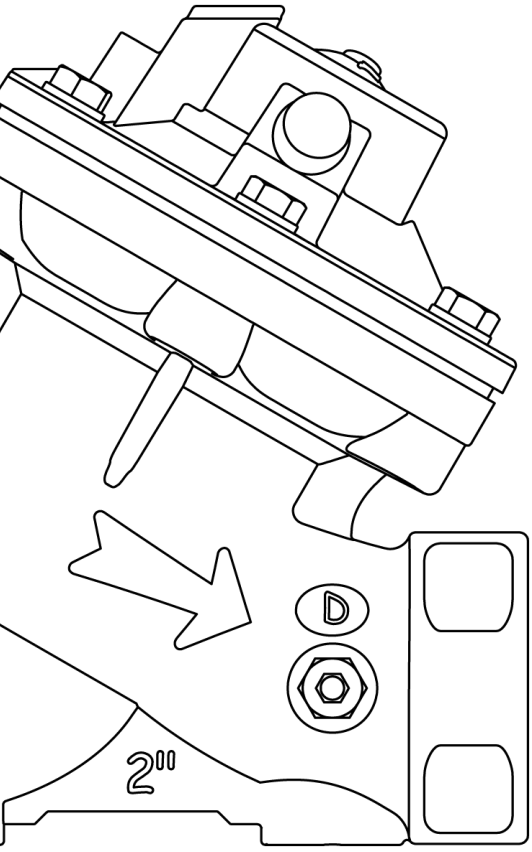
VÁLVULAS
DCP

Cometal®
HIGH TECHNOLOGY FOR WATER

- ✓ OPTIMAL POSITION of the axis of the chamber which guarantees a minimum loss of load and reducing the effect of cavitation.
- ✓ Rigid closing of the piston which provides GREAT ACCURACY in the control regulation.
- ✓ Spring cylindrical base to achieve a HIGH LEVEL OF PRECISION in the operation.
- ✓ The valve can work as SIMPLE OR DOUBLE CHAMBER.



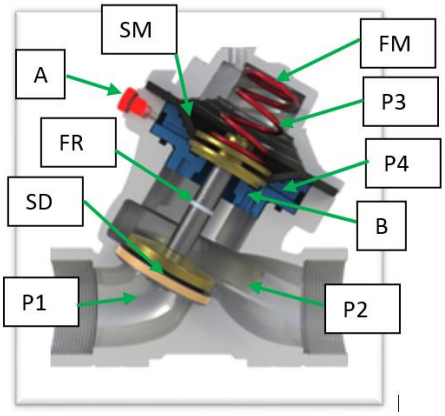
SPECIFICATIONS

- CONNECTIONS : 2"_DN50: Threaded BSP, NPT;
  3"_DN80: Flanged ISO, ANSI, BS.
- DESIGN: Single or double chamber line design.
- SIZES RANGE :
  Thread: 2"-DN50
  Flange: 3" – DN80.
- NOMINAL PRESSURE (bar): PN16.
  (psi): PN232.

MATERIALS

- BODY AND COVER: GGG-40 Ductile Iron.
- DIAPHRAGM: Natural rubber reinforced with nylon.
- SPRING: Stainless steel.
- COVERING: Epoxy-polyester double covering.

SIMPLE CHAMBER



P1 = Upstream pressure
P2 = Downstream pressure
P3 = Control chamber pressure
P4 = Double chamber pressure
A = Double chamber access
B = Double chamber plug
SD = Closing disc surface
SM = Diaprhagm surface (SM=3SD)
FM= Spring force
FR= Axis friction force

OPENING FORCE (FA)

$FA = P1 \cdot SD + P4 \cdot SM$

OPENING ⟹ $FA > FC + FM$

P3 = 0, P4 = P2

$P1 \cdot SD + P4 \cdot SM > P2 \cdot SD + FM$

CLOSING FORCE (FC)

$FC = P2 \cdot SD + P3 \cdot SM + FM$

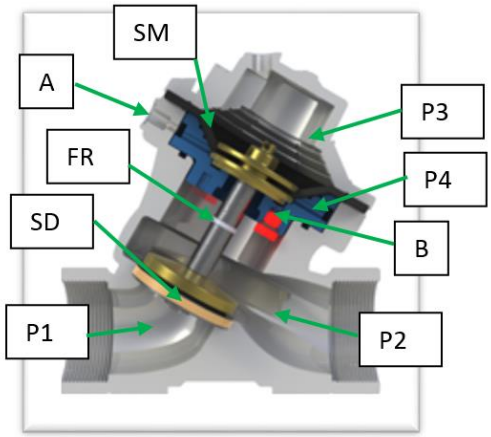
CLOSING ⟹ $FA < FC$

P3 = P1, P4 = P2 = 0

$P1 \cdot SD + P4 \cdot SM < P2 \cdot SD + P3 \cdot SM + FM$

$P1 \cdot SD < P3 \cdot SM + FM$

DOUBLE CHAMBER



P1 = Upstream pressure
P2 = Downstream pressure
P3 = Control chamber pressure
P4 = Double chamber pressure
A = Double chamber access
B = Double chamber cup
SD = Closing disc surface
SM = Diaprhagm surface (SM=3SD)
FR= Axis friction force

OPENING FORCE (FA)

$FA = P1 \cdot SD$

$FA = P1 \cdot SD + P4 \cdot SM$ ⇨ P1=P4

It is necessary to activate the double chamber for a full opening and deactivate it for closing.

FUERZA CIERRE (FC)

$FC = P2 \cdot SD + P3 \cdot SM$

OPENING ⟹ $FA > FC$

P3 = 0, P1=P4

$P1 \cdot SD > P2 \cdot SD$ $P1 \cdot SD + P4 \cdot SM > P2 \cdot SD$

CLOSING ⟹ $FA < FC$

P3 = P1, P4 = P2 = 0

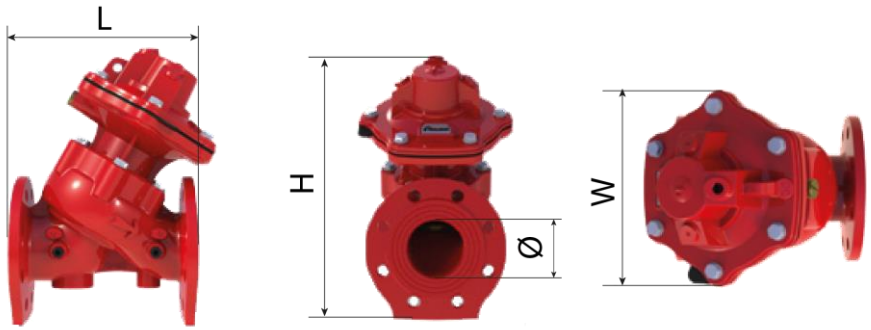
$P1 \cdot SD < P2 \cdot SD + P3 \cdot SM$

COMPONENTS

COMETAL hydraulic valves comply with the specifications of the standards **UNE - EN 1074** about valves for the supply of water and **ISO 9635** about irrigation valves with reference to **general requirements, mechanical resistance and watertightness.**

COMPONENTS
BODY, COVER AND PLATFORM
BOLTS
DIAPHRAGM
SPRING
PISTON AXIS
JOINTS
O-RINGS
OTHER INNER PIECES

DIMENSIONS AND WEIGHTS

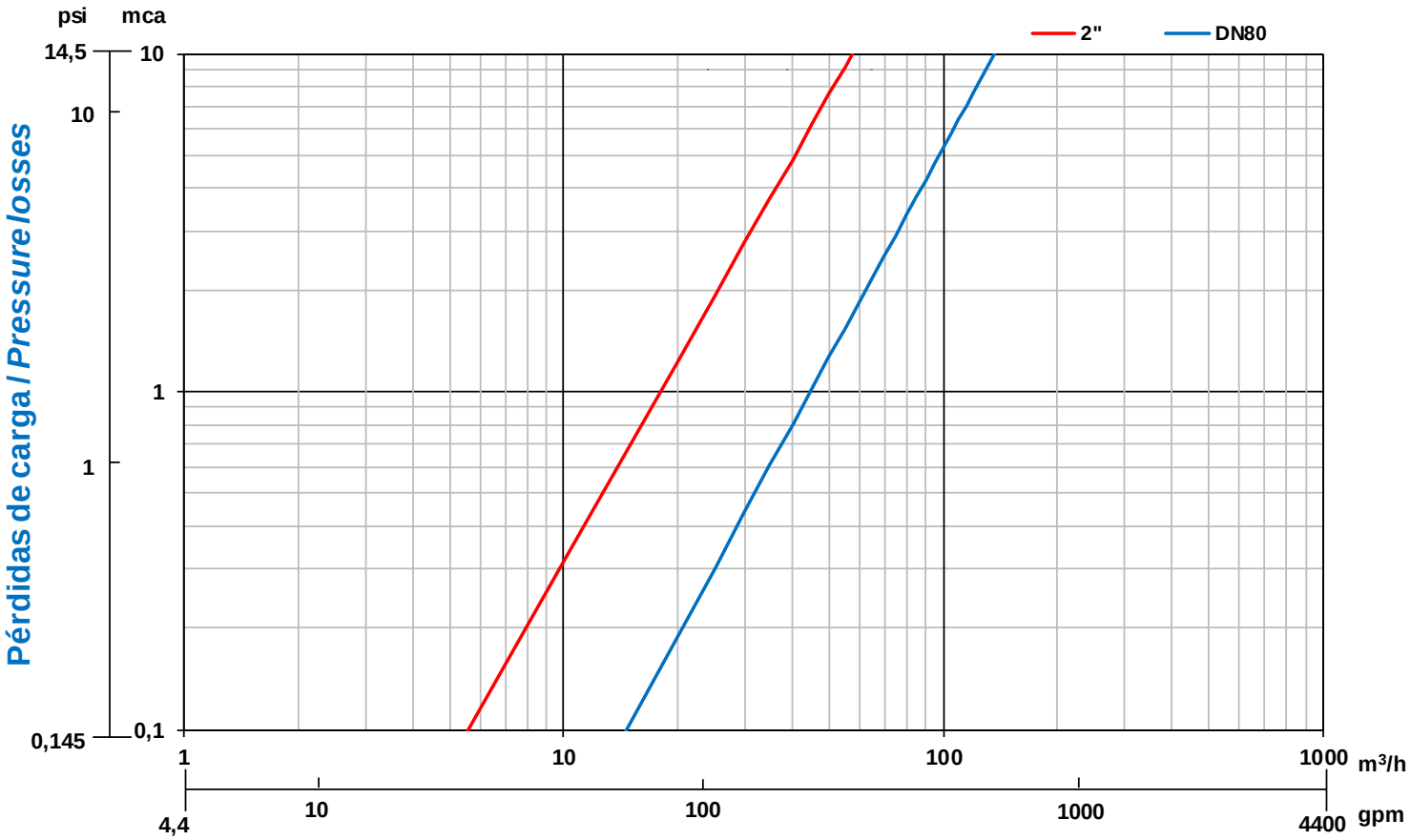


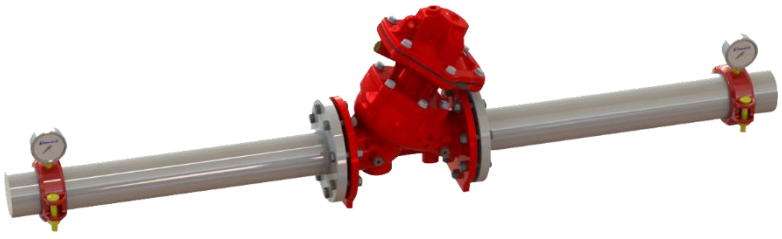
MODEL	CONNECTION	LENGTH (L)		HEIGHT (H)		INSIDE DIAM (ø)	WIDTH (W)		WEIGHT
		mm	inch	mm	inch	inch	mm	inch	Kg
2”	THREAD	186	7.32	198	7.79	2”	147,3	5.79	7.4
DN80	FLENAGE	252	9.92	377,6	14.86	3”	229,1	9.01	25.9

FRICTION HEAD LOSS

DCP VALVES

COMETAL valves comply with the following standards for threaded connections:
BSP. 7.1 ISO - 228.1 ISO - UNE - EN 10226 - BS-EN 10226. ISO standard and European standards.
NPT. ASME-ANSI B 1.20. American standard.





Friction Head Loss is measured from A to B

COMETAL hydraulic valves comply with the specifications of the standards **UNE-EN 1267** and **ISO 9644** in terms of friction head loss tests.

MODEL	CONNECTION	KV		CONTROL CHAMBER VOLUME
		m3/h	gpm	litres
2”	THREAD	58	255.4	0,10
DN80	FLANGE	135	594.4	0,43