(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. 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	Torque	Int. hex. Allen		
	value	key		
05.00	05.11			
SF 60	25 Nm	AF width 6		
SF 110	25 Nm	AF width 6		
SF 160	25 Nm	AF width 6		
SF 240	25 Nm	AF width 6		
SF 330	40 Nm	AF width 8		
Size	Torque	Cover bolts.		
	value	ext. hex.		
	, and o			
		spanner		
SFM 330	35 Nm	AF width 16		
Size	Cover,			
ext. hex. spanner		nanner		
	Town Now o	2011101		

SFF 500 AF width 36 (hand-tight) 1.5 TORQUE VALUE FOR CLOGGING INDICATORS

SFF 400

AF width 36 (hand-tight)

Туре	Max. torque
VR	33 Nm
	15 Nm (for B, BM F,
	LE and LZ
	indicators)
V ¹ / ₄ (for SFF)	15 Nm

Spare Parts List Suction Line Filter SF/SFM/SFF and Suction Filter Elements S/S... Up to 500 I/min

2. CHANGING THE ELEMENT 2.1 REMOVING THE ELEMENT

- 1.Switch off hydraulic system and
 - release filter pressure. <u>CAUTION:</u> when fitted inline, before opening the filter, slowly open the air
 - bleed screw and release pressure (release possible pressure in the tank).
- 2.<u>SF 60 330:</u> Loosen cover bolts and lift off cover. <u>SFM 330:</u> Loosen cover bolts and lift off cover. <u>SFF 400 - 500:</u> Unscrew cover.
- 3.Pull out filter element. Examine element surface for dirt residues and larger particles since these can be an indication of damage to components.
- 4.Replace or clean filter element (only W elements can be cleaned to some extent).
- 5. Clean housing and cover.
- 6.Examine filter, especially sealing surfaces, for mechanical damage.
- 7. Check O-rings and replace if necessary.



2.2 FITTING THE ELEMENT

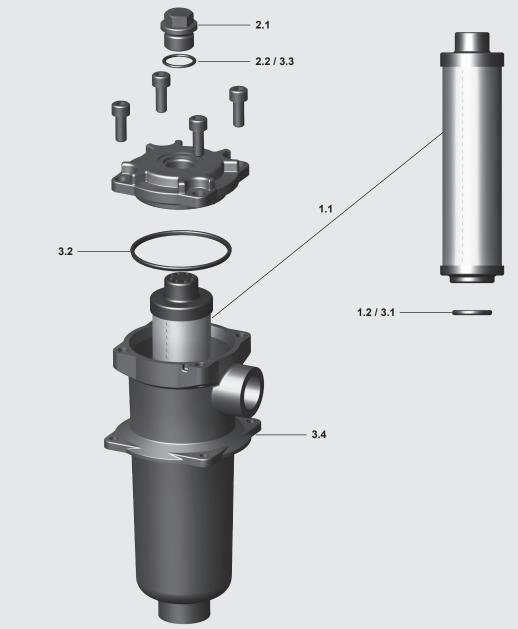
- 1.Wet the sealing surfaces on the filter housing and cover, as well as the O-ring, with clean operating fluid.
- 2. When fitting a new filter element, check that the designation corresponds to that of the old element.
- 3.Place filter element carefully on to the element spigot in the housing.
- 4. <u>SF 60 330. SFM 330:</u> Position cover and screw in cover bolts by hand; then tighten the cover bolts in alternation. <u>SFF 400 - 500:</u> Replace cover and screw in manually.
- 5.Switch on hydraulic system.
- 6. Check the filter for leakage.
- 7.Vent filter at an appropriate point in the system.

NOTICE:

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

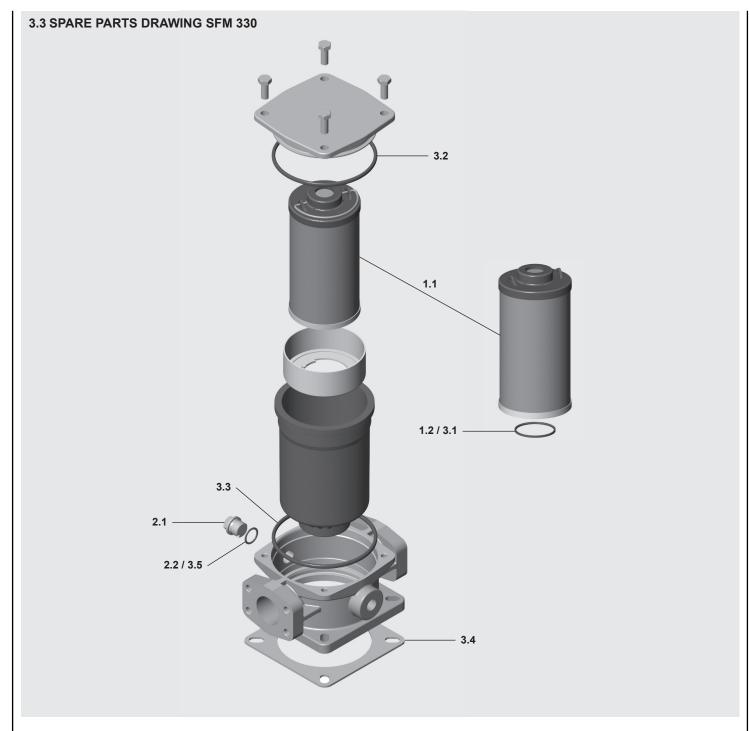
3. SPARE PARTS

3.1 SPARE PARTS DRAWING SF 60 - 330



3.2 SPARE PARTS LIST SF 60 - 330

ltem	Con- sists	Description	SF 60	SF 110	SF 160	SF 240	SF 330
1.		Filter element	see Pt. 4. Replacement element				
	1.1	Filter element	0060 RS	0110 RS	0160 RS	0240 RS	0330 RS
	1.2	O-ring	22	х 3	34 x	3.5	48 x 3
2.		Clogging indicator or screw plug		See Point 5. R		ging indicator	Ŷ
	2.1	Screw plug VR 0 A.0 VR 0 A.0 /-V	00306006 00305928				
	2.2	O-ring	18 x 2.5				
3.		Repair kit SF Repair kit SF /-V	01267827 01267828		01270657 01270658		00319613 00311702
	3.1	O-ring (element)	22 x 3		34 x 3.5		48 x 3
	3.2	O-ring (cover)	63.09 x 3.53		91.67 x 3.53		105 x 5
	3.3	O-ring (indicator)	18 x 2.5				
	3.4	O-ring (tank seal)	82.14	x 3.53	110.72	x 3.53	00405588



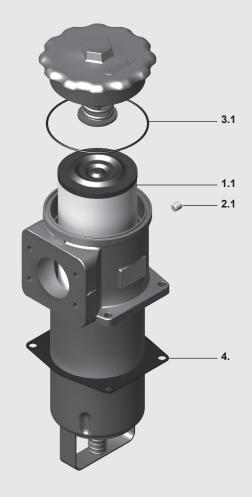
3.4 SPARE PARTS LIST SFM 330

ltem	Con- sists	Description	SFM 330		
1.		Filter element	see Pt. 4. Replacement element		
	1.1	Filter element	0330 RS		
	1.2	O-ring	48 x 3		
2.		Clogging indicator or screw plug VR 0 A.0	See Point 5. Replacement clogging indicator 00306006		
		VR 0 A.0 /-V	00305928		
	2.1	Screw plug	G 1⁄2		
	2.2	O-ring	18 x 2.5		
3.		Seal kit RFM Seal kit RFM /-V	01250666 00313109		
	3.1	O-ring (element)	48 x 3		
	3.2	O-ring (cover)	123.19 x 5.33		
	3.3	O-ring (head)	123.19 x 5.33		
	3.4	O-ring (tank seal)	Seal RFM330		
	3.5	O-ring (VR 0 A.0)	18 x 2.5		

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Other spare parts on request

3.5 SPARE PARTS DRAWING SFF 400 - 500



3.6 SPARE PARTS LIST SFF 400 - 500

ltem	Con- sists	Description	SFF 400	SFF 500	
1.		Filter element	See Pt. 4. Replacement element		
	1.1	Filter element	0400 RS	0500 RS	
2.		Clogging indicator or screw plug	See Point 5. Replacement clogging indicator		
	2.1	Screw plug		blug NPTF ¼ 013772	
3.		Seal kit SFF Seal kit SFF /-V	01294713 01294714		
	3.1	O-ring (cover)	134.5 x 3		
4.		Tank seal	30	072810	

Other spare parts on request

4. REPLACEMENT ELEMENT	5. REPLACEMENT CLOGGING INDICATOR
<u>0330 RS 075 W /-V</u>	<u>VR 1 UE . X /-V</u>
Size 0060, 0110, 0160, 0240, 0330, 0400, 0500	Type of indicator VR connection G ½ (only for SF and SFM filters) V¼ connection NPT (connection SFF filters)
Туре	Response pressure
RS	2 2 bar (for type E) 1 1 bar (for type UE)
Filtration rating	0.2 0.2 bar (for type UF)
P: 010, 020 (not for SFF) W: 075, 125	Type of clogging indicator
W. 075, 125	A screw plug in indicator port UE vacuum gauge
Filter material	UF vacuum switch
P, W	Modification number
	X the latest version is always supplied
Supplementary details	Supplementary details
SFF must be specified for SFF filters V, W (For description, see "SF, SFM, SFF" brochure)	V (for description, see "Clogging Indicators" brochure)
v, w (roi description, see Sr, SFM, SFF blochdie)	

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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.



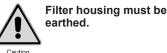
Hydraulic oils and waterpolluting fluids must not be allowed to enter the soil or watercourses or sewer

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.





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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<u>Customer service:</u> Tel: +49 (0) 6897 / 509-412 Fax: +49 (0) 6897 / 509-828

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.

