



**condorchem
envitech**

DESALT LT DRY

Vacuum heat pump Crystallizers



HIGHLIGHTS

DESALT LT DRY series fit to obtain semi-solid concentrates. Horizontal boiling vessel with saddle jacket heat exchanger.

Large hinged front hatch for inspecting and manual concentrate extraction.

Full automatic operation system by PLC; display of main parameters by LCD TOUCH screen.

Standard manufacturing AISI316 – special alloys on demand. Standard range from 250 to 1000 l/day of evaporated water.

CRYSTALLIZERS FOR SEMI-SOLID CONCENTRATIONS

○ STRUCTURE

- En-bloc skid made of austenitic steel.
- Boiling chamber, horizontal type, fitted with front door for the concentrate inspection and discharge, complete with inspection sight glass.
- Digital and analogue control instrument for the automatic monitoring of the system.
- High performance heat exchanger, positioned outside the boiling chamber, cast-in lined.
- The concentration level is controlled by end concentration cycle timer.
- Upper condensation steam section, fitted with heat exchanger and cooling circuit.

○ VACUUM CIRCUIT AND CONDENSED MATERIAL LINE

- Automatic circuit for condensate discharge and vacuum generation, composed of centrifugal pump, Venturi ejector, condensate storage and cooling tank, complete with heat exchanger, check valves, digital and analogue control, monitoring instrument.

MAIN CHARACTERISTICS

- Electrically operated heat pump crystallizers.
- Fully automatic operation (working cycle 24 hours/day without man presence).
- Very compact structure.
- Absence of emissions and odors.
- No additional installation required.
- Total control by PLC.
- Saddle-backed lined heat-exchanger.
- Front panel for concentrate inspection and extraction.
- Wastewater inlet, distillate and condensate outlet automatically operated.
- Pull-out boiling and condensation chambers.
- Main frame and condensation chamber made in stainless steel Aisi 316.
- Special material manufacturing on request.
- Voltage: 3 x 400 / 50 Hz + neutral.

MAIN APPLICATIONS

DESALT LT DRY Crystallizers are suitable for:

- Recycling of quenching salts.
- Softening and recycling of water for blowing out and washing.
- Recycling of ultrasonic washings, pickles, washbasins.
- Concentration of extracts and fragrances.
- Dry and shovelling concentrates.

COOLING UNIT

- The cooling unit features a heat pump made by a main refrigerant unit, complete with process compressor, eco-friendly driven, sub-cooling battery, heater fans, filters, pressure switches, pressure senders, gas flow indicators.
- Additional cooling unit (standard from mod. DESALT LT DRY) complete with auxiliary compressor, control equipment, filters.

FOAM CONTROL BATCHING SYSTEM

- Automatic system complete with foam formation sensor and variable setting control. The circuit allows the automatic injection of antifoam products inside the crystallizer: the quantity of injected antifoam is adjustable by the control panel according to the actual needs.

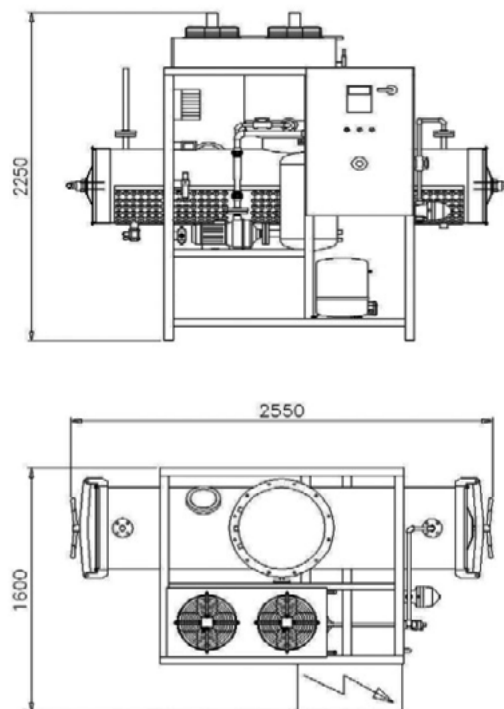
CONTROL UNIT

- Siemens PLC control unit and control panel.
- Electrical panel in painted sheet, protection IP 54.
- Automatic overload cutout for all motors.
- 24 volts auxiliary circuit.
- Wiring made in flame proof cables.
- Level control regulators for tanks and outside reservoirs level.

OPTIONALS

“Teleservice” Control System for remote assistance.

OVERALL DIMENSIONS DESALT LT DRY



TECHNICAL DATA

	Units	250	350	500	750	1000
Feed Inlet	l/d	250	350	500	750	1.000
Nominal Capacity	l/h	10,5	14,5	21	31	42
Energy Consumption	W/l	250	250	250	250	250
Dimensions (LxPxH)	cm	160x140x225	160x150x225	260x150x225	175x200x230	320x160x245

PROCESS DIAGRAM

