



AlfaVap 700

Plate Evaporator

Applications

- Sugar
- Sweeteners
- Fruit juice
- Fish and meet products
- Stillage
- Steep water
- Waste water
- Inorganic chemicals
- Reboiler
- Steam transformer.

Standard design

The Plate Evaporator consists of a plate pack with alternating welded channels and traditional gasketed channels. All plate surfaces in the gasketed channels are easily accessible for inspection and manual cleaning.

A frame holds up the plate pack, clamps it together and provides connection with the piping system.

The frame consists of two heavy covers of painted carbon steel (the frame plate and the pressure plate) between which the plate pack is pressed together by means of tightening bolts.

The frame plate is stationary, while the pressure plate is movable along the carrying bar, which also holds the plate pack. The carrying bar is supported by the frame at one end and a support column at the other which are bolted to the foundation.

Two different patterns are available. One for clean fluids and one more open for fouling fluids.

Evaporation capacity

Up to 100 tons of evaporated steam per hour, depending on process fluid and operating pressure.

Plate types

AlfaVap 700 plates

Frame types

FM



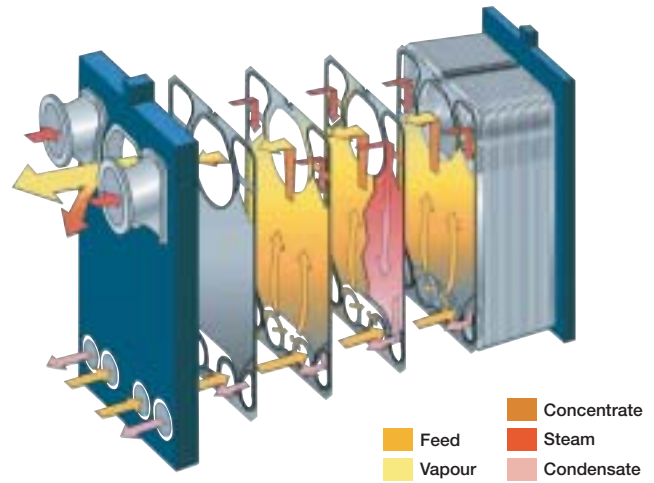
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Working principle

Two feed connections are located centrally in the bottom of the frame plate. A double compartment system in the cassettes ensures an even distribution of feed to every single channel also in very long plate packs.

Evaporation takes place on the gasketed side of the cassette and the concentrated product along with evaporated vapour leaves the evaporator through a centrally placed connection in the upper part of the frame.

The heating steam enters two connections in the upper part of the frame and condenses on the welded side of the cassettes. Condensate is taken out in the two outer connections in the bottom.



Flow principle of a plate heat evaporator

STANDARD MATERIALS

Frame plate

Mild steel, Epoxy painted

Nozzles

Metal lined: Stainless steel

Casted stainless steel (Steam inlet)

Plates

Stainless steel AISI 316 or Titanium

Gaskets

Nitrile, EPDM and Food EPDM

CONNECTIONS

Steam inlet	Size 400 mm/16"	DIN PN10/ANSI 150
Condensate outlet	Size 200 mm/8"	DIN PN10/ANSI 150
Product inlet	Size 200 mm/8"	DIN PN10/ANSI 150
Product outlet	Size 700 mm/28"	DIN PN10/MSS SP-44 class 150

TECHNICAL DATA

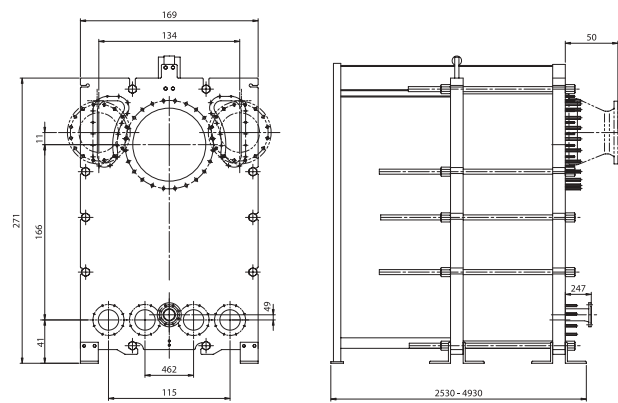
Mechanical design pressure (g) / temperature

FM PED	0.6 MPa / 160 °C
FM ASME	100 psig / 320 °F

Maximum heat transfer surface

2050 m² (21,795 sq. ft)

Dimensions



Particulars required for quotation

- Feed flow rate, temperature and concentration
- Product temperature and concentration
- Physical properties and boiling point elevation for inlet and outlet conditions
- Temperature and pressure of heating steam
- Desired design temperature and pressure
- Desired number of effects

How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information direct.