

# OBLONG-IN-TUBE PLATE HEAT EXCHANGER

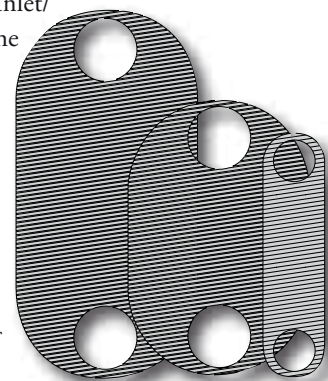


The SUPERMAX® OIT is a new, compact evaporator and receiver system with optimized construction height. Its unique, fully welded oblong plates enable efficient heat transfer and simultaneous vapor release and separation inside the heat exchanger shell.

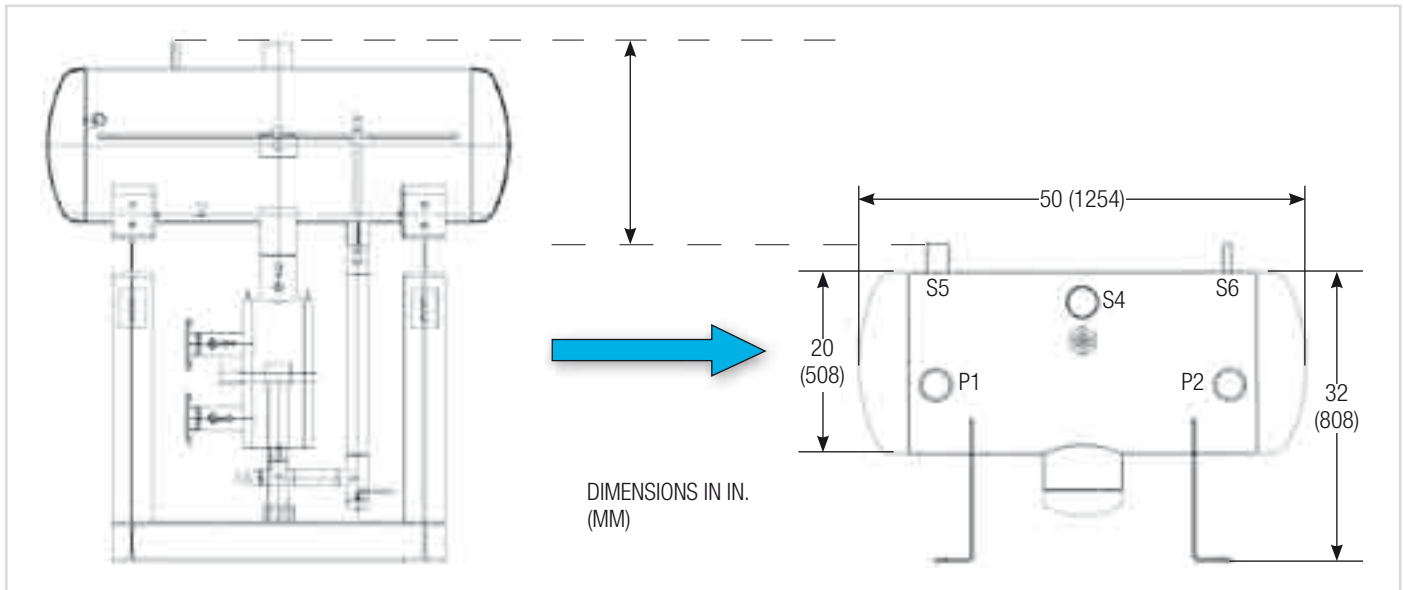
Chevron-type plate pairs are fabricated into a cassette by a resistance seam weld, which has a burst test strength stronger than its parent metal. Cassettes are then placed together and perimeter-welded to each other, producing an accordion-like core that is highly tolerant to thermal expansion.

The resulting plate pack is then inserted in a cylindrical pressure tube or shell. Special fluid diverters to ensure proper flow throughout the unit. Inlet/outlet nozzles are welded to the shell-side and to the plate side channels, and shell-end covers are added to form a pressure vessel of high integrity.

*Three sizes of oblong plates give the SUPERMAX® OIT its range of capacities.*



## SIZE COMPARISON WITH CONVENTIONAL SYSTEM USING ADDED SEPARATOR



*A much more compact vertical footprint gives the SUPERMAX OIT PHE (right) installation flexibility, especially with space-constricted skids or packaged systems.*

### Performance And Construction

Temperature, °F (°C)	-58 to +660 (-50 to +350) -330 to +930 (-200 to +500)
Plate Thickness, in. (mm)	0.024 (0.6)
Pressure, psi (bar)	Vacuum to 580 (Vacuum to 40)
Performance, Btu (kW-hr)	170,000, 270,000, 340,000, 680,000, 1,000,000, 1,400,000 (50, 80, 100, 200, 300, 400)
Nom. Length, in. (mm)	50 (1250)
Diameter, in. (mm)	20-40 (500-1000)
Tube Material Options	A516 Gr65 Carbon <sup>®</sup> , A537 Carbon <sup>®</sup> , 321 SS <sup>®</sup> , 316L SS, 316Ti SS
Plate Material Options	316L SS <sup>®</sup> , 316Ti SS, AL-6XN SS, 904L SS, Nickel 201, Monel 400, B265 Gr1 Titanium, Hastelloy <sup>®</sup> C-22

<sup>®</sup>For temperature range 14 to +660°F (-10 to +350°C) <sup>®</sup>For temperature range -58 to +12°F (-50 to -11°C) <sup>®</sup>For temperature range -330 to +930°F (-200 to +500°C)  
<sup>®</sup>Standard plate material.

### Advantages

- Low construction height
- Low refrigerant charge compared to standard systems with built-on separators
- Fully welded, maintenance-free system
- Module-based construction
- Attractive price and delivery time

### For a configuration and quote—

Provide the following data:

- Heat load
- Input and output temperatures
- Physical properties of media
- Desired nozzle dimensions
- Plates and shell material preferences



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