Proteus RO type fresh water generators
Seawater desalination systems

Hatenboer-Water designs and develops durable reverse osmosis units for any type of vessel or offshore structure. Easy to install, operate and maintain, these solutions can be delivered in a customized or standard set-up.

Standard
The standard series offer a plug & play, economical and quickly supplied alternative to traditional solutions. Units can be rented out to your facilities for a short or longterm period.

Application
The Proteus series covers a range of 36-100 m³/day fresh water production on any sea. Proteus water treatment systems are highly suitable for ships and offshore installations such as jack-up rigs, offshore platforms, cruise ships, accommodations, cattle ships, ferries, AHTS and so on.

Standard features
- Touch screen Hatenboer-Water X7 microcontroller
- Membrane configuration accommodating varying seawater salinity levels and temperatures
- 3 years free of charge 'log sheet data support'
- Continuous monitoring of permeate quality and automatic dump.
- X7-Controller for remote monitoring

Key specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>DPS 80-2</th>
<th>DPS 80-3</th>
<th>DPS 80-4</th>
<th>DPS 80-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>36 m³ per day</td>
<td>55 m³ per day</td>
<td>70 m³ per day</td>
<td>100 m³ per day</td>
</tr>
<tr>
<td>Installed power HP pump</td>
<td>11 kW</td>
<td>11 kW</td>
<td>15 kW</td>
<td>18.5 kW</td>
</tr>
<tr>
<td>Seawater feed flow</td>
<td>4.0 m³/h</td>
<td>5.2 m³/h</td>
<td>7.0 m³/h</td>
<td>8.9 m³/h</td>
</tr>
<tr>
<td>Dimensions (LxWxH)</td>
<td>1800x1500x</td>
<td>1800x1650x</td>
<td>2800x1700x</td>
<td>1800x1800mm</td>
</tr>
<tr>
<td>Weight (dry / operating)</td>
<td>800 kg / 1350 kg</td>
<td>1100 kg / 1900 kg</td>
<td>1150 kg / 2300 kg</td>
<td>1200 kg / 2450 kg</td>
</tr>
</tbody>
</table>
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Low maintenance
The Proteus RO series is equipped with:
• Large pre-filtration surface and multimedia filtration for increased performance
• Conservative membrane design with low loads to minimise fouling
• Automatic fresh flush system to prevent fouling in standby modus
• Chemical cleaning unit for cleaning fouled membranes
• Chemical conservation for membrane preservation in longterm off-line modus.

Heavy duty design
• Box type ridged steel base frames for safe transport and easy installation
• Duplex stainless steel high pressure manifolds for long life time
• Slow running high pressure pump for long life time and minimal down time.

Optional features
The following components are available for the Proteus series:
• Automatic operation multimedia filter
• Seawater feed pre-heater (for seawater < 5°C)
• Hadex® disinfectant dosing unit for chlorination of RO permeate
• Neutralising filter for post-treatment RO permeate.

Standards and guidelines
Electrical
• IEC 61892-1 – 61892-7
• IEC 60092-350
• IEC 60092-351
• IEC 60092-353
• IEC 60228, class 2 & 5

NORSOK (optional)
• S-001
• P-001 § 5.2
• P-100 § 22
• P-002 § 27
• E-001

Directives and guidelines
• MLC, 2006
• WHO
• EC directives
• Machinery safety (2006/42/EC)
• EMC directive (2004/108/EC)
• Low voltage directive (2006/95/EC)
• Pressure equipment directive (97/23/EG)
• MODU CODE