General information
Alfa Laval introduced its first brazed plate heat exchanger (BHE) in 1977 and has since continuously developed and optimized its performance and reliability.

Brazing the stainless steel plates together eliminates the need for gaskets and thick frame plates. The brazing material seals and holds the plates together at the contact points ensuring optimal heat transfer efficiency and pressure resistance. The plate design guarantees the longest possible life.

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 Alfa Laval’s representative 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

Examples of connections
- External threaded
- Internal threaded
- Soldering
- Welding

* More connections are available on request.
CB30 / CBH30 - PED approval pressure/temperature graph

CB30 / CBH30 - UL approval pressure/temperature graph

CB30 / CBH30 - KHK and KRA approval pressure/temperature graph

CB30 / CBH30 - CRN approval pressure/temperature graph

Standard data

- Min. working temperature: see graph
- Max. working temperature: see graph
- Min. working pressure: vacuum
- Max. working pressure: see graph
- Min. particle size (mm): 1
- Max. particle size (mm): 1
- Max. flow rate* (m³/h (gpm)): 14 (61.6)
- Min. number of plates: 4
- Max. number of plates: 150

* Water at 5 m/s (16.4 ft/s) (connection velocity)

Standard materials

- Cover plates: Stainless steel
- Connections: Stainless steel
- Plates: Stainless steel
- Brazing filler: Copper

Standard dimensions and weight

- CB30
  - A measure mm: 13 + (2.31 × n) ±(2 mm or ±1.5 %)
  - A measure inch: 0.51 + (0.09 × n) ±(0.08 inch or ±1.5 %)
  - Weight** kg: 1.2 + (0.11 × n)
  - Weight** lb: 2.65 + (0.24 × n)

- CBH30
  - A measure mm: 15 + (2.31 × n) ±1.5 %
  - A measure inch: 0.59 + (0.09 × n) ±0.06 %
  - Weight** kg: 1.35 + (0.11 × n)
  - Weight** lb: 2.98 + (0.24 × n)

** Excluding connections
(n = number of plates)

Standard dimensions (mm (inch)) for exact values please contact your local Alfa Laval representative

Marine approvals

CBM30 can be delivered with marine classification certificate (ABS, BV, CCS, Class NK, DNV, GL, LR, RNA, RMRS).

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Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website on www.alfalaval.com.