



DESALT MVR FC

Electrical Vacuum Evaporator-Crystallizer by Mechanical Vapor Recompression

The DESALT MVR FC series vacuum evaporator-crystallizer is an innovative solution for the treatment of aqueous-based streams, standing out for its energy efficiency thanks to Mechanical Vapor Recompression (MVR) technology.

This equipment is ideal for the treatment of aqueous-based streams with a high contaminant load and allows the precipitation of salts from dissolved solids. The high-speed recirculation pump plays a crucial role in preventing scale formation on the main heat exchanger.

The operation of the equipment is fully automatic - 24 hours a day.

FEATURES

Technology

Single/Multi-Effect
 Thermal Energy for Evaporation
 Vacuum
 Evaporation Temperature
 Evaporation Vessel
 Droplet Separator
 Heat Exchanger for Heating
 Vacuum System
 Control Unit*
 Protection:
 Electricity Supply**
 Standard Manufacturing Material
 Special Anti-corrosion Manufacturing Material***

Mechanical Vapor Recompression (MVR)
 Forced Circulation (FC)
 Single-Effect
 Small amount of saturated steam
 ≈ 700 mbar
 ≈ 90 °C
 Vertical conical bottom
 Mesh Demister
 Shell and tube
 Roots Compressor
 PLC Siemens with HMI touch screen
 IP54
 400 V III + PE 50 Hz
 1.4401/1.4404 (AISI 316/AISI 316L)
 1.4410 (Superduplex 2507)

* Different PLC manufacturer available on request
 ** Different voltage supply available on request
 *** Consult other available material options

TECHNICAL DATA

Parameter	Unit	600	800	1000	1500	2000	2500
Capacity*	L/h	600	800	1000	1500	2000	2500
Electricity Consumption**	kWh/m ³	64	64	64	64	64	64
Thermal Energy for Evaporation***	kWh/t	36/54	48/72	60/90	90/136	121/181	151/226
Length	mm	6000	6000	7000	7300	7700	8100
Width	mm	1700	2385	2200	2200	2450	2450
Height	mm	5300	5590	6500	6500	7000	7520

* Data refer to clean water when working continuously in standard conditions (T = 20 °C, P = 1013 mbar).

** Electricity consumption expressed in kWh per m³ of distillate produced.

*** Thermal energy for evaporation expressed in thermal kWh during operation/heating phase.

DIAGRAM

