



MAHLE
Industriefilter

Automatic Metal Edge Filter

with radial cleaning device

AF 71 G

Cast version

for liquids, pastes, etc.

Connection size: G 1

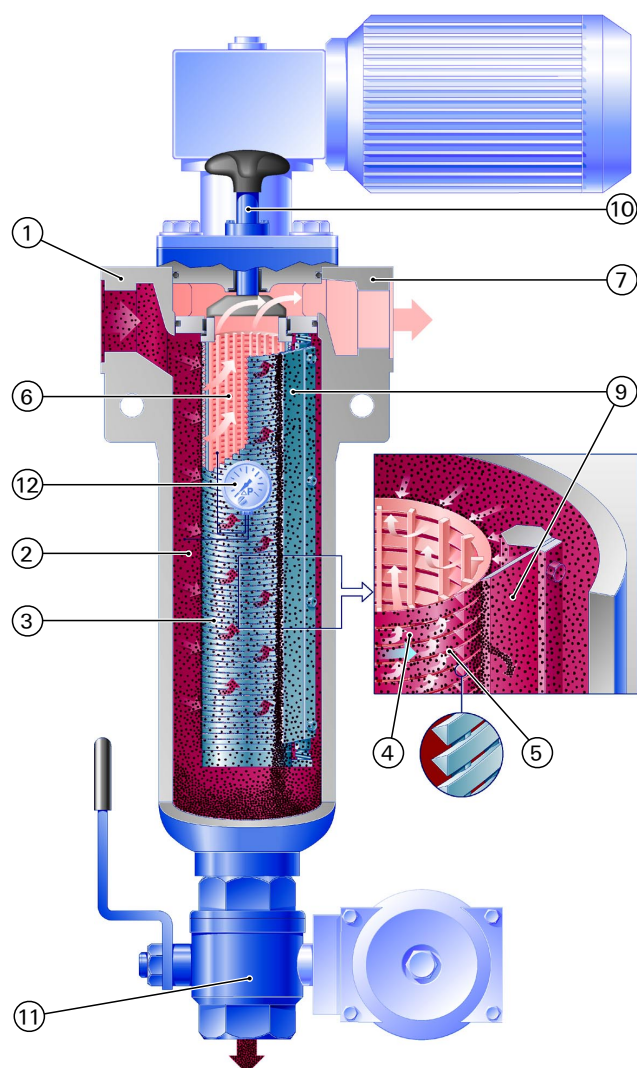
1. Principle of operation

The **MAHLE metal edge filter system** is used for filtering and homogenising a wide range of liquids, pastes and such like. This compact in-line pressure filter requires no waste disposal such as used filter material. It can be cleaned manually or automatically without having to interrupt process operations.

The liquid flows from the outside inwards through the **MAHLE filter cartridge**. The filtrate is discharged at the top, opposite the inlet connection. Solid matter, etc. is separated on the triangular-profiled wire winding on the filter cartridge.

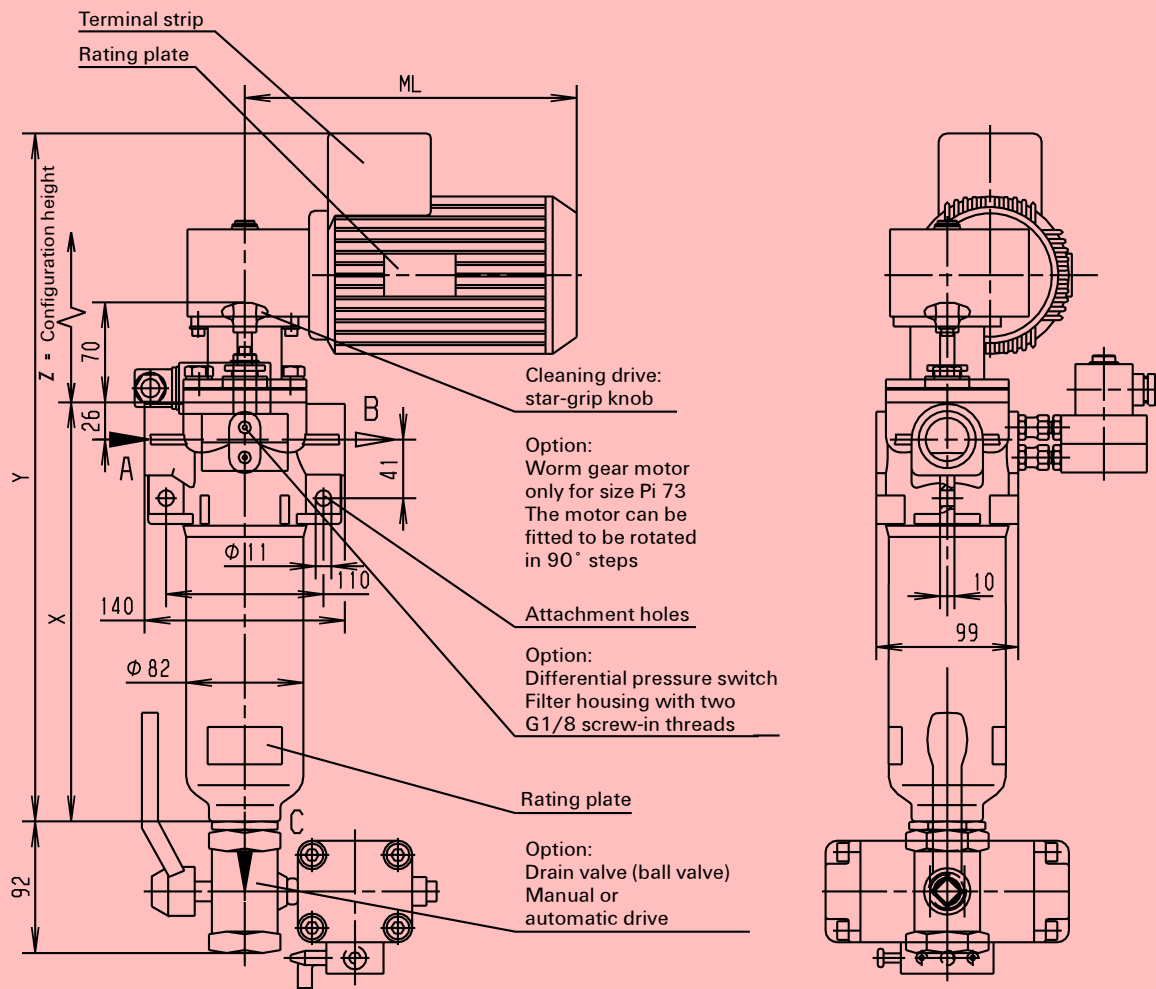
The MAHLE filter cartridge is cleaned by rotating it against a fixed scraper blade. The special profile of the wire winding ensures a very effective cleaning process. The **patented AKF system** prevents high axial forces, ensuring that the cleaning process is trouble free.

The residue deposited in the collection cone can then be emptied through the drain valve while the system is switched off or while it is in operation.



- | | |
|-------------------------------------|--|
| 1. Inlet | 9. Scraper |
| 2. Inlet chamber | 10. Cleaning drive with a gear motor or hand ratchet |
| 3. MAHLE filter cartridge | 11. Drain valve automatic or manual |
| 4. Triangular-profiled wire winding | 12. Differential pressure switch (required under certain conditions) |
| 5. Edge gap | |
| 6. Filtrate chamber | |
| 7. Outlet | |
| 8. Residue collection cone | |

2. Dimensions and data



Motor data

Worm gear motor
MB winding

V	Hz	kW	rpm	A	ML
Δ 230 ± 10 %	50	0,06	18	0,6	214
Λ 400 ± 10 %	50	0,06	18	0,35	
Δ 266 ± 10 %	60	0,072	22	0,6	
Λ 460 ± 10 %	60	0,072	22	0,35	

Degree of protection: IP 55 insulation class F; output torque: 14 Nm

Worm gear motor with explosion protection
EExe II T4; output torque: 14 Nm

V	Hz	kW	rpm	A	ML
Δ 230 ± 10 %	50	0,12	18	0,44	232
Λ 400 ± 10 %	50	0,12	18	0,26	

Dimensions Type	Y (mm)	X (mm)	Z (mm)	Contents (l)	Weight (kg)	Cleaning drive
AF7111-.-.-.	358	170	130	0,6	4,2	Star grip knob
AF7131-.-.-.	481	293	250	1,0	5,5	Star grip knob
AF7133-.-.-.	481	293	250	1,0	10	Gear motor
AF7134-.-.-.	481	293	250	1,0	10	Gear motor expl.-prot.

Filter data

Operating pressure:	40, 63, 100 bar 100 bar is permissible at pulsations of 0-100 bar, up to 500,000 load changes and using series-produced cover screws 8.8
Operating temperature:	up to 63 bar max. 200 °C / 100 bar max. 100 °C
Sealing material at operating temperature up to max. 180 °C FPM (Viton) up to max. 200 °C PTFE-based	
Diff. pressure strength:	cartridge max. 40 bar motor can max. 20 bar
A-B / Inlet / Outlet connection:	threaded hole G 1 DIN 3852 Y-shape
C / Drain connection:	threaded hole G 1 DIN 3852 Y-shape
Standard materials:	Housing and cover NCI 40 Installed parts st. 1.4301, NCI 40 Bearing bushes PTFE-based (Viton) seals
Cover lock:	4 x hexagon head screws, M10
Drive shaft seal:	Quad ring
Outer paintwork:	Artificial resin primer, blue conforming to RAL 5007

Other finishes available on request

Subject to technical modifications!

3. Type designation

Type designation for empty filter housings

Specimen selection:

AF 713 3 - 12 4 1 - 1 0 1 0 0 / G 1															
Size, quantity, $\varnothing$ and length of the filter element in mm	Cleaning drive	Inlet / Outlet connections	Permissible operating pressure [bar] Housing / cover	Standard material with FPM seal + PTFE bearing	Differential pressure display / switch	Drain valve	Bypass valve	End no. for	Design variants	Type					
AF711 1 x $\varnothing$ 42 x 70	1 Star-grip knob	12 G 1	1 -	1 Housing, cover, nodular cast iron 40, internal parts ch. steel or similar	1 PIS-3076/ 1,2 bar/ stat. 63 bar Al/FPM	1 Manual ball valve	1 20 bar	none	Standard filter	Cast iron finish	G	Serial number	Welded finish available on request	s	
AF713 1 x $\varnothing$ 42 x 190	2 -	Others available on request	4 PN 40	3 Housing, cover, NCI 40, internal parts high-grade steel 1.4301	2 PIS-3076/ 0,7 bar stat. 63 bar Al/FPM	2 Automatic ball valve, el.-pneum. 24 V double-action	Others available on request	3001	Standard filter insert, complete without housing and motor						
	3 Standard gear motor 230/400 V/50 Hz 266/460 V/60 Hz 10 rpm		5 PN 63	4 Housing, cover NCI 40, internal parts, ch. steel aluminium-free	6 PIS-3192/ 2,2 bar stat. 450 bar	3 Automatic ball valve el.-pneum. 230 V double-action		3002	Standard filter insert, complete without housing, with ratchet or motor						
	4 Standard gear motor 230/400 V/50 Hz EEe II T4		6 PN 100 *	5 Housing, cover, NCI 40, chemical nickel-plated internal parts, high-grade steel 1.4301	7 PIS-3192/ 5 bar stat. 450 bar	4 Automatic ball valve, electric, 24 V		3700	PTFE seals						
	Others available on request		Others available on request	Others available on request	8 PIS-3076/ 2,2 bar stat. 63 bar Al/FPM	5 Automatic ball valve, electric, 230 V			Others available on request						
0 Different design, see end no.	0 Different design, see end no.	0 Different design, see end no.	0 Different design, see end no.	0 Different design, see end no.	9 PIS-3076/ 5 bar stat. 63 bar Al/FPM	Others available on request	0 Without or different design, see end no.	0 Without or different design, see end no.							

Unless otherwise specified, accessories are made from the same or similar materials and are subject to at least the permissible filter operating pressure.

The complete filter insert is built as standard at the highest pressure level. If the cleaning motor is used in explosion-protected design, the drain valve is also designed to be explosion-protected.

* permissible at pulsations of 0-100 bar, up to 500,000 load changes and using series-produced cover screws 8.8

Type designation for filter elements

Specimen selection:

AF 70		1		3		- 005	
Series		Profile support material	Triangular profiled winding material	Supporting ring material	Triangular profile width in mm	$\varnothing$ x x length in mm	Gap width in μ m
AF 70	Cartridges	1	Al	1.4571	1.4571	0,5	003
		3	1.4581	1.4571	-	0,5	004
							005
							006
							008
							010
	Elements	7	-	1.4571	1.4571	1,0	013
		8	-	1.4571	1.4571	0,75	016
							020
							025
							036
							050
							100
							150
							200
							Others available on request



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