



Condorchem
Enviro Solutions



ENVIDEST DPM-1-2-3

Multiple-Effect Thermal Vacuum Evaporator

The ENVIDEST DPM series thermal vacuum evaporator is designed to treat aqueous-based streams with a low contaminant load. 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.

It is available in single-effect or multi-effect (double and triple) versions. The multi-effect versions are notable for their high energy efficiency, as they utilize the latent heat of generated vapour, thereby reducing the energy consumed.

Its modular construction allows for an increase in production capacity without a significant rise in energy consumption, and the configuration of its components (evaporator, heat exchanger, and electrical panel) makes installation easier in different orientations.

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 1st/2nd/3rd Effect

Evaporation Temperature 1st/2nd/3rd Effect

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

Multi-Effect

Saturated steam or hot water

Cooling water

≈ 310/200/125 mbar

≈ 70/60/50 °C

Horizontal

Perforated disk

Submersible u-tube

Venturi Ejector

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

ENVIDEST DPM-1	Parameter	Unit	4000	5000	8000	10000
	Capacity*	L/day	4000	5000	8000	10000
	Electricity Consumption	kWh	4	4	4	4
	Thermal Energy for Evaporation	kWh	130	160	250	315
	Thermal Energy for Condensation	kWh	130	160	250	315
	Evaporator (L x W x H)	mm	3400 x 1200 x 3370	3400 x 1200 x 3875	3400 x 1200 x 3875	3400 x 1200 x 3940
	Heat Exchanger (L x W x H)	mm	500 x 450 x 3370	900 x 910 x 3875	900 x 910 x 3875	900 x 910 x 3940
ENVIDEST DPM-2	Parameter	Unit	8000	10000	16000	20000
	Capacity*	L/day	8000	10000	16000	20000
	Electricity Consumption	kWh	8	8	8	8
	Thermal Energy for Evaporation	kWh	130	160	250	315
	Thermal Energy for Condensation	kWh	130	160	250	315
	Evaporator (L x W x H)	mm	3170 x 1850 x 3370	3380 x 2280 x 3874	3500 x 2400 x 3970	3650 x 3000 x 4130
	Heat Exchanger (L x W x H)	mm	500 x 500 x 3370	740 x 700 x 3874	740 x 700 x 3970	1140 x 700 x 4130
ENVIDEST DPM-3	Parameter	Unit	12000	20000	24000	30000
	Capacity*	L/day	12000	20000	24000	30000
	Electricity Consumption	kWh	12	12	12	12
	Thermal Energy for Evaporation	kWh	130	210	250	315
	Thermal Energy for Condensation	kWh	130	210	250	315
	Evaporator (L x W x H)	mm	3100 x 1820 x 3284	3380 x 3600 x 3980	3400 x 3600 x 3980	3800 x 3600 x 3980
	Heat Exchanger (L x W x H)	mm	740 x 700 x 3284	740 x 700 x 3980	740 x 700 x 3980	740 x 700 x 3980
ENVIDEST DPM-3	Parameter	Unit	1000 x 500 x 2000	1000 x 500 x 2000	1000 x 500 x 2000	1000 x 500 x 2000
	Electrical Panel (L x W x H)	mm	1000 x 500 x 2000	1000 x 500 x 2000	1000 x 500 x 2000	1000 x 500 x 2000

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

DIAGRAM

