



AC112 /ACH112

Brazed Plate Heat Exchanger

General information

Alfa Laval introduced its first brazed plate heat exchanger 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, which makes the heat exchanger compact and saves material. The brazing material seals and holds the plates together at the contact points ensuring optimal heat transfer efficiency and pressure resistance. Using advanced design technologies and extensive verification guarantees the highest performance and longest possible service lifetime.

The AlfaChill (AC) brazed plate heat exchangers are specifically designed for heat transfer in air conditioning, refrigeration and heat pump applications.

Innovative features for this single circuit heat exchanger include a pipe distributor for efficient distribution throughout the plate pack as well as a patented asymmetric plate design. The plate design provides the flexibility to select the best configuration for optimized evaporation temperature and/or condensation temperature in order to keep the brine/water pressure drop at the desired level.

Typical applications

- Evaporator and condenser in high efficiency chillers
- Evaporator and condenser in A/W, B/W, W/W heat pumps
- Economizer in chiller and heat pumps

The standard design supports a wide variety of HFC refrigerants such as R407C, R404A, R507, R134a. The high-pressure version is suitable for R410A, R32 and natural refrigerants (CO₂ - propane).

Capacity range

AC112/ACH112 cover capacities from 30 kW up to 200 kW (10-60 RT). Based on standard components and a modular concept, each unit is custom-designed for each specific installation.

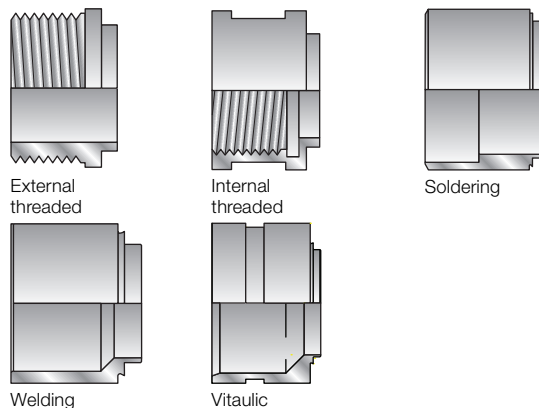
Request for quotation

To receive a quotation for brazed plate heat exchangers that meet your requirements, please provide Alfa Laval representatives with:

- Required flow rates or heat load
- Temperature program (inlet and outlet)
- Brine and refrigerant type
- Desired working pressure
- Maximum permitted water/brine pressure drop
- Connection types



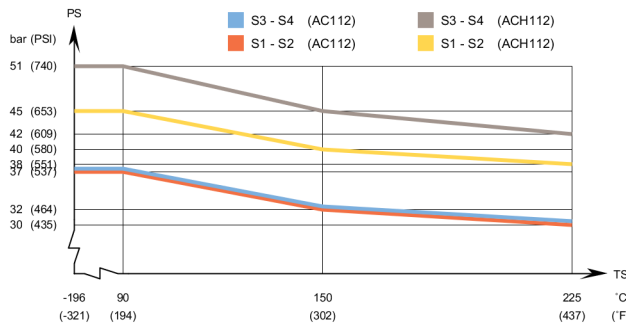
Examples of connections*



* More connections are available on request.

AC112 / ACH112 - max. allowed design pressure

AC112 - PED approval pressure/temperature graph



PV code	Model	Min temperature bar (psi) / °C (°F)	Max temperature bar (psi) / °C (°F)	Channel
UL	CB	32(464) / -196(-321)	32(464) / 204(400)	S1-S2, S3-S4
	CBH	36(522) / -196(-321)	36(522) / 96(204)	S1-S2,
		45(653) / -196(-321)	45(653) / 96(204)	S3-S4
CRN	CB	32(464) / -196(-321)	32(464) / 150(302)	S1-S2, S3-S4
	CBH	36(522) / -196(-321)	36(522) / 150(302)	S1-S2
		45(653) / -196(-321)	45(653) / 150(302)	S3-S4
KRA	CB	32(464) / -100(-148)	32(464) / 150(302)	S1-S2, S3-S4
	CBH	45(653) / -100(-148)	45(653) / 150(302)	S1-S2, S3-S4
KHK	CB	30(435) / -196(-321)	30(435) / 150(302)	S1-S2
	CBH	32(464) / -196(-321)	32(464) / 150(302)	S3-S4
		42(609) / -196(-321)	42(609) / 150(302)	S3-S4
ASME	CB	34(493) / -104(-155)	34(493) / 150(302)	S1-S2, S3-S4
	CB	31(450) / -104(-155)	31(450) / 225(437)	S1-S2, S3-S4
	CBH	36(522) / -104(-155)	36(522) / 150(302)	S1-S2
	CBH	45(653) / -104(-155)	45(653) / 150(302)	S3-S4
	CBH	34(493) / -104(-155)	34(493) / 225(437)	S1-S2
	CBH	42(609) / -104(-155)	42(609) / 225(437)	S3-S4

Standard dimensions and weight*

AC112

A measure mm	=	16 + (2.07 * n) (±3 mm or ±1.5 %)
A measure inch	=	0.63 + (0.08 * n) (±0.12 inch or ±1.5 %)
Weight* kg	=	4.82 + (0.35 * n)
Weight* lb	=	10.63 + (0.77 * n)

ACH112

A measure mm	=	16 + (2.07 * n) (±3 mm or ±1.5 %)
A measure inch	=	0.63 + (0.08 * n) (±0.12 inch or ±1.5 %)
Weight* kg	=	5.68 + (0.35 * n)
Weight* lb	=	12.52 + (0.77 * n)

(n = number of plates)

* Excluding connections and reinforcements

Standard data

Min. working temperature	see graph
Max. working temperature	see graph
Min. working pressure	vacuum
Max. working pressure	see graph
Volume per channel H, L, M, litres (ga)	0.18 (0.046)
Volume per channel AH, AM, litres (ga)	0.20 (0.052)
	0.16 (0.041)
Max. particle size mm (inch)	1 (0.04)
Max. flowrate* m ³ /h (gpm)	51 (224)
Min. nbr of plates	10
Max. nbr of plates	300
Flow direction	Parallel

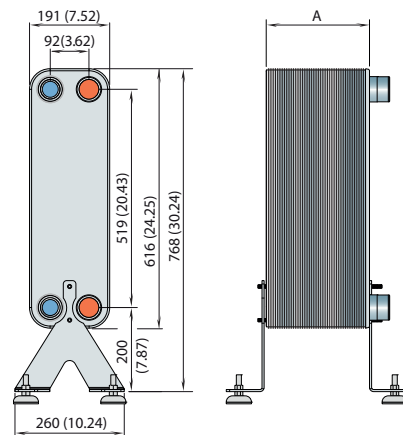
* Water at 5 m/s (16.4 ft/s) (connection velocity)

Standard materials

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

Standard dimensions

mm (inch). For exact values please contact your local Alfa Laval representative



How to contact Alfa Laval

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