Operating Instructions

Maintenance Unit (30261)

Imprint:

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1 Introduction

The maintenance unit consisting of filter control valve LFR(S), pressure control valve LR(S), filter LF, fine/ultra-fine filter LFM-… and activated charcoal filter LFX regulates compressed air to the set working pressure. The LFR(S)/LR(S) thereby compensates pressure fluctuations.

1.1 Liability and warranty

Use the maintenance unit only in accordance with its intended use (see also chapter 2.1 INTENDED USE).

The manufacturer accepts no liability for damage due to ignoring the information in these operating instructions as well as to incorrectly assembling, operating or servicing the maintenance unit.

1.2 Customer service

If you need technical information or have any queries or need to order spare parts, please contact your local dealer or e-mail our customer service: office@poelz.at

1.3 About these operating instructions

These operating instructions are a component of the scope of supply; you must always keep them at the location of the maintenance unit.

The operating instructions include all the information you need on safety and on assembling, operating, servicing, dismantling and disposing of the maintenance unit.

Read the operating instructions carefully before use and observe the safety and warning instructions to ensure perfect operation of your maintenance unit.

1.4 Explanation of symbols and instructions

This symbol warns you of a hazardous location. This signal word describes the severity of the imminent danger.

Danger!

Personal injury can occur in the case of incorrect handling.

Caution!

Damage to equipment or property can occur in the case of incorrect handling.

Note!

This symbol indicates tips and useful information on handling the maintenance unit in the best possible way.

2 Safety Information

Always comply to the letter with the safety information and warnings given in these operating instructions.

2.1 Intended use

The maintenance unit is intended exclusively for use with compressed air. It is not suitable for use with other media (liquids or gases).

Any other use is not the intended use and voids the warranty.

2.2 General safety information

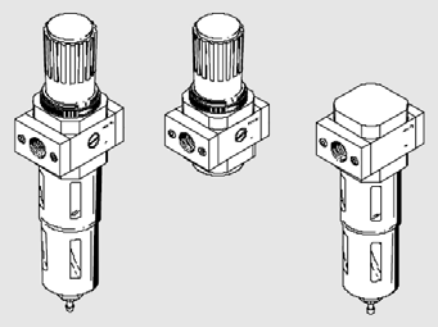
Pressurised equipment can cause personal injury or equipment damage.

Switch off the compressed air supply before installation, dismantling and service work.

Installation, dismantling and service work may only be carried out by qualified persons who have been assigned to carry out this work.

3 Description of the Device

3.1 Device overview



3.2 Description of function

The filter control valve LFR(S) and pressure control valve LR(S) regulate the admitted compressed air to the set working pressure and compensate pressure fluctuations.

The filter control valve LFR(S) and filter LF with water trap remove dirt particles and condensate, the fine/ultra-fine filter LFM... removes dirt particles and oil droplets and the activated charcoal filter LFX removes gaseous oil constituents from the admitted compressed air.

4 Installation

Danger!

Installation work may only be carried out by qualified persons who have been assigned to carry out this work.

4.1 Preconditions for use of the equipment

Improper use of the equipment can lead to malfunctions. Ensure that the following preconditions are satisfied at all times:

Observe the specified limit values (e.g. for pressures, forces, moments, masses, temperatures).

Give consideration to the ambient conditions prevailing at the point of use.

Observe the directives of the employers' liability insurance association, the technical inspectorate or the corresponding national regulations.

Vent the whole system slowly so that no uncontrolled movements occur.

Use the product only in its original condition without any unauthorised modifications.

4.2 Installing the maintenance unit

Danger!

Switch off the compressed air supply before starting installation work.

Note!

Use the shut-off valves to depressurise the system for installation and maintenance (e.g. filter changing).

Observe the flow direction. This can be seen from the arrows on the equipment housing.

Allow sufficient space underneath the filter bowl (min. 100 mm) for filter changing.

Position the filter LF, fine and ultra-fine filter LFM-… and the filter control valve LFR(S) perpendicularly (± 5°).

4.2.1 Installation in the pipeline

1. Screw the pipes into the connecting flanges. Seal the threads.

   Assemble fine and ultra-fine filter to a filter combination LFM-BA-…:

   Observe the position of the ultra-fine filter in the flow direction. The LFMB filter (1 µm) must be installed upline of the LFMA filter (0.01 µm).

Assemble maintenance unit with an existing maintenance unit of the same series (see Figures 1-4):

1. Remove any connecting flanges on the assembly side of the two maintenance units.
2. Screw the studs Type FRB-D-… (order, if necessary – see also chapter 1.2 CUSTOMER SERVICE) into the basic unit.
3. Remove the connecting flange (if fitted) from the respective attachment and drive out the corresponding pin (S) (drive out in flow direction).
4. Install the attachment with the connecting flange.

Caution!

A gasket must be installed between the individual units and on the connecting flange.

Fig. 1

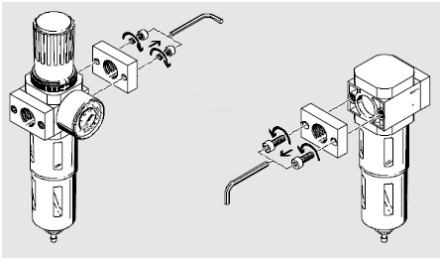


Fig. 2

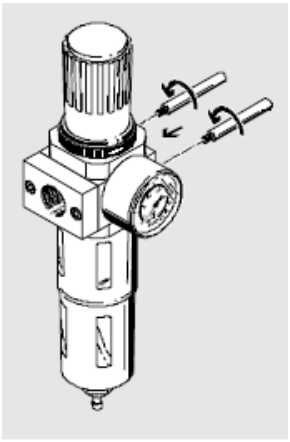


Fig. 3

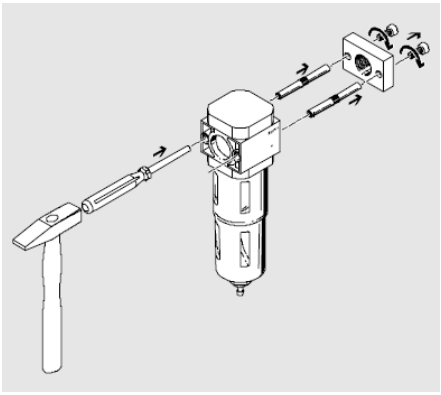
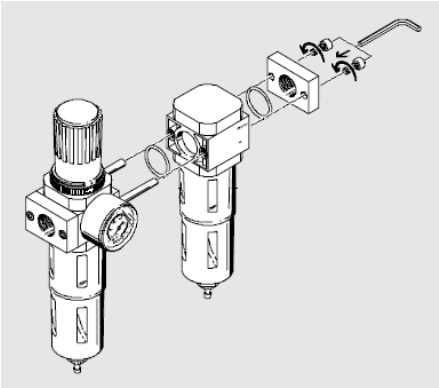


Fig. 4



4.2.2 Installing the pressure gauge

LFR(S)-...O:

1. Remove the screw plug on the pressure gauge fitting or on the alternative fitting on the rear of the device.

FR(S)/ R(S) with pressure gauge in scope of supply:

1. Relocate the screw plug if you wish to use the alternative fitting on the rear of the device for the pressure gauge.

2. Screw the pressure gauge MA in clockwise direction completely into the FR(S)/LR(S). The pressure gauge seal is preassembled on the threaded connector.

4.2.3 Installing the filter combination

Observe the installation order in the flow direction. When correctly installed, the fine filter FMB (1 cm) is fitted first, then the ultra-fine filter LFMA (0.01 µm) and finally the activated charcoal filter LFX.

5 Commissioning

5.1 Adjust controllers LR-..., FR-...

1. Vent the whole system slowly so that no uncontrolled movements occur.
2. Pull up the pressure setting knob (away from the housing) to release.
3. Turn the pressure setting knob until the desired pressure is displayed on the pressure gauge. The inlet pressure must be min. 1 bar higher than the outlet pressure.
4. Press down the pressure setting knob (towards the housing) to prevent accidental turning.

6 Dismantling

6.1 Dismantling the maintenance unit

Danger!

Dismantling work may only be carried out by qualified persons who have been assigned to carry out this work.

Danger!

Switch off the compressed air supply before starting dismantling work.

Note!

Use the shut-off valves to depressurise the system for installation and maintenance (e.g. filter changing).

7 Service

Danger!

Servicing work must only be carried out by qualified people who have been tasked with this work.

Danger!

Switch off the compressed air supply before starting dismantling work.

Note!

Use the shut-off valves to depressurise the system for installation and maintenance (e.g. filter changing).

7.1 Drain the condensate manually.

When the condensate reaches a level of approx. 10 mm under the filter element:

1. Loosen the drain plug in anti-clockwise direction (as seen from below). This allows the condensate to drain off.
2. Commission the maintenance unit as described in chapter 5 COMMISSIONING.

7.2 Replace filter cartridge

The the pressure flow rate is too low despite an unchanged pressure setting:

1. Slowly vent the whole system and the device.
2. Unscrew the filter bowl in anti-clockwise direction.
3. Install the individual components in reverse order. Hold the new filter cartridge only at the lower end.
4. Commission the maintenance unit as described in chapter 5 COMMISSIONING.

7.3 Clean maintenance unit

Clean the outside of the device using a soft cloth, when required. Permitted cleaning agents are detergent solution (max. +60 °C) or benzine (free of aromatics).

8 Appendix

8.1.1 Faults and possible cause(s)

Fault	Possible cause(s)	Measures
No pressure displayed	Shut-off valve closed	Open shut-off valve
	Pressure not set	Set the pressure at the pressure setting screw
	Pressure gauge defective	Replace pressure gauge
Low pressure flow rate (working pressure drops despite air consumption)	Filter cartridge soiled	Replace filter cartridge
	Construction between shut-off valve and maintenance unit	Inspect the line
Pressure rises above the set working pressure	Valve disc at seal seat defective	Please contact our Customer Service (see also chapter 1.2 CUSTOMER SERVICE)
Audible escape of air at the setting knob	Valve seat damaged	Please contact our Customer Service (see also chapter 1.2 CUSTOMER SERVICE)
Audible escape of air at the drain plug	Drain plug leaking	Retighten or replace drain plug

8.2 Technical data

Inlet pressure [bar]	max. 16 bar without fully automatic condensate drain max. 12 bar with fully automatic condensate drain
Pressure control range [bar]	0.5 – 7 (RF(S)/R(S) … D-7) 0.5 – 12 (RF(S)/R(S) … D)
Operating medium	Compressed air (LFR(S)/LF) Filtered compressed air, oiled or non-oiled Filter mesh size 40 µm (LR(S)/LF) Filtered, non-oiled compressed air: with filter mesh size 5 µm (LFMB) with filter mesh size 1 µm (FMA) with filter mesh size 0.01 µm (LFX)
Ambient temperature [°C]	-10 °C / +60 °C
Medium temperature [°C]	-10 °C / +60 °C (LFR(S)/R(S)/LF) +1.5 °C / +60 °C (LFR(S)/R(S)/LF) +5 °C / +30 °C (LFX)

8.3 Disposal

At the end of its useful life, never throw away the maintenance unit with the domestic refuse under any circumstances. Consult your local council about the options available for correct environmentally friendly disposal.

Packaging



Observe locally applicable regulations for correct recycling.

8.4 Declaration of conformity (DoC)

CE

The CE mark confirms conformity of the device with the relevant EU directives.

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