

WATER EVAPORATOR

Model WT 10 HP-S AISI 316L



Heating pump Evaporators with immersed serpentine for not encrusting liquids.

Monitored vacuum continuous batch, at maximum temperature of 50°C and absolute working pressure of 20 ÷ 50 mmHg.

Average yield in 24 hours : 240 litres

Working principle

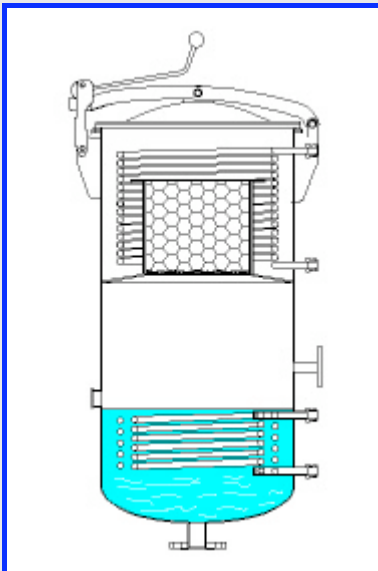
The product to be distilled is drawn into the unit by the vacuum created by the vacuum group.

With the help of a heat pump cycle, the liquid in the boiler is evaporated and the vapours are condensed.

The distillate is drawn into the vacuum system by the vacuum pump and flows out through a pneumatic membrane valve.

The residue is unloaded at the end of the cycle by opening the bottom valve.

The loading of the material is controlled by a level controller.



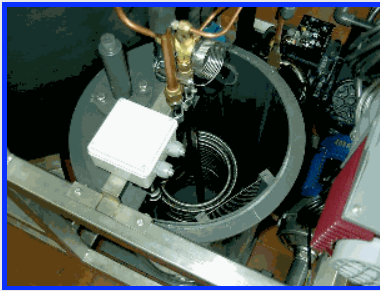
Boiler

- Cylindrical shape with round bottom and round top in stainless steel AISI 316
- Inspection porthole with sight glasses
- Internal heating coil in AISI 316L in the lower part of the boiler
- Coiled vapour condenser in stainless steel AISI 304
- Level controller inside the boiler

Frame

Structure made of stainless steel AISI 304 sheets and pipes, welding Tig.

Sawyer and Smith Corporation
 5412 Homegardner Road
 Castalia, Ohio 44824
 Ph: 419-951-4818 Fax: 419-951-4822
www.wastewaterevaporators.biz
sales@wastewaterevaporators.biz



Vacuum group

Composed of :

- Centrifugal pump in stainless steel AISI 304
- Transparent distillate indicator
- High-efficiency venturi-tube to generate vacuum
- Pressure indicator and pressure switch
- No-return valve on distillate and piping in PVC
- Distillate vessel in stainless steel
- Internal cooling coil



Heating pump cycle

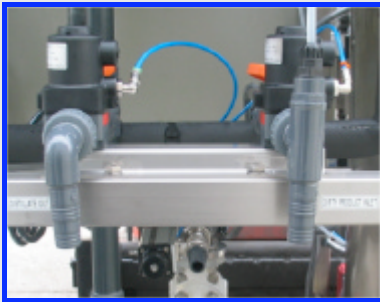
Composed of :

- Semi-hermetic, self lubricating compressor working with refrigerant R407C
- Pressure switch of working pressure, minimum and maximum pressure
- Thermostatic valve with gas bulb sensor to regulate the gas flow
- Liquid indicator
- Anti-acid filter
- Automatic cooling condenser with axial ventilator



Heat pump loaded with Freon R407C

Heat pump circuit loaded with Freon R407C compatible.



Further details

- Pneumatic valve for automatic loading of the dirty liquid
- Pneumatic valve for automatic unloading of the distillate
- Manual valve for residue unloading



Control panel

Electrical box made of carbon protected with epoxidic paint IP 55.

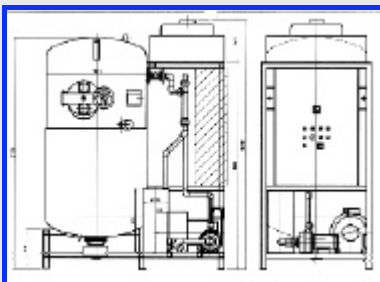
Data

Installed power : 3,8 kW
 Normally absorbed power : 2,5 kW
 Average production : 240 l/day (based on pure water)
 (calculated with polluted water with 1 kg/l specific weight, fed at 25°C with 600 kcal/kg evaporation heat)



Process control

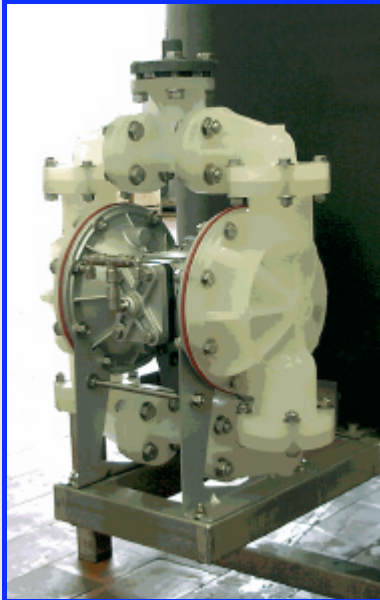
Evaporation process regulated by thermostats, manometers and control panel with alarm lamps, warning lights, switches.



Dimensions

140 x 90 x 180 H mm
 weight kg. 300
 (not binding)

OPTIONAL



Automatic unloading

N° 1 pneumatic membrane pump for the unloading of the concentrate from the bottom evaporator.



Anti-foam dosage pump



UNI EN ISO 9001 : 2000
Certificato n° 50 100 1867

March 1, 2010

Contact information update:

We have begun the long arduous process of moving our office.
Please continue to direct mail to:

Sawyer and Smith Corporation
5412 Homegardner Road
Castalia, Ohio 44824

All phone contact to:
423.289.6894

All other email and website information remains the same. You can contact us at any of the existing web addresses. Email is received remotely and responded to more quickly and efficiently than a phone message. If you call the office, please leave a thorough message INCLUDING your email address so that we can send you the required information as soon as possible.

Thank You.