Condorchem
Enviro Solutions

DESALT LT VR

Electrical Vacuum Evaporator-Crystallizer by Heat Pump

The DESALT LT VR series vacuum evaporator-crystalliser is designed for the treatment of scaling aqueous based streams, as well as for achieving high product concentration. The equipment operates with electrical energy and its heating and condensation system is based on a heat pump (HP) unit.

Equipped with an internal motorised scraper, the evaporator ensures continuous cleaning of the heat exchange surface in the evaporation vessel, preventing the formation of scale. It allows the precipitation of crystals from dissolved solids by increasing the concentration above the solubility limit.

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

FEATURES

Technology	Heat Pump (Freon R-513A)
Single/Multi-Effect	Single-Effect
Vacuum	≈ 60 mbar
Evaporation Temperature	≈ 35 °C
Evaporation Vessel	Vertical conical bottom with internal scraper
Droplet Separator	None
Heat Exchanger for Heating	External jacket
Refrigeration Circuit	Single heat pump unit or primary and secondary heat pump unit (depending on the model)
Vacuum System	Venturi Ejector
Control Unit*	PLC Siemens with HMI touch screen
Protection:	IP54
Electricity Supply**	400 V III + PE 50 Hz
Standard Manufacturing Material	1.4401/1.4404 (AISI 316/AISI 316L)
Special Anti-corrosion Manufacturing Material***	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	250	500	750	1000	1500	2000	2500	3000	3500
Capacity*	L/day	250	500	750	1000	1500	2000	2500	3000	3500
Electricity Consumption**	kWh/m³	220	220	220	220	220	220	220	220	220
Length	mm	2600	2700	2700	2700	3000	3610	3700	3800	4000
Width	mm	1000	1000	1250	1250	1450	1600	1600	1600	1600
Height	mm	2750	2750	3100	3200	2790	3260	3400	3500	3860

* *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.*

DIAGRAM