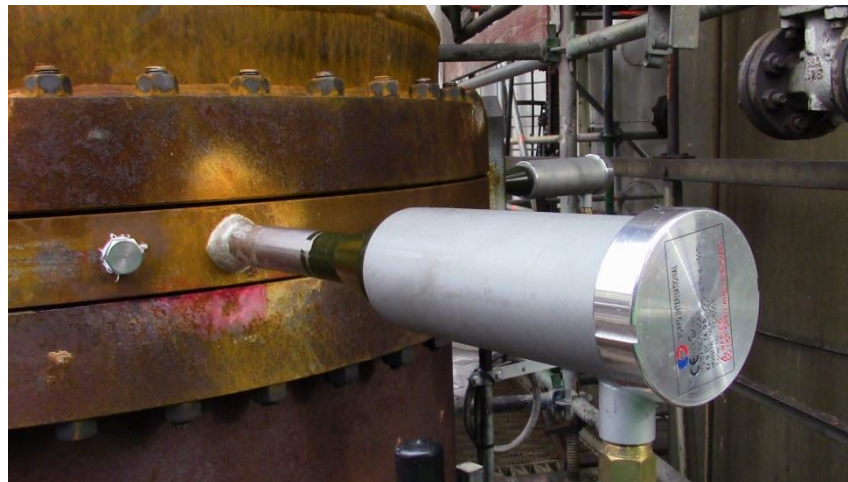


ULTRASONIC SCALE PREVENTION [USP]

ON-LINE HEAT EXCHANGER
CLEANING & CONTINUOUS
FOULING MITIGATION

CD-6 Shell Pernis

- Heat exchangers 214 A/B have severe fouling issues.
- A dedicated USP system consisting of “mount on” transducers and ultrasonic generators provide pulsed-power to remove existing fouling and inhibit new fouling from forming on the heat transfer surfaces.
- The system is: CE and ATEX certified



CD-6 Shell Pernis

Ultrasonic Generators



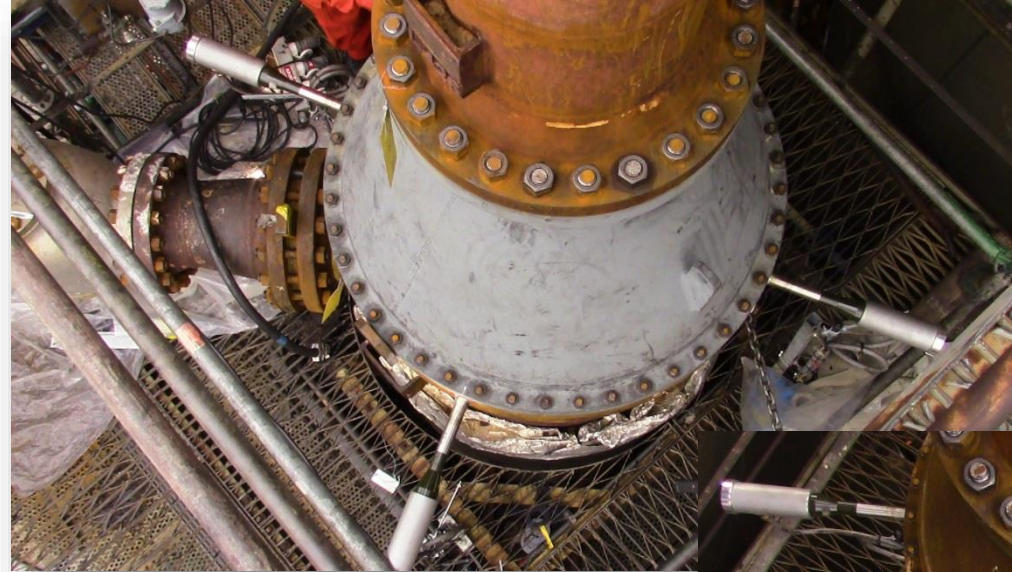
CD-6 Shell Pernis

Ultrasonic
Transducers

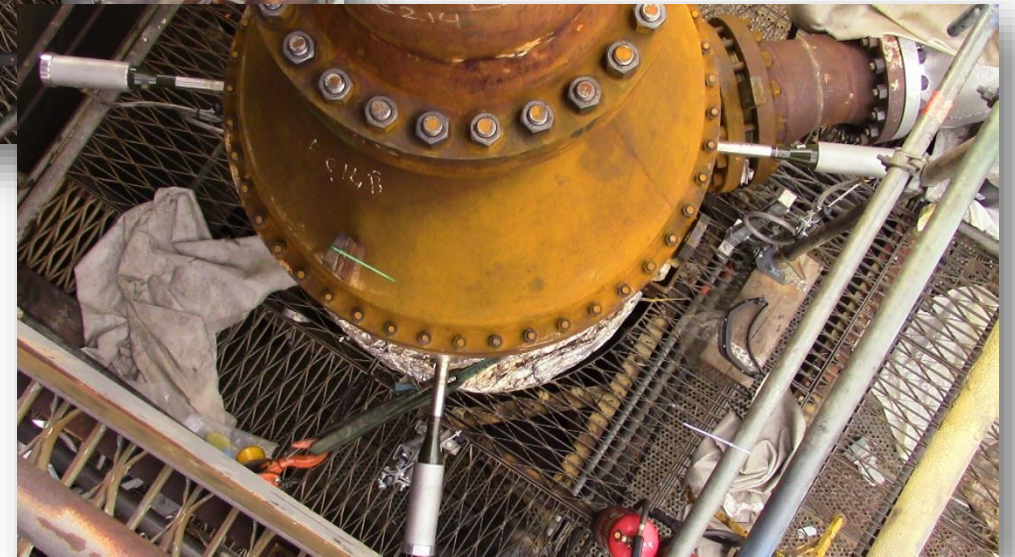


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- 214 A/B
- Given the size and duty of this Hx pair, 4 USP transducers per heat exchanger is required



214A



214B

CD-6 Shell Pernis

- Frequency calibration for optimizing US cavitation and vibration
- Testing and aging of the equipment for a 24 hour period ensure calibration fit, for when the exchangers are ready to go back on-line.



CD-6 Shell Pernis

- Ready to go!

