**DRY INERT GAS GENERATOR**

**DRY IG MODE:**
IGG, COOLER AND DRYER IN OPERATION.
Inerting and Drying of Cargo Piping and Tanks

**DRY AIR MODE:**
ONLY COOLER AND DRYER IN OPERATION.
Aeration and Drying of Cargo Tanks and Void Spaces

**Advantages**
- Light weight, compact design.
- Fully automatic operated, no manual adjustments of system.
- Easy maintenance.
- Oil spill prevention.
- Less energy consumption in Dry Air Mode.
- Quick attainment of dew point below -45°C.
- Burner combustion chamber in high performance austenitic stainless steel (ASTM N08904).

All generator units have a horizontal, recessed combustion chamber. This construction retains fuel oil that, in a event of misfire, would otherwise be discharged overboard. Our system have replaced the classical two bed adsorption dryer with a compact and patented SSCR silica gel rotor. This adsorption dryer has been used during many years in other parts of the industry.

**Operation & Maintenance**
- Graphical operator interface, all major process parameters displayed on the screen in main operator panel.
- All dryer-unit parts made of stainless steel (AISI 316L).
- Software selectable modes of operation, no manual adjustments when changing from dry inert to dry air mode.
- Easy inspection of inside components by inspection hatches.
- Standard marine type centrifugal blowers.

**Options**
- Multiple LCD operator terminals.
- System signals and operation available for ships IAS via MODBUS and ETHERNET communication.
- Electric or steam regeneration heater.

**Brief Description**
- Inert gas generation by clean and soot free combustion of air and fuel in Maritime Protection burner/combustion chamber.
- Automatic O2 regulation by venturi and fuel pump motor speed controller.
- O2 set-point is easily changed from control panel.
- Efficient cooling in scrubber tower.
- First stage drying by cooling the gas in a chilled water cooler unit, dew point first stage about 5°C.
- Second stage and final drying by a continuously rotating dryer, dew point final stage below -45°C.

- Regeneration with steam heater and/or electrical heater.
- Continuous regeneration of rotor dryer unit, this entails a very good and stable dew point.
- In dry air mode there is no need of IG generator.
- Inlet air supply from position just in front of dryer unit.

**From the terminal you can:**
- Start & stop the IG generator and dryer system.
- Change of drying modes.
- Monitor process and status indication.
- Monitor alarm and change alarm set points.
- Change controller set points and parameters.
### TECHNICAL SPECIFICATIONS

Table based on 1% O\textsubscript{2} content by volume, discharge pressure 2500 mm WG and Dew point -45°C.

<table>
<thead>
<tr>
<th>DIGG TYPE</th>
<th>CAPACITY [Nm\textsuperscript{3}/h]</th>
<th>SEAWATER CONSUMPTION [m\textsuperscript{3}/h]</th>
<th>FUEL CONSUMPTION [kg/h]</th>
<th>POWER CONSUMPTION [kW] (with elec. reg heater)</th>
<th>OVERALL SYSTEM WEIGHT [kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPG-700-084</td>
<td>900-2000</td>
<td>45-180</td>
<td>42-170</td>
<td>38-181</td>
<td>7100</td>
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<td>MPG-800-104</td>
<td>2000-3200</td>
<td>180-290</td>
<td>185-269</td>
<td>181-238</td>
<td>8400</td>
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<td>MPG-900-124</td>
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<td>290-405</td>
<td>269-379</td>
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<td>MPG-1000-154</td>
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<td>405-510</td>
<td>379-479</td>
<td>335-387</td>
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<td>800-883</td>
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<td>883-1010</td>
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<td>21000</td>
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<td>1080-1395</td>
<td>1010-1295</td>
<td>746-932</td>
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<td>1395-1665</td>
<td>1295-1556</td>
<td>932-1131</td>
<td>26600</td>
</tr>
</tbody>
</table>

### GAS COMPOSITION WITH MARINE GAS OIL (MGO)

- CO <100ppmv
- NOX <100 ppmv
- N\textsubscript{2} = Balance
- SO\textsubscript{2} <1ppmv
- CO\textsubscript{2} approx. 14%
- O\textsubscript{2} : 0.5-1%
- Soot content (Bacharac): 0

**Service:**

Service and/or repairs can be carried out in a short notice, worldwide.

**After Sales:**

When spare parts or consumables are needed, our After Sales Department is at your service 24 hours a day.

**Contact us:**

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- guarantee@maritimeprotection.no

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**MARITIME PROTECTION IS A HIGHLY REPUTATED COMPANY IN THE SHIPPING INDUSTRY AND ONE OF THE LEADING SUPPLIERS OF INERT GAS SYSTEMS. MARITIME PROTECTION INERT GAS SYSTEMS HAVE BEEN INSTALLED ON MORE THAN 1,000 OIL TANKERS, PRODUCT TANKERS, BARGES, FPSO’S AND GAS CARRIERS WORLD WIDE. MARITIME PROTECTION IS FULLY OWNED BY WILHELMSEN TECHNICAL SOLUTIONS.**

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