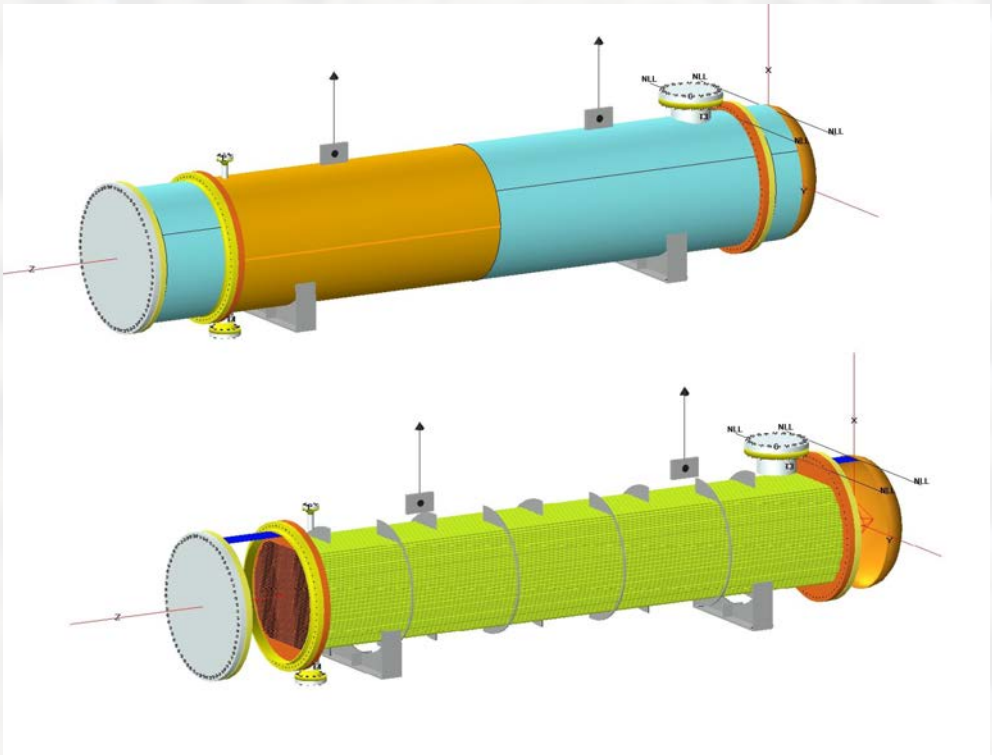
BENDEL
TANK & HEAT EXCHANGER
A TransTech Company

CASE STUDY - BEM HEAT EXCHANGERS

BEM Heat Exchangers (Ammonia Overhead Condenser) designed and fabricated in Charlotte, NC, for a leading chemical facility that specializes in methyl amines and dimethyl laurel amines located in the Gulf Coast Region.



PROJECT OVERVIEW

EQUIPMENT TYPE:
BEM Heat Exchangers (Ammonia Column Overhead Condenser)

EQUIPMENT SPECS:
Size:
- 52" Dia. x 240" tube length

Design Standard:
- ASME Section VIII, Division I, TEMA 10th Edition, Class "R"

Shellside Design:
- 425 MAWP / FV at 230F / -20F

Tubeside Design:
- 85 MAWP at 130F / -20F

Materials:
- Carbon Steel (Shell and Tubeside)

Tube Qty. and Material:
- (2330) 3/4" OD SA-179 Seamless

Exterior Finish:
- SSPC SP-6, Painted with Carboline Thermaline 450

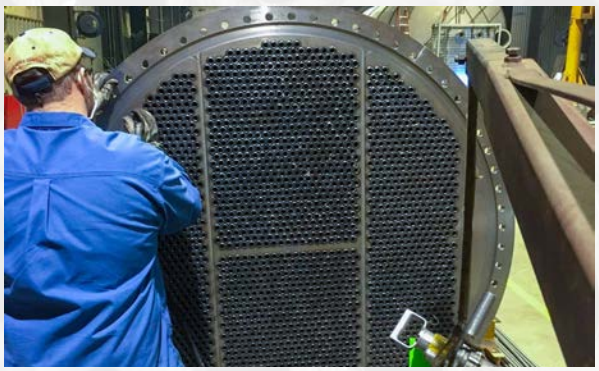
CUSTOM FABRICATED HEAT EXCHANGERS

Bendel is an industry leader in custom design and fabrication of shell and tube heat exchangers, including:

- **Fixed Tubesheet:** Two stationary tubesheets attached to the shell, a bundle of straight tubes is connected between the tubesheets and contain baffles to direct the flow around the tubes in order to generate the required heat transfer. A channel cover assembly is attached to each tubesheet.

- **Floating Tubesheet:** This design is similar to the Fixed Tubesheet design except one tubesheet is allowed to move axially within the shell while the other tubesheet is fixed. This configuration allows for the tube bundle to be removable.

- **U-Tube:** Consists of straight length tubes bent into a U-shape with both ends terminating at the tubesheet. The tube bundle is fitted with supports or flow baffles. The tubesheet/tube bundle is placed in the shell and bolted between the head flange and shell body flange. A head assembly is required to direct the fluid in and out through tube bundle. This configuration allows for the entire tube bundle to be removable.



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