

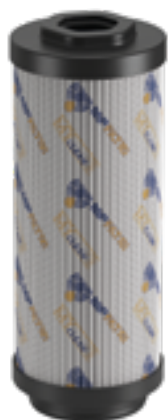


THE **X** CONCEPT FOR OUR FILTERS

Protect the performance of your system with MYclean.
Quality and efficiency are fundamental for MP Filtri:
this exclusive new filter element possesses polygon shape geometry and specific seal
that ensures only original spare parts can be used - ensuring correct operation and
higher system reliability.

LFEX series

with **MYCLEAN** FEX Filter Element



- ◆ **Protects the machine from improper use of non-original products.**
- ◆ **Safety of constant quality protection & reliability**

With exclusive filter element you are sure that only MP Filtri filter elements can be used, ensuring the best cleaning level of the oil due to the use of originals filter elements.

The products identified as LFEX are protected by:

- ◆ Italian Patent n° 102014902261205
- ◆ Canadian Patent n° 2,937,258
- ◆ European Patent n° 3 124 092 B1
- ◆ US Patent n° 20170030384 A1

HFEX series

Maximum working pressure up to 3.5 MPa (35 bar) Flow rate up to 300 l/min



Low & Medium Pressure filters

Maximum working pressure up to 3.5 MPa (35 bar)
Flow rate up to 300 l/min

HFEX is a range of low pressure filter for protection of sensitive components in low pressure hydraulic systems. They are also suitable for the off-line filtration of small reservoirs.
 They are directly connected to the lines of the system through the hydraulic fittings.

Available features:

- Female threaded connections up to 1 1/4", for a maximum flow rate of 300 l/min
- Fine filtration rating, to get a good cleanliness level into the system
- Water removal elements, to remove the free water from the hydraulic fluid
- Bypass valve, to relieve excessive pressure drop across the filter media
- Visual and electrical differential clogging indicators, capable to hold the overall dimension
- MYclean interface connection for the filter element, to protect the product against non-original spare parts
- External protective wrap, to optimize the flow through the element and to save the element efficiency against non-proper handling.

Common applications:

Delivery lines, in any low pressure industrial equipment or mobile machines.

Filter housing materials

- Head: Aluminium
- Bypass valve: Polyamide - Steel
- Bowl: Aluminium

Bypass valve

Opening pressure 350 kPa (3.5 bar) $\pm 10\%$

Filter element features

Filter HFEX		Filter element FEX	
Δp Element type			
Element media	Construction	Δp Series	Δp
A - Microfiber	Standard	N	8 bar
M - Wire mesh	Standard	N	8 bar
P - Paper	Standard	N	8 bar
<i>Please see ordering code tables to check element Δp series availability based on filter features.</i>			
Flow direction through the filter element:			
From OUT to IN			

Seals

Standard NBR series A

Temperature

From -25 °C to +110 °C

Note

HFEX filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]	Volumes [dm ³]
HFEX 060	1.50	0.60
HFEX 080	1.85	0.80
HFEX 110	2.60	1.60
HFEX 160	2.95	2.00

Filter element design - N Series

Filter series	A03	A06	A10	A16	A25	M25	M60	M90	P10	P25
HFEX 060	45	47	65	66	68	84	84	86	67	73
HFEX 080	58	59	73	72	76	86	87	88	79	82

Connections of filter under test G 3/4"

Filter series	A03	A06	A10	A16	A25	M25	M60	M90	P10	P25
HFEX 060	49	51	75	77	80	104	105	107	74	95
HFEX 080	67	67	86	87	92	107	108	110	96	112

Connections of filter under test G 1"

Filter series	A03	A06	A10	A16	A25	M25	M60	M90	P10	P25
HFEX 110	107	115	182	195	216	295	298	300	232	242
HFEX 160	146	150	210	212	237	300	303	304	254	262

Connections of filter under test G 1 1/4"

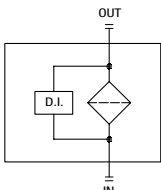
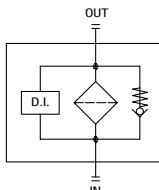
Maximum flow rate for a complete delivery filter with a pressure drop $\Delta p = 0.7$ bar.

The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

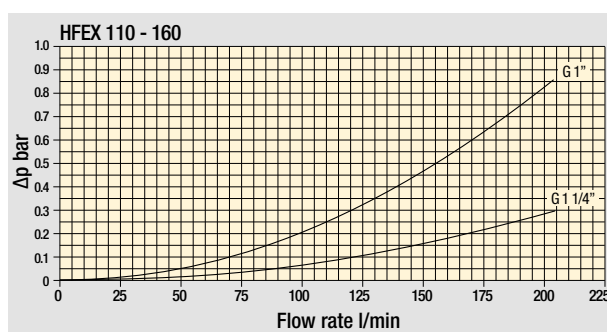
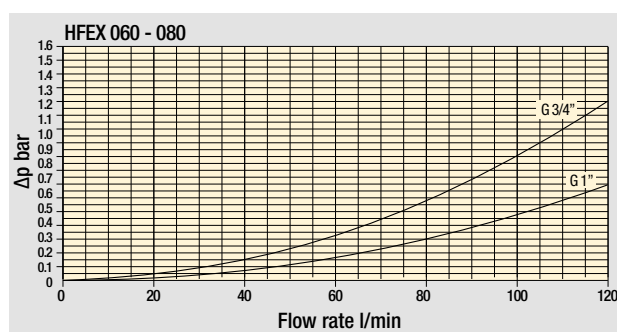
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

Please, contact our Sales Department for further additional information.

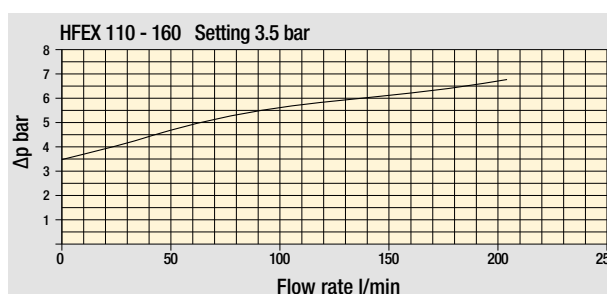
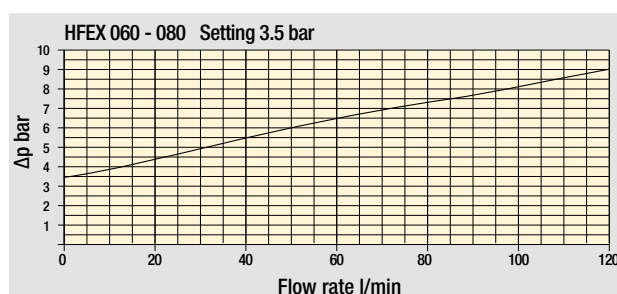
Filter series	Style S	Style B
HFEX 060	•	•
HFEX 080	•	•
HFEX 110	•	•
HFEX 160	•	•

Hydraulic diagram



Pressure drop
Filter housings
 Δp pressure drop



Bypass valve
pressure drop

The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968.

Δp varies proportionally with density.

HFEX HFEX060 - HFEX080

Designation & Ordering code

COMPLETE FILTER

Series and size		Configuration example : HFEX060		B	A	A	6	A10	N	P01
HFEX060 HFEX080 Filter featuring MYCLEAN Filter Element										
Bypass valve										
S Without bypass										
B 3.5 bar										
Seals and treatments										
A NBR										
Connections										
A G 3/4"										
B G 1"										
C 3/4" NPT										
D 1" NPT										
E SAE 12 - 1 1/16" - 12 UN										
F SAE 16 - 1 5/16" - 12 UN										
Connection for clogging indicator										
1 Without										
6 With plugged connections										
Filtration rating										
A03 Inorganic microfiber	3 µm	M25 Wire mesh	25 µm							
A06 Inorganic microfiber	6 µm	M60 Wire mesh	60 µm							
A10 Inorganic microfiber	10 µm	M90 Wire mesh	90 µm							
A16 Inorganic microfiber	16 µm	P10 Resin impregnated paper	10 µm							
A25 Inorganic microfiber	25 µm	P25 Resin impregnated paper	25 µm							
WA025 Water absorber inorganic microfiber 25 µm				Element Δp		Execution				
				N 8 bar		P01 MP Filtri standard				
						Pxx Customized				

FILTER ELEMENT

Element series and size		Configuration example: FEX060		A10	A	N	P01
FEX060 FEX080 Filter Element with MYCLEAN feature							
Filtration rating							
A03 Inorganic microfiber	3 µm	M25 Wire mesh	25 µm				
A06 Inorganic microfiber	6 µm	M60 Wire mesh	60 µm				
A10 Inorganic microfiber	10 µm	M90 Wire mesh	90 µm				
A16 Inorganic microfiber	16 µm	P10 Resin impregnated paper	10 µm				
A25 Inorganic microfiber	25 µm	P25 Resin impregnated paper	25 µm				
WA025 Water absorber inorganic microfiber 25 µm				Element Δp		Execution	
				N 8 bar		P01 MP Filtri standard	
						Pxx Customized	
Seals and treatments							
A NBR							

CLOGGING INDICATORS

See page 784

- DES** Electrical differential pressure indicator
- DVS** Visual differential pressure indicator

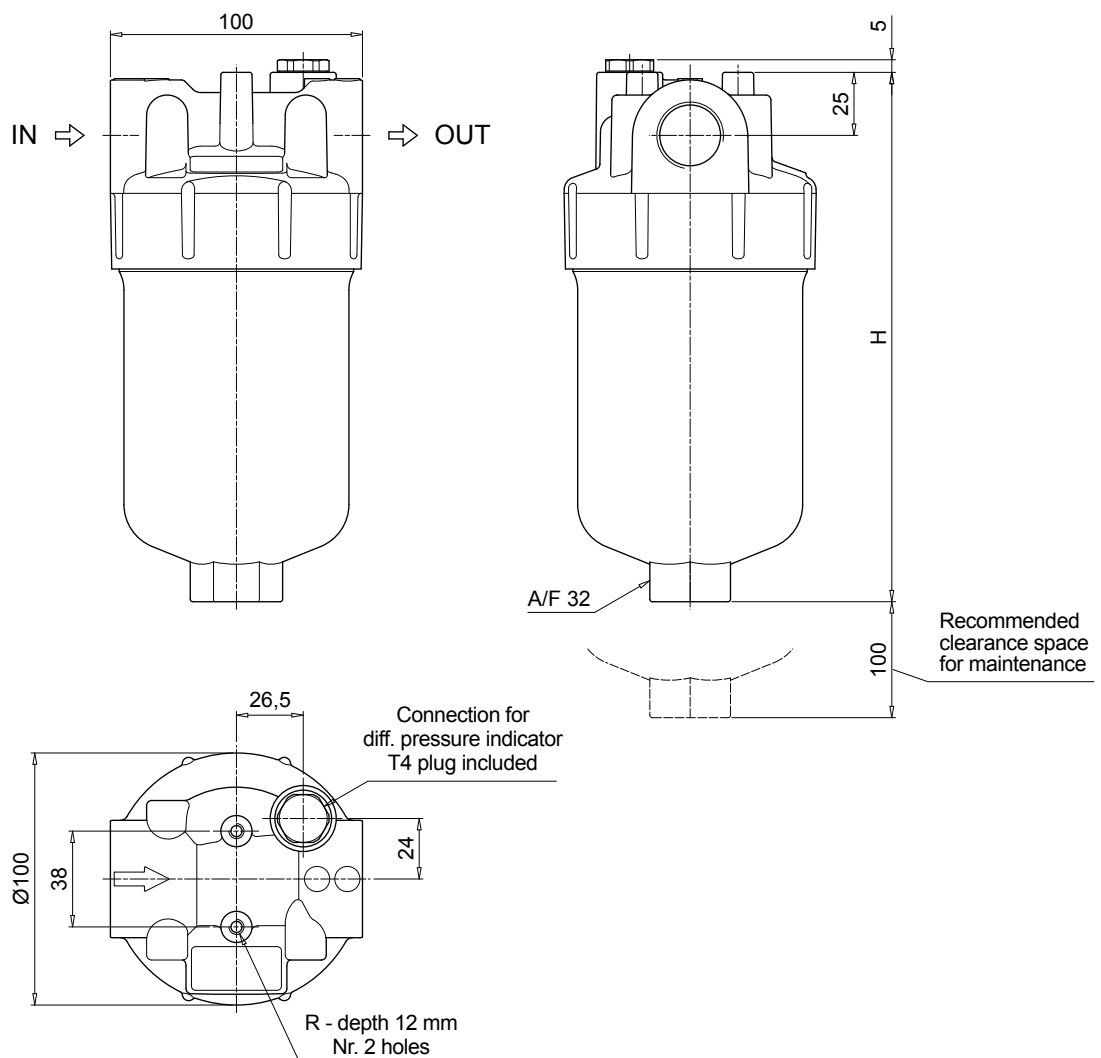
PLUGS

See page 807

- T4** Plug

Filter size	H [mm]
060	210
080	273

Connections	R
A	M6
B	M6
C	1/4" UNC
D	1/4" UNC
E	1/4" UNC
F	1/4" UNC



HFEX HFEX110 - HFEX160

Designation & Ordering code

COMPLETE FILTER

Series and size		Configuration example :		HFEX110	B	A	A	6	A10	N	P01
HFEX110 HFEX160 Filter featuring MYCLEAN Filter Element											
Bypass valve											
S Without bypass											
B 3.5 bar											
Seals and treatments											
A NBR											
Connections											
A G 1"											
B G 1 1/4"											
C 1" NPT											
D 1 1/4" NPT											
E SAE 16 - 1 5/16" - 12 UN											
F SAE 20 - 1 5/8" - 12 UN											
Connection for clogging indicator											
1 Without											
6 With plugged connections											
Filtration rating											
A03	Inorganic microfiber	3 µm	M25	Wire mesh	25 µm						
A06	Inorganic microfiber	6 µm	M60	Wire mesh	60 µm						
A10	Inorganic microfiber	10 µm	M90	Wire mesh	90 µm						
A16	Inorganic microfiber	16 µm	P10	Resin impregnated paper	10 µm						
A25	Inorganic microfiber	25 µm	P25	Resin impregnated paper	25 µm						
WA025 Water absorber inorganic microfiber 25 µm											
					Element Δp		Execution				
					N 8 bar		P01 MP Filtri standard				
							Pxx Customized				

FILTER ELEMENT

Element series and size		Configuration example :		FEX110	A10	A	N	P01
FEX110 FEX160 Filter Element with MYCLEAN feature								
Filtration rating								
A03	Inorganic microfiber	3 µm	M25	Wire mesh	25 µm			
A06	Inorganic microfiber	6 µm	M60	Wire mesh	60 µm			
A10	Inorganic microfiber	10 µm	M90	Wire mesh	90 µm			
A16	Inorganic microfiber	16 µm	P10	Resin impregnated paper	10 µm			
A25	Inorganic microfiber	25 µm	P25	Resin impregnated paper	25 µm			
WA025 Water absorber inorganic microfiber 25 µm								
Seals and treatments								
A NBR								
					Element Δp		Execution	
					N 8 bar		P01 MP Filtri standard	
							Pxx Customized	

CLOGGING INDICATORS

See page 784

- DES** Electrical differential pressure indicator
- DVS** Visual differential pressure indicator

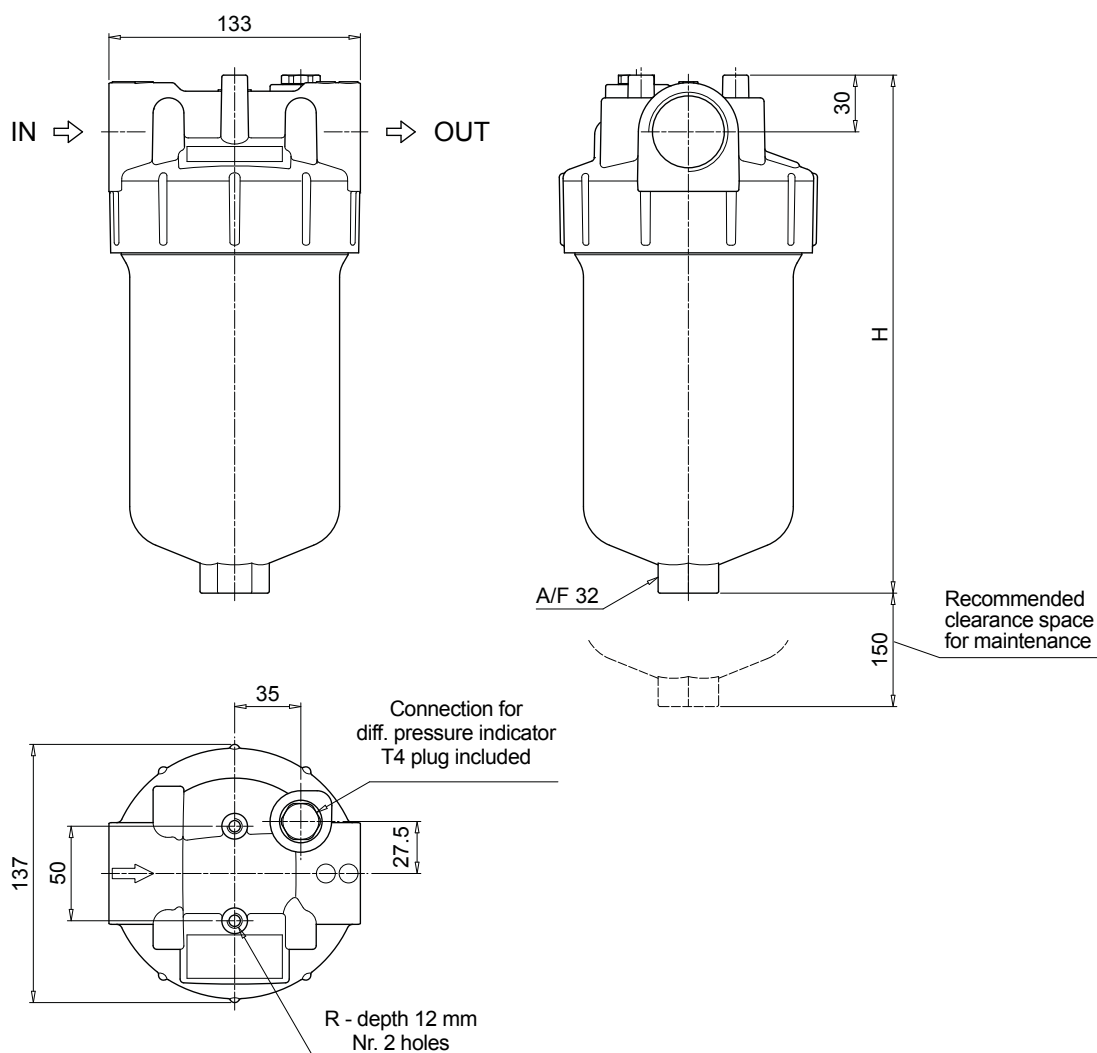
PLUGS

See page 807

- T4** Plug

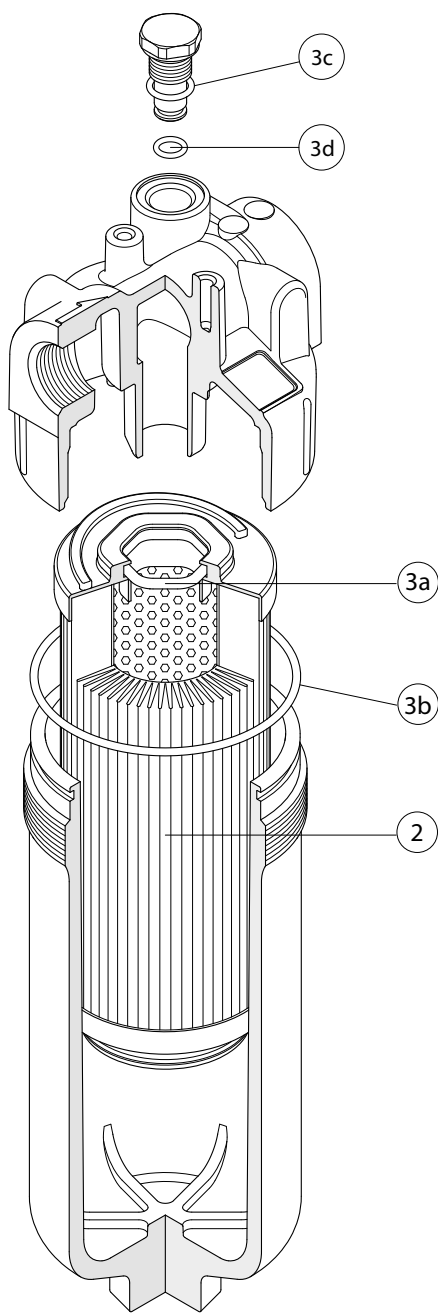
Filter size	H [mm]
110	274
160	323

Connections	R
A	M8
B	M8
C	5/16" UNC
D	5/16" UNC
E	5/16" UNC
F	5/16" UNC



HFEX SPARE PARTS

Order number for spare parts



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.
Filter series	Filter element	Seal Kit code number NBR	Indicator connection plug NBR
HFEX 060-080	See order table	02050771	T4A
HFEX 110-160		02050772	