# **(FYDAC)** 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. Filters must be flexibly mounted and not fixed rigidly to the floor or used as a pipe support. When installing, ensure that system forces cannot be transferred to the filter. Refer to the identification plate on the filter!

### **1.3 COMMISSIONING**

Check that the correct filter element is fitted. Fit cover and screw in. Switch on the hydraulic system. Loosen vent screw, if present, max. 1 turn and vent filter. As soon as oil begins exiting at the vent screw, close it again firmly. If no vent screw is present, vent filter at an appropriate point in the system. Check the filter for leakage.

#### 1.4 TOOLS REQUIRED FOR MAINTENANCE

| DMH | Cover,<br>ext. hex. key         |                   |  |  |
|-----|---------------------------------|-------------------|--|--|
| All | Wrench size 46                  |                   |  |  |
| DMH | Oil drain<br>plug               | Allen key         |  |  |
| All | G1¼                             | Wrench size<br>22 |  |  |
| DMH | Element collet<br>ext. hex. key |                   |  |  |
| All | M8                              | Wrench size<br>13 |  |  |

### 1.5 TORQUE VALUES FOR CLOGGING INDICATORS

On request.

### **Spare Parts List Inline Filter DMH** Flow direction from in to out up to 250 l/min, up to 250 bar



### 2. CHANGING THE ELEMENT

- 2.1 REMOVING THE ELEMENT
- 1. Switch off hydraulic system.
- Undo the vent screw by a maximum of 1 rotation to release pressure. If no vent screw is present, depressurise the filter at an appropriate point.
- Open oil drain plug and drain contaminated oil into a suitable container. The oil may not be reintroduced into the system unless it has been filtered and cleaned.
- Loosen cover and put it aside in a clean place with the clamp spring. Lift the element collet out of the filter housing by the removal bracket and let the residual oil drip into the filter housing.
- 5. Loosen the nut on the element collet. Remove the element from the element collet.
- 6. Examine element surface for dirt residues and larger particles since these can be an indication of damage to components.
- 7. Clean housing, cover and, as required, magnetic core.
- Replace or clean filter element (only WPI elements can be cleaned).
- Examine filter, especially sealing surfaces, for mechanical damage.
- 10. Check O-rings and replace if necessary.

### 2.2 FITTING THE ELEMENT

- 1. Lubricate the sealing surfaces on the filter housing and cover, as well as the O-rings, with clean operating fluid.
- 2. When fitting a new filter element, check that the designation corresponds to that of the old element.
- 3.Place filter element on the element collet and press into the O-ring flap. Place nut on the element collet and tighten (tightening torque: 13 +2 Nm).
- 4. Place element collet in the filter housing, ensuring that the O-ring fits correctly.
- 5. Screw the cover on manually with clamp spring. Tighten alternately (tightening torque: 150 +5 Nm).
- Screw in oil drain plug (tightening torque: 400 ±20 Nm).
- 7. If necessary, refill hydraulic oil.
- 8. Switch on the hydraulic system and vent filter at an appropriate point in the system or until oil exits from the vent screw. Close vent screw.
- 9. Check the filter for leakage.

### NOTICE:

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

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



### 3. SPARE PARTS

3.1 SPARE PARTS DRAWING DMH



### 3.2 SPARE PARTS LIST DMH

(Specified in NBR seals)

| lo. | DMH 045                               | DMH 080                               | DMH 150                               | DMH 250                               |
|-----|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
|     | DMH 045-080 cover, sprin              | ng, seal (part no.: 200266)           | DMH 150-250 cover, sprir              | ng, seal (part no.: 200267)           |
| 2.  | DMH 045-080 seal kit N                |                                       | DMH 150-250 seal kit l                |                                       |
|     | Cover: O-ring 59                      |                                       | Cover: O-ring 78                      |                                       |
|     | Back-up ring:                         |                                       | Back-up ring:                         |                                       |
|     | Housing: 53.5<br>Clogging indicator:  |                                       | Housing: 75.7<br>Clogging indicator:  |                                       |
| ).  | Element collet                        | Element collet                        | Element collet                        | Element collet                        |
|     | With bypass,                          | With bypass,                          | With bypass,                          | With bypass,                          |
|     | with magnetic core                    | with magnetic core                    | with magnetic core                    | with magnetic core                    |
|     | (Part no.: 200270)                    | (Part no.: 200273)                    | (Part no.: 200277)                    | (Part no.: 200281)                    |
|     | Without bypass,                       | Without bypass,                       | Without bypass,                       | Without bypass,                       |
|     | with magnetic core                    | with magnetic core                    | with magnetic core                    | with magnetic core                    |
|     | (Part no.: 200004)                    | (Part no.: 200274)                    | (Part no.: 200278)                    | (Part no.: 200282)                    |
|     | With bypass,                          | With bypass,                          | With bypass,                          | With bypass,                          |
|     | without magnetic core                 | without magnetic core                 | without magnetic core                 | without magnetic core                 |
|     | (Part no.: 200271)<br>Without bypass, | (Part no.: 200275)<br>Without bypass, | (Part no.: 200279)<br>Without bypass, | (Part no.: 200025)<br>Without bypass, |
|     | without magnetic core                 | without magnetic core                 | without magnetic core                 | without magnetic core                 |
|     | (Part no.: 200272)                    | (Part no.: 200276)                    | (Part no.: 200280)                    | (Part no.: 200283)                    |
| l.  | Filter element                        | Filter element                        | Filter element                        | Filter element                        |
|     | ULP-00xx-056-0045-S-N-RT              | ULP-00xx-056-0080-S-N-RT              | ULP-00xx-078-0150-S-N-RT              | ULP-00xx-078-0250-S-N-RT              |
|     | UMC-00xx-056-0045-S-N-RT              | UMC-00xx-056-0080-S-N-RT              | UMC-00xx-078-0150-S-N-RT              | UMC-00xx-078-0250-S-N-R               |
|     | WPI-00xx-056-0045-S-N-RT              | WPI-00xx-056-0080-S-N-RT              | WPI-00xx-078-0150-S-N-RT              | WPI-00xx-078-0250-S-N-RT              |
|     |                                       | xx = filtrat                          | tion rating                           |                                       |
| j.  | Clogging indicator w                  |                                       | esent/not retrofittable on housir     | ng without indicator)                 |
|     |                                       |                                       | (part no.: 7600004582)                | 3                                     |
|     |                                       |                                       | part no.: 7600004592)                 |                                       |
|     |                                       | Electr./vis. VAF MAN 1                | (part no.: 7600004588)                |                                       |
|     |                                       |                                       |                                       |                                       |
|     |                                       |                                       |                                       |                                       |
|     |                                       |                                       |                                       |                                       |
|     |                                       |                                       |                                       |                                       |
|     |                                       |                                       |                                       |                                       |
|     |                                       |                                       |                                       |                                       |

### 4. MAINTENANCE INSTRUCTIONS

#### 4.1 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 equip-

ment, ensure the pressure chamber concerned (filter housing) is depressurised.



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



It is the responsibility of the operator 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.



Filter housing must be earthed.



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.



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 will 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 device 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.de).

### SERVICE ADDRESSES

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#### **4.2 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.

#### 4.3 MAINTENANCE MEASURES

- Spare parts are to conform to 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!

### 4.4 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 WPI 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 only responds during a cold start only, it is possible that the element does not need to be changed yet.

### NOTICE:

The information in this brochure relates to the operating conditions and fields of application described.For fields of application and operating conditions not described, please contact the relevant technical department.

All technical details are subject to change without notice.

Caution