Gas Freeing Fans

globally focused on cleaner solutions
Gas freeing on-board ships is carried out for various reasons including change of cargo, health and safety and tank maintenance. It is essential that this is carried out efficiently and safely. Victor Marine’s range of fans competently achieve these aims and are well respected in the marine market.

**Key Features**

- Designed and Class Approved for use in hazardous areas
- Supply or Extract mode by simple reversal of water supply
- Integral ‘Direct In-Line’ drive; no gearbox to maintain or fail
- Non-Sparking (ATEX approved)
- Can operate at low pressures
- Lightweight and compact for portability
- Can be supplied for horizontal mounting
- High air-flow throughput
- High static pressure
- Efficient motors
- Marine grade materials
- Fail-safe bleed tube to indicate seal failure

The product featured above is a VP1350W Water Driven Gas Freeing Fan
Victor Marine design all fans to be able to work in explosive and hazardous conditions. All impellers, casings and motors are designed with compatible materials or with incorporated anti-spark tracks - in full accordance to the EC ATEX directive.

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**PAGAS Impeller**

The VP1400, VP700 & VP650 have impeller blades made from PAGAS (an Anti-Static Glass Reinforced Polyamide) material capable of working in explosion proof conditions. The PAGAS material is low weight, has a high tensile strength and is suitable in operating temperatures from -40°C to +110°C.

**Blade Profiles**

VP1400 & VP700 – Airfoil type designed for highest efficiency and low power consumption.

VP650 – Sickle type designed for noise reduction whilst generating high static at lower speeds.

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**ATEX Approved Fans**

- Use in Hazardous Areas
- Victor Marine design all fans to be able to work in explosive and hazardous conditions. All impellers, casings and motors are designed with compatible materials or with incorporated anti-spark tracks - in full accordance to the EC ATEX directive.

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**3D Francis Turbine Water Motor Runner**

Installed in VP1500W, VP1000W, VP1400W and VP700W

- Higher Efficiency.
- Designed in-house and powered by VM’s innovative and efficient 3D Francis turbine, the VP1500 series fans reduce water consumption by 15% compared to conventional turbines, with no compromise on power and air-flow throughput.
### Drive Medium

<table>
<thead>
<tr>
<th>Drive Medium</th>
<th>VP700W Water</th>
<th>VP800W Water</th>
<th>VP1000W Water</th>
<th>VP1350W Water</th>
<th>VP1400W Water</th>
<th>VP1500W Water</th>
<th>VP650A Compressed Air</th>
<th>VP950A Compressed Air</th>
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</thead>
<tbody>
<tr>
<td>Max Air Flow</td>
<td>7000 m³/hr</td>
<td>8700 m³/hr</td>
<td>10540 m³/hr</td>
<td>14350 m³/hr</td>
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<td>14800 m³/hr</td>
<td>6750 m³/hr</td>
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<tr>
<td>m³/min</td>
<td>116</td>
<td>144</td>
<td>175</td>
<td>238</td>
<td>232</td>
<td>246</td>
<td>112</td>
<td>149</td>
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<tr>
<td>Max Static Pressure</td>
<td>N/m² (Pa)</td>
<td>970</td>
<td>1130</td>
<td>1790</td>
<td>2600</td>
<td>1500</td>
<td>3120</td>
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<tr>
<td>Max Air/Water Requirement</td>
<td>m³/hr</td>
<td>15</td>
<td>18</td>
<td>27</td>
<td>68</td>
<td>48</td>
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<td>178</td>
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<tr>
<td>Max Working Pressure</td>
<td>kg/cm²</td>
<td>12</td>
<td>10.5</td>
<td>12</td>
<td>10.5</td>
<td>7</td>
<td>12</td>
<td>7</td>
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<tr>
<td>Exhaust Mode</td>
<td>Yes, Reversible</td>
<td>Yes, Reversible</td>
<td>Yes, Reversible</td>
<td>Yes, Reversible</td>
<td>Yes, Special Impeller</td>
<td>Yes, Reversible</td>
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<td>Identification</td>
<td>Stainless Steel 316</td>
<td>Aluminium LM6</td>
<td>Stainless Steel 316</td>
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<td>Spark Track</td>
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<td>Beryllium Copper</td>
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<td>Air Stator</td>
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<td>Couplings</td>
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<td>Motor Type</td>
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<tr>
<td>Installation</td>
<td>ID 318mm, PCD 389mm</td>
<td>ID 318mm, PCD 389mm</td>
<td>ID 318mm, PCD 389mm</td>
<td>ID 318mm, PCD 389mm</td>
<td>ID 400mm, PCD 480mm</td>
<td>ID 318mm, PCD 389mm</td>
<td>ID 318mm, PCD 389mm</td>
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<td>Weight Operational</td>
<td>19 kgs</td>
<td>31 kgs</td>
<td>27 kgs</td>
<td>31 kgs</td>
<td>25 kgs</td>
<td>27 kgs</td>
<td>17 kgs</td>
<td>24 kgs</td>
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<tr>
<td>Weight Visual</td>
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<td>31 kgs</td>
<td>27 kgs</td>
<td>31 kgs</td>
<td>25 kgs</td>
<td>27 kgs</td>
<td>17 kgs</td>
<td>24 kgs</td>
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</tbody>
</table>

*Multiple deck flanges are available to suit a variety of deck openings. Various couplings (Nakajima, Storz, Camlock etc.) and a variety of hoses can also be supplied.*
Gas Freeing Fan Ancillaries

Portable Vent Stacks
These Vent Stacks are manufactured from durable galvanised mild steel to a height of 2m for compliance with SOLAS chapter 59 paragraph 2. Specifying a discharge exit velocity of 30m/sec at 2 metres above deck level and for use with either VP1350W mk5 or VP1500W Gas Freeing Fans will ensure requirement is met.

Fan Trolley
Manufactured in a lightweight tubular construction, this trolley is available to ease transportation of the fans in restricted areas; complete with durable wheels and a fan retaining strap for added protection.

Air Ducting
Specially designed for marine ‘hazardous areas’, this is flame retardant and anti-static, heavy duty spiral wound PVC coated, flexible fabric ducting. Produced in standard 300mm diameter nominal bore or special purpose diameters and lengths, these ducts are suitable for both supply and exhaust mode operation. Various mild steel, stainless steel (AISI 316) and galvanised flanges to suit both deck opening and VP gas freeing fan outlet ducts are available; many sizes ex-stock.

Lay-flat Hose
Heavy Duty Supply (Red) and Medium Duty Exhaust (Blue)
Woven polyester reinforcement encased in polyurethane internal and external liner. Available in 38mm and 50mm nominal bore and a maximum length of 50 metres.

Air Supply Hose (Black)
Neoprene rubber reinforced with multiple rayon braids. Available in 19mm and 25mm nominal bore.

Connections and Spanners
We stock an extensive range of hose connections, hose couplings, hose spanners and deck valve adapters, mostly with BSP threads. Hose spanners are manufactured from a non-sparking alloy for complete safety.

Spares Kits
Some of our spares are listed below and are available in basic (A), standard (B), complete (C) or tune-up kits.

Tab Washer; Hex Bolt; Dowty Washer; Internal Circlip; Ball Bearing; Shaft; Impeller Key; Runner Key; Seal Clamp Sleeve; Sealing O Ring; Mechanical Face Seal; Runner; Washer; Nylon Washer; Setscrew; Lip Seal; Waved Washer.

Layer Hose
Heavy Duty Supply (Red) and Medium Duty Exhaust (Blue)
Woven polyester reinforcement encased in polyurethane internal and external liner. Available in 38mm and 50mm nominal bore and a maximum length of 50 metres.

Connections and Spanners
We stock an extensive range of hose connections, hose couplings, hose spanners and deck valve adapters, mostly with BSP threads. Hose spanners are manufactured from a non-sparking alloy for complete safety.

Flanges
All fans are supplied with a standard 318mm deck flange. Other deck flanges are available on request.

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