

# FILTERS

## SERIES MX

MX2 ports: G3/8, G1/2, G3/4 - MX3 ports: G3/4, G1  
 Modular  
 Bowl with technopolymer cover and bayonet-type mounting



- Removal of impurities and condensate
- High flow with minimum pressure decreases
- Quality of delivered air according to ISO 8573-1:2010, Classes [7:8:4] and [6:8:4]
- Manual, automatic or depressuring drain
- Polymer bowl locking system reducing the risk of accidents
- Visual blockage indicator

The Series MX air treatment components are characterized by a modern, linear and compact design, offering high performances. The perfect integration between metal alloys and technopolymers has allowed the realization of a reliable product, light and strong at the same time.

Thanks to a new concept of modularity, moreover, the mounting of components has become easier.

The Series MX has been realized to offer a multi-sector solution that guarantees saving in terms of installation time, space and costs.

### General Data

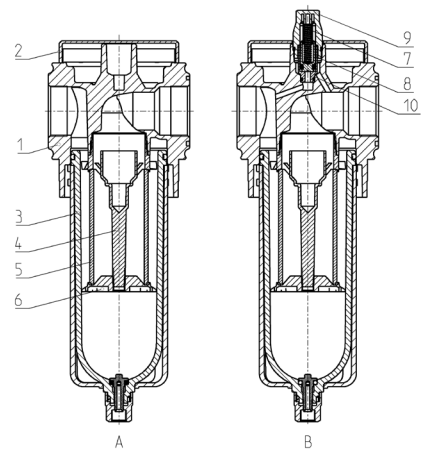
<b>Construction</b>	Modular, compact with filtering element in HDPE
<b>Materials</b>	See TABLE OF MATERIALS on the following page
<b>Ports</b>	MX2: G3/8 - G1/2 - G3/4 MX3: G3/4 - G1
<b>Condensate capacity</b>	MX2: 55 cm <sup>3</sup> MX3: 85 cm <sup>3</sup>
<b>Mounting</b>	Vertical in-line Wall-mounting (by means of clamps)
<b>Working temperature</b>	-5°C ÷ 50°C up to 16 bar (with the dew point of the fluid lower than 2°C at the min. working temperature) -5°C ÷ 60°C up to 10 bar (with the dew point of the fluid lower than 2°C at the min. working temperature)
<b>Quality of delivered air according to ISO 8573-1:2010</b>	Class [6:8:4] with 5 µm filtering element Class [7:8:4] with 25 µm filtering element
<b>Working pressure</b>	0,3 ÷ 16 bar (with automatic drain 1,5 ÷ 12 bar)
<b>Nominal flow</b>	See FLOW DIAGRAMS on the following pages
<b>Fluid</b>	Compressed air
<b>Draining of condensate</b>	Semiautomatic-manual (standard), automatic, depressuring drain protected, direct exhaust G1/8

**FILTERS**  
**SERIES MX - CODING EXAMPLES**
**Coding Example**

<b>MX</b>	<b>2</b>	<b>-</b>	<b>1/2</b>	<b>-</b>	<b>F</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>-</b>	<b>LH</b>
<b>MX</b>	SERIES									
<b>2</b>	SIZE 2 = G3/8 - G1/2 - G3/4 3 = G3/4 - G1									
<b>1/2</b>	PORT 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4 1 = G1									
<b>F</b>	FILTER									
<b>0</b>	FILTERING ELEMENT 0 = 25 µm (standard) 1 = 5 µm									
<b>0</b>	DRAINING OF CONDENSATE (further details in the dedicated section) 0 = Semiautomatic-manual drain (standard - only for polymer bowl) 3 = Automatic drain 5 = Depressuring drain, protected (only for polymer bowl) 8 = Without drain, with port G1/8									
<b>1</b>	VISUAL BLOCKAGE INDICATOR = Not present 1 = Present									
<b>LH</b>	FLOW DIRECTION = From left to right (standard) LH = From right to left									

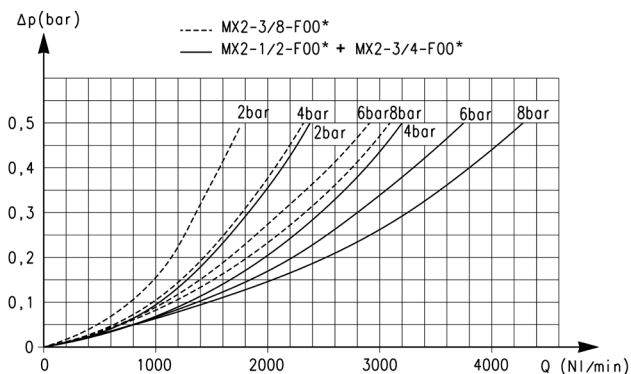
**Filters Series MX - materials**

A = Filter  
 B = Filter with visual blockage indicator



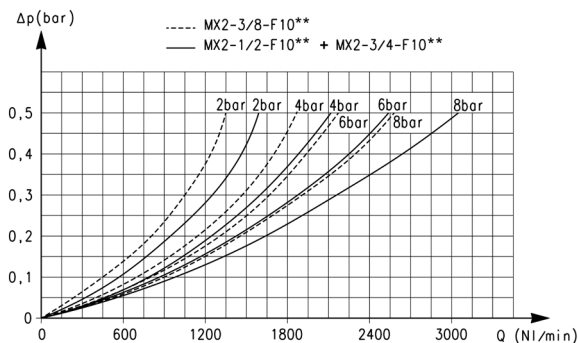
Parts	Materials
<b>1 = Body</b>	Aluminium
<b>2 = Covering</b>	Polyacetal
<b>3 = Bowl / bowl cover</b>	Polycarbonate/Polyamide
<b>4 = Valve-guide</b>	Polyacetal
<b>5 = Filtering element</b>	Polyethylene
<b>6 = Separation deflector</b>	Polyacetal
<b>7 = Upper spring</b>	Stainless steel
<b>8 = Piston</b>	Anodized aluminium
<b>9 = Visual blockage indicator</b>	Polycarbonate
<b>10 = Indicator body</b>	Brass
<b>Seals</b>	NBR

### MX2 filters flow diagrams



\* Reference diagram for models with filtering element = 25 µm

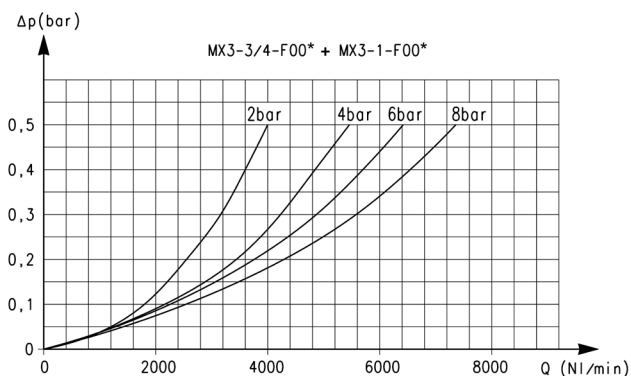
Δp = Pressure drop (bar)  
Q = Flow (NL/min)



\*\* Reference diagram for models with filtering element = 5 µm

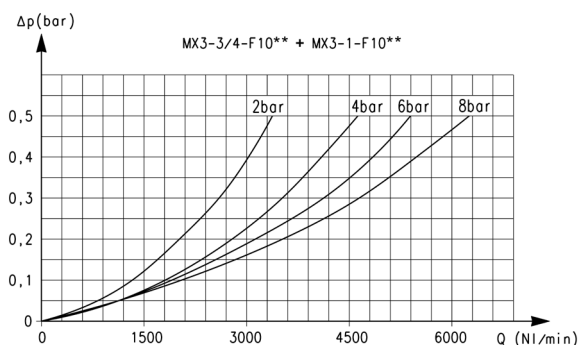
Δp = Pressure drop (bar)  
Q = Flow (NL/min)

### MX3 filters flow diagrams



\* Reference diagram for models with filtering element = 25 µm

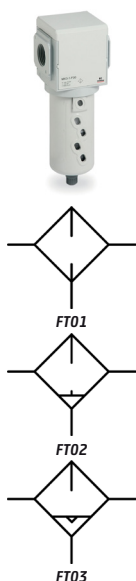
Δp = Pressure drop (bar)  
Q = Flow (NL/min)



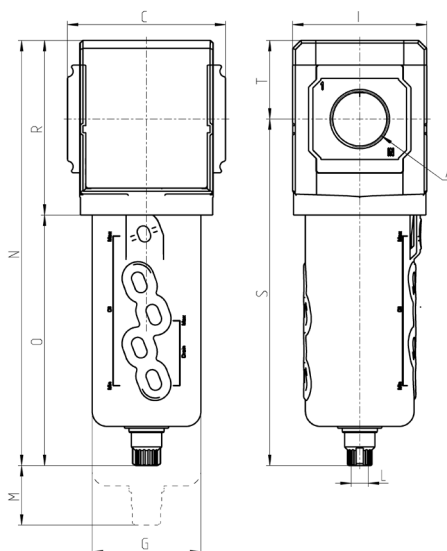
\*\* Reference diagram for models with filtering element = 5 µm

Δp = Pressure drop (bar)  
Q = Flow (NL/min)

## FILTERS

**SERIES MX - DIMENSIONS**
**Filters Series MX - dimensions**


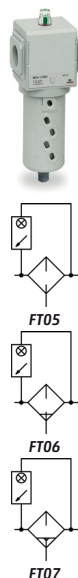
FT01 = Filter with direct G1/8 exhaust  
 FT02 = Filter with semi-automatic manual drain  
 FT03 = Filter with automatic/ depressuring drain



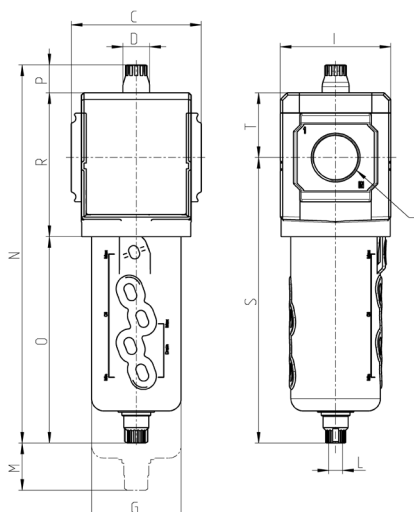
Mod.	A	C	G	I	L	M	N	O	R	S	T	Weight [kg]
MX2-3/8-F00	G3/8	70	55,3	68	G1/8	80	212	127	85	174,5	37,5	0,5
MX2-1/2-F00	G1/2	70	55,3	68	G1/8	80	212	127	85	174,5	37,5	0,5
MX2-3/4-F00	G3/4	70	55,3	68	G1/8	80	212	127	85	174,5	37,5	0,5
MX3-3/4-F00	G3/4	89,5	61,5	76	G1/8	95	241	142	99	196,5	44,5	0,8
MX3-1-F00	G1	89,5	61,5	76	G1/8	95	241	142	99	196,5	44,5	0,8

AIR TREATMENT

9

**Filters Series MX - dimensions**


FT05 = Filter with direct G1/8 exhaust and visual blockage indicator  
 FT06 = Filter with semi-automatic manual drain and visual blockage indicator  
 FT07 = Filter with automatic/ depressuring drain and visual blockage indicator



Mod.	A	C	D	G	I	L	M	N	O	P	R	S	T	Weight [kg]
MX2-3/8-F001	G3/8	70	18,5	55,3	68	G1/8	80	231	127	19,5	85	174,5	37,5	0,5
MX2-1/2-F001	G1/2	70	18,5	55,3	68	G1/8	80	231	127	19,5	85	174,5	37,5	0,5
MX2-3/4-F001	G3/4	70	18,5	55,3	68	G1/8	80	231	127	19,5	85	174,5	37,5	0,5
MX3-3/4-F001	G3/4	89,5	18,5	61,5	76	G1/8	95	260	142	19,5	99	196,5	44,5	0,8
MX3-1-F001	G1	89,5	18,5	61,5	76	G1/8	95	260	142	19,5	99	196,5	44,5	0,8

## Rapid clamp kit



**Materials:**  
Technopolymer clamp, NBR  
O-ring, zinc-plated steel  
nuts and screws.

The MX2-X kit is supplied with:  
1x Rapid clamp,  
1x O-ring OR 3125 \*;  
2x Hexagonal nuts M5;  
2x Screws M5x69.

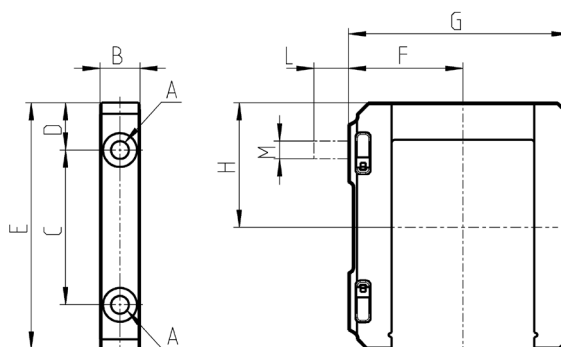
The MX2-Z kit is supplied with:  
1x Rapid clamp,  
1x O-ring OR 3125 \*;  
1x Hexagonal nut M5;  
1x Screw M5x69;  
1x Screw M5x85 for wall fixing.

\*It can be ordered separately (cod. 160-39-11/19).

The MX3-X kit is supplied with:  
1x Rapid clamp,  
1x O-ring OR 38X2,8 \*\*;  
2x Square nuts M6;  
2x Screws M6x75.

The MX3-Z kit is supplied with:  
1x Rapid clamp,  
1x O-ring OR 38X2,8 \*\*;  
1x Square nut M6,  
1x Screw M6x75;  
1x Screw M6x90 for wall fixing.

\*\*It can be ordered separately (OR 38X2,8 NBR).



Mod.	A	B	C	D	E	F	G	H	L	M	Notes
MX2-X	5,2	12	46	14	73,5	37,5	70,5	37	-	-	
MX2-Z	5,2	12	46	14	73,5	37,5	70,5	37	14	M5	Kit with wall fixing screw
MX3-X	6,2	14	54	16,5	86	40	77	43,5	-	-	
MX3-Z	6,2	14	54	16,5	86	40	77	43,5	13	M6	Kit with wall fixing screw

## Rapid clamp kit with wall fixing brackets



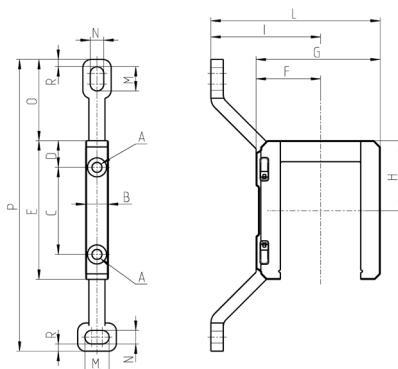
The MX2-Y kit is supplied with:  
 1x rapid wall clamp;  
 1x O-ring OR 3125 \*\*;  
 2x hexagonal nuts;  
 2x screws M5x69.

\*\* It can be ordered separately (cod. 160-39- 11/19).

**Materials:**  
 technopolymer clamp, NBR  
 O-ring, zinc-plated steel  
 nuts and screws.

The kit MX3-Y is supplied with:  
 1x wall rapid clamp;  
 1x O-ring 38X2,8 \*\*;  
 2x square nuts M6;  
 2x screws M6x75.

\*\* It can be also separately ordered (OR 38X2,8 NBR).



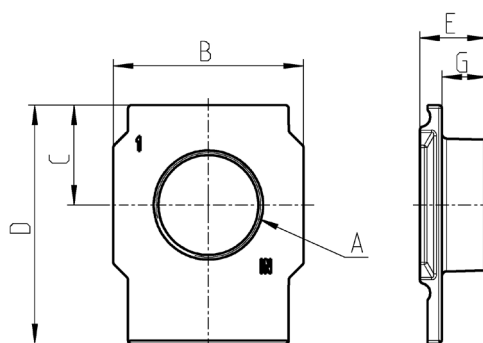
Mod.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	R
MX2-Y	5,2	12	46	14	73,5	32,5	70,5	37	70,5	103	12	6,5	42	152	4
MX3-Y	6,2	14	54	16,5	86	40	77	43,5	68	105	15	8,4	50,5	181	4,5

## Terminal flanges (IN/OUT)



**Materials:**  
 painted aluminium flanges.

Supplied with:  
 1x flange INLET side  
 1x flange OUTLET side

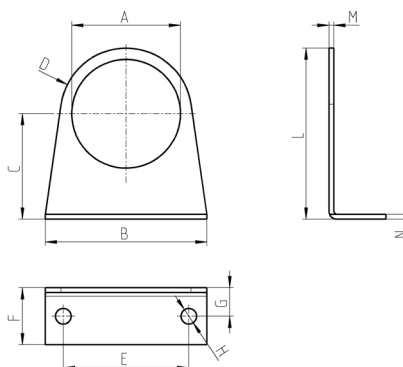


Mod.	A	B	C	D	E	G
MX2-3/8-FL	G3/8	50	26,5	63,5	17	11
MX2-1/2-FL	G1/2	50	26,5	63,5	17	11
MX2-3/4-FL	G3/4	50	26,5	63,5	17	11
MX3-3/4-FL	G3/4	58	30,5	73	20,5	13,5
MX3-1-FL	G1	58	30,5	73	20,5	13,5

### Fixing bracket for regulators



**Supplied with:**  
1x zinc-plated steel bracket

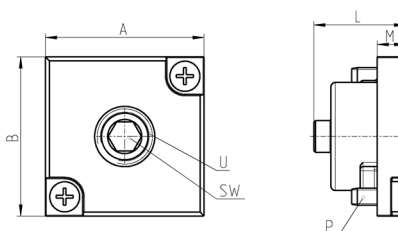


Mod.	A	B	C	D	E	F	G	H	L	M	N
MX2-S	Ø47,2	73	60,5	R29,5	54	25	15	Ø6,2	90	2,5	2,5
MX3-S	Ø57,2	85	55,5	R34,5	66	30	15	Ø8,2	90	2,5	2,5

### Block for pressure gauge fixing



**Supplied with:**  
1x block  
1x grain  
2x screws  
1x seal



Mod.	A	B	L	M	P	U	SW
MX2-R26/1-P	28	28	16,5	5	M3x7	1/8	5
MX3-R26/1-P	28	28	16,5	5	M3x7	1/4	6

## Built-in pressure gauge

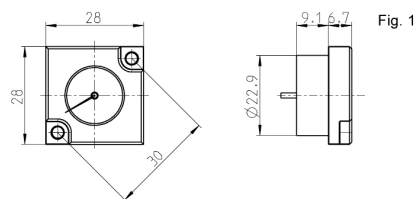


Fig. 1

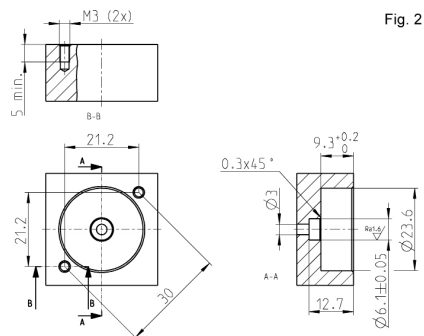
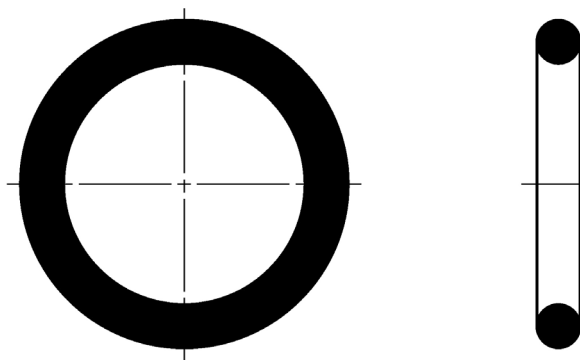


Fig. 2

 Fig. 1 = Pressure gauge  
 Fig. 2 = Seat

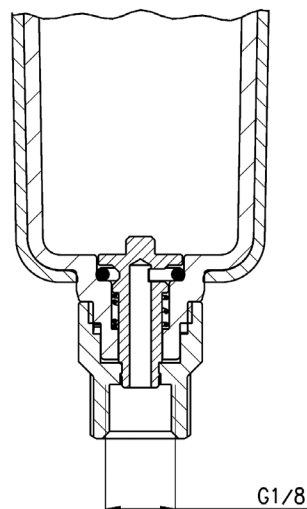
Mod.	Range
MX3-R34/W-P	0 ÷ 4 bar
MX3-R31/W-P	0 ÷ 6 bar
MX3-R32/W-P	0 ÷ 10 bar
MX3-R30/W-P	0 ÷ 12 bar

## O-ring for assembling



Mod.	O-ring	For assembly
160-39-11/19	OR 3125	MX2
C401-F33	OR 38X2,8	MX3
458-33/1	OR 2068	MC104
80-26-11/4T	OR 3100	MC238, MC202

### Semi-automatic manual drain Type 0



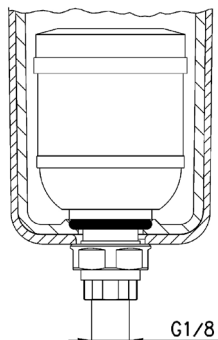
Mod. filter	Bowl with semiautomatic manual drain
N10...-F	N1-F71
N10...-D	N1-F71
N10...-FB	N1-F71
N20...-F	N2-F71
N20...-D	N2-F71
N20...-FB	N2-F71
MC104-F	MC1-F71
MC104-D	MC1-F71
MC104-FB	MC1-F71
MC202-F	MC2-F71
MC202-D	MC2-F71
MC202-FB	MC2-F71
MC238-F	MC2-F71
MC238-D	MC2-F71
MC238-FB	MC2-F71
MX2...-F	MX2-F2-P
MX2...FR	MX2-F2-P
MX2...FC	MX2-F2-P
MX3...-F	MX3-F2-P
MX3...-FR	MX3-F2-P
MX3...-FC	MX3-F2-P
MD1-F0..	MD1-FSP01
MD1-F1..	MD1-FSP04
MD1-FR0..	MD1-FSP01
MD1-FR1..	MD1-FSP04
MD1-FC0..	MD1-FCSP01
MD1-FC1..	MD1-FCSP04

## Automatic drain (Type 3)



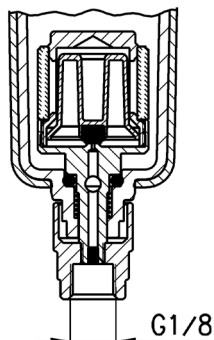
**Functioning:** the presence of liquid inside the bowl raises the float, thus opening the exhaust valve.

Assembled with [Filtering element 25µ](#), [Filtering element 5µ](#), [Filtering element 1µ](#), [Filtering element 0.01µ](#).



Mod. filter	Bowl with automatic drain
MC202-F	MC2-F71/3
MC202-D	MC2-F71/3
MC202-FB	MC2-F71/3
MC238-F	MC2-F71/3
MC238-D	MC2-F71/3
MC238-FB	MC2-F71/3
MX2...-F	MX2-F2/1-P
MX2...-FR	MX2-F2/1-P
MX2...-FC	MX2-F2/1-P
MX3...-F	MX3-F2/1-P
MX3...-FR	MX3-F2/1-P
MX3...-FC	MX3-F2/1-P
MD1-F0..	MD1-FSP08
MD1-F1..	MD1-FSP07
MD1-FR0..	MD1-FSP08
MD1-FR1..	MD1-FSP07

## Depressurisation drain, protected (Type 5)



**Solution similar to the Type 4 but requiring a  $\Delta P = 1$  bar.**  
 Functioning: this version has a filtering element which prevents any impurities from clogging the exhaust hole.

Assembled with [Filtering element 25 \$\mu\$](#) , [Filtering element 5 \$\mu\$](#) , [Filtering element 1 \$\mu\$](#) , [Filtering element 0.01 \$\mu\$](#) .

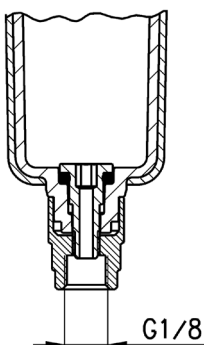
Mod. filter	Bowl with depressurization drain, protected
N20...-F	N2-F71/1
N20...-D	N2-F71/1
N20...-FB	N2-F71/1
MC104-F	MC1-F71/1
MC104-D	MC1-F71/1
MC104-FB	MC1-F71/1
MC202-F	MC2-F71/1
MC202-D	MC2-F71/1
MC202-FB	MC2-F71/1
MC238-F	MC2-F71/1
MC238-D	MC2-F71/1
MC238-FB	MC2-F71/1
MX2...-F	MX2-F2/3-P
MX2...-FR	MX2-F2/3-P
MX2...-FC	MX2-F2/3-P
MX3...-F	MX3-F2/3-P
MX3...-FR	MX3-F2/3-P
MX3...-FC	MX3-F2/3-P
MD1-F0..	MD1-FSP03
MD1-F1..	MD1-FSP06
MD1-FR0..	MD1-FSP03
MD1-FR1..	MD1-FSP06
MD1-FC0..	MD1-FCSP03
MD1-FC1..	MD1-FCSP06

## Bowl without drain (Type 8)



The solution with port G1/8 is used to assemble the items to the bowl which is realized with a through hole of Ø3 mm and a threaded port G1/8.

Assembled with [Filtering element 25µ](#), [Filtering element 5µ](#), [Filtering element 1µ](#), [Filtering element 0.01µ](#).

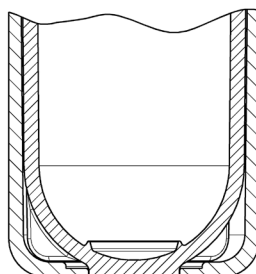


Mod. filter	Bowl without drain (1/8 port)
N10...-F	N1-F71-1/8
N10...-D	N1-F71-1/8
N10...-FB	N1-F71-1/8
N20...-F	N2-F71-1/8
N20...-D	N2-F71-1/8
N20...-FB	N2-F71-1/8
MC104-F	MC1-F71-1/8
MC104-D	MC1-F71-1/8
MC104-FB	MC1-F71-1/8
MC202-F	MC2-F71-1/8
MC202-D	MC2-F71-1/8
MC202-FB	MC2-F71-1/8
MC238-F	MC2-F71-1/8
MC238-D	MC2-F71-1/8
MC238-FB	MC2-F71-1/8
MX2...-F	MX2-F2/2-P
MX2...-FR	MX2-F2/2-P
MX2...-FC	MX2-F2/2-P
MX3...-F	MX3-F2/2-P
MX3...-FR	MX3-F2/2-P
MX3...-FC	MX3-F2/2-P
MD1-F0..	MD1-FSP02
MD1-F1..	MD1-FSP05
MD1-FR0..	MD1-FSP02
MD1-FR1..	MD1-FSP05
MD1-FC0..	MD1-FCSP02
MD1-FC1..	MD1-FCSP05

## Closed bowl



Assembled with [Activated carbon filter](#).



Mod. filter	Closed bowl
N20...-FCA	N2-L71
MC104-FCA	MC1-L71
MC202-FCA	MC2-L71
MC238-FCA	MC2-L71
MX2...-FCA	MX2-L2-P
MX3...-FCA	MX3-L2-P
MD1-FCA..	MD1-FCASP01

## Surface filters



Assembled with Semi-automatic manual drain, Automatic drain, Depressurisation drain, Depressurisation drain protected, Bowl without drain.

Mod. filter	Filtering element 25 µ
N10...-F	C104-F20/3
N10...-D	C104-F20/3
N20...-F	C104-F20/3
N20...-D	C104-F20/3
MC104-F	C104-F20/3
MC104-D	C104-F20/3
MC202-F	C238-F11/3
MC202-D	C238-F11/3
MC238-F	C238-F11/3
MC238-D	C238-F11/3
MX2...-F	C238-F11/3
MX2...FR	C238-F11/3
MX3...-F	MX3-F7
MX3...-FR	MX3-F7
MD1-F0..*	C104-F20/3
MD1-FR0..*	C104-F20/3

## Surface filters



Assembled with Semi-automatic manual drain, Automatic drain, Depressurisation drain, Depressurisation drain protected, Bowl without drain.

Mod. filter	Filtering element 5 µ
N10...-F	C104-F21/3
N10...-D	C104-F21/3
N20...-F	C104-F21/3
N20...-D	C104-F21/3
MC104-F	C104-F21/3
MC104-D	C104-F21/3
MC202-F	C238-F12/3
MC202-D	C238-F12/3
MC238-F	C238-F12/3
MC238-D	C238-F12/3
MX2...-F	C238-F12/3
MX2...FR	C238-F12/3
MX3...-F	MX3-F8
MX3...-FR	MX3-F8
MD1-F1..*	C104-F21/3
MD1-FR1..*	C104-F21/3