



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/m ³ | 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

