

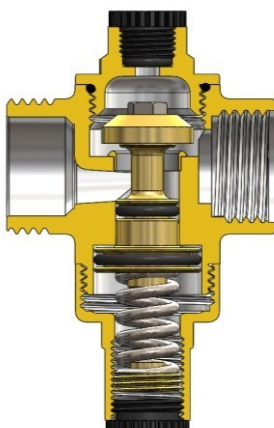


PRODUCTS

Product Code	Connection Size	Range of Products	Max. Input Pressure	Pressure Setting Range
0308	1/4"	Water Pressure Reducer	16 bar [1600 kPa]	1,5 - 6,5 bar [150 - 650 kPa]
0315	1/2"	Water Pressure Reducer		
0415	1/2"	W.P.R. with sleeve coupling		
0515	1/2"	Water Pressure Reducer		
0615	1/2"	W.P.R. Sleeve Coupling + Manometer		
0320	3/4"	Water Pressure Reducer		
0420	3/4"	W.P.R. with sleeve coupling		
0520	3/4"	W.P.R. with Manometer		
0620	3/4"	W.P.R. Sleeve Coupling + Manometer		
0325	1"	Water Pressure Reducer		
0525	1"	W.P.R. with Manometer		
0332	1 1/4"	Water Pressure Reducer		
0532	1 1/4"	W.P.R. with Manometer		
0340	1 1/2"	Water Pressure Reducer		
0540	1 1/2"	W.P.R. with Manometer		
0350	2"	Water Pressure Reducer	25 bar [2500 kPa]	1 - 6,5 bar [100 - 650 kPa]
0550	2"	W.P.R. with Manometer		
2865	2 1/2"	Water Pressure Reducer		
2965	2 1/2"	W.P.R. with Manometer		
3080	3"	Water Pressure Reducer		
3180	3"	W.P.R. with Manometer		

* Note: 2 1/2 "and 3" Water Pressure Reducer's technical data is in another document. [Click here to review.](#)

INTRODUCTION



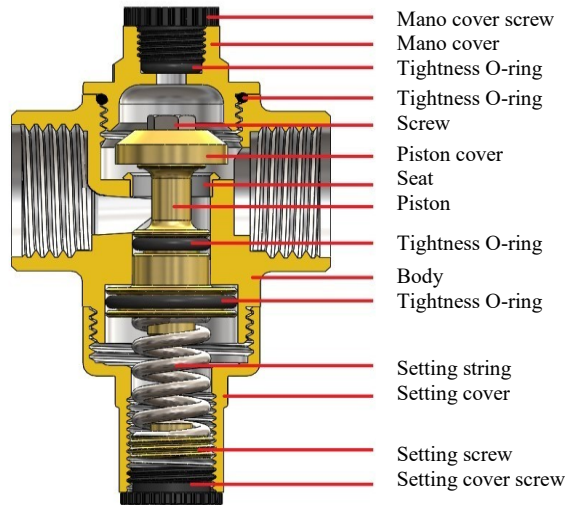
The water pressure reducer is designed to reduce the pressure of high pressure mains water to prevent damage to the installation and to the devices connected to the installation.

The water pressure reducers;

- It prevents the damage of the water hammer.
- It prevents the noise created by pressurized water.
- It provides balanced water pressure saving. In our laboratory tests, we found that a pressure of 7.8 bar reduced the pressure of 3 bar, saving 25% of the total water consumption.
- It protects washing machines, dishwashers, combi boilers and water heaters from harmful effects of pressurized water.

* It is not used for air and gas, only for water.

MATERIAL LIST

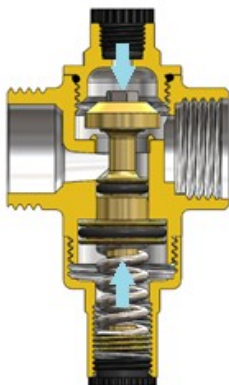


Body	:	Brass CW 617N EN 12165
Mano Cover Screw	:	PA6
Mano Cover	:	Brass CW 614N EN 12164
Tightness O-ring	:	NBR
Screw	:	INOX
Piston Cover	:	Brass CW 614N EN 12164
Seat	:	INOX
Piston	:	Brass CW 614N EN 12164
Spring	:	STEEL 10270-1
		(NOTE: INOX spring is used in the 1/4", 1/2" and 3/4" products)
Setting Cover	:	Brass CW 617N EN 12165
Setting Screw	:	Brass CW 614N EN 12164
Setting Cover Screw	:	PA6

TECHNICAL SPECIFICATIONS

Maximum Input Pressure	:	16 bar
Pressure Setting Range	:	1,5 - 6,5 bar
Factory Outlet Pressure	:	3 bar
Maximum Heat	:	40° C
Fluid Used	:	Water
Standard	:	EN 1567

OPERATING PRINCIPLE



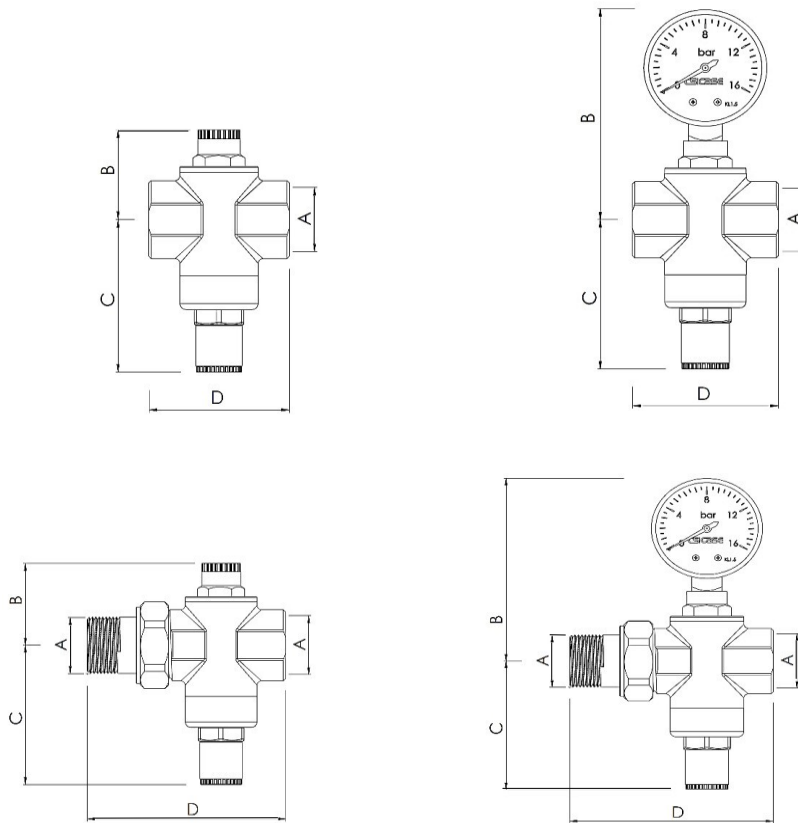
The operating system of water pressure reducers is based on the balance of two opposing forces.

These forces:

- 1- The pressure force of the compressed spring
- 2- The pressure of the water pressure on the piston

If the pressure force of the spring is greater than the pressure applied to the piston the piston moves downwards, if it is smaller, the piston moves upwards and the output pressure is adjusted in a controlled manner.

DIMENSIONING



Product Code	A [inch]	B [mm]	C [mm]	D [mm]
0308	1/4"	34	54.70	46
0315	1/2"	36.80	65	60
0320	3/4"	39,3	62,5	60
0325	1"	55	86.30	85
0332	1 1/4"	59,3	93	91
0340	1 1/2"	58,3	94	91
0350	2"	64.60	95.70	91

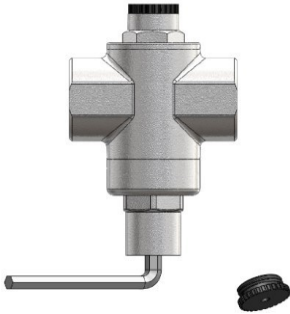
WITH MANOMETER				
0515	1/2"	93	65	60
0520	3/4"	95.50	62.50	60
0525	1"	111.2	86.30	85
0532	1 1/4"	115.5	93	91
0540	1 1/2"	114.5	94	91
0550	2"	120.8	95.7	91

WITH SLEEVE COUPLING				
0415	1/2"	36.80	65	91.50
0420	3/4"	39.30	62.50	94.50

WITH SLEEVE COUPLING + MANOMETER				
0615	1/2"	93	65	91.50
0620	3/4"	95.50	62.50	91.50

The manometer connection size in all of the water pressure reducer products is 1/4

CALIBRATION



How to do Water Pressure Reducer Adjustment ;

Water pressure reducers are calibrated to 3 bar of factory setting pressure. The setting pressure can be changed by the user if requested. To change the setting pressure, first unscrew the black plastic plug at the bottom of the product by turning it by hand. The setting screw, which is located on the inside of the place where the plastic plug is disassembled, is adjusted by dialing with the dial key.

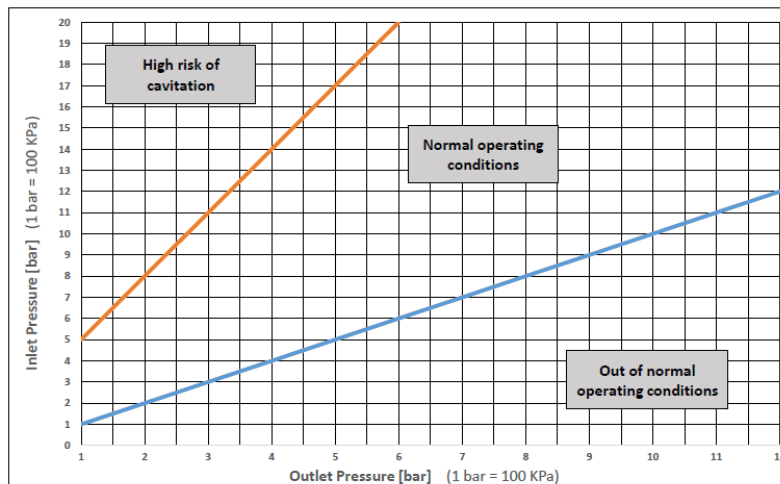
- By turning the adjustment screw;
 - clockwise to increase,
 - anticlockwise to reduce it,
- the setting pressure is calibrated to the desired pressure value.

NOMINAL FLOW RATE

Nominal Size	Nominal Flow Rate	
	m ³ /h	l/min
1/2" DN15	1,27	21,17
3/4" DN20	2,27	37,83
1" DN25	3,6	60
1 1/4" DN32	5,8	96,67
1 1/2" DN40	9,1	151,67
2" DN50	14	233,33

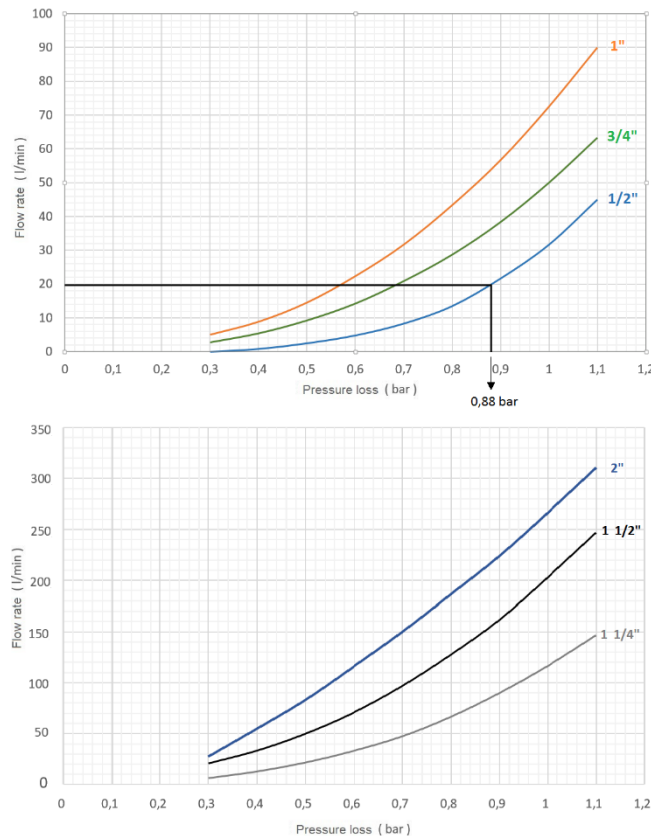
These flow rates are equal to 2 m/s.

CAVITATION DIAGRAM



On implementations of water pressure reducer, risk of cavitation should be observed. In order to avoid the risk of cavitation, a gradual pressure decrease is achieved by using more than one pressure reducer. For example, an inlet pressure of 14 bar must be reduced to 3 bar. This pressure decrease corresponds to the "High Cavitation Risk" region. According to these conditions, a gradual pressure decrease should be carried out to avoid the risk of cavitation. At first, with a pressure reducer number 1, the inlet pressure of 14 bar is reduced to 6 bar, then with a pressure reducer number 2, a pressure of 6 bar is reduced to 3 bar. In this way, safe pressure decrease ensured.

THE LOSS OF PRESSURE ACCORDING TO THE CHANGES OF THE FLOW RATE

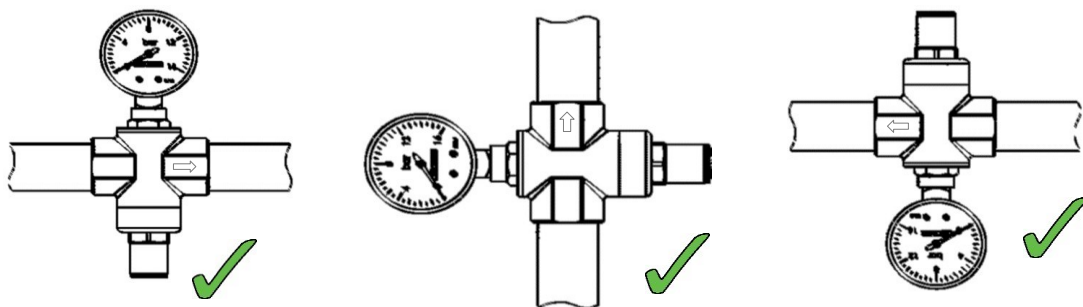


The graphic is prepared according to the conditions specified in EN 1567 standard.
(Input pressure 8 bar - Output pressure 3 bar)

According to the diaphragm as the flow rate increases, the pressure loss increases and the outlet pressure decreases.

EXAMPLE: Let us consider a system using a 1/2 "pressure reducer. The pressure of the water pressure reducer is $P = 3$ bar, $Q = 20$ l / min. Based on these values, the pressure variation is read as $\Delta p = 0.88$ bar when the $Q = 20$ l / min in the diagram and the point at which the curve intersects the "pressure change (Δp)" point. In this case it is expected that the pressure (P_o) = $3 - 0.88 = 2.12$ bar at the flow in the installation.

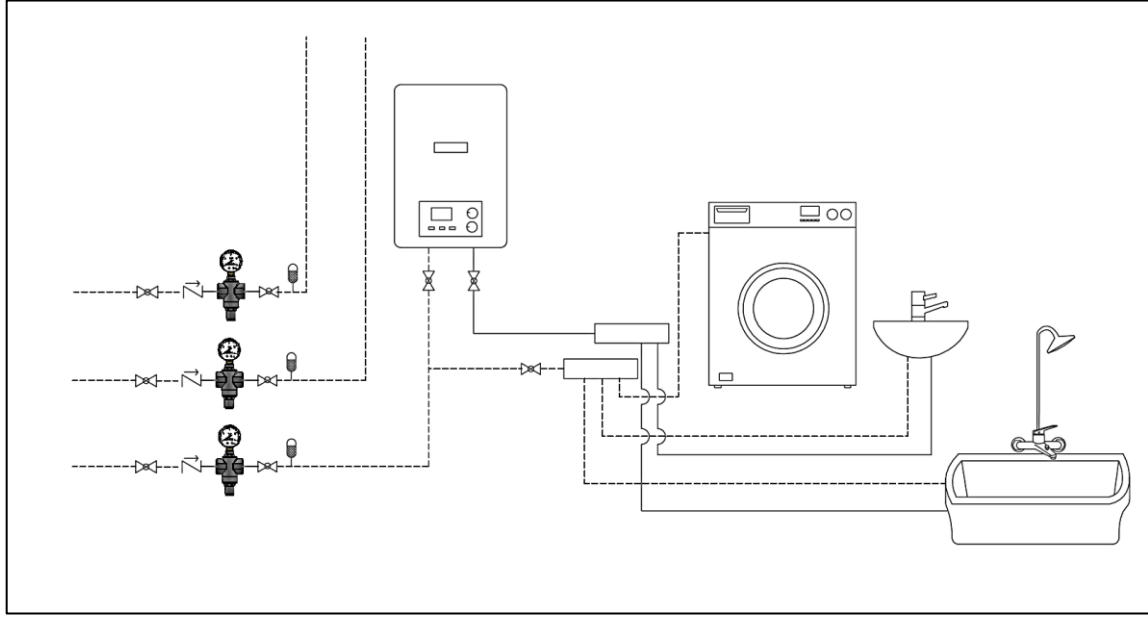
CONNECTION



Water Pressure Reducer installation ;

- This product can be mounted flat, side-to-side and reverse during installation.
- Ensure that the mains water flow is switched off by closing the inlet valves before installation.
- During installation, make sure that the arrow mark on the product surface does not indicate the direction of water flow.
- For your product to work healthier and last longer; it is advisable to install a **filter** before the water supply pressure regulator.
- Products with manometer are preferred to observe the outlet pressure.

APPLICATION DIAGRAM



We reserve the right to make changes related data in this publication, at any time and without prior notice.