



FRESH WATER
MAKER



Ovivo® FWM Series

Standard, pre-engineered, modularised fresh water makers designed to last and built for demanding offshore environments



Key Features

- 20, 40, 60 & 80 TPD outputs
- Super duplex stainless steel piping
- Fully automatic with PLC control including
- Condition monitoring instrumentation
- ASME VIII & X pressure vessels
- Weatherproof heated enclosure available
- Safe area and Hazardous area options

Key Benefits

- All skids fit through standard 750mm doorways, hatches and narrow spaces, ideal for retrofits
- Modular skid design, flexible arrangement
- 25 year design life with minimal maintenance
- Advanced backwashable primary media filter
- Plug & play technology
- 2 Year warranty standard with service centers worldwide

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OVIVO®
Bringing water to life®

Introduction

Fresh water makers are life support systems on oil platforms, FPSO's and FSO's and need to be extremely reliable, robust with a minimum of operator intervention and maintenance. Ovivo offers a fresh water maker built around normal offshore engineering standards and materials of construction built to a standard compact and modularised design. This allows for flexible layout arrangements and easy access into tight machinery spaces for retrofits and upgrades. The Ovivo FWM series has plug and play technology allowing inter-skid piping and cabling to be coupled quickly if skid modules delivered separately. Our class leading warranty comes standard, backed by our full 24 hour, 7 days per week customer support centre.

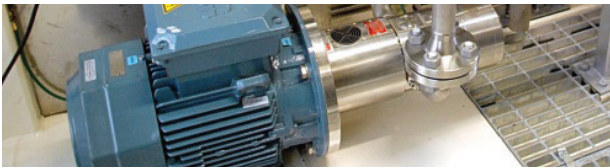


Over 100 years of quality & experience



Through our heritage brand Caird & Rayner Clark, Ovivo has over 100 years experience

in providing quality fresh water solutions. From early evaporative units on steam ships and naval vessels through to modern custom engineered plants for the highest of offshore specifications, including NORSOK. The experience and lessons learned from decades of working offshore have been distilled into this range of superior offshore standard Fresh Water Makers to give operators the reliability, strength and simple maintenance they demand.



Options available:

- LP Feed booster pump
- Feed pressure reducing valve
- Terminal point isolation valves
- Feed ORP analyser for on-line chlorine reduction monitoring
- Sodium or Calcium hypochlorite disinfection dosing
- Mineralisers for pH neutralisation
- ATEX Zone 2 or Class 1 Div 2 Hazardous Area design
- 50 / 60 Hz power supply options
- Full operational FAT
- ASME VIII/X stamped pressure vessels
- External weather proof heated enclosure
- No local PLC/HMI only skid edge JB for control within platform PCS/IPCC
- Delivered as single skid or 4 separate skids

| Model No. | Fresh Water Output ¹ | Net Weight | Operating Weight ² | Overall Size | Electrical Load kW 50Hz (60Hz) | | Seawater feed flowrate | Feed pressure ³ |
|-----------|---------------------------------|---------------|-------------------------------|--------------------------------------|--------------------------------|----------------------|--------------------------------|----------------------------|
| | m ³ /24hr (Gal/24hr) | Kg (Lbs) | Kg (Lbs) | LxWxH mm (in) | Installed | Max. Consumed at 5°C | m ³ /hr (US Gal/hr) | Min / Max bar g (psi g) |
| FWM 20 | 20 (5,283) | 2,564 (5,653) | 2,898 (6,389) | 2250 x 2150 x 2250 (88% x 84% x 88%) | 16.0 (16.0) | 11.25 (11.4) | 4.02 (1,061) | 3 / 5 (43.5 / 72.5) |
| FWM 40 | 40 (10,566) | 2,798 (6,169) | 3,209 (7,066) | 2250 x 2150 x 2250 (88% x 84% x 88%) | 23.0 (23.0) | 17.4 (18.4) | 6.67 (1,762) | 3 / 5 (43.5 / 72.5) |
| FWM 60 | 60 (15,850) | 3,102 (6,839) | 3,469 (7,648) | 2250 x 2150 x 2250 (88% x 84% x 88%) | 23.0 (23.0) | 17.4 (18.4) | 6.67 (1,762) | 3 / 5 (43.5 / 72.5) |
| FWM 80 | 80 (21,133) | 3,189 (7,031) | 3,692 (8,139) | 2250 x 2150 x 2250 (88% x 84% x 88%) | 31.0 (31.0) | 21.8 (23.6) | 8.82 (2,330) | 5 / 7 (72.5 / 101) |

1. Based on seawater temperature range of 5-25 deg C at 36,000mg/l seawater salinity.

2. Weight and electrical load stated without options, please consult Ovivo for additional information

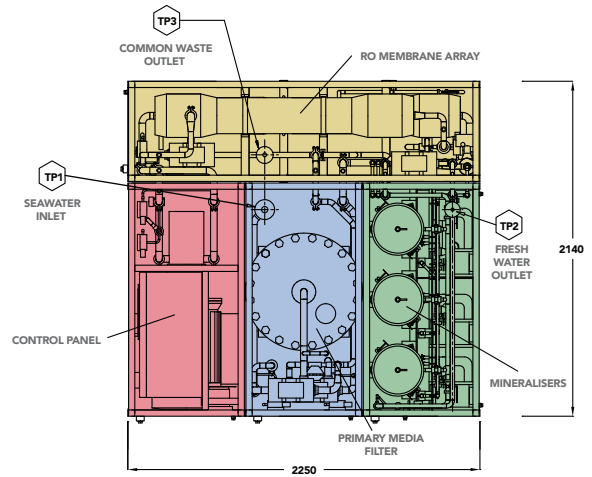
3. Outside this range an optional LP feed pump and/or inlet PCV/PSV can be included to suit your feed pressure conditions.



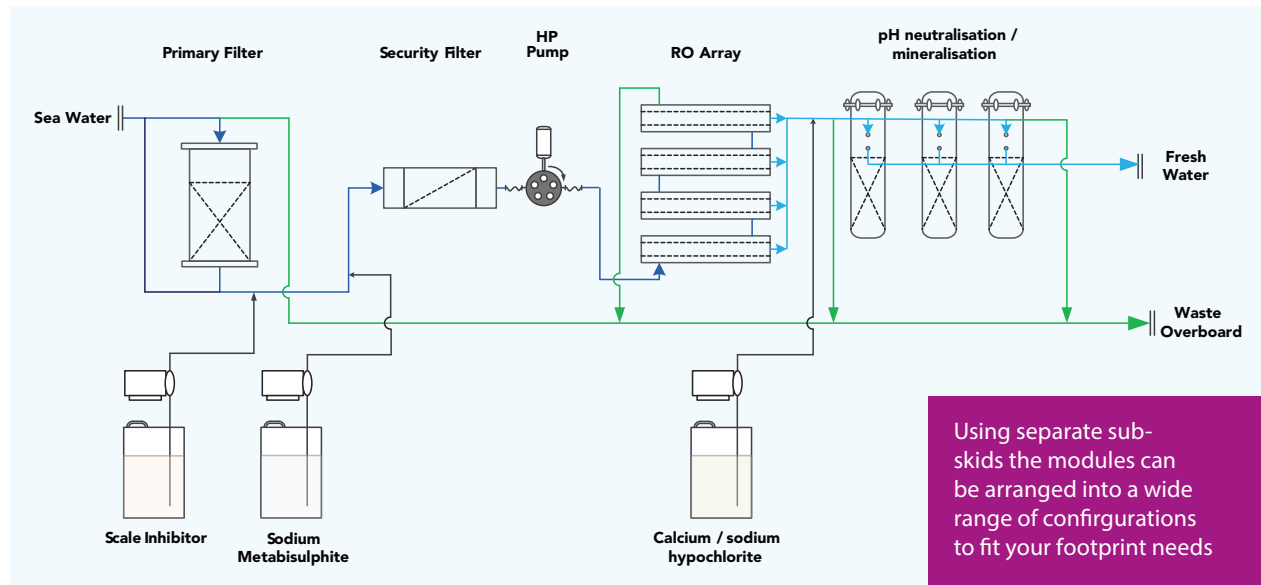
Modules

Ovivo Fresh Water Makers are made up of 4 modules:

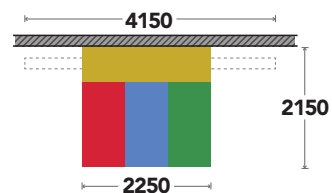
| | | |
|---|-------------------------------------------|--|
| 1 | Membrane Module (2250mm x 650mm) | |
| 2 | Pump Module (1500mm x 750mm) | |
| 3 | Pretreatment Module (1500mm x 750mm) | |
| 4 | Post-treatment Module (1500mm x 750mm) | |



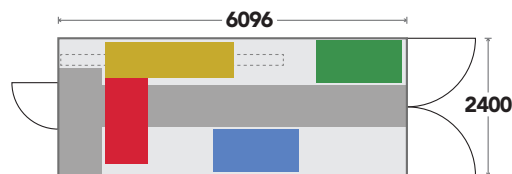
Process Flow:



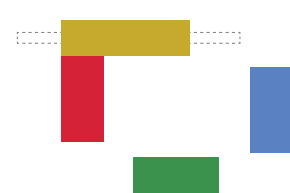
Possible Configurations:



Configuration A
Single cube skid, rear bulkhead



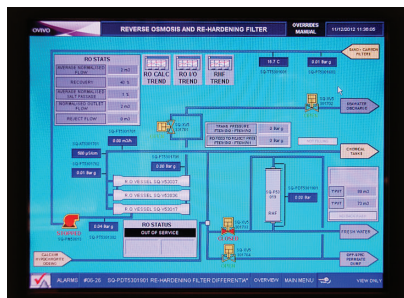
Configuration B
Container mounted



Configuration C
Separate skids, any arrangement



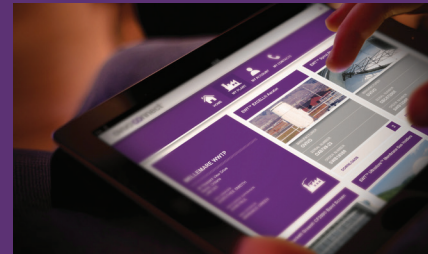
In addition to our standard FWM series of fresh water makers, Ovivo also designs and builds custom engineered plants to a myriad of bespoke engineering specifications and has supplied plants over 30 years to all of the oil majors around the world. Our solutions have produced fresh water, utility water and process water for crude oil desalting and enhanced oil recovery located in some of the most challenging environments.



Ovivo also supplies a range of ancillary water treatment equipment including produced water treatment for oil separation, hydrophore units for firewater and freshwater, UV disinfection units and seawater inlet automatic strainers (Ovivo Brieden Filters).

Please visit our website and follow the link to Energy / Oil & Gas for

Contact your local Ovivo office or representative for prices and delivery times .



OVIVO® CONNECTSM

Get Connected! Like all Ovivo equipment, your new Ovivo® FWM Series fresh water maker will provide you with access to the Ovivo® ConnectSM portal, our innovative client resource application.

- Need access to your O&M Manual?
- Needs spare parts?
- Want the latest tips and news on your product?



Just scan the QR Code, or type-in the URL featured on the nameplate, to access dedicated web pages that will help you maintain and optimize your plant and your Ovivo equipment!

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