

AquaPak™

# Seawater Desalination Systems



MODERNWATER

## AQUAPAK™ SEAWATER DESALINATION SYSTEMS

Modern Water's AquaPak™ – Seawater desalination units are high specification, cost effective, self-contained systems designed to treat seawater from a range of sources. The systems are suitable for a variety of applications including potable or industrial water supply, temporary or emergency water supply, construction site water supply, the oil and gas industry as well as golf, resort or hotel complexes.

### KEY BENEFITS

- Short delivery times
- Quick to install and setup on site
- Modular
- Cost effective
- Fully supported by UK AIM stock exchange listed company
- Low energy consumption
- High quality product water that meets WHO guidelines for Drinking Water Quality

### STANDARD UNITS INCLUDE

- Feed pumps
- Sand filters
- Dosing units
- Cartridge filters
- High pressure pumps
- Energy recovery
- RO pressure vessels and membranes
- CIP system

### TYPICAL APPLICATIONS

- Potable or industrial water supply
- Water supply for construction sites or camps
- Temporary water supply for breakdown, emergency or planned maintenance shut-downs
- Emergency water supply during periods of drought
- Resort or golf course potable supply or irrigation

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## CAPACITY RANGE

The AquaPak™-Seawater system capacities range from 100—500m<sup>3</sup>/day.

Skid-mounted or containerised systems can be provided depending on the requirements of the client.

### MODEL RANGE AND CAPACITIES

MODEL	CAPACITY
AquaPak™-100S	100m <sup>3</sup> /day
AquaPak™-250S	250m <sup>3</sup> /day
AquaPak™-500S	500m <sup>3</sup> /day

*The units can be installed in parallel to provide flow rates in excess of 500m<sup>3</sup>/day. Other bespoke capacities can be provided.*

## CONTAINERISED UNITS

Model	AquaPak-100S	AquaPak-250S	AquaPak-500S
Type	1 x 20 ft container	1 x 20 ft container	1 x 40 ft container
Dimensions (mm)	6000x2400x2900	6000x2400x2900	12000x2400x2900
Shipping weight (tonnes)	5	6	12
Operating weight (tonnes)	9	14	20
Feedwater connection	DN 65	DN 100	DN 125
RO Permeate connection	DN 40	DN 50	DN 80
RO Concentrate connection	DN 32	DN 50	DN 65
Power connection*	3ph-380V,50Hz	3ph-380V,50Hz	3ph-380V,50Hz
Ventilation	Air extraction fan	Air extraction fan	Air extraction fan

\*other voltage / Hz can be provided

## SKID MOUNTED UNITS

Model	AquaPak-100S	AquaPak-250S	AquaPak-500S
Dimensions (mm)	6000x2400x2900	6000x2400x2900	12000x2400x2900
Shipping weight (tonnes)	3	4	8
Operating weight (tonnes)	7	12	16
Feedwater connection	DN65	DN 100	DN 125
RO Permeate connection	DN 40	DN 50	DN 80
RO Concentrate connection	DN 32	DN 50	DN 65
Power connection	3ph-380V,50Hz	3ph-380V,50Hz	3ph-380V,50Hz

\*other voltage / Hz can be provided

## GENERAL

- Container Access - Full opening doors at both ends. If required side access (personnel) can also be provided.
- Lighting- Container units are provided with 4 or 6 (x) 30W lights
- Air Conditioning – Air conditioning units can be provided if required. As standard the units are fitted with an air extractor fan.
- Pipework – High pressure piping is duplex, low pressure piping is UPVC.

## OPERATION SPECIFICATION

Maximum Feedwater Temperature	35°C
Feedwater Pressure	2 bar
Recovery	40%
Feedwater Turbidity (ntu)	10
Feedwater TDS Range (mg/L)	≤45,000
pH tolerance	6-9
Feedwater Boron (mg/L)	<3
Salt Rejection	≥ 99%

### KEY INSTRUMENTATION

- Control panel
- Pressure gauges, transmitters and switches
- Conductivity transmitters
- pH transmitters
- Flow meters
- Liquid level switches
- Alarms and shut down functions

### TECHNICAL SUPPORT

- Installation
- Commissioning
- Training
- Operation (Short or long term)
- Maintenance or 'Health Check' visits / operational support
- Spares and consumables
- All units are supplied with operating and maintenance manuals in an electronic format

### OTHER PROCESSES AVAILABLE

- Pretreatment
  - Activated Carbon Filter
  - Ultra-Filtration (UF)
  - Dissolved Air Flotation (DAF)
- Post treatment
  - Remineralisation
  - 2nd pass
  - Electrodeionization (EDI)

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