



## CB14-77

### CB14-77 - Brazed Plate Heat Exchanger

#### 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



#### Advantages of brazed plate heat exchangers in Industry and HVAC&R

The Alfa Laval Brazed plate heat exchangers (BHE) have several advantages over traditional heat exchangers in Industrial and HVAC&R applications.

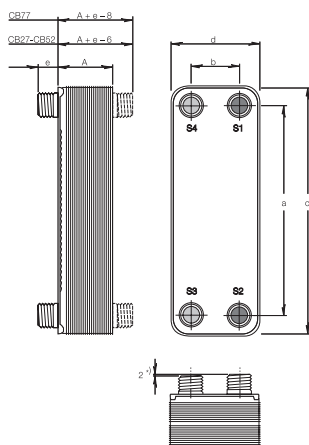
- The high heat transfer efficiency of the BHE makes it extremely compact and also easy to install in places where space is limited.
- The unit has no gaskets and is therefore suitable in applications where temperature and/or pressure is high e.g. in district heating.
- The Alfa Laval supply system reassures that, no matter where you are on the globe, the BHE units are available with a very short delivery time.

## Standard Data

	CB14	CB27	CB52	CB76	CB77
Min. working temperature **)	-160°C	-160°C	-160°C	-160°C	-160°C
Max. working temperature **)	175°C	175°C	175°C	175°C	175°C
Min. working pressure **)	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum
Max. working pressure, S3S4/S1S2 **)	32 bar	32 bar	32 bar	A,E,H: 32 bar	25/16 bar
				L,M: 25 bar	
Volume pr. channel, litres	0.02	0.05	0.095	A: 0.18/0.25	0.25
				E: 0.18/0.18	
				C,M,H: 0.25/0.25	
Max. flowrate, S3S4/S1S2. *)	3.6 m³/h	8.1/12.7 m³/h	8.1/12.7 m³/h	39 m³/h	39/63 m³/h
Standard number of plates H,M,L	14,20	10,18,24,	10-100	20-150	20-150
	30,40	34,50,70	(10,20,...)	(20,30,...)	(20,30,...)
		100,120			

\*) Water at 5 m/s (connection velocity) \*\*) According to European pressure vessel Directive (PED) (CE-Approval)

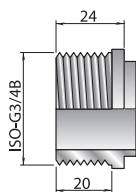
## Standard dimensions (mm)



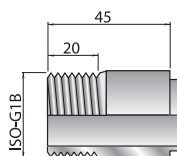
Type	a	b	c	d	e	A	Weight kg
CB14	172	42	208	78	24	$8 + n \times 2.35$	$0.7 + n \times 0.06$
CB27	250	50	310	112	45	$9 + n \times 2.40$	$1.2 + n \times 0.13$
CB52	466	50	526	112	45	$10 + n \times 2.40$	$1.9 + n \times 0.23$
CB76	519	92	618	191	48	A: $10 + 2.5 \times n$	$7.0 + n \times 0.44$
						E: $10 + 2.2 \times n$	
						H,L,M: $10 + 2.85 \times n$	
CB77	519	92	618	191	48	$10 + n \times 2.85$	$7.0 + n \times 0.44$

\*) Not valid for CB77

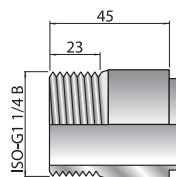
(n = number of plates)



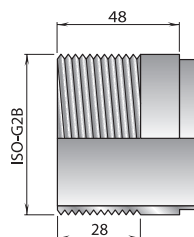
CB14 (S1-S4)



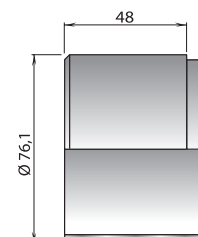
CB27, CB52 (S3, S4)



CB27, CB52 (S1, S2)



CB76 (S1-S4)  
CB77 (S3, S4)



CB77 (S1, S2)

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The information contained herein is correct at the time of issue, but may be subject to change without prior notice.

### How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information direct.