Alfa Laval SE74

Brazed plate heat exchanger for air conditioning and refrigeration

Introduction

Alfa Laval SE brazed plate heat exchangers provide efficient heat transfer with a small footprint. They are specifically designed to work as evaporators and condensers in applications such as chillers and heat pumps.

The Alfa Laval SE product line is thermally optimized for propane. It offers design and technical features specifically with safety in mind.

Applications

- HVAC heating and cooling
- Refrigeration
- Industrial 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

Branded Features

DynaStatic™	Flexible refrigerant distribution
FlexFlow™	Superior thermal performance
IceSafe	Controlled, non-destructive freezing
PressureSecure	Unparalleled strength for demanding duties
REFuture	A future-proof investment for tomorrow's refrigerants
ValuePlus	Total support – with value-adding options to fit your needs

Design

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 life.

Asymmetric channels provide optimal efficiency in the most compact design. This results in low refrigerant charge, which is specifically important when using propane, and lower pressure drop on the water or brine side, reducing the CO_2 footprint.

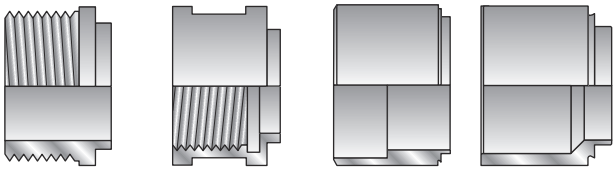
The product provides high performance, such as high evaporation temperature and low condensing temperature, which over its life time results in reduced environmental impact and lower operational cost

The integrated distribution system ensures an even distribution of the refrigerant throughout the plate package.

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

Optimized for propane.

Examples of connections



External thread Internal thread Soldering Welding

Technical Data

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

Dimensions and weight [1]	
A-measurement (mm)	12 + (1.96 * n)
A-measurement (inches)	0.47 + (0.08 * n)
Weight (kg) [2]	2.6 + (0.22 * n)
Weight (lb) [2]	5.73 + (0.49 * n)

[1] n = number of plates

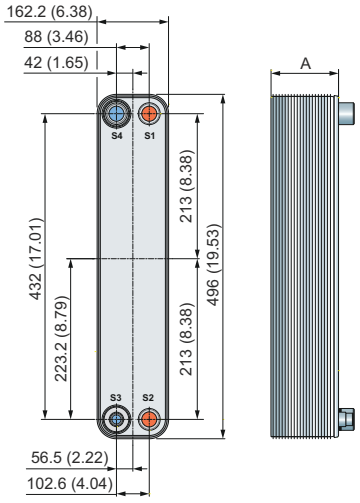
[2] Excluding connections

Standard data	
Volume per channel, litres (gal)	(S1–S2) 0.148 (0.0391) (S3–S4) 0.11 (0.0291)
Max. particle size, mm (inch)	1.0 (0.039)
Max. flowrate [1] m^3/h (gpm)	27 (118.9)
Flow direction	Parallel
Min. number of plates	10
Max. number of plates	180

[1] Water at 5 m/s (16.4 ft/s) (connection velocity)

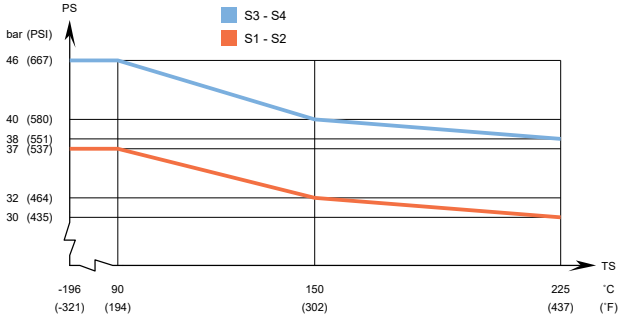
Dimensional drawing

Measurements in mm (inches)



Design pressure and temperature

SE74 – PED approval 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.

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