



Reverse Osmosis Unit UO Budget 80 and 130

Undersink unit for desalination of softened drinking water according to German drinking water regulations (free chlorine not detectable), operating on the principle of reverse osmosis. Drinking water can also be desalinated without pre-treatment. However, in this case the recovery rate is reduced. The decisive factor is the water analysis.

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Unit design

Stainless steel plate used as installation panel housing the instruments and controls.

Special inlet filter with 5 µm activated carbon filter element, **high pressure pump, high performance spirally wound modul** with PA/PS composite membranes in stainless steel pressure vessel.

Valves and instruments including solenoid inlet valve, feedwater pressure switch, vibration-resistant pressure gauge for pump pressure, flow restrictor for limitation of permeate and concentrate flow rate. Solenoid valve for automatic concentrate-rinse.

Microprocessor control system as described below, connecting cable (2 m) with shockproof plug.

Unit completely wired and pre-assembled and ready for installation. Electrical equipment in accordance with VDE 0100 part 600, VDE 113 part 1.

*Option:

Permeate conductivity measurement (item no 391 903)

RO 524 microprocessor control system for fully automated monitoring and control of the reverse osmosis unit with **two-digit alphanumeric display** of permeate conductivity*, forced stop and full tank, **malfunction signals**: low pressure, hard water and high conductivity*, automatic restart of operation after progressive rest period, **LEDs** for operation and disinfection, concentrate flushing each operating cycle, forced flushing after 24 h standby

Additional connections possible:

Inputs (low voltage) for level control with 1 or 2 float switches, hardness monitoring unit (the RO 524 controller includes control functions for the limitron hardness monitoring unit), shut-downs by external signal (forced stop, regeneration).

Outputs for softening unit (230 V / 50 Hz) and DDC (collective malfunction signal on floating change-over contact).

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

Technical Data UO Budget		80	130
Permeate flow rate	l/h	80	130
Min. salt rejection	%	95	95
Recovery	%	50	50
Operating pressure approx.	bar	10.0	10.0
Membrane element/amount		4021/1	4021/1
Voltage	V/Hz	230/50	230/50
Motor power	kW	0.4	0.4
Pre-fusing	A	16	16
Feedwater connection	R	¾" AG	¾" AG
Permeate/concentrate connection	DN	10	10
Conductivity range*	µS/cm	1 – 99	1 – 99
Min./max. feedwater pressure	bar	3 / 6	3 / 6
Min./max. feedwater temperature	°C	5 / 35	5 / 35
Max. ambient temperature	°C	40	40
pH		3 – 11	3 – 11
Height	mm	370	370
Width	mm	800	800
Depth	mm	370	370
Weight approx.	ca. kg	31	31
Code no.		381 900	381 901