KKWO19B Kordin Industrial Estate
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REVERSE OSMOSIS MODELS EKO 1

INDUSTRIAL

System Capacities

- The system capacities indicated are based on feed water with a total dissolved solid (TDS) content of <1500mg/l and a recovery of 35% to 50%
- Capacity will vary according to the feed water TDS and temperature.
- The pump operating pressure will vary according to the feed water quality.
- Typically pump pressure will be in the range of 7 to 11 Bar.

Dimensions

- **RO unit** : 0.7m (L) and 0.4m (W)
- **Overall Height**: Between 1m and 1.35m according to the model.
- Sufficient space will be required in front of the unit to allow filter replacement

Models

Model	Capacity (cu-m/day)	Power (Watts)	Pump (Lit/hr)	Membranes 2 ½ "
EKO 0.5	0.7	370	300	1 x 21"
EKO 1	1.5	370	400	1 x 40"
EKO 2	3.0	370	400	2 x 40"
EKO 3	5.0	550	600	3 x 40"
EKO 4	7.5	550	700	4 x 40"

Operating Conditions

Feed Pressure: 1.5 to 4 Bar

Power: 220VAC 50Hz 1 phase

Temperature range: 5°C to 35 °C

Feed pH: 3 to 8

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EKO 1 RANGE

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Equipment

The RO unit will be pre-assembled on a grey PVC Frame and will include the following main components:

- 1 phase IP 55 Motor 220VAC
- Brass rotary vane pump
- 21" or 40" x 2 ½" CSM Membranes or equal
- GRP Membrane vessels 400psi
- Brine control ball valve
- Brine – feed by-pass valve
- Electrical Control Enclosure
- Microprocessor Control
- Plastic & 316L Stainless Steel Pipe & Fittings
- Pump low pressure shut off switch
- Brass Inlet solenoid valve
- SSTL Inlet pressure gauge
- Level switch for system shut off or ***optional*** pressure switch
- 10" or 20" filter housing
- ***Optional*** 20'' Carbon Filter
- ***Optional*** Water quality indication

Pre-Treatment Information

The membranes used in most reverse osmosis systems including our EKO range, are spiral wound and made of a polyamide material. This material is not compatible with oxidizing agents such as chlorine normally found in tap water. The passages within a membrane are fairly small and un-dissolved materials can become lodged inside the membranes blocking it and reducing its capacity. Our systems come with an in-built safety carbon block filter but pre-treatment in the form of further carbon filtration and un-dissolved solid removal is normally required.

The reject from a reverse osmosis system has an increased concentration of salts and particularly hardness salts. Care must be taken to ensure that these salts do not precipitate in the membrane as this can lead to an irreversible damage. Depending on the feed water as well as the system recovery, a water softener or anti-scalant chemical injection may be required before the system as part of the pre-treatment.

Contact **TUA Engineering** for assistance on your pre-treatment requirement.