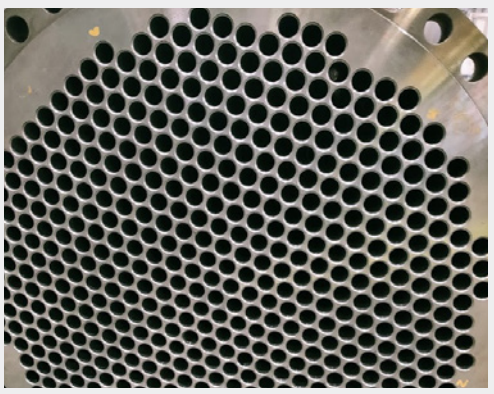
Shell & Tube Heat Exchanger



PROJECT OVERVIEW

Thornton Engineering helped a valued client re-design and manufacture a shell and tube heat exchanger at an ammonia plant. The modified heat exchanger replaced a second-hand exchanger that was originally designed for a very different application.

The heat exchanger featured modifications to provide greater reliability. The scope of work included thermal and mechanical design, material supply, fabrication, orbital tube welding, local PWHT, hydrostatic & acoustic testing, surface treatment, preservation and transportation to site.

The replacement heat exchanger included the following material changes to improve reliability:

- Shell Side – Carbon Steel
- Tube Side – 1-1/4Cr, 1/2Mo

Design registration was also undertaken with statutory state authorities.

PROJECT SPECIFICATION

Diameter (mm)	850mm
Design Pressure:	5100kPa/FV(Shell); 4000kPa(Tube)
Material	A213-T11 (Tube), A516-70 (Shell)
Number of Tubes	527
Tubesheet Thickness	113mm
Tube to Tubesheet Joint:	2 Pass Strength Welded + Expansion
Weight	14 T

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Depend on it

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