HIGH-PRESSURE COMPRESSORS FOR LNG BOG MANAGEMENT
MAN ME-GI FUEL-GAS SUPPLY ON MERCHANT SHIPS

LNG AS A MARINE FUEL ALTERNATIVE

Upcoming IMO regulations will cut the sulfur content of marine diesel to 0.5% by the year 2020. LNG will consequently become a competitive alternative fuel for merchant ships. Occurring boil-off gas (BOG) must be managed to protect the structural integrity of the onboard gas tanks. The most efficient way of managing boil-off gas (BOG) is to use it as fuel.

Burckhardt Compression offers a variety of compressor solutions for BOG handling that have been specifically designed for marine applications. Our Marine High-Pressure Compressors can compress the BOG for injection into high-pressure ME-GI engines.

CUSTOMER BENEFITS OF MARINE HIGH-PRESSURE COMPRESSORS

- Low investment cost for Marine High-Pressure Compressor system required (attractive CAPEX)
- Gas-tight crankcase for greater safety and zero gas loss
- Possibility of installing redundant BOG-handling compressors
- Low power consumption leads to minimized operational costs (OPEX)
- Small footprint and minimum weight
- Low system complexity for easy integration
- Ship’s crew can perform onboard maintenance
- Simple parallel operation with pump vaporizer
- Full range of after-sales services available
MARINE HIGH-PRESSURE COMPRESSOR – MINIMIZED NOISE AND VIBRATION

DESIGN FEATURES

- Robust marine design
- Directly driven by an electric motor
- Installed on anti-vibration mounts
- Water-cooled cylinders and gas coolers
- Integrated crankshaft-driven lube oil system
- Compliant with IMO, IGF and IGC codes
- Designed according to marine standards

PROCESS LAYOUT

![Process Flow Diagram]

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Type</th>
<th>Max. Speed rpm</th>
<th>Rated Power kW / hp</th>
<th>Mass Flow* kg/h / lbs/h</th>
<th>Width mm / in</th>
<th>Height mm / in</th>
<th>Length mm / in</th>
<th>Weight kg / lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHP-A-310</td>
<td>1'180</td>
<td>168 / 225</td>
<td>450 / 990</td>
<td>3'200 / 126</td>
<td>3'650 / 144</td>
<td>5'200 / 205</td>
<td>14'000 / 30'870</td>
</tr>
<tr>
<td>MHP-C-310</td>
<td>1'180</td>
<td>350 / 470</td>
<td>900 / 1’985</td>
<td>3'250 / 128</td>
<td>3'150 / 124</td>
<td>6'700 / 264</td>
<td>24'700 / 54'465</td>
</tr>
</tbody>
</table>

*Gas composition: CH\textsubscript{4}/N\textsubscript{2}-85/15%. Suction pressure: 1.03 - 1.1 bar a (14.9 - 16 psi a). Gas suction temperature (pre-heated): –40 °C (~–90 °F - –140 °F)