



Alfa Laval CBH16, CB30 and CB110

Brazed plate heat exchangers

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

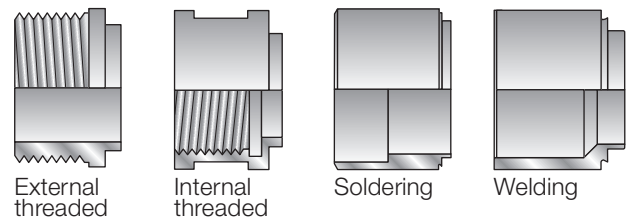
The heating surface consists of thin corrugated metal plates stacked on top of each other. Channels are formed between the plates and corner ports are arranged so that the two media flow through alternate channels, usually in countercurrent flow for the most efficient heat transfer process.

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.



Examples of connections



* More connections are available on request.

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

Hot water

Primary: 180°F 150°F Boiler Water

Secondary: 140°F 50°F Hot Water

Sized at 8 PSI pressure drop

Capacity (BTU/Hr)	Model, plates	Part Number	Connections (M NPT)
50000	CBH16-11H, 11	3287120469	3/4"
100000	CBH16-11H, 11	3287120469	3/4"
150000	CBH16-17H, 17	3287119754	3/4"
200000	CBH16-25H, 25	3287119755	3/4"
250000	CB30-18H, 18	3287099217	1"
300000	CB30-24H, 24	3287099218	1"
350000	CB30-24H, 24	3287099219	1"
400000	CB30-34H, 34	3287099219	1"
450000	CB30-34H, 34	3287099220	1"
500000	CB110-16L, 16	3287133291	2"
600000	CB110-16L, 16	3287133291	2"
700000	CB110-16L, 16	3287133291	2"
800000	CB110-16L, 16	3287133291	2"
900000	CB110-16L, 16	3287133292	2"
1000000	CB110-16L, 16	3287133293	2"
1100000	CB110-16L, 16	3287133294	2"
1200000	CB110-20L, 20	3287133286	2"
1300000	CB110-20L, 20	3287133287	2"
1400000	CB110-20L, 20	3287133288	2"
1500000	CB110-24L, 24	3287133287	2"
1600000	CB110-24L, 24	3287133288	2"
1700000	CB110-24L, 24	3287133289	2"
1800000	CB110-32L, 32	3287133288	2"
1900000	CB110-32L, 32	3287133288	2"
2000000	CB110-32L, 33	3287133289	2"

Snow melting

Primary: 160°F 130°F Boiler Water

Secondary: 120°F 100°F 40% Propylene Glycol

Sized at 8 PSI pressure drop

"Capacity (BTU/Hr)"	Model, plates	Part Number	Connections (M NPT)
50000	CBH16-11H, 11	3287120469	3/4"
100000	CBH16-17H, 17	3287119754	3/4"
150000	CB30-18H, 18	3287099217	1"
200000	CB30-24H, 24	3287099218	1"
250000	CB30-34H, 34	3287099219	1"
300000	CB110-16L, 16	3287133291	2"
350000	CB110-16L, 16	3287133291	2"
400000	CB110-16L, 16	3287133291	2"
450000	CB110-16L, 16	3287133291	2"
500000	CB110-16L, 16	3287133291	2"
600000	CB110-20L, 20	3287133286	2"
700000	CB110-20L, 20	3287133286	2"
800000	CB110-24L, 24	3287133287	2"
900000	CB110-32L, 32	3287133288	2"
1000000	CB110-32L, 32	3287133288	2"
1100000	CB110-32L, 32	3287133288	2"
1200000	CB110-46L, 46	3287133289	2"
1300000	CB110-46L, 46	3287133289	2"

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

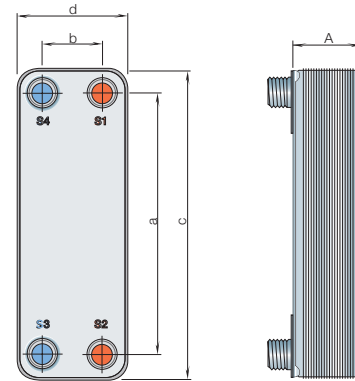
Radiant heating

Primary: 160°F 130°F Boiler Water

Secondary: 120°F 100°F Hot Water

Sized at 8 PSI pressure drop

Capacity (BTU/Hr)	Model, plates	Part Number	Connections (M NPT)
50000	CBH16-11H, 11	3287120469	3/4"
100000	CBH16-17H, 17	3287119754	3/4"
150000	CBH16-25H, 25	3287119755	3/4"
200000	CB30-24H, 24	3287099218	1"
250000	CB30-34H, 34	3287138993	1"
300000	CB30-34H, 34	3287099219	1"
350000	CB110-16L, 16	3287133291	2"
400000	CB110-16L, 16	3287133291	2"
450000	CB110-16L, 16	3287133291	2"
500000	CB110-16L, 16	3287133291	2"
600000	CB110-16L, 16	3287133291	2"
700000	CB110-20L, 20	3287133286	2"
800000	CB110-20L, 20	3287133286	2"
900000	CB110-24L, 24	3287133287	2"
1000000	CB110-24L, 24	3287133287	2"
1100000	CB110-32L, 32	3287133288	2"
1200000	CB110-32L, 32	3287133288	2"
1300000	CB110-32L, 32	3287133288	2"
1400000	CB110-46L, 46	3287133289	2"



Standard dimensions (in)

Model	a	b	c	d
CBH16	6.78	1.57	8.27	2.91
CB30	9.84	1.97	12.32	4.45
CB110	20.43	3.62	24.25	7.52

Model	A	Weight (lb)
CBH16	0.31 + (0.09 * n) (+/-2 %)	0.59 + (0.09 * n)
CB30	0.59 + (0.09 * n) (+/-1.5 %)	2.98 + (0.24 * n)
CB110	0.59 + (0.1 * n) (+/-0.08 or +/-1.5 %)	10.63 + (0.62 * n)

(n = number of plates)

* Excluding connections