

DESALT VR WW

Vacuum Crystallizers powered by hot water or steam



VERTICAL TYPE CRYSTALLIZERS WITH SCRAPER

○ STRUCTURE

- En-bloc skid made of austenitic steel.
- Boiling vessel fitted with scraper positioned inside, having screwing blades for the non-stop cleaning of exchange surface and product homogenizing during concentration phase.
- High performance heat exchanger, positioned outside the boiling chamber, cast-in lined.
- digital and analogue control instrument for the automatic monitoring of the system.
- The Vr series evaporators are featured for the treatment of highly encrusting liquids thus reaching an high concentration level.

○ VACUUM CIRCUIT

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

○ STEAM CONDENSING UNIT

- The condensation of the evaporated wastewater happens in closed circuit with the steam passage through a water cooled plate heat exchanger, from the cooling tower.



**condorchem
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HIGHLIGHTS

DESALT VR WW crystallizers are studied for the treatment of encrusting wastewater and for the recovery of semi solid concentrates.

They are powered with hot water or steam, by evaporation process, utilizing energy sources already existing.

According to the wastewater to be treated, the evaporator can be made by special corrosion-resistant alloys.

MAIN CHARACTERISTICS

- Power supply by hot water, steam or other fluid in temperature.
- Condensation by water coming from cooling tower or air condenser.
- Outside lined heat-exchanger.
- Inside scraper independent device.
- Wastewater inlet, distillate and condensate outlet automatically.
- Check by PLC Siemens S7-200 PLC with OP7 keyboard or similar.
- Pull-out boiling and condensation chambers.
- Main frame made in stainless steel AISI 304; boiling&condensation chambers and heat-exchangers made in stainless steel AISI 316 L.
- Special corrosion-resistant material upon request, according to the treated wastewater.

MAIN APPLICATIONS

DESALT VR WW are particularly suitable for:

- Glue and encrusting liquid treatment.
- Treatment of wastewater from developing and fixing processes.
- Wastewater treatment from frames and cylinder press washes.
- links treatment and recovery.

○ CONCENTRATE DISCHARGE CIRCUIT

- Automatic circuit for the concentrate discharge, programmable by temporized system.
- The discharge of the concentrate can be made by means of a centrifugal or one-screw pump or by gravity.

○ 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

Cleaning Unit

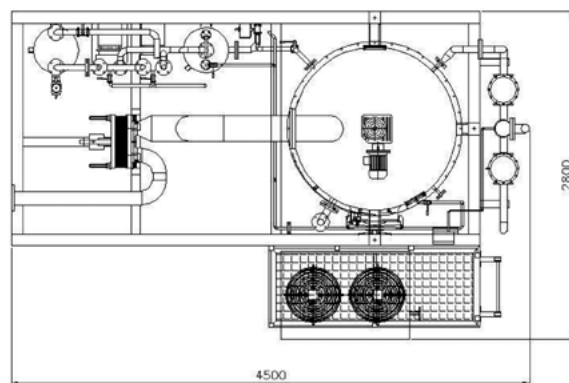
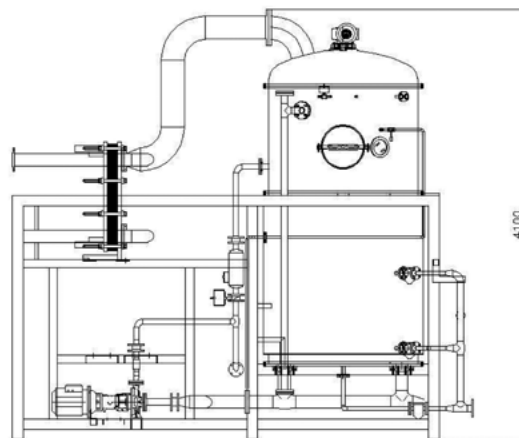
• The automatic system is complete with pneumatic valve and rotating nozzle. The circuit allows the release of cleaning agents inside the crystallizer: the wash cycle time can be adjusted from the control panel according to the actual needs.

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.

“Teleservice” Control System for remote assistance”

OVERALL DIMENSIONS DESALT VR WW



TECHNICAL DATA

	Units	750	1000	1500	2000	3000	4000	5000	6000
Feed Inlet	I/d	750	1000	1500	2000	3000	4000	5000	6000
Nominal Capacity	I/h	30	42	62	83	125	166	208	250
Energy Consumption	Kcal	20.000	30.000	40.000	50.000	80.000	100.000	140.000	160.000
Dimensions (LxPxH)	cm	200x115x280	200x115x280	250x120x280	250x120x280	300x200x390	350x200x390	370x200x390	370x200x390

PROCESS DIAGRAM

