

Stainless Steel Base-Ported Filter

SSQLF15



Features and Benefits

- In-line version also available
- Element changeout from the top minimizes oil spillage
- Offered with standard Q and QPML deep-pleated coreless elements in 16" and 39" lengths with Viton® seals as the standard
- Offered in pipe, SAE straight thread, and flange porting
- Integral inlet and outlet test points are standard on all models
- Various Dirt Alarm® options
- All stainless steel provides compatibility with water-based fluids

Model No. of filter in photograph is SSQLF1539QZ5F4850D5.



MINING
TECHNOLOGY

500 gpm GH
1900 L/min RLT
1500 psi KF5
100 bar SRLT

Viton® is a registered trademark of DuPont Dow Elastomers.

K9

2K9

3K9

QF5

3QF5

QFD2

QFD5

QF15

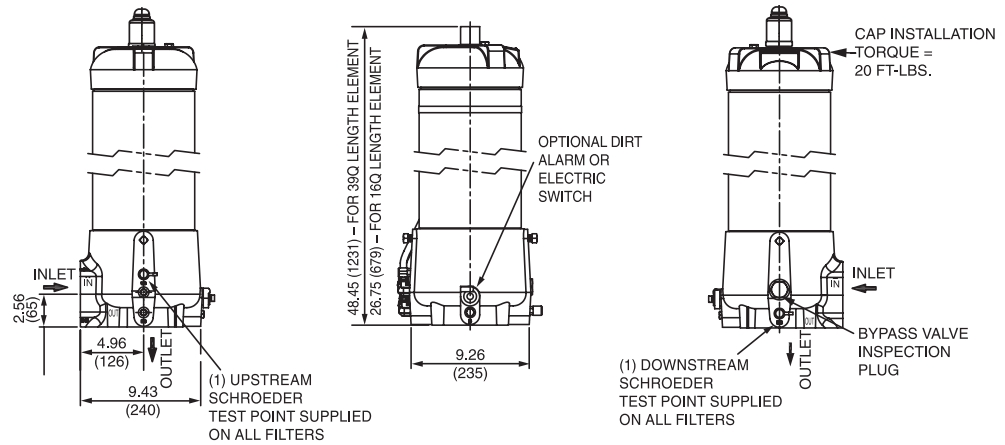
QLF15

SSQLF15

Applications

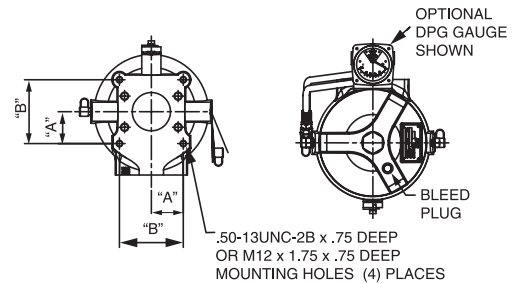
Flow Rating:	Up to 500 gpm (1900 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	1500 psi (100 bar)
Min. Yield Pressure:	4500 psi (310 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	Contact Factory
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 30 psi (2 bar) Full Flow: 55 psi (4 bar)
Porting Base & Cap:	Stainless Steel
Element Case:	Stainless Steel
Weight of SSQLF15-16Q:	163.0 lbs. (74.0 kg)
Weight of SSQLF15-39Q:	240.0 lbs. (109.0 kg)
Element Change Clearance:	16Q 12.00" (305 mm) 39Q 33.80" (859 mm)

Filter Housing Specifications



DIMENSIONAL DATA		
PORT SIZE	DIM A	DIM B
1½" (38)	2.00 (51)	4.00 (102)
2" (51)	2.00 (51)	4.00 (102)
2½" (64)	2.00 (51)	4.00 (102)
3" (76)	2.00 (51)	4.00 (102)
3" (4 bolt port only)	2.50 (64)	5.00 (127)

Metric dimensions in ().



Element Performance Information

Element	Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402			Filtration Ratio wrt ISO 16889 Using APC calibrated per ISO 11171		
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_x(c) \geq 200$	$\beta_x(c) \geq 1000$	
16Q	Z1/PMLZ1	<1.0	<1.0	<1.0	<4.0	4.2
	Z3/PMLZ3/PMLAS3V/AS3V	<1.0	<1.0	<2.0	<4.0	4.8
	Z5/PMLZ5/PMLAS5V/AS5V	2.5	3.0	4.0	4.8	6.3
	Z10/PMLZ10/PMLAS10V/AS10V	7.4	8.2	10.0	8.0	10.0
	Z25/PMLZ25	18.0	20.0	22.5	19.0	24.0
39Q	Z1/PMLZ1	<1.0	<1.0	<1.0	<4.0	4.2
	Z3/PMLZ3/PMLAS3V/AS3V	<1.0	<1.0	<2.0	<4.0	4.8
	Z5/PMLZ5/PMLAS5V/AS5V	2.5	3.0	4.0	4.8	6.3
	Z10/PMLZ10/PMLAS10V/AS10V	7.4	8.2	10.0	8.0	10.0
	Z25/PMLZ25	18.0	20.0	22.5	19.0	24.0

Dirt Holding Capacity

Element	DHC (gm)	Element	DHC (gm)	
16Q	Z1	276	PMLZ1	307
	Z3/AS3V	283	PMLZ3/PMLAS3V	315
	Z5/AS5V	351	PMLZ5/PMLAS5V	364
	Z10/AS10V	280	PMLZ10/PMLAS10V	330
	Z25	254	PMLZ25	299
39Q	Z1	974	PMLZ1	1485
	Z3/AS3V	1001	PMLZ3/PMLAS3	1525
	Z5/AS5V	954	PMLZ5/PMLAS5	1235
	Z10/AS10V	940	PMLZ10/PMLAS10	1432
	Z25	853	PMLZ25	1299

Element Collapse Rating: Q and QPML: 150 psid (10 bar)

Flow Direction: Outside In

Element Nominal Dimensions: 16Q: 6.0" (150 mm) O.D. x 16.85" (430 mm) long
16QPML: 6.0" (150 mm) O.D. x 16.00" (405 mm) long
39Q: 6.0" (150 mm) O.D. x 38.70" (985 mm) long
39QPML: 6.0" (150 mm) O.D. x 37.80" (960 mm) long

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Type Fluid Appropriate Schroeder Media

Petroleum Based Fluids	All E media (cellulose), Z-Media® and ASP media (synthetic)
High Water Content	All Z-Media® and ASP media (synthetic)
Invert Emulsions	10 and 25 µ Z-Media® and 10 µ ASP media (synthetic)
Water Glycols	3, 5, 10 and 25 µ Z-Media® and all ASP media (synthetic)
Phosphate Esters	All Z-Media® (synthetic) with H (EPR) seal designation and all ASP media (synthetic)

Fluid Compatibility

GH

RLT

KF5

SRLT

Pressure	Series	Element Part No.	Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid and 3" flange porting with a 30 psi (2.1 bar) bypass.				
To 1500 psi (100 bar)	Z- Media®	16 & 39QZ1	16QZ1	39QZ1			
		16 & 39QZ3	16QZ3	39QZ3			
		16 & 39QZ5	16QZ5	39QZ5			
		16 & 39QZ10	16QZ10		39QZ10		
		16 & 39QZ25	16QZ25 & 39QZ25				
		16 & 39QPMLZ1	16QPMLZ1	39QPMLZ1			
		16 & 39QPMLZ3	16QPMLZ3/PMLAS3V/AS3V		39QPMLZ3 PMLAS3V/AS3V		
		16 & 39QPMLZ5	16QPMLZ5/PMLAS5V/AS5V		39QPMLZ5 PMLAS5V/AS5V		
		16 & 39QPMLZ10	16QPMLZ10/PMLAS10V/AS10V		39QPMLZ10/PMLAS10V/AS10V		
		16 & 39QPMLZ25	16QPMLZ25		39QPMLZ25		
Flow	gpm	0	100	200	300	400	500
	(L/min)	0	500	1000	1500	1900	

Element Selection

Based on
Flow Rate

K9

2K9

3K9

QF5

3QF5

QFD2

QFD5

QF15

QLF15

SSQLF15

Pressure Drop Information

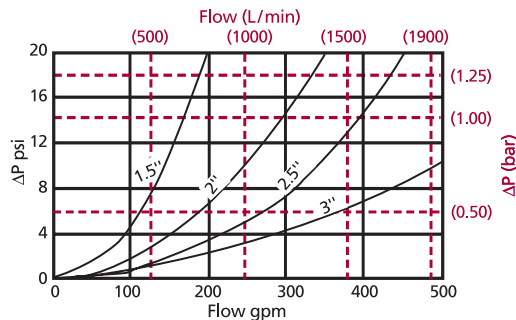
Based on
Flow Rate
and Viscosity

Shown above are the elements most commonly used in this housing.

Note: Contact factory regarding use of E media in High Water Content, Invert Emulsion and Water Glycol Applications. For more information, refer to Fluid compatibility: Fire Resistant Fluids, pages 19 and 20.

ΔP_{housing}

SSQLF15 ΔP_{housing} for fluids with sp gr = 0.86:



ΔP_{element}

ΔP_{element} = flow x element ΔP factor x viscosity factor

El. ΔP factors @ 150 SUS (32 cSt):

16QZ1	.09	39QZ1	.03
16QZ3/16QAS3V	.04	39QZ3/39QAS3V	.01
16QZ5/16QAS5V	.04	39QZ5/39QAS5V	.01
16QZ10/16QAS10V	.03	39QZ10/39QAS10V	.01
16QZ25	.01	39QZ25	.01
16QPMLZ1	.08	39QPMLZ1	.03
16QPMLZ3/		39QPMLZ3/	
16QPMLAS3V	.05	39QPMLAS3V	.02
16QPMLZ5/		39QPMLZ5/	
16QPMLAS5V	.05	39QPMLAS5V	.02
16QPMLZ10/		39QPMLZ10/	
16QPMLAS10V	.04	39QPMLAS10V	.01
16QPMLZ25	.02	39QPMLZ25	.01

If working in units of bars & L/min, divide above factor by 54.9.

Viscosity factor: Divide viscosity by 150 SUS (32 cSt).

sp gr = specific gravity

Sizing of elements should be based on element flow information provided in the Element Selection chart above. Please note that water has a lower viscosity than 150 SUS fluid and therefore pressure drops for water will be lower.

$$\Delta P_{\text{filter}} = \Delta P_{\text{housing}} + \Delta P_{\text{element}}$$

Exercise:

Determine ΔP at 150 gpm (570 L/min) for SSQLF1516QZ3VF40D9 using 200 SUS (44 cSt) fluid.

Solution:

$$\Delta P_{\text{housing}} = 2 \text{ psi } [.14 \text{ bar}]$$

$$\Delta P_{\text{element}} = 150 \times .04 \times (200 \div 150) = 8.0 \text{ psi}$$

$$\text{or}$$

$$= [570 \times (.04 \div 54.9) \times (44 \div 32)] = .57 \text{ bar}$$

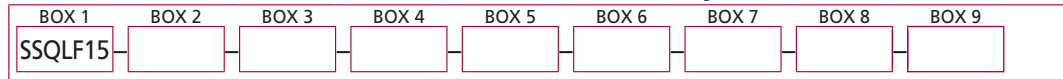
$$\Delta P_{\text{total}} = 2.0 + 8.0 = 10.0 \text{ psi}$$

$$\text{or}$$

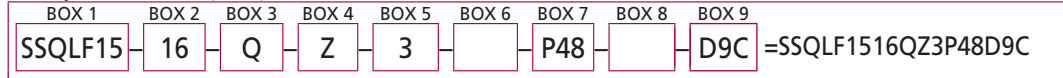
$$= [.14 + .57] = .71 \text{ bar}$$

Filter Model Number Selection

How to Build a Valid Model Number for a Schroeder SSQLF15:



Example: NOTE: One option per box



BOX 1	BOX 2	BOX 3	BOX 4
Filter Series	Element Length (in)	Element Style	Media Type
SSQLF15	16 39	Q QCLQF QPML	Z = Excellement® Z-Media® (synthetic) AS = Anti-Stat Pleat media (synthetic) M = M media (reusable metal) W = W media (water removal) 150PSV = 150 μ nominal synthetic media with plastic outer wrap

BOX 5	BOX 6	BOX 7
Micron Rating	Housing Seal Material	Porting
1 = 1 μ Z-Media® 3 = 3 μ AS and Z-Media® 5 = 5 μ AS and Z-Media® 10 = 10 μ AS and Z-Media® 25 = 25 μ M and Z-Media® 60 = 60 μ M media 150 = 150 μ M-media or 150 PSV W = water removal media	Omit = Buna N H = EPR V = Viton®	P24 = 1½" NPTF P32 = 2" NPTF P40 = 2½" NPTF P48 = 3" NPTF S32 = SAE-32 B24 = ISO 228 G-1½" B32 = ISO 228 G-2" B40 = ISO 228 G-2½" B48 = ISO 228 G-3" F24 = 1½" SAE 4-bolt flange Code 61 F32 = 2" SAE 4-bolt flange Code 61 F40 = 2½" SAE 4-bolt flange Code 61 F48 = 3" SAE 4-bolt flange Code 61 F24M = 1½" SAE 4-bolt flange Code 61 F32M = 2" SAE 4-bolt flange Code 61 F40M = 2½" SAE 4-bolt flange Code 61 F48M = 3" SAE 4-bolt flange Code 61

NOTES:

Box 2. Replacement element part numbers are a combination of Boxes 2, 3, 4 and 5 plus the letter V.
Example: 16QZ1V

Box 4. For options W, 150PSV, M25, M60, and M150, Box 3 must equal Q.

Box 6. All elements for this filter are supplied with Viton® seals. Seal designation in Box 6 applies to housing only. Viton® is a registered trademark of DuPont Dow Elastomers.

Box 7. B24, B32 and B40 are supplied with metric mounting holes. F24M, F32M, F40M and F48M are supplied with metric flange mounting holes.

Integral inlet and outlet test points are standard on all models.

BOX 8	BOX 9
Bypass Setting	Dirt Alarm® Options
Omit = 30 psi cracking 50 = 50 psi cracking X = Blocked bypass	Omit = None DPG = Standard differential pressure gauge D9 = Visual pop-up in base (stainless steel) D9C = D9 in cap (stainless steel)