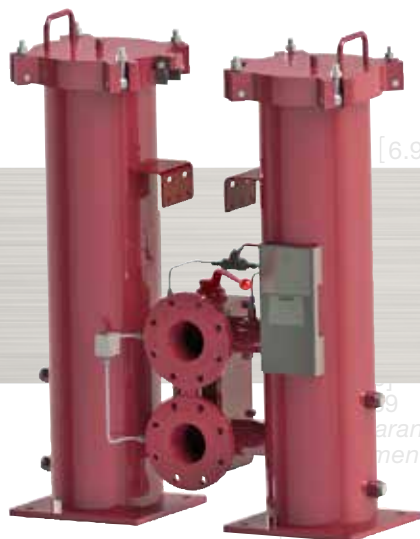


HYDAC INTERNATIONAL


Filters



RFLDH Series Service and Parts


Index

1. General
- 1.4 Tools Required for Maintenance
- 1.5 Torque Requirements
2. Maintenance
3. Changing the Element
4. Spare Parts List
5. Replacement Element Model Code



This symbol is followed by user tips and particularly useful information.

- This pressure unit is for use with hydraulic power or lube systems only.
- All repair, maintenance, installation and commissioning work must be carried out by trained personnel.
- Operate this pressure unit in accordance with hydraulic power or lube system operating instructions.
- Ensure the pressure unit is sufficiently cool before handling.
- This pressure unit is suitable for use with hydraulic or lubricating fluids only.
- It is the responsibility of the operator to comply with local water regulations.



CAUTION! This symbol denotes safety precautions, the non-observance of which can endanger persons and the environment.

- Observe proper venting procedures to avoid the formation of air pockets.
- Caution: Pressurized unit. Purge system pressure before performing any work on the pressure unit.
- Under no circumstances must any modifications (*welding, drilling, or opening by force...*) be carried out on the pressure unit. Any modifications will void the warranty.
- Statutory accident prevention regulations, safety regulations and safety data sheets for fluids must be observed.
- When working on or near hydraulic systems, avoid exposure to open flames and spark generating equipment. Do not smoke near equipment.
- Comply with all regulations with regard to the disposal of used oil and waste.
- Wear proper protective clothing and guards to avoid injury or scalding due to high pressure or high temperature oil.
- Filter housing must be grounded.
- Disconnect all electrical power to the system and other electrical components, prior to working on filter clogging indicators.

NOTE: All details subject to technical modification

FILTER MAINTENANCE

1. General

1.1 Commitment to Quality

HYDAC demonstrates its commitment to quality through the implementation of an ISO 9001: 2008 program, which encompasses not only product design and manufacturing but service and delivery as well.

1.2. Installation

- Before installing the filter in the system, check that the operating pressure of the system does not exceed the maximum allowable operating pressure of the filter.
- Observe type code label on the filter.

1.3. Commissioning

Remove cover plate and check that the correct filter element is installed. Replace cover plate and screw in cover plate bolts to the recommended torque (see point 1.4.).

Open the ball valve on the pressure compensation line, turn lever to center position and fill filter via the system (both filter sides will be filled). Vent the filter by loosening both vent plug on the cover plates. Then turn lever to one filter side and close the ball valve on the pressure compensation line again. Close vent plug after venting.

1.4. Tools Required for Maintenance

Size	Vent plug (cover plate) Ermeto	Int. Hex Size	Torque value Nm [ft-lbs]
1300/1320/2500/2520	VSTI G 1/2	10mm	80 [59]
1303/1323/2503/2523			
4020/4023			

1.5. Torque Values

Size	Cover plate Mount. bolts (ISO 4014)	External Hex Size	Torque value Nm [ft-lbs]
1300/1320/2500/2520	5/8" -11 UNC	1 1/16"	138 [102]
1303/1323/2503/4023	3/4" -10 UNC	1 1/4"	175 [129]
4020	3/4" -10 UNC	1 1/4"	244 [180]
Oil Drain Plug	Consult factory		

2. Maintenance

2.1. General

This section describes periodic maintenance requirements. Periodic and thorough maintenance will ensure operator safety and the life of the filter.

2.2. Maintenance Procedures

- Only high quality spare parts meeting the technical requirements specified by the manufacturer should be used, quality is always guaranteed with HYDAC original spare parts.
- Keep tools, working area and equipment clean.
- After disassembling the filter, clean all parts and check for damage or wear. Replace parts as required.
- When changing filter elements, a high level of cleanliness must be observed!

2.3. Interval Between Changing Elements

- To ensure optimum performance, HYDAC recommends replacing filter elements every 6 months or upon indication, whichever occurs first.
- HYDAC recommends installing the filter with a clogging indicator (visual and/or electric or electronic) to monitor for excessive filter element pressure drop.
- If the clogging indicator trips, immediately change or clean the filter element. (Only wire mesh and metal fiber elements can be cleaned).
- If no clogging indicator is installed, HYDAC recommends changing

elements at specified intervals (depends on filter sizing and conditions). Higher dynamic loads across the element might necessitate shorter intervals between changes. Shorter intervals can also be expected during commissioning, repairs, oil changes, etc. of the hydraulic system.

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

3. Element Replacement

3.1. Element Removal

1. Open the ball valve on the pressure compensation/filling line to equalise the pressure between the filter housings; turn lever through 90°, filtration is switched over to the other filter side; close ball valve again.

Note: The engraved "L" on top of transfer valve indicates the side in operation.

2. Loosen vent screw to release pressure from filter side no longer operating. Open oil drain plug of filter side no longer operating and drain contaminated oil into a suitable container. (The oil must not be put back into the system unless it is cleaned first).
3. Loosen cover plate screws. Lift off cover plate and remove element holder.
4. Remove filter element by handle; examine surface of element for dirt residue and larger particles; these can indicate damage to the components.
5. Replace filter element.
6. Clean housing and cover plate, if necessary.
7. Examine filter, especially sealing surfaces, for mechanical damage.
8. Check o-rings and replace parts if necessary.

3.2. Element Installation

1. Lubricate sealing surfaces on the filter housing and cover plate, and the seals with clean operating fluid.
2. When installing a new element, verify that the designation corresponds to that of the old element.
3. Place filter element carefully onto the element location nozzle in the housing.
4. Reinstall oil drain plugs and air vent plug.
5. Turn lever to center position and fill filter side until oil seeps past the air vent plug.
Version with pressure compensation line: Open the pressure compensation line ball valve and fill filter side until oil seeps past the air vent plug.
6. Close air vent plug.
7. Close ball valve again and check filter for leakage.

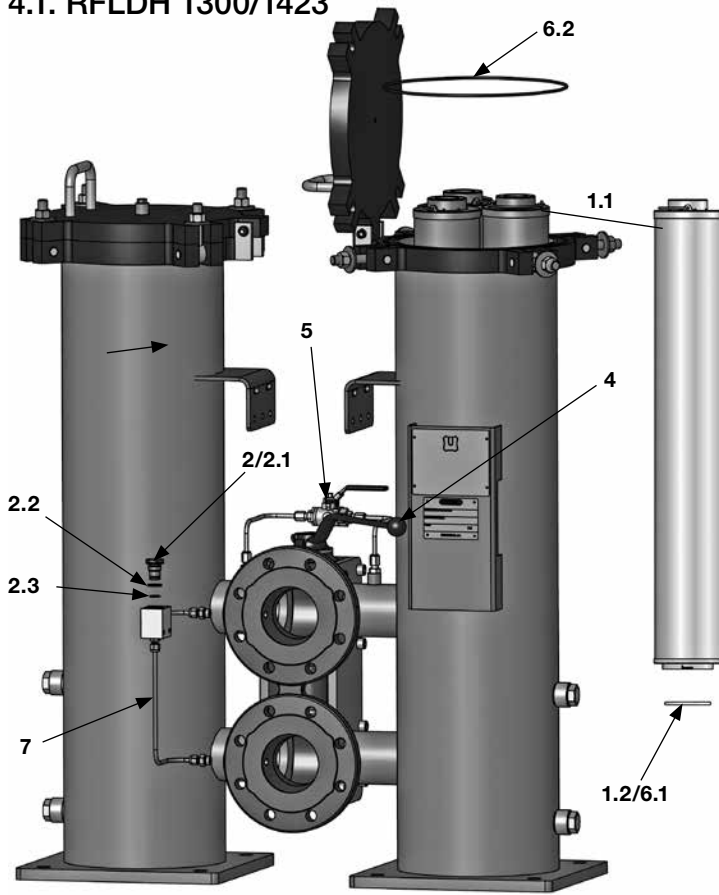
NOTE:

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.

4. Spare Parts

4.1. RFLDH 1300/1423



5. Replacement Element Model Code

	1300	R	010	ON	/ V	B6
Size	0850, 1300, 1700, 2600					
Filtration Rating (micron)	1, 3, 5, 10, 15, 20 = ON 3, 10 = BN4AM 3, 5, 10, 20 = ECON2 40 = AM 25, 74, 149, = W/HC 10, 20 = P/HC					
Element Media	ON, BN4AM, ECON2, AM, W/HC, P/HC					
Seals	(omit) = Nitrile rubber (NBR) (standard) V = Fluorocarbon elastomer (FKM)					
Bypass Valve	(omit) = 43 psid (3 bar) (standard) B1 = 14.5 psid (1 bar) B6 = 87 psid (6 bar) KB = No Bypass					
Supplementary Details	W = Indicator with brass piston (for water based fluids) SO263 = Modification of elements for Skydrol or HYJET phosphate ester fluids SFREE = Element specially designed to minimize electrostatic charge generation Model Codes Containing RED are non-stock items – Minimum quantities may apply – Contact HYDAC for information and availability					

6. NOTE

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

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

Subject to technical modifications.

Item	Consists of	Designation	1300 / 1303 / 1320 / 1323	2500 / 2503 / 2520 / 2523	4020 / 4023
1.		Filter element	See point 5 Replacement elements		
	1.1	Filter element	According to order		
	1.2	O-ring	97.8 x 5.33	68 x 5	
		No. of elements per filter side / size	1 x 1300 R... or 2600 R...	3 x 0850 R... or 1700 R...	5 x 1700 R
2.		Indicator plug VD 0 A 1.0 /-V	00305931		
	2.1	Clogging indicator or indicator plug	See Filter Clogging Indicator brochure		
	2.2	Profile seal ring	VA		
	2.3	O-ring	15 x 1.5		
3.		SEAL KIT VD/VM/VR/VR FKM	00319638		
4.		Lever for change-over valve	0270383 / 1205525	1205525	1205525
5.		Equalization line ball valve	Contact HYDAC for information		
6.		SEAL KIT RFLD...FKM	02096201	02096202	02096203
	6.1	O-ring (element)	97.9 x 5.33 (2 pcs.)	68 x 5 (6 pcs.)	68 x 5 (10 pcs.)
	6.2	Lid seal	240.67 x 5.33	304.17 x 5.33	372.24 x 5.33
7.		Indicator and equalization line pipe and plumbing	Contact HYDAC for information		

- If present - O-Ring durometer can range from 70-80Sh. EPR Seal Kits available on request.
- Bowl assembly kits on request – kits include complete bowl with seals and plug.

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