AXP52 AN

Fusion-bonded plate heat exchanger

General information
AlfaNova is a plate heat exchanger made of 100% stainless steel. It is based on Alfa Laval's revolutionary technology, AlfaFusion, the art of joining stainless steel components together.

AlfaNova heat exchangers are well suited in applications which put high demand on cleanliness, applications where ammonia is used or applications where copper or nickel contamination is not accepted. Its high resistance to corrosion makes it both hygienic and environmental friendly.

AXP52 AN is a fusion-bonded plate heat exchanger with external frames in carbon steel that withstands operating pressures of 110 bar. AXP52 AN is specially designed for high pressure applications with requirements for 100% stainless steel.

The AlfaFusion filler 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 service lifetime.

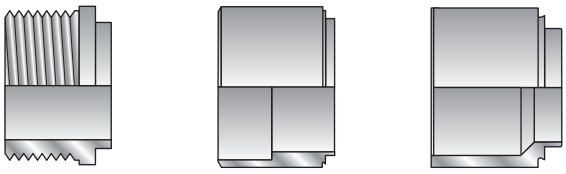
Typical applications
- Refrigerant applications with ammonia
- Compressor cooling
- Industrial heating/cooling
- CO2 refrigerant applications
- Engine cooling

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, always in countercurrent flow. The media are kept in the unit by a bonded seal around the edge of the plates. The contact points of the plates are also bonded 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 design.

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

Examples of connections

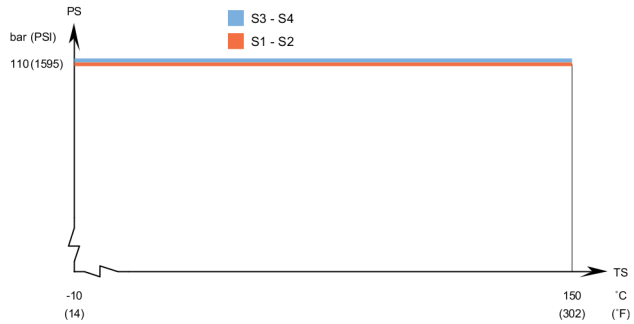


External threaded

Soldering

Welding

AXP52 AN- PED approval pressure/temperature graph



Standard dimensions and weight*

A measure mm	=	15 + (2.48 * n) ±4.5 mm
A measure inch	=	0.59 + (0.1 * n) ±0.18 inch
Weight* kg < 20 plates	=	35.7 + (n x 0.22)
Weight* kg 21 - 40 plates	=	35.9 + (n x 0.22)
Weight* kg 41 - 80 plates	=	37.2 + (n x 0.22)
Weight* kg 81 - 110 plates	=	38.6 + (n x 0.22)
Weight* kg 111 - 150 plates	=	40.1 + (n x 0.22)
Weight* lb < 20 plates	=	78.7 + (n x 0.49)
Weight* lb 21 < 40 plates	=	79.1 + (n x 0.49)
Weight* lb 41 - 80 plates	=	82.0+ (n x 0.49)
Weight* lb 8 - 110 plates	=	85.1 + (n x 0.49)
Weight* lb 111 - 150 plates	=	88.4 + (n x 0.49)

(n = number of plates)
* Excluding connections

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)	0.095(0.025)
Max. particle size mm (inch)	1.2 (0.05)
Max. flowrate* m^3/h (gpm)	14 (61.6)
Min. nbr of plates	6
Max. nbr of plates	150

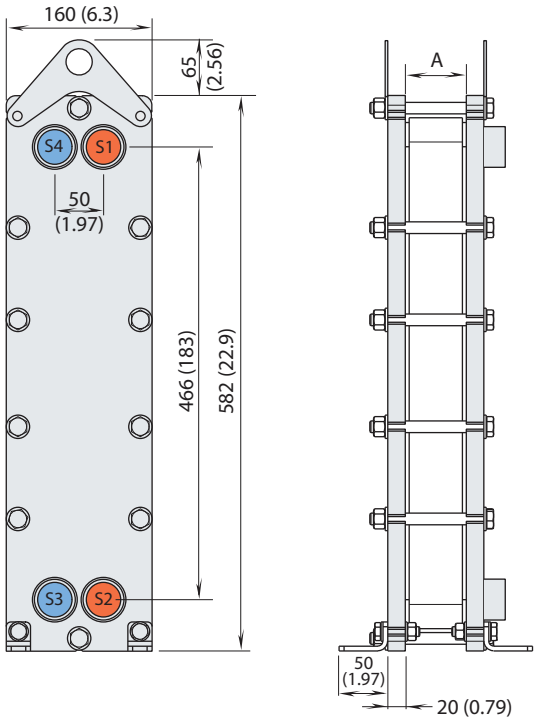
* Water at 5 m/s (16.4 ft/s) (connection velocity)

Standard materials

Cover plates	Stainless steel
Connections	Stainless steel
Plates	Stainless steel
AlfaFusion filler	Stainless steel
External frames	Carbon steel

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