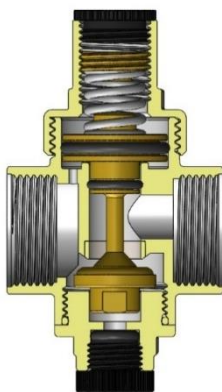




**PRODUCTS**

Product Code	Size	Range of Products	Max. Input Pressure	Pressure Setting Range
3315	1/2"	-	16 bar [ 1600 kPa ]	1 - 5,5 bar [ 100 - 550 kPa ]
3415	1/2"	with Coupling		
3515	1/2"	with Manometer		
3615	1/2"	with Coupling + Manometer		
3320	3/4"	-		
3420	3/4"	with Coupling		
3520	3/4"	with Manometer		
3620	3/4"	with Coupling + Manometer		

**INTRODUCTION**



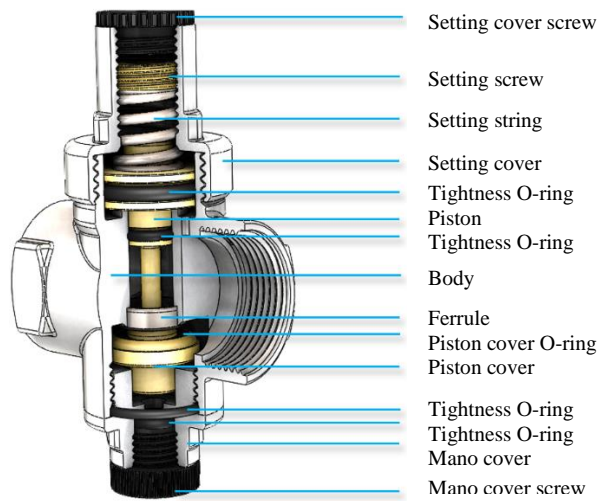
The water pressure reducer is designed to reduce the pressure of high pressure mains water to prevent damage to the installation and to the devices connected to the installation.

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

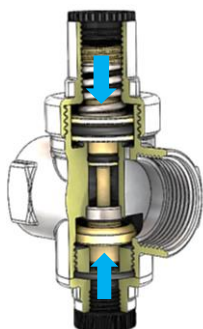


Body	:	CW 617N EN 12165
Setting Cover Screw	:	PA6
Setting Screw	:	CW 614N EN 12164
Setting Spring	:	STEEL 10270-1
Setting Cover	:	CW 617N EN 12165
Tightness O-ring	:	NBR
Piston	:	CW 614N EN 12164
Ferrule	:	STEEL AISI 304
Piston cover O-ring	:	EPDM
Piston Cover	:	CW 614N EN 12164
Mano Cover	:	CW 617N EN 12165
Mano Cover Screw	:	PA6

## TECHNICAL SPECIFICATIONS

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

## OPERATING PRINCIPLE



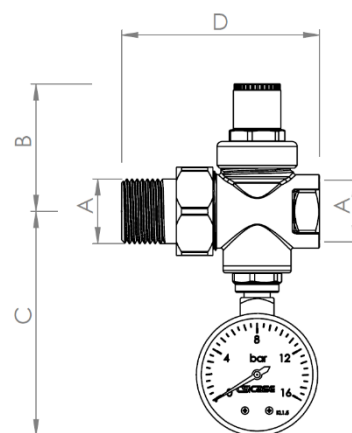
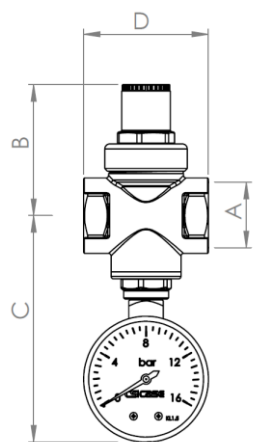
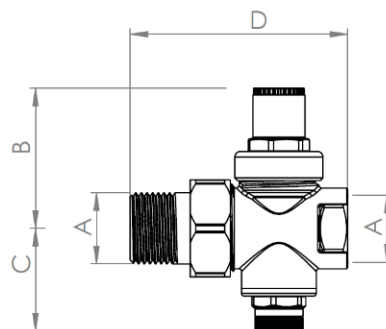
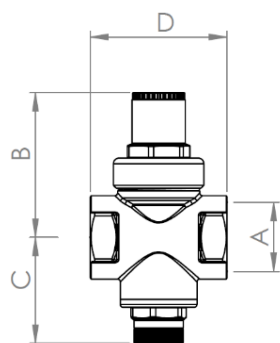
The operating system of water pressure reducers is based on the balance of two opposing forces.

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.

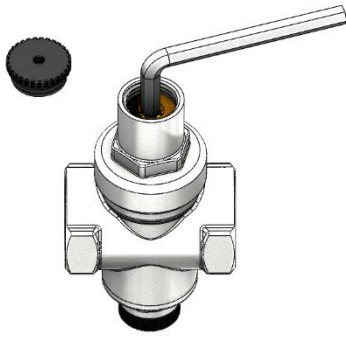
## DIMENSIONING



Product Code	A [inch]	B [mm]	C [mm]	D [mm]
3315	1/2"	48,7	36,3	49
3320	3/4"	52,2	37,8	50
WITH MANOMETER				
3515	1/2"	48,7	88,5	49
3520	3/4"	52,2	90	50
WITH COUPLING				
3415	1/2"	48,7	36,3	73
3420	3/4"	52,2	37,8	80,5
WITH COUPLING + MANOMETER				
3615	1/2"	48,7	88,5	73
3620	3/4"	52,2	90	80,5

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

## CALIBRATION



### How to do Water Pressure Reducer Adjustment;

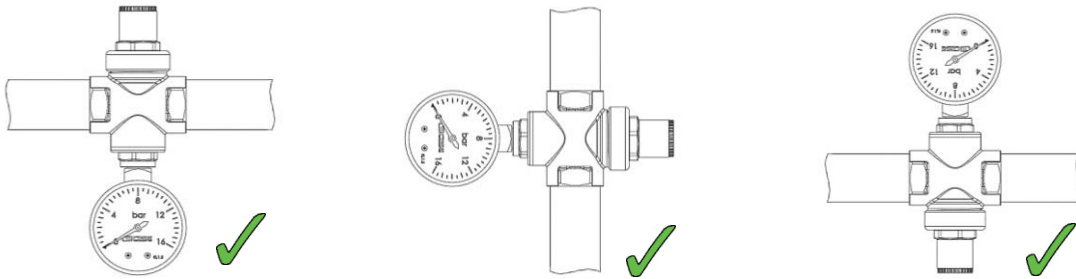
Water pressure reducers are calibrated to 3 bar of factory setting pressure. The setting pressure can be changed by the user if requested. To change the setting pressure, first unscrew the black plastic plug at the top of the product by turning it by hand. The setting screw, which is located on the inside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

By turning the adjustment screw;

- clockwise to increase,
- anticlockwise to reduce it,

the setting pressure is calibrated to the desired pressure value.

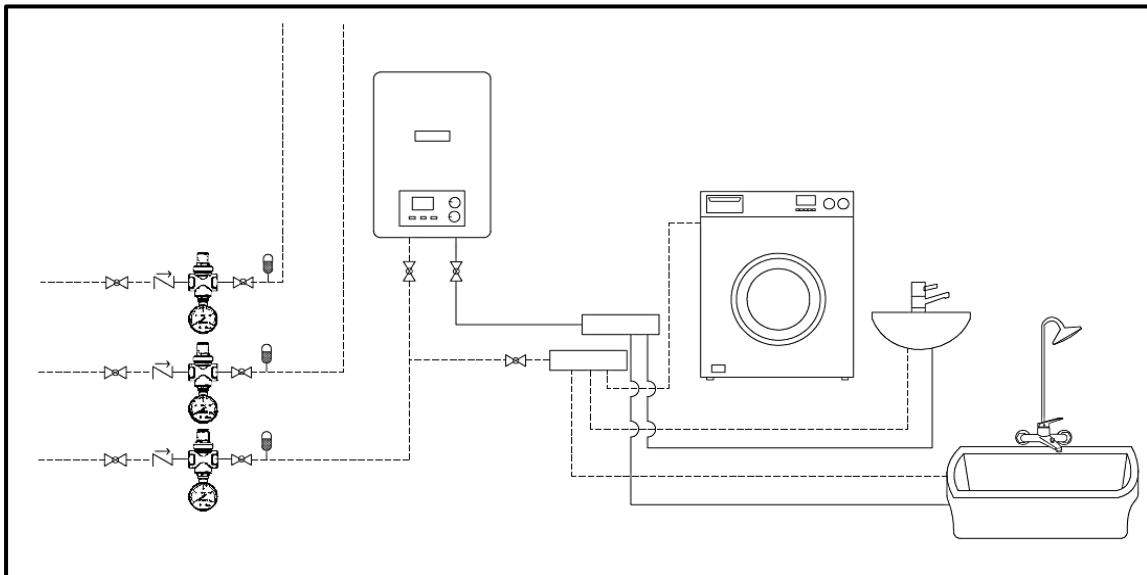
## CONNECTION



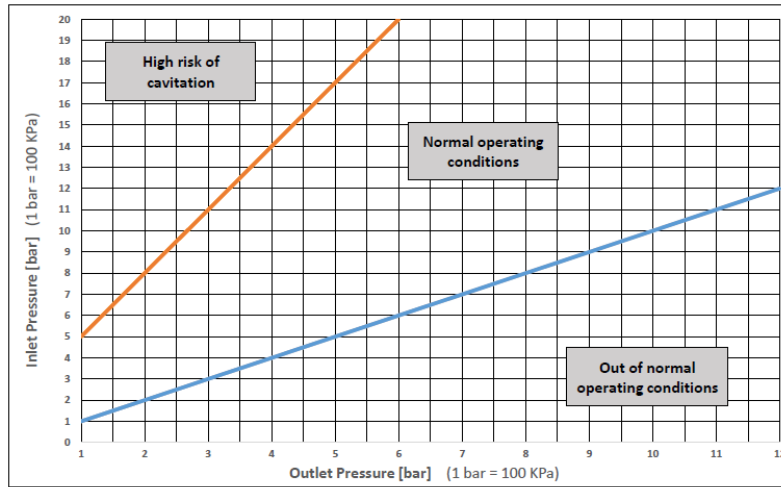
### Water Pressure Reducer Installation;

- This product can be installed vertical, horizontal or upside-down 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 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 pressure reducer.
- Products with manometer are preferred to observe the outlet pressure.

## APPLICATION DIAGRAM

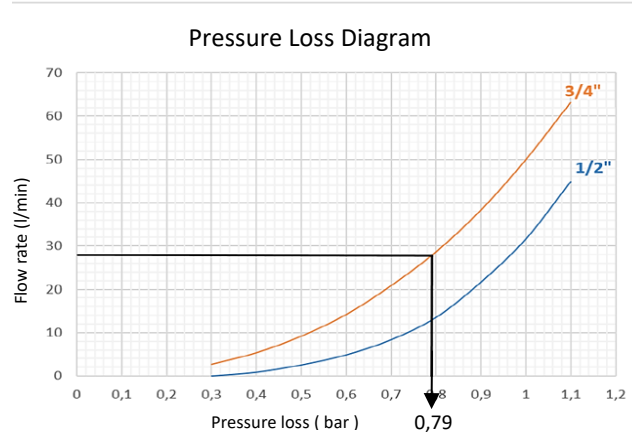


## CAVITATION DIAGRAM



On implementations of water pressure reducer, risk of cavitation should be paid attention. 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 diagram as the flow rate increases, the pressure loss increases and the outlet pressure decreases.

**EXAMPLE:** Let us consider a system using a 3/4" pressure reducer. The pressure of the water pressure reducer is  $P = 4$  bar,  $Q = 28$  l/min. Based on these values, the pressure variation is read as  $\Delta p = 0.79$  bar when the  $Q = 28$  l/min in the diagram and the point at which the curve intersects the "pressure change ( $\Delta p$ )" point. In this case it is expected that the pressure ( $P_o$ ) =  $4 - 0.79 = 3.21$  bar at the flow in the installation.

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