

# General Purpose Filter F68★ - ★★ - ★★★

# F68G, F68E Installation & Maintenance Instructions

<b>Bowl/Element</b> E...Long bowl and element G...Short bowl and element	<b>Yoke Port Size</b> 6....3/4" 8....1" A....1-1/4" B....1-1/2" N....No yoke	<b>Thread Type</b> A....PTF B....ISO R <sub>c</sub> tapered G....ISO G parallel N....No yoke	<b>Service Life Indicator</b> D....With mechanical service life indicator E....With electrical service life indicator* N....No service life indicator	<b>Drain</b> A....Automatic E....Closed bottom M....Manual, spindle type Q....Manual, 1/4 turn	<b>Bowl</b> C....1 litre (1 quart), No liquid level indicator M....0.5 litre (1 pint), No liquid level indicator R....0.5 litre (1 pint), With liquid level indicator U....1 litre (1 quart), With liquid level indicator	<b>Element</b> 1....5 µm 2....25 µm 3....40 µm
--	---	--	--	--	---	---

\* See Norgren publication IM-900.920 for specifications and electrical wire connections of the optional electric service indicator.

### TECHNICAL DATA

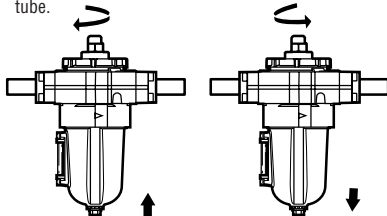
Fluid: Compressed air  
 Maximum pressure: 17 bar (250 psig)  
 Operating temperature\*: -20° to +80°C (0° to +175°F)  
 \* Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).  
 Partical removal: 5, 25 or 40 µm  
 Air quality: Within ISO 8573-1, Class 3 and Class 5 (particulates)  
 Typical flow with a 40 µm element at 6,3 bar (90 psig) inlet pressure and a 0.5 bar (7 psig) pressure drop: 190 dm<sup>3</sup>/s (403 scfm)  
 1/4 turn manual drain connection: 1/8" pipe thread  
 Automatic drain connection: 1/8" pipe thread  
 Automatic drain operating conditions (float operated):  
 Bowl pressure required to close drain: Greater than 0,3 bar (5 psig)  
 Bowl pressure required to open drain: Less than 0,2 bar (3 psig)  
 Minimum air flow required to close drain: 1 dm<sup>3</sup>/s (2 scfm)  
 Manual operation: Depress pin inside drain outlet to drain bowl  
 Nominal bowl size:  
 0.5 litre (1 pint U.S.)  
 1 litre (1 quart U.S.)  
 Materials:  
 Body: Aluminium  
 Yoke: Aluminium  
 Bowl: Aluminium  
 Liquid level indicator: Pyrex  
 Element: Sintered bronze or polypropylene  
 Elastomers: Synthetic rubber

### REPLACEMENT ITEMS

Service kit (items circled on exploded view).....	4380-300
0.5 litre bowl liquid level lens (19 thru 27).....	4380-060
1 litre bowl liquid level lens (30 thru 38).....	4380-061
Filter element, 0.5 litre bowl, 5 µm (54, 55, 56).....	5576-97
Filter element, 0.5 litre bowl, 25 µm (54, 55, 56).....	5576-98
Filter element, 0.5 litre bowl, 40 µm (54, 55, 56).....	5576-99
Filter element, 1 litre bowl, 5 µm (55).....	5311-01
Filter element, 1 litre bowl, 25 µm (55).....	5311-02
Filter element, 1 litre bowl, 40 µm (55).....	5311-03
Automatic drain, G1/8 outlet (49).....	3000-97
Automatic drain, 1/8 PTF outlet (49).....	3000-10
Manual drain, spindle type (44).....	684-84
Manual drain, 1/4 turn (40).....	619-50
Mechanical service life indicator (1).....	5797-50
Electrical service life indicator (6).....	4020-51R

### INSTALLATION

- Install yoke in air line -
  - with air flow in direction of arrow on top of yoke,
  - upstream of regulators, lubricators, and cycling valves,
  - as close as possible to the air supply when filter is used as a main line filter,
  - as close as possible to the device being serviced when filter is used as a final filter.
- Connect piping to yoke ports using pipe thread sealant on male threads only.
- Lubricate o-rings (15) with a light coat of o-ring grease, then place o-rings in grooves in body (14).
- Place clamp ring under lugs on top of yoke.
- Make sure arrows on yoke and filter point in same direction, then plug filter into yoke and tighten clamp ring hand tight.
- Turn bowl into body until arrowhead on bowl is aligned with or to the right of the arrowhead on the body.
- Flexible tube with 3mm (0.125") minimum I.D. can be connected to the automatic drain. Avoid restrictions in the tube.



### SERVICING

- Open manual drain to expel accumulated liquids. Keep liquids below baffle (53).
- Clean or replace filter element when dirty, when optional mechanical service life indicator shows approximately all red, or when optional electrical service life indicator provides an electrical output.

### DISASSEMBLY

- Shut off inlet pressure. Reduce pressure in inlet and outlet lines to zero.
- Unscrew the clamp ring and remove filter from yoke.
- Disassemble in general accordance with the item numbers on exploded view. Do not remove the drains or the service indicators unless replacement is necessary. Remove and replace only if their malfunction. Do not attempt to remove rod (59), as it is cemented to body.

### CLEANING

- Clean lens (3, 24, 35) with warm water only. Do not submerge electrical service indicator (6) in water. Clean indicator (6) with dry, clean cloth. Clean other parts with warm water and soap.
- Rinse and dry parts. Blow out internal passages in body (14) with clean, dry compressed air. Blow air through filter element (55) from inside to outside to remove surface contaminants.
- Inspect parts. Replace those found to be damaged.

### ASSEMBLY

- Lubricate o-rings, the portion manual drain body (43) that contacts the bowl, and the hole in the manual drain body that accommodates the stem of drain valve (41) with o-ring grease.
- Assemble the unit as shown on the exploded view.
- Assemble the liquid indicator parts (19 thru 26, 30 thru 37) to reservoir. Apply a 0.9 to 1.8 kg (2 to 4 pound) clamping force to upper and lower sight glass brackets (20, 31). Tighten screws (19, 30).
- Arrows on indicator (3, 8) and body (14) must point in same direction.
- Torque Table
 

2, 7 (Screw)	2,8 to 3,9 (25 to 34)
19, 30 (Screw)	1,8 to 2,3 (16 to 20)
45, 50 (Nut)	0,8 to 1,2 (7 to 10)
53 (Baffle)	1,1 to 1,4 (10 to 12)
- Turn bowl into body until arrowhead on bowl is aligned with or to the right of the arrowhead on the body.

### CAUTION

Water vapor will pass through these units and could condense into liquid form downstream as air temperature drops. Install an air dryer if water condensation could have a detrimental effect on the application.

### WARNING

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **Technical Data**.

Before using these products with fluids other than air, for non industrial applications, or for life-support systems consult Norgren.

