



## MA30 S/M

### Plate heat exchanger

#### Applications

Wide-gap plate heat exchanger for general heating, cooling and heat recovery of media containing fibres and coarse particles. The wide-gap channels are also suitable for high-viscosity liquids.

#### Standard design

The plate heat exchanger consists of a pack of corrugated metal plates with portholes for the passage of the two fluids between which heat transfer takes place.

The plate pack is assembled between a fix frame plate and a movable pressure plate and compressed by tightening bolts. The plates are fitted with a gasket, which seals the interplate channel and directs the fluids into alternate channels. The number of plates is determined by the flow rate, physical properties of the fluids, pressure drop and temperature program. The plate corrugations promote fluid turbulence and support the plates against differential pressure.

The Wide-gap plates feature coarse corrugations with a cross-section width of approximately 11 mm (5/8") between the plates and have flat, non-corrugated portholes for the product channels.

The Wide-gap plate heat exchanger can be used in different ways e.g. with coarse and fibrous media in one channel, Single-sided or in both channels, i.e. Double-sided.

The plate and the pressure plate are suspended from an upper carrying bar and located by a lower guiding bar, both of which are fixed to a support column.

Connections are located in the frame plate or, if either or both fluids make more than a single pass within the unit, in the frame and pressure plates.

#### Typical capacity

Liquid flow rate

Up to 1000 m<sup>3</sup>/h (4000 USGPM), depending on media, permitted pressure drop and temperature program.

#### Plate types

MA30SM (Single-sided) and MA30S (Double-sided) plates

#### Frame types

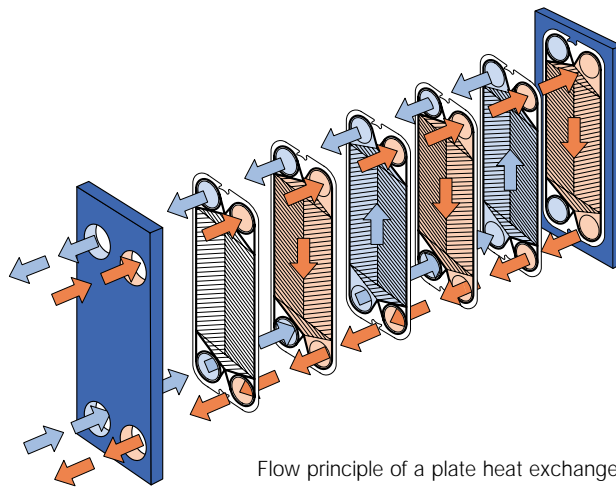
FM



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### Working principle

Channels are formed between the plates and the corner ports are arranged so that the two media flow through alternate channels. The heat is transferred through the plate between the channels, and complete counter-current flow is created for highest possible efficiency. The corrugation of the plates provides the passage between the plates, supports each plate against the adjacent one and enhances the turbulence, resulting in efficient heat transfer.



Flow principle of a plate heat exchanger

### STANDARD MATERIALS

#### Frame plate

Mild steel, Epoxy painted

#### Nozzles

Carbon steel

Metal lined: Stainless steel, Titanium

#### Plates

Stainless steel AISI 316 or Titanium

#### Gaskets

EPDM, NBRHTF

#### Connections

DIN PN10 DN300

DIN PN10 DN350

ANSI 150 DN300

ANSI 150 DN350

### TECHNICAL DATA

#### Mechanical design pressure (g) / temperature

FM PED 1.0 MPa / 160 °C

FM ASME 100 psig / 320 °F

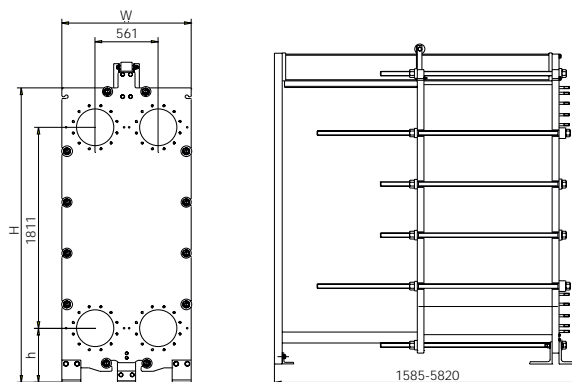
#### Maximum heat transfer surface

525 m<sup>2</sup> (5617 sq. ft)

#### Particulars required for quotation

- Flow rates or heat load
- Temperature program
- Physical properties of liquids in question (if not water)
- Desired working pressure
- Maximum permitted pressure drop
- Available steam pressure

### Dimensions



### Measurements (mm)

Type	H	W	h
MA30 S/MFM	2882	1170	495

#### How to contact Alfa Laval

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