

# RE-TUBING HEAT EXCHANGER



## CASE HISTORY

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# SUMMARY

- INDUSTRY** : Chemical
- PRODUCT** :
  - EST G250 Leak testing guns
  - Olympus IPLEX-MX II portable videoscope
  - Tube expanders and installation equipment
- SERVICE** : Inspection and installing new tubes.
- PLANT** : Chemical
- LOCATION** : Wollongong
- SUMMARY** : Imatech Energy Technologies were engaged to carry out leak testing to determine how many tubes had holed out followed by retubing the vertical bundle in situ.

# PROBLEM DESCRIPTION

- Due to unit efficiency decrease, the customer suspected leaking tubes and engaged Imatech to perform the required tests.
- The G250 Vacuum guns were required to find how many tubes had holes.
- A vacuum could not be obtained on numerous tubes which indicated leaks.
  - An internal inspection was done to see where the holes were located to determine whether to re-sleeve or re-tube the bundle.



# FINDINGS

- Plugging the reject tubes was a temporary option as more than 30% of the tubes had holes.
- After using the camera and discovering the severity of corrosion, we found that the circumference on some tubes was 360 degrees and as such the sleeves had no wall to expand onto.
- Re-tubing was deemed the most viable option and a scope of work was put into place.



# SOLUTION

- Preparation to upgrade abrasive blasting to Class 2.5 – 3 using Imatech blast system.
- Build up severely corroded areas using ARC 858.
- ARC SD4i to be applied in 2 coats, blue then grey, to a total average DFT of 600 microns.

# RESULTS

- Divider plate built up with ARC 858 flush with the sealing flange.
- ARC SD4i was then applied in two coats to protect the surface from corrosion.
- High gloss finish reduces drag and increases efficiency.



# CONTACT US

Let us help you find out how our ARC SD4i and ARC 858 can improve your operations and save you time and money.

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