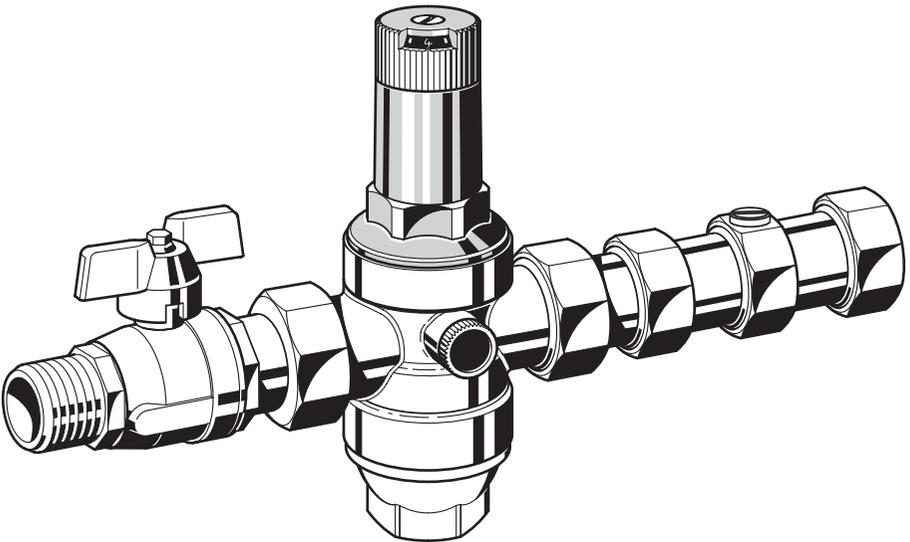


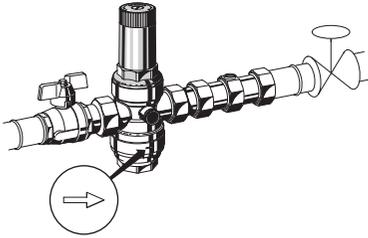
# MTA06

Installation instructions

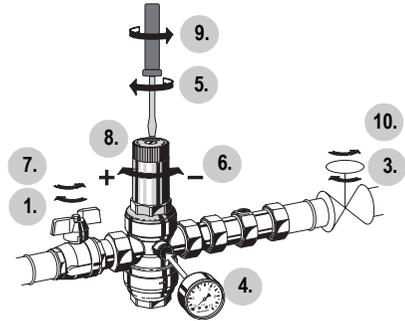


**Pressure Reducing Valve Combination**

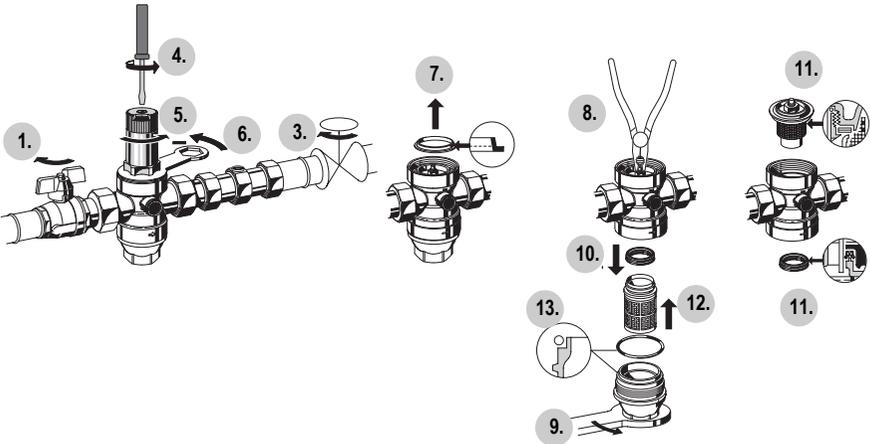
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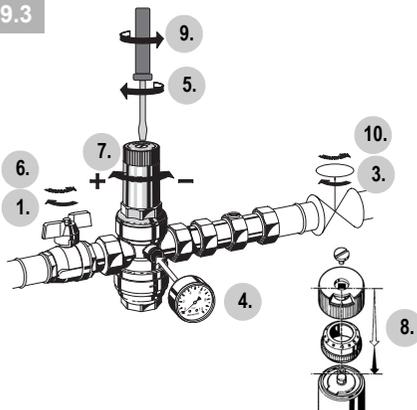
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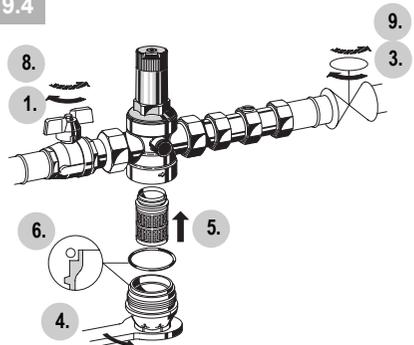
9.2.1



9.3



9.4



## 1. Safety Guidelines

- Follow the installation instructions.
- Use the appliance
  - according to its intended use
  - in good condition
  - with due regard to safety and risk of danger.
- 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.
- Please take note that any assembly, commissioning, servicing and adjustment work may only be carried out by authorized persons.
- Immediately rectify any malfunctions which may influence safety.

## 2. Functional description

The pressure reducing combination combines a shutoff valve, a pressure reducing valve and a check valve in one appliance.

Spring loaded pressure reducing valves operate by means of a force equalising system. The force of a diaphragm operates against the force of an adjustment spring. If the outlet pressure and therefore diaphragm force fall because water is drawn, the then greater force of the spring causes the valve to open. The outlet pressure then increases until the forces between the diaphragm and the spring are equal again. The inlet pressure has no influence in either opening or closing of the valve. Because of this, inlet pressure fluctuation does not influence the outlet pressure, thus providing inlet pressure balancing.

Check valves have a moving seal disc which is lifted off the seat by a greater or lesser amount depending on the flow rate through the valve. If the flow falls towards zero, then the spring pushes the disc back onto the seat and seals the waterway.

## 3. Application

Medium Water, compressed air\* and nitrogen\* in consideration of valid standards (e.g. DIN EN 12502)

Inlet pressure max. 16 bar

Outlet pressure 1.5-6 bar (preset 3bar)

\*As part of an installation being approved according to PED requirements, this product must also be certified.

## 4. Technical data

Operating temperature max. 40°C

Minimum pressure drop 1 bar

Connection size 3/4" and 1"

## 5. Scope of delivery

The pressure reducing valve combination comprises:

- Housing with G1/4" pressure gauge connections on both sides
- Shutoff valve on inlet
- Double check valve on outlet
- Valve insert complete with diaphragm and valve seat
- Fine filter with 0.16 mm mesh
- Spring bonnet with adjustment knob and setting scale
- Filter bowl
- Adjustment spring
- Pressure gauge not included (see accessories)

## 6. Options

MTA06-... B = With threaded connections (inlet male, outlet female thread)

## 7. Assembly

### 7.1 Installations Guidelines

Ensure that both connections to the PRV are tightened prior to filling and pressurization

- Install in horizontal pipework with filter bowl downwards.
- The installation location should be protected against frost and be easily accessible
  - Pressure gauge can be read off easily
  - Simplified maintenance and cleaning
- For residential applications where maximum protection against dirt is required, install a fine filter upstream of the pressure reducing valve
- Provide a straight section of pipework of at least five times the nominal valve size after the pressure reducing valve (in accordance with DIN 1988, Part 5)

### 7.2 Assembly instructions

- Thoroughly flush pipework
- Install pressure reducing valve combination
  - Note flow direction
  - Install without tension or bending stresses

## 8. Commissioning

### 8.1 Setting outlet pressure



Set outlet pressure min. 1 bar under inlet pressure.

- Close shutoff valve on inlet
- Release pressure on outlet side (e.g. through water tap)
- Fit manometer
- Close shutoff valve on outlet
- Loosen slotted screw
  - Do not remove slotted screw
- Slacken tension in compression spring
  - Turn control handle to the left (-) until it does not move any more
- Slowly open shutoff valve on inlet
- Turn adjuster knob until the manometer shows the desired value.

9. Retighten slotted screw
10. Slowly open shutoff valve on outlet

## 9. Maintenance

 We recommend a planned maintenance contract with an installation company

In accordance with DIN 1988, part 8, the following measures must be taken:

### 9.1 Inspection

#### 9.1.1 Pressure reducing valve

 Interval: once a year

1. Close shut off valve on outlet
2. Check back pressure using a pressure meter when there is zero through-flow
  - o If the pressure is increasing slowly, the valve may be dirty or defective. In this instance, carry out servicing and cleaning
3. Slowly open shutoff valve on outlet

#### 9.1.2 Check valve

 Interval: once a year

1. Close shut off valve on outlet
2. Open check valve
  - o Until the pressure is released, some water will flow out of the check valve. After a short period of time the water flow should stop. If the water continues to drip or run, then the backflow preventer must be replaced - see servicing of backflow preventer
3. Close check valve again
4. Open shut-off valve again

## 9.2 Maintenance

### 9.2.1 Pressure reducing valve

 Frequency: every 1-3 years (depending on local operating conditions)

To be carried out by an installation company

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
  - o Do not remove slotted screw
-  **Caution !**  
There is a spring in the spring bonnet. It may cause injuries if the spring is derailing.
  - Make sure tension in compression spring is slackened!
5. Slacken tension in compression spring
  - o Turn control handle to the left (-) until it does not move any more
6. Unscrew spring bonnet
  - o Use double ring wrench ZR06K
7. Remove slip ring

8. Remove valve insert with a pair of pliers
9. Unscrew filter bowl
  - o Use double ring wrench ZR06K
10. Remove slotted ring
11. Check that sealing ring, edge of nozzle and slotted ring are in good condition, and if necessary replace the entire valve insert
12. Remove filter, clean and reinsert
13. Place O-ring onto filter bowl
14. Reassemble in reverse order
-  Press in diaphragm with finger before inserting slip ring
-  Screw in filter cup hand-tight (without tools)
15. Adjust setting scale and set outlet pressure

### 9.2.2 Check valve

 To be carried out by an installation company

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

## 9.3 Adjusting the setting scale

If the adjustment knob is removed, this setting is lost. A new setting can be achieved using a pressure gauge.

1. Close shutoff valve on inlet
2. Release pressure on outlet side (e.g. through water tap)
3. Close shutoff valve on outlet
4. Fit manometer
5. Loosen slotted screw
  - o Do not remove slotted screw
6. Slowly open shutoff valve on inlet
7. Set desired outlet pressure (e.g. 4 bar)
8. Align scale (e.g. 4) in middle of viewing window
9. Retighten slotted screw
10. Slowly open shutoff valve on outlet

## 9.4 Cleaning

 **Caution !**  
Do not use any cleaning agents containing solvents and/or alcohol to clean the plastic parts!

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

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

 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
  - o Use double ring wrench ZR06K
5. Remove filter, clean and reinsert
6. Place O-ring onto filter bowl
7. Screw in filter cup hand-tight (without tools)
8. Slowly open shutoff valve on inlet
9. Slowly open shutoff valve on outlet

## 10. Disposal

The pressure reducing valve comprises:

- Stainless steel
- Steel
- Plastic

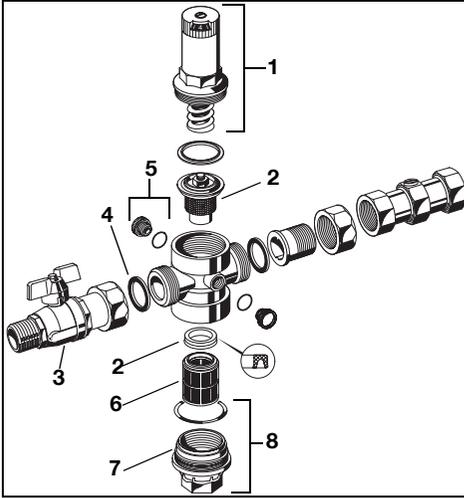


Observe the local requirements regarding correct waste recycling/disposal!

## 11. Troubleshooting

Problem	Cause	Remedy
Beating sounds	Pressure reducing valve 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 up- or downstream of the pressure reducing valve are not fully open	Open the shutoff valves fully
	Pressure reducing valve is not set to the desired outlet pressure	Set outlet pressure
	Filter in pressure reducing valve is contaminated	Clean or replace filter
	Pressure reducing valve is not fitted in flow direction	Fit pressure reducing valve in flow direction (note direction of arrow on housing)
The outlet pressure set does not remain constant	Filter in pressure reducing valve is contaminated or worn	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.
Check valve not sealing tightly in the inlet side	Pressure increases in the inlet side	Replace check valve
	Sealing surfaces soiled or worn	Replace check valve

## 12. Spare Parts



No.	Description	Dimension	Part No.
1	Spring bonnet complete	3/4" 1"	0901515 0901517
2	Valve insert complete (without filter)	3/4" 1"	D06FA-1/2 D06FA-1B
3	Shutoff valve	3/4" 1"	2193100 2193200
4	Union seal washer (10 pcs.)	3/4" 1"	0901444 0901445
5	Blanking plug with O-ring R1/4" (5 pcs.)		S06K-1/4
6	Replacement filter insert	3/4" 1"	ES06F-1/2A ES06F-1B
7	O-ring set (10 pcs.)	3/4" 1" 1"	0901246 0901499
8	Filter bowl with O-ring	3/4" 1"	SK06ZH-1/2 SK06ZH-1

## 13. Accessories



**M07M**



**ZR06K**

**M07M Pressure gauge**  
Housing diameter 63 mm, rear connection thread G1/4". Ranges: 0 - 4, 0 - 10, 0 - 16 or 0 - 25 bar. Please indicate upper value of pressure range when ordering

**ZR06K Double ring wrench**  
For removal of spring bonnet and filter bowl

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