

# Alfa Laval AC43/ACH43/ACP43

# Brazed plate heat exchanger for air conditioning and refrigeration

# Introduction

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

# **Applications**

- Evaporator
- Condenser
- · Cascade systems

# **Benefits**

- Compact
- Easy to install
- Self-cleaning
- 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
	FlexFlow™ IceSafe PressureSecure REFuture

# 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.

Different pressure ratings are available for different needs.



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 CO2 footprint.

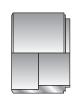
The integrated distribution system ensures an even distribution of the refrigerant throughout the plate package.

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

Suitable with most HFC, HFO and natural refrigerants.

# **Examples of connections**





External thread

Internal thread Soldering

# **Technical Data**

#### Standard materials

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

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

A measure (mm)	12.5 + (1.55 * n)	
A measure (inches)	0.49 + (0.06 * n)	
Weight (kg) <sup>2</sup>	1.4 + (0.11 * n)	
Weight (lb) <sup>2</sup>	3.09 + (0.24 * n)	

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

<sup>2</sup> Excluding connections

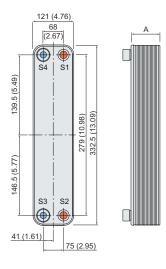
#### Standard data

Volume per channel, litres (gal)	(S1-S2): 0.048 (0.0127)
	(S3-S4): 0.041 (0.0108)
Max. particle size, mm (inch)	0.6 (0.024)
Max. flowrate <sup>1</sup> m <sup>3</sup> /h (gpm)	8.8 (38.7)
Flow direction	Parallel
Min. number of plates	4
Max. number of plates	120

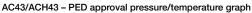
<sup>1</sup> Water at 5 m/s (16.4 ft/s) (connection velocity)

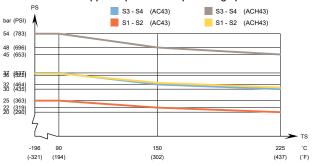
### **Dimensional drawing**

Measurements in mm (inches)

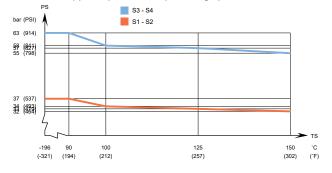


#### Design pressure and temperature

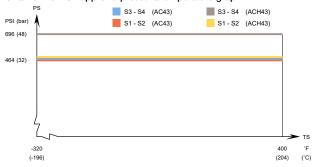




#### ACP43 - PED approval pressure/temperature graph



#### AC43/ACH43 - UL 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.

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200002117-3-EN-GB

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