Air Preparation Units
Model SH Series
Filters, Regulators and Filter Regulators

Superior performance throughout the full operational range

Features:
- High flow
- High stability
- 316L stainless steel
- Full range of accessories
- Arctic service options to -50°C
Reliability and Innovation in directional control valves

Features
- Heavy duty all 316 stainless steel
- Large flow paths
- High stability
- Mounting options
- Thread milled ports
- Elastomer seals
- Modular design
- Rugged and corrosion resistant
- High flow from 0.5 bar dp
- Precision adjustment
- Panel, pillar, bracket
- Leak tight joints
- Tight shut off
- In line maintenance

Filter unit
- 10 micron, 20 - 30 micron (standard)
- 40 - 50 micron

Bowl retention capacity
- 25cc (manual drain), 50cc (auto drain)

Working temperatures
ASH: -50°C to +40°C  SH: -20°C to +180°C

Operating fluids
Air, natural gas, inert gases and sweet & sour gases

Flow capacity
10 bar inlet pressure, 6 bar secondary pressure with 1 bar pressure drop using X4 (40 - 50 micron element)

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Flow Capacity</th>
<th>C.V.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4”</td>
<td>62.2 SCFM</td>
<td>1.7</td>
</tr>
<tr>
<td>1/2”</td>
<td>162.8 SCFM</td>
<td>1.9</td>
</tr>
<tr>
<td>1”</td>
<td>513.76 SCFM</td>
<td>1.42</td>
</tr>
</tbody>
</table>

Maximum inlet pressure
- 16 bar - auto drain only
- 20, 40 bar - manual drain only

Regulated pressures
- 0.03 to 2 bar 0.4 - 29 psi
- 0.03 to 4 bar 0.4 - 58 psi
- 0.20 to 6 bar 2.9 - 87 psi
- 0.25 to 8 bar 3.6 - 116 psi
- 0.40 to 10 bar 5.8 - 145 psi

Gauges
- Dry - 50mm, 63mm with psi, bar or dual psi/bar dial
- Glycerine filled - 50mm, 63mm with psi, bar or dual psi/bar dial polycarbonate window and blow-out device

Relief Port
- Threaded 1/8” NPT vent with removable plastic ingress protection
- For gas service, plastic ingress protection can be removed to enable vented gas to be piped away
- Typical bleed flow at 2 bar secondary pressure 1.5 cm³/sec
- Relief differential 0.15 bar at 2 bar secondary pressure (relieving type only)

Certification
Ingress protection designed to meet heavy seas and deck rating

Preferred Range:
- SH06-FR-SR-MD-06-X3 1/4” NPT, self relieving, manual drain, 6 bar, 20-30 micron filter element, C.V. 1.7
- SH06-FR-SR-MD-10-X3 1/4” NPT, self relieving, manual drain, 10 bar, 20-30 micron filter element, C.V. 1.7
- SH12-FR-SR-MD-06-X3 1/2” NPT, self relieving, manual drain, 6 bar, 20-30 micron filter element, C.V. 1.9
- SH12-FR-SR-MD-10-X3 1/2” NPT, self relieving, manual drain, 10 bar, 20-30 micron filter element, C.V. 1.9
- SH06-FR-SR-AD-10-X3 1/4” NPT, self relieving, auto drain, 10 bar, 20-30 micron filter element, C.V. 1.7
- SH12-FR-SR-AD-10-X3 1/2” NPT, self relieving, auto drain, 10 bar, 20-30 micron filter element, C.V. 1.9
- SH25-FR-SR-MD-10-X3 1” NPT, self relieving, manual drain, 10 bar, 20-30 micron filter element, C.V. 14.2

Filter unit
- 10 micron, 20 - 30 micron (standard)
- 40 - 50 micron

Bowl retention capacity
- 25cc (manual drain), 50cc (auto drain)
Reliability and Innovation in directional control valves

Mechanical Construction
- Body - stainless steel AISI 316L
- Bonnet & bowl - stainless steel AISI 316L
- Element - sintered 316 stainless steel
- Springs - 302S26 stainless steel to BS 2056 (or Inconel)
- Regulating spring - inconel X750 AMS5699
- Ports - 1/4", 3/8" & 1/2" thread milled NPT (BSPP and other options available)
- Seals - viton as standard
- Fasteners - 18/10 stainless steel
- Adjustment mechanism - M8 socket set screw
- Mounting mechanism - Panel, pillar or bracket
- Diaphragm - Silicon

SH Series Selection Chart

<table>
<thead>
<tr>
<th>Port Sizes</th>
<th>Model Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; NPT</td>
<td>SH06-F1-MD-X3 1/4&quot; NPT, filter, manual drain, 20-30 micron filter element, C.v. 1.7</td>
</tr>
<tr>
<td>1/2&quot; NPT</td>
<td>SH12-F1-MD-X3 1/2&quot; NPT, filter, manual drain, 20-30 micron filter element, C.v. 1.9</td>
</tr>
<tr>
<td>1/4&quot; NPT, regulator, self relieving, 10 bar, C.v. 1.7</td>
<td>SH06-R1-SR-10</td>
</tr>
<tr>
<td>1/2&quot; NPT, regulator, self relieving, 10 bar, C.v. 1.9</td>
<td>SH12-R1-SR-10</td>
</tr>
</tbody>
</table>

SH Standard service
S40H 40 bar inlet
ASH Arctic service

Output Pressure Ranges

<table>
<thead>
<tr>
<th>Nominal</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>02 bar</td>
<td>0.03 - 2 bar</td>
</tr>
<tr>
<td>04 bar</td>
<td>0.03 - 4 bar</td>
</tr>
<tr>
<td>06 bar</td>
<td>0.2 - 6 bar</td>
</tr>
<tr>
<td>08 bar</td>
<td>0.25 - 8 bar</td>
</tr>
<tr>
<td>10 bar</td>
<td>0.4 - 10 bar</td>
</tr>
</tbody>
</table>

Filter Element
X1 5 - 10 micron element
X3 20 - 30 micron element (standard)
X4 40 - 50 micron element

Ordering Example

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Filter Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulator</td>
<td>R1 X1 5 - 10 micron element</td>
</tr>
<tr>
<td>Filter</td>
<td>F1 X3 20 - 30 micron element (standard)</td>
</tr>
<tr>
<td>Filter Regulator</td>
<td>FR X4 40 - 50 micron element</td>
</tr>
</tbody>
</table>

Filter Element
- X1 5 - 10 micron element
- X3 20 - 30 micron element (standard)
- X4 40 - 50 micron element

Gauges
- X5 - 10bar 50mm diameter gauge with 316 SS case
- X5 - 16bar 50mm diameter gauge with 316 SS case
- X5 - 160psi 50mm diameter gauge with 316 SS case
- X8 - 10 bar 50mm glycerine filled gauge with 316 SS case
Other scale plates available

Mounting Options
- L8 Panel mount kit
- L9 Pillar mount kit
- L46 Panel mount and bracket kit

Additional Options
- L11 Tamperproof adjustment cap
- L15 Viton / stainless steel bug vent
- K10 Plastic hand wheel adjuster
Filter Regulator

Panel Mount Kit (L8)
- Top cap is threaded and supplied with a panel mount ring

Pillar Kit (L9)
- Back Plate

Technical Details:
- 1/8" NPT gauge port
- Screw type drain (manual drain)
- 1/4" NPT female port (autodrain)
- Allow 50mm below the filter regulator for bowl removal
- Maximum man drain: 197.0
- Maximum auto drain: 241.0
- Minimum spacer size: 20mm
- Panel Mount Kit: 13mm
- Pillar Kit: 30mm
Regulators
- designed specifically for use in severe and corrosive environments
- various mounting options
- ‘lug’ mounting as standard
- suitable for mounting in any position

Filters
- reduced size and weight
- cost effective
- manual drain or auto drain
- high flow rates
- range of filter elements
- bracket mounting as standard
- allow 50mm below the filter regulator for bowl removal

Model SH/ASH Series
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Reliability and Innovation in directional control valves

Accuracy of information

We take care to ensure that product information in this catalogue is reasonably accurate and up-to-date. However, our products and services are continually updated so to ensure accurate and up-to-date information please refer to the issue list on the web site or contact a member of our sales team.

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