

IMPURITY COLLECTING T-FILTER



Description

Barberi® impurity collecting filters are components with cylindrical cartridge, which can be easily extracted and inspected for normal cleaning and maintenance operations. They are used in heating circuits, central heating systems, heat generators (wall-mounted boilers, solid fuel generators, heat pumps), thermal solar systems, generic industrial and agricultural systems. Advantages of V70 filter:

- T-shape compact body
- suitable also for vertical pipe, preferably with upward flow direction: the body T-shape makes the particles accumulate between the mesh and the body itself, limiting their backflow.

Range of products

Series V70 Impurity collecting T-filter for vertical and horizontal applications

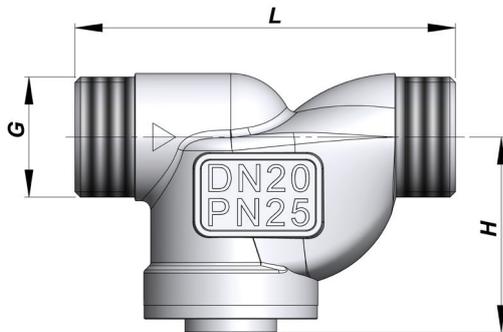
Features

Working temperature range: **0 (no frost)–110 °C**
 Max working pressure: **25 bar**
 Suitable fluids: **water for thermal systems, glycol solutions (max 50%), domestic water**
 Connections: **threaded connections ISO 228-1**
 Test: **EN 12266-1 §A.3**

Materials

Body: **DZR brass CC770S**
 Plug: **DZR brass CW626N**
 Cartridge: **stainless steel AISI 304 L**
 Seals: **EPDM**

Dimensions



Code	P [bar]	G	H [mm]	L [mm]	Mesh type	Weight [g]	N. P/B	N. P/C
V70A20000	25	G 3/4 M	43	83	A	332	-	-

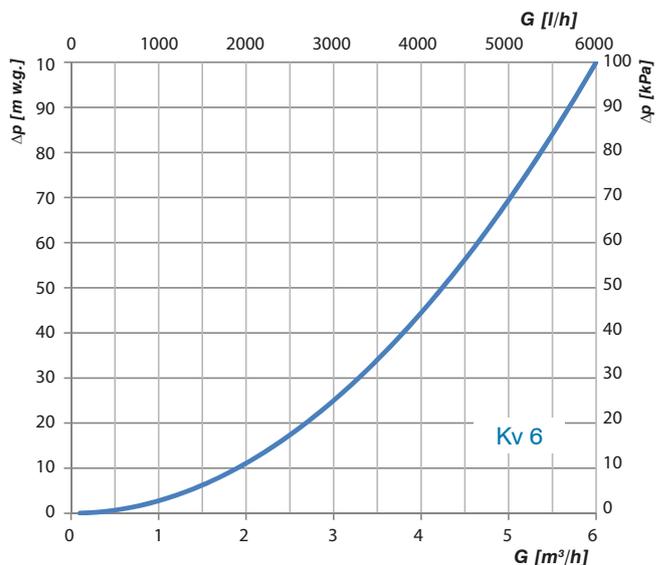
N. P/B: number of pieces in box - N. P/C: number of pieces in carton

Mesh type A:

	nr. holes/cm ²	70
	Hole area	0,25 mm ²
	D	1,0 mm
	øF	0,50 mm (500 µm)
	Size	G 3/4

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

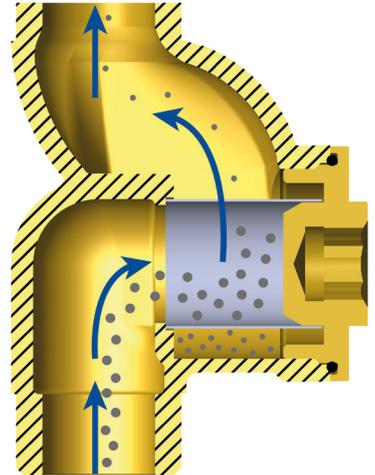
Diagrams



IMPURITY COLLECTING T-FILTER

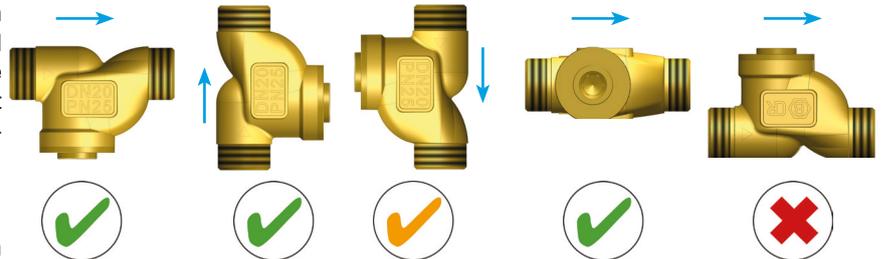
Working way

Filter with metal mesh avoids impurities, circulating within systems, from depositing along pipes, reducing bores, increasing head losses and oxidation phenomena. The filter is installed upstream of all system components which can be damaged or get inefficient due to the presence of impurities. In domestic water systems, it is usually installed at the mains supply, before check valves, backflow preventers, pressure reducing valves and thermostatic mixing valves. In closed heating systems, it is placed at the heat generator inlet to protect heat exchangers from impurities coming from the system. Impurities, depositing on the heat exchangers, lower the thermal exchange performance, reducing the efficiency and shortening their life. The Barberi T-filter is composed of a metal body, a metal filtering mesh placed at 90° with respect to the flow direction (T-shape body) and a mesh holder plug to access to the filtering mesh in case of maintenance. The filtering mesh holds the particles with dimensions over its metal mesh size: some of the particles remain trapped within the mesh, the remaining part falls toward the filter bottom or toward the space between the mesh and the body when the filter is installed in vertical position. The filter body is designed to use all the mesh filtering area, thus prolonging the working periods before being completely clogged. When necessary, it is possible to extract the mesh and clean it with countercurrent water to restore the 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 upwards.

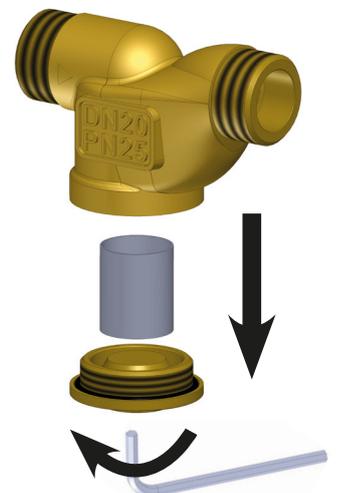
For a correct installation please refer to the flow direction indicated by the arrow on the valve body. Connection to pipes is made through threads using standard plumbing procedures.

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 that 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).



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Accessories

V70.3

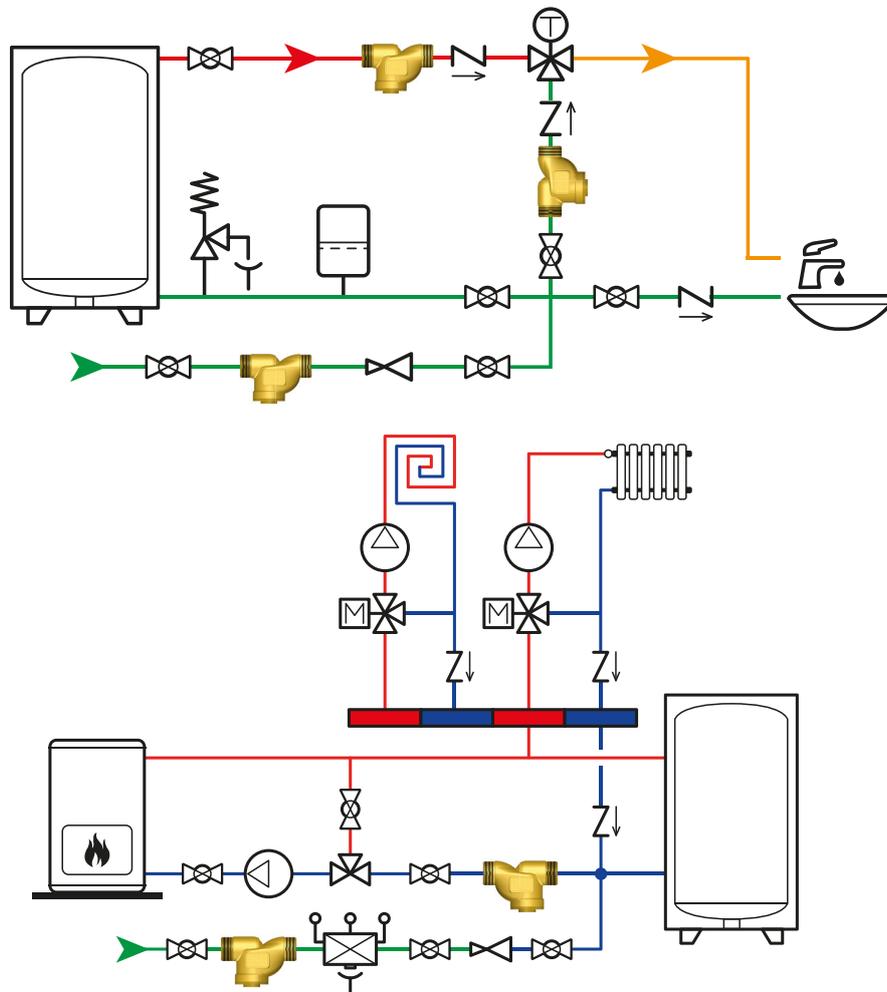
Stainless steel spare filtering cartridges for code V70

Mesh type: *see chapter beginning*



Code	Mesh type		
V70 020 003	A	-	-

System diagrams



Specifications

Series V70

Impurity collecting T-filter for vertical and horizontal applications. G 3/4 M connections. Dezincification resistant alloy body and plug, stainless steel filtering mesh, EPDM gaskets. Max working pressure 25 bar, working temperature range 0–110 °C. Flow coefficient Kv 6. Minimum diameter of the filtered particles 500 μm.