



# FULL FLOW BALL VALVES: IDEAL

## 091 Ideal ball valve, full flow

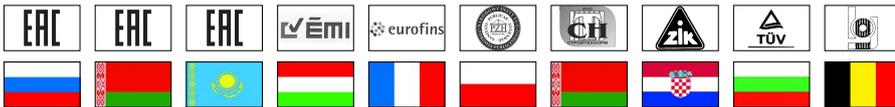
Suitable for domestic water services, heating and air-conditioning plants, compressed air systems.

IDEAL



SIZE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	0910014/N	12/192
3/8" (DN 10)	50bar/725psi	0910038/N	12/192
1/2" (DN 15)	50bar/725psi	0910012/N	12/120
3/4" (DN 20)	40bar/580psi	0910034/N	8/64
1" (DN 25)	40bar/580psi	0910100/N	8/40
1"1/4 (DN 32)	30bar/435psi	0910114/N	4/32
1"1/2 (DN 40)	30bar/435psi	0910112/N	2/24
2" (DN 50)	25bar/362.5psi	0910200/N	2/12

### CERTIFICATIONS



### TECHNICAL SPECIFICATIONS

Female/female or male/female threads.

Lever handle in steel (aluminium in the sizes 2"1/2, 3" and 4") or T handle in aluminium or flat lever handle in lined steel.

Body in nickel-plated brass.

Minimum and maximum working temperatures: -20°C, 150°C in absence of steam.

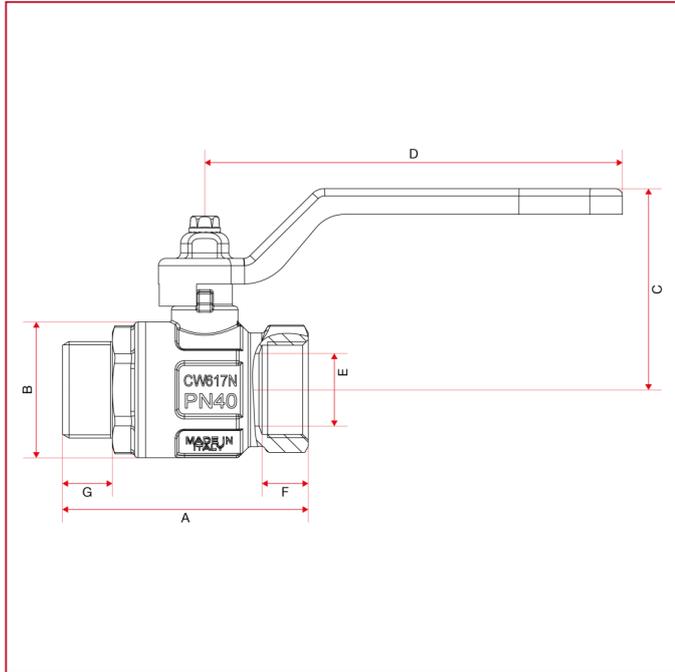
Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).

Mention "N" in the code only to order the black handle.



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## OVERALL DIMENSIONS

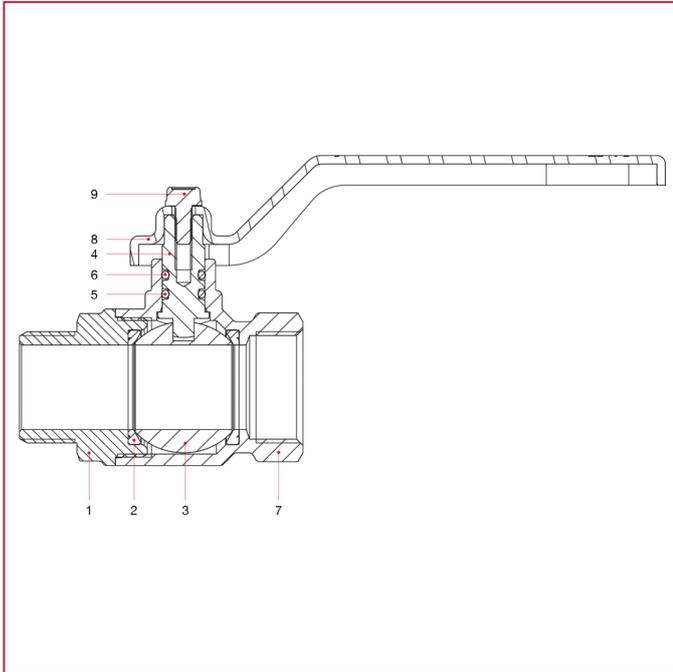


	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
DN	8	10	15	20	25	32	40	50
A	54	54	58,5	66,5	78,5	91,5	105,5	122
B	23,5	24	30,5	37	45,5	57	70	84
C	37	37	41	55	59	75	81	96
D	80	80	80	113	113	138	138	157,8
E	8	10	15	20	25	32	39	50
F	10	10	12	12,5	15	17	18,5	22
G	10,5	10,5	11,5	13,5	14,5	17	19	21
Kg/cm <sup>2</sup> bar	50	50	50	40	40	30	30	25
LBS - psi	725	725	725	580	580	435	435	362,5



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## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Male end adapter	1	Nickel-plated brass CW617N
2	Seat	2	P.T.F.E.
3	Ball	1	Chrome-plated brass CW617N
4	Stem	1	Brass CW614N
5	O-ring	1	NBR
6	O-ring	1	Viton®
7	Body	1	Nickel-plated brass CW617N
8	Lever handle	1	Varnished steel P04
9	Screw	1	Zinc-plated steel C4C



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## INSTALLATION

The Itap S.p.A.'s valves are bi-directional, that means they manage the flow in both the directions.

The valves are composed by a ball, two seal in PTFE material, one stem, two sailing rings (O-Rings), one handle and a couple of parts made of brass (body and end adapter) that contain them and that are assembled by means of thread and a sealed material to obtain their aim.

In order to avoid that the sealed material gets broken and then the valve loses the connection between the body and the end-adaptor, it's necessary to avoid to submit the two parts under the influence of a torque.

For the installation normal hydraulic practices must be used, and especially:

- ones have to be sure that the two pipes are correctly aligned;
- during the assembling process the installer has to apply its assembling tools at the end that is nearest to the pipe;
- the application of the sealing materials by the fitter (PTFE or hempen cloth) must be limited at the thread zone. An excess should interfere in the ball-gasket's closure zone, compromising the tightness.
- in the case that the fluid transported presents some impurities (dust, water too hard, etc.) ones have to remove these impurities by the means of a filter. Otherwise they could damage the seals.

## DISASSEMBLY

To remove the valve from the pipe line or anyhow before to unscrew the junctions linked to it:

- wear the clothing protective normally required to work with the fluid transported within the line;
- depressurize the line and operate in this way:
  - positioning the valve in opened position and then empty the line;
  - handle the valve to put down the residue pressure contained inside the space between the ball and the body before of remove it from the line;
- during the disassembly apply the screw tool at the end of the valve nearest the pipe;

## MAINTENANCE

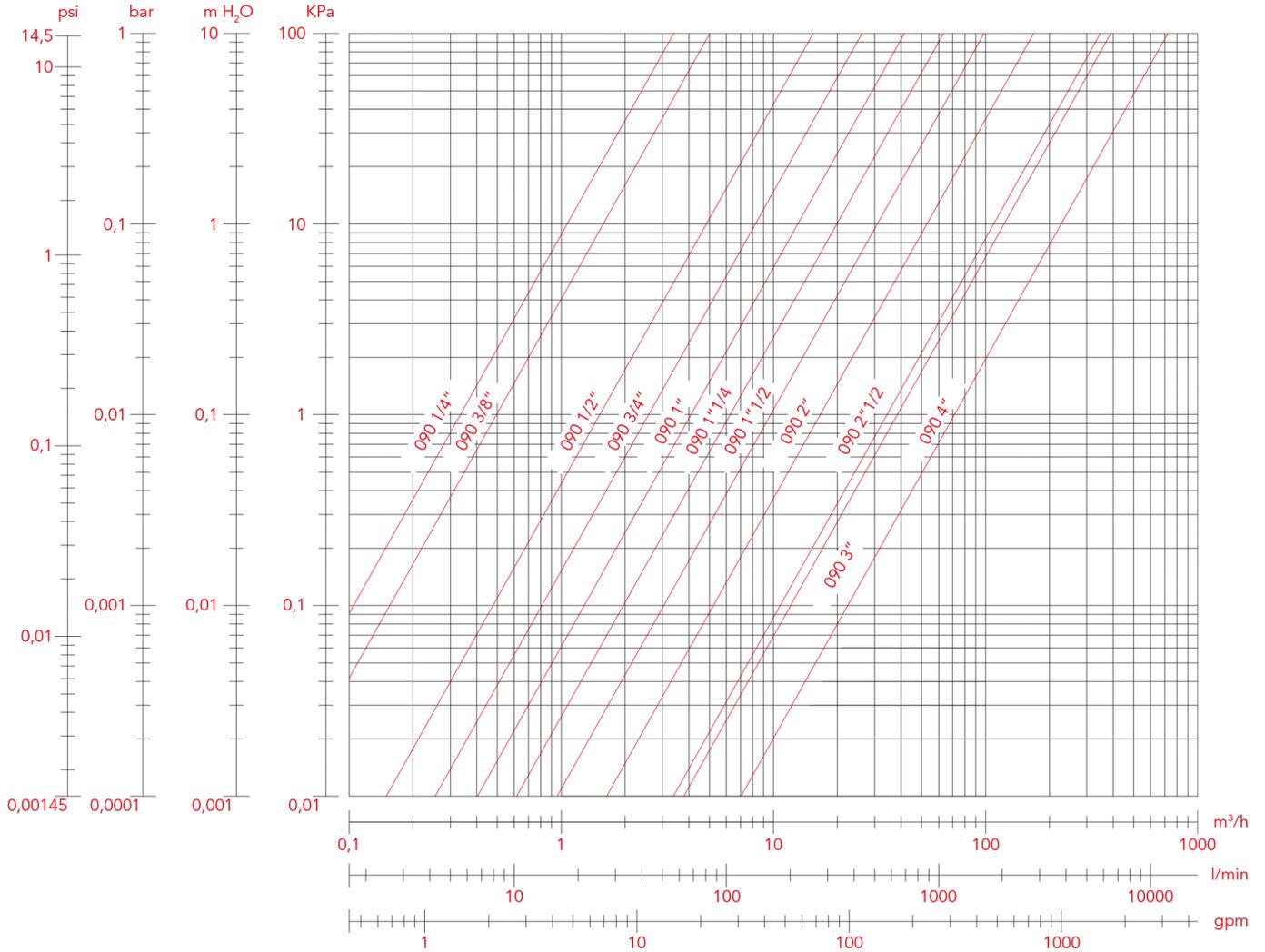
Verify the valve periodically, according to its application's field and its works' field and its work's conditions, in order to be sure that the valve works correctly.



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## LOSS DIAGRAM (With water)

	1/4"	3/8"	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"
KV	3,45	5,00	15,65	26,26	41,44	63,69	101	169





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## PRESSURE-TEMPERATURE DIAGRAM

The values shown by the dropping lines state the maximum limit of employment of the valves.  
The shown values are approximate.

