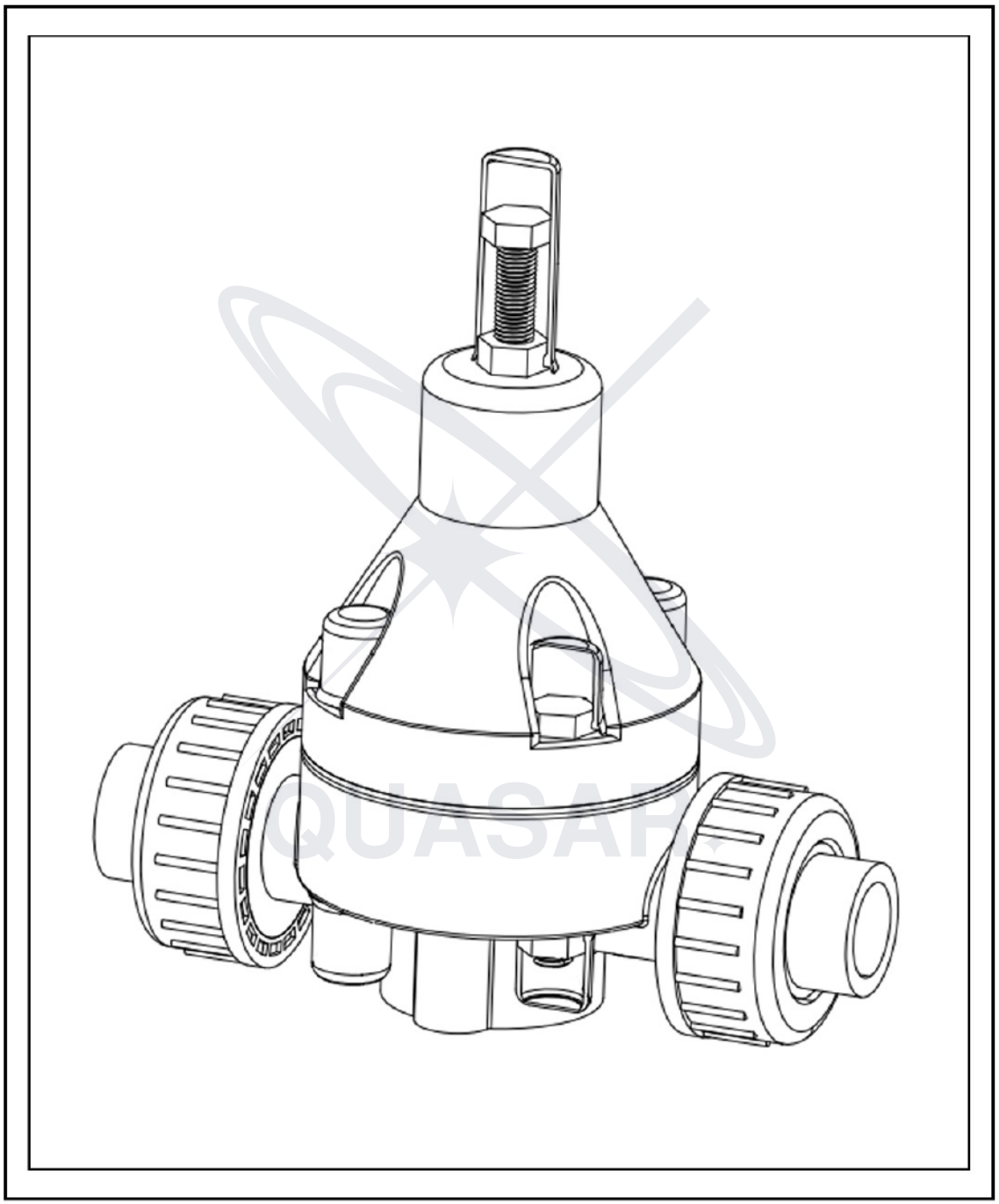
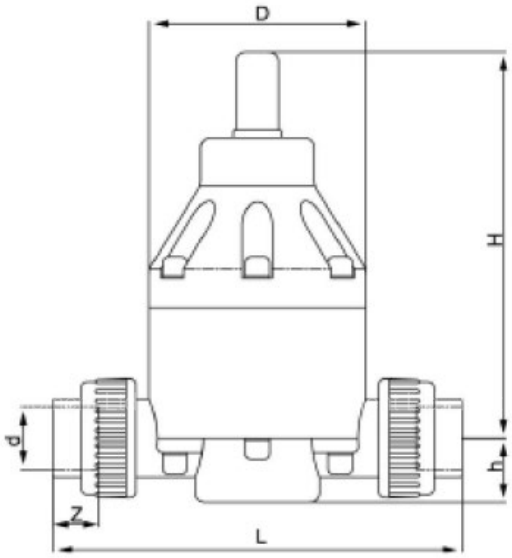
Specification of Safety valve/Pressure valve



N.P.V. EQUIPMENT LTD., PART.

QUASAR.

SAFETY/PRESSURE VALVE (UPVC/CPVC/PPH/PVDF)



Parameters

Material:UPVC/PPH/CPVC/PVDF
Working pressure: 0~1.0 Mpa, 0.2~1.6 Mpa
Size: DN15~DN65
Connect method:Socket end, flange end, thread end
Diaphragm material: PFTE+EPDM compsite

Model	Size	L	H	D	z	h
18615	1/2"(15)	170	154	82	21	27
18620	3/4"(20)	170	173	82	21	27
18625	1"(25)	212	173	107	26	35
18632	1-1/4"(32)	226	173	107	28.5	35
18640	1-1/2"(40)	292	225	148	37	58
18650	2"(50)	305	225	148	37	58
18665	2-1/2"(65)	390	225	148	42	58

SIZE	d	Top ID of inner socket					Bottom ID of inner socket				
		UPVC/CPVC				PPH	UPVC/CPVC				PPH/PVDF
		ANSI	DIN	JIS	CNS	DIN	ANSI	DIN	JIS	CNS	DIN
1/2"(15)	20	21.40	20.25	22.30	22.40	19.30	21.25	20.05	21.85	21.90	19.00
3/4"(20)	25	26.75	25.25	26.30	26.40	24.10	26.58	25.05	25.85	25.90	23.80
1"(25)	32	33.52	32.25	32.33	34.50	31.00	33.28	32.05	31.85	33.90	30.70
1-1/4"(32)	40	42.28	40.25	38.43	42.50	39.00	42.05	40.05	37.85	41.90	38.60
1-1/2"(40)	50	48.40	50.25	48.46	48.60	49.00	48.12	50.05	47.75	47.90	48.60
2"(50)	63	60.45	63.25	60.56	60.60	61.00	60.18	63.05	50.75	59.90	61.40
2-1/2"(65)	75	73.30	75.25	76.60	76.70	73.60	72.85	75.05	75.87	75.90	72.30

Model 186 safety valve/back pressure valve

Product description

The valve is mainly composed of a seat, valve cover, diaphragm, spring, pressure adjustment screw, etc. There are two concentric cavities in the seat, and there is a diaphragm between the two cavities. The spring is above the diaphragm, exerting a certain pressure on the diaphragm, pressing the diaphragm and separate the two cavities. When it working, the fluid enters from a cavity, the pressure rises, and the pressure acting on the diaphragm rises accordingly. When the pressure exceeds the pressure which set by the spring, the diaphragm is jacked up, two cavities are connected, and the liquid flows out of the other port. When the system pressure is reduced below the set pressure, the diaphragm closes, cutting off the passage of fluid. The valve can be used as either a safety valve or a back pressure valve.

Safety valve

The diaphragm and valve core are pressed against the valve seat by the internal spring. When the pressure in the pipeline system exceeds the preset pressure, the diaphragm and the min core are pushed up, and the medium is discharged to the return pipe and container, which can be adjusted on site. The screw uses the pressure gauge in the pipeline to set the pressure in the range of 0~1.0Mpa. The relief pressure is generally set to be higher than the system pressure 0.1-0.2Mpa. The pressure adjustment of the safely valve is not allowed to exceed the maximum pressure of the pump, The installation is generally as close as possible to the pump, At the outlet, there should be no valve between the pump and the safety valve to protect the safety of the pump and the normal operation of the system.

Back pressure valve

Installed on the positive pressure discharge pipeline of the metering pump or diaphragm pump to prevent the occurrence of siphon phenomenon, eliminate the change of the dosage due to the pressure fluctuation of the dosage point, so as to ensure the dosage accuracy of the pump. Cap, rotate the adjusting screw, adjust to the required pressure with the help of the pressure gauge in the pipeline, and set the back pressure in the range of 0-0.6Mpa through the adjusting screw, Used in conjunction with a pulse damper to reduce water hammer damage to the system, maintain a certain constant pressure from the pump outlet to the back pressure valve and keep the system flow rate constant

Features

※ Release the pipeline pressure to ensure the stability of the system pressure;

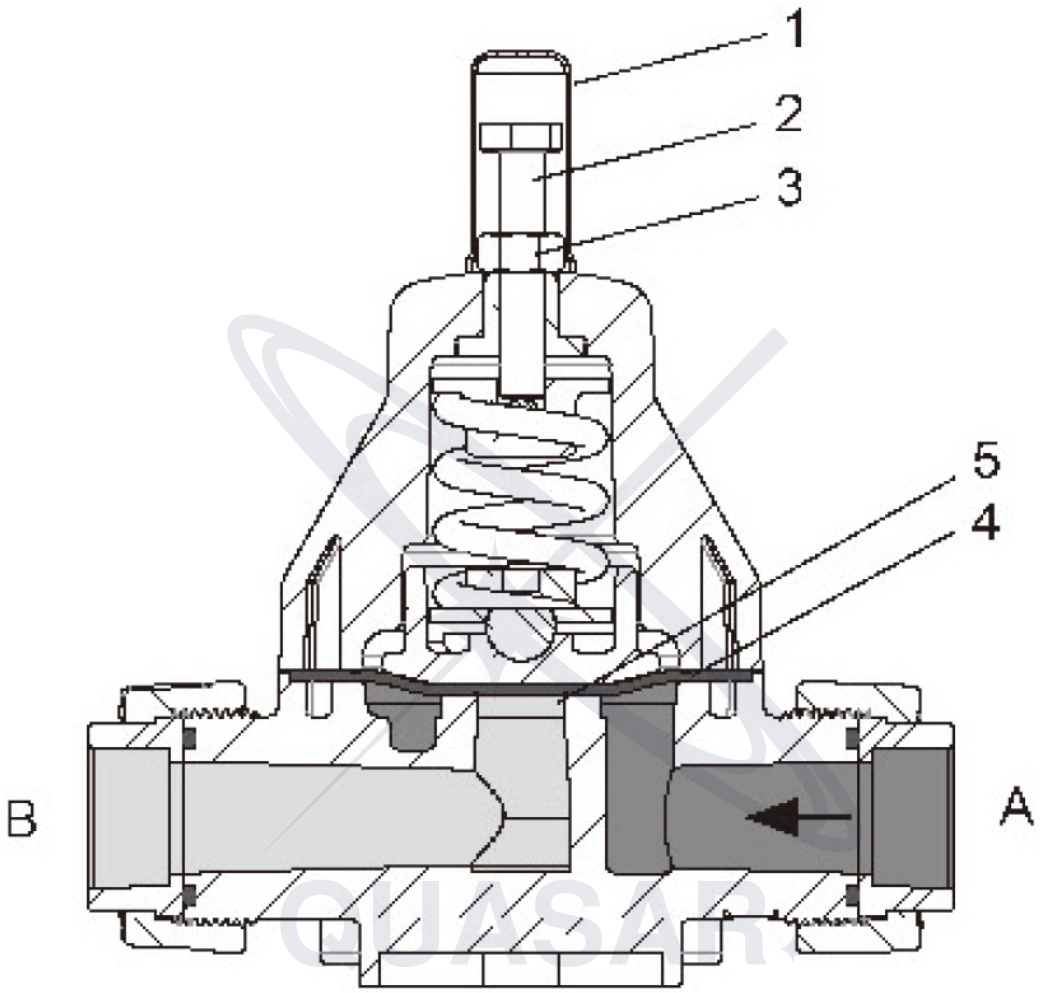
※ Protect the safety of the pump and the normal operation of the system;

※ Used in conjunction with a pulse damper to reduce the harm of water hammer to the system and achieve superior low-vibration adjustment effects;

※ Reduce the peak value of flow rate fluctuations and protect the pipeline system from pressure fluctuations;

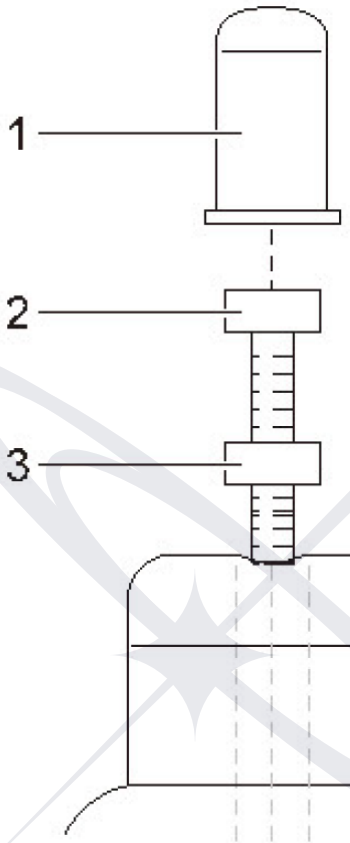
※The diaphragm adopts advanced PTFE+rubber compound technology, which is suitable for almost all corrosive fluids, and the sealing is reliable and leak-free.

Structure of safety valve/pressure valve



A: Inlet side
B: Outlet side
1: Protection cover
2: Adjusting bolt
3: Lock nut
4: Diaphragm
5: Seat

Pressure setting



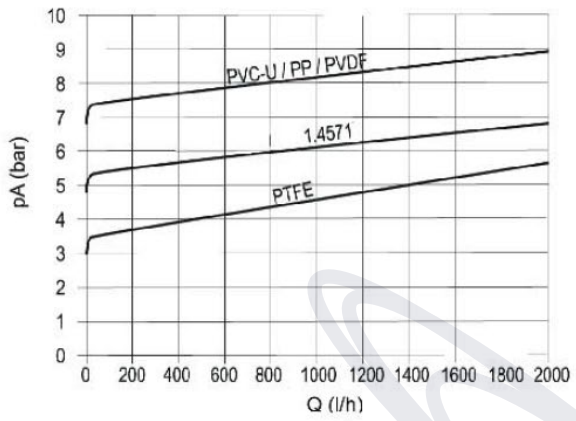
1： Protection cover
2： Adjusting bolt
3： Lock nut

Setting procedure

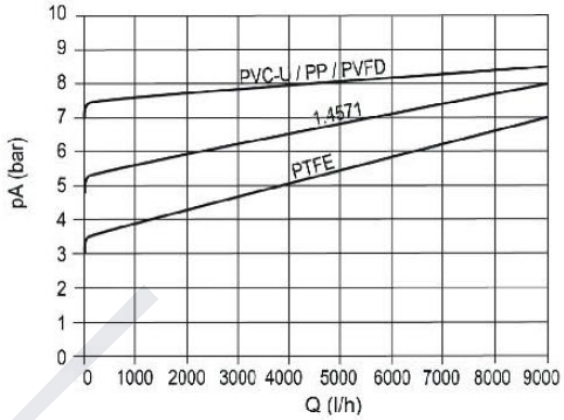
1. Remove the protective cover (1) of the adjustment bolt (2) from the valve (if available).
2. Loosen lock nut (3)
3. Turn the adjusting bolt (2) counterclockwise, until it is apparent that the compression spring has completely release.
   Open the valve
4. Starting the device
5. Turn the adjusting bolt (2) clockwise, until the desired device pressure is reached.
6. Use a box wrench to fix the adjusting bolt (2) and tighten the locking nut (3)
   If necessary, the adjusting bolt can be sealed to prevent unauthorized adjustment.
7. Assemble the protective cover (1)(if available).

Characteristic curve of pressure regulation range

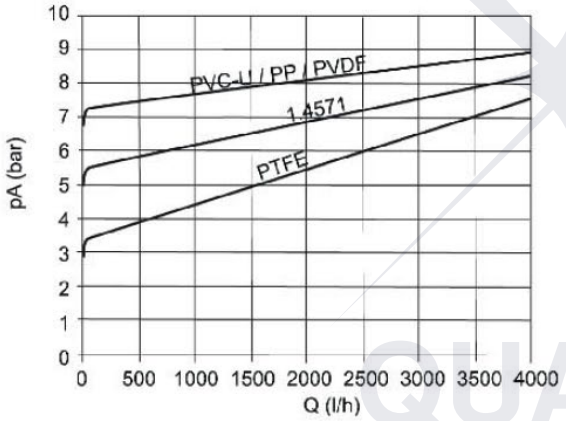
DN 15



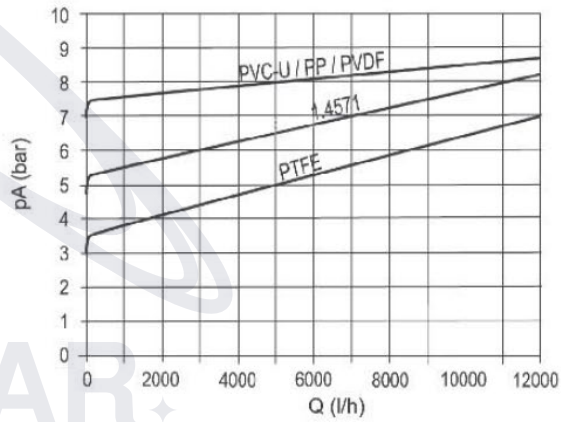
DN 32



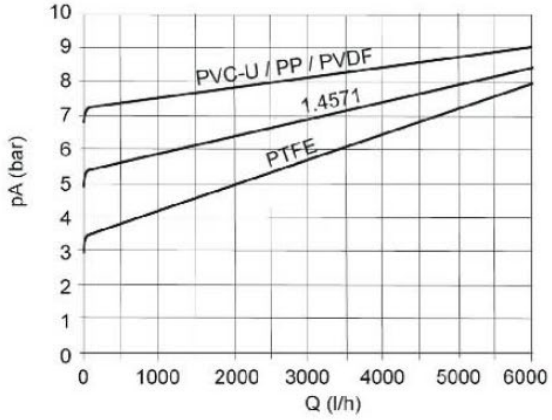
DN 20



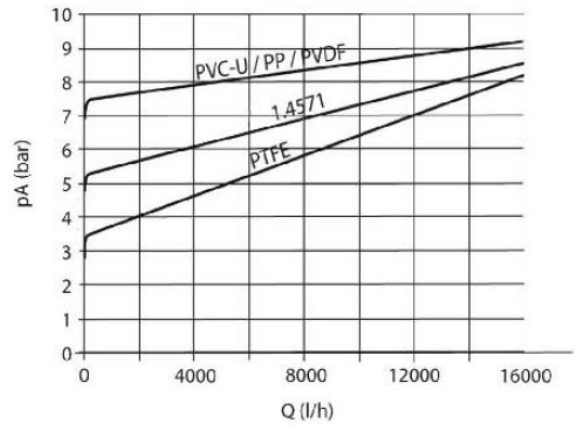
DN 40



DN 25



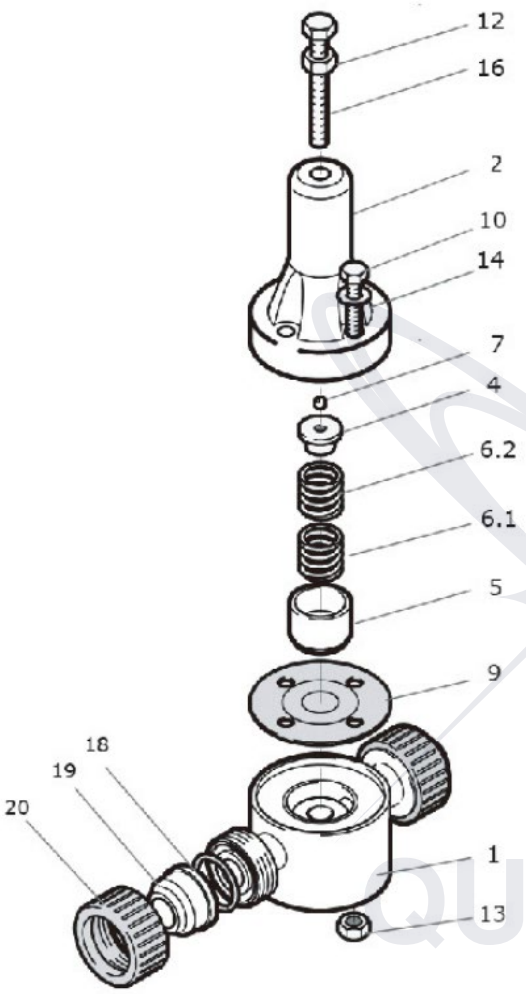
DN 50



PA: working pressure,

Q: quantity of flow

Main parts table



No.	Part name
1	Outer shell
2	Upper end part
4	Pressure plate
5	Spring plate
6	Compression spring
7	Steel ball
8	Steel ball
9	Diaphragm
10	Housing bolt
12	Lock nut
13	Hexagon nut
14	Gasket
15	Gasket
16	Adjusting bolt
17	Protectoin cover
18	O ring
19	Insert part
20	Lokck nut