

Air Cooled Heat Exchanger Repair

Location: PNG

Product Overview

The Pop-A-Plug® system is a mechanical tube plug, as described in ASME PCC-2, and is used to seal leaking or degraded tubes in heat exchangers.

Application

Tube OD- 25.4, W/T-2.11, Material -CS

A customer who had previously used the Pop-A-Plug successfully at other sites encountered a case where 50% wall loss of the tube at the tube-sheet region (erosion corrosion), had occurred and required a reliable solution. The Pop-A-Plug installation kit comes with preparation brushes that enabled the defect area to be honed out to prevent any leak paths that the pitting may have created. The Plugs are then installed within the tubesheet area, permanently sealing the tube.

The objective was to ensure that the plugs sealing the defect tubes would be able to achieve a reliable installation and also eliminate hammer in/welded plugs, which were inherently difficult to install, remove and eliminate the resulting stress and damage caused to the tubesheet.

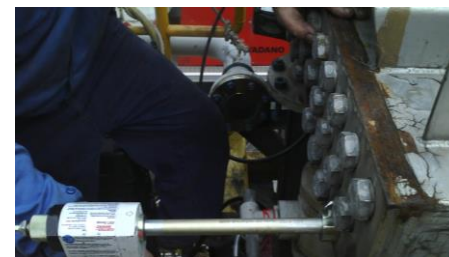
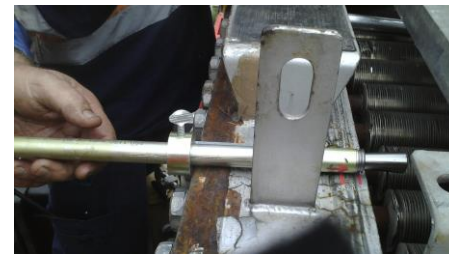
Major benefits experienced were:

- Reduced Down Time
- Average Installation time **2 Minutes** per plug.
- No weld permits required.
- No expert welders required.
- No damage to shoulder / service plug threads

Conclusion

The customer reported that the plugging of ACHE units with EST Pop-A-Plugs was completed successfully and resulted in "very significant savings". The plugs were able to cater for the 50% wall loss that another plugging method may not have been able to accommodate.

Subsequent to the successful application and quick turnaround we have now implemented an asset register. H.E.A.T (Heat Exchanger Analysis Tool) onsite to cover all the units.



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