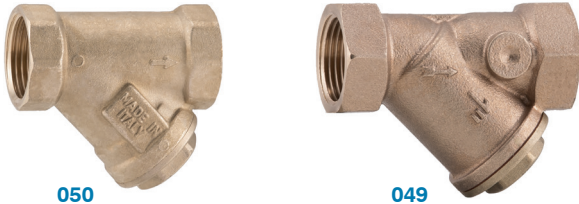


Y-FILTERS

Description



Barberi[®] impurity collecting filters are components with cylindrical filtering cartridge, that can be easily removed and inspected for normal cleaning and maintenance operations. They are used in domestic water installations, booster pump systems, heating systems, central heating systems, heat generators (wall-mounted boilers, solid fuel generators, heat pumps), thermal solar installations, generic industrial and agricultural water systems.

Range of products

- Series 050** Brass Y-filter - FF - stainless steel filtering cartridge
Series 049 Bronze Y-filter - FF - stainless steel filtering cartridge

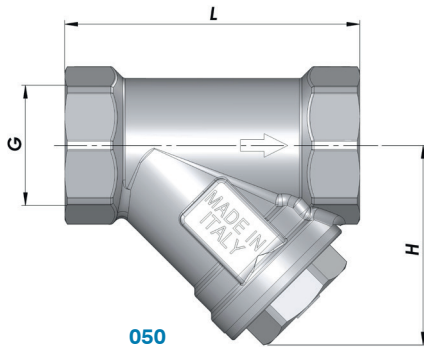
Features

Working temperature range (peaks): **-20–110 °C**
 Working temperature range: **0 (no frost)–95 °C**
 Max. working pressure: **16 bar**
 Suitable fluids: **water for thermal systems, glycol solutions (max 30%), domestic water (only 050 series)**
 Threaded connections: **ISO 228-1**
 Tests: **EN 12266-1 §A.3**
 On request:
 Different mesh types
 Viton gaskets
 Nickel-plated surface

Materials

Body:
 050: - G 1/4 F–G 1 1/4 F: **brass EN 12165 CW617N**
 - G 1 1/2 F–G 2 F: **brass EN1982 CB753S**
 - G 2 1/2 F: **brass EN1982 CB754S**
 049: **bronze EN 1982 CB491K**
 Cartridge: **stainless steel AISI 304L**
 Plug: **brass EN 12165 CW617N**
 Gaskets:
 050: **EPDM**
 049: **Fiber (G 3/8 F–G 2 1/2 F), NBR (G 3 F–G 4 F)**

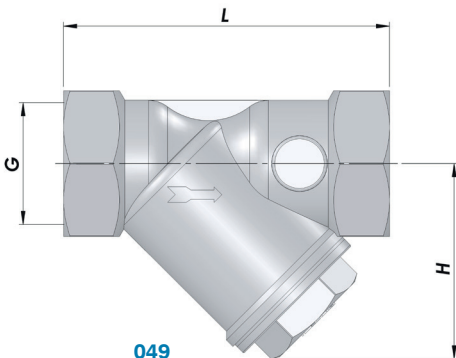
Dimensions



050

Code	G	Kv [m3/h]	H [mm]	L [mm]	Mesh type	Weight [g]	N. P/B	N. P/C
050008000	G 1/4 F	1,6	33	48	A	140	20	80
050010000	G 3/8 F	3	33	48	A	120	25	200
050015000	G 1/2 F	4,5	34	52	A	115	20	160
050020000	G 3/4 F	7	42	63	A	185	14	84
050025000	G 1 F	7,8	50	75	A	320	10	60
050032000	G 1 1/4 F	15	63	91	A	515	5	30
050040000	G 1 1/2 F	21	70	102	A	665	4	24
050050000	G 2 F	34	87	118	A	1195	2	12
050065000	G 2 1/2 F	64	108	150	A	1930	-	8

N. P/B: number of pieces in box - N. P/C: number of pieces in carton



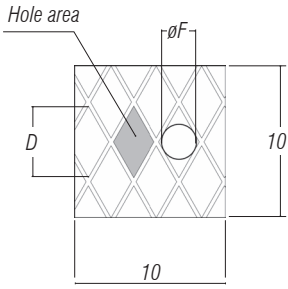
049

Code	G	Kv [m3/h]	H [mm]	L [mm]	Mesh type	Weight [g]	N. P/B	N. P/C
049010000	G 3/8 F	1,4	32	54	B	250	10	80
049015000	G 1/2 F	3,3	42	65	B	250	10	80
049020000	G 3/4 F	5,6	45	85	B	360	15	60
049025000	G 1 F	7,9	47	92	B	450	10	40
049032000	G 1 1/4 F	12,9	65	105	B	744	5	30
049040000	G 1 1/2 F	15,8	72	115	B	915	4	24
049050000	G 2 F	19	98	131	B	1560	2	12
049065000	G 2 1/2 F	55	124	147	B	2765	-	8
049080000	G 3 F	81	148	167	B	3715	-	5
049100000	G 4 F	102	185	226	B	7000	-	2

N. P/B: number of pieces in box - N. P/C: number of pieces in carton

Mesh type A: STANDARD CARTRIDGE

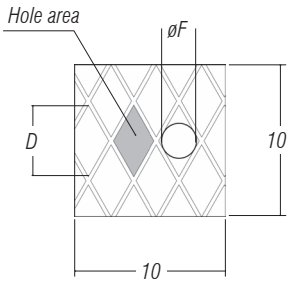
ON REQUEST



n° holes/cm ²	70	270	24
Hole area	0,25 mm ²	0,025 mm ²	1,0 mm ²
D	1,0 mm	0,5 mm	2,0 mm
øF	0,50 mm (500 µm)	0,3 mm (300 µm)	1,0 mm (1000 µm)
Size	G 1/4 - G 2 1/2	G 1/2 - G 2	G 1/2 - G 2

Regarding the values of Hole area, D and øF, consider a tolerance of about ±15%

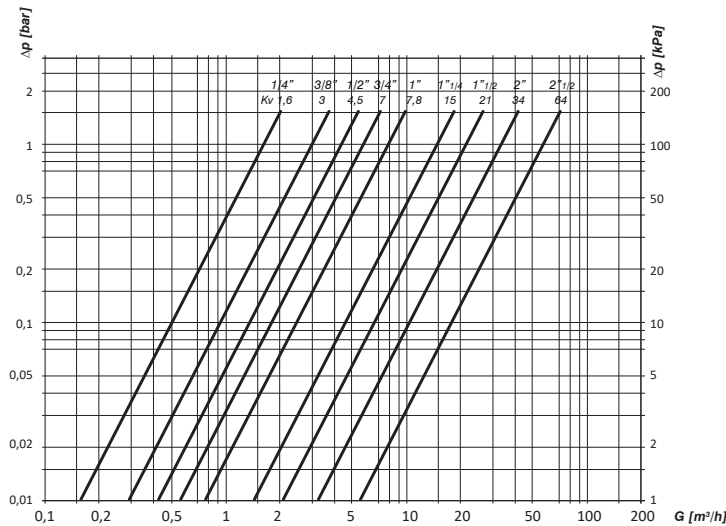
Mesh type B: STANDARD CARTRIDGE



n° holes/cm ²	65	70	50
Hole area	0,18 mm ²	0,25 mm ²	0,64 mm ²
D	1,0 mm	1,0 mm	1,0 mm
øF	0,40 mm (400 µm)	0,50 mm (500 µm)	0,80 mm (800 µm)
Size	G 3/8 - G 1	G 1 1/4 - G 2	G 2 1/2 - G 4

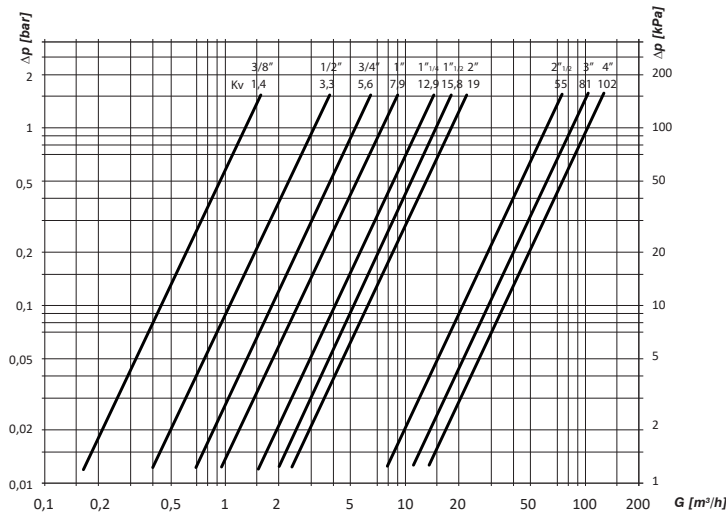
Regarding the values of Hole area, D and øF, consider a tolerance of about ±15%

Diagrams



050

Code	G	Kv [m ³ /h]
050008000	G 1/4 F	1,6
050010000	G 3/8 F	3
050015000	G 1/2 F	4,5
050020000	G 3/4 F	7
050025000	G 1 F	7,8
050032000	G 1 1/4 F	15
050040000	G 1 1/2 F	21
050050000	G 2 F	34
050065000	G 2 1/2 F	64



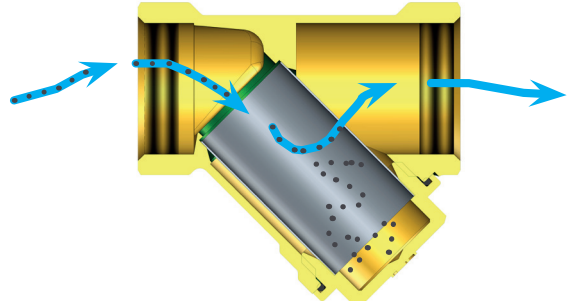
049

Code	G	Kv [m ³ /h]
049010000	G 3/8 F	1,4
049015000	G 1/2 F	3,3
049020000	G 3/4 F	5,6
049025000	G 1 F	7,9
049032000	G 1 1/4 F	12,9
049040000	G 1 1/2 F	15,8
049050000	G 2 F	19
049065000	G 2 1/2 F	55
049080000	G 3 F	81
049100000	G 4 F	102

Working way

Y-filter with metal mesh prevents impurities from entering the pipes and, by depositing, reducing bores, thus increasing head losses and giving origin to oxidation phenomena. This kind of filter should always be installed upstream of all other components that could be damaged or their performance reduced by the presence of impurities. It is usually installed at the water supply inlet before check valves, backflow preventers and pressure reducing valves. It is also used in closed heating circuits at the heat generator inlet to protect heat exchangers from impurities coming from the system. Impurities, depositing inside heat exchangers, reduce the heat exchange and decrease both their performance and life.

The **Barberi** Y-filter is composed of a metal body for pipe connection, a metal mesh for impurity filtering and a plug to remove the filtering mesh for maintenance. The filtering mesh holds particles with a dimension bigger than that of its holes; particles are partially held or fall towards the body bottom. The filter body is designed so as to use all the filtering mesh surface, thus increasing working times before the mesh gets totally dirty. When necessary, it's possible to remove the filtering cartridge and wash it with counter-current water to fully clean its passage surface.



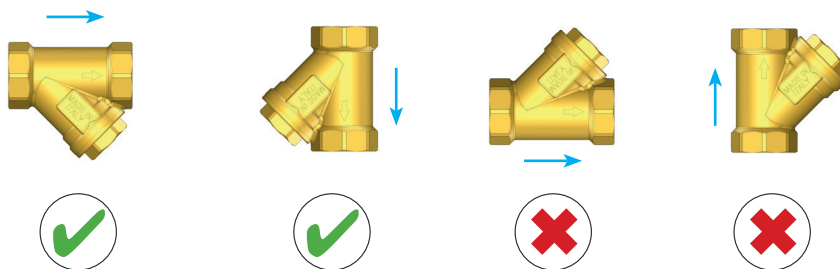
Installation

Before installing the valve, please verify system working conditions, such as pressure and temperature, to be sure they are within the working conditions of the filter. It is important that the filter is free from obstacles for its periodical maintenance.

Positioning

For a better efficiency of the filtering operation and impurity deposit function, it is suggested to install the filter body on horizontal pipes with the plug pointing downwards or on vertical pipes with the flow direction downwards.

For a correct installation please refer to the flow direction indicated by the arrow on the valve body. Connection to pipes is made through threads using standard plumbing procedures.

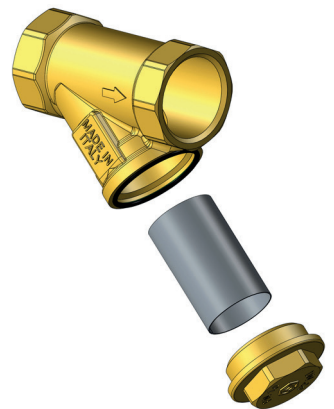


Maintenance

Filter maintenance should be performed according to the quantity of impurities present in the fluid. Anyway, it is suggested to clean the filter at least once a year to avoid, besides an excessive system flow rate reduction, irreversible encrustations which can lead to the filtering mesh replacement. To clean the metal mesh, follow these steps:

- close the shut-off valves upstream and downstream of the filter;
- open the mesh holder plug and extract the metal mesh;
- clean the metal mesh with water by using a plastic bristle brush;
- check if the filter surface is completely cleaned (in case of irreversible encrustations or the filter is broken, replace it);
- assemble the mesh on the plug and screw the plug on the filter body;
- open the shut-off valves.

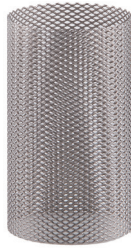
Warning! In new installations or usually after the system filling phase, it is suggested to clean the filter after the first working week to remove residual debris due to the installation operations (shavings, sealing materials).



Accessories

050.2

Stainless steel spare filtering cartridges for code 050, P21, P22.



Code	Size	Mesh type		
050 015 002	for filter G 1/4 F, G 3/8 F, G 1/2 F	A	-	-
050 020 002	for filter G 3/4 F	A	-	-
050 025 002	for filter G 1 F	A	-	-
050 032 002	for filter G 1 1/4 F	A	-	-
050 040 002	for filter G 1 1/2 F	A	-	-
050 050 002	for filter G 2 F	A	-	-
050 065 002	for filter G 2 1/2 F	A	-	-
050 080 002	for filter G 3 F	B	-	-
050 100 002	for filter G 4 F	B	-	-

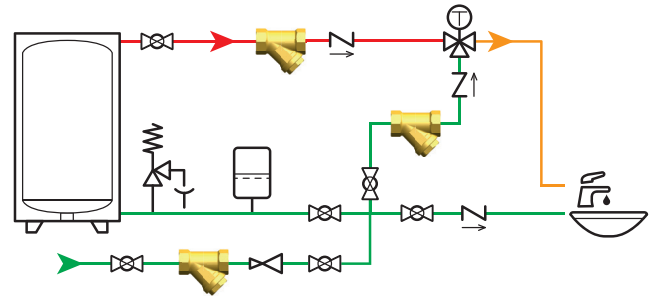
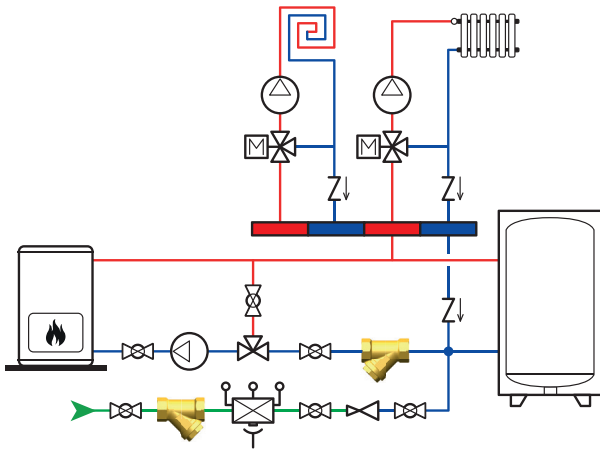
049.1

Stainless steel spare filtering cartridges for code 049



Code	Size	Mesh type		
049 015 001	for filter G 3/8 F, G 1/2 F	B	-	-
049 020 001	for filter G 3/4 F	B	-	-
049 025 001	for filter G 1 F	B	-	-
049 032 001	for filter G 1 1/4 F	B	-	-
049 040 001	for filter G 1 1/2 F	B	-	-
049 050 001	for filter G 2 F	B	-	-
049 065 001	for filter G 2 1/2 F	B	-	-
050 080 002	for filter G 3 F	B	-	-
050 100 002	for filter G 4 F	B	-	-

System diagrams



Specifications

Series 050

Brass Y-filter with female connections. Threaded connections from G 1/4 F to G 2 1/2 F. Body and plug in brass. Filtering cartridge in stainless steel. EPDM gaskets. Working temperature range 0–95 °C. Maximum working pressure 16 bar. Mesh size 500 µm. Suitable fluids water for thermal systems, glycol solutions (max 30%), domestic water.

Series 049

Bronze Y-filter with female connections. Threaded connections from G 3/8 F a G 4 F. Bronze body, brass plug. Filtering cartridge in stainless steel. Fiber gasket. Working temperature range 0–95 °C. Maximum working pressure 16 bar. Mesh size 400 µm (from G 3/8 F to G 1 F) 500 µm (from G 1 1/4 F to G 2 F) 800 µm (from G 2 1/2 F to G 4 F). Suitable fluids water for thermal systems, glycol solutions (max 30%).

