AlfaNova 76

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.

It is extremely compact compared to its capacity to withstand great strains in demanding heat transfer applications.

Applications
Within refrigeration:
- Oil cooling
- Condensing
- Evaporating
- Economizing
- Desuperheating
- Absorption systems

Other main applications:
- Domestic hot water heating
- Process cooling
- Hydraulic oil coolin
- Laser cooling
- Hygienic/sanitary
- Water/water cooling & heating

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.

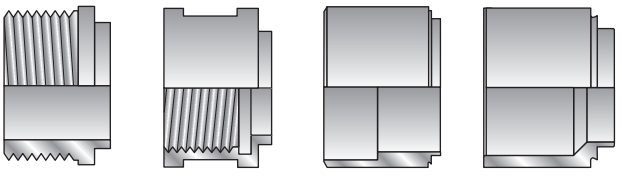
Standard materials

Cover plates	Stainless steel
Connections	Stainless steel
Plates	Stainless steel
AlfaFusion filler	Stainless steel

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

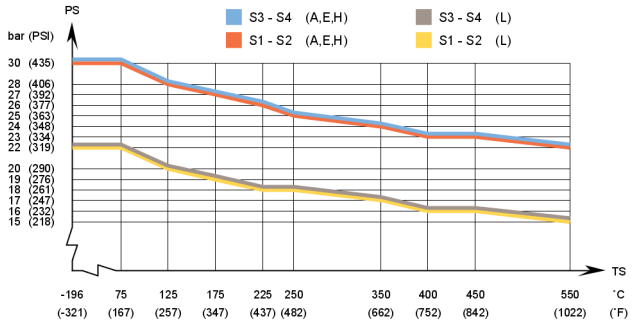
- Flow rates or heat load required
- Temperature program
- Physical properties of liquids in question
- Desired working pressure
- Maximum permitted pressure drop

Examples of connections

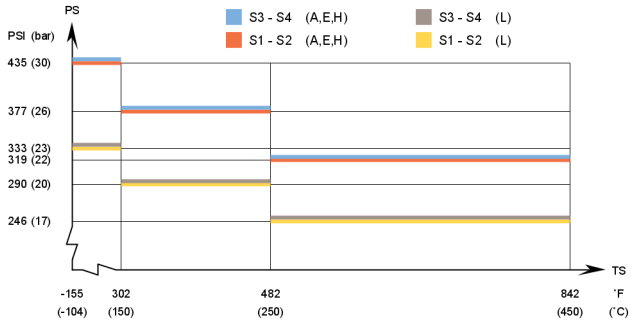


External threaded | Internal threaeded | Soldering | Welding

AlfaNova 76 – PED approval pressure/temperature graph [1)]

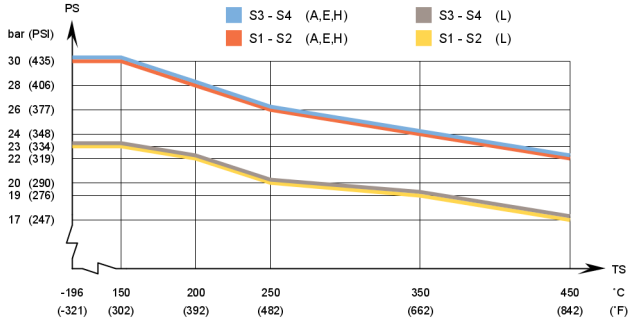


AlfaNova 76 – ASME approval pressure/temperature graph [2)]

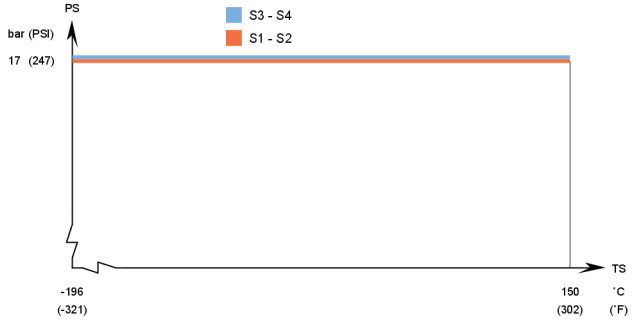


[2)] Min. temperature -49°F (14-45°C) with connection tube made of carbon steel.

AlfaNova 76 – CRN approval pressure/temperature graph



AlfaNova 76 – KHK approval pressure/temperature graph



Standard data

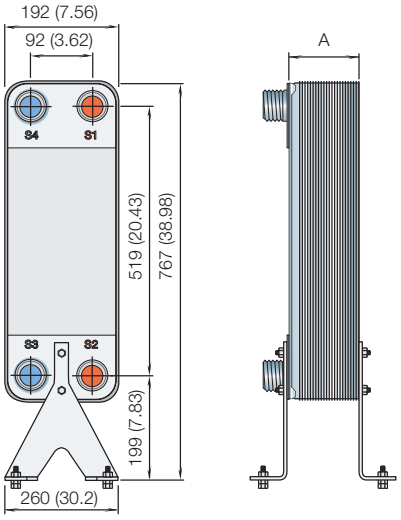
Min. working temperature	see graph
Max. working temperature	see graph
Min. working pressure	vacuum
Max. working pressure	see graph
Volume per channel A, litres (ga)	0.25 (0.065) 0.18 (0.046)
Volume per channel H, L, litres (ga)	0.25 (0.065)
Volume per channel E, litres (ga)	0.18 (0.046)
Max. particle size mm (inch)	1.2 (0.047)
Max. flowrate* m^3/h (gpm)	37 (163)
Min. nbr of plates	10
Max. nbr of plates	150

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

Standard dimensions

L channel	A measure mm	=	13 + (2.85 * n) ±5 mm
	A measure inch	=	0.51 + (0.11 * n) ±0.2 inch
H channel	A measure mm	=	11 + (2.85 * n) ±5 mm
	A measure inch	=	0.43 + (0.11 * n) ±0.2 inch
A channel	A measure mm	=	11 + (2.56 * n) ±5 mm
	A measure inch	=	0.43 + (0.1 * n) ±0.2 inch
E channel	A measure mm	=	11 + (2.29 * n) ±5 mm
	A measure inch	=	0.43 + (0.09 * n) ±0.2 inch
H, A, E channels	Weight** kg	=	8 + (0.49 * n)
	Weight** lb	=	17.64 + (1.08 * n)
L channel	Weight** kg	=	8 + (0.42 * n)
	Weight** lb	=	17.64 + (0.93 * n)

(n = number of plates)
** Excluding connections



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