

## GENO®-MX 1" - MX DN 100 backwash filter

### Intended use

The GENO®-MX backwash filters are suitable for the following sectors:

- Filtration of drinking water
- Filtration of industrial water
- Overpressure

The filters **are not** suitable for the following sectors:

- Filtration of circulation water treated with chemicals
- Filtration of oils, greases, solvents, soaps and other lubricating media
- Separation of water-soluble substances
- Negative pressure

### Function

#### Filtration

The unfiltered raw water flows into the filter from the inlet side and then passes through the filter element to the pure water outlet.

Foreign particles the size of > 50 µm, 100 µm, 200 µm and 500 µm - depending on the filter element - are thus retained in the filtration process.

Depending on size and weight, the foreign particles either stick to the filter element or fall straight down where they accumulate at the lowest point of the filter.

### Backwash

The pressure of the filtered pure water is used for the backwash. Turning the backwash handwheel to the right up to the stop position, has several results:

- Brushes on the raw water side remove foreign particles from the filter elements.
- A suction nozzle opens the drain outlet at the bottom of the filter towards the backwash water connection.
- The pressure of the pure water is higher than the atmospheric pressure at the backwash water connection.
- Due to this differential pressure, a part of the pure water flows through the filter elements within the area of the hollow brushes into the suction nozzle.
- This part of the pure water is used as rinsing water.
- The rinsing water flushes the dissolved foreign particles through the suction nozzle.
- The rinsing water leaves the filter at the drain outlet towards the backwash water connection after passing through the suction nozzle.

Turning the backwash handwheel towards the left up to the stop position closes the drain outlet and terminates the backwash.

### Structure

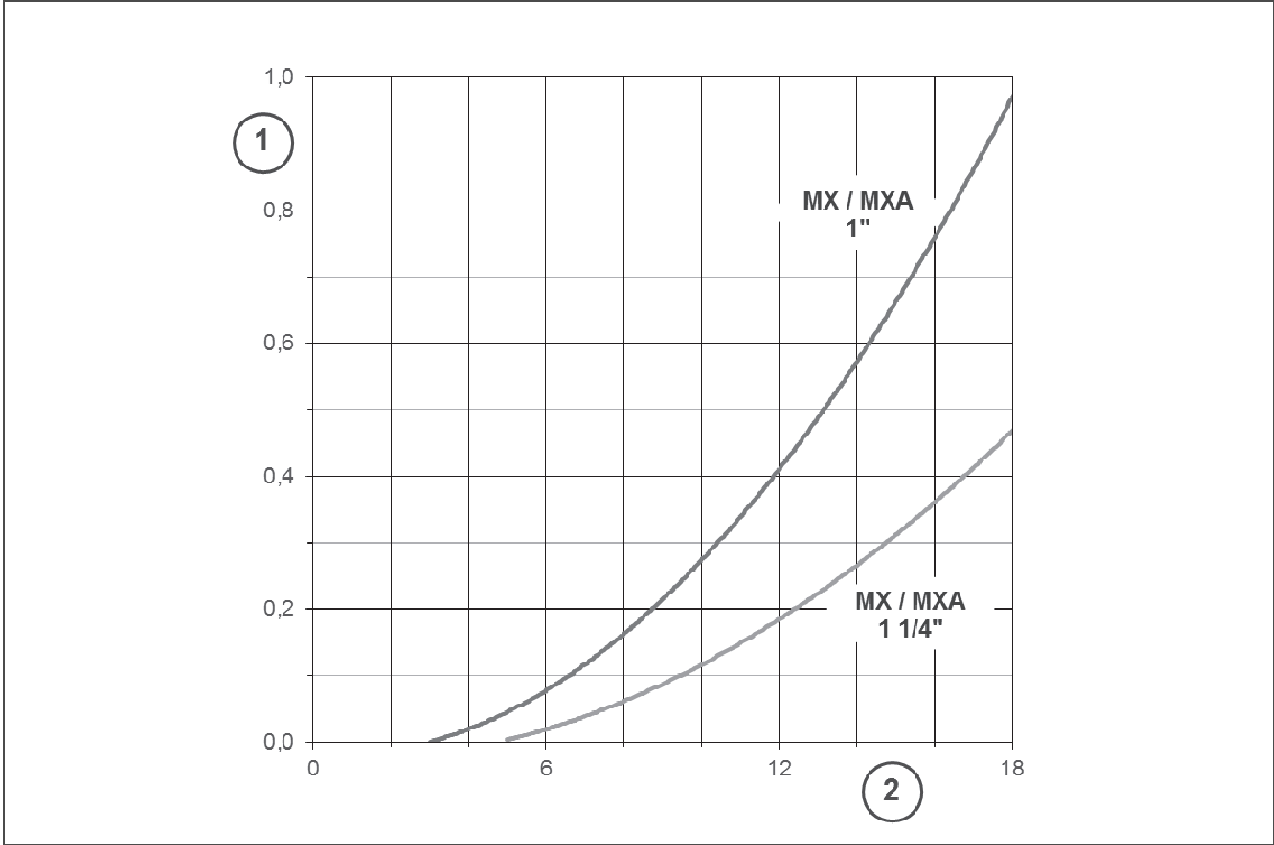
- All parts coming into contact with the medium are made brass with a low level of dezincification or high-grade industrial plastic.
- Modular filter element made of high-grade, industrial plastic with filter mesh made of stainless steel.
- Integrated backwash water connection (funnel) according to DIN EN 1717.
- Pressure gauge on raw and pure water side to determine the degree of impurities (differential pressure).
- Water meter screw connection on GENO®-MX 1" - MX 2" backwash filter.
- Flange connection on GENO®-MX DN 65, MX DN 80, MX DN 100 backwash filter (dimension of flange connection acc. to DIN 2642, without counter-flanges and seals).
- All water-contacting parts meet the requirements of the German Food and Feed Act (LFGB).

### Scope of supply

- Backwash filter complete, including 2 pressure gauges 0-16 bar.
- Up to a nominal diameter of DN 50 with water meter screw connections.
- Starting from a nominal diameter of DN 65, flange version.
- Counter flanges and seals are not included in the scope of supply.

**Technical specifications I**

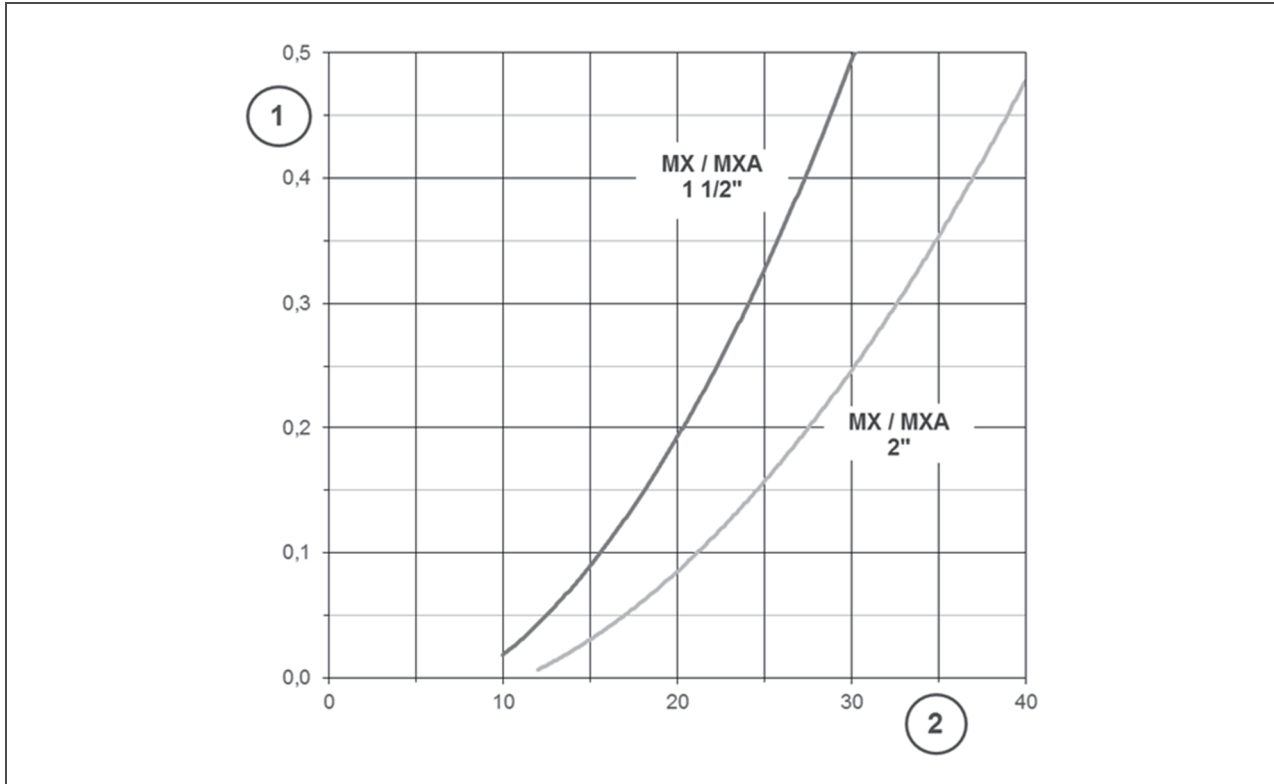
**Pressure loss curves of GENO® MX / MXA 1" and 1 1/4" backwash filters**



Item	Designation	Item	Designation
1	Differential pressure in bar	2	Flow rate in m³/h

## Technical specifications II

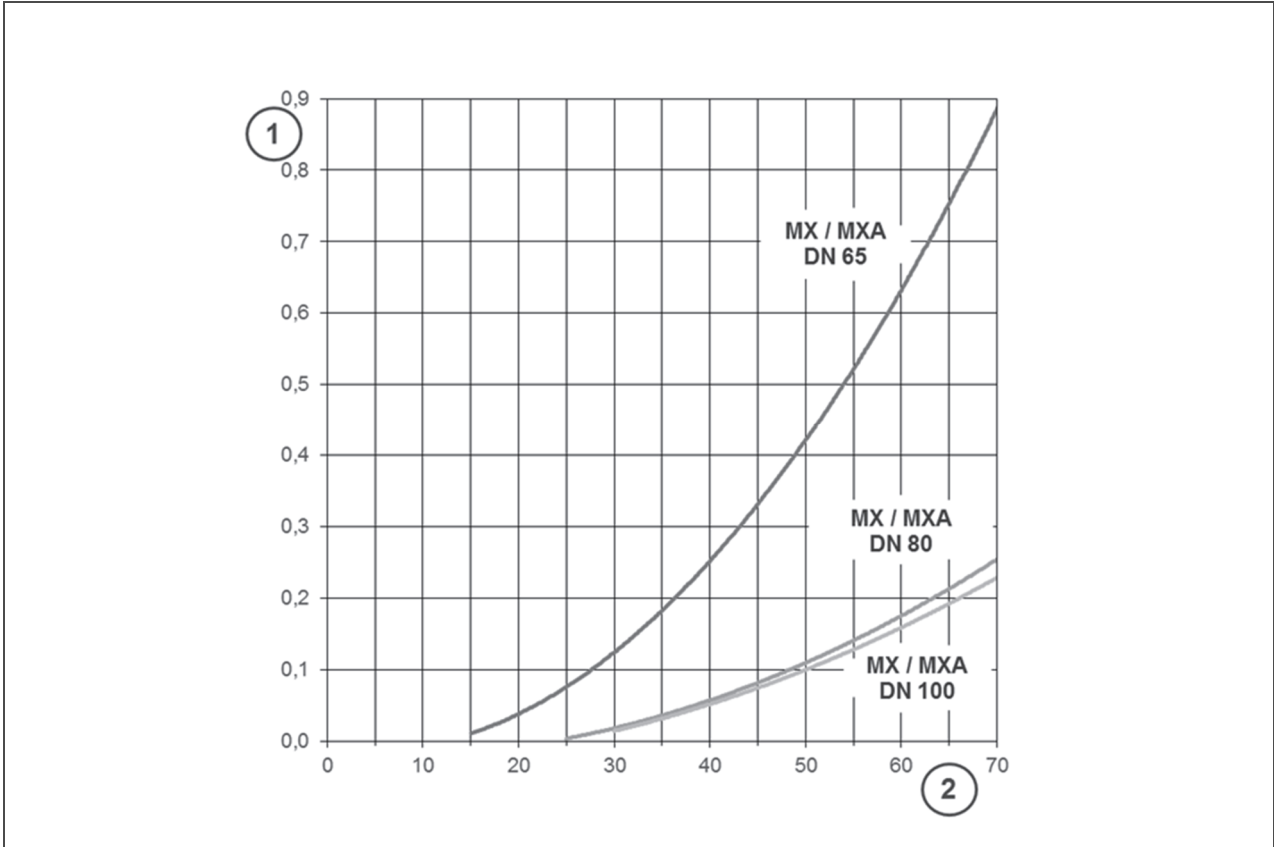
- Pressure loss curves of GENO® MX / MXA 1½" and 2" backwash filters



Item	Designation	Item	Designation
• 1	• Differential pressure in bar	• 2	• Flow rate in m³/h

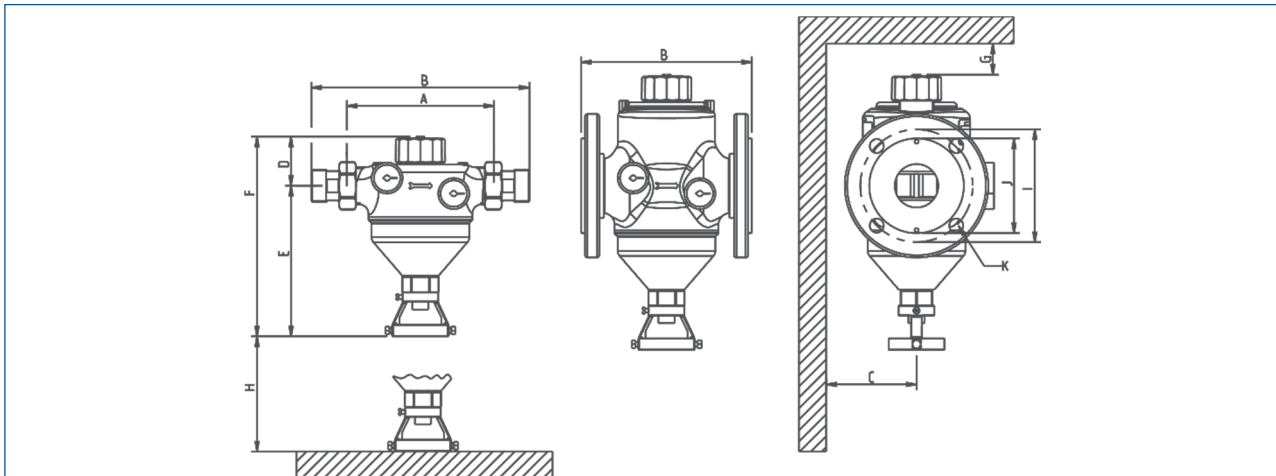
### Technical specifications III

#### Pressure loss curves of GENO® MX / MXA DN 65, DN 80 and DN 100 backwash filters



Item	Designation	Item	Designation
1	Differential pressure in bar	2	Flow rate in m³/h

Technical specifications IV



GENO® MX backwash filter							
Connection diameter	1"	1¼"	1½"	2"			
Nominal connection diameter					DN 65	DN 80	DN 100
Order no.	107 400	107 405	107 410	107 415	107 420	107 425	107 430

Dimensions and weights								
A: Installation length without screw connection	[mm]	190	190	206	206	-	-	-
B: Installation length with screw connection	[mm]	276	281	342	323	-	-	-
B: Installation length without counter flanges Flanges PN 16 acc. to DIN	[mm]	-	-	-	-	220	250	250
C: Min. distance to wall	[mm]	80	80	82	82	93	100	110
D: Overall height above centre of connection	[mm]	63	63	143	143	143	153	153
E: Overall height from lower edge of filter to centre of connection	[mm]	194	194	212	212	212	302	302
F: Total height	[mm]	257	257	355	355	355	455	455
G: Space above upper edge of filter	[mm]				80			
H: Space required for replacing filter element	[mm]	100	100	minimum 100 optimum from 215		minimum 100 optimum from 315		
I: Bolt circle diameter of flange	[mm]	-	-	-	-	145	160	180
J: Max. sealing surface	[mm]	-	-	-	-	122	140	158
K: Number of M 16 screws	[pcs]	-	-	-	-	4	8	8
Empty weight	[kg]	5.6	5.7	9.7	9.7	11.8	16	17

• **Product Data Sheet**

GENO®-MX 1" - MX DN 100 backwash filter

**Technical specifications V**

GENO® MX backwash filter							
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Nominal connection diameter					DN 65	DN 80	DN 100
Order no.	107 400	107 405	107 410	107 415	107 420	107 425	107 430

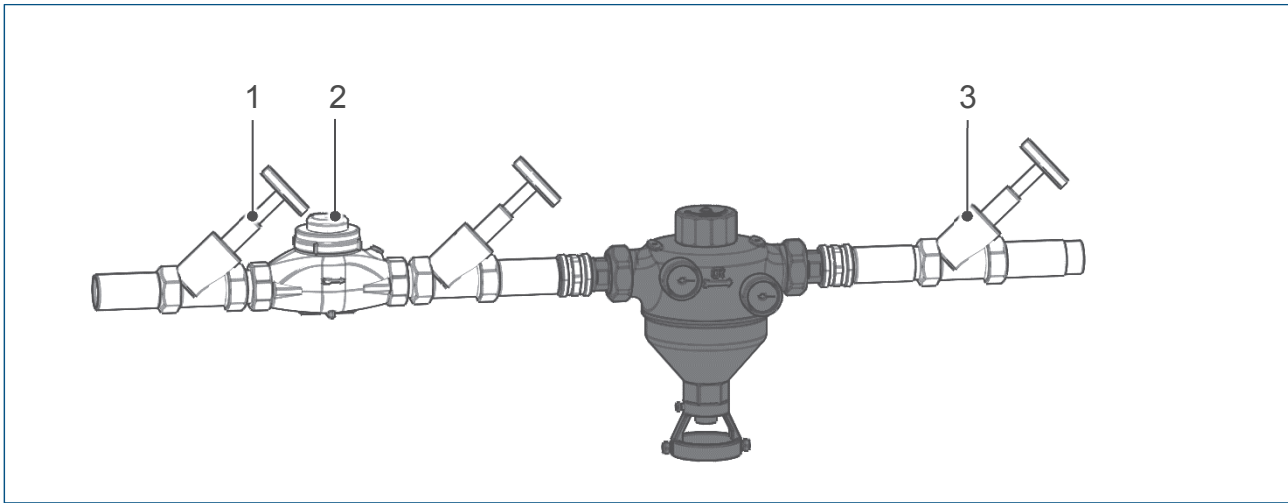
Connection data	
Drain connection HT pipe	DN 50

Performance data								
Flow rate at Δp 0.2 (0.5) bar	[m³/h]	8.5(13)	12(18.5)	22(30)	27(38.5)	30(47)	60(96.5)	60(98)
Kv-value	[m³/h]	18	25	46	56	69	124	138
Pore size	[µm]				100			
Largest/smallest pore size according to DIN EN 13443	[µm]				110/90			
Nominal pressure					PN 16			
Minimum flow pressure	[bar]				2			
Operating pressure at max. water temperature	[bar/°C]				10/90			

Consumption data		
Backwash water volume at a water pressure of 3 bar and a backwash time of 1.5 min., approx.	[l]	40
Max. backwash volume flow at 9 bar, approx.	[m³/h]	4

General		
DVGW registration number		NW-9301BO0194
Max. water temperature	[°C]	90
Max. ambient temperature	[°C]	40

## Installation example



Item	Designation	Item	Designation
1	Shut-off valve 1	3	Shut-off valve 2
2	Water meter		

### Requirements with regard to the installation site

Observe local installation directives, general guidelines and technical specifications.

### Spare parts

On request.

### Requirements with regard to the water connection

- Drain water connection DN 50 to discharge the rinsing water
- Floor drain or a corresponding safety device

Install the product where it is not exposed to:

- Strong heat
- Frost
- Direct sunlight
- Chemicals, dyes, solvents and their vapours
- Negative pressure
- Coarse impurities. In case of coarse impurities, install a coarse dirt filter upstream of the inlet.

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### Contact

Grünbeck Wasseraufbereitung GmbH  
Josef-Grünbeck-Strasse. 1  
89420 Hoechstädt/Germany

☎ +49 9074 41-0

☎ +49 9074 41-100

✉ info@gruenbeck.com  
www.gruenbeck.com