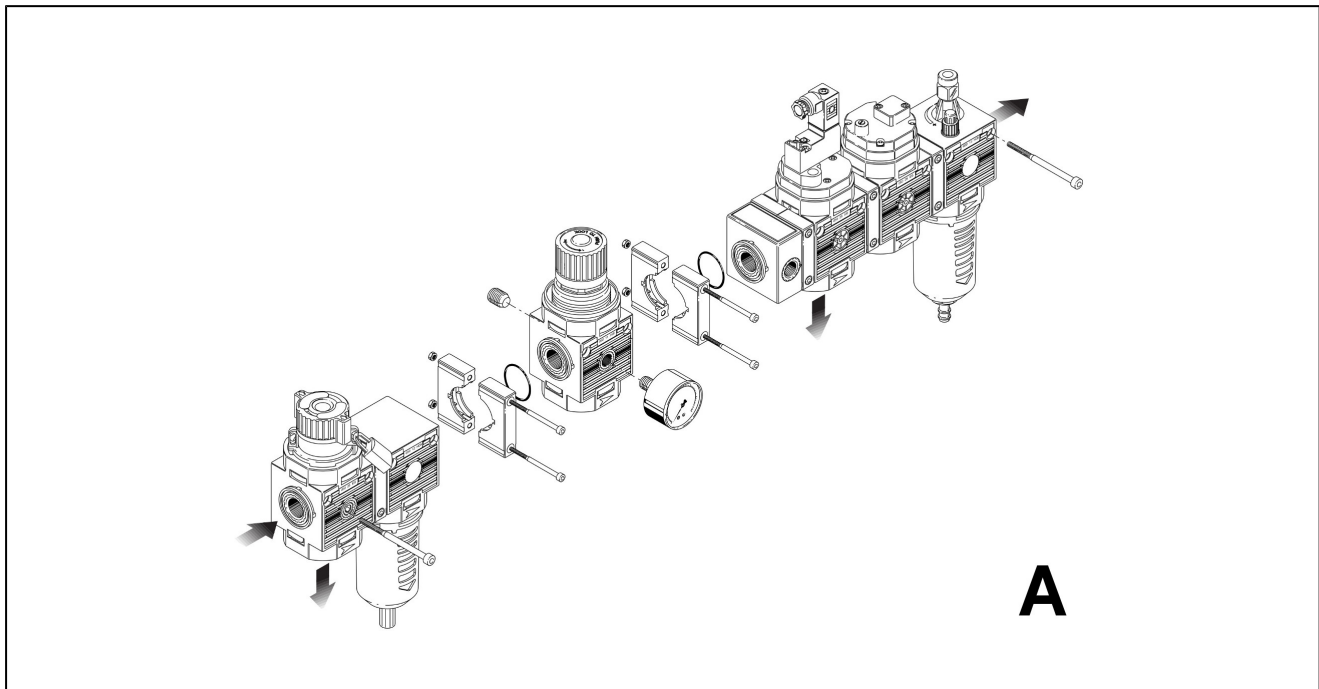


installation and operating instruction for maintenance devices series FRL, 3/8"-3/4"



1 general information

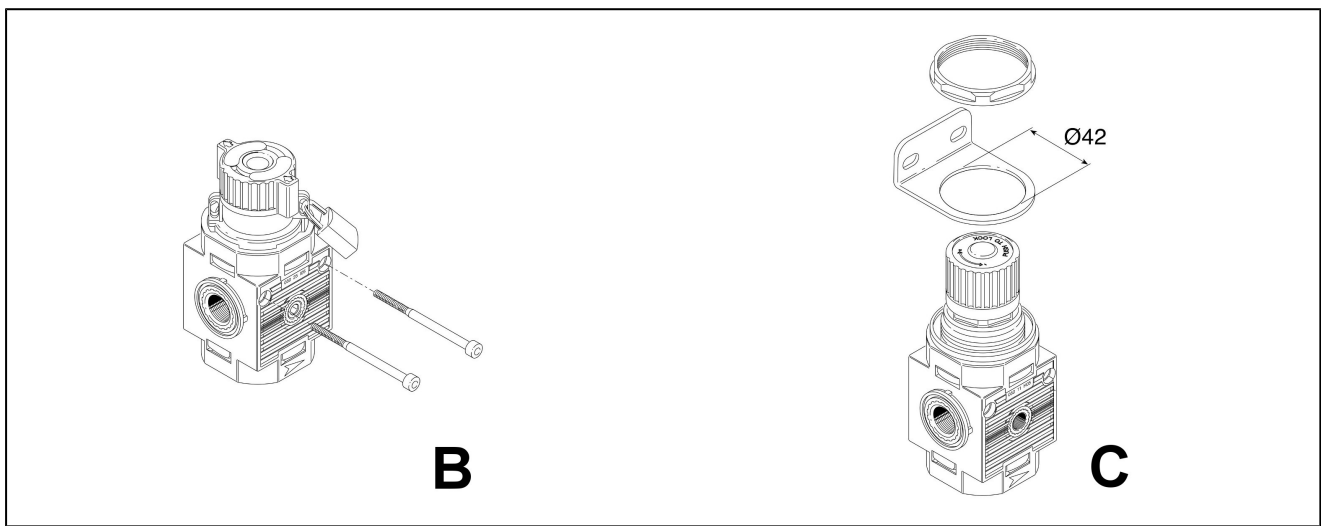
- 1.1 Maintenance devices are intended for cleaning compressed air for workshop purposes from liquid and solid contamination and for pressure regulation. Furthermore the compressed air provides a fine oil spray for lubricating cylinders, valves, compressed air controlled tools etc.
- 1.2 When used correctly and in accordance with the respective operating conditions, they maintain the performance level of pneumatic plant and increase its service life. Our special brochures covering air preparation units contain the sizes and types with all details in a clearly arranged table thus facilitating selection according to the operating requirements.
- 1.3 Plastic bowls may only be cleaned by using water, soapy water or similar products which don't affect the parts.
- 1.4 The installation and maintenance must be made only by qualified personnel.
- 1.5 Before installing, maintaining or modification of the power supply (if required) disconnect the compressed air supply. Relieve all compressed air lines connected to this product.
- 1.6 No responsibility can be accepted for damage which may result from non-observance of these instructions.
- 1.7 maximum tightening torque for the connections 3/8": 60Nm
maximum tightening torque for the connections 1/2" and 3/4": 80Nm

2 mounting

- 2.1 Before installing the product take care that the line is not under pressure.
- 2.2 Before pressurising make sure that the pressure in the system does not exceed the maximum permissible operating pressure.
- 2.3 Structure in direction of arrow: filter regulator - lubricator, the consumerpoint should be as short as possible.
- 2.4 The units must be mounted vertically.
- 2.5 For the assembly of device series use the appropriate connection sets. (figure A)

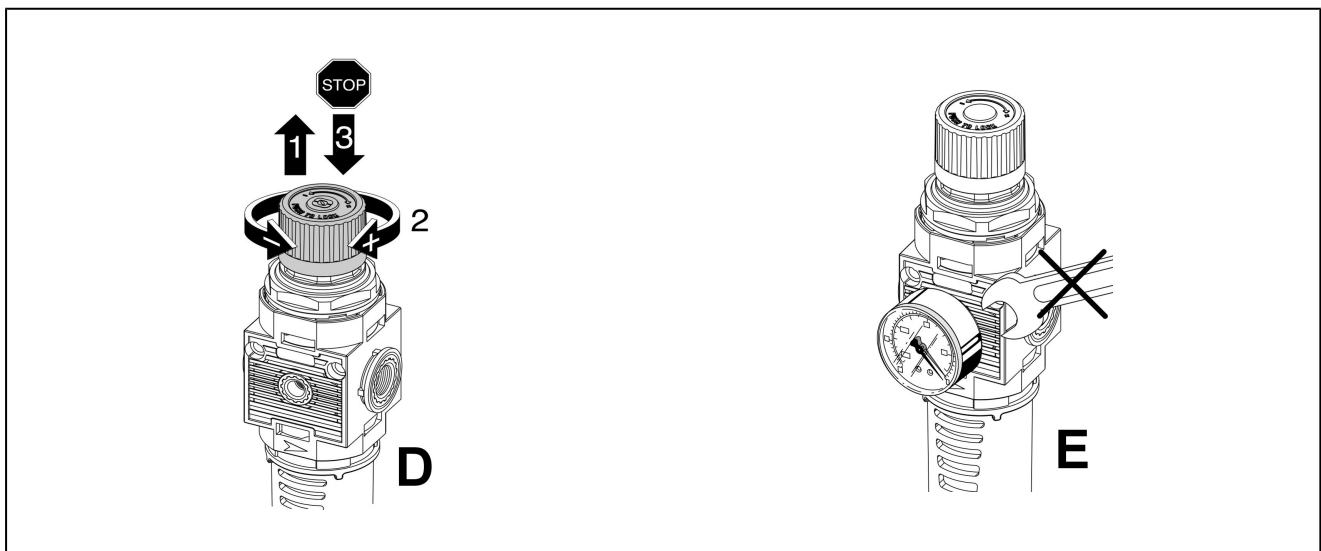
3 wall bracket

- 3.1 A wall mounting is possible by using of the existing holes with screws. (figure B)
- 3.2 A wall mounting of pressure regulator and filter regulator is possible by using of the own mounting brackets. (figure C)
- 3.3 A panel mounting of pressure regulator and filter regulator is possible by attaching a hole with $\varnothing=42$ mm. (figure C)



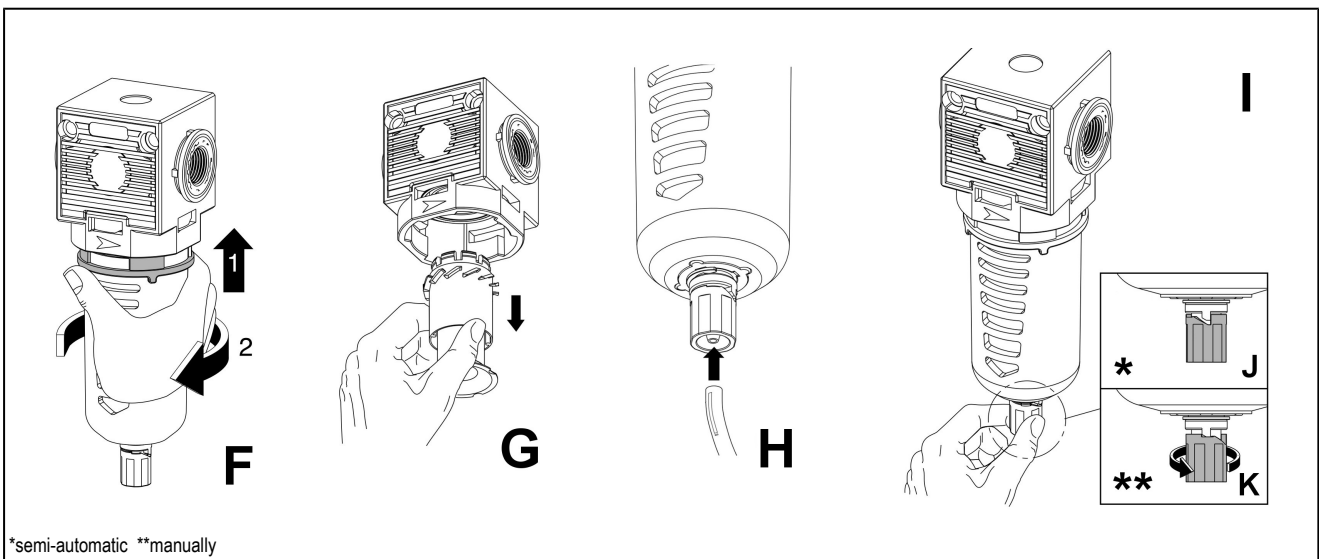
4 pressure regulator / filter regulator

- 4.1 The system pressure in a compressed air installation fluctuates according to the size of the compressor (e.g. 6-10 or 10-16 bar etc.).
- 4.2 Pressure regulators reduce this fluctuating system pressure (upstream pressure) to the desired working pressure (downstream pressure) and maintain it constant.
- 4.3 Pressure regulators with relieving are used for maintenance devices.
- 4.4 Pressure regulators with relieving offer the advantage that the downstream pressure can be reduced, without air consumption, by turning back the regulating screw.
- 4.5 pressure adjustment (figure D)
 1. Pull the adjustment knob upwards. Before putting the pressure line into operation, relieve the regulator by fully unscrewing the adjustment knob.
 2. Turn the adjusting knob clockwise as far as the manometer shows the desired working pressure.
 3. Lock the pressure setting by pushing down the knob.
- 4.6 Screw manometer only manually. (figure E)



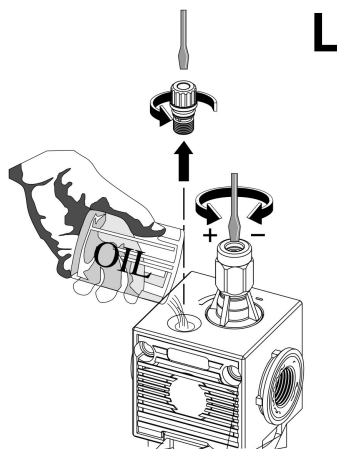
5 filter / filter regulator

- 5.1 Compressed air contains water condensate, scale and rust particles etc. which attack pneumatically controlled and actuated tools such as compressed air cylinders, valves etc. and which thus have a disturbing effect on their function.
- 5.2 For this reason the purification of compressed air is an indispensable necessity and is undertaken with the aid of filters. The filtering effect depends on the pore size (normally 20µm) of the sintered filter.
- 5.3 If required, sintered filters with smaller pore size can be fitted.
- 5.4 **warning:** Intervention only in depressurized state!
- 5.5 maintenance
1. Drain off the water condensate at regular intervals and clean the sintered filter if it is dirty.
 2. The condensate must not exceed the maximum height in the bowl.
- 5.6 cleaning filter element
1. Lift the safety ring. (figure F)
 2. Turn the bowl clockwise and pull. (figure G)
 3. Remove the filter element by pulling it down. (figure H)
 4. Place filter element in water or neutral detergent, rinsing well and dry. Then blow out with compressed air from the inside to the outside and refit. If a cleaning is no longer possible then the filter element has to be changed.
 5. Ensure that the seal is perfectly seated.
- 5.7 semi-automatic drain valve (figure I)
1. If the drain screw is set as in figure J, the drain valve is semi-automatic. If there is no pressure in the bowl, then the drain valves open automatically.
 2. if the drain screw is rotated counter-clockwise, then the drain valve is always closed, even if there is no pressure. (figure K)
To drain the condensate manually, the drain screw must be rotated in the normal position and then pressed. (figure J)
 3. It is possible to mount a hose 6/4 to drain the condensate. (figure H)



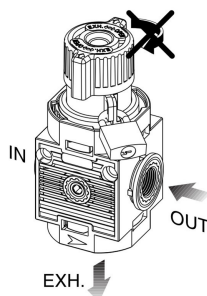
6 lubricator

- 6.1** The compressed air is enriched with a fine oil mist by the lubricator so that in this state it thus effects continuous and reliable lubrication of the pneumatically controlled compressed air tools, cylinders, valves etc.
- 6.2 dosage**
1. Set the amount of oil (drops per minute) on the dosaging screw as required during operation. guideline value 1...2 drops per min. (figure L)
 2. The number of drops can be seen in the sight-glass.
- 6.3 oil types and oil filling**
1. **warning:** Do not open the oil filler screw when the lubricator is under pressure.
 2. Remove the oil filler screw, fill the bowl up to 2/3. (figure L)
 3. Firmly refit the filler screw.
4. recommended oil ISO VG32
5. In special cases refer to the technical lubrication service of the oil companys whose engineers are always available to give free advice on all lubrication problems without obligation.
- 6.4 warning:** Remove of the bowl is only in unpressurized state possible.

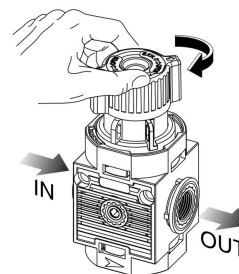


7 manual shut-off valve

- 7.1** The pressure is locked in closed position and the output side vented. (figure M)
The knob can be secured by a lock to prevent unauthorized opening of the shut off valve.
- 7.2** Opening: Remove the lock and turn the knob in a clockwise direction to open the valve. (figure N)



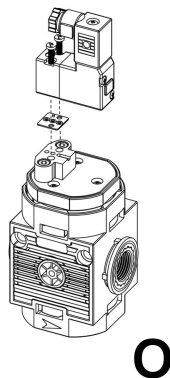
M



N

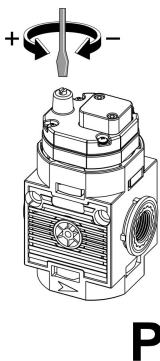
8 solenoid valve

8.1 Assembly of the solenoid valve (figure O)



9 soft start valve

9.1 Setting the switching time (figure P)



10 max. operating pressure and operating temperature

10.1 Maximum operating pressure and operating temperature can be seen in the corresponding datasheets.

The latest instructions can be found under www.stasto.eu in our STASTO Store.

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