



# Alfa Laval AlfaNova 18

## Fusion-bonded plate heat exchanger in 100% stainless steel

### Introduction

Alfa Laval AlfaNova fusion-bonded plate heat exchangers are made of 100% stainless steel. They are suitable for applications which place high demand on cleanliness, applications where aggressive media like ammonia are used or where copper and nickel contamination is unacceptable.

AlfaNova provides efficient heat transfer with a small footprint, has an extreme pressure fatigue resistance and covers high temperatures, up to 550°C/1022°F.

### Applications

Suitable for a wide range of applications, such as:

- HVAC heating and cooling
- Refrigeration
- Oil cooling
- Industrial heating and cooling
- Process heating and cooling

### Benefits

- Compact
- Easy to install
- Self-cleaning
- Low level of service and maintenance is required
- All units are pressure and leak tested
- Gasket free
- Copper free

### Design

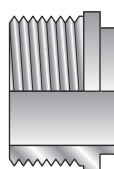
The AlfaFusion filler material seals and holds the plates together at the contact points ensuring optimal heat transfer efficiency and pressure resistance. Using advanced design technologies and extensive verification guarantees the highest performance and longest possible service life.

Based on standard components and a modular concept, each unit is custom-built to meet the specific requirements of each individual installation.

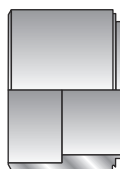
Asymmetric channels provide optimal efficiency in the most compact design. This results in low refrigerant charge or lower pressure drop on the water or brine side, reducing the CO<sub>2</sub> footprint.



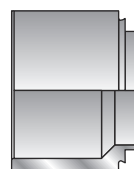
### Examples of connections



External thread



Soldering



Welding

## Technical Data

### Standard materials

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

### Dimensions and weight <sup>1</sup>

A measure (mm)	$9.3 + (2.1 * n)$
A measure (inches)	$0.37 + (0.08 * n)$
Weight (kg) <sup>2</sup>	$0.441 + (0.07 * n)$
Weight (lb) <sup>2</sup>	$0.97 + (0.15 * n)$

<sup>1</sup> n = number of plates

<sup>2</sup> Excluding connections

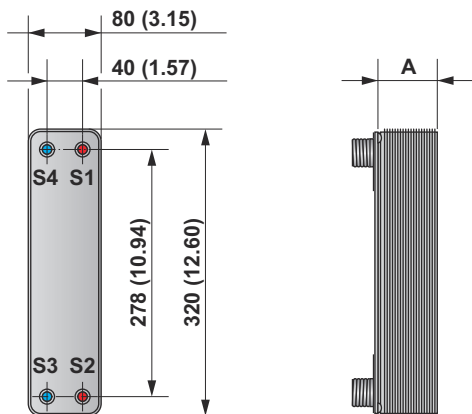
### Standard data

Volume per channel, litres (gal)	0.0385 (0.0102)
Max. particle size, mm (inch)	1 (0.039)
Max. flowrate <sup>1</sup> m <sup>3</sup> /h (gpm)	4.1 (18.1)
Flow directions	Parallel
Min. number of plates	4
Max. number of plates	60

<sup>1</sup> Water at 5 m/s (16.4 ft/s) (connection velocity)

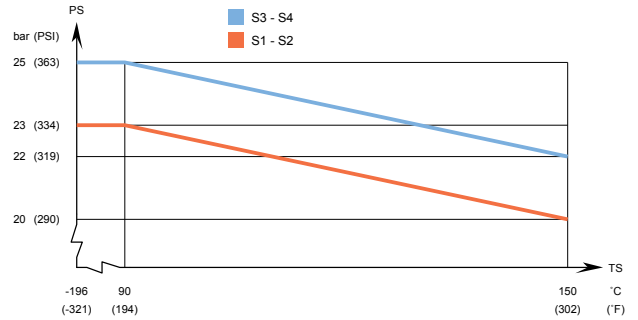
## Dimensional Drawing

Measurements in mm (inches)



## Design pressure and temperature

### AlfaNova 18 - PED approved pressure/temperature graph



Designed for full vacuum.

Alfa Laval plate heat exchangers are available with a wide range of pressure vessel approvals. Please contact your Alfa Laval representative for more information.

**NOTE:** Values above are to be used as an indication. For exact values, please use the drawing generated by the Alfa Laval configurator or contact your local Alfa Laval representative.

This document and its contents are subject to copyrights and other intellectual property rights owned by Alfa Laval Corporate AB. No part of this document may be copied, re-produced or transmitted in any form or by any means, or for any purpose, without Alfa Laval Corporate AB's prior express written permission. Information and services provided in this document are made as a benefit and service to the user, and no representations or warranties are made about the accuracy or suitability of this information and these services for any purpose. All rights are reserved.

200000225-2-EN-GB

© Alfa Laval Corporate AB

## 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](http://www.alfalaval.com)