

# BRACKISH WATER REVERSE OSMOSIS SYSTEM ADES-BRO8





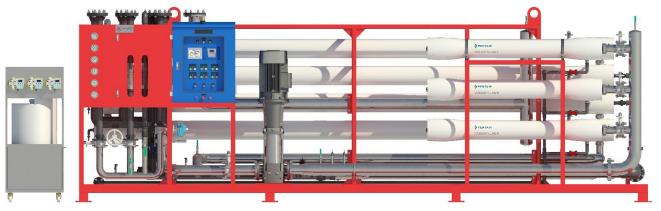
**Series** 

## Model ADES-BRO8-060

#### **GENERAL INFORMATION**

With the state of art technology, ATS has always in place decades of expertise to build a robust and reliable Reverse Osmosis system for the challenging markets. Using RO membrane from LG Chem NanoH<sub>2</sub>O with Core technology.

Thin-film-Nano-Composite (TFN) instead of conventional technology Thin-Film-Composite (TFC). TFN gives higher performance compared to TFC regards to Flow rate, salt rejection and operating pressure.



\*The above photo of ADES-BR08-060 is for illustration purpose only.

#### ADES-BRO8-060 system includes:

- ✓ Vertical multistage pump with IE3 motor & VFD.
- ✓ 8" TFN spriral wound RO membrane (LG Chem NanoH₂O).
- ✓ 5µm cartridge pre-filter (Aqualine Pentair).
- Low pressure piping: uPVC, Sch80 with NSF / ANSI certificate.
- ✓ High pressure piping: SUS316, Sch5.
- ✓ PLC & HMI 7" control panel.
- ✓ SS400 with 3 layers epoxy coated steel skid frame.

- ✓ FRP membrane housing (Codeline Pentair).
- Automatic control with electric valves.
- Permeate, Concentrate & Recirculation flow indicators.
- Pressure sensors & pressure gauges.
- ✓ ORP, EC meters & controllers.
- Connection with JIS10K Flange.
- √ 380 415V / 3Phase / 50Hz power supply.
- Anti-scalant dosing pre-filled with 1 pail (SpectraGuard 360 – PWT chemical).

#### **Available Options**

- Membrane cleaning skid (CIP).
- pH sensors added.
- High rejection membrane elements.
- Feed / Permeate blending.
- DIN / ANSI flange connection.
- SUS304 / SUS316 skid frame.

#### **System Features / Benefits**

- Easy to operate, plug and play system.
- Fully automated system.
- Optimized footprint.
- Designed to fit in a high cube container.
- High permeability at low feed pressure.
- Significantly reducing operating costs.

#### **Cartridge Filter**

## **RO Membrane Specifications**

Housing Model	AQUALINE 80AQ15-60 (NC)
Operating Pressure (bar)	10.3
Material	FRP
Filter Element Model	AL05-60B
Length (inch)	60
Media Efficiency (µm)	5 (Nominal)
Material	PP

Membrane Model	LG BW 400 ES
Effective Membrane Area (m²)	37
Diameter x Length (inch)	8 x 40
Stabilized Salt Rejection (%)	99.6
Feed Spacer (mil)	34
Filtration Flux (LMH)	Up to 27

#### Feed water quality<sup>1</sup>

# **System and Operating Configuration**

SDI	≤ 5
Oil & Grease (mg/L)	≤ 0.1
TOC (mg/L)	≤ 3
COD (mg/L)	≤ 10
Free Chlorine (mg/L)	≤ 0.1
Fe <sup>2+</sup> (mg/L)	≤ 4
Fe <sup>3+</sup> , Mn, Al (mg/L)	≤ 0.05

<sup>&</sup>lt;sup>1</sup>Please contact us if the feed water source is worse than the above standard.

Model	ADES-BRO8-060
No. of Membranes	75
No. of Pressure Vessel	15
Dimension <sup>2</sup> L x W x H (mm)	7500 x 2200 x 2600
Approx. Weight (kg)	5730
Permeate Flow (m³/h)	56 - 65
Recovery (%)	75 (±5)

<sup>&</sup>lt;sup>2</sup>The dimensions of the system may vary and subject to change without prior notice.

#### **Mechanical Connections (Flange)**<sup>2</sup>

Feed Port	DN150 (6")
Off-spec Port	DN100 (4")
Permeate Port	DN100 (4")
Concentrate Port	DN65 (2½")
Drain Port	DN25 (1")
Pressure Vessel Type	Multi-port™



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