CB76 / CBH76

Brazed Plate Heat Exchanger

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 heating/cooling
- 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 counter-current 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.

Standard materials

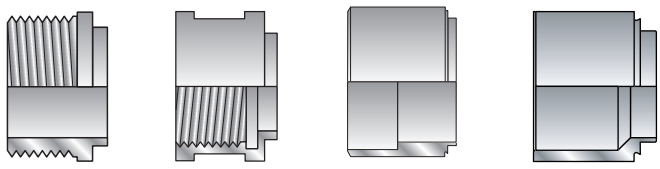
Cover plates	Stainless steel
Connections	Stainless steel
Plates	Stainless steel
Brazing material	Copper

Particulars required for quotation

To enable Alfa Laval's representative to make a specific quotation, specify the following particulars in your enquiry:

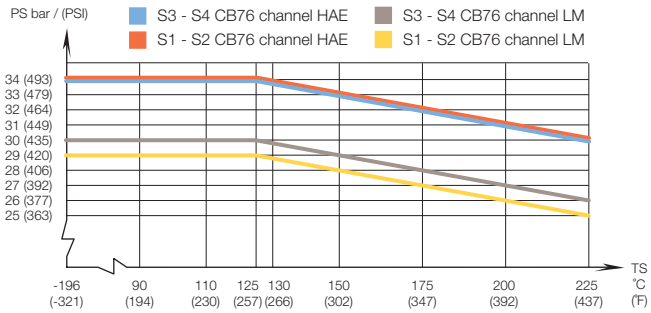
- required flow rates or heat load
- temperature program
- physical properties of liquids in question
- desired working pressure
- maximum permitted pressure drop

Examples of connections

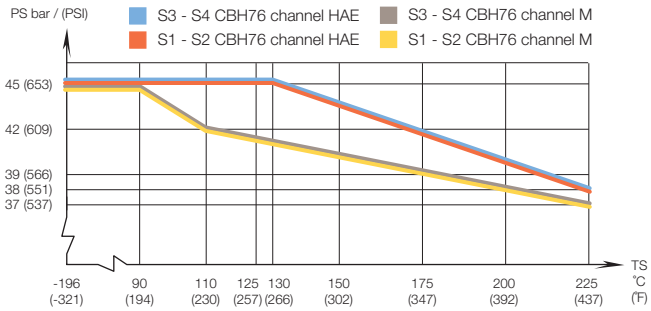


Outside threaded | Inside threaded | Soldering | Welding

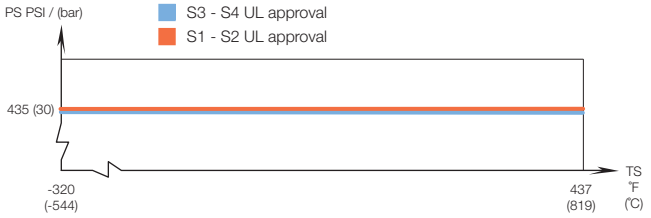
CB76 – PED approval pressure/temperature graph*



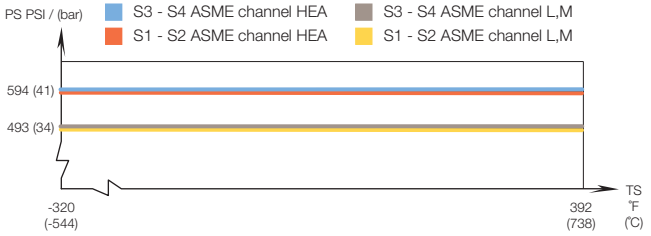
CBH76 – PED approval pressure/temperature graph*



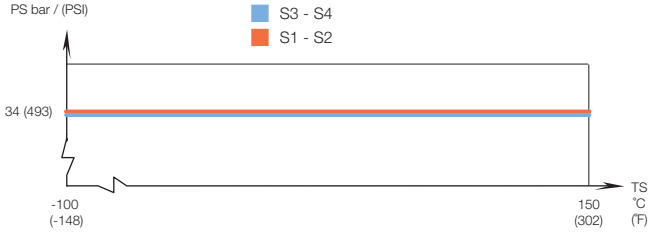
CB76 - UL approval pressure/temperature graph*



CB76 - ASME approval pressure/temperature graph*



CB76 – KHK approval pressure/temperature graph*



* For exact values please contact your local Alfa Laval representative.

Standard data

Min. working temperature	see graph
Max. working temperature	see graph
Min. working pressure	Vacuum
Max. working pressure	see graph
Volume per channel, litres (ga)	0.18 - 0.25 (0.05 - 0.07)
Max particle size mm (inch)	1.2 (0.05)
Max flowrate m^3/h (gpm)*	37 (163)
Min no of plates	10
Max no of plates	190

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

Standard dimension and weight*

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A channel	A measure mm = 10 + (n x 2.5) ± 5
	A measure inch = 0.39 + (n x 0.098) ± 0.19
E channel	A measure mm = 10 + (n x 2.2) ± 5
	A measure inch = 0.39 + (n x 0.09) ± 0.19
H, L, M channels	A measure mm = 10 + (n x 2.85) ± 5
	A measure inch = 0.39 + (n x 0.09) ± 0.19

Weight** kg = 8 + (n x 0.44)
Weight** lb = 17.6 + (n x 0.97)

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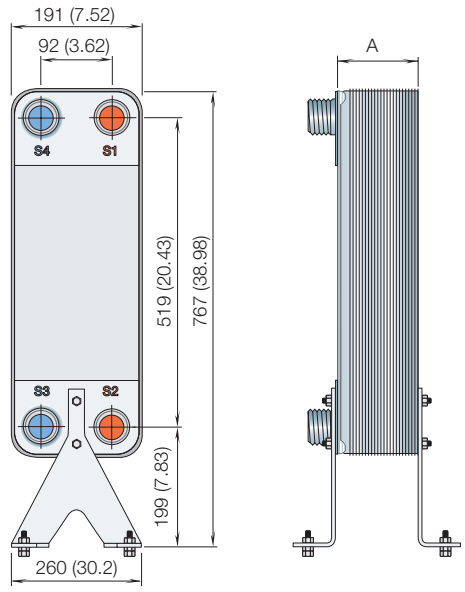
A channel	A measure mm = 14 + (n x 2.5) ± 5
	A measure inch = 0.55 + (n x 0.098) ± 0.19
E channel	A measure mm = 14 + (n x 2.2) ± 5
	A measure inch = 0.55 + (n x 0.09) ± 0.19
H, M channels	A measure mm = 14 + (n x 2.85) ± 5
	A measure inch = 0.39 + (n x 0.11) ± 0.19

Weight** kg = 10 + (n x 0.44)
Weight** lb = 22 + (n x 0.97)

** excluding connections
(n = number of plates)



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 at www.alfalaval.com.