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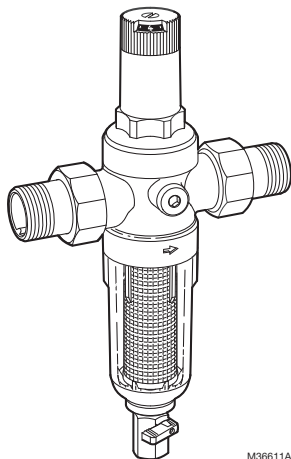
Braukmann FK06 DialSet®

LEAD FREE PRESSURE REGULATING FILTER COMBINATION

FK06-101-DUS-LF, FK06-101-DUT-LF, FK06-102-DUS-LF, FK06-102-DUT-LF,
FK06-103-DUS-LF, FK06-103-DUT-LF

INSTALLATION INSTRUCTIONS

READ BEFORE INSTALLING



M36611A

SAFETY GUIDELINES

1. Follow the installation instructions.
2. Use and install the appliance
 - according to its intended use
 - in good condition
 - with due regard to safety and risk of danger, according to local codes and standards.
3. Note that the appliance is exclusively for use in the applications detailed in these installation instructions. Any other use will not be considered to comply with requirements and would invalidate the warranty.
4. Please take note that any assembly, commissioning, servicing and adjustment work may only be carried out by authorized persons.
5. Immediately rectify any malfunctions which may influence safety.



38-00059EFS-11

DESCRIPTION OF FUNCTION

The filter combination integrates a pressure reducing valve and a rinsable fine filter cartridge in one appliance.

During normal operation, water flows through the filter mesh to the body outlet. To rinse the filter, the ball valve is opened which discharges the dirt particles. A continuous supply of filtered water is available also during the rinse cycle.

The integral pressure reducing valve functions on a balanced force principle whereby the force exerted by a diaphragm is balanced against the force of an adjustment spring. The inlet pressure has no influence on opening or closing of the valve. Inlet pressure fluctuation does not therefore affect the outlet pressure.

APPLICATION

Medium: Water

Inlet pressure: 250 psi (17.24 bar)

Outlet pressure: 25–90 psi (1.5–6 bar)

The filter is constructed for drinking water installations. In case of a process water application the filter has to be proven individually.



WARNING

Install indoors only. Do not use in applications where UV radiation and solvent vapors are present.

TECHNICAL DATA

Model: FK06 DialSet Pressure Regulating Filter Combination.

Installation Position: Horizontal with filter bowl downward.

Regulator Mechanism: Fabric-reinforced diaphragm.

Filter Mechanism: Stainless steel 50 micron rinsable filter insert.

Seat Design: Balanced single seat construction.

Inlet Pressure (Maximum): 250 psi maximum.

Reduced Pressure Range: 25 to 90 psi (3/4 in. to 1-1/4 in.).

Outlet Pressure: Factory set at 60 psi (41.4 kPa).

Dial Calibration: ± 4 psi.

Differential: 14.5 psi minimum (inlet to outlet).

Fluid Temperature (Maximum):

Water: 140°F (60°C).

Ambient Temperature Range: 33° F to 140° F (1° C to 60° C).

Max Operating Pressure: 250 psi (17.24 bar).

Max Operating Temperature: 140°F (60°C).

Connection Size: 3/4" (19 mm), 1" (25.4 mm), 1-1/4" (31.7 mm).

Pipe Sizes Available: 3/4 in., 1 in., 1-1/4 in. available.

Connections: Can be configured as female thread-by-thread, double-union, NPT threaded or sweat.

Low Lead Content: <0.08% Lead.

Gauge Tap: 1/4" NPT.

Body: Lead-free ECO BRASS®.

Approvals: ASSE 1003-2020 Listed, CSA B356 Listed, IAPMO Listed, NSF/ANSI 61/372 Compliant.

SCOPE OF DELIVERY

The filter combination consists of:

- Housing with pressure gauge connections on both sides
- Threaded or sweat connections, based on model
- Valve insert complete with diaphragm and valve seat

- Spring bonnet with setting knob and scale
- Adjustment spring
- Fine filter in clear filter bowl
- Ball valve

OPTIONS

FK06-...DUT = with clear filter bowl, threaded union connectors, filter mesh size 50 µm

FK06-...DUS = with clear filter bowl, sweat union connectors, filter mesh size 50 µm

ASSEMBLY

Installations Guidelines

When Installing this Product...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings given in these instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. PRV should be installed in an accessible location for maintenance, repair, or replacement.
5. After installation is complete, check out the product operation as provided in these instructions.

It is necessary during installation to follow the installation instructions, to comply with local requirements and to follow the codes of good practice.

- Install in horizontal pipework with filter bowl downwards
 - This position ensures optimum filter efficiency
- Install shutoff valves
- Ensure good access
 - Degree of contamination can be easily seen with clear filter bowl
 - Simplifies maintenance and inspection

- The installation location should be protected against frost.

Assembly Instructions

It is recommended to install an inlet non-return valve.

IMPORTANT

When using soldering connections, do not solder the connections together with the filter combination. High temperature will irreparably damage important internal working components.

1. Thoroughly flush pipework.
2. Fit filter combination.
 - Note flow direction (indicated by arrow).
 - Install without tension or bending stresses.
3. Set outlet pressure.

Drain for rinse water

The rinse water must be piped to the drain in such a way that no back pressure can occur.

1. Discharge into drain connector.
2. Discharge into floor drain.

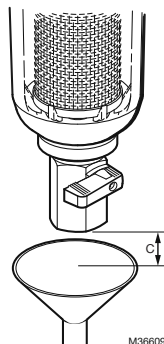


Fig. 1. Drain for rinse water.

Table 1. Rinsing Quantity.

Filter size	Rinsing quantity*	C in in. (mm)
3/4"-1 1/4"... 101-103	6.6 gallons (25 liters)	3/4 (20)

* at 58 psi (4 bar) inlet pressure and a rinse duration of 15 seconds

COMMISSIONING

Setting outlet press

Changing the Downstream Pressure (See Fig. 2)

Remove the dust cap from the FK06. The FK06 is factory set to 60 psi.

To adjust the outlet pressure to a desired setting:

1. Loosen the locking screw by turning counter-clockwise ↺ (Do not remove this screw.)
2. Turn the adjusting knob counter-clockwise ↺ to reduce pressure or clockwise ↻ to increase pressure.
3. Lock the setting by turning the locking screw clockwise ↻.
4. Replace the dust cap over the dial.

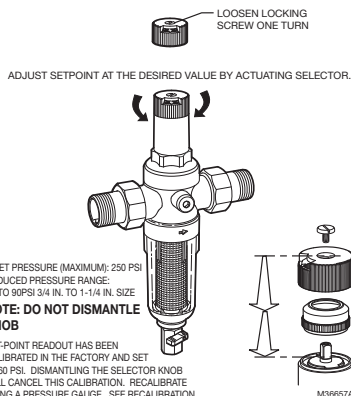


Fig. 2. Changing outlet pressure.

MAINTENANCE

We recommend a planned maintenance contract with an installation company.

Inspection

Filter

Frequency: at least every 2 month (depending on local operating conditions).

- Non-compliance can lead to the filter becoming blocked. This results in a drop in pressure and decreasing water flow.
- The filter meshes are made of stainless steel. A red coating as a consequence of rust from the pipelines has no influence on function or the way the filter works.

To be carried out by an installation company or the operator.

NOTES:

- Filtered water can be drawn during rinsing.
- If rinsing is into a container, then a suitable container must first be put underneath.

1. Open the ball valve by turning the rinse knob. Rinse knob must be vertical.
2. Close the ball valve after approximately 15 seconds.

NOTE: A longer rinse period may be necessary if the filter is very dirty (Replace filter mesh see Maintenance)

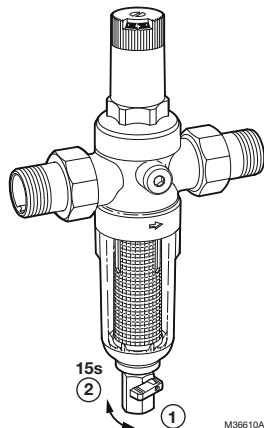


Fig. 3. Rinsing the filter.

Pressure Reducing Valve

Replacing the Cartridge (Fig. 4)

The working parts of the FK06, including diaphragm, valve seat, strainer, and disk are all contained in a replaceable cartridge. To replace the cartridge:

1. Close shutoff valve on inlet.
2. Release pressure on outlet side (e.g. through water tap).

3. Close shutoff valve on outlet.
4. Loosen slotted screw (do not remove the screw).



CAUTION

To prevent injury and/or equipment damage, loosen locknut and turn adjusting screw counter-clockwise to remove spring tension.

5. Slacken tension in compression spring by turning counter clockwise until it does not move anymore.
6. Unscrew Bonnet.
7. Remove slip ring.
8. Remove cartridge using a pliers as a lever.
9. Reassemble bonnet in reverse order.

Recalibrate

If the dial knob assembly has been disassembled recalibration is necessary.

1. Close shutoff valve on inlet.
2. Release pressure on outlet side (e.g. through water tap).
3. Close shutoff valve on outlet.
4. Remove dust cap.
5. Loosen slotted screw (do not remove screw).
6. Fit pressure gauge.
7. Slowly open shutoff valve on inlet.
8. Set desired outlet pressure (e.g. 60 psi).
9. Align scale (e.g. 60 psi) in middle of viewing window.
10. Re-tighten slotted screw.
11. Slowly open shutoff valve on outlet.

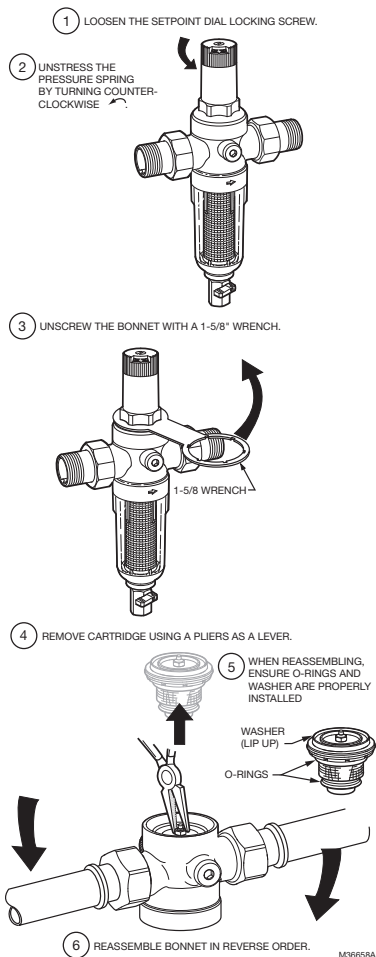


Fig. 4. Replacing the FK06 cartridge.

Cleaning



CAUTION

Do not use any cleansers that contain solvents and/or alcohol for cleaning the plastic parts.

If necessary, the filter bowl and the filter can be cleaned.

Frequency: every 6 month (depending on local operating conditions)

To be carried out by an installation company. Detergents must not be allowed to enter the environment or the sewerage system!

1. Close shutoff valve on inlet
2. Release pressure on outlet side (e.g. through water tap)
3. Close shutoff valve on outlet
4. Unscrew filter bowl
 - Use double ring wrench ZR06F
5. Remove filter, clean and reinsert
6. Place O-ring onto filter bowl
7. Screw in filter bowl hand-tight (without tools)
8. Slowly open shutoff valve on inlet
9. Slowly open shutoff valve on outlet

DISPOSAL

- Dezincification resistant brass housing
- Brass connections
- High-quality synthetic material valve insert
- High-quality synthetic material spring bonnet with adjustment knob and setting scale
- Spring steel adjustment spring
- Stainless steel fine filter
- Shock-resistant, clear transparent synthetic material filter bowl
- Fibre-reinforced NBR diaphragm
- NBR seals

NOTE: Observe the local requirements regarding correct waste recycling/disposal!

TROUBLESHOOTING

Table 2. Troubleshooting.

Problem	Cause	Remedy
Beating sounds	Filter combination is too large	Call our Technical Customer Services
Water is escaping from the spring bonnet	Diaphragm in valve insert is faulty	Replace valve insert
Too little or no water pressure	Shutoff valves upstream or downstream from filter not fully open	Open the shutoff valves fully
	Filter combination is not set to the desired outlet pressure	Set outlet pressure
	Filter mesh dirty	Clean or replace filter
	Not fitted in flow direction	Fit filter in flow direction (note direction of arrow on housing)
The outlet pressure set does not remain constant	Filter mesh dirty	Clean or replace filter
	Valve insert, sealing ring or edge of nozzle is contaminated or worn	Replace valve insert
	Rising pressure on outlet (e.g. in boiler)	Check check valve, safety group etc.

Spare Parts

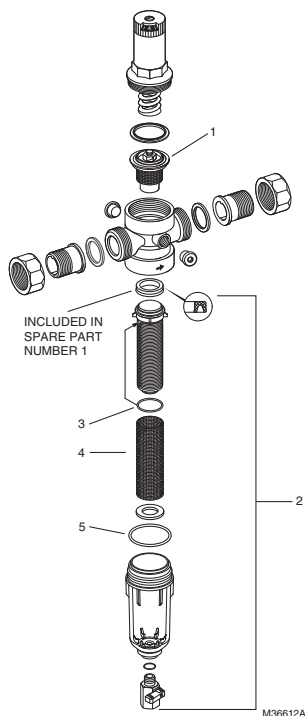


Fig. 5. Spare parts diagram.

Table 3. Filter Combination FK06.

No.	Description	Dim.	Part No.
1	Valve cartridge complete (without filter insert)	3/4" (19 mm)	D06FA-1/2
		1" (25.4 mm), 1-1/4" (31.7 mm)	D06FA-1B
2	Clear filter bowl with filter and carrier body	3/4" (19 mm)	KF06-1/2AZ
		1" (25.4 mm), 1-1/4" (31.7 mm)	KF06-1AZ
3	O-ring-set for carrier body (pack of 10)	3/4" (19 mm)	0903127
		1" (25.4 mm), 1-1/4" (31.7 mm)	0903128
4	Replacement filter insert 50 micron	3/4" (19 mm)	AS06-1/2C
		1" (25.4 mm), 1-1/4" (31.7 mm)	AS06-1C
5	O-ring-set for filter bowl (pack of 10)	3/4" (19 mm)	0901246
		1" (25.4 mm), 1-1/4" (31.7 mm)	0901499
6	Double ring wrench For removing filter bowl (no fig.)	1/2" (12.7 mm)– 1-1/4" (31.7 mm)	ZR06F

NOTE: Spare parts can be purchased separately only in addition.

ACCESSORIES

ZR06K	Double-ring wrench For removing spring bonnet
K06U1077/U (3/4")	Union kit for 3/4-in. (19 mm) NPT valves. Includes union nut, threaded tailpiece, and gasket
K06U1085/U (1")	Union kit for 1-in. (25.4 mm) NPT valves. Includes union nut, threaded tailpiece, and gasket
K06U1135/U (1-1/4")	Union kit for 1-1/4-in. (31.7 mm) NPT valves. Includes union nut, threaded tailpiece, and gasket
K06U1101/U (3/4")	Union kit for 3/4-in. (19 mm) sweat valves. Includes union nut, sweat tailpiece, and gasket
K06U1119/U (1")	Union kit for 1-in. (25.4 mm) sweat valves. Includes union nut, sweat tailpiece, and gasket
K06U1143/U (1-1/4")	Union kit for 1-1/4-in. (31.7 mm) sweat valves. Includes union nut, sweat tailpiece, and gasket



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