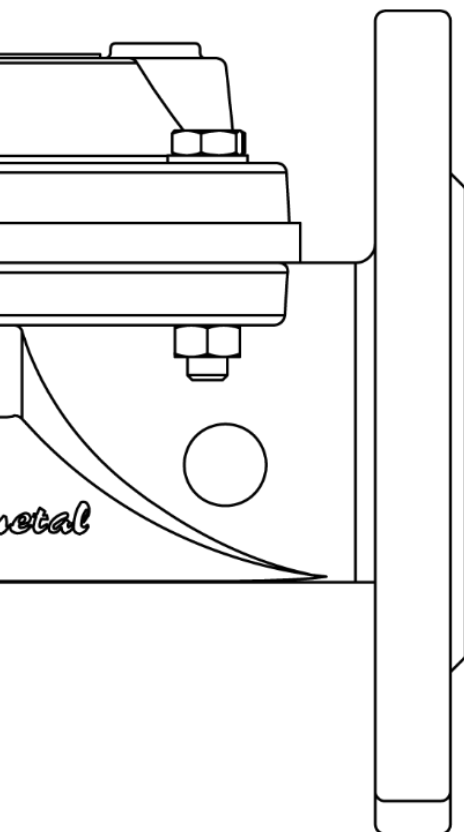


# LINE DESIGN HYDRAULIC VALVES

- ✓ **PATENT MODEL:** Perimeter ring in the platform of the valve body which avoid the diaphragm displacement.
- ✓ **THREE TYPES OF DIAPHRAGMS:** Three models of diaphragms and springs depending on the necessities. PN16 irrigation high pressure, PN06 standard pressure and PN04 irrigation low pressure (valve opens with 4mca).
- ✓ **ACCESS AND MAINTENANCE:** It allows an easy access to the inner part of the valve only manipulating the screws between covers and bodies.
- ✓ **POSITION:** Horizontal or vertical position of the valve, does not affect the operation or hydraulic specifications of the product.
- ✓ **ONLY SUITABLE FOR AGRICULTURAL USE**



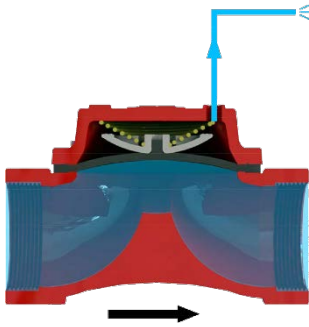
## SPECIFICATIONS

- **CONNECTIONS:** Flanges ISO-7005-2 (ANSI or BS under request)  
Female BSP thread (NPT under request)  
Grooved
- **DESIGN:** Single chamber line design.
- **SIZES RANGE:**  
Threaded: 1" - 1½"P - 1½"G - 2" - 2½" - 3" (323) - 3" (333)  
Flanged: DN50-DN80 (333) - DN80(343) - DN100 - DN125 - DN150 - DN200.  
Grooved: 2" - 3" - 4" - 6"
- **NOMINAL PRESSURE (bar):** PN04, PN06 or PN16.  
(psi): PN58, PN87 or PN232.
- **MINIMUM ACTIVATION PRESSURE:**  
PN04: 0,4 bar  
PN06: 1,0 bar  
PN16: 1,5 bar

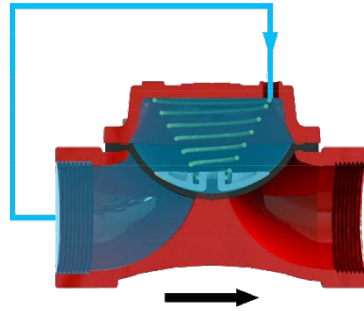
## MATERIALS

- **BODY AND COVER:** GG Cast Iron.
- **DIAPHRAGM:** Natural rubber reinforced with nylon.
- **SPRING:** Stainless steel.
- **COVERING:** Epoxy-polyester double covering.

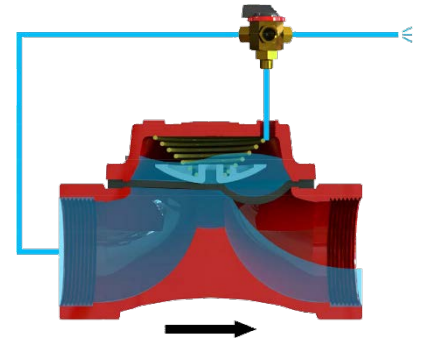
COMETAL hydraulic valves comply with the specifications of the standards **UNE - EN 1074** about valves for the supply of water and **ISO 9635** about irrigation valves with reference to **general requirements, mechanical resistance and watertightness**.



When the sum of the Control Chamber powers is less than the upstream pressure, the valve will open.

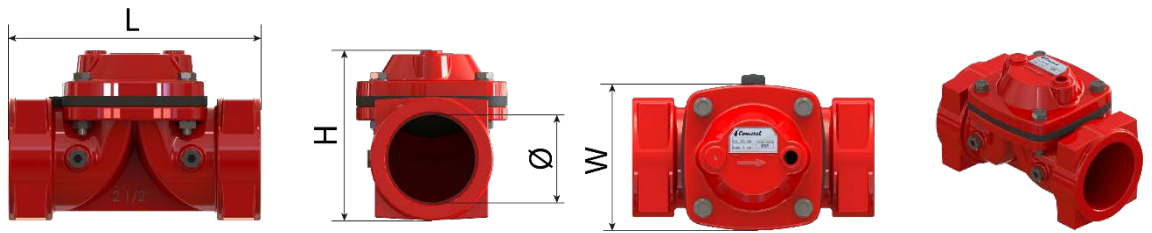


When the sum of the Control Chamber powers is higher or equal than the upstream pressure, the valve will close.



When the Control Chamber is partially full, the valve can be opening, closing or regulating.

## DIMENSIONS AND WEIGHTS

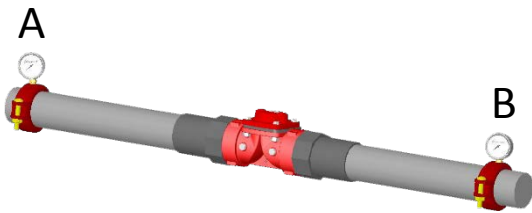
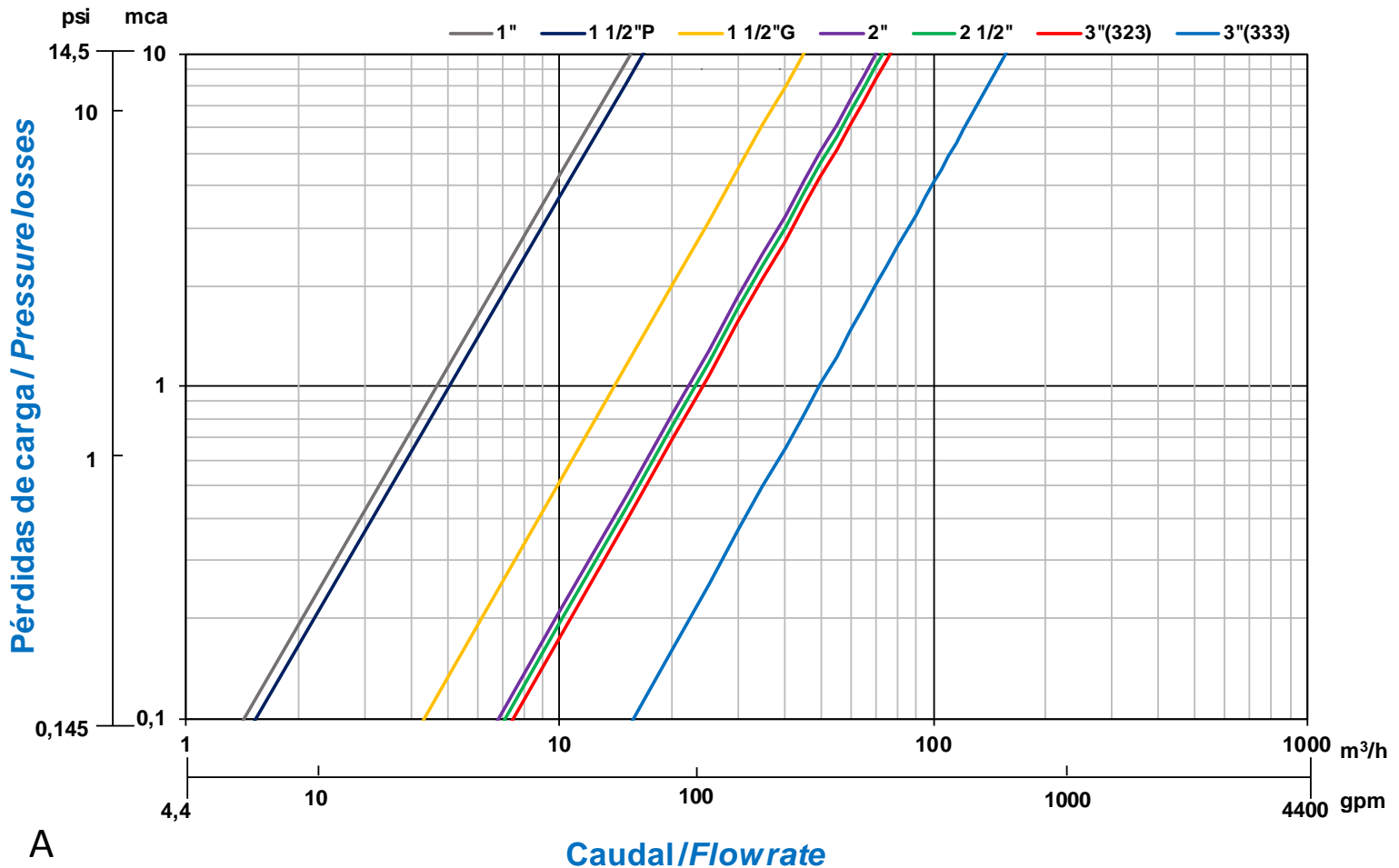


MODEL	CONNECTION	NUMBER OF DRILLS	LENGTH (L)		HEIGHT (H)		INSIDE DIAM (Ø)	WIDTH (W)		WEIGHT
			mm	inch	mm	inch		mm	inch	
1"	THREAD	-	120	4.72	70	2.75	1"	70	2.76	1,2
1 ½" TIPO P	THREAD	-	152	5.98	85	3.35	1 ½"	70	2.76	1,6
1 ½" TIPO G	THREAD	-	186	7.32	115	4.53	1 ½"	120	4.72	4,8
2"	THREAD	-	186	7.32	115	4.53	2"	120	4.72	4,4
2 ½"	THREAD	-	200	7.87	130	5.12	2 ½"	120	4.72	5,5
3" (323)	THREAD	-	210	8.27	140	5.51	3"	120	4.72	6,3
3" (333)	THREAD	-	245	9.65	155	6.10	3"	170	6.69	9,81
DN50	FLANGED	4	186	7.32	165	6.50	2"	165	6.50	7,6
DN80 (333)	FLANGED	8	252	9.92	205	8.07	3"	200	7.87	15,5
DN80 (343)	FLANGED	8	300	11.81	205	8.07	3"	207	8.15	20,2
DN100	FLANGED	8	305	12.01	225	8.86	4"	220	8.66	21,8
DN125	FLANGED	8	332	13.05	265	10.43	5"	250	9.84	29,5
DN150	FLANGED	8	390	15.35	310	12.20	6"	300	11.81	53,7
DN200	FLANGED	8/12	475	18.70	415	16.34	8"	380	14.96	84,4
2"	GROOVED	-	187	7.36	110	4.33	2"	120	4.72	3,8
3"	GROOVED	-	287	11.30	150	5.91	3"	207	8.15	12,3
4"	GROOVED	-	285	11.22	180	7.09	4"	207	8.15	13,1
6"	GROOVED	-	390	15.35	270	10.63	6"	300	11.81	40,9

THREAD 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.



Caudal/Flowrate

Friction Head Loss is measured from A to B

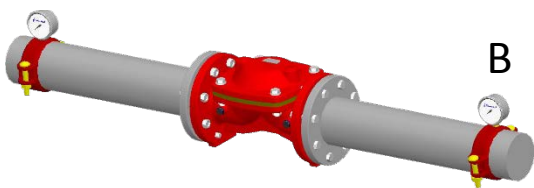
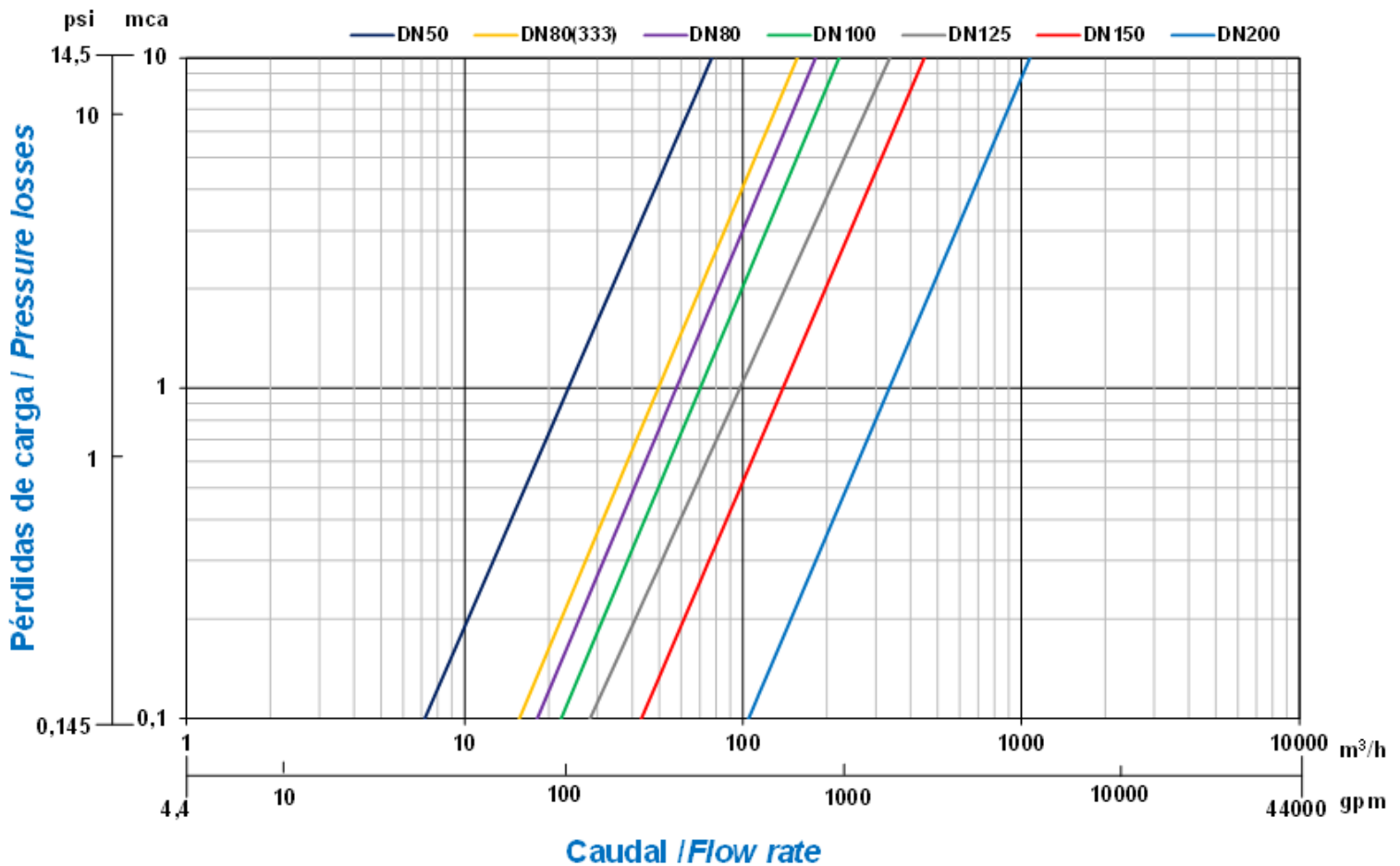
MODEL	CONNECTION	KV		CONTROL CHAMBER VOLUME
		m3/h	gpm	litres
1"	THREAD	15,5	68,2	0,02
1 1/2" TYPE P	THREAD	17	74,8	0,02
1 1/2" TYPE G	THREAD	45	198,1	0,14
2"	THREAD	71	312,6	0,14
2 1/2"	THREAD	74	325,8	0,14
3" (323)	THREAD	77	339,0	0,14
3" (333)	THREAD	165	726,5	0,44

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

FLANGED VALVES



COMETAL valves comply with the following standards for flanged:  
 ISO 7005 - DIN - UNE-EN 1092-BS-EN 1092. ISO standard and European standards.  
 ASME-ANSI B 16.1 - 16.5 B. American standard.  
 AS 2129. Australian standard.



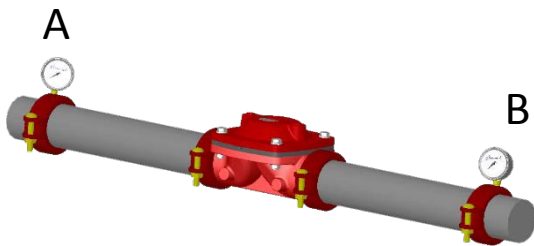
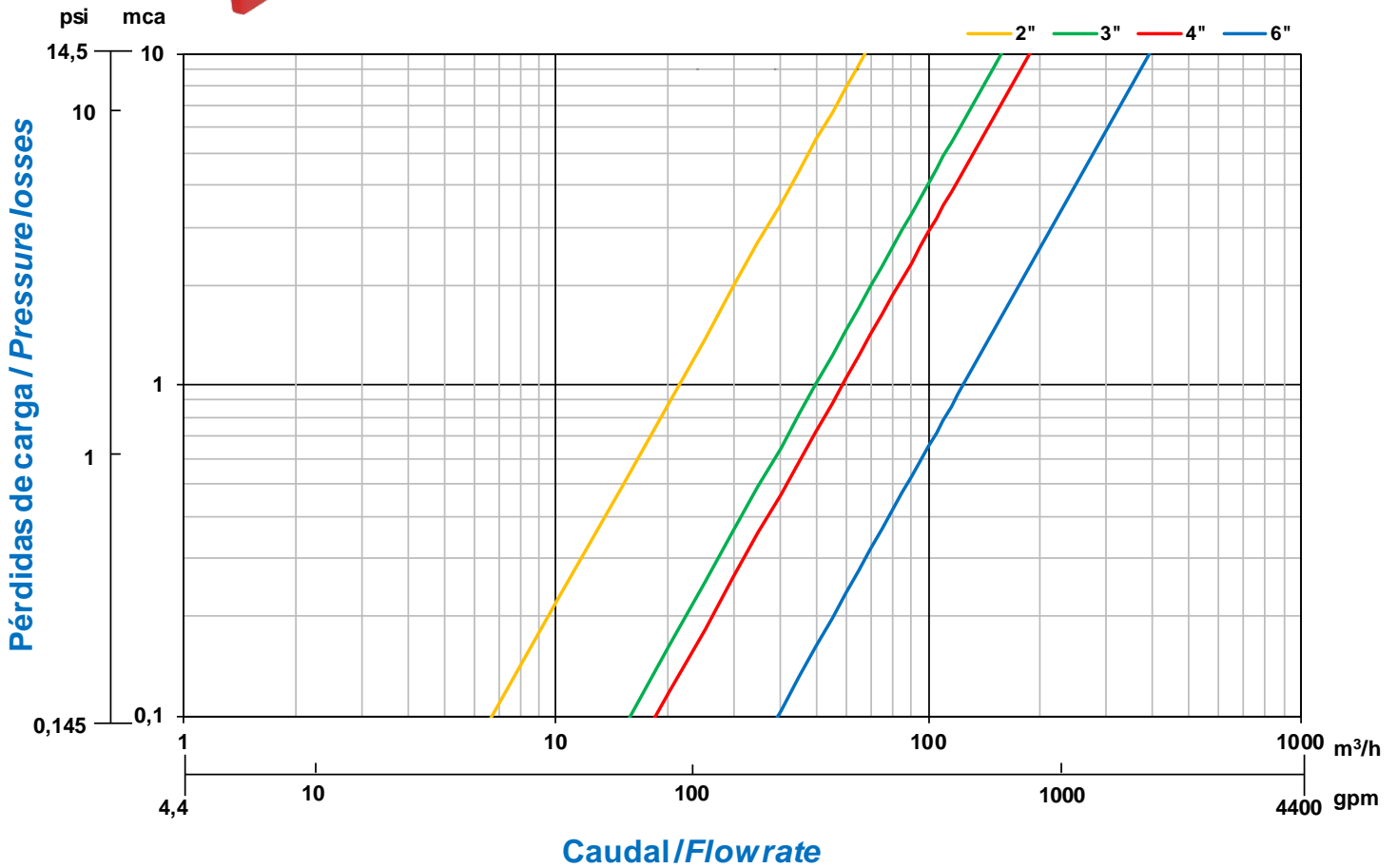
Friction Head Loss is measured from A to B

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
DN50	FLANGED	75	330.2	0,14
DN80 (333)	FLANGED	165	726.5	0,56
DN80 (343)	FLANGED	180	792.5	0,63
DN100	FLANGED	220	968.6	0,64
DN125	FLANGED	320	1409.0	1,00
DN150	FLANGED	450	1981.3	1,60
DN200	FLANGED	1075	4733.1	2,65

GROOVED VALVES

COMETAL valves comply with standard grooved specifications.



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"	GROOVED	68	299.4	0,14
3"	GROOVED	158	695.7	0,67
4"	GROOVED	206	907.0	0,65
6"	GROOVED	395	1739.1	1,60