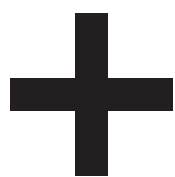


PN 10/16/25 Atm
DN 50/600 mm



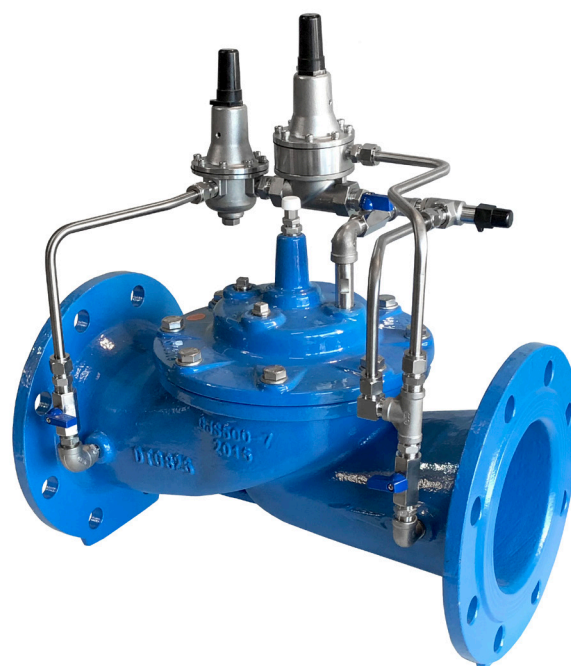
Hydraulic Valves

HYDROMAF

520

Pressure sustaining & reducing

It maintains a constant pressure upstream and downstream regardless of variations in flow or demand



mafusa

Avda dels Transports, Sector 13
Parcela 45A, 46394, Ribarroja del Turia
Valencia, España

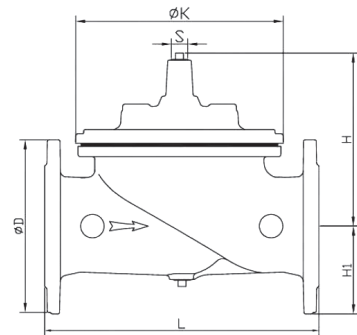
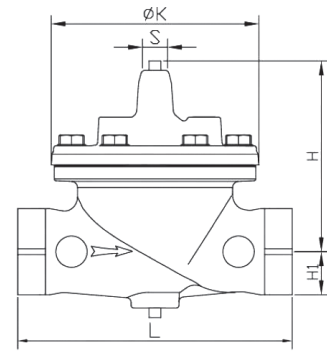
Phone: 96 166 70 35
Fax: 96 166 90 89

www.mafusa.net
mafusa@mafusa.net

+ Dimensions

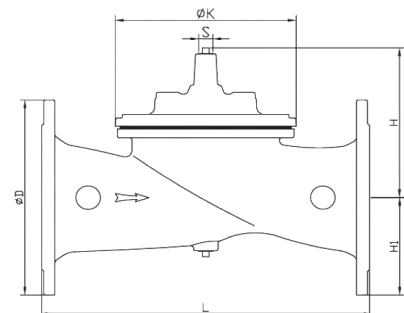
Main Valve - Fully Bore Type

DN	L	H	H1*	K	S	Peso (Kg)
40S-1 1/2"	230	139	55	173	3/8"	13
50S-2"	230	139	55	173	3/8"	13
50	230	139	85	173	3/8"	14
65	290	159	95	198	3/8"	19
80	310	179	102	226	3/8"	23
100	350	214	112	265	3/8"	32
150	480	333	145	351	1/2"	68
200	600	407	72	436	3/4"	125
250	730	476	205	524	1"	200
300	850	526	232	606	1"	260
400	1100	624	292	741	1 1/2"	560
500	1250	720	360	1002	2"	880
600	1450	835	425	1308	2"	1300
800	1850	1110	515	1755	2"	1950
1000	2250	1350	630	2231	2"	2456



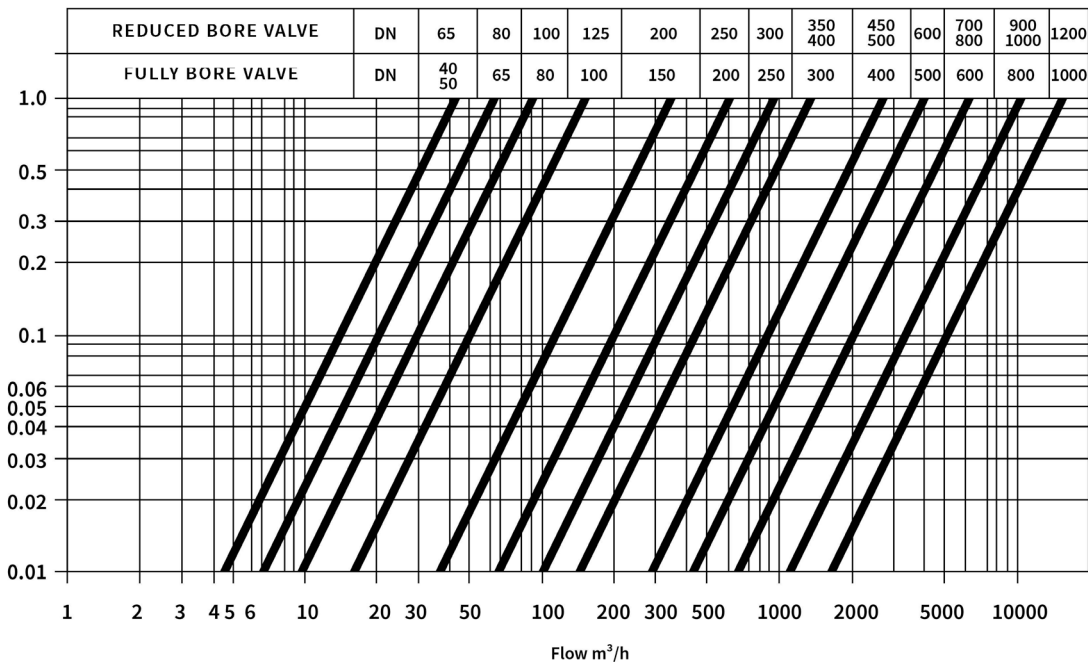
Main Valve - Reduced Bore Type

DN	L	H	H1*	K	S	Peso (Kg)
65	230	139	95	173	3/8"	21
80	290	159	102	198	3/8"	28
100	350	179	112	226	3/8"	39
125	350	214	127	265	3/8"	56
150	480	214	145	265	3/8"	96
200	600	333	172	351	1/2"	162
250	730	407	205	436	3/4"	230
300	850	476	232	524	1"	285
350	850	526	262	606	1"	435
400	1100	526	292	606	1"	590
450	1100	624	325	741	1 1/2"	750
500	1100	624	360	741	1 1/2"	1090
600	1250	720	425	1002	2"	1200
700	1450	835	460	1308	2"	1420
800	1450	835	515	1308	2"	1510
900	1850	1110	570	1755	2"	2185
1000	1850	1110	630	1755	2"	2268
1200	2250	1350	750	2231	2"	2855

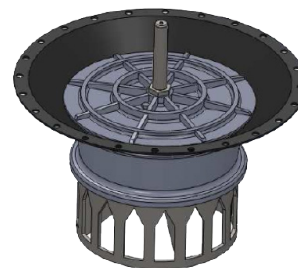
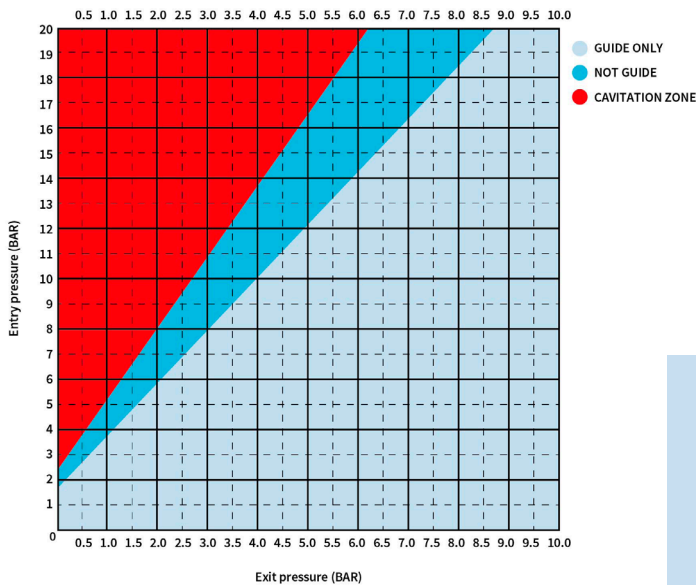




Head losses



Cavitation guide chart



Anti-cavitation Kit

The anti-cavitation mold has been designed for applications where there is a high damage potential for damage from cavitation, providing an optimum internal pressure control through a unique anti-cavitation trim design and relieving the damage of cavitation with multi-stage pressure reducing.



Standards and specifications

USE	STANDARD	CONNEXION
Use: Water Temp: -41° - 220 °C	Standard Designs EN 1074-5 BS EN 1567	Face to face EN 558-1 / ISO 5752 Serie 1
Pressure Range: ISO EN PN10, PN16, PN25 ANSI CL125/150/300 JIS 10K/16K AS Table D, E	Standard Test ISO 5208 / EN 12266-1	Flange Drilling EN 1092-2 ISO 7005-2



Product description

Basic valve, reducing pilot 2W stainless steel, holder pilot 2W, stainless steel needle valve, 2 manometers.



Operation

The Model 520 Combination Pressure Sustaining and Pressure Reducing Valve automatically performs two independent functions.

It maintains a constant downstream pressure, regardless of fluctuating demand and sustains the upstream pressure to a pre-determined minimum.

The pressure reducing control responds to slight variations in downstream pressure and immediately repositions the main valve to maintain the desired downstream pressure. The pressure sustaining control is normally held open by the upstream pressure, but modulates should the pressure drop to the control set point.

This valve usually used in lower elevation pipeline to guarantee prior use of higher elevation area.



Setting

1° With the gate valves closed, open 3 turns the needle valve, loose the screw of the reducing pilot and tighten the pilot holder one.

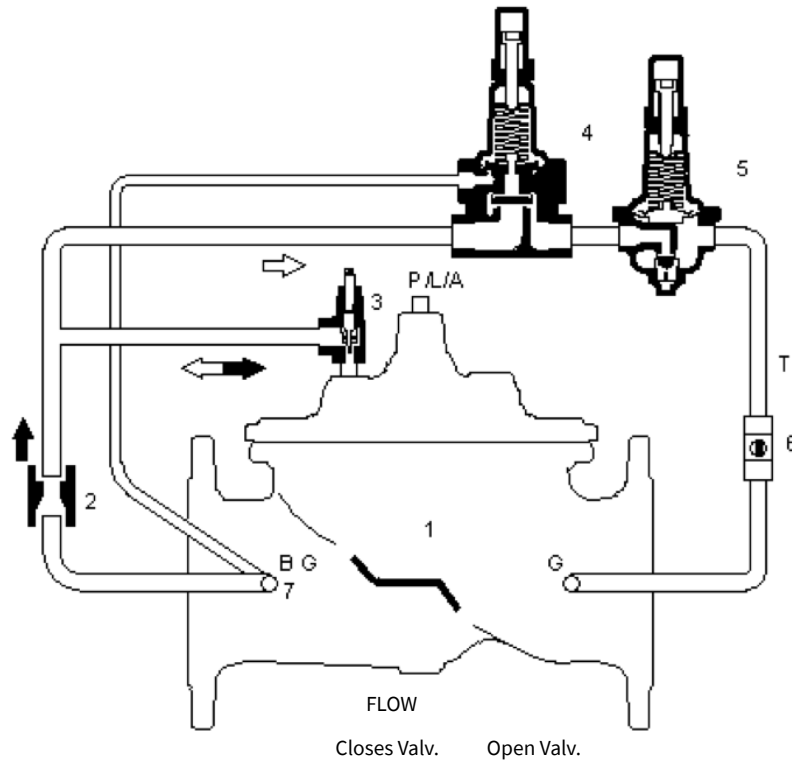
2° Open gate upstream for the hydraulic valve between load and open partially the gate downstream. As the membrane is loaded, the valve will close.

3° Open slowly, in the opposite way of clockwise, the screw of the holder pilot until we notice that water movement happens in the piloting. Logically, the valve cannot open because the reducing pilot prevents it. Next we will start tightening the screw of the reducing pilot in the clockwise sense until we notice that the valve wants to open. Probably, you may have to loose a little more the screw of the holder pilot to open the valve a little more.

4° Once calibrated pressure downstream and carefully with the filling of the pipeline, we will open the gate downstream and continue regulating the holder pilot until reach the desired pressure. It's probably that we'll have to open a drain downstream that favors the pressure drop.

5° Finally, adjust the needle valve for a smooth and correct operation of the valve and adjust the pilots nuts.

+ Control diagram



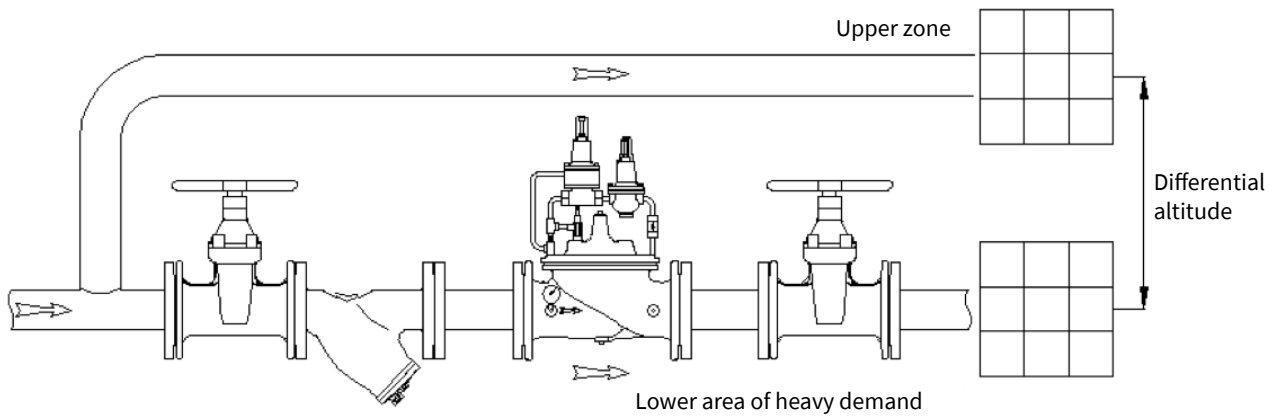
+ Standard configuration

1. Main valve
2. Restriction
3. Needle valve
4. Pressure relief pilot
5. Pressure reducing pilot
6. Ball valve
7. Strainer

+ Optional configuration

- B. Ball valve
- G. Pressure Gauge
- P. Position indicator
- L. Limit switch

+ Typical installation



For carrying out the setting and maintenance of hydraulic valve, it is essential the installation of the following items:

1. Shutoff valves before and after hydraulic, as shown in the graph. With them we can also simulate various flow conditions for regulation and attend the slow filling of the pipe.
2. The cast iron Y strainer prevents the penetration of any element in the hydraulic valve that difficult it's proper functioning. Much of the anomalies are given by the absence of this element.
3. Cast iron air valve. It is highly recommended installing a suction cup water under the outlet. This will allow air to escape during filling or getting in when the reducing pressure valve closes the flow.

It's very important to check that the diameter of the valve is adjusted to the ranges of actual flows and never oversizing the valve.

Excluded from the guarantee all those valves are not installed in accordance with these recommendations.