# **(HYDAC)** INTERNATIONAL



## 1. MAINTENANCE

#### 1.1 GENERAL

Please follow the maintenance instructions!

#### **1.2 INSTALLATION**

Before fitting the filter into the system, check that the operating pressure of the system does not exceed the permitted operating pressure of the filter.

Refer to the name plate on the filter!

#### **1.3 COMMISSIONING**

Check that the correct filter element is fitted; screw in bowl and tighten with appropriate tightening torque. Switch on the hydraulic system and check filter for leakage.

Vent filter at an appropriate point in the system.

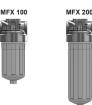
#### 1.4 TOOLS REQUIRED FOR MAINTENANCE

Size	Spanner for filter bowl	Spanner for VD 0 A.1
MFX 100/200	AF width 24	AF width 27

### 1.5 TORQUE VALUE FOR CLOGGING INDICATORS

Туре	Max. torque
VM	33 Nm
VL	0.6 Nm

## **Spare Parts List Inline Filter MFX** up to 130 l/min, up to 50 bar



## 2. CHANGING THE ELEMENT

## 2.1 REMOVING THE ELEMENT

- 1.Switch off hydraulic system and release filter pressure.
- 2. Unscrew filter unit (filter bowl and element).
- 3. Remove filter element (drain fluid into a suitable container and clean or dispose of it in accordance with environmental regulations). Examine element surface for dirt residues and larger particles since these can be an indication of damage to components.
- 4. Replace filter element.
- 5.Clean filter bowl and filter head; particular attention must be given to the threads!
- 6.Examine filter, especially sealing surfaces, for mechanical damage.

#### 2.2 FITTING THE ELEMENT

- 1. When fitting a new filter element, check that the designation corresponds to that of the old element.
- 2.Lubricate seal and sealing cone on external diameter with clean operating fluid. Apply aluminium paste or another suitable lubricant to threads on filter head and bowl.

3. Insert filter element in filter bowl.

- 4.Screw in filter bowl fully and tighten to 40 Nm!
- 5. Switch on hydraulic system and vent filter at a suitable point in the system.
- 6. Check the filter for leakage.

### NOTICE:

Contamination or incomplete pressure release on disassembly can lead to seizing of the bowl thread.

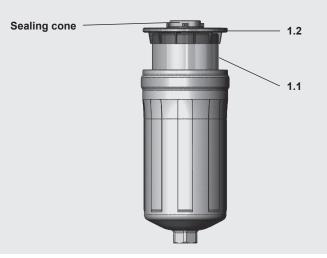
Filter elements which cannot be cleaned must be disposed of in accordance with environmental protection regulations.

## **3. SPARE PARTS**

3.1 SPARE PARTS DRAWING MFX 100/200

2.4 / 2.5 (indicator type VL)

2.1 (indicator type VM: not shown)



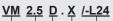
#### 3.2 SPARE PARTS LIST MFX 100/200

tem	Con- sists	Description	MFX 100	MFX 200	
1.		Filter element	see Point 4. Replacement elements		
	1.1	Filter element	0100 MX	0200 MX	
	1.2	Seal	Seal ring MFX	Seal ring MFX	
2.		Clogging indicator or screw plug	screw plugSee Point 5. Replacement clogging indicatorcrew plug type VM003059320 0 A.100305931o file seal ringVMring15 x 1.5		
	2.1	Screw plug type VM VD 0 A.1 VD 0 A.1 /-V			
	2.2	Profile seal ring			
	2.3	O-ring			
	2.4	Clogging indicator type VL			
	2.5	O-ring	3.68 x 1.78		

Other spare parts on request

4. REPI	ACEMENT ELEMENT	/-B3.5
Size		
0100, 020	0	
Version		
MX		
Filtration	rating	
	CON2: 005, 010, 020	
MM:	008, 010, 015	
Filter mat	erial	
BN4HC, E	CON2, MM	
Suppleme	entary details	
B3.5 stan	dard: bypass cracking pressure 3.5 bar*	
B. spec	ial bypass cracking pressure (B1.7 = 1.7 bar)*	
V, W (For	description, see brochure "MFX")	
* <b>Caution:</b> A bypass	valve must be selectedı	

#### **REPLACEMENT CLOGGING INDICATOR**



#### pe of indicator

- differential pressure indicator up to 210 bar operating pressure
- differential pressure indicator for indicator type "BF" up to 50 bar operating pressure and max. operating temperature of 80 °C.

#### sponse pressure standard 2.5 bar, others on request

## pe of clogging indicator

- with screw plug in indicator port
- visual
- visual, mobile
- electrical
- visual and electrical

## dification number

the latest version is always supplied

## pplementary details

, LED, V, W description, see "Clogging Indicators" brochure)

## 6. MAINTENANCE INSTRUCTIONS

#### **6.1 USER INSTRUCTIONS FOR FILTERS**



This pressure equipment must only be put into operation in conjunction with a machine or system.



The pressure equipment must only be used as stipulated in the operating instructions of the machine or system.



This pressure equipment must only be operated using hydraulic or lubricating fluid.



The user must take appropriate action (e.g. air venting) to prevent the formation of air pockets.



Repair, maintenance work and commissioning must be carried out by specialist personnel only.

Allow the pressure equipment to cool before handling.

The stipulations of the operating instructions of the machine or system must be followed.



Caution: pressure equipment! Before any work is carried out on the pressure equipment, ensure the pressure chamber concerned (filter housing) is depressurised.



On no account must any modifications (welding, drilling, opening by force etc.) be carried out on the pressure equipment.



It is the responsibility of the owner to comply with the water regulations of the country concerned.



Statutory accident prevention regulations, safety regulations and safety data sheets for fluids must be observed.



When working on, or in the vicinity of, hydraulic systems, naked flames, spark generation and smoking are forbidden.



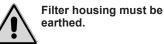
Hydraulic oils and waterpolluting fluids must not be allowed to enter the soil or watercourses or sewer

systems. Please ensure safe and environmentally friendly disposal of hydraulic oils. The relevant regulations in the country concerned with regard to ground water pollution, used oil and waste must be complied with.



Whenever work is carried out on the filter, be prepared for hot oil to escape which can cause injury or scalding as a result of its high pressure or

temperature.





Caution

When using electrical clogging indicators, the electrical power supply to the system must be switched off before removing the clogging indicator

connector.

#### Customer Information in respect of Machinery Directive 2006/42/EC

Hydraulic filters are fluid power parts/ components and are therefore excluded from the scope of the Machinery Directive. They do not bear the CE mark. Before using these components, ensure compliance with the specifications provided by HYDAC Filtertechnik GmbH in this documentation.

The specifications also contain information on the relevant essential health and safety requirements (based on Machinery Directive 2006/42/EC) that are to be applied by the user. We hereby declare that the filters are intended to be incorporated into machinery within the terms of the Machinery Directive 2006/42/EC It is prohibited to put the filters into service until the machinery as a whole is in conformity with the provisions of the Machinery Directive. Furthermore, our Terms of Sale and Delivery are available on our website (www.hydac.com).

#### SERVICE ADDRESSES

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#### **6.2 MAINTENANCE. GENERAL**

This section describes maintenance work which must be carried out periodically. The operational safety and life expectancy of the filter, and whether it is ready for use, depend to a large extent on regular and careful maintenance.

#### **6.3 MAINTENANCE MEASURES**

- Spare parts must fulfil the technical requirements specified by the manufacturer. This is always ensured when using original HYDAC spare parts.
- Keep tools, working area and equipment clean.
- After disassembling the filter, clean all parts, check for damage or wear and replace parts if necessary.
- When changing a filter element, a high level of cleanliness must be observed!

#### 6.4 INTERVAL BETWEEN ELEMENT CHANGES

In principle we recommend that the filter element is changed after 1 year of operation at the latest. We recommend installing the filter with a clogging indicator (visual and/or electrical or electronic) to monitor the filter element.

If the clogging indicator responds, it is necessary to change or clean the filter element without delay (only W/HC and V elements can be cleaned).

When no clogging indicator has been fitted, we recommend changing the elements at specific intervals. (The frequency of changing the filter elements depends on the filter design and the conditions under which the filter is operated.) When filter elements are subject to high dynamic loading it may prove necessary to change them more frequently. The same applies when the hydraulic system is commissioned or repaired or when the oil is changed.

The standard clogging indicators only respond when fluid is flowing through the filter. With electrical indicators the signal can also be converted into a continuous display on the control panel. In this case the continuous display must be switched off during a cold start or after changing the element.

If the clogging indicator responds during a cold start only, it is possible that the element does not yet need to be changed.

#### NOTE

The information in this brochure relates to the operating conditions and applications described.

For applications and operating conditions not described. please contact the relevant technical department.

Subject to technical modifications.

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