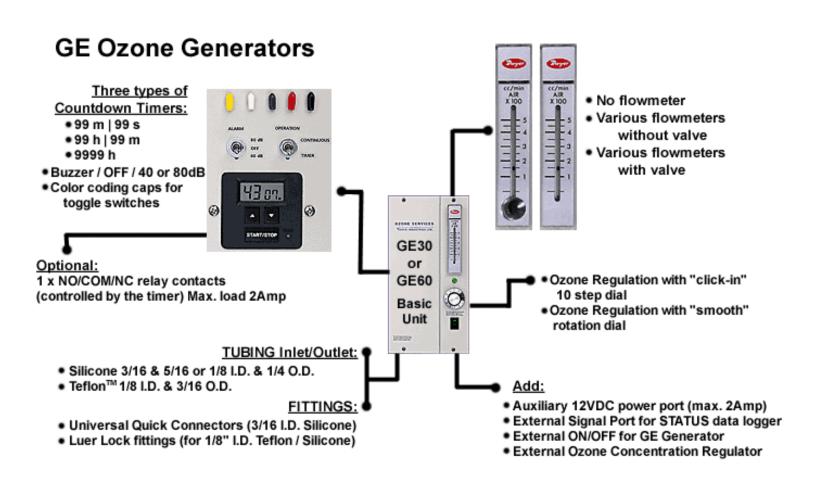


The **GE60FM** Ozone Generator is a 12VDC unit which allows the use of ozonation equipment in locations where 12VDC is only available power service (car battery). Unit is supplied with <u>International Universal power adapter</u> which works with any input voltage in range 100-250VAC/50-60Hz and produces stabilized 12VDC suitable for powering GE60 instrument. The GE60 Ozone Generator produces higher ozone output at higher flow rates then GE30.

- Ozone Output Test Report Example
- Ozone Output Graphs
- Compare GE60 & GE30 Ozone Output
- Compare GE60 & OL80 & OL100 Ozone Output

Feature	GE30FM/12VDC	GE60FM/12VDC	
Power supply	Universal power adapter	Universal power adapter	
	(Input range 100-250VAC/50-60Hz -	(Input range 100-250VAC/50-60Hz -	
	Output 12VDC)	Output 12VDC)	
Built-in flowmeter	Yes	Yes	
	No - Optional	No - Optional	
Cooling fan	SUNON 21CFM	SUNON 21CFM	
Ozone generator enclosure size	5.75" x 11" x 3.75"	5.75" x 11" x 3.75"	
Generator Weight	4.5 lbs / 2 kg	4.5 lbs / 2 kg	
10 step O ₃ Output Regulation	Yes	Yes	
100% glass enclosed electrode	Yes	Yes	
Materials in contact with ozone	Glass & Silicone	Glass & Silicone	
Ozone Test Report Included:	Yes	<u>Yes</u>	
Regular Stock Item:	Yes	Yes	

The above table outlines features of our standard GE Ozone Generators. Ozone Services is able to custom tailor an ozone generator (and ozonation systems) based around any of our standard GE ozone generator model.





YOUR custom GE Ozone Generator starts with a phone conversation with us.

The above picture represents many of our custom options. Every clients needs are unique - by speaking with us, we will be able to tell you if we can fulfill YOUR specific requirements.

Custom modifications of standard GE ozone generators can include:

- lowering/increasing the maximum ozone output
- changing increments of ozone output regulation
- addition of various countdown timers
- incorporating a flowmeter with specific flow range to meet needs of your application(s). Standard GE30 & GE60 instruments are equipped with 50-500ml/min flow meters. Optional flow meters with the flow range:
 - o 5-50ml/min
 - o 10-100ml/min
 - o 30-240ml/min
 - o 50-500ml/min
 - o 100-1000ml/min
 - o 200-2500ml/min
 - o 0.5-5LPM
 - o 1-10LPM
 - o 2-25LPM

can be supplied instead of our standard 50-500ml/min flow meters. This service is free of charge. We try to keep a regular stock of selected flow meters, however, there can be a 2-3 weeks delay in the delivery of the equipment, if the flow meter selected by the client will be sold out.

Technical staff of Ozone Services can assist you in the selection of different options. If you do not have clear understanding what should be the configuration of ozone generator & ozonation systems for your application, we can guide you step by step trough the selection process.

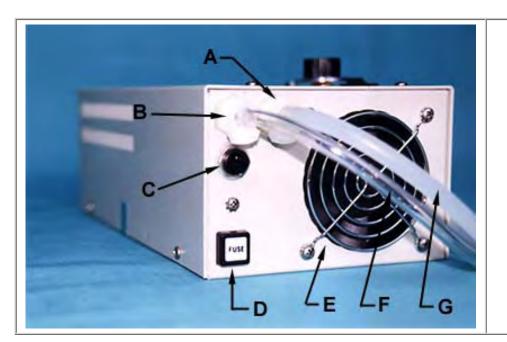
The lead time for our standard products is usually 1 day per one ozone system. If custom modifications are required, then the lead time is usually 5-10 business days...more in some extreme situations.

Ozone output:

All ozone generators are tested and calibrated separately. The Ozone Output Test Report is provided with each system. The following is a simple overview of the average ozone outputs produced by our GE ozone generators. The maximum numbers indicate the ozone output of each unit at a setting of #10.

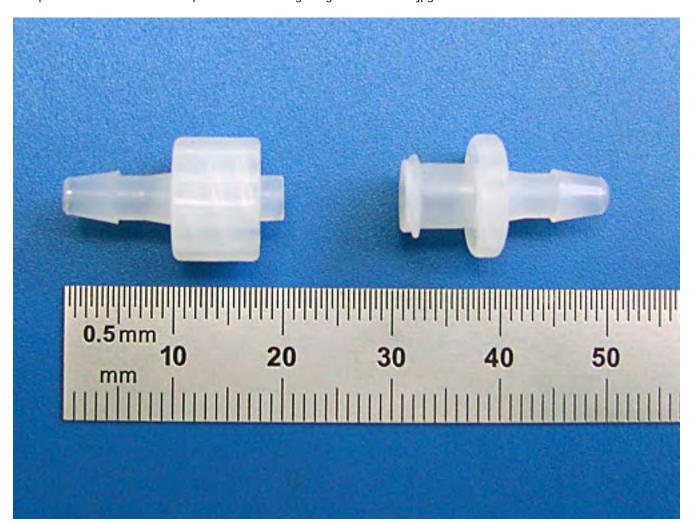
Flow Rate [LPM]	Flow Rate [ml/min]	GE30/12VDC [μg/ml]	GE60FM/12VDC [µg/ml]
1/32	31	0 - 70	0 - 92
1/16	62	0 - 45	0 - 77
1/8	125	0 - 31	0 - 60

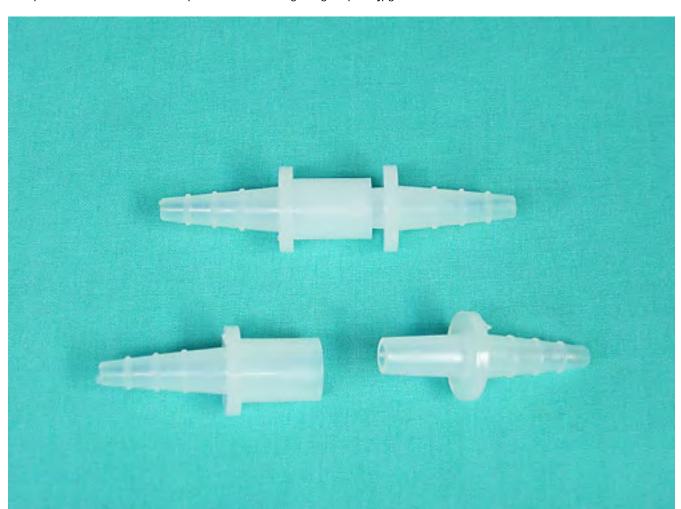
1/4	250	0 - 17	0 - 36	
1/2	500	0 - 9	0 - 19	
3/4	750	0 - 6	0 - 12	
1	1000	0 - 4	0 - 10	
Graphs		Ozone Output Graphs	Ozone Output Graphs	
		Compare GE30 & GE60 12VDC		



- A. Ozone Output / Quick Connector
- B. Oxygen Input / Quick Connector
- C. 12 Volt Jack Input
- D. Fuse
- E. Fan Finger Guard
- F. Oxygen Tubing (Clear)
- G. Ozone Tubing (Milky)

© Ozone Services















OzoneLab™ Digital Countdown Timers (no PCB)



<u>Home</u> > <u>Products</u> > <u>OEM Timers</u> > Digital Countdown Timers (no PCB)



Digital Countdown Timers with PCB

ShirtPocket Timer

Applications:

- Wide variety Light commercial applications
- Not for outdoor use, unless in NEMA housing

Installation:

The position of the digital timer front panel in relationship to the enclosure/ mounting panel face plate can be adjusted by replacing the original spacers with longer or shorter ones, depending on the individual preference or the needs.

Timer Connections, Inputs and Outputs:

- Timer Connections:
 - o 10" /25cm wire leads / 24G
 - 4"/10cm wire leads with Buzzer disc
- Timer Power Input:
 - o 1.5VDC / 10mA
 - BLACK Lead: "-" 1.5VDC (GND)
 - RED Lead: "+" 1.5VDC
- Visual Output
 - LCD Display
- Audio Output
 - o Buzzer, disc shape, 6" leads
 - Secondary Buzzer signal (usually cut-off)
 - BLACK Lead: "-" 1.5VDC (GND)
 - YELLOW Lead: Buzzer signal ("+" 1.5VDC)







- Electrical Signal Output
 - "LOW" when not active (in STOP or PAUSE mode)
 - o "HIGH" when active (counting down)
 - Black Lead: "-" 1.5VDC (GND)
 - Orange Lead: LOW/HIGH signal ("+" 1.5VDC/Max. 1-2mA)



Note: Buzzer disc CAN BE attached to the back side, eliminating the need for special holding assembly/ mounting of the disc. Clients must request this assembly as a custom order (service fee will apply - U\$1.50/unit regardless of the quantity discount on the product itself).

Digital Count-down Timers with LCD display are available in following ranges:

DCT/MS



99 minutes | 59 seconds [MM|SS]

DCT/HM



99 hours | 59 minutes [HH|MM]

The following pictures show examples of how the digital countdown timers can and are used:



A DCT/MS built into a peristaltic pump.



A DCT/4M build into a GE60 Ozone Generator



An OL100/TB Ozone Generator

© Ozone Services





OzoneLab™ Digital Countdown Timers with PCB



<u>Home</u> > <u>Products</u> > <u>OEM Timers</u> > Digital Countdown Timers with PCB







Digital Countdown Timers (no PCB)

ShirtPocket Timer

Digital Count-down Timers with LCD display are available in following ranges:

DCT/MS



[MM|SS]

DCT/HM



99 minutes | 60 seconds | 99 hours | 60 minutes [HH|MM]

Technical Data:

Power Input:

• 12VDC (10-14VDC)

• 75 - 100mA

Electrical Output:

- DPDT Relay
 - o (NO1|COM1|NC1 + NO2|COM2|NC2)
 - 250VAC/5 or 8 Amp.

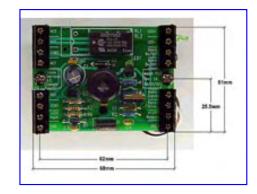
Visual Output:

- LCD display
- . LED+ and LED- signal ports located on the PCB are intended for external pilot LED light.



Output Audio:

- 80/40dB Buzzer with the optional ON/OFF
 - To use the audio alarm ON/OFF function you need to provide an external switch, or leave the existing jumper in place (audio alarm active).
 - The Trimming Potenciometer VR2 controls the volume of the audio alarm. When short-circuited the buzzing will be at full volume.

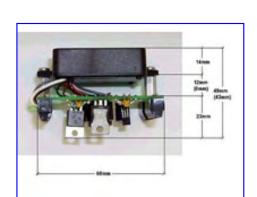


Installation:

The position of the digital timer front panel in relationship to the enclosure/mounting panel face plate can be adjusted by replacing the original spacers with longer or shorter ones, depending on the individual preference or the needs.

Applications:

- Wide variety Light commercial applications
- · Not for outdoor use, unless in NEMA housing



The following pictures show examples of how the digital countdown timers can and are used:



A DCT/MS built into a peristaltic pump.

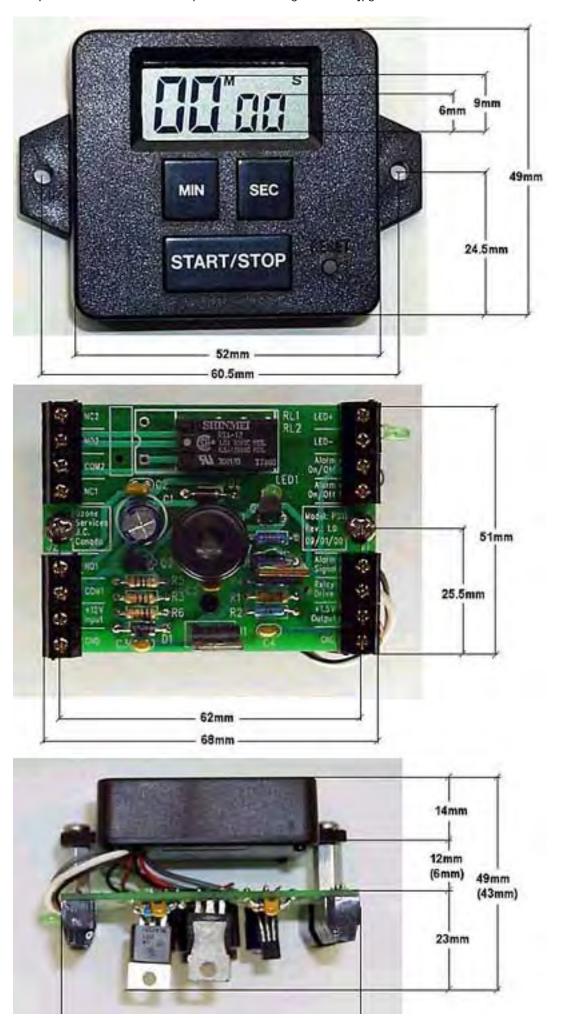


A DCT/4M build into a GE60 Ozone Generator



An OL100/TB Ozone Generator

© Ozone Services



http://www.ozoneservices.com/products/OEM/images/timer04.jpg (1 of 2) [12/7/2007 2:07:56 PM]



OzoneLab™ Shirt Pocket Countdown Timer



Home > Products > OEM Timers > Shirt Pocket Countdown Timer



A small, battery operated, versatile and simple to use unit suitable for keeping track of time intervals in the range of 00[Min] 01[Sec] to 99[Min] 59[Sec].

The ALARM OUTPUT selection switch offers the user to select the type of alarm signal, which is initiated at the end of each countdown cycle:

- Visual output / Blinking LED
- Audio output / Beeping (40-50dB)
- · Visual and Audio output combined

All other functions of the timer are associated with the additional three buttons:

- MIN [Minutes]
- SEC [Seconds]
- START/STOP

Operation of the Countdown Timer:

- To set the time, MIN and SEC buttons are pressed to display the total time duration.
- Then the START/STOP button is pressed and the countdown will be initiated.
- Countdown function active)...
- Countdown reaches to 00-00 and ALARM is activated
- By pressing START/STOP, the timer will:
 - o deactivate the ALARM
 - o reset to preset time interval
- By pressing START/STOP again, the original countdown sequence will be initiated.

Additional Notes:

• If the countdown was interrupted (pressing START/STOP), the countdown process will be stopped and the remaining time interval will be displayed on the LCD.



• If the START/STOP button will be pressed again, the countdown will resume.

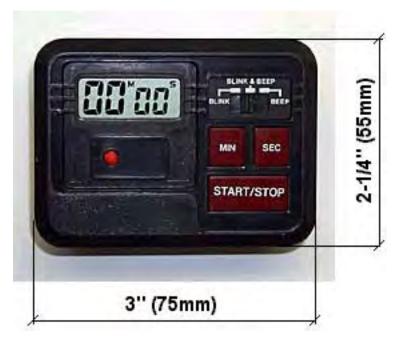
Resetting the TIME INTERVAL:

- Make sure the countdown function is completed or suspended (pressing START/STOP)
- Press MIN and SEC together Ë the display will show 00-00
- Using MIN and SEC buttons, enter the new time interval

Technical Data:

- Time Range: 00[Min] 01[Sec] E 99[Min] 59[Sec]
- Size/Weight: 3x 2-1/4x 5/8 | 75x 55x 15mm (WxLxH) // 2oz | 60gr.
- Battery: Alkaline Cell GPA76 / 9C

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OzoneLab™ OEM Pricelist



<u>Home</u> > <u>Pricing & Information</u> > OEM Pricelist



Online Order Page

All prices are in US Dollars and do not include shipping and handling.

Digital Countdown Timers	1 - 5	6 - 9	10 - 49	50+	
OEM Digital Countdown Timer / 1.5VDC (Timer only)	U\$ 20.00	-20%	-25%	-30%	ITANIATO .
OEM Digital Countdown Timer (with PCB)	U\$ 85.00	-20%	-25%	-30%	
Shirtpocket Timer - [M/S]	U\$ 15.00	-20%	-25%	-30%	DECENT AND ADDRESS OF THE PARTY

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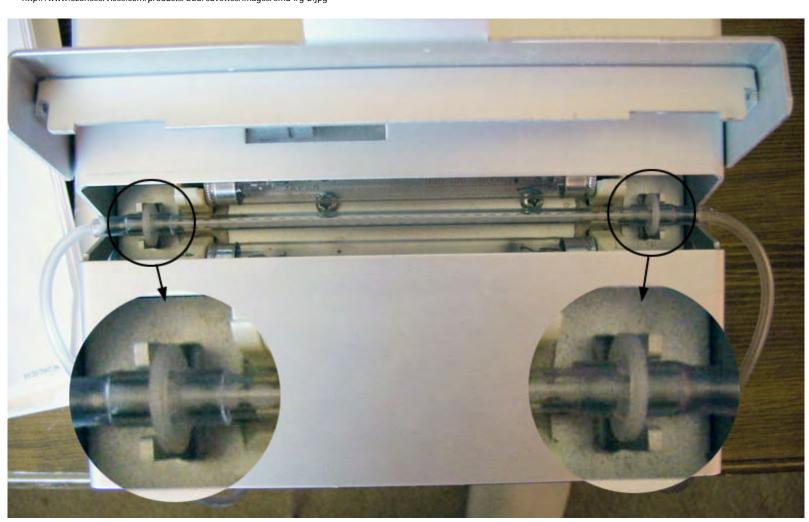














OzoneLab™ Glossary - Cv



Home > OzoneLab™ Glossary - Cv



Cv (Also see Kv)

The flow coefficient - Cv - allows comparision of flow capacities of valves at different sizes, types and manufacturers. The flow coefficient is in general determined experimentally and express the flow capacity.

The flow coefficient - Cv - required for a specific application can be estimated by using specific formulas for the different fluids or gases. With the estimated Cv value - the correct valve can be selected from the manufacturers catalogues.

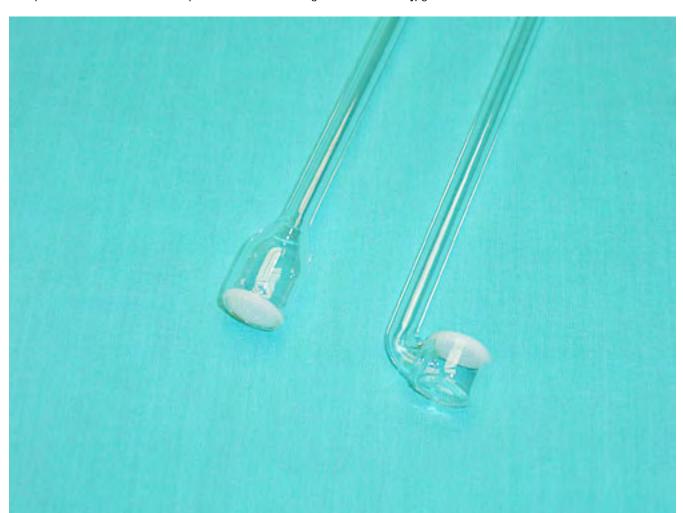
In North America the flow is usually described in imperial units - GPM (gallons per minute) of water that a valve will pass for a pressure drop of 1 lb/in2 (psi).

Conversion between Flow Coefficient Cv and Flow Factor Kv can be expressed as:

Cv = 1.16 Kv (1)Kv = 0.853 Cv (2)

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

© Ozone Services











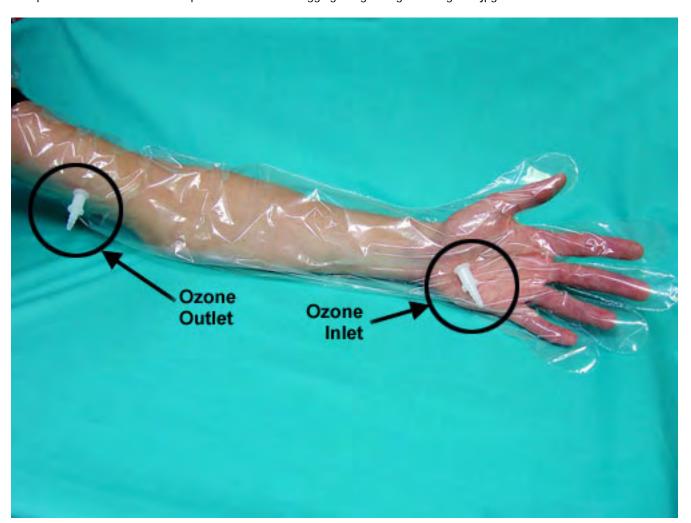


















OzoneLab™ Dental Ozone Diffusers



<u>Home</u> > <u>Products</u> > <u>Peripherals</u> > <u>Medical Research</u> > Dental Ozone Diffusers





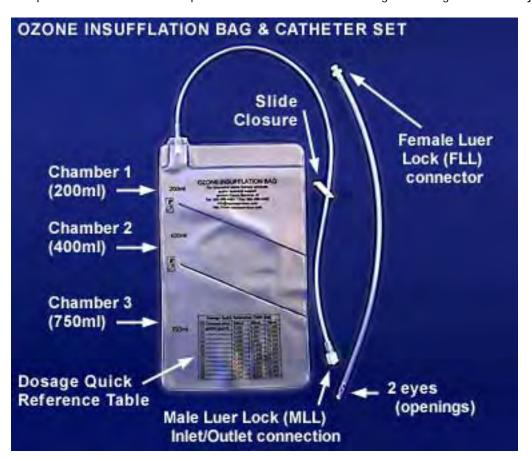
11" Dental Ozone Diffuser for use with <u>dental systems</u>

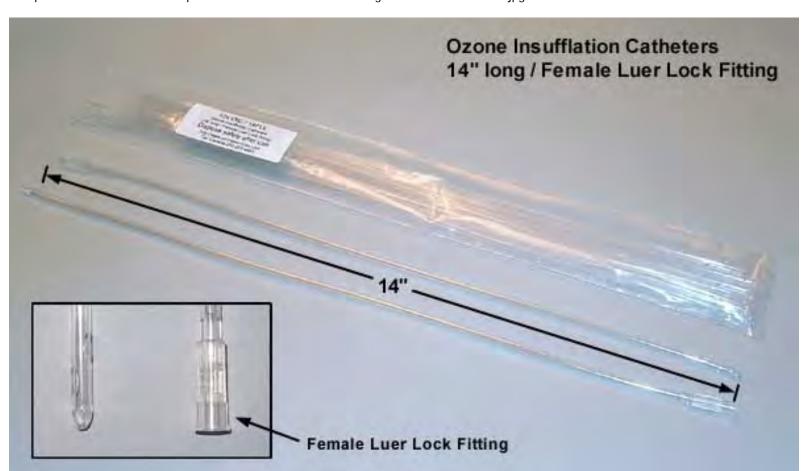


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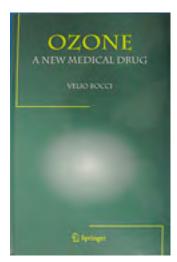
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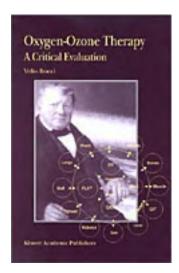






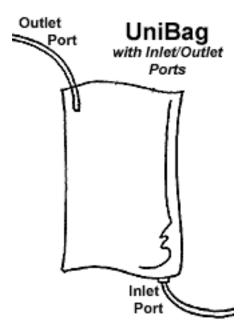






BENATE VIERANY MARNELS







OzoneLab™ Ozone Destructor



<u>Home</u> > <u>Setup Examples</u> > <u>By Application</u> > Destructor



External Ozone Destructor

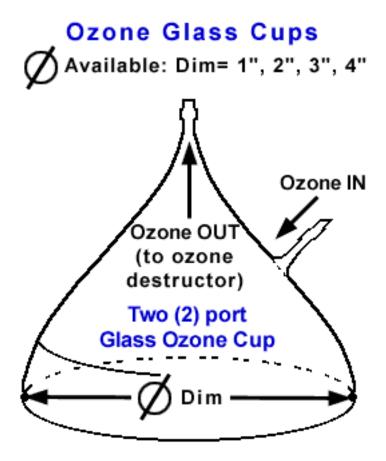


Internal Ozone Destructor

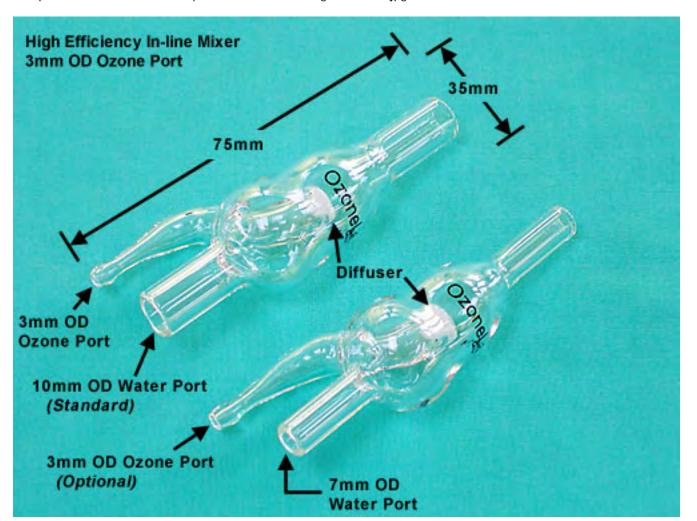


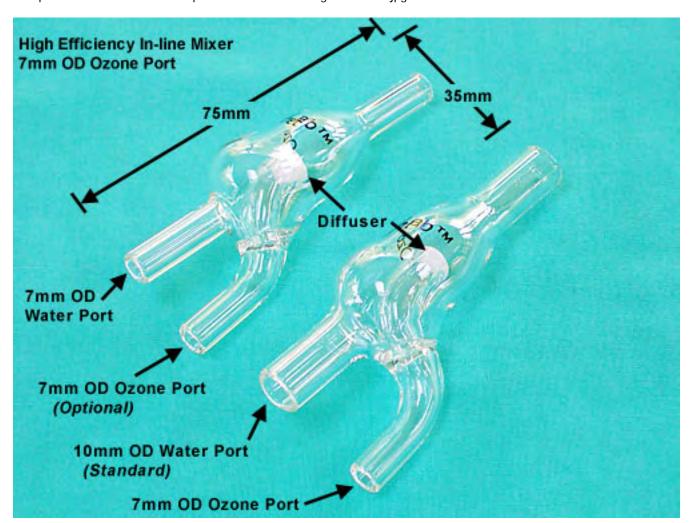
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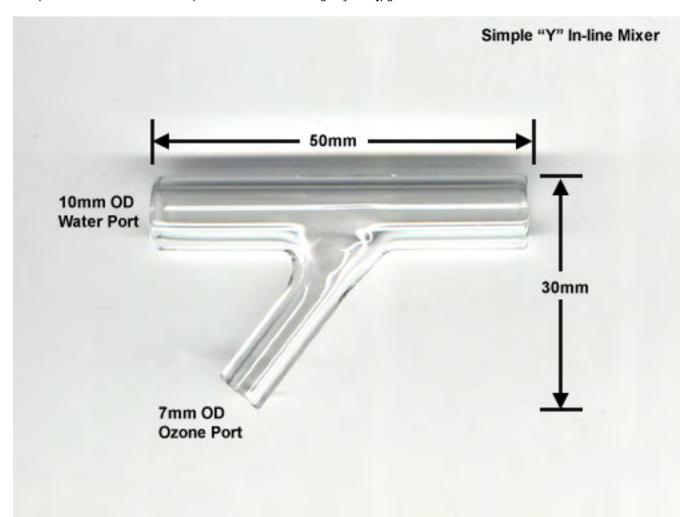
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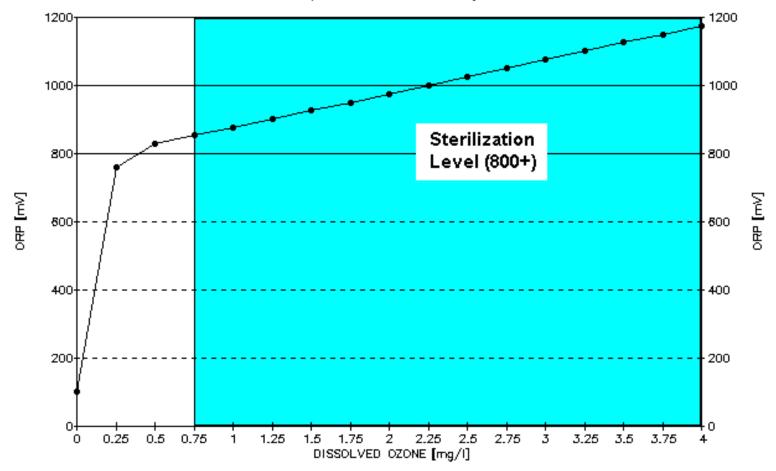


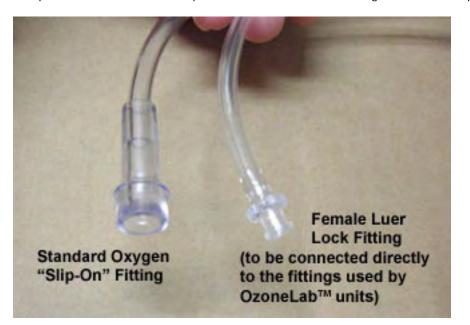


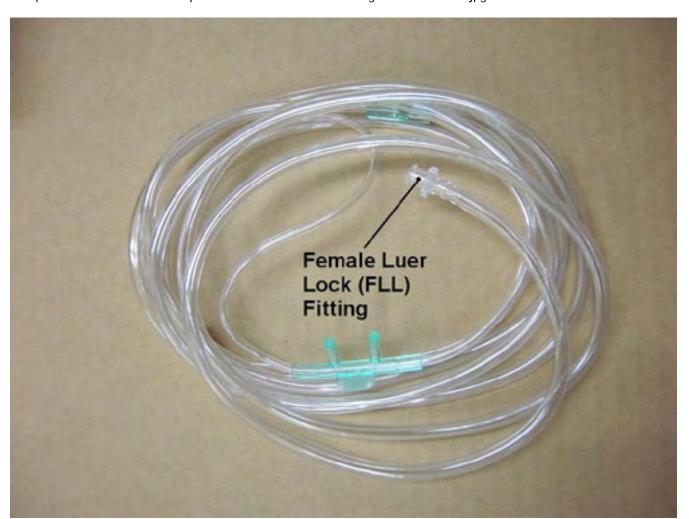


OXYGEN REDOX POTENTIAL

(ORP & DISSOLVED OZONE)





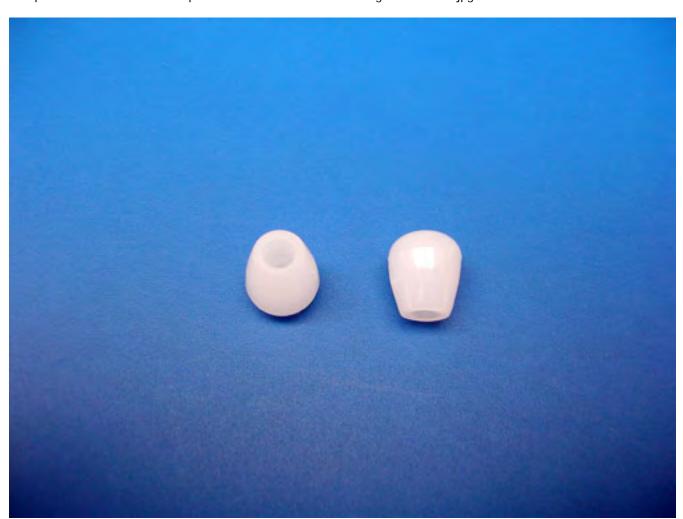




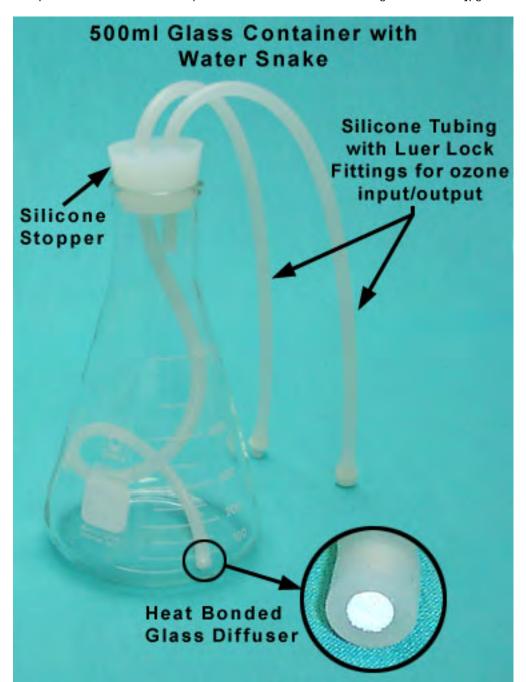














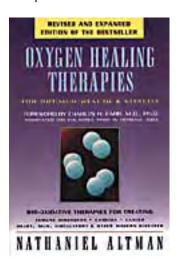
















Ozone Services Mail Message Page



<u>Home</u> > <u>OTTP</u> > <u>Contact Us</u> > Mail Message Page



Your Name	
Your email address	
Please re-enter your email address once again (Making sure you didn't make a typo in the first email box)	
Your message	

© Ozone Services



Welcome to Ozone Therapy Training Program Information Web Page

Ozone Therapy Training Program (OTTP) is a collaborative venture of individuals and organizations concerned about the safe and effective utilization of Ozone Therapies. It is an attempt to deal with an alarming number of inadequately trained/educated medical professionals as well as large numbers of "self-educated healers", who use ozone therapy despite of the lack of even the most basic knowledge about biochemical processes involved.

Claiming a direct link between the work done by <u>Dr.Otto Warburg</u> on oxidative and fermentative processes leading to a development of cancer, and simplistic conclusions drawn from his works, which are reflected by the statement "Flood the Body with Oxygen", is a deed displaying ignorance to too many facts to be listed in this short review. (To name just one example - even oxygen can be toxic if overdosed).

Calling Ozone Therapies natural therapies, and therapeutic form/levels of Ozone a natural compound is nothing short of wild and dangerous twisting of truth. After all, therapeutic ozone levels frequently used in a medical office can be easily 55,000 - 450,000 (840,000) times higher than ozone levels we can find in nature even under the most favorable "ozone producing" conditions.

Our company, as a developer and manufacturer of specialized oxygen fed Ozonation Equipment for Ultrapure Applications, fully recognizes the fact, that many of our instruments and products are used for Ozone Therapies. This directly transfers into a sense of moral responsibility and obligation for actively seeking the ways to tip the balance of current situation in favor of safe and effective use of Ozone. We strongly believe that Ozone Therapies belong to hands of well trained and educated LICENSED MEDICAL PROFESSIONALS with extensive formal medical training. Good training in Biochemistry is an essential part for understanding the biochemical actions and reactions triggered by ozone, and this knowledge directly contributes to over all



Jump Menu:

Website Search:

Ozone Services

A Division of Yanco Industries Ltd. 390 Silver Queen Road Burton, B.C., V0G 1E0 Canada Telephone: 250-265-4461

Fax: 250-265-4482 info@ozonelab.com info@ozoneservices.com

Business Hours

Monday - Friday 8:30 am - 3:30 pm

4:55 P.D.T. Current Time

understanding of utilization of Ozone as a therapeutic agent.

Medical professionals interested in Ozone Therapies may find in this section of our web site information about Ozone Therapy Training Program (OTTP), and upcoming OTTP workshops.

OTTP section of our web site also includes "Who is Who" directory of licensed medical professionals who participated in OTTP. Each listing clearly indicates the level of OTTP completed by featured medical professional. We expect this directory will contribute to future networking activities, by expanding opportunities for professional dialog & information exchange.

Den Rasplicka
Founder of Ozone Services / Yanco Industries Ltd.

© Ozone Services



Ozone Services Burton Location 1



Home > Ozone Therapy Training Program (OTTP) > OTTP Burton Main Office > Burton Location 1



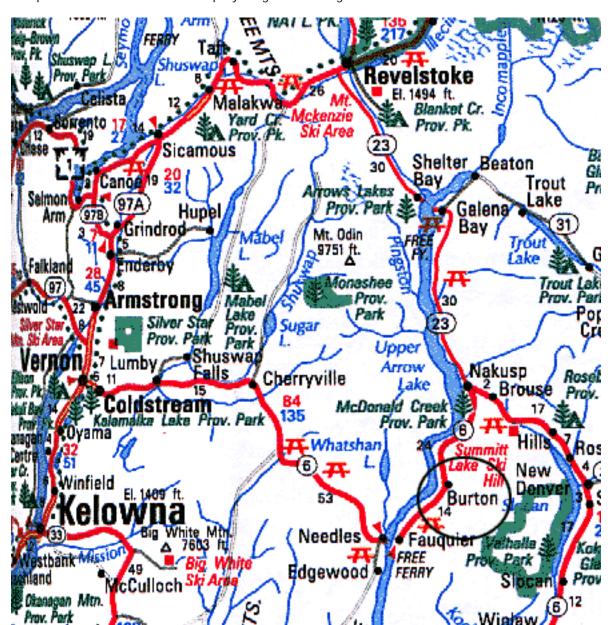
Please click on the below map for a more detailed map of our Burton location!



How to Get to Burton - Detailed Instructions

Take the Scenic Tour of the Nakusp - Burton - Fauguier Region

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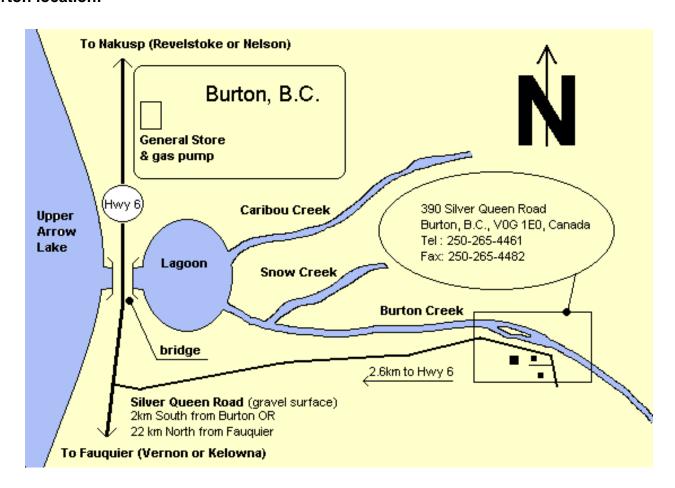
Ozone Services Burton Location 3



<u>Home</u> > <u>Company</u> > Burton Location 3



Our Burton location!



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OTTP - September 2006 Information Binder





Home > OTTP > September 2006 Information Binder

"Information Binder" for Ozone Therapy Training Program (OTTP) seminar

Dates:

OTTP/Basic: September 17-18nd, 2006
OTTP/Intermediate: September 19-20th, 2006
OTTP/Advanced: September 21-22nd, 2006

Location: Burton, British Columbia, Canada

Important Information - Minimum attendance is:

OTTP/Basic: 15 confirmed by July 31st, 2006
OTTP/Intermediate: 25 confirmed by July 31st, 2006
OTTP/Advanced: 25 confirmed by July 31st, 2006

If required minimum attendance will not be reached, the events will have to be canceled. Consequently:

- We encourage everyone interested in OTTP training to register well before July 31st, so the events will not be canceled only because of late registrations
- No one should book any transport / air tickets until the final confirmation will be sent to them on August 1st, 2006.

"Information Binder"

We encourage you to review the following files, which can also be printed out for quick reference.

		Six Reasons to attend OTTP in Burton, BC
OTTP-BC.pps		Power Point Presentation Slide Show outlining six reasons why those seeking training in Ozone Therapies should seriously consider attending OTTP in Burton.
		General Information Sheet
OTTP-general.pdf	>	This file provides information about the event including topics, lecturers, training, costs, etc.
		Travel Info Sheet
OTTP-travel.pdf	POF [™]	This file provides a map and information on activities (outside OTTP) available in the Burton and Nakusp area.
		Accommodation/Services Information Sheet
OTTP-accom.pdf	F C C C C C C C C C C	This file provides information about Accommodations and Services in the Burton and Nakusp area.
		Activities Info Sheet
OTTP-activ.pdf	FOF N →	This file provides a map and information on activities available in the Burton and Nakusp area.
		Online Registration
Secure Online Registration		Those wishing to attend any of the workshops should complete the online registration.
		Who's Who Listings
Wild's Wild Listing		This link allows users to view and browse through the Who's Who listings. Upon successful completion of any of the OTTP workshops, the participant will be able to add their own information to the network.

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OTTP - Ozone Services Main Office - Workshop Itinerary



<u>Home</u> > <u>OTTP</u> > <u>OTTP - Ozone Services Main Office</u> > Workshop Itinerary



Next Workshop - To be announced (Please see our upcoming page).

Primary Focus:	This workshop is intended to provide solid foundation for licensed medical care providers entering, and/or already active the field of Ozone Therapies, and it is a pre-requisite for OTTP/Intermediate level of our 3-level Ozone Therapy Training Program.
Hands-On Exercises:	Non-Invasive techniques (ozonated water, cupping, bagging, sauna, OOO/LOOO, Ear Insufflation, Rectal Insufflation, Vaginal Insufflation, etc.)
Requirements:	Must be a licensed doctor and/or licensed nurse
Lecturer:	Den Rasplicka, Ozone Services
Location:	390 Silver Queen Road, Burton, BC, Canada
Cost:	\$275.00 US per person includes two lunches does not include cost of accommodation
Workshop Capacity:	Maximum 9-10 people
Registration:	Tel: 250-265-4461 / Fax: 250-265-4482 / info@ozoneservices.com \$275.00 US non refundable deposit required from all participants. On-line Registration

Schedule:	Saturday (8 hours)
	09:00 - 12:30 - Morning session
	13:30 - 18:00 - Afternoon session
	Sunday (7 hours)
	09:00 - 12:30 - Morning session
	13:30 - 17:00 - Afternoon session
Important Notes:	 Many individuals travel vast distances to come to our workshops. Consequently, the workshops start at 9:00 sharp, the doors are locked and no one is admitted after 9:00. This is to prevent the disruption of the workshop. Therefore, we encourage everyone to: a. allow for unexpected delays when planning the trip. b. to arrive in Burton/Nakusp area no later then Friday afternoon. c. to arrive on Saturday and Sunday at least 15 minutes before the workshop starts. Please, do not use any aftershave or perfume when coming to our workshops. Please, bring with you a notebook, calculator, indoor foot ware. Please, print out and bring with you the driving / direction instructions + Ozone Services contact information.
Travel Information:	We have compiled a <u>Travel Information page</u> for anyone coming to visit us in Burton. We also have <u>several maps</u> online to assist you.
Accommodation:	 Unfortunately, we do not book accommodation for people coming to our weekend workshops or for business meetings. We are located in Burton, community of 350-400 hiding in the woods. 45km (30 miles) NORTH from Burton (30-35 minutes drive) is a community of 1500 - Nakusp. The following web site provides an abundance of information in respect to accommodation, travel, activities, etc http://www.nakusparrowlakes.com There is a wide selection of various types of accommodation, including campgrounds, B&B's, chalets & cabins, as well as motel or hotel type accommodation.





by automobile



Learn about ozone and enjoy some outdoor activities - all in one trip!

If your company or organization or a group would be interested in organizing or attending Den's technically oriented lecture, please <u>contact us</u>.

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OzoneLab™ Ozone Output Testing & Calibration



<u>Home</u> > <u>Services</u> > Ozone Output Testing & Calibration



Oxygen fed ozone generators used for Ultra Pure Ozone Applications are (or should be considered) precision devices, which require regular re-calibration and testing.

An extremely high "mortality rate" of companies involved in production & distribution of ozonation systems results in very unsatisfactory situation on the market. Without our direct assistance, many users of oxygen fed ozone generators produced by companies which no longer exist would have very limited or no way to get their units properly re-tested and re-calibrated. We claim with confidence that we test and calibrate annually more ozone generators produced by our former and/or current competitors then any other company currently active in the field of Ultra Pure Ozone Applications.

Please note that our company only accepts oxygen fed ozone instruments for re-calibration.

Clients using ozonation systems produced by Ozone Services can take an advantage of our free calibration/ testing service, however there are still expenses associated with re-calibration which clients would have to pay - 2 way shipping & customs (if applicable).

Prospect clients using OXYGEN FED ozonation systems produced by other manufacturers can still take an advantage of our Ozone Output Testing Program, however they will be charged in accord with following overview:

Ozone Output Testing - \$60.00 US / hour with \$100 US minimum charge plus 2 way shipping (& customs, if applicable)

When considering the possibility to have ozone generator tested it is necessary to take following steps:

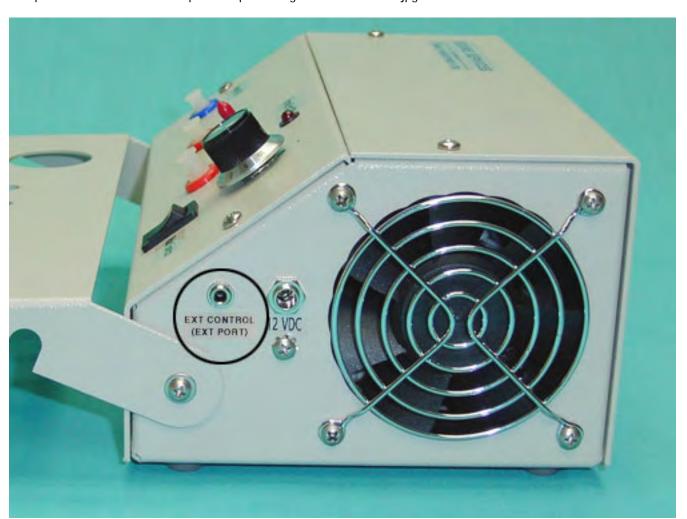
- Contact Ozone Services and notify us in advance about your intentions. Please, have following information handy:
- Model / Name of the ozone generator
- If ozone generator is of our production then we will require Serial Number and the name of person who arranged the sale of the instrument (distributor).

We will also ask you for information about ozone generator oxygen feed gas.....if oxygen tanks & flow regulators are used, we would need detail information about the type of oxygen flow regulator, flow rates, fitting connections, etc.

We will provide detail shipping instructions

If oxygen tanks and flow regulators are used, then we will require that the oxygen flow regulator will be sent along with the ozone generator to our company for ozone output testing.

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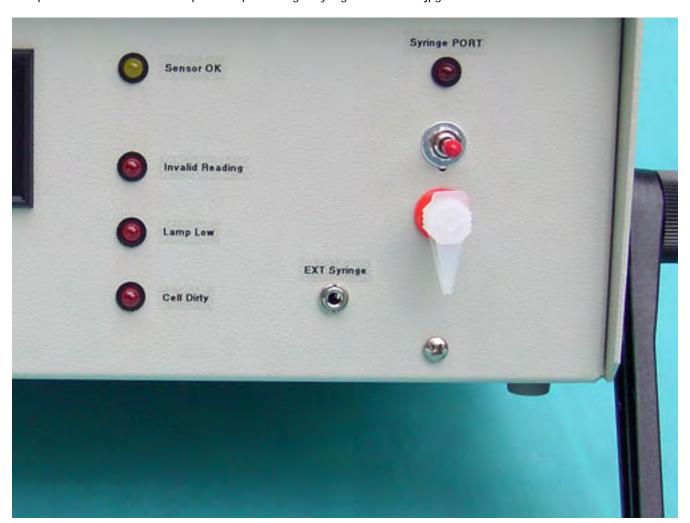












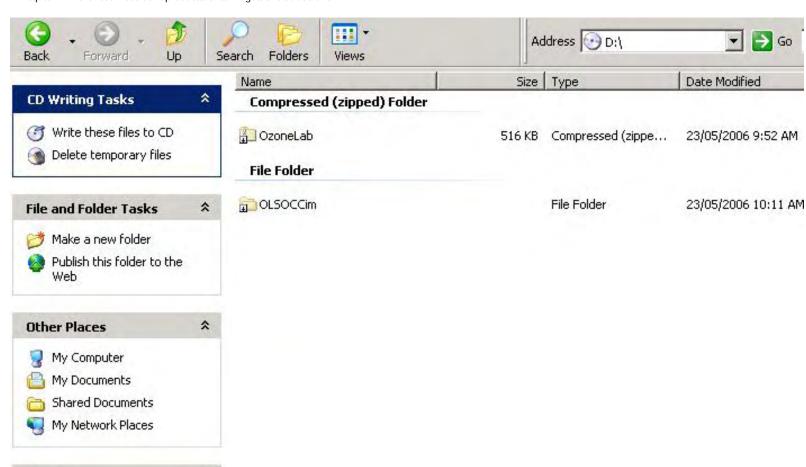


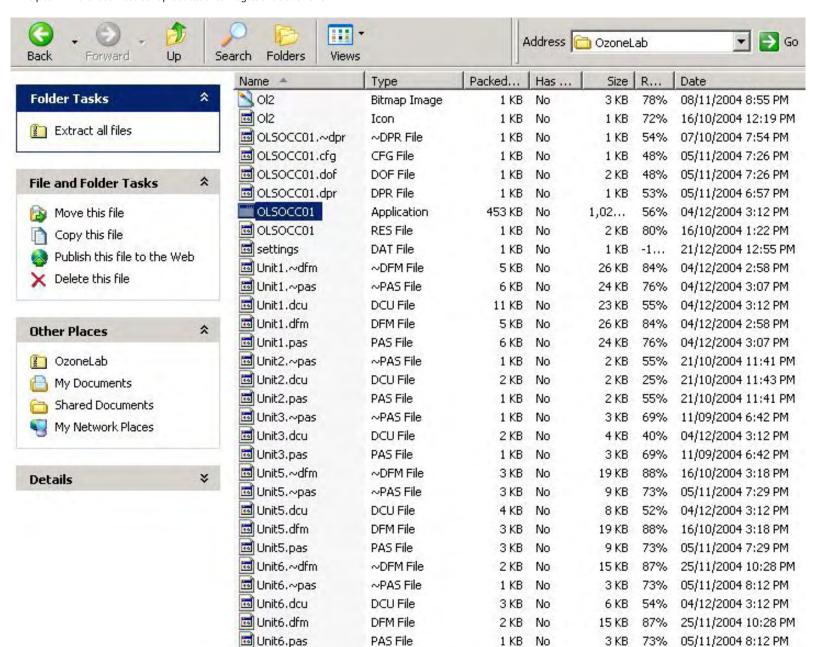
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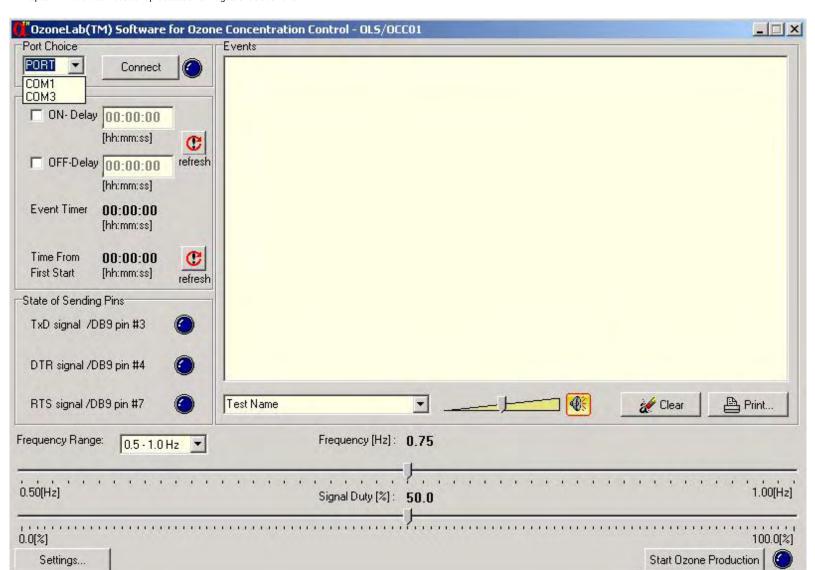
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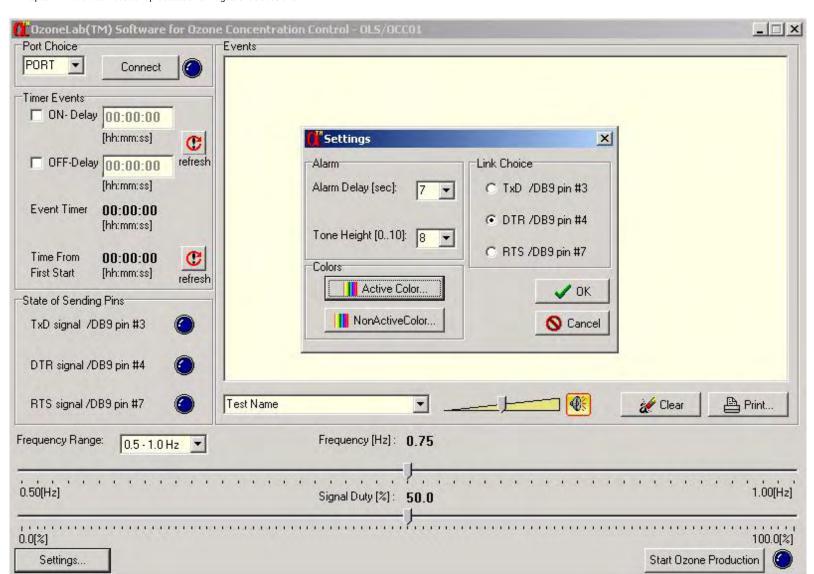
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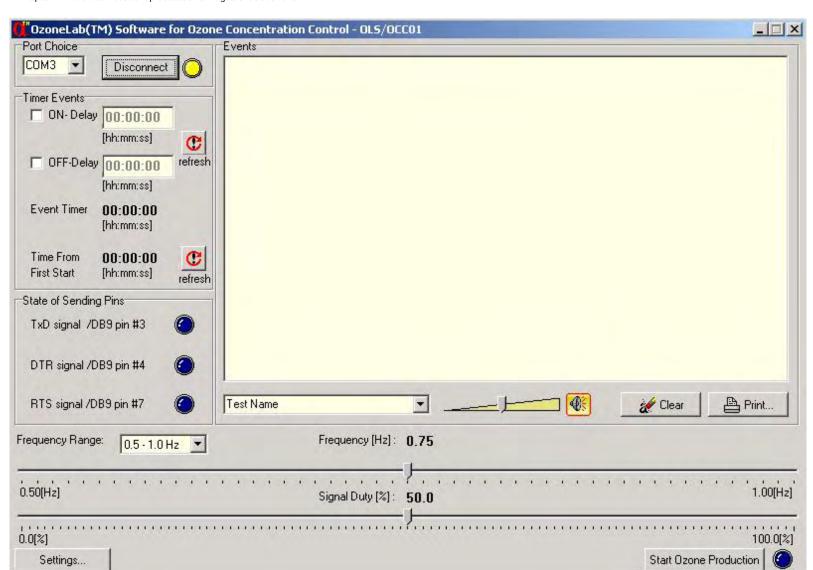
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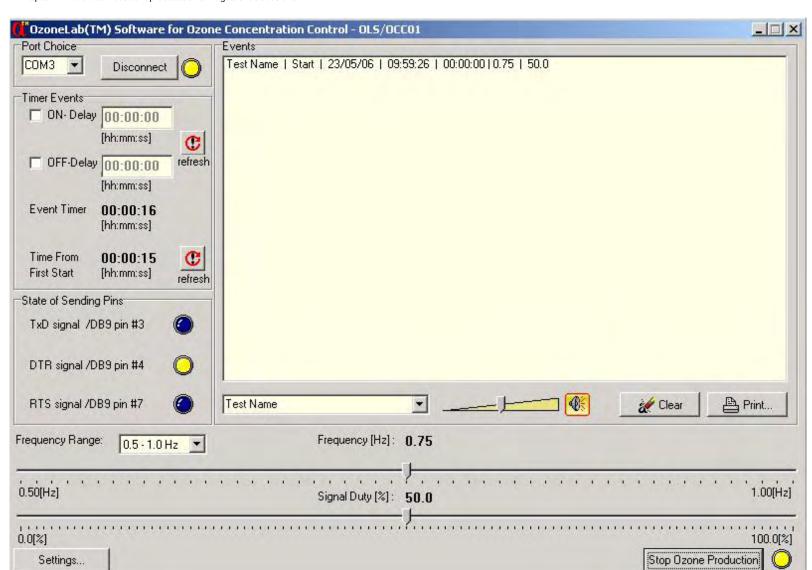














OzoneLab™ Back Flow Protection (Trap) - OL80A/DLS Ozone Generator



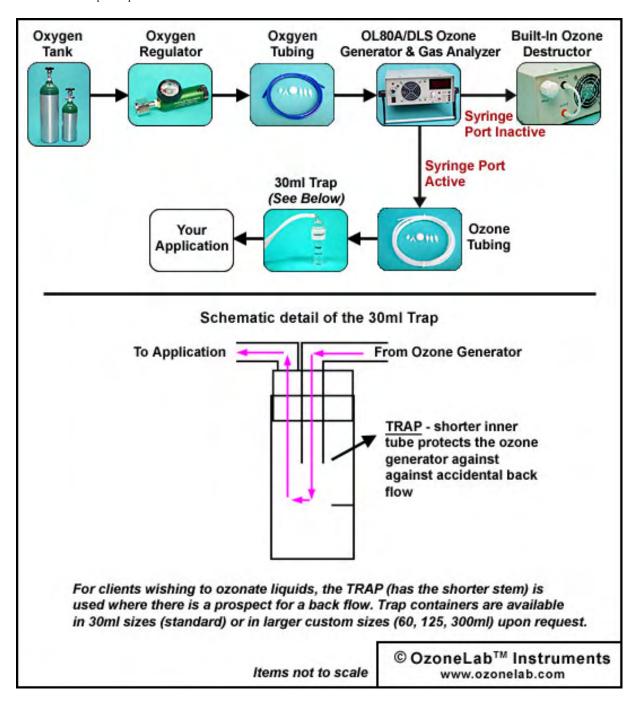


Home > Setup Examples > Back Flow Protection (Trap) - OL80A/DLS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Back Flow Protection (Trap) using an <u>OL80A/DLS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Syringes - OL80A/DLS



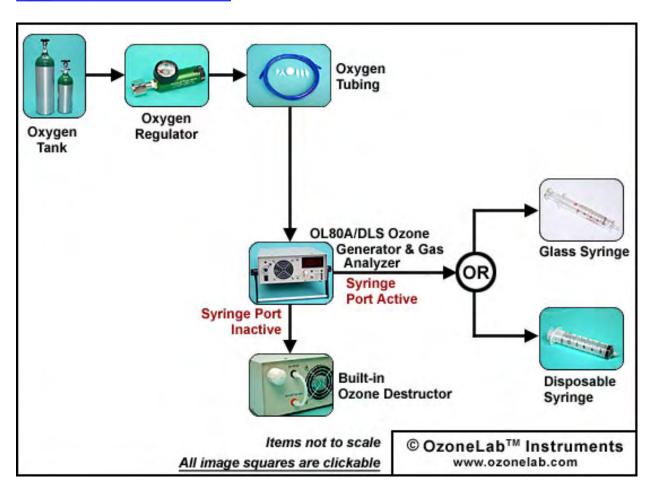
<u>Home</u> > <u>Setup Examples</u> > Filling Syringes using OL80A/DLS



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

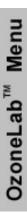
Filling Syringes using the OL80A/DLS Ozone Generator/Gas Analyzer fed with oxygen from an Oxygen Tank.





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators and Ozone Analyzers are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Test Chamber using an OL80A/DLS Ozone Generator



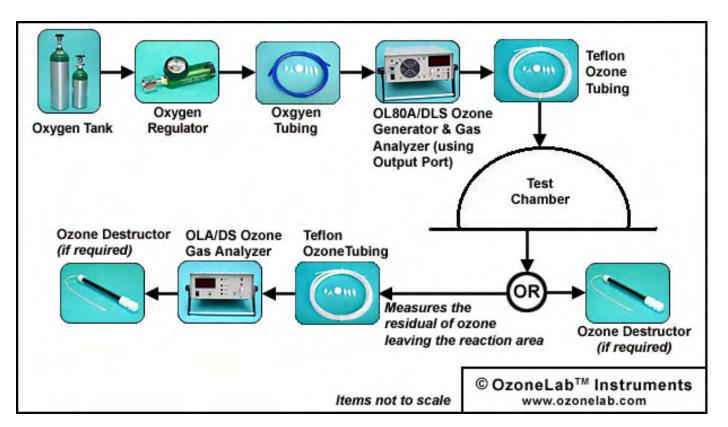


<u>Home</u> > <u>Setup Examples</u> > Test Chamber with OL80A/DLS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

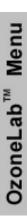
Ozone Test Chamber setup using an <u>OL80A/DLS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>). Ozone Test Chambers are a custom item and can be designed and produced through our <u>Custom</u> <u>Design and Production area</u>.





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Test Chamber using an OL80F/DST Ozone Generator



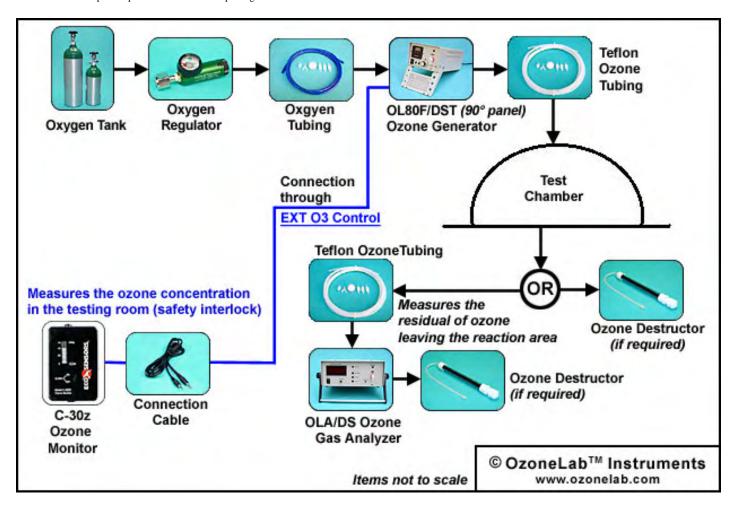


<u>Home</u> > <u>Setup Examples</u> > Test Chamber with OL80F/DST Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

A <u>C-30z Ozone Monitor</u> is connected using a <u>connection cable</u> to the <u>EXT Signal Port</u> in the Ozone Generator. This measures the ozone concentration in the testing room and works as a safety interlock.

The Ozone Test Chamber setup using an <u>OL80F/DST Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>). Ozone Test Chambers are a custom item and can be designed and produced through our <u>Custom</u> <u>Design and Production area</u>.



The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80A/DLS Ozone Generator

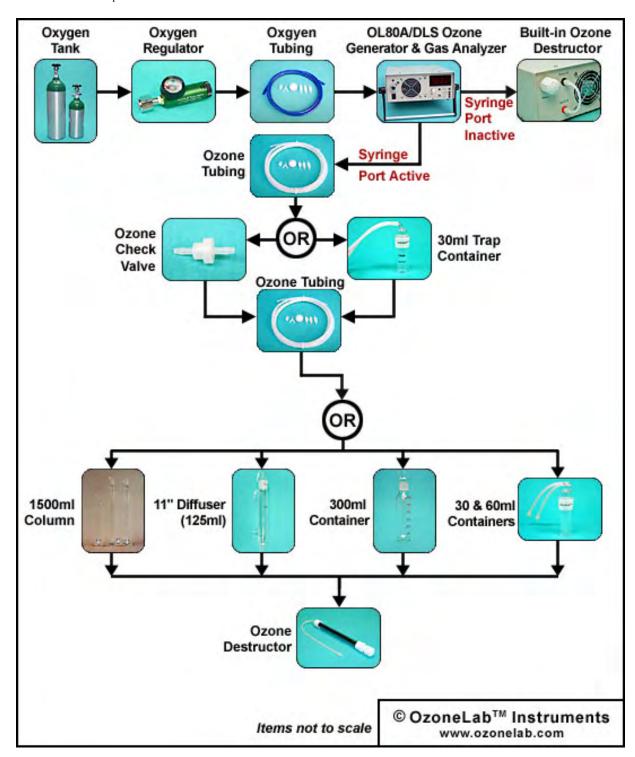




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80A/DLS Ozone Generator

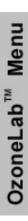
Fluid ozonation using ozonation containers of various sizes and an <u>OL80A/DLS Ozone Generator/Gas Analyzer</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80A/DLS Ozone Generator

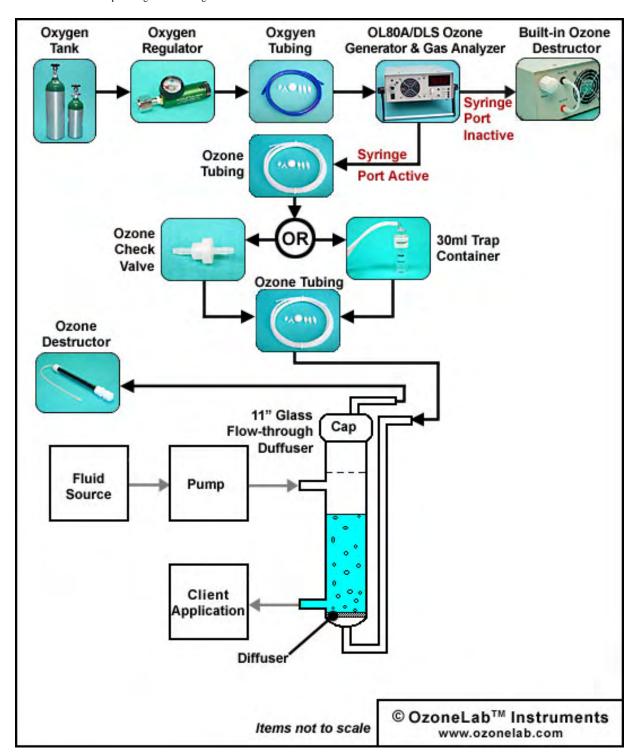




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80A/DLS Ozone Generator

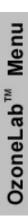
Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL80A/DLS Ozone Generator/Gas Analyzer</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80A/DLS Ozone Generator

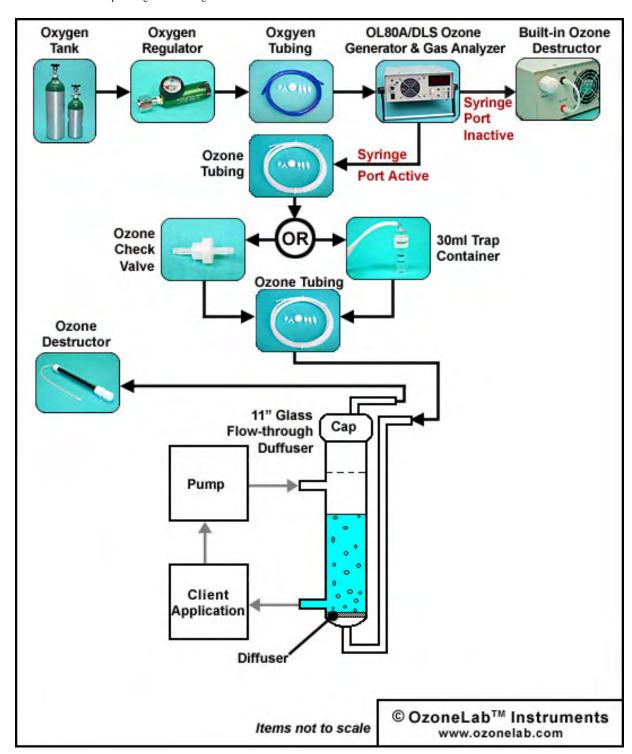




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80A/DLS Ozone Generator

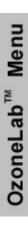
Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL80A/DLS Ozone Generator/Gas Analyzer</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80A/DLS Ozone Generator

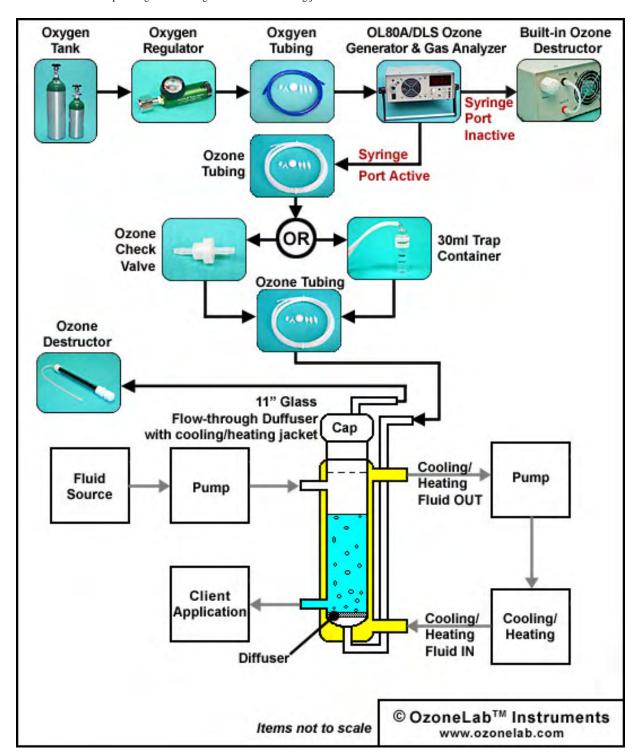




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80A/DLS Ozone Generator

Fluid ozonation using a <u>flow-through diffuser with a cooling jacket</u> and an <u>OL80A/DLS Ozone Generator/Gas Analyzer</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Back Flow Protection (Trap) - OL80F/DST Ozone Generator



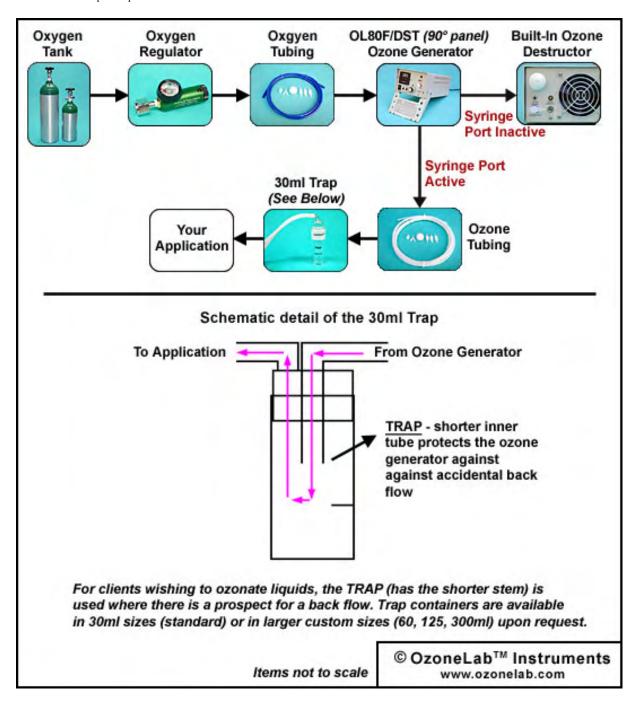


 $\underline{\mathsf{Home}} > \underline{\mathsf{Setup}} \ \mathsf{Examples} > \mathsf{Back} \ \mathsf{Flow} \ \mathsf{Protection} \ (\mathsf{Trap}) \ \mathsf{-} \ \mathsf{OL80F/DST} \ \mathsf{Ozone} \ \mathsf{Generator}$

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

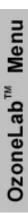
Back Flow Protection (Trap) using an <u>OL80F/DST Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Test Chamber using an OL80F/DST Ozone Generator



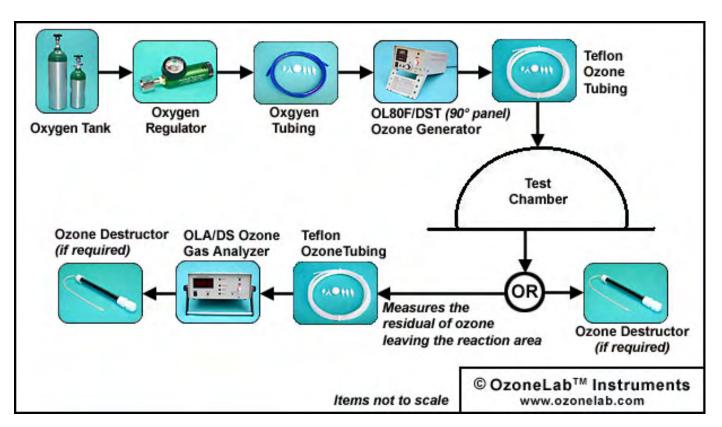


<u>Home</u> > <u>Setup Examples</u> > Test Chamber with OL80/DST Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Ozone Test Chamber setup using an <u>OL80F/DST Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>). Ozone Test Chambers are a custom item and can be designed and produced through our <u>Custom</u> <u>Design and Production area</u>.





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Syringes - OL80F/DST



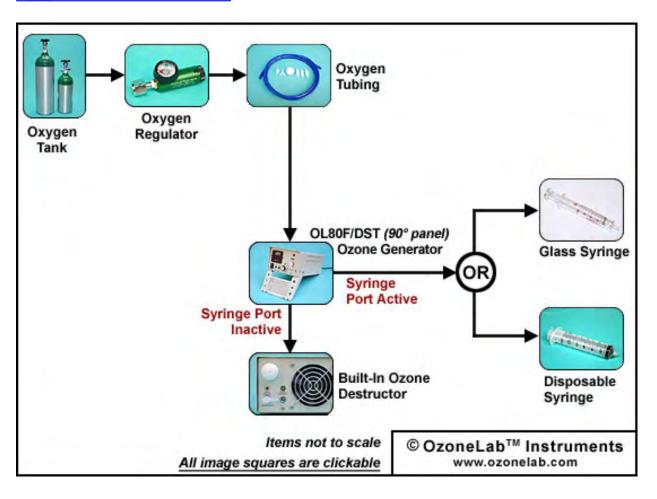
<u>Home</u> > <u>Setup Examples</u> > Filling Syringes using OL80F/DST



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Syringes using the OL80F/DST Ozone Generator fed with oxygen from an Oxygen Tank.





The <u>OL80F/DST</u> is used as	an example in this illustr	ation. Ozone Generators	s are subject to the spe	əcific
requirements of the client -	please call or contact us	to discuss which Ozone	Generator is right for	your needs.

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OzoneLab™ Fluid Ozonation using an OL80F/DST Ozone Generator

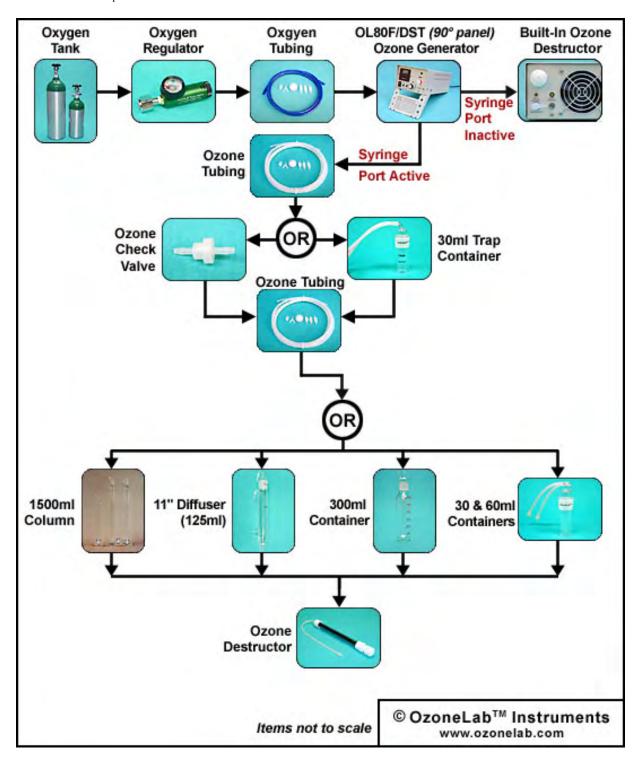




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80F/DST Ozone Generator

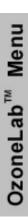
Fluid ozonation using ozonation containers of various sizes and an <u>OL80F/DST Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80F/DST Ozone Generator

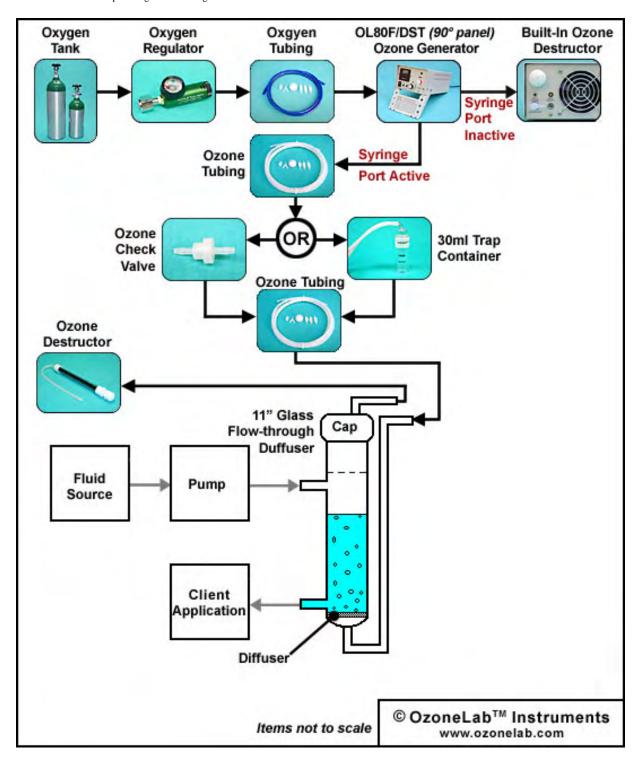




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80F/DST Ozone Generator

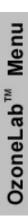
Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL80F/DST Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80F/DST Ozone Generator

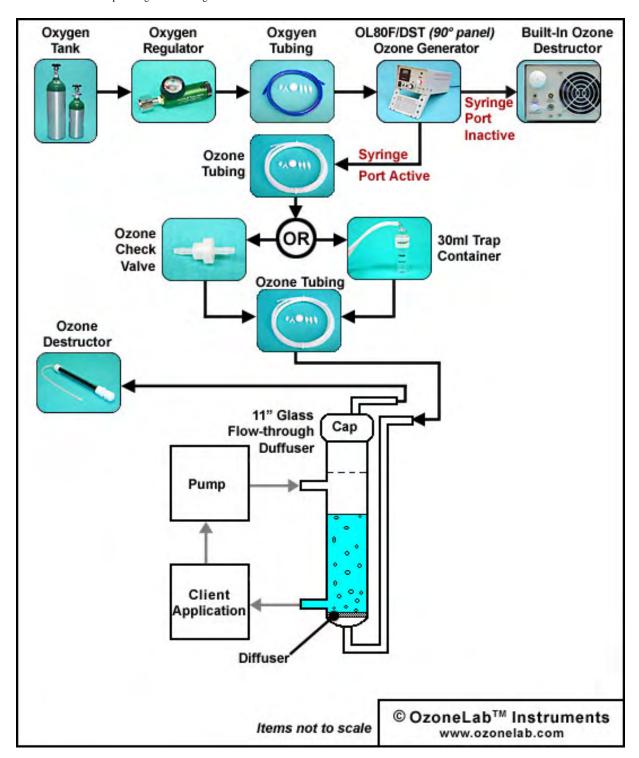




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80F/DST Ozone Generator

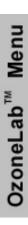
Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL80F/DST Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80F/DST Ozone Generator

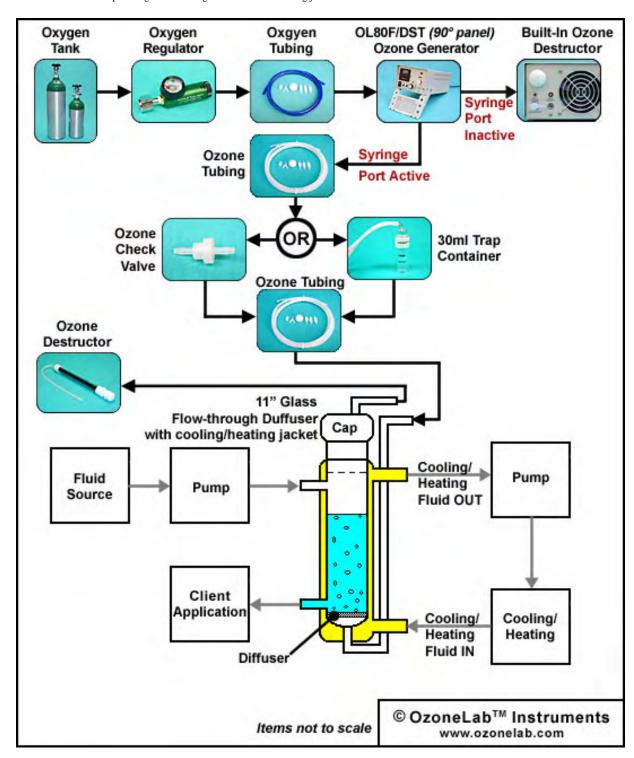




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80F/DST Ozone Generator

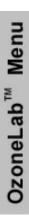
Fluid ozonation using a <u>flow-through diffuser with a cooling jacket</u> and an <u>OL80F/DST Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Back Flow Protection (Trap) - OL100/Basic Ozone Generator



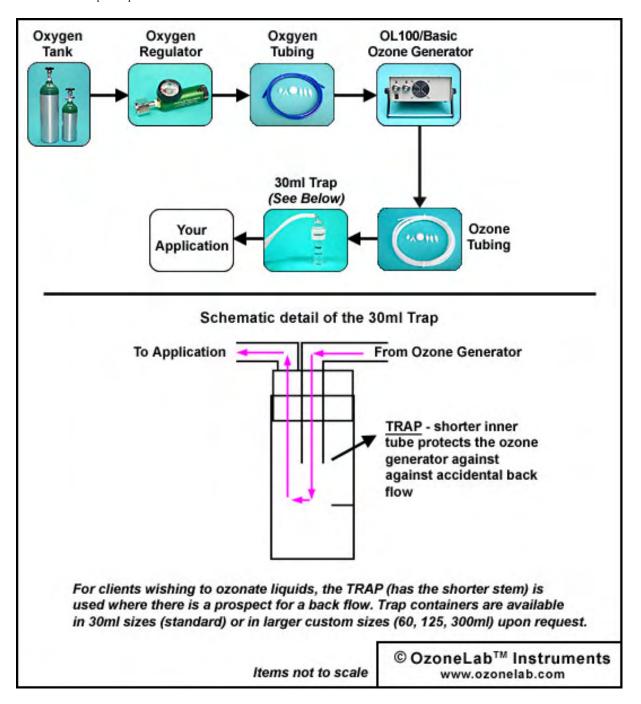


 $\underline{\mathsf{Home}} > \underline{\mathsf{Setup}} \ \mathsf{Examples} > \mathsf{Back} \ \mathsf{Flow} \ \mathsf{Protection} \ (\mathsf{Trap}) \ \mathsf{with} \ \mathsf{OL100/Basic} \ \mathsf{Ozone} \ \mathsf{Generator}$

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

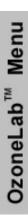
Back Flow Protection (Trap) setup using an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Syringes - OLA/DLS and OL100/Basic



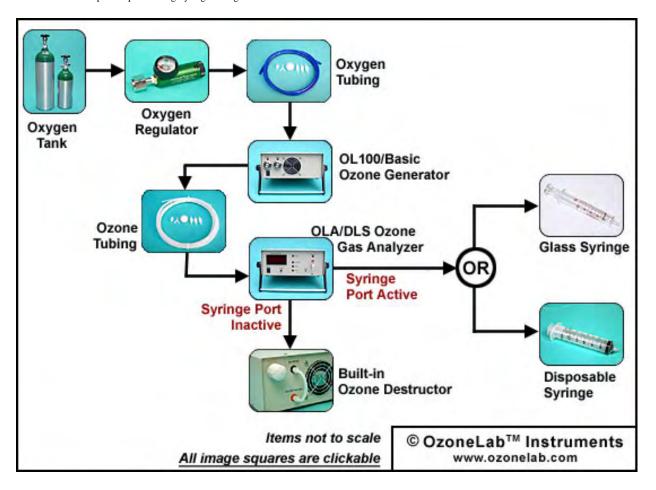
Home > Setup Examples > Filling Syringes using OLA/DLS and OL100/Basic Combination



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Syringes using an <u>OLA/DLS Ozone Gas Analyzer</u> supplied with ozone from an <u>OL100/Basic Ozone</u> <u>Generator</u> fed with oxygen from an Oxygen Tank.





The <u>OLA/DLS</u> and <u>OL100/Basic</u> combination are used as an example in this illustration. Ozone Analyzers and Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Test Chamber using an OL100/Basic Ozone Generator



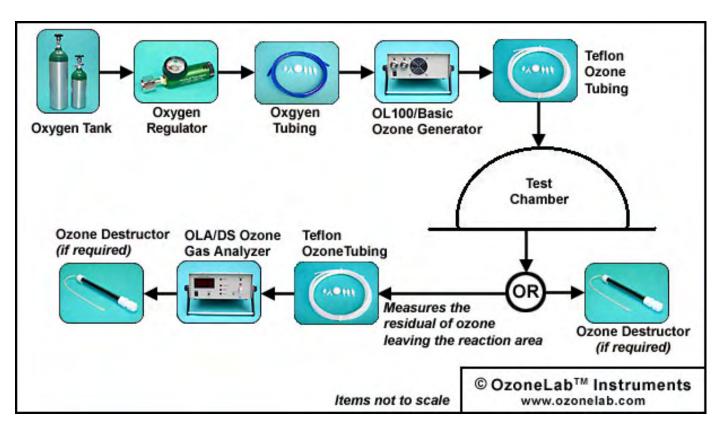


<u>Home</u> > <u>Setup Examples</u> > Test Chamber with OL100/Basic Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

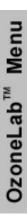
Ozone Test Chamber using an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>). Ozone Test Chambers are a custom item and can be designed and produced through our <u>Custom Design and Production area</u>.





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Test Chamber using an OL100/Basic Ozone Generator



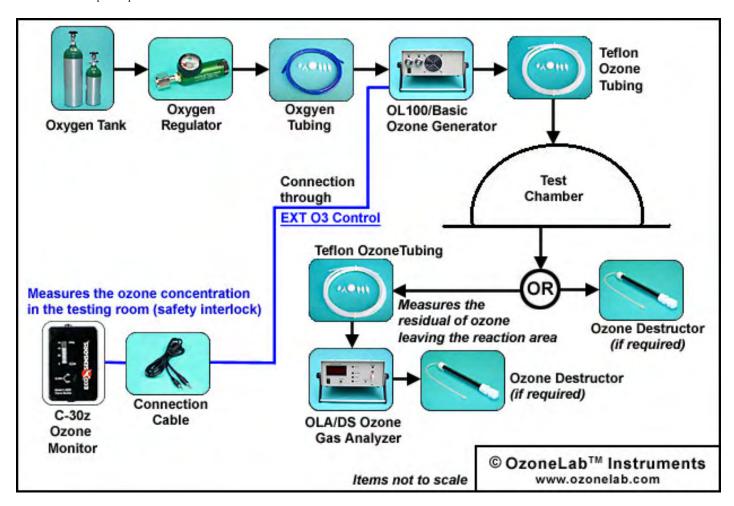


<u>Home</u> > <u>Setup Examples</u> > Test Chamber with OL100/Basic Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

A <u>C-30z Ozone Monitor</u> is connected using a <u>connection cable</u> to the <u>EXT Signal Port</u> in the Ozone Generator. This measures the ozone concentration in the testing room and works as a safety interlock.

The Ozone Test Chamber uses an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>). Ozone Test Chambers are a custom item and can be designed and produced through our <u>Custom Design and Production area</u>.



The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL100/Basic Ozone Generator

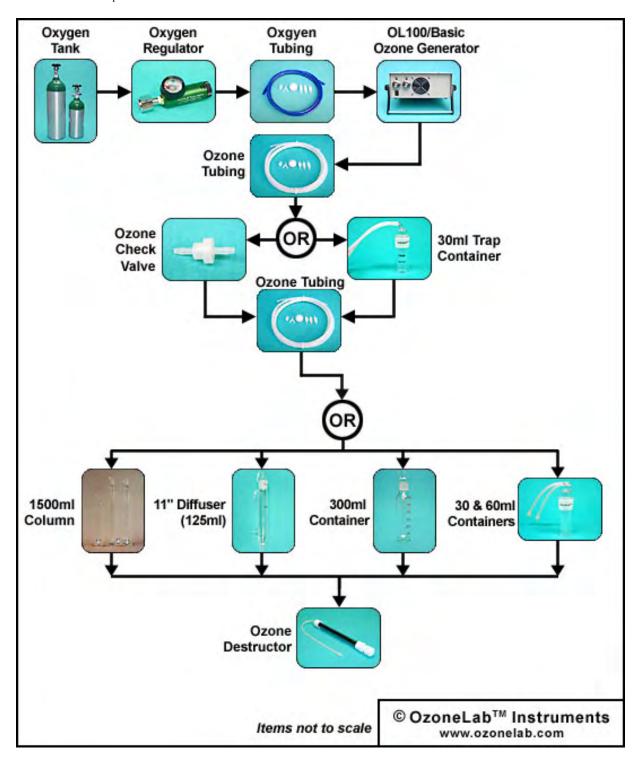




Home > Setup Examples > Fluid ozonation with OL100/Basic Ozone Generator

Fluid ozonation using ozonation containers of various sizes and an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL100/Basic Ozone Generator

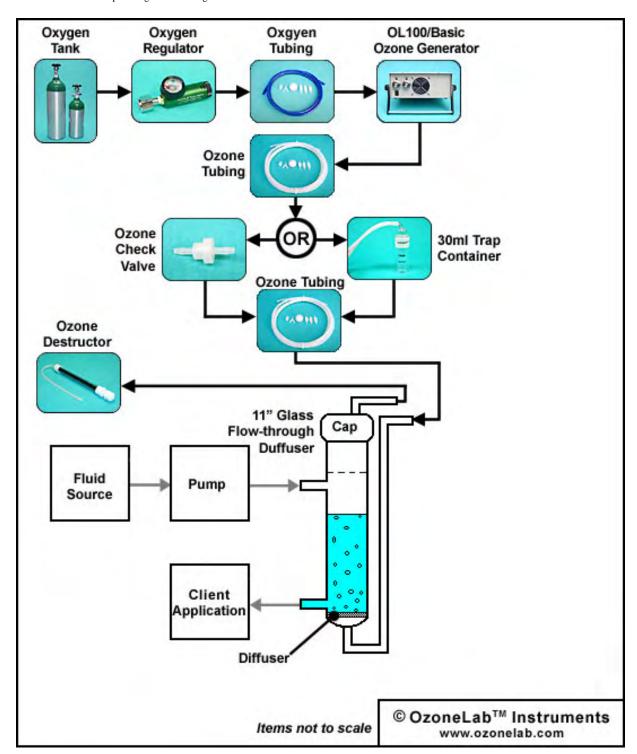




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL100/Basic Ozone Generator

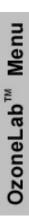
Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL100/Basic Ozone Generator

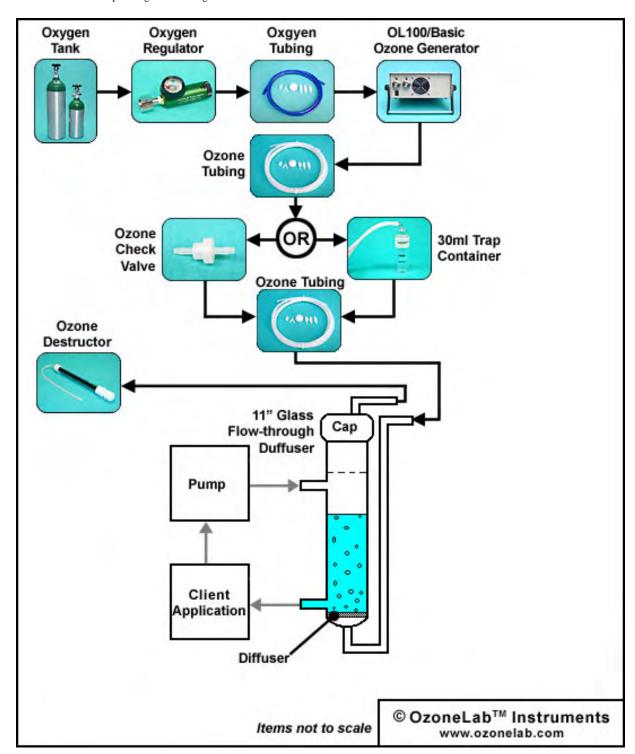




Home > Setup Examples > Fluid ozonation with OL100/Basic Ozone Generator

Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL100/Basic Ozone Generator

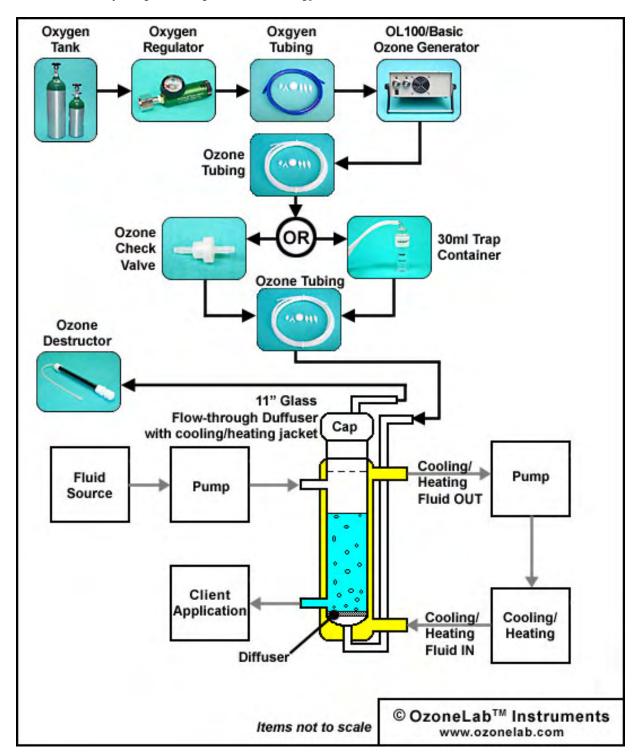




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL100/Basic Ozone Generator

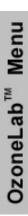
Fluid ozonation using a <u>flow-through diffuser with a cooling jacket</u> and an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Back Flow Protection (Trap) - OL100/DS Ozone Generator



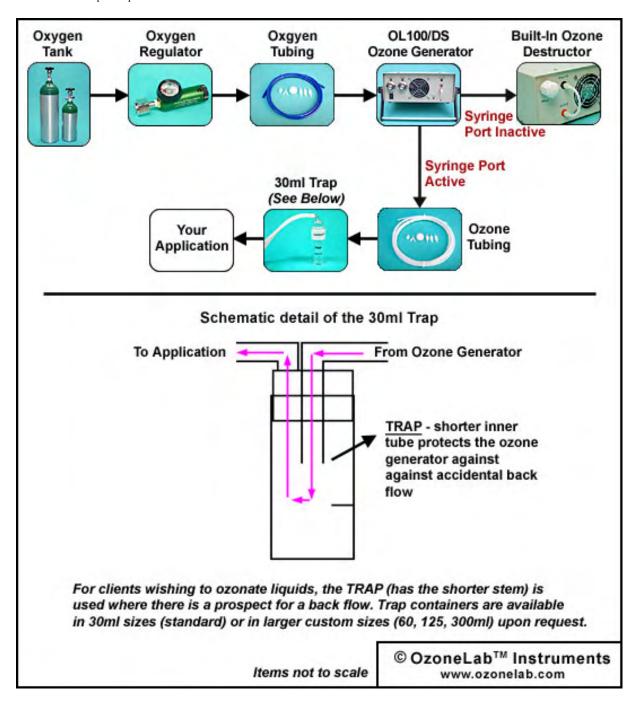


 $\underline{\text{Home}}$ > $\underline{\text{Setup Examples}}$ > Back Flow Protection (Trap) - OL100/DS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Back Flow Protection (Trap) using an OL100/DS Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Syringes - OL100/DS



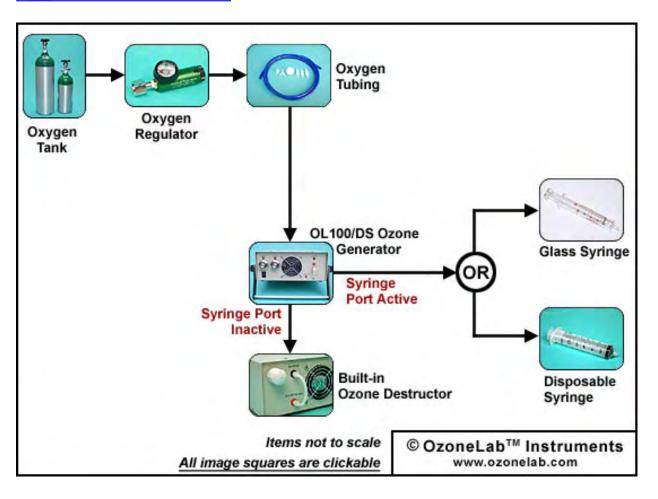
<u>Home</u> > <u>Setup Examples</u> > Filling Syringes using OL100/DS



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Syringes using an OL100/DS Ozone Generator fed with oxygen from an Oxygen Tank.





The OL100/DS is used as a	n example in this illustratior	n. Ozone Generators are sub	ect to the specific
requirements of the client -	please call or <u>contact us</u> to	discuss which Ozone Genera	ator is right for your needs.

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OzoneLab™ Test Chamber using an OL100/DS Ozone Generator



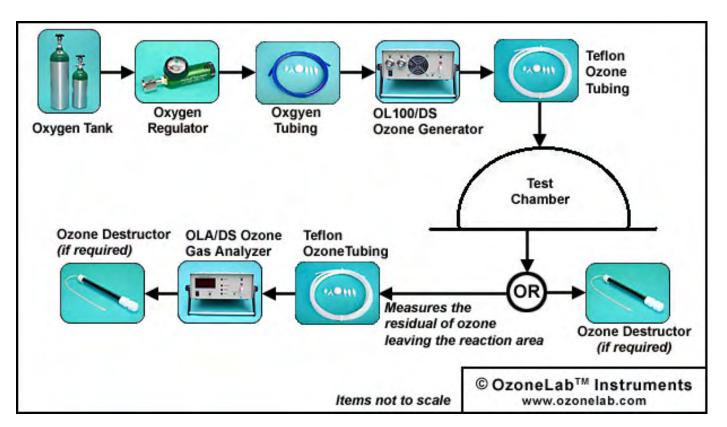


<u>Home</u> > <u>Setup Examples</u> > Test Chamber with OL100/DS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

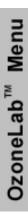
Ozone Test Chamber using an <u>OL100/DS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>). Ozone Test Chambers are a custom item and can be designed and produced through our <u>Custom Design and Production area</u>.





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Test Chamber using an OL100/DS Ozone Generator



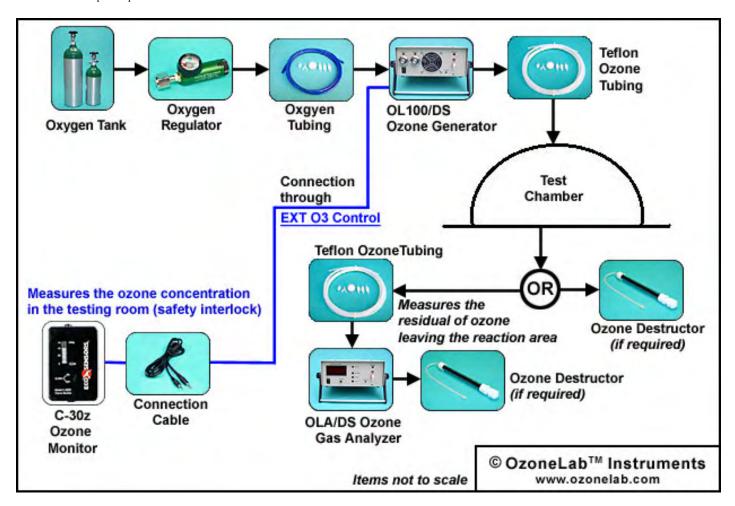


<u>Home</u> > <u>Setup Examples</u> > Test Chamber with OL100/DS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

A <u>C-30z Ozone Monitor</u> is connected using a <u>connection cable</u> to the <u>EXT Signal Port</u> in the Ozone Generator. This measures the ozone concentration in the testing room and works as a safety interlock.

The Ozone Test Chamber using an <u>OL100/DS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>). Ozone Test Chambers are a custom item and can be designed and produced through our <u>Custom Design and Production area</u>.



The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL100/DS Ozone Generator

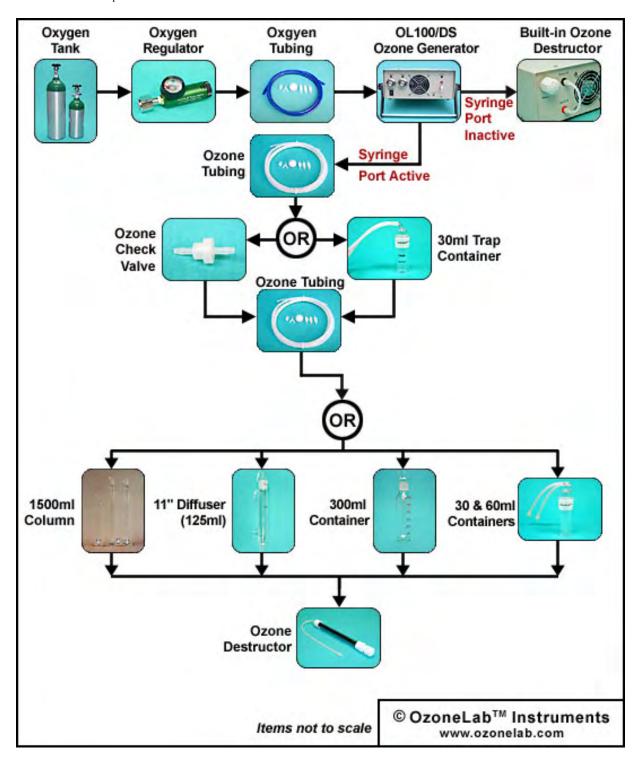




Home > Setup Examples > Fluid ozonation with OL100/DS Ozone Generator

Fluid ozonation using ozonation containers of various sizes and an <u>OL100/DS Ozone Generator</u> fed with an oxygen feed (<u>Tank & Regulator</u>).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL100/DS Ozone Generator

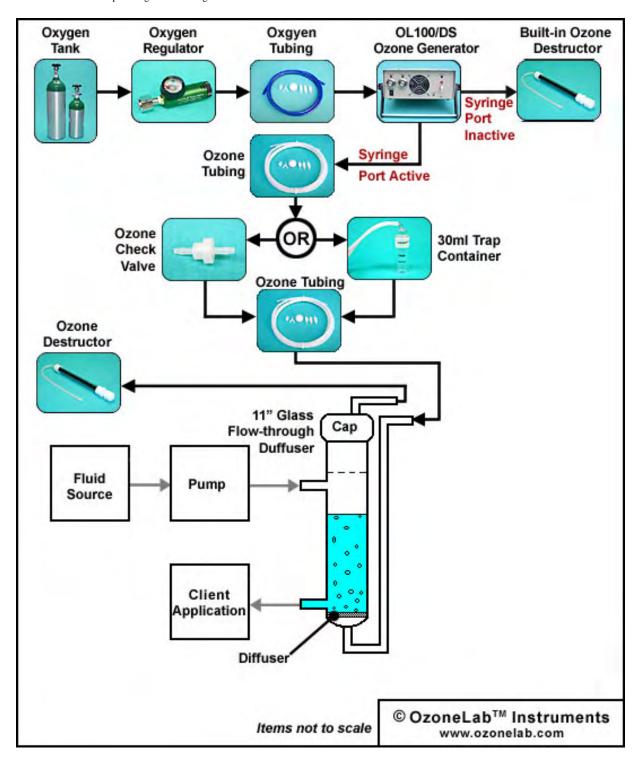




Home > Setup Examples > Fluid ozonation with OL100/DS Ozone Generator

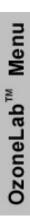
Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL100/DS Ozone Generator</u> fed with an oxygen feed (<u>Tank & Regulator</u>).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL100/DS Ozone Generator

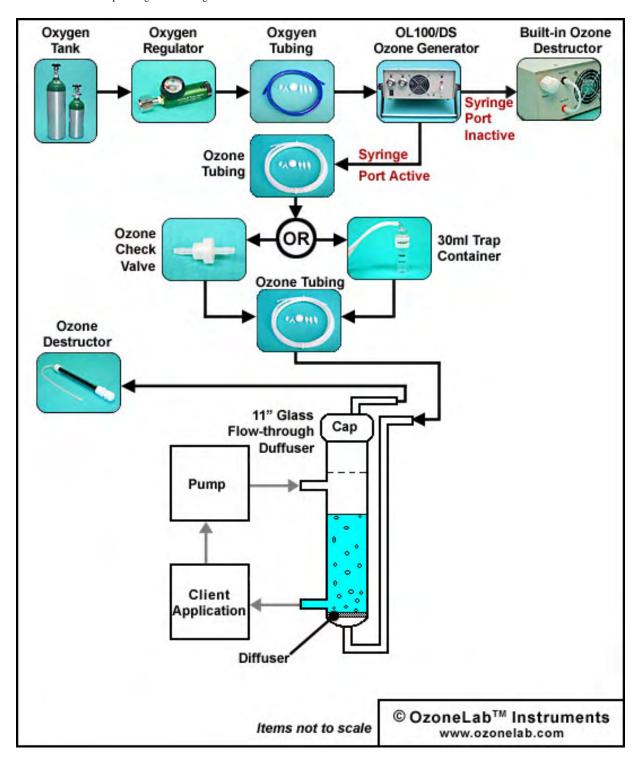




Home > Setup Examples > Fluid ozonation with OL100/DS Ozone Generator

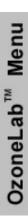
Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL100/DS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL100/DS Ozone Generator

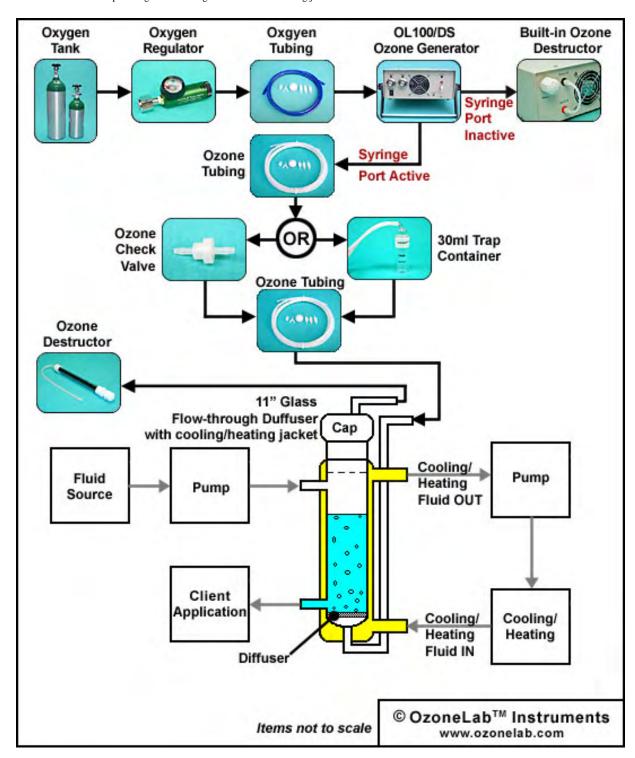




Home > Setup Examples > Fluid ozonation with OL100/DS Ozone Generator

Fluid ozonation using a <u>flow-through diffuser with a cooling jacket</u> and an <u>OL100/DS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Back Flow Protection (Trap) - OL80 (Basic) Ozone Generator



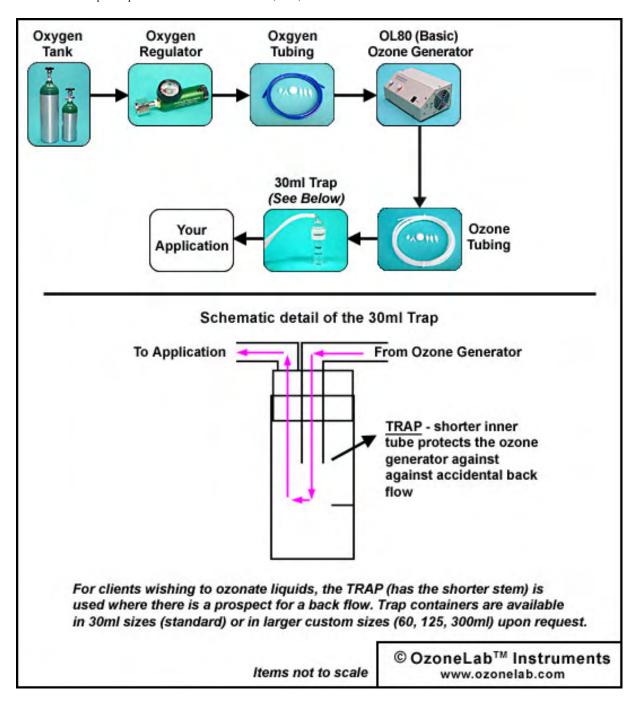


 $\underline{\mathsf{Home}} > \underline{\mathsf{Setup}} \ \mathsf{Examples} > \mathsf{Back} \ \mathsf{Flow} \ \mathsf{Protection} \ (\mathsf{Trap}) \ \mathsf{-} \ \mathsf{OL80} \ (\mathsf{Basic}) \ \mathsf{Ozone} \ \mathsf{Generator}$

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Back Flow Protection (Trap) using an <u>OL80 (Basic) Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80 (Basic)</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80F/S Ozone Generator

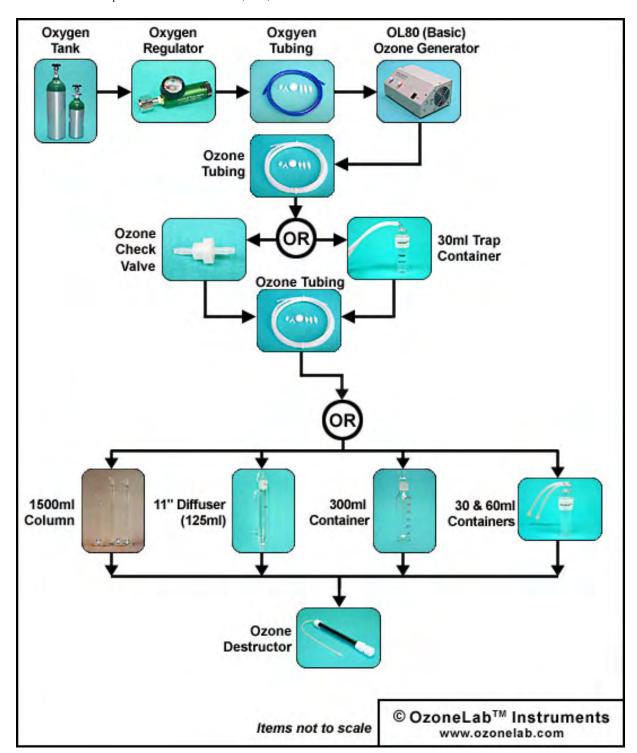




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80F/S Ozone Generator

Fluid ozonation using ozonation containers of various sizes and an <u>OL80 (Basic) Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80 (Basic)</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80 (Basic) Ozone Generator

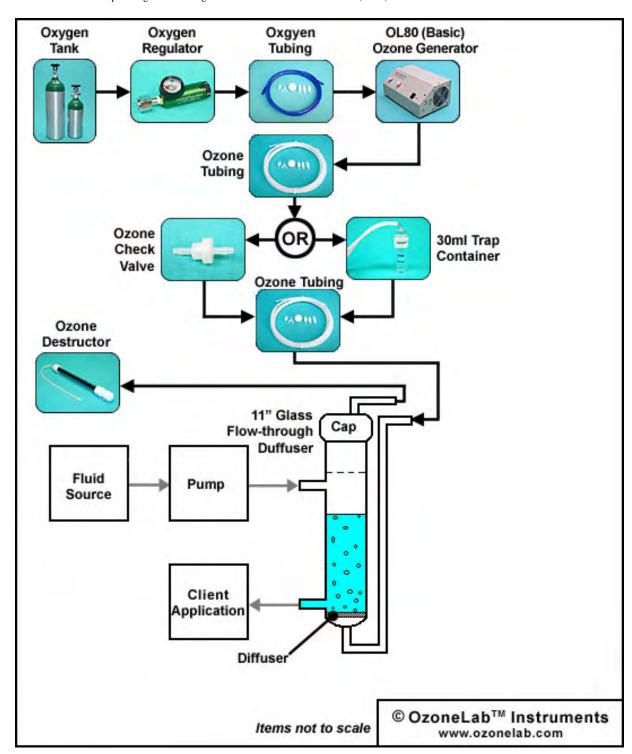




Home > Setup Examples > Fluid ozonation with OL80 (Basic) Ozone Generator

Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL80 (Basic) Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80 (Basic)</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80 (Basic) Ozone Generator

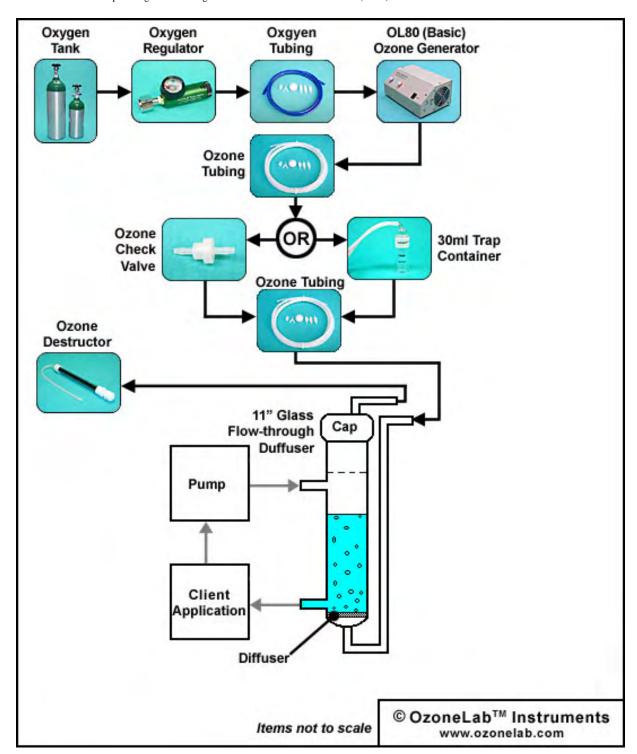




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80 (Basic) Ozone Generator

Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL80 (Basic) Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80 (Basic)</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80 (Basic) Ozone Generator

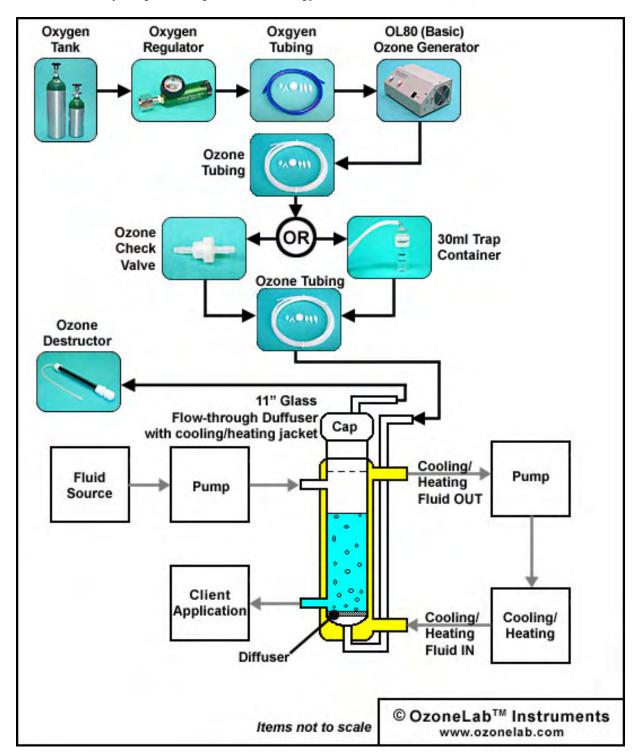




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80 (Basic) Ozone Generator

Fluid ozonation using a <u>flow-through diffuser with a cooling jacket</u> and an <u>OL80 (Basic) Ozone Generator</u> fed with an oxygen feed (<u>Tank & Regulator</u>).





The <u>OL80 (Basic)</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Back Flow Protection (Trap) - OL80F/S Ozone Generator



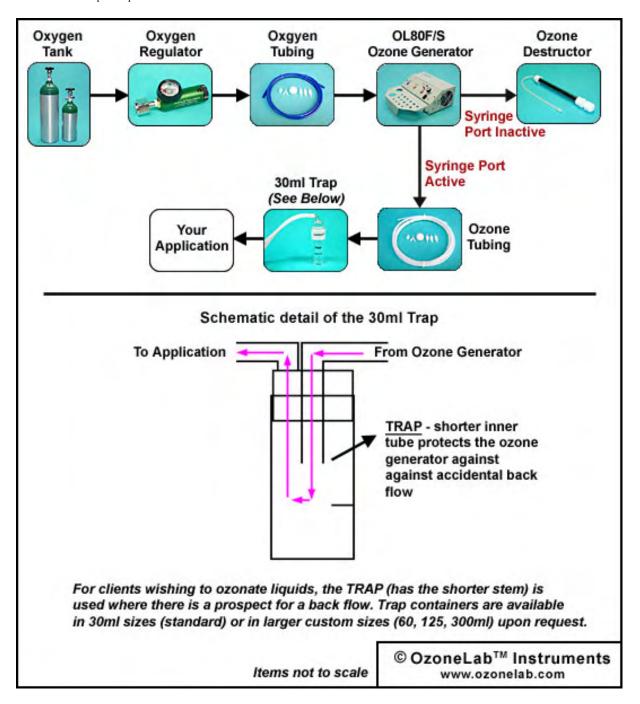


Home > Setup Examples > Back Flow Protection (Trap) - OL80F/S Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Back Flow Protection (Trap) using an OL80F/S Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Syringes - OL80F/S



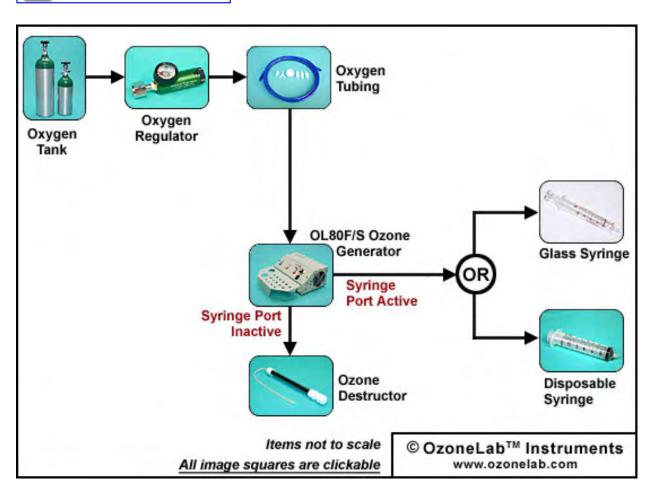
<u>Home</u> > <u>Setup Examples</u> > Filling Syringes using OL80F/S



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Syringes using the OL80F/S Ozone Generator fed with oxygen from an Oxygen Tank.





The OL80F/S is used as an	example in this illustration	n. Ozone Generators ar	e subject to the specit	fic
requirements of the client -	please call or <u>contact us</u> to	o discuss which Ozone	Generator is right for	your needs.

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OzoneLab™ Fluid Ozonation using an OL80F/S Ozone Generator

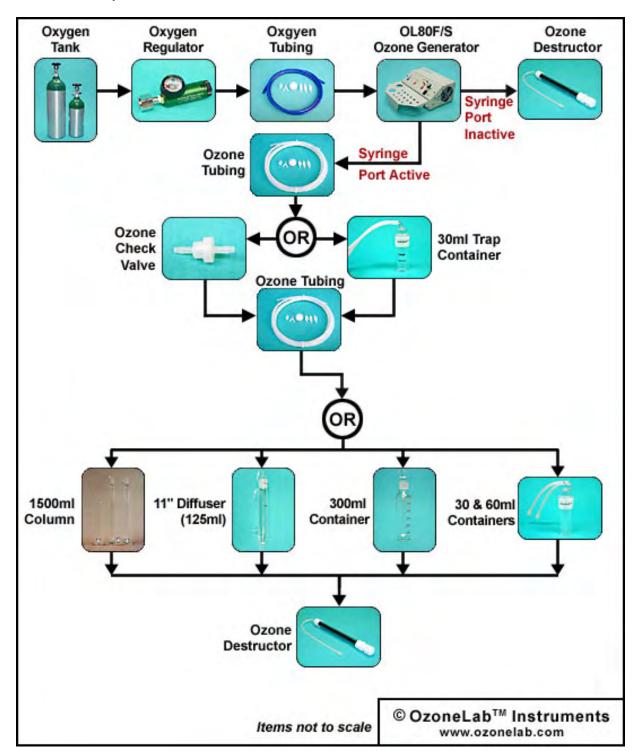




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80F/S Ozone Generator

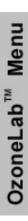
Fluid ozonation using ozonation containers of various sizes and an <u>OL80F/S Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80F/S Ozone Generator

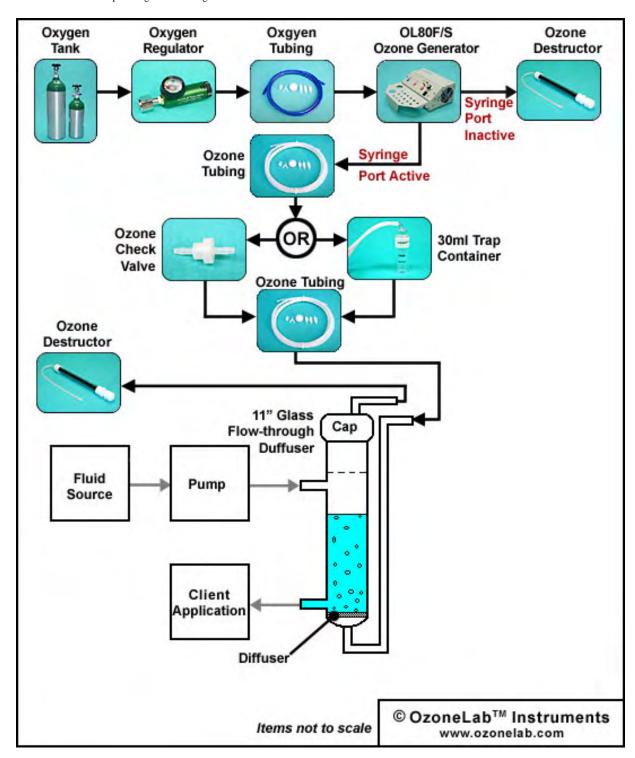




<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80F/S Ozone Generator

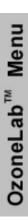
Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL80F/S Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80F/S Ozone Generator



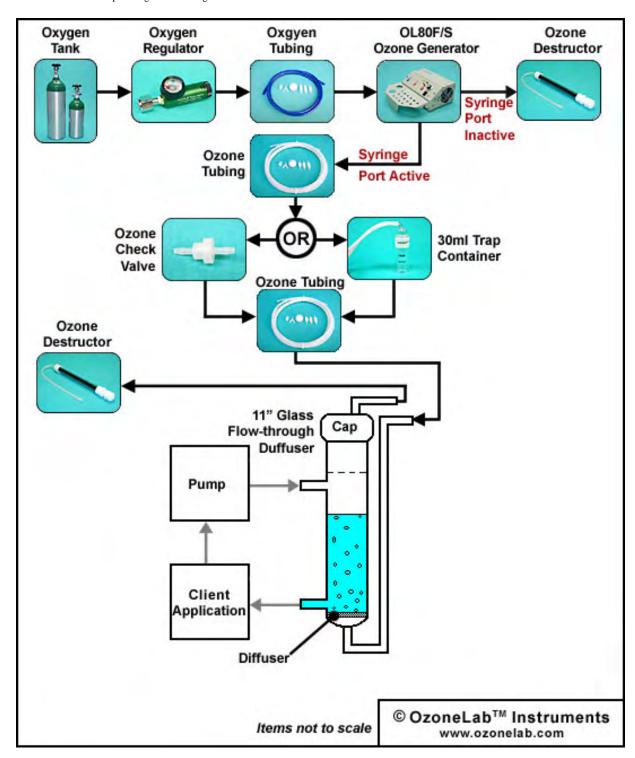


<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80F/S Ozone Generator

Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL80F/S Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

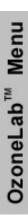
The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80F/S Ozone Generator



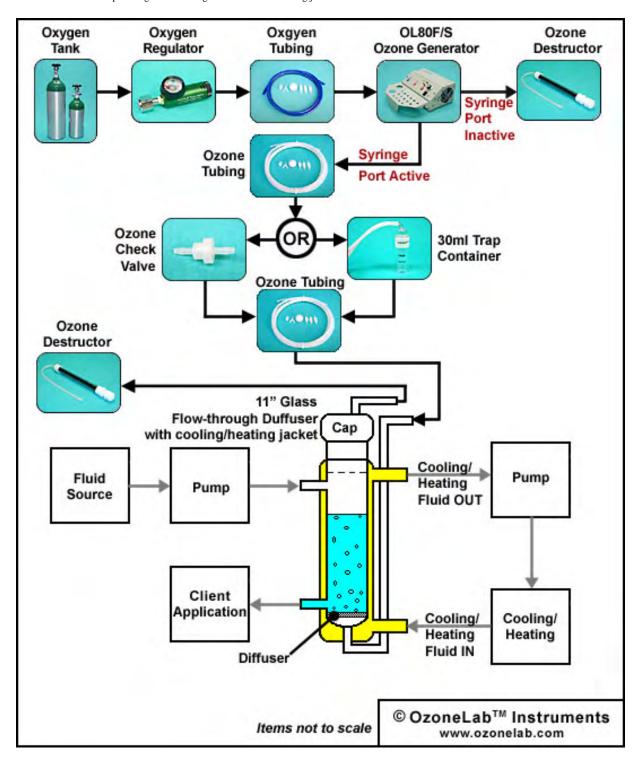


<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80F/S Ozone Generator

Fluid ozonation using a <u>flow-through diffuser with a cooling jacket</u> and an <u>OL80F/S Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Back Flow Protection (Trap) - OL80W Ozone Generator



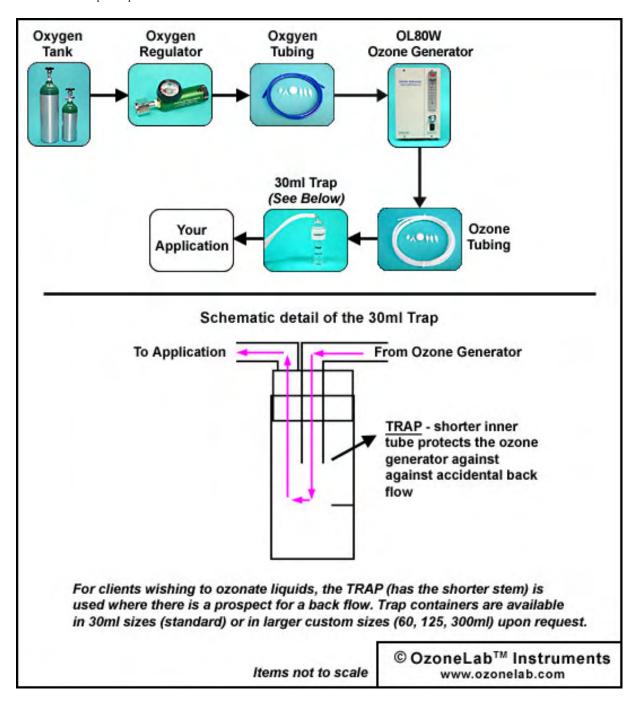


Home > Setup Examples > Back Flow Protection (Trap) - OL80W Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Back Flow Protection (Trap) using an OL80W Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Test Chamber using an OL80W Ozone Generator



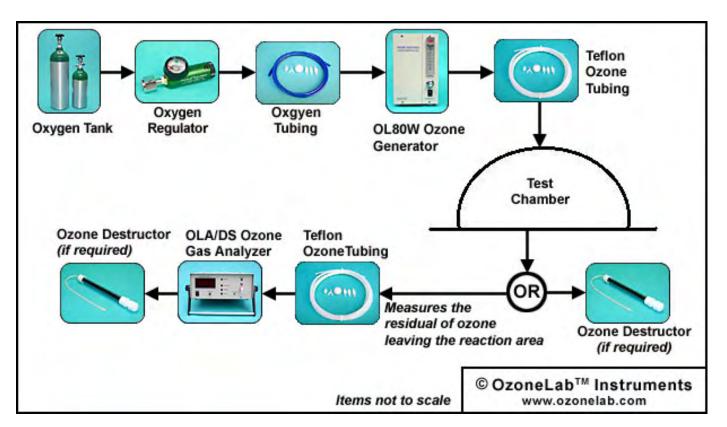


<u>Home</u> > <u>Setup Examples</u> > Test Chamber with OL80W Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Test Chamber using an <u>OL80W Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>). Ozone Test Chambers are a custom item and can be designed and produced through our <u>Custom Design and Production</u> area.





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Test Chamber using an OL80W Ozone Generator



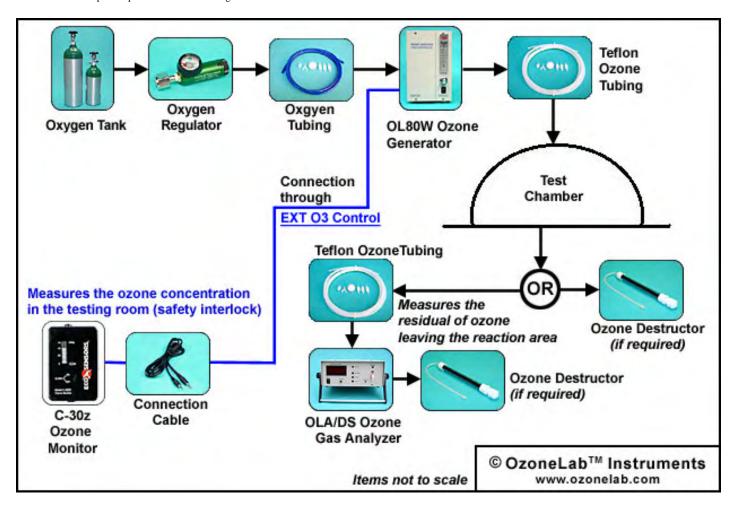


<u>Home</u> > <u>Setup Examples</u> > Test Chamber with OL80W Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

A <u>C-30z Ozone Monitor</u> is connected using a <u>connection cable</u> to the <u>EXT Signal Port</u> in the Ozone Generator. This measures the ozone concentration in the testing room and works as a safety interlock.

Test Chamber using an <u>OL80W Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>). Ozone Test Chambers are a custom item and can be designed and produced through our <u>Custom Design and Production</u> area.



The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80W Ozone Generator



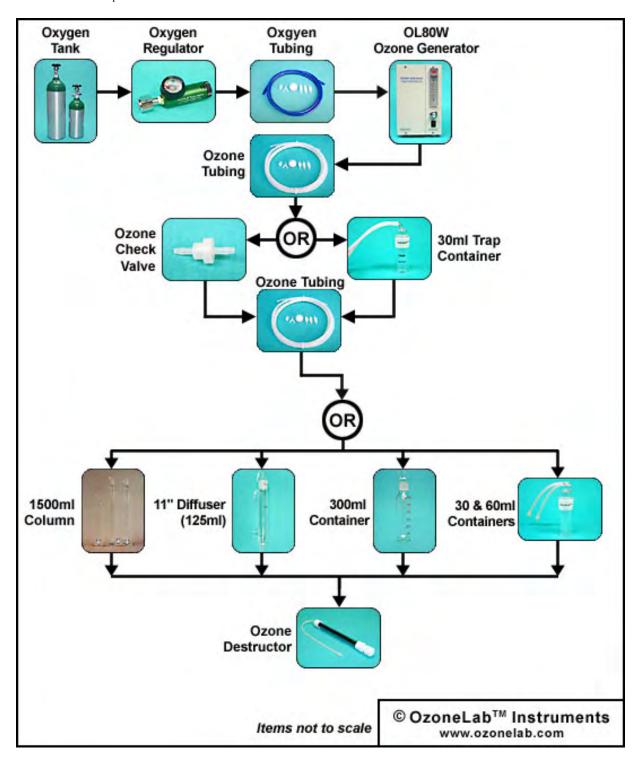


<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80W Ozone Generator

Fluid ozonation using ozonation containers of various sizes and an <u>OL80W Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

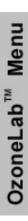
The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80W Ozone Generator



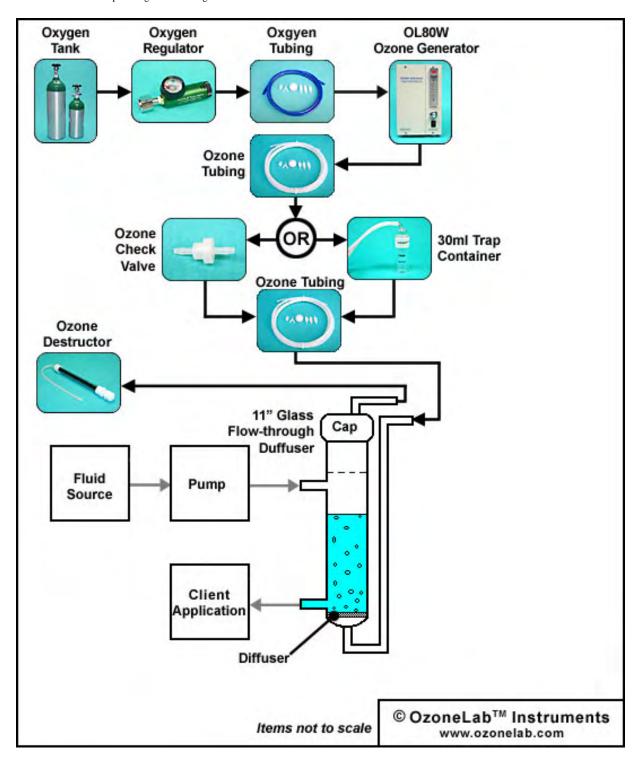


<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80W Ozone Generator

Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL80W Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80W Ozone Generator



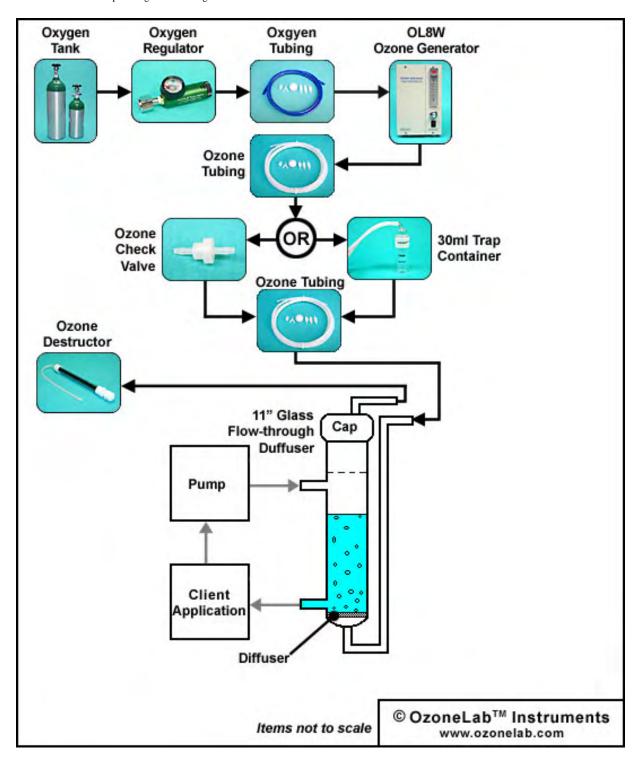


<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80W Ozone Generator

Fluid ozonation using a <u>flow-through diffuser</u> and an <u>OL80W Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

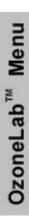
The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Fluid Ozonation using an OL80W Ozone Generator



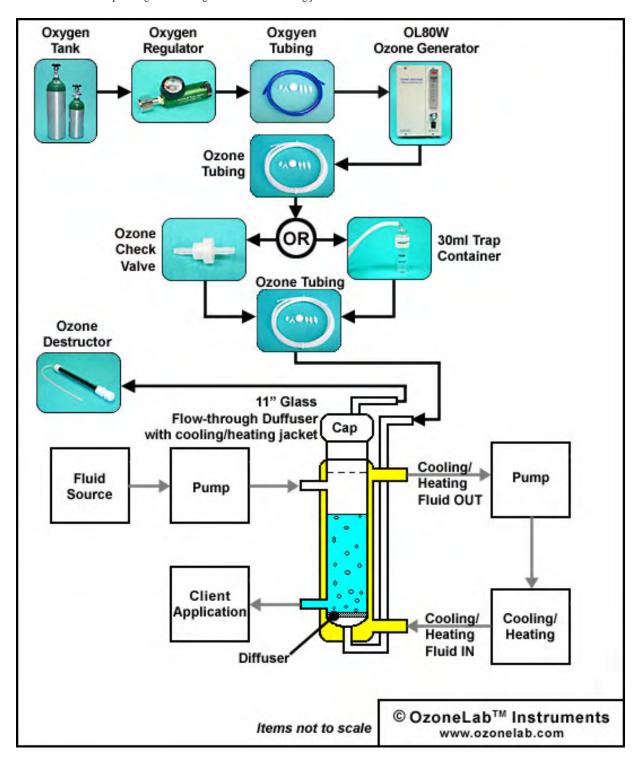


<u>Home</u> > <u>Setup Examples</u> > Fluid ozonation with OL80W Ozone Generator

Fluid ozonation using a <u>flow-through diffuser with a cooling jacket</u> and an <u>OL80W Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

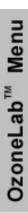
The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ UV Fluid Irradiation using 4-8-12W UV Instrument



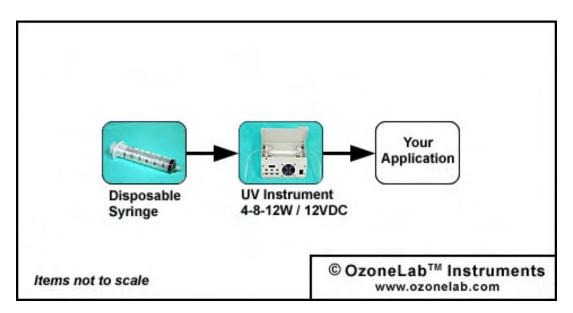


<u>Home</u> > <u>Setup Examples</u> > UV Fluid Irradiation using 4-8-12W UV Instrument

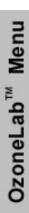
The below highlighted example is an attempt to try and allow clients to visualize a specific application setup. This example represents one of many different possible applications.

U.V. Fluid Irradiation using an 4-8-12W/12VDC U.V. Instrument fed from a disposable syringe.





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OzoneLab™ UV Fluid Irradiation using 4-8-12W UV Instrument



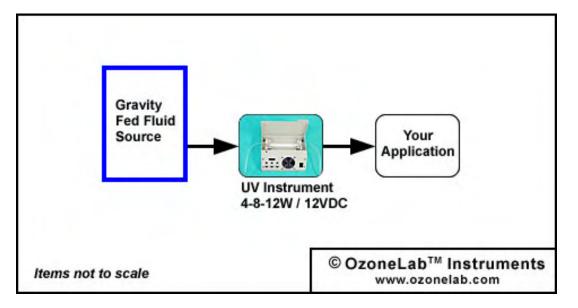


Home > Setup Examples > UV Fluid Irradiation using 4-8-12W UV Instrument

The below highlighted example is an attempt to try and allow clients to visualize a specific application setup. This example represents one of many different possible applications.

U.V. Fluid Irradiation using an 4-8-12W/12VDC U.V. Instrument fed from a gravity fed fluid source.





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OzoneLab™ Back Flow Protection (Trap) Setup Examples





<u>Home</u> > <u>Setup Examples</u> > Back Flow Protection (Trap) Setup Examples

Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our <u>available instruments</u>.

OL80W	Back Flow Protection (Trap) example
OL80 (Basic)	Back Flow Protection (Trap) example
OL80F/S	Back Flow Protection (Trap) example
OL100/Basic	Back Flow Protection (Trap) example
OL100/DS	Back Flow Protection (Trap) example
OL80A/DLS	Back Flow Protection (Trap) example

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OzoneLab™ Setup Example - Filling Syringes



<u>Home</u> > <u>Setup Examples</u> > Filling Syringes



Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our <u>available instruments</u>.

OL80F/S (45° panel series)	Filling syringes with ozone gas
OL80F/DST (90° panel series)	Filling syringes with ozone gas
OL80F/DST-2S (90° panel series)	Filling syringes with ozone gas
OL80A/DLS	Filling syringes with ozone gas
OL100/DS	Filling syringes with ozone gas
+ Final House Hous	Filling syringes with ozone gas



• Filling syringes with ozone gas

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OzoneLab™ Fluid Ozonation Setup Examples





<u>Home</u> > <u>Setup Examples</u> > <u>By Application</u> > Fluid Ozonation Setup Example

Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our available instruments.



- Ozonation of fluids using OzoneLab™ Glass Containers (multiple sizes)
- Ozonation of fluids using a Flow-through Glass Diffuser (open loop)
- Ozonation of fluids using a Flow-through Glass Diffuser (closed loop)
- Ozonation of fluids using a Flow-through Glass Diffuser with a Cooling Jacket



- Ozonation of fluids using OzoneLab™ Glass Containers (multiple sizes)
- Ozonation of fluids using a Flow-through Glass Diffuser (open loop)
- Ozonation of fluids using a Flow-through Glass Diffuser (closed loop)
- Ozonation of fluids using a Flow-through Glass Diffuser with a Cooling Jacket



- Ozonation of fluids using OzoneLab™ Glass Containers (multiple sizes)
- Ozonation of fluids using a Flow-through Glass Diffuser (open loop)
- Ozonation of fluids using a Flow-through Glass Diffuser (closed loop)
- · Ozonation of fluids using a Flow-through Glass Diffuser with a Cooling Jacket



- Ozonation of fluids using OzoneLab™ Glass Containers (multiple sizes)
- Ozonation of fluids using a Flow-through Glass Diffuser (open loop)
- Ozonation of fluids using a Flow-through Glass Diffuser (closed loop)
- Ozonation of fluids using a Flow-through Glass Diffuser with a Cooling Jacket



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OzoneLab™ Test Chamber Setup Examples



<u>Home</u> > <u>Setup Examples</u> > Test Chamber Setup Examples



Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our <u>available instruments</u>.

OL80W	Ozonation of items using an Ozone Test Chamber
OL80F/DST (90° panel series)	Ozonation of items using an Ozone Test Chamber
OL100/Basic	Ozonation of items using an Ozone Test Chamber
OL100/DS	Ozonation of items using an Ozone Test Chamber
OL80A/DLS	Ozonation of items using an Ozone Test Chamber

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OzoneLab™ Test Chamber Setup Examples



<u>Home</u> > <u>Setup Examples</u> > Test Chamber Setup Examples



Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our <u>available instruments</u>.

OL80W	Ozonation of items using an Ozone Test Chamber utilizing a Room Ozone Monitor
OL80F/DST (90° panel series)	Ozonation of items using an Ozone Test Chamber utilizing a Room Ozone Monitor
OL100/Basic	Ozonation of items using an Ozone Test Chamber utilizing a Room Ozone Monitor
OL100/DS	Ozonation of items using an Ozone Test Chamber utilizing a Room Ozone Monitor
OL80A/DLS	Ozonation of items using an Ozone Test Chamber utilizing a Room Ozone Monitor

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OzoneLab™ UV Irradiation of Fluids Setup Examples



<u>Home</u> > <u>Setup Examples</u> > UV Irradiation of Fluids



U.V. Irradiation Instrument

The following UV Irradiation Instrument is sited for the outlined application.



• U.V. Fluid Irradiation using Disposable Syringe



• U.V. Fluid Irradiation using gravity fed fluid source

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OzoneLab™ Back Flow Protection (Trap) - OL80A/DLS Ozone Generator

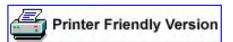


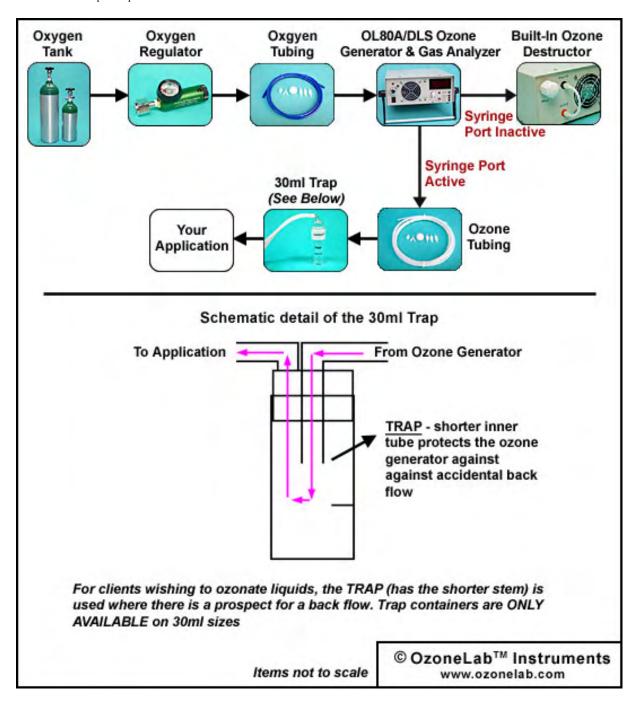


Home > Setup Examples > Back Flow Protection (Trap) - OL80A/DLS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Back Flow Protection (Trap) using an <u>OL80A/DLS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Inhalation (with Trap) - OL80A/DLS Ozone Generator



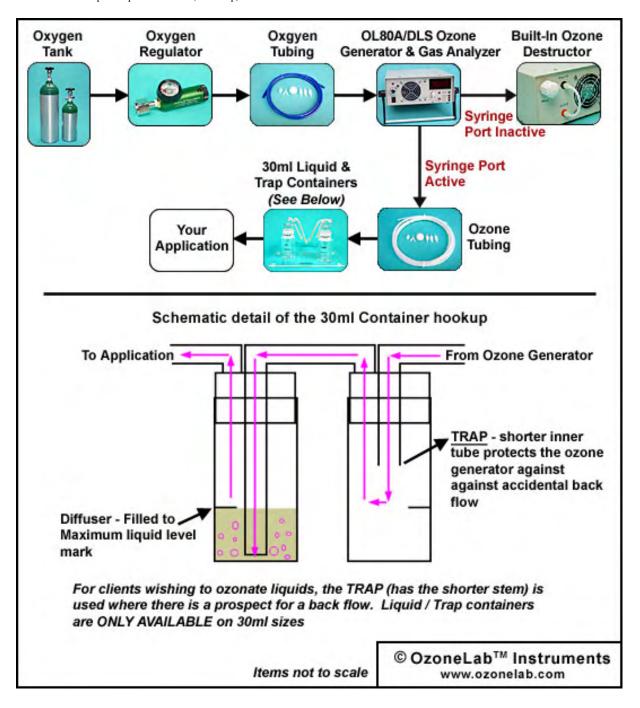


 $\underline{\text{Home}}$ > $\underline{\text{Setup Examples}}$ > Inhalation (with Trap) - OL80A/DLS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Inhalation (with Trap) using an OL80A/DLS Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Dental Setup using an OL80A/DLS Ozone Generator



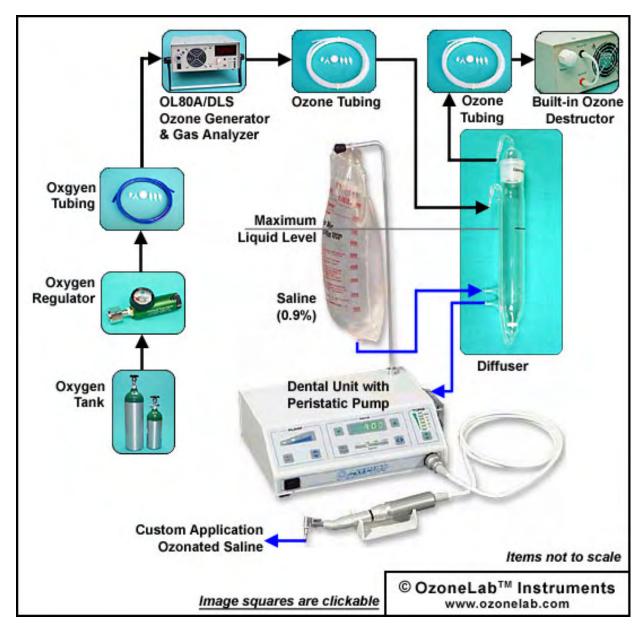


<u>Home</u> > <u>Setup Examples</u> > Dental Setup with OL80A/DLS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

<u>Dental Unit with Peristatic Pump</u> and <u>diffuser</u> using an <u>OL80A/DLS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Insufflation Bags - OL80A/DLS



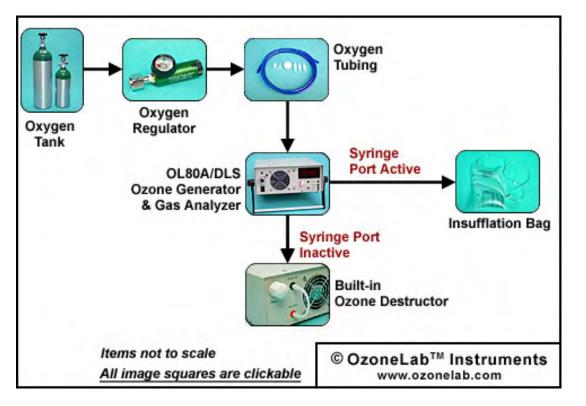


<u>Home</u> > <u>Setup Examples</u> > Filling Insufflation Bags using OL80A/DLS

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

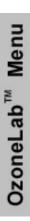
Filling Insufflation Bags with ozone using an <u>OL80A/DLS Ozone Generator/Gas Analyzer</u> fed with oxygen from an Oxygen Tank.





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Arm Bagging using an OL80A/DLS Ozone Generator



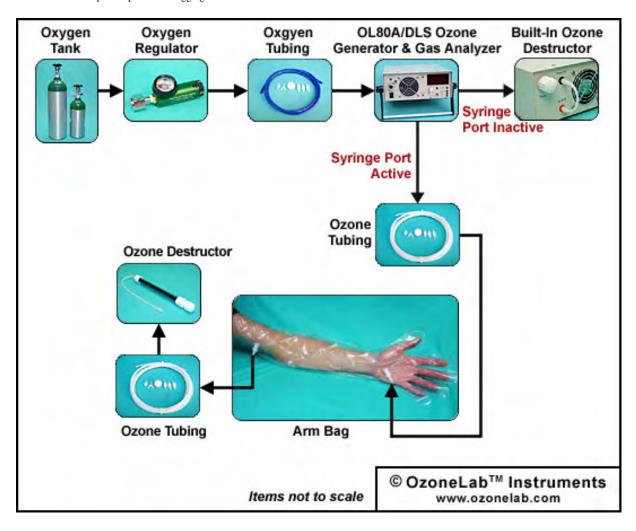


 $\underline{\text{Home}}$ > $\underline{\text{Setup Examples}}$ > Arm Bagging with OL80A/DLS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Arm Bagging using an OL80A/DLS Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Boot Bagging using an OL80A/DLS Ozone Generator



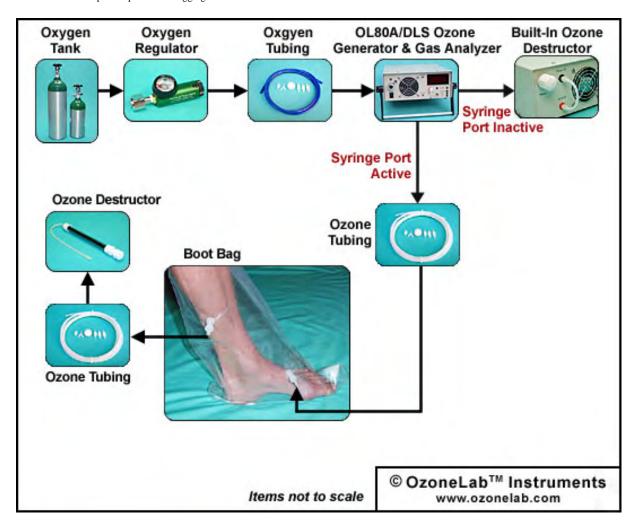


<u>Home</u> > <u>Setup Examples</u> > Boot Bagging with OL80A/DLS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Boot Bagging using an OL80A/DLS Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Cupping using an OL80A/DLS Ozone Generator



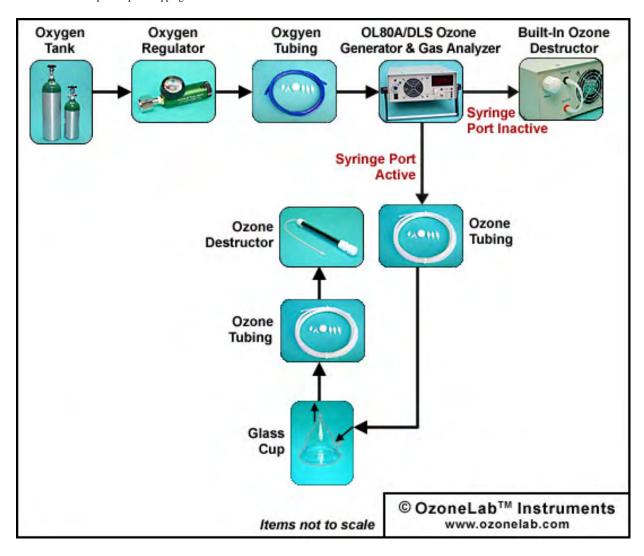


<u>Home</u> > <u>Setup Examples</u> > Cupping with OL80A/DLS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Cupping using an OL80A/DLS Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL80A/DLS Ozone Generator



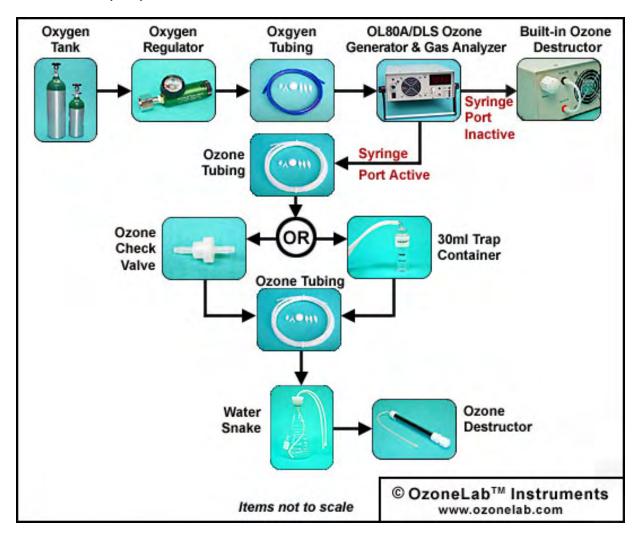


Home > Setup Examples > Water ozonation with OL80A/DLS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Water ozonation using a <u>water snake</u> and an <u>OL80A/DLS Ozone Generator/Gas Analyzer</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL80A/DLS Ozone Generator



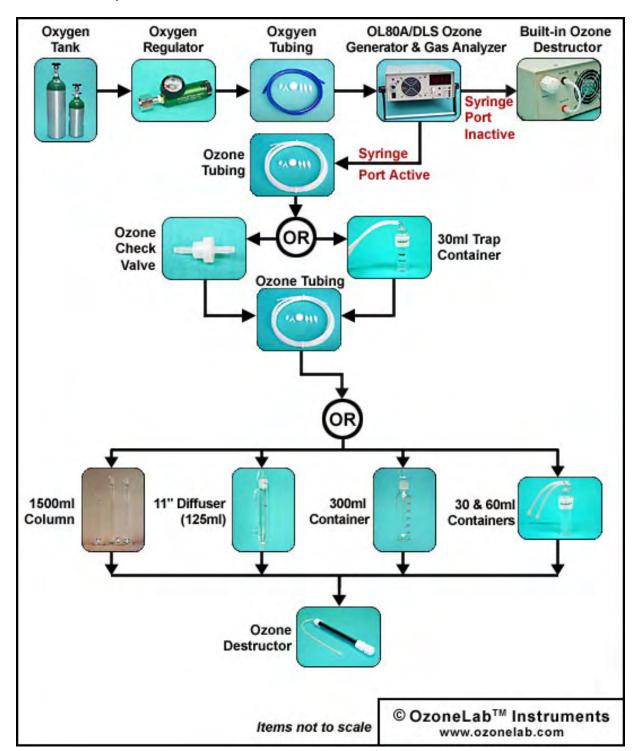


<u>Home</u> > <u>Setup Examples</u> > Water ozonation with OL80A/DLS Ozone Generator

Water ozonation using a ozonation containers of various sizes and an <u>OL80A/DLS Ozone Generator/Gas Analyzer</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Inhalation (with Trap) - OL80F/DST Ozone Generator



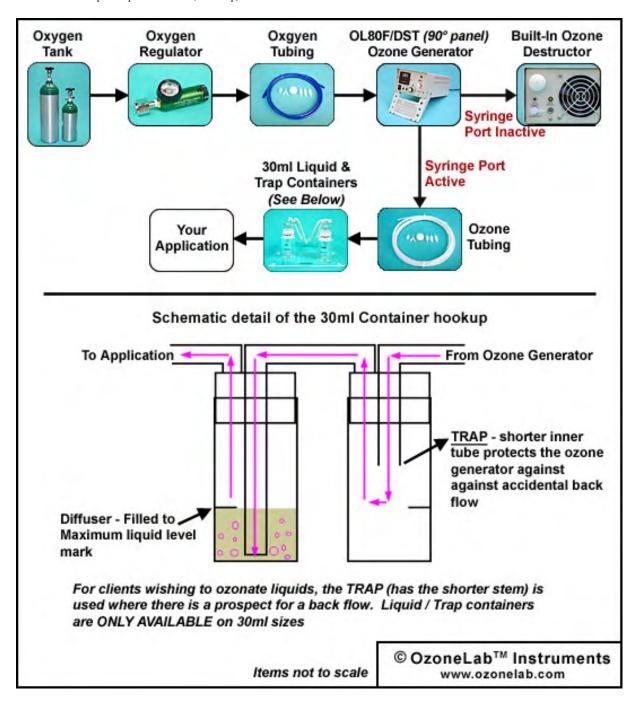


Home > Setup Examples > Inhalation (with Trap) - OL80F/DST Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

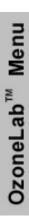
Inhalation (with Trap) using an OL80F/DST Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Colon Therapy Setup - OL80F/DST



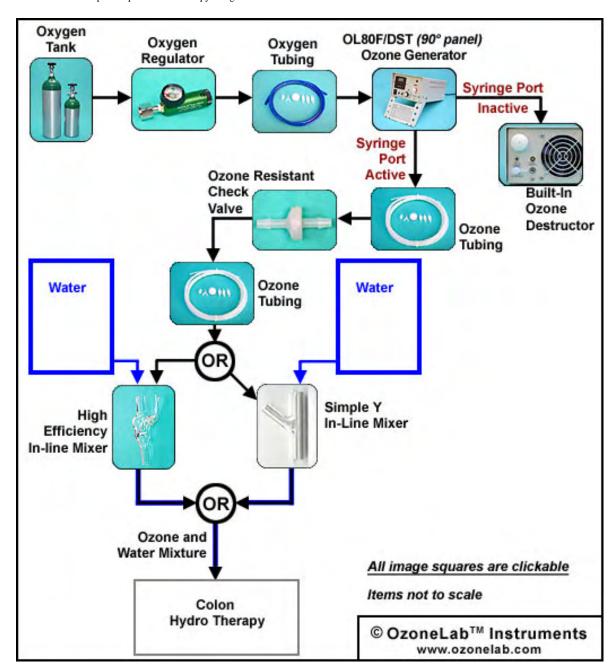
<u>Home</u> > <u>Setup Examples</u> > Colon Therapy Setup using OL80F/DST



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Colon Therapy Setup using a <u>High Efficiency Diffuser</u> to mix water and ozone from an <u>OL80F/DST Ozone</u> <u>Generator</u> fed with oxygen from an <u>Oxygen Tank</u>.





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Dental Setup using an OL80F/DST Ozone Generator



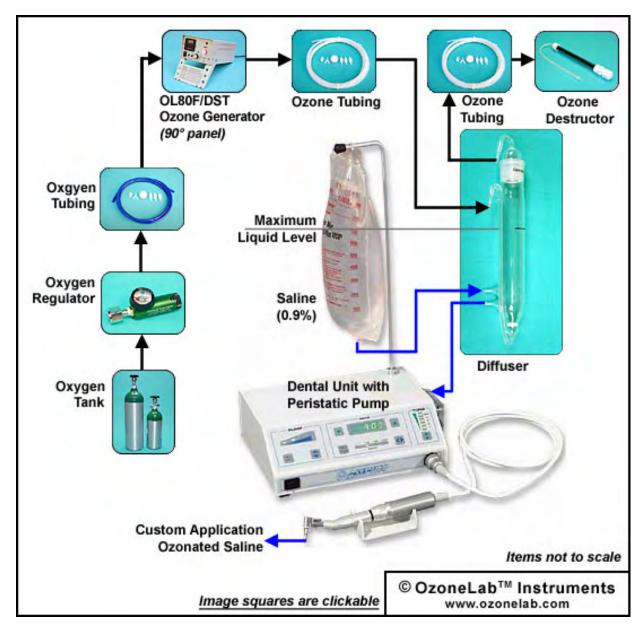


<u>Home</u> > <u>Setup Examples</u> > Dental Setup with OL80F/DST Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

<u>Dental Unit with Peristatic Pump</u> and <u>diffuser</u> using an <u>OL80F/DST Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Insufflation Bags - OL80F/DST



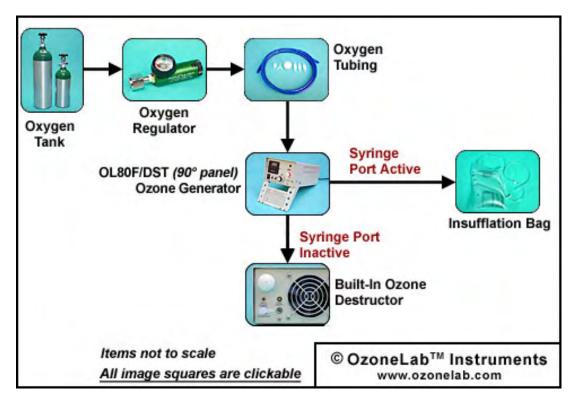


<u>Home</u> > <u>Setup Examples</u> > Filling Insufflation Bags using OL80F/DST

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Insufflation Bags with ozone using the <u>OL80F/DST Ozone Generator</u> fed with oxygen from an Oxygen Tank.





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Arm Bagging using an OL80F/DST Ozone Generator



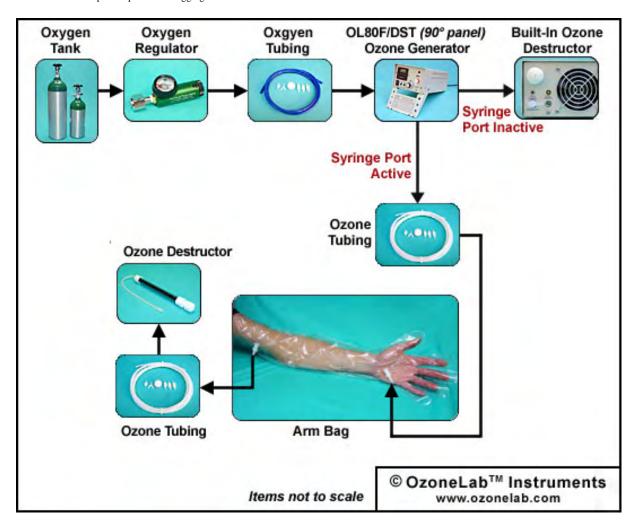


 $\underline{\text{Home}}$ > $\underline{\text{Setup Examples}}$ > Arm Bagging with OL80F/DST Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

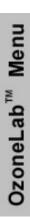
Arm Bagging using an OL80F/DST Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Boot Bagging using an OL80F/DST Ozone Generator



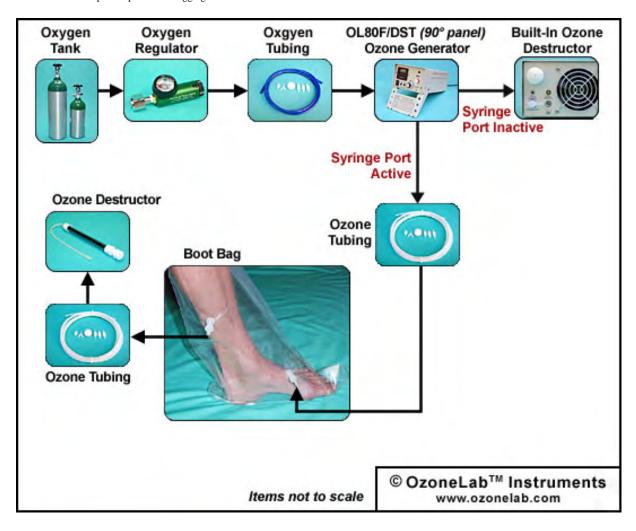


<u>Home</u> > <u>Setup Examples</u> > Boot Bagging with OL80F/DST Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Boot Bagging using an OL80F/DST Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Cupping using an OL80F/DST Ozone Generator



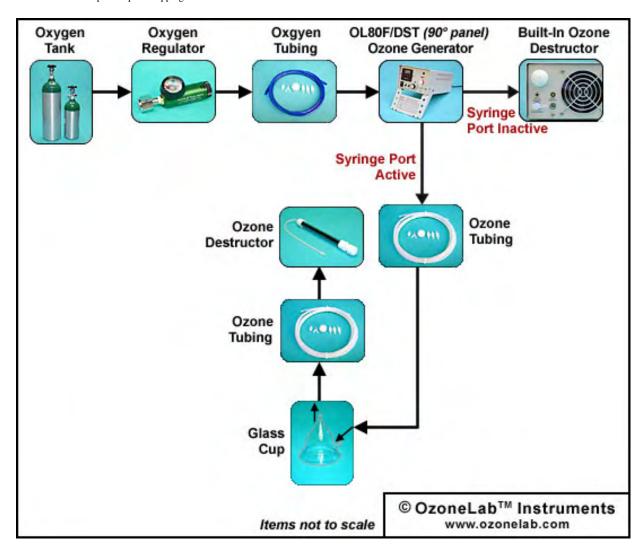


 $\underline{\text{Home}}$ > $\underline{\text{Setup Examples}}$ > Cupping with OL80F/DST Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

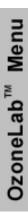
Cupping using an OL80F/DST Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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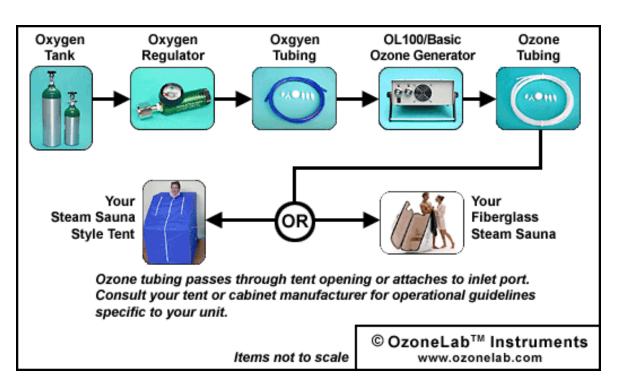
OzoneLab™ - Ozone Generator & Steam Sauna Setup Example





<u>Home</u> > <u>Setup Examples</u> > Ozone Generator & Steam Sauna Setup Example

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.



Ozone Services no longer supplies steam sauna tents or cabinets. Please contact your specific manufacturer for operational guidelines specific to your unit.

Helpful Suggestions

Space & location:

Most steam sauna units require at least 6x6Ft of space, preferably 8x8Ft. Steam sauna units should not be located near windows or doors, closets, heating units, etc. which will restrict the access to the steam sauna or steam generator control panels. Keep also in mind that people using steam sauna will be naked, therefore saunas should be located in area where people will have privacy. At the same time it is important to make arrangements which will address the safety and different needs of clients during treatments - getting drinks, etc.

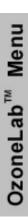
Plumbing & water quality:

Steam Generators producing steam for should be filled with pure water with low or no mineral content. It is important to realize, that excessive accumulation of mineral deposits inside steam generators may cause failure of these devices. For this very reason we recommend to use distilled water for steam production.

Protection against humidity and water spills:

Every time when door of steam sauna is being open (while sauna in operation), steam is released from the sauna cabinet. Consequently, area where steam sauna is located should have reasonable ventilation. At the same time, frequent handling of water required for steam production may result in the damage of flooring unless floor is properly protected.

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OzoneLab™ Water Ozonation using an OL80F/DST Ozone Generator



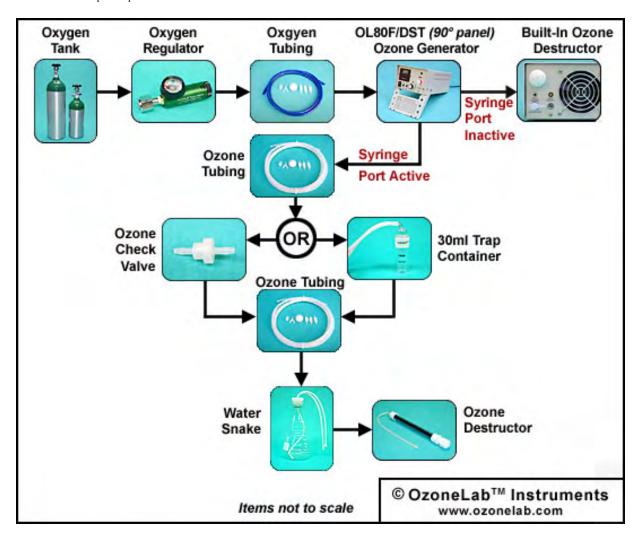


Home > Setup Examples > Water ozonation with OL80F/DST Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Water ozonation using a <u>water snake</u> and an <u>OL80F/DST Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL80F/DST Ozone Generator



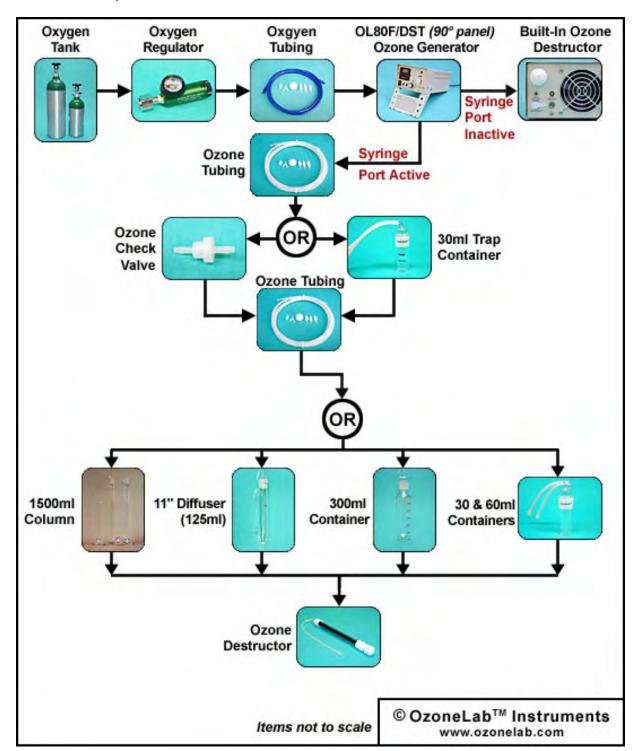


<u>Home</u> > <u>Setup Examples</u> > Water ozonation with OL80F/DST Ozone Generator

Water ozonation using a ozonation containers of various sizes and an <u>OL80F/DST Ozone Generator</u> fed with an oxygen feed (<u>Tank & Regulator</u>).

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Inhalation (with Trap) - OL80F/DST-2S Ozone Generator



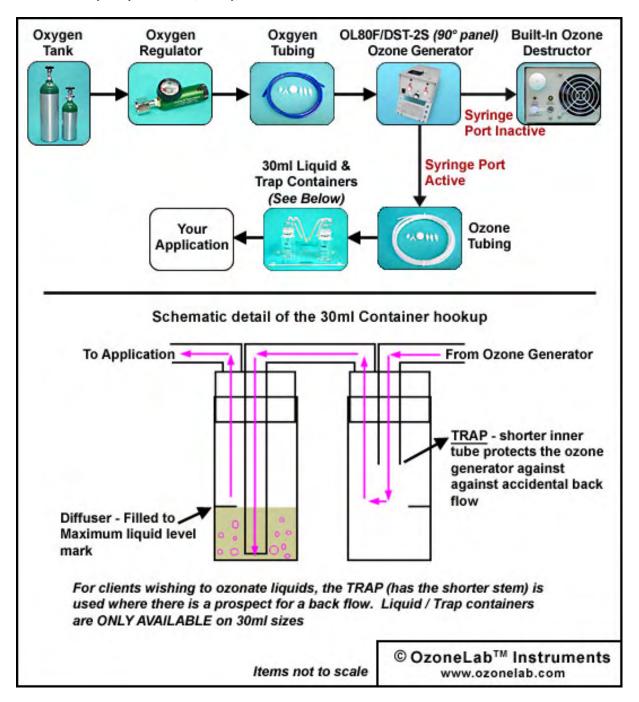


Home > Setup Examples > Inhalation (with Trap) - OL80F/DST-2S Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Inhalation (with Trap) using an OL80F/DST-2S Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/DST-2S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Syringes - OL80F/DST-2S



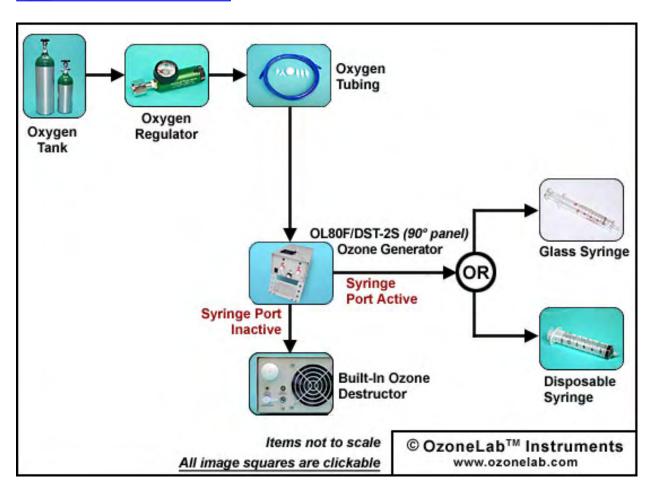
<u>Home</u> > <u>Setup Examples</u> > Filling Syringes using OL80F/DST-2S



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Syringes using the OL80F/DST-2S Ozone Generator fed with oxygen from an Oxygen Tank.





The <u>OL80F/DST-2S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL80F/DST-2S Ozone Generator



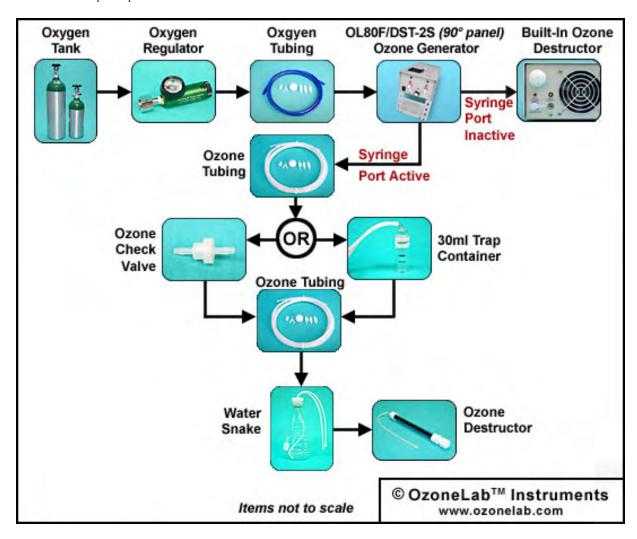


<u>Home</u> > <u>Setup Examples</u> > Water ozonation with OL80F/DST-2S Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Water ozonation using a <u>water snake</u> and an <u>OL80F/DST-2S Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/DST-2S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Inhalation (with Trap) - OL80 (Basic) Ozone Generator



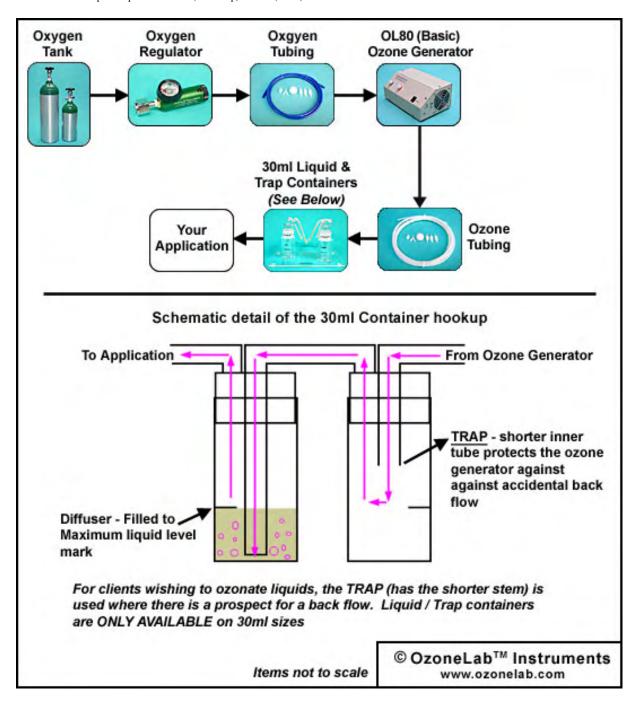


 $\underline{\text{Home}}$ > $\underline{\text{Setup Examples}}$ > Inhalation (with Trap) - OL80 (Basic) Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

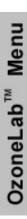
Inhalation (with Trap) using an OL80 (Basic) Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80 (Basic)</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Arm Bagging using an OL80 (Basic) Ozone Generator



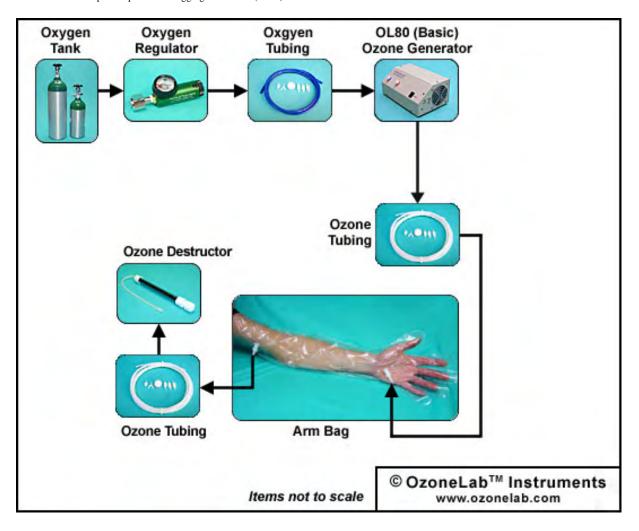


<u>Home</u> > <u>Setup Examples</u> > Arm Bagging with OL80 (Basic) Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

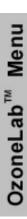
Arm Bagging using an OL80 (Basic) Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80 (Basic)</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Boot Bagging using an OL80 (Basic) Ozone Generator

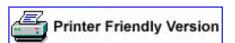


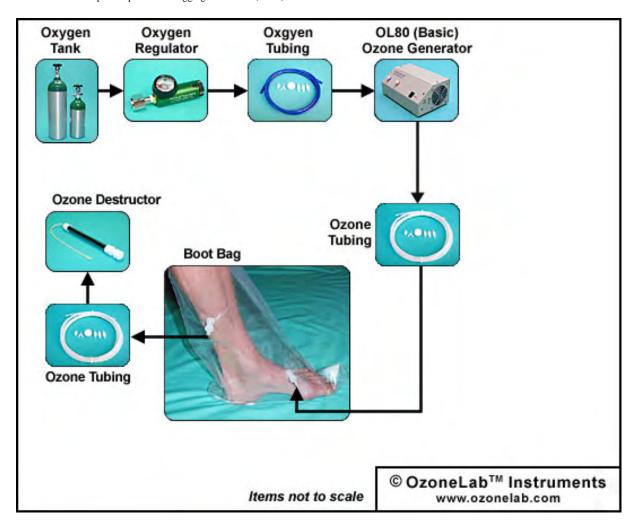


<u>Home</u> > <u>Setup Examples</u> > Boot Bagging with OL80 (Basic) Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Boot Bagging using an OL80 (Basic) Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80 (Basic)</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Cupping using an OL80 (Basic) Ozone Generator



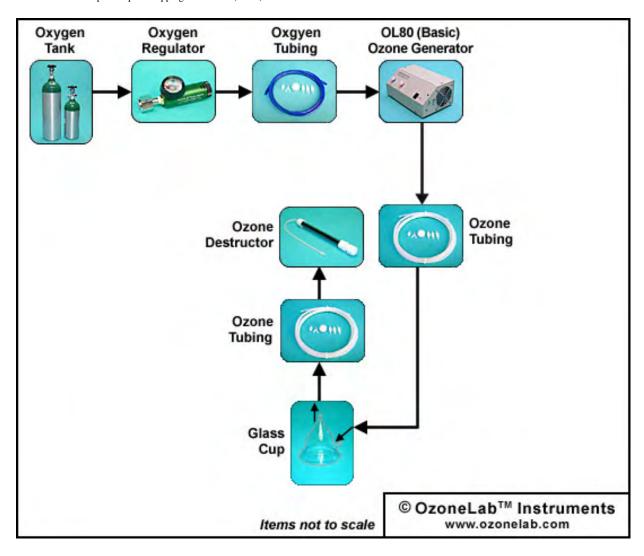


Home > Setup Examples > Cupping with OL80 (Basic) Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Cupping using an OL80 (Basic) Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80 (Basic)</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL80 (Basic) Ozone Generator



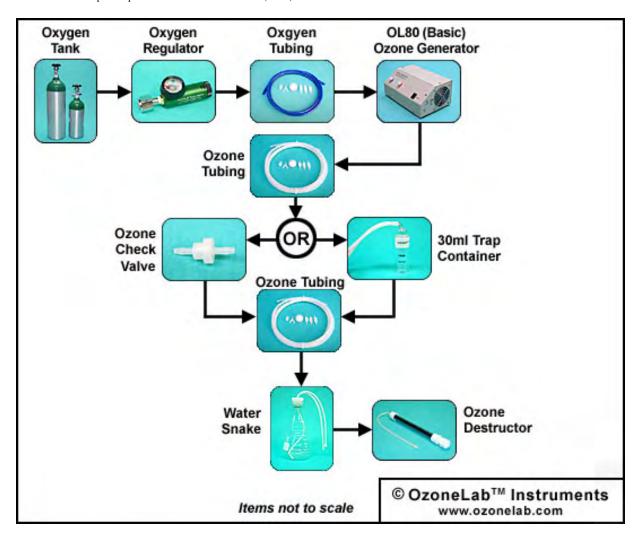


Home > Setup Examples > Water ozonation with OL80 (Basic) Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Water ozonation using a <u>water snake</u> and an <u>OL80 (Basic) Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80 (Basic) Ozone Generator</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL80 (Basic) Ozone Generator



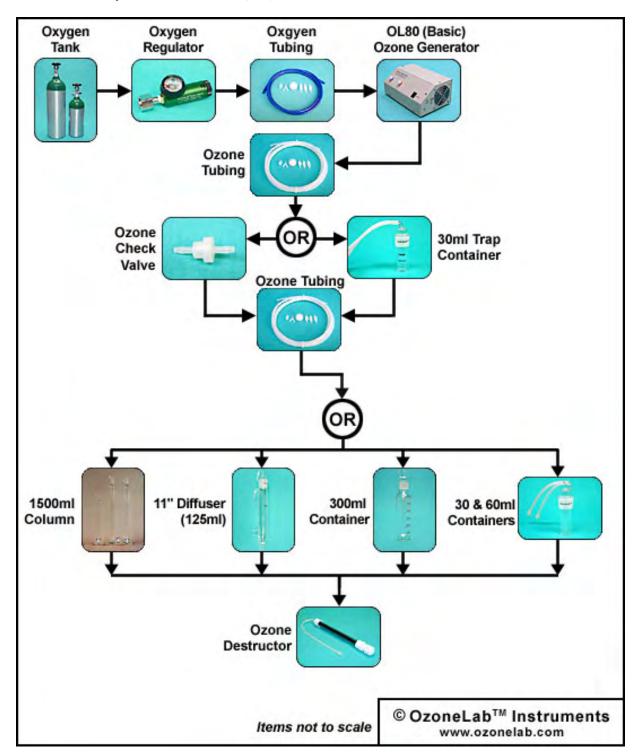


Home > Setup Examples > Water ozonation with OL80 (Basic) Ozone Generator

Water ozonation using a ozonation containers of various sizes and an <u>OL80 (Basic) Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

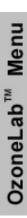
The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80 (Basic) Ozone Generator</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Inhalation (with Trap) - OL80F/S Ozone Generator



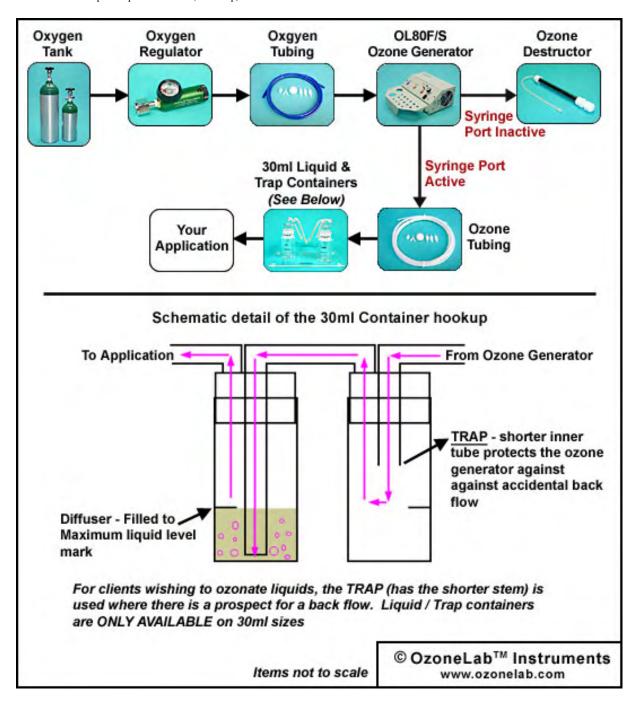


Home > Setup Examples > Inhalation (with Trap) - OL80F/S Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Inhalation (with Trap) using an OL80F/S Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Colon Therapy Setup - OL80F/S

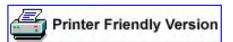


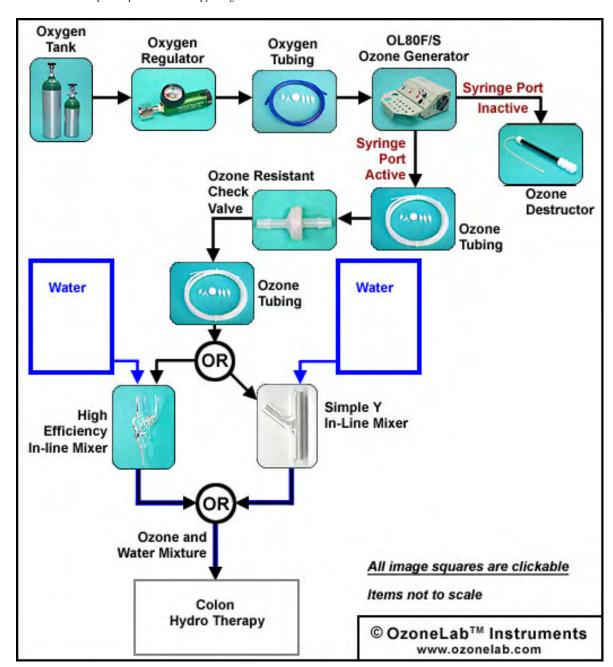
<u>Home</u> > <u>Setup Examples</u> > Colon Therapy Setup using OL80F/S



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Colon Therapy Setup using a <u>High Efficiency Diffuser</u> to mix water and ozone from an <u>OL80F/S Ozone</u> <u>Generator</u> fed with oxygen from an <u>Oxygen Tank</u>.





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Dental Setup using an OL80F/S Ozone Generator



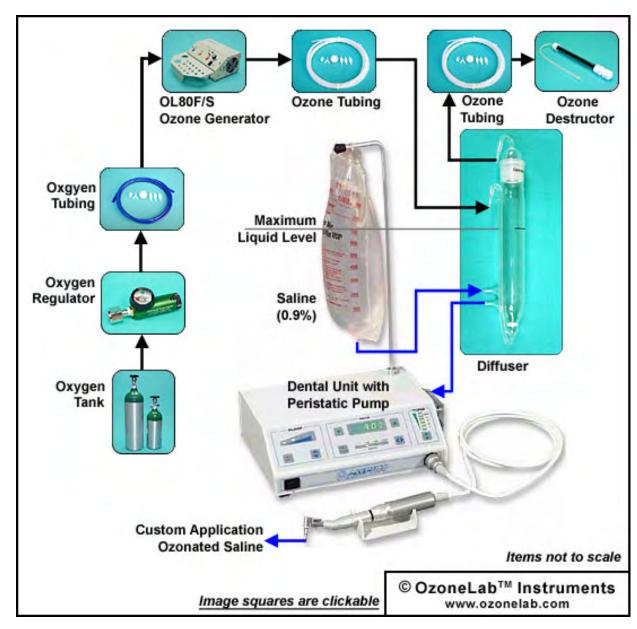


<u>Home</u> > <u>Setup Examples</u> > Dental Setup with OL80F/S Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

<u>Dental Unit with Peristatic Pump</u> and <u>diffuser</u> using an <u>OL80F/S Ozone Generator</u> fed with an oxygen feed (<u>Tank & Regulator</u>).





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Insufflation Bags - OL80F/S



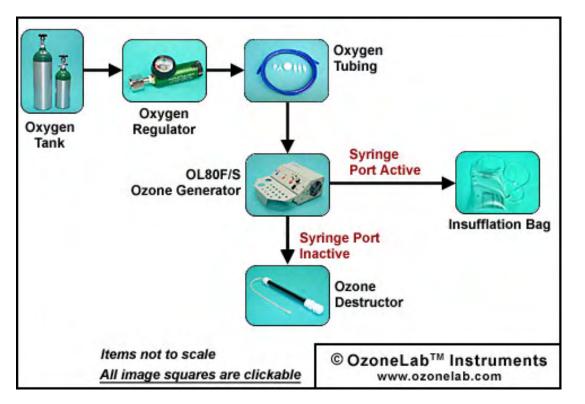
Home > Setup Examples > Filling Insufflation Bags using OL80F/S



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Insufflation Bags with ozone using the OL80F/S Ozone Generator fed with oxygen from an Oxygen Tank.





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Arm Bagging using an OL80F/S Ozone Generator



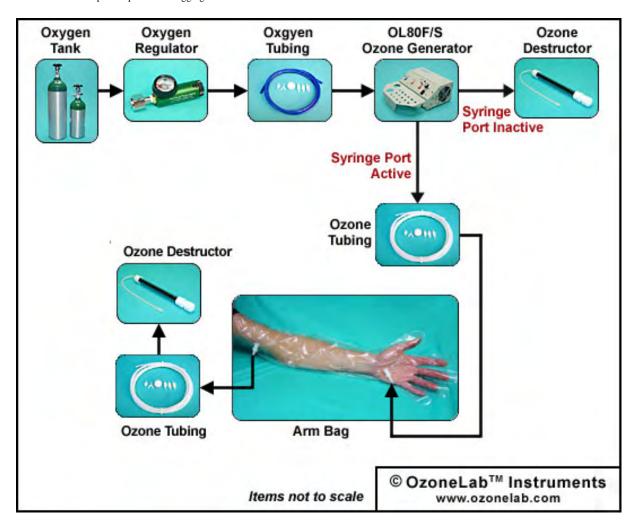
<u>Home</u> > <u>Setup Examples</u> > Arm Bagging with OL80F/S Ozone Generator



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Arm Bagging using an OL80F/S Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Boot Bagging using an OL80F/S Ozone Generator



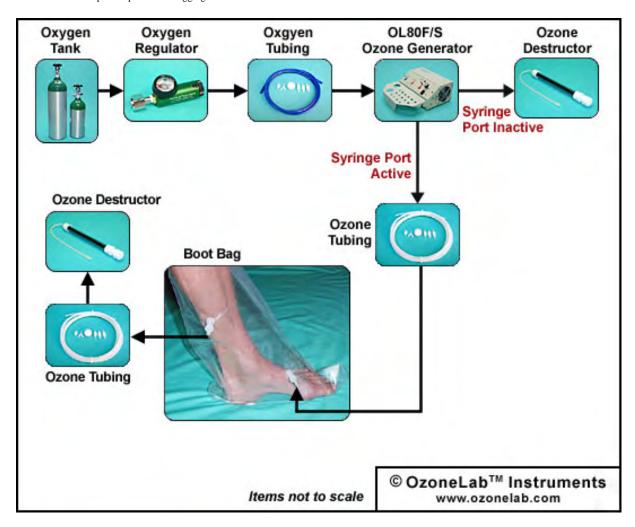


<u>Home</u> > <u>Setup Examples</u> > Boot Bagging with OL80F/S Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Boot Bagging using an OL80F/S Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Cupping using an OL80F/S Ozone Generator



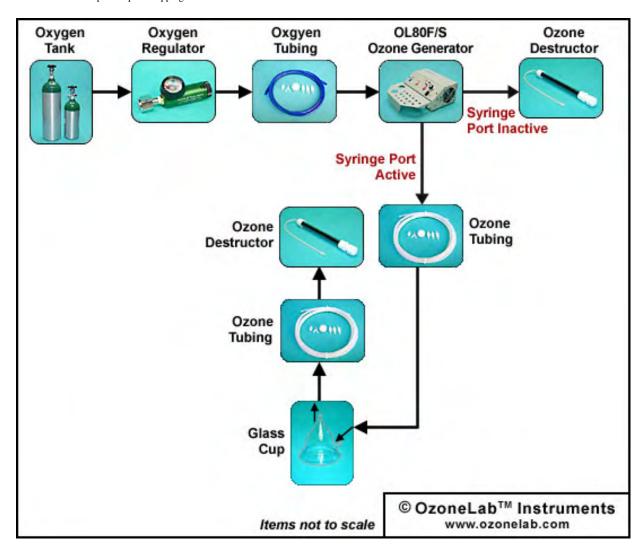
<u>Home</u> > <u>Setup Examples</u> > Cupping with OL80F/S Ozone Generator



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Cupping using an OL80F/S Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL80F/S Ozone Generator



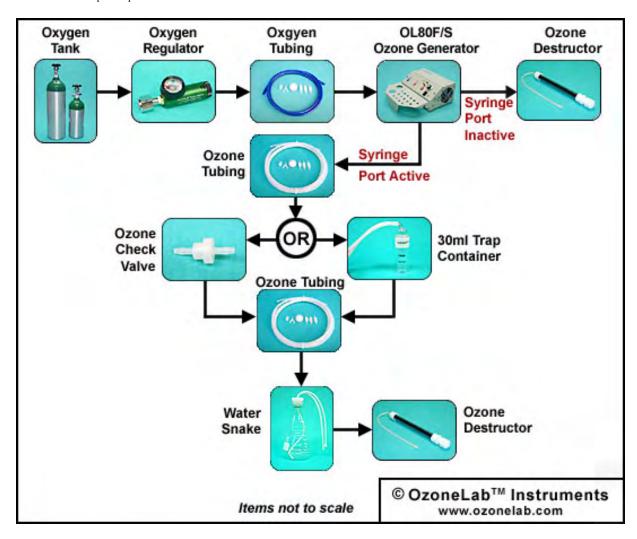


Home > Setup Examples > Water ozonation with OL80F/S Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Water ozonation using a <u>water snake</u> and an <u>OL80F/S Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL80F/S Ozone Generator



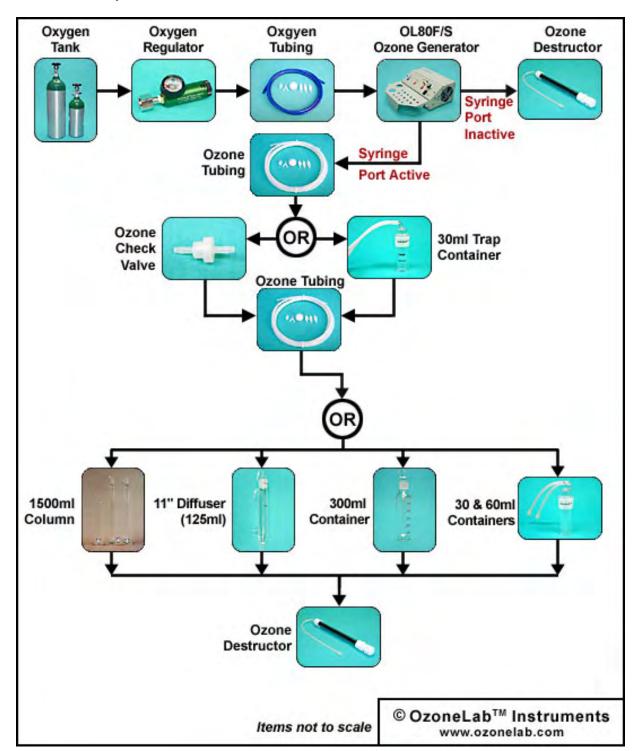


<u>Home</u> > <u>Setup Examples</u> > Water ozonation with OL80F/S Ozone Generator

Water ozonation using a ozonation containers of various sizes and an <u>OL80F/S Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Inhalation (with Trap) - OL80W Ozone Generator



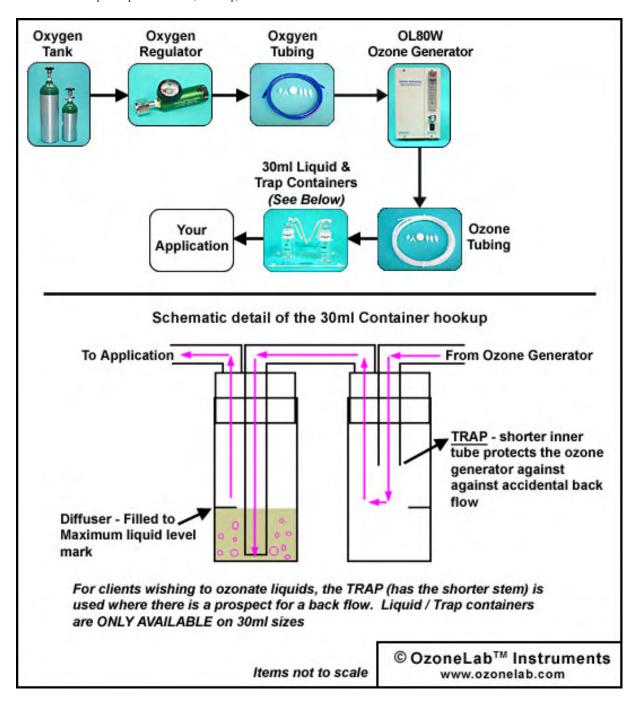
<u>Home</u> > <u>Setup Examples</u> > Inhalation (with Trap) - OL80W Ozone Generator



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Inhalation (with Trap) using an OL80W Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Colon Therapy Setup - OL80W

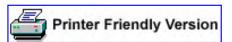


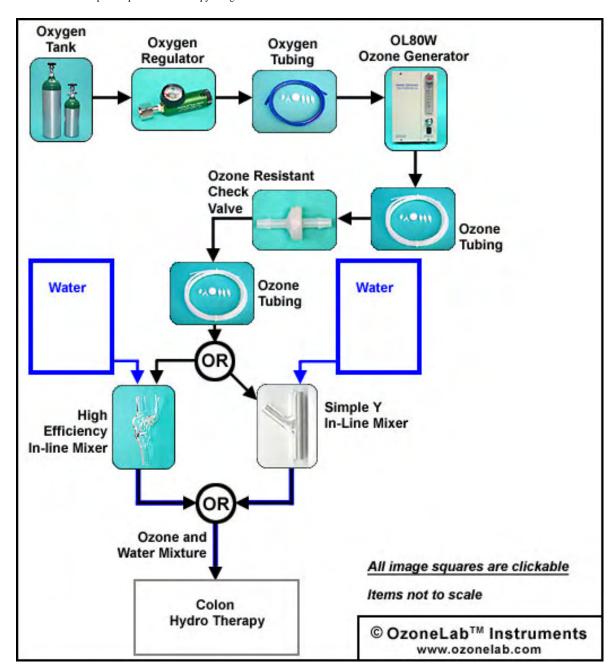
<u>Home</u> > <u>Setup Examples</u> > Colon Therapy setup using OL80W



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Colon Therapy Setup using a <u>High Efficiency Diffuser</u> to mix water and ozone from an <u>OL80W Ozone</u> <u>Generator</u> fed with oxygen from an <u>Oxygen Tank</u>.





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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Filling Insufflation Bags - OL80W and External Syringe Adapter



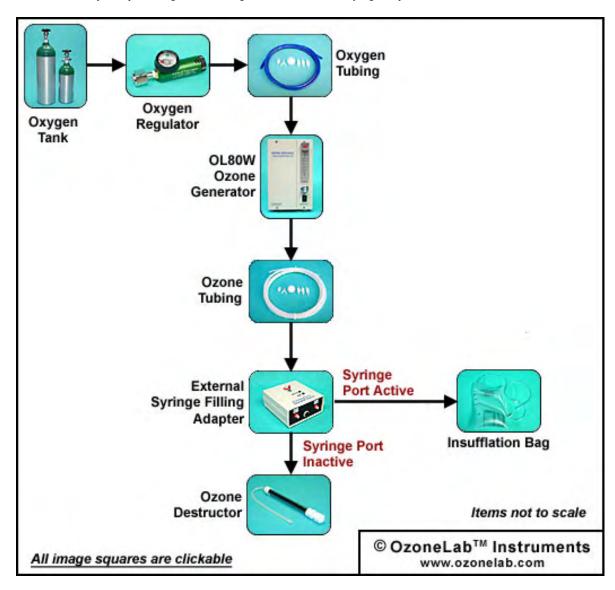


<u>Home</u> > <u>Setup Examples</u> > Filling Insufflation Bags using OL80W and External Syringe Adapter

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Insufflation Bags with ozone using an <u>External Syringe Filling Adapter</u> supplied with ozone from an <u>OL80W Ozone Generator</u> fed with oxygen from an Oxygen Tank.





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Insufflation Bags - OLA/DLS and OL80W



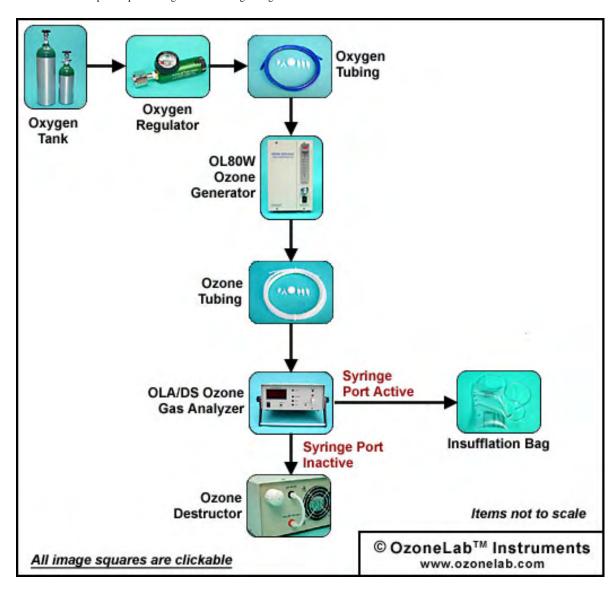


Home > Setup Examples > Filling Insufflation Bags using OLA/DLS and OL80W Combination

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Insufflation Bags with ozone using an <u>OLA/DLS Ozone Gas Analyzer</u> supplied with ozone from an <u>OL80W Ozone Generator</u> fed with oxygen from an Oxygen Tank.



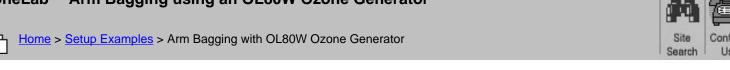


The <u>OLA/DLS</u> and <u>OL80W</u> combination are used as an example in this illustration. Ozone Analyzers and Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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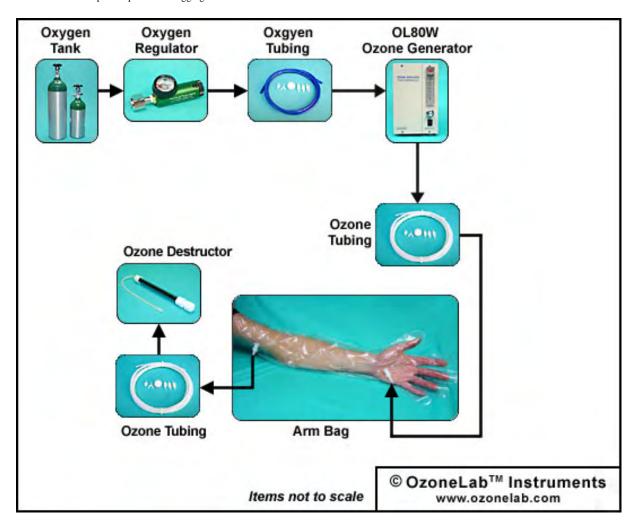
OzoneLab™ Arm Bagging using an OL80W Ozone Generator



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Arm Bagging using an OL80W Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Boot Bagging using an OL80W Ozone Generator



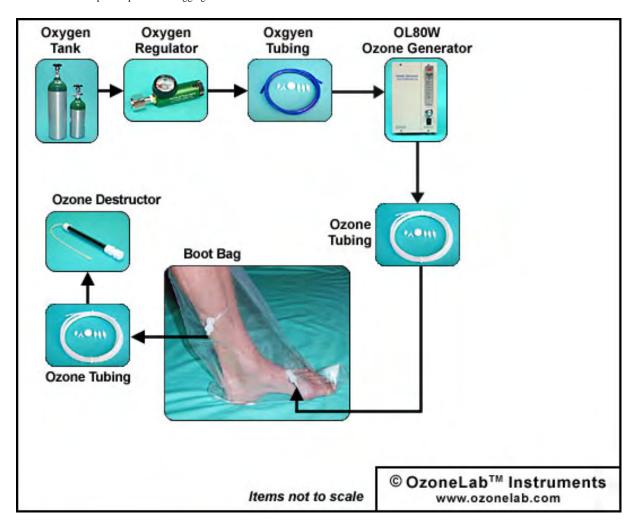


<u>Home</u> > <u>Setup Examples</u> > Boot Bagging with OL80W Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Boot Bagging using an OL80W Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Cupping using an OL80W Ozone Generator



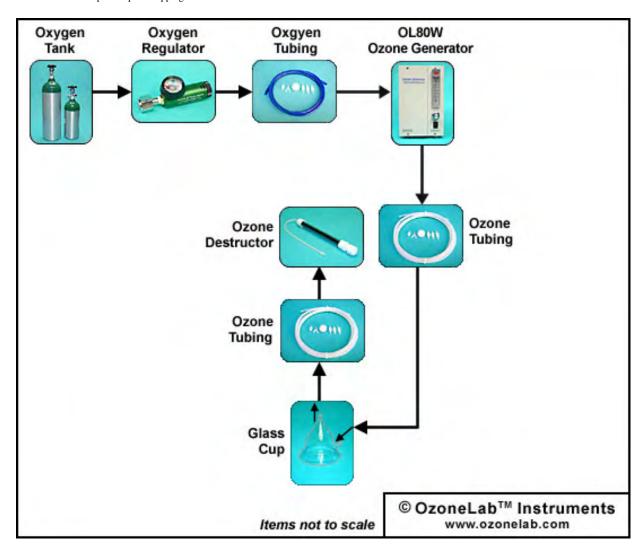


<u>Home</u> > <u>Setup Examples</u> > Cupping with OL80W Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Cupping using an OL80W Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water ozonation using an OL80W Ozone Generator



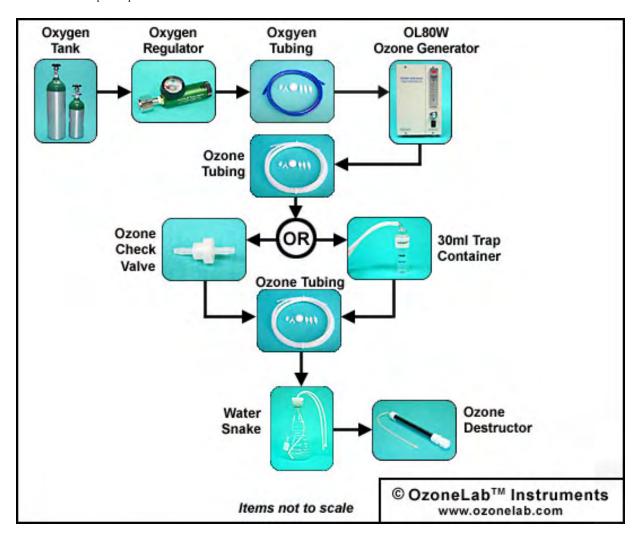


<u>Home</u> > <u>Setup Examples</u> > Water ozonation with OL80W Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Water ozonation using a <u>water snake</u> and an <u>OL80W Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL80W Ozone Generator



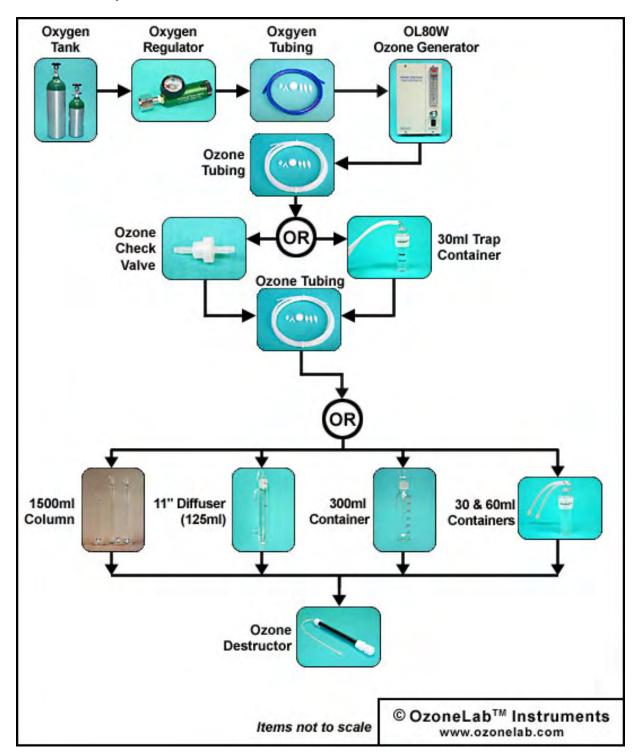


<u>Home</u> > <u>Setup Examples</u> > Water ozonation with OL80W Ozone Generator

Water ozonation using a ozonation containers of various sizes and an <u>OL80W Ozone Generator</u> fed with an oxygen feed (<u>Tank & Regulator</u>).

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Inhalation (with Trap) - OL100/Basic Ozone Generator

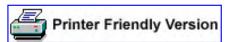


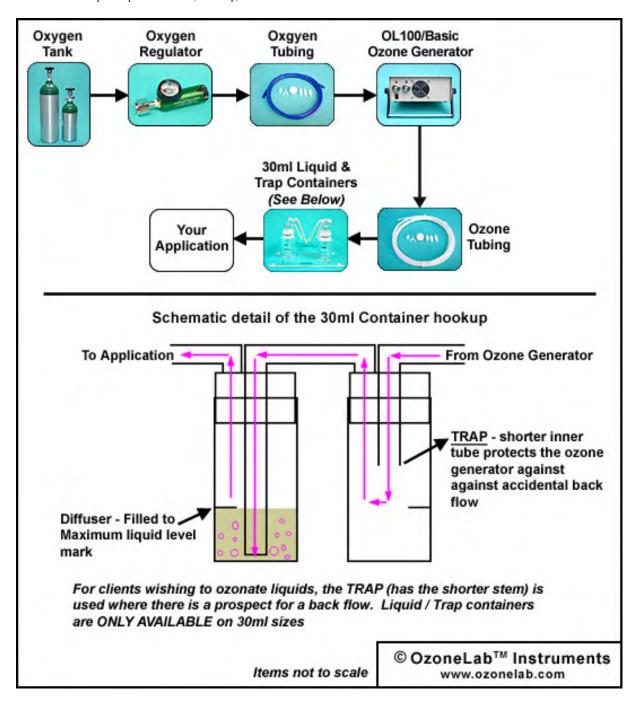


Home > Setup Examples > Inhalation (with Trap) with OL100/Basic Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Inhalation (with Trap) setup using an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Arm Bagging using an OL100/Basic Ozone Generator



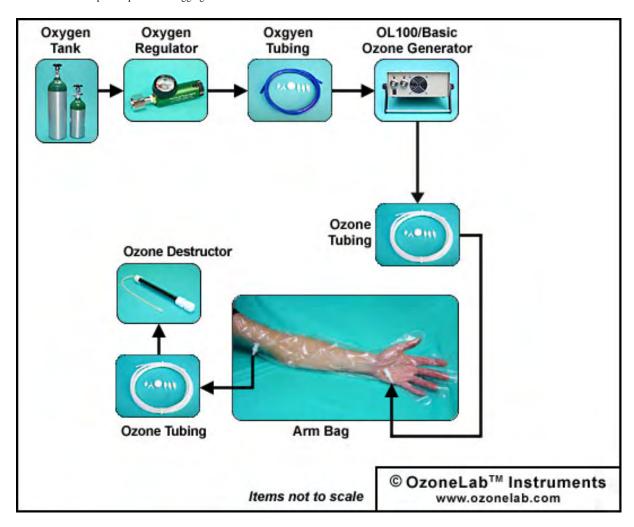


<u>Home</u> > <u>Setup Examples</u> > Arm Bagging with OL100/Basic Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

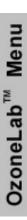
Arm Bagging using an OL100/Basic Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Boot Bagging using an OL100/Basic Ozone Generator



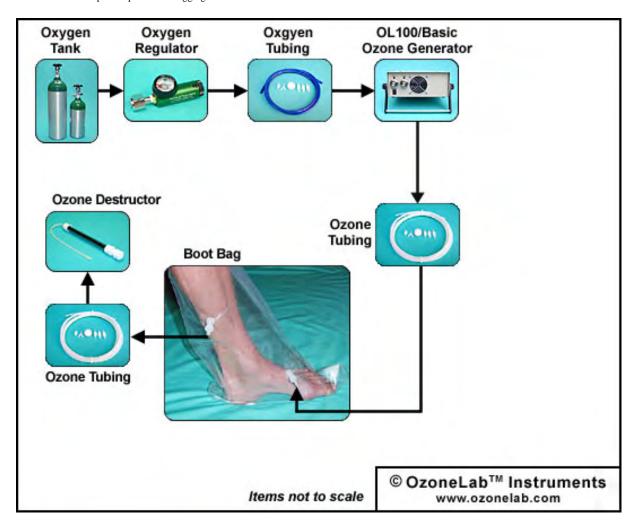


<u>Home</u> > <u>Setup Examples</u> > Arm Bagging with OL100/Basic Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Boot Bagging using an OL100/Basic Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Cupping using an OL100/Basic Ozone Generator



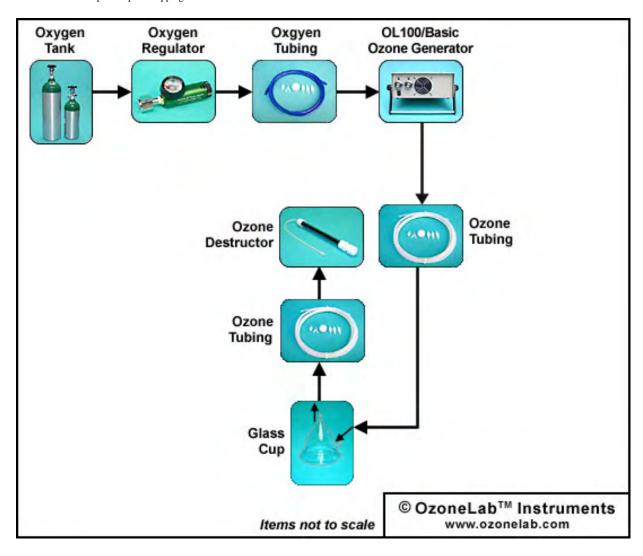


<u>Home</u> > <u>Setup Examples</u> > Cupping with OL100/Basic Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

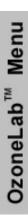
Cupping using an OL100/Basic Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL100/Basic Ozone Generator

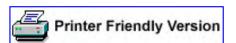


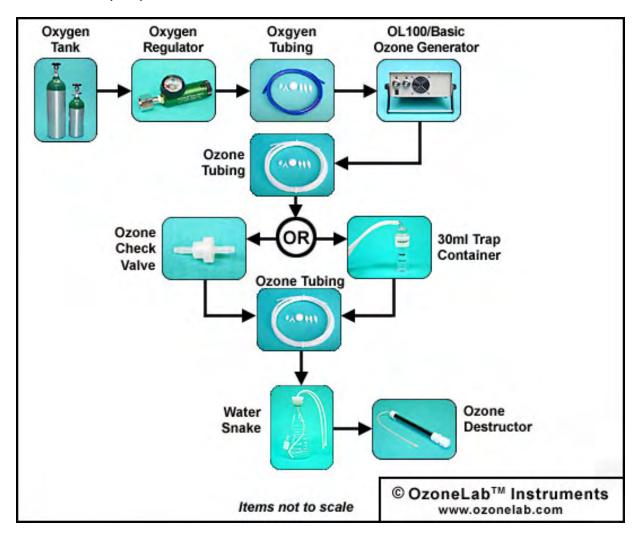


Home > Setup Examples > Water ozonation with OL100/Basic Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Water ozonation using a <u>water snake</u> and an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Inhalation (with Trap) - OL100/DS Ozone Generator

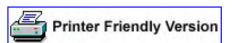


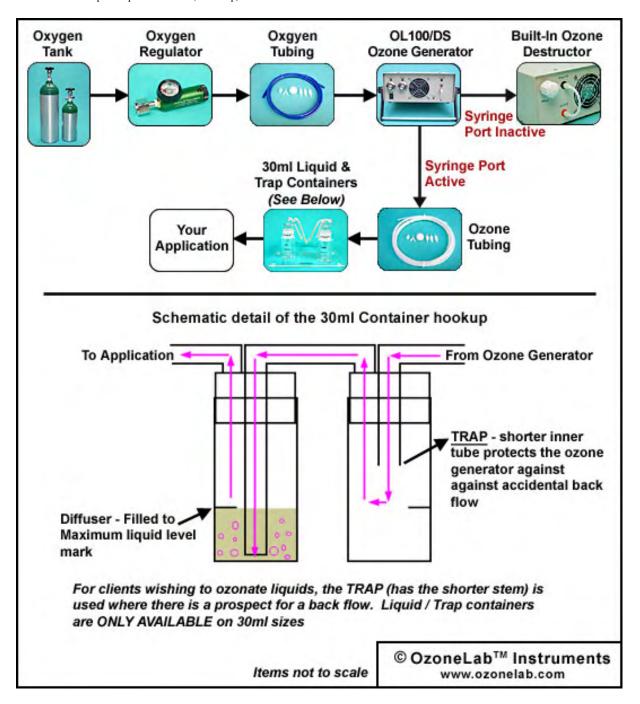


Home > Setup Examples > Inhalation (with Trap) - OL100/DS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Inhalation (with Trap) using an OL100/DS Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Colon Therapy Setup - OL100D/S



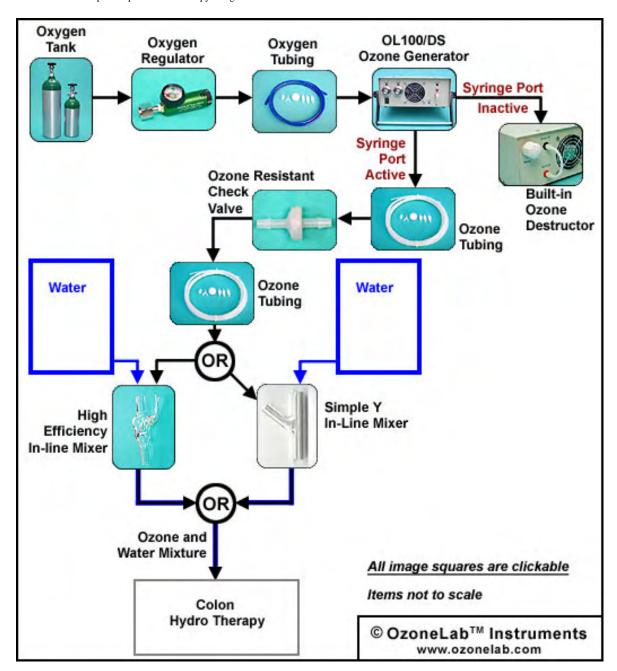
<u>Home</u> > <u>Setup Examples</u> > Colon Therapy Setup using OL100D/S



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Colon Therapy Setup using a <u>High Efficiency Diffuser</u> to mix water and ozone from an <u>OL100D/S Ozone</u> <u>Generator</u> fed with oxygen from an Oxygen Tank.





The <u>OL100D/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Dental Setup using an OL100/DS Ozone Generator



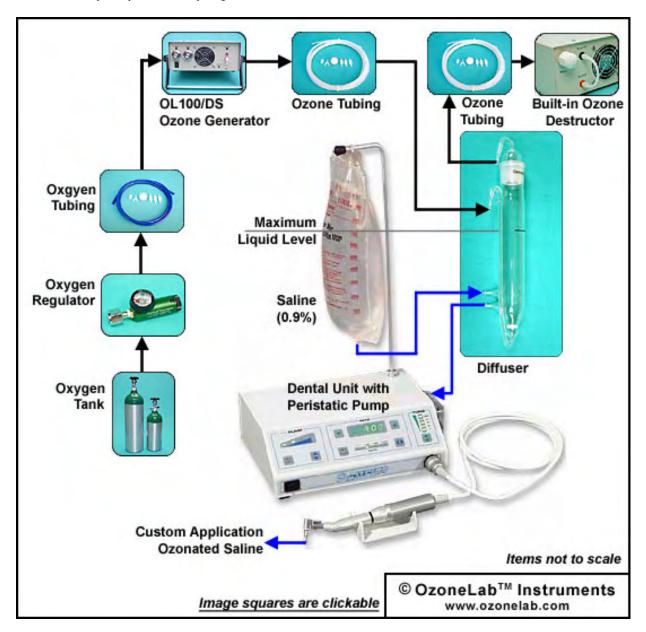


 $\underline{\text{Home}}$ > $\underline{\text{Setup Examples}}$ > Dental Setup with OL100/DS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

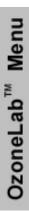
<u>Dental Unit with Peristatic Pump</u> and <u>diffuser</u> using an <u>OL100/DS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Filling Insufflation Bags - OL100/DS



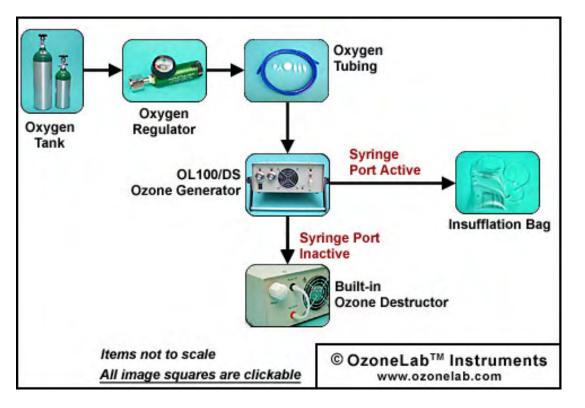


<u>Home</u> > <u>Setup Examples</u> > Filling Insufflation Bags using OL100D/S

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Insufflation Bags with ozone using an OL100/DS Ozone Generator fed with oxygen from an Oxygen Tank.





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Arm Bagging using an OL100/DS Ozone Generator



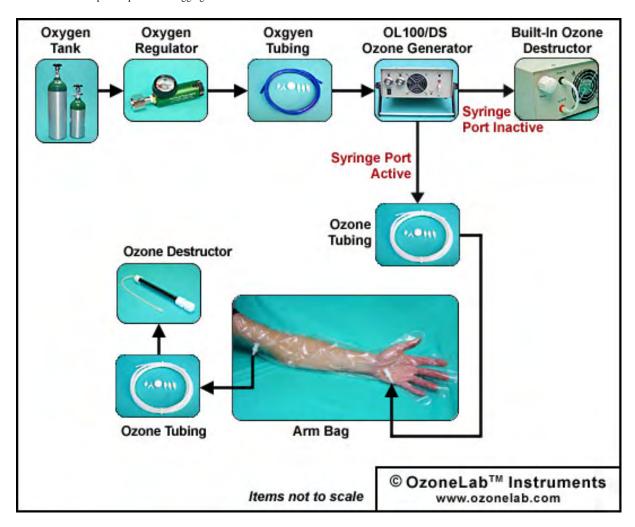


<u>Home</u> > <u>Setup Examples</u> > Arm Bagging with OL100/DS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Arm Bagging using an OL100/DS Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Boot Bagging using an OL100/DS Ozone Generator



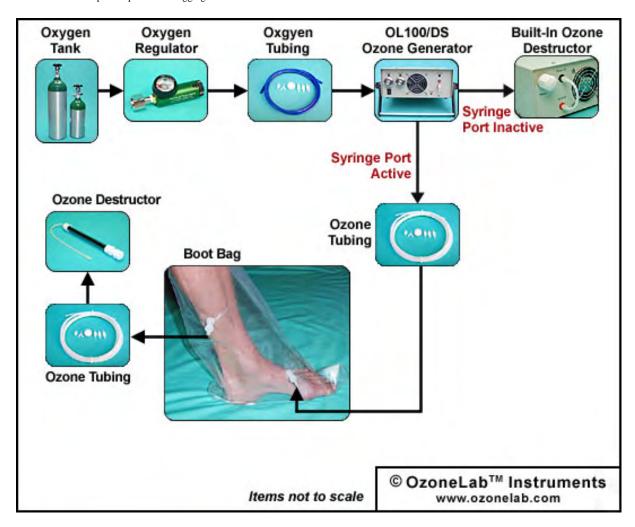


<u>Home</u> > <u>Setup Examples</u> > Arm Bagging with OL100/DS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Boot Bagging using an OL100/DS Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Cupping using an OL100/DS Ozone Generator



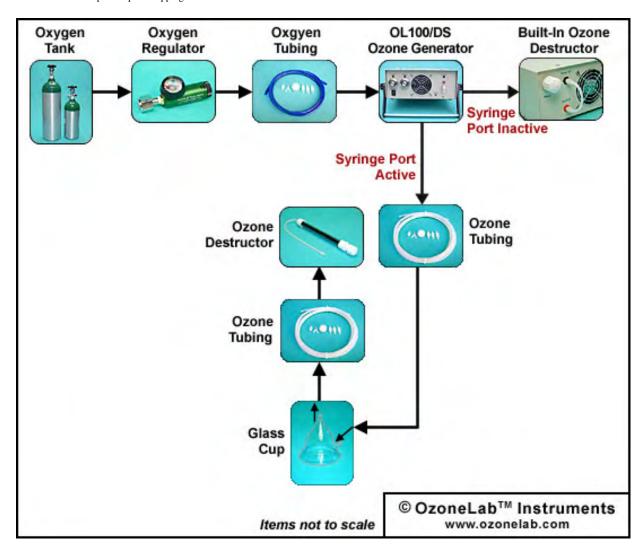


 $\underline{\mathsf{Home}} > \underline{\mathsf{Setup}\;\mathsf{Examples}} > \mathsf{Cupping}\;\mathsf{with\;\mathsf{OL100/DS\;\mathsf{Ozone\;\mathsf{Generator}}}$

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Cupping using an OL100/DS Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL100/DS Ozone Generator



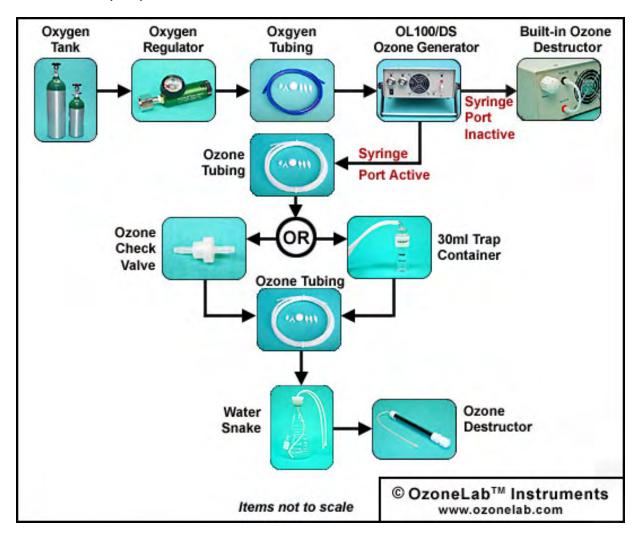


Home > Setup Examples > Water ozonation with OL100/DS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Water ozonation using a <u>water snake</u> and an <u>OL100/DS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Water Ozonation using an OL100/DS Ozone Generator



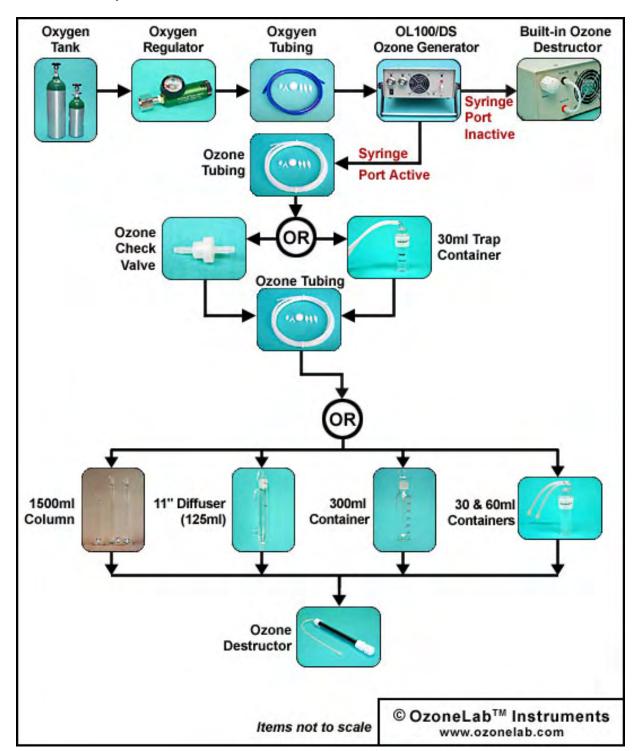


Home > Setup Examples > Water ozonation with OL100/DS Ozone Generator

Water ozonation using a ozonation containers of various sizes and an <u>OL100/DS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ Back Flow Protection (Trap) Setup Examples





<u>Home</u> > <u>Setup Examples</u> > Back Flow Protection (Trap) Setup Examples

Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our <u>available instruments</u>.

OL80W	Back Flow Protection (Trap) example
OL80 (Basic)	Back Flow Protection (Trap) example
OL80F/S	Back Flow Protection (Trap) example
OL100/Basic	Back Flow Protection (Trap) example
OL100/DS	Back Flow Protection (Trap) example
OL80A/DLS	Back Flow Protection (Trap) example

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OzoneLab™ Colon Hydro Therapy Setup Example





<u>Home</u> > <u>Setup Examples</u> > <u>By Application</u> > Colon Hydro Therapy Setup Example

Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our available instruments.



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OzoneLab™ Setup Example - Dental Attachment



<u>Home</u> > <u>Setup Examples</u> > <u>By Application</u> > Dental Attachment



Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our <u>available instruments</u>.

OL80F/S (45° panel series)	Example of ozonating water using a diffuser for use with a Dental unit with peristatic pump
OL80F/DST (90° panel series)	Example of ozonating water using a diffuser for use with a Dental unit with peristatic pump
OL100/DS	Example of ozonating water using a diffuser for use with a Dental unit with peristatic pump
OL80A/DLS	Example of ozonating water using a diffuser for use with a Dental unit with peristatic pump

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OzoneLab™ Filling Insufflation Bags Setup Examples





<u>Home</u> > <u>Setup Examples</u> > <u>By Application</u> > Filling Insufflation Bags Setup Examples

Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our available instruments.



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OzoneLab™ Inhalation (with Trap) Setup Examples





<u>Home</u> > <u>Setup Examples</u> > Inhalation (with Trap) Setup Examples

Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our <u>available instruments</u>.

OL80W	Inhalation (with Trap) example
OL80 (Basic)	Inhalation (with Trap) example
OL80F/S (45° panel series)	Inhalation (with Trap) example
OL80F/DST (90° panel series)	Inhalation (with Trap) example
OL80F/DST-2S (90° panel series)	Inhalation (with Trap) example
OL100/Basic	Inhalation (with Trap) example



• Inhalation (with Trap) example



• Inhalation (with Trap) example

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OzoneLab™ Modified Stethoscope Setup Examples





<u>Home</u> > <u>Setup Examples</u> > <u>By Application</u> > Modified Stethoscope Setup Examples

Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our <u>available instruments</u>.

OL80F/S (45° panel series)	Example of a modified stethoscope with an ozone gas feed.
OL80F/DST (90° panel series)	Example of a modified stethoscope with an ozone gas feed.
OL100/DS	Example of a modified stethoscope with an ozone gas feed.
OL80A/DLS	Example of a modified stethoscope with an ozone gas feed.

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OzoneLab™ Bagging Setup Examples

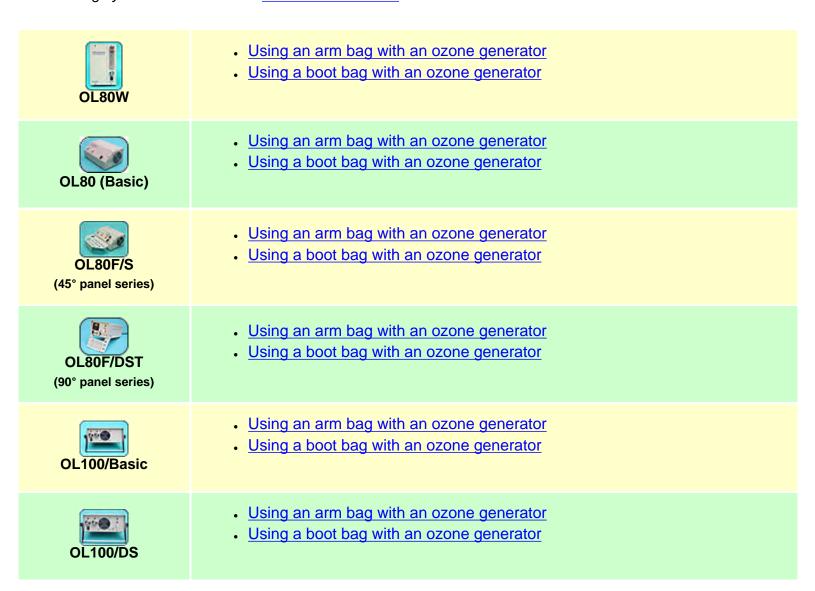


<u>Home</u> > <u>Setup Examples</u> > <u>By Application</u> > Bagging Setup Examples



Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our available instruments.





- Using an arm bag with an ozone generator
- Using a boot bag with an ozone generator

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OzoneLab™ Cupping Setup Examples



<u>Home</u> > <u>Setup Examples</u> > <u>By Application</u> > Cupping Setup Examples



Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our <u>available instruments</u>.

OL80W	Ozone cupping example
OL80 (Basic)	Ozone cupping example
OL80F/S (45° panel series)	Ozone cupping example
OL80F/DST (90° panel series)	Ozone cupping example
OL100/Basic	Ozone cupping example
OL100/DS	Ozone cupping example



• Ozone cupping example

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OzoneLab™ Water Ozonation Setup Examples



<u>Home</u> > <u>Setup Examples</u> > <u>By Application</u> > Water Ozonation Setup Example



Ozone Generators

The following ozone generators and combination units are most frequently used for the outlined application. However, the selection of suitable instruments is not limited to listed units only. If you have special multi-application requirements, we encourage you to review all of our available instruments.



OL100/DS	 Water Ozonation using OzoneLab™ WaterSnake Water Ozonation using OzoneLab™ Glass Containers (multiple sizes)
OL80A/DLS	 Water Ozonation using OzoneLab™ WaterSnake Water Ozonation using OzoneLab™ Glass Containers (multiple sizes)

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OzoneLab™ Output Test Reports & Graphs







<u>Home</u> > <u>Products</u> > <u>Products</u> > <u>Generators</u> > Output Test Reports & Graphs

Oxygen Feed Gas		OL80 Module (Single Stage)		OL100 Module (Double Stage)		GE60 Module (Discontinued - listed only for comparison purposes)	
Flow LPM	Flow ml/min	Output µg/ml	Output [mg/hr]	Output µg/ml	Output [mg/hr]	Output µg/ml	Output [mg/hr]
0	0	0	0	0	0	0	0
1/32	31	0 - 161	0 - 299	0 - 183	0 - 340	0 - 90	0 - 167
1/16	62	0 - 131	0 - 487	0 - 174	0 - 647	0 - 75	0 - 279
1/8	125	0 - 93	0 - 698	0 - 144	0 - 1080	0 - 60	0 - 450
1/4	250	0 - 57	0 - 855	0 - 100	0 - 1500	0 - 36	0 - 540
1/2	500	0 - 33	0 - 990	0 - 63	0 - 1890	0 - 19	0 - 570
3/4	750	0 - 23	0 - 1035	0 - 44	0 - 1980	0 - 13	0 - 585
1	1000	0 - 17	0 - 1020	0 - 34	0 - 2040	0 - 10	0 - 600
Maximum Flow 1LPM (1000ml)		Sample Output Test Report Ozone Output Graphs		Sample Output Test Report Ozone Output Graphs		Sample Output Test Report Ozone Output Graphs	

- Compare OL80 & OL100
- Compare OL80, OL100, and GE60 units produced between 1994 & 1999
- How we test our Instruments
- Note that we are able to provide Custom Ozone Output adjustments in the range of 10% 100% of the Typical Ozone Output. Contact us for details.
- Each ozone generator is tested and calibrated separately using 2" H₂O back pressure.
- OzoneLab™ instruments are designed for low flow/high output applications and are not suitable for flow rates above 1000ml/min due to the size of orifices in the ozone gas flow path. Gas Pressure is 0-3 p.s.i. (For applications dealing with higher pressures - please contact us for more info and/or consultation)

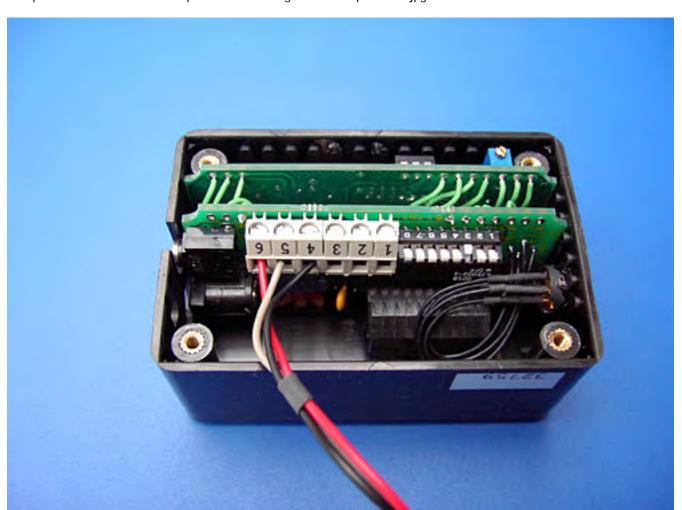
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OzoneLab™ GE Line - Design Information



<u>Home</u> > <u>Products</u> > <u>Generators</u> > <u>GE Line</u> > Design Information



DISCONTINUED ITEM - REPLACED BY OzoneLab™ OL80W

Type of ozone generating process:

HFCD - High Frequency Corona Discharge - the most challenging and the most rewarding ozone producing process currently known and commercially used. The development of our HFCD systems was allowed by advancements in the production of semiconductors, leaving classic ozone generating processes - Low Frequency (50 and 60Hz) Corona Discharge and Cold Plasma systems far behind. Ozone gas is produced by high voltage discharge harnessed inside a specially designed electrode. Variable frequency of the discharge (GE ozone generators operate in range of 0-10kHz) allows production of highly concentrated ozone gas while maintaining precision of the ozone production.

HFCD offers an excellent **ozone output**: **size / weight** ratio allowing the production of smaller & lighter ozone generators with higher & more precise ozone output and lower power consumption.

Materials used:

All parts and components of our ozonation equipment for Ultra Pure Applications exposed directly to the ozone stream are ozone resistant. In order to minimize the possibility for the contamination of the ozone stream, we created a design which utilizes only two highly ozone resistant materials for components exposed to ozone gas:

- glass ozone producing cell, panel fittings, diffuser, moisturizing containers, mixers, etc.
- silicone all flexible ozone lines

NO stainless steel, low grade plastic or ceramic is used. To cope with special needs resulting from uncompromising GE design we had to establish a glassblowing department in our company, therefore the quality of all glass components can be easily monitored. Custom glassblowing is also available to all our clients.

Plastic Quick connectors used for all external tubing connections were tested (85 µg/ml for more than 5000 hours) for resistance to ozone with no sign of deterioration.

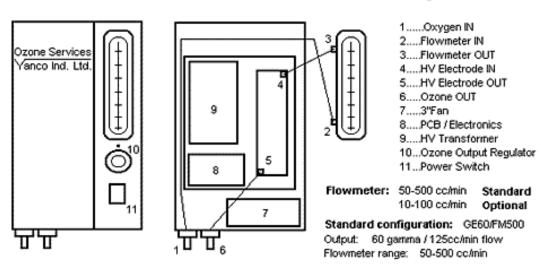
Generator cabinet design:

The cabinet is a lightweight, durable, aluminum box with an industrial grade powdercoat finish. The GE30 & GE60 Ozone Generators can be inserted into foam within a case, mounted on a portable stand or on a wall. Upright position of the



generator is preferable because of the ventury type flowmeter incorporated into the front panel of the ozone generator. When in an upright position the high voltage 100% enclosed glass electrode is also "standing" in an upright position thereby allowing any liquid that may have entered the unit by accident or condensation to freely drain. The special design of all system components allows the user to operate the generator even when inserted in the foam within the case. The ozone generator can be also operated as a desk top unit. Ozone is produced within a 100% enclosed glass high voltage electrode and ozone output is independently regulated by a 10 step rotary regulator located at the front panel of the generator. A 3" fan provides sufficient cooling for all components inside the ozone generator.

GE60/FM Ozone Generator - internal layout

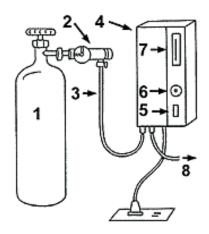




Regulation of oxygen/ozone flow and ozone concentration:

To allow the user of the ozonation equipment to control the exact amount and the concentration of ozone gas produced, all GE60 ozone generators are equipped with two independent regulators:

- Flow regulation flow selection is done directly by setting the oxygen flow regulator dial at desired setting. The built-in flowmeter located at the front panel of the GE30 and GE60 instrument allows visual monitoring of selected flow. GE ozone generators are produced in the two following variations:
 - FM500 our standard model with flowmeter range 50-500cc/ min
 - FM100 optional model available upon request. Flow meter range 10-100cc/min
- Ozone concentration regulation 10 step frequency regulator built into the front panel of each GE ozone generator controls the frequency of the high voltage discharge in the ozone producing cell, consequently regulating the concentration of ozone gas produced.



- 1. Oxygen Tank
- 2. Oxygen Flow Regulator
- 3. Oxygen Tubing
- 4. GE Ozone Generator
- 5. Power Switch
- 6. Concentration Regulator
- 7. Flow Meter
- 8. Ozone Outlet

Ozone output:

All ozone generators are tested and calibrated separately. An Ozone Output Test Report is provided with each system. Variations of ozone output does not exceed \pm 5% - if equipment is operated under (or close to) following conditions:

- room temperature 20-23°C / 68-74°F
- barometric pressure 97-103 kPa

Average ozone output produced by standard GE ozone generators are:

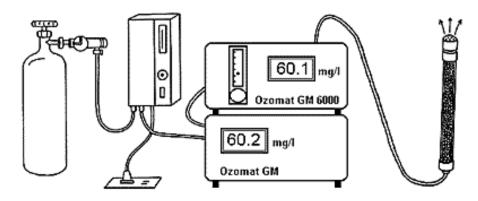
Flow Rate [LPM]	Flow Rate [ml/min]	GE30/12VDC [μg/ml]	GE60FM/12VDC [μg/ml]	
1/32	31	0 - 70	0 - 92	
1/16	62	0 - 45	0 - 77	
1/8	125	0 - 31	0 - 60	
1/4	250	0 - 17	0 - 36	
1/2	500	0 - 9	0 - 19	
3/4	750	0 - 6	0 - 12	
1	1000	0 - 4	0 - 10	
Gra	phs	Ozone Output Graphs	Ozone Output Graphs	
		Compare GE30 & GE60 12VDC		

Ozone Output Testing and Ozone Output Test Reports:

It is important to realize that measuring ozone concentrations is rather tricky task due to very unstable nature of ozone gas. The precision of measuring ozone concentrations during the calibration process of individual instruments determines the accuracy/precision of the Ozone Output Tests Report for each ozone generator produced and sold by our company.

Our test reports are obtained by way of using two Ozone Analyzers utilizing UV absorption principle based on the Beer Lambert Law. The Ozone Analyzers are sensitive instruments which must be regularly maintained and their performance must be monitored. For this very reason we have adopted in 1997 the testing process in which we do not consider the results obtained from one monitoring device (ozone analyzer) to be valid as long as they are not confirmed with the readings from a second independent analyzer. From our point of view the use of two independent analyzers for calibrations of ozone generators we supply to our clients in laboratory, medical and research facilities is an unquestionable necessity, not a luxury or a marketing trick as some of our competitors claim.

More Information on how we analyze Ozone Output



Ozone Output Tests Report (OOTR)

Data collected during ozone output calibration testing are used to produce Ozone Output Test Report (OOTR). The OOTR is a carefully designed table, which gives the end user of the equipment an instant access to all essential data needed for the correct and safe operation of the ozonation equipment produced by our company. It is important that all end users of ozone producing instruments know how to read the OOTR and how to interpret data in the OOTR.

- OOTR Sample Page
- . How To Read OOTR

Safety first - Ozone Destructor:

Ozone gas in higher concentrations has the ability to irritate the sensitive lung tissue and eyes. The Ozone Destructor is incorporated into GE line of ozonation systems as a very important safety device and it serves for a proper elimination of the excess ozone gas which may be produced during the start up of the ozonation system, ozonation of water and number of other applications.



Electrical Safety of our clients is very important to us. For this very reason our main products - GE30 & GE60 ozone generators are powered by 12VDC - internationally recognized safe voltage which is frequently used for control systems in volatile industrial

operations.

Open Architecture Design - "Lego" principle:

Open architecture design had always its own add on value, therefore it is no coincidence that Lego® rules the "toy-word".

Our GE line of ozonation systems take also an advantage of the open architecture design. This principle allows our company to expand the GE line of products and attachments as needed.

The additional benefit resulting from our design approach is the possibility for the client to customize his/her ozonation systems in accord to his/her specific need. Our product literature may be of an assistance during the selection process. Clients may also request our technical assistance via telephone, fax or e-mail.

Leading the crowd:

To our knowledge, our company was the first developer and producer of ozonation systems for Ultra Pure Applications to provide an **Ozone Output Test Report** with each ozone generator used for Ultra Pure Applications and to implement a combination of:

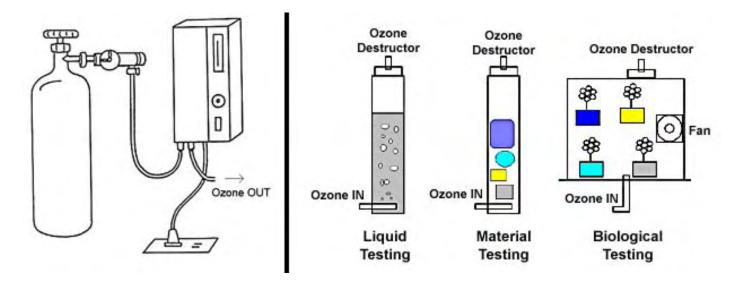
glass high voltage electrode with a self draining effect

- an independent regulation for oxygen flow and ozone concentration
- an ozone destructor

Applications:

Due to the specific design and durability of our GE ozone generators, the equipment is able to provide ultra pure, highly concentrated ozone gas for individual needs, laboratories, and for a wide variety of special application where the ozone generator is required to work in a frequent ON/OFF regime or even continuously.

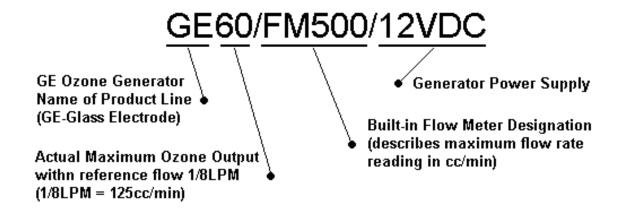
The following simple drawing outlines three main categories of laboratory testing utilizing ozone gas produced by our GE ozone instruments.



Installation requirements:

- Indoor use only protect against excessive dust, humidity and water back-flow.
- Power surge protectors should be used to protect GE ozone generators.

Model Coding:



© Ozone Services





OzoneLab™ GE30 Ozone Generator Output Test Report Example





<u>Home</u> > <u>Products</u> > <u>Products</u> > <u>Generators</u> > <u>Output & Graphs</u> > GE30 Test Report Example

Please Note: We have discontinued our <u>GE Product Line</u> of Ozone Generators (GE30 & GE60). The GE60/FMxx has been replaced by the <u>OL80W/FMxx</u> which is a more energy efficient product with better performance and increased versatility (<u>EXT port</u>).

Flow in **Liters per Minute** (LPM) -> 1 LPM -> 1000 ml/min (1000 ml/min)
Ozone Concentration in **Gamma** -> 1 gamma -> 1 µg/ml -> 1 mg/l -> 1gr/m³

Temp: 21 C

Feed gas: Oxygen/Med Pressure: 100.1 kPa

Note: YY/5.5/120/714/BT/15C/12VDC

Ozone concentration in GAMMA (1 μ g/ml = 1 mg/l)

Date: Aug 22, 1999

Serial #: 990822.a

Model: GE30/12VDC

File:GE30DC01.XLS

Flow in Liters Per Minute (LPM).

		FLOW OZONE CONCENTRATION REGULATOR SETTING								FLOW	
10	9	8	7	6	5	4	3	2	1	cc/min	LPM
70	63	56	54	52	46	40	33	26	20	31	1/32
44	40	35	32	28	24	20	16	12	9	62	1/16
31	28	25	19	19	16	13	10	7	5	125	1/8
17	16	14	5	10	9	7	6	4	3	250	1/4
9	8	7	6	5	4	3	3	2	1	500	1/2
6	6	5	4	3	3	2	2	1	1	750	3/4
4	4	3	3	2	2	2	2	1	1	1000	1

Test - concentration regulator setting #1, #2, #4, #6, #8 and #10 with oxygen flow from 1/32 LPM to 1 LPM (bold print).

Estimate - setting #3, #5, #7, and #9 (plain print)

Please see out page on <u>How to Read the Ozone Test Report</u> for an explanation of the above report.

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OzoneLab™ GE30 Output Graphs

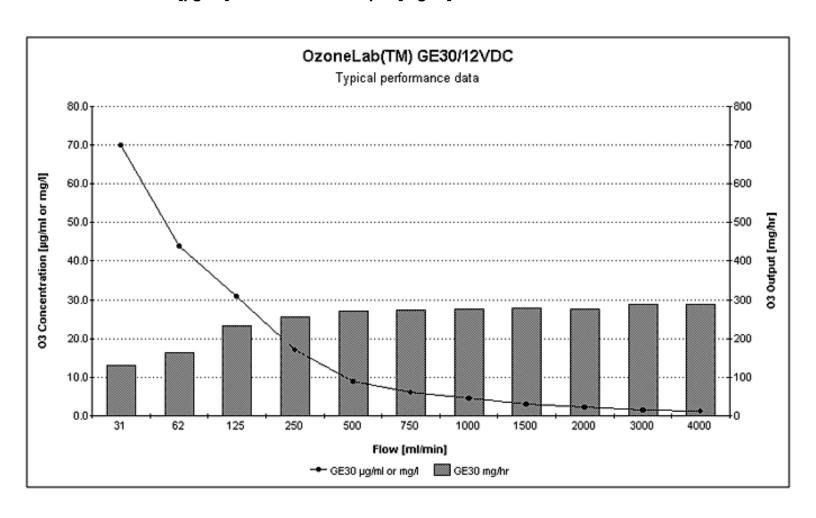




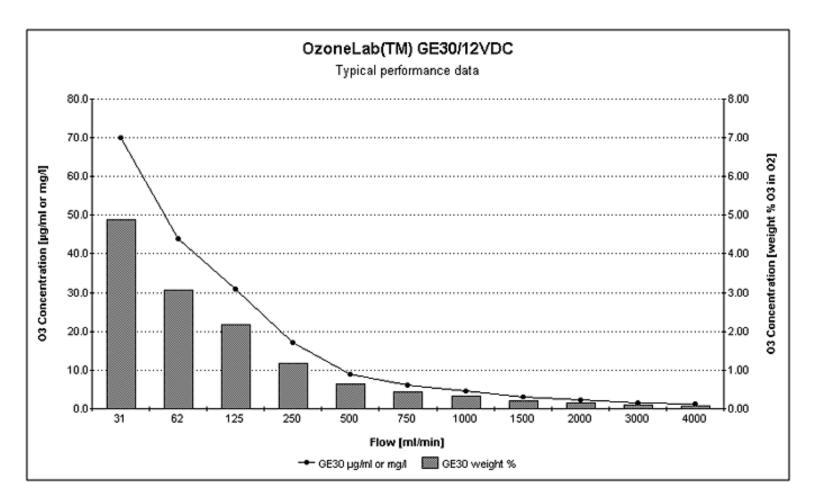
 $\underline{\mathsf{Home}} > \underline{\mathsf{Products}} > \underline{\mathsf{Products}} > \underline{\mathsf{Generators}} > \underline{\mathsf{Output}} \ \& \ \mathsf{Graphs} > \mathsf{GE30} \ \mathsf{Output} \ \mathsf{Graphs}$

Please Note: We have discontinued our <u>GE Product Line</u> of Ozone Generators (GE30 & GE60). The GE60/FMxx has been replaced by the <u>OL80W/FMxx</u> which is a more energy efficient product with better performance and increased versatility (<u>EXT port</u>).

Ozone Concentration [µg/ml] versus Ozone Output [mg/hr]



Ozone Concentration [μ g/ml] versus Ozone Concentration [weight % 0_3 in 0_2]



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Comparison of OzoneLab™ GE30 & GE60

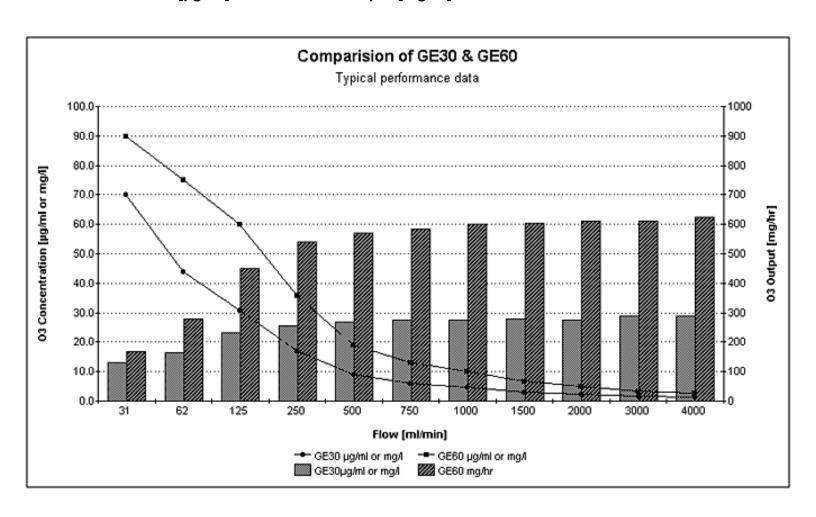




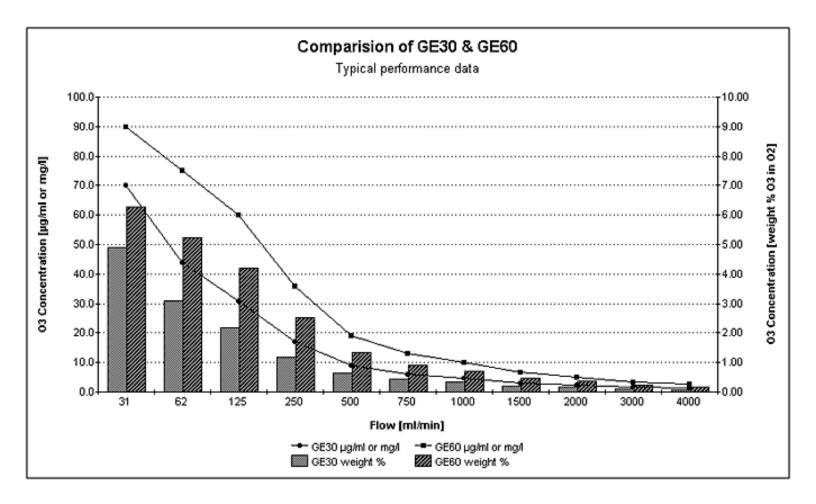
 $\underline{\mathsf{Home}} > \underline{\mathsf{Products}} > \underline{\mathsf{Products}} > \underline{\mathsf{Generators}} > \underline{\mathsf{Output \& Graphs}} > \mathsf{Comparison of GE30 \& GE60}$

Please Note: We have discontinued our <u>GE Product Line</u> of Ozone Generators (GE30 & GE60). The GE60/FMxx has been replaced by the <u>OL80W/FMxx</u> which is a more energy efficient product with better performance and increased versatility (<u>EXT port</u>).

Ozone Concentration [µg/ml] versus Ozone Output [mg/hr]



Ozone Concentration [µg/ml] versus Ozone Concentration [weight % 0₃ in 0₂]



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OzoneLab™ GE60 Ozone Generator Output Test Report Example





<u>Home</u> > <u>Products</u> > <u>Products</u> > <u>Generators</u> > <u>Output & Graphs</u> > GE30 Test Report Example

Please Note: We have discontinued our <u>GE Product Line</u> of Ozone Generators (GE30 & GE60). The GE60/FMxx has been replaced by the <u>OL80W/FMxx</u> which is a more energy efficient product with better performance and increased versatility (<u>EXT port</u>).

Flow in Liters per Minute (LPM) -> 1 LPM -> 1000 ml/min (1000 ml/min)
Ozone Concentration in Gamma -> 1 gamma -> 1 µg/ml -> 1 mg/l -> 1 gr/m³

Ozone Concentration in **Gamma ->** 1 gamma -> 1µg/mi -> 1 mg/i -> 1g

Temp: 21 C Feed gas: Oxygen/Med. Pressure: 100.1 kPa

Note: YY/5.5/120/714/BT/15C/12VDC

Serial #: 990822.b File: 990822DC.OUT

Date: Aug 22, 1999

Model: GE60/12VDC

Flow in Liters Per Minute (LPM).

Ozone concentration in GAMMA (µg/ml)

		LOW OZONE CONCENTRATION REGULATOR SETTING								FLOW	FLOW FI									
10	9	8	7	6	5	4	3	2	1	cc/min	LPM									
90	84	77	68	59	53	46	38	29	22	31	1/32									
73	63	53	44	34	29	24	19	13	10	62	1/16									
60	50	39	32	24	20	16	13	9	7	125	1/8									
36	30	23	19	14	12	9	7	5	4	250	1/4									
19	16	12	10	7	6	5	5	4	3	500	1/2									
12	11	9	7	5	5	4	4	3	2	750	3/4									
10	9	7	6	4	4	3	3	2	1	1000	1									

Test - concentration regulator setting #1, #2, #4, #6, #8 and #10 with oxygen flow from 1/32 LPM to 1 LPM (bold print).

Estimate - setting #3, #5, #7 and #9 (plain print)

Please see out page on How to Read the Ozone Test Report for an explanation of the above report.

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OzoneLab™ GE60 Output Graphs



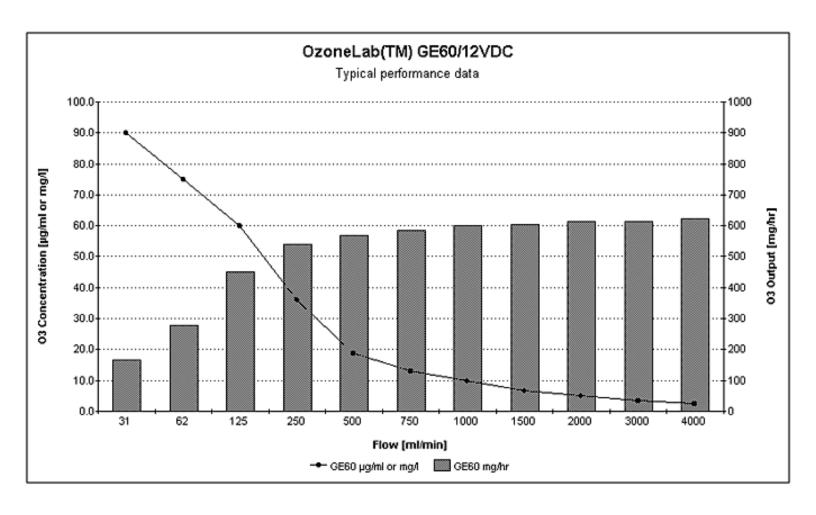


 $\underline{\mathsf{Home}} > \underline{\mathsf{Products}} > \underline{\mathsf{Products}} > \underline{\mathsf{Generators}} > \underline{\mathsf{Output}} \ \& \ \mathsf{Graphs} > \mathsf{Ozone} \ \mathsf{Ouput} \ \mathsf{Graphs}$

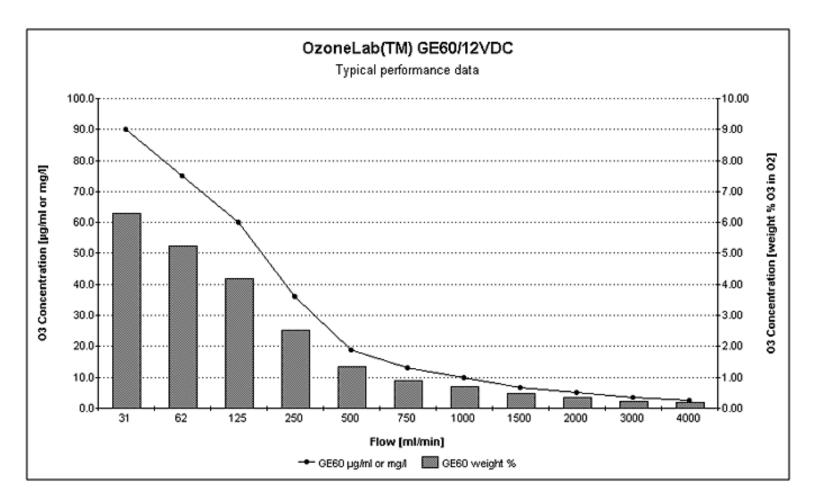
Please Note: We have discontinued our <u>GE Product Line</u> of Ozone Generators (GE30 & GE60). The GE60/FMxx has been replaced by the <u>OL80W/FMxx</u> which is a more energy efficient product with better performance and increased versatility (<u>EXT port</u>).

Sample Ozone Output Test Report

Ozone Concentration [µg/ml] versus Ozone Output [mg/hr]



Ozone Concentration [μ g/ml] versus Ozone Concentration [weight % 0_3 in 0_2]



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OzoneLab™ How to Read OOTR



<u>Home</u> > <u>Products</u> > <u>Products</u> > <u>Generators</u> > <u>Output & Graphs</u> > How to Read OOTR



OOTR = Ozone Output Test Report

The OOTR is a carefully designed table of very important data which is essential for the correct and safe operation of your ozonation equipment. It is important that all end users of our ozonation equipment know how to read the OOTR and how to interpret data in the OOTR. The OOTR is divided into two sections:

- 1. Manufacturer's Information section
- 2. Ozone Output Test section

Temperature: 21°C

Feed Gas: Med. grade oxygen Pressure: 100.1 kPa

Note: PWM/10x1K/16Hz/PLC

Date: Jun 1st, 2002

SECTION Model: OL80/S Serial #: 020601

File: 020601.XLS

Flow in Liters per Minute [LPM] ==>> 1 LPM = 1000 cc/min = 1000 ml/min Ozone Concentration in Gamma ==>> 1 gamma = 1 µg/ml = 1mg/l = 1gr/m3

FLOW [LPM] 	FLOW	W OZONE CONCENTRATION REGULATOR SETTING									
[LPM]	[ml/min]	1	2	3	4	5	6	7	8	9	10
1/32	31	12	31	46	60	73	85	95	105	113	120
1/16	62	7	16	26	36	46	56	68	79	90	100
1/8	125	3	12	21	29	37	45	53	61	71	80
1/4	250	2	7	13	18	23	28	34	39	43	47
1/2	500	1	4	7	9	12	15	19	22	24	26
3/4	750	1	3	5	7	9	11	14	16	17	18
1	1000	1	2	4	5	7	8	10	12	14	15

Test: Concentration regulator setting - #1, #2, #4, #6, #8, #10 with flow from 1/32 to 1 LPM Estimate: Concentration regulator setting - #3, #5, #7& #9

Each ozone generator is individually tested and calibrated. The 1st OOTR section provides information which will be needed for future references and/or services of the ozone generator. The most important is the serial number of the unit. Please, make sure that serial number displayed in the OOTR matches the serial number on the ozone generator. Contact the supplier of the equipment if numbers are different. We will gladly provide you with the correct OOTR.

Temperature: 21°C Date: Jun 1st, 2002

Feed Gas: Med. grade oxygen Model: OL80/S
Pressure: 100.1 kPa Serial #: 020601

Note: PWM/10x1K/16Hz/PLC File: 020601.XLS

The results of the ozone output testing are displayed in the 2nd OOTR section. It is important to point out that ozone output varies with the Flow of Oxygen going through the system and with the Ozone Concentration Regulator Setting.

Flow in Liters per Minute [LPM] ==>> 1 LPM = 1000 cc/min = 1000 ml/min
Ozone Concentration in Gamma ==>> 1 gamma = 1 µg/ml = 1mg/l = 1gr/m3

FLOW	FLOW		O	ZONE C	CONCEN	TRATIO	N REGU	JLATOF	SETTIN	NG	
[LPM]	[ml/min]	1	2	3	4	5	6	7	8	9	10
1/32	31	12	31	46	60	73	85	95	105	113	120
1/16	62	7	16	26	36	46	56	68	79	90	100
1/8	125	3	12	21	29	37	45	53	61	71	80
1/4	250	2	7	13	18	23	28	34	39	43	47
1/2	500	1	4	7	9	12	15	19	22	24	26
3/4	750	1	3	5	7	9	11	14	16	17	18
1	1000	1	2	4	5	7	8	10	12	14	15

Test: Concentration regulator setting - #1, #2, #4, #6, #8, #10 with flow from 1/32 to 1 LPM Estimate: Concentration regulator setting - #3, #5, #7& #9

Oxygen Flow Regulators have flow rate marked in fractions of the liter - 1/32, 1/16, etc. In order to allow easy volume and dosage calculations OOTR lists flow rate in fractions of a liter as well as cc/min (= ml/min).

Examples:

1/16 LPM = 62 cc/min or 62 ml/min 1/4 LPM = 250 cc/min or 250 ml/min 1 LPM = 1000 cc/min or 1000 ml/min 1000

	Liters per N Concentratio	-	-								
FLOW	FLOW		C	ZONE C	ONCEN	TRATIO	N REGU	LATOR	SETTIN	NG	
[LPM]	[ml/min]	1	2	3	4	5	6	7	8	9	10
1/32	31	12	31	46	60	73	85	95	105	113	120
1/16	62	7	16	26	36	46	56	68	79	90	100
1/8	125	3	12	21	29	37	45	53	61	71	80
1/4	250	2	7	13	18	23	28	34	39	43	47
1/2	500	1	4	7	9	12	15	19	22	24	26
3/4	750	1	3	5	7	9	11	14	16	17	18

Test: Concentration regulator setting - #1, #2, #4, #6, #8, #10 with flow from 1/32 to 1 LPM Estimate: Concentration regulator setting - #3, #5, #7& #9

12

15

10

Selection of Oxygen Flow should be the first step when preparing the ozonation equipment for any application. It is obvious that 1/32 LPM (31cc/min) setting will deliver the lowest flow (smallest volume of the gas discharged within one (1) minute). Setting 1/16 LPM will deliver 62 cc/min and so on. Oxygen Flow Rate is adjusted by rotating the "end piece" of the Oxygen Flow Regulator attached to the oxygen tank. (Example - 1/16 flow rate /62cc/min)

	Liters per Mi Concentration		•								
FLOW	FLOW		C	ZONE C	ONCEN	TRATIO	N REGU	ILATOR	SETTI	 NG	
[LPM]	[ml/min]	1	2	3	4	5	6	7	8	9	10
1/32	31	12	31	46	60	73	85	95	105	113	120
1/16	62	7	16	26	36	46	56	68	79	90	100
1/8	125	3	12	21	29	37	45	53	61	71	80
1/4	250	2	7	13	18	23	28	34	39	43	47
1/2	500	1	4	7	9	12	15	19	22	24	26
3/4	750	1	3	5	7	9	11	14	16	17	18
1	1000	1	2	4	5	7	8	10	12	14	15

Test: Concentration regulator setting - #1, #2, #4, #6, #8, #10 with flow from 1/32 to 1 LPM Estimate: Concentration regulator setting - #3, #5, #7& #9

When the selection of the oxygen flow is done we can start to focus on second step. The position (#1 - #10) of the Ozone Concentration Regulator will determine concentration of ozone gas produced. This regulator changes the frequency of the high voltage discharge.

Flow in Liters per Minute [LPM] ==>> 1 LPM = 1000 cc/min = 1000 ml/min Ozone Concentration in Gamma ==>> 1 gamma = 1 µg/ml = 1mg/l = 1gr/m3

FLOW	FLOW	OZONE CONCENTRATION REGULATOR SETTING										
[LPM]	[ml/min]	1	2	3	4	5	6	7	8	9	10	
1/32	31	12	31	46	60	73	85	95	105	113	120	
1/16	62	7	16	26	36	46	56	68	79	90	100	
1/8	125	3	12	21	29	37	45	53	61	71	80	
1/4	250	2	7	13	18	23	28	34	39	43	47	
1/2	500	1	4	7	9	12	15	19	22	24	26	
3/4	750	1	3	5	7	9	11	14	16	17	18	
1	1000	1	2	4	5	7	8	10	12	14	15	

Test: Concentration regulator setting - #1, #2, #4, #6, #8, #10 with flow from 1/32 to 1 LPM Estimate: Concentration regulator setting - #3, #5, #7& #9

Low ozone concentration is produced when oxygen is exposed to low discharge frequency (low settings) and high ozone concentration is produced with high frequency of the discharge (high settings). "Cross-reference" of the Oxygen (ozone) Flow and the setting of the Ozone Concentration regulator will determine the Ozone Concentration produced. (Example: 1/16 Flow & #4 Concentration Regulation => 36 gamma =>36µg/ml => 36 mg/l)

Flow in Liters per Minute [LPM] ==>> 1 LPM = 1000 cc/min = 1000 ml/min Ozone Concentration in **Gamma** ==>> 1 gamma = 1 μ g/ml = 1mg/l = 1gr/m3

FLOW	FLOW	LOW OZONE CONCENTRATION REGULATOR SETTING											
[LPM]	[ml/min]	1	2	3	4	5	6	7	8	9	10		
1/32	31	12	31	46	60	73	85	95	105	113	120		
1/16	62	7	16	26	36	46	56	68	79	90	100		
1/8	125	3	12	21	29	37	45	53	61	71	80		
1/4	250	2	7	13	18	23	28	34	39	43	47		
1/2	500	1	4	7	9	12	15	19	22	24	26		
3/4	750	1	3	5	7	9	11	14	16	17	18		
1	1000	1	2	4	5	7	8	10	12	14	15		

Test: Concentration regulator setting - #1, #2, #4, #6, #8, #10 with flow from 1/32 to 1 LPM Estimate: Concentration regulator setting - #3, #5, #7& #9

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OzoneLab™ GE Line - Optional Countdown Timers



<u>Home</u> > <u>Products</u> > <u>Generators</u> > <u>GE Line</u> > Optional Countdown Timers



DISCONTINUED ITEM - REPLACED BY OzoneLab™ OL80W

We are able to build in one of three optional countdown timers into the basic GE30 or GE60 Ozone Generator.

GE units with countdown timers can also have an external signal port (optional) in the form of 3.5mm stereo jack, which can be linked to the relay controlled by the timer. This means that the timer in the ozone generator can activate not only the ozone module inside the enclosure, but it can also turn ON (or OFF) external devices for the duration of the ozonation period.



GE60 Ozone Generator with 99 min / 99 sec Countdown Timer



GE60 Ozone Generator with 99 hour / 99 min Countdown Timer



GE60 Ozone Generator with 9999 hour Countdown Timer





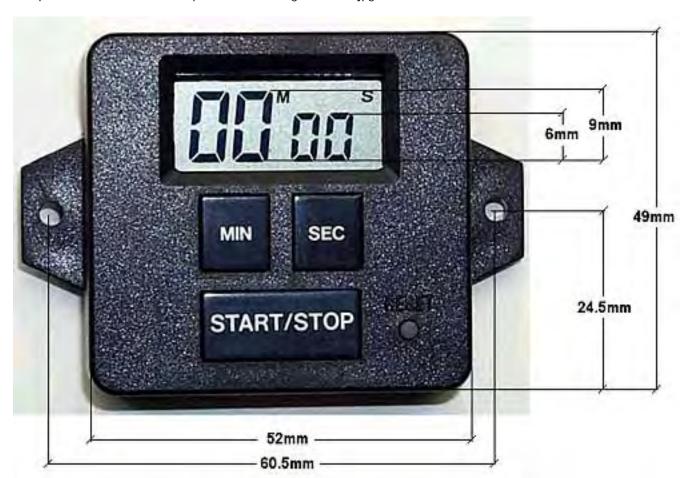
Each Countdown Timer has:

- Alarm/Buzzer
 - o OFF
 - o 40 dB
 - o 80 dB
- Operation Switch
 - Continuous Mode
 - Timer Mode

Color coding caps are included with each countdown timer so that you may color code the toggle switches to suit your needs.

Please do not hesitate to <u>contact us</u> to explore the custom options that can be build into our GE line of generators.

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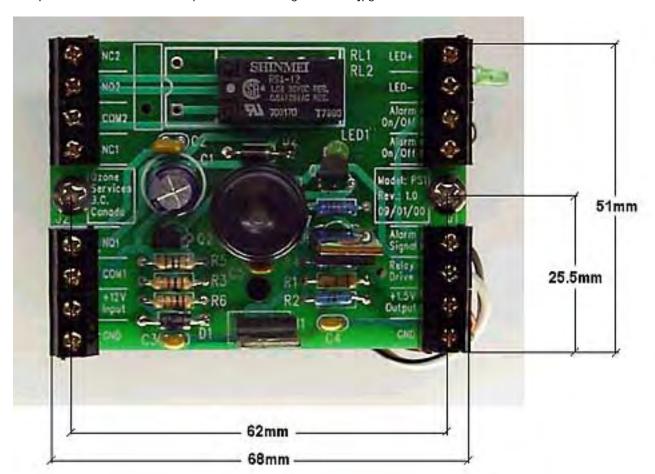


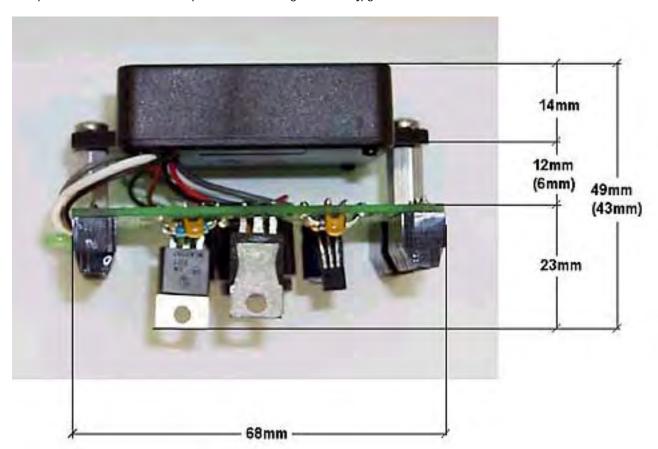














OzoneLab™ Glossary - Kv



<u>Home</u> > OzoneLab™ Glossary - Kv



Kv (Also see Cv)

The Flow Factor - Kv (commonly used outside U.S.) Kv is the metric equivalent of the flow coefficient - \underline{Cv} - and it is based on the SI-system

The flow factor -Kv- is defined as the flow of water through a valve at 20 oC in cubic meters per hour with a pressure drop of 1 kg/cm2 (1 bar)

Conversion between Flow Coefficient Cv and Flow Factor Kv can be expressed as:

Cv = 1.16 Kv (1)Kv = 0.853 Cv (2)

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z Abbreviations

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OzoneLab™ Glossary - A Index



Home > OzoneLab™ Glossary - A Index



- Activated Carbon
- Activated Carbon Block
- Aeration
- Aerobic
- Aerobic Respiration
- Air Pollution
- Air Quality Assessment
- Alkene (alcheno)

- Anaerobic Respiration
- Anal Insufflation
- Aquatron
- ASTM
- ASTM International
- Atmosphere
- Autohemotherapy

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z Abbreviations

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OzoneLab™ Glossary - B Index





 $\underline{\mathsf{Home}}$ > OzoneLab™ Glossary - B Index

- Bacteria
- Biochemical oxygen demand
- Biofilm
- Biological oxygen demand
- Biomedical Engineer
- BOD
- Booster Pump

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z Abbreviations

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OzoneLab™ Glossary - C Index



Home > OzoneLab™ Glossary - C Index



- Carbon Dioxide (CO₂)
- Carbon Monoxide (CO)
- Check Valve
- Chelation
- Chlorine
- Clinical Engineer
- Cold Plasma Generator

- Column
- Column Ozone
- Contact Tank (Reaction Tank)
- Corona
- Corona Discharge
- Cryptosporidium
- Cuvette
- Cv

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as material exposure testing.

A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z Abbreviations

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OzoneLab™ Glossary - D Index



Home > OzoneLab™ Glossary - D Index



- D518 ASTM Standard Test Method
- D1149 ASTM Standard Test Method
- D1171 ASTM Standard Test Method
- D3395 ASTM Standard Test Method
- D4575 ASTM Standard Test Method

- De-Ozonizing Filter
- Dewpoint
- Distilled Water
- Dobson Units

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z Abbreviations

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OzoneLab™ Glossary - E Index



Home > OzoneLab™ Glossary - E Index



- Electrophilic
- Eumatron

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

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OzoneLab™ Glossary - F Index



<u>Home</u> > OzoneLab™ Glossary - F Index



Free Radicals

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OzoneLab™ Glossary - H Index





<u>Home</u> > OzoneLab™ Glossary - H Index

- Half-Life
- HealOzone Unit
- Hemo-Irradiation
- High Voltage Electrode
- <u>Hydrogen Peroxide</u> (H₂O₂)
- Hyperthermic Chamber

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OzoneLab™ Glossary - I Index



 $\underline{\mathsf{Home}}$ > OzoneLab™ Glossary - I Index



- Injector
- In-Line Mixer
- Insufflation
- lon
- Irradiation

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OzoneLab™ Glossary - K Index





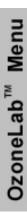
 $\underline{\mathsf{Home}}$ > OzoneLab™ Glossary - K Index

• Kv (also see Cv)

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OzoneLab™ Glossary - L Index



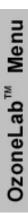
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- Liquid Ozonated Olive Oil (LOOO)
- Luer Lock

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OzoneLab™ Glossary - M Index



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- Medical Grade Ozone
- Molecular Oxygen
- Molecule
- Mr. A

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OzoneLab™ Glossary - N Index



 $\underline{\mathsf{Home}}$ > OzoneLab™ Glossary - N Index



- Nitrogen (N₂)
- Nitrogen Dioxide (NO₂)
- Nitrogen Monoxide (NO)

- Nitrogen Oxides
- Nitrous Oxide (N₂O)
- Nucleophilic

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OzoneLab™ Glossary - O Index



Home > OzoneLab™ Glossary - O Index



- Off-Gas
- Osmosis
- OTTP
- Ozone Therapy Training Program
- Oxidants
- Oxidation
- Oxidation-Reduction (Redox) Reaction
- Oxide (óxido, oxyde, ossido, Oxid neuter)
- Oxidize
- Oxygen (O₂)
- Ozonated Air
- Ozonated Olive Oil (OOO)

- Ozonation
- Ozone / Ozon (O₃)
- Ozone Destructor
- Ozone Distribution
- Ozone Formation
- Ozonide
- Ozoniferous
- Ozonizer
- Ozonolysis
- Ozonoterapiamexico
- O₃&UVBI
- O₃UVBI

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OzoneLab™ Glossary - P Index



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- Part Per Billion (ppb)
- Part Per Million (ppm)
- <u>Peroxide</u> (peróxido, perossido, Peroxid neuter)
- Photobiological
- Photochemotherapy
- Photodynamic Therapy
- Photoluminescence
- Photoluminescent
- Photon

- Photon-Pump
- Photooxidation
- Photo-Oxidation
- Photopheresis
- Phototherapies
- Phototherapy
- PU 010 (PU010)
- PU 050 (PU050)
- Pulsed Laser Deposition (PLD)

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as material exposure testing.

J K M N 0 P G S ٧ Q R Т W X Υ Ζ **Abbreviations**

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OzoneLab™ Glossary - Q Index



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Quartz

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OzoneLab™ Glossary - R Index



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- Radiation
- Radical
- Radical Chain Reaction
- Reagent (réactif, reagente m chimico, Reagens neuter)
- Rectal Insufflation (O₃RI)
- Redox Potential (RP)
- Reverse Osmosis

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OzoneLab™ Glossary - S Index



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- Sanitation
- Smog
- Stratospheric Ozone
- Swagelock

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OzoneLab™ Glossary - U Index



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- UBI
- Ultraviolet
- Ultraviolet Lamp
- Ultraviolet Light
- UV
- UV-A
- UV-B
- UV-C
- UV Cuvette
- UV Generator
- **UV Irradiation Instrument**

- U.V. Irradiation Instrument
- UV Machine
- UV Machines
- U.V. Machine
- U.V. Machines
- UV Quartz Cuvette
- UV Radiation
- UVBI
- <u>UVBI&O</u>₃
- UVBIO₃

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

K M 0 P F G S U V **Abbreviations** Q R Т W X Υ Ζ

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OzoneLab™ Glossary - V Index





<u>Home</u> > OzoneLab™ Glossary - V Index

• Venturie (Injector)

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OzoneLab™ Glossary - W Index



<u>Home</u> > OzoneLab™ Glossary - W Index



Water Column

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OzoneLab™ Glossary - Abbreviations



Home > OzoneLab™ Glossary



Search

Concentration C

 CO_2 Carbon Dioxide

CO Carbon Monoxide

F Flow

 H_2O_2 Hydrogen Peroxide

INN Inhalation

Liquid Ozonated Olive Oil L000

 N_2 Nitrogen

 NO_2 Nitrogen Dioxide

NO Nitrogen Monoxide

 O_2 Oxygen

 O_3 **Ozone**

O₃&UVBI Ozone and UV blood Irradiation combination treatment.

 O_3BB Ozone Body Bagging

O₃CH Ozonated Colon Hydrotherapy

 O_3CU Ozone Cupping

 O_3H_2O **Ozonated Water**

 O_3LB Ozone Limb Bagging

O₃MiDo Micro Dosing

O₃RI **Rectal Insufflation**

O₃Sal Ozonated Saline (0.9%)

 O_3SS Ozone Steam Sauna

O ₃ VI	Vaginal Insufflation
000	Ozonated Olive Oil
ppb	Part Per Billion
ppm	Part Per Million
RP	Redox Potential

Time

Т

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	G	<u>H</u>	1	J	<u>K</u>	<u>L</u>	M	<u>N</u>	<u>O</u>	<u>P</u>
<u>Q</u>	<u>R</u>	<u>S</u>	Т	<u>U</u>	<u>V</u>	W	X	Υ	Z		4	Abbrev	<u>/iation</u>	<u>s</u>	

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Ozone Therapy Training Program Network



<u>Home</u> > <u>Ozone Therapy Training Program</u> > OTTP Network





Welcome to the OTTP Network Who's Who area.

Bienvenidos a la Sección Quién es Quién de la Red del PEOT

Browse all of the profile listings. Hojee todos los perfiles enlistados Browse Profile Hojear perfiles

Ozone Therapy Training Program

OTTP Network Discussion Forums

• English • Spanish

OTTP F.A.Q.

Glossary

Contact Us

If you are a OTTP Network member, please login: Si usted es miembro de la Red del PEOT, por favor inicie la sesión

Login Name / Nombre de usuario:

Password / Contraseña:

If you have lost your password, please enter login or email address and it will be sent to the email account you registered with. Si perdio su contraseña, por favor introduzca nombre de usuario, ó su correo electrónico y ésta le será enviada a su cuenta de correo con la que fue registrado

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Ozone Services Burton Location 1



Home > Ozone Therapy Training Program (OTTP) > OTTP Burton Main Office > Burton Location 1



OTTP and Ozone Services Main Office

(Burton, B.C., Canada)

Ozone Therapy Training Program (OTTP) gradually evolved from our original 30 minute presentation (Technical Aspects of Ozonation Equipment for Ozone Therapies / 1997), to a 2 day workshop (1999), and into its present day form - a series of three workshops - OTTP/Basic, OTTP/Intermediate, and OTTP/Advanced. In

this evolution process, 2-day workshops hosted in our facility, played an important role, giving our team a chance to test different training approaches, and to obtain good understanding about the needs of medical professionals utilizing ozone therapy in their practice. In essence, our lecturing room became a testing ground for OTTP project, and it will continue to serve as a gathering and educational place, where ideas for Ozone Therapy Training Program would continue to be further refined.



Classroom Instruction in Burton, B.C., Canada



Participants from South Korea, Australia, USA, Brazil and B.C.

The workshops hosted by Den Rasplicka at Ozone Services Main Office in Burton B.C., and they are primarily covering OTTP/

Basic level, dealing with Technical Aspects of Ozone Therapies. Due to the weather conditions, workshops are generally between late spring and early fall. The events held in Ozone Services facility are designed to meet the needs of small groups, and they are held in very private setting with a maximum 10 people per workshop. Those attending have usually also a chance to see activities behind the scene, and get better sense about the way OzoneLab™ products are designed and produced.

This information would not be complete if we would not include a suggestion for anyone coming to visit us - we encourage you to schedule into your travel plans extra time you may wish to spend exploring surroundings of Burton, Arrow Lakes and West Kootenay region.

- Workshop Itinerary
- How to get to Burton, B.C.
- Where have people come from?
- Workshop Feedback Form

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Ozone Services Burton Location 2





<u>Home</u> > <u>Ozone Therapy Training Program (OTTP)</u> > <u>OTTP Burton Main Office</u> > Burton Location 2

Please click on the below map for a zoomed in view of our Burton location! We also have a more detailed topographical map of the general area <u>available here</u>.



Take the Scenic Tour of the Nakusp - Burton - Fauquier Region

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How to Get to Burton



<u>Home</u> > <u>Ozone Therapy Training Program (OTTP)</u> > <u>OTTP Burton Main Office</u> > How to Get to Burton







Canadian and International visitors will find the most convenient access to <u>our location in Burton</u> is from Kelowna, B.C. Flights to Calgary or Vancouver can be also considered, however the driving distances from those two locations are much longer then from Kelowna.

Kelowna, B.C. Airport

Servicing Airlines	Air Canada	Numerous flights per day			
	Alaska Airlines	Numerous flights per day			
	Jazz	Numerous flights per day			
	WestJet	Numerous flights per day			
Car Rental Kelowna Airport	Budget - Tel: 250-765-9882 National / Tilden - Tel: 250-765-2800 Hertz - Tel: 250-765-3822				

Calgary Car Rental Info:

Thrifty Car Rental - 403-221-1961 / 1-800-367-2277 Budget - 1-800-268-8900 National Car Rental -403-221-1690 / 1-800-227-7368 Hertz - 403-221-1676 / 1-800-263-0600

Vancouver Car Rental Info:

Thrifty Car Rental - 604-606-1666 / 1-800-367-2277 Budget - 604-668-7000 / 1-800-268-8900 Hertz - 604-606-3700 / 1-800-263-0600



United States visitors will find the best access to <u>our location in Burton, B.C.</u> is via Spokane, Washington. Airfare charges jump significantly when international flight through Vancouver/Kelowna, BC is selected.

Spokane, WA Airport

Servicing Airlines

America West Airlines
Alaska & Horizon Airlines
United Airlines
Delta Airlines



By Automobile

Driving Distances

- Vancouver to Burton 8 to 8.5 hours
- Calgary to Burton 6.5 to 7 hours
- Kelowna to Burton 3 to 3.5 hours (scenic road)
- Spokane to Burton 6 6.5 hours
- Seattle to Burton 9 10 hours

Driving Directions to Burton, B.C.

- From Kelowna, B.C. Airport (from Vancouver, B.C.)
- From Revelstoke, B.C. (from Calgary, AB)
- From Spokane, WA Airport

Driving Directions from Kelowna, B.C. Airport (from Vancouver, B.C.)

- HWY 97 to Vernon (NORTH)
- HWY 6 in direction to Lumby / Nakusp

IMPORTANT NOTE:



There is no gas station with 24hour/day operation between Vernon and Ozone Services location. Even the gas stations in the closest larger community to Ozone Services location (in Nakusp) have limited service hours.

The distance between Vernon and Ozone Services location is approximately 95 miles / 150km.

The distance between Vernon and Nakusp is approximately 110 miles / 180km.

Do not count on luck or a help of other drivers. HWY 6 crosses scarcely populated area of Monashee Mountains and spending the night in high elevations can be unpleasant experience.

- HWY 6 to Lumby
- HWY 6 to Needles / Fauquier ferry crossing (See below)
- HWY 6 to SOUTH end of Burton community
- Last road on the right hand side BEFORE crossing the bridge Silver Queen Road
 (If you crossed the bridge you have to turn around and go back 2 km. First road after crossing the bridge on the LEFT Silver Queen Road.)
- Stay on Silver Queen Road; drive 2 miles until you see the "Ozone Services" sign at the right side of the
 road. Approximately 250FT after the sign you will see the driveway at the right side of the road. You may
 park your car in the cleared area and walk from there. You can also follow the driveway approximately
 200FT, and park your car in the cleared area near the building.

Total travel time from Kelowna to Burton: 3.0 hours
Total travel time from Vancouver to Burton: 7.5 hours

Fauquier - Needles Ferry Service:

Ferry Ride: 3 to 5 minutes Ferry Fee: No Charge

Vernon to Needles: 2 to 2.5hours Burton to Fauquier: 25 to 30 minutes Nakusp to Fauquier: 55 to 60 minutes

- Leaving Fauquier every 30 minutes between 6:00AM and 10:30PM
- Leaving Needles every 30 minutes between 6:30AM and 10:00PM

Driving Directions from Revelstoke, B.C. (from Calgary, AB)

- HWY 1 (Trans-Canada HWY) to Banff
- HWY 1 to Revelstoke
- TURN LEFT after crossing the bridge over Columbia River to HWY 23 (SOUTH)
- HWY 23 to Shelter Bay / Galena Bay ferry crossing (See below)
- HWY 23 to Nakusp
- HWY 6 in direction Burton / Fauquier / Vernon / Kelowna
- HWY 6 to Burton (SOUTH)
- First road after crossing the bridge on the LEFT Silver Queen Road.
- Stay on Silver Queen Road; drive 2 miles until you see the "Ozone Services" sign at the right side of the road. Approximately 250FT after the sign you will see the driveway at the right side of the road. You may park your car in the cleared area and walk from there. You can also follow the driveway approximately 200FT, and park your car in the cleared area near the building.

Total travel time from Revelstoke to Burton: 2 hours Total travel time from Calgary to Burton: 6.5 hours

Nakusp to Revelstoke Ferry Schedule:

This beautiful free Ferry ride runs year round.

Galena Bay (Nakusp side) to Shelter Bay:

From 6:30am to 11:30pm - every hour on the half hour

Shelter Bay (Revelstoke side) to Galena Bay:

From 6:00am to 11:00pm - every hour on the hour

Dangerous cargo sailings -Tuesdays & Thursdays

Shelter Bay - 9:00am and 2:00pm

Galena Bay - 9:30am and 2:30pm

There may be extra sailings during peak season or long weekends such as Easter weekend, Victoria day, and late June to mid September.

Driving Directions from Spokane, WA Airport

- I-90(EAST) until HWY 2 / Newport Exit
- HWY 2 to a junction with HWY 395 (NORTH)
- HWY 395 to Kettle Falls (NORTH)
- HWY 25 to Northport
- Frontier/Paterson Canada-USA border (open 24 hours)
- HWY 22A to Trail (NORTH)
- HWY 3A to Castlegar
- Stay on HWY 3A for an other 20 miles to a junction of HWY 3A and HWY 6
- TURN LEFT and stay on HWY 6 to Crescent Valley, Silverton
- HWY 6 to Nakusp
- HWY 6 to Burton (SOUTH) (lake must be on the RIGHT hand side)
- After crossing the bridge take first road on the LEFT Silver Queen Road.

• Stay on Silver Queen Road, drive 2 miles until you see the "Ozone Services" sign at the right side of the road. Approximately 250FT after the sign you will see the driveway at the right side of the road. You may park your car in the cleared area and walk from there. You can also follow the driveway approximately 200FT, and park your car in the cleared area near the building.

Total travel time from Spokane to Burton: 6 - 6.5 hours Total travel time from Seattle to Burton: 9-10 hours

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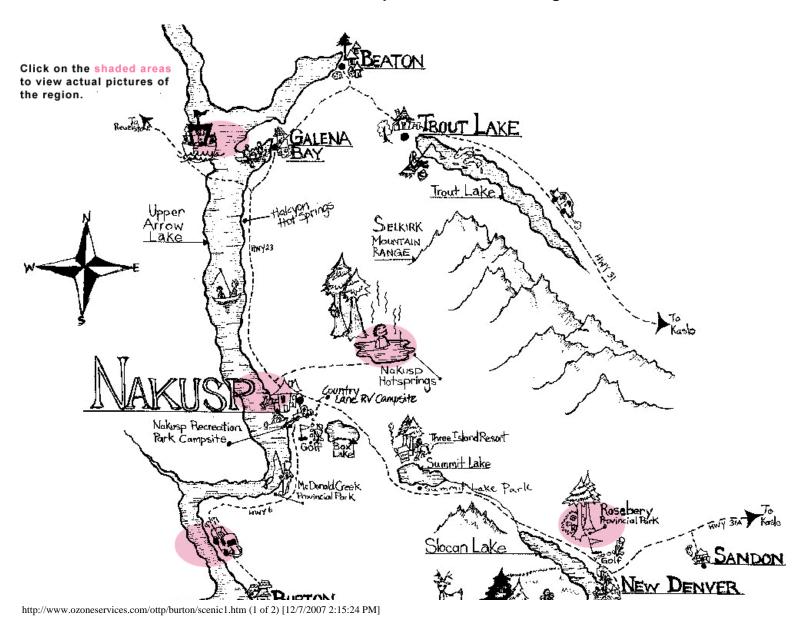
Nakusp Area Scenic Tour





<u>Home</u> > <u>Ozone Therapy Training Program (OTTP)</u> > <u>OTTP Burton Main Office</u> > <u>Burton Info</u> > Nakusp Area Scenic

Please click on the shaded areas below to view a picture of the actual region.





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Ozone Therapy OTTP Information Web Site:	1-250-265-4461 OTTP Information / Help Line				
[General Information / 1st page]	OTTP/Basic	OTTP/Intermediate	OTTP/Advanced		
Dates:	September 17-18, 2006 Sunday & Monday	September 19-20, 2006 Tuesday & Wednesday	September 21-22, 2006 Thursday & Friday		
Location:	Burton, BC, Canada	Burton, BC, Canada	Burton, BC, Canada		
Minimum Attendance Required: IMPORTANT:	15 (confirmed before July 31st) If not met, the event will be cancelled	25 (confirmed before July 31st) If not met, the event will be cancelled	25 (confirmed before July 31st) If not met, the event will be cancelled		
Prerequisites:	valid medical license	valid medical license completed OTTP/Basic	valid medical license completed OTTP/Basic completed OTTP/Intermediate		
Lecturers:	Den Rasplicka	Deborah Phair, ND Marcella Percy, RN	Deborah Phair, ND Phil Mollica, MD Robert Harris, MD guest speakers to be announced		
Topics:	Oxygen Sources & Purity Ozone Production & Safety Ozone Purity & Parameters Ozone Hardware Requirements Ozone Math (dosing parameters) Ozone in Medical Office	History Bio-Chemistry Medical Protocols Indications Contraindications	Case Histories Dental ozone protocols and techniques for general medical practice		
Hands-On Training:	Ozonated Water Ozone Cupping, Bagging Ozone Steam Sauna Insufflations (rectal, vaginal, ear) Nasal Insufflations/Inhalations	MAHT MiAHT MicroDosing Injections O3UVBI Combination Treatment	O3UVBI MicroDosing Dental ozone treatments for general medical practice		
Morning Lectures: Lunch Break: Afternoon Lectures:	8:30 - 12:30 12:30 - 14:30 14:30 - 18:00	8:30 - 12:30 12:30 - 14:30 14:30 - 18:00	8:30 - 12:30 12:30 - 14:30 14:30 - 18:00		

Cost BEFORE July 31st	Cost AFTER July 31st	Accepted Payments				
		VISA, Master, Discover				
		Sorry, no American Express				
U\$ 900/person	U\$ 1080/person	Sorry, no cheques				
OTTP Workshop acc	ess & materials, training supplies, lund	ches and refreshments				
Accommodation, transportation, meals not listed above						
Many individuals travel vast distances to come to workshops. Consequently, we strictly follow time schedule The doors will be locked. This is to prevent the disruption of the workshop. Therefore, we encourage you to: * Print out and bring with you the driving / direction instructions + Ozone Services contact info * Allow for unexpected delays when planning your trip (border crossing delays) * Arrive in Burton / Nakusp area at least 12-14 hours before the start of the workshop * Arrive in Burton at least 15 minutes before the start of the workshop - location of OTTP will be clearly marked * Please, do not use any aftershave or perfume when coming to workshop(s) * Please bring with you a notebook, calculator and indoor footwear.						
	~~~	Download and Print Travel Info Sheet e sent to everyone on Aug.1st, 2006				
http://www.nakusparrowlakes.com/visito	Accommodation Info Sheet					
http://www.nakusparrowlakes.com/recre	eation-summer.htm	Activities Info Sheet				
* Burton is definitely "of beaten path" ar  * Training will be conducted in unconve  * Weather permitting, there will be a bal  * More adventurous individuals can go I  * Golf-addicts will find golf courses in Na  * Those preferring to conserve the ener  There is no MOBILE PHONE service in  "rat-race", an opportunity to slow down is to remove people from their daily rout	P in Burton is the kind of a training opportunity you very likely never experienced before. on is definitely "of beaten path" and has no fancy hotels, conference rooms or golf courses. In the permitting will be conducted in unconventional setting, served will be home made meals. In their permitting, there will be a ball game after lunch (leave at home high heel shoes or a tie) are adventurous individuals can go kayaking, hiking or horse riding after lectures addicts will find golf courses in Nakusp (45km/28miles) and Fauquier (22km/ 14miles) are preferring to conserve the energy may opt for fishing and/or the dip in the hot springs are is no MOBILE PHONE service in Burton. We encourage you to consider it as an invitation to forget daily ace", an opportunity to slow down and enjoy the moment. The whole idea behind hosting OTTP in Burton to emove people from their daily routines, and to give them the opportunity to get to know other participants.  NCOURAGE ALL PARTICIPANTS OF OTTP TO SPEND AT LEAST 3-4 EXTRA DAYS ORING WHAT THIS AREA HAS TO OFFER. THERE IS A LOT TO SEE AND DO					
	Accomm  Many individuals travel vast distances to The doors will be locked. This is to prevent the doors will be locked. This is to prevent the doors will be locked. This is to prevent the doors will be locked. This is to prevent the doors will be locked. This is to prevent the doors will be locked. This is to prevent the doors will be locked. This is to prevent the doors will be dead to prevent the doors will be doors when the doors will be a door to be doors will be doors.  Internet  Inter	U\$ 350/person U\$ 650/person U\$ 900/person U\$ 1080/person U\$ 1080/person U\$ 1080/person U\$ 1080/person  OTTP Workshop access & materials, training supplies, lund Accommodation, transportation, meals not list  Many individuals travel vast distances to come to workshops. Consequently, v The doors will be locked. This is to prevent the disruption of the workshop. Th * Print out and bring with you the driving / direction instructions + Ozone Serv * Allow for unexpected delays when planning your trip (border crossing delays * Arrive in Burton / Nakusp area at least 12-14 hours before the start of the workshop - locatic * Please, do not use any aftershave or perfume when coming to workshop(s) * Please, bring with you a notebook, calculator and indoor footwear  Internet  http://www.ozoneservices.com/ottp/burton/gettoburton.htm No air tickets should be booked until the fnal confirmation for all events will be http://www.nakusparrowlakes.com/visitor-accommodations.htm  http://www.nakusparrowlakes.com/recreation-summer.htm  * OTTP in Burton is the kind of a training opportunity you very likely never exp * Burton is definitely "of beaten path" and has no fancy hotels, conference roc * Training will be conducted in unconventional setting, served will be home ma * Weather permitting, there will be a ball game after lunch (leave at home high * More adventurous individuals can go kayaking, hiking or horse riding after le * Golf-addicts will find golf courses in Nakusp (45km/28miles) and Fauquier (2 * Those preferring to conserve the energy may opt for fishing and/or the dip in  There is no MOBILE PHONE service in Burton. We encourage you to conside "rat-race", an opportunity to slow down and enjoy the moment. The whole idei is to remove people from their daily routines, and to give them the opportunity				

#### FERRY SERVICE (NORTH END OF ARROW LAKES) **HWY #23 / NORTH** IN DIRECTION SHELTER BAY / REVELSTOKE SIDE → SOUTH → GALENA BAY / NAKUSP SIDE TO REVELSTOKE DAILY, EVERY HOUR ON THE HOUR, FROM 5:00AM TO 12:00AM. CONNECTING WITH HWY#1 GALENA BAY / NAKUSP SIDE → NORTH → SHELTER BAY / REVELSTOKE SIDE TO CALGARY (7 HRS.) DAILY, EVERY HOUR ON THE HALF HOUR, FROM 5:30AM TO 12:30AM AND VANCOUVER (8 HRS.) BEATON NO LOCAL TRANSPORT NO TAXI, NO BUS, NO TRAIN, ETC. **DISTANCE** SERVICE IN OUTLINED AREA FROM NAKUSP velstok TO BURTON IS 30 MINUTES DRIVE Upper Arrow Lake SELKIRK TRAVEL MOUNTAIN RANGE TO & FROM BURTON, BC **CANADA** Hotsprings sp Recreation nee Island Resort Park Campsite, HWY #6 / WEST DIRECTION TO VERNON CONNECTING WITH HWY#97 TO VERNON, KELOWNA (3 HRS.) AND VANCOUVER (8 HRS.) NEW DENVER SILVERTON To Historical Park Tukaluk Campground & Trading Pos /alhalla Provincial To Nelson EDGEWOOD FERRY SERVICE (SOUTH END OF ARROW LAKES) HWY #6 / SOUTH TO JUNCTION WITH HWY#3A IN DIRECTION TO CASTLEGAR, NEEDLES / VERNON SIDE → EAST → FAUQUIER SIDE DAILY, ON THE QUARTER PAST AND QUARTER TO HWY#22 TO TRAIL, ROSSLAND AND PATERSON/FRONTIER BORDER CROSSING FAUQUIER SIDE → WEST → NEEDLES / VERNON SIDE (OPEN-24 HOURS) DAILY, ON THE HOUR AND HALF PAST CONNECTING FURTHER TO HWY#25 TO U.S.A.

(SPOKANE, WA, 6.5 -7 HRS.)

ON DEMAND SHUTTLE SERVICE 10:00PM TO 5:00AM

# SERVICES IN BURTON & NAKUSP AREA



#### NAKUSP (30 MINUTES DRIVE TO BURTON)

VISITOR INFORMATION: <a href="http://www.nakusparrowlakes.com">http://www.nakusparrowlakes.com</a>

#### ACCOMODATION:

http://www.nakusparrowlakes.com/visitor -accommodations.htm

#### RECREATION:

http://www.nakusparrowlakes.com/recreation-summer.htm

#### FOOD & BEVERAGE:

http://www.nakusparrowlakes.com/visitor -food.htm

#### HOTEL TYPE ACCOMMODATION:

SELKIRK INN [1-800-661-8007]

http://www.selkirkinn-nakusp.com

KUSKANAX LODGE [RESTAURANT] [1-800-663-0100]

http://www.kuskanax.kootenays.com

# CABINS & B&B'S (3-10 MINUTES DRIVE TO BURTON)

PARADISE LODGING [250-265-4379] http://www.nakusparrowlakes.com/paradiselodge.htm

OSPRAY LODGING [250-265-4718] http://www.nakusparrowlakes.com/ospreylodging.htm

LAKESIDE LODGING [250-265-4957] http://www.nakusparrowlakes.com/lakeside.htm

WILLOUGHBY LANE B&B [250-265-3373] http://www.nakusparrowlakes.com/willoughby.htm

#### **COMMUNICATIONS**

CELL PHONE SIGNAL IS AVAILABLE ONLY IN NAKUSP (TELUS)

INTERNET CAFÉ IN NAKUSP [250-265-4701] WHAT IS BREWING ON BROADWAY IN NAKUSP

INTERNET AND LAND-LINE TELEPHONE IN BURTON ACCESS PROVIDED BY OTTP TEAM [250-265-4461]

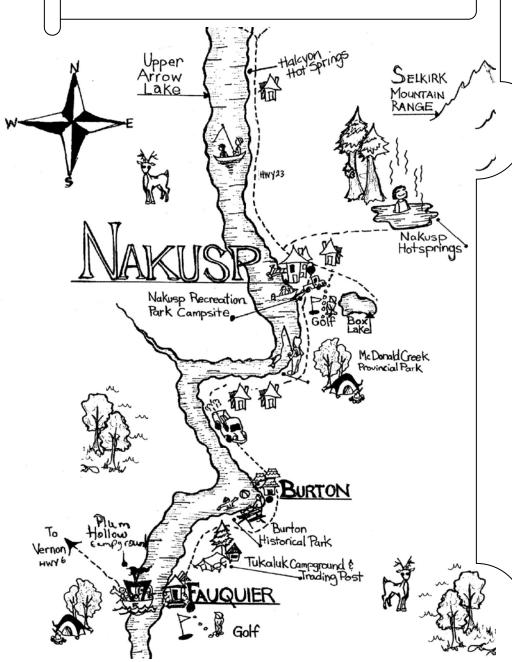
#### **BURTON**

MONICA'S RESTAURANT DINNERS ONLY MUST HAVE RESERVATION (!!!) [250-2654853]

> BURTON HISTORICAL PARK & CAMPGROUND [250-265-4348]

GENERAL STORE STORE & POST & GAS [250-265-4491]

# ACTIVITIES IN BURTON & NAKUSP AREA



## HALCYON HOT SPRINGS

(50 MIN. DRIVE FROM BURTON)

[1-888-689-4699]

http://www.halcyon-hotsprings.com

HOT SPRINGS –3 POOLS MASSAGES HORSEBACK RIDING/TOURS ATV TOURS BIKE & CANOE RENTAL

# NAKUSP BASED (30 MINUTES FROM BURTON)

VISITOR INFORMATION: http://www.nakusparrowlakes.com

#### RECREATION:

 $\frac{http://www.nakusparrowlakes.com/recreation}{-summer.htm}$ 

HIKING – MAPS OF LOCAL TRAILS http://www.nakusparrowlakes.com/recreation -trailmaps.htm

BIKE RENTALS [250-265-9971]

FISHING - KING FISHER [1-800-838-5269] http://www.nakusparrowlakes.com/kingfisher_htm

NAKUSP GOLF COURSE [250-265-4531] http://www.nakusparrowlakes.com/golf.htm

FAUQUIER GOLF CLUB [250-269-7414]

KAYAKING ECO COLUMBIA [250-358-2211] http://www.eco.kootenays.com

MOUNTAIN TOURS [250-265-3058] http://www.nakusparrowlakes.com/mountaintours.htm

#### **COMMUNICATIONS**

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INTERNET AND LAND-LINE TELEPHONE IN BURTON ACCESS PROVIDED BY OTTP TEAM [250-265-4461]

#### **BURTON**

BASKETBALL
BASEBALL
SOCCER
VOLLEYBALL
FISHING
HIKING - SNOW CREEK TRAIL
KAYAKING

# **REGISTRATION FORM**

for

# Technical Aspects of Ozone Therapies and Ozonation Equipment for Ozone Therapies - a lecture combined with hands on training

Lecturer: Location: Cost:		n Road, Burton, BC, 0		a modation not included	I
Name:					
Address:					
Tel:	Fax:				
Registering : August 19 & 2	for lecture in: 29, 2006				
Number of a	ttendees:				
one person (	1) 🗖	two people (2)		people (?)	
-	ust be made in fu ge the following cr		tion ar	nd are NON-REFUND	ABLE.
VISA / MAST	ERCARD / DISCO	VER credit card:	E	Exp. Date:	
Credit Card #	<u> </u>				
confirmation b		vices. I also understand		guaranteed until I receive should not finalize any t	
	<b>EPTED</b> if we do not			cal license. Registration nt. Licenses must be fax	
Date:		Signature	: _		
	_	leted form to: 2			



# **OTTP - Upcoming Events**



Home > OTTP > Upcoming Events



The following workshops have been scheduled.

## OTTP/Basic

Not scheduled - check back again

# **OTTP/Intermediate**

Not scheduled - check back again

## OTTP/Advanced

Not scheduled - check back again



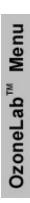


How to get to Burton by automobile



Learn about ozone and enjoy some outdoor activities - all in one trip!

© Ozone Services





#### OzoneLab™ Order Form



Home > Order Form



AME

Before you place the order review the following important information:

- Prices you obtained from our pricelists are in US currency and do not include applicable taxes
- Payments are processed exclusively on secure On-Line Payment Processing system, which will require Internet Explorer 5.0 or greater.

#### Instructions:

- 1. Complete the Product Order Form
- 2. Fax through a copy of medical licence's of attendees
- 3. You will receive the response from Ozone Services with:
  - o the link to Ozone Services Invoice with applicable taxes to address specified in submitted Product Order Form.
  - the link to payment processing page. There is no need for you to have any special account as the payment(s) can be completed using VISA, Mastercard, Discover Card and American Express.
- 4. You may wish to print out the copy of the Invoice for your records
- 5. After your payment will be completed:
  - o you will receive confirmation that the payment was processed by the system
  - we will receive automatically the notification as well.

#### Please note: Required fields in contact area are bolded

Prefix: Full Name:

Company Name:

**Daytime Telephone:** Evening Telephone:

Fax Number:

Email:

The email address you enter will be used for future communications - please try to use a permanent address.

Address:

Address Line 1:

City: Prov/State:

Postal/ZipCode: Country:

## **General Information:**

Previous hands-on Ozone
Therapy Experience?:

Yes No

Previous Training: (If yes, when / where / how many hours or days, and who was the lecturer.)

**Location of your Practice?:** 

Focus of your Practice?:

**Year Medical Degree Obtained?** 

Specialization?:

# Fees for OTTP in Burton, B.C. - \$275 US per person

The above outlined OTTP fees are non negotiable, non refundable and they include

- OTTP program
- 2 lunches

	Workshop Location & Requested Date	Number of Persons	Price per Person	Total
1				
2				
	Click if Canadian resident:		GST:	
	rerequisites & Agreement Confirm Il 4 below must be agreed upon)			
Me	<ul> <li>edical License (or equivalent training)</li> <li>The participant(s) registering have ob</li> </ul>	l agree		
Pr	<ul> <li>Ozone Services MUST receive a fax of Registration WILL NOT BE ACCEPT document. Licenses must be faxed to</li> </ul>	I agree  That I will fax through a copy of my licence.		
l u	inderstand that my acceptance into an OT infirmation back from Ozone Services. I a livel arrangements until I receive my confirmation back from Ozone Services.	l agree		

Language Requirements:  OTTP workshops in Burton are done in English. Participants attending OTTP workshop(s) must understand and speak english (translators are not provided or allowed due to disruptions)	l agree
Registration Fee Non Refundable:  I understand that the registration fee for the workshop is non refundable.	l agree
Total in U.S. Dollars	

If you perform an error while completing the form, an error message will appear in the box above.

© Ozone Services

For problems pertaining to our Web Site, please contact our WebMaster



#### **Learn About Burton**



<u>Home</u> > <u>Ozone Therapy Training Program (OTTP)</u> > <u>OTTP Burton Main Office</u> > Learn About Burton



#### Learn about Ozone and enjoy some outdoor activities - all in one trip!

Have you wanted to learn about ozone in a relaxing and enjoyable setting? You should consider exploring one of our OTTP workshops, and while here, also explore the part of

the world we call home. We feel that some of the most beautiful sites in the world are found on our doorstep.



We do have to give you warning that there are no igloo's to be seen here - a <u>quick</u> <u>check of the weather</u> for nearby Nakusp will prove that.

We have created a small scenic tour of our area, as well as several links to areas of interest that may assist you in considering a combined workshop and vacation all in one.

- Ozone Services Map Location
- Ozone Services Scenic Tour
- Nakusp Hot Springs Site
- Revelstoke Community & Vacation Site

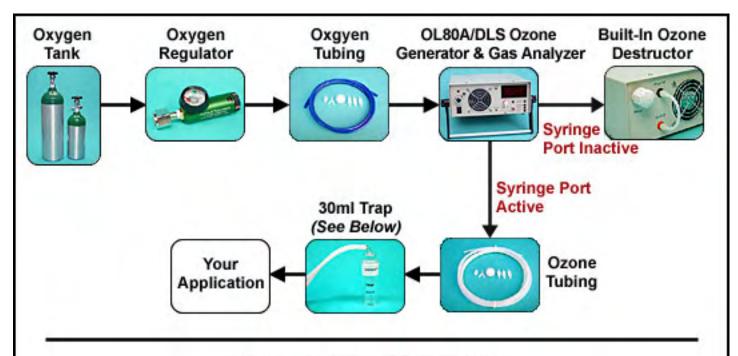
# Some Driving Distances from Burton (Ozone Services Location)

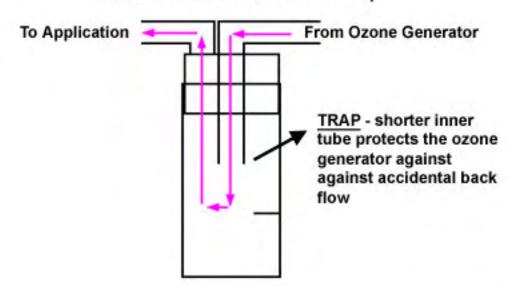
Fauquier 1	5 miles	24 km
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Nakusp	26 miles	42 km
Nelson	120 miles	195 km
Revelstoke	120 miles	195 km
Kelowna Airport	122 miles	195 km
Spokane Airport	270 miles	430 km
Vancouver Airport	385 miles	620 km

© Ozone Services

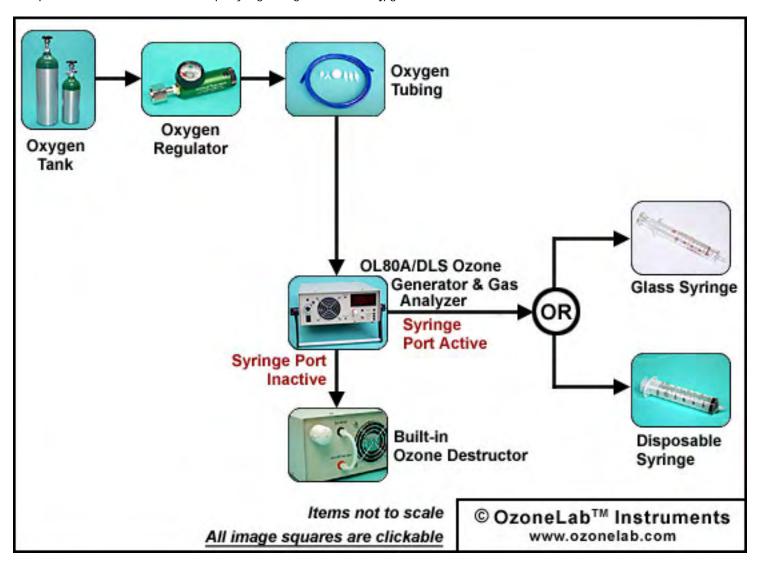
For problems pertaining to our Web Site, please contact our WebMaster

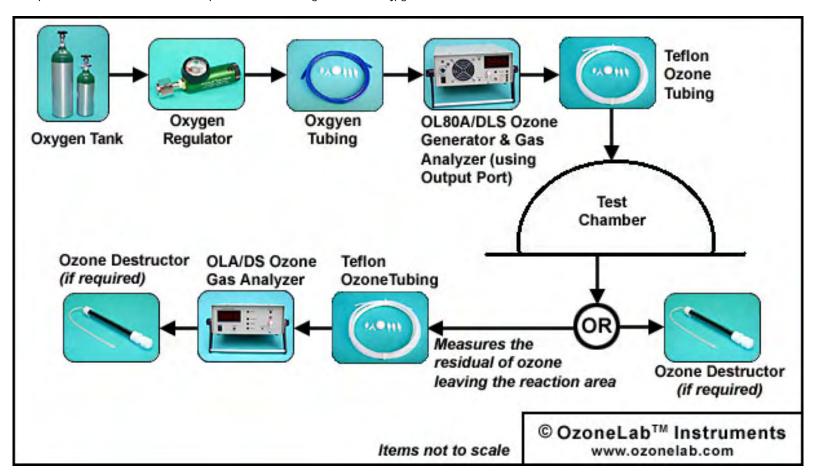


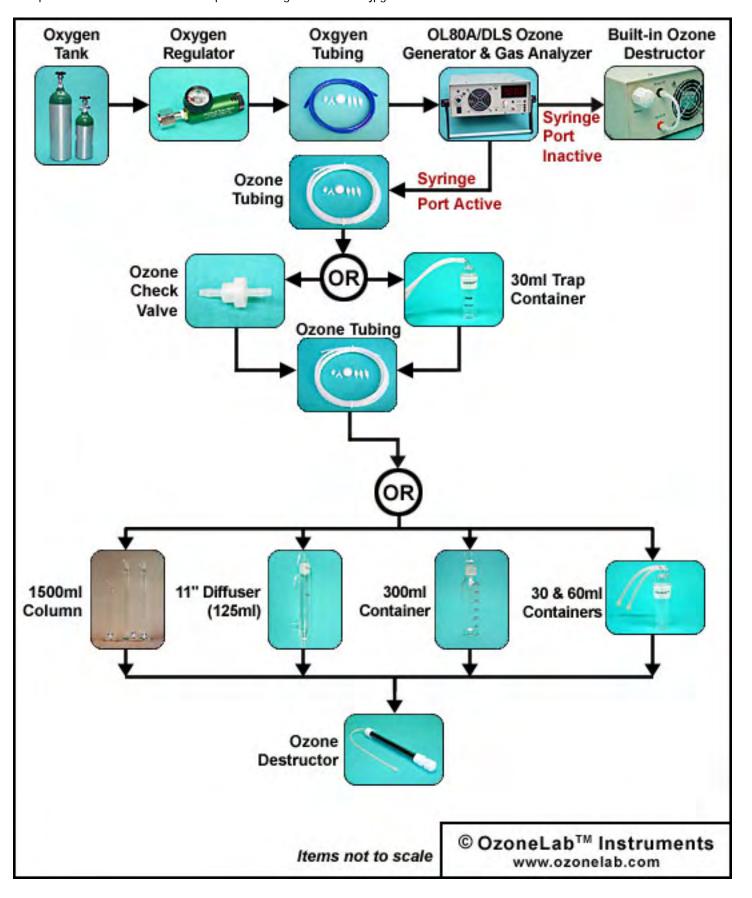


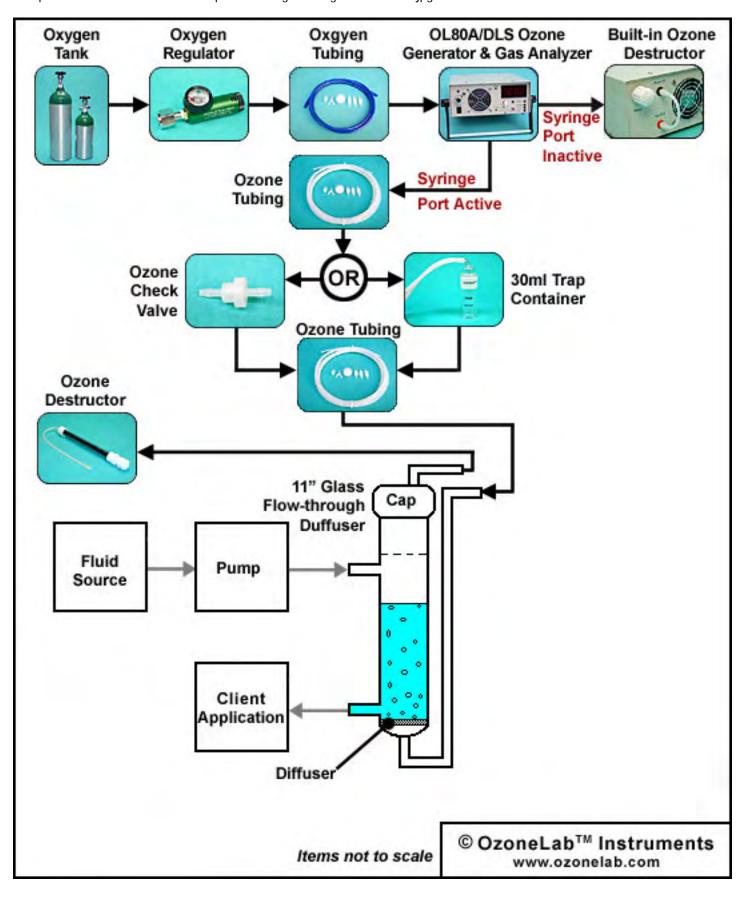
For clients wishing to ozonate liquids, the TRAP (has the shorter stem) is used where there is a prospect for a back flow. Trap containers are available in 30ml sizes (standard) or in larger custom sizes (60, 125, 300ml) upon request.

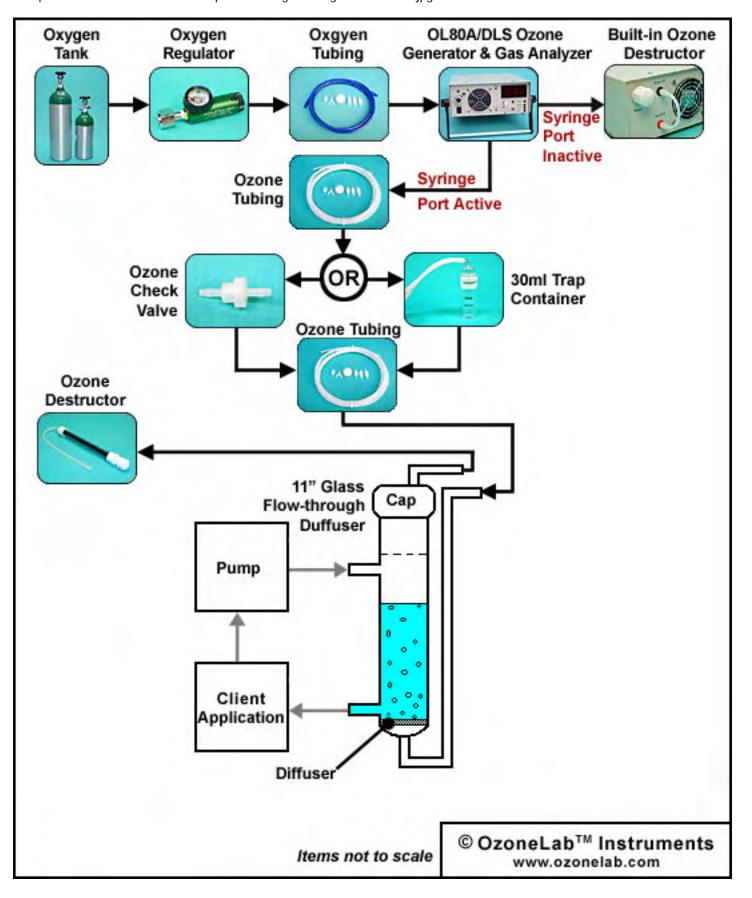
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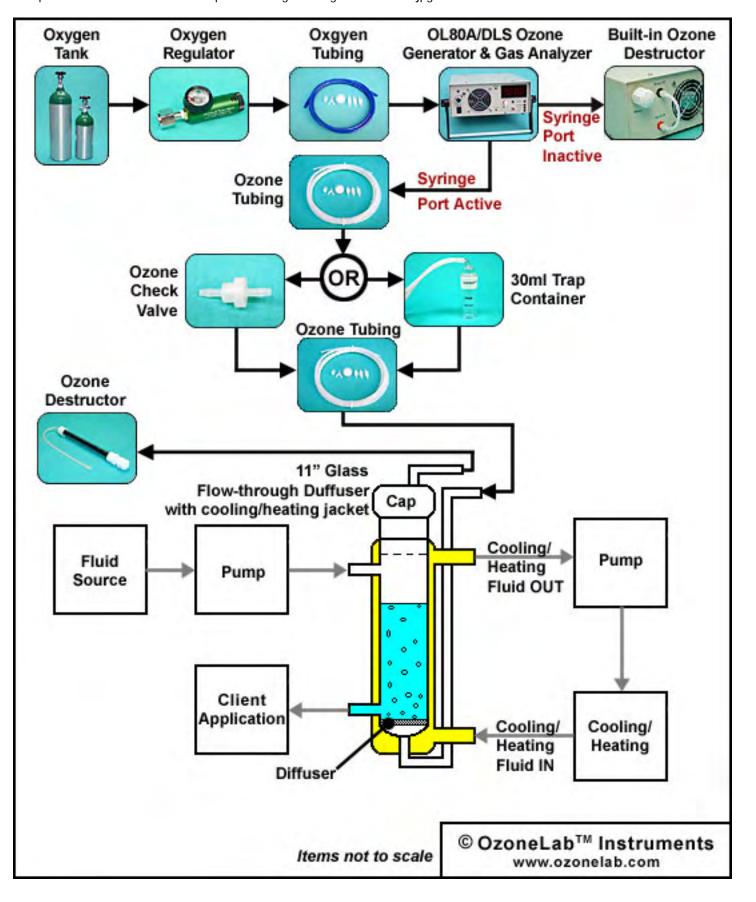


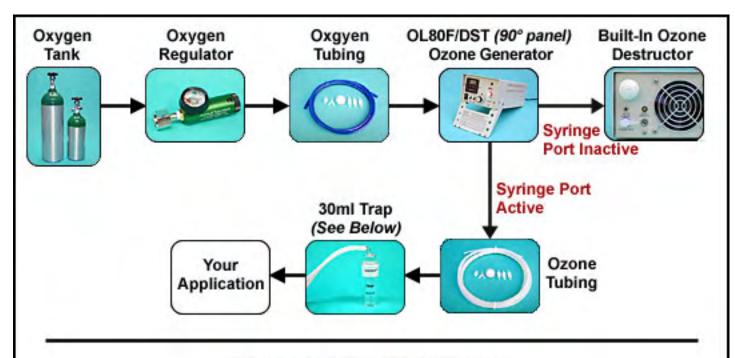


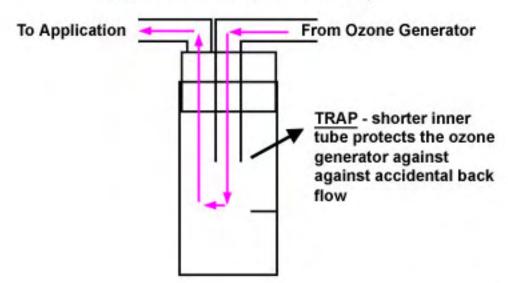






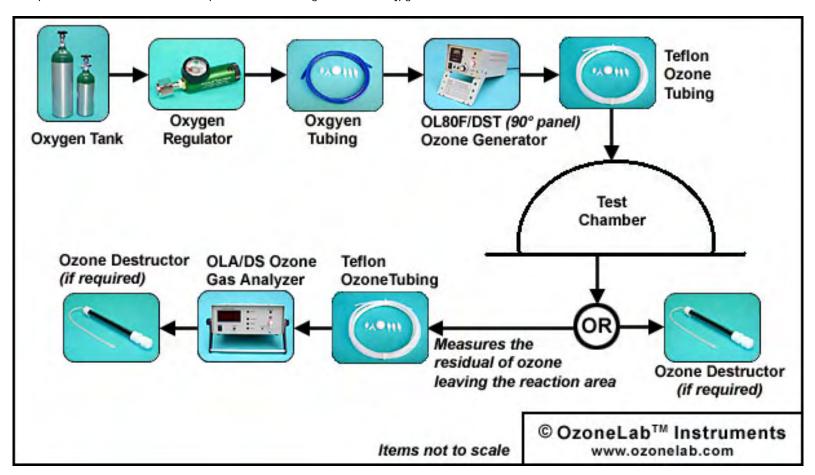


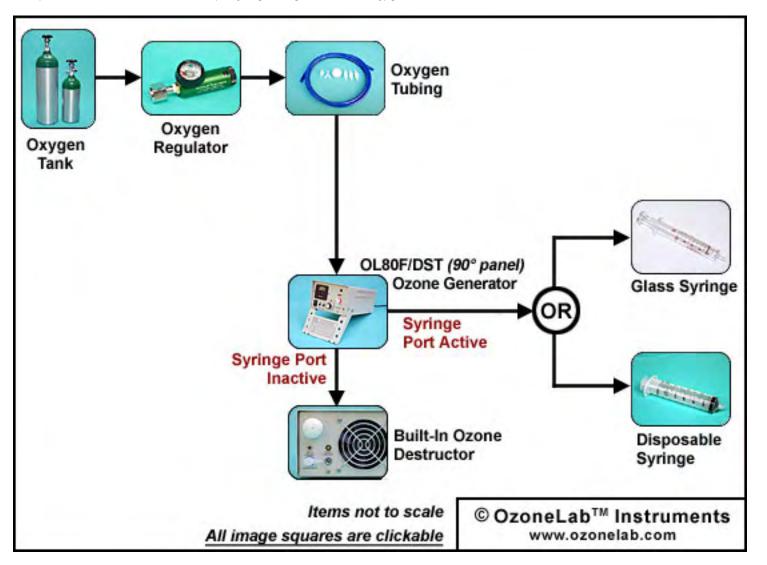


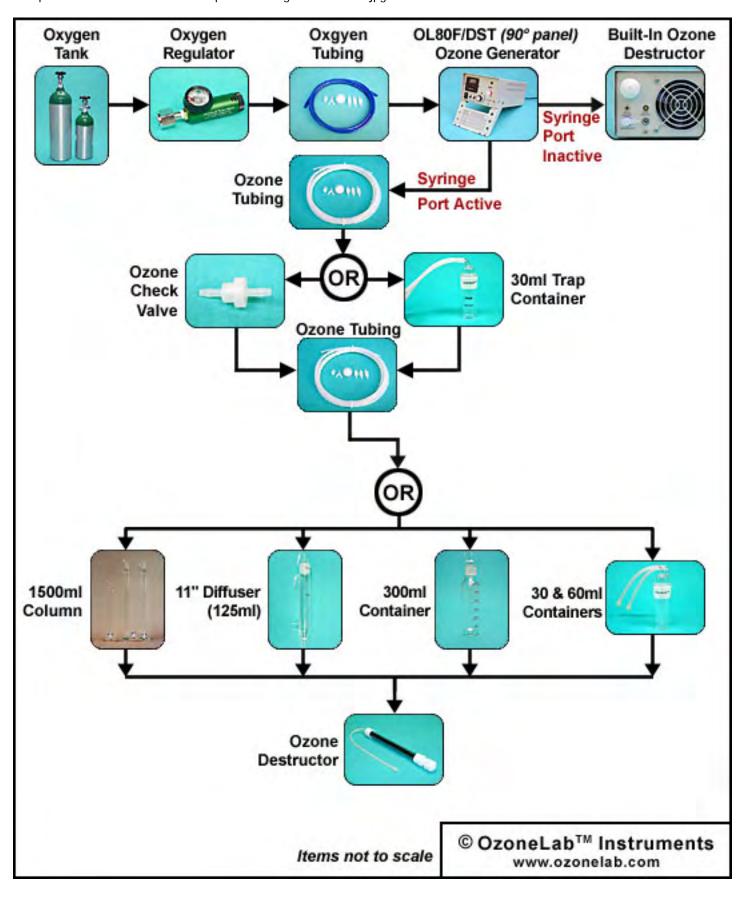


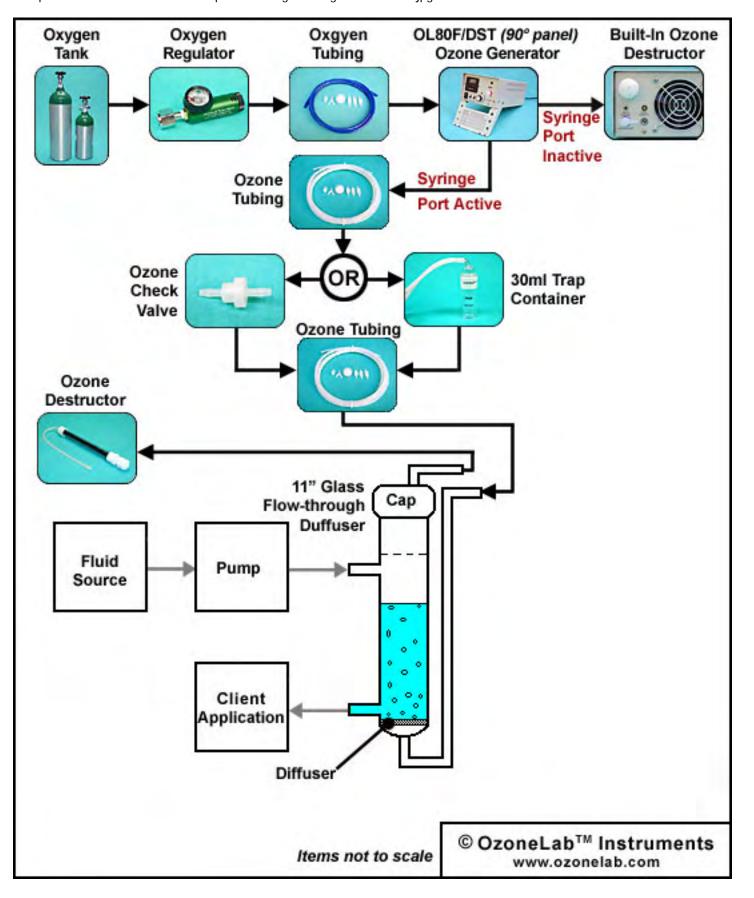
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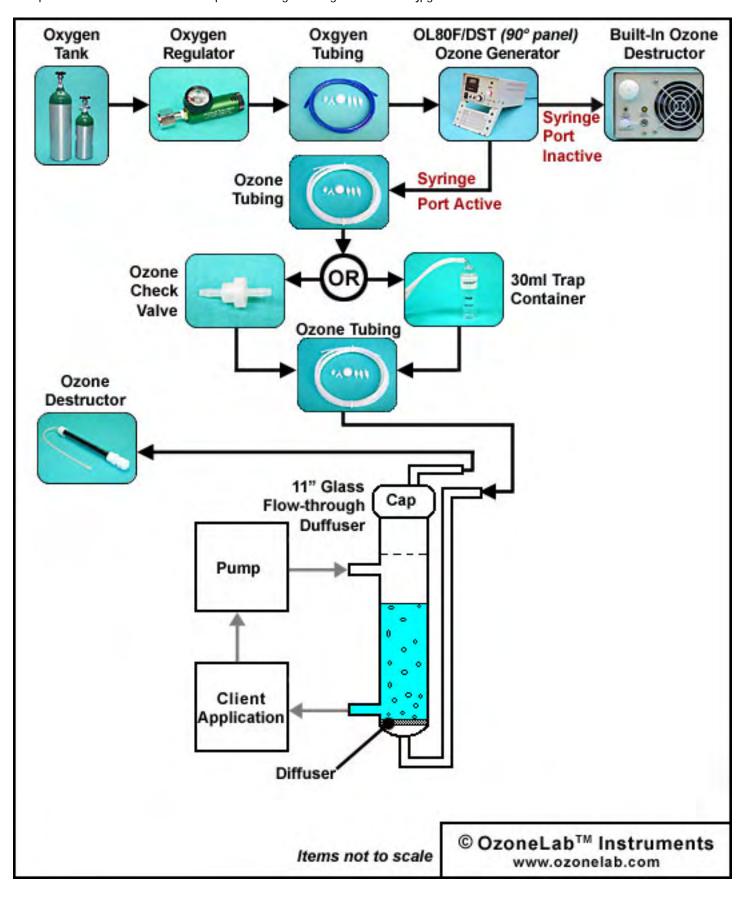
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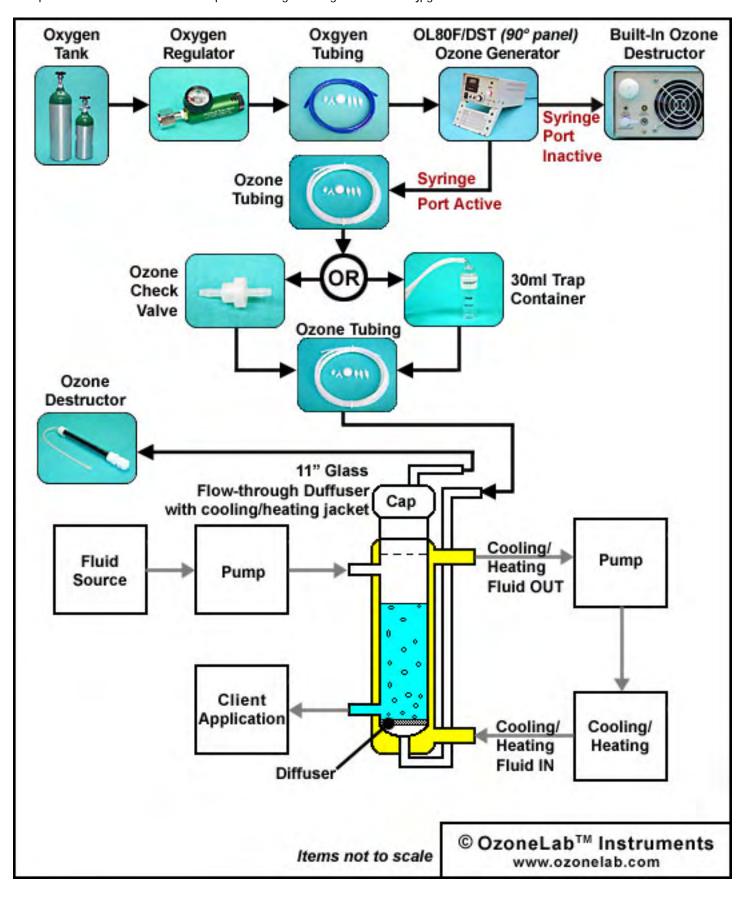


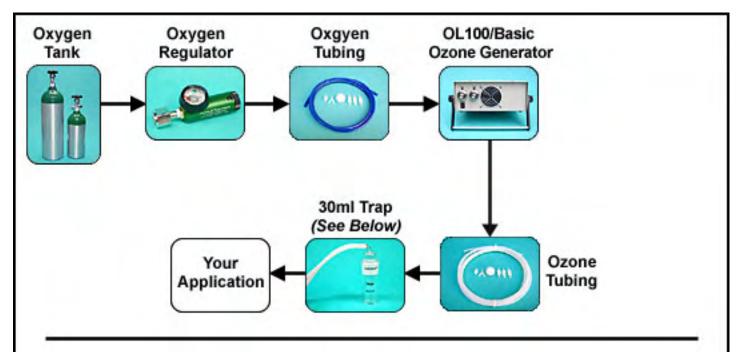


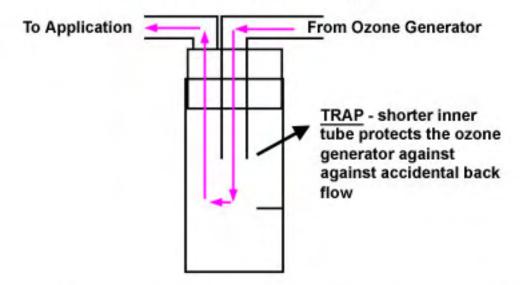






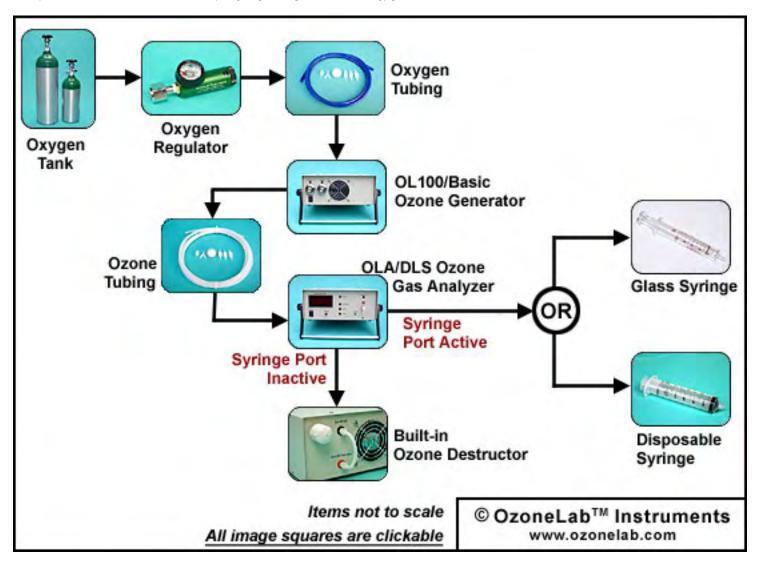




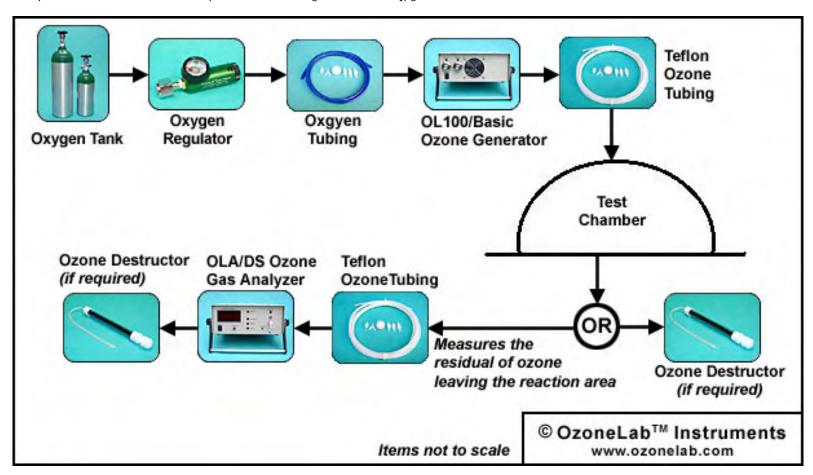


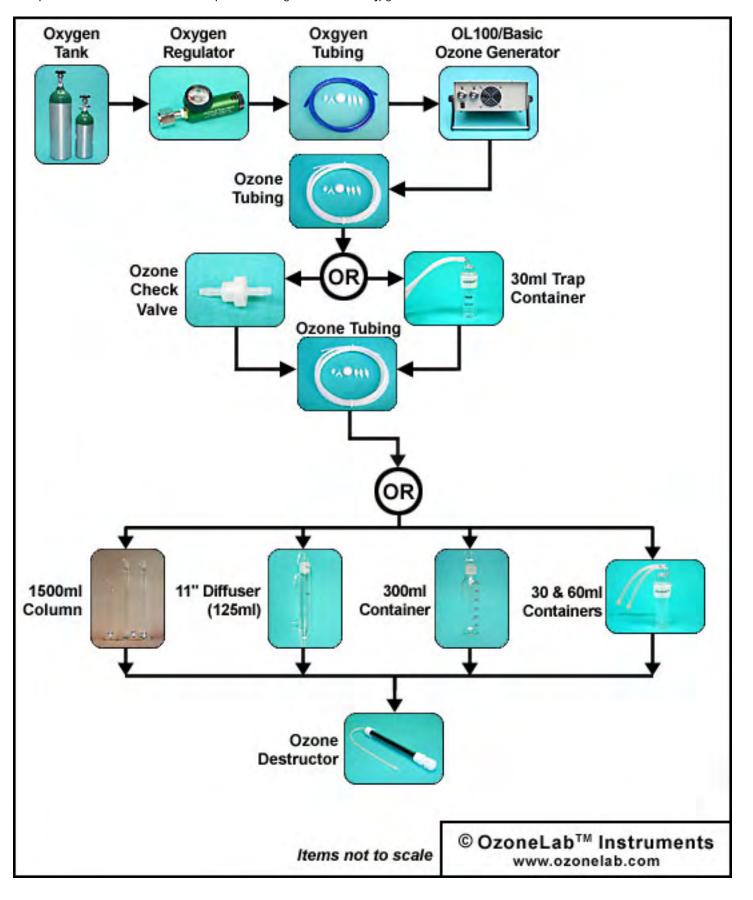
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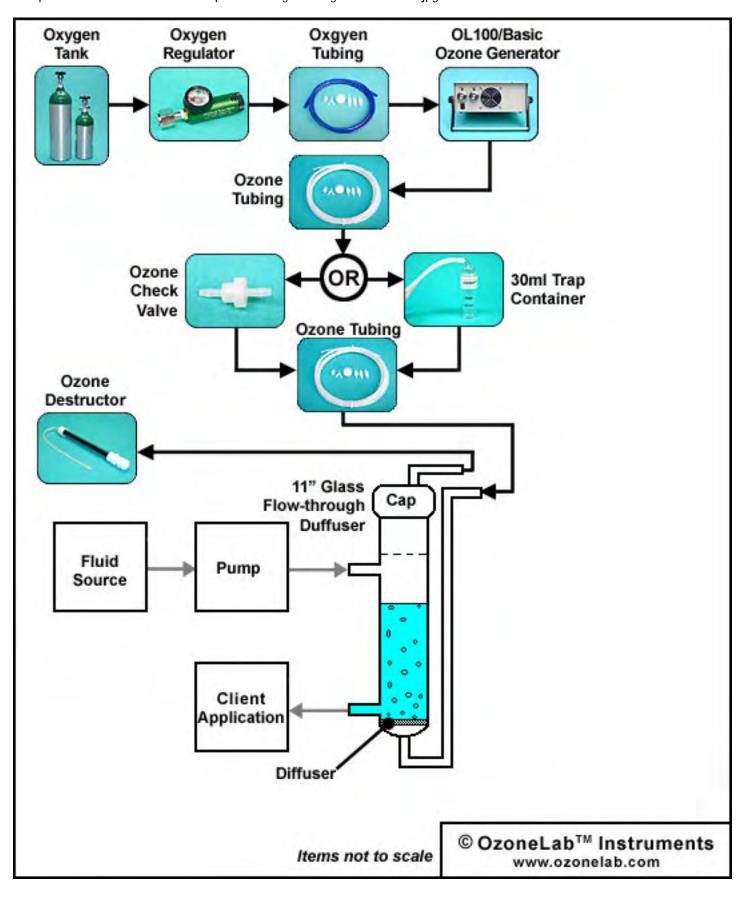
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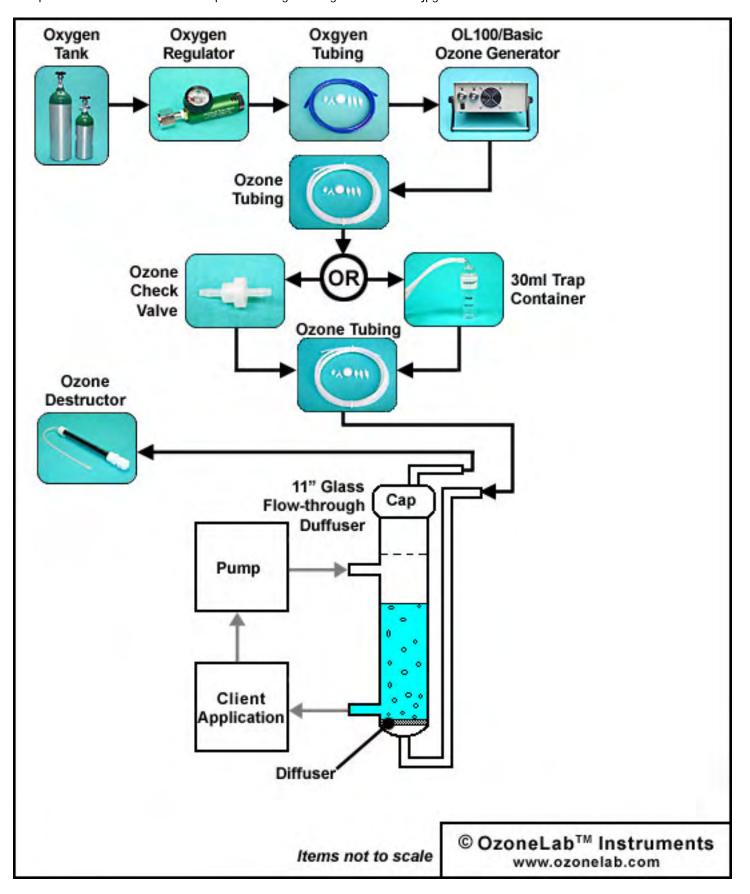


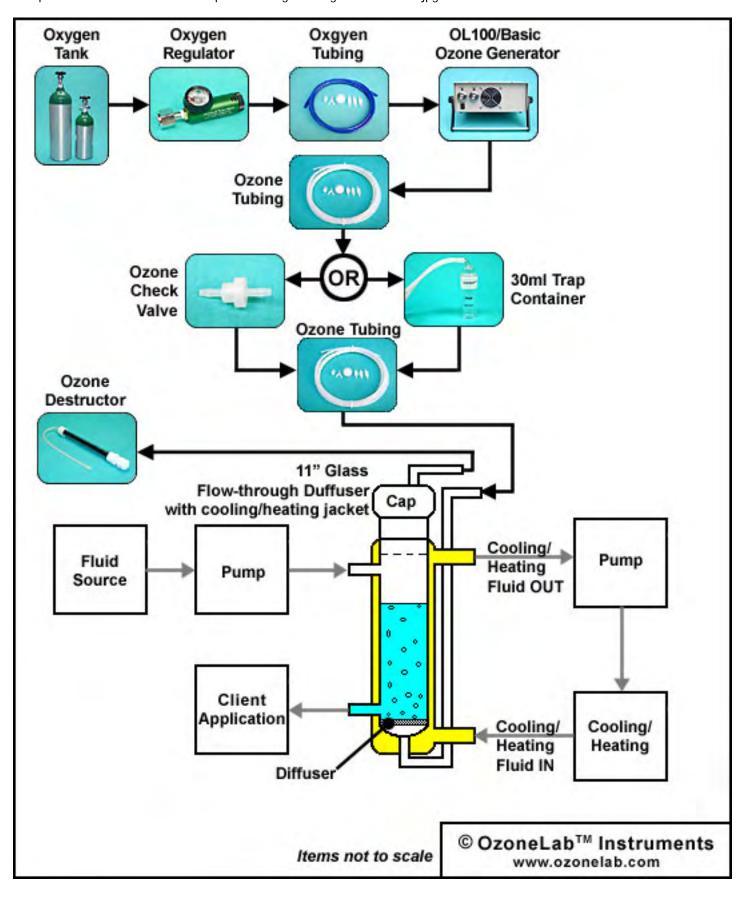


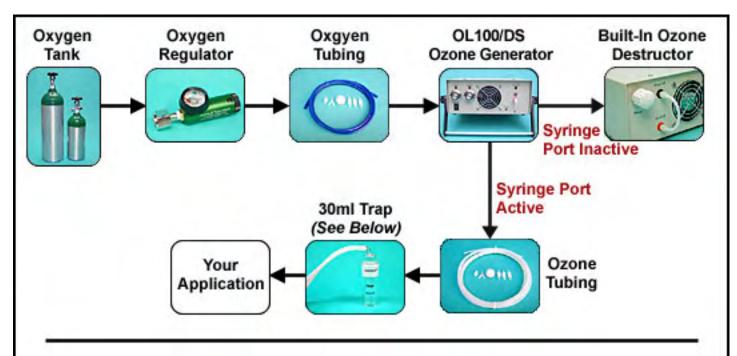


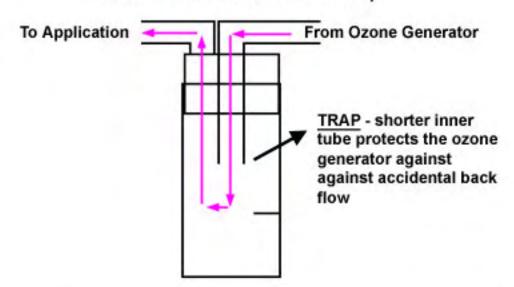






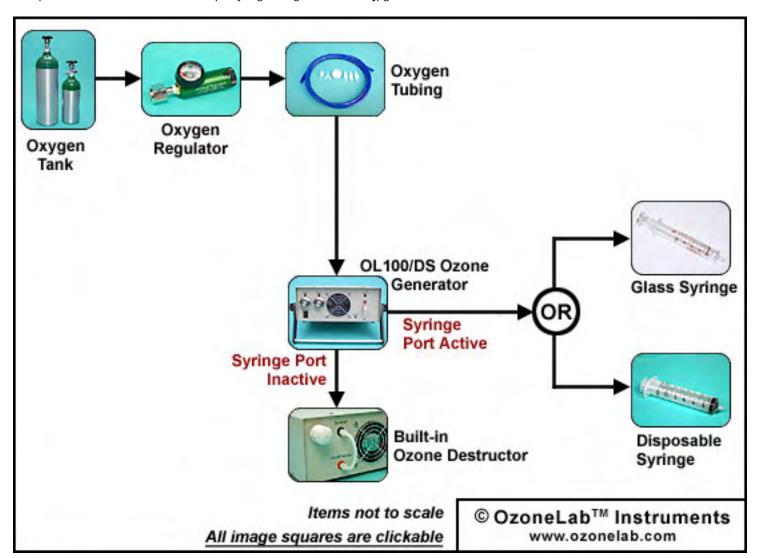


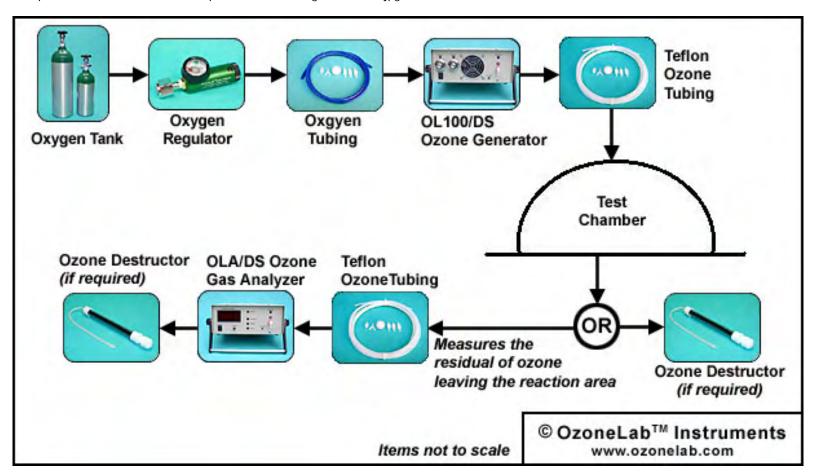


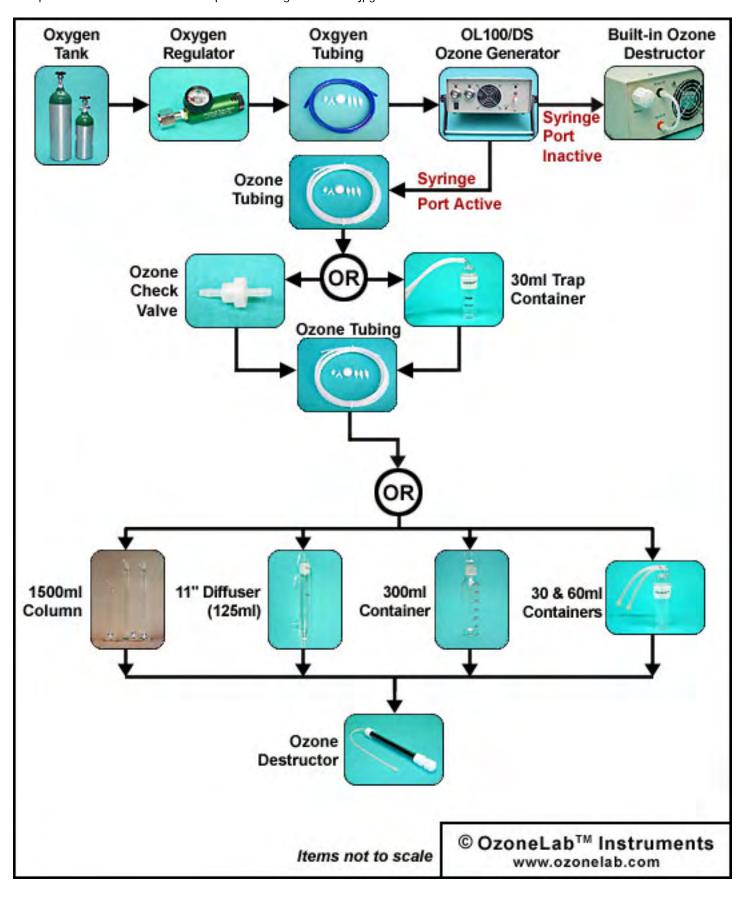


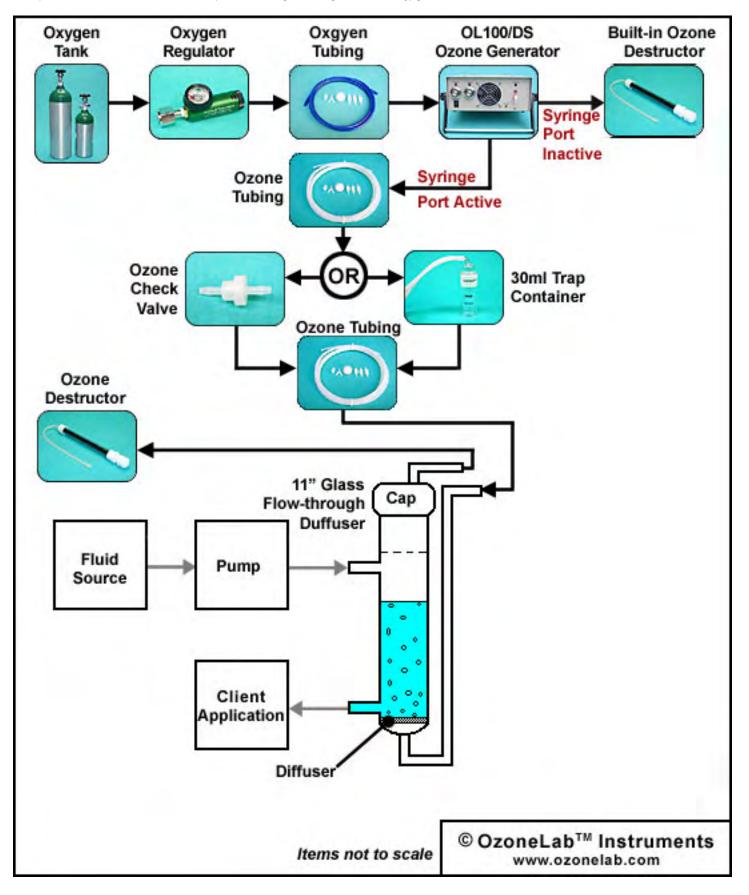
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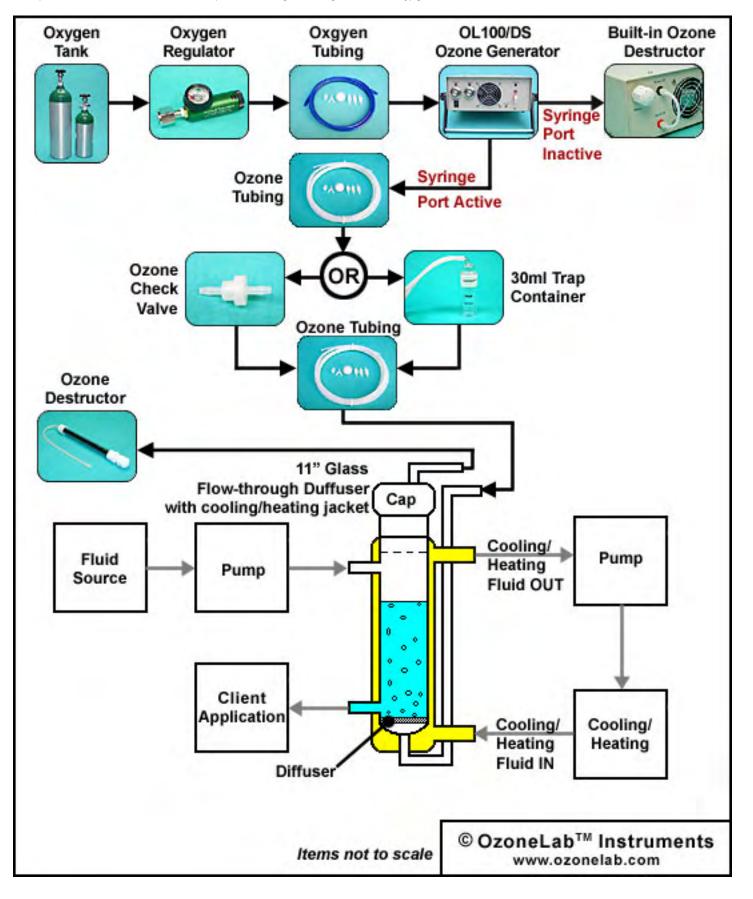
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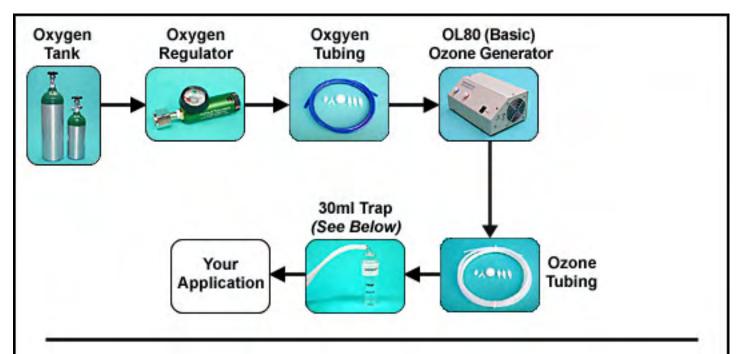


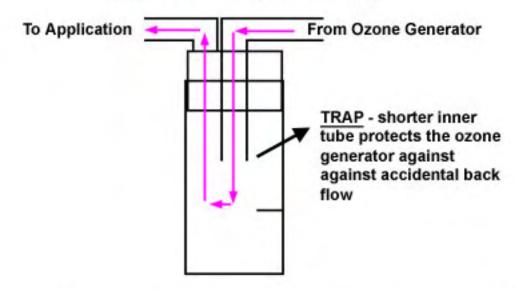






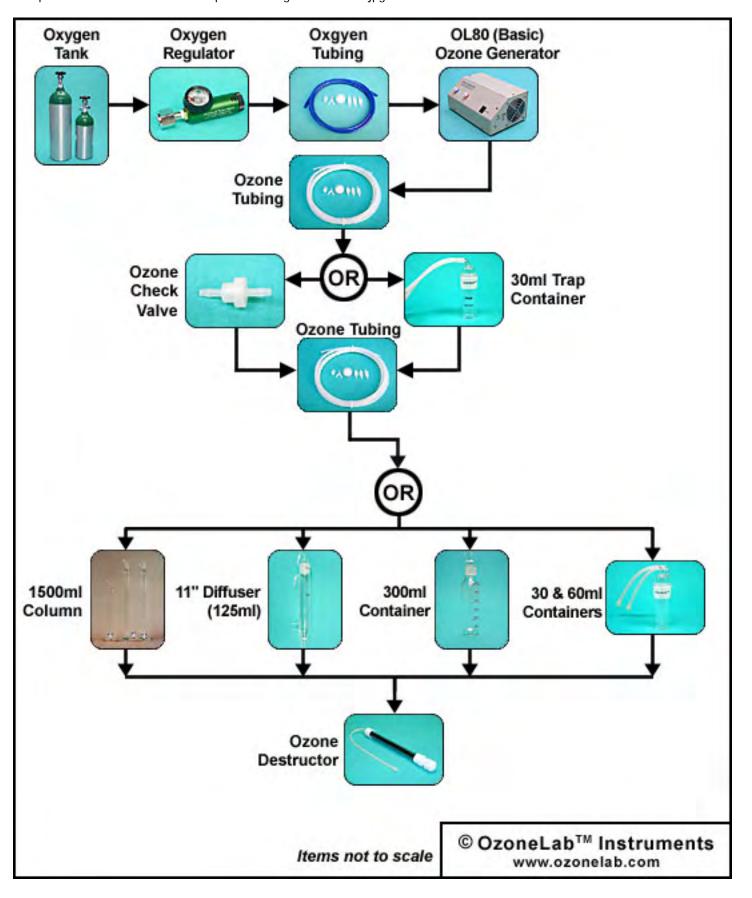


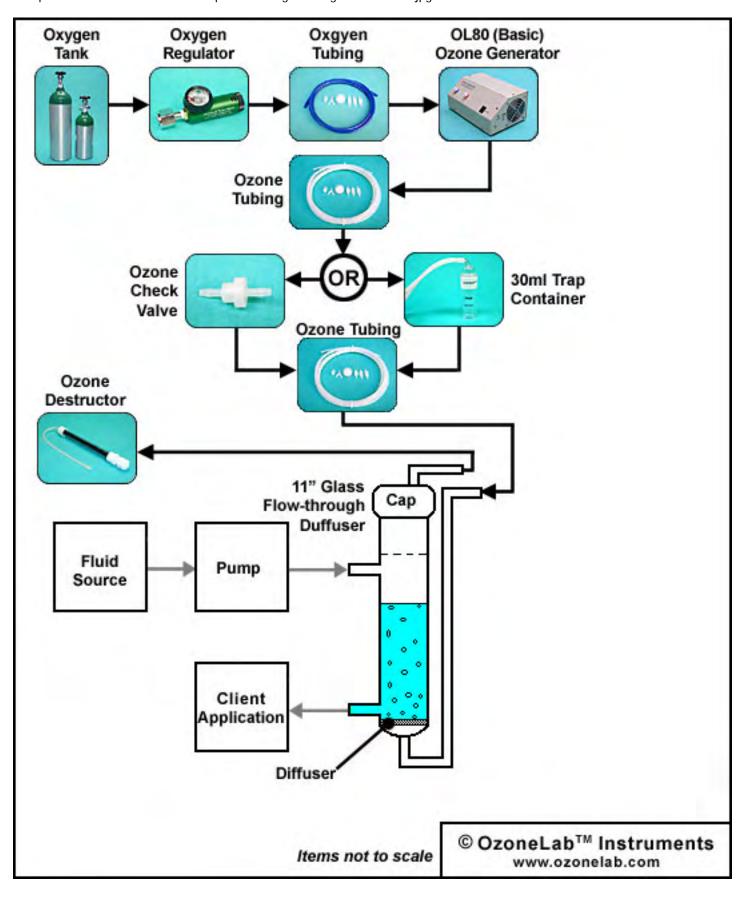


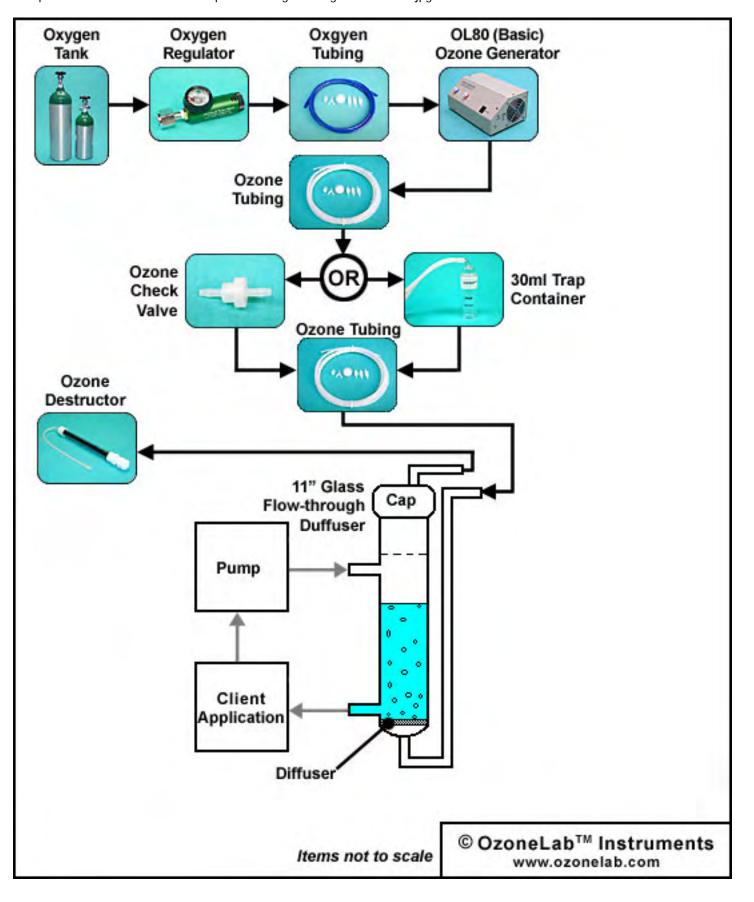


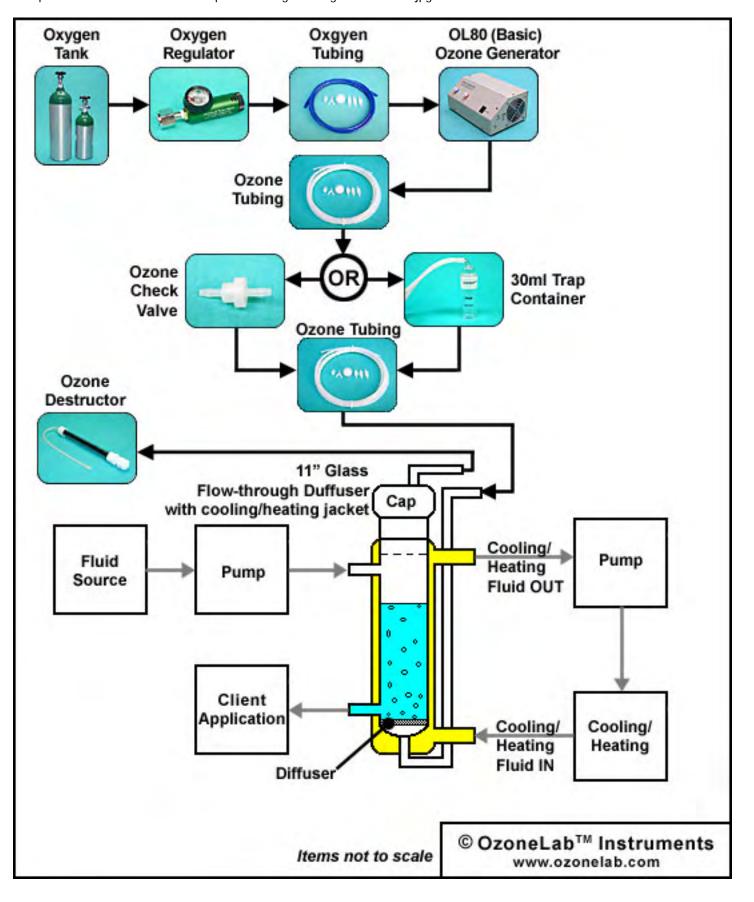
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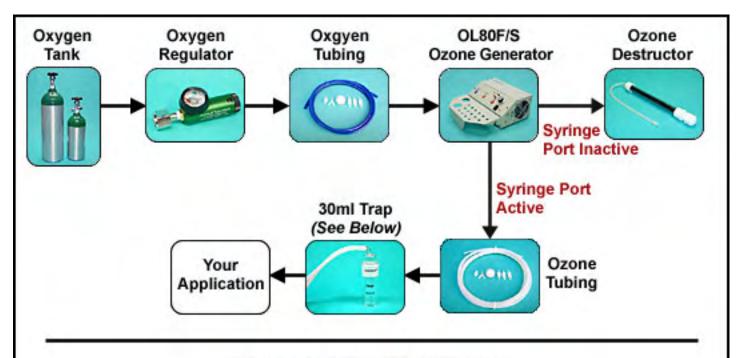
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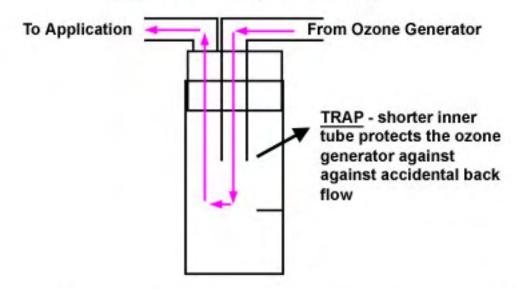








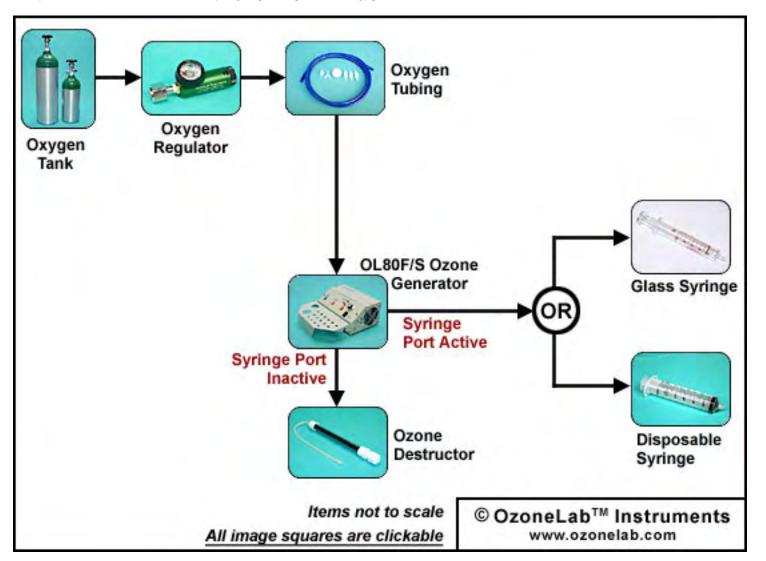
## Schematic detail of the 30ml Trap

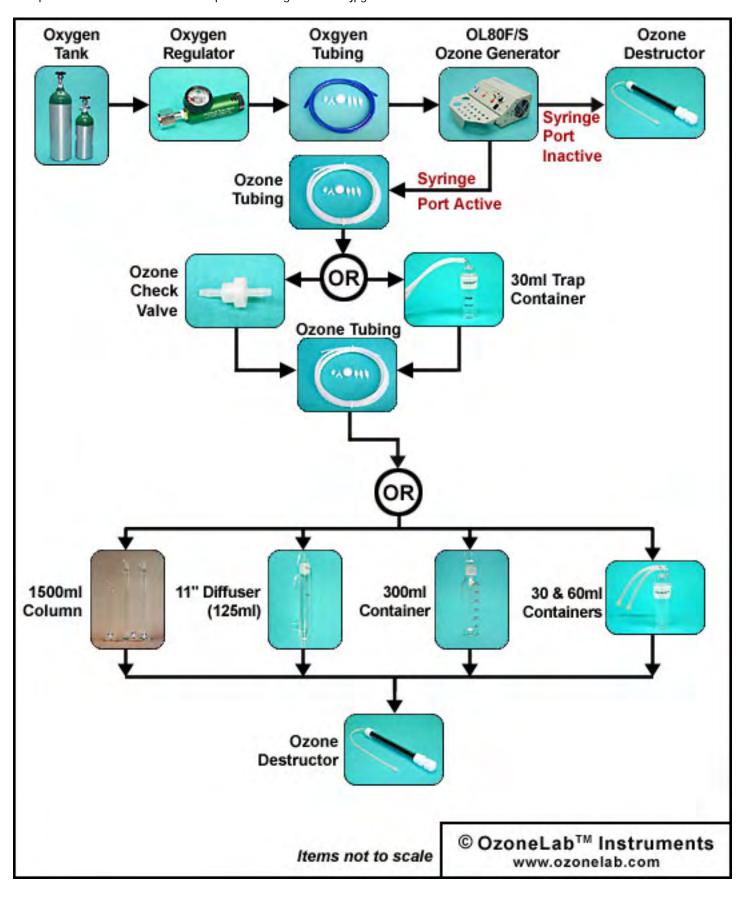


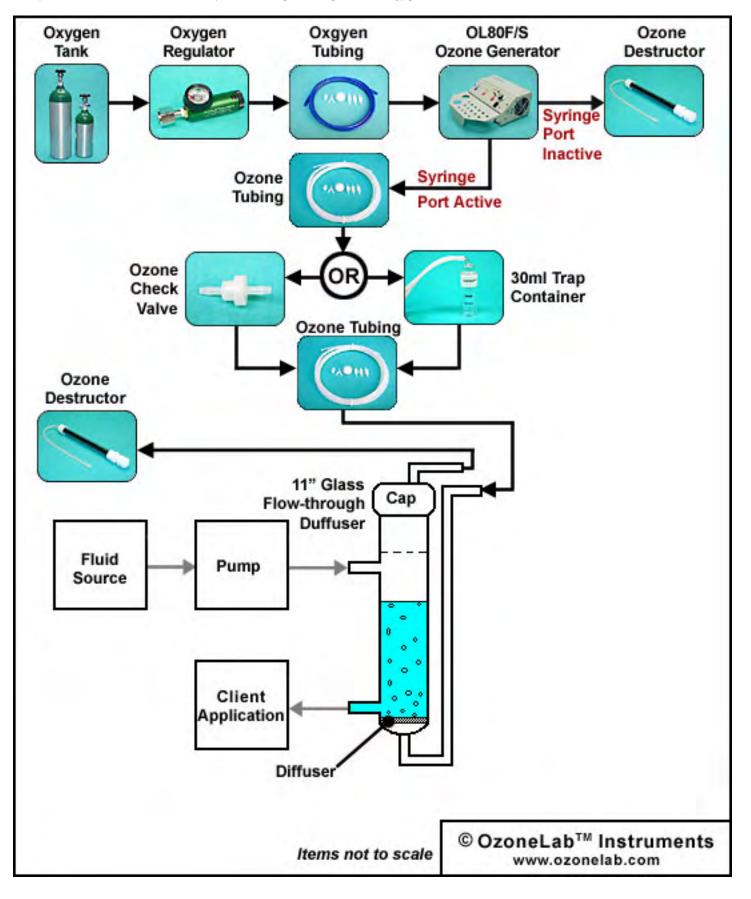
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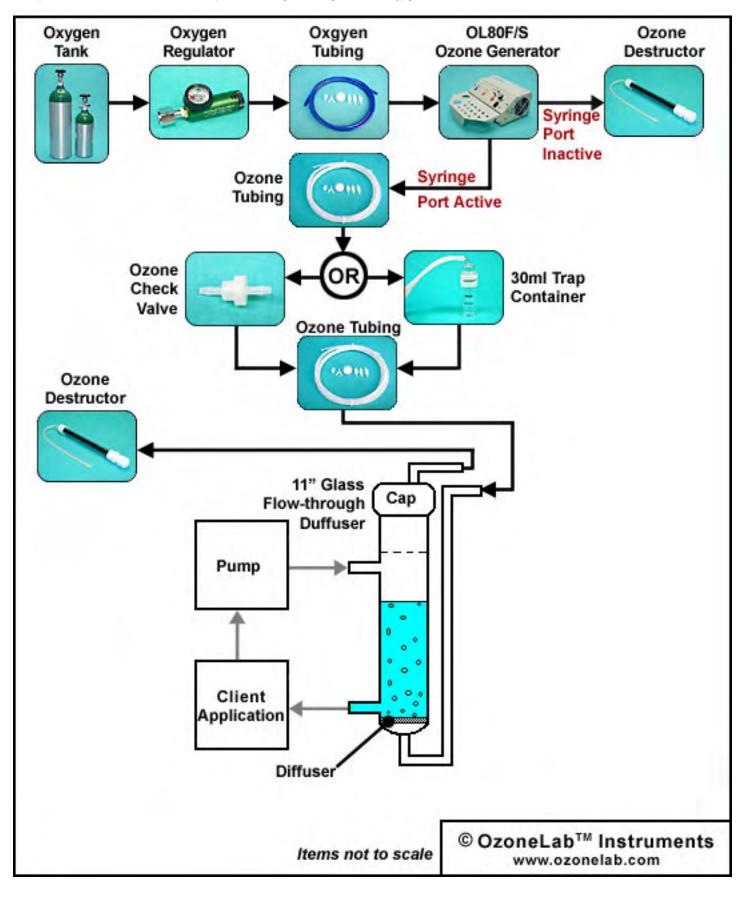
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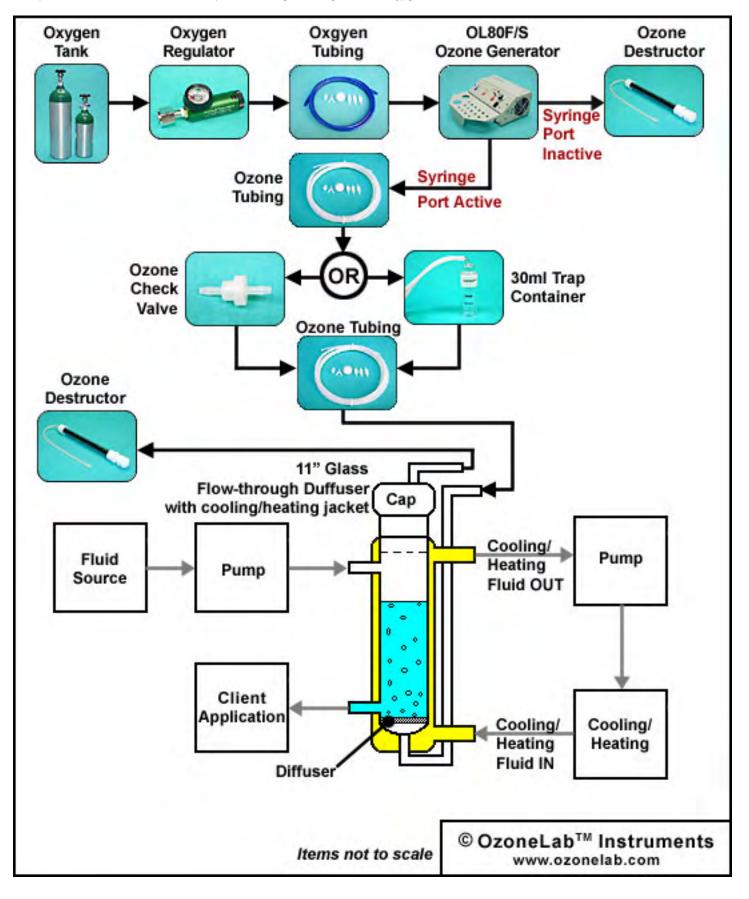
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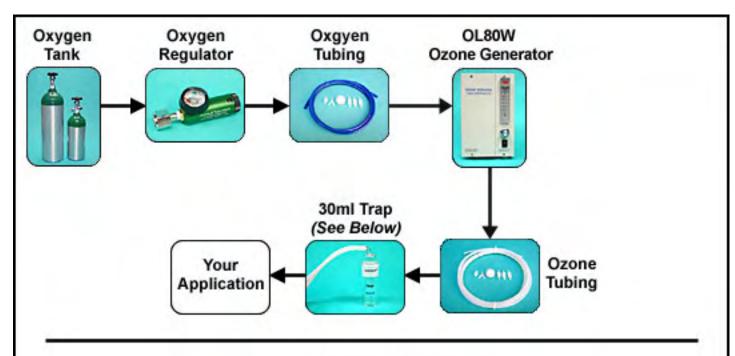




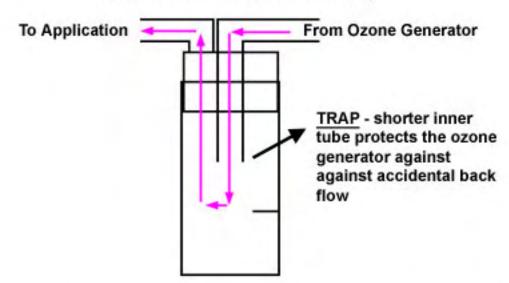








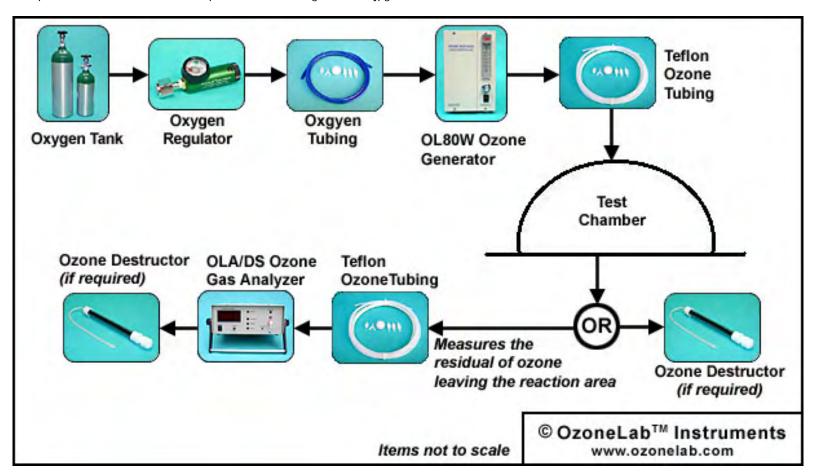
## Schematic detail of the 30ml Trap

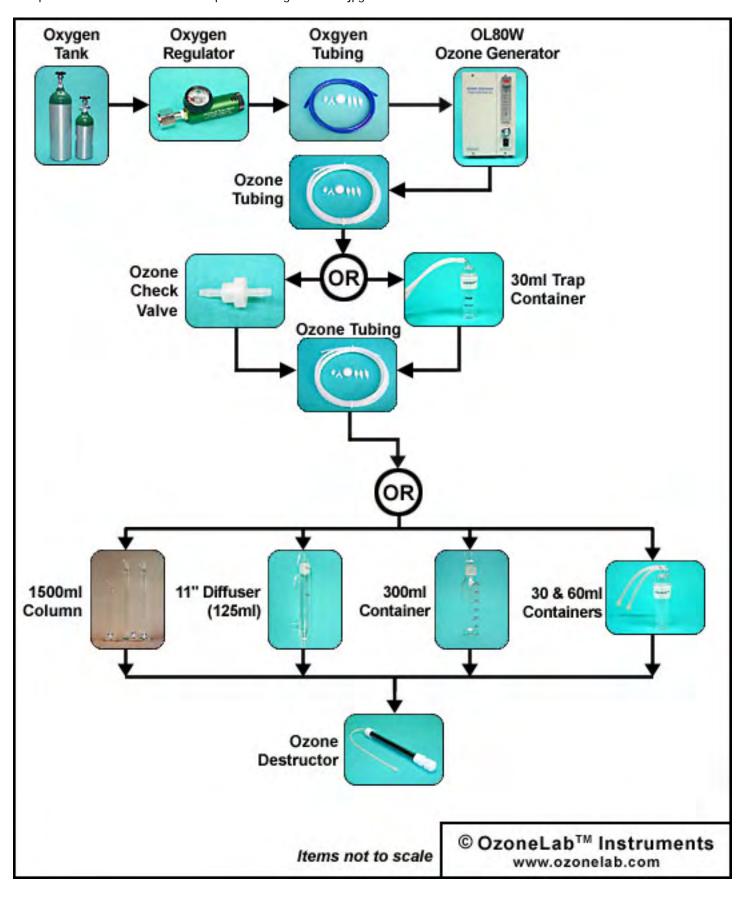


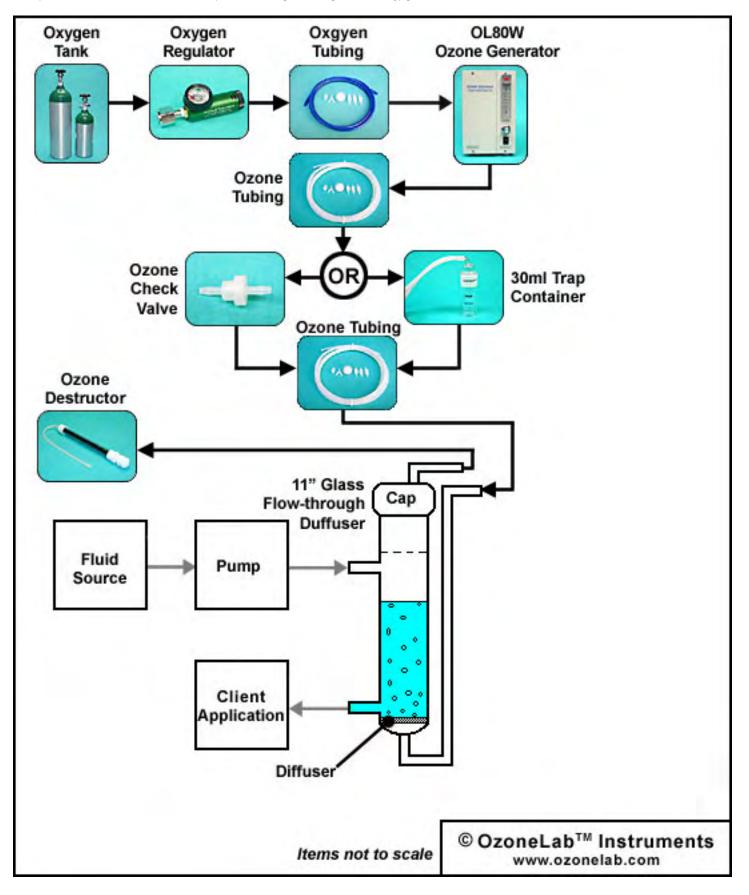
For clients wishing to ozonate liquids, the TRAP (has the shorter stem) is used where there is a prospect for a back flow. Trap containers are available in 30ml sizes (standard) or in larger custom sizes (60, 125, 300ml) upon request.

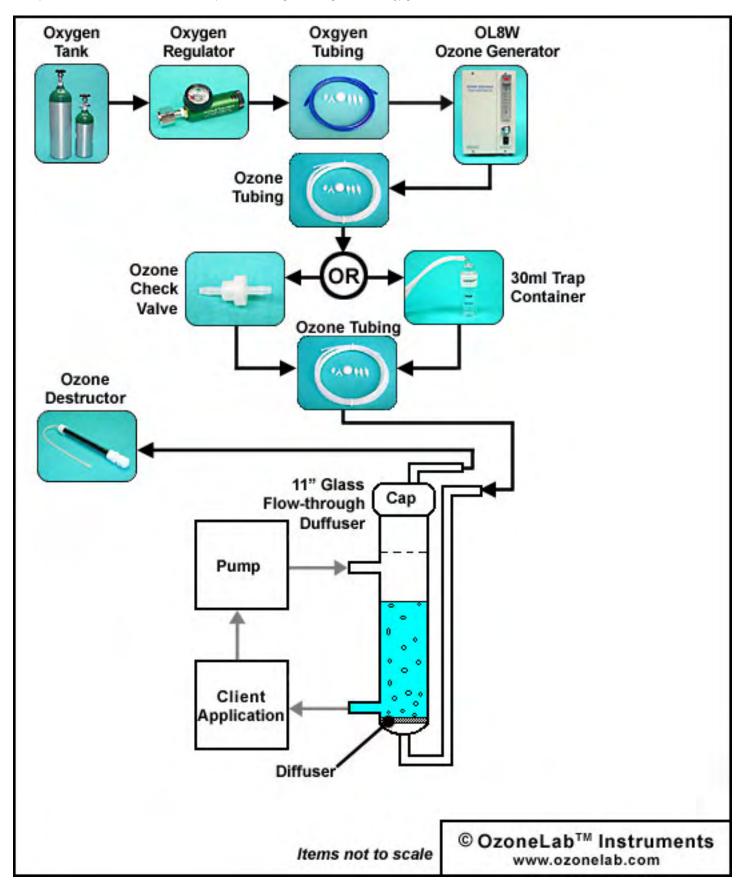
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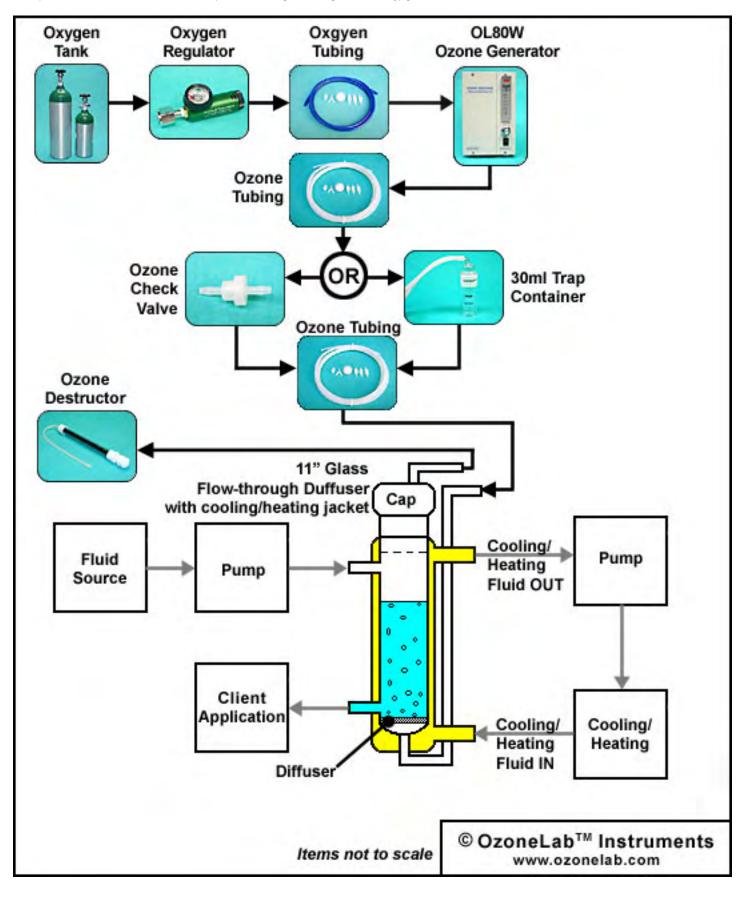
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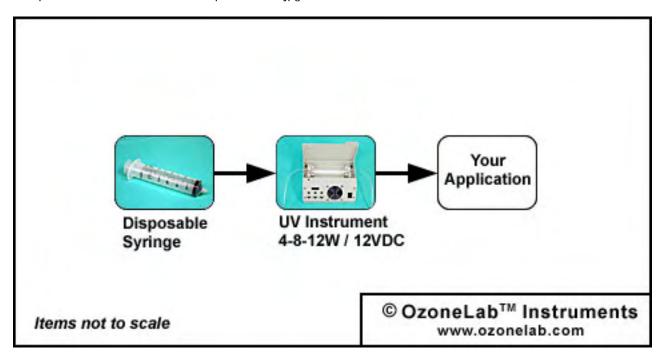


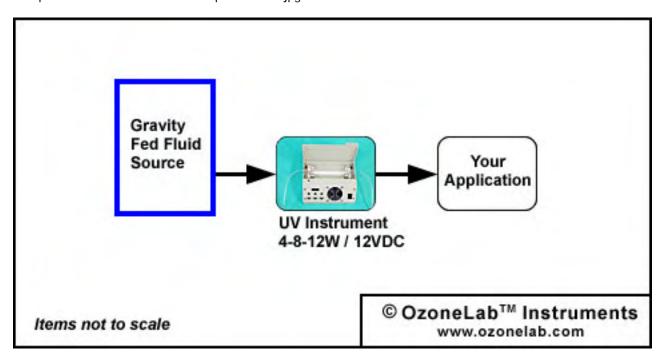


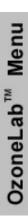














# OzoneLab™ - Filling Syringes - OLA/DLS and Your Ozone Generator



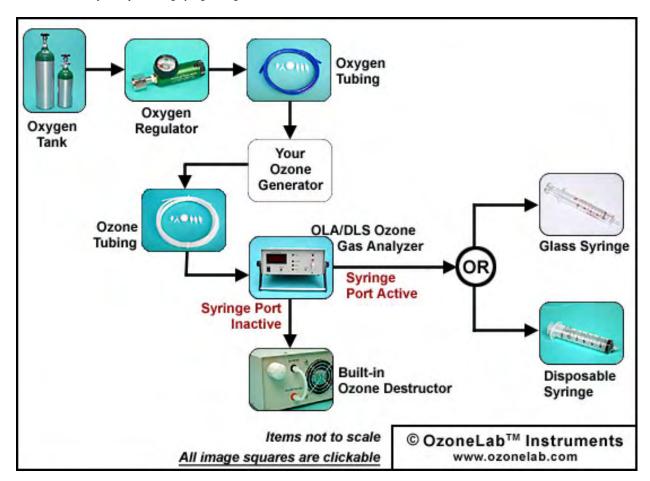


<u>Home</u> > <u>Setup Examples</u> > Filling Syringes using OLA/DLS and Your Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Filling Syringes using an <u>OLA/DLS Ozone Gas Analyzer</u> supplied with ozone from your ozone generator fed with oxygen from an Oxygen Tank.

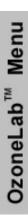




The <u>OLA/DLS</u> is used as an example in this illustration. Ozone Analyzers and Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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### OzoneLab™ Test Chamber using an OL80A/DLS Ozone Generator



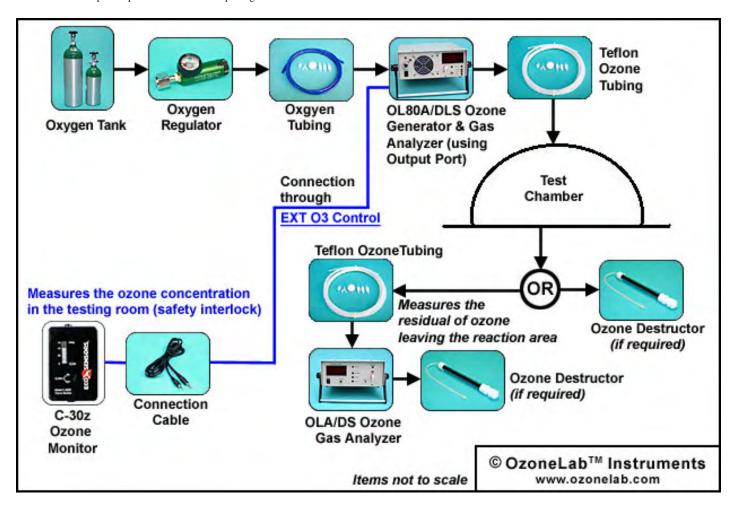


<u>Home</u> > <u>Setup Examples</u> > Test Chamber with OL80A/DLS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

A <u>C-30z Ozone Monitor</u> is connected using a <u>connection cable</u> to the <u>EXT Signal Port</u> in the Ozone Generator. This measures the ozone concentration in the testing room and works as a safety interlock.

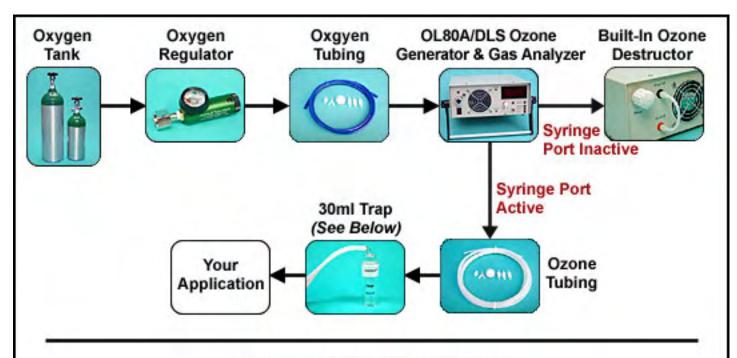
The Ozone Test Chamber setup using an <u>OL80A/DLS Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>). Ozone Test Chambers are a custom item and can be designed and produced through our <u>Custom</u> <u>Design and Production area</u>.



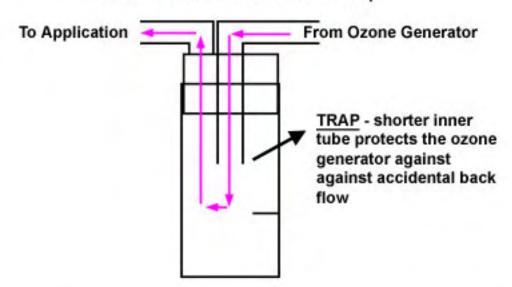
The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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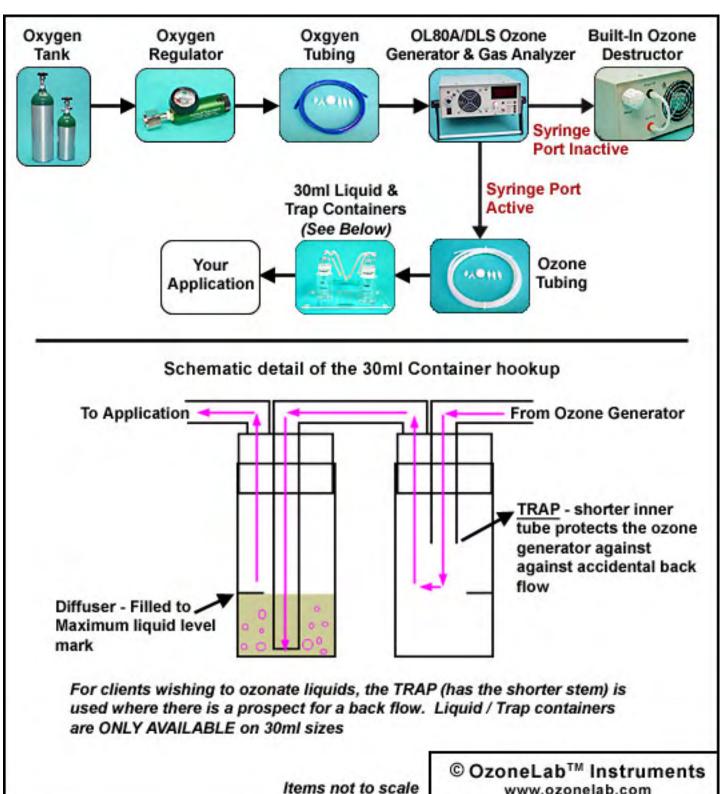
### Schematic detail of the 30ml Trap

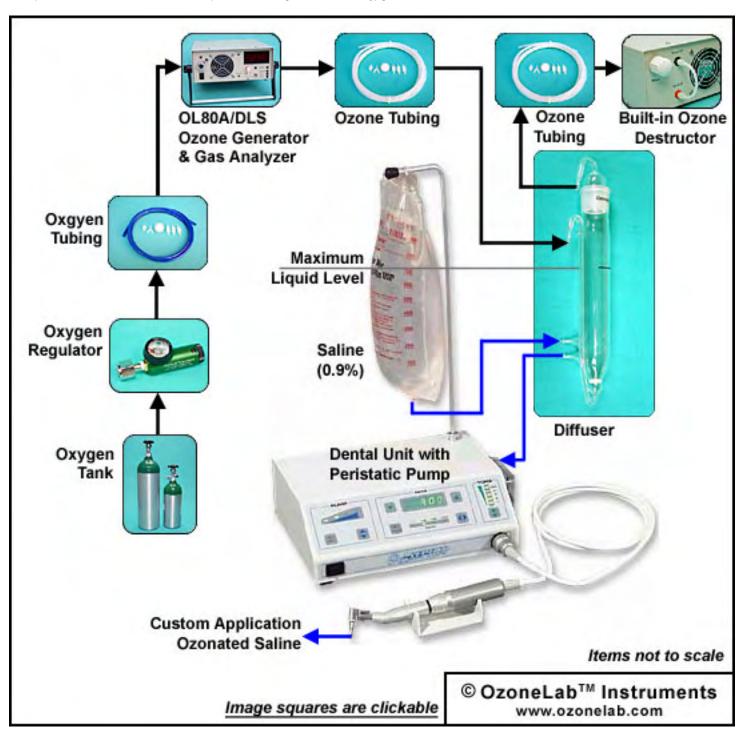


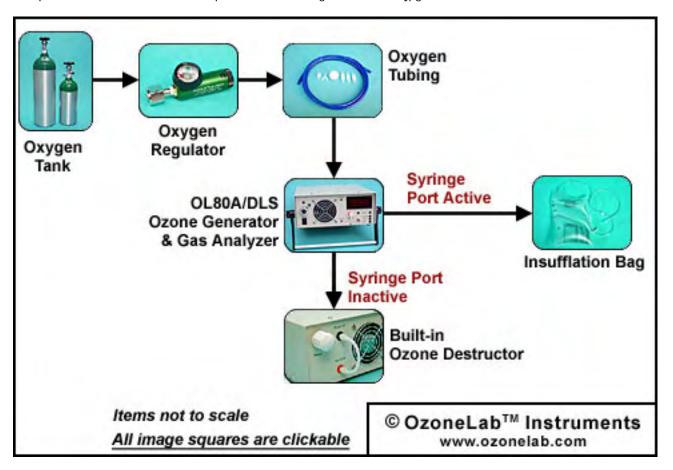
For clients wishing to ozonate liquids, the TRAP (has the shorter stem) is used where there is a prospect for a back flow. Trap containers are ONLY AVAILABLE on 30ml sizes

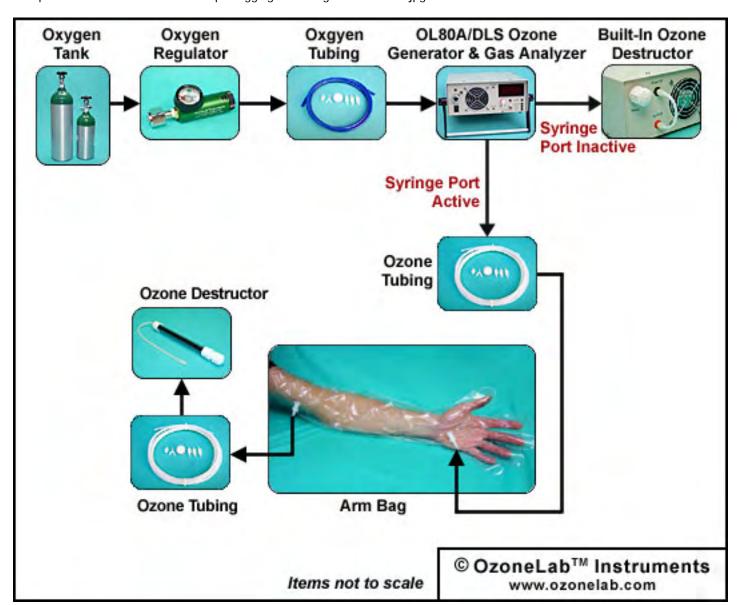
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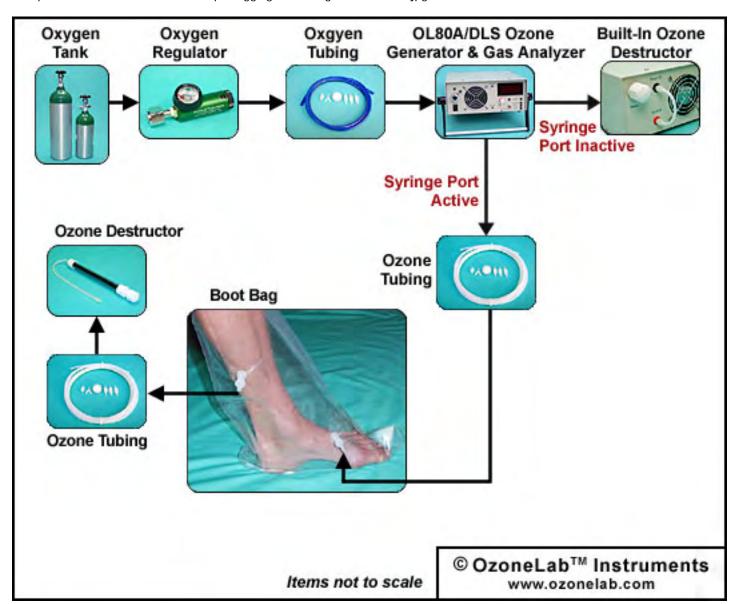
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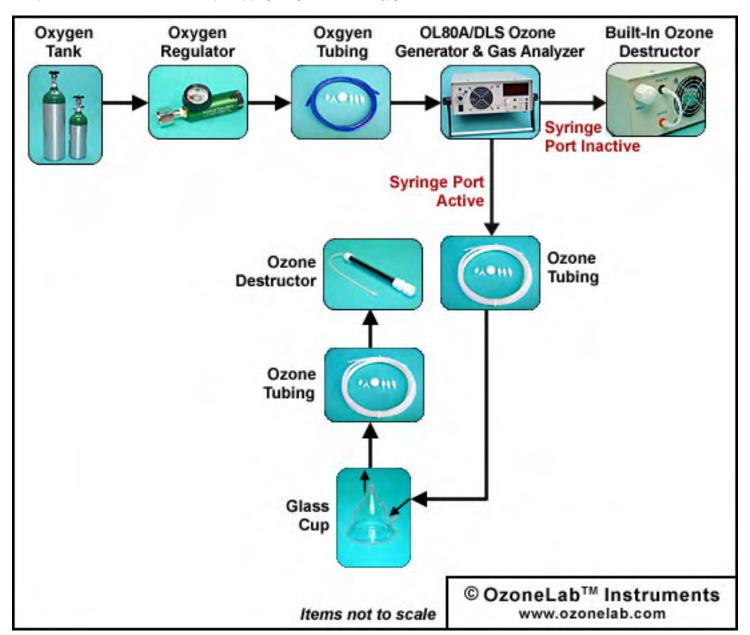


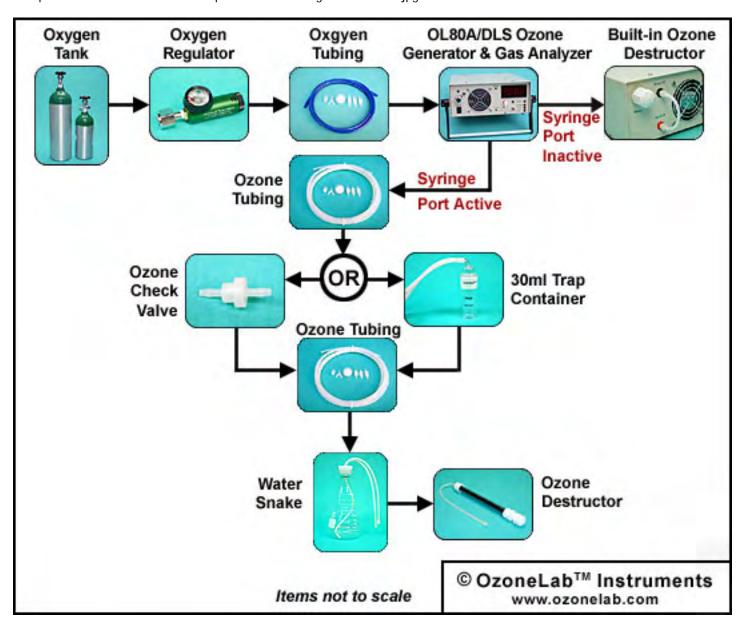


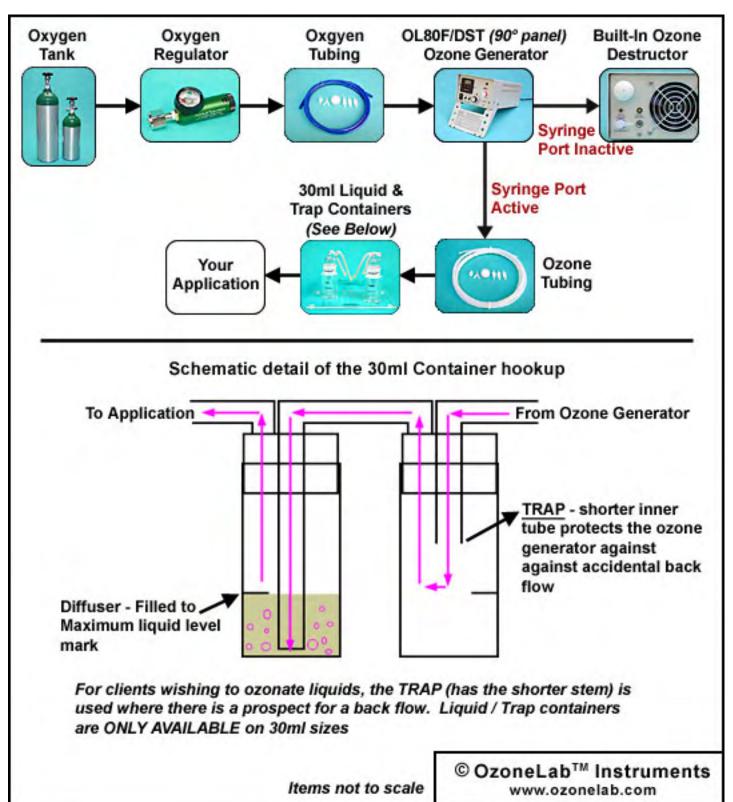


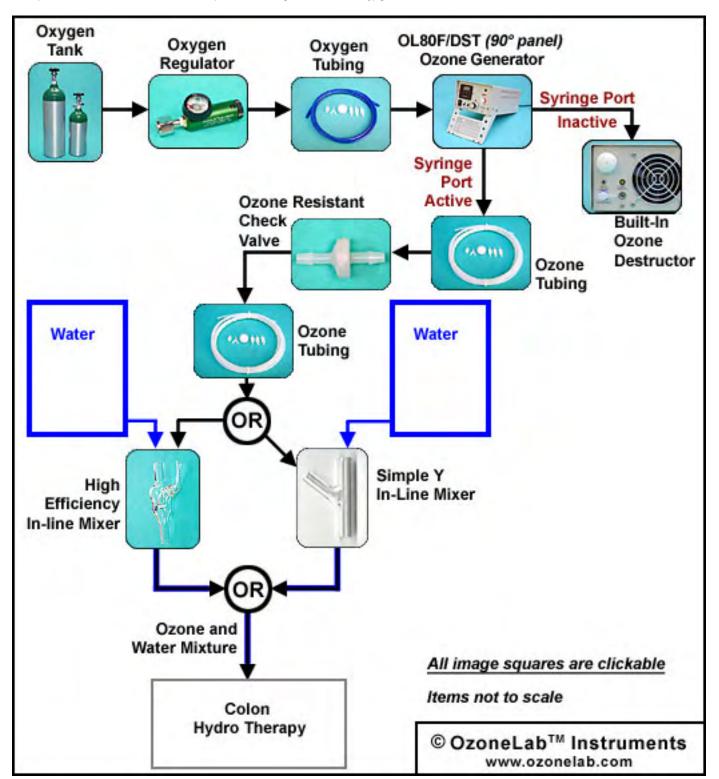


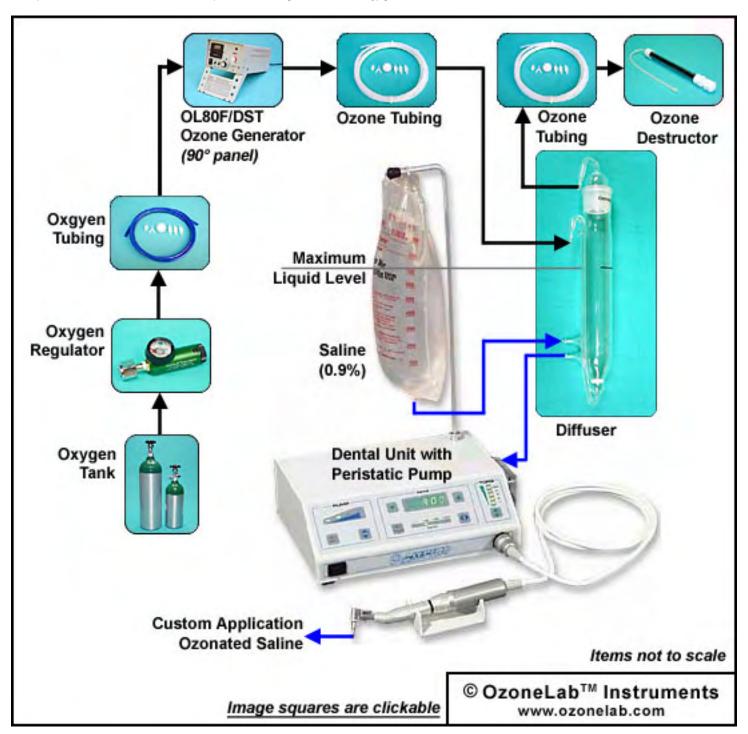


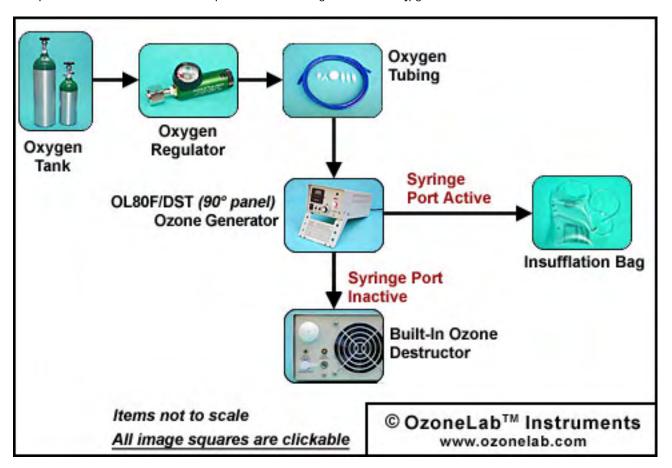


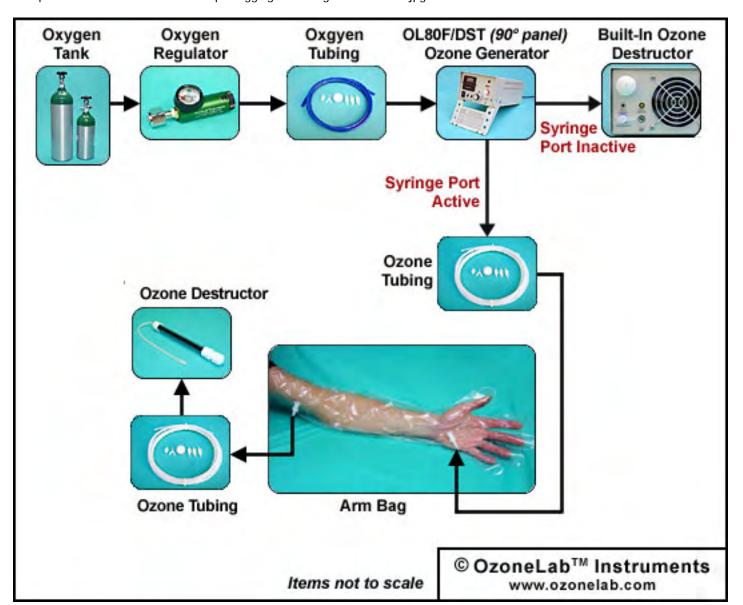


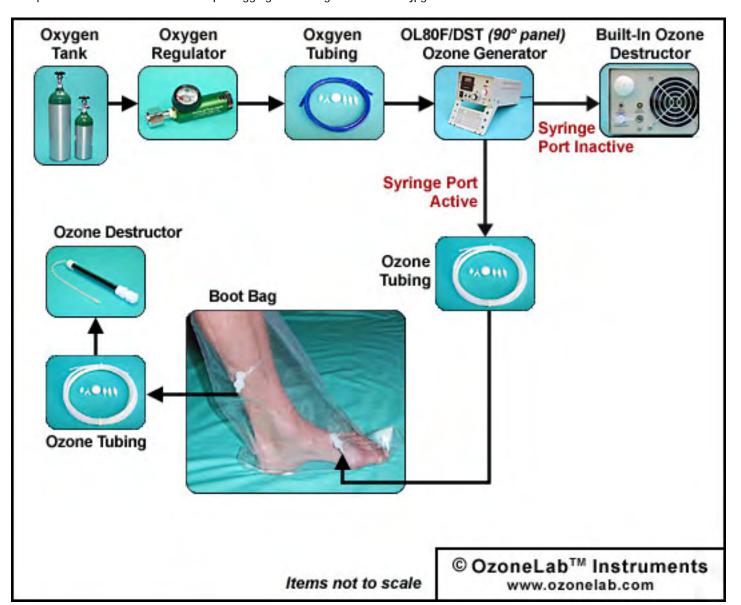


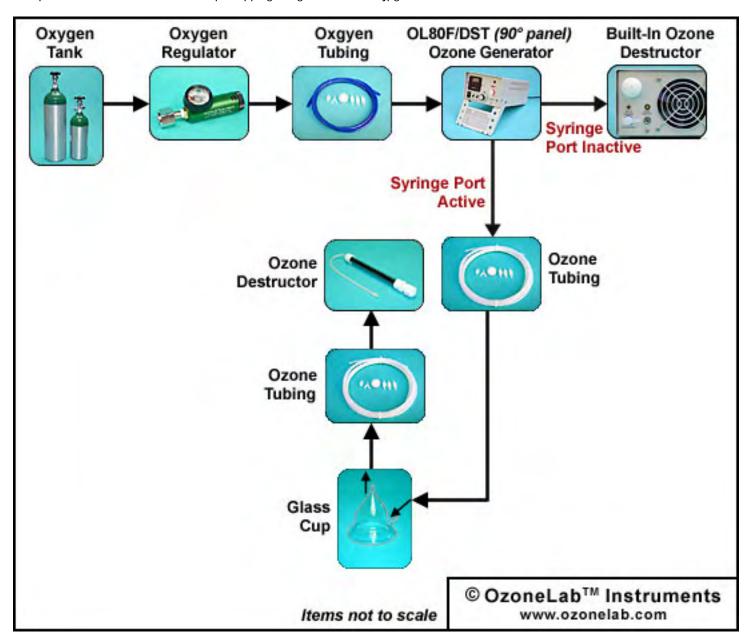


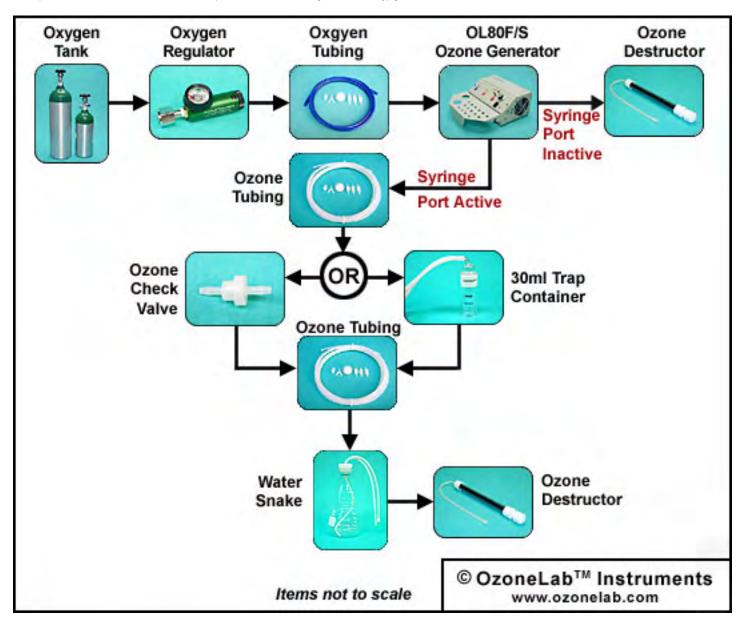


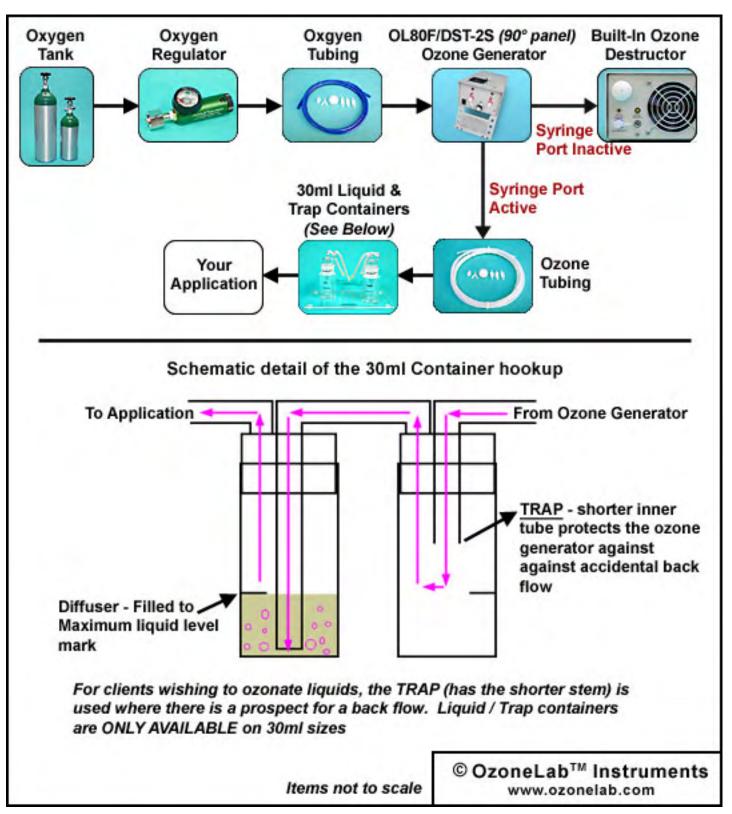


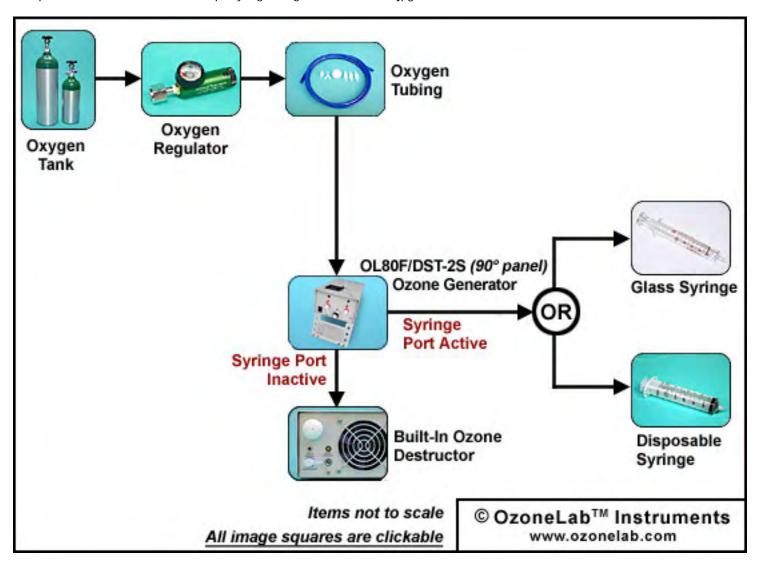


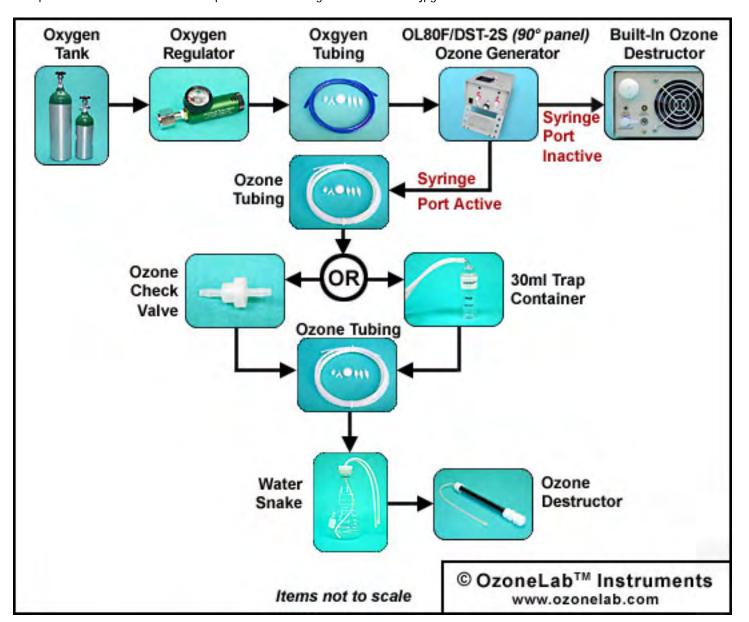


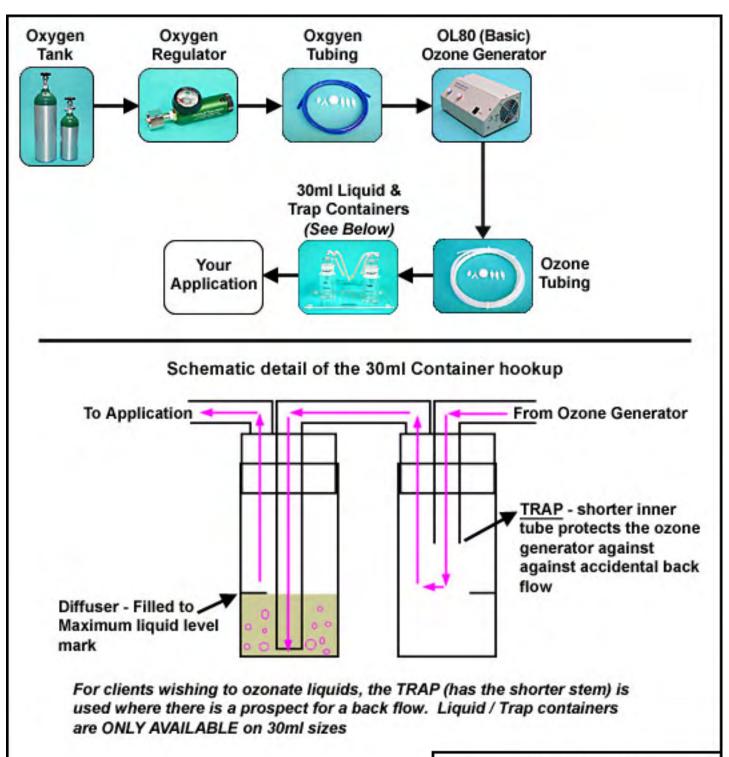








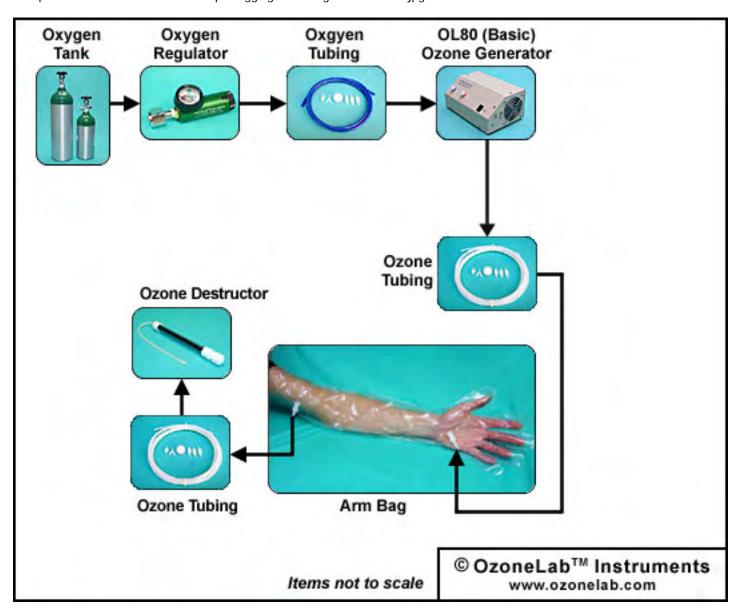


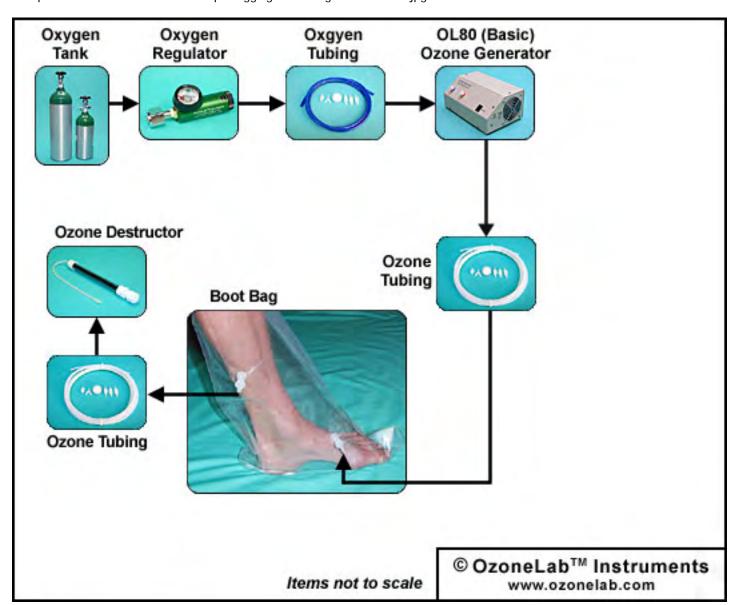


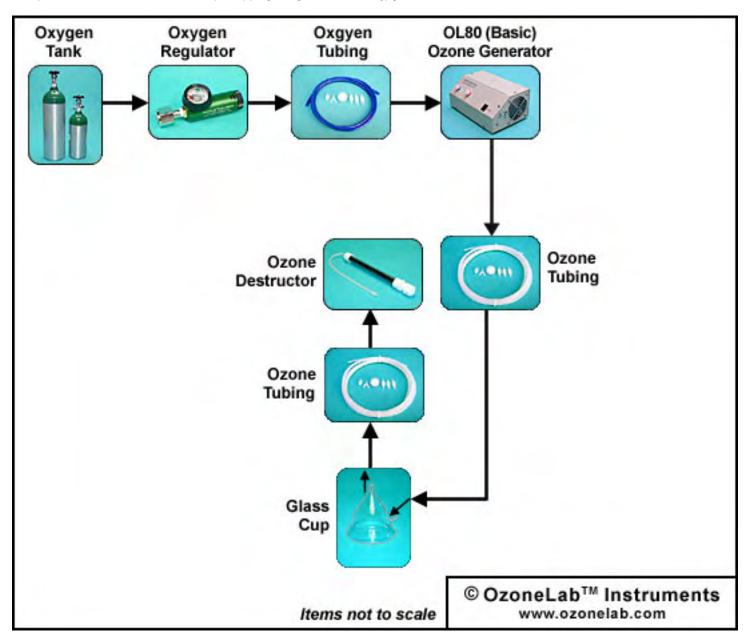
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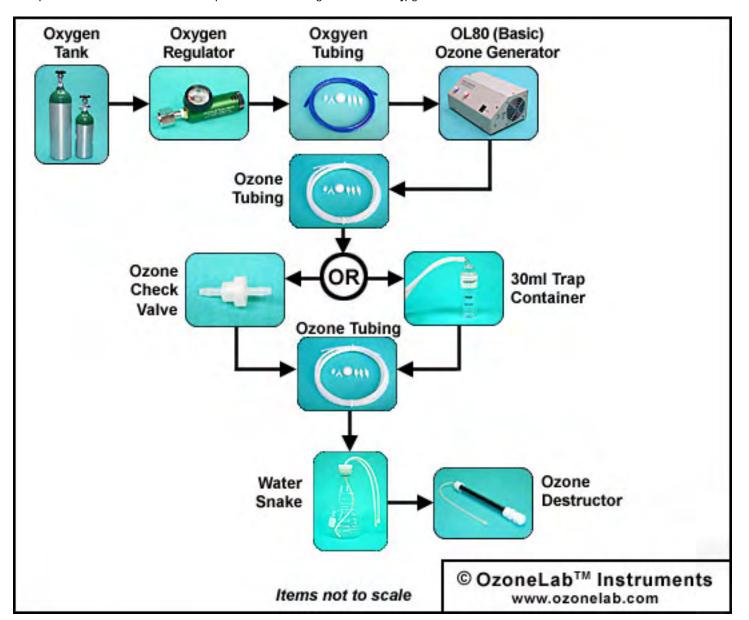
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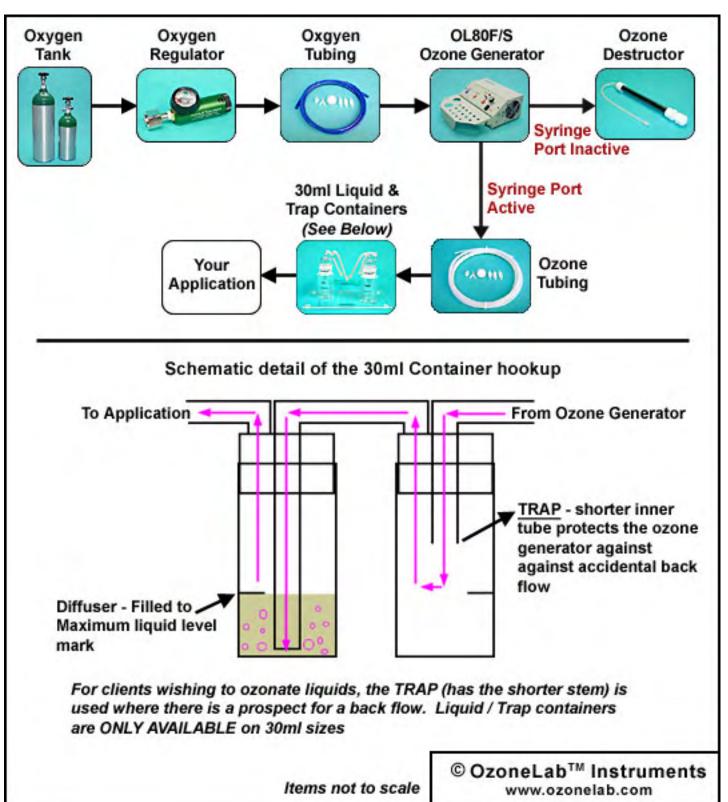
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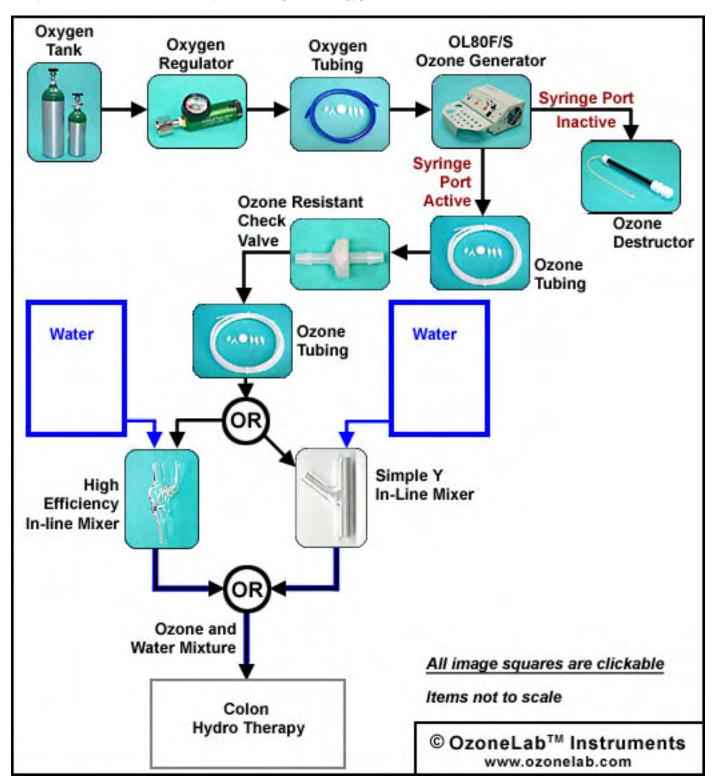


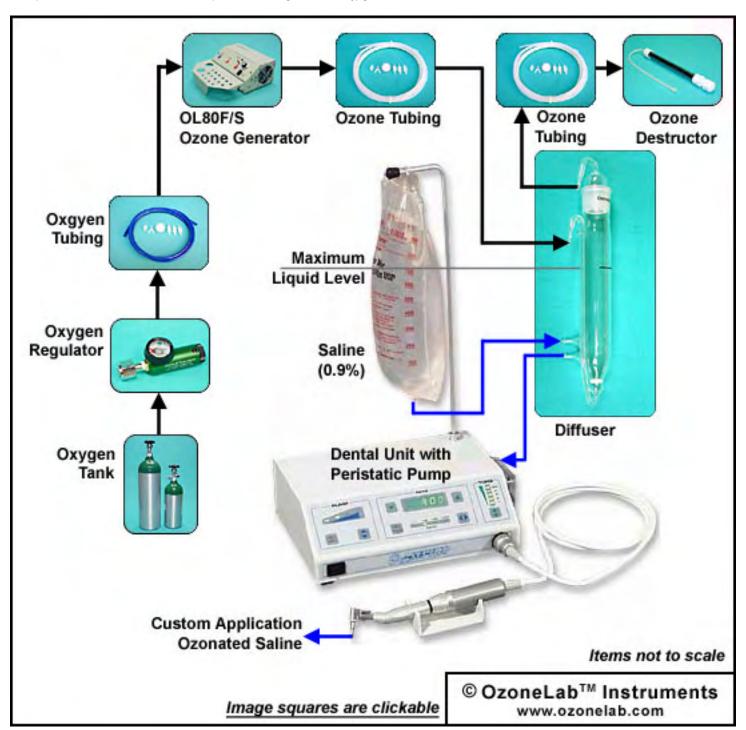


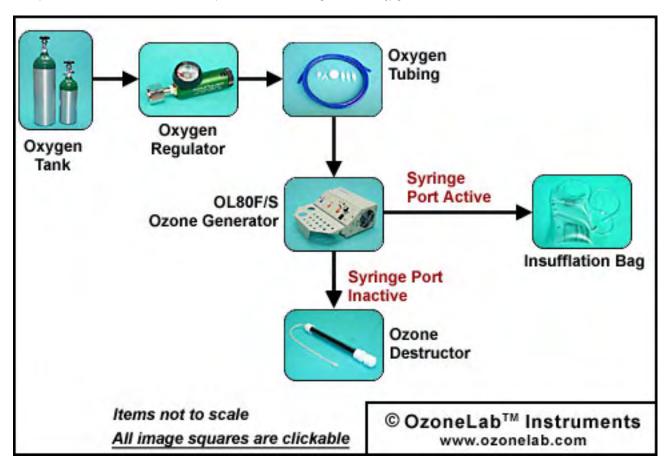


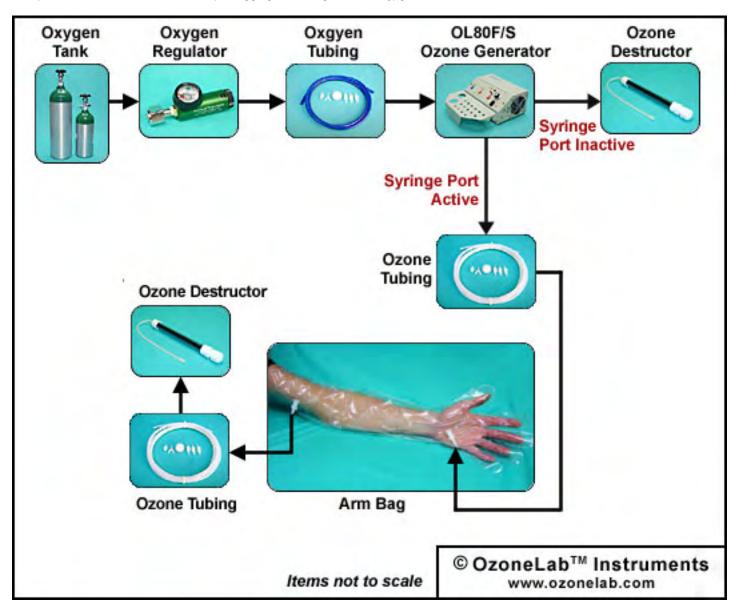


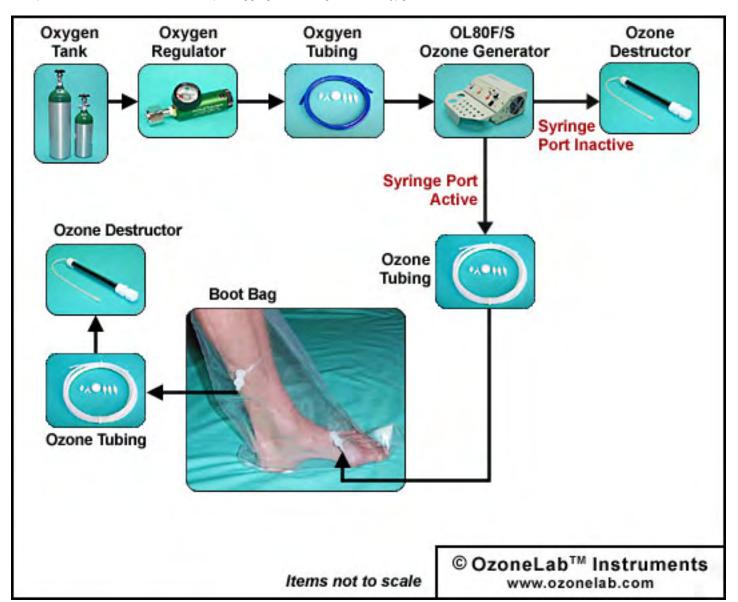


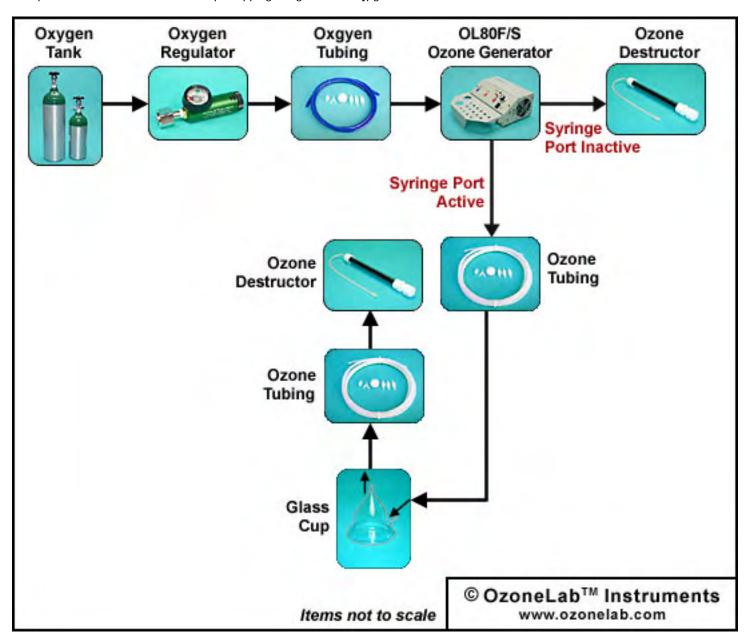


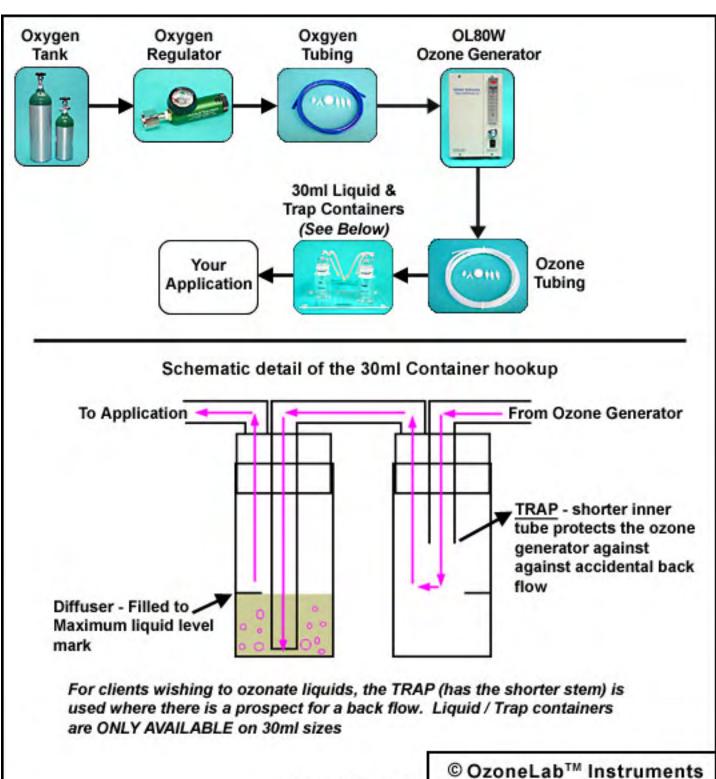






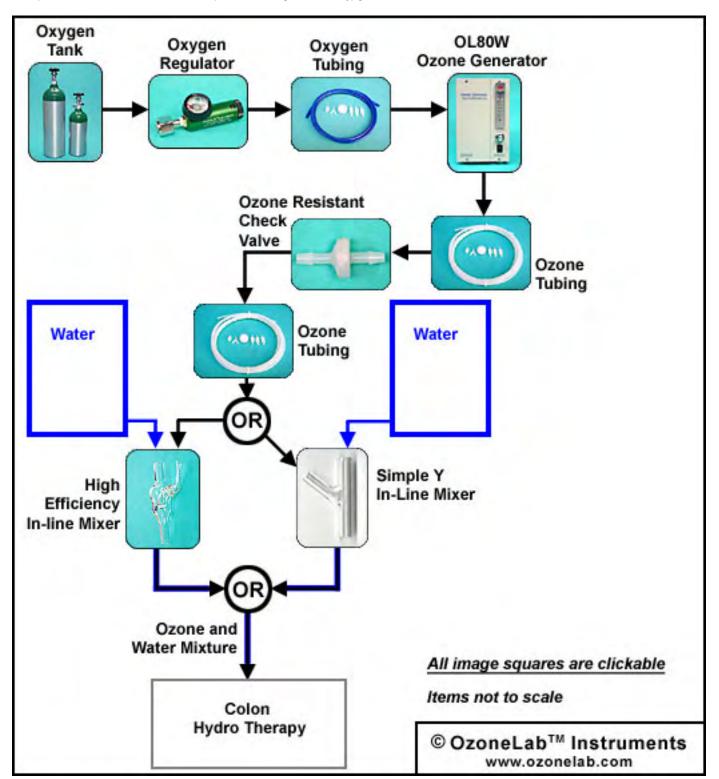


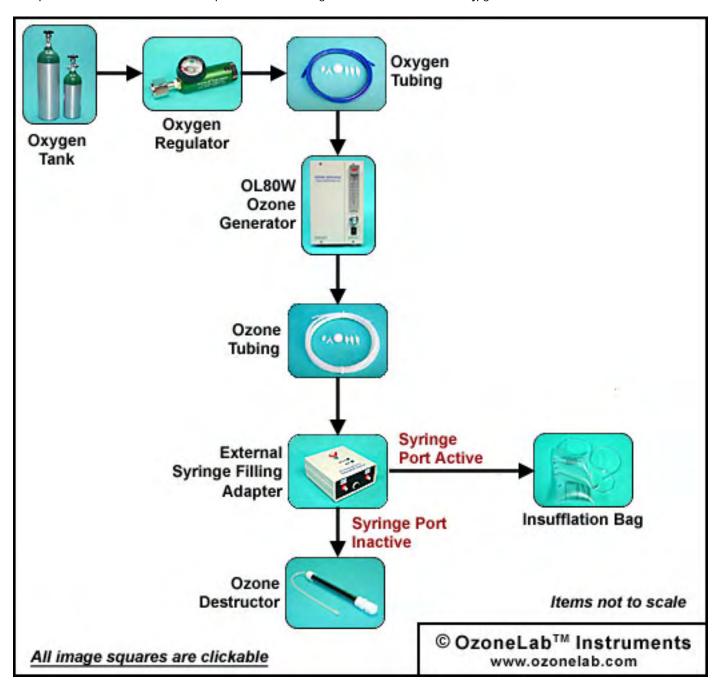


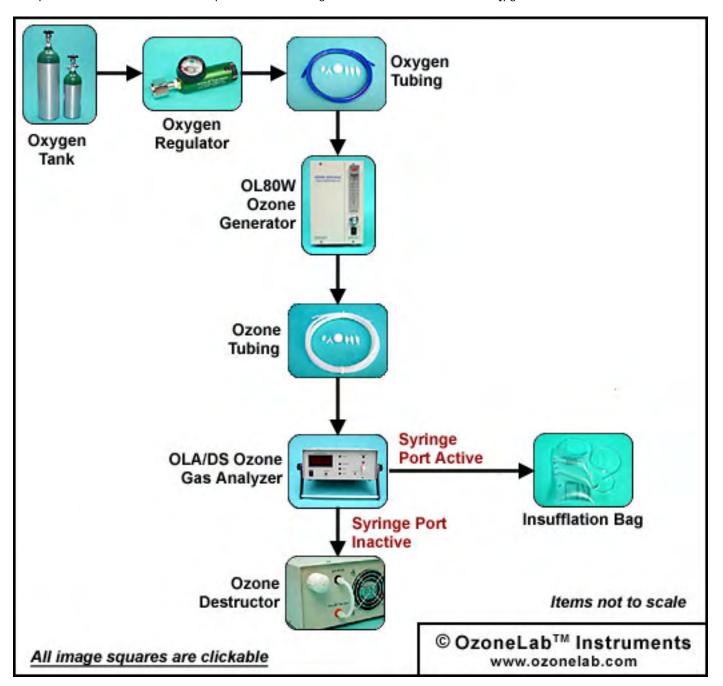


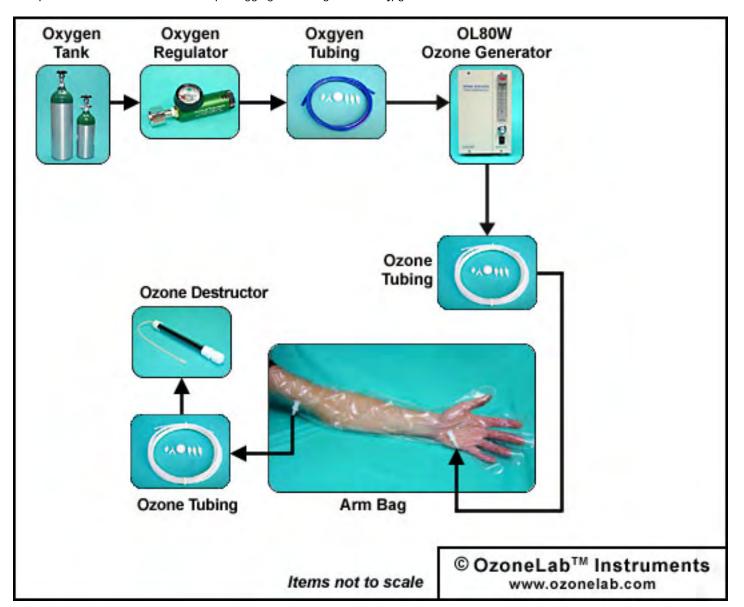
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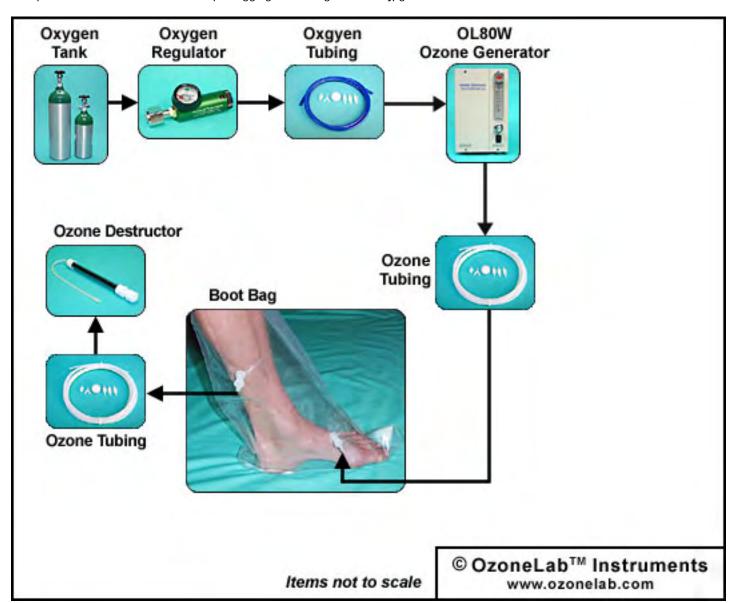
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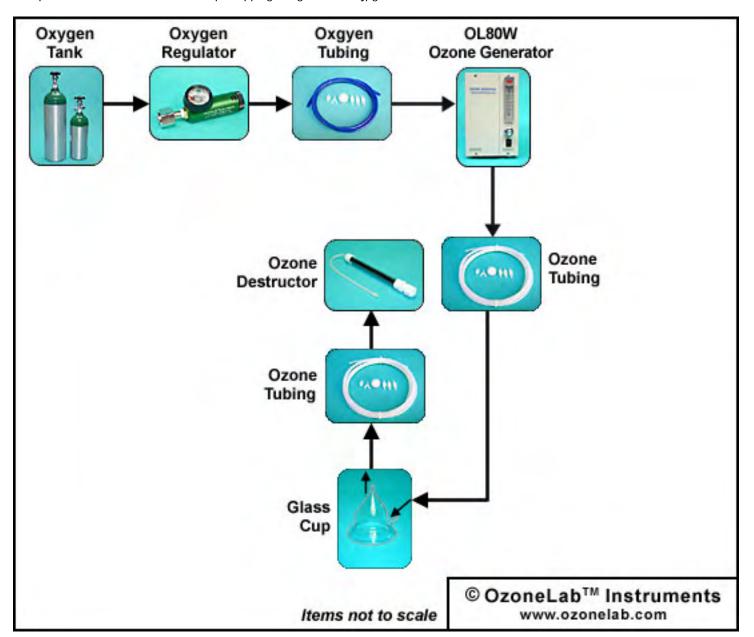


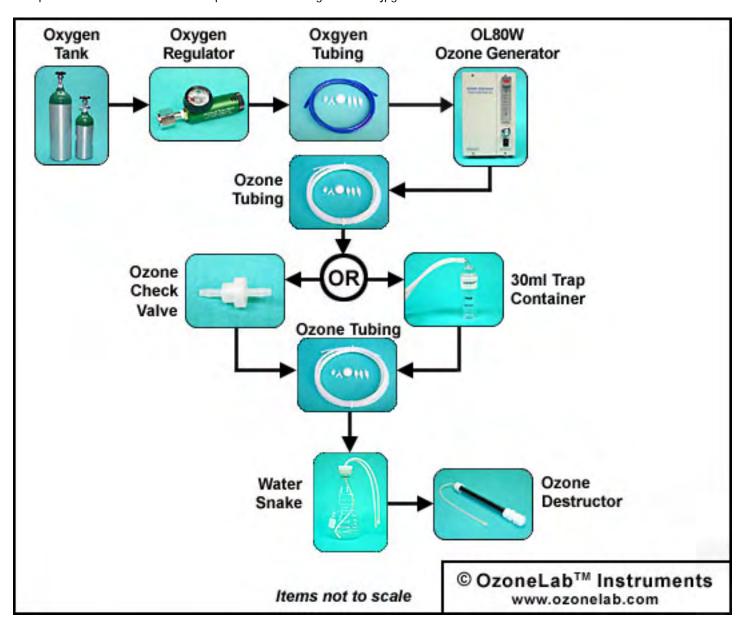


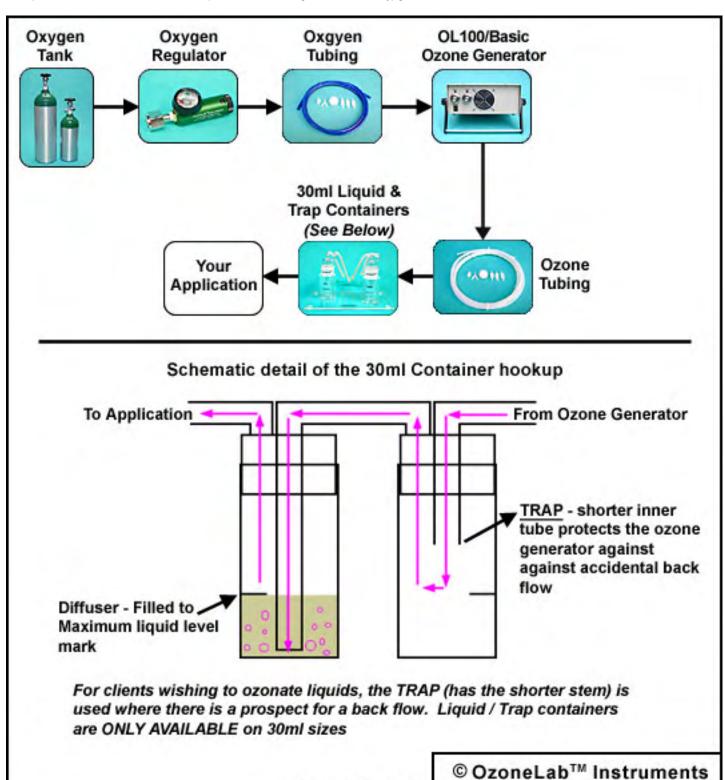






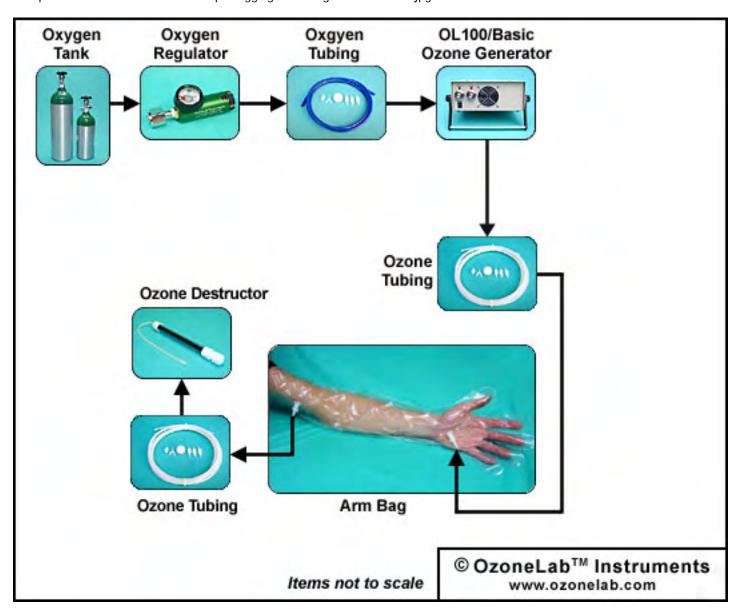


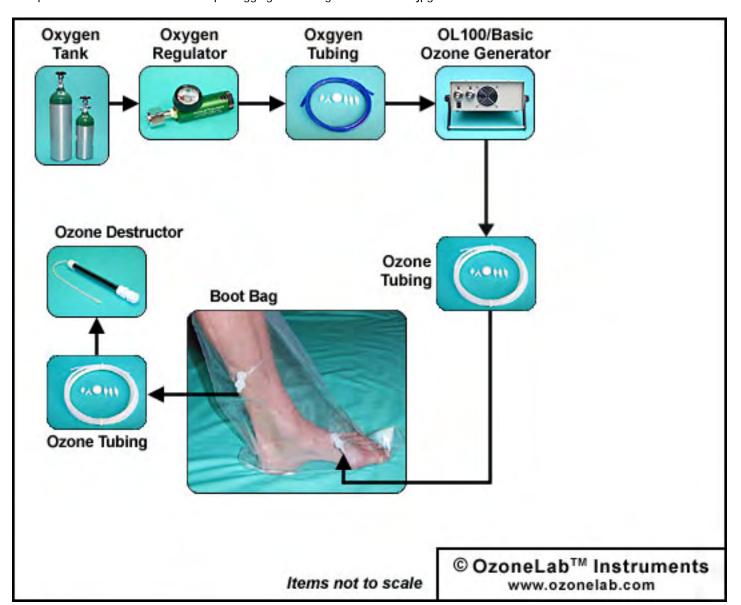


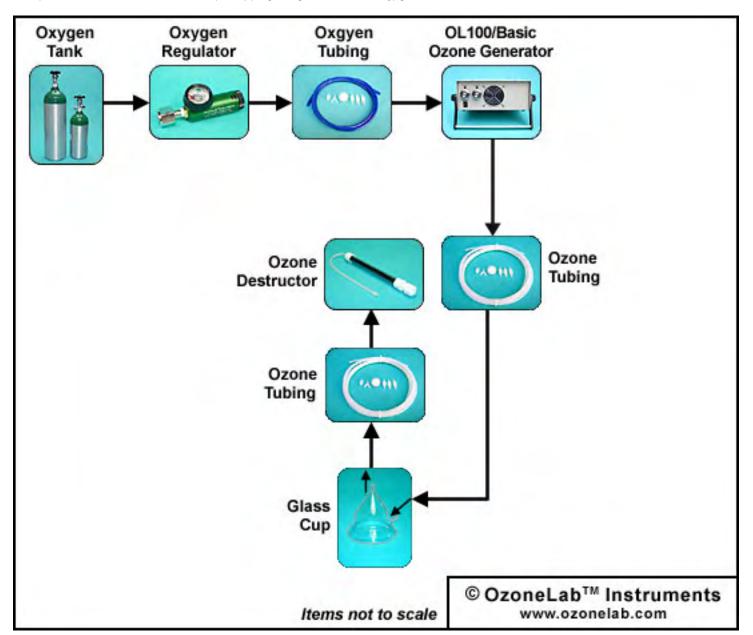


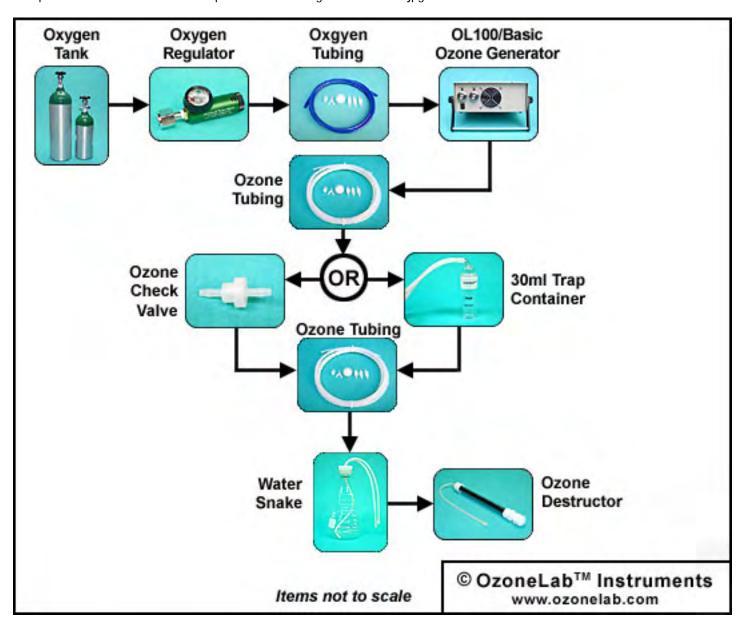
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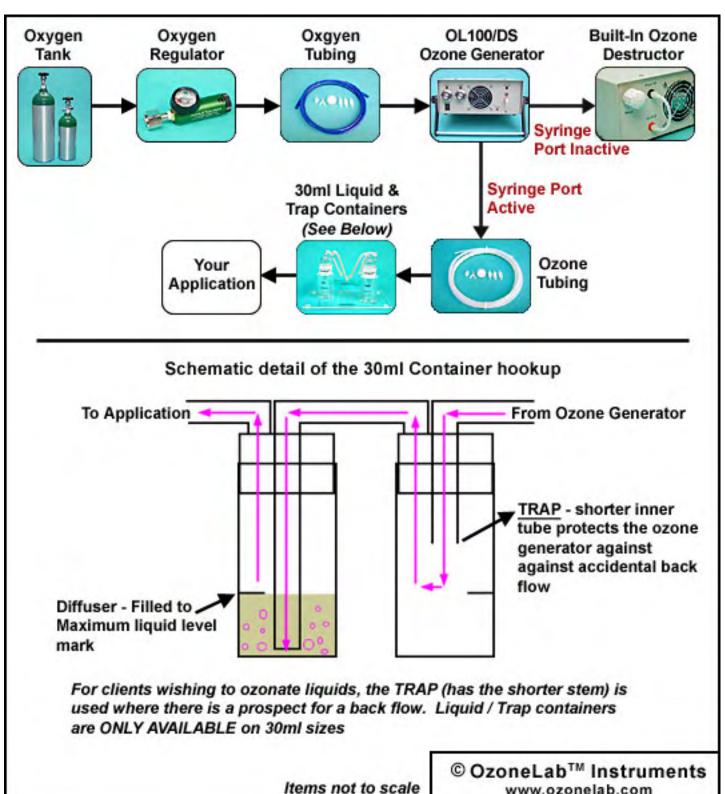
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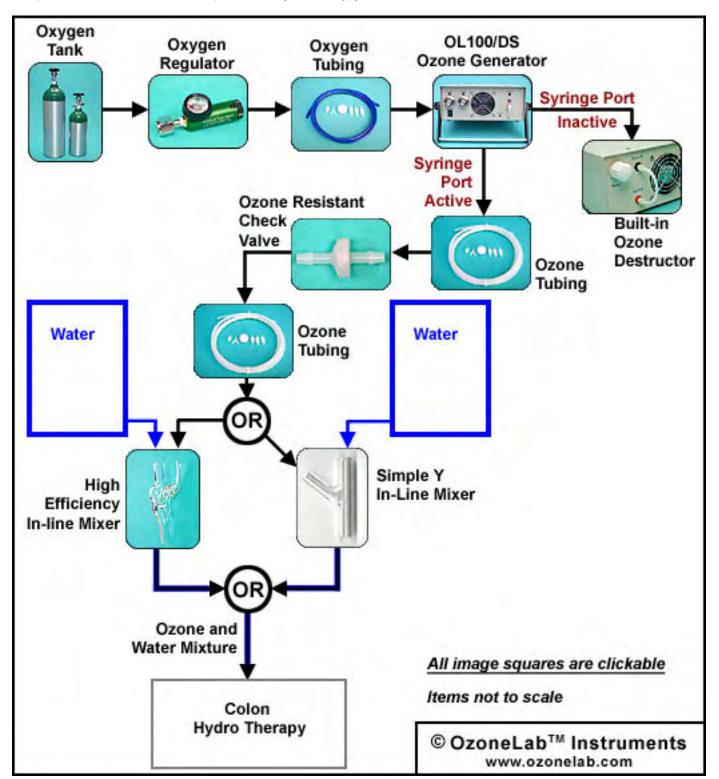


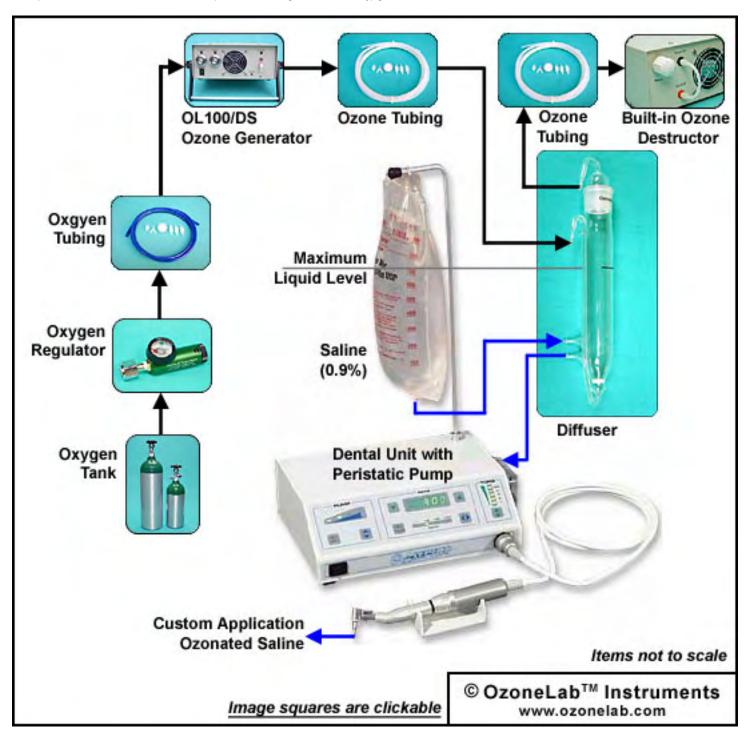


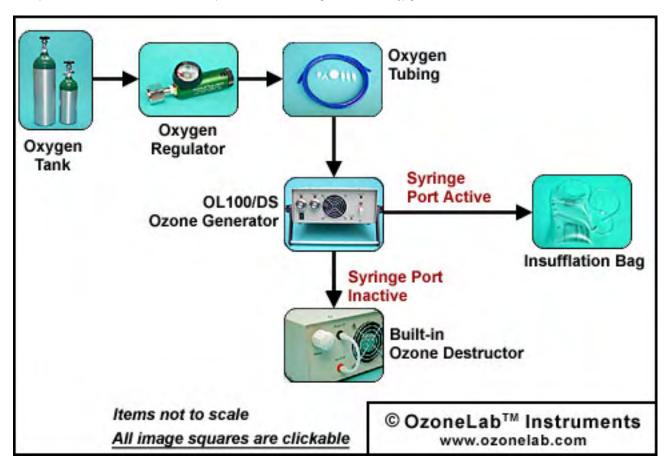


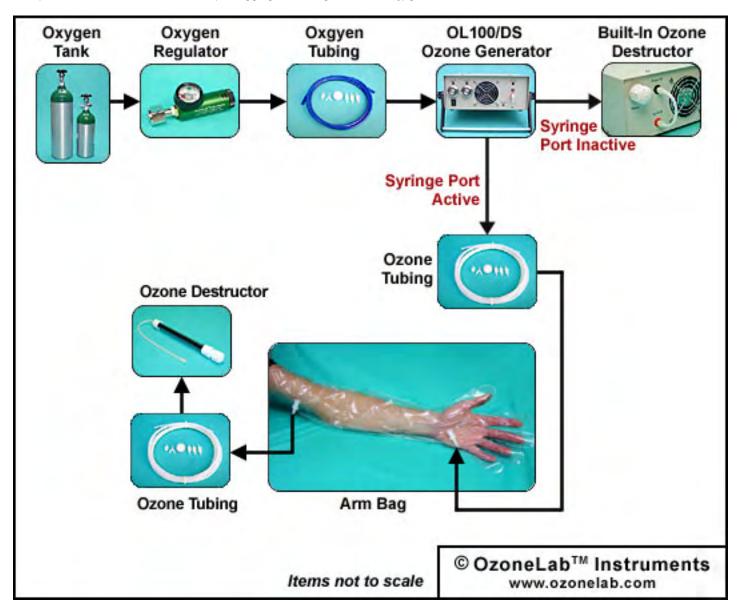


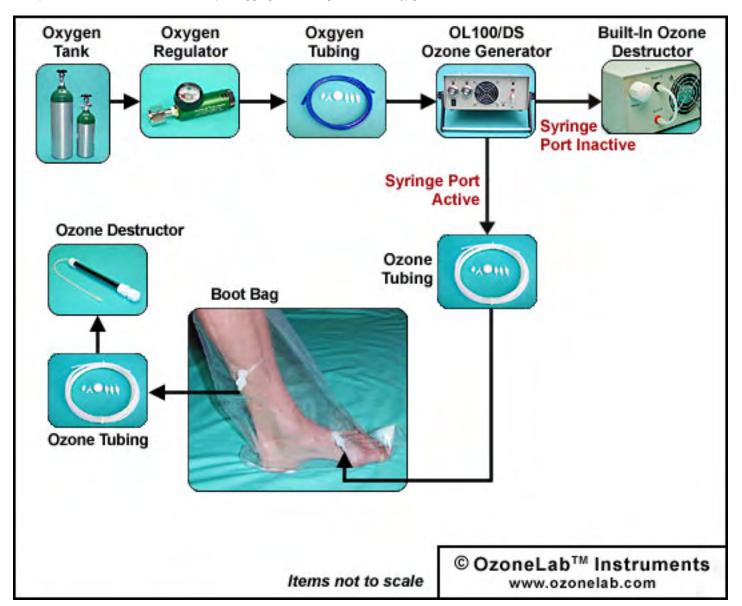


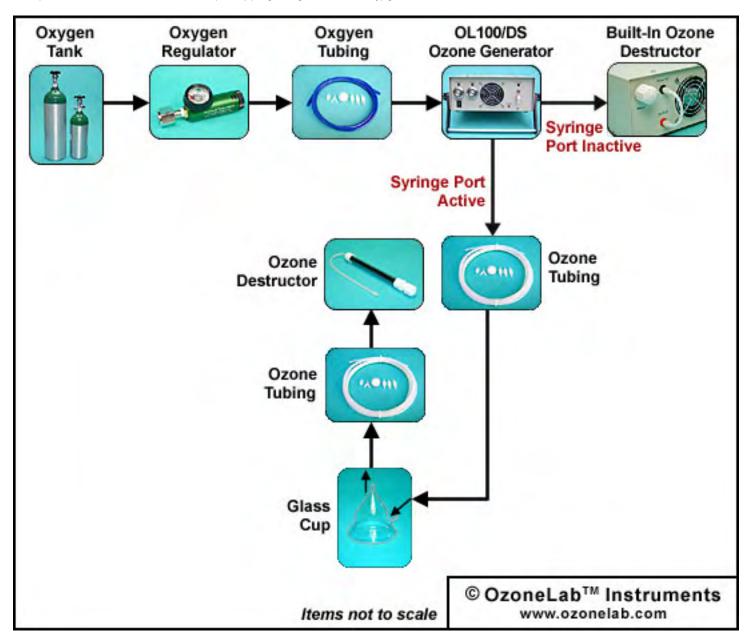


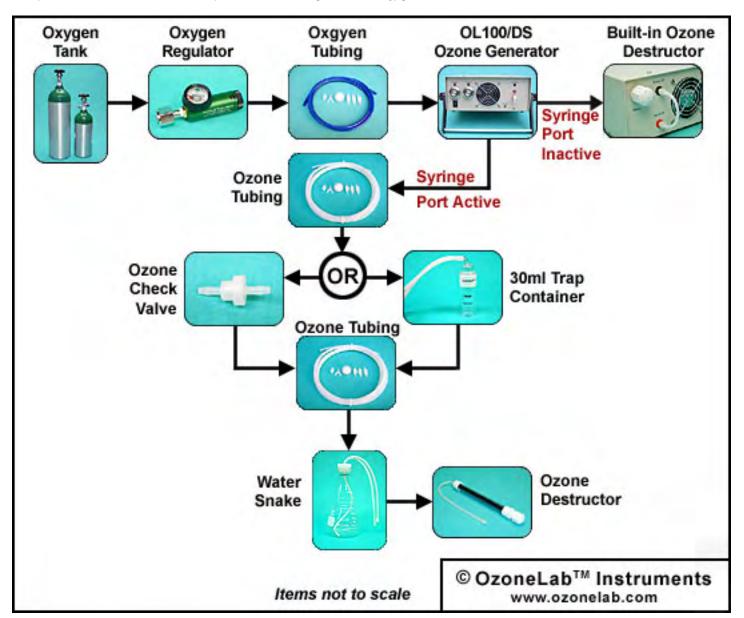














## OzoneLab™ Back Flow Protection (Trap) - OL80W Ozone Generator



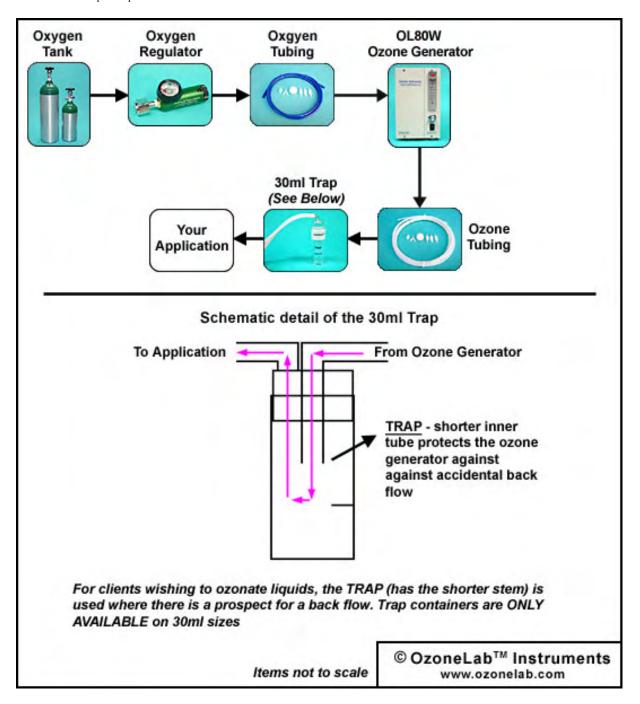


Home > Setup Examples > Back Flow Protection (Trap) - OL80W Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

Back Flow Protection (Trap) using an OL80W Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80W</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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# OzoneLab™ Back Flow Protection (Trap) - OL80 (Basic) Ozone Generator



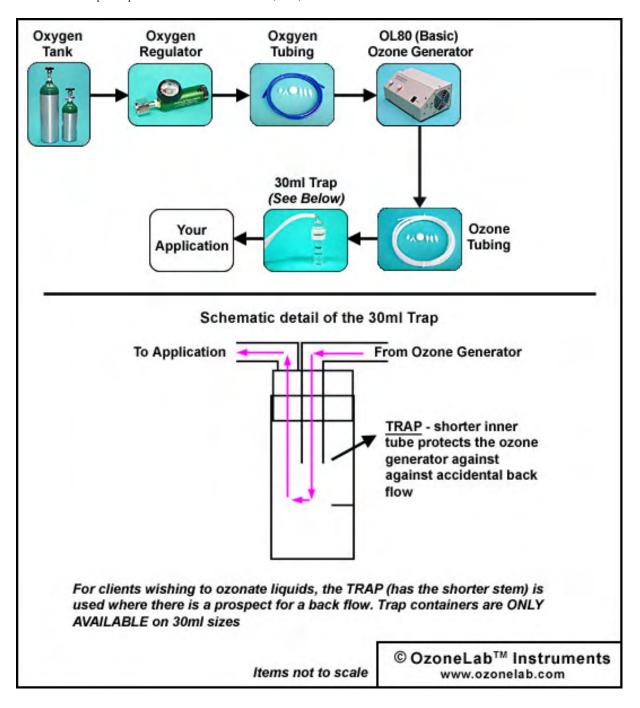


 $\underline{\mathsf{Home}} > \underline{\mathsf{Setup}} \ \mathsf{Examples} > \mathsf{Back} \ \mathsf{Flow} \ \mathsf{Protection} \ (\mathsf{Trap}) \ \mathsf{-} \ \mathsf{OL80} \ (\mathsf{Basic}) \ \mathsf{Ozone} \ \mathsf{Generator}$ 

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

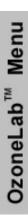
Back Flow Protection (Trap) using an <u>OL80 (Basic) Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL80 (Basic)</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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# OzoneLab™ Back Flow Protection (Trap) - OL80F/S Ozone Generator



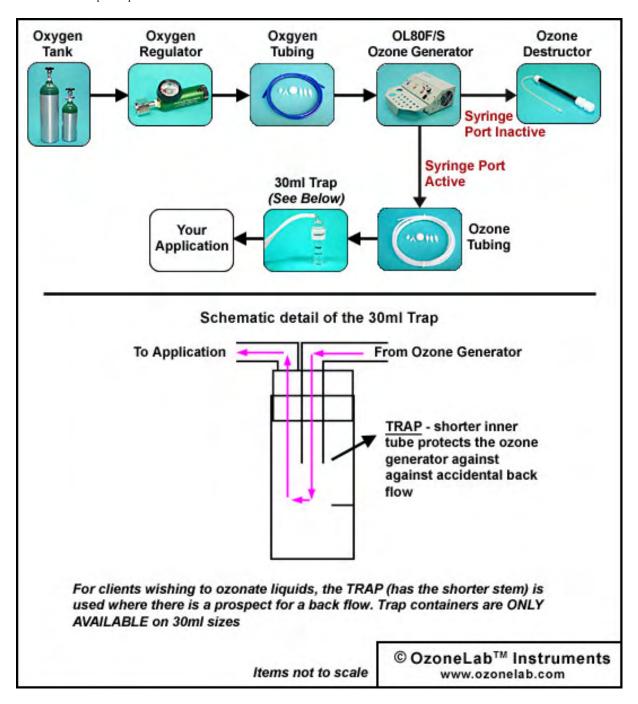


Home > Setup Examples > Back Flow Protection (Trap) - OL80F/S Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

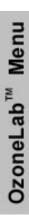
Back Flow Protection (Trap) using an OL80F/S Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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# OzoneLab™ Back Flow Protection (Trap) - OL100/Basic Ozone Generator

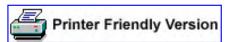


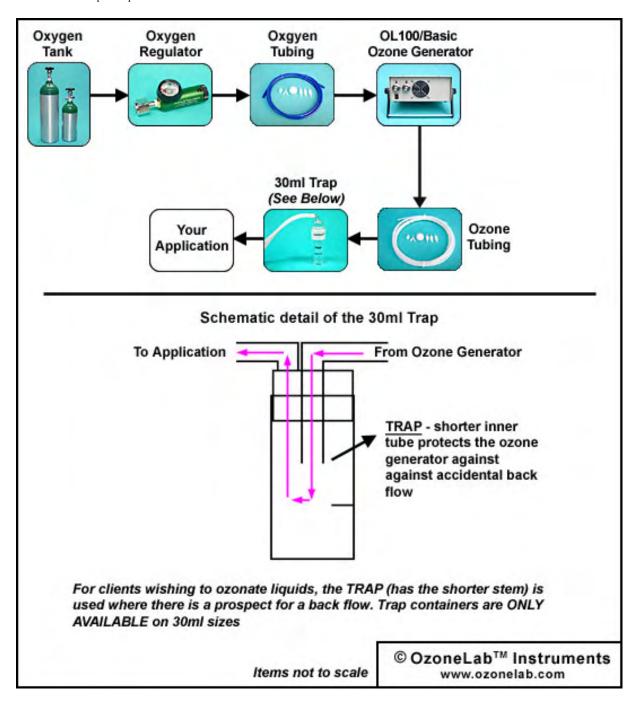


 $\underline{\text{Home}}$  >  $\underline{\text{Setup Examples}}$  > Back Flow Protection (Trap) with OL100/Basic Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

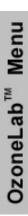
Back Flow Protection (Trap) setup using an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).





The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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# OzoneLab™ Back Flow Protection (Trap) - OL100/DS Ozone Generator



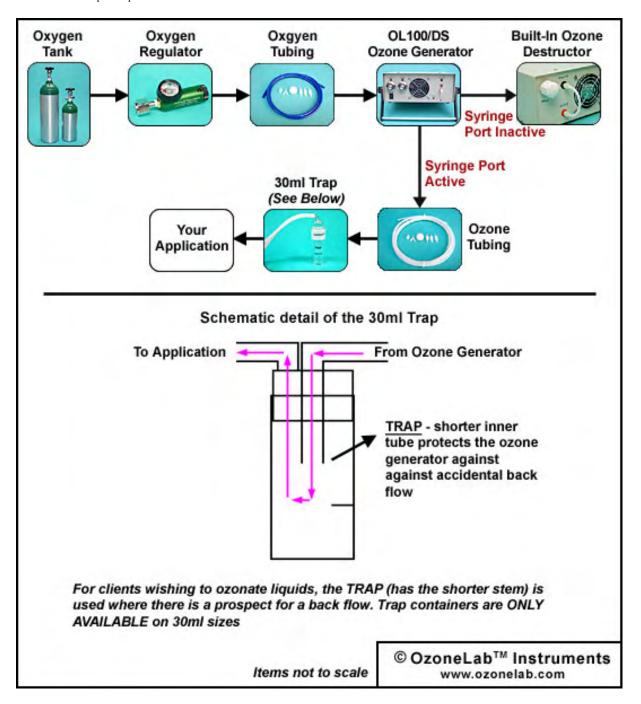


Home > Setup Examples > Back Flow Protection (Trap) - OL100/DS Ozone Generator

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

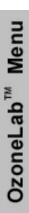
Back Flow Protection (Trap) using an OL100/DS Ozone Generator fed with an oxygen feed (Tank & Regulator).





The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or contact us to discuss which Ozone Generator is right for your needs.

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### OzoneLab™ - Modified Stethoscopes fed with ozone - OL80F/S



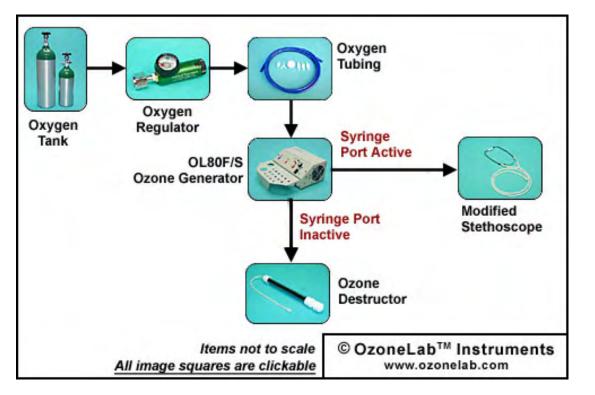


<u>Home</u> > <u>Setup Examples</u> > Modified Stethoscopes fed with ozone - OL80F/S

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

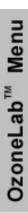
<u>Modified Stethoscopes</u> fed with ozone using the <u>OL80F/S Ozone Generator</u> fed with oxygen from an Oxygen Tank.





The <u>OL80F/S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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OzoneLab™ - Modified Stethoscopes fed with ozone - OL80F/DST



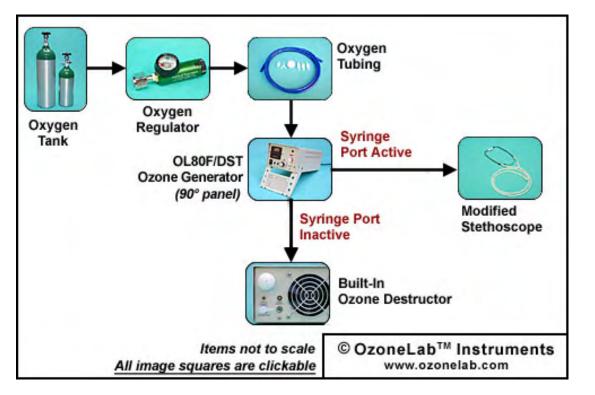
<u>Home</u> > <u>Setup Examples</u> > Modified Stethoscopes fed with ozone - OL80F/DST



The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

<u>Modified Stethoscopes</u> fed with ozone using the <u>OL80F/DST Ozone Generator</u> fed with oxygen from an Oxygen Tank.





The <u>OL80F/DST</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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#### OzoneLab™ - Modified Stethoscopes fed with ozone - OL100/DS

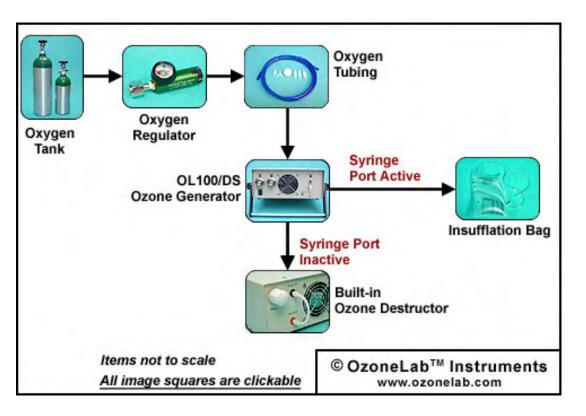




<u>Home</u> > <u>Setup Examples</u> > Modified Stethoscopes fed with ozone - OL100/DS

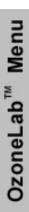
The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

<u>Modified Stethoscopes</u> fed with ozone using an <u>OL100/DS Ozone Generator</u> fed with oxygen from an Oxygen Tank.



The <u>OL100/DS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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### OzoneLab™ - Modified Stethoscopes fed with ozone - OL80A/DLS

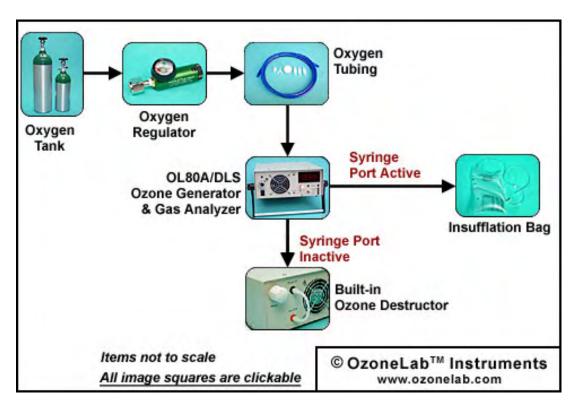


<u>Home</u> > <u>Setup Examples</u> > Modified Stethoscopes fed with ozone - OL80A/DLS



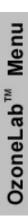
The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.

<u>Modified Stethoscopes</u> fed with ozone using an <u>OL80A/DLS Ozone Generator/Gas Analyzer</u> fed with oxygen from an Oxygen Tank.



The <u>OL80A/DLS</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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## OzoneLab™ Fluid Ozonation using an OL80F/DST-2S Ozone Generator



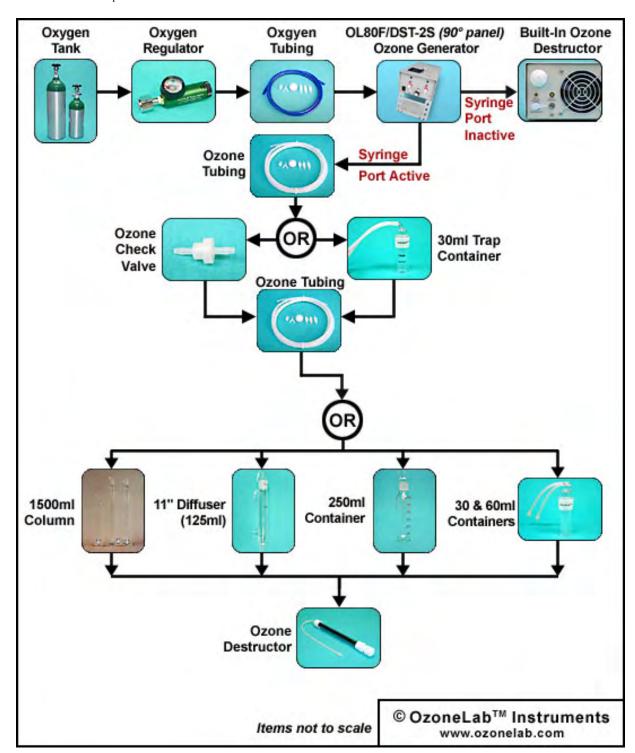


Home > Setup Examples > Fluid ozonation with OL80F/DST-2S Ozone Generator

Fluid ozonation using ozonation containers of various sizes and an <u>OL80F/DST-2S Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





The <u>OL80F/DST-2S</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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## OzoneLab™ Water Ozonation using an OL100/Basic Ozone Generator



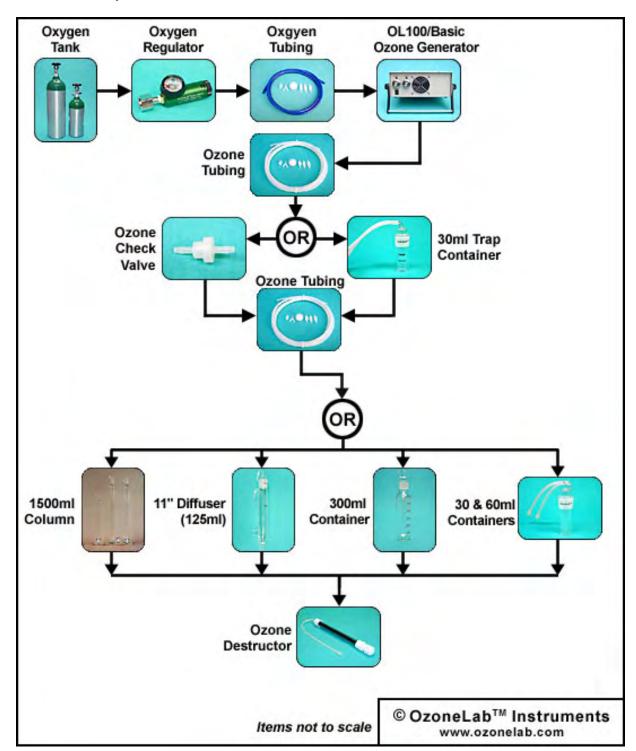


Home > Setup Examples > Water ozonation with OL100/Basic Ozone Generator

Water ozonation using a ozonation containers of various sizes and an <u>OL100/Basic Ozone Generator</u> fed with an oxygen feed (<u>Tank</u> & <u>Regulator</u>).

The below highlighted example is an attempt to try and allow clients to visualize a specific ozone generator application setup. This example represents one of many different possible applications.





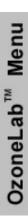
The <u>OL100/Basic</u> is used as an example in this illustration. Ozone Generators are subject to the specific requirements of the client - please call or <u>contact us</u> to discuss which Ozone Generator is right for your needs.

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### OzoneLab™ Glossary - Activated Carbon



Home > OzoneLab™ Glossary - Activated Carbon



#### **Activated Carbon**

A water treatment medium, found in block, granulated, or powdered form, which is produced by heating carbonaceous substances (bituminous coal or cellulose-based substances like wood or coconut shell) in the absence of air, creating a highly porous adsorbent material. Activated carbon is commonly used for dechlorination and for reducing organic chemicals and radon.

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#### OzoneLab™ Glossary - Activated Carbon Block



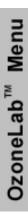
#### **Activated Carbon Block**

Activated carbon block is a blend of fine activated carbon (e.g., 80 x 325 mesh activated carbon), water, and a suitable binder (such as polyethylene or a similar material) that is mixed and molded and hardened or extruded to a cartridge filter of any size and shape. Sometimes specialized media are added along with activated carbon to provide customized performances for specific contaminants. The binder is particularly designed and chosen to hold the carbon and other media in a fixed solid matrix, and designed not to plug the pores of the activated carbon. Even though the binder does occlude a portion of the adsorption sites, the finer mesh size gives activated carbon block filters faster adsorption kinetics and generally two to four times greater adsorption capacity than equivalent volumes of loose granular activated carbon. Activated carbon block filters typically have a 0.5 to 1.0 micron filtration capability, making it also helpful for particulate filtration, insoluble lead reduction, and demonstrating - in some cases - removal of Giardia lamblia and Cryptosporidium parvum.

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### OzoneLab™ Glossary - Aeration



<u>Home</u> > OzoneLab™ Glossary - Aeration



#### **Aeration**

The process whereby water is brought into intimate contact with air by spraying or cascading, or air is brought into intimate contact with water by an air aspirator or by bubbling compressed air through the body of water. Both pressure (closed) aerators and open (gravity) aerators are used. Closed aeration is used chiefly for oxidation; open aeration for degassing.

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## OzoneLab™ Glossary - Aerobic



<u>Home</u> > OzoneLab™ Glossary - Aerobic



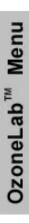
#### **Aerobic**

Oxygen-dependent or requiring oxygen.

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### OzoneLab™ Glossary - Aerobic Respiration



Home > OzoneLab™ Glossary - Aerobic Respiration



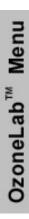
### **Aerobic Respiration**

Organisms utilize oxygen to break down components, derive energy, and generate needed biomolecules. Carbohydrates are cycled into water and carbon dioxide.

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## OzoneLab™ Glossary - Air Pollution



 $\underline{\mathsf{Home}}$  > OzoneLab[™] Glossary - Air Pollution



#### **Air Pollution**

The contamination of the atmosphere by any toxic or radioactive gases and particulate matter as a result of human activity.

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### OzoneLab™ Glossary - Air Quality Assessment





<u>Home</u> > OzoneLab™ Glossary - Air Quality Assessment

### **Air Quality Assessment**

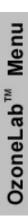
A prescribed level of atmospheric pollution allowed for a certain compound during a specific time in a specific geographical area. Standards are set by some regulating body, office or agency.

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## OzoneLab™ Glossary - Alkene (alcheno)



Home > OzoneLab™ Glossary - Alkene (alcheno)



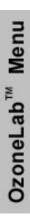
### Alkene (alcheno)

Any unsaturated aliphatic hydrocarbon with the general formula CnH2n Also called: olefine

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## OzoneLab™ Glossary - Anaerobic Respiration



 $\underline{\mathsf{Home}}$  > OzoneLab™ Glossary - Anaerobic Respiration



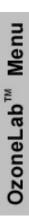
### **Anaerobic Respiration**

Living or acting in the absence of oxygen. Cellular respiration in the absence of oxygen.

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## OzoneLab™ Glossary - Anal Insufflation



<u>Home</u> > OzoneLab™ Glossary - Anal Insufflation



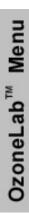
#### **Anal Insufflation**

The act of insufflating the anal cavity with Medical Grade Ozone.

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# OzoneLab™ Glossary - Aquatron



<u>Home</u> > OzoneLab™ Glossary - Aquatron



#### Aquatron

An instrument manufactured by Eumatron GmbH which is used for U.V. Irradiation of blood. (See also: Eumatron, Aquatron, PU 010, PU 050)

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#### OzoneLab™ Glossary - ASTM



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#### **ASTM**

Founded in 1898, ASTM International is a not-for-profit organization that provides a global forum for the development and publication of voluntary consensus standards for materials, products, systems, and services. Over 30,000 individuals from 100 nations are the members of ASTM International, who are producers, users, consumers, and representatives of government and academia. In over 130 varied industry areas, ASTM standards serve as the basis for manufacturing, procurement, and regulatory activities. Formerly known as the American Society for Testing and Materials, ASTM International provides standards that are accepted and used in research and development, product testing, quality systems, and commercial transactions around the globe.

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#### OzoneLab™ Glossary - ASTM International



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#### **ASTM International**

Founded in 1898, ASTM International is a not-for-profit organization that provides a global forum for the development and publication of voluntary consensus standards for materials, products, systems, and services. Over 30,000 individuals from 100 nations are the members of ASTM International, who are producers, users, consumers, and representatives of government and academia. In over 130 varied industry areas, ASTM standards serve as the basis for manufacturing, procurement, and regulatory activities. Formerly known as the American Society for Testing and Materials, ASTM International provides standards that are accepted and used in research and development, product testing, quality systems, and commercial transactions around the globe.

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## OzoneLab™ Glossary - Atmosphere



<u>Home</u> > OzoneLab™ Glossary - Atmosphere



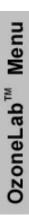
### **Atmosphere**

The sum total of all the gases surrounding the Earth, extending several hundred kilometers above the surface in a mechanical mixture of various gases in fluid-like motion. The permanent constituents are molecular nitrogen; 78.1%, molecular oxygen; 20.9%, argon; 0.934%, and approximately 0.036% carbon dioxide. Various other components exist in trace amounts.

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## OzoneLab™ Glossary - Autohemotherapy



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### **Autohemotherapy**

A process where about half a pint of blood is removed from a patient, treated with ozone, and then reinfused back into the same patient.

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### OzoneLab™ Glossary - Bacteria



Home > OzoneLab™ Glossary - Bacteria



#### Bacteria

Single-celled organisms (singular bacterium) which lack well-defined nuclear membranes and other specialized functional cell parts, and reproduce by cell division or spores. Bacteria may be free-living organisms, or parasitic. Bacteria (and fungi) are decomposers that break down the wastes and bodies of dead organisms, making their components available for reuse. Bacterial cells range from 1 to 10 microns in length, and from 0.2 to 1 microns in width. They exist almost anywhere on earth. Despite their small size, the total weight of all bacteria in the world likely exceeds that of all other organisms combined. Some bacteria are beneficial to man; others harmful.

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# OzoneLab™ Glossary - Biochemical oxygen demand





Home > OzoneLab™ Glossary - Biochemical oxygen demand

## Biochemical oxygen demand (BOD)

The amount of oxygen required by aerobic microorganisms to decompose the organic matter in a sample
of water, such as that polluted by sewage. It is used as a measure of the degree of water pollution. Also
called biological oxygen demand.

Source: The American Heritage® Dictionary of the English Language

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### OzoneLab™ Glossary - Biofilm



Home > OzoneLab™ Glossary - Biofilm



#### Biofilm / Bio-film

- a thin usually resistant layer of microorganisms (as bacteria) that form on and coat various surfaces (as
  of catheters or water pipes)
  - Source: Merriam-Webster Medical Dictionary
- A technique of immobilising cells by growing microbes or other microbial organisms, usually embedded in extracellular polymers such as implanted medical devices, which adhere to surfaces submerged in, or subjected to, aquatic environments. They are glued together to form microbial communities which are highly resistant to both phagocytes and antibiotics.
  - Source: On-line Medical Dictionary
- A layered culture of microorganisms growing on a surface that they have created themselves by secreting polysaccharides and glycoproteins.
  - Source: On-line Medical Dictionary

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# OzoneLab™ Glossary - Biological oxygen demand





Home > OzoneLab™ Glossary - Biological oxygen demand

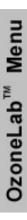
## Biological oxygen demand

The amount of oxygen required by aerobic microorganisms to decompose the organic matter in a sample
of water, such as that polluted by sewage. It is used as a measure of the degree of water pollution. Also
called biochemical oxygen demand.

Source: The American Heritage® Dictionary of the English Language

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### OzoneLab™ Glossary - Biomedical Engineer





Home > OzoneLab™ Glossary - Biomedical Engineer

### **Biomedical Engineer**

By combining biology and medicine with engineering, biomedical engineers develop devices and procedures that solve medical and health-related problems. Many do research, along with life scientists, chemists, and medical scientists, to develop and evaluate systems and products for use in the fields of biology and health, such as artificial organs, prostheses (artificial devices that replace missing body parts), instrumentation, medical information systems, and health management and care delivery systems. Biomedical engineers design devices used in various medical procedures, such as the computers used to analyze blood or the laser systems used in corrective eye surgery. They develop artificial organs, imaging systems such as magnetic resonance, ultrasound, and x-ray, and devices for automating insulin injections or controlling body functions. Most engineers in this specialty require a sound background in one of the basic engineering specialties, such as mechanical or electronics engineering, in addition to specialized biomedical training. Some specialties within biomedical engineering include biomaterials, biomechanics, medical imaging, rehabilitation engineering, and orthopedic engineering.

Source: U.S. Department of Labor - Occupational Outlook Handbook

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## OzoneLab™ Glossary - BOD





Home > OzoneLab™ Glossary - BOD

### **BOD** (biochemical oxygen demand)

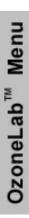
The amount of oxygen required by aerobic microorganisms to decompose the organic matter in a sample
of water, such as that polluted by sewage. It is used as a measure of the degree of water pollution. Also
called biological oxygen demand.

Source: The American Heritage® Dictionary of the English Language

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# OzoneLab™ Glossary - Booster Pump



<u>Home</u> > OzoneLab™ Glossary - Booster Pump



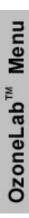
### **Booster Pump**

A pump that provides the flow of water through a venturi, thereby creating a vacuum. This vacuum draws the ozone/air mixture from the ozone generator.

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## OzoneLab™ Glossary - Carbon Dioxide



<u>Home</u> > OzoneLab™ Glossary - Carbon Dioxide



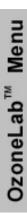
## Carbon Dioxide (CO₂)

A compound consisting of one carbon and two oxygens. It is a reactant in photosynthesis and necessary for plant life. Abundant in the atmosphere due to anthropogenic and natural activities. It is a greenhouse gas.

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## OzoneLab™ Glossary - Carbon Monoxide





Home > OzoneLab™ Glossary - Carbon Monoxide

### Carbon Monoxide (CO)

A toxic, odorless, colorless gas produced during fossil fuel or biomass burning. Compound consisting of one carbon and one oxygen. Except for carbon dioxide, it is one of the longest lived naturally occurring atmospheric carbon compounds (this wording is meant to exclude chlorofluorocarbons). The recent change in tropospheric CO content may portend a change in the balance between oxidants and reductants in the atmosphere.

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# OzoneLab™ Glossary - Check Valve



<u>Home</u> > OzoneLab™ Glossary - Check Valve



#### **Check Valve**

A valve which will allow water to pass in one direction, but will close and prevent flow (backflow) in the opposite direction.

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## OzoneLab™ Glossary - Chelation



<u>Home</u> > OzoneLab™ Glossary - Chelation



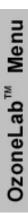
#### Chelation

The process of forming complex chemical compounds in which certain metal ions are bound into stable ring structures, keeping the ions in solution and eliminating or reducing normal (and often undesirable) effects of the ions.

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## OzoneLab™ Glossary - Chlorine



<u>Home</u> > OzoneLab™ Glossary - Chlorine



#### Chlorine

A gas widely used in the disinfection of water, and as an oxidizing agent for organic matter, manganese, iron, and hydrogen sulfide. Chlorine is known to react with organic matter in the water to form trihalomethanes (THM's), which are suspected carcinogens.

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## OzoneLab™ Glossary - Clinical Engineer





<u>Home</u> > OzoneLab™ Glossary - Clinical Engineer

## **Clinical Engineer**

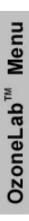
A professional who supports and advances patient care by applying engineering and management skills to healthcare technology.

Source: American College of Clinical Engineering

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## OzoneLab™ Glossary - Cold Plasma Generator



<u>Home</u> > OzoneLab™ Glossary - Cold Plasma Generator



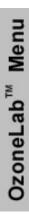
#### **Cold Plasma Generator**

An engineering technique of using inert rarefied gas mixtures in a vacuum tube with no filament.

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## OzoneLab™ Glossary - Column



<u>Home</u> > OzoneLab™ Glossary - Column



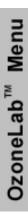
#### Column

A vessel, usually a cylindrical vertical tank, with an inlet at one end and an outlet at the other, with some means of holding the medium in place so that a stream of water passing through it is processed. Also known as a bed of filter or catalyst medium, or ion exchange resin.

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# OzoneLab™ Glossary - Column Ozone



<u>Home</u> > OzoneLab™ Glossary - Column Ozone



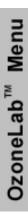
### Column Ozone

The total amount of ozone that is found in a column of air. The majority of this amount is typically found in the stratosphere.

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## OzoneLab™ Glossary - Contact Tank





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#### Contact Tank (Reaction Tank)

A tank where dissolved ozone reacts with contaminants in the water. It may have a series of compartments or have only one large chamber.

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## OzoneLab™ Glossary - Corona



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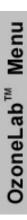
#### Corona

A visible electric discharge. Oxygen in the air passing through this discharge is converted to ozone. An electrical discharge effect which causes the ionization of oxygen, and the formation of ozone.

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## OzoneLab™ Glossary - Corona Discharge



<u>Home</u> > OzoneLab™ Glossary - Corona Discharge



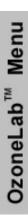
### **Corona Discharge**

The discharge of electricity, causing a faint glow adjacent to the surface of an electrical conductor, and adjacent to the dielectrics in an ozone generator during ozone production. Corona Discharge discharge results from electrical discharge and indicates ionization of oxygen and the formation of ozone in the surrounding air.

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## OzoneLab™ Glossary - Cryptosporidium





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### Cryptosporidium

A waterborne protozoan that forms cysts and causes acute gastrointestinal illness in humans. Cryptosporidium is commonly found in unfiltered surface water, and is resistant to disinfectants such as chlorine and ultraviolet light, but can be removed by filters that capture all particles of one micron and greater in size.

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## OzoneLab™ Glossary - Cuvette





Home > OzoneLab™ Glossary - Cuvette

#### Cuvette

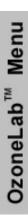
- a small often transparent laboratory vessel (as a tube)
   (Source: Merriam-Webster Online Dictionary)
- laboratory vessel: a transparent tubular laboratory vessel or dish for holding a liquid (Source: Encarta® World English Dictionary)
- a container with specific dimensions (particularly thickness) and optical properties, used to examine
  colored or colorless solutions that are free of turbidity, as well as the light scattering of turbid
  suspensions, such as bacterial suspensions. Its efficacy depends on its chemical composition; e.g., one
  made of quartz is used for examination of materials in the ultraviolet region of the spectrum and one
  made of Pyrex is used for examination of materials in the visible range.
  (Source: Dorland's Illustrated Medical Dictionary)

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# OzoneLab™ Glossary - Dobson Units



Home > OzoneLab™ Glossary - Dobson Units



### **D518 Standard Test Method**

ASTM Standard Test Method for Rubber Deterioration-Surface Cracking

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# OzoneLab™ Glossary - D1149 Standard Test Method





#### **D1149 Standard Test Method**

ASTM Standard Test Method for Rubber Deterioration-Surface Ozone Cracking in a Chamber

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# OzoneLab™ Glossary - D1171 Standard Test Method



<u>Home</u> > OzoneLab™ Glossary - D1171 Standard Test Method



#### **D1171 Standard Test Method**

ASTM Standard Test Method for Rubber Deterioration-Surface Ozone Cracking Outdoors or Chamber (Triangular Specimens)

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# OzoneLab™ Glossary - D3395 Standard Test Method



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#### **D3395 Standard Test Method**

ASTM Standard Test Methods for Rubber Deterioration-Dynamic Ozone Cracking in a Chamber

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## OzoneLab™ Glossary - D4575 Standard Test Method



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#### **D4575 Standard Test Method**

ASTM Standard Test Methods for Rubber Deterioration—Reference and Alternative Method(s) for Determining Ozone Level in Laboratory Test Chambers

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## OzoneLab™ Glossary - De-Ozonizing Filter





 $\underline{\mathsf{Home}}$  > OzoneLab[™] Glossary - De-Ozonizing Filter

### **De-Ozonizing Filter**

A vessel or series of vessels, containing a suitable material that ozonated water is passed through to destroy residual ozone. This treatment stage is used to prevent water containing dissolved ozone from reaching a pool or water main.

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# OzoneLab™ Glossary - Dewpoint



<u>Home</u> > OzoneLab™ Glossary - Dewpoint



### **Dewpoint**

The temperature at which water vapor present in the air begins to condense (dew begins to form).

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# OzoneLab™ Glossary - Distilled Water



<u>Home</u> > OzoneLab™ Glossary - Distilled Water



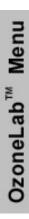
#### **Distilled Water**

Water which has been cleansed by passing through one or more evaporation-condensation cycles until it contains a very low amount of dissolved solids (usually less than 5.0 ppm TDS).

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## OzoneLab™ Glossary - Dobson Units





<u>Home</u> > OzoneLab™ Glossary - Dobson Units

#### **Dobson Units**

Measurement unit for determining the total amount of ozone present in a vertical column of air above the surface of the earth. An air layer at atmospheric pressure of 1013 hPa and temperature of 298 K which measures 1 mm in thickness and is equivalent to 100 dobson units.

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# OzoneLab™ Glossary - Electrophilic



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### **Electrophilic**

Having or involving an affinity for negative charge. Electrophilic reagents (electrophiles) are atoms, molecules, and ions that behave as electron acceptors.

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# OzoneLab™ Glossary - Eumatron



<u>Home</u> > OzoneLab™ Glossary - Eumatron



#### **Eumatron**

German based company (Eumatron GmbH) manufacturing instrumentation for U.V. Irradiation of blood. (See also: Aquatron, PU 010, PU 050)

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## OzoneLab™ Glossary - Free Radicals





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#### **Free Radicals**

Highly reactive atoms or molecules with incomplete octets and therefore uneven numbers of electrons. (In the case of hydrogen radical this is an incomplete duet.) Free radicals species are very electrophilic, will abstract atoms from other molecules to complete their octets, and will in the process generate new radicals. In the atmosphere, most free radical species have short life spans; however, they can promote the conversion of ozone to oxygen and also take part in the catalytic cycle of ozone destruction.

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# OzoneLab™ Glossary - Half-Life



 $\underline{\mathsf{Home}}$  > OzoneLab™ Glossary - Half-Life



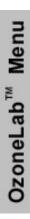
#### Half-Life

The time required for half of the substance present at the beginning to dissipate or disintegrate.

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## OzoneLab™ Glossary - HealOzone Unit



<u>Home</u> > OzoneLab™ Glossary - HealOzone Unit



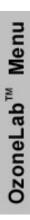
#### **HealOzone Unit**

An ozone treatment system developed by CurOzone USA Inc. for use in dentistry.

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## OzoneLab™ Glossary - Hemo-Irradiation



<u>Home</u> > OzoneLab™ Glossary - Hemo-Irradiation



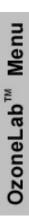
#### **Hemo-Irradiation**

The medical process involving the UV irradiation of the blood, resulting in controlled photo-oxidation

(Source: Into the Light by William Campbell Douglass, M.D.)

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## OzoneLab™ Glossary - High Voltage Electrode



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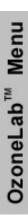
#### **High Voltage Electrode**

In ozonation applications, the outlet post on the voltage transformer which produces more than 1,000 volts.

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## OzoneLab™ Glossary - Hydrogen Peroxide





<u>Home</u> > OzoneLab™ Glossary - Hydrogen Peroxide

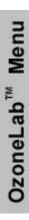
## Hydrogen Peroxide (H₂O₂)

A colorless, heavy, strongly oxidizing liquid,  $H_2O_2$ , capable of reacting explosively with combustibles and used principally in aqueous solution as a mild antiseptic, a bleaching agent, an oxidizing agent, and a laboratory reagent.

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## OzoneLab™ Glossary - Hyperthermic Chamber



<u>Home</u> > OzoneLab™ Glossary - Hyperthermic Chamber



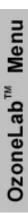
#### **Hyperthermic Chamber**

A steam sauna cabinet used to artificially induce hyperthermia

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## OzoneLab™ Glossary - Injector



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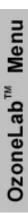
#### Injector

A device through which the ozone/air mixture from the ozone generator is fed under pressure into the water. It provides for mixing and dissolving of ozone in the water. (Also see <u>venturie</u>)

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## OzoneLab™ Glossary - In-Line Mixer



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#### **In-Line Mixer**

A static mixing device in the water line. Its function is to assist the mixing and dissolving of ozone into the water.

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## OzoneLab™ Glossary - Insufflation





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#### Insufflation

The act or an instance of insufflating. In Ozone Therapy, may also be known as Anal or Vaginal Insufflation.

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## OzoneLab™ Glossary - Ion



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#### lon

An atom or radical (group of atoms) which carries an electrical charge as the result of having lost or gained electrons. Positively-charged ions are called cations; negatively charged ions are called anions. An ion often has entirely different properties than the element (atom) from which it water formed.

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#### OzoneLab™ Glossary - Irradiation





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#### Irradiation

- Exposure to the action of electromagnetic radiation (e.g., heat, light, x-rays). (Source: Stedman's Online Medical Dictionary, 27th Edition)
- The use of high-energy radiation from x-rays, gamma rays, neutrons, and other sources to kill cancer cells and shrink tumors. Radiation may come from a machine outside the body (external-beam radiation therapy) or from materials called radioisotopes. Radioisotopes produce radiation and can be placed in or near the tumor or in the area near cancer cells. This type of radiation treatment is called internal radiation therapy, implant radiation, interstitial radiation, or brachytherapy. Systemic radiation therapy uses a radioactive substance, such as a radiolabeled monoclonal antibody, that circulates throughout the body. Irradiation is also called radiation therapy, radiotherapy, and x-ray therapy. (Source: MedTerms.com Medical Dictionary)

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## OzoneLab™ Glossary - Liquid Ozonated Olive Oil (LOOO)





Home > OzoneLab™ Glossary - Liquid Ozonated Olive Oil

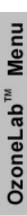
#### **Liquid Ozonated Olive Oil (LOOO)**

Liquid Ozonated Olive Oil is extra virgin olive oil which has been ozonated, but for less time than Ozonated Olive Oil (OOO), providing a less potent (1:3 ratio) liquid form of OOO.

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## OzoneLab™ Glossary - Luer Lock





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#### **Luer Lock**

Type of the fitting connector with locking mechanism, used extensively for medical and laboratory applications.

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## OzoneLab™ Glossary - Medical Grade Ozone



<u>Home</u> > OzoneLab™ Glossary - Medical Grade Ozone



#### **Medical Grade Ozone**

Ozone which has been created using an Ozone Generator supplied with a Medical Grade Oxygen feed.

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## OzoneLab™ Glossary - Molecular Oxygen





<u>Home</u> > OzoneLab™ Glossary - Molecular Oxygen

## Molecular Oxygen

A molecule that is composed of two oxygen atoms,  $O_2$ , that has no color, odor, or taste. It is present in both the atmosphere and the oceans, and solar radiation with wavelengths less then 242 nm can break it back into oxygen atoms,  $O_2$  ---> O + O. One of these oxygen radicals in turn can combine with  $O_2$  to form ozone,  $O_2$  + O --->  $O_3$ .

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## OzoneLab™ Glossary - Molecule





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#### Molecule

The smallest particle of an element or compound that retains all of the characteristics of the element or compound. A molecule is made up of one or more atoms. Oxygen molecules  $(O_2)$  have two atoms per molecule; Ozone  $(O_3)$  have three atoms. Molecules found in chemical compounds often have many atoms of various kinds.

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# OzoneLab™ Glossary - Mr. A



<u>Home</u> > OzoneLab™ Glossary - Mr. A



Mr. A

Mr. Average weighing 168-170 lbs.

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## OzoneLab™ Glossary - Nitrogen





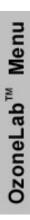
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#### Nitrogen (N₂)

A colorless, tasteless, odorless gas which makes up 78.1% the atmosphere. Atmospheric nitrogen is converted by nitrogen fixation and nitrification into compounds used by plants and animals. In the upper atmosphere,  $N_2$  is broken down when large numbers of energetic secondary electrons are produced and available to react with the  $N_2$ . This leads to the eventual production of NO.

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## OzoneLab™ Glossary - Nitrogen Dioxide





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#### Nitrogen Dioxide (NO₂)

NO₂ is the lesser of the two emitted NOx gases from high temperature combustion in air. It is an important species in the atmosphere. Since it absorbs in the visible wavelength region (creating the Brown Cloud see over Denver, LA, Mexico City) and can be photolyzed and yield oxygen atoms that can react with molecular oxygen to create ozone, NO₂ and the NO/NO₂ ratio is important.

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## OzoneLab™ Glossary - Nitrogen Monoxide



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#### Nitrogen Monoxide (NO)

NO is the principal emitted NOx gas from high temperature combustion in air. This gas is a catalyst in the reactions that cause the destruction of ozone. Reacting with ozone and tropospheric radicals, NO is inextricably linked with the polluted urban atmospheric production of NO₂, ozone, and peroxyacetyl nitrate.

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## OzoneLab™ Glossary - Nitrogen Oxides





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## Nitrogen Oxides

NOx (pronounced "nox") are produced from high temperature combustion in air. They are nitrogen oxide and nitrogen dioxide.

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## OzoneLab™ Glossary - Nitrous Oxide





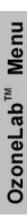
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#### Nitrous Oxide (N₂O)

 $N_2$ O is a by-product of biological activity of a symbiotic bacteria living in leguminous plant roots. This is a principal green house gas that absorbs in the infrared wavelength region and unfortunately falls in an IR "window" between IR absorbing features of water and carbon dioxide (a characteristic of all the "trace" greenhouse gases with significant radiative forcing).

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## OzoneLab™ Glossary - Nucleophilic





<u>Home</u> > OzoneLab™ Glossary - Nucleophilic

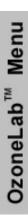
#### **Nucleophilic**

Having or involving an affinity for positive charge. Nucleophilic reagents (nucleophiles) are molecules, atoms, and ions that behave as electron donors.

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## OzoneLab™ Glossary - Off-Gas



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#### Off-Gas

The undissolved ozonated air collected from the reaction tank(s) or de-ozonizing filter which must be safely vented to the outside atmosphere.

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## OzoneLab™ Glossary - Osmosis



<u>Home</u> > OzoneLab™ Glossary - Osmosis

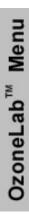


#### Osmosis

The natural tendency for water to spontaneously pass through a semipermeable membrane separating two solutions of different concentrations (strengths). The water will naturally pass from the weaker (less concentrated) solution containing fewer particles of dissolved substance to the stronger (more concentrated) solution containing more particles of a dissolved substance. The natural osmosis causes the stronger solution to become more diluted, and tends to equalize the strength of the solutions on both sides of the membrane.

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# OzoneLab™ Glossary - OTTP





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#### **OTTP**

An acronym for Ozone Therapy Training Program.

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## OzoneLab™ Glossary - Ozone Therapy Training Program





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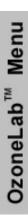
#### **Ozone Therapy Training Program**

A collaborative venture of individuals and organizations concerned about the safe and effective utilization of Ozone Therapies.

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# OzoneLab™ Glossary - Oxidants



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#### **Oxidants**

Chemical species that readily accept electrons. The electron accepting species is reduced in a chemical reaction.

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#### OzoneLab™ Glossary - Oxidation



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#### Oxidation

- 1. (General) The process in which a molecule, atom, or ion loses electrons to an oxidant. The oxidized substance (which lost the electrons) increases in positive valence. Oxidation never occurs alone, but always occurs as part of the oxidation-reduction (redox) reaction. The reduced substance gains electrons and thereby decreases in positive valence.
- 2. (Electrodialysis) A chemical reaction which occurs at the anode and results in the loss of electrons from the anodic material.
- 3. (Ion Exchange) Specific attack on the crosslinking of the co-polymer of ion exchange resins by an oxidant (chlorine, peroxide, ozone, or others) leading to degradation (loss of structure of resin beads) and shortening of the resin life.

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#### OzoneLab™ Glossary - Oxidation-Reduction (Redox) Reaction





Home > OzoneLab™ Glossary - Oxidation-Reduction (Redox) Reaction

#### Oxidation-Reduction (Redox) Reaction

The combination of the processes involved in the flow of electrons from a reducing agent (reducer) to an oxidizing agent (oxidant). The total number of electrons lost by one substance is the same as the total number of electrons gained by another substance. Oxidation and reduction always occur together simultaneously and are really opposite sides of the same reaction, which is often called the redox reaction. In earlier years, oxidation referred to the combining of a substance with, or addition of, oxygen; and reduction meant the loss or reduction of oxygen. As chemistry became more advanced, it was seen that the real key to what was happening was the gain or loss of electrons. The following definitions now apply. Oxidation is the loss of electrons from the reducing agent (which is said to have "been oxidized" in the process). Since electrons carry negative charges, oxidation results in an increase of positive valence. Reduction is the acquiring of electrons (the ones lost in the oxidation process) by the oxidizing agent (which is said to have "been reduced" in the process). Because electrons (carrying negative charges) have been acquired, reduction results in a lowering (a reduction) of positive valence. It may be helpful to remember that the word "agent" refers to an active substance that produces or brings about some effect. Therefore the oxidizing agent is the substance that brings about the reduction.

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## OzoneLab™ Glossary - Oxide



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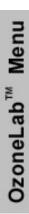
#### Oxide (óxido, oxyde, ossido, Oxid neuter)

- 1. any compound of oxygen with another element
- 2. any organic compound in which an oxygen atom is bound to two alkyl or aryl groups; an ether

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## OzoneLab™ Glossary - Oxidize



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#### Oxidize

To increase a molecule or ion in positive valence; to lose electrons to an oxidizing agent.

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## OzoneLab™ Glossary - Oxygen



Search



<u>Home</u> > OzoneLab™ Glossary - Oxygen

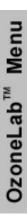
## Oxygen (O₂)

Oxygen is found on Earth as a gas and constitutes about 21% of the air we breathe. Elemental molecular oxygen consists of two oxygen atoms bonded together. A photochemical reaction of oxygen is (ultimately) responsible for the production of ozone in the stratosphere. Oxygen concentrations found in ice core samples have been used to determine past atmospheric levels of oxygen and helped in determining past climates.

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## OzoneLab™ Glossary - Ozonated Air



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#### **Ozonated Air**

Air in which a portion or the normal oxygen  $(O_2)$  has been converted to ozone  $(O_3)$ .

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## OzoneLab™ Glossary - Ozonated Olive Oil



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#### Ozonated Olive Oil (OOO)

Ozonated Olive Oil is extra virgin olive oil which has been ozonated until it solidifies. This process takes several days of continuous gas flow.

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# OzoneLab™ Glossary - OOO



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#### 000

An acronym for Ozonated Olive Oil.

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## OzoneLab™ Glossary - Ozonation



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#### **Ozonation**

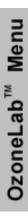
The process of dissolving ozone in water.

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## OzoneLab™ Glossary - Ozone (o-zone)





Home > OzoneLab™ Glossary - Ozone (o-zone)

## Ozone $(O_3)$

Ozone (o-zone) is a molecule that consists of three oxygen atoms bonded together. The ozone (o-zone) layer in the stratosphere absorbs UV radiation and creates a warm layer of air high in the stratosphere. Ozone that is present in the troposphere is mostly a result of anthropogenic pollution and therefore higher concentrations are found in urban areas. Ozone is involved with NOx in the photochemical production of many of the constituents of pollution environments A very strong oxidizing agent which is unstable, and must be generated on site. Ozone is a highly reactive form of oxygen, and can be produced by sending a high-voltage electrical discharge through air or oxygen (as occurs in a lightning storm.) Ozone can also be produced by some types of ultraviolet lamps. Ozone is an excellent oxidizing agent and bactericide.

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## OzoneLab™ Glossary - Ozon



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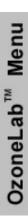
# Ozon (O₃)

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## OzoneLab™ Glossary - Ozone Destructor



<u>Home</u> > OzoneLab™ Glossary - Ozone Destructor



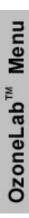
#### **Ozone Destructor**

A device for removing ozone from undissolved ozonated air (off-gas) before it is discharged to atmosphere.

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## OzoneLab™ Glossary - Ozone Distribution



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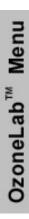
#### **Ozone Distribution**

Nearly all ozone in the atmosphere is found in the stratosphere. The thickness and distribution of this stratospheric ozone vary seasonally and by location. Ozone also occurs in the troposphere as a pollutant, often in photochemical smog.

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### OzoneLab™ Glossary - Ozone Formation



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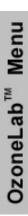
#### **Ozone Formation**

Molecular oxygen in the stratosphere is broken into a pair of oxygen radicals by light with a wavelength of 240 nanometers or less. If one of these O radicals encounters an oxygen molecule, it can bond to produce ozone. This reaction is only stable if another molecule is present to absorb the excess energy released as the oxygen radical and molecule bond. This is a called a three body reaction, and the third body exhibits its removal of the excess energy by whizzing off at a higher energy and thereby increasing the temperature of the atmosphere where this reaction occurs.

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# OzoneLab™ Glossary - Ozonide



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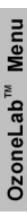
#### **Ozonide**

Any of a class of unstable explosive compounds produced by the addition of ozone to a double bond in an organic compound.

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# OzoneLab™ Glossary - Ozoniferous



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### **Ozoniferous**

Containing ozone.

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# OzoneLab™ Glossary - Ozonizer





<u>Home</u> > OzoneLab™ Glossary - Ozonizer

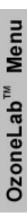
### Ozonizer

An ozone generator.

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# OzoneLab™ Glossary - Ozonolysis



<u>Home</u> > OzoneLab™ Glossary - Ozonolysis



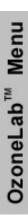
### **Ozonolysis**

The process of treating an organic compound with ozone to form an ozonide: used to locate double bonds in molecules.

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# OzoneLab™ Glossary - Ozonoterapiamexico



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## Ozonoterapiamexico

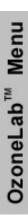
An alliance between Ozone Services and Ozonoterapia México.

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# OzoneLab™ Glossary - Ozono terapia mexico



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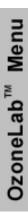
### Ozono terapia mexico

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# OzoneLab™ Glossary - O₃&UVBI



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## O₃&UVBI

Ozone and UV blood Irradiation combination treatment.

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OzoneLab[™] Menu



# OzoneLab™ Glossary - O₃UVBI





 $\underline{\mathsf{Home}}$  > OzoneLab™ Glossary -  $O_3\mathsf{UVBI}$ 

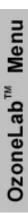
# O₃UVBI

Ozone and UV blood Irradiation combination treatment.

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# OzoneLab™ Glossary - Part Per Billion (ppb)



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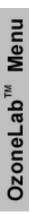
## Part Per Billion (ppb)

A measure of proportion by weight which is equivalent to one unit weight of solute (dissolved substance) per billion unit weights of the solution.

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# OzoneLab™ Glossary - Part Per Million (ppm)



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### Part Per Million (ppm)

A measure of proportion by weight which is equivalent to one unit weight of solute (dissolved substance) per million unit weights of the solution.

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### OzoneLab™ Glossary - Peroxide



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### Peroxide (peróxido, perossido, Peroxid neuter)

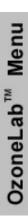
Chemical compound containing two oxygen atoms, each of which is bonded to the other and to a radical or some element other than oxygen; e.g., in hydrogen peroxide ( $H_2O_2$ ) the atoms are joined together in the chainlike structure H-O-O-H. Peroxides are unstable, releasing oxygen when heated, and are powerful oxidizing agents. Peroxides may be formed directly by the reaction of an element or compound with oxygen.

- 1. short for: hydrogen peroxide, esp. when used for bleaching hair
- 2. any of a class of metallic oxides, such as sodium peroxide, Na2O2, that contain the divalent ion --O-O--
- 3. [not in technical usage] any of certain dioxides, such as manganese peroxide, MnO2, that resemble peroxides in their formula but do not contain the --O-O-- ion
- 4. any of a class of organic compounds whose molecules contain two oxygen atoms bound together. They tend to be explosive

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## OzoneLab™ Glossary - Photobiological



<u>Home</u> > OzoneLab™ Glossary - Photobiological



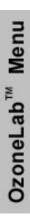
## **Photobiological**

Branch of biology that deals with the effects on living beings of radiant energy (as light) (Source: Merriam-Webster Online Dictionary)

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## OzoneLab™ Glossary - Photochemotherapy



Home > OzoneLab™ Glossary - Photochemotherapy

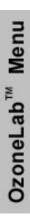


## **Photochemotherapy**

- Therapy using oral or topical photosensitizing agents with subsequent exposure to light. (Source: The On-line Medical Dictionary)
- treatment by means of drugs (e.g., methoxsalen) that react to ultraviolet radiation or sunlight. (Source: Dorland's Illustrated Medical Dictionary)

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## OzoneLab™ Glossary - Photodynamic Therapy



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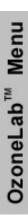


### **Photodynamic Therapy**

- Cancer treatment that uses the interaction between laser light and a substance that makes cells more sensitive to light. When light is applied to cells that have been treated with this substance, a chemical reaction occurs and destroys cancer cells.
   (Source: The On-line Medical Dictionary)
- A form of cancer treatment using an photosensitizing agent administered intravenously which
  concentrates selectively in tumor cells, followed by exposure of the tumor tissue to a special red laser
  light, in order to destroy as much of the tumor as possible.
  (Source: MedTerms.com Medical Dictionary)

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## OzoneLab™ Glossary - Photoluminescence



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#### **Photoluminescence**

- luminescence stimulated by light absorption: the emission of light from a substance as a result of the absorption of electromagnetic radiation. The frequency of the light emitted is lower than that absorbed. (Source: Encarta® World English Dictionary)
- The quality of being luminescent after being exposed to light or other electromagnetic radiation. (Source: Dorland's Illustrated Medical Dictionary)

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## OzoneLab™ Glossary - Photoluminescent



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#### **Photoluminescent**

Having the ability to become luminescent upon exposure to visible light.

(Source: Stedman's Online Medical Dictionary, 27th Edition)

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## OzoneLab™ Glossary - Photon



<u>Home</u> > OzoneLab™ Glossary - Photon



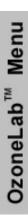
#### **Photon**

In physics, a corpuscle of energy or particle of light; a quantum of light or other electromagnetic radiation. (Source: Stedman's Online Medical Dictionary, 27th Edition)

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# OzoneLab™ Glossary - Photon-Pump



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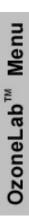
### **Photon-Pump**

The medical process of photo-oxidation.

(Source: Into the Light by William Campbell Douglass, M.D.)

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## OzoneLab™ Glossary - Photooxidation



Home > OzoneLab™ Glossary - Photooxidation



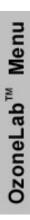
#### **Photooxidation**

- oxidation under the influence of radiant energy (as light) (Source: Merriam-Webster Online Dictionary)
- oxidizing caused by light or some other kind of radiation. (Source: The Wordsmyth English Dictionary-Thesaurus)

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## OzoneLab™ Glossary - Photo-Oxidation



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#### **Photo-Oxidation**

- oxidation under the influence of radiant energy (as light) (Source: Merriam-Webster Online Dictionary)
- oxidizing caused by light or some other kind of radiation. (Source: The Wordsmyth English Dictionary-Thesaurus)

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### OzoneLab™ Glossary - Photopheresis



Home > OzoneLab™ Glossary - Photopheresis

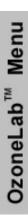


### **Photopheresis**

- A process in which peripheral blood is exposed in an extracorporeal flow system to photoactivated 8-methoxypsoralen (methoxsalen) and ultraviolet light a procedure known as puva therapy.
   Photopheresis is at present a standard therapy for advanced cutaneous T-cell lymphoma; it shows promise in the treatment of autoimmune diseases.
   (Source: The On-line Medical Dictionary)
- A technique for treating cutaneous T-cell lymphoma; after administration of a photoactive chemical, such as methoxsalen, blood is circulated out of the patient, through a source of ultraviolet radiation, and returned. The therapeutic effect is believed to involve stimulation of the host immune system. (Source: Dorland's Illustrated Medical Dictionary)

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# OzoneLab™ Glossary - Phototherapies



<u>Home</u> > OzoneLab™ Glossary - Phototherapies



### **Phototherapies**

The treatment of a disorder, especially of the skin, by exposure to light, including ultraviolet and infrared radiation.

(Source: The American Heritage® Dictionary of the English Language)

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## OzoneLab™ Glossary - Phototherapy



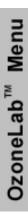
### **Phototherapy**

- The treatment of a disorder, especially of the skin, by exposure to light, including ultraviolet and infrared radiation.
  - (Source: The American Heritage® Dictionary of the English Language)
- use of light in disease treatment: the use of light of particular wavelengths, especially ultraviolet light, in the treatment of disease.

(Source: Encarta® World English Dictionary)

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# OzoneLab™ Glossary - PU 010 (PU010)



<u>Home</u> > OzoneLab™ Glossary - PU 010 (PU010)



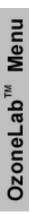
## PU 010 (PU010)

An instrument manufactured by Eumatron GmbH which is used for U.V. Irradiation of blood. (See also: Eumatron, Aquatron, PU 050)

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# OzoneLab™ Glossary - PU 050 (PU050)



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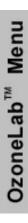
## PU 050 (PU050)

An instrument manufactured by Eumatron GmbH which is used for U.V. Irradiation of blood. (See also: Eumatron, Aquatron, PU 010)

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## OzoneLab™ Glossary - Pulsed Laser Deposition (PLD)





Home > OzoneLab™ Glossary - Pulsed Laser Deposition

### **Pulsed Laser Deposition (PLD)**

An efficient method to produce thin films by utilizing a technique called laser ablation. PLD is applicable to almost any material, in particular to those that are difficult or impossible to produce in thin-film form by other techniques. Typical examples are complex ceramic materials such as high-temperature superconductors, and certain magnetic compounds (e.g., yttrium iron garnet (YIG) and magnetic shape-memory (MSM) alloy Ni-Mn-Ga).

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## OzoneLab™ Glossary - PLD



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### **PLD (Pulsed Laser Deposition)**

An efficient method to produce thin films by utilizing a technique called laser ablation. PLD is applicable to almost any material, in particular to those that are difficult or impossible to produce in thin-film form by other techniques. Typical examples are complex ceramic materials such as high-temperature superconductors, and certain magnetic compounds (e.g., yttrium iron garnet (YIG) and magnetic shape-memory (MSM) alloy Ni-Mn-Ga).

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## OzoneLab™ Glossary - Quartz



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#### Quartz

- (1): a mineral consisting of silicon dioxide occurring in colorless and transparent or colored hexagonal crystals or in crystalline masses. (2): a quartz crystal that when placed in an electric field oscillates at a constant frequency and is used to control devices which require precise regulation <a quartz watch> (Source: Merriam-Webster Online Dictionary)
- crystalline mineral: a usually colorless transparent crystalline mineral widely distributed in rocks of all types. Colored varieties are used as gemstones. Its hardness makes it a valuable industrial component, for example, as a frequency control in electronic communications and timing devices. (Source: Encarta® World English Dictionary)

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# OzoneLab™ Glossary - Radiation



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#### Radiation

The sending forth of light, short radio waves, ultraviolet or x-rays, or any other rays for treatment or diagnosis or for other purpose.

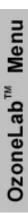
(Source: Stedman's Online Medical Dictionary, 27th Edition)

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## OzoneLab™ Glossary - Radical



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#### Radical

A highly reactive molecule or atom with an unpaired electron. The species is often represented by a formula with a single dot as the unpaired electron.

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### OzoneLab™ Glossary - Radical Chain Reaction



Home > OzoneLab™ Glossary - Radical Chain Reaction



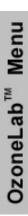
#### **Radical Chain Reaction**

Free radicals are molecules that, through photolysis or chemical reaction, have an unpaired electron in their outer valance shell. These radicals are very reactive and thus have a short life. When a free radical reacts with a more stable molecule, the radical often pulls an atom from it and becomes a stable molecule itself. The original molecule then becomes a free radical and will react with other species of atoms and molecules in a long series (or chain) of reactions until the process reaches the termination phase. In this phase two free radicals combine, sharing the pair of electrons and breaking the chain.

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# OzoneLab™ Glossary - Reagent



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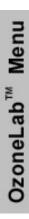
### Reagent (réactif, reagente m chimico, Reagens neuter)

A substance for use in a chemical reaction, esp. for use in chemical synthesis and analysis.

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# OzoneLab™ Glossary - Rectal Insufflation



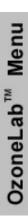
# Rectal Insufflation (O₃RI)

A process of delivering ozone to the blood through the colon.

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# OzoneLab™ Glossary - Redox Potential (RP)



Home > OzoneLab™ Glossary - Redox Potential



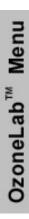
### **Redox Potential (RP)**

This is a measure of the strength of a solution as a disinfectant.

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## OzoneLab™ Glossary - Reverse Osmosis





<u>Home</u> > OzoneLab™ Glossary - Reverse Osmosis

#### **Reverse Osmosis**

A water treatment process that removes undesirable materials from water by using pressure to force water molecules through a semipermeable membrane. The process is called "reverse" osmosis because the pressure forces the water to flow in the reverse direction (from the concentrated solution to the dilute solution) to the flow direction in natural osmosis (from the dilute solution to the concentrated). RO removes ionized salts, colloids, and organic molecules down to a molecular weight of 100. May also be called hyperfiltration.

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## OzoneLab™ Glossary - Sanitation



<u>Home</u> > OzoneLab™ Glossary - Sanitation



#### **Sanitation**

- · the act or process of making sanitary
- the promotion of hygiene and prevention of disease by maintenance of sanitary conditions Source: Merriam-Webster Medical Dictionary

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## OzoneLab™ Glossary - Smog



Home > OzoneLab™ Glossary - Smog



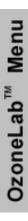
### Smog

This is a term used to describe the mixture of smoke and fog. Smog occurs when high concentrations of moisture is combined with smoke (often containing oxides of sulfur and nitrogen) in the presence of high temperatures or thermal inversions and the absence of wind. These conditions cause polluted air to stagnate over industrial areas and can create a respiratory health hazard. Large coastal industrial centers with surrounding high ground are more prone to smog. There is often a diurnal (over a day) variation in the process of smog formation because one of the necessary components for its formation is sunlight.

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### OzoneLab™ Glossary - Stratospheric Ozone





Home > OzoneLab™ Glossary - Stratospheric Ozone

### **Stratospheric Ozone**

Also called the Ozone layer, where ozone concentrations are as high as 10 parts per million, is a vitally important region of the atmosphere. This layer of ozone is located approximately 20-50 kilometers above the earth's surface. Stratospheric ozone is important because it prevents most of the high-energy ultraviolet solar radiation from reaching the earth's surface. Photodissociation, a photochemical process, is responsible for the formation of the protective ozone layer in the stratosphere. In the upper atmosphere, diatomic oxygen absorbs high-energy ultraviolet radiation. The absorption of radiation causes the diatomic oxygen molecule to break forming two oxygen radicals. The oxygen radical can then recombine with other diatomic oxygen molecules to form triatomic oxygen, or ozone. In the upper region of the stratosphere, ozone is found in concentrations as high as 10 parts per million. Ozone can form in the lower portions of the troposphere, due to anthropogenic activity. When ozone concentrations in the lower troposphere become too high, it can seriously affect human health. Without the protective ozone layer in the upper atmosphere life (as we know it) on earth would not be possible.

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# OzoneLab™ Glossary - Swagelock



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## Swagelock

A common miss-spelling of the word <u>Swagelok®</u>.

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# OzoneLab™ Glossary - UBI



<u>Home</u> > OzoneLab™ Glossary - **UBI** 



### **UBI**

An acronym for **U**ltraviolet **B**lood **I**rradiation.

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## OzoneLab™ Glossary - Ultraviolet



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#### **Ultraviolet**

- Ultraviolet (UV) radiation is electromagnetic radiation of a wavelength shorter than that of visible light, but longer than that of soft X-rays. The name means "beyond violet" (from Latin ultra, "beyond"), violet being the color of the shortest wavelength of visible light. It is colloquially called black light, as it is invisible to the human eye. UV itself can be subdivided into near UV (380-200 nm wavelength) and extreme or vacuum UV (200-10 nm). When considering the effects of UV radiation on human health, the range of UV wavelengths is often subdivided into UV-A (380-315 nm), UV-B (315-280 nm), and UV-C (280-10 nm). Ordinary glass is transparent to UV-A but is opaque to shorter wavelengths. Quartz glass, depending on quality, can be transparent even to vacuum UV wavelengths. The sun emits ultraviolet light in both the UV-A and UV-B bands, but because of absorption in the atmosphere's ozone layer, 99% of the ultraviolet light that reaches the Earth's surface is UV-A. (Source: Wikipedia, the Free Encyclopedia)
- relating to invisible light: relating to or producing electromagnetic radiation of wavelengths from about 5
  to about 400 nanometers, beyond the violet end of the visible light spectrum
  (Source: Encarta® World English Dictionary)
- (1) situated beyond the visible spectrum at its violet end -- used of radiation having a wavelength shorter than wavelengths of visible light and longer than those of X rays. (2) relating to, producing, or employing ultraviolet radiation.

(Source: Merriam-Webster Online Dictionary)

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# OzoneLab™ Glossary - Ultraviolet Lamp



<u>Home</u> > OzoneLab™ Glossary - Ultraviolet Lamp



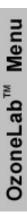
### **Ultraviolet Lamp**

A lamp, especially a mercury-vapor lamp, that produces ultraviolet light.

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## OzoneLab™ Glossary - Ultraviolet Light





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### **Ultraviolet Light**

Electromagnetic radiation having a wavelength shorter than 3900 angstroms, and longer than 100 angstroms. This wavelength range places ultraviolet light between the visible light spectrum and the x-ray spectrum. Ultraviolet light radiation is often used as a disinfectant.

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# OzoneLab™ Glossary - UV



<u>Home</u> > OzoneLab™ Glossary - **UV** 



### U۷

An abbreviation of Ultraviolet (Ultra Violet).

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## OzoneLab™ Glossary - UV-A



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#### UV-A

Ultraviolet (UV) radiation is electromagnetic radiation of a wavelength shorter than that of visible light, but longer than that of soft X-rays. The name means "beyond violet" (from Latin ultra, "beyond"), violet being the color of the shortest wavelength of visible light. It is colloquially called black light, as it is invisible to the human eye. UV itself can be subdivided into near UV (380-200 nm wavelength) and extreme or vacuum UV (200-10 nm). When considering the effects of UV radiation on human health, the range of UV wavelengths is often subdivided into UV-A (380-315 nm), UV-B (315-280 nm), and UV-C (280-10 nm). Ordinary glass is transparent to UV-A but is opaque to shorter wavelengths. Quartz glass, depending on quality, can be transparent even to vacuum UV wavelengths. The sun emits ultraviolet light in both the UV-A and UV-B bands, but because of absorption in the atmosphere's ozone layer, 99% of the ultraviolet light that reaches the Earth's surface is UV-A.

(Source: Wikipedia, the Free Encyclopedia)

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## OzoneLab™ Glossary - UV-B



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#### UV-B

Ultraviolet (UV) radiation is electromagnetic radiation of a wavelength shorter than that of visible light, but longer than that of soft X-rays. The name means "beyond violet" (from Latin ultra, "beyond"), violet being the color of the shortest wavelength of visible light. It is colloquially called black light, as it is invisible to the human eye. UV itself can be subdivided into near UV (380-200 nm wavelength) and extreme or vacuum UV (200-10 nm). When considering the effects of UV radiation on human health, the range of UV wavelengths is often subdivided into UV-A (380-315 nm), UV-B (315-280 nm), and UV-C (280-10 nm). Ordinary glass is transparent to UV-A but is opaque to shorter wavelengths. Quartz glass, depending on quality, can be transparent even to vacuum UV wavelengths. The sun emits ultraviolet light in both the UV-A and UV-B bands, but because of absorption in the atmosphere's ozone layer, 99% of the ultraviolet light that reaches the Earth's surface is UV-A.

(Source: Wikipedia, the Free Encyclopedia)

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## OzoneLab™ Glossary - UV-C





<u>Home</u> > OzoneLab™ Glossary - UV-C

### **UV-C**

Ultraviolet (UV) radiation is electromagnetic radiation of a wavelength shorter than that of visible light, but longer than that of soft X-rays. The name means "beyond violet" (from Latin ultra, "beyond"), violet being the color of the shortest wavelength of visible light. It is colloquially called black light, as it is invisible to the human eye. UV itself can be subdivided into near UV (380-200 nm wavelength) and extreme or vacuum UV (200-10 nm). When considering the effects of UV radiation on human health, the range of UV wavelengths is often subdivided into UV-A (380-315 nm), UV-B (315-280 nm), and UV-C (280-10 nm). Ordinary glass is transparent to UV-A but is opaque to shorter wavelengths. Quartz glass, depending on quality, can be transparent even to vacuum UV wavelengths. The sun emits ultraviolet light in both the UV-A and UV-B bands, but because of absorption in the atmosphere's ozone layer, 99% of the ultraviolet light that reaches the Earth's surface is UV-A.

(Source: Wikipedia, the Free Encyclopedia)

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# OzoneLab™ Glossary - UV Cuvette



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#### **UV** Cuvette

A transparent tubular vessel used for Ultraviolet Irradiation of fluids.

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## OzoneLab™ Glossary - UV Generator





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### **UV** Generator

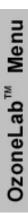
Ozone can be produced by irradiating ordinary air with ultra-violet light at wavelengths below 200 nanometers (nm). The production of ozone is however lower than in corona discharge generators. The maximum concentration that can be produced is less than 0.1% by weight.

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# OzoneLab™ Glossary - UV Irradiation Instrument





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#### **UV Irradiation Instrument**

An instrument designed and used for U.V. Irradiation of fluids.

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# OzoneLab™ Glossary - U.V. Irradiation Instrument





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### **U.V. Irradiation Instrument**

An instrument designed and used for U.V. Irradiation of fluids.

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# OzoneLab™ Glossary - UV Machine





<u>Home</u> > OzoneLab™ Glossary - **UV Machine** 

#### **UV Machine**

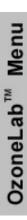
An instrument designed and used for Ultraviolet Irradiation of fluids.

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

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# OzoneLab™ Glossary - UV Machines



Home > OzoneLab™ Glossary - UV Machines



#### **UV Machines**

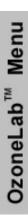
Instruments designed and used for UV Irradiation of fluids.

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# OzoneLab™ Glossary - U.V. Machine



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#### **U.V. Machine**

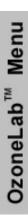
An instrument designed and used for U.V. Irradiation of fluids.

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# OzoneLab™ Glossary - U.V. Machines



<u>Home</u> > OzoneLab™ Glossary - **U.V. Machines** 



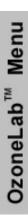
#### **U.V. Machines**

Instruments designed and used for U.V. Irradiation of fluids.

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# OzoneLab™ Glossary - UV Quartz Cuvette



<u>Home</u> > OzoneLab™ Glossary - **UV Quartz Cuvette** 



### **UV Quartz Cuvette**

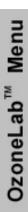
A transparent tubular vessel used for Ultraviolet Irradiation of fluids.

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

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# OzoneLab™ Glossary - UV Radiation



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### **UV** Radiation

Energy that is emitted in the form of electromagnetic waves with a wavelength of 1-380nm.

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# OzoneLab™ Glossary - UVBI



<u>Home</u> > OzoneLab™ Glossary - **UVBI** 



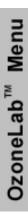
### **UVBI**

An acronym for **Ultra Violet Blood Irradiation**.

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# OzoneLab™ Glossary - UVBI&O₃



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## UVBI&O₃

UV blood Irradiation and Ozone combination treatment.

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# OzoneLab™ Glossary - UVBIO₃





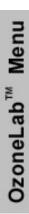
 $\underline{\mathsf{Home}}$  > OzoneLab™ Glossary -  $\mathsf{UVBIO}_3$ 

## UVBIO₃

UV blood Irradiation and Ozone combination treatment.

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# OzoneLab™ Glossary - Venturie



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## Venturie (Injector)

A device in a water stream which creates a vacuum to draw the ozone/air mixture from the ozone generator into the water. (Compare with <u>Injector</u>)

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## OzoneLab™ Glossary - Water Column



Home > OzoneLab™ Glossary - Water Column



#### **Water Column**

Hydrostatic pressure in water is directly related to the depth in which the pressure is measured. Very frequently the vertical distance from the surface to the pressure point we wish to measure is referred to as "WATER COLUMN".

Hydrostatic pressure is increasing with the height of "water column" (the depth from the surface).

When ozonating water, diffusers are exposed to hydrostatic pressure which translates to the back pressure in ozone line. This pressure is changing with the "water column", therefore following can be observed:

- 1. Air/Ozone Flow with increasing back pressure the flow output of the air pump decreases.
- 2. Ozone Concentration:
  - a. with decreasing flow, ozone concentration increases
  - b. with increasing back pressure in ozone line the density of ozone gas generated as well as ozone concentration also increases

We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as material exposure testing.

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### **OTTP Frequently Asked Questions (FAQ)**





<u>Home</u> > <u>Ozone Therapy Training Program</u> > Frequently Asked Questions (FAQ)

- I am not a licensed medical professional however I really want to learn about this may I attend a workshop?
- Do I get a diploma?
- How much do the workshops cost?
- What languages are spoken in the workshops?
- Does the price of the workshop include my accommodation?
- If I don't pass the workshop, do I get my money back?
- How are the lecturers for OTTP trained and selected?

### Question

I am not a licensed medical professional however I really want to learn about this - may I attend a workshop?

#### **Answer**

OTTP workshops are strictly open to licensed medical professionals only. A copy of valid medical license is required as a part of standard registration process.

#### Question

Do I get a diploma?

#### **Answer**

OTTP Team works frequently with local regulatory agencies and registered educational institutions. The final decision in respect of issuing diploma/license depends heavily on the final outcome of negotiations between both listed parties.

### Question

How much do the workshops cost?

#### **Answer**

The cost of the OTTP Workshops is a subject to many variables and factors....location, cost of transport & accommodation for lecturing team, lecture room & audio-visual hardware rental, etc. The final cost of planed OTTP workshops is announced once date and locations have been finalized, and listed cost variables are known.

In general, the cost is approximately:

OTTP/Basic US \$350 - US \$400 OTTP/Intermediate US \$350 - US \$400 OTTP/Advanced US \$350 - US \$400

OTTP/Basic & Intermediate US \$600 - US \$700 (combined workshop)

We do our best that total cost for all three levels of OTTP is below US \$1,000.

From perspective of OTTP workshop cost, OTTP/Basic workshops held at Ozone Services Main Office are the most economical, because the expenses are trimmed to minimum. The fee of US \$180/person is charged. This fee includes 2 lunches and snacks, however it does not included any accommodation, and or transportation.

#### Question

What languages are spoken in the workshops?

#### **Answer**

Workshops at Ozone Services Main Office are provided in English. Workshops in other locations are usually held in English & local language. The languages are always clearly specified for each OTTP event.

#### Question

Does the price of the workshop include my accommodation?

#### **Answer**

The fee charged for OTTP Workshops does not cover meals, accommodation, transportation, and/or any other expenses, unless explicitly specified.

#### Question

If I don't pass the workshop exam, do I get my money back?

#### Answer

No refunds are offered in case of failing the exam.

OTTP Frequently Asked Questions (FAQ)

#### Question

How are the lecturers for OTTP trained and selected?

#### **Answer**

Each OTTP lecturing team member must have extensive formal education&theoretical knowledge and years of practical experience directly related to the topic they focus on/teach as part of OTTP.

All new lecturing team members must successfully complete OTTP first before they could be nominated, (self nominations are not accepted), and their over all background, knowledge, experience, lecturing / interaction / communication skills are reviewed by existing OTTP lecturing team members.

Furthermore, all OTTP lecturing team members are required to heavily contribute to further development of the OTTP project and to make a long term commitment to volunteer their time and resources to OTTP projects.

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# OzoneLab™ Glossary - Index



 $\underline{\mathsf{Home}}$  > OzoneLab™ Glossary

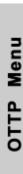


We provide this glossary to assist clients in the selection and operation of our complete line of <u>Ultra-Pure</u> <u>Laboratory Ozone Generators</u>, <u>Ozone Gas Analyzers</u>, and <u>Ozone Accessories</u>, as well as services such as <u>material exposure testing</u>.

A B C D E F G H I J K L M N O P

Q R S T U V W X Y Z Abbreviations

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### **Ozone Therapy Training Program Network - Who's Who**



<u>Home</u> > <u>Ozone Therapy Training Program Network</u> > Who's Who Area







Browse all of the profile listings. Hojee todos los perfiles enlistados Browse Profile Hojear perfiles

### Search Results / Resultados de su búsqueda

Your search returned 74 results. Su búsqueda produjo 74 resultados.

Name Nombre	Location  La ubicación	Active in Ozone Since Activo en Ozonoterapia desde	Photo Fotografías
Dr. Sulaiman Abdullah	, Terengganu, Malaysia	2004	
Dr. Fernando Aguilar Reyes	México, D.F., Mexico	2004	
Dr. Ernesto Alonso Valdez López	Los Mochis, Sinaloa, Mexico	2003	
Dr. Froylán Alvarado	Culiacán, Sinaloa, Mexico	1999	
Dr. Benjamín Arriaga Valdez	Matamoros, Tamaulipas, Mexico	2004	<b>©</b> -
Dr. José Emanuel Arriaga Ocejo	Matamoros, Tamaulipas, Mexico	2004	<b>©</b> -
Dr. Alam Barrón Barrera	La Paz, Baja California, Mexico	2005	
Dr. Alfredo Becerra Valdéz	Tijuana, Baja California, Mexico	2005	<b>©</b> -
Dr. Norzita Binti Mohd Yusof	Desa Sri Hartamas, 50480 Kuala Lumpur, Malaysia	2001	
Dr. Mario Alberto Borge Rendón	Naucalpan, Edo. De México,	2005	
Dr. Liliana Cabani Ravello	Lima, San Borja, Peru	2004	
Dr. Marco Antonio Cabildo Palmero	La Venta, Tabasco, Mexico	2004	<u> Ö</u>

Dr. Mario Cabani Ravello	Lima, San Borja, Peru	2003	<u>o</u>
Dr. José Eleazar Calderón de la Fuente	Monclova, Coahuila, Mexico	2005	
Dr. Hugo Armando Campos Alva	Cuidad de México, Distrito Federal, Mexico	2004	
Dr. Melgarejo Carreón Arturo	Puebla, Puebla, Mexico	1998	
Dr. Rodolfo Carpignano	Buenos Aires, , Argentina	2004	
Dr. Jesús Sigifredo Castro Castro	Cd. Juárez, Chihuahua, Mexico		
Dr. Brian Chung	, , Hong Kong	2004	-
Dr. Saúl Chávez Ortega	Mazatlán, Sinaloa, Mexico	2004	
Dr. Reinaldo David Hormilla Cordero	Ñuñoa, Santiago de Chile, Chile	1991	
Dr. María de la Luz Arroyo Carrasco	Puebla, Puebla, Mexico	2003	
Dr. Luis Antonio Echevarría Fonseca	Puebla, Puebla, Mexico	2005	
Dr. Jesús Enrique Arredondo Izquierdo	, D.F., Mexico	2004	
Dr. Wendy Falzoni	Sao Paulo, , Brazil	2004	
Dr. Germán Edmundo Galván García	Cuernavaca, Morelos, Mexico	2005	
Dr. Adolfo García Santana	Toluca, Edo. De México, Mexico		
Dr. Rogelio García Mercado	Toluca, Edo. De México, Mexico		
Ms. Alina del Carmen González Rodríguez	Monclova, Coahuila, Mexico	2006	
Dr. Enrique González Barrera	Naucalpan, Edo. De México, Mexico		
Dr. Jesús Gonzalo Navarro Soto	Hermosillo, Sonora, Mexico	2003	<u>o</u>
Dr. Rodolfo González Martínez	Monterrey, Nuevo León, Mexico		
Dr. José Manuel Gutiérrez González	Mazatlán, Sinaloa, Mexico		_
Dr. Oscar Gutiérrez Huerta	Cholula , Puebla, Mexico		
Dr. Renato Gutiérrez Escobar	Culiacán, Sinaloa, Mexico	2003	
Dr. Norrafidah Hambari	Shah Alam, Selangor, Malaysia	2004	_
Dr. Robert E. Harris Jr.	Louisville, KY, United States	1999	
Dr. Juan Raúl Herrera López	Cuernavaca, Morelos, Mexico		
Dr. Manuel Herrera Flor	México, D.F., Mexico	2000	
Dr. Francisco José García Mondragón	Tapachula, Chiapas, Mexico	2003	

Dr. Dong-Hwan Kim	Chonju, Chonbuk, South Korea	2004	-
Dr. Víctor Leonardo Campo Sabido	Saltillo, Coahuila, Mexico	1999	
Dra. María del Socorro León Sánchez	Ciudad de México, Distrito Federal, Mexico		
Dra. Mónica Abigail Lobo Camacho	Los Mochis, Sinaloa, Mexico		
Dr. José Roberto Lopez Olivares	San Salvador, El Salvador, El Salvador	2003	
Dr. Jorge Heriberto López Osorio	Villahermosa, Tabasco, Mexico	2005	
Dr. Mario Macías Sosa	Aguascalientes, Aguascalientes, Mexico	2004	
Dr. Héctor Martínez Arizpe	Monterrey, Nuevo León, Mexico		
Dr. Horacio Medal Munguía	México, D.F., Mexico	2004	
Dr. Juan Salvador Melgarejo Bonabel	Villahermosa, Tabasco, Mexico		<u> </u>

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IN	ヒスし

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# OTTP Network - Profile of Den Rasplicka



<u>Home</u> > <u>Ozone Therapy Training Program Network</u> > Profile of Den Rasplicka





# Den Rasplicka

Updated on 2 April, 2005: Actualizado el 2 April, 2005:

Personal Information	Información personal

Name: Nombre:	Mr. Den Rasplicka
Address: Dirección:	390 Silver Queen Road
City: Ciudad:	Burton
State/Province: EStado / Provincia:	ВС
Zip/Postal Code: Código Postal:	V0G1E0
Country: País de origen:	Canada
Phone: Teléfono:	250-265-4461
Fax: Fax No.:	250-265-4482
Homepage: Página principal:	www.ozoneservices.com
Nearest Airport: Aeropuerto más cercano:	Kelowna
Distance from Airport: Distancia desde el Aeropuerto:	195km



Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	OzoneLab™ by Ozone Services
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	1991

#### **Primary Ozone / Bio-Oxidative Focus:**

#### Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

- 1). Playing a positive role in the Ozone Therapy education & training process, teaching and lecturing internationally on the topic of Technical Aspects of Ozone Therapies.
- 2). Development, manufacturing and distribution of Ozone Therapy Systems & Supplies.

#### Resume/CV:

#### Breviario Curricular:

Den (Zdenek) Rasplicka

Born in Czechoslovakia

Educated in Mechanical & Electronic Engineering

1982-89 Central Research Institute of Skoda Co.

1989 Emigrated to Austria

1990 Immigrated to Canada

1991 Become active in commercial ozone applications

1992 Started to explore Ozone Therapies

1993 Established Ozone Services / Yanco Industries Ltd.

1994-97 Trained by Ozone Therapists from Canada, USA, Cuba and Germany

1997 Started to lecture on the topic of Technical Aspects of Ozone Therapies (Canada, USA, Mexico, Panama, UK, Ireland & Malaysia)

#### The main professional focus:

- a). Daily operations of the company serving clients from laboratory and medical field in 70+ countries around the world.
- b). Main designer of customizable, customizable OzoneLab™ Instruments for Ultra Pure Applications.
- c). Founder and one of the main contributors to Ozone Therapy Training Program.

#### Interests:

- * traveling, hiking & camping, kayaking, SCUBA diving
- * history, medicine

#### Status:

Married, one child/son.

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#### Where have attendees come from?



<u>Home</u> > <u>Ozone Therapy Training Program (OTTP)</u> > <u>OTTP Burton Main Office</u> > Where Attendees From?



# Canada

- · Abbotsford, BC
- · Calgary, AB
- Edmonton, AB
- Moose Jaw, SK
- · Parksville, BC
- · Revelstoke, BC
- Summerland, BC
- Vancouver, BC
- Vernon, BC
- · Victoria, BC
- Whitehorse, YT
- · White Rock, BC

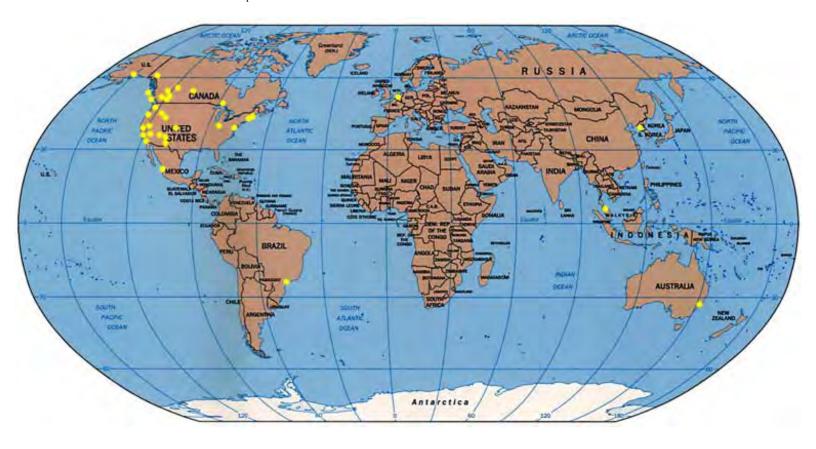
#### **United States**

People from the following locations have attended our Weekend Workshops in Burton:

- · Anacortes Island, WA
- Anchorage, AL
- Ashland, OR
- Denver, CO
- Everett, WA
- Indianapolis, IN
- Kalispell, MO
- Las Vegas, NV
- · Long Island, NY
- · Moscow, ID
- Napels, ID
- · New York, NY
- Sacramento, CA
- San Diego, CA
- San Francisco, CA
- Scottsdale, AZ
- · Seattle, WA
- Thousand Oaks, CA
- Waldorf, MD

#### Other

- · Culiacan, Mexico
- Kuala Lumpur, Malaysia
- Oxenford, Qeensland, Australia
- Pusan, South Korea
- Saarbruecken, Germany
- Sao Paulo, Brazil



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# **OTTP Workshop Feedback Form**





<u>Home > Ozone Therapy Training Program (OTTP) > OTTP Burton Main Office > Feedback Form</u>

Your opinions and feedback is important to us.

We ask you to take the time to fill in this feedback form to assist us in improving our future workshops.

Your Name (Optional)		
Email Address (Optional)		
Telephone Number (Optional)		
Do you find the knowledge gained useful in your practice?	Yes No Please explain:	
What topics would you like to see covered in more detail?		
What did you NOT like about the workshop?		

What topics/activities would you like to see included in the workshop?  Are you interested in more training?  Yes No  Would you be willing to travel to any of the following cities for further training?  There are opportunities for workshops in other than the listed locations  Mavies City Mavies	Yes No Yes No
Would you be willing to travel to any of the following cities for further training?  Kuala Lumpur, Malaysia  London, UK  There are opportunities for workshops in other than the listed locations	No Yes No
of the following cities for further training?  There are opportunities for workshops in other than the listed locations  Malaysia  London, UK	No Yes No
There are opportunities for workshops in other than the listed locations  London, UK  Maying City, Maying	No
Marrian City Marrian	V
provided that there is a MINIMUM group of 20 qualified / licensed health	Yes No
care providers interested in attending.  Panama City, Panama	Yes No
Phoenix, AZ, USA	Yes No
Please <u>contact us</u> for more information. Rio de Janeiro, Brazil	Yes No
Tokyo, Japan	Yes No
Toronto, Canada	Yes No
Vancouver, Canada	Yes No
Would you recommend our training Yes No to a colleague?	
Please explain:	
General Comments or Feedback?	

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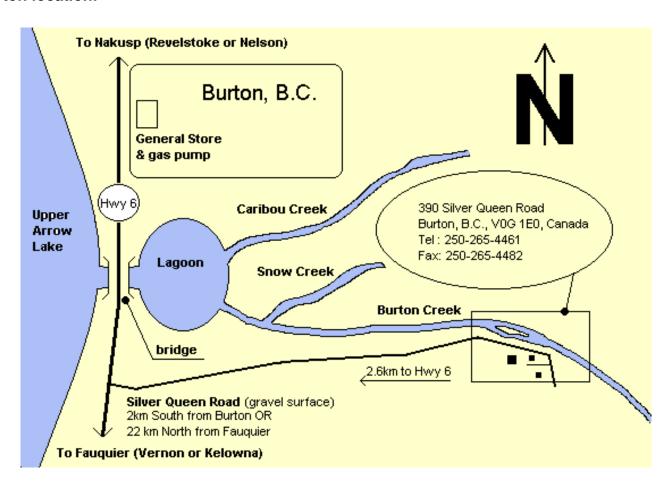
#### **Ozone Services Burton Location 3**





<u>Home</u> > <u>Ozone Therapy Training Program (OTTP)</u> > <u>OTTP Burton Main Office</u> > Burton Location 3

#### **Our Burton location!**



Take the Scenic Tour of the Nakusp - Burton - Fauquier Region

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 $\underline{\text{Home}} > \underline{\text{Ozone Therapy Training Program (OTTP)}} > \underline{\text{OTTP Burton Main Office}} > \underline{1} > \underline{2} > \underline{3} > \underline{4} > \underline{5} > \underline{6} > \underline{\text{Tour 7}}$ 







Main Map | Next | Previous

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 $\underline{\mathsf{Home}} > \underline{\mathsf{Ozone\ Therapy\ Training\ Program\ (OTTP)}} > \underline{\mathsf{OTTP\ Burton\ Main\ Office}} > \underline{1} > \underline{2} > \underline{3} > \underline{4} > \mathsf{Tour\ 5}$ 



Main Map | Next | Previous

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Search





 $\underline{\mathsf{Home}} > \underline{\mathsf{Ozone\ Therapy\ Training\ Program\ (OTTP)}} > \underline{\mathsf{OTTP\ Burton\ Main\ Office}} > \underline{1} > \underline{2} > \underline{\mathsf{Tour\ 3}}$ 



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Search





 $\underline{\text{Home}} > \underline{\text{Ozone Therapy Training Program (OTTP)}} > \underline{\text{OTTP Burton Main Office}} > \underline{1} > \underline{2} > \underline{3} > \underline{\text{Tour 4}}$ 







Main Map | Next | Previous

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 $\underline{\mathsf{Home}} > \underline{\mathsf{Ozone\ Therapy\ Training\ Program\ (OTTP)}} > \underline{\mathsf{OTTP\ Burton\ Main\ Office}} > \underline{\mathsf{Burton\ Info}} > \underline{\mathsf{1}} > \underline{\mathsf{Tour\ 2}}$ 





Main Map | Next | Previous

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Main Map | Previous

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 $\underline{\text{Home}} > \underline{\text{Ozone Therapy Training Program (OTTP)}} > \underline{\text{OTTP Burton Main Office}} > \underline{1} > \underline{2} > \underline{3} > \underline{4} > \underline{5} > \underline{\text{Tour 6}}$ 

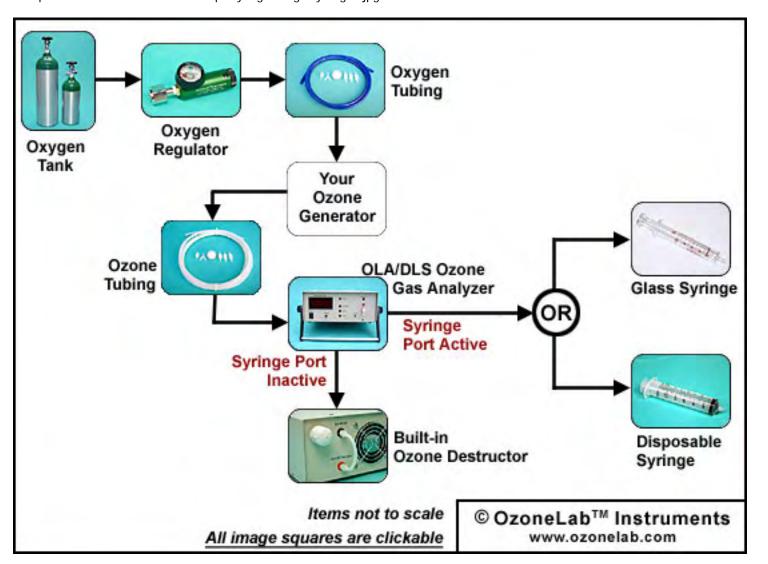


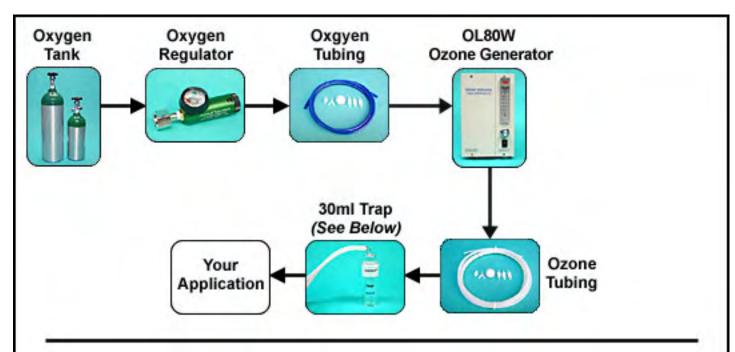


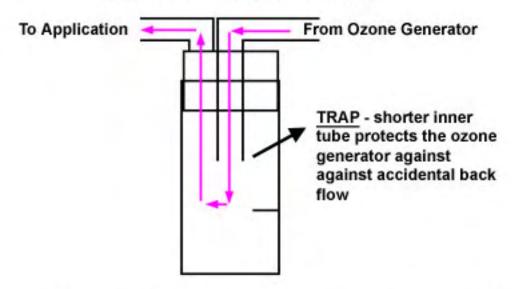


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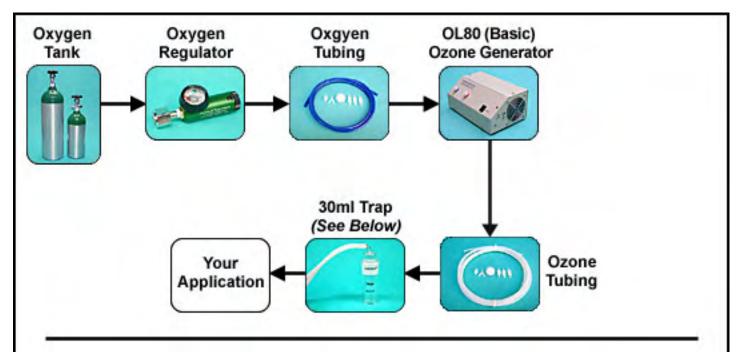


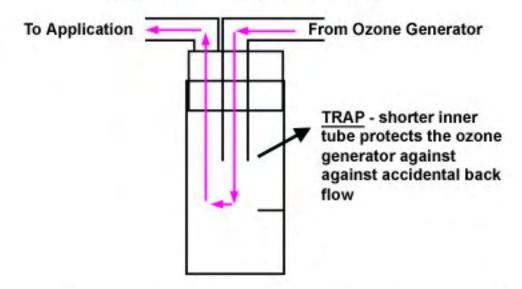




For clients wishing to ozonate liquids, the TRAP (has the shorter stem) is used where there is a prospect for a back flow. Trap containers are ONLY AVAILABLE on 30ml sizes

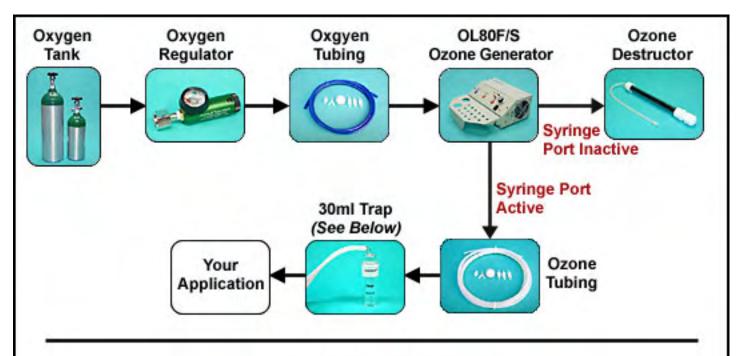
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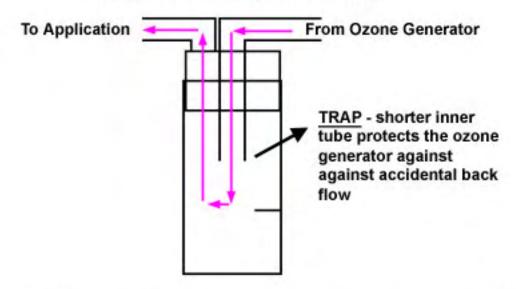




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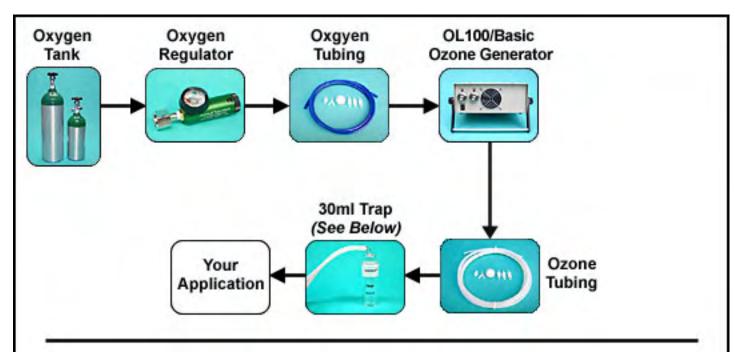
Items not to scale

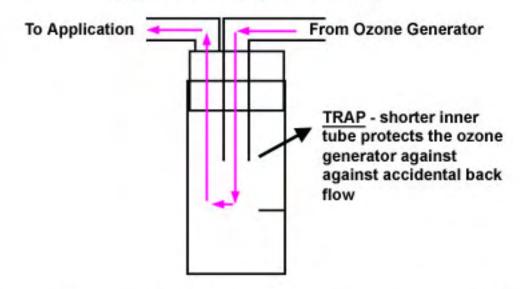




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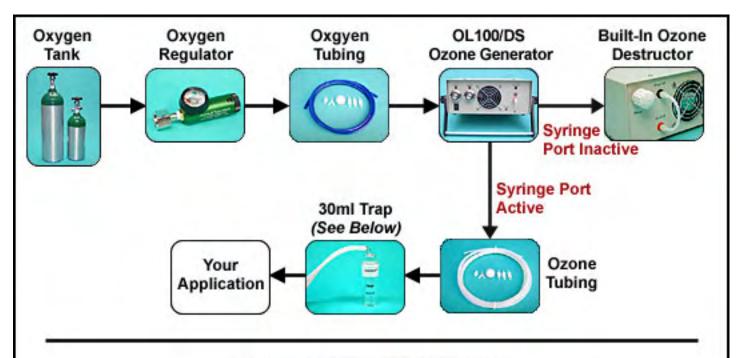
Items not to scale

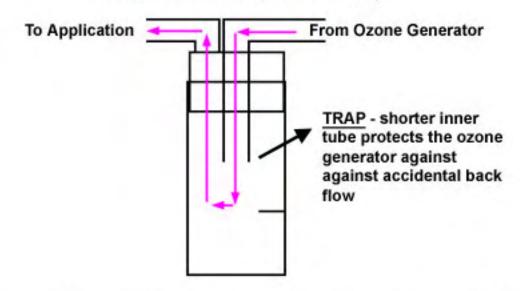




For clients wishing to ozonate liquids, the TRAP (has the shorter stem) is used where there is a prospect for a back flow. Trap containers are ONLY AVAILABLE on 30ml sizes

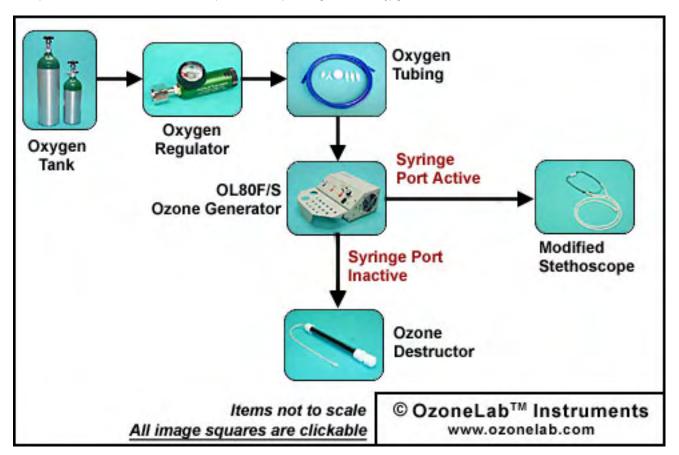
Items not to scale

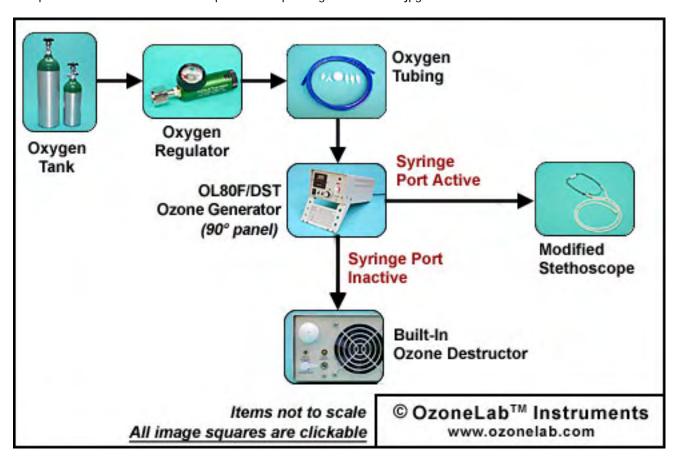


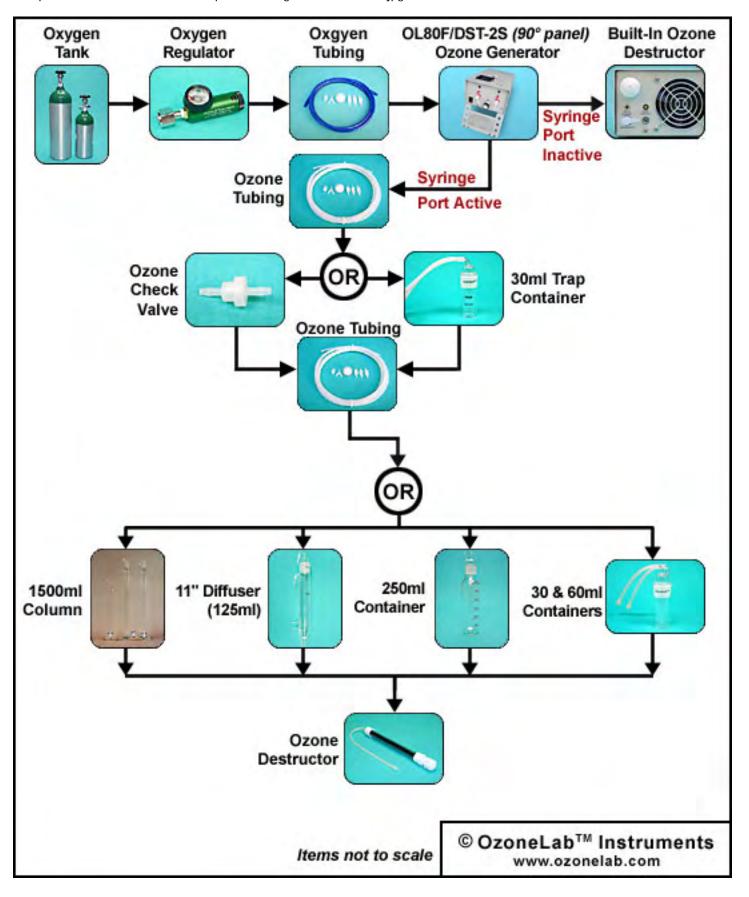


For clients wishing to ozonate liquids, the TRAP (has the shorter stem) is used where there is a prospect for a back flow. Trap containers are ONLY AVAILABLE on 30ml sizes

Items not to scale









### **Ozone Therapy Training Program Network - Who's Who**



<u>Home</u> > <u>Ozone Therapy Training Program Network</u> > Who's Who Area



Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

### sulaimanabdullah

Registered on 18 March, 2007 and updated on 18 March, 2007: Registrado ee 18 March, 2007 Y actualizado el 18 March, 2007:

Personal	Information /	Información	personal
. C. Seriai	minorination /	minomination	poisoniai

l	
Name: Nombre:	Dr. Sulaiman Abdullah
Address: Dirección:	Jln Pasir Panjang,
	Kuala terengganu
City: Ciudad:	
State/Province: EStado / Provincia:	Terengganu
Zip/Postal Code: Código Postal:	
Country: País de origen:	Malaysia
Phone: Teléfono:	609-631-0599
Fax: Fax No.:	609-631-0599



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Malaysia - Dec 2004

OTTP/Intermediate - Malaysia - Dec 2004

Homepage: Página principal:		OTTP/Advanced - Malaysia - Dec 2004
Nearest Airport: Aeropuerto más cercano:	Kuala Terengganu	
Distance from Airport: Distancia desde el Aeropuerto:	20km	
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:		
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004	
Send Sulaiman an e-mail Envíe un correo electrónico a Sulaiman:		

### **Primary Ozone / Bio-Oxidative Focus:**

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Resume/CV: Breviario Curricular:		
OTTP Workshop Comment: Comentarios del PEOT:		

# Additional Pictures (if any):

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Home > Ozone Therapy Training Program Network > Who's Who Area



Who's Who Index Página "Quién es Quién"

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# fernandoaguilarreyes

Registered on 16 March, 2004 and updated on 17 May, 2006: Registrado ee 16 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal

Name: Nombre:	Dr. Fernando Aguilar Reyes
Address: Dirección:	Av. Jacarandas. Manzana 1. Lote 1
City: Ciudad:	México
State/Province: EStado / Provincia:	D.F.
Zip/Postal Code: Código Postal:	C.P. 01840
Country: País de origen:	Mexico
Phone: Teléfono:	55 5585 4268
Fax: Fax No.:	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - May 2003

OTTP/Intermediate - Mexico - Sep 2003

OTTP/Advanced - Mexico - Feb 2004

Homepage: Página principal:		
Nearest Airport: Aeropuerto más cercano:	International Airport Mexico City	
Distance from Airport:  Distancia desde el Aeropuerto:	25 km	
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	None	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004	
Send Fernando an e-mail Envíe un correo electrónico a Fernando:		

### Primary Ozone / Bio-Oxidative Focus:

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Geriatric aplications

Resume/CV:		
Breviario Curricular:		

# OTTP Workshop Comment: Comentarios del PEOT:

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### **Ozone Therapy Training Program Network - Who's Who**



Home > Ozone Therapy Training Program Network > Who's Who Area



Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

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# ernestoalonsovaldezlopez

Registered on 25 March, 2004 and updated on 17 May, 2006: Registrado ee 25 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Ernesto Alonso Valdez López	
Address: Dirección:	Benito Juárez # 749 Pte.	
	Col. Centro	
City: Ciudad:	Los Mochis	
State/Province: EStado / Provincia:	Sinaloa	
Zip/Postal Code: Código Postal:	C.P. 81200	
Country: País de origen:	Mexico	
Phone: Teléfono:	66-8815-1563	
Fax: Fax No.:	66-8815-1563	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Sep 2003

OTTP/Intermediate - Mexico - Sep 2003

OTTP/Advanced - Mexico - Feb 2004

Homepage: Página principal:	www.vidanueva.com
Nearest Airport: Aeropuerto más cercano:	Valle del Fuerte, Los Mochis, Sin.
Distance from Airport: Distancia desde el Aeropuerto:	10 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2003
Send Ernesto an e-mail Envíe un correo electrónico a Ernesto:	

### **Primary Ozone / Bio-Oxidative Focus:**

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Grant an alternative soport to the patients

Resume/CV:

Breviario Curricular:

### **OTTP Workshop Comment:**

Comentarios del PEOT:

### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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<u>Home</u> > <u>Ozone Therapy Training Program Network</u> > Who's Who Area



Who's Who Index Página "Quién es Quién"

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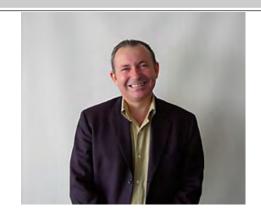
# froylanalvarado

Fax: No.:

Registered on 15 February, 2005 and updated on 17 May, 2006: Registrado ee 15 February, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal

Name: Nombre:	Dr. Froylán Alvarado
Address: Dirección:	Descartes 466, Villa Universidad
City: Ciudad:	Culiacán
State/Province: EStado / Provincia:	Sinaloa
Zip/Postal Code: Código Postal:	
Country: País de origen:	Mexico
Phone: Teléfono:	(667) 7531584



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - May 2003

OTTP/Intermediate - Mexico - Sep 2003

OTTP/Advanced - Mexico - Feb 2004

Homepage: Página principal:	http://www.ozonoterapiamexico.com
Nearest Airport: Aeropuerto más cercano:	
Distance from Airport: Distancia desde el Aeropuerto:	
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	1999
Send Froylán an e-mail Envíe un correo electrónico a Froylán:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Resume/CV: Breviario Curricular:	
OTTP Workshop Comment: Comentarios del PEOT:	
Additional Pictures (if any):	
Fotografías adicionales (si tuviera):	

Control Panel / Panel de control

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Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

Browse all of the profile listings. Hojee todos los perfiles enlistados Browse Profile Hojear perfiles

### benjaminarriagavaldez

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal

ersonal information / information personal		
Name: Nombre:	Dr. Benjamín Arriaga Valdez	

Address:

Dirección:

Av. Las Rosas # 43

Col. Jardines

City:
Ciudad: Matamoros

State/Province:

EStado / Provincia:

Tamaulipas

Zip/Postal Code:

Código Postal:

C.P. 87330

Country: Mexico País de origen:

Phone: 868-816-6721 *Teléfono:* 

Fax: 868-817-3259



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

OTTP/Advanced - Mexico - Feb 2004

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	International Airport Servando Canales
Distance from Airport:  Distancia desde el Aeropuerto:	20 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Benjamín an e-mail Envíe un correo electrónico a Benjamín:	

### **Primary Ozone / Bio-Oxidative Focus:**

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Discal Hernia

Resume/CV:

Breviario Curricular:

### **OTTP Workshop Comment:**

Comentarios del PEOT:

### **Additional Pictures (if any):**

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"

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# joseemanuelarriagaocejo

Registered on 30 April, 2005 and updated on 17 May, 2006: Registrado ee 30 April, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal			
Name: Nombre:	Dr. José Emanuel Arriaga Ocejo		
Address: Dirección:	Ave. de las Rosas 43		
	Col. Jardín		
City: Ciudad:	Matamoros		
State/Province: EStado / Provincia:	Tamaulipas		
Zip/Postal Code: Código Postal:	87330		
Country: País de origen:	Mexico		
Phone: Teléfono:	(868) 817 3259		
Fax: Fax No.:	(868) 812 0888		
Homepage: Página principal:			



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Servando Canales
Distance from Airport:  Distancia desde el Aeropuerto:	20km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send José Emanuel an e-mail Envíe un correo electrónico a José Emanuel:	

Envíe un correo electrónico a José Emanuel:		
Primary Ozone / Bio-Oxidative Focus Enfoque principal en Terapias de Ozo		
Discolisis, Control Metabólico, Preacond	icionamiento en diversas patologías.	
Resume/CV: Breviario Curricular:		
OTTP Workshop Comment: Comentarios del PEOT:		
A LPC - LBC (Co.)		
Additional Pictures (if any): Fotografías adicionales (si tuviera):		
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Who's Who Index Página "Quién es Quién"

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#### alambarronbarrera

Registered on 30 April, 2005 and updated on 17 May, 2006: Registrado ee 30 April, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal			
Name: Nombre:	Dr. Alam Barrón Barrera		
Address: Dirección:	Calle Norte 280		
	Col. Puesta del Sol		
City: Ciudad:	La Paz		
State/Province: EStado / Provincia:	Baja California		
Zip/Postal Code: Código Postal:	23080		
Country: País de origen:	Mexico		
Phone: Teléfono:	01(612) 124 0219,01 (612) 12 535 72		
Fax: Fax No.:			
Homepage: Página principal:			



OTTP Certificates:
Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional de La Paz, Baja California
Distance from Airport:  Distancia desde el Aeropuerto:	4 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2005
Send Alam an e-mail Envíe un correo electrónico a Alam:	

# Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Mejorar Calidad de Vida de los pacientes,

una nueva vida en tu mismo cuerpo, una nueva esperanza a tu familia.

#### Resume/CV:

# Breviario Curricular:

Graduado.

Universidad Autonama de Guadalajara grado.

Medico Cirujano General.

certificados.

OTTP Certificates lavel III advance 2005,

Toxicologia y Terapias de Quelacion hospital siglo XXI 2004, AMEC

### **OTTP Workshop Comment:**

Comentarios del PEOT:

#### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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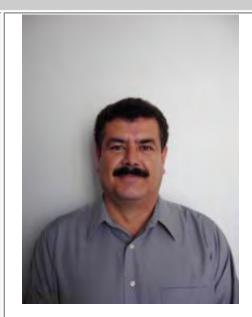
Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

#### alfredobecerravaldez

Registered on 28 May, 2005 and updated on 17 May, 2006: Registrado ee 28 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal			
Name: Nombre:	Dr. Alfredo Becerra Valdéz		
Address: Dirección:	David Alfaro Siqueiros 25 - 404		
	Zona Río		
City: Ciudad:	Tijuana		
State/Province: EStado / Provincia:	Baja California		
Zip/Postal Code: Código Postal:	22110		
Country: País de origen:	Mexico		
Phone: Teléfono:	664-900-7399		
Fax: Fax No.:	664-900-7399		
Homepage: Página principal:			



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Tijuana, Baja California	OTTP/Advanced - Mexico - Feb 2005
Distance from Airport: Distancia desde el Aeropuerto:		
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2005	
Send Alfredo an e-mail Envíe un correo electrónico a Alfredo:		

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Aplicación paravertebral

Resume/CV:

Breviario Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

#### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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### norzitabintimohdyusof

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal			
Name: Nombre:	Dr. Norzita Binti Mohd Yusof		
Address: Dirección:	36-1, Jalan 25/70A		
City:			
Ciudad:	Desa Sri Hartamas		
State/Province: EStado / Provincia:	50480 Kuala Lumpur		
Zip/Postal Code: Código Postal:			
Country: País de origen:	Malaysia		
Phone: Teléfono:	603-2300-0980		
Fax: Fax No.:	603-2300-2230		
Homepage: Página principal:	www.naturo-wellness.com		
Nearest Airport: Aeropuerto más cercano:	Kuala Lumpur International Airport		



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

Distance from Airport: Distancia desde el Aeropuerto:	80 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada / Blossom Portfolio, Malaysia
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2001
Send Norzita an e-mail Envíe un correo electrónico a Norzita:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Bio-oxidative therapy as an adjuvant to total treatments

Resume/0	JV:
<b>Breviario</b>	Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Browse Profile Hojear perfiles

# marioalbertoborgerendon

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal			
Name: Nombre:	Dr. Mario Alberto Borge Rendón		
Address: Dirección:			
City: Ciudad:	Naucalpan		
State/Province: EStado / Provincia:	Edo. De México		
Zip/Postal Code: Código Postal:			
Country: País de origen:			
Phone: Teléfono:			
Fax: Fax No.:	(55) 5295 5626		



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Resume/CV:		
Breviario Curricular:		

# **OTTP Workshop Comment:**

Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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# lilianacabaniravello

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Informa	ción personal
Name: Nombre:	Dr. Liliana Cabani Ravello
Address: Dirección:	Av. Guardia Civil # 627
City: Ciudad:	Lima
State/Province: EStado / Provincia:	San Borja
Zip/Postal Code: Código Postal:	
Country: País de origen:	Peru
Phone: Teléfono:	511-475-0800
Fax: Fax No.:	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

Homepage: Página principal:	www.cabani.com
Nearest Airport: Aeropuerto más cercano:	Jorge Chavez Lima Peru
Distance from Airport: Distancia desde el Aeropuerto:	30 min
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozonometic Italia / Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Liliana an e-mail Envíe un correo electrónico a Liliana:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Sport Medicine, Sistemic aplications and topic aplications.

Resume/CV:		
Breviario Curricular:		
OTTP Workshop Comment:		
Comentarios del PEOT:		

Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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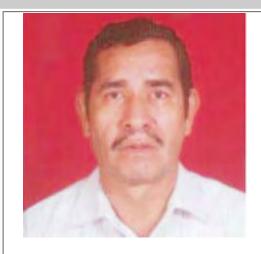
Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

# marcoantoniocabildopalmero

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información μ	personal
Name: Nombre:	Dr. Marco Antonio Cabildo Palmero
Address: Dirección:	Juárez 17, Planta Baja
City: Ciudad:	La Venta
State/Province: EStado / Provincia:	Tabasco
Zip/Postal Code: Código Postal:	86411
Country: País de origen:	Mexico
Phone: Teléfono:	(923) 232 0169
Fax: No.:	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Coatzacoalcos, Veracruz
Distance from Airport: Distancia desde el Aeropuerto:	
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozomedic ( México)
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Marco Antonio an e-mail Envíe un correo electrónico a Marco Antonio:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Úlceras varicosas

Resume/CV:

Breviario Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Phone:

Fax:

Teléfono:

Fax No.:

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Who's Who Index Página "Quién es Quién"

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# mariocabaniravello

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal

Name: Nombre:	Dr. Mario Cabani Ravello
Address: Dirección:	Av. Guardia Civil # 627
City: Ciudad:	Lima
State/Province: EStado / Provincia:	San Borja
Zip/Postal Code: Código Postal:	
Country: País de origen:	Peru



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

OTTP/Advanced - Mexico - Feb 2004

511-475-0800

Homepage: Página principal:	www.cabani.com
Nearest Airport: Aeropuerto más cercano:	Jorge Chavez Lima Peru
Distance from Airport: Distancia desde el Aeropuerto:	30 min
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozonometic Italia / Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2003
Send Mario an e-mail Envíe un correo electrónico a Mario:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Sistemic Ozone Therapy Sub cutaneous aplications

Resume/CV:

Breviario Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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#### ioseeleazarcalderondelafuente

Registered on 25 May, 2006 and updated on 25 May, 2006: Registrado ee 25 May, 2006 Y actualizado el 25 May, 2006:

Personal Information / Información	personal
Name: Nombre:	Dr. José Eleazar Calderón de la Fuente
Address: Dirección:	Av. Los Reyes No 1003, Col. Nueva Rosita
City: Ciudad:	Monclova
State/Province: EStado / Provincia:	Coahuila
Zip/Postal Code: Código Postal:	25710
Country: País de origen:	Mexico
Phone: Teléfono:	(866) 635-2470
Fax: Fax No.:	(866) 635-2470
Homepage: Página principal:	www.proloterapia.com



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Nearest Airport: Aeropuerto más cercano:	Mariano Escobedo, Monterrey, N.L. México
Distance from Airport: Distancia desde el Aeropuerto:	1 hr. 45 min.
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services / OzoneLab(TM)
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2005
Send José Eleazar an e-mail Envíe un correo electrónico a José Eleazar:	

Primary Ozone / Bio-Oxidative Focus:
Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:
Emoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas.
Resume/CV:
Breviario Curricular:
Breviano Gurricular.
OTTP Workshop Comment:
Comentarios del PEOT:
Comentarios dei FEOT.
Additional Distance (if and)
Additional Pictures (if any):
Fotografías adicionales (si tuviera):
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# hugoarmandocamposalva

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal			
Name: Nombre:	Dr. Hugo Armando Campos Alva		
Address: Dirección:	Monte Albán 25-B		
	Col. Narvarte		
City: Ciudad:	Cuidad de México		
State/Province: EStado / Provincia:	Distrito Federal		
Zip/Postal Code: Código Postal:	3020		
Country: País de origen:	Mexico		
Phone: Teléfono:	(55) 5440 0204		
Fax: Fax No.:	(55) 5440 0204		
Homepage: Página principal:			



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Cd. de México.
Distance from Airport:  Distancia desde el Aeropuerto:	15kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	ozonoservices
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Hugo Armando an e-mail Envíe un correo electrónico a Hugo Armando:	

Primary	Ozone	/ Bio-Oxidative	Focus:

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Diabetes y Problemas infecciosos

Resume/CV:

Breviario Curricular:

**OTTP Workshop Comment:** 

Comentarios del PEOT:

Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Browse Profile Hojear perfiles

# melgarejocarreonarturo

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / In	nformación personal
---------------------------	---------------------

Name: Nombre:	Dr. Melgarejo Carreón Arturo
Address: Dirección:	16 Sur # 1308-302
	Col. Azcarate
City: Ciudad:	Puebla
State/Province: EStado / Provincia:	Puebla
Zip/Postal Code: Código Postal:	C.P. 72000
Country: País de origen:	Mexico
Phone: Teléfono:	222-243-1601
Fax: Fax No.:	222-240-0326



# OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	International Airport Mexico City
Distance from Airport: Distancia desde el Aeropuerto:	120 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	1998
Send Melgarejo an e-mail Envíe un correo electrónico a Melgarejo:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Orthopedical Aplications

Resume/CV:

Breviario Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"

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Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

# rodolfocarpignano

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

# Personal Information / Información personal

Name: Nombre:	Dr. Rodolfo Carpignano
Address: Dirección:	Pte. José E. Uriburu, 1690- 16C
City: Ciudad:	Buenos Aires
State/Province: EStado / Provincia:	
Zip/Postal Code: Código Postal:	
Country: País de origen:	Argentina
Phone: Teléfono:	5411-4803-8211
Fax: No.:	5411-4803-1186



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Ezeiza
Distance from Airport: Distancia desde el Aeropuerto:	15 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Rodolfo an e-mail Envíe un correo electrónico a Rodolfo:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Orthopedical Aplications

Resume/CV:		
Breviario Curricular:		

# OTTP Workshop Comment: Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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# jesussigifredocastrocastro

Registered on 28 May, 2005 and updated on 17 May, 2006: Registrado ee 28 May, 2005 Y actualizado el 17 May, 2006:

<b>Personal Information / <i>Informac</i></b> Name:	
Nombre:	Dr. Jesús Sigifredo Castro Castro
Address: <i>Dirección:</i>	Plutarco Elías Calles 1244
City: Ciudad:	Cd. Juárez
State/Province: EStado / Provincia:	Chihuahua
Zip/Postal Code: <i>Código Postal:</i>	
Country: País de origen:	Mexico
Phone: Teléfono:	656-631-1841
Fax: Fax No.:	
Homepage: <i>Página principal:</i>	
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Cd. Juárez, Chihuahua



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Distance from Airport: Distancia desde el Aeropuerto:	10kms	
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:		
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):		
Send Jesús Sigifredo an e-mail Envíe un correo electrónico a Jesús Sigifredo:		

#### Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Enfremedades crónicas degenerativas.

Res		~	$\sim$	Ι.
K G 2	ulli	e,	CV	46

Breviario Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Browse Profile Hojear perfiles

# brianchung

Registered on 17 January, 2005 and updated on 17 May, 2006: Registrado ee 17 January, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Brian Chung	
Address: Dirección:	Rm 804 Manning House	
	48 Queen's Road Central	
City: Ciudad:		
State/Province: EStado / Provincia:		
Zip/Postal Code: Código Postal:		
Country: País de origen:	Hong Kong	
Phone: Teléfono:	852-25252341	
Fax: Fax No.:	852-28684772	

# OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Malaysia - Dec 2004

OTTP/Intermediate - Malaysia - Dec 2004

OTTP/Advanced - Malaysia - Dec 2004

Resume/CV: Breviario Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

# saulchavezortega

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Saúl Chávez Ortega	
Address: Dirección:	Ave. Ejército Mexicano 1104	
City: Ciudad:	Mazatlán	
State/Province: EStado / Provincia:	Sinaloa	
Zip/Postal Code: Código Postal:	82326	
Country: País de origen:	Mexico	
Phone: Teléfono:	(669) 990 1911	
Fax: Fax No.:	(669) 990 1911	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional de Mazatlán
Distance from Airport: Distancia desde el Aeropuerto:	5kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozonomed 40I (Cuba)
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Saúl an e-mail Envíe un correo electrónico a Saúl:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Diabetes y Problemas infecciosos

Resume/CV:

Breviario Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

# reinaldodavidhormillacordero

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal				
Name: Nombre:	Dr. Reinaldo David Hormilla Cordero			
Address: Dirección:	Tubalaba # 5013			
City: Ciudad:	Ñuñoa			
State/Province: EStado / Provincia:	Santiago de Chile			
Zip/Postal Code: Código Postal:				
Country: País de origen:	Chile			
Phone: Teléfono:	560-2227-0412			
Fax: Fax No.:	560-2277-5046			



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

Homepage: <i>Página principal:</i>	www.ozonoterapia.cl
Nearest Airport: Aeropuerto más cercano:	Santiago de Chile Airport
Distance from Airport: Distancia desde el Aeropuerto:	20 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	1991
Send Reinaldo an e-mail Envíe un correo electrónico a Reinaldo:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Depression, Dementia, Discal Hernia, etc.

Resume/C	JV:
<b>Rreviario</b>	Curricul

# OTTP Workshop Comment:

Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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# mariadelaluzarroyocarrasco

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal			
Name: Nombre:	Dr. María de la Luz Arroyo Carrasco		
Address: Dirección:	16 Sur # 1308-302		
	Col. Azcarate		
City: Ciudad:	Puebla		
State/Province: EStado / Provincia:	Puebla		
Zip/Postal Code: Código Postal:	C.P. 72000		
Country: País de origen:	Mexico		
Phone: Teléfono:	222-243-1601		
Fax: Fax No.:	222-240-0326		



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

omepage: ágina principal:	
earest Airport: eropuerto más cercano:	International Airport Mexico City
istance from Airport: istancia desde el Aeropuerto:	120 km
zone Hardware Manufactured by: quipo de Ozono manufacturado por:	Ozone Services Canada
ctive in Ozone Since (Year): ctivo en Ozonoterapia desde (Año):	2003
end María an e-mail invíe un correo electrónico a María:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Orthopedical Aplications

Resume/CV:	
Breviario Curricular:	

# OTTP Workshop Comment: Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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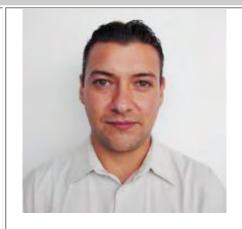


Browse all of the profile listings. Hojee todos los perfiles enlistados Browse Profile Hojear perfiles

#### luisantonioechevarriafonseca

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal			
Name: Nombre:	Dr. Luis Antonio Echevarría Fonseca		
Address: Dirección:	3 Poniente 4903		
	Col. Belisario Domínguez		
City: Ciudad:	Puebla		
State/Province: EStado / Provincia:	Puebla		
Zip/Postal Code: Código Postal:	72160		
Country: País de origen:	Mexico		
Phone: Teléfono:	(222) 249 0118		
Fax: Fax No.:	(222) 249 0118		
Homepage: <i>Página principal:</i>			
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Hermanos Serdán (Puebla)		
Distance from Airport:  Distancia desde el Aeropuerto:	15kms		



OTTP Certificates: Certificados del PEOT:

OTTP/Intermediate - Mexico - Feb 2005

Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2005	
Send Luis Antonio an e-mail Envíe un correo electrónico a Luis Antonio:		

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Como coadyuvante en los tratamientos alopáticos convencionales.

Resume/CV: Breviario Curricular:	
OTTP Workshop Comment:  Comentarios del PEOT:	
Additional Pictures (if any): Fotografías adicionales (si tuviera):	

Control Panel / Panel de control

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Who's Who Index Página "Quién es Quién"

Goto OTTP

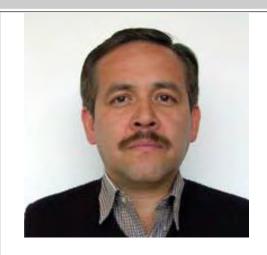
Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

# jesusenriquearredondoizquierdo

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Jesús Enrique Arredondo Izquierdo	
Address: Dirección:	Bizet # 11	
	Col. Vallejo	
City: Ciudad:		
State/Province: EStado / Provincia:	D.F.	
Zip/Postal Code: Código Postal:	C.P. 07870	
Country: País de origen:	Mexico	
Phone: Teléfono:	55-5517-7781	
Fax: Fax No.:		



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	International Airport Mexico City
Distance from Airport: Distancia desde el Aeropuerto:	15-30 min
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Jesús an e-mail Envíe un correo electrónico a Jesús:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Grant an alternative soport to the patients

Resume/CV:

Breviario Curricular:

**OTTP Workshop Comment:** 

Comentarios del PEOT:

Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"



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Browse Profile Hojear perfiles

# wendyfalzoni

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

# Personal Information / Información personal

Name: Nombre:	Dr. Wendy Falzoni
Address: Dirección:	Rua Dr. Cristiano de Souza 400
City: Ciudad:	Sao Paulo
State/Province: EStado / Provincia:	
Zip/Postal Code: Código Postal:	
Country: País de origen:	Brazil
Phone: Teléfono:	55-11-3168-1585
Fax: Fax No.:	



# OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Congonhas
Distance from Airport: Distancia desde el Aeropuerto:	30 min
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Wendy an e-mail Envíe un correo electrónico a Wendy:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Ophthalmologic applications

Resume/CV:	
Breviario Curricular:	

# OTTP Workshop Comment: Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"

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# germanedmundogalvangarcia

Registered on 28 May, 2005 and updated on 17 May, 2006: Registrado ee 28 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Germán Edmundo Galván García	
Address: Dirección:	Prol. Ahuatepec No. 302	
	Col. Lomas de la Selva	
City: Ciudad:	Cuernavaca	
State/Province: EStado / Provincia:	Morelos	
Zip/Postal Code: Código Postal:	62270	
Country: País de origen:	Mexico	
Phone: Teléfono:	(777) 212 2826	
Fax: Fax No.:		
Homepage: Página principal:		



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Cd. de México.
Distance from Airport:  Distancia desde el Aeropuerto:	90 kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2005
Send Germán Edmundo an e-mail Envíe un correo electrónico a Germán Edmundo:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Medicina Estética

Resume/CV:		
Breviario Curricular:		

# **OTTP Workshop Comment:**

Comentarios del PEOT:

Additional Pictures (if any):
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Who's Who Index Página "Quién es Quién"

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# adolfogarciasantana

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Adolfo García Santana	
Address: Dirección:	Ave. José Morelos Pte. 604	
	Col. Centro	
City: Ciudad:	Toluca	
State/Province: EStado / Provincia:	Edo. De México	
Zip/Postal Code: Código Postal:	50000	
Country: País de origen:	Mexico	
Phone: Teléfono:	(722) 215 1693	
Fax: Fax No.:	(722) 215 1693	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Cd. de México.
Distance from Airport: Distancia desde el Aeropuerto:	80kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	
Send Adolfo an e-mail Envíe un correo electrónico a Adolfo:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Complicaciones diabéticas

Resume/CV:

Breviario Curricular:

## **OTTP Workshop Comment:**

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Who's Who Index Página "Quién es Quién"



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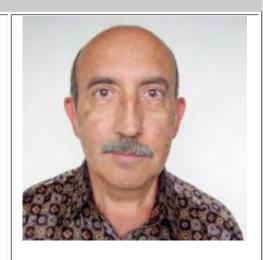
Browse Profile Hojear perfiles

# rogeliogarciamercado

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal	Information I	Informac	ión	pers	ona	a <i>l</i>
Name:			_	_		

· ordenar miermatien, miermatien percenar		
Name: Nombre:	Dr. Rogelio García Mercado	
Address: Dirección:	Independencia Ote. 107-203	
	Col. Centro	
City: Ciudad:	Toluca	
State/Province: EStado / Provincia:	Edo. De México	
Zip/Postal Code: Código Postal:	50000	
Country: País de origen:	Mexico	
Phone: Teléfono:	(722) 214 5191	
Fax: Fax No.:		



**OTTP Certificates:** Certificados del PEOT:

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Cd. de México.
Distance from Airport: Distancia desde el Aeropuerto:	80kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	
Send Rogelio an e-mail Envíe un correo electrónico a Rogelio:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Ozono como mejorador de la calidad de vida

Resume/CV:

Breviario Curricular:

## **OTTP Workshop Comment:**

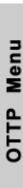
Comentarios del PEOT:

## **Additional Pictures (if any):**

Fotografías adicionales (si tuviera):

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# alinadelcarmengonzalezrodriguez

Registered on 26 May, 2006 and updated on 26 May, 2006: Registrado ee 26 May, 2006 Y actualizado el 26 May, 2006:

Personal Information / Información personal

Name: Nombre:	Ms. Alina del Carmen González Rodríguez	
Address: Dirección:	Corregidora No. 1001 local 35, Col. Nueva Rosita	
City: Ciudad:	Monclova	
State/Province: EStado / Provincia:	Coahuila	
Zip/Postal Code: Código Postal:	25710	
Country: País de origen:	Mexico	
Phone: Teléfono:	(866)634-6671	
Fax: Fax No.:	(866) 634-6671	
Homepage: Página principal:		
Nearest Airport: Aeropuerto más cercano:	Mariano Escobedo, Monterrey N.L. México	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

Distance from Airport:  Distancia desde el Aeropuerto:	1 hr. 45 min.
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services / OzoneLab(TM)
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2006
Send Alina del Carmen an e-mail Envíe un correo electrónico a Alina del Carmen:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Resume/CV:

Breviario Curricular:

#### **OTTP Workshop Comment:**

Comentarios del PEOT:

Curso excelente, que verdaderamente capacita de la manera mas sencilla y entendible posible. Sale uno listo para manejar las difrentes aplicaciones del Ozono

## Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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# enriquegonzalezbarrera

Registered on 28 May, 2005 and updated on 17 May, 2006: Registrado ee 28 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal				
Name: Nombre:	Dr. Enrique González Barrera			
Address: Dirección:	Chimalpopoca No. 46			
	Bosques de Moctezuma			
City: Ciudad:	Naucalpan			
State/Province: EStado / Provincia:	Edo. De México			
Zip/Postal Code: Código Postal:	53279			
Country: País de origen:	Mexico			
Phone: Teléfono:	(55) 536 02961			
Fax: Fax No.:				



OTTP Certificates: Certificados del PEOT:

OTTP/Intermediate - Mexico - Feb 2005

Homepage: Página principal:				
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Cd. de México.			
Distance from Airport:  Distancia desde el Aeropuerto:	20 kms			
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:				
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):				
Send Enrique an e-mail Envíe un correo electrónico a Enrique:				
Primary Ozone / Bio-Oxidative Focus:				
•	focus: le Ozono/ Terapias Bio-Oxidativas:			

Resume/CV:

Breviario Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"

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Browse Profile Hojear perfiles

# jesusgonzalonavarrosoto

Registered on 25 March, 2004 and updated on 17 May, 2006: Registrado ee 25 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal			
Name: Nombre:	Dr. Jesús Gonzalo Navarro Soto		
Address: Dirección:	Alatorre # 805		
	Col. Pitic		
City: Ciudad:	Hermosillo		
State/Province: EStado / Provincia:	Sonora		
Zip/Postal Code: Código Postal:			
Country: País de origen:	Mexico		
Phone: Teléfono:	662-215-9244		
Fax: Fax No.:	662-215-9244		



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Sep 2003

OTTP/Intermediate - Mexico - Sep 2003

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Hermosillo Airport
Distance from Airport: Distancia desde el Aeropuerto:	5 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2003
Send Jesús an e-mail Envíe un correo electrónico a Jesús:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Medical aplications in general

Resume/CV:		
Breviario Curricular:		

# OTTP Workshop Comment: Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"

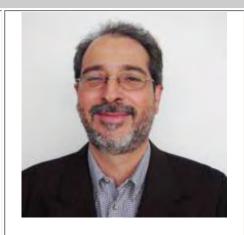


Browse all of the profile listings. Hojee todos los perfiles enlistados Browse Profile Hojear perfiles

#### rodolfogonzalezmartinez

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal				
Name: Nombre:	Dr. Rodolfo González Martínez			
Address: Dirección:	Hidalgo 2532 Pte. 313			
City: Ciudad:	Monterrey			
State/Province: EStado / Provincia:	Nuevo León			
Zip/Postal Code: Código Postal:	64010			
Country: País de origen:	Mexico			
Phone: Teléfono:	(818) 348 3163			
Fax: No.:	(818) 333 0767			
Homepage: Página principal:				
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Mariano Escobedo, Monterrey			



OTTP Certificates:
Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Distance from Airport:  Distancia desde el Aeropuerto:	25kms	
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:		
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):		
Send Rodolfo an e-mail Envíe un correo electrónico a Rodolfo:		

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Aplicación en Ortopedia

Resume/Cv:	
Breviario Curricular	

**OTTP Workshop Comment:** 

Comentarios del PEOT:

Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"



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Browse Profile Hojear perfiles

# josemanuelgutierrezgonzalez

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. José Manuel Gutiérrez González	
Address: Dirección:	Morelos 930-2	
	Col. Centro	
City: Ciudad:	Mazatlán	
State/Province: EStado / Provincia:	Sinaloa	
Zip/Postal Code: Código Postal:	82000	
Country: País de origen:	Mexico	
Phone: Teléfono:	(669) 982 4789	
Fax: Fax No.:	(669) 982 4789	

# OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional de Mazatlán
Distance from Airport:  Distancia desde el Aeropuerto:	5kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	
Send José Manuel an e-mail Envíe un correo electrónico a José Manuel:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Ginecología

Resume/CV:

Breviario Curricular:

## **OTTP Workshop Comment:**

Comentarios del PEOT:

## **Additional Pictures (if any):**

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

Browse all of the profile listings. Hojee todos los perfiles enlistados Browse Profile Hojear perfiles

# oscargutierrezhuerta

Registered on 28 May, 2005 and updated on 17 May, 2006: Registrado ee 28 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Oscar Gutiérrez Huerta	
Address: Dirección:	Tenoch 16. Planta Baja	
	Unidad Habitacional La Pradera. San Pedro	
City: Ciudad:	Cholula	
State/Province: EStado / Provincia:	Puebla	
Zip/Postal Code: Código Postal:	72760	
Country: País de origen:	Mexico	
Phone: Teléfono:	(222) 238 4395	
Fax: Fax No.:		



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

lomepage: Página principal:	
learest Airport: leropuerto más cercano:	Aeropuerto Internacional Cd. de México.
Distance from Airport: Distancia desde el Aeropuerto:	80 kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	
active in Ozone Since (Year): activo en Ozonoterapia desde (Año):	
end Oscar an e-mail Envíe un correo electrónico a Oscar:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Darle mejores alternativas y resultados a los pacientes

Resume/CV:  Breviario Curricular:	
OTTP Workshop Comment:  Comentarios del PEOT:	
A LUC and Distance (Com.)	

Additional Pictures (if any): Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

# renatogutierrezescobar

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / I	Información personal
--------------------------	----------------------

-
Dr. Renato Gutiérrez Escobar
Aquiles Serdán 80-6 sur
Col. Centro
Culiacán
Sinaloa
C.P. 80000
Mexico
667-712-4217
667-712-0276



# OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Culiacán Airport
Distance from Airport:  Distancia desde el Aeropuerto:	10 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2003
Send Renato an e-mail Envíe un correo electrónico a Renato:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Medical aplications in general

Resume/CV:	
Breviario Curricular:	

# OTTP Workshop Comment: Comentarios del PEOT:

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"



Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

#### norrafidahhambari

Registered on 19 January, 2005 and updated on 17 May, 2006: Registrado ee 19 January, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Norrafidah Hambari	
Address: Dirección:	No 22, Jalan Sungai renggam 32/6	
	Berjaya Park, Seksyen 32,	
City: Ciudad:	Shah Alam	
State/Province: EStado / Provincia:	Selangor	
Zip/Postal Code: Código Postal:	40460	
Country: País de origen:	Malaysia	
Phone: Teléfono:	012-2061420	
Fax: Fax No.:		

# OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Malaysia - Dec 2004

OTTP/Intermediate - Malaysia - Dec 2004

OTTP/Advanced - Malaysia - Dec 2004

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	KLIA,KL
Distance from Airport:  Distancia desde el Aeropuerto:	
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	OZONE SERVICES
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Norrafidah an e-mail Envíe un correo electrónico a Norrafidah:	

#### Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

I am just starting to learn ABOUT OZONE AND PLAN TO USE OZONE AS ONE OF THE MODALITY OF TREATMENT TO MY PATIENT.

#### Resume/CV:

#### Breviario Curricular:

MBBS, Malaya.OTTP KL.

#### **OTTP Workshop Comment:**

## Comentarios del PEOT:

Good, compact, Precise, Patience as a new comer, next time maybe would like to involved more on the new technique and development, research and others related to it.

#### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Home > Ozone Therapy Training Program Network > Who's Who Area



Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

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# roberteharrisjr

Registered on 5 August, 2004 and updated on 17 May, 2006: Registrado ee 5 August, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Robert E. Harris Jr.	
Address: Dirección:	3932 Dutchman's Lane	
City: Ciudad:	Louisville	
State/Province: EStado / Provincia:	KY	
Zip/Postal Code: Código Postal:	40207	
Country: País de origen:	United States	
Phone: Teléfono:	812-285-1781	
Fax: Fax No.:	502-895-1328	



OTTP Certificates: Certificados del PEOT:

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Louisville International
Distance from Airport:  Distancia desde el Aeropuerto:	3 miles
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	1999
Send Robert E. an e-mail  Envíe un correo electrónico a Robert E.:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Dental/Naturopathy

Resume/CV:

Breviario Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

Excellent

## Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"

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Browse Profile Hojear perfiles

# juanraulherreralopez

Registered on 28 May, 2005 and updated on 17 May, 2006: Registrado ee 28 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Informacion	ón personal
Name: Nombre:	Dr. Juan Raúl Herrera López
Address: Dirección:	Prol. Ahuatepec No. 302
	Col. Vista Hermosa
City: Ciudad:	Cuernavaca
State/Province: EStado / Provincia:	Morelos
Zip/Postal Code: Código Postal:	62270
Country: País de origen:	Mexico
Phone: Teléfono:	(734) 343 0453
Fax: Fax No.:	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Homepage: Página principal:		OTTP/Advanced - Mexico - Feb 2005
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Cd. de México.	
Distance from Airport:  Distancia desde el Aeropuerto:	90kms	
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:		
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):		
Send Juan Raúl an e-mail Envíe un correo electrónico a Juan Raúl:		

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Enfermedades crónicas.

Resume/C	CV:
Breviario	Curricular:

# **OTTP Workshop Comment:**

Comentarios del PEOT:

## Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

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Browse Profile Hojear perfiles

# manuelherreraflor

Registered on 25 March, 2004 and updated on 17 May, 2006: Registrado ee 25 March, 2004 Y actualizado el 17 May, 2006:

# Personal Information / Información personal

Name: Nombre:	Dr. Manuel Herrera Flor
Address: Dirección:	Monterrey #150, Desp. 502
	Col. Roma
City: Ciudad:	México
State/Province: EStado / Provincia:	D.F.
Zip/Postal Code: Código Postal:	C.P. 06700
Country: País de origen:	Mexico
Phone: Teléfono:	(0155) 57-15-51-07
Fax: No.:	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Sep 2003

OTTP/Intermediate - Mexico - Sep 2003

Homepage: Página principal:	www.ozonoterapia.com.mx
Nearest Airport: Aeropuerto más cercano:	International Airport Mexico City
Distance from Airport:  Distancia desde el Aeropuerto:	5 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2000
Send Manuel an e-mail Envíe un correo electrónico a Manuel:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Medical aplications in general

Resume/CV:

Breviario Curricular:

## **OTTP Workshop Comment:**

Comentarios del PEOT:

## Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Home > Ozone Therapy Training Program Network > Who's Who Area



Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

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# franciscojosegarciamondragon

Registered on 16 March, 2004 and updated on 17 May, 2006: Registrado ee 16 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Informaci	ón personal
Name: Nombre:	Dr. Francisco José García Mondragón
Address: Dirección:	Av. Palmas # 13
	Fracc. Laureles
City: Ciudad:	Tapachula
State/Province: EStado / Provincia:	Chiapas
Zip/Postal Code: Código Postal:	C.P. 30780
Country: País de origen:	Mexico
Phone: Teléfono:	962 626 9232
Fax: Fax No.:	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Sep 2003

OTTP/Intermediate - Mexico - Sep 2003

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Tapachula Airport
Distance from Airport:  Distancia desde el Aeropuerto:	25 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services Canada
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2003
Send Francisco an e-mail Envíe un correo electrónico a Francisco:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Chronic illneses

Resume/CV:
Breviario Curricular:

# OTTP Workshop Comment:

Comentarios del PEOT:

## Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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<u>Home</u> > <u>Ozone Therapy Training Program Network</u> > Who's Who Area



Who's Who Index Página "Quién es Quién"



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# donghwankim

Registered on 18 January, 2005 and updated on 17 May, 2006: Registrado ee 18 January, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información p	ersonal
Name: Nombre:	Dr. Dong-Hwan Kim
Address: Dirección:	Linhu-Dong 768-8
	Dukjin-ku
City: Ciudad:	Chonju
State/Province: EStado / Provincia:	Chonbuk
Zip/Postal Code: Código Postal:	561831
Country: País de origen:	South Korea
Phone: Teléfono:	82-63-244-9119
Fax: Fax No.:	82-63-244-9129

# OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Malaysia - Dec 2004

OTTP/Intermediate - Malaysia - Dec 2004

OTTP/Advanced - Malaysia - Dec 2004

Homepage: Página principal:	www.hnhclinic.co.kr
Nearest Airport: Aeropuerto más cercano:	Kunsan airport
Distance from Airport: Distancia desde el Aeropuerto:	50km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Dong-Hwan an e-mail  Envíe un correo electrónico a Dong-Hwan:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Cancer

Resume/CV:

Breviario Curricular:

Neurological surgeon

## **OTTP Workshop Comment:**

Comentarios del PEOT:

need more fun times

# Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Who's Who Index Página "Quién es Quién"



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## victorleonardocamposabido

Registered on 27 March, 2004 and updated on 17 May, 2006: Registrado ee 27 March, 2004 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Víctor Leonardo Campo Sabido	
Address: Dirección:	Luis Echeverría 260-B	
	Col. Latinoamericana	
City: Ciudad:	Saltillo	
State/Province: EStado / Provincia:	Coahuila	
Zip/Postal Code: Código Postal:	C.P. 25270	
Country: País de origen:	Mexico	
Phone: Teléfono:	844-415-1363	
Fax: Fax No.:	844-415-1363	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

Homepage: Página principal:		
Nearest Airport: Aeropuerto más cercano:	Ramos Arizpe Coahuila- Plan de Guadalupe	
Distance from Airport: Distancia desde el Aeropuerto:	8 km	
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Czone Services Canada	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	1999	
Send Víctor an e-mail Envíe un correo electrónico a Víctor:		

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Ozone aplications in Neurodegenerative Diseases

Resume/CV:

Breviario Curricular:

#### **OTTP Workshop Comment:**

Comentarios del PEOT:

#### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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<u>Home</u> > <u>Ozone Therapy Training Program Network</u> > Who's Who Area



Who's Who Index Página "Quién es Quién"



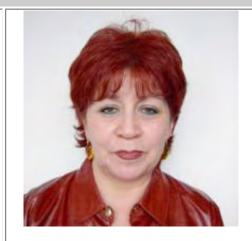
Browse all of the profile listings. Hojee todos los perfiles enlistados Browse Profile Hojear perfiles

#### mariadelsocorroleonsanchez

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal

Name: Nombre:	Dra. María del Socorro León Sánchez
Address: Dirección:	Sur 75 No. 4117
	Col. Asturias
City: Ciudad:	Ciudad de México
State/Province: EStado / Provincia:	Distrito Federal
Zip/Postal Code: Código Postal:	6850
Country: País de origen:	Mexico
Phone: Teléfono:	(55) 5740 8265
Fax: Fax No.:	
Homepage: <i>Página principal:</i>	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Cd. de México.
Distance from Airport: Distancia desde el Aeropuerto:	5kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	
Send María del Socorro an e-mail Envíe un correo electrónico a María del Socorro:	

#### Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Incrementar mis herramientas de trabajo y resultados con mis pacientes

Resume/CV:	
Breviario Curricular:	

#### **OTTP Workshop Comment:**

Comentarios del PEOT:

# Additional Pictures (if any): Fotografías adicionales (si tuviera):

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<u>Home</u> > <u>Ozone Therapy Training Program Network</u> > Who's Who Area



Who's Who Index Página "Quién es Quién"

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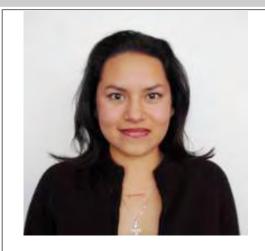
Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

## monicaabigaillobocamacho

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dra. Mónica Abigail Lobo Camacho	
Address: Dirección:	Av. Bienestar 373 Pte.	
	Col. Centro	
City: Ciudad:	Los Mochis	
State/Province: EStado / Provincia:	Sinaloa	
Zip/Postal Code: Código Postal:		
Country: País de origen:	Mexico	
Phone: Teléfono:	(668) 818 2565	
Fax: Fax No.:	(668) 818 2565	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Los Mochis, Sinaloa
Distance from Airport: Distancia desde el Aeropuerto:	15kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	
Send Mónica Abigail an e-mail Envíe un correo electrónico a Mónica Abigail:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Medicina Estética

Resume/CV:	
Breviario Curricular:	

## OTTP Workshop Comment: Comentarios del PEOT:

## Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Name:

Fax:

Fax No.:

Home > Ozone Therapy Training Program Network > Who's Who Area

Dr. José Roberto Lonez Olivares



Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

Browse all of the profile listings. Hojee todos los perfiles enlistados

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## joserobertolopezolivares

Registered on 22 October, 2003 and updated on 17 May, 2006: Registrado ee 22 October, 2003 Y actualizado el 17 May, 2006:

Personal Information / Información personal

Nombre:	Dr. Jose Roberto Lopez Olivares
Address: Dirección:	Final 79 Av. Sur, Pasaje C # 2
	Colonia Escalón
City: Ciudad:	San Salvador
State/Province: EStado / Provincia:	El Salvador
Zip/Postal Code: Código Postal:	xxxxxx
Country: País de origen:	El Salvador
Phone: Teléfono:	503-263-6170



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Sep 2003

OTTP/Intermediate - Mexico - Sep 2003

503-263-6172

Homepage: Página principal:	www.lopezolivares.com
Nearest Airport: Aeropuerto más cercano:	Comalapa, El Salvador
Distance from Airport: Distancia desde el Aeropuerto:	45 kilómetros
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozono Lab Instruments
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2003
Send José Roberto an e-mail Envíe un correo electrónico a José Roberto:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

En todas las áreas posibles

Resume/CV:

Breviario Curricular:

#### **OTTP Workshop Comment:**

Comentarios del PEOT:

Los instructores me parecieron adecuados, muy amigables y respetuosos.

Hubo un poco de desorganización que es comprensible por la complicada logistica de traer las cosas desde Canada.

#### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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<u>Home</u> > <u>Ozone Therapy Training Program Network</u> > Who's Who Area



Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

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Browse Profile Hojear perfiles

## jorgeheribertolopezosorio

Registered on 28 May, 2005 and updated on 17 May, 2006: Registrado ee 28 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Jorge Heriberto López Osorio	
Address: Dirección:		
City: Ciudad:	Villahermosa	
State/Province: EStado / Provincia:	Tabasco	
Zip/Postal Code: Código Postal:		
Country: País de origen:	Mexico	
Phone: Teléfono:	(993) 3140411	
Fax: Fax No.:	(993) 3140411	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Villhermosa, Tabasco
Distance from Airport:  Distancia desde el Aeropuerto:	10kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2005
Send Jorge Heriberto an e-mail Envíe un correo electrónico a Jorge Heriberto:	

OTTP/Advanced - Mexico - Feb 2005

#### **Primary Ozone / Bio-Oxidative Focus:**

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Enfermedades crónicas/ Terapia Intensiva.

Resume/CV:

Breviario Curricular:

#### **OTTP Workshop Comment:**

Comentarios del PEOT:

#### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Home > Ozone Therapy Training Program Network > Who's Who Area



Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

#### mariomaciassosa

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal

	o po. oo
Name: Nombre:	Dr. Mario Macías Sosa
Address: Dirección:	Casiopea 108-110
	Col. Cerrito de la Cruz
City: Ciudad:	Aguascalientes
State/Province: EStado / Provincia:	Aguascalientes
Zip/Postal Code: Código Postal:	20250
Country: País de origen:	Mexico
Phone: Teléfono:	(449) 970 6527
Fax: Fax No.:	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Aguascalientes
Distance from Airport: Distancia desde el Aeropuerto:	15kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	Ozone Services
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Mario an e-mail Envíe un correo electrónico a Mario:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Pacientes diabéticos e isquémicos

Resume/CV:	
Breviario Curricular:	

## OTTP Workshop Comment:

Comentarios del PEOT:

## Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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Home > Ozone Therapy Training Program Network > Who's Who Area



Who's Who Index Página "Quién es Quién"

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Browse Profile Hojear perfiles

#### hectormartinezarizpe

Registered on 1 May, 2005 and updated on 17 May, 2006: Registrado ee 1 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Héctor Martínez Arizpe	
Address: Dirección:	Serafín Peña 101 Nte.	
City: Ciudad:	Monterrey	
State/Province: EStado / Provincia:	Nuevo León	
Zip/Postal Code: Código Postal:	64000	
Country: País de origen:	Mexico	
Phone: Teléfono:	(818) 344 3339	
Fax: Fax No.:	(818) 343 3516	
Homepage: Página principal:		



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

Nearest Airport: Aeropuerto más cercano:	Aeropuerto Internacional Mariano Escobedo, Monterrey
Distance from Airport: Distancia desde el Aeropuerto:	25kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	
Send Héctor an e-mail Envie un correo electrónico a Héctor:	

Primary Ozo	ne / Bio-O	xidative	Focus:
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Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:
Aplicaciones odontológicas
Resume/CV:
Breviario Curricular:
OTTP Workshop Comment:
Comentarios del PEOT:
Additional Pictures (if any):
Fotografías adicionales (si tuviera):

Control Panel / Panel de control

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<u>Home</u> > <u>Ozone Therapy Training Program Network</u> > Who's Who Area



Who's Who Index Página "Quién es Quién"

> Goto OTTP Ir al PEOT

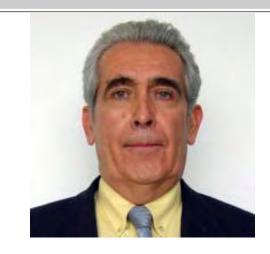
Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

## horaciomedalmunguia

Registered on 25 March, 2004 and updated on 17 May, 2006: Registrado ee 25 March, 2004 Y actualizado el 17 May, 2006:

Name: Nombre:	Dr. Horacio Medal Munguía
Address: Dirección:	Dr. Vértiz. # 935-1
	Col. Narvarte
City: Ciudad:	México
State/Province: EStado / Provincia:	D.F.
Zip/Postal Code: Código Postal:	C.P. 03020
Country: País de origen:	Mexico
Phone: Teléfono:	55-5523-4588
Fax: Fax No.:	



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2004

OTTP/Intermediate - Mexico - Feb 2004

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	International Airport Mexico City
Distance from Airport:  Distancia desde el Aeropuerto:	5 km
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	None Yet
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	2004
Send Horacio an e-mail Envíe un correo electrónico a Horacio:	

Primary Ozone	/ Bio-Oxidativ	e Focus:
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Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Medical aplications in general

Resume/CV:

Breviario Curricular:

#### **OTTP Workshop Comment:**

Comentarios del PEOT:

#### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

Control Panel / Panel de control

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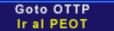




Home > Ozone Therapy Training Program Network > Who's Who Area



Who's Who Index Página "Quién es Quién"



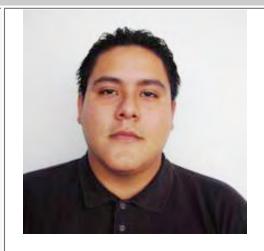
Browse all of the profile listings. Hojee todos los perfiles enlistados

Browse Profile Hojear perfiles

#### juansalvadormelgarejobonabel

Registered on 28 May, 2005 and updated on 17 May, 2006: Registrado ee 28 May, 2005 Y actualizado el 17 May, 2006:

Personal Information / Información personal		
Name: Nombre:	Dr. Juan Salvador Melgarejo Bonabel	
Address: Dirección:	Edif. Ceracom Sandino 639 Desp. 101	
	Col. 1ro de Mayo	
City: Ciudad:	Villahermosa	
State/Province: EStado / Provincia:	Tabasco	
Zip/Postal Code: Código Postal:	86190	
Country: País de origen:	Mexico	
Phone: Teléfono:	(993) 315 7355	
Fax: No.:	(993) 315 3333	
1		



OTTP Certificates: Certificados del PEOT:

OTTP/Basic - Mexico - Feb 2005

OTTP/Intermediate - Mexico - Feb 2005

Homepage: Página principal:	
Nearest Airport: Aeropuerto más cercano:	Aeropuerto Villhermosa, Tabasco
Distance from Airport: Distancia desde el Aeropuerto:	10kms
Ozone Hardware Manufactured by: Equipo de Ozono manufacturado por:	
Active in Ozone Since (Year): Activo en Ozonoterapia desde (Año):	
Send Juan Salvador an e-mail Envíe un correo electrónico a Juan Salvador:	

Enfoque principal en Terapias de Ozono/ Terapias Bio-Oxidativas:

Enfermedades crónicas.

Resume/	CV:
D	. ^

Breviario Curricular:

## **OTTP Workshop Comment:**

Comentarios del PEOT:

#### Additional Pictures (if any):

Fotografías adicionales (si tuviera):

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<u>Home</u> > <u>Ozone Therapy Training Program Network</u> > Who's Who Area







Browse all of the profile listings. Hojee todos los perfiles enlistados Browse Profile Hojear perfiles

#### Search Results / Resultados de su búsqueda

Your search returned 74 results. Su búsqueda produjo 74 resultados.

Name Nombre	Location  La ubicación	Active in Ozone Since Activo en Ozonoterapia desde	Photo Fotografías
Dr. Juan Salvador Melgarejo y Carreón	Villahermosa, Tabasco, Mexico	1997	<u></u>
Dr. Miguel Ángel Melgarejo Ramos	Villahermosa, Tabasco, Mexico		<u></u>
Dr. Carlos Montes García	Cd. Júarez, Chihuahua, Mexico	2003	<u></u>
Dr. Jaime Oest Dávila	Cd. Júarez, Chihuahua, Mexico	2004	<b>Ö</b> -
Dra. Bertha Gpe. Okhuysen Cerda	Arocutín, Michoacán, Mexico	2005	<b>Ö</b> -
Dr. Jorge Peña Avilés	Los Mochis, Sinaloa, Mexico	2004	<b>Ö</b> -
Dr. Deborah Phair	Prince George, British Columbia, Canada	2002	<b>©</b> -
Dr. Tracey Pike	Lethbridge, Alberta, Canada	2004	<u></u>
Dr. Paulo Roberto Pires Rockett	Porto Alegre, Rio Grande do Sol, Brazil		<b>©</b> -
Dr. Ramiro Ramírez Gutiérrez	Monterrey, Nuevo León, Mexico		<u></u>
Dr. Juan Antonio Rodriguez Navarrete	Ciudad Juarez, Chihuahua, Mexico	2005	-
Dr. Pedro Rosas Morones	Ciudad de México, Distrito Federal, Mexico		<u> Ö</u>

Dr. Alejandro Ríos Leal	Ciudad de México, Distrito Federal, Mexico	2002	
Dr. Parul Saheba	Mumbai, Maharashtra, India	2004	_
Dr. César Alberto Solís Sánchez	Monterrey, Nuevo León,	2005	
Dr. Humberto Rafael Sánchez Carrillo	Tepic, Nayarit, Mexico	2002	
Dra. María Concepción Thomé Villalba	Puebla, Puebla, Mexico		
Dr. Pedro Torres de la Paz	Santo Domingo, , Dominican Republic	2003	
Dr. Efraín Valencia	Tepalcatepec, Michoacán, Mexico		<u> </u>
Dr. Carlos Roberto Vargas Leal	Passo Fundo, Río Grande do Sol, Brazil		
Dr. David Villarreal Martínez	Reynosa, Tamaulipas, Mexico		
Dr. Sergio Viti Paganelli	San Cristóbal, Táchira, Venezuela		
Dr. Feliciano Wong Ortíz	Villahermosa, Tabasco, Mexico	2003	
Dr. Juan Pablo Zaldaña Figueroa	Guatemala, Guatemala, Guatemala		

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