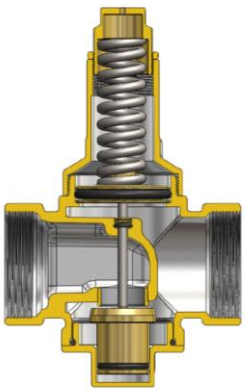
CS case	**WATER PRESSURE REDUCER (PM SERIES)** **(2 1/2''- DN65) & (3''- DN80)**	June 2020

EN 1567 TSE G TÜV THÜRINGEN RoHS EAC

PRODUCTS				
Product Code	**Connection Size**	**Range of Products**	**Max. Input Pressure**	**Pressure Setting Range**
2865	2 1/2"	-	25 bar	1 - 6,5 bar
3080	3"	-		
2965	2 1/2"	with Manometer		
3180	3"	with 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;

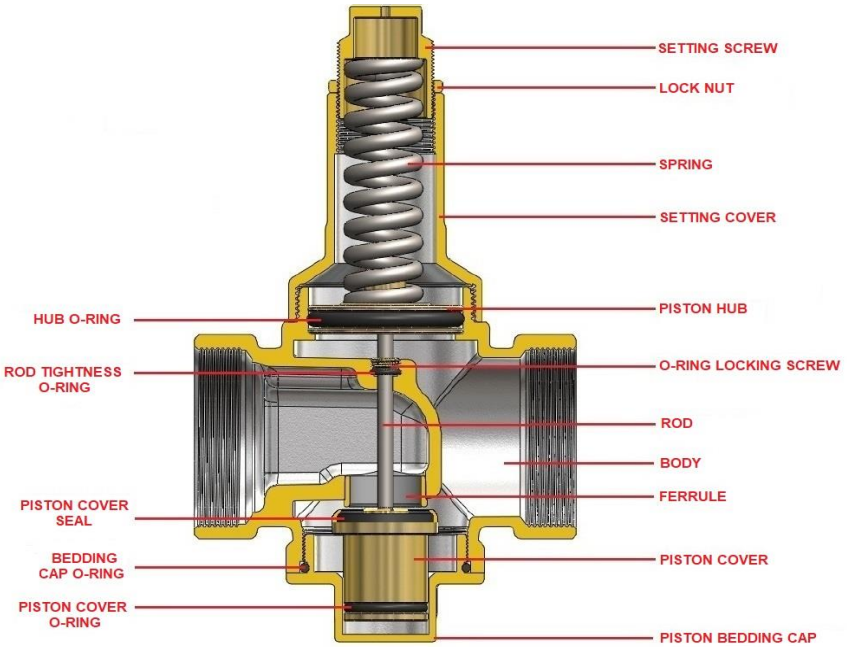
- It prevents the damage of the water hammer.
- It prevents the noise created by pressurized water.
- It provides balanced water pressure saving. In our laboratory tests, we found that a pressure of 7.8 bar reduced the pressure of 3 bar, saving 25% of the total water consumption.
- It protects washing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

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

TECHNICAL SPECIFICATIONS

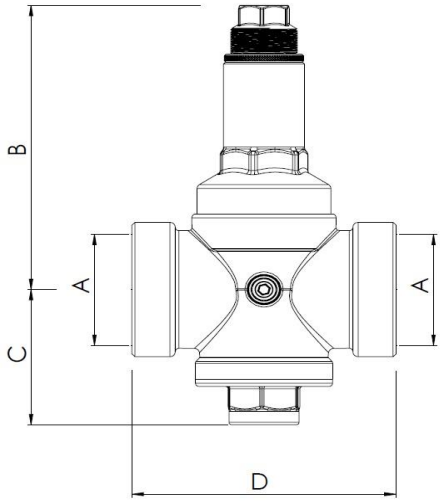
Maximum Input Pressure	:	25 bar
Pressure Setting Range	:	1 - 6,5 bar
Factory Outlet Pressure	:	3 bar
Maximum Heat	:	80° C
Fluid Used	:	Water
Standard	:	EN 1567

MATERIAL LIST



Body	:	CB 753S EN 1982
Setting Screw	:	CW 617N EN 12165
Lock Nut	:	CW 614N EN 12164
Spring	:	STEEL 10270-1
Setting Cover	:	CW 617N EN 12165
Piston Hub	:	CW 617N EN 12165
O-ring Locking Screw	:	CW 614N EN 12164
Ferrule	:	STEEL AISI 304
Rod	:	STEEL AISI 304
Piston Cover	:	CW 614N EN 12164
Piston Bedding Cap	:	CW 617N EN 12165
Mano Cover Screw	:	PA6
Hub O-ring	:	EPDM
Piston Cover Seal	:	EPDM
Rod Tightness O-ring	:	EPDM
Bedding Cap O-ring	:	EPDM
Piston Cover's O-ring	:	EPDM

DIMENSIONING



Product Code	A [inch]	B [mm]	C [mm]	D [mm]
2865	2 1/2"	165	85	150
3080	3"	165	85	163
WITH MANOMETER				
2965	2 1/2"	165	85	150
3180	3"	165	85	163

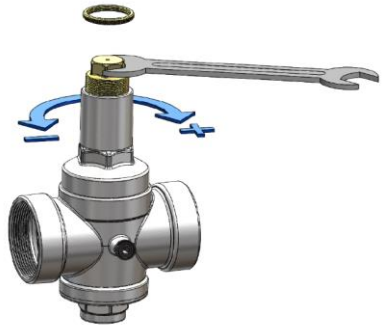
The manometer connection size in all of the water pressure reducer products is 1/4".

FLOW RATE

Size	Flow Rate	
	m^3/h	l/min
2 1/2" DN65	24	400
3" DN80	36	600

These flow rates are equal to 2 m/s.

CALIBRATION



How to do Water Pressure Reducer Adjustment ;

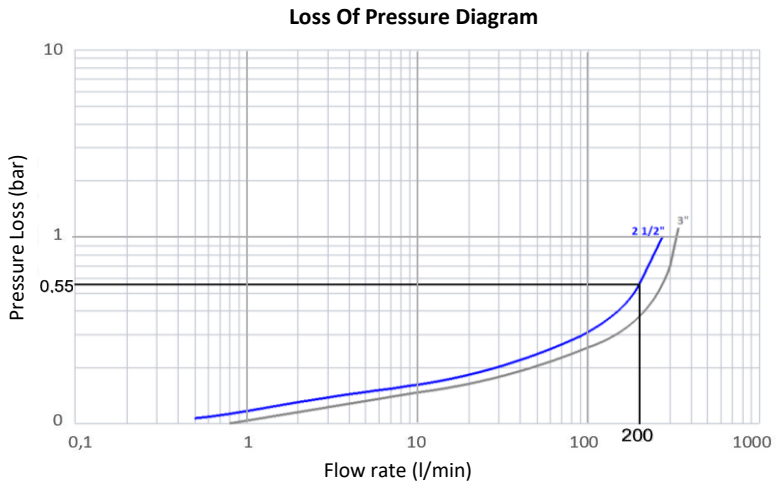
Water pressure reducers are calibrated to 3 bar of factory setting pressure. The setting pressure can be changed by the user if requested. To change the setting pressure, unloose or remove the lock nut on the upper part. Pressure is adjusted by turning the adjusting screw with a help of wrench. When the pressure regulation is adjusted, it is necessary to screw lock nut on the upper part.

By turning the adjustment screw;

- clockwise to increase (+) ,
- anticlockwise to reduce it (-) ,

the setting pressure is calibrated to the desired pressure value.

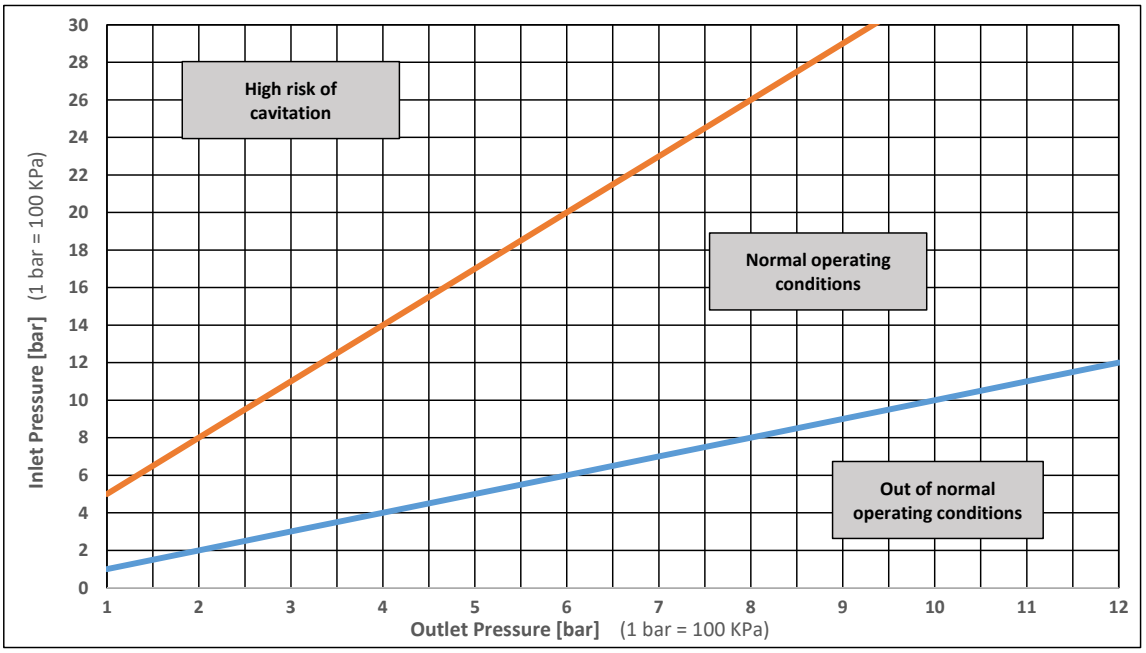
THE LOSS OF PRESSURE ACCORDING TO THE CHANGES OF THE FLOW RATE



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

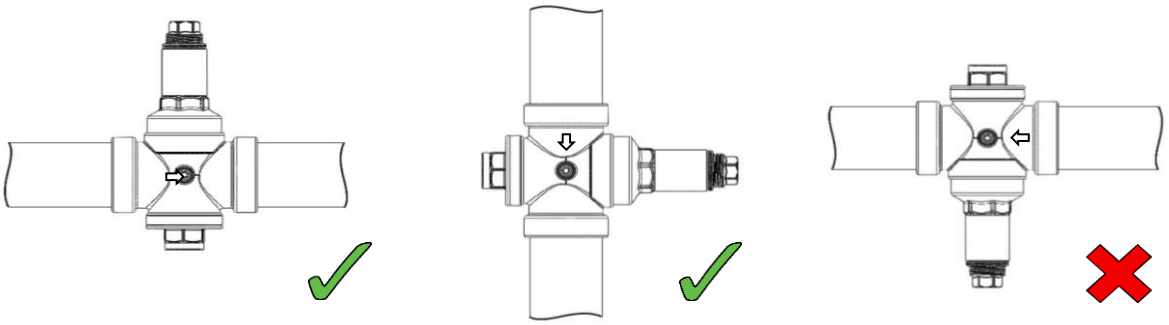
According to the diagram as the flow rate increases, the pressure loss increases and the outlet pressure decreases.
EXAMPLE: Let us consider a system using a 2 ½" pressure reducer. The pressure of the water pressure reducer is P = 3 bar Q = 200 l / min. Based on these values, the pressure variation is read as Δp = 0.88 bar when the Q = 200 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 (Po) = 3 - 0.55 = 2.45 bar at the flow in the installation.

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 24 bar must be reduced to 4 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 24 bar is reduced to 8 bar, then with a pressure reducer number 2, a pressure of 8 bar is reduced to 4 bar. In this way, safe pressure decrease ensured.

CONNECTION



- This product can be installed; vertical, horizontal but not 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.