

# AZUD

## WATERTECH

### AZUD WATERTECH OSM

Water desalination with Reverse Osmosis membranes



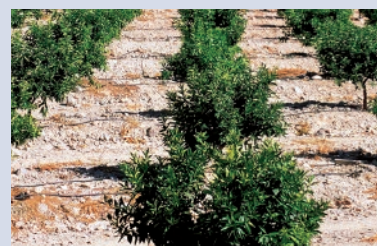
Water desalination plant AZUD WATERTECH OSM, to provide desalinated water for irrigation and industrial use, through brackish or sea water desalination with reverse osmosis membranes.

#### 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



### 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)				
SOW6	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