

STAINLESS STEEL PISTON CHECK VALVE



Certificate 3.1

Size : DN 1/4" to 3"
Ends : Female-Female BSP
Min Temperature : - 20°C
Max Temperature : + 200°C
Max Pressure : 50 Bars
Specifications : Piston type
All positions
PTFE seat

Materials : Stainless steel ASTM A351 CF8M

STAINLESS STEEL PISTON CHECK VALVE

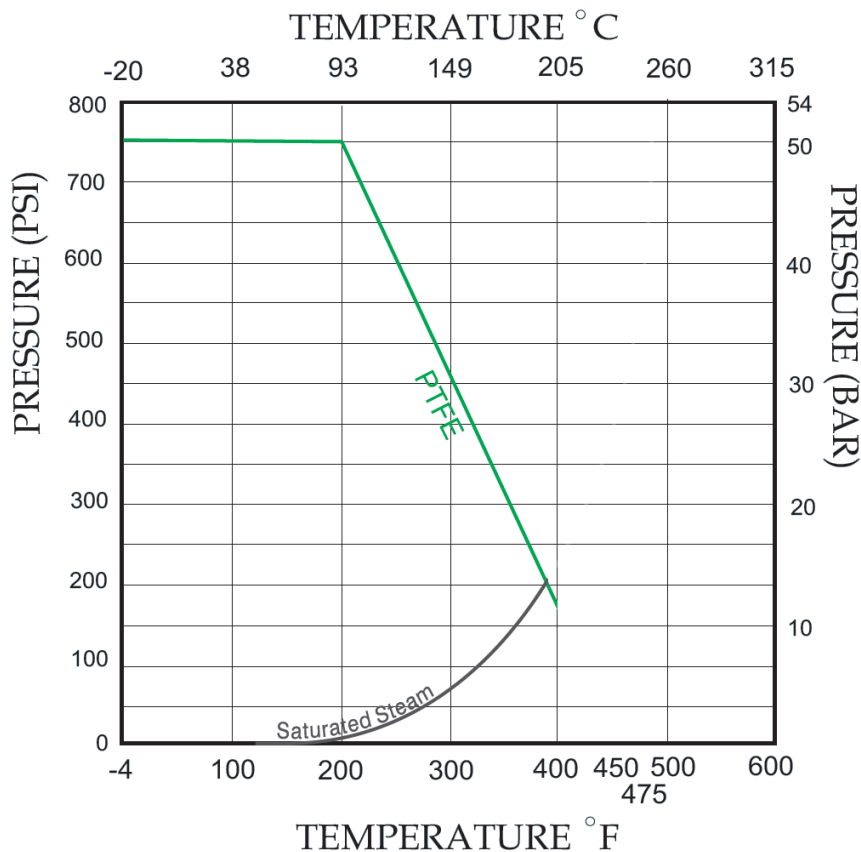
SPECIFICATIONS :

- Piston type
- All positions (respect the flow direction indicated by the arrow)
- Short length
- PTFE seat

USE :

- Chemical and pharmaceutical industries, petrochemical industries, hydraulic installation, compressed air, potable water
- Min Temperature Ts : - 20°C
- Max Temperature Ts :+ 200°C
- Max Pressure Ps : 50 bars (see graph under)
- Steam : 13 bars max

PRESSURE / TEMPERATURE GRAPH :

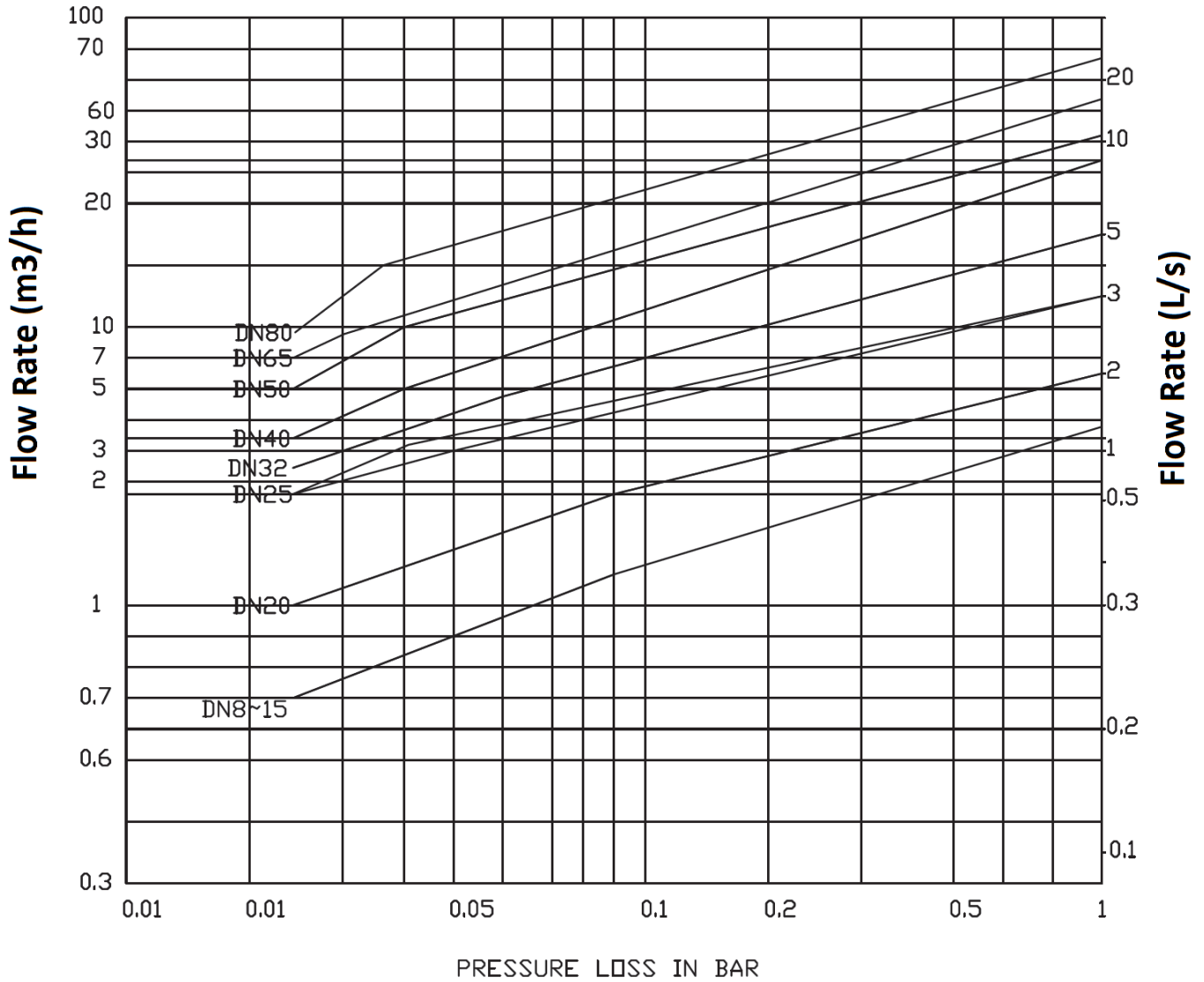


FLOW COEFFICIENT Kvs (M3 / h) :

DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"	2"1/2"	3"
Kvs (m3/h)	1.3	1.3	1.5	3	5.45	8	12.08	18.8	30	88.9

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HEAD LOSS GRAPH :



STAINLESS STEEL PISTON CHECK VALVE**OPENING PRESSURE (in mbar) :**

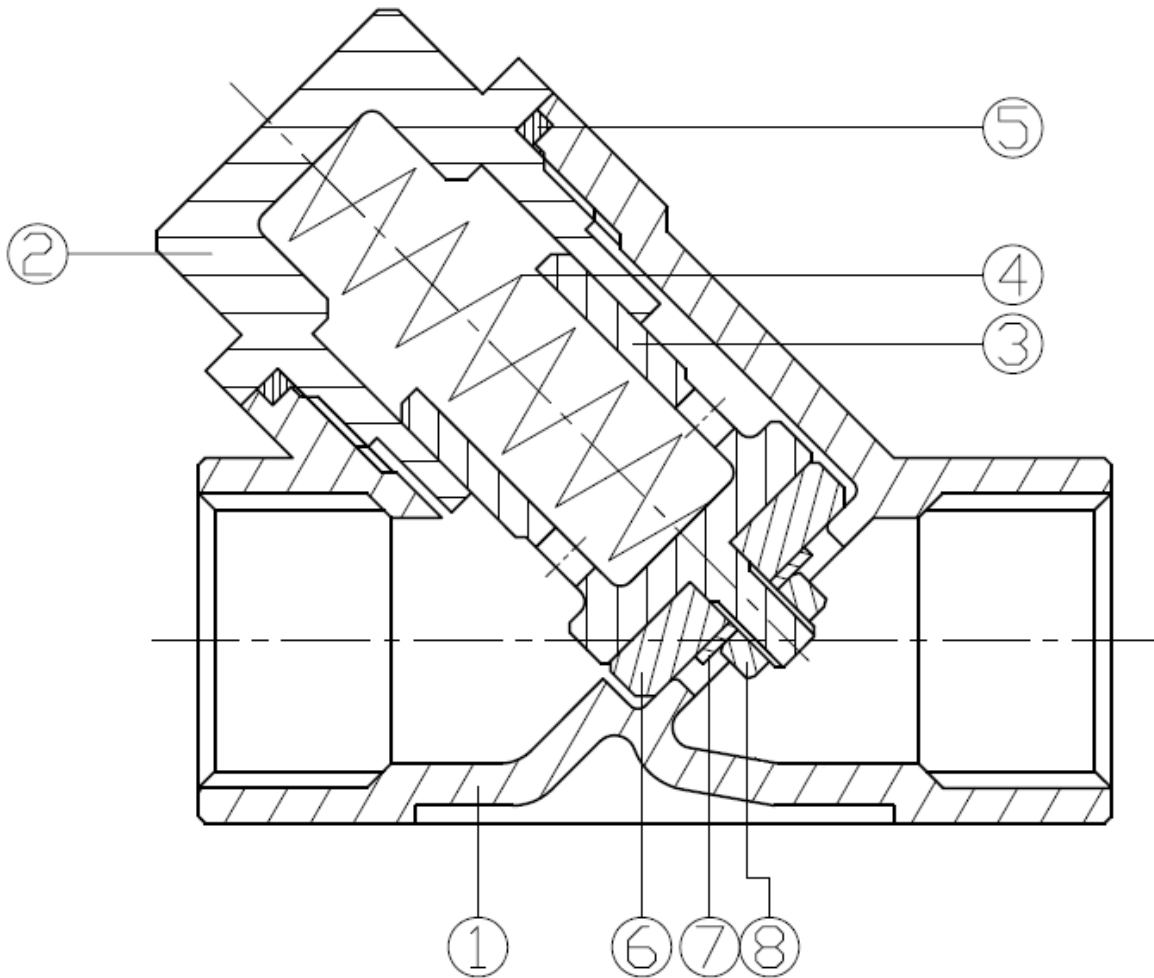
DN	Opening Pressure (mbar)
1/4"	29
3/8"	29
1/2"	29
3/4"	29
1"	31
1"1/4	31
1"1/2	32
2"	35
2"1/2	40
3"	50

RANGE :

- Female / female threaded BSP cylindrical piston check valve **Ref. 325** from DN 1/4" to DN 3"

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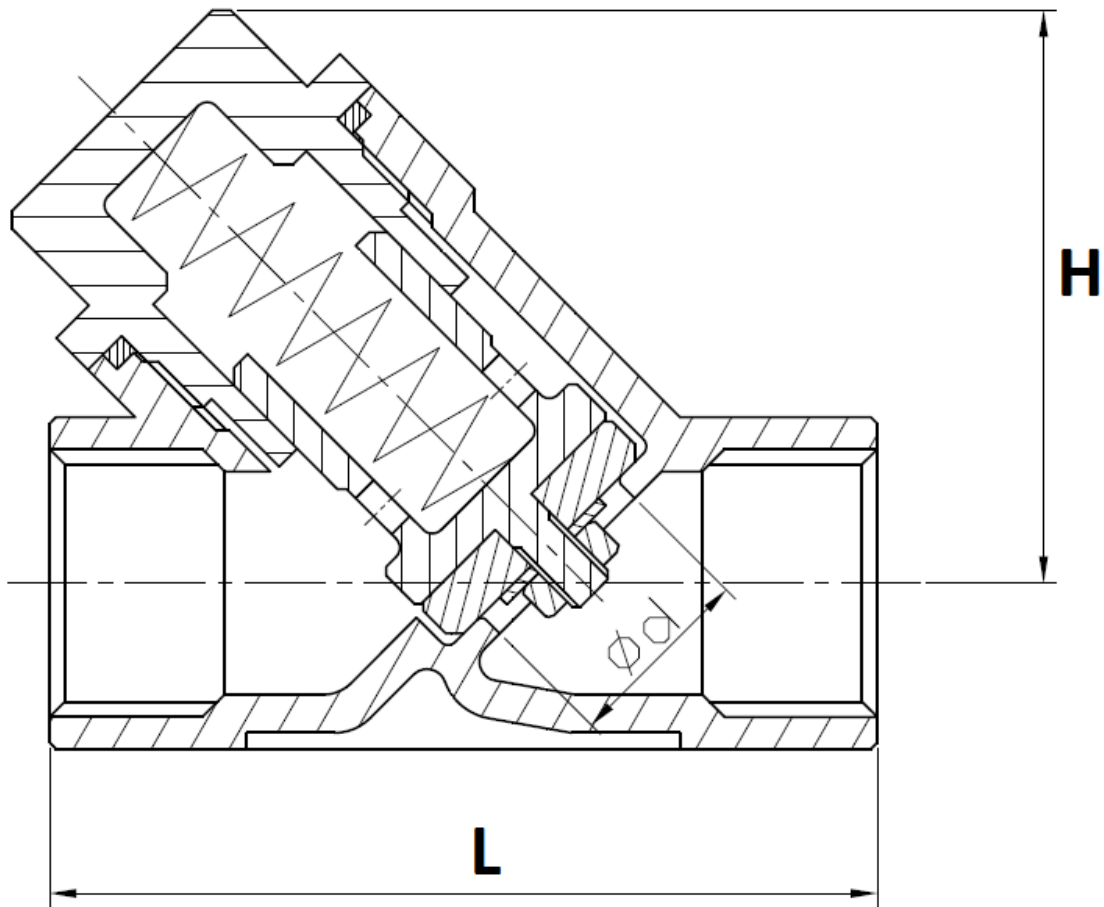
MATERIALS :



Item	Designation	Materials
1	Body	ASTM A351 CF8M
2	Bonnet	
3	Piston	
4	Spring	AISI 316
5	Bonnet gasket	PTFE
6	Seat	AISI 316
7	Washer	
8	Nut	

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SIZE (in mm) :



DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"
Ø d	10	10	15	20	25	32	38	51	65	80
H	32	32	37	41	47	54	62	76	110	130
L	57	57	61	70	86	100	111	138	170	195
Weight (Kg)	0.3	0.3	0.3	0.4	0.6	0.9	1.2	1.7	3.6	5

STAINLESS STEEL PISTON CHECK VALVE**STANDARDS :**

- Fabrication according to ISO 9001 : 2015
- DIRECTIVE 2014/68/UE : CE N° 0035
Risk category III Module H
- Certificate 3.1 on request
- Pressure tests according to API 598, table 6
- BSP threaded cylindrical ends according to ISO 228-1
- ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 & 22 (optional marking)

ADVICE : Our opinion and our advice are not guaranteed and SFERACO shall not be liable for the consequences of damages.
The customer must check the right choice of the products with the real service conditions.

STAINLESS STEEL PISTON CHECK VALVE

INSTALLATION INSTRUCTIONS

GENERAL GUIDELINES :

- Ensure that the check valves to be used are appropriate for the conditions of the installation (type of fluid, pressure and temperature).
- Be sure to have enough valves to be able to isolate the sections of piping as well as the appropriate equipment for maintenance and repair.
- Ensure that the check valves to be installed are of correct strength to be able to support the capacity of their usage.
- **Installation of all circuits should ensure that their function can be automatically tested on a regular basis (at least two times a year).**

INSTALLATION INSTRUCTIONS :

- **Before installing the check valves, clean and remove any objects from the pipes** (in particular bits of sealing and metal) which could obstruct and block the check valves.
- **Ensure that both connecting pipes either side of the check valve (upstream and downstream) are aligned (if they're not, the valves may not work correctly).**
- **Make sure that the two sections of the pipe (upstream and downstream) match, the check valve unit will not absorb any gaps. Any distortions in the pipes may affect the tightness of the connection, the working of the check valve and can even cause a rupture.** To be sure, place the kit in position to ensure the assembling will work.
- **During welding operation, be sure to not exceed 200°C**
- **If sections of piping do not have their final support in place, they should be temporarily fixed. This is to avoid unnecessary strain on the check valve.**
- **Fluids in the check valve must not contain solid objects (it could damaged the seat).**
- If there is a direction changing or if there's another material, it's better to take away the check valve so that it is outside the turbulence area (**between 3 and 5 times the ND before and after**).
- After a pump please refer to **FD CEN/TR 13932** to install the check valve :
 - If it is essential to keep priming the pump, a non-return check valve can be fitted to the suction pipe at a distance **L1 (straight length suction) > 10xD1 (diameter suction)**
The check valve is designed to meet the maximum flow rate in service
 - In other cases, the non-return check valve is mounted on the discharge pipe at a distance of **L2 (straight length at discharge) > 3xD2 (diameter at discharge)**