



Filtro MP  
Serie SFEX



 HYDRAULIC  
COMPONENTS  
& FLUID CONTAMINATION  
CONTROL

# SFEX series

Flow rate up to 100 l/min



## INSTALLATION, SERVICE AND MAINTENANCE MANUAL AND SAFETY INSTRUCTIONS



Please scan or click the QR codes to get updated electronic version of the related document.



SFEX060

SFEX110

For all the QR codes: Scan or click me!

## Description

## Technical data

### Suction filters

#### Flow rate up to 100 l/min

SFEX are range of suction filters for protection of the downstream pump against the coarse contamination.

They are placed below the minimum oil level, directly connected to the suction line of the pump in-line mounted.

#### Available features:

- Female threaded connections up to 1 1/4" and SAE connections up to 1 5/8", for a maximum flow rate of 100 l/min
- Bypass valve, to relieve excessive pressure drop across the filter media
- Visual, electrical, axial and radial vacuum gauges
- 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 application:

- Mobile machines
- Industrial equipment

#### Filter housing materials

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

#### Bypass valve

Opening pressure 0.03 MPa (0.3 bar)  $\pm$ 10%

#### Filter element features

Filter SFEX		Filter element FEX	
$\Delta p$ Element type			
Element media	Construction	$\Delta p$ Series	$\Delta p$
M - Wire mesh	Standard	C	8 bar
P - Paper	Standard	C	8 bar
<i>Please see ordering code tables to check element <math>\Delta p</math> series availability based on filter features.</i>			
<b>Flow direction through the filter element:</b>			
From OUT to IN			

#### Seals

Standard NBR series A

#### Temperature

From -25 °C to +110 °C

#### Note

SFEX filters are provided for vertical mounting

## Weights [kg] and volumes [dm<sup>3</sup>]

Filter series	Weights [kg]		Volumes [dm <sup>3</sup> ]			
	Length	1	2	Length	1	2
<b>SFEX 060</b>		1.00	1.15		0.60	0.80
<b>SFEX 110</b>		1.90	2.10		1.60	2.00

## Flow rates [l/min]

Filter element design - N Series						
Filter series	Length	M0060	M0090	M0250	P0010	P0025
<b>SFEX 060</b>	<b>10</b>	31	33	33	13	20
	<b>20</b>	34	35	35	24	30

Filter element design - N Series						
Filter series	Length	M0060	M0090	M0250	P0010	P0025
<b>SFEX 110</b>	<b>10</b>	93	96	96	48	53
	<b>20</b>	98	99	99	60	65

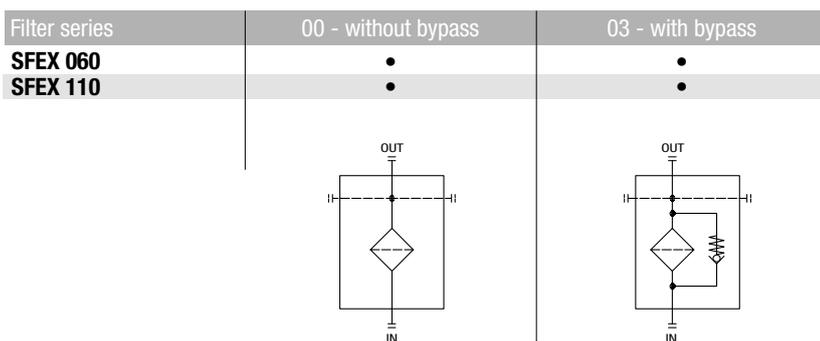
### Maximum flow rate for a complete suction filter with a pressure drop $\Delta p = 0.08$ bar.

The reference fluid has a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

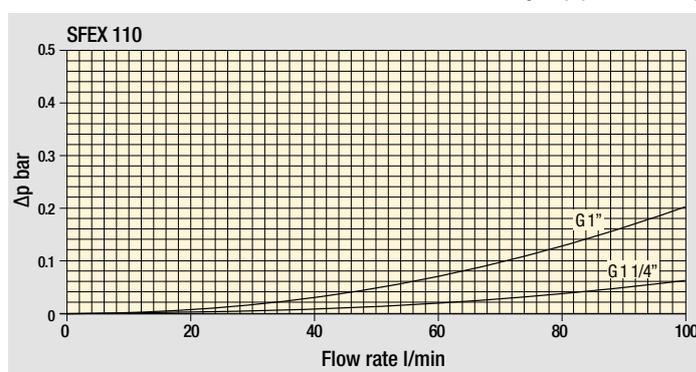
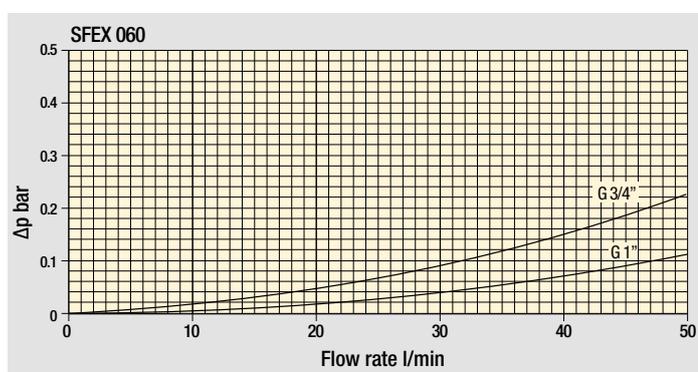
For different pressure drop or fluid viscosity we recommend to use our selection software available on [www.mpfiltri.com](http://www.mpfiltri.com).

Please, contact our Sales Department for further additional information.

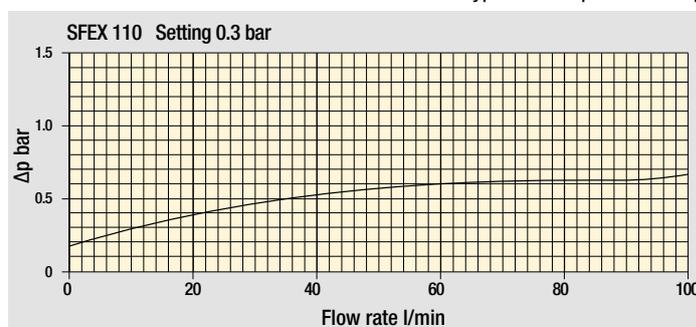
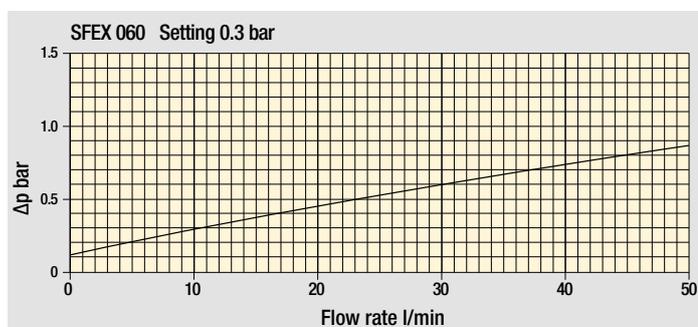
## Hydraulic symbols



## Pressure drop Filter housings $\Delta p$ pressure drop



## Bypass valve pressure drop



The curves are plotted using mineral oil with density of  $0.86 \text{ kg/dm}^3$  in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.

## Corrective factors "Y" for filter element $\Delta p$ calculation

Filter element	Length	Nominal filtration Collapse $\Delta P : A = 1 \text{ bar}$					
		P0010	P0025	M0025	M0060	M0090	M0250
FEX 060	10	4.58	3.22	1.02	0.89	0.63	0.63
	20	1.97	1.38	0.62	0.45	0.29	0.29
FEX 110	10	1.33	1.12	0.22	0.18	0.14	0.14
	20	0.90	0.76	0.15	0.10	0.09	0.09

See page 22 for the complete information regarding filter element  $\Delta p$  calculation.

## Maximum total pressure drop ( $\Delta p \text{ max}$ ) allowed by a new and clean filter

Filter family	$\Delta p \text{ max}$	
Suction	0.08 bar	1.15 psi

# SFEX SFEX060 - SFEX110

## Designation & Ordering code

### COMPLETE FILTER

<b>Series</b>	Example 1:	SFEX	060	10	M0060	C	A	03	FG034	0	6T	NN	P01	NN	
<b>SFEX</b>	Filter featuring 	Example 2:	SFEX	110	20	M0060	C	A	00	FS016	0	6T	NN	P01	NN
<b>Size</b>															
<b>060</b>															
<b>110</b>															
<b>Length</b>															
<b>10</b>															
<b>20</b>															
<b>Filtration rating (filter media)</b>															
<b>M0025</b> Wire mesh 25 µm															
<b>M0060</b> Wire mesh 60 µm															
<b>M0090</b> Wire mesh 90 µm															
<b>M0250</b> Wire mesh 250 µm															
<b>P0010</b> Resin-impregnated paper 10 µm															
<b>P0025</b> Resin-impregnated paper 25 µm															
<b>Element Δp</b>															
<b>C</b> 8 bar															
<b>Seals and treatments</b>															
<b>A</b> NBR															
<b>Bypass</b>															
<b>00</b> Without bypass															
<b>03</b> With bypass 0.03 MPa (0.3 bar)															
<b>Connections</b>															
	<b>060</b>	<b>110</b>		<b>060</b>	<b>110</b>		<b>060</b>	<b>110</b>							
<b>FG034</b> G 3/4"	•	-	<b>FN034</b> 3/4" NPT	•	-	<b>FS012</b> SAE 12 - 1 1/16" - 12 UN	•	-							
<b>FG100</b> G 1"	•	•	<b>FN100</b> 1" NPT	•	•	<b>FS016</b> SAE 16 - 1 5/16" - 12 UN	•	•							
<b>FG114</b> G 1 1/4"	-	•	<b>FN114</b> 1 1/4" NPT	-	•	<b>FS020</b> SAE 20 - 1 5/8" - 12 UN	-	•							
<b>Additional connections</b>															
<b>0</b> Without additional connections															
<b>Connections for clogging indicators</b>															
<b>6T</b> With both side indicator connections, with metal plugs															
<b>Additional features</b>															
<b>NN</b> Without additional features															
<b>Version</b>															
<b>P01</b> Standard catalogue item															
<b>Certificates</b>															
<b>NN</b> None															

### CLOGGING INDICATORS

See page 711

**VEA** Electrical vacuum indicator

**VVA** Axial vacuum gauge

**VLA** Electrical / visual vacuum indicator

**VVR** Radial vacuum gauge

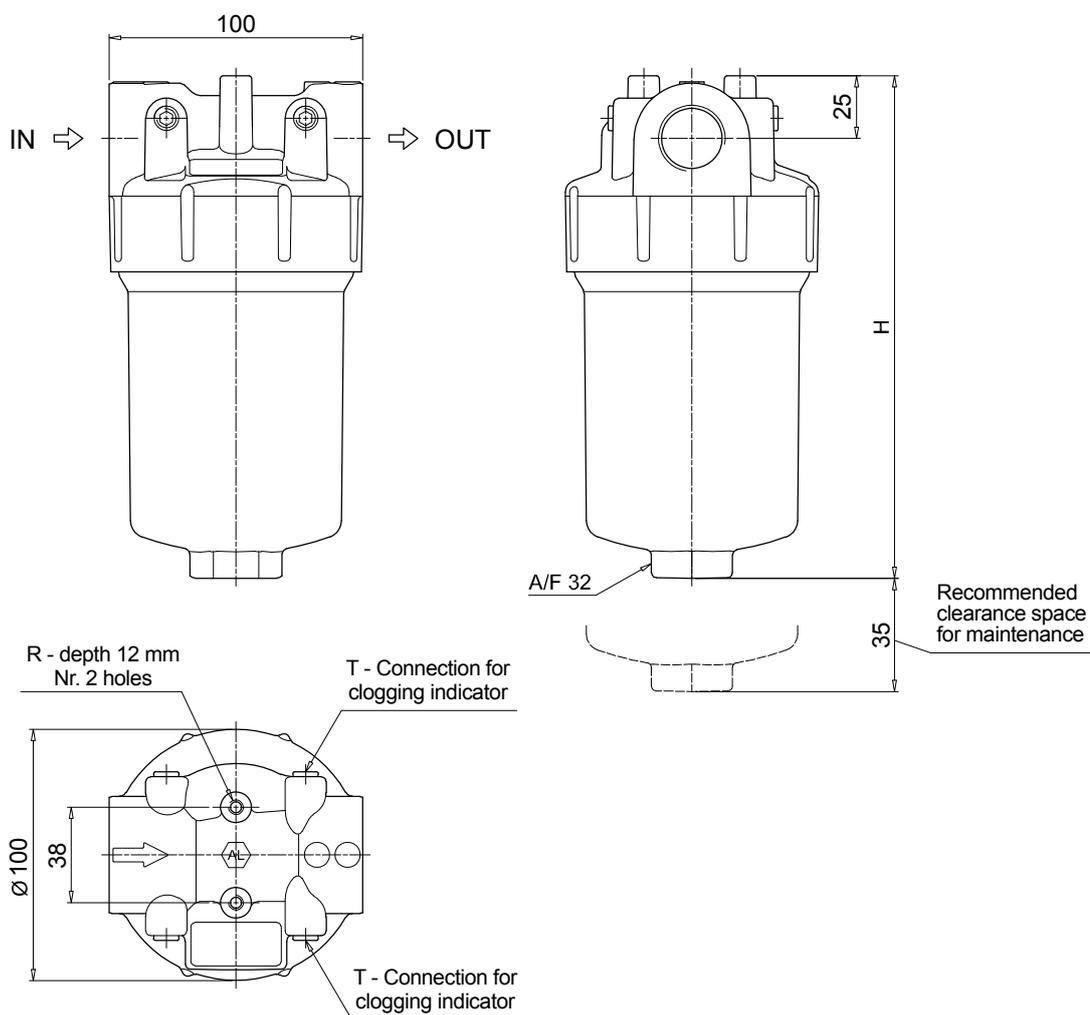
FILTER ELEMENT										
<b>Series</b>	Example 1: <b>FEX</b> <b>060</b> <b>10</b> <b>M0060</b> <b>C</b> <b>A</b> <b>00</b> <b>NN</b> <b>P01</b> <b>NN</b>									
<b>FEX</b> Filter element with <b>MYCLEAN</b> feature	Example 2: <b>FEX</b> <b>110</b> <b>20</b> <b>M0060</b> <b>C</b> <b>A</b> <b>00</b> <b>NN</b> <b>P01</b> <b>NN</b>									
<b>Size</b>										
<b>060</b>										
<b>110</b>										
<b>Length</b>										
<b>10</b>										
<b>20</b>										
<b>Filtration rating (filter media)</b>										
<b>M0025</b> Wire mesh 25 µm	<b>P0010</b> Resin-impregnated paper 10 µm									
<b>M0060</b> Wire mesh 60 µm	<b>P0025</b> Resin-impregnated paper 25 µm									
<b>M0090</b> Wire mesh 90 µm										
<b>M0250</b> Wire mesh 250 µm										
<b>Element Δp</b>										
<b>C</b> 8 bar										
<b>Seals and treatments</b>										
<b>A</b> NBR										
<b>Bypass</b>										
<b>00</b> Without bypass										
<b>Additional features</b>										
<b>NN</b> Without										
<b>Version</b>										
<b>P01</b> Standard catalogue item										
<b>Certificates</b>										
<b>NN</b> None										

## Dimensions

Filter length	H [mm]	
10	202	
20	265	

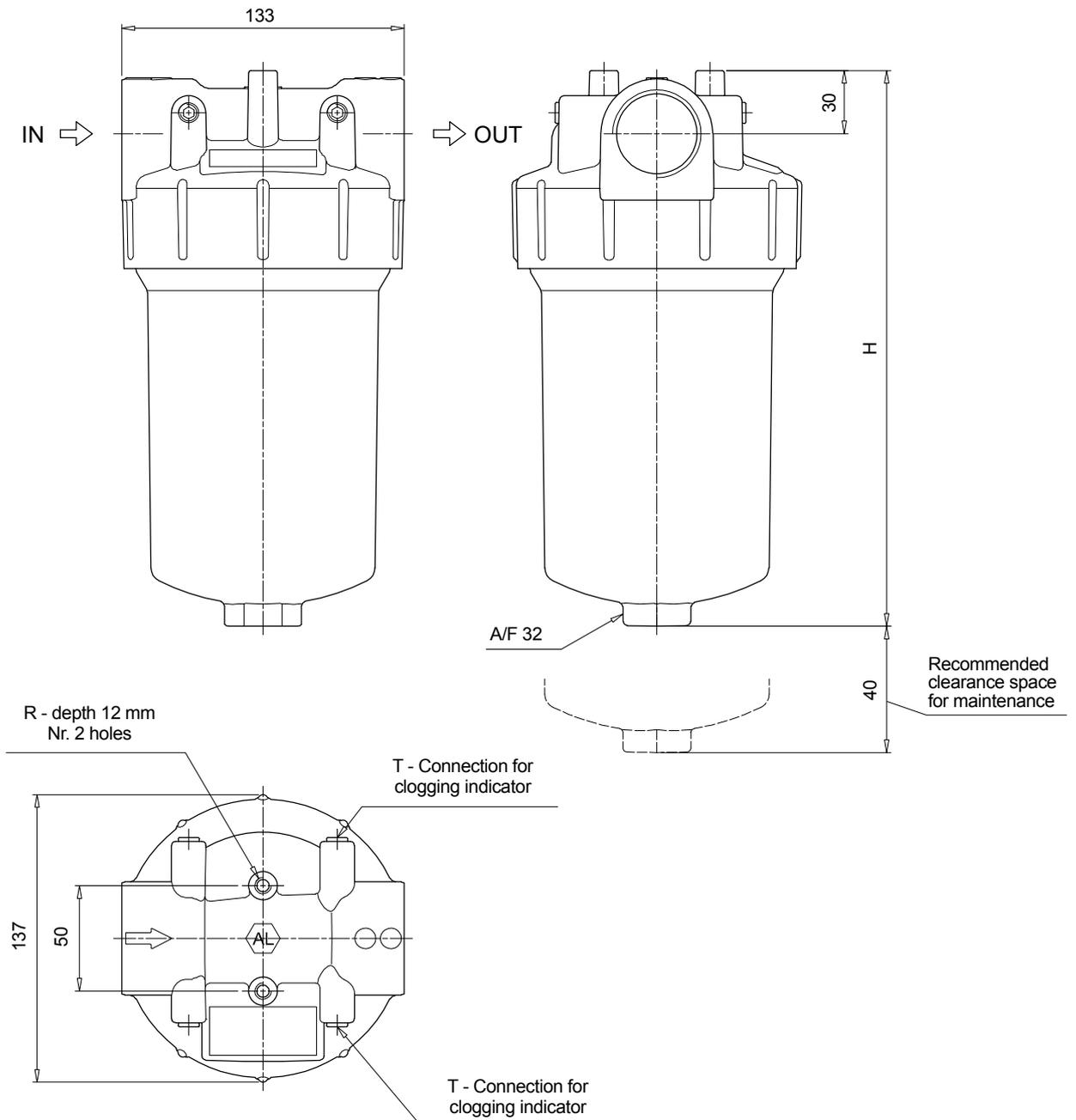
  

Connections	T	R
<b>FG034</b>	G 1/8"	M6
<b>FG100</b>	G 1/8"	M6
<b>FN034</b>	1/8" NPT	1/4" UNC
<b>FN100</b>	1/8" NPT	1/4" UNC
<b>FS012</b>	1/8" NPT	1/4" UNC
<b>FS016</b>	1/8" NPT	1/4" UNC



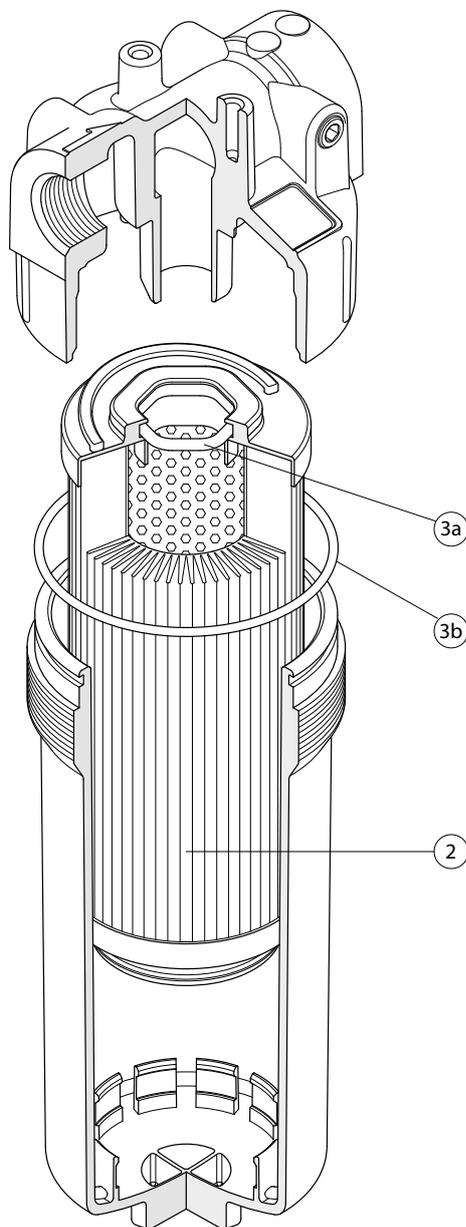
Filter length	H [mm]
<b>10</b>	266
<b>20</b>	315

Connections	T	R
<b>FG100</b>	G 1/8"	M8
<b>FG114</b>	G 1/8"	M8
<b>FN100</b>	1/8" NPT	5/16" UNC
<b>FN114</b>	1/8" NPT	5/16" UNC
<b>FS016</b>	1/8" NPT	5/16" UNC
<b>FS020</b>	1/8" NPT	5/16" UNC



# SFEX SPARE PARTS

Order number for spare parts



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.
	<b>2</b>	<b>3</b> (3a ÷ 3b)
Filter series	Filter element	Seal Kit code number NBR
<b>SFEX 060</b>	See order table	02050771
<b>SFEX 110</b>		02050772

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