



**Condorchem
Enviro Solutions**



DESALT VR

Thermal Vacuum Evaporator-Crystallizer

The DESALT VR series vacuum evaporator-crystalliser is designed to treat scaling aqueous-based streams, as well as for achieving high product concentration. The equipment can be manufactured to operate using saturated steam or hot water to heat the product to be concentrated. The condensation of the generated vapour is carried out by supplying cooling water.

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

Single/Multi-Effect

Thermal Energy for Evaporation

Thermal Energy for Condensation

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***

Evaporation with thermal energy

Single-Effect

Saturated steam or hot water

Cooling water

≈ 200 mbar

≈ 60 °C

Vertical conical bottom with scraper

None

Shell and tube

Venturi Ejector or liquid ring pump (depending on the model)

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	2000	3000	5000	6000	10000	20000
Capacity*	L/day	2000	3000	5000	6000	10000	20000
Electricity Consumption	kWh	4,2	4,2	4,6	4,6	4,8	5,0
Thermal Energy for Evaporation	kWht	65	95	160	190	315	630
Thermal Energy for Condensation	kWht	65	95	160	190	315	630
Length	mm	3000	3100	3300	4000	4100	4100
Width	mm	1600	1600	2000	2000	2000	2000
Height	mm	3260	3760	3945	4250	5000	5510

* Data refer to clean water when working continuously in standard conditions ($T = 20\text{ }^{\circ}\text{C}$, $P = 1013\text{ mbar}$).

DIAGRAM

