

Sea Water Reverse Osmosis

Reliable potable water for the offshore rig – compact, skid-mounted desalination that turns seawater into fresh water on demand.

DALY RO45

45 m³/day

DALY RO75

75 m³/day

DALY RO82

82 m³/day

DALY RO100

100 m³/day

FACTORY-TESTED SKID



THE WATERMAKER
Skid-Mounted SWRO Unit

- 45-100 m³/day potable output
- Duty + standby prefiltration
- Plug-and-run deck installation

Turning the sea into a reliable water supply

Fresh water is scarce where it is needed most. Around **97% of the world's water is seawater**, and demand for potable water keeps rising. For platforms and vessels far from shore, shipping water by boat is costly, weather-dependent and ties up valuable deck logistics.

Desalination removes that dependency. Among the available processes, **membrane desalination by reverse osmosis (RO)** has become the most widely used method worldwide – it is compact, efficient relative to thermal methods, and scales neatly to the duty of a single rig.

Daly's seawater RO Watermakers bring that capability to the deck. Drawing feed from the rig's sea-water ring main, they produce potable water on demand – from Arabian Gulf seawater at salinities up to 42,000 ppm – with remineralisation for taste and downstream protection.

WHAT THE WATER IS USED FOR OFFSHORE

Drinking water

Safe potable supply for the crew.

Utilities

Wash-down, galley & accommodation.

Process water

Make-up & operational needs.

97%

of the world's water reserves consist of seawater

42k_{ppm}

Arabian Gulf feed salinity handled – full seawater duty

≈40%

of feed water recovered as fresh product water

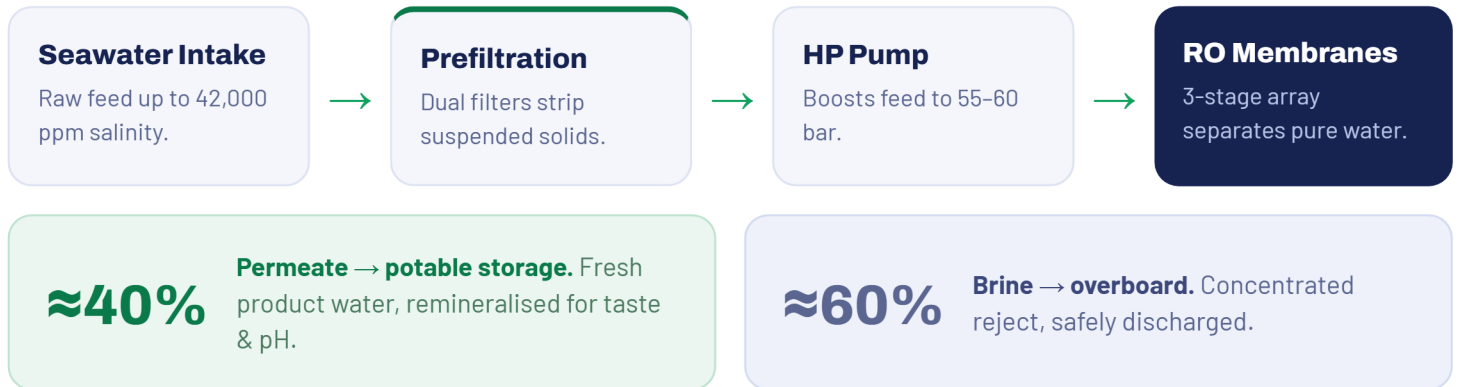
45–100 m³/day

potable output per unit (283–629 bbl/day)

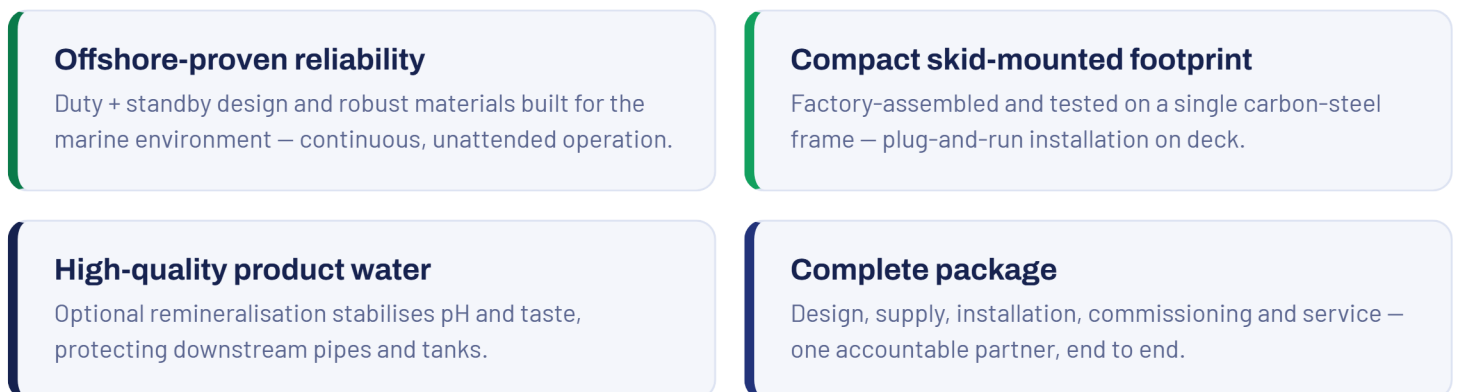
Engineered water solutions, made to run offshore

Daly Middle East's **Hydro Systems Division** designs, supplies, installs and commissions engineered water-treatment systems for the offshore and marine environment – high-volume, high-quality output from a small footprint, with full lifecycle support from our Dubai base.

HOW IT WORKS



WHY DALY WATERMAKERS



Two matched skids, one water train

The system is delivered as two factory-tested skids – the prefiltration skid conditions the feed, and the SWRO skid produces the water.



STAGE 1

Prefiltration Skid

Dual filter vessels run as **duty + standby**, so filtration never stops for cleaning. Backwash regenerates the media and protects the membranes downstream.

- **Graded multi-media bed** – captures suspended solids & turbidity.
- **Automatic backwash** – triggered on differential pressure.
- **Optional booster pump** – matched to ring-main pressure.
- **Schneider or Siemens control panel** – with E-stop & main isolator.



STAGE 2

SWRO Watermaker

High-pressure pump and a **multi-stage membrane array** deliver 45 to 100 m³/day of potable water, with automatic conductivity monitoring on the product line.

- **HP pump at 55-60 bar** – driving seawater through the membranes.
- **LG (South Korea) / Hydranautics (US) membranes** – in Codeline pressure vessels.
- **HMI & conductivity trip** – diverts off-spec permeate automatically.
- **Remineralisation option** – stabilises pH & taste for storage.

Two models, one proven platform

Both units are optimally sized for an offshore rig and can be custom-built for local salinity and temperature. Standard system assumptions: Arabian Gulf duty, seawater up to 42,000 ppm.

PARAMETER	Daly RO45	Daly RO82
Permeate output	45 m ³ /day (283 bbl)	82 m ³ /day (515 bbl)
Seawater feed required	≈ 115 m ³ /day	≈ 210 m ³ /day
Feed pressure	1.2 – 5.2 bar	1.2 – 5.2 bar
HP operating pressure	55 – 60 bar	55 – 60 bar
Recovery	≈35– 40%	≈ 35-40%
Max feed salinity	42,000 ppm	42,000 ppm
Electrical supply	380–480V · 3Ø · 50/60 Hz	380–480V · 3Ø · 50/60 Hz
Membrane array	3-stage · LG (S. Korea) / Hydranautics (US)	5-stage · LG (S. Korea) / Hydranautics (US)
Prefiltration	Dual, duty + standby	Dual, duty + standby
Skid frame	CS, epoxy-coated, 1-piece	CS, epoxy-coated, 1-piece
Control panel / System	Schneider / Siemens	Schneider / Siemens
Piping	uPVC (Class E) / SS316L	uPVC (Class E) / SS316L

THE COMPLETE PACKAGE

01 · Design

Engineered to the platform's duty & footprint.

02 · Supply

Factory-assembled, tagged & tested skids.

03 · Commission

H2S & T-BOSIET-trained engineers, in dock or offshore.

04 · Service

Critical spares held in Dubai, fast response.

TALK TO US

Let's engineer your water supply

EMAIL

sales@daly-me.com

PHONE

+971 4 887 2049

WEB

daly-me.com

