

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

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

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)

1/4"	- 62.2 SCFM	C.v. 1.7
1/2"	- 162.8 SCFM	C.v. 1.9
1"	- 513.76 SCFM	C.v. 14.2

Ports

service ports - 1/4", 3/8", 1/2", 3/4" & 1" NPT (BSPP options)
gauge ports - 1/8" NPT standard (1/4" NPT and BSPP options)

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

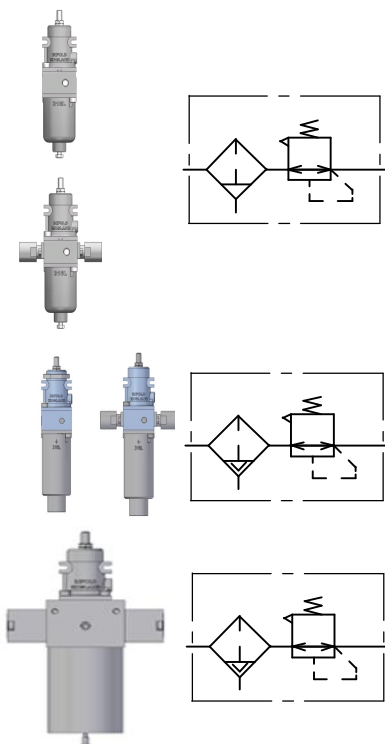
Relief Port

- 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 1.5cm³/sec
- Relief differential 0.15 bar at 2 bar secondary pressure (relieving type only)

Seal repair kits

- Please add the prefix SRK on the models required leaving off port sizes (only require model number up to element reference) e.g. SRKSH-FR-SR-MD-10-X3

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

Reliability and Innovation in directional control valves

Filter unit

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

Bowl retention capacity

25cc (manual drain), 50cc (auto drain)

Maximum inlet pressure

16 bar - auto drain only
20, 40 bar - manual drain only

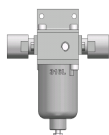
Regulated pressures

- 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

Certification

Ingress protection designed to meet heavy seas and deck rating

Reliability and Innovation in directional control valves

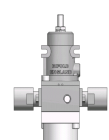


SH06-F1-MD-X3

1/4" NPT, filter, manual drain, 20-30 micron filter element, C.v. 1.7

SH12-F1-MD-X3

1/2" NPT, filter, manual drain, 20-30 micron filter element, C.v. 1.9



SH06-R1-SR-10

1/4" NPT, regulator, self relieving, 10 bar, C.v. 1.7

SH12-R1-SR-10

1/2" NPT, regulator, self relieving, 10 bar, C.v. 1.9

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

SH S40H ASH	Standard service 40 bar inlet Arctic service		Model Code													
06 09 12 19L 19 25	1/4" NPT 3/8" NPT 1/2" NPT 3/4" NPT (low flow - see SH 25 selection chart for high flow version) 3/4" NPT 3/4" NPT		Port Sizes													
R1 F1 FR	Regulator Filter Filter Regulator		Model Type													
SR NR	Self Relieving Non Relieving		(N/A to Filter Units)													
MD AD	Manual Drain Auto Drain		(N/A to Regulators)													
		<table><tr><th>Nominal</th><th>Actual</th></tr><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></table>	Nominal	Actual	02 bar	0.03 - 2 bar	04 bar	0.03 - 4 bar	06 bar	0.2 - 6 bar	08 bar	0.25 - 8 bar	10 bar	0.4 - 10 bar	Output Pressure Ranges	
Nominal	Actual															
02 bar	0.03 - 2 bar															
04 bar	0.03 - 4 bar															
06 bar	0.2 - 6 bar															
08 bar	0.25 - 8 bar															
10 bar	0.4 - 10 bar															
		X1 5 - 10 micron element X3 20 - 30 micron element (standard) X4 40 - 50 micron element	Filter Element													
SH	06	-	FR	-	SR	-	MD	-	10	-	X3	Ordering Example				

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

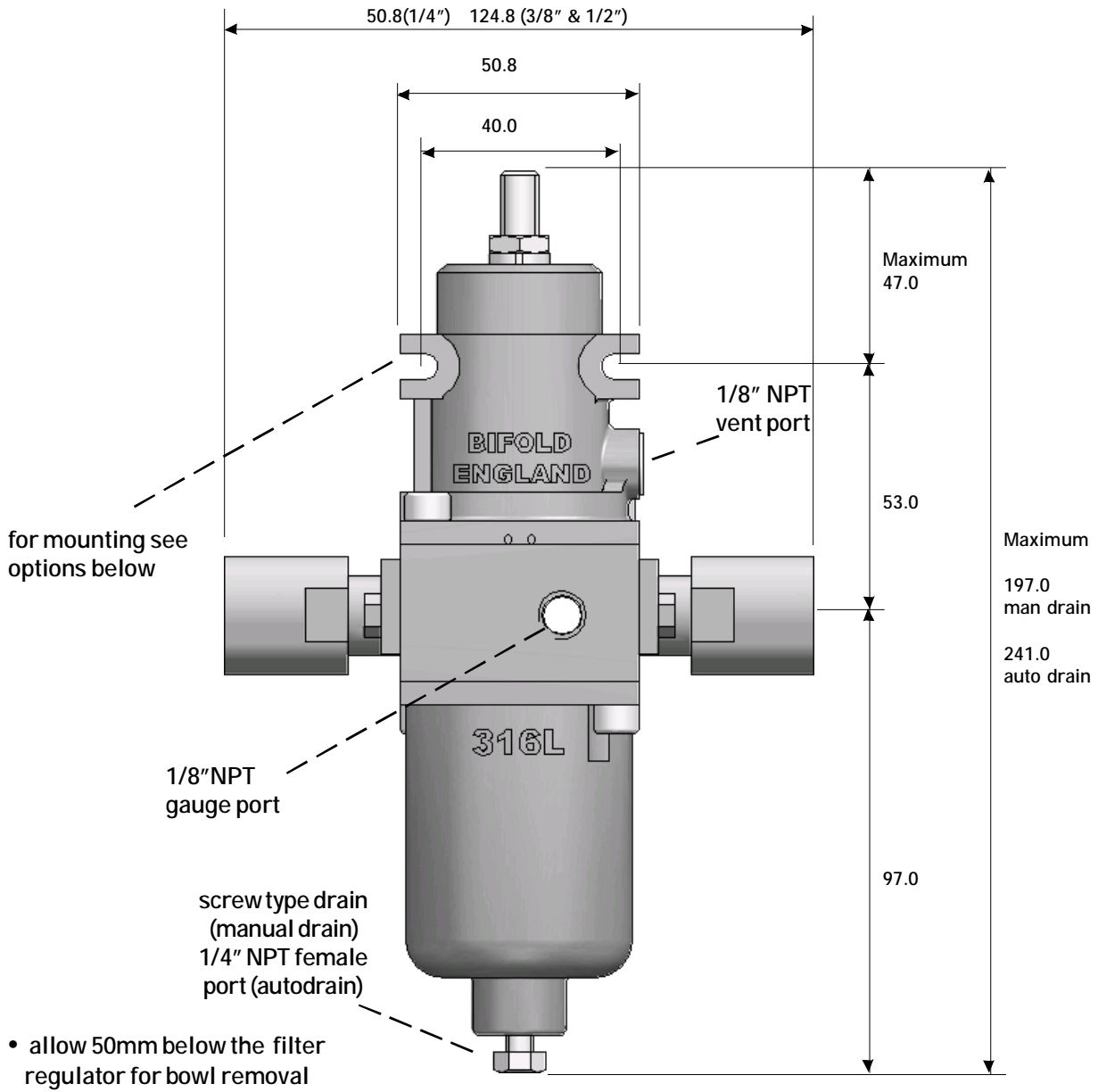
- L8 Panel mount kit
- L9 Pillar mount kit
- L46 Panel mount and bracket kit

Additional Options

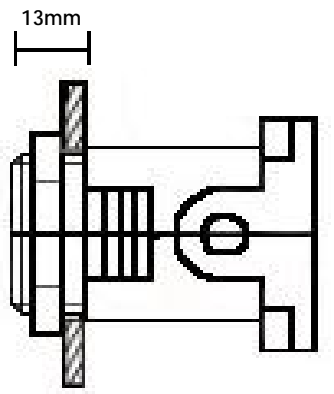
- L11 Tamperproof adjustment cap
- L15 Viton / stainless steel bug vent
- K10 Plastic hand wheel adjuster

Filter Regulator

Reliability and Innovation in directional control valves



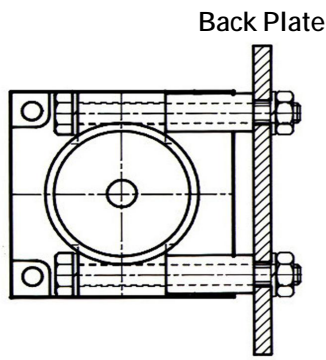
Panel Mount Kit (L8)



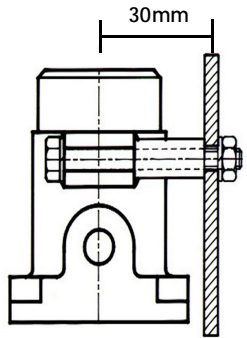
Top cap is threaded and supplied with a panel mount ring

Pillar Kit (L9)

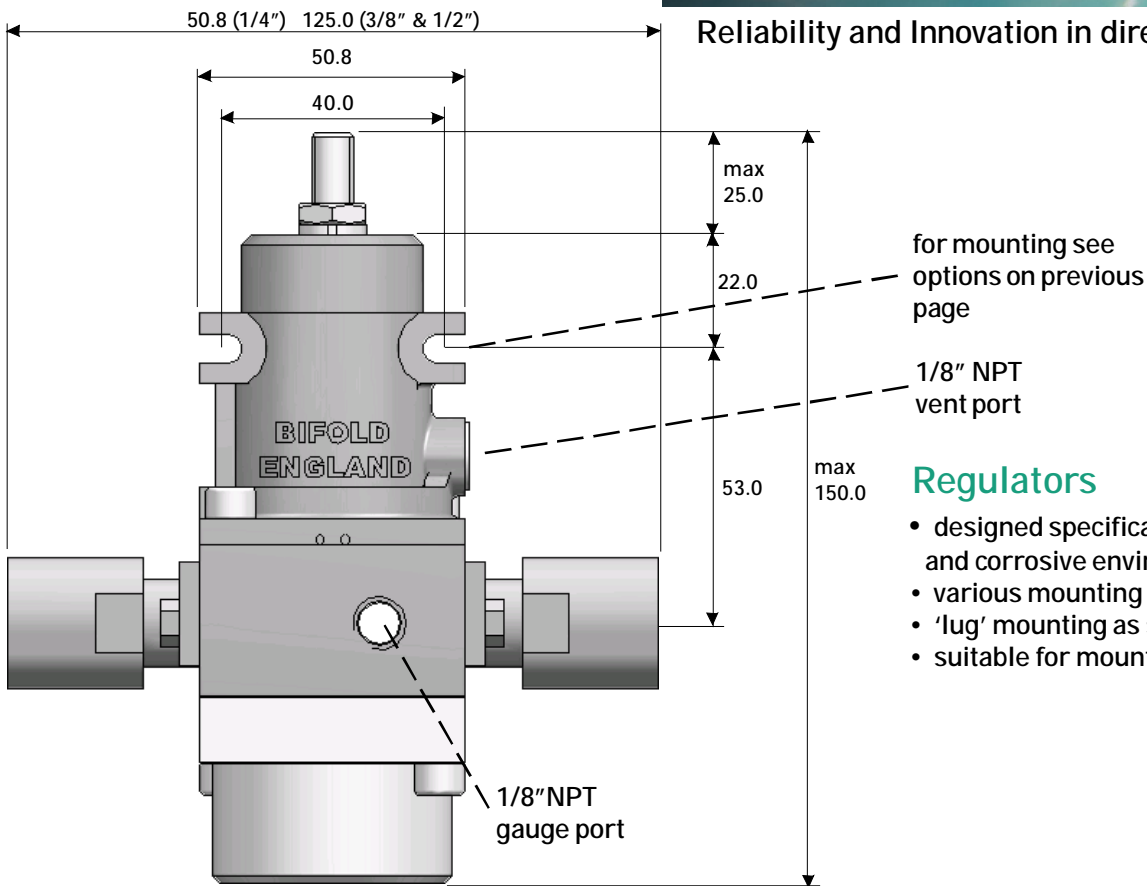
minimum spacer size 20mm



PLAN VIEW



SIDE VIEW

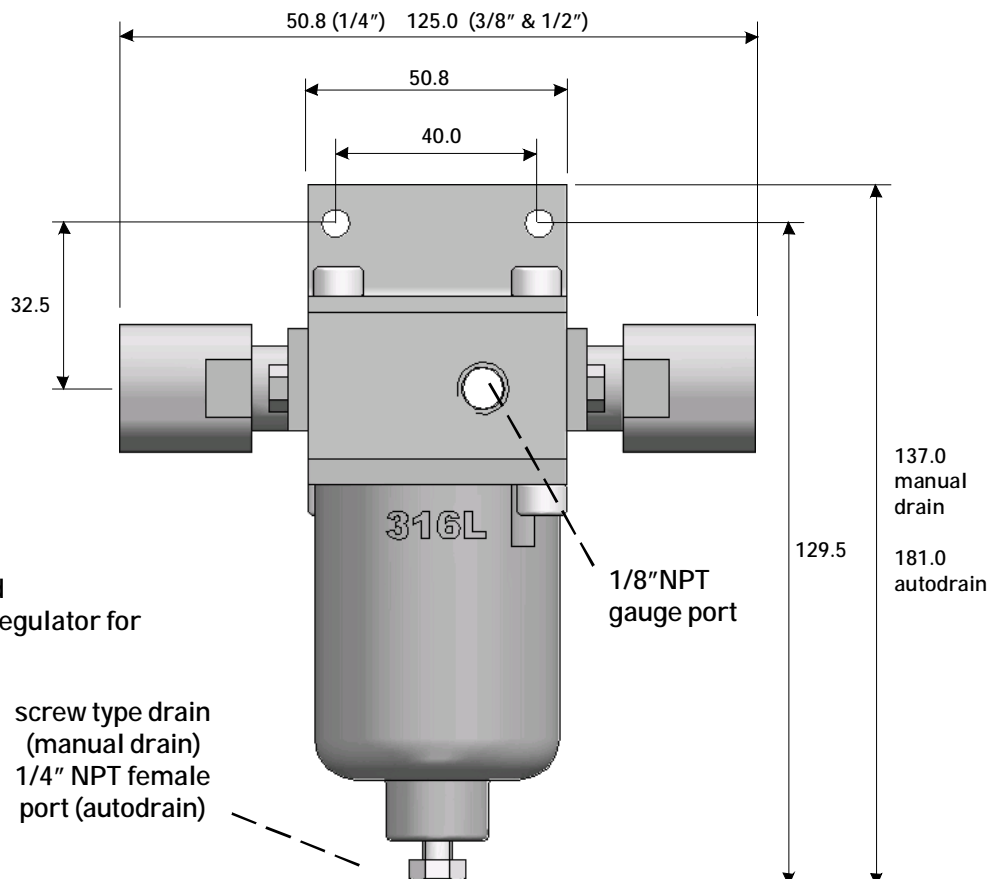


Regulators

- 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



screw type drain
(manual drain)
1/4" NPT female
port (autodrain)

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Quality Assurance

All Bifold Fluidpower products are manufactured to a most stringent QA programme. Every care is taken at all stages of manufacture to ensure that every product will give optimum performance and reliability. We are recognised to EN ISO 9001:2000. Functional test certificate, letter of conformity and copies of original mill certificates, providing total traceability are available on request, to BSEN 10204 3.1.B where available. The manufacturer reserves the right to make changes to the specifications and design etc., without prior notice

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