

Filters

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Catalogue No. S-LOK Oct.2020

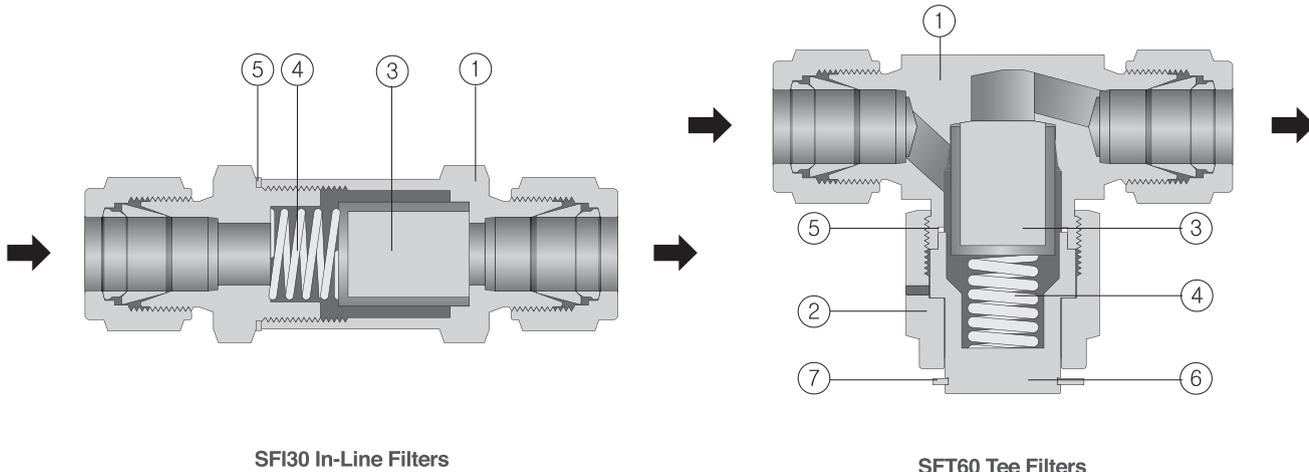
SFI30 & SFT60 Filters

Features

- Trapping fine contamination to maintain system purity
- Gas and liquid filtration
- Standard micron filtering ranges : 0.5, 2, 7, 15, 60 and 90 microns
- Replaceable SS316 sintered elements
- SS316 and Brass body construction
- Choice of reliable S-Lok, NPT & ISO pipe end connections
- Heat Code Traceability



| SFI30 IN-Line Filters | SFT60 Tee Filters |
|---|---|
| <ul style="list-style-type: none"> • In-line filters are applicable where space is limited and elements don't have to be replaced often. • Compact in-line design with large filtration area • Maximum working pressure 3,000 psig @100°F (206 bar @ 38°C) | <ul style="list-style-type: none"> • Filter Element replaceable with the valve in-line. • Safety union bonnet design for high pressure rating • Optional Bypass for sampling or purging of process fluid. • Maximum working pressure 6,000 psig@100°F (413 bar @38°C) |



SFI30 In-Line Filters

SFT60 Tee Filters

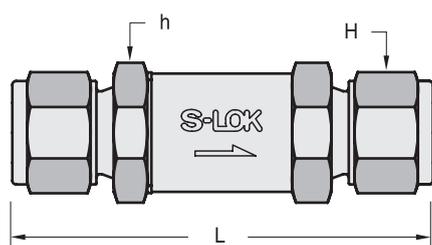
Materials of Construction

| Component | SFI30 | | SFT60 | |
|--------------------|------------------------------|-----------|-----------------|-----------|
| | Grade / ASTM / Specification | | | |
| 1 Body | SS316/A276 | Brass/B16 | SS316/A276 | Brass/B16 |
| 2 Nut | - | - | SS316/A276 | Brass/B16 |
| 3 Sintered Element | SS316 | | | |
| 4 Spring | SS302 | | | |
| 5 Gasket | SS316/A240 silver plated | | | |
| 6 Cap | - | - | SS316/A276 | Brass/B16 |
| 7 Retainer Ring | - | - | Stainless Steel | |

Filtration & Terminology

- **Filter Element** : The component within the Filter which traps media contamination.
- **Filtration Area** : The actual surface area of the filter element available to trap contamination.
- **Micron** : A unit of measure to describe the mean pore diameter of the filter element or the mean particle diameter of media contamination.
 ※ One micron = 0.001mm or 0.00004 inch

SFI30 Series In-Line Filters



| Basic Ordering Number | End Connections Inlet and Outlet | Orifice mm (in.) | Dimensions, mm (in.) | | | |
|-----------------------|-------------------------------------|---------------------|----------------------|--------------|------------|---------|
| | | | L | H | h | |
| SFI 1 | S-2T | 1/8 in. S-LOK | 59.7(2.35) | 11.1(7/16) | 14.3(9/16) | |
| | F-2N | 1/8 in. Female NPT | 54.9(2.16) | - | | |
| | S-3M | 3mm S-LOK | 60.5(2.38) | 12.0 | | |
| SFI 2 | S-4T | 1/4 in. S-LOK | 74.9(2.95) | 14.3(9/16) | 19.1(3/4) | |
| | M-4N | 1/4 in. Male NPT | 68.3(2.69) | - | | |
| | F-4N | 1/4 in. Female NPT | 72.9(2.87) | - | | |
| | S-6M | 6mm S-LOK | 75.2(2.96) | 14.0 | | |
| SFI 3 | M-8N | 1/2 in. Male NPT | 81.3(3.20) | 27.0(1-1/16) | 25.4(1) | |
| | S-6T | 3/8 in. S-LOK | 81.5(3.21) | | | |
| SFI 4 | S-8T | 1/2 in. S-LOK | 10.3(0.41) | 88.6(3.49) | 22.2(7/8) | 25.4(1) |

All dimensions shown are for reference only and are subject to change.
Dimensions with S-Lok nuts are in finger-tight position.

Flow Capacities

| Filter Series | Element Nominal Pore Micron μm | Inlet Pressure, [®] psig (bar) | | | Pressure Drop, psi (bar) | | |
|---------------|---|--|------------|------------|----------------------------------|-------------|-------------|
| | | 5(0.34) | 10(0.68) | 15(1.0) | 10(0.68) | 50(3.4) | 100(6.8) |
| | | Air Flow, std ft ³ /min (std L/min) | | | Water Flow, U.S. gal/min (L/min) | | |
| SFI 1 Series | 0.5 | 0.04 (1.1) | 0.06 (1.7) | 0.12 (3.4) | 0.01 (0.03) | 0.04 (0.15) | 0.12 (0.45) |
| | 2 | 0.20 (5.6) | 0.40 (11) | 0.60 (17) | 0.08 (0.30) | 0.24 (0.91) | 0.40 (1.5) |
| | 7 | 0.50 (14) | 0.90 (25) | 1.2 (34) | 0.10 (0.37) | 0.30 (1.1) | 0.48 (1.8) |
| | 15 | 0.80 (22) | 1.3 (36) | 1.5 (42) | 0.12 (0.45) | 0.36 (1.3) | 0.58 (2.1) |
| | 60 | 1.7 (48) | 2.2 (62) | 2.4 (68) | 0.15 (0.56) | 0.50 (1.8) | 0.70 (2.6) |
| SFI 2 Series | 0.5 | 0.12 (3.4) | 0.26 (7.3) | 0.48 (13) | 0.04 (0.15) | 0.17 (0.64) | 0.29 (1.0) |
| | 2 | 0.60 (17) | 1.4 (39) | 2.3 (65) | 0.24 (0.90) | 0.86 (3.2) | 1.3 (4.9) |
| | 7 | 1.4 (39) | 2.9 (82) | 4.7 (130) | 0.40 (1.5) | 1.3 (4.9) | 2.0 (7.5) |
| | 15 | 1.2 (34) | 2.9 (82) | 4.7 (130) | 0.50 (1.8) | 1.3 (4.9) | 2.1 (7.9) |
| | 60 | 3.1 (87) | 5.9 (160) | 8.5 (240) | 0.90 (3.4) | 3.3 (12) | 4.6 (17) |
| SFI 3 Series | 0.5 | 0.36 (10) | 0.86 (24) | 1.6 (45) | 0.09 (0.34) | 0.40 (1.5) | 0.76 (2.8) |
| | 2 | 1.4 (39) | 2.8 (79) | 4.0 (110) | 0.26 (0.98) | 1.1 (4.1) | 1.6 (6.0) |
| | 7 | 1.8 (51) | 4.2 (119) | 6.8 (190) | 0.64 (2.4) | 2.2 (8.3) | 3.5 (13) |
| SFI 4 Series | 15 | 1.8 (51) | 4.9 (130) | 7.9 (220) | 0.84 (3.1) | 2.6 (9.8) | 4.1 (15) |
| | 60 | 5.1 (140) | 10 (280) | 15 (420) | 2.0 (7.5) | 6.7 (25) | 10 (37) |
| | 90 | 6.1 (170) | 11 (310) | 16 (450) | 2.3 (8.7) | 7.6 (28) | 11 (41) |

Element Replacement

- The sintered elements don't permit the contaminants in the gas and liquid to pass through the elements when they are bigger than the pore size of micron.
- Contaminants are trapped by element pores and it results in pressure buildup.
- Contamination comes earlier when flow volume is high and media is not clean.
- The filtering elements need to be replaced for the pressure drop as well as its system purity.
 - ※ Note : Clean filter valve components whenever the element is replaced.

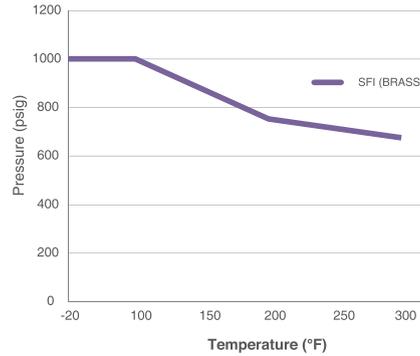
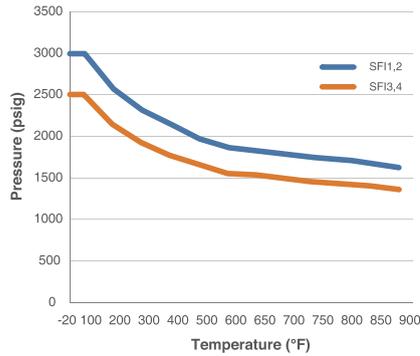
↗ Sintered Elements

- Stainless steel 316 sintered
- High heat resistance and thermal stability up to 1,500 °F (815 °C).
- High permeability with low-pressure drop.
- Shape-stability with self-supporting structural elements.
- Suitable for compression, vibration, and high impulse pressure.
- Precise filtration due to the exact and uniform pore size and distribution.
- Chemical resistance against acids and caustic solutions in various ranges of pH.

| Element Designator | Nominal Pore Size, μm | Pore Size Range, μm | Element Porosity | Cv Factor | Max. Pressure Differential Across Clean Filters at 70°F (21 °C) |
|--------------------|----------------------------------|--------------------------------|------------------|-----------|---|
| 05 | 0.5 | 0.5-2 | 17% | 0.046 | 1160 psig (80 bar) |
| 2 | 2 | 1-4 | 22% | 0.056 | |
| 7 | 7 | 5-10 | 27% | 0.12 | |
| 15 | 15 | 11-25 | 36% | 0.13 | |
| 60 | 60 | 50-75 | 44% | 0.38 | |
| 90 | 90 | 75-110 | 45% | 0.50 | |

↗ Pressure-Temperature Ratings

| Filter Series | Pressure Rating @100°F (38°C) psig (bar) | | Temperature Rating °F (°C) | | Filtration Area with Sintered Element inch ² (mm ²) |
|---------------|---|------------|-------------------------------|----------------------------|---|
| | SS316 | Brass | SS316 | Brass | |
| SFI 1 | 3000(206) | 1000(68.9) | -20 to 900 (-28 to 482) | -20 to 300 (-28 to 148) | 0.55(350) |
| SFI 2 | | | | | 1.30(830) |
| SFI 3, SFI 4 | 2500(172) | | | | 1.98(1280) |



↗ Ordering Information

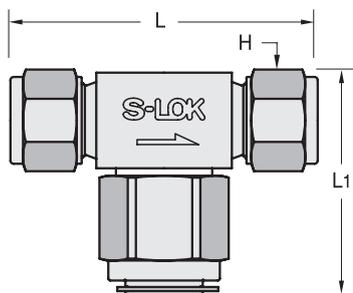
Select desired basic ordering number, element designator, option and body material listed below.



| Series Designator | Sintered Element | | Body Material |
|-----------------------|--------------------|------------------------|------------------------------|
| | Element Designator | Nominal Micron | |
| Basic Ordering Number | 05 | 0.5 | • S6 : SS316 • BS : Brass |
| | 2 | 2 | |
| | 7 | 7 | |
| | 15 | 15 | |
| | 60 | 60 | |
| | 90 | 90 | |
| | NE | Filter with no element | |

SFT60 Series Tee Filters

Ordering Information and Dimensions



| Basic Ordering Number | | End Connections Inlet and Outlet | Orifice inch (mm) | Dimensions mm (in.) | | |
|-----------------------|-------|-------------------------------------|----------------------|---------------------|----------------|-------|
| | | | | L | L ₁ | H |
| SFT 1 | F-2N | 1/8 in. Female NPT | 0.17(4.4) | 50.8(2.00) | 47.5 (1.87) | - |
| | S-2T | 1/8 in. S-LOK | 0.09(2.3) | 27.7(2.27) | | 7/16 |
| | S-4T | 1/4 S-LOK | 0.17 (4.4) | 62.7(2.47) | | 9/16 |
| | M-4N | 1/4 Male NPT | | 54.1(2.13) | | - |
| | F-4N | 1/4 Female NPT | | 54.1(2.13) | | - |
| | S-6M | 6mm S-LOK | | 62.5(2.46) | | 14mm |
| SFT 2 | S-6T | 3/8 S-LOK | 0.21 (5.4) | 72.1(2.84) | 56 (2.20) | 11/16 |
| | S-8M | 8mm S-LOK | 72.1(2.84) | 16mm | | |
| SFT 3 | M-6N | 3/8 Male NPT | 0.25 (6.4) | 60.5(2.38) | 56 (2.20) | - |
| | S-10M | 10mm S-LOK | | 72.6(2.86) | | 19mm |
| | S-12M | 12mm s-lok | | 77.2(3.04) | | 22mm |
| | S-8T | 1/2 S-LOK | | 77.2(3.04) | | 7/8 |
| | M-8N | 1/2in. Male NPT | | 68.9(2.75) | | - |

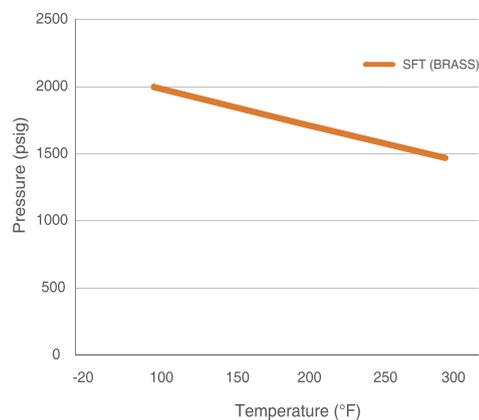
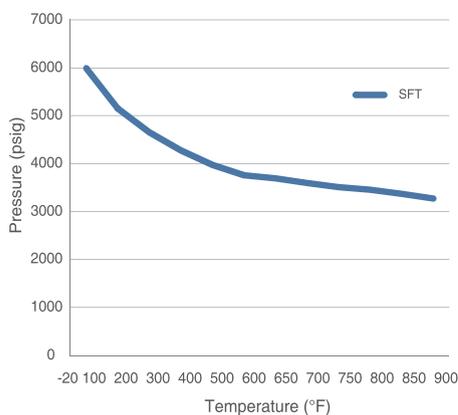
All dimensions shown are for reference only and are subject to change.
Dimensions with S-Lok nuts are in finger-tight position.

Flow Capacities

| Filter Series | Element Nominal Pore Micron µm | Inlet Pressure, [®] psig (bar) | | | Pressure Drop, psi (bar) | | |
|---------------|--------------------------------------|--|------------|------------|----------------------------------|-------------|------------|
| | | 5(0.34) | 10(0.68) | 15(1.0) | 10(0.68) | 50(3.4) | 100(6.8) |
| | | Air Flow, std ft ³ /min (std L/min) | | | Water Flow, U.S. gal/min (L/min) | | |
| SFT 1 Series | 0.5 | 0.04 (1.1) | 0.06 (1.7) | 0.12 (3.4) | 0.04 (0.15) | 0.17 (0.64) | 0.29 (1.0) |
| | 2 | 0.20 (5.6) | 0.40 (11) | 0.60 (17) | 0.08 (0.30) | 0.24 (0.91) | 0.40 (1.5) |
| | 7 | 0.50 (14) | 0.90 (25) | 1.2 (34) | 0.10 (0.37) | 0.30 (1.1) | 0.48 (1.8) |
| | 15 | 0.80 (22) | 1.3 (36) | 1.5 (42) | 0.12 (0.45) | 0.36 (1.3) | 0.58 (2.1) |
| | 60 | 1.7 (48) | 2.2 (62) | 2.4 (68) | 0.15 (0.56) | 0.50 (1.8) | 0.70 (2.6) |
| | 90 | 1.8 (51) | 2.2 (62) | 2.6 (73) | 0.20 (0.75) | 0.50 (1.8) | 0.60 (2.2) |
| SFT 2 Series | 0.5 | 0.12 (3.4) | 0.26 (7.3) | 0.48 (13) | 0.04 (0.15) | 0.17 (0.64) | 0.29 (1.0) |
| | 2 | 0.60 (17) | 1.4 (39) | 2.3 (65) | 0.24 (0.90) | 0.86 (3.2) | 1.3 (4.9) |
| | 7 | 1.4 (39) | 2.9 (82) | 4.7 (130) | 0.40 (1.5) | 1.3 (4.9) | 2.0 (7.5) |
| | 15 | 1.2 (34) | 2.9 (82) | 4.7 (130) | 0.50 (1.8) | 1.3 (4.9) | 2.1 (7.9) |
| | 60 | 3.1 (87) | 5.9 (160) | 8.5 (240) | 0.80 (3.0) | 2.7 (10) | 3.9 (14) |
| SFT 3 Series | 90 | 4.1 (110) | 7.5 (210) | 10 (280) | 1.1 (4.1) | 3.4 (12) | 4.9 (18) |
| | 0.5 | 0.36 (10) | 0.86 (24) | 1.6 (45) | 0.09 (0.34) | 0.40 (1.5) | 0.76 (2.8) |
| | 2 | 1.4 (39) | 2.8 (79) | 4.0 (110) | 0.26 (0.98) | 1.1 (4.1) | 1.6 (6.0) |
| | 7 | 1.8 (51) | 4.2 (119) | 6.8 (190) | 0.64 (2.4) | 2.2 (8.3) | 3.5 (13) |
| | 15 | 1.8 (51) | 4.9 (130) | 7.9 (220) | 0.84 (3.1) | 2.6 (9.8) | 4.1 (15) |
| | 60 | 5.1 (140) | 10 (280) | 15 (420) | 1.5 (5.6) | 4.8 (18) | 6.7 (25) |
| | 90 | 6.1 (170) | 11 (310) | 16 (450) | 1.7 (6.4) | 5.5 (20) | 7.6 (28) |

Pressure-Temperature Ratings

| Filter Series | Pressure Rating @100°F (38°C) psig (bar) | | Temperature Rating °F (°C) | | Filtration Area with Sintered Element inch ² (mm ²) |
|---------------|---|------------|-------------------------------|-------------------------|--|
| | SS316 | Brass | SS316 | Brass | |
| SFT1, SFT2 | 6,000(413) | 2,000(137) | -20 to 900 (-28 to 482) | -20 to 300 (-28 to 148) | 1.3(830) |
| SFT3 | | | | | 1.98(1280) |



SFT Series Tee Filter CNG / NGV Certifications

| Certificates | ECE R110 | ANSI NGV 3.1 - 2012 | ISO 15500 |
|------------------|-----------------------------|-----------------------------|-----------------------------|
| Certificate No. | 110R-010334 | 126841AUT15 | 126841MECH104 |
| Classification | Class 0 | Manual valve | Manual valve |
| Temperature | -40 to 120°C (-40 to 248°F) | -40 to 120°C (-40 to 248°F) | -40 to 120°C (-40 to 248°F) |
| Working Pressure | 260 bar @ 120°C | 248 bar @ 120°C | 260 bar @ 120°C |

Ordering Information

Select desired basic ordering number, element designator, option and body material listed below.



| Series Designator | Sintered Element | | By-pass | Body Material |
|-----------------------------|--------------------|------------------------|---|--|
| | Element Designator | Nominal Micron | | |
| Basic Ordering Number | 05 | 0.5 | <ul style="list-style-type: none"> Nil : No By-pass option BF2N : 1/8 in. Female NPT BF4N : 1/4 in. Female NPT | <ul style="list-style-type: none"> S6 : SS316 BS : Brass |
| | 2 | 2 | | |
| | 7 | 7 | | |
| | 15 | 15 | | |
| | 60 | 60 | | |
| | 90 | 90 | | |
| | NE | Filter with no element | | |