

# Filters

## F3 Series



- ❖ All-welded construction
- ❖ Maximum working pressure: 6000 psig (413 bar)
- ❖ Working temperature: -40 F to 900 F (-40 C to 482 C)
- ❖ 316 stainless steel
- ❖ Variety of end connections

## Features

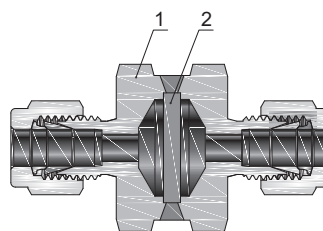
- ❖ All-welded construction prevents bypass flow
- ❖ Large filtration area
- ❖ Inline filters are for use where space is limited
- ❖ Filter is easily cleaned by backflushing
- ❖ Sintered element is available in 0.5, 2, 7, 15, 40, 60 and 90 µm
- ❖ Maximum working pressure: 6000 psig (413 bar)
- ❖ Working temperature from -40°F to 900°F (-40°C to 482°C)
- ❖ Body materials: 316 S.S. 316L S.S. 304 S.S. and 304L S.S.
- ❖ Variety of end connections available

## Pressure vs. Temperature

| Material              | 316 S.S.                     |
|-----------------------|------------------------------|
| Temperature, °F(°C)   | Working Pressure, psig (bar) |
| -40 (-40) to 100 (37) | 6000 (413)                   |
| 200 (93)              | 5160 (355)                   |
| 300 (148)             | 4660 (321)                   |
| 400 (204)             | 4280 (294)                   |
| 500 (260)             | 3980 (274)                   |
| 600 (315)             | 3760 (259)                   |
| 650 (343)             | 3700 (254)                   |
| 700 (371)             | 2600 (248)                   |
| 750 (398)             | 3520 (242)                   |
| 800 (426)             | 3460 (238)                   |
| 850 (454)             | 3380 (232)                   |
| 900 (482)             | 3280 (225)                   |

## Standard Materials of Construction

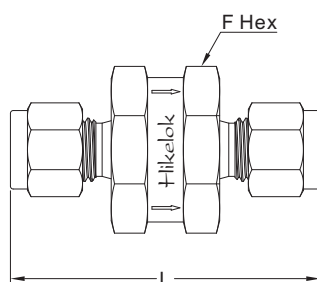
| Component |         | Material Grade/ASTM Specification |
|-----------|---------|-----------------------------------|
|           |         | 316 S.S.                          |
| 1         | Body    | 316 S.S./A479                     |
| 2         | Element | Sintered 316 S.S.                 |



## Maximum Differential Pressure of Clean Filter at 70°F (20°C)

| Series | Maximum Differential Pressure psig (bar) |              |              |              |               |               |               |
|--------|------------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|
|        | 0.5 micron                               | 2 micron     | 7 micron     | 15 micron    | 40 micron     | 60 micron     | 90 micron     |
| FW     | 1000<br>(69)                             | 1000<br>(69) | 1000<br>(69) | 1000<br>(69) | 600<br>(41.4) | 600<br>(41.4) | 600<br>(41.4) |

## Dimensions



| Basic<br>Ordering<br>Number | Connection Type and Size | Orifice<br>in. (mm) | Dimension, in. (mm) |               |
|-----------------------------|--------------------------|---------------------|---------------------|---------------|
|                             |                          |                     | L                   | F             |
| F3-F4-                      | 1/4" Hikelok             | 0.187(4.75)         | 2.15(54.6)          | 1 (25.4)      |
| F3-M6-                      | 6 mm Hikelok             |                     |                     |               |
| F3-FNPT4-                   | 1/4 Female NPT           | 0.453(11.5)         | 1.57(39.9)          |               |
| F3-NPT4-                    | 1/4 Male NPT             | 0.281(7.14)         | 1.89(48.0)          |               |
| F3-GFS4-                    | 1/4 Male GFS             | 0.187(4.75)         | 2.04(51.8)          |               |
| F3-F6-                      | 3/8" Hikelok             | 0.187(4.75)         | 2.35(59.7)          | 1 1/4 (31.75) |
| F3-M8-                      | 8 mm Hikelok             |                     |                     |               |
| F3-FNPT6-                   | 3/8 Female NPT           | 0.453(11.5)         | 2.15(54.6)          |               |
| F3-NPT6-                    | 3/8 Male NPT             | 0.281(7.14)         | 2.09(53.1)          |               |
| F3-GFS6-                    | 3/8 Male GFS             | 0.187(4.75)         | 2.21(56.1)          |               |
| F3-F8-                      | 1/2" Hikelok             | 0.187(4.75)         | 3.17(80.5)          | 1 3/8 (34.93) |
| F3-M10-                     | 10 mm Hikelok            |                     |                     |               |
| F3-FNPT8-                   | 1/2 Female NPT           | 0.453(11.5)         | 2.98(75.7)          |               |
| F3-NPT8-                    | 1/2 Male NPT             | 0.281(7.14)         | 2.78(70.6)          |               |
| F3-GFS8-                    | 1/2 Male GFS             | 0.187(4.75)         | 2.98(75.7)          |               |
| F3-F12-                     | 3/4" Hikelok             | 0.187(4.75)         | 3.42(86.9)          | 1 5/8 (41.28) |
| F3-M18-                     | 18 mm Hikelok            |                     |                     |               |
| F3-FNPT12-                  | 3/4 Female NPT           | 0.453(11.5)         | 3.58(90.9)          |               |
| F3-NPT12-                   | 3/4 Male NPT             | 0.281(7.14)         | 3.16(80.3)          |               |
| F3-F16-                     | 1" Hikelok               | 0.453(11.5)         | 4.32(110)           |               |
| F3-FNPT16-                  | 1 Female NPT             | 0.281(7.14)         | 4.08(104)           | 1 7/8 (47.63) |
| F3-NPT16-                   | 1 Male NPT               |                     |                     |               |

## How to Order

**F3 — F6 — M10 — S90 — 316**

| Filter Series | Inlet Type                      | Inlet Size            | Outlet Type                                                       | Outlet Size | Element Type | Element Nom-inal Pore Size | Body Material  |
|---------------|---------------------------------|-----------------------|-------------------------------------------------------------------|-------------|--------------|----------------------------|----------------|
| F3            | FNPT Female NPT                 | 2 1/8 in.             | Same as inlet type and inlet size                                 |             | S Sintered   | 05 0.5µm                   | 316 316 S.S.   |
|               | NPT Male NPT                    | 4 1/4 in.             |                                                                   |             |              | 2 2µm                      | 316L 316L S.S  |
|               | FBT Female BSPT                 | 6 3/8 in. or 6 mm     |                                                                   |             |              | 7 7µm                      | 304 304 S.S.   |
|               | MBT Male BSPT                   | 8 1/2 in. or 8 mm     | If outlet and inlet are the same, eliminate the outlet designator |             |              | 15 15µm                    | 304L 304L S.S. |
|               | FMS Female ISO 261              | 10 10 mm              |                                                                   |             |              | 40 40µm                    |                |
|               | MS Male ISO 261                 | 12 3/4 in. or 12 mm   |                                                                   |             |              | 60 60µm                    |                |
|               | FBP Female BSPP                 | 14 14 mm or M14 x 1.5 |                                                                   |             |              | 90 90µm                    |                |
|               | MBP Male BSPP                   | 16 1 in. or 16 mm     |                                                                   |             |              |                            |                |
|               | F Fractional Tube Fitting       | 18 18 mm              |                                                                   |             |              |                            |                |
|               | M Metric Tube Fitting           | 20 1 1/4 in. or 20 mm |                                                                   |             |              |                            |                |
|               | FSW Fractional Tube Socket Weld | 22 22 mm or M22 x1.5  |                                                                   |             |              |                            |                |
|               | FBW Fractional Tube Butt Weld   | 25 25 mm              |                                                                   |             |              |                            |                |
|               | GFS Male GFS Fitting            |                       |                                                                   |             |              |                            |                |