



HYDRAULIC MEGASTORE

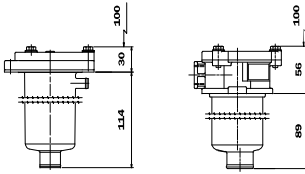
Serving the Hydraulics Industry Worldwide

MPF



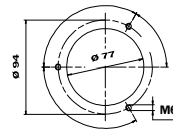
Maximum pressure 8 bar
Flow rates to 750 l/min

MPF 020/030

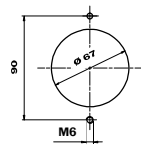


Holes on the tank

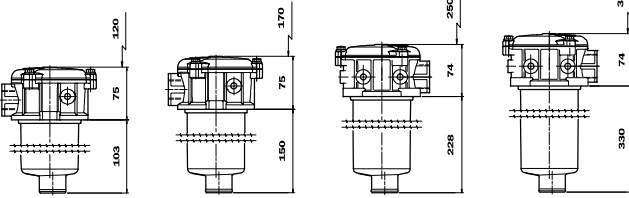
MPF 020



MPF 030

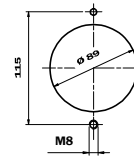


MPF 100/104

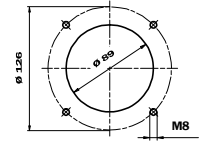


Holes on the tank

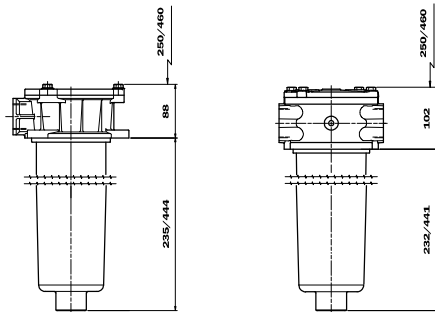
MPF 100



MPF 104

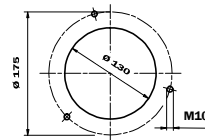


MPF 180/184

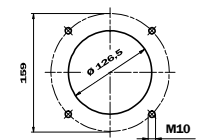


Holes on the tank

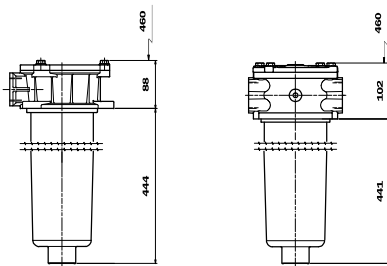
MPF 180



MPF 184

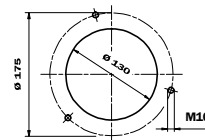


MPF 190/194

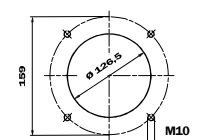


Holes on the tank

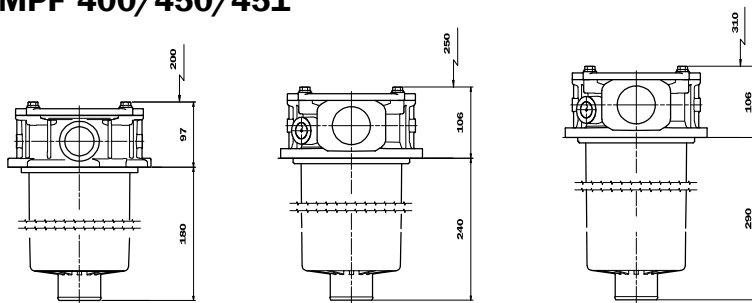
MPF 190



MPF 194

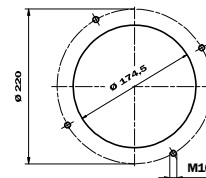


MPF 400/450/451

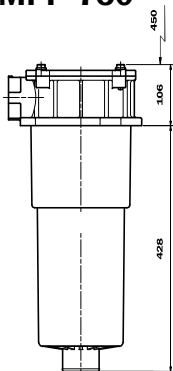


Holes on the tank

MPF 400/450/451

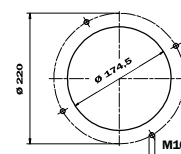


MPF 750



Holes on the tank

MPF 750



Technical data

MPF

Filter housing (Materials)

- Head: Aluminium (Nylon only MPF 020)
- Cover: Zytel (MPF 020/030/100/104)
Aluminium (MPF 180/184/190/194/400/450/750)
- Bowl: Nylon

Pressure

- Working pressure: 8 bar (0,8 MPa)

Temperature

- From -25 °C to +110 °C

Bypass valve

- Opening pressure 1,75 bar \pm 10%
- Opening pressure 3 bar \pm 10%

Δp Elements type

- Series N and H elements: 10 bar
- Oil flow from exterior to interior.

Seals

- Standard NBR series A
- Optional FPM series V

Weights (kg)

Length	1	2	3	4
• MPF 020	0,30	-	-	-
• MPF 030	0,40	-	-	-
• MPF 100	0,76	0,85	0,98	1,10
• MPF 104	0,82	0,96	1,02	1,25
• MPF 180	2,16	2,97	-	-
• MPF 184	2,55	3,45	-	-
• MPF 190	-	2,97	-	-
• MPF 194	-	3,45	-	-
• MPF 400	3,35	3,65	3,90	-
• MPF 450/451	3,95	4,25	4,50	-
• MPF 750	6,30	-	-	-

Volumes (dm³)

Length	1	2	3	4
• MPF 020	0,26	-	-	-
• MPF 030	0,29	-	-	-
• MPF 100	0,64	0,85	1,20	1,65
• MPF 104	0,64	0,85	1,20	1,65
• MPF 180	2,50	4,00	-	-
• MPF 184	2,65	4,45	-	-
• MPF 190	-	4,25	-	-
• MPF 194	-	4,45	-	-
• MPF 400	3,70	4,60	5,40	-
• MPF 450/451	3,70	4,60	5,40	-
• MPF 750	8,45	-	-	-

Compatibility

- Housings compatible with:
Mineral oils to ISO 2943 - aqueous emulsions
synthetic fluids, water and glycol.
- The filter elements are compatible with:
Mineral oils to ISO 2943, Synthetic fluids
Aqueous emulsions, water and glycol
(series W required).
- NBR seals series A, compatible with:
Mineral oils to ISO 2943 - aqueous emulsions
synthetic fluids, water and glycol.
- FPM seals series V, compatible with:
Synthetic fluids type HS-HFDR-HFDS-HFDU
To ISO 2943

Filter Element Area

Filter element in stainless steel mesh
Length

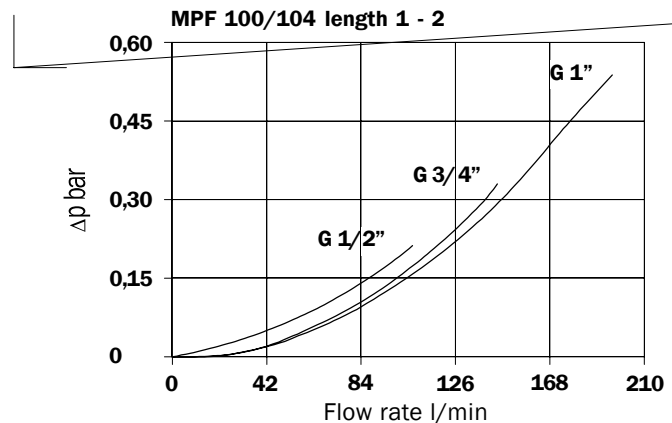
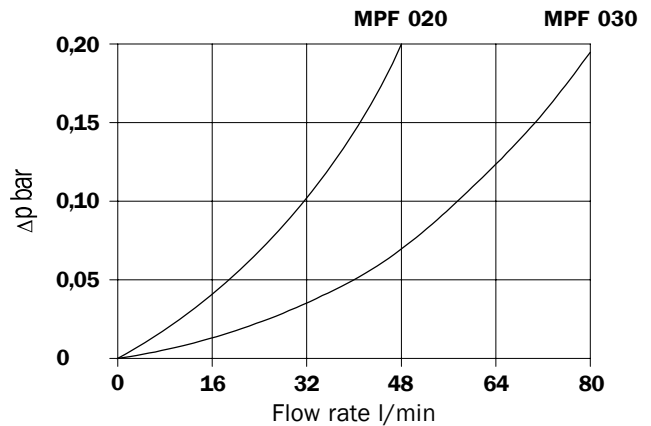
Type	1	2	3	4
MF 030	336	-	-	-
MF 100	493	781	1286	1933
MF 180	2496	5342	-	-
MF 190	-	5342	-	-
MF 400/450	2701	3885	4713	-
MF 750	8059	-	-	-

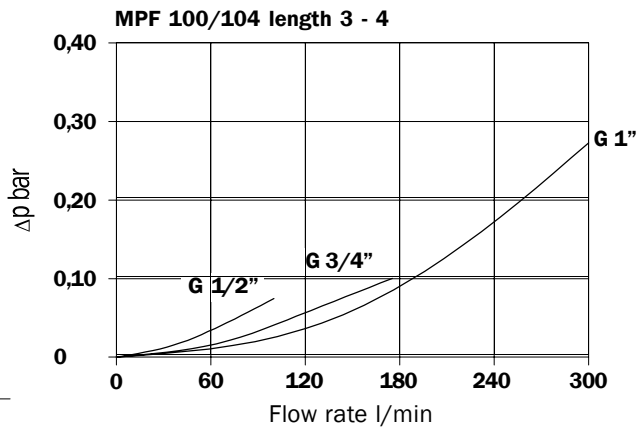
Values expressed in **cm²**

Filter housings Δp pressure drop

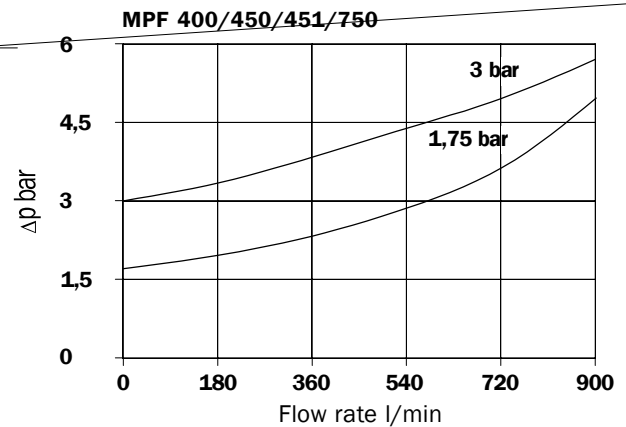
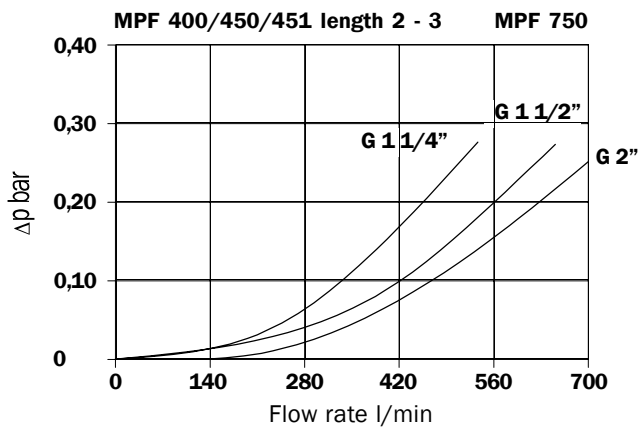
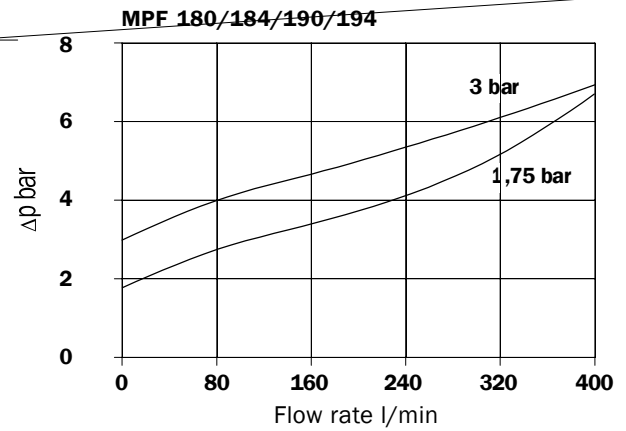
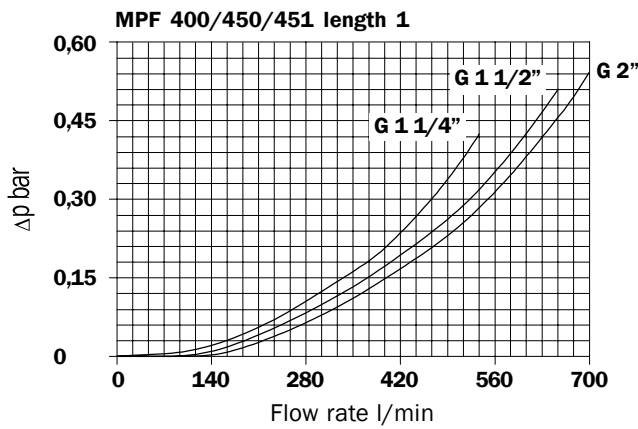
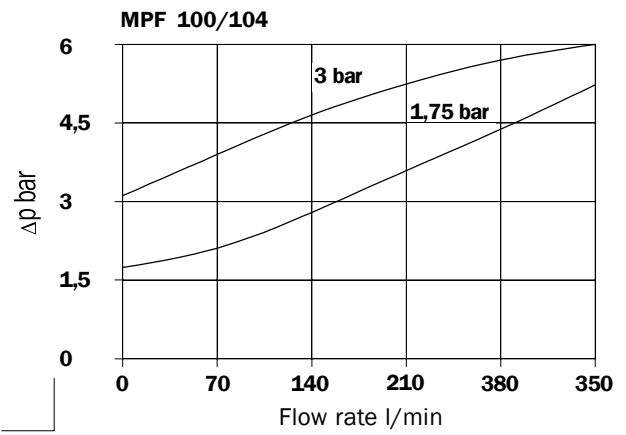
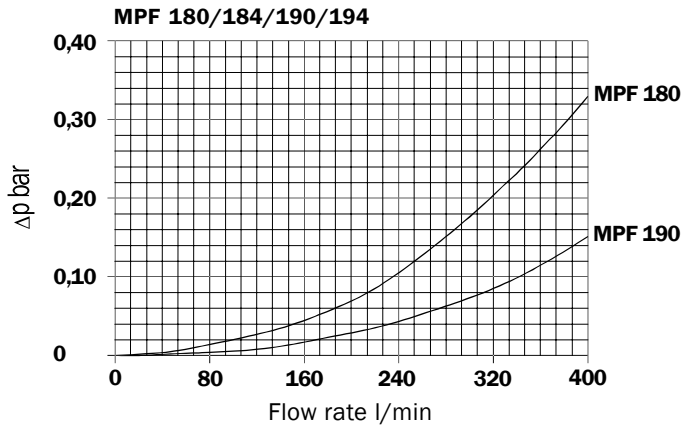
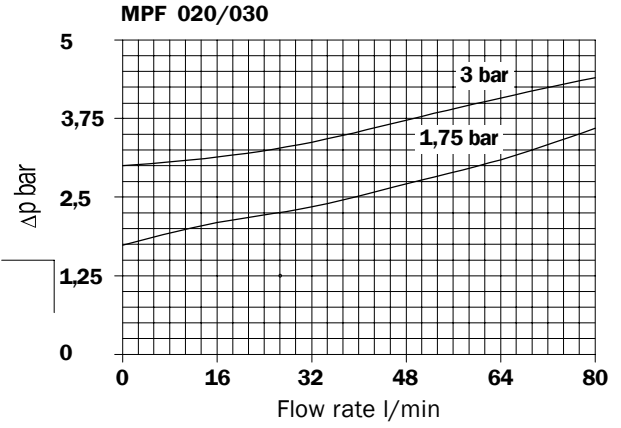
The curves are plotted utilising mineral oil with density of 0.86 kg/dm³ to ISO 3968.

Δp varies proportionally with density.



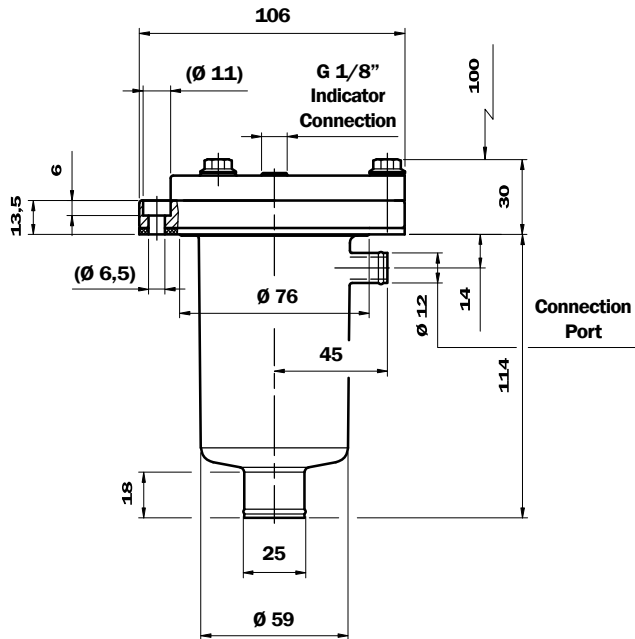


Valves
Bypass valve pressure drop
For individual filter:

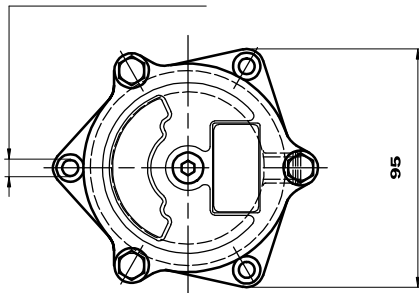


Dimensions

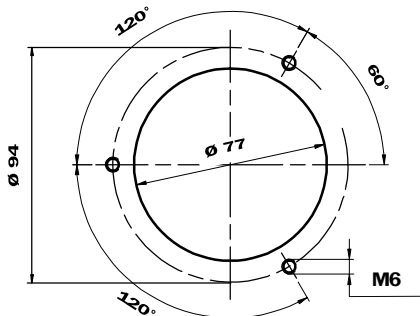
MPF 020



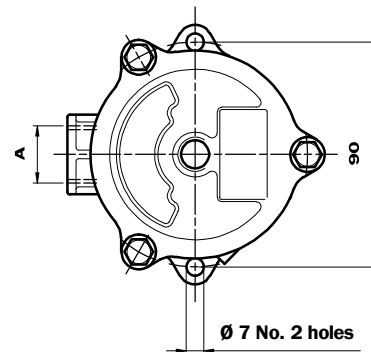
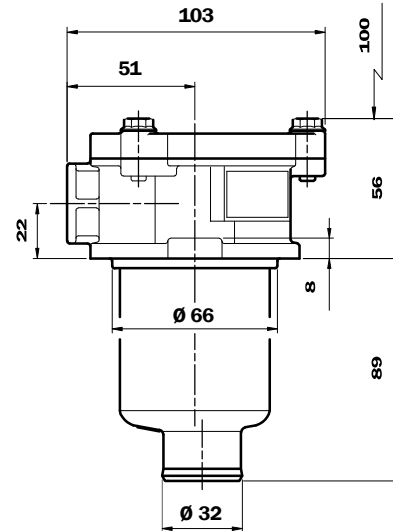
$\varnothing 11$ No. 3 spotfaced
 $\varnothing 6,5$ No. 3 holes



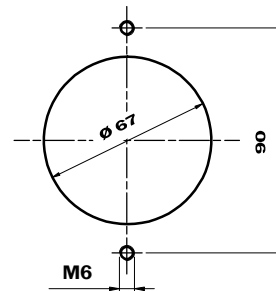
Holes on the tank



MPF 030



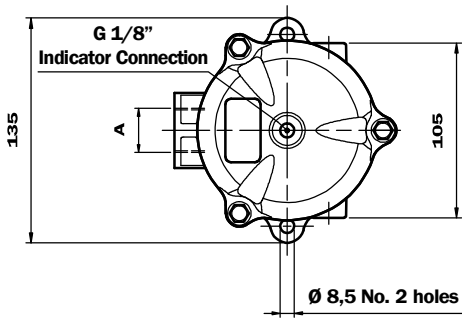
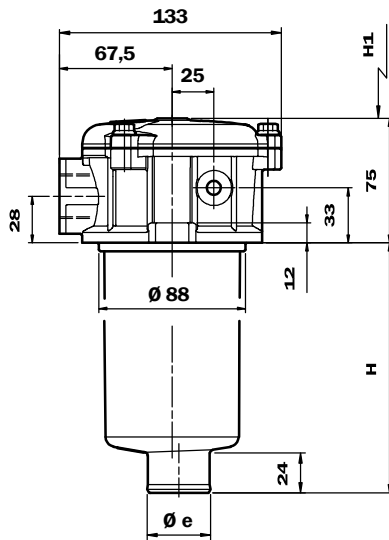
Holes on the tank



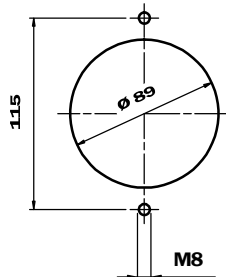
Thread connections

St.	A
G1	G 1/2"
G4	1/2" NPT
G7	SAE 8 3/4" 16 UNF

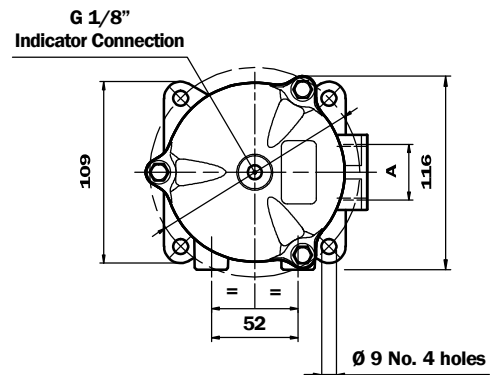
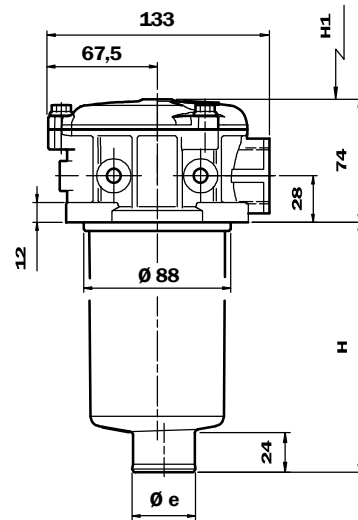
MPF 100



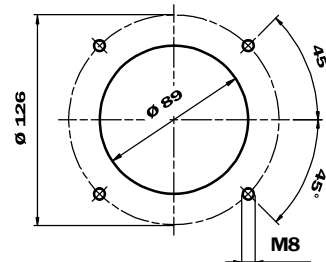
Holes on the tank



MPF 104



Holes on the tank



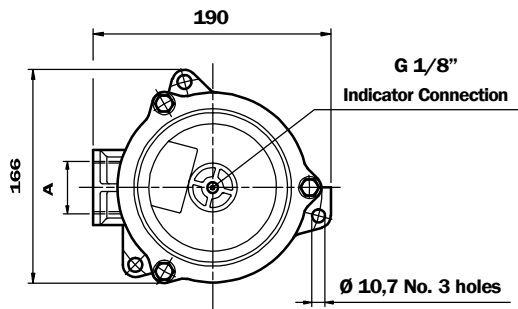
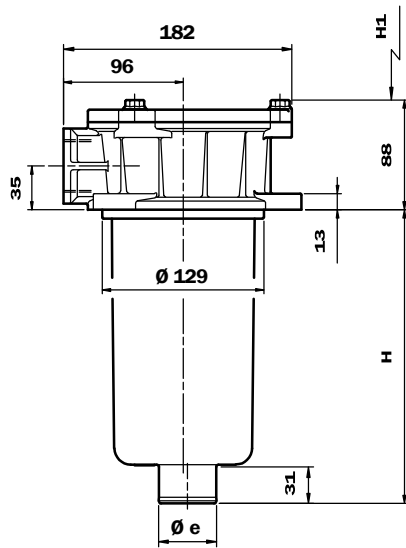
Thread connections

St.	A
G1	G 1/2"
G2	G 3/4"
G3	G 1"
G4	1/2" NPT
G5	3/4" NPT
G6	1" NPT
G7	SAE 8 3/4" 16 UNF
G8	SAE 12 1 1/16" 12 UN
G9	SAE 16 1 5/16" 12 UN

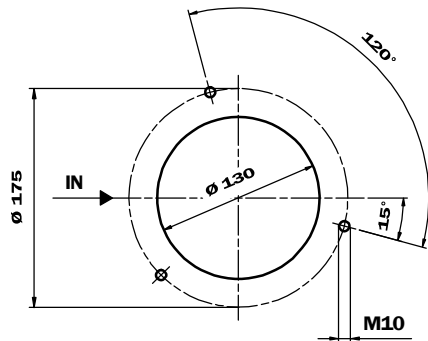
MPF 100/104

Length Filter	H mm	H1 mm	Ø e mm
1	103	120	38
2	150	170	38
3	228	250	46,5
4	330	350	46,5

MPF 180/190



Holes on the tank



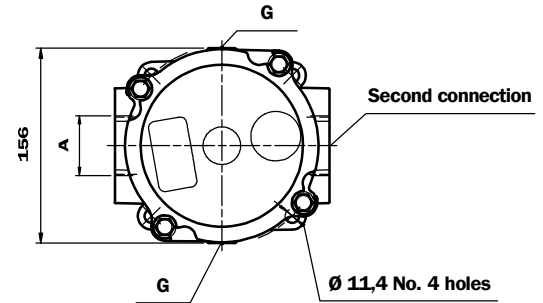
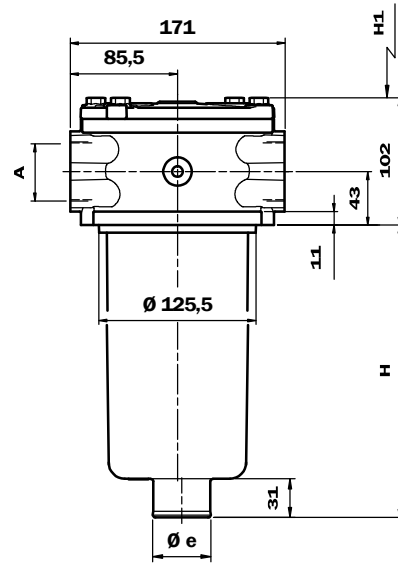
Thread connections MPF 180/190

St.	A
G1	G 1 1/4"
G4	1 1/4" NPT
G7	SAE 20 1 5/8" 12 UN

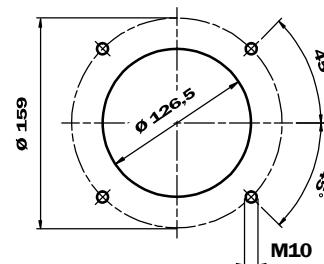
MPF	Length Filter	H mm	H1 mm	$\varnothing e$ mm
180	1	235	250	47
	2	444	460	47
190	2	444	460	50

MPF	Length Filter	H mm	H1 mm	$\varnothing e$ mm
184	1	232	250	47
	2	441	460	47
194	2	441	460	50

MPF 184/194



Holes on the tank



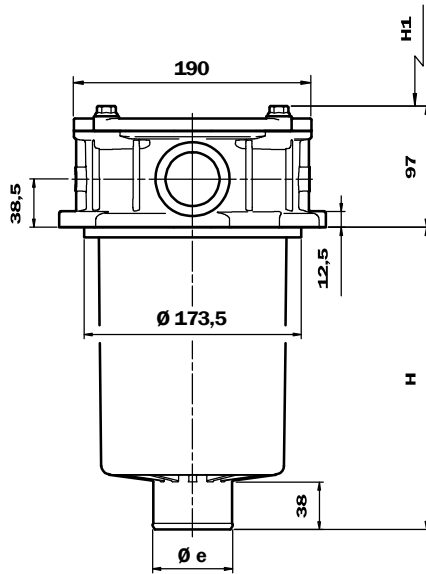
Thread connections MPF 184/194

St.	A	St.	G
G1	G 1 1/4"	G1/8"	G 1/8"
G2	2 Connections G 1 1/4"	G1/8"	G 1/8"
G4	1 1/4" NPT	1/8" NPT	1/8" NPT
G5	2 Connections 1 1/4" NPT	1/8" NPT	1/8" NPT
G7	SAE 20 1 5/8" 12 UN	1/8" NPT	1/8" NPT
G8	2 Connections SAE 20 1 5/8" 12 UN	1/8" NPT	1/8" NPT

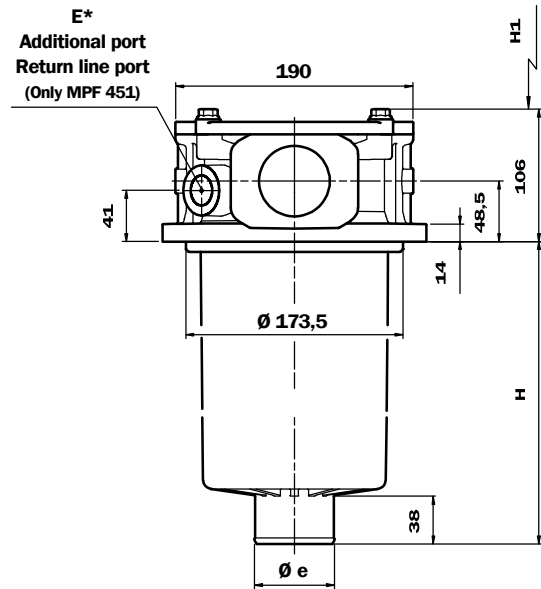
Flange connections MPF 184/194

St.	A	St.	G
F1	1 1/2" SAE 3000 psi/M	G 1/8"	G 1/8"
F2	1 1/2" SAE 3000 psi/UNC	1/8" NPT	1/8" NPT
F3	2 Connections 1 1/2" SAE 3000 psi/M	G 1/8"	G 1/8"
F4	2 Connections 1 1/2" SAE 3000 psi/UNC	1/8" NPT	1/8" NPT

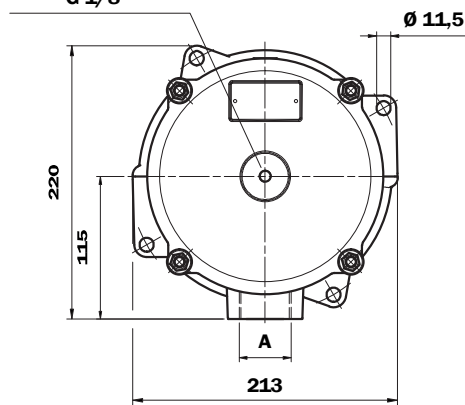
MPF 400



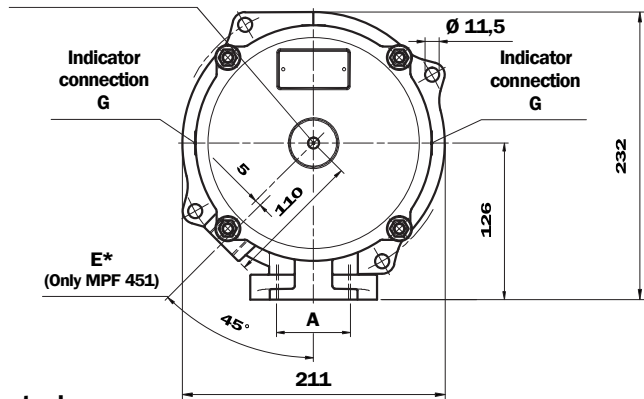
MPF 450/451



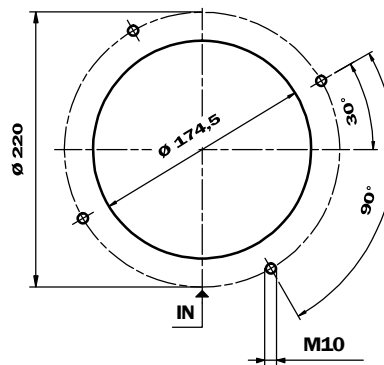
Indicator connection
G 1/8"



Indicator connection
G 1/8"



Holes on the tank



Thread connections
MPF 400

St.	A
G1	G 1 1/4"
G2	G 1 1/2"
G3	G 2"
G4	1 1/4" NPT
G5	1 1/2" NPT
G6	2" NPT
G7	SAE 20 1 5/8" 12 UN
G8	SAE 24 1 7/8" 12 UN
G9	SAE 32 2 1/2" 12 UN

MPF 400/450/451

Length Filter	H mm	H1 mm	Ø e mm
1	180	200	51
2	240	250	64
3	290	310	64

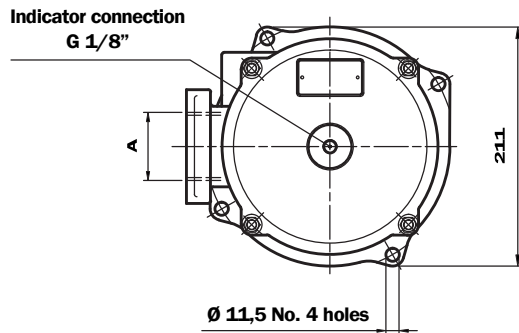
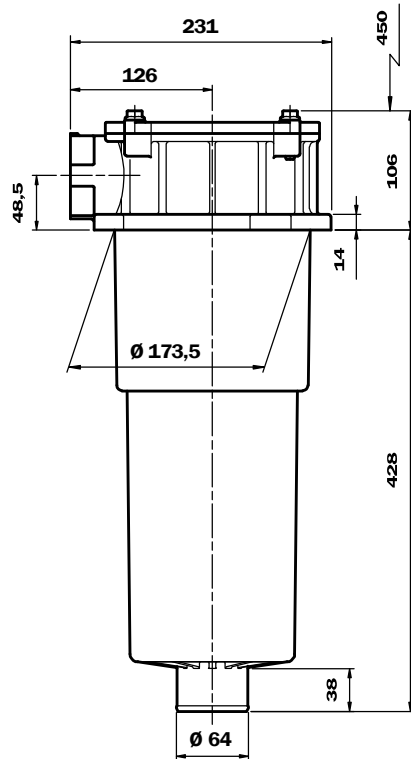
Thread connections MPF 450/451

St.	A	E*	G
G1	G 2"	G 3/4"	G 1/8"
G4	2" NPT	3/4" NPT	1/8" NPT
G7	SAE 32 2 1/2" 12 UN	SAE 12	1/8" NPT

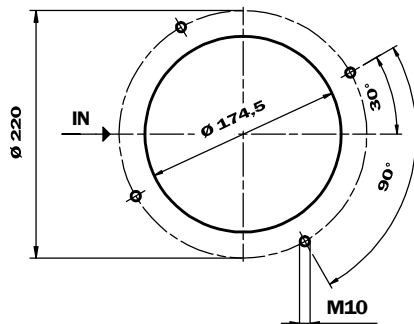
Flange connections MPF 450/451

St.	A	E*	G
F1	2" SAE 3000 psi/M	G 3/4"	G 1/8"
F2	2" SAE 3000 psi/UNC	3/4" NPT	1/8" NPT

MPF 750



Holes on the tank



Thread connections MPF 750

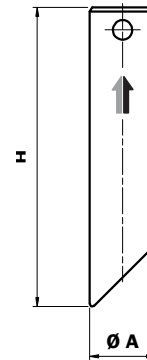
St.	A
G1	G 2"
G4	2" NPT
G7	SAE 32 1/2" 12 UN

Flange connections MPF 750

St.	A
F1	2" SAE - 3000 psi/M
F2	2" SAE - 3000 psi/UNC

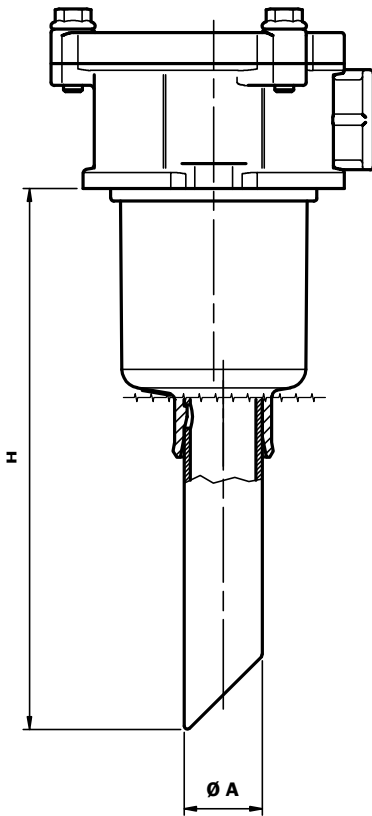
Accessories

Standard Nylon extension tube Supplied not fitted



Code	H	Ø A	Size MPF (Option P01)	Filter Length
TE25A200	200	25	030	1
TE25A250	250			
TE25A300	300			
TE25A350	350			
TE25A400	400			
TE25A450	450			
TE25A500	500			
TE32A200	200	32	100 - 104	1 - 2
TE32A250	250			
TE32A300	300			
TE32A350	350			
TE32A400	400			
TE32A450	450			
TE32A500	500	40	100 - 104	3 - 4
TE40A200	200			
TE40A250	250			
TE40A300	300			
TE40A350	350		180 - 184	1 - 2
TE40A400	400			
TE40A450	450			
TE40A500	500			

"H" Dimensions
Filter assembled with
Standard Nylon extension tube



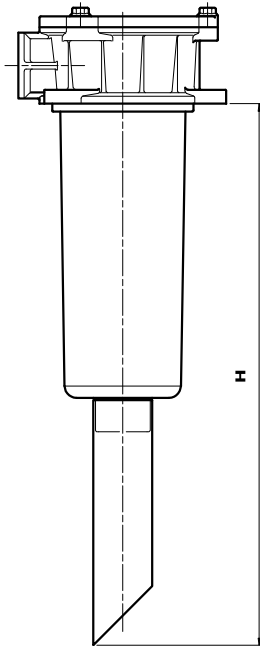
Tube extension Code	MPF....P01	Filter Length	H	Ø A
TE25A200	030	1	265	25
TE25A250			315	
TE25A300			365	
TE25A350			415	
TE25A400			465	
TE25A450			515	
TE25A500			565	
TE32A200	100 o 104	1	276	32
TE32A250		2	323	
		1	326	
TE32A300		2	373	
		1	376	
TE32A350		2	423	
		1	426	
TE32A400		2	473	
		1	476	
TE32A450		2	523	
		1	526	
TE32A500		2	573	
		1	576	
TE40A200		100 o 104	3	
	4		500	
	180	1	406	
		2	617	
	184	1	403	
		2	614	
TE40A250	100 o 104	3	450	40
		4	550	
	180	1	456	
		2	667	
	184	1	453	
		2	664	
TE40A300	100 o 104	3	500	40
		4	600	
	180	1	506	
		2	717	
	184	1	503	
		2	714	
TE40A350	100 o 104	3	550	40
		4	650	
	180	1	556	
		2	767	
	184	1	553	
		2	764	
TE40A400	100 o 104	3	600	40
		4	700	
	180	1	606	
		2	817	
	184	1	603	
		2	814	
TE40A450	100 o 104	3	650	40
		4	750	
	180	1	656	
		2	867	
	184	1	653	
		2	864	
TE40A500	100 o 104	3	700	40
		4	800	
	180	1	706	
		2	917	
	184	1	703	
		2	914	

Accessories

See ordering information: Option 9

Filter MPF.....Sxx

Filter assembly with Steel extension tube mounted (for filter size 190 to 750 only)



Series MPF	Filter Length
190/194	2
400/450/451	1 - 2 - 3
750	1

Code Options 9	H*
S25	250 mm
S30	300 mm
S35	350 mm
S40	400 mm
S.... mm

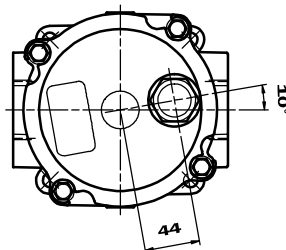
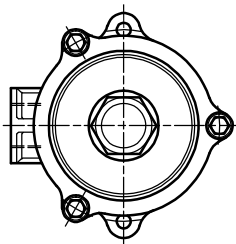
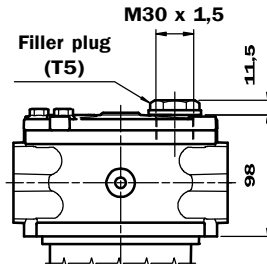
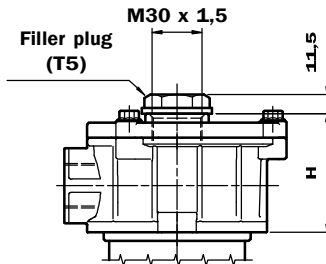
* Lengths are in multiple of 50 mm

Filter code example:

H length= 250 mm

MPF 400 1 x xx xxx x x **S25**

Filler Plug



Only size 184/194

Series MPF	H
030	66
100	72
104	72
180	80
190	80
400	86
450	106
451	106
750	95

Ordering example:

Filter with Filler Plug (page codes 18)

MPF 100 2 x H3 xxx x..

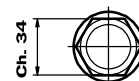
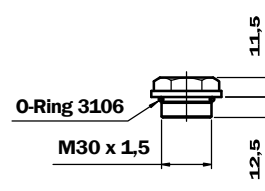
For filter sizes:

If plug is required, an indicator can not be fitted to the following sizes:

MPF 030 - 180 - 190 - 750

Filler plug

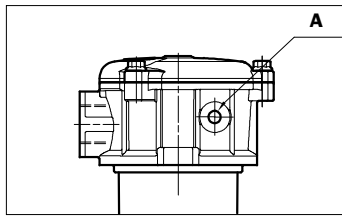
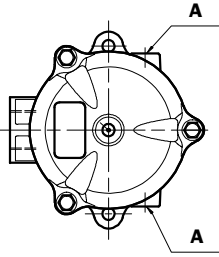
Code: **T5**



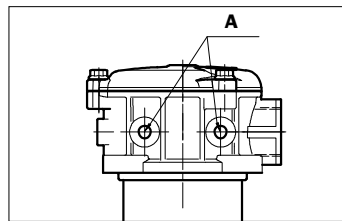
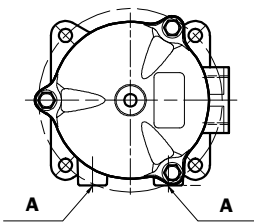
Connection options

Drain port 1/4"

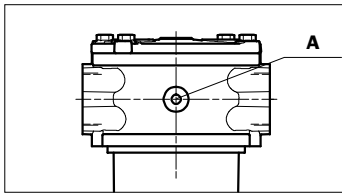
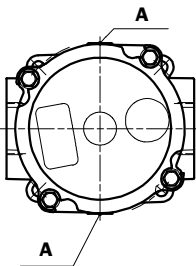
MPF 100



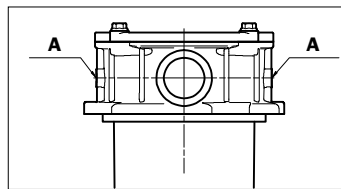
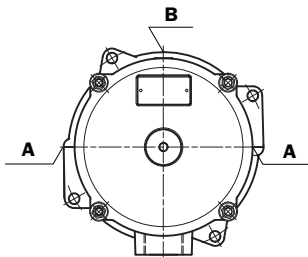
MPF 104



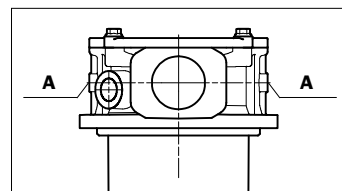
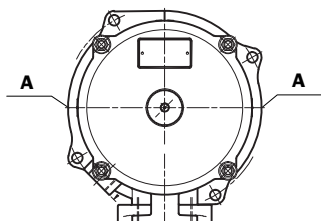
MPF 184/194



MPF 400

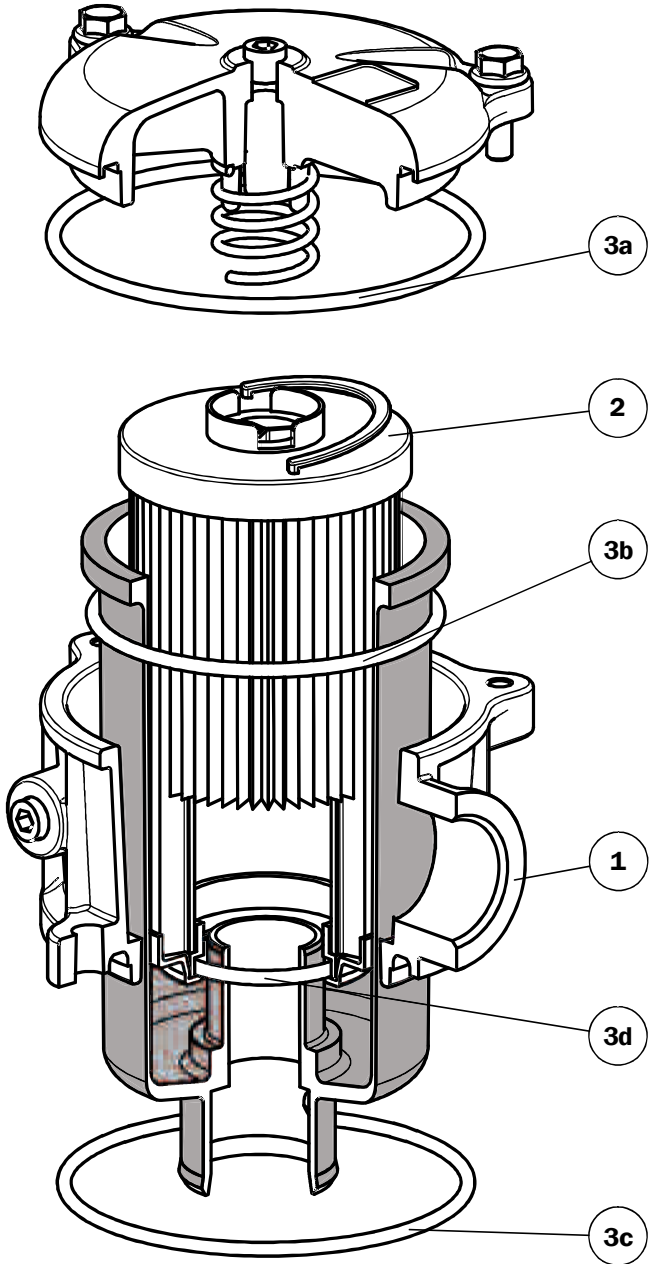


MPF 450/451



	Connections IN	A	B
MPF 100	G	G 1/4"	-
MPF 100	NPT - SAE	1/4" NPT	-
MPF 104	G	G 1/4"	-
MPF 104	NPT - SAE	1/4" NPT	-
MPF 184/194	G	G 1/4"	-
MPF 184/194	NPT - SAE	1/4" NPT	-
MPF 184/194	SAE 3000/M	G 1/4"	-
MPF 184/194	SAE 3000/UNC	1/4" NPT	-
MPF 400	G	G 1/4"	G 1/4"
MPF 400	NPT - SAE	1/4" NPT	1/4" NPT
MPF 450/451	G	G 1/4"	-
MPF 450/451	NPT - SAE	1/4" NPT	-
MPF 450/451	SAE 3000/M	G 1/4"	-
MPF 450/451	SAE 3000/UNC	1/4" NPT	-

Spare parts



Spare parts

Pos.	Description	Qty	FILTER Series MPF							
			020		030		100		104	
1	Filter assembly	1	See order table							
2	Filter element	1	See order table							
3	Seal Kit	1	NBR 02050438	FPM 02050439	NBR 02050055	FPM 02050056	NBR 02050057	FPM 02050058	NBR 02050350	FPM 02050408
3a	Seal cover	1	O-R 174 Ø 71,44 x 3,53		O-R 174 Ø 71,44 x 3,53		O-R 4387 Ø 98,02 x 3,53		O-R 4387 Ø 98,02 x 3,53	
3b	Seal bowl	1	-		O-R 3225 Ø 56,82 x 2,62		O-R 4312 Ø 78,97 x 3,53		O-R 4312 Ø 78,97 x 3,53	
3c	Seal head	1	01026335	01026336	O-R 3275 Ø 69,52 x 2,62		O-R 6362 Ø 91,44 x 5,34		01026256	01026286
3d	Seal filter element	1	O-R 3093 Ø 23,47 x 2,62		O-R 3093 Ø 23,47 x 2,62		Length 1-2 O-R 4112 Ø 28,17 x 3,53	Length 1-2 O-R 4112 Ø 28,17 x 3,53		Length 3-4 O-R 4162 Ø 40,86 x 3,53

Pos.	Description	Qty	FILTER Series MPF							
			180		184		190		194	
1	Filter assembly	1	See order table							
2	Filter element	1	See order table							
3	Seal Kit	1	NBR 02050059	FPM 02050060	NBR 02050455	FPM 02050456	NBR 02050457	FPM 02050458	NBR 02050459	FPM 02050460
3a	Seal cover	1	O-R 4537 Ø 136,10 x 3,53		O-R 4512 Ø 129,80 x 3,53		O-R 4537 Ø 136,10 x 3,53		O-R 4512 Ø 129,80 x 3,53	
3b	Seal bowl	1	O-R 4425 Ø 107,50 x 3,53		O-R 4425 Ø 107,50 x 3,53		O-R 6425 Ø 107,20 x 5,34		O-R 6425 Ø 107,20 x 5,34	
3c	Seal head	1	O-R 6535 Ø 135,89 x 5,34		O-R 210 Ø 133,40 x 5,34		O-R 6535 Ø 135,89 x 5,34		O-R 210 Ø 133,40 x 5,34	
3d	Seal filter element	1	O-R 4162 Ø 40,86 x 3,53		O-R 4162 Ø 40,86 x 3,53		O-R Metric Ø 50 x 4		O-R Metric Ø 50 x 4	

Pos.	Description	Qty	FILTER Series MPF					
			400		450 / 451		750	
1	Filter assembly	1	See order table					
2	Filter element	1	See order table					
3	Seal Kit	1	NBR 02050061	FPM 02050062	NBR 02050461	FPM 02050462	NBR 02050106	FPM 02050107
3a	Seal cover	1	O-R 4675 Ø 171 x 3,53		O-R 4675 Ø 171 x 3,53		O-R 4675 Ø 171 x 3,53	
3b	Seal bowl	1	O-R 221 Ø 149,20 x 5,34		O-R 221 Ø 149,20 x 5,34		O-R 221 Ø 149,20 x 5,34	
3c	Seal head	1	O-R 233 Ø 181 x 6,99		O-R 6720 Ø 183,51 x 5,34		O-R 6720 Ø 183,51 x 5,34	
3d	Seal filter element	1	Length 1 O-R 155 Ø 50,80 x 3,53	Length 2-3 O-R 168 Ø 65,09 x 3,53	Length 1 O-R 155 Ø 50,80 x 3,53	Length 2-3 O-R 168 Ø 65,09 x 3,53	O-R 168 Ø 65,09 x 3,53	

Ordering information MPF

Filter assembly

MPF

	1	2	3	4	5	6	8	9a
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Example 1: MPF	100	2	A	G3	A06	H	B	P01
Example 2: MPF	190	2	V	G1	M25	N	E	S60

Filter element

MF

	1	2	5	6	7	8	9b
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Example 1: MF	100	2	A06	H	B		P01
Example 2: MF	190	2	M25	N	V	E	P01

1 - Style

Filter

020		
030		
100	104	
180	184	
190	194	
400	450	451
750		

Filter element

030
030
100
180
190
400
750

2 - Filter length

020		
030		
100	104	
180	184	
190	194	
400	450	451
750		

1			
1			
1	2	3	4
1	2		
	2		
1	2	3	
1			

3 - Filter seals & Treatment

A	NBR
V	FPM
W*	NBR, head anodized
Z*	FPM, head anodized

4 - Connections

Type		MPF						
		030	100/104	180/190	184/194	400	450/451	750
G1	H1	G 1/2"	G 1/2"	G 1 1/4"	G 1 1/4"	G 1 1/4"	G 2"	G 2"
G2	H2	-	G 3/4"	-	G 1 1/4" 2 Connections	G 1 1/2"	-	-
G3	H3	-	G 1"	-	-	G 2"	-	-
G4	H4	1/2" NPT	1/2" NPT	1 1/4" NPT	1 1/4" NPT	1 1/4" NPT	2" NPT	2" NPT
G5	H5	-	3/4" NPT	-	1 1/4" NPT 2 Connections	1 1/2" NPT	-	-
G6	H6	-	1" NPT	-	-	2" NPT	-	-
G7	H7	SAE 8	SAE 8	SAE 20	SAE 20	SAE 20	SAE 32	SAE 32
G8	H8	-	SAE 12	-	SAE 20 2 Connections	SAE 24	-	-
G9	H9	-	SAE 16	-	SAE 16	SAE 32	-	-
F1	K1	-	-	-	1 1/2" SAE 3000 PSI/M	-	2" SAE 3000 PSI/M	2" SAE 3000 PSI/M
F2	K2	-	-	-	1 1/2" SAE 3000 PSI/UNC	-	2" SAE 3000 PSI/UNC	2" SAE 3000 PSI/UNC
F3	K3	-	-	-	2 x 1 1/2" SAE 3000 PSI/M	-	-	-
F4	K4	-	-	-	2 x 1 1/2" SAE 3000 PSI/UNC	-	-	-

➔ Filter with filler plug (T5)

