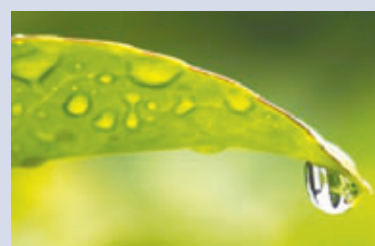![AZUD WATERTECH logo]

AZUD WATERTECH OSM
## Water desalination with **Reverse Osmosis membranes**

Water desalination plant **AZUD WATERTECH OSM,** to provide desalinated water for irrigation and industrial use, through brackish or sea water desalination with reverse osmosis membranes.

AZUD WATERTECH OSM solution

✓ **Reverse Osmosis membranes desalination,** to remove dissolved pollutants in water, such as mineral salts, heavy metals, pesticides, radioactive elements, etc.

✓ **More energy efficiency** than other desalination systems (distillation).

✓ **Physical-chemical pretreatments and automatic-scheduled preventive actions** to prevent RO membranes clogging with suspended solids, salts precipitates and/or bio fouling.

✓ **No need of chemicals reagents and unnecessary consumables** which generate cost and dependence.

✓ **Fully autonomous operation,** ensuring the water quality and the maximum equipment protection. No need of qualified and permanent staff.

✓ **Very compact and modular plant,** with simple and immediate installation and commissioning. Without civil works. Without setbacks.

Irrigation

Industry

![AZUD WATERTECH logo]

AZUD WATERTECH OSM
Water desalination with **Reverse Osmosis membranes**
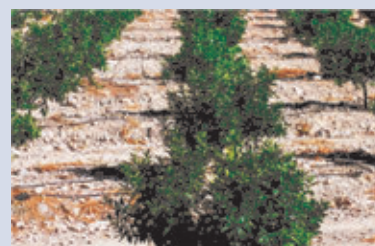
Standard features

- **Silex and Anthracite media filtration**
  - FRP or Polyamide tanks with silex and anthracite media.
  - Automatic valves for backwash.
- **Microfiltration cartridge**
- **High pressure pump with Variable Frequency Drive**
- **Reverse Osmosis membranes desalination**
  - TFC polyamide RO membranes in FRP vessels.
  - Automatic valves for automatic flushing on shutdown.
- **Anti-scale dosing**
- **Flushing and CIP skid**
  - Permeate tank and SS pump.
- **Measurement and control equipment**
  - Pressure switches; Inlet/Outlet and Max/Min.
  - Digital pressure transmitters and digital flow meters.
  - EC controller with sensor.
- **Electrical panel and automation and control system**
  - Electric circuit breakers, motor starters, relays, etc.
  - PLC and HMI providing full automatic control.
- **Framework, piping and electric connections. Testing**
  - Steel framework.
  - Pipes, accessories and valves for hydraulic line.
  - Electrical connections equipment-electrical panel.
  - Hydraulic and electric bench testing.

Standard plant models:

Model AZUD WATERTECH OSM	Maximum flow (m³/h | gph)		Dimensions (m) Length x Width x Height	Power installation KW
Sea water. High salinity (10.000 - 55.000 ppm)				
SSW4	4,0	880,0	7,0 x 2,0 x 2,3	25,01
SSW9	9,0	1.980,0	8,0 x 2,0 x 2,3	41,01
SSW14	14,0	3.080,0	8,0 x 2,0 x 2,3	57,01
SSW17	17,0	3.740,0	9,0 x 2,0 x 2,3	65,01
Brackish water. Medium salinity (4.500 - 10.000 ppm)				
SOW06	0,6	132,0	1,5 x 0,8 x 2,0	2,96
SOW1	1,0	220,0	4,0 x 1,5 x 2,3	2,96
SOW2	2,0	440,0	4,0 x 1,5 x 2,3	9,01
SOW3	3,0	660,0	5,0 x 1,5 x 2,3	10,51
SOW5	5,0	1.100,0	4,0 x 1,5 x 2,3	18,01
SOW6	6,0	1.320,0	4,0 x 1,5 x 2,3	18,01
SOW10	10,0	2.200,0	5,0 x 1,5 x 2,3	19,51
SOW15	15,0	3.300,0	5,0 x 1,5 x 2,3	26,51
SOW23	23,0	5.050,0	6,0 x 2,0 x 2,3	34,51
SOW32	32,0	7.040,0	6,0 x 2,0 x 2,3	49,51
SOW49	49,0	10.780,0	9,0 x 2,0 x 2,3	64,51
Brackish water. Low salinity (< 4.500 ppm)				
SOX07	0,7	155,0	1,5 x 0,8 x 2,0	2,96
SOX1	1,2	264,0	4,0 x 1,5 x 2,3	2,96
SOX2	2,4	528,0	4,0 x 1,5 x 2,3	5,51
SOX3	3,0	660,0	4,0 x 1,5 x 2,3	8,51
SOX5	5,0	1.100,0	4,0 x 1,5 x 2,3	8,51
SOX7	7,0	1.540,0	5,0 x 1,5 x 2,3	8,51
SOX11	11,0	2.420,0	5,0 x 1,5 x 2,3	15,51
SOX16	16,0	3.520,0	6,0 x 1,5 x 2,3	19,51
SOX23	23,0	5.060,0	6,0 x 2,0 x 2,3	23,01
SOX30	30,0	6.600,0	7,0 x 2,0 x 2,3	26,51
SOX40	40,0	8.800,0	9,0 x 2,0 x 2,3	48,51