

# MSH

**Maximum pressure 35 bar**  
**Flow rates to 196 l/min**



## Technical data

### Filter housing (Materials)

- Head: Anodized Aluminium
- Bypass valve: Nylon - Steel
- Element: Aluminium, Painted Steel

### Pressure

- Working pressure: 35 bar (3,5 MPa)

### Temperature

- From -20°C to +110°C

### Bypass valve

- Opening pressure: 2,5 bar ±10%

### Δp Elements type

- Δp: 5 bar
- Oil flow from OUT to IN.

### Seals

- Standard NBR series A
- Optional FPM series V

### MSH FILTERS ARE PROVIDED FOR VERTICAL MOUNTING

### Weights (kg)

- MSH050 1,5
- MSH070 1,9
- MSH100 3,3
- MSH150 3,8

### Volumes (dm<sup>3</sup>)

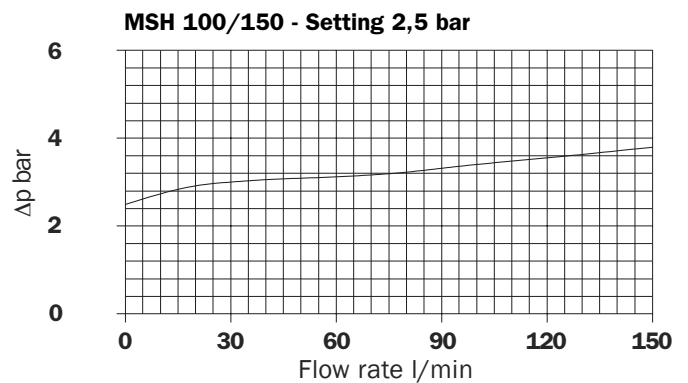
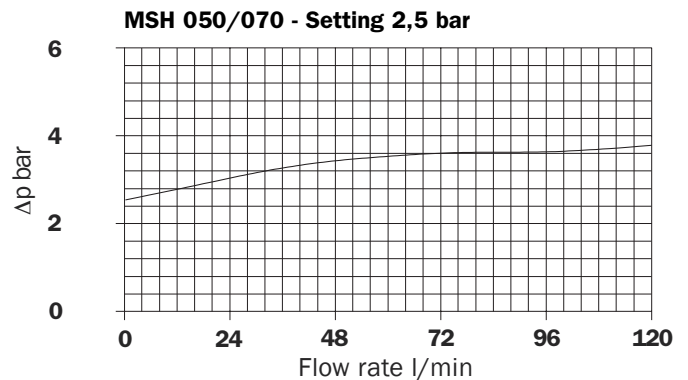
- MSH050 0,65
- MSH070 0,95
- MSH100 1,80
- MSH150 2,20

### Filter housings Δp pressure drop

The curves are plotted utilising mineral oil with density of 0,86 kg/dm<sup>3</sup> to ISO 3968.

Δp varies proportionally with density.

### Valves: Bypass valve pressure drop



## Filter sizing

### In-Line Filter

The following filter sizing recommendations are based using a mineral oil fluid at 30/46/68 mm<sup>2</sup>/s (cSt) with a maximum total filter assembly (housing and filter element) of **50 kPa (0,5 bar)**.

### MSH 050

	mm <sup>2</sup> /s (cSt)		
	32	46	68
<b>A03</b>	44	33	24
<b>A06</b>	56	44	32
<b>A10</b>	72	59	46
<b>A25</b>	75	62	48

Flow rate l/min

### MSH 070

	mm <sup>2</sup> /s (cSt)		
	32	46	68
<b>A03</b>	62	49	37
<b>A06</b>	77	66	52
<b>A10</b>	83	72	59
<b>A25</b>	92	84	73

Flow rate l/min

### MSH 100

	mm <sup>2</sup> /s (cSt)		
	32	46	68
<b>A03</b>	92	67	47
<b>A06</b>	121	94	68
<b>A10</b>	145	118	90
<b>A25</b>	176	150	122

Flow rate l/min

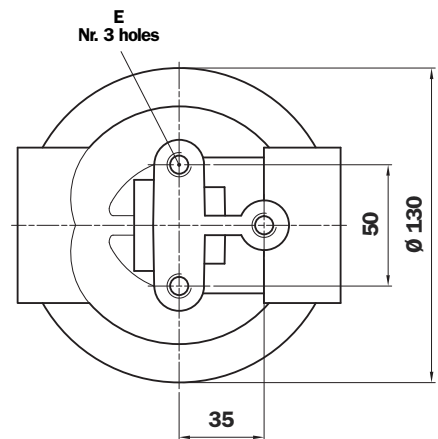
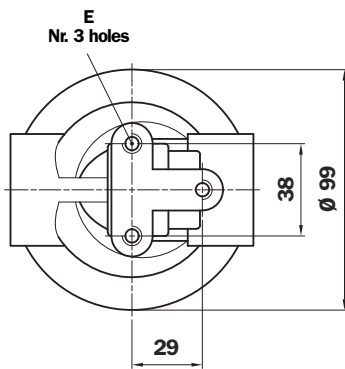
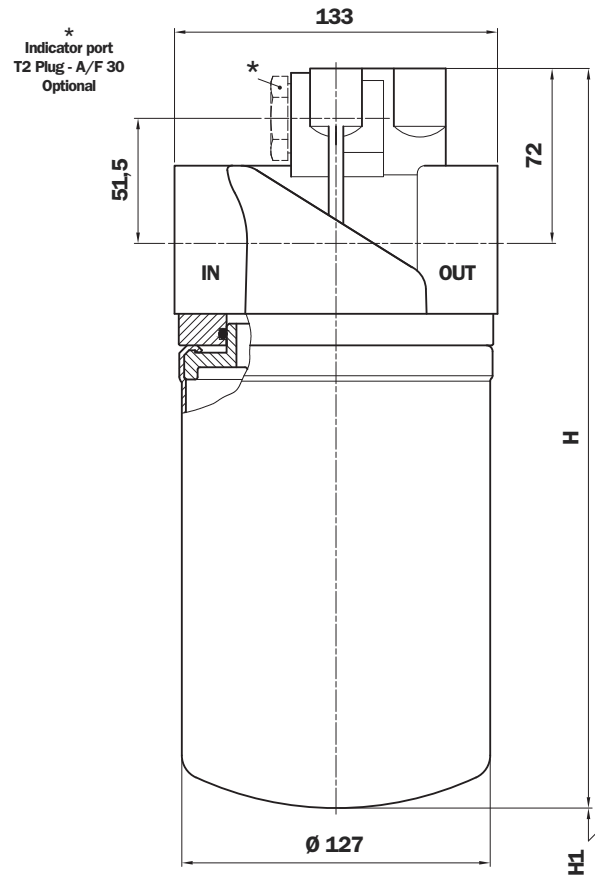
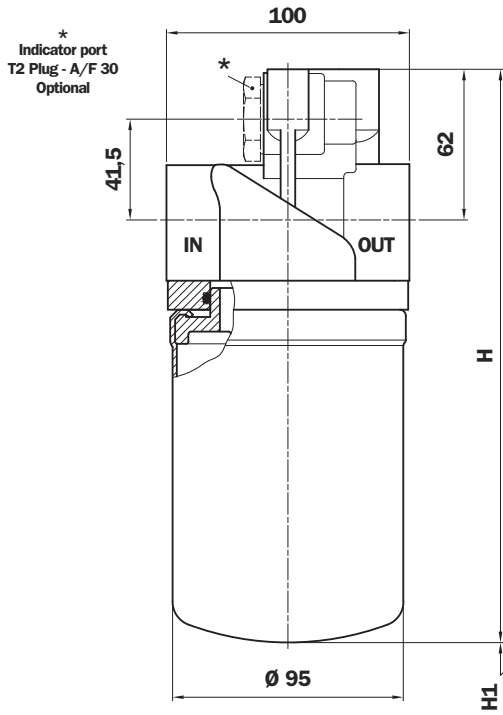
### MSH 150

	mm <sup>2</sup> /s (cSt)		
	32	46	68
<b>A03</b>	116	89	65
<b>A06</b>	128	120	74
<b>A10</b>	170	145	115
<b>A25</b>	196	175	147

Flow rate l/min

# MSH 050 - 070

# MSH 100 - 150



## MSH 050 - 070 - 100 - 150

Filter Length	H mm	H1 mm
050	236	45
070	324	45
100	311	60
150	354	60

## MSH 050/070 - Thread connections

Type	Size	E Depth 15 mm
G1	G 1"	M8
G2	G 3/4"	M8
G3	1" NPT	5/16" UNC
G4	3/4" NPT	5/16" UNC
G5	SAE 16 - 1 5/16" - 12 UN	5/16" UNC
G6	SAE 12 - 1 1/16" - 12 UN	5/16" UNC

## MSH 100/150 - Thread connections

Type	Size	E Depth 18 mm
G1	G 1 1/2"	M10
G2	G 1 1/4"	M10
G3	1 1/2" NPT	3/8" UNC
G4	1 1/4" NPT	3/8" UNC
G5	SAE 24 - 1 7/8" - 12 UN	3/8" UNC
G6	SAE 20 - 1 5/8" - 12 UN	3/8" UNC

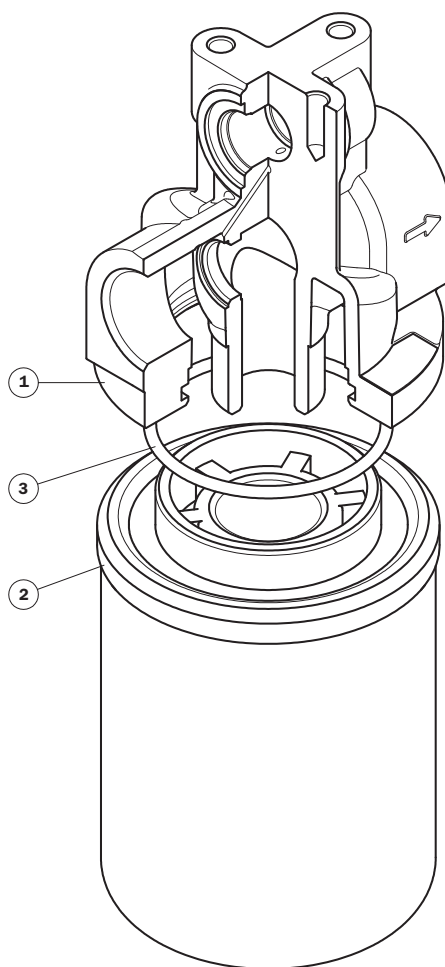
# Filter element CH



## CH - Thread connections

Type	Size
050 - 070	M32 x 2
100 - 150	M45 x 2

## Spare parts



Item	Description	Q.ty	FILTER Series	
			MSH 050 - 070	MSH 100 - 150
1	Filter assembly	1	See order table	
2	Filter element	1	See order table	
3	Seal	1	O-R 167 Ø 63,50 x 3,53	O-R 4362 Ø 91,67 x 3,53

# Ordering information MSH

## Filter assembly

### MSH

Example 1: MSH  
Example 2: MSH

<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>050</b>	<b>B</b>	<b>A</b>	<b>G3</b>	<b>P25</b>	<b>P01</b>
<b>150</b>	<b>S</b>	<b>A</b>	<b>G1</b>	<b>M60</b>	<b>P01</b>

## Filter element

### CH

Example 1:  
Example 2:

<b>1</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>7</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>CH</b>	<b>050</b>	<b>P25</b>	<b>A</b>	<b>P01</b>
<b>CH</b>	<b>150</b>	<b>M60</b>	<b>A</b>	<b>P01</b>

#### 1 - Filter element

**CH** Filter element European std.

#### 2 - Style

**050**  
**070**  
**100**  
**150**

#### 3 - Valves

**S** Without bypass  
**B** With bypass 2,5 bar ±10%

#### 4 - Filter seals

**A** NBR

#### 5 - Connections

##### Threaded

MSH  
050 - 070

Type	Size
<b>G1</b>	G 1"
<b>G2</b>	G 3/4"
<b>G3</b>	1" NPT
<b>G4</b>	3/4" NPT
<b>G5</b>	SAE 16 - 1 5/16" - 12 UN
<b>G6</b>	SAE 12 - 1 1/16" - 12 UN

MSH  
100 - 150

Type	Size
<b>G1</b>	G 1 1/2"
<b>G2</b>	G 1 1/4"
<b>G3</b>	1 1/2" NPT
<b>G4</b>	1 1/4" NPT
<b>G5</b>	SAE 24 - 1 7/8" - 12 UN
<b>G6</b>	SAE 20 - 1 5/8" - 12 UN

#### 6 - Filter element

<b>A03</b>	Inorganic microfibre	3 µm	Absolute filtration Inorganic Microfibre βx (c) ≥ 1000
<b>A06</b>	Inorganic microfibre	6 µm	
<b>A10</b>	Inorganic microfibre	10 µm	
<b>A25</b>	Inorganic microfibre	25 µm	
<b>M25</b>	Wire mesh	25 µm	Nominal Filtration
<b>M60</b>	Wire mesh	60 µm	
<b>M90</b>	Wire mesh	90 µm	
<b>P10</b>	Resin - Impregnated paper		Nominal Filtration
<b>P25</b>	Resin - Impregnated paper		

#### 7 - Option

**P01** MP Filtri standard

**For Clogging Indicator:**  
See page 324

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