Installation & Maintenance Instructions

Oil Removal Filter

**F73C**

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**Port**

<table>
<thead>
<tr>
<th>2...1/4”</th>
<th>3...3/8”</th>
<th>4...1/2”</th>
</tr>
</thead>
</table>

**Thread Form**

- A...PTF
- B...ISO Rc taper
- G...ISO G parallel

**Service Indicator**

- D...With mechanical service indicator
  - E...With electrical service indicator*
  - N...Without indicator

**Drain**

- A...Automatic
- Q...Manual, 1/4 turn

**Bowl**

- D...Metal with liquid level indicator
  - F... Transparent with guard
  - T... Transparent

**Element**

- 0...Coalescing

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**Technical Data**

**Fluid:** Compressed air

Maximum pressure:

- Transparent bowl: 10 bar (150 psig)
- Metal bowl: 17 bar (250 psig)

Operating temperature:

- Transparent bowl: -34°C to +50°C (-30°C to +125°F)
- Metal bowl: -34°C to +65°C (-30°C to +150°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Particle removal: Down to 0.01 µm

Air quality: Within ISO 8573-1, Class 1 (particulates) and Class 2 (all content)

Maximum remaining oil content in outlet air: 0.1 ppm at +20°C (+70°F) with an inlet concentration of 17 ppm

Maximum flow at 6.3 bar (90 psig) inlet pressure to maintain stated oil removal performance: 10 dm³/s (21.2 scfm)

Nominal bowl size: 0.11 litre (3.5 fluid ounce)

Manual drain connection: 1/8”

Automatic drain connection: 1/8”

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

Minimum air flow required to close drain: 0.1 dm³/s (0.2 scfm)

Manual operation: Depress pin inside drain outlet to drain bowl

**Filter Materials:**

- **Body:** Aluminum
- **Bowl:**
  - Transparent: Polycarbonate
  - Transparent with guard: Polycarbonate, steel guard
  - Metal: Aluminum
  - Metal bowl liquid level indicator lens: Transparent nylon
- **Element:** Synthetic fibre and polyurethane foam
- **Elastomers:** Neoprene and nitrile

Replacement Items:

Service Kit (includes items circled on exploded view)... 4380-602

Liqui
d level lens kit (43, 45, 46, 47)........4380-020
Filter element (49, 50)........4444-01
Manual drain (18, 19, 20)........619-50
Automatic drain (21, 22, 23)........4000-S1R
Mechanical service indicator (1)........5797-50
Electrical service indicator (6)........4020-S1R

**Installation**

1. Shut-off air pressure. Install filter in air line -
   - **vertically (bowl down),**
   - **with air flow in direction of arrow on body,**
   - **upstream of regulators, lubricators, and cycling valves,**
   - **as close as possible to the air supply when used as a main line filter,**
   - **as close as possible to the device being serviced when used as a final filter.**

2. Connect piping to proper ports using pipe thread sealant on male threads only. Do not allow sealant to enter interior of unit.

3. Push bowl, or bowl with guard, into body and turn fully clockwise before pressurizing.

4. Flexible tube with 5mm (3/16”) minimum I.D. can be connected to the automatic drain. Drain may fail to operate if the tube I.D. is less than 5mm (3/16”). Avoid restrictions in the tube.

5. Install a Norgren general purpose filter with a 5 µm element upstream of the oil removal filter to obtain maximum element service life.

**Servicing**

1. Open manual drain to expel accumulated liquids.
   - Keep liquids below element (50).

2. Replace filter element when pressure drop across element exceeds 0.7 bar (10 psig). The mechanical service indicator shows approximately full red and the optional electrical service indicator provides an electrical output when pressure drop across element reaches 0.7 bar (10 psig).

**Disassembly**

1. Filter can be disassembled without removal from air line.

2. Shut off inlet pressure. Reduce pressure in inlet and outlet lines to zero.

3. Remove bowl - push into body and turn counterclockwise.

4. Disassemble in general accordance with the item numbers on exploded view. Do not remove the drains or the service indicators (1, 6) unless replacement is necessary. Replace and replace only if they malfunction.

**Cleaning**

1. Element (49) cannot be cleaned. Clean plastic bowl (25, 35) and lens (3, 45) 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.

2. Rinse and dry parts. Blow out internal passages in body (13) with dry, compressed air.

3. Inspect parts. Replace those found to be damaged.

4. Replace plastic bowl with a metal bowl if plastic bowl shows signs of cracking or cloudiness.

**Assembly**

1. Lubricate o-rings, the portion of the manual drain body (18, 28, 37) that contacts the bowl, and the hole in the manual drain body that accommodates the stem of drain valve (19, 29, 38) with o-ring grease.

2. Assemble filter as shown on the exploded view.

3. Arrows on indicator (3, 8) and body (13) must point in the same direction. Push bowl, or bowl with guard, into body and turn fully clockwise.

4. Torque Table
   - Torque in N-m (Inch-Pounds)
   - 2, 7 (Screw) 2.8 to 3.9 (25 to 35)
   - 22, 32, 41 (Nut) 2.3 to 2.8 (20 to 25)
   - 43 (Screw) 1.7 to 3.4 (15 to 30)
   - 49 (Element) 0.5 to 2.2 (5 to 20)

**Caution**

Water and oil vapors will pass through these units and could condense into liquid form downstream as air temperature drops. Install an air dryer and an oil vapor removal filter if water and oil vapors 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.

Poly carbonate plastic bowls can be damaged and possibly burst if exposed to substances as certain solvents, strong alkalies, compressor oils containing ester-based additives or synthetic oils. Fumes of these substances in contact with the polycarbonate bowl, externally or internally, can also result in damage. Clean with warm water only.

Use metal bowl in applications where a plastic bowl might be exposed to substances that are incompatible with polycarbonate.

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