



E 2400



Vacuum evaporation equipments are used primarily to separate water from liquid waste or aqueous chemicals. These equipments make possible a dramatic reduction of the waste volumes for disposal and the recycle of the condensed liquid after the evaporation. Some of the industrial uses of the vacuum distillation system are:

Graphic arts and textile Industry: treatment of rinse waters containing inks, pigments or photopolymers (Napp process).

Disposal companies: concentration of exhausted chemicals.

Chemical, tanning, pharmaceutical and cosmetic industry: concentration of waters coming from process and reactors cleaning.

Mechanical industry: separation of oily exhausted emulsions, phosphate and degreasing baths as well as tumbling wastes.


Waste Disposal: treatment of landfill leakage.

Electroplating and gold industry: metals recovery from rinse waters and concentration of exhausted baths (pickling, polishing).

Food Industry: concentration of retting waters, treatment of dairy waste waters and equipment cleaning waters.

Photographic: treatment of exhausted chemicals.

Evaporation treatments can also be applied for the final concentration of the liquid wastes coming from resin plants and membrane plants equipments.

 The units are manufactured in compliance with the "Machinery Directive" 89/392/CEE.

E 2400

E 2400 is a class of heat pump vacuum evaporators fed with current. The combined effects of the heat pump and the vacuum allow to obtain distillation of liquids at low temperature.

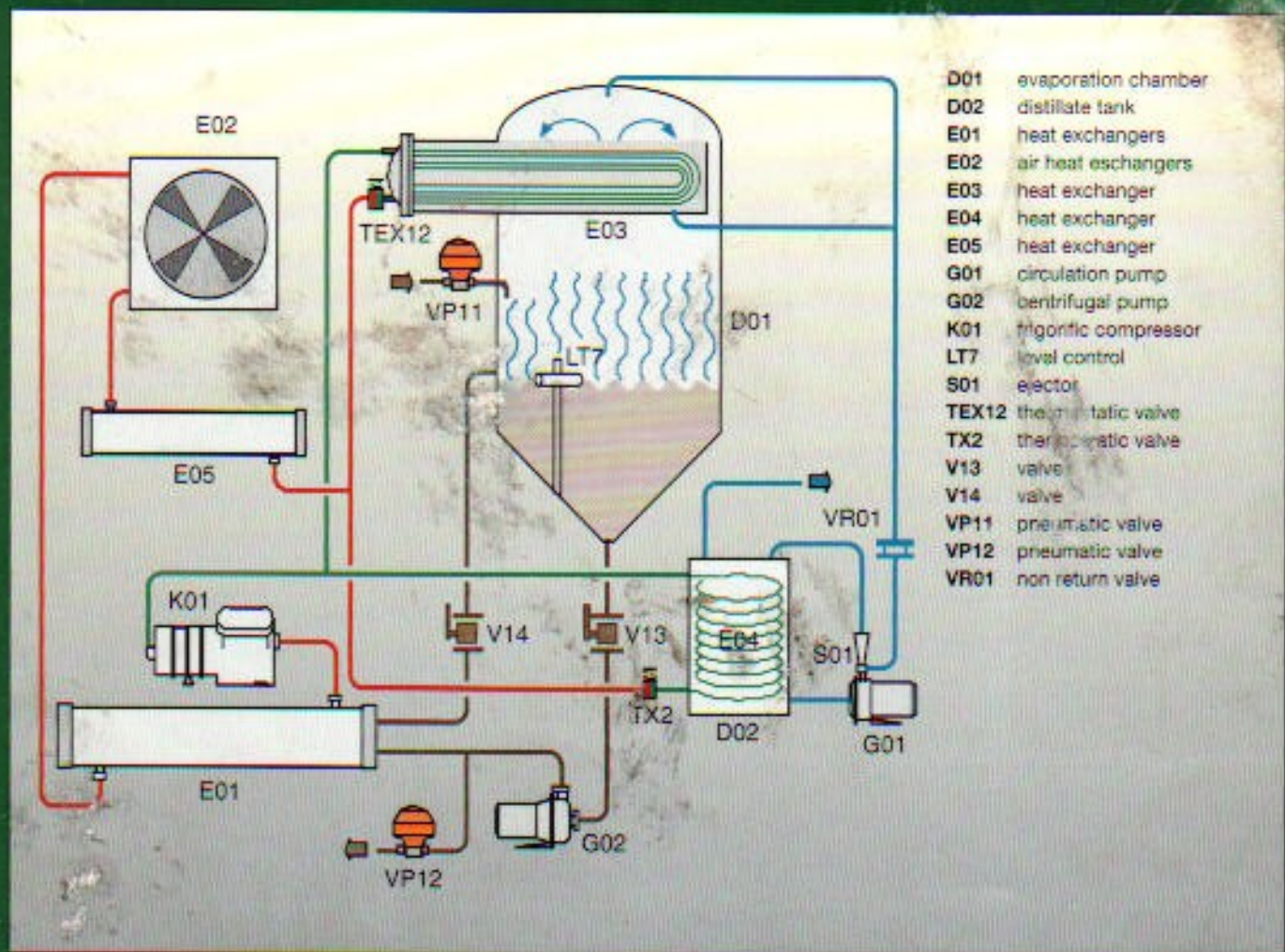
The heat pump, by means of a refrigerating circuit, carries out the expansion and the compression of the refrigerating fluid R22 and supplies both the calories required for the evaporation of the waste and the frigories necessary for the vapor condensation. The boiling occurs at a temperature of approximately 35°C and at a residual pressure of approximately 6,5 kPa. Vacuum is created through an ejector. The energy which is absorbed by the compressor, is transferred to environment through air and/or water heat exchangers.

The waste is automatically sucked into the boiling chamber through the opening of a feed pneumatic valve set by a float level. While distillation is taking place, an antifoam is added automatically.

The condensed liquid issues by overflow, from a special tank where it is kept at a temperature of approximately 20°C by means of a refrigerating circuit.

The concentrate containing the pollutants, is discharged through a temporized opening of a pneumatic valve, when the correct density is reached.

The control of all the operations is carried out by a PLC.



- D01 evaporation chamber
- D02 distillate tank
- E01 heat exchangers
- E02 air heat exchangers
- E03 heat exchanger
- E04 heat exchanger
- E05 heat exchanger
- G01 circulation pump
- G02 centrifugal pump
- K01 frigorific compressor
- LT7 level control
- S01 ejector
- TEX12 thermostatic valve
- TX2 thermostatic valve
- V13 valve
- V14 valve
- VP11 pneumatic valve
- VP12 pneumatic valve
- VR01 non return valve

TECHNICAL CHARACTERISTICS		E 2400 AA 3	E 2400 AA 4
Frequency	Hz	50	60
Distillate product. max. (with water)	l/h (gal/h)	102.5 (27)	109 (28.9)
	l/day (gal/day)	2450 (648)	2616 (693.6)
Absorbed power	kW	19	23
Voltage	V	400 3F+n	460 3F
Yield	kWh/l (kWh/gal)	0,185 (0.7)	0,211 (0.8)
Produced heat	kcal/h (Btu/h)	10500 (41685)	12600 (50022)
Cooling air	m ³ /h (gpm)	7000 (30823)	8400 (36988)
Empty weight	kg (lb.)	800 (1763)	800 (1763)
Width	mm (in.)	1000 (39.4)	1000 (39.4)
Length	mm (in.)	1750 (68.9)	1750 (68.9)
Height	mm (in.)	2200 (88.6)	2200 (88.6)
Noise	dBA	<80	<80
Materials in contact with waste		AISI316L+PP *	AISI316L+PP *
Automatic antifoam dosage		✓	✓
Automatic concentrate discharge		✓	✓
Distillate pH control		□	□
Water heat-exchanger		□	□
* Special alloys available		✓ Standard	□ Optional

Subject to changes without prior notice



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