

Reverse Osmosis Units

UO 25000 AS – UO 30000 AS



Herco
Präzision in Reinwasser-Technik

Reverse Osmosis Units

UO 25000 AS - UO 30000 AS

Stand-type unit for desalination of hardness stabilized drinking water according to German drinking water regulations (free chlorine not detectable), operating on the principle of reverse osmosis.

Unit design

Stainless steel main frame for housing the instruments and controls.

Special inlet filter with 5 µm-filter cartridge, **high pressure pump** low noise, multi-stage centrifugal type, **low energy spirally wound modules** with energy-efficient PA/PS composite membranes in GRP vessels with inliner.

Valves such as sampling valves for feed water and permeate (for each pressure vessel), inlet diaphragm valve, valves made of stainless steel to regulate the flow rate of permeate, concentrate and concentrate recirculation.

Pressure gauges for inlet and outlet pressure pre-filter, pump pressure, operating pressure and concentrate pressure, pressure switch for monitoring the feed water pressure.

Flow meters for permeate, concentrate and concentrate recirculation flow rate.

Permeate **conductivity measurement**, temperature compensated, measuring range 2-200 µS/cm.

Connection set for cleaning device, T-piece for injection point, concentrate flushing device.

Control cabinet with lockable main switch, electrical switch-gear for control of the high-pressure pump and antiscalant dosing unit.

RO 1000 microprocessor control system for fully automated monitoring and control of the reverse osmosis unit **with two-line LCD** (16 characters per line) of **Operating data:** permeate conductivity (temperature-corrected), permeate temperature, operating hours,

Malfunction signals: low pressure, hard water, motor overload, high conductivity prealarm, high conductivity fault, **status signals:** permeate discard, permeate recycling, concentrate displacement, concentrate rinse, intermittent rinse during shut-down, shut-down by external signal (forced stop, regeneration), **LEDs** for operation, malfunction, regeneration, discard, disinfection and full tank.

Inputs (low voltage) for level control with 1 or 2 float switches, hardness monitoring unit (the RO 1000 control system includes control functions for the limitron hardness monitoring unit), shut-downs by external signal (forced stop, regeneration),

Outputs for softening unit (230V/50Hz), 2 solenoid valves for concentrate rinse, permeate discard and recycling and DDC (collective malfunction signal on floating changeover contact).

Technical Data		UO 25000 AS	UO 30000 AS
Permeate flow rate	l/h	25,000	30,000
Min. salt rejection	%	97	97
Recovery	%	75	75
Operating pressure	bar	13.0	12.0
Membrane element / number		8040 / 20	8040 / 25
Voltage	V/Hz	3 x 400 / 50	3 x 400 / 50
Motor power	kW	18.5	22.0
Pre-fusing	A	40	50
Feedwater connection	DN	80	100
Permeate / concentrate connection	DN	65 / 50	80 / 65
Connection dosing point	R	½"	½"
Conductivity range permeate	µS/cm	2 – 200	2 – 200
Min./max. feedwater pressure	bar	2 / 6	2 / 6
Min./max. feedwater temperature	°C	5 / 35	5 / 35
Max. ambient temperature	°C	40	40
pH		3 – 11	3 – 11
Height	mm	2,200	2,200
Width	mm	4,900	5,900
Depth	mm	1,000	1,000
Weight approx.	kg	1,700	2,000
Code no.		381640	381650

The units are designed for a maximum TDS of 1,000 mg/l, a water temperature of 15°C, a maximum colloidal index of 3 and free permeate outlet. Under these conditions, the units still reach design permeate flow after three years of operation. The permeate recovery depends on the raw water quality and the type of pre-treatment.

Subject to modification. 08-06

Herco Wassertechnik GmbH · Planckstr. 26 · D-71691 Freiberg · Phone +49 (0)71 41 7095-0
Fax +49 (0)71 41 7095 99 · E-Mail: info@herco-wt.de · www.herco-wt.de

Herco
Präzision in Reinwasser-Technik