

TECHNICAL CATALOGUE

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# GAS BALL VALVES: BERLIN®





ITAP SpA, founded in Lumezzane (Brescia) in 1972, is currently one of the leading production companies in Italy of valves, fittings and distribution manifolds for plumbing and heating systems. Thanks to fully automated production processes, with 72 tooling machines and 51 assembly lines, we are able to produce 200,000 pieces per day. Our innate pursuit for innovation and observance of technical regulations is supported by the company certification ISO 9001: 2008. The company has always considered its focus on quality as the main tool to obtain significant business results: today ITAP SpA is proud to offer products bearing the approval of numerous international certifying bodies.

FULL FLOW GAS BALL VALVES: BERLIN®





FULL FLOW GAS  
BALL VALVES:  
BERLIN®

EN 331 APPROVED.

GAS BALL VALVES

# 070

BERLIN®  
BALL VALVE,  
FULL FLOW



SIZE	PRESSURE	CODE	PACKING
1/2" (DN 15)	5bar/72,5psi	070B012	12/96
3/4" (DN 20)	5bar/72,5psi	070B034	8/40
1" (DN 25)	5bar/72,5psi	070B100	6/30
1"1/4 (DN 32)	5bar/72,5psi	070B114	4/24
1"1/2 (DN 40)	5bar/72,5psi	070B112	2/18
2" (DN 50)	5bar/72,5psi	070B200	2/10

## TECHNICAL SPECIFICATIONS

### EN 331 APPROVED.

Female/female threads.

Body in nickel-plated brass.

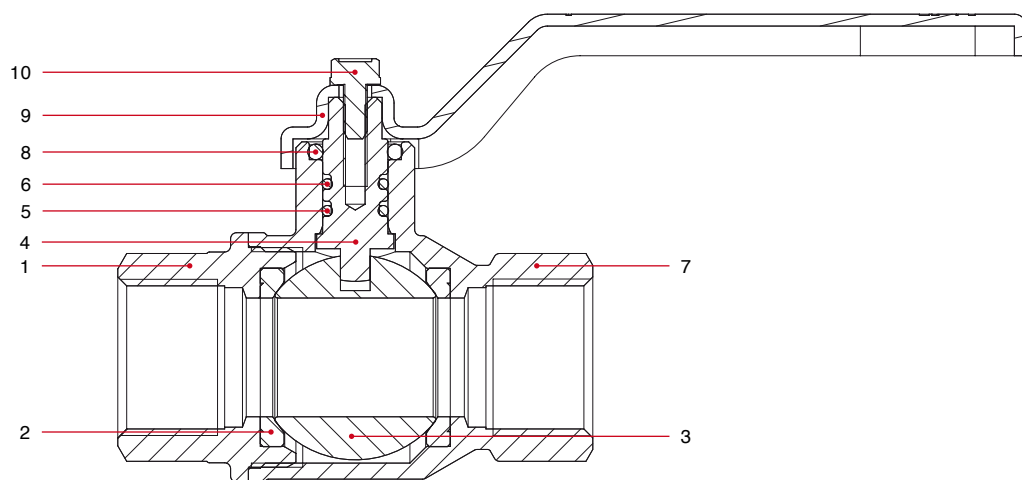
Lever handle in steel.

Minimum and maximum working temperatures: -20°C, 60°C.

Female thread ISO 7/1 Rp parallel

(equivalent to DIN EN 10226-1 and BS EN 10226-1).

## MATERIALS

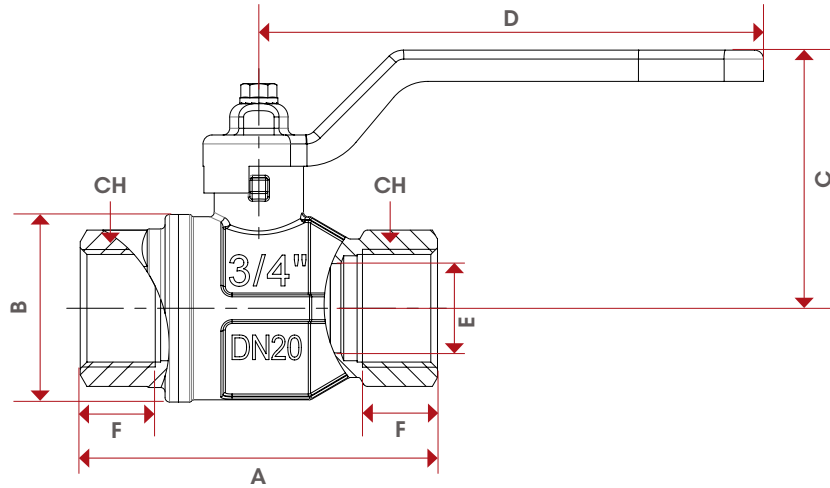


POS.	DESCRIPTION	N.	MATERIAL
1	End adapter	1	Nickel-plated brass CW617N
2	Seat	2	P.T.F.E.
3	Ball	1	Chrome-plated brass CW617N
4	Stem	1	Brass CW614N
5	O-Ring	1	NBR
6	O-Ring	1	VITON®
7	Body	1	Nickel-plated brass CW617N
8	O-Ring	1	NBR
9	Lever handle	1	Zinc-plated and varnished steel Fe.P04
10	Screw	1	Zinc-plated steel Fe CB4





## OVERALL DIMENSIONS



	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
DN	15	20	25	32	40	50
A	75	80	90	110	120	140
B	32,5	42	49,5	59,5	72	86
C	49	58	61	75	91	98
D	88,5	113	113	138	157,8	157,8
E	15	20	25	32	40	50
F	15	16,3	19,1	21,4	21,4	25,7
CH	25	31	40	49	54	68,5
Kg/cm <sup>2</sup> bar	5	5	5	5	5	5
LBS - psi	72,5	72,5	72,5	72,5	72,5	72,5

## CERTIFICATIONS



# 071

BERLIN®  
BALL VALVE,  
FULL FLOW



SIZE	PRESSURE	CODE	PACKING
1/2" (DN 15)	5bar/72,5psi	071B012	12/96
3/4" (DN 20)	5bar/72,5psi	071B034	8/40
1" (DN 25)	5bar/72,5psi	071B100	6/30
1"1/4 (DN 32)	5bar/72,5psi	071B114	4/24
1"1/2 (DN 40)	5bar/72,5psi	071B112	2/18
2" (DN 50)	5bar/72,5psi	071B200	2/10

## TECHNICAL SPECIFICATIONS

### EN 331 APPROVED.

Male/female threads.

Body in nickel-plated brass.

Lever handle in steel.

Minimum and maximum working temperatures: -20°C, 60°C.

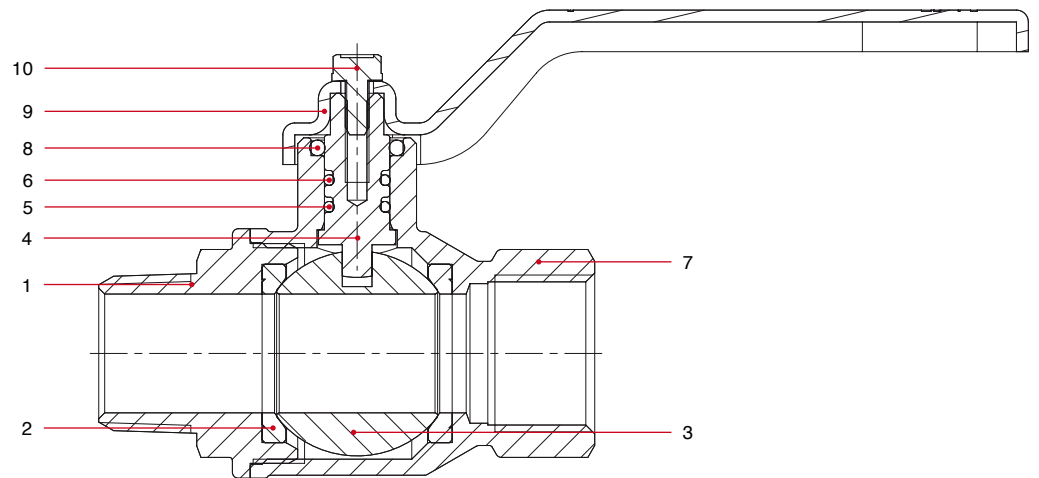
Female thread ISO 7/1 Rp parallel

(equivalent to DIN EN 10226-1 and BS EN 10226-1).

Male thread ISO 7/1 R taper

(equivalent to DIN EN 10226-1 and BS EN 10226-1).

## MATERIALS

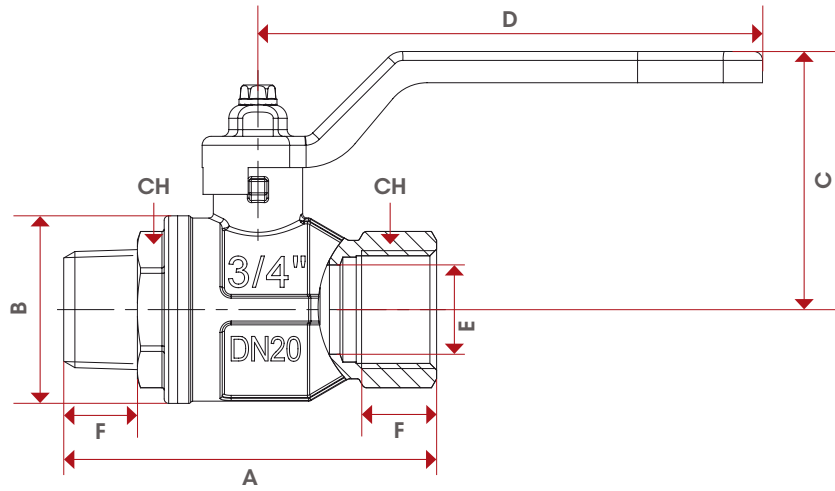


POS.	DESCRIPTION	N.	MATERIAL
1	End adapter	1	Nickel-plated brass CW617N
2	Seat	2	P.T.F.E.
3	Ball	1	Chrome-plated brass CW617N
4	Stem	1	Brass CW614N
5	O-Ring	1	NBR
6	O-Ring	1	VITON®
7	Body	1	Nickel-plated brass CW617N
8	O-Ring	1	NBR
9	Lever handle	1	Zinc-plated and varnished steel Fe.P04
10	Screw	1	Zinc-plated steel Fe CB4





## OVERALL DIMENSIONS



	1/2"	3/4"	1"	1"1/4	1"1/2	2"
DN	15	20	25	32	40	50
A	76,5	83,5	93	110	121	140,5
B	32,5	42	49,5	59,5	72	86
C	49	58	61	75	91	98
D	88,5	113	113	138	157,8	157,8
E	15	20	25	32	38	49
F	15	16,3	19,1	21,4	21,4	25,7
CH	25	31	40	49	54	68,5
Kg/cm <sup>2</sup> bar	5	5	5	5	5	5
LBS - psi	72,5	72,5	72,5	72,5	72,5	72,5

## CERTIFICATIONS



# 072

BERLIN®  
BALL VALVE,  
FULL FLOW



SIZE	PRESSURE	CODE	PACKING
1/2" (DN 15)	5bar/72,5psi	072B012	12/96
3/4" (DN 20)	5bar/72,5psi	072B034	8/64
1" (DN 25)	5bar/72,5psi	072B100	8/40

## TECHNICAL SPECIFICATIONS

### EN 331 APPROVED.

Female/female threads.

Body in nickel-plated brass.

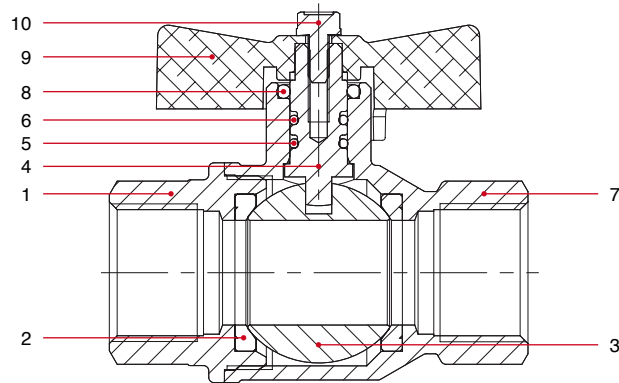
T handle in aluminium.

Minimum and maximum working temperatures: -20°C, 60°C.

Female thread ISO 7/1 Rp parallel

(equivalent to DIN EN 10226-1 and BS EN 10226-1).

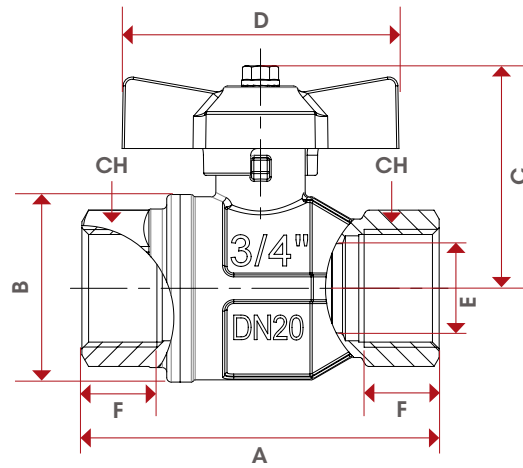
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	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	O-Ring	1	NBR
9	T handle	1	Varnished aluminium
10	Screw	1	Zinc-plated steel Fe CB4



# OVERALL DIMENSIONS



	1/2"	3/4"	1"
DN	15	20	25
A	75	80	90
B	32,5	42	49,5
C	44	50	53
D	54	62	62
E	15	20	25
F	15	16,3	19,1
CH	25	31	40
Kg/cm² bar	5	5	5
LBS - psi	72,5	72,5	72,5

# CERTIFICATIONS



# 073

BERLIN®  
BALL VALVE,  
FULL FLOW



SIZE	PRESSURE	CODE	PACKING
1/2" (DN 15)	5bar/72,5psi	073B012	12/96
3/4" (DN 20)	5bar/72,5psi	073B034	8/64
1" (DN 25)	5bar/72,5psi	073B100	8/48

## TECHNICAL SPECIFICATIONS

### EN 331 APPROVED.

Male/female threads.

Body in nickel-plated brass.

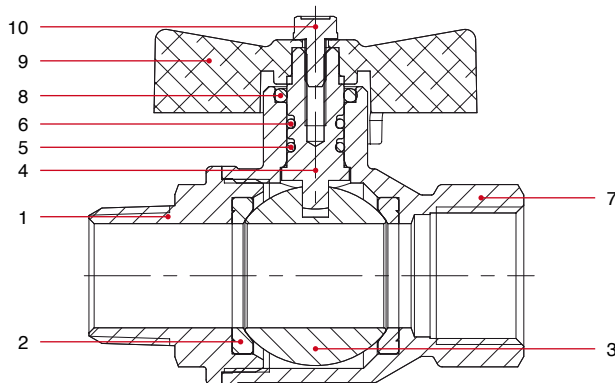
T handle in aluminium.

Minimum and maximum working temperatures: -20°C, 60°C.

Female thread ISO 7/1 Rp parallel  
(equivalent to DIN EN 10226-1 and BS EN 10226-1).

Male thread ISO 7/1 R taper  
(equivalent to DIN EN 10226-1 and BS EN 10226-1).

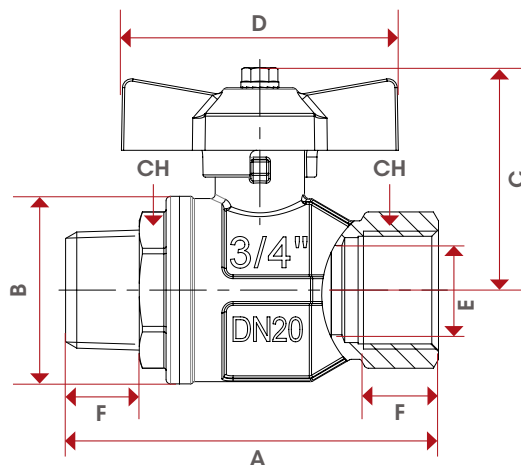
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	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	O-Ring	1	NBR
9	T handle	1	Varnished aluminium
10	Screw	1	Zinc-plated steel Fe CB4



## OVERALL DIMENSIONS



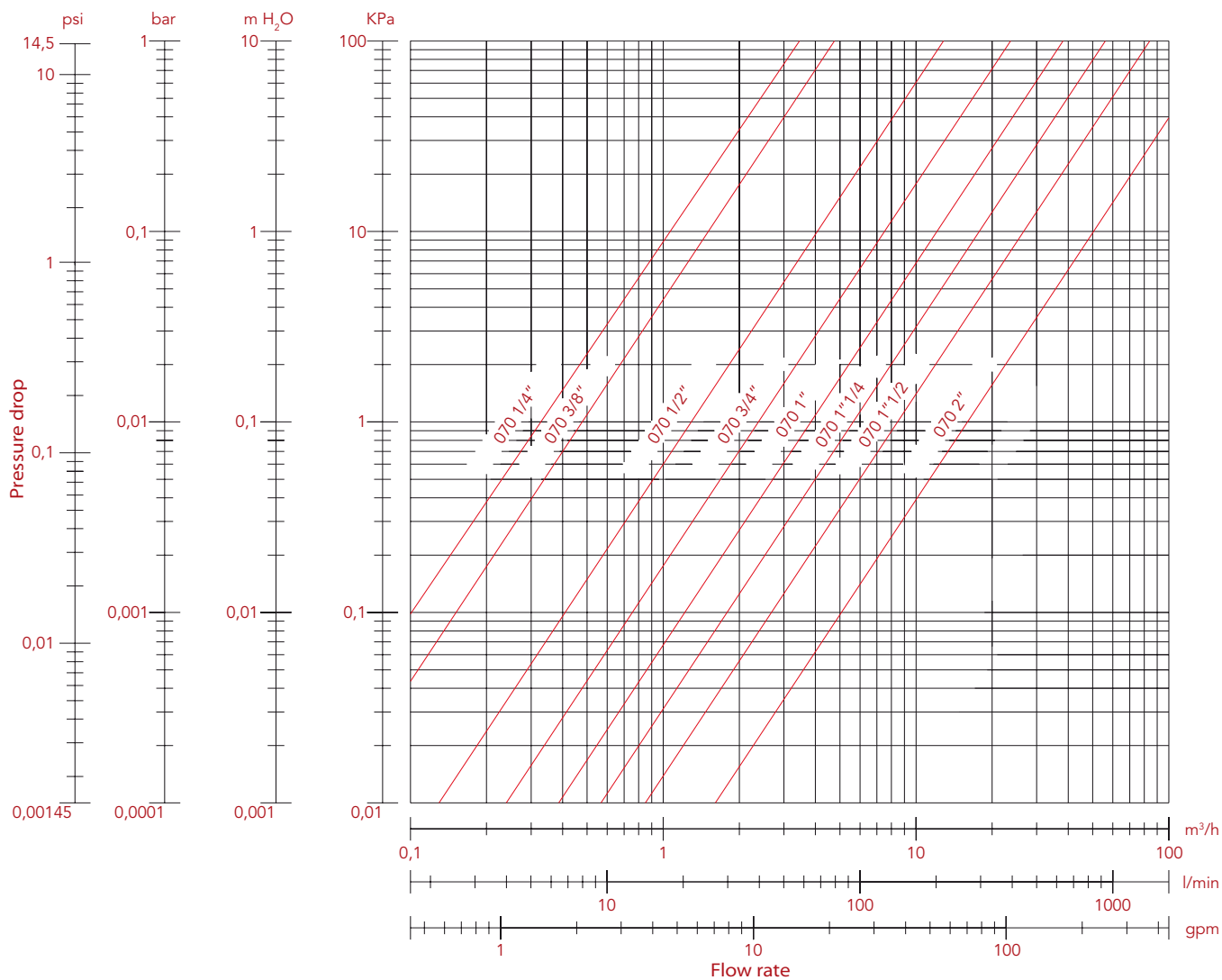
	1/2"	3/4"	1"
DN	15	20	25
A	76,5	83,5	93
B	32,5	42	49,5
C	44	50	53
D	54	62	62
E	15	20	25
F	15	16,3	19,1
CH	25	31	40
Kg/cm <sup>2</sup> bar	5	5	5
LBS - psi	72,5	72,5	72,5

## CERTIFICATIONS



# LOSS DIAGRAM WITH WATER

Art: 070 - 071 - 072 - 073



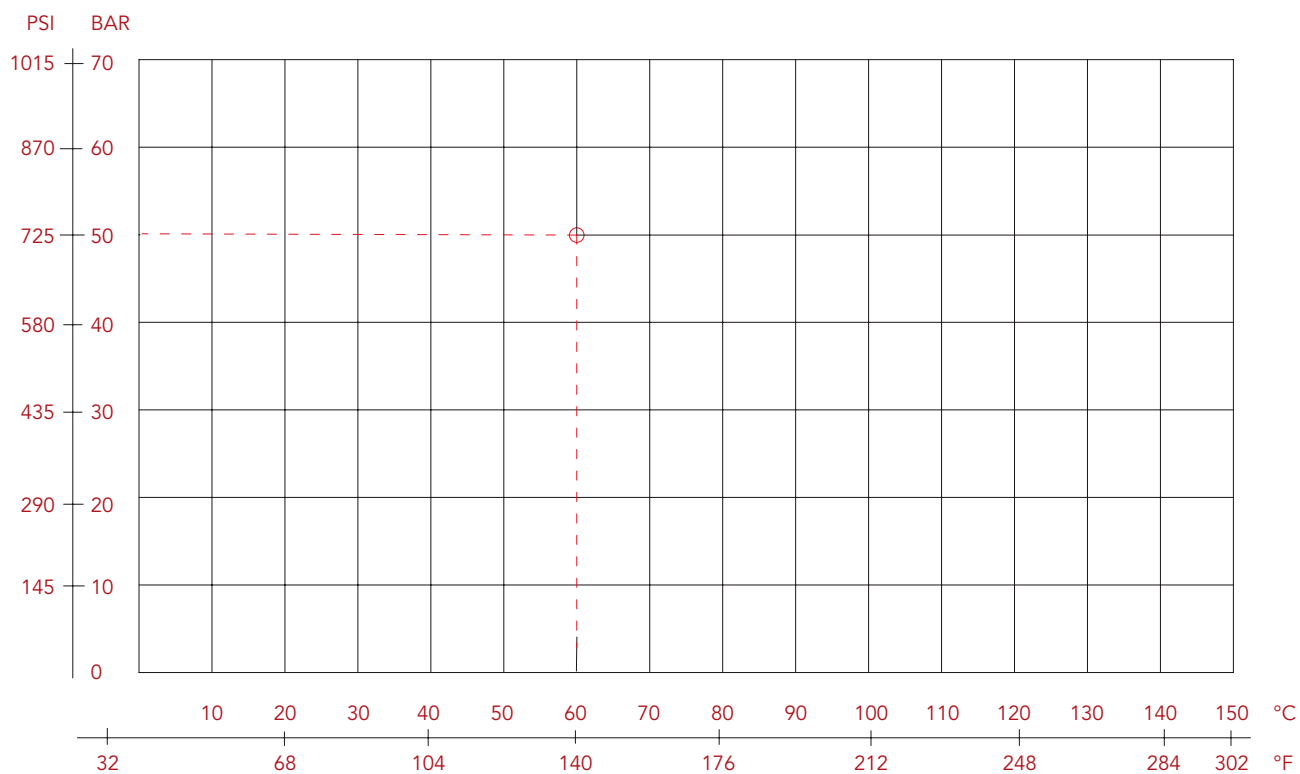
SIZE	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Ø	10	10	15	20	25	32	40	50
Kv	3,47	4,78	12,98	23,92	38,57	56,81	85	159





# PRESSURE-TEMPERATURE DIAGRAM

GAS BALL VALVES



NB: Maximum working temperature for gas: +60 °C  
The working pressure for gas is from 0 to 5 bar.



## MANUFACTURER INSTRUCTIONS

### 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 adopter) that contain them and that are assembled by means of thread and a sealed material to obtain their aim. To avoid that the sealing material gets brake and than the valve gets lose the connection between body and the end adopter, it's necessary to avoid to submit the two parts under the influence of a torque.

For their installation ones have to use the normal hydraulic practices, and in particular:

- Ones have to be sure that the two pipes are correctly aligned,
- during the assembling ones have to apply the assembling tool 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 threat zone. An excess should interferes 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 the installed valve

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 than 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 valves periodically, in function oh their application's field and in function of their work conditions, to be sure that the valves work correctly.

### Warnings

- any deterioration or destruction of any part of the manually operated ball valve shall result in the need to replace complete valve: alterations to any part of the complete valve shall result in the valve no longer being in compliance with the performance requirements of EN 331 standard;
- ensure that the manually operated ball valve allows an adequate flow rate for its intended use;
- all installations should be performed in accordance with existing local installation regulations and codes of practice where they exist;
- it is imperative to follow the installation instructions of the manually operated ball valve manufacturer and of the appliance manufacturer, including those for the correct position of the connection point for the valve.





TEC

BERLIN®



FULL FLOW GAS BALL VALVES: BERLIN®





# NOTES

Lined area for notes with horizontal dashed lines.



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