



CB100 Comfort Unit

Brazed Plate Heat Exchanger

The CB100 is a Brazed plate heat exchanger designed with focus on comfort applications like radiator and tap water heating. The efficient heat transfer ensures a compact and space saving design even for large capacity duties.

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, always in counter-current flow. The media are kept in the unit by a brazed seal around the edge of the plates. The contact points of the plates are also brazed to withstand the pressure of the media handled.

Standard design

The plate pack is covered by cover plates. Connections are located in the front or rear cover plate. The channel plates are corrugated to improve heat transfer efficiency and to make them rigid.

Standard materials

Cover plates

Stainless steel AISI 316

Connections

Stainless steel AISI 316

Plates

Stainless steel AISI 316

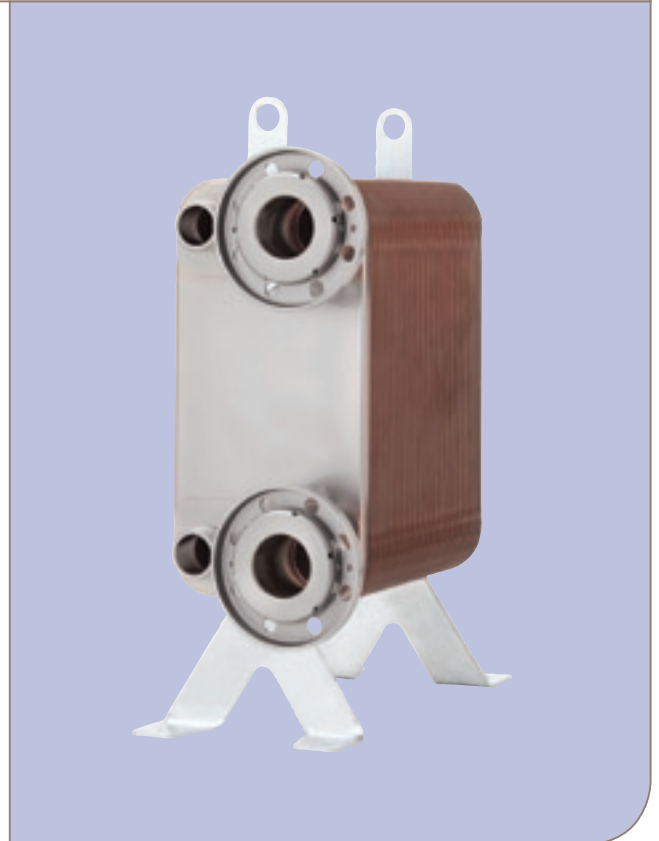
Brazing material

Copper

Particulars required for quotation

To enable Alfa Laval's representative to make a specific quotation, enquiries should be accompanied by the following particulars:

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



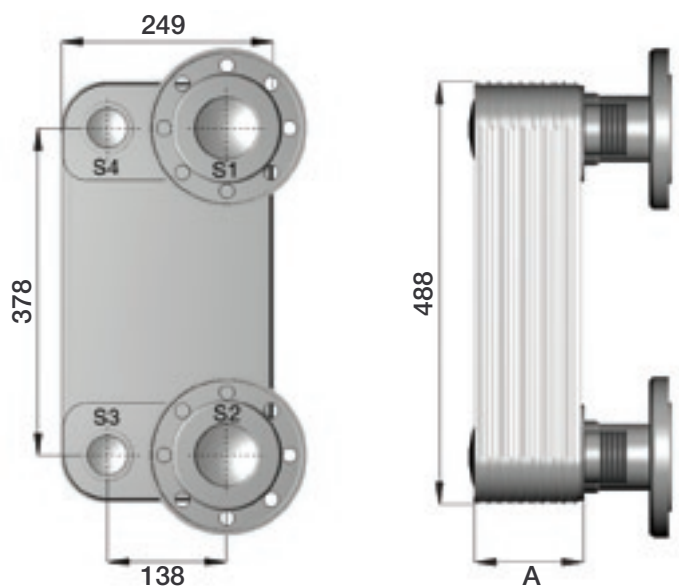
The CB100 unit on the picture is equipped with feet and lifting lugs (extras). Connection types and sizes are optional.

Advantages of brazed plate heat exchangers

The Alfa Laval Brazed plate heat exchangers (BHE) have several advantages over traditional heat exchangers in comfort applications.

- The high heat transfer efficiency of the BHE makes it extremely compact and also easy to install in places where space is limited.
- The unit has no gaskets and is therefore suitable in applications where temperature and/or pressure is high e.g. in district heating.
- Fouling is minimised by the well engineered plate pattern creating turbulent flow which results in a self-cleaning effect.

Dimensions
measurements in mm



$A = 12 + 2.2 \times n$, where n = number of plates

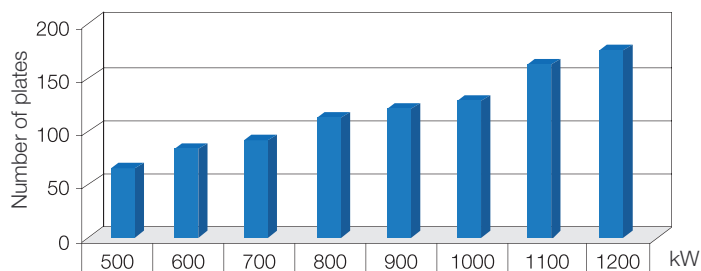
Standard data

Design temperature	175°C
Design pressure	S3, S4/S1, S2 16/16 bar
Volume per channel	0.2 litres
Max. flowrate	70 m ³ /h
Weight	13 + 0.38 x n, where n = number of plates
Connections	Flange DN65 ISOG 2" external thread ISOG 2.5" external thread weld end Ø76.1 mm weld end Ø60.3 mm

Thermal performance example

Radiator heating

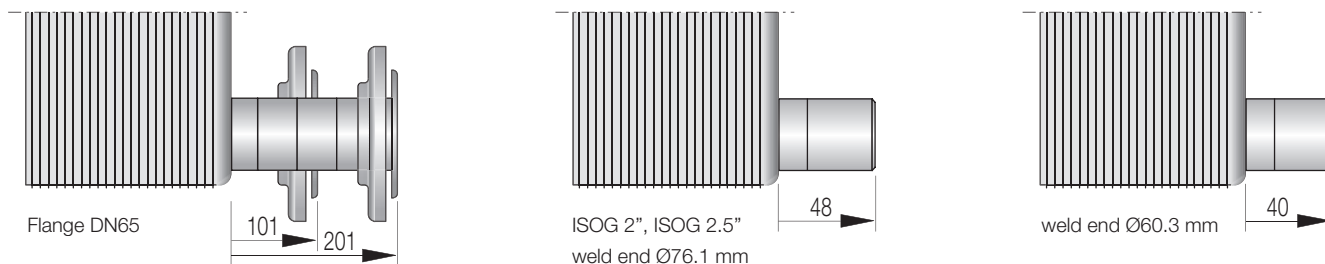
120→65/60→85°C (20/20 kPa)



Extras

- Insulation, max. temperature 140°C
- Couplings
- Feet and lifting lugs

Connections



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