



AlfaNova 400

Fusion plate heat exchanger

General information

AlfaNova plate heat exchangers are made of 100% stainless steel. It is based on Alfa Laval's new 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

- Evaporators
- Economizers
- Absorption systems
- Process 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, normally in counter-current 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.

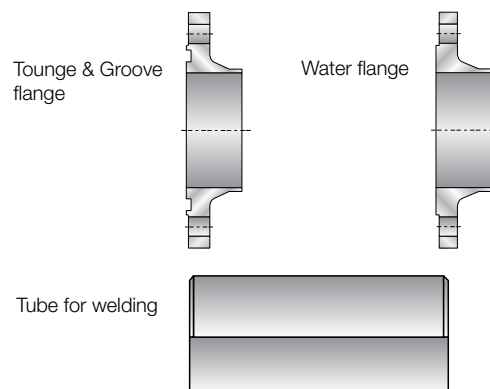
Particulars required for quotation

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

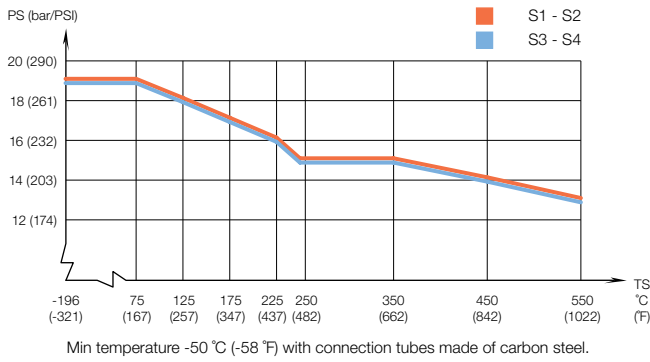


- flow rates or heat load required
- temperature program
- physical properties of liquids in question
- desired working pressure
- maximum permitted pressure drop

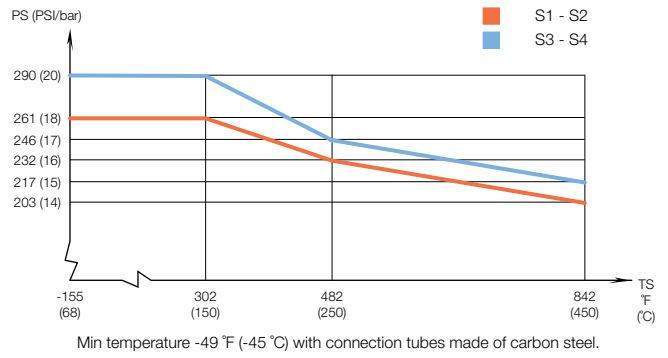
Examples of connections



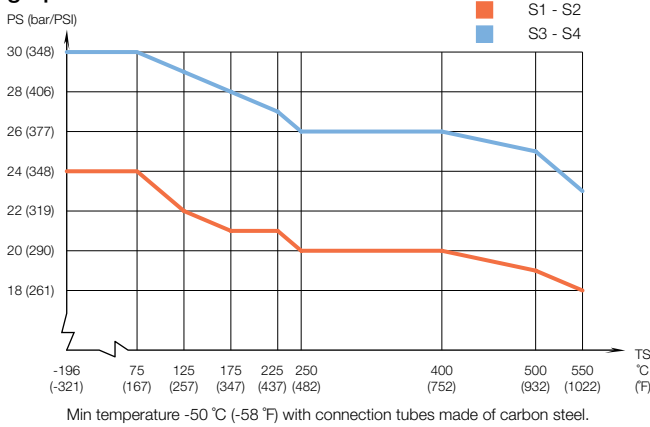
AlfaNova 400 – PED approval pressure/temperature graph



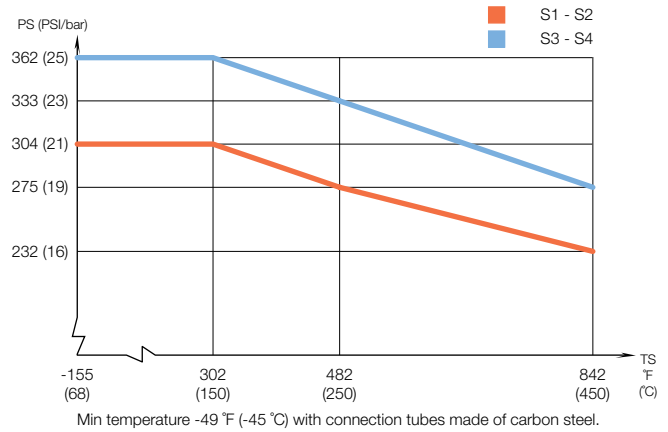
AlfaNova 400 - ASME approval pressure/temperature graph



AlfaNova HP 400 – PED approval pressure/temperature graph



AlfaNova HP 400 - ASME 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, litres/ga	0.74 (0.20)
Max. particle size	1.5 mm / (0.06")
Max. flowrate *)	170 m ³ /h (748 GPM)

*) 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

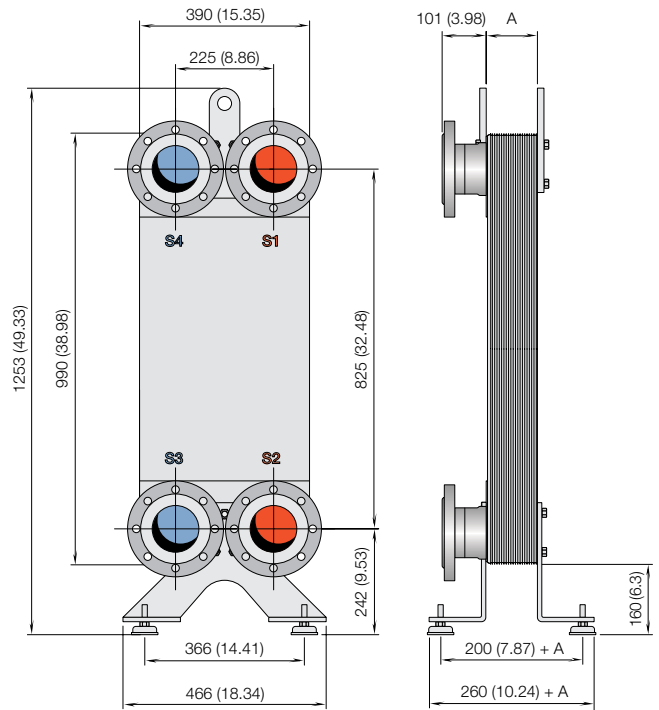
Standard dimensions

Max number of plates: 270

$$A = 14 + n \times 2.65 / (0.55 + n \times 0.1)$$

$$\text{Weight (approx.) kg: } 44 + n \times 1.5 / (\text{Weight lb: } 97 + n \times 3.3)$$

(n = number of plates)



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Alfa Laval reserves the right to change specifications without prior notification.

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.