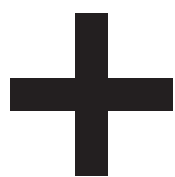


PN 10/16/25 Atm  
DN 50/600 mm



# Hydraulic Valves

HYDROMAF

## 536CLD

**Sustaining and check valve with electric solenoid actuation, AC current and super slow closing**

Performs the function of a solenoid valve, with slow closing and adjustable closing time, supported by a hydro-pneumatic accumulator. Operated using two monostable solenoids. Additionally, performs the role of a sustaining valve.



**mafusa**

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

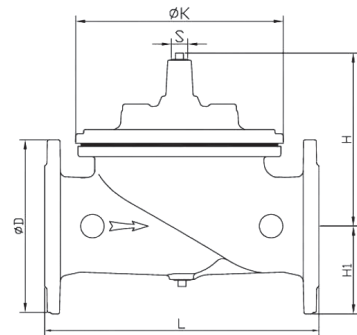
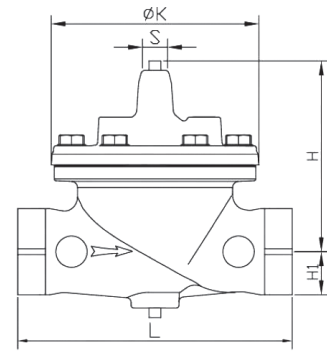
Phone: 96 166 70 35  
Fax: 96 166 90 89

[www.mafusa.net](http://www.mafusa.net)  
[mafusa@mafusa.net](mailto:mafusa@mafusa.net)

# + Dimensions

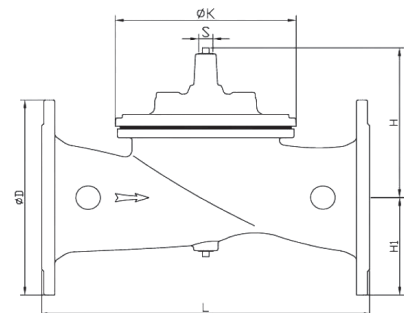
## Main Valve - Fully Bore Type

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



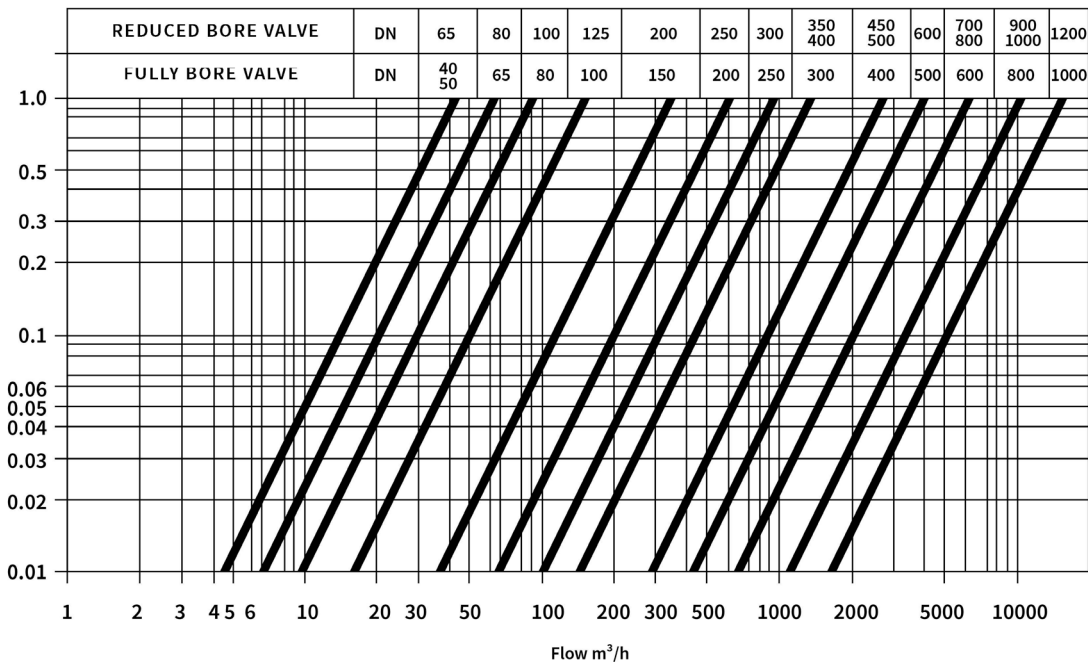
## Main Valve - Reduced Bore Type

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

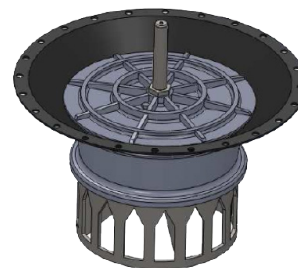
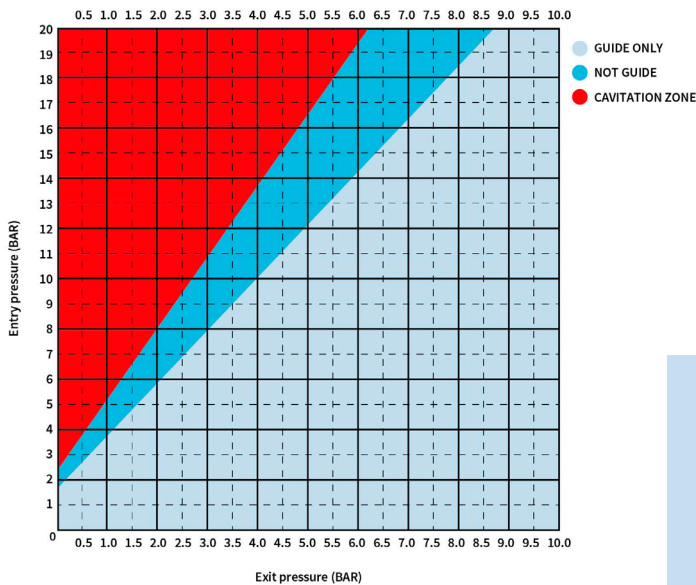




# Head losses



# 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, 2 stainless steel 2W solenoid pilots with hydraulic relay, stainless steel 2W holding pilot, 2 needle valves, 3 pressure gauges, accumulator, 5 ball valves, drain valve and small fitting.



## Operation

In this valve we use the sustaining pilot to achieve a soft and slow closing by adjusting the sensor pressure. It can also perform the function of a holding valve, although this function would be performed with a slight delay, as any variation would first have to modify the pressure within the accumulator, either by adding or releasing the corresponding volume. Additionally, it incorporates a quick-closing check valve function with a direct connection to the chamber, preventing flow in the reverse direction.

# + Tuning

This will be done in case it is not factory-calibrated or if you want to recalibrate it.

+ With the gate valves closed, open the angled needle valve by 1.5 turns and the inline needle valve (blue handwheel) by 0.5 turns, then tighten the holding pilot screw.

+ Open the upstream gate valve to allow hydraulic pressure to load and open the downstream gate valve until you hear water starting to flow. As soon as the diaphragm is loaded, the valve will close. Slightly open the downstream gate valve.

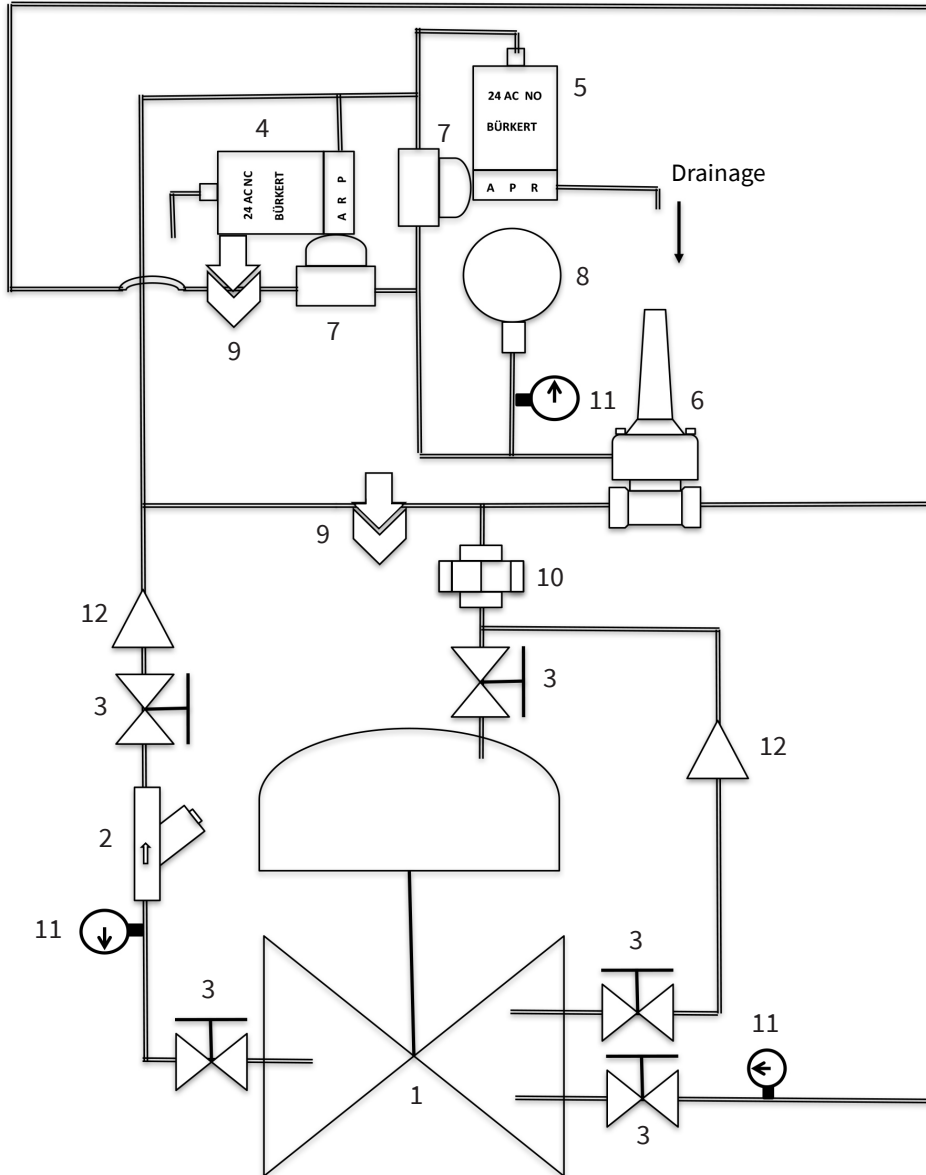
+ Apply electric power to the solenoids to initiate the valve opening.

+ Slowly open the holding pilot adjustment screw counterclockwise until you feel the valve is going to open. At this point, continue opening until the desired flow/pressure point is reached, using the full opening of the downstream gate valve to assist.

+ Once the pressure/flow is calibrated, remove the power from the solenoids to observe how the accumulator drains and how quickly pressure is lost (check the sensor's pressure gauge) and time the process.

+ To increase the closing time, the inline needle valve can be closed slightly and the timing can be repeated. It is recommended not to exceed 2 minutes to avoid excessive choking, which could lead to blockages.

# + Control Diagram



## + Standard configuration

## + Optional configuration

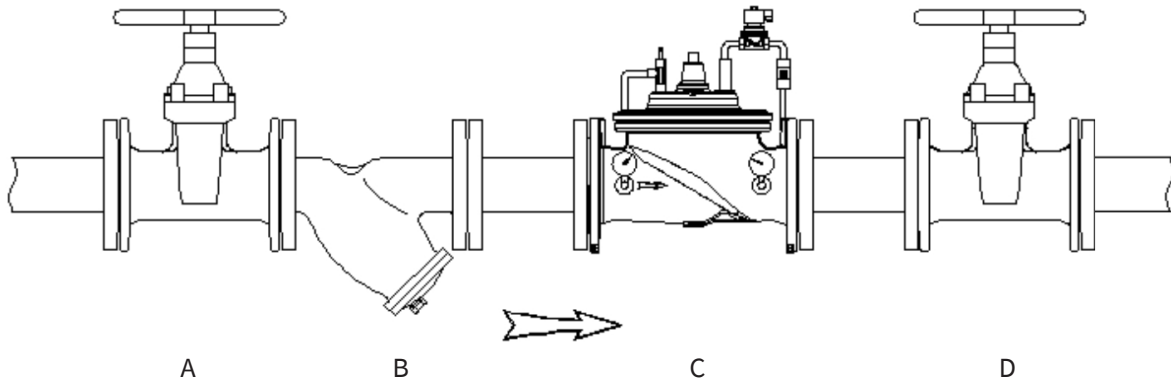
- 1. Main valve
- 2. External filter
- 3. Ball valve (5 units)
- 4. NC solenoid pilot
- 5. NO solenoid pilot
- 6. Holding Pilot 2W

- 7. Hydraulic relay 2W (2 units)
- 8. Hydropneumatic accumulator
- 9. Needle valve (2 units)
- 10. 3-Piece link
- 11. Pressure gauge (3 units)
- 12. Check valve

Atmospheric drainage



# Typical installation



- A. Shut-off Valve
- B. Strainer
- C. Solenoid valve
- D. Shut-off Valve

In order to carry out the setup and maintenance of a hydraulic valve, it is essential to install the following elements:

1. Gate valves before and after the hydraulic unit, as shown in the diagram. These valves will also allow us to simulate various flow conditions for regulation and carry out a slow pipe filling.
2. Strainer. Prevents any element that could block its proper operation from entering into the hydraulic valve. Many anomalies are caused due to the absence of this element.
3. Air valve. It is highly recommended to install an air valve downstream of the outlet gate valve. This will allow air to escape during the filling or enter when the sustaining valve closes the passage (in the case of the sustaining valve).

It's crucial to verify that the valve diameter matches the real flow rate ranges and never oversize the valve.

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