

UFC-240-25-HIRE RIG NO30

User Manual



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V1.01

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Specifications

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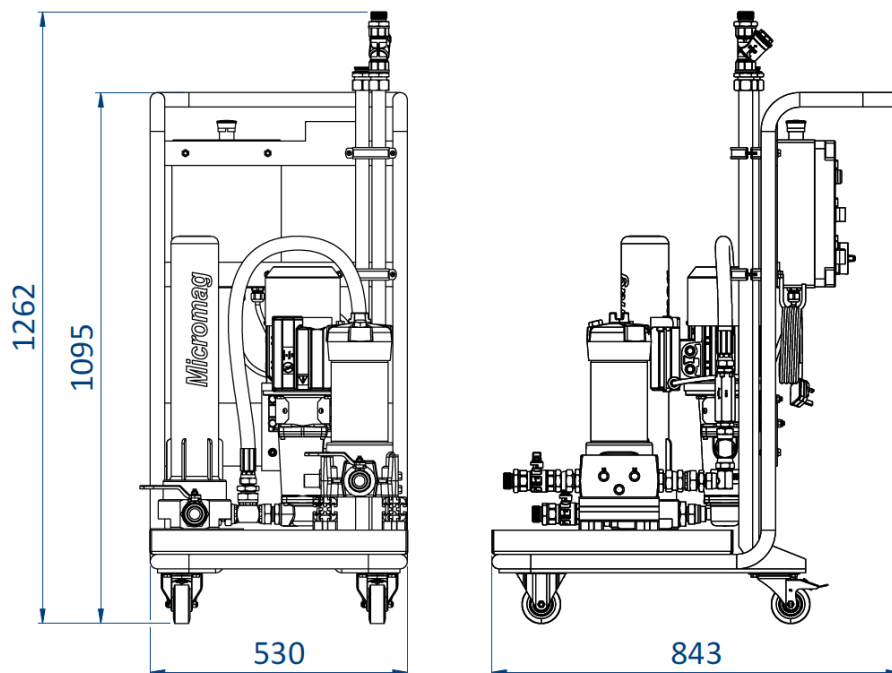
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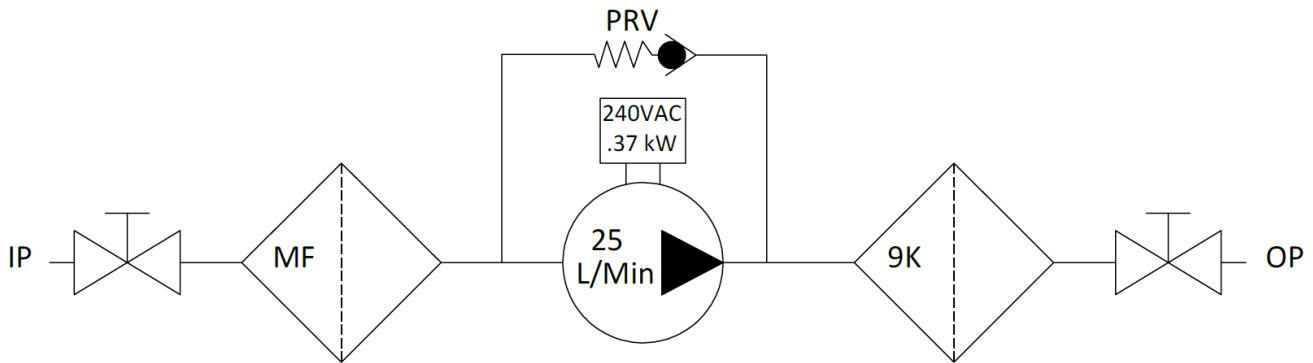


Specification	Detail
Dimensions	(w)530mm x (d)843 mm x (h)1262 mm
Weight	80 Kg Approx
Finish	Powder Coated: French Blue
Frame material	Plain Carbon Steel
Voltage	240 VAC
Frequency	50 Hz \pm 2%
Current	16 Amp supply
Power	.37 kW Motor
Duty cycle	Continuous
Noise level	<70dB @ 1 meter
Pump Type	Water/Glycol
Motor protection	Automatic thermal switch
Filtration	Progressive Cavity Pump
System bypass	6 Bar Check Valve
Filter indicators	Mechanical Clogging Indicator
Operational Pressure	Up To 5 Bar
Fluid temperature	80°C Max
Flow	Approx 25 L/min
Fluid type	Oils/Diesel/Coolants and Cutting Fluids
Environment	IP55
Connections	1" BSPM Connections c/w Ball Valve Isolation

Dimensions



Fluid Circuit Diagram



KEY:

IP.....INLET PORT 1" BSP C/W BALL VALVE
 MF.....MAGNET FILTER
 PRV.....PRESSURE RELIEF VALVE (6 BAR)
 9K.....SINGLE STACK K SERIES FILTER
 OP.....OUTLET PORT 1" BSB C/W BALL VALVE

Product Overview

The UFC-240-25-HIRE NO30 is a universal filtration system, designed for use on oils, diesel, coolants and cutting fluids. The frame is fabricated from plain carbon steel and is powder coated: French Blue and comes with braked swivel wheels for mobility.

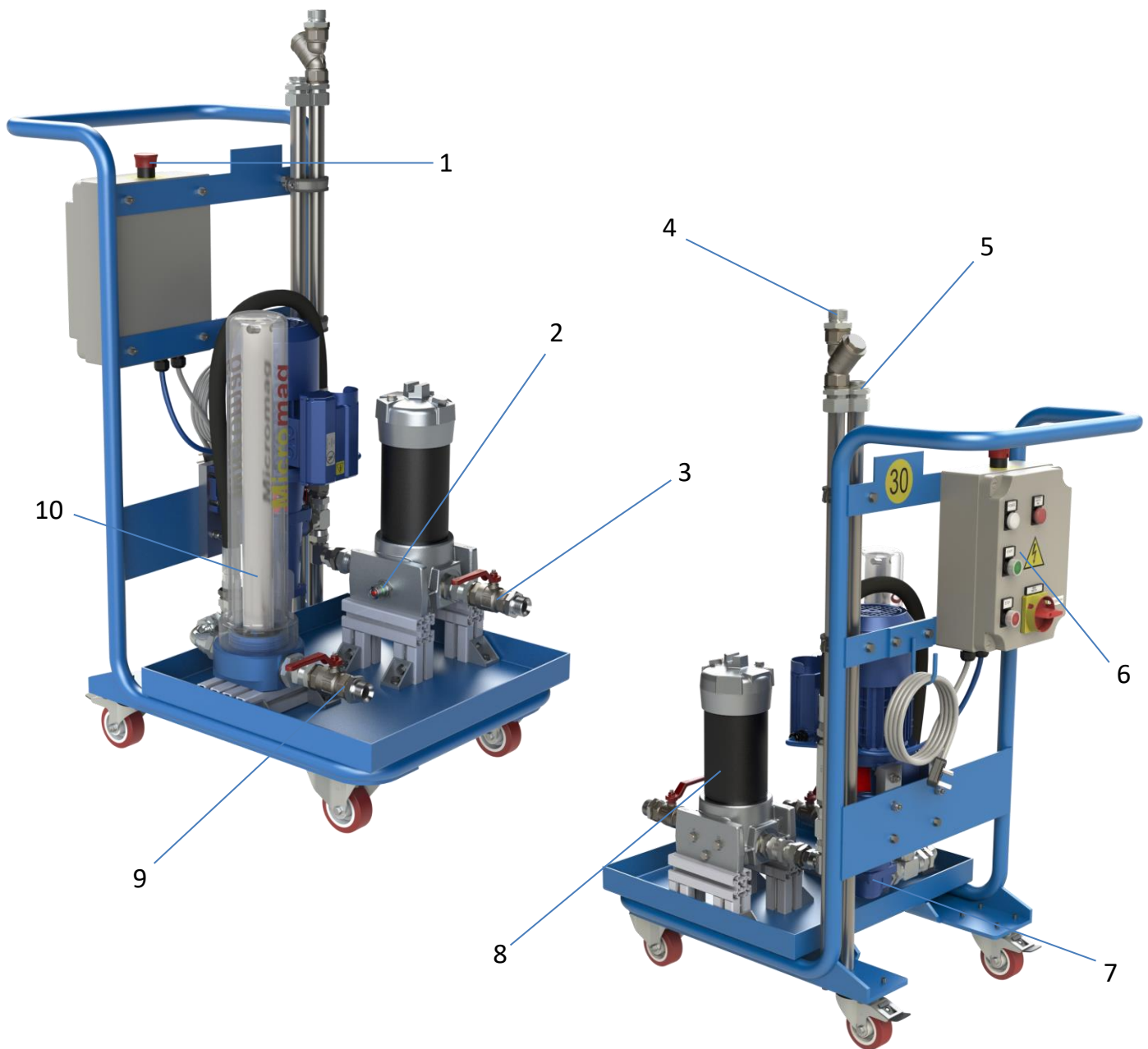
The progressive cavity pump draws contaminated fluid into the system through a 1" BSPM connections c/w ball valve and is passed through the magnet filter and then on through 1 x K9 filter vessel.

The K9 filter is fitted with a mechanical clogging indicator which will pop up red when the filter becomes blocked.

Health, Safety & Environmental Considerations

- This equipment should only be used for its intended purpose by competent and authorised persons, inappropriate use of electrical and mechanical equipment could cause serious injury or death.
- Children and minors should NEVER be permitted to operate or move this equipment.
- Do not attempt to open the electrical panel unless you are qualified to do so, risk of electric shock or death.
- Prolonged contact with oil or diesel fuel can cause damage to the skin. Appropriate PPE (personal protective equipment) should be worn when operating the unit e.g. protective gloves, safety glasses, safety shoes etc. Always observe local health and safety requirements.
- The unit should only be used on a flat, even surface and be attended at all times.
- Do not operate switches with wet hands.
- The unit must always be disconnected from the mains supply before carrying out any routine maintenance or repairs.
- Never start or stop the unit by inserting/removing the power supply or other plugs.
- Electrical cables and tubes should be checked for any signs of damage before starting the unit.
- Ensure a spill kit is available in case of any accidental spills.
- Used samples must be disposed of in accordance with local environmental requirements.
- Ensure any water drained from this equipment is disposed of in a responsible manner and in accordance with local environmental requirements.

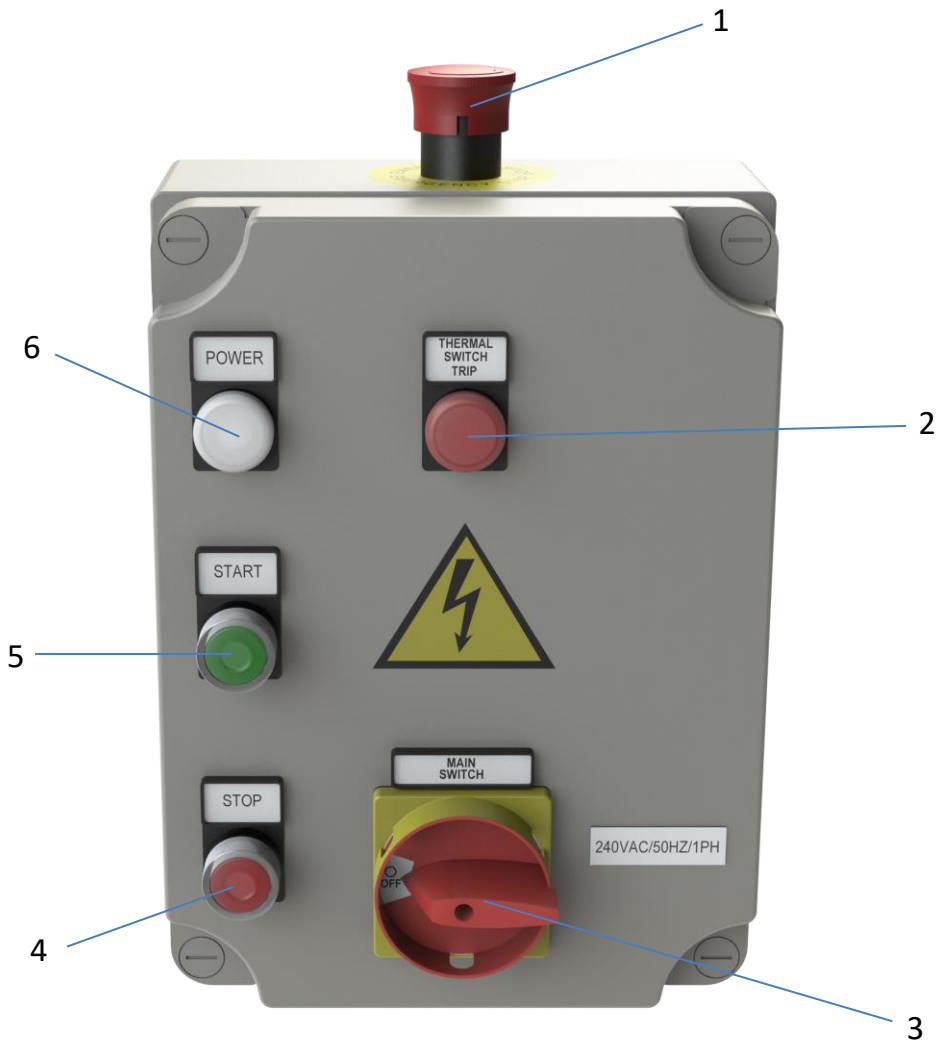
Component Identification



Key:

1.) Emergency Stop Button	6.) Control Panel
2.) Mechanical Clogging Indicator	7.) CMM Screw Pump 25 L/min
3.) Outlet Port – 1" BSP c/w Ball Valve	8.) 9" K Series Filter Housing
4.) Suction Lance c/w Y-Strainer	9.) Inlet Port – 1" BSP c/w Ball Valve
5.) Delivery Lance	10.) 20" Magnet Filter

Control Panel



Key:

1.) Emergency Stop Button	4.) Stop Button (Red light)
2.) Thermal Trip Switch	5.) Start Button (Green light)
3.) Mains Isolator 240 VAC	6.) Power ON (White light)

Starting & Stopping

- Ensure that the system is connected to a suitable 240 VAC - 13 Amp Supply (Domestic Plug).
- Ensure all wet connections are made and the appropriate valves are open.
- Press the GREEN start button to run the system.
- Press the RED stop button to turn the system off.

Fault Notification

- THERMAL SWITCH TRIP (Red)

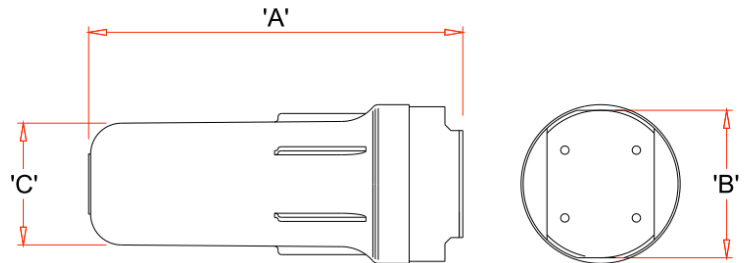
If the Thermal Switch Trip is activated the system will stop because the motor on the pump has overheated.

Allow the Motor to cool before trying to restart the system.

Magnet Filter

Benefits:

- Sub-micron Filtration
- High Intensity rare earth magnetic material
- Suitable for all machining applications
- No consumables
- Large holding capacity
- Clear Bowl
- Clear Bowl
- Environmentally responsible



Product number	Flow rate ltrs/min	Contamination Capacity Kgs	Connection BSP	Temp Range °C	Weight Kg's	Construction	Dimensions		
							A	B	C
MM5	70	1	1	5-50	3.15	SAN housing Aluminium lid	190	105	95
MM10	100	2	1	5-50	5.2		315	125	100
MM20	150	4	1 1/2	5-50	9.7		605	135	100



How the magnet filter works:




Contaminated fluid enters the inlet port where flow is equally split via tapered radial flow channels which lowers the flow velocity ready for the fluid to be filtered.

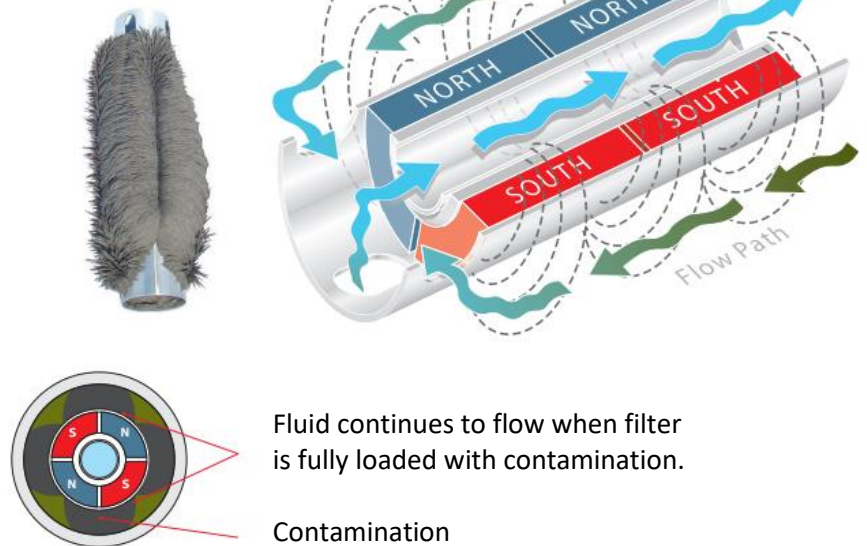
It then passes up the outside of the centrally mounted 'Rare Earth' magnetic core where contamination particles are attracted and retained.

The magnetic flux circuit geometry ensures a controlled build-up of contamination so the filter can never block.

Filtered fluid then flows through slots at the top of the core then down and through the centre of the core, exiting through the outlet port.

KEY

-  Contaminated fluid
-  Filtered fluid
-  Magnetic flux lines



Fluid continues to flow when filter is fully loaded with contamination.

Contamination

Cleaning:

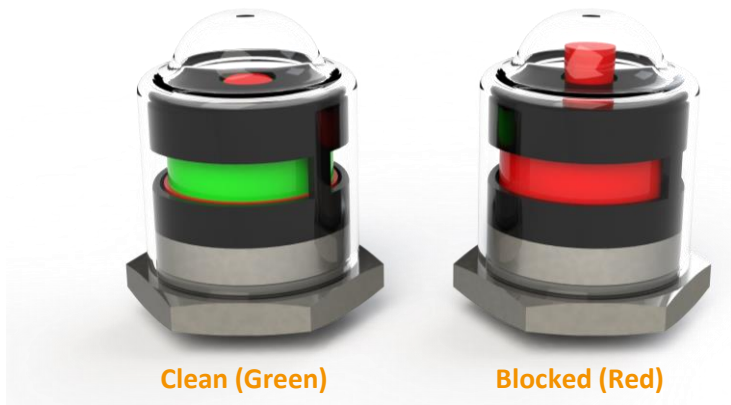
It is recommended to start the system and loosen the magnet filter bowl slightly to allow air into the system, this will empty the magnet filter of fluid, once the fluid has drained stop the pump, remove the filter bowl followed by the magnetic core.

Using the supplied tool, a fully contaminated core can be cleaned in under 30 seconds. Only metallic particles are removed from the filter, and these can be easily disposed of. There are no dirty cartridges.



Filtration

The unit is equipped with a Base ported filter housing which can be fitted with a range of media for removing particulate and water contamination from oils. (27" Element shown below)

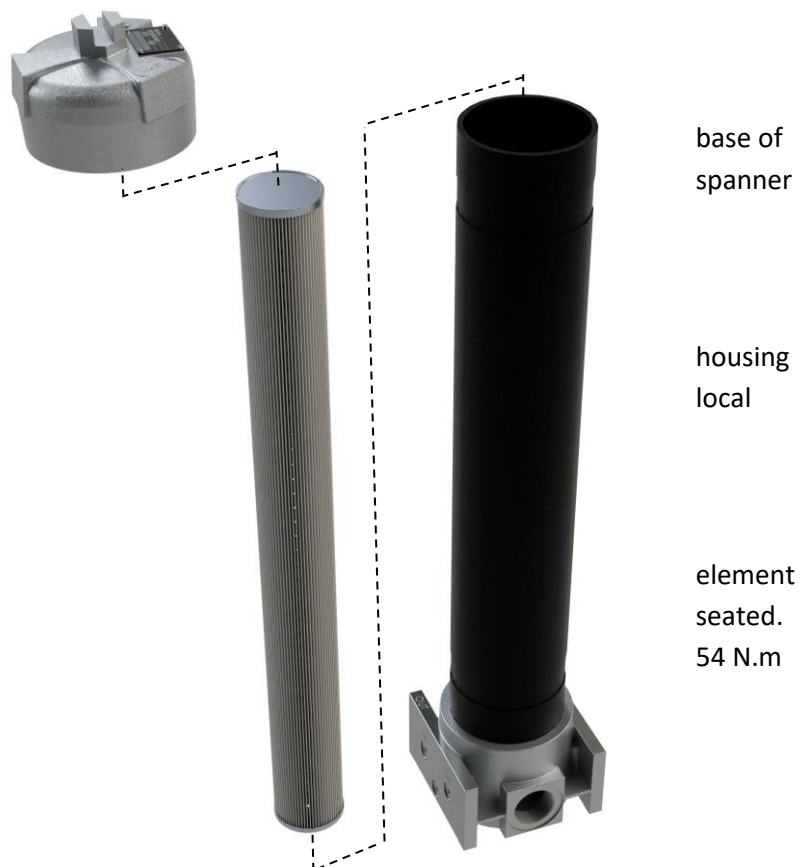


The filter is monitored by a visual pop up indicator, where a small red indicator will rise once the filter media becomes blocked (40 psid) and requires changing. Note that once blocked the filter media shall be bypassed to prevent rising internal pressures, so the system can continue running without damage.

To change a filter element support the the filter housing and using a large on the hex nut unscrew the filter head.

Pull the element away from the filter and dispose of in accordance with the environmental policy.

When fitting the replacement filter and bowl make sure all parts are correctly The head should be torque tightened to (40 lb.ft).



GeoSeal® Filter Media

Did you know that there are currently more than 180 million will fitters in business that are churning out cheap imitations of well-established and highly regarded manufacturers such as Schroeder? Far too often, we have seen customers make purchasing decisions based solely on price, only to be extremely disappointed with the poor quality delivered by low cost imitations. To make matters worse, the customer often points an accusing finger at the filter housing manufacturer for poor performance rather than the inadequate element he chose to replace the Schroeder original with!



Figure 1: Filter element with GeoSeal® grommet

GeoSeal® is a new patented offering from Schroeder that provides a unique way for OEM's to retain replacement element business and to keep a filters performance at the level that it was supplied. The idea is brilliantly simple: the critical sealing arrangement between A filter housing and its replacement element takes on a shape other than the standard circular arrangement. Specifically, the element grommet & mating bushing are given a new geometric shape.

Figures 1 & 2 show the initial configuration being used.



Figure 2: Filter housing (cut-away) with GeoSeal® grommet bushing

Availability

Currently, The GeoSeal® design is available on the K-size element And in the following Schroeder filter series:

KF30	KF50	KC50	KC65	MKF50
K9	2K9	3K9	KF3	KL3
	MLF1	KF8	RT	

Warranty Statement

All products manufactured or distributed by Filtertechnik Ltd are subject to the following, and only the following, Limited Express Warranties, and no others:

For a period of one (1) year from and after the date of delivery of a new Filtertechnik product, Filtertechnik warrants and guarantees only to the original purchaser/user that such a product shall be free from defects of materials and workmanship in the manufacturing process. The warranty period for pumps and motors is specifically limited to ninety (90) days from the date of delivery. A product claimed to be defective must be returned to the place of purchase. Filtertechnik, at its sole option, shall replace the defective product with a comparable new product or repair the defective product. This express warranty shall be inapplicable to any product damaged or impaired by external forces or used for any purpose other than that for which it was originally sold.

THIS IS THE EXTENT OF WARRANTIES AVAILABLE ON THIS PRODUCT. FILTERTECHNIK SHALL HAVE NO LIABILITY WHATSOEVER FOR CONSEQUENTIAL DAMAGES FOLLOWING THE USE OF ANY DEFECTIVE PRODUCT OR BY REASON OF THE FAILURE OF ANY PRODUCT. FILTERTECHNIK SPECIFICALLY DISAVOWS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ALL WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE (EXCEPT FOR THOSE WHICH APPLY TO PRODUCT OR PART THEREOF THAT IS USED OR BOUGHT FOR USE PRIMARILY FOR PERSONAL, FAMILY OR HOUSEHOLD PURPOSES), WARRANTIES OF DESCRIPTION, WARRANTIES OF MERCHANTABILITY, TRADE USE OR WARRANTIES OF TRADE USAGE.

EC Declaration Of Conformity



EC DECLARATION OF CONFORMITY

Machinery Description

Machine Type:

Serial Number:

Applicable directives

Low voltage Directive 73/23/EEC (as amended by 93/68/EEC)

Electromagnetic Compatibility Directive 2004/108/EC

Machinery Directive 98/37/EC

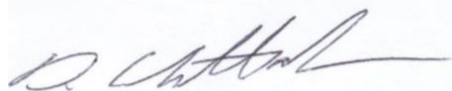
Declaration

We, Filtertechnik Limited, declare that the above referenced product(s), to which the declaration relates, is in conformity with the provisions of the Directives listed above

IMPORTANT

This declaration is only valid when the machinery has been installed, operated and maintained in accordance with the applicable installation, Operation and Maintenance Instructions and safety guidelines contained within as well as instructions supplied for equipment assembled with or intended for use with this equipment.

The technical construction file for this product is maintained at the address given below.



Mr D Whittaker, Engineering Director
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