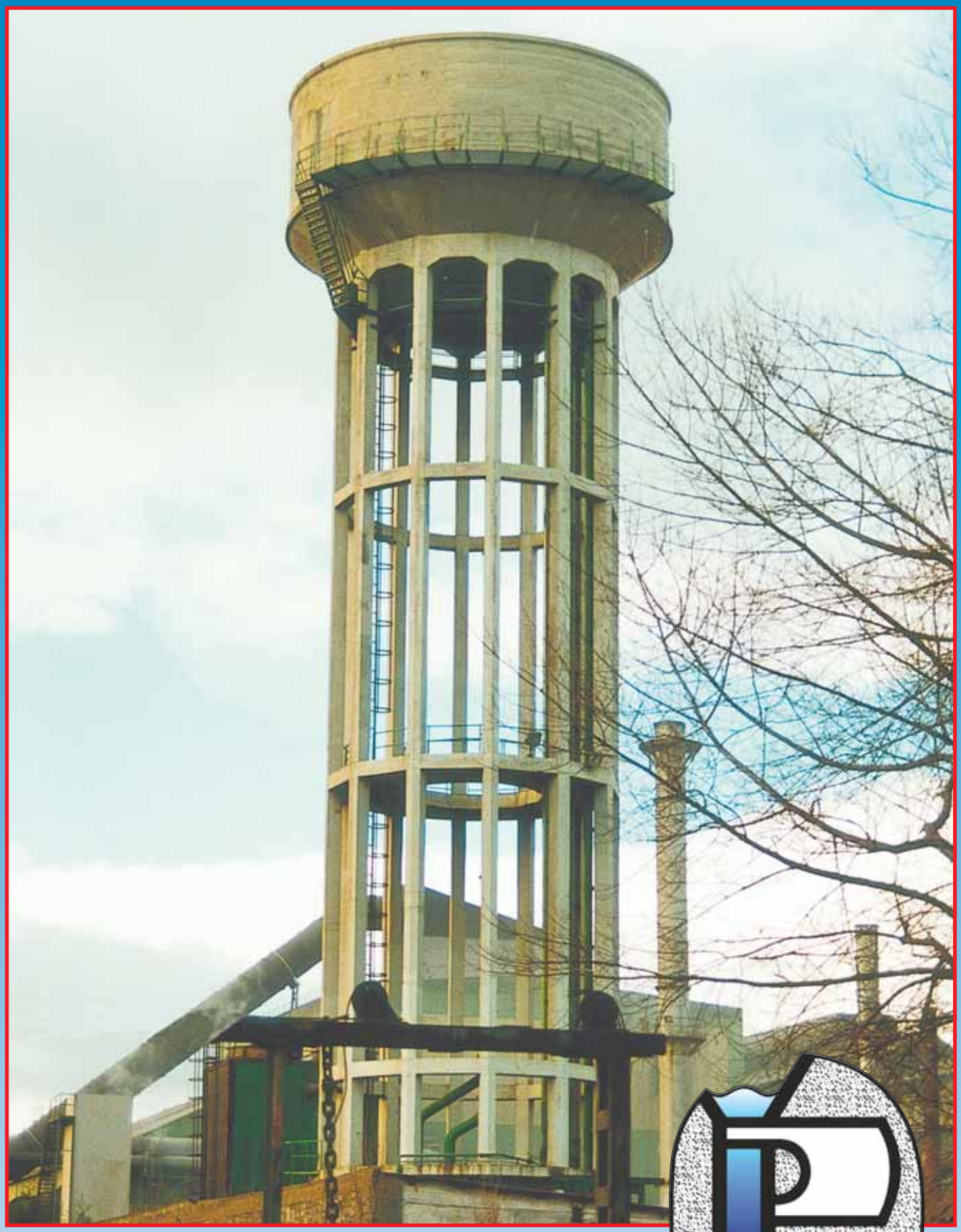


multiple check valve
dismantling joint
foot valve
float valve

IBAPOL S.L.
POLANCO VALVES®
www.ibapol.com

POLANCO® multiple check valve

Closes	instantly as fluid stops and thus preventing the reverse flow.
Avoids	noise and closing shock, vibration in pipes, pump and other valves
Low	inertia and mass of the closing disks of the valve.

Features

This check valve elimitates the water hammer in pumping facilities when a non controlled stop occurs.

When another type of check valve is present the delay creates a reverse flow which produces a pressure surge as it slams into the check valve.

Polanco multiple check valve closes with no delay due to the minimal displacement of each of the multiple closing disks. There is no reverse flow and overpressure is insignificant. Also valve operation is silent.

POLANCO multiple check valve *reduces costs by simplifying the design of pumping stations as it works properly without the need of pressure relief valves, surge shafts, hydro-pneumatic tanks, inertia wheels, stronger pipes, etc.*

Polanco multiple check valve is manufactured in Spain, and tested in thousands of pumping stations with astounding results.

Sample references are: Diputacion Regional deCantabria, Confederacion Hidrográfica del Guadalquivir, Madrid Barajas Airport, Boukhara's City Water Supply (Uzbekistan), etc.

IBAPOL, S.L. *commercializes POLANCO VALVES® worldwide and provides advising to engineering offices in water hammer calculation.*

IBAPOL S.L.
POLANCO VALVES®
www.ibapol.com

PURPOSE

Typical final users are any organization which deals with pumping stations. For instance foundry industry, mining, irrigated land, potable water treatment plants, etc.

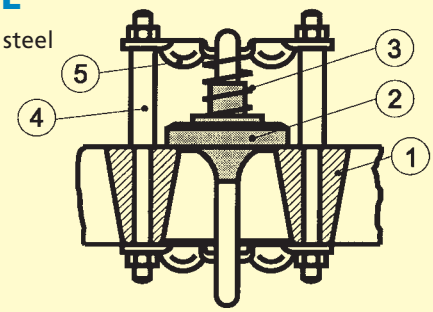
DESCRIPTION

This valve is made up of two conical bodies that fix a multiple closing elements disk. Bodies and central disk is made of carbon steel with a special coating polyamide named RILSAN. This coating not only protects against corrosion but is also compatible with European drinking water regulations.

NOTE: if ordered special anticorrosvie materials can be used according to client necessities

CLOSING DETAIL

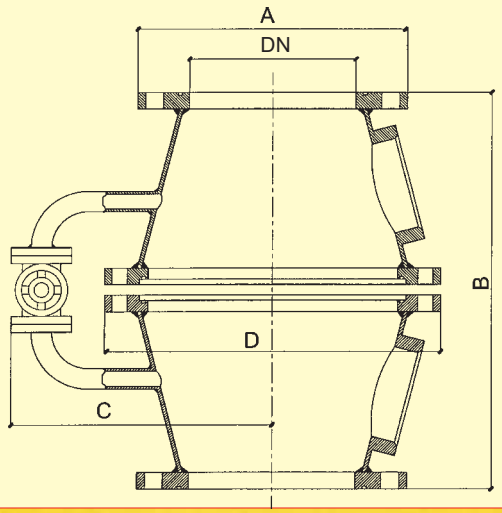
1 Multiple disk (carbon steel and polyamide)
2 closing element (inox. steel and neoprene)
3 Spring (inox. steel)
4 Pillars (inox. steel)
5 Guides (inox. steel)



Manufactured from DN-65 to DN-1600 and safe working pressure from PN-10 to PN–64.

Valve flanges in accordance with EN-1092-2.

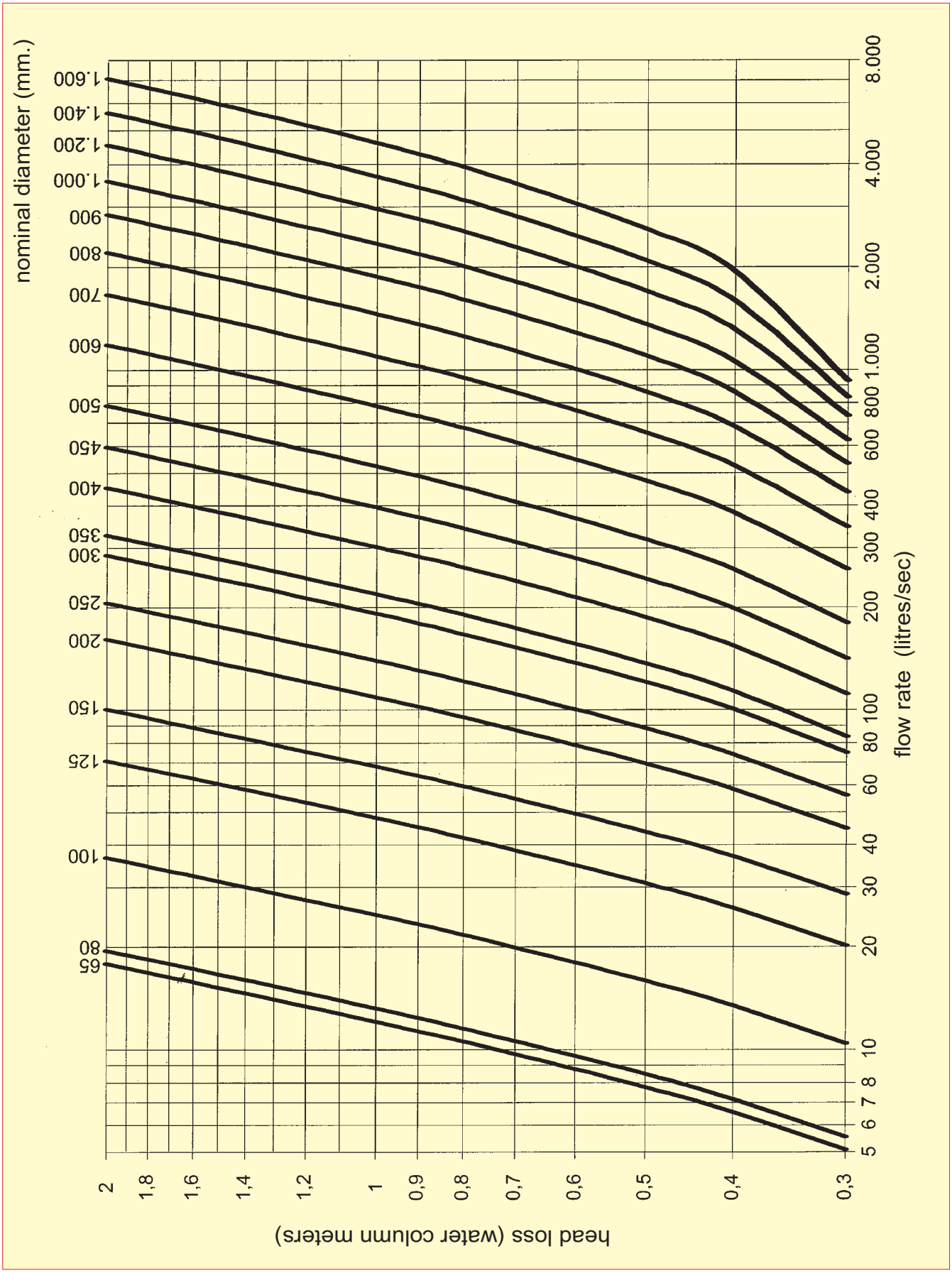
Other pressures an dimmensions are made under demmand.



D.N. "	D.N. mm.	A mm.	B mm.	C mm.	D mm.	Weight Kg.
2½	65	185	300	180	220	20
3	80	200	300	180	220	23
4	100	220	320	200	260	30
5	125	250	400	225	285	45
6	150	285	400	260	395	68
8	200	340	500	305	445	95
10	250	405	600	330	505	130
12	300	460	700	380	565	157
14	350	520	700	410	640	207
16	400	580	700	465	670	298
18	450	640	880	490	750	390
20	500	715	900	560	840	480
24	600	840	1.100	750	1.100	723
28	700	910	1.200	760	1.270	1.067
32	800	1.025	1.400	895	1.450	1.440
36	900	1.125	1.600	995	1.590	1.860
40	1.000	1.255	1.700	1.095	1.780	2.360

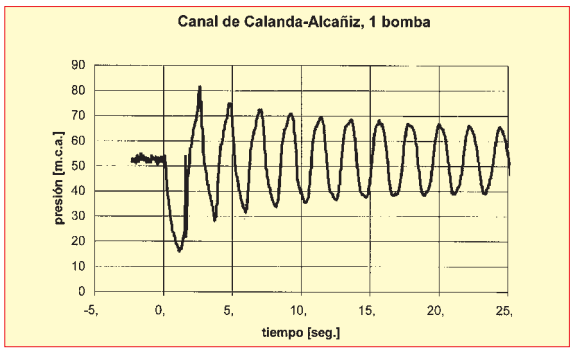
PN-16 dimensions

head loss abacus for
POLANCO® *multiple check valve*



pressure diagrams at sudden pump stop with POLANCO® multiple check valve

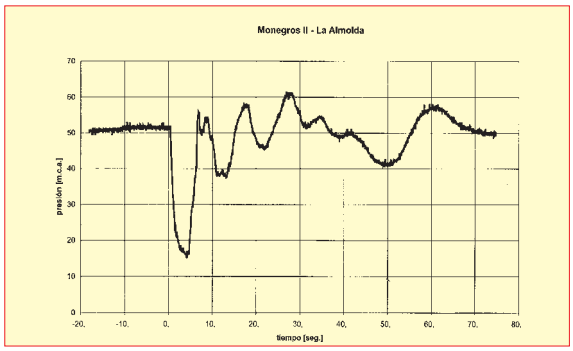
Canal Calanda - Alcañiz (Spain)



pumping data:

pipe length:	300 meters
pipe diameter:	1.400 mm.
flow rate:	750 L/sec.
geometric hight:	50 metros

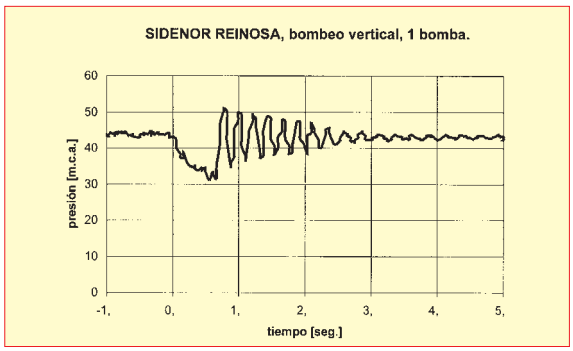
Zona Regable de Monegros II - La Almolda (Spain)



pumping data:

pipe length:	2.084 metros
pipe diameter:	1.200 mm.
pipe thickness:	90 mm.
flow rate:	700 L/seg.
geometric height:	48 metros

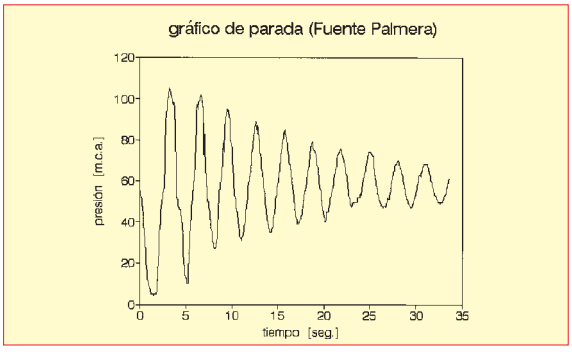
SIDENOR - Factory at Reinosa (Spain)



pumping data:

pipe length:	45 meters
flow speed:	1,99 m/s
pipe thickness:	6 mm.
pipe diameter:	400 mm.
flow rate:	900 m^3/h.
geometric height:	45 meters

irrigated land at Fuente Palmera (Cordoba - Spain)



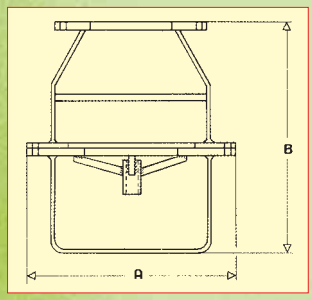
punping data:

pipe length:	1.900 meters
pipe diameter:	1.700 mm.
flow speed:	50 cm./sec.
geometric height:	70 meters

foot valve

Closes: when fluid flow stops providing a leakproof closure.

removes: leakage of fluid preventing the pump having to be primed.



DN "	DN mm.	A mm.	B mm.
4	100	280	320
5	125	315	360
6	150	350	430
8	200	480	500
10	250	520	500
12	300	550	530
14	350	580	550
16	400	730	610
18	450	760	650

IBAPOL S.L.
POLANCO VALVES®
www.ibapol.com

Features

It is provided with a sliding axis that carries out the watertight closing by means of a neoprene joint that interposes between the disc and the seat. The axis, seat and grid are made of stainless steel. The body, flange and disk are made of carbon steel treated with a sandblast process and a polyamide RILSAN coating.

It can be made of other materials and protections if needed.

It is made from Dn-80 to Dn-600, with flanges in PN-10 or PN-16.

For other measures and pressures, please ask.

DISMANTLING JOINT

Very useful to make the assembly and disassembling of the set of elements in pumping facilities easier, allowing the dismantling of the other elements: pump, check valve, gate valves, etc.

D.N. (")	D.N. (mm.)	L (mm.)
3 a 10	80 a 250	200
12 a 18	300 a 450	250
20 a 28	500 a 700	300
32 a 36	800 a 900	350
40 a 56	1.000 a 1.400	400
64 a 72	1.600 a 1.800	450

IBAPOL S.L.
POLANCO VALVES®
www.ibapol.com

Features

It consists of two bodies that slide the one on the other, providing the watertightness by means of two EPDM O-ring gaskets.

The bodies are fixed through several stainless steel tensors that determine the wished length.

The maximum shortening in all diameters is 4 centimeters.

The bodies are made of carbon steel and coated with polyamide RILSAN. This treatment has certificate of aptitude for drinking water.

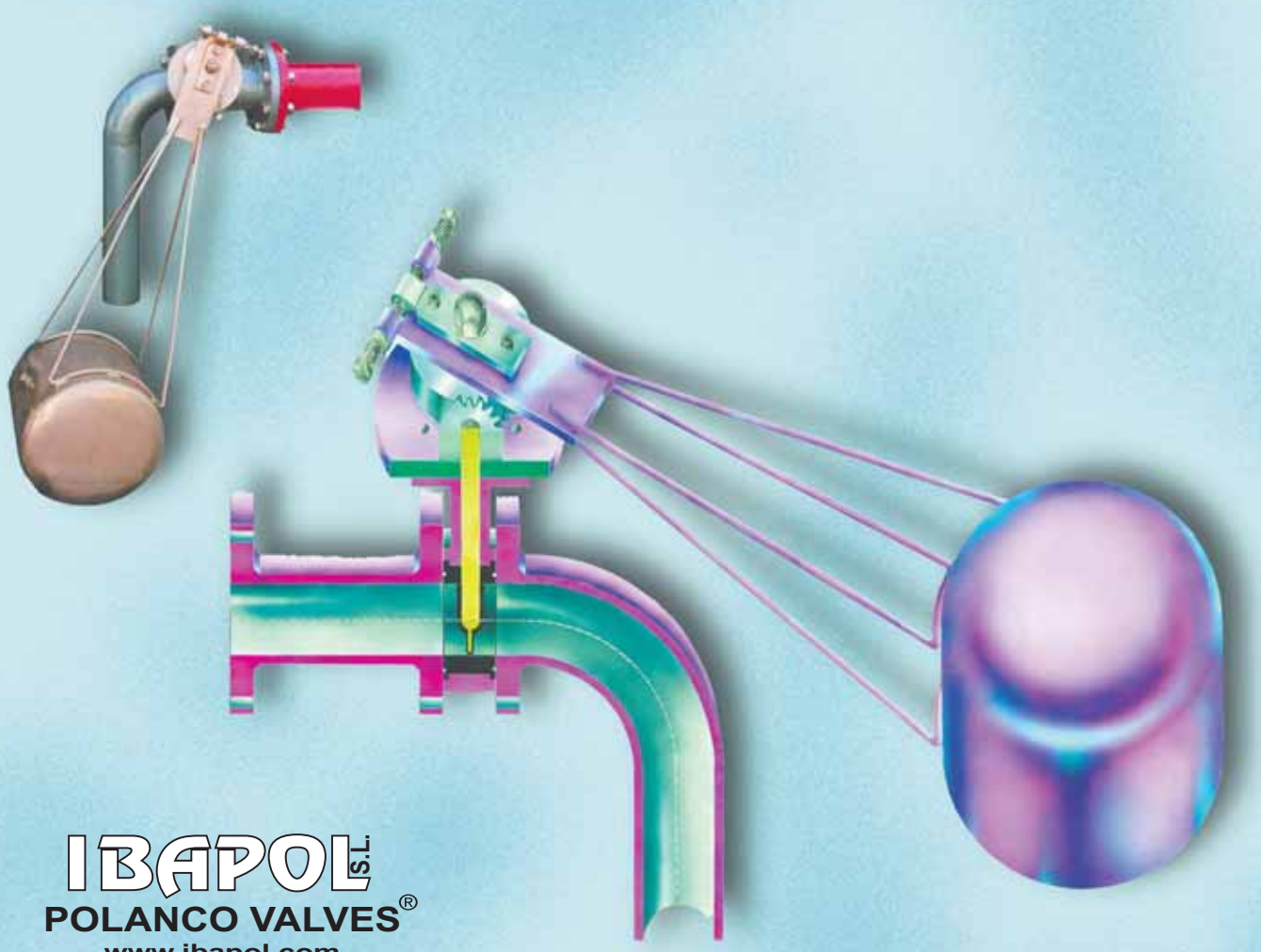
If ordered it can be made in other materials and/or special anticorrosive protections.

It is made from DN-65 to DN-4000 and pressures from PN-10 to PN-64.

Flanges according to DIN EN-1092-1. For other sizes and pressures please ask.

FLOAT VALVE

For filling and controlling reservoirs of liquids.



IBAPOL S.L.
POLANCO VALVES®
www.ibapol.com

Features

It's main advantages are total reliability and easy assembly inside the reservoir due to its small size.

Its benefits are due to the simple mechanism of operation, based on the use of a butterfly valve with centered axis, connected to a multiplier of gears. The forces involved in valve operation are reduced due to the lack of hydraulical forces transmitted to the valve axis.

The closing maneuver is made by means of a short displacement of the float arm.

The surge is eliminated because the spill is made below the surface of the water. This makes float operation silent and progressive.

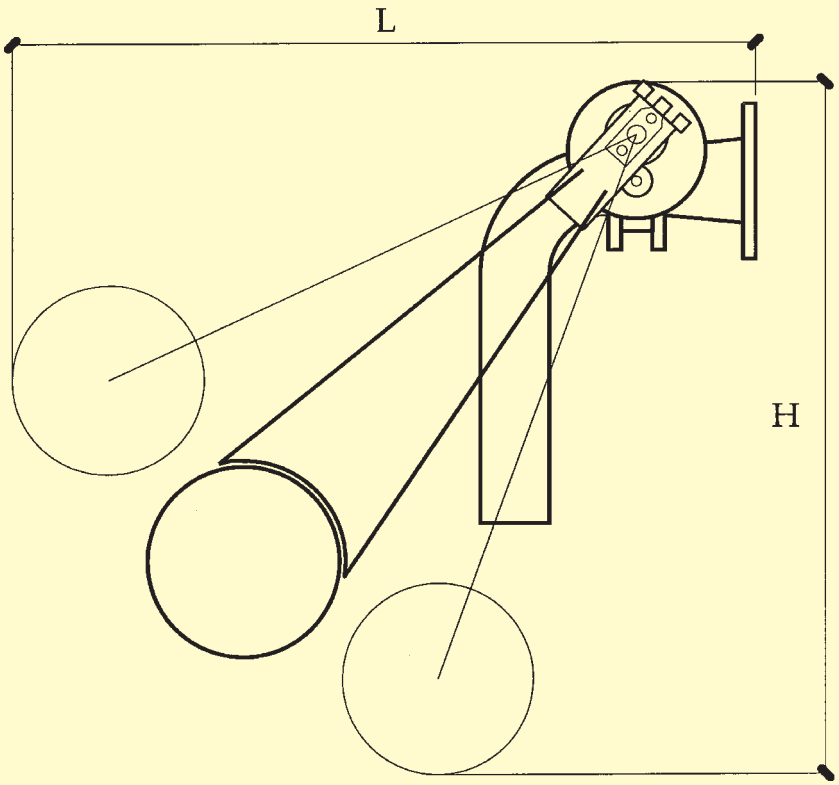
It has a simple mechanism in order to adjust the height at which the valve closes completely.

It is possible to adapt the valve configuration to match client needs.

Closes	Slowly and progressively providing a leakproof closing.
Removes	vibrations and water hammer in pipes due to abrupt movements in closing and opening.
Smoothness	In the operation as a result of the balance of pressures in the closing disc.

Application

These valves are designed to cover a field in the regulation of water level in the reservoirs of water supplies of urban centers.



They are manufactured from DN-50 to DN-500 in pressures of PN-10 or PN-16.

For other requirements please ask.

DN "	DN mm.	H mm.	L mm.
2	50	900	900
2 1/2	65	900	900
3	80	1.000	1.100
4	100	1.000	1.100
5	125	1.200	1.200
6	150	1.200	1.200

Description

The floater, arm of drive and multiplying gear are made in stainless steel.

The connection flanges, element of spill and rest of the components are made of carbon steel, treated to the sand blasting and covered with RILSAN, anticorrosive treatment by means of the immersion of the piece to 300° C in dust polyamide bath.

NOTE: If needed, variations of the mechanism can be made according to necessities.

installations

Monegros II irrigated land
LA ALMOLDA
Zaragoza (Spain)

irrigators community at
CANAL CALANDA- ALCAÑIZ

pumping station at
PINA DE EBRO

flange dimensions

s/ DIN 2501, sheet 1, p 3

DN	PN-10					PN-16					PN-25					PN-40					DN
	flange ø	bolt circle ø	bolts nº	bolts size	bolts hole	flange ø	bolt circle ø	bolts nº	bolts size	bolts hole	flange ø	bolt circle ø	bolts nº	bolts size	bolts hole	flange ø	bolt circle ø	bolts nº	bolts size	bolts hole	
6																75	50	4	M 10	11	6
8																80	55	4	M 10	11	8
10																90	60	4	M 12	14	10
15																95	65	4	M 12	14	15
20																105	75	4	M 12	14	20
25																115	85	4	M 12	14	25
32	same as PN-40					same as PN-40					same as PN-40					140	100	4	M 16	18	32
40																150	110	4	M 16	18	40
50																165	125	4	M 16	18	50
65	same as PN-16					185	145	4	M 16	18						185	145	8	M 16	18	65
80	same as PN-40					same as PN-40										200	160	8	M 16	18	80
100						220	180	8	M 16	18						235	190	8	M 20	22	100
125						250	210	8	M 16	18						270	220	8	M 24	26	125
150	same as PN-16					285	240	8	M 20	22						300	250	8	M 24	26	150
(175)						315	270	8	M 20	22	330	280	12	M 24	26	350	295	12	M 27	30	(175)
200	340	295	8	M 20	22	340	295	12	M 20	22	360	310	12	M 24	26	375	320	12	M 27	30	200
250	395	350	12	M 20	22	405	355	12	M 24	26	425	370	12	M 27	30	450	385	12	M 30	33	250
300	445	400	12	M 20	22	460	410	12	M 24	26	485	430	16	M 27	30	515	450	16	M 30	33	300
350	505	460	16	M 20	22	520	470	16	M 24	26	555	490	16	M 30	33	580	510	16	M 33	36	350
400	565	515	16	M 24	26	580	525	16	M 27	30	620	550	16	M 33	36	660	585	16	M 36	39	400
(450)	615	565	20	M 24	26	640	585	20	M 27	30	-	-	-	-	-	685	610	20	M 36	39	(450)
500	670	620	20	M 24	26	715	650	20	M 30	33	730	660	20	M 33	36	755	670	20	M 39	42	500
600	780	725	20	M 27	30	840	770	20	M 33	36	845	770	20	M 36	39	890	795	20	M 45	48	600
700	895	840	24	M 27	30	910	840	24	M 33	36	960	875	24	M 39	42	995	900	24	M 45	48	700
800	1015	950	24	M 30	33	1025	950	24	M 36	39	1085	990	24	M 45	48	1140	1030	24	M 52	56	800
900	1115	1050	28	M 30	33	1125	1050	28	M 36	39	1185	1090	28	M 45	48	1250	1140	28	M 52	56	900
1000	1230	1160	28	M 33	36	1255	1170	28	M 39	42	1320	1210	28	M 52	56	1360	1250	28	M 52	56	1000
1200	1455	1380	32	M 36	39	1485	1390	32	M 45	48	1530	1420	32	M 52	56	1575	1460	32	M 56	62	1200
1400	1675	1590	36	M 39	42	1685	1590	36	M 45	48	1755	1640	36	M 56	62	1795	1680	36	M 56	62	1400
1600	1915	1820	40	M 45	48	1930	1820	40	M 52	56	1975	1860	40	M 56	62	2025	1900	40	M 64	70	1600
1800	2115	2020	44	M 45	48	2130	2020	44	M 52	56	2196	2070	44	M 64	70						1800
2000	2325	2230	48	M 45	48	2345	2230	48	M 56	62	2425	2300	48	M 64	70						2000
2200	2550	2440	52	M 52	56	2555	2440	52	M 56	62											2200
2400	2760	2650	56	M 52	56																2400
2600	2960	2850	60	M 52	56																2600
2800	3180	3070	64	M 52	56																2800
3000	3405	3290	68	M 56	62																3000

Avoid as possible sizes in brackets.

SMAGUA 2002
Zaragoza (Spain)

Pol. Ind. La Vega, nave 106
39200 REINOSA (Cantabria) SPAIN
Tel. 34 942 754 870 - Fax. 34 942 754 479
info@ibapol.com

IBAPOL S.L.
POLANCO VALVES®
www.ibapol.com