

BL14 Brazed Plate Heat Exchanger

General information

The BPHE is in principle built up by a plate package of corrugated channel plates between front and rear cover-plate packages. The cover plate packages consist of sealing plates, blind rings and cover plates. During the vacuum-brazing process, a brazed joint is formed at every contact point between two plates. The design creates a heat exchanger that consists of two separate circuits. The design options of the brazed heat exchanger are extensive. Different plate patterns are available for various duties and performance specifications. You can choose a standard configuration BHE, or a unit designed according to your own specific needs. The choice is entirely yours.

Typical applications

- HVAC heating/cooling
- Refrigerant applications
- Industrial cooling/heating
- Oil cooling

Working principles

The heating surface consists of thin corrugated metal plates stacked on top of each other. Channels are formed between the plates and corner ports are arranged so that the two media flow through alternate channels, usually in countercurrent flow for the most efficient heat transfer process.

Standard design

The plate pack is covered by cover plates. Connections are located in the front or rear cover plate. To improve the heat transfer design, the channel plates are corrugated.

Particulars required for quotation

To enable to make a specific quotation, specify the following particulars in your enquiry:

- Required flow rates or heat load
- Temperature program
- Physical properties of liquids in question
- Desired working pressure
- Maximum permitted pressure drop

Standard materials

Cover plates: 304 Stainless steel
 Connections: 304 Stainless steel
 Plates: 316L Stainless steel
 Brazing material: 99.99% Copper

Connections:

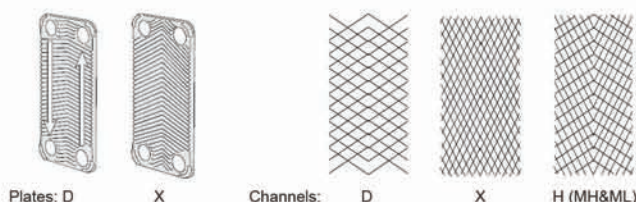


Male thread Female thread Flange SAE flange Welding

*Thread NPT / BST standard are all available.
 *More connections are available on request.

BPHE Plates and Channel Types

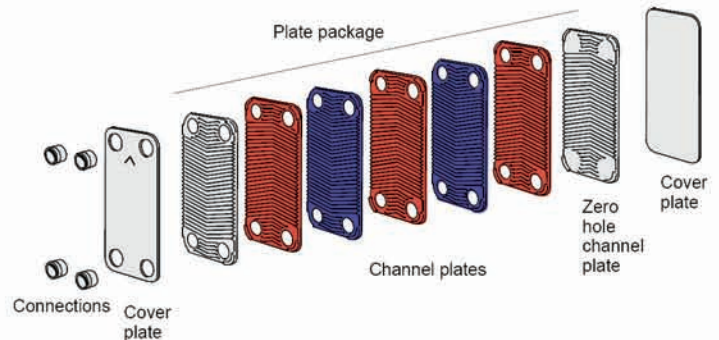
BPHEs are available with different types of channel plates where the herringbone pattern varies. The chevrons can be obtuse (high theta plate, D) or acute (low theta plate, X). (high theta plate, D) or acute (low theta plate, X).



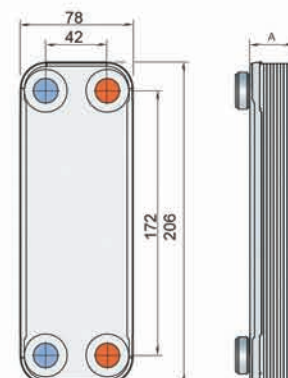
Plates: D X Channels: D X H (MH&ML)



Component blow-up drawings



Dimensions



A measure mm = $9 + (2.3 * n)$ (+/-2%)
 Weight** kg = $0.6 + (0.06 * n)$
 (n = number of plates) * Excluding connections

Standard data

| | |
|----------------------------|--------------|
| Max working temperature: | 225C |
| Working pressure: | 0- 30 bar |
| Max. flowrate* m3/h (gpm): | 3.62 (15.93) |
| Min. nbr of plates: | 4 |
| Max. nbr of plates: | 100 |

Baode reserves the right to change specifications without prior notification