

REVERSE OSMOSIS: OSMO-PURE RO SYSTEMS WITH 4" MEMBRANES

Scope of supply:

Mid-range industrial RO series, pre-assembled and ready for plug and play installation on site. The RO unit is built upon a stainless steel frame including a suitably sized pre-filter, HP pump, membrane modules, pressure gauges, conductivity measurement, flow sensors and control panel.



- Micron pre-filter in feed water inlet to safeguard RO unit.
- Pressure gauges before and after pre-filtration.
- Inlet solenoid valve (NC).
- Pressure switch to safeguard the RO pump against possible dry running.
- Centrifugal pump for boosting pressure towards the membranes.
- Spiral wound composite polyamide membranes in GRP pressure vessels.
- Pressure gauges before and after the membrane modules.
- Conductivity probe in permeate outlet temperature compensated.
- Flow sensors in permeate, concentrate and circulation stream.
- Concentrate regulator valve to adjust recovery ratio of the RO unit.
- Regulator valve to adjust circulation stream and pressure over the RO unit.

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TECHNICAL DATA		OSMO-Pure RO-2000	OSMO-Pure RO-2500	OSMO-Pure RO-3000	OSMO-Pure RO-3500	OSMO-Pure RO-4000
Permeate capacity	m³/h	1.95	2.50	3.00	3.50	4.00
Daily permeate production	m ³	45	57	69	80	92
Recovery ratio	%	75	75	75	75	75
Working pressure	bar	10.1	9.80	9.60	9.40	9.30
Feed water	m³/h	2.60	3.33	4.00	4.67	5.33
Salt rejection	%	96-99	96-99	96-99	96-99	96-99
Max TDS feed water	mg/l	1000	1000	1000	1000	1000
Area /service temp.	°C	5-30	5-30	5-30	5-30	5-30
Water connections						
Feed	DN	32	32	32	32	32
Permeate	DN	25	25	25	25	25
Drain	DN	32	32	32	32	32
Electrical connections	V, Hz		400 V / 3 Ph / 50 Hz			
Power installed	kW	2.20	2.20	2.20	2.20	2.20
Dimensions	mm		width = 2385 depth = 680 height = 1900			

Available options for Osmo-Pure 4" RO systems:

- Pre-treatment prior to the RO unit such as water softener (simplex or duplex) ask Lubron for your specification.
- Hardness control of RO unit by installing Testomat (or Limitron) controller.
- Anti-scalant dosing unit in RO feed as alternative to a water softener.
- Upgrade of centrifugal RO pump version to an all stainless steel construction.
- Stainless steel pressure vessels instead of the standard GRP version.
- Permeate sample valves at the end of each pressure vessel for testing.
- Concentrate solenoid valve for improved membrane flush after service.
- Permeate valves or 3-way valve to secure permeate quality to outlet; also being used during membrane flush with permeate for concentrate displacement.
- Permeate storage tank, including analogue level sensor and all necessary connections (available in different volumes and dimensions).
- Permeate transfer pump on RO frame (Grundfos model CRN or CRNE size dependant on requirements).
- CIP connections on RO unit for manual cleaning of the membranes.
- Mobile CIP unit on separate frame including CIP pump and CIP tank.
- Permeate rinse vessel (beside RO unit), with separate rinse pump for periodic permeate rinse of the RO unit.
- Modbus RS 485 output for monitoring of the standard Jazz plc controller.
- Replacement of the existing plc controller for the more advanced Vision plc controller with touchscreen panel. This alternative incorporates more inputs / outputs and more analogue options for monitoring the RO unit.
- Semi-automatic permeate mixing assembly for adjusting the permeate conductivity by adding raw water into the permeate stream.

The RO unit design is based upon pre-treated feed water quality (chlorine, iron and manganese free), max TDS of 1000 mg/l, temperature 15°C, SDI < 3 and inlet pressure of 2.0 bar minimum. The feed water quality will ultimately determine the performance of the RO unit.

Disclaimer: To the best of our knowledge, the technical data contained herein is true and accurate at the date of issue and is subject to change without prior notice. User must contact Lubron to verify accuracy of information before specifying or ordering equipment. No guarantee of accuracy is given or implied.







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