

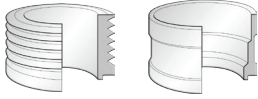
TB12 Brazed Plate Heat Exchanger

The large-port TB12 delivers compact heat transfer solutions for applications with large flows. It is available with different plate patterns to fulfil various thermal duties across a wide range of fluid viscosities and densities. The TB12 is an excellent choice for demanding steam and air dryer applications. It can be as a desuperheater in air conditioning and a CO₂ suction gas heat exchanger in refrigeration.



TB12 Heat Exchanger

Available connections*



Externally threaded

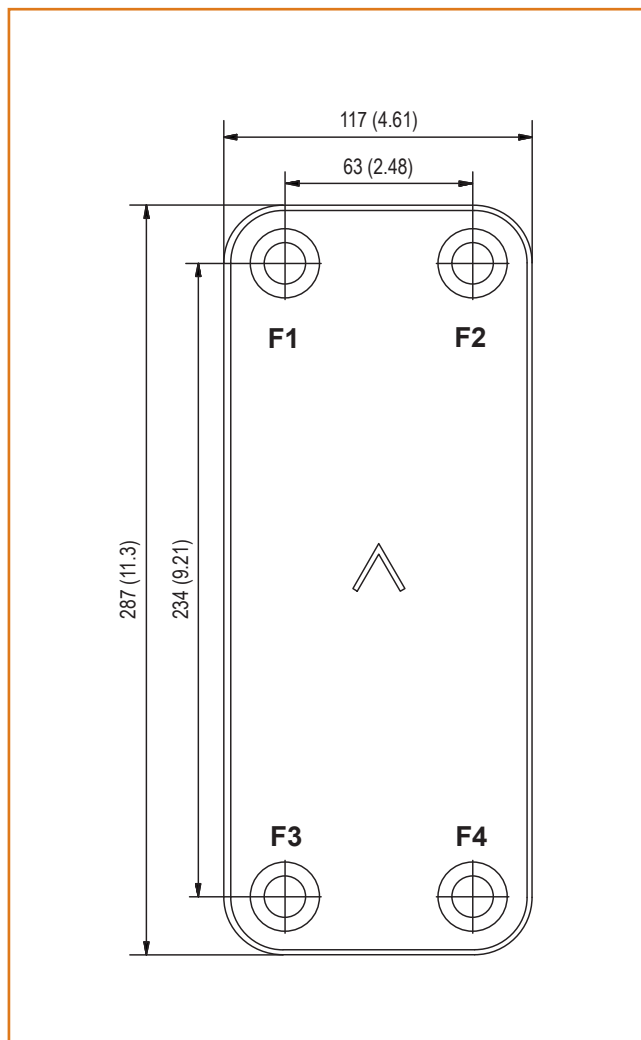
Soldering

*For specific dimensions, or information about other types of connections, please contact your Taco sales representative.

Pressure classes

- S** Standard, evaluated per EN 13345 (25-38 bar/ 363-550 PSI).
- H** High, evaluated per EN 13345 (42-56 bar/609-812 PSI).
- D** Higher, developed for CO₂ applications, evaluated per EN 13445 (up to 60 bar/870 PSI).

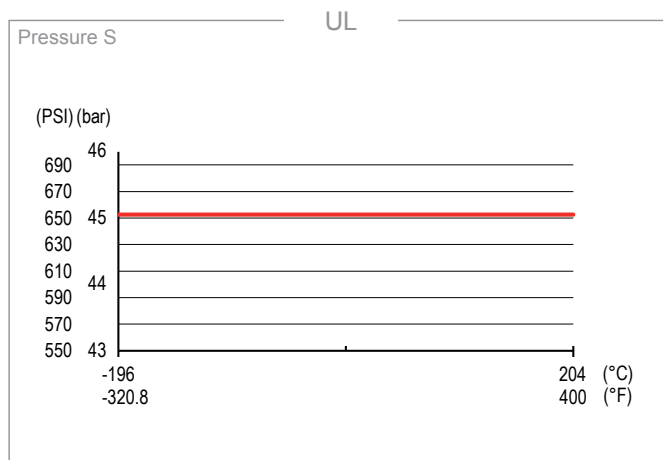
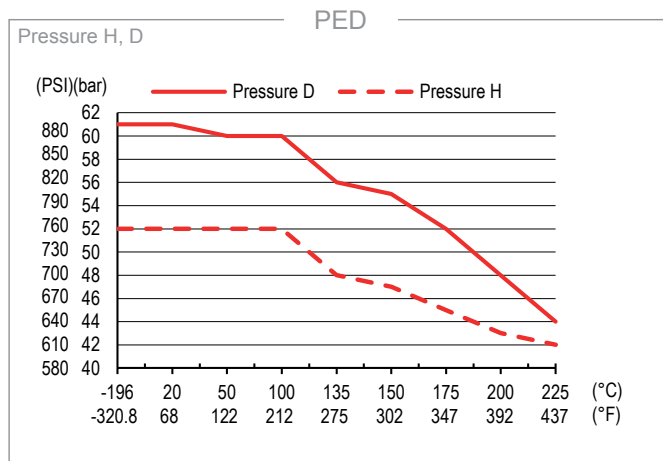
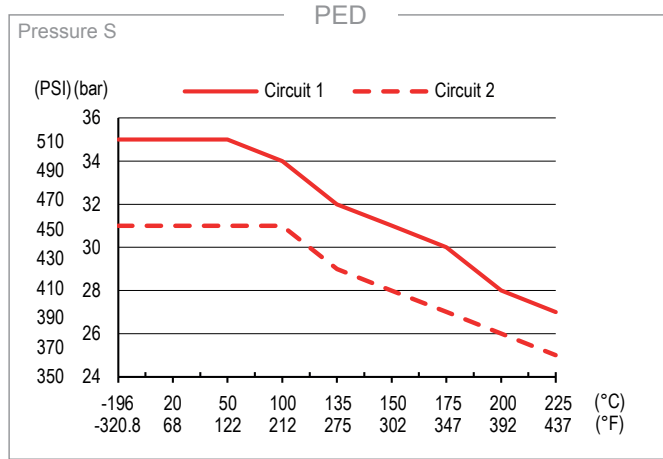
| | |
|----------------------------|---------------------------------|
| Max number of plates (NoP) | 110/140 |
| Port size F1/P1 | 33 mm (1.3 in) |
| Port size F2/P2 | 33 mm (1.3 in) |
| Port size F3/P3 | 33 mm (1.3 in) |
| Port size F4/P4 | 33 mm (1.3 in) |
| Max volume flow | 17 m ³ /h (74.8 gpm) |



| Materials | Channel plate | Brazing |
|-----------|-----------------|---------|
| SC | Stainless steel | Copper |
| NC | Stainless steel | Copper |
| SN | Stainless steel | Nickel |

| Size | Height of plate pack | Total weight |
|------|----------------------|---------------------|
| SC S | 4+(2,34×NoP) mm | 1,12+(0,12×NoP) kg |
| SN S | 0.157+(0.092×NoP) in | 2.47+(0.265×NoP) lb |
| NC S | | |
| SC D | 12,4+(2,34×NoP) mm | 2,94+(0,12×NoP) kg |
| SC H | 0.488+(0.092×NoP) in | 6.49+(0.265×NoP) lb |

TB12 Performance Curves



Third party approvals

Taco BPHEs are generally approved by listed certification organizations:

Europe, Pressure Equipment Directive (PED)

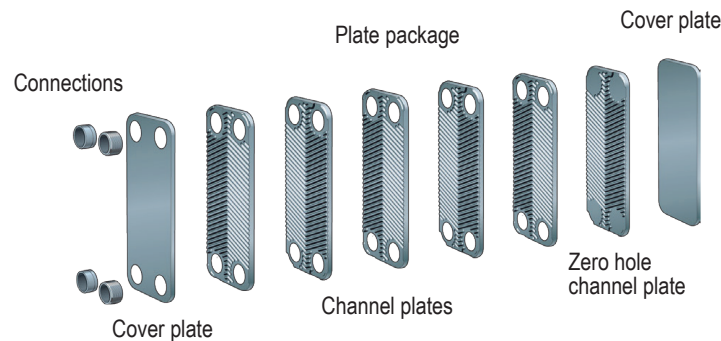
America, Underwriters Laboratories Inc (UL)

Japan, Kouatsu-Gas Hoan Kyoukai (KHK)

Additionally Taco holds approvals from a vast variety of other certification organizations. For approval information regarding a specific product please contact your local Taco representative. Taco reserves the right to make changes without prior notice.

The BPHE concept

The Brazed Plate Heat Exchanger (BPHE) is constructed as a plate package of corrugated channel plates with a filler material between each plate. During the vacuum brazing process, the filler material forms a brazed joint at every contact point between the plates, creating complex channels. The BPHE allows media at different temperatures to come into close proximity, separated only by channel plates that enable heat from one media to be transferred to the other with very high efficiency. The concept is similar to other plate and frame technology, but without the gaskets and frame parts.



Calculation software

With Taco's unique Software Package, you can do advanced heat transfer calculations yourself, and choose the product solution that suits your application best. It's also easy to choose connections and generate drawings of the complete product. If you would like advice, or you would like to discuss different product solutions, Taco offers all the service and support your need.

Material disclaimer

The information and recommendations in regards to the products are presented in good faith, however, Taco makes no representations or warranties as to the completeness or accuracy of the information. Information is supplied upon the condition that the purchasers will make their own determination as to the products' suitability for their purposes prior to use. Purchasers should note that the properties of the products are both application and material selection dependent and that products containing stainless steel are still subject to corrosion if used in unsuitable environments.

