Condorchem
Enviro Solutions

ENVIDEST LT FC-2

Double-Effect Electrical Vacuum Evaporator by Heat Pump

The ENVIDEST LT FC-2 series vacuum evaporator is designed to treat aqueous-based streams with a low contaminant load. The equipment operates with electrical energy and its heating and condensation system is based on a heat pump (HP) unit.

The forced circulation technology enables the treatment of slightly more scaling streams than those managed by heat pump evaporators with submerged heat exchangers. It stands out for its energy efficiency: as a double-effect system, it utilizes the latent heat of generated vapour in the first effect to heat the liquid in the second effect, thereby reducing the energy consumed.

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

FEATURES

Technology	Heat Pump (Freon R-513A)
Single/Multi-Effect	Forced Circulation (FC)
Vacuum 1st/2nd Effect	Multi-effect
Evaporation Temperature 1st/2nd Effect	≈ 125/70 mbar
Evaporation Vessel	≈ 50/40 °C
Droplet Separator	Vertical
Heat Exchanger for Heating	Inclined plate demister
Vacuum System	Shell and tube
Control Unit*	Venturi Ejector
Protection:	PLC Siemens with HMI touch screen
Electricity Supply**	IP54
Standard Manufacturing Material	400 V III + PE 50 Hz
Special Anti-corrosion Manufacturing Material***	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	6720	8400	12000	16800	20400
Capacity*	L/day	6720	8400	12000	16800	20400
Electricity Consumption**	kWh/m³	110	110	110	110	110
Length	mm	3800	4000	4800	5200	5420
Width	mm	2400	2400	2400	2400	2400
Height	mm	2400	2490	2700	2800	2930

Parameter	Unit	26400	30000	33600	43200	52800
Capacity*	L/day	26400	30000	33600	43200	52800
Electricity Consumption**	kWh/m³	110	110	110	110	110
Length	mm	5500	5500	6000	7000	7500
Width	mm	2200	2200	2500	2800	3200
Height	mm	3465	3500	3500	3700	5000

* *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