



TECHNICAL CATALOGUE

# YORK<sup>®</sup> check and foot valves

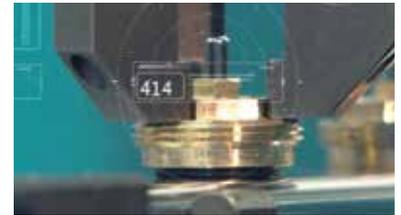


## > THE COMPANY

ITAP SpA, founded in Lumezzane (Brescia) in 1972, is currently one of the leading production companies in Italy of **valves, fittings and distribution manifolds** for plumbing and heating systems.

Thanks to fully automated production processes, with 72 tooling machines and 51 assembly lines, we are able to produce 200,000 pieces per day.

Our innate pursuit for innovation and observance of technical regulations is supported by the company certification ISO 9001. The company has always considered its focus on quality as the main tool to obtain significant business results: today ITAP SpA is proud to offer products bearing the approval of numerous international certifying bodies.



> ITAP products have obtained approvals by more than 30 certification bodies from all over the world.





> **GENERAL NOTES:**

Suitable for domestic water services, heating and air-conditioning plants, compressed air systems.  
They can be installed in any position: vertical, horizontal, oblique.

## > 103 YORK® check valve



SIZE	PRESSURE	CODE	PACKING
3/8" (DN 10)	12bar/174psi	1030038	10/200
1/2" (DN 15)	12bar/174psi	1030012	10/200
3/4" (DN 20)	12bar/174psi	1030034	8/128
1" (DN 25)	12bar/174psi	1030100	8/88
1"1/4 (DN 32)	10bar/145psi	1030114	6/54
1"1/2 (DN 40)	10bar/145psi	1030112	4/36
2" (DN 50)	10bar/145psi	1030200	2/28
2"1/2 (DN 65)	8bar/116psi	1030212	1/16
3" (DN 80)	8bar/116psi	1030300	1/12
4" (DN 100)	8bar/116psi	1030400	1/7

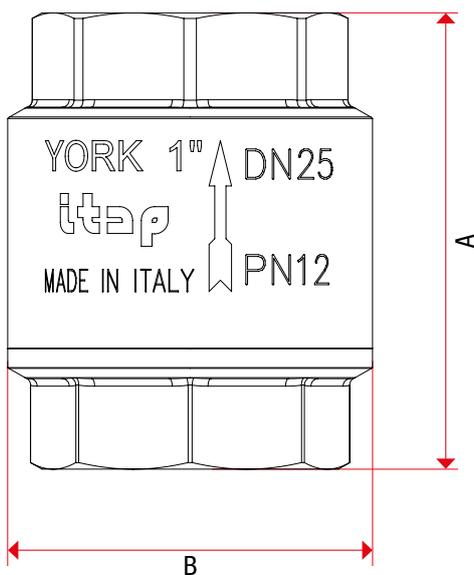
### > CERTIFICATIONS



### > TECHNICAL SPECIFICATIONS:

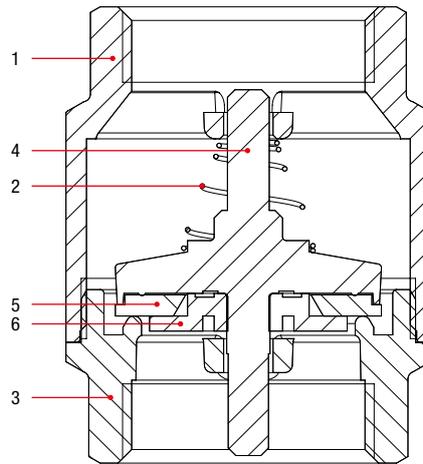
- Body in brass.
- Plate in polymer.
- Washer in NBR.
- Spring in stainless steel.
- Minimum and maximum working temperatures: -20°C, 100°C.
- Threads: ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).

### > OVERALL DIMENSIONS



	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
<b>DN</b>	10	15	20	25	32	40	50	65	80	100
<b>A</b>	46,5	48	53	60,5	66,5	74	80,5	98	103	118,5
<b>B</b>	35	35	42	48	59,5	70,5	86	103	126	154
<b>Kg/cm<sup>2</sup> bar</b>	12	12	12	12	10	10	10	8	8	8
<b>LBS - psi</b>	174	174	174	174	145	145	145	116	116	116

## > MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Body	1	Brass CW617N
2	Spring	1	Stainless steel AISI 302
3	End adapter	1	Brass CW617N
4	Pin	1	Polymer
5	Washer	1	NBR
6	Plate	1	Polymer

## > 108 YORK® foot valve



SIZE	PRESSURE	CODE	PACKING
3/8" (DN 10)	12bar/174psi	1080038	10/220
1/2" (DN 15)	12bar/174psi	1080012	10/220
3/4" (DN 20)	12bar/174psi	1080034	8/144
1" (DN 25)	12bar/174psi	1080100	8/120
1"1/4 (DN 32)	10bar/145psi	1080114	6/60
1"1/2 (DN 40)	10bar/145psi	1080112	4/48
2" (DN 50)	10bar/145psi	1080200	2/26
2"1/2 (DN 65)	6bar/87psi	1080212	1/25
3" (DN 80)	6bar/87psi	1080300	1/17
4" (DN 100)	6bar/87psi	1080400	1/10

## > CERTIFICATIONS



## > TECHNICAL SPECIFICATIONS:

Body in brass.

Plate in polymer.

Washer in NBR.

Spring in stainless steel.

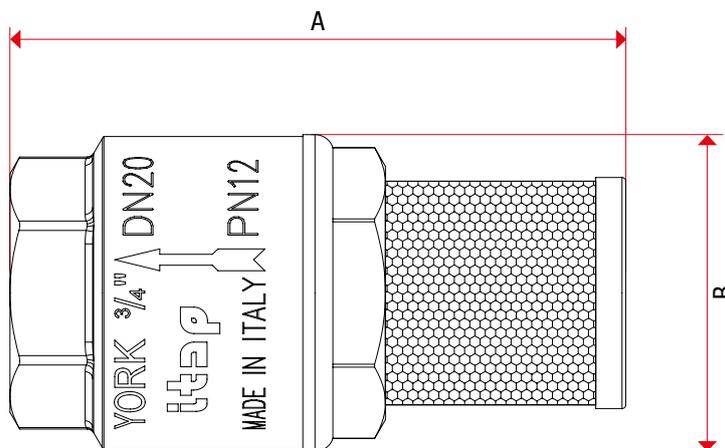
Strainer in polymer and stainless steel.

Filtration degree: 3/8" through 2": 1200µm; 2"1/2 through 4": 2000µm.

Minimum and maximum working temperatures: -20°C, 100°C.

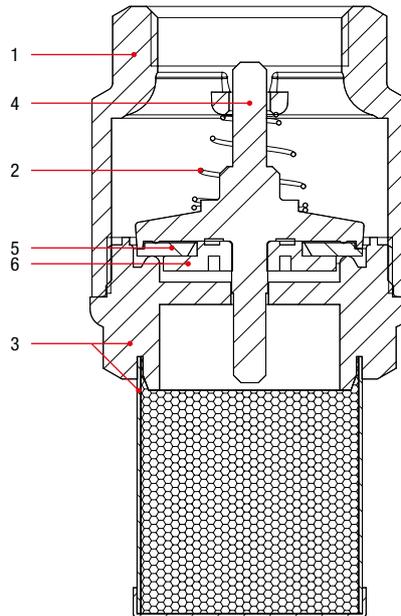
Threads: ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).

## > OVERALL DIMENSIONS



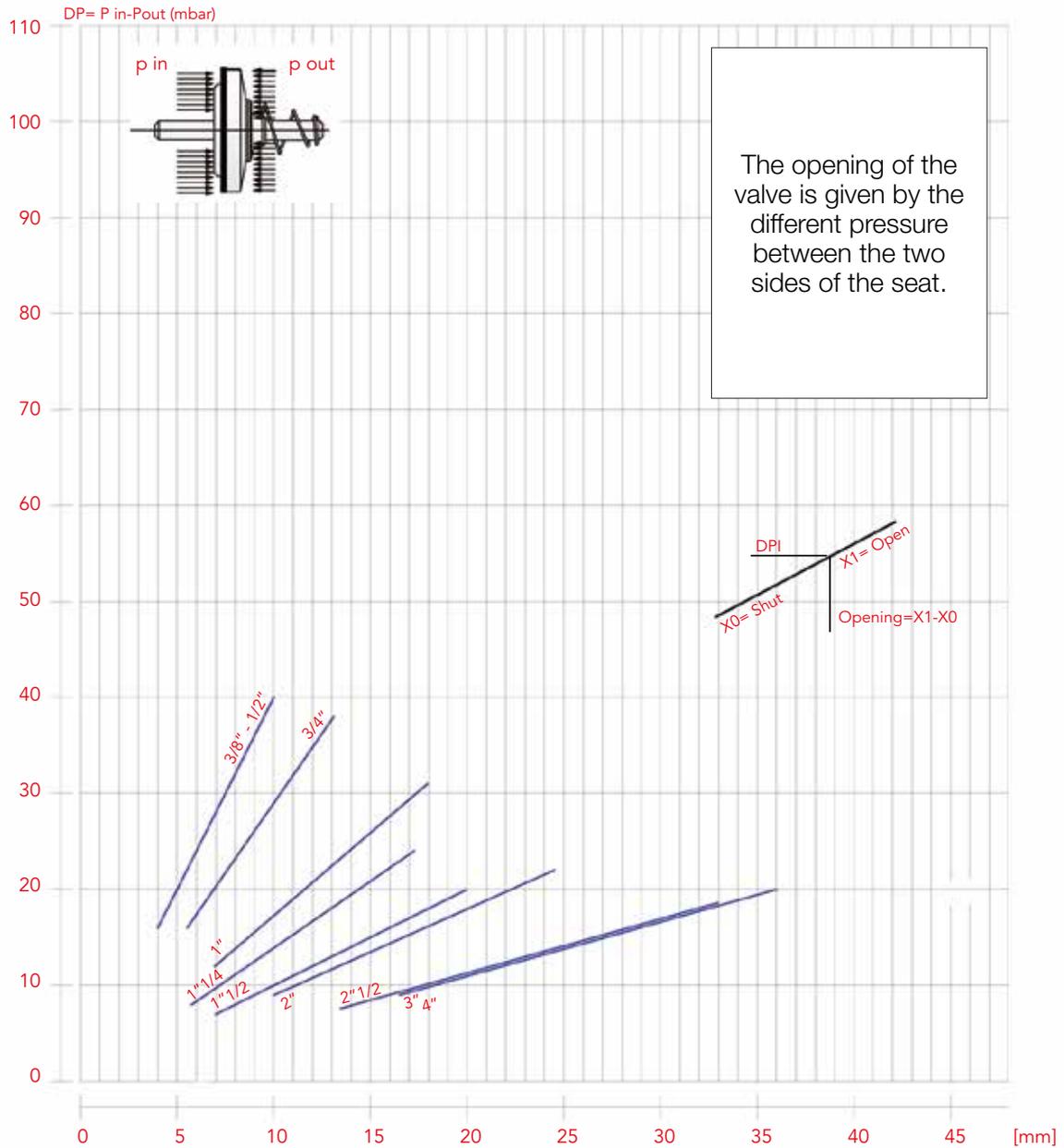
	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
<b>DN</b>	10	15	20	25	32	40	50	65	80	100
<b>A</b>	69,5	70	82	91,5	108	119	136,5	164,5	184,5	214,5
<b>B</b>	35	35	42	48	59,5	70,5	86	103	126	154
<b>Kg/cm<sup>2</sup> bar</b>	12	12	12	12	10	10	10	6	6	6
<b>LBS - psi</b>	174	174	174	174	145	145	145	87	87	87

## > MATERIALS

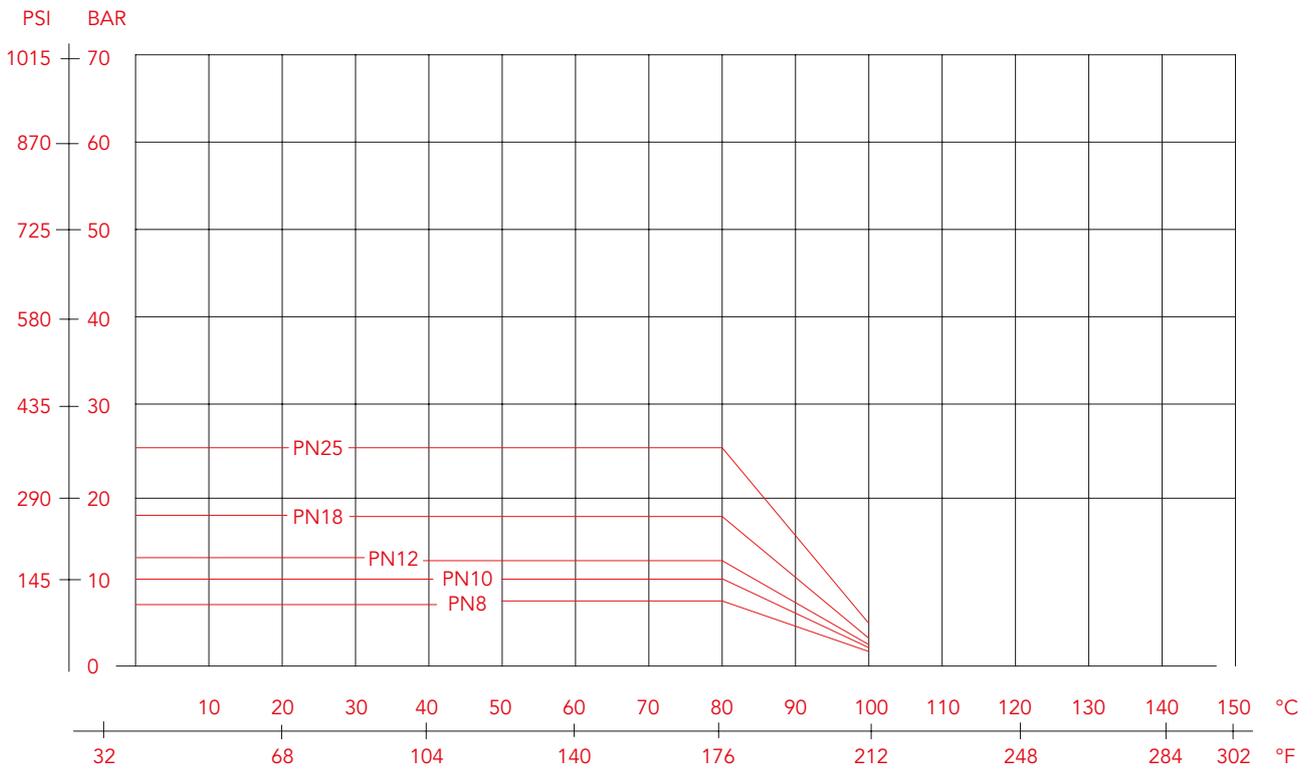


POS.	DESCRIPTION	N.	MATERIAL
1	Body	1	Brass CW617N
2	Spring	1	Stainless steel AISI 302
3	Strainer	1	Polymer and stainless steel AISI 304
4	Pin	1	Polymer
5	Washer	1	NBR
6	Plate	1	Polymer

## > DIAGRAM OF THE MINIMUM PRESSURE NEEDED TO GET THE VALVES OPENING

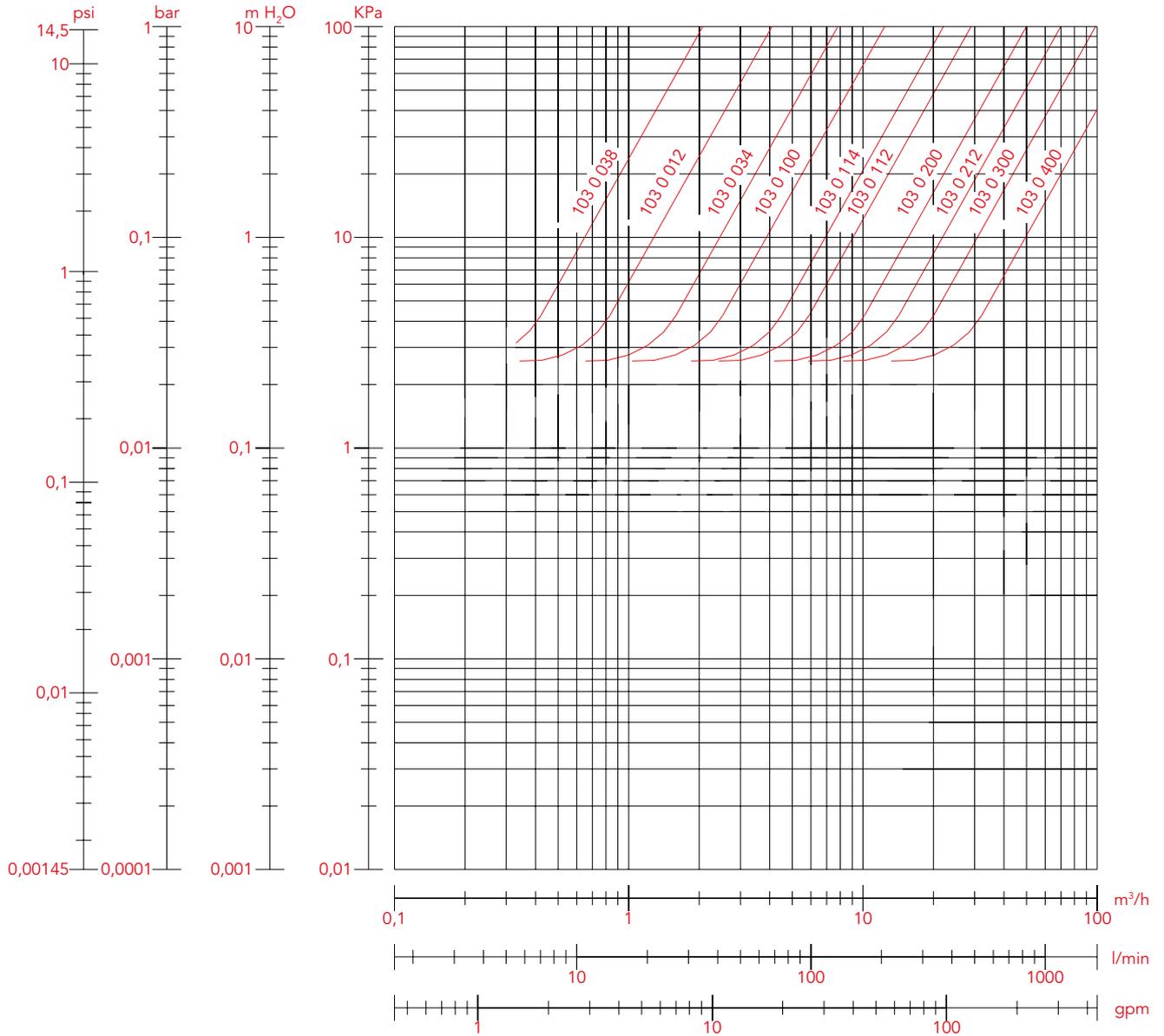


## > PRESSURE-TEMPERATURE DIAGRAM



The values shown by the dropping lines state the maximum limit of employment of the valves.  
The shown values are approximate.

## > LOSS DIAGRAM (With water)



	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
<b>Kv</b>	2,11	4,22	7,92	11,67	22,42	29,39	51,40	69,90	98,49	157,91

## > INSTALLATION

The YORK® check valves are uni-directional; that means they manage the flow in one direction only, which is indicated by the arrow on the body. The valves are composed by a spring, a little valve and a couple of parts made of brass (body and end-adapter) which contain them and that are assembled by means of thread and a sealed material to obtain their aim. In order to avoid that the sealed material gets broken and then the valve loses the connection between the body and the end-adapter, it's necessary to avoid to submit the two parts under the influence of a torque. For the installation normal hydraulic practices must be used, and especially:

- For a proper installation of the valve, near curves and circulation pumps, the valve must be mounted at a distance equal to 10 times the diameter of the pipe.
- The installer has to be sure that the two pipes are correctly aligned;
- During the assembling process the installer has to apply its assembling tools at the end that is nearest to the pipe;
- The application of the sealing materials by the fitter (PTFE or hempen cloth) must be limited at the thread zone. An excess should interfere in the ball gasket's closure zone, compromising the tightness;
- In case the fluid transported has got some impurities (dust, too hard water, and so on) it's necessary to remove impurities by or filter them, otherwise they could damage the seal.

### Disassembly the installed valve

To remove the valve from the pipe line or anyhow before unscrewing the connections linked:

- Wear the protective clothing normally required to work with carried fluids;
- Depressurize the line;
- During the disassembling process, apply the key at the end of the valve, the one nearest the pipe

### Maintenance

Verify the valve periodically, according to its application's field and its works' field and its work's conditions, in order to be sure that the valve works correctly. In case of losses of tightening, take note that these can be caused by a deposit of foreign bodies (dirty, calcareous) on the rubber seal. In order to solve this inconvenient, it's necessary to unmount the valve and remove the foreign body with compressed air tools.

## > 102 Strainer for EUROPA® YORK® BLOCK® ROMA® check valves



SIZE	CODE	PACKING
3/8" (DN 10)	1020038	30/1200
1/2" (DN 15)	1020012	30/900
3/4" (DN 20)	1020034	20/480
1" (DN 25)	1020100	20/280
1"1/4 (DN 32)	1020114	10/180
1"1/2 (DN 40)	1020112	10/140
2" (DN 50)	1020200	4/76
2"1/2 (DN 65)	1020212	1/62
3" (DN 80)	1020300	1/36
4" (DN 100)	1020400	1/20

### > CERTIFICATIONS



### > TECHNICAL SPECIFICATIONS:

Filtration degree: 3/8" through 2": 1200µm; 2"1/2 through 4": 2000µm.

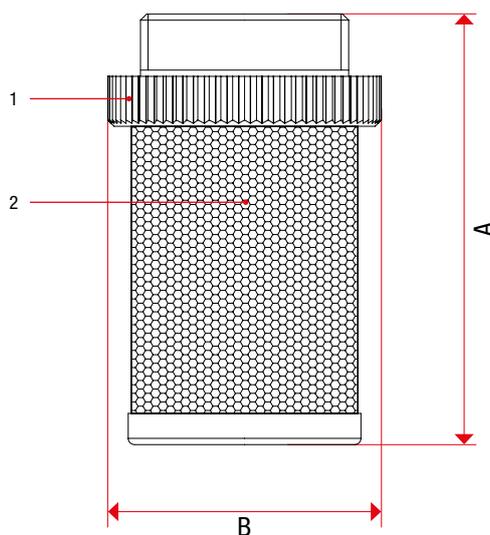
Strainer in stainless steel.

Threaded end in polymer.

Thread: ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).

Available also with NPT thread in the sizes 2"1/2, 3" and 4".

### > OVERALL DIMENSIONS and MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	End adapter	1	Polymer
2	Strainer	1	Stainless steel AISI 304

	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
A	42	47	57,5	69	75	83	98	123	138	152,5
B	25,5	29,5	36	43,5	50,5	56,5	69	86	102	129

## > 107 Strainer for EUROPA® YORK® BLOCK® ROMA® check valves



SIZE	CODE	PACKING
3/8" (DN 10)	1070038	50/1500
1/2" (DN 15)	1070012	40/1200
3/4" (DN 20)	1070034	35/840
1" (DN 25)	1070100	30/420
1"1/4 (DN 32)	1070114	20/280
1"1/2 (DN 40)	1070112	15/180
2" (DN 50)	1070200	8/112

### > CERTIFICATIONS



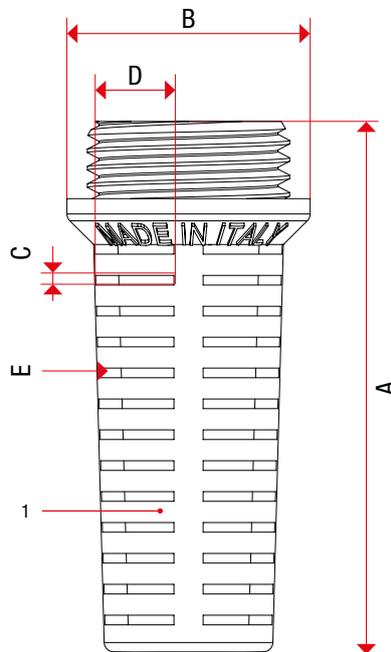
### > TECHNICAL SPECIFICATIONS:

Filtration degree: 1000µm.

Strainer in polymer.

Thread: ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).

### > OVERALL DIMENSIONS and MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Strainer	1	Polymer

	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
A	55,5	55	55,3	59	69,5	74	87,3
B	23	25	32	39	47	54	66
C	1	1	1	1	1	1	1
D	5,58	8,15	11,37	14,74	20,78	23,94	30,99
E (n.)	52	52	52	52	56	64	76



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