



DESCRIPTION

# 51FS

F x F heavy duty ballvalve **Filterball®** with integrated strainer FM28. Very easy to inspect and maintain.

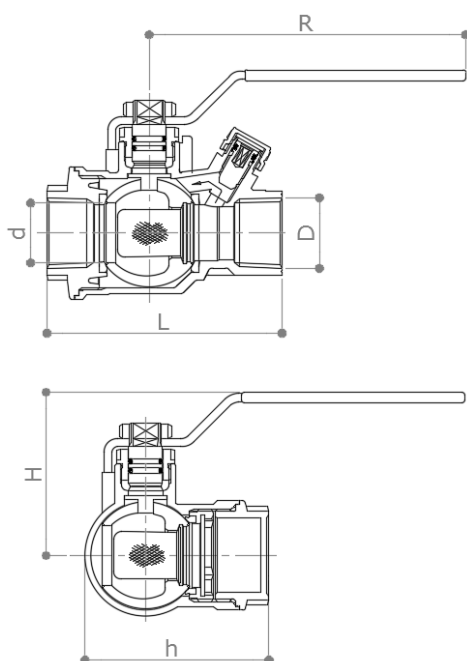
With integrated cleaning system of the filter. Drain valve not included. Install the valve according to arrow.

Reversible blue steel handle.

Made of DZR alloy.

Conform to **EN 13828** standard

DIMENSIONS



D	½"	¾"	1"	1 ¼"	1 ½"	2"
d	22.5	22.5	28.5	35.5	45	56
H	61	61	66	82	89	120
h	46.5	46.5	53	62	76.5	95
l	16	17.5	21.5	23.5	23.5	28
L	88.5	88.5	106.5	123	138.5	168
R	120	120	120	150	150	200
<b>Weight [g]</b>	875	815	1225	2035	2970	5675

Dimensions in mm

All threads are conform to ISO 7 or ISO 228 standards



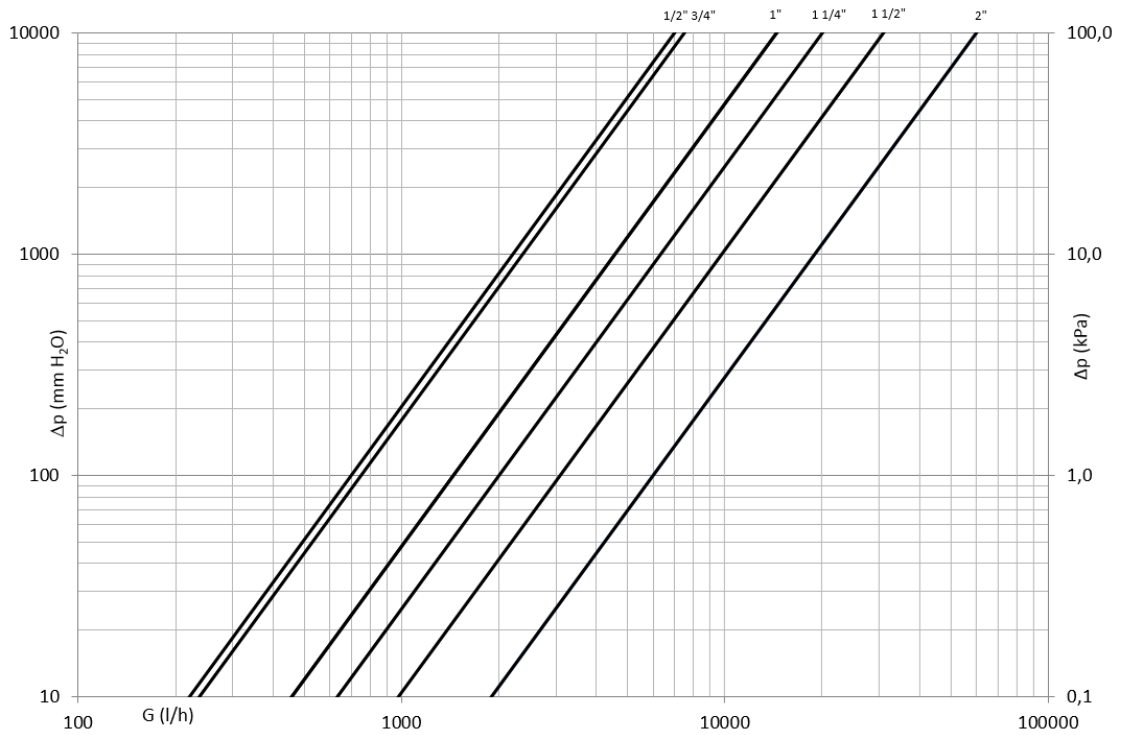
MATERIALS

- Body** CW602N (EN 12167) CuZn36Pb2As
- Ball** CW602N (EN 12167) CuZn36Pb2As Chrome plated
- Stem** CW602N (EN 12167) CuZn36Pb2As
- Stuffing box** CW614N (EN 12164) CuZn39Pb3 Adjustable
- Strainer** Stainless steel
- Seeger** Phosphoric bronze
- Seat** 2 x PTFE + 1 x PTFE on the stem
- Screw** CW614N (UNI EN 12164) CuZn39Pb3
- Shutter** CW614N (UNI EN 12164) CuZn39Pb3
- O-Rings** 2 x FKM
- Handle** Delta Protect coated steel. PVC grip with "Pad printing"

APPROVALS



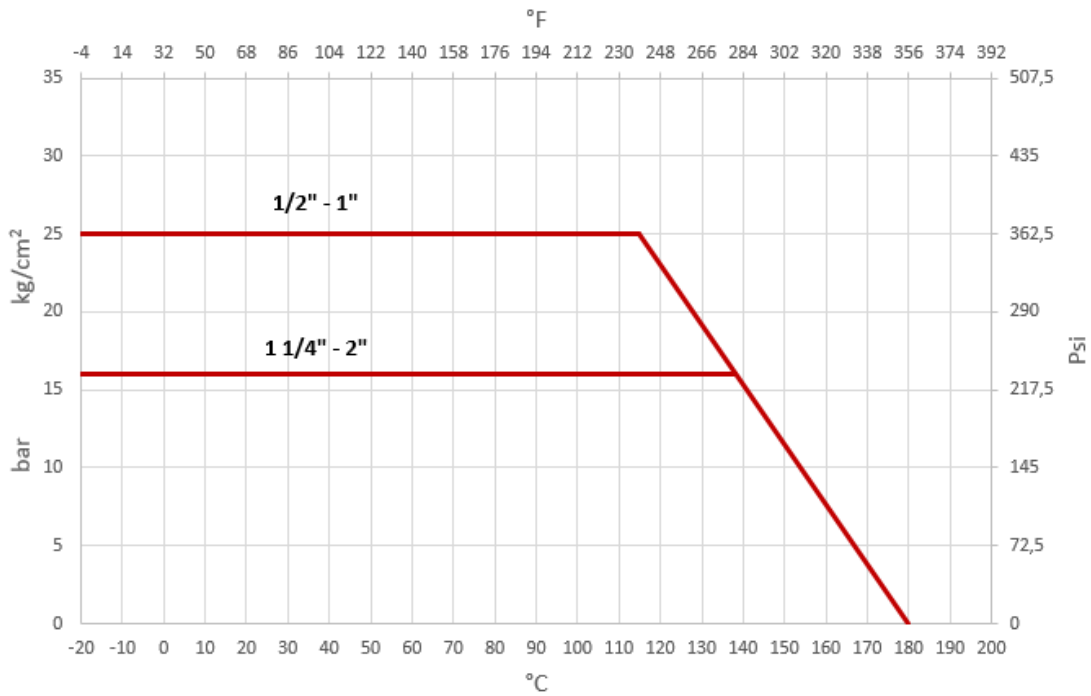
**PRESSURE DROP DIAGRAM**



Dim.	½"	¾"	1"	1 ¼"	1 ½"	2"
Kv	7	7.5	14.5	20	31	60
PN	25	25	25	16	16	16

Kv values got by using FM28 strainer.

**TEMPERATURE / PRESSURE DIAGRAM**



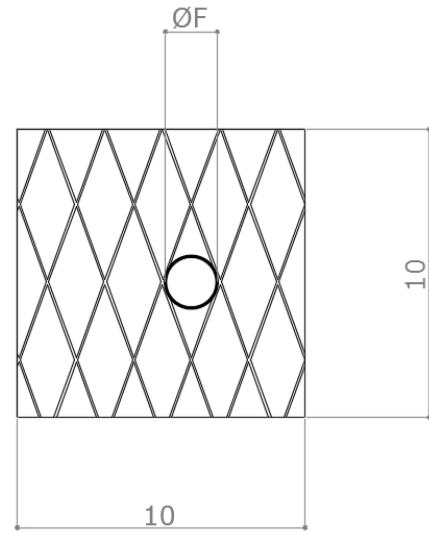
**RECOMMENDED WORKING TEMPERATURE/PRESSURE LIMITS**

- 16 bar – 100°C – non shock
- 10 bar – 150°C – non shock
- Max differential pressure: 10 bar

AVAILABLE STRAINERS

Here the table with all the available strainers:

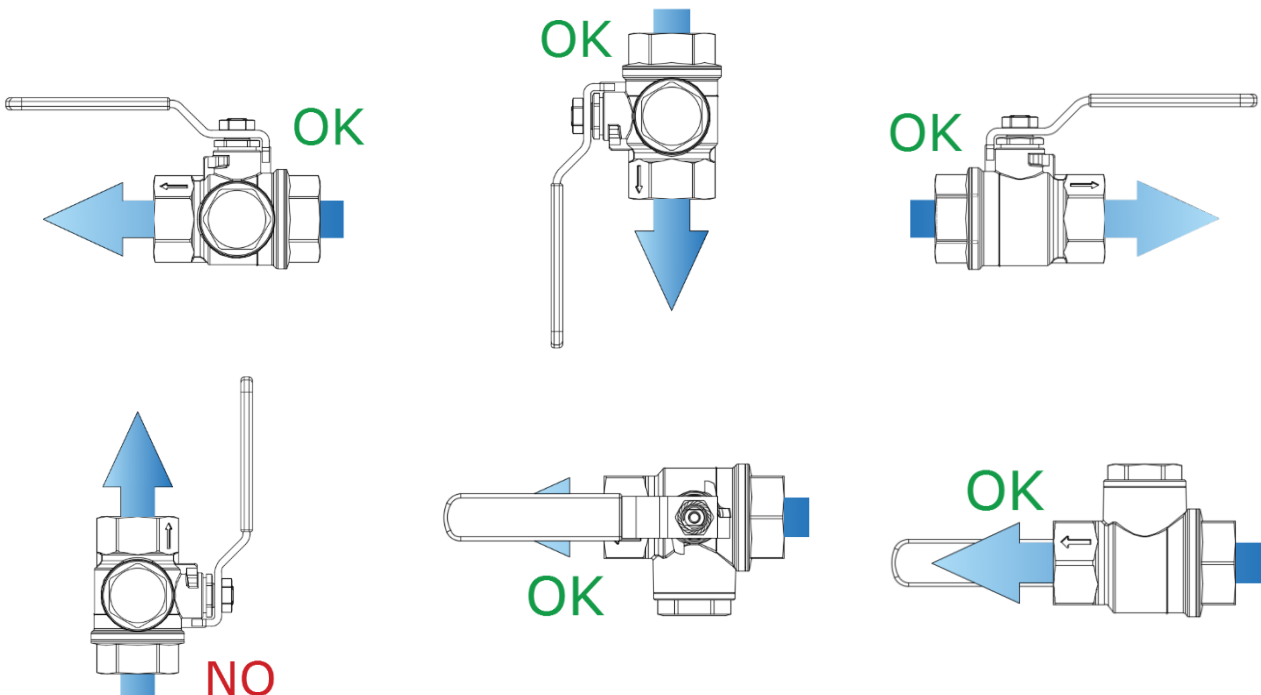
Type	Mesh per linear 1"	Filtering capacity	Casing
FM020	20	Ø 800 µm (0,8 mm)	Single
FM028	28	Ø 700 µm (0,7 mm)	Single
FM040	40	Ø 300 µm (0,3 mm)	Single
FM060	60	Ø 230 µm (0,23 mm)	Double
FM080	80	Ø 180 µm (0,18 mm)	Double
FM100	100	Ø 150 µm (0,15 mm)	Double



Pressure loss – Kv values

Type	½"	¾"	1"	1 ¼"	1 ½"	2"
FM020	7.4	7.8	15.3	21	33	64
FM028	7	7.5	14.5	20	31	60
FM040	5.2	5.4	12.1	18.6	28	45
FM060	4.4	4.6	11.4	18	27	40
FM080	4.8	5	11.4	18	25.5	44
FM100	4.4	4.6	9	17.7	25	43

INSTALLATION



**MAINTENANCE**

In order to avoid an increasing of pressure losses due to scales, a yearly strainer cleaning is suggested.

**CLEANING**

The valve **51FS** has got a special system to carry out the filter flushing: it avoids to take the filter out and clean it by hand. Please follow the procedure:

- Close the valve
- Open the screw (thread 1/4" NPT) on the side cap through a 6 mm Allen key. The drain valve is not included.
- Unscrew the flushing system cap and open the shutter with a 4 mm Allen key (1/2" to 1") or 6 mm (1 1/4" to 2"); **WARNING:** water and dirties begin to flow out from the side cap. It is suggested to put a bucket to collect the water.
- Once the cleaning is done, close the shutter and the protective cap. Close also the screw on the side cap.
- Open the valve.



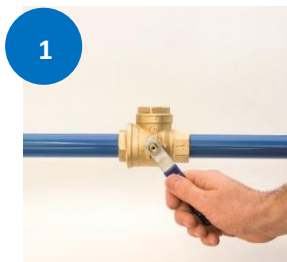
**Flushing (cleaning)**



**Normal operation**

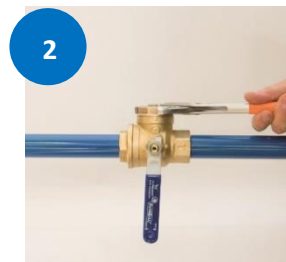
**REPLACEMENT**

Please follow the instruction below to carry out the strainer replacement:



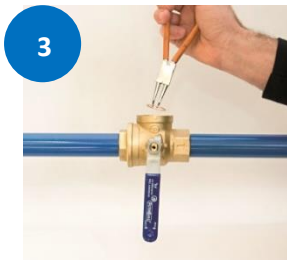
1

- Close the valve



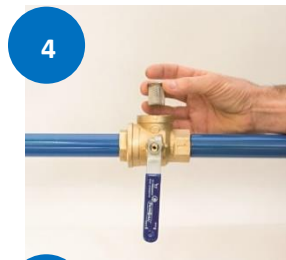
2

- Unscrew the inspection cap



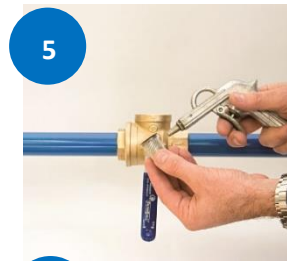
3

- Remove the Seeger ring



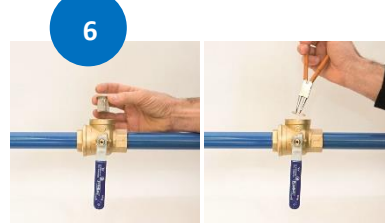
4

- Take the strainer out



5

- Clean or change the strainer



6

- Insert the strainer and lock it with Seeger ring



7

- Screw and close the cap



8

- Open the valve