



TECHNICAL CATALOGUE

FULL FLOW GAS BALL VALVES: BERLIN

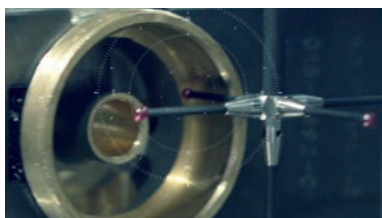
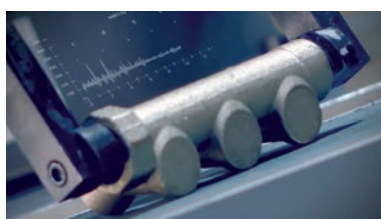


> THE COMPANY

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 a fully automated production process, with 85 transfer machines and 55 assembly lines, it is capable of producing 400,000 pieces per day.

Our innate pursuit for innovation and observance of technical regulations is supported by the company certification ISO 9001. 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.



> ITAP products have obtained approvals by more than 30 certification bodies from all over the world.





FULL FLOW GAS BALL VALVES: BERLIN

070 Berlin ball valve, full flow

EN331 APPROVED (up to 2").



MEASURE	PRESSURE	CODE	PACKING
1/2" (DN 15)	5bar/72.5psi	070B012	8/72
3/4" (DN 20)	5bar/72.5psi	070B034	6/48
1" (DN 25)	5bar/72.5psi	070B100	4/36
1"1/4 (DN 32)	5bar/72.5psi	070B114	2/16
1"1/2 (DN 40)	5bar/72.5psi	070B112	2/10
2" (DN 50)	5bar/72.5psi	070B200	1/5
2"1/2 (DN 65)	18bar/261psi	1200212G	1/5
3" (DN 80)	16bar/232psi	1200300G	1/3
4" (DN 100)	14bar/203psi	1200400G	1/2

CERTIFICATIONS



TECHNICAL SPECIFICATIONS

Female/female threads.

Body in nickel-plated brass.

Lever handle in steel (aluminium in the sizes 2"1/2, 3" and 4").

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

Female threads:

- ISO 7/1 Rp parallel (equivalent to DIN EN 10226-1 and BS EN 10226-1) sizes 1/2" through 2".

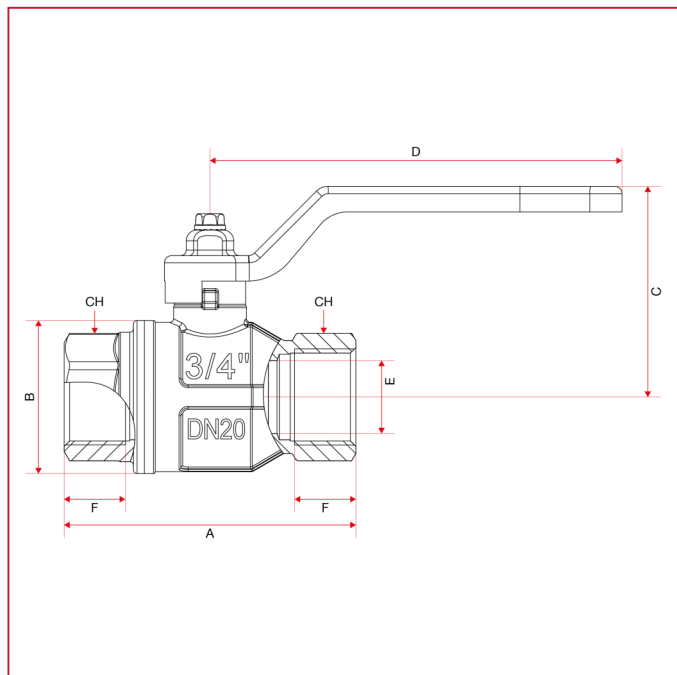
- ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228) sizes 2"1/2, 3" and 4".

EN331 APPROVED (up to 2").



FULL FLOW GAS BALL VALVES: BERLIN

OVERALL DIMENSIONS

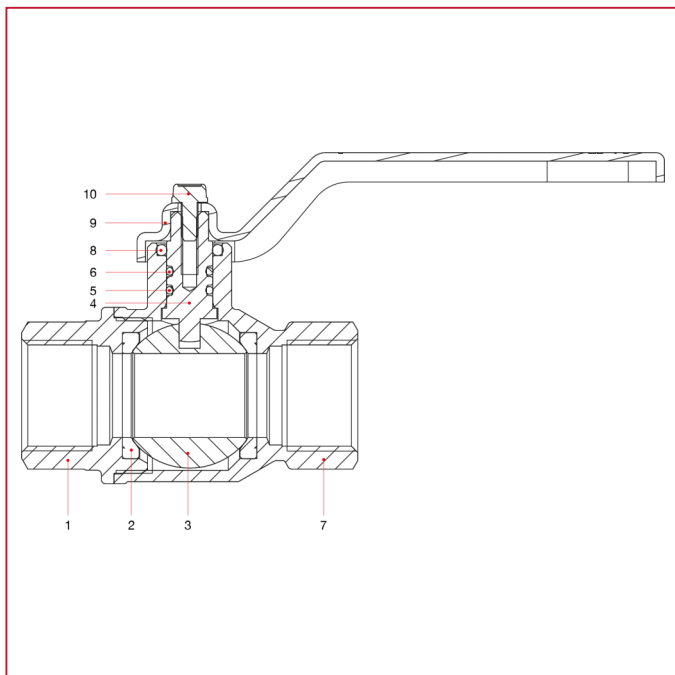


	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
DN	15	20	25	32	40	50	65	80	100
A	75	80	90	110	120	140	148	168	204
B	32,5	42	49,5	59,5	72	86	122	142	180
C	49	58	61	75	91	98	126,75	135,75	153,75
D	88,5	113	113	138	157,8	157,8	250	250	250
E	15	20	25	32	40	50	65	80	100
F	15	16,3	19,1	21,4	21,4	25,7	25	27,5	30
CH	25	31	40	49	54	68,5			
Kg/cm ² bar	5	5	5	5	5	5	18	16	14
LBS - psi	72,5	72,5	72,5	72,5	72,5	72,5	261	232	203



FULL FLOW GAS BALL VALVES: BERLIN

MATERIALS sizes 1/2" through 2"

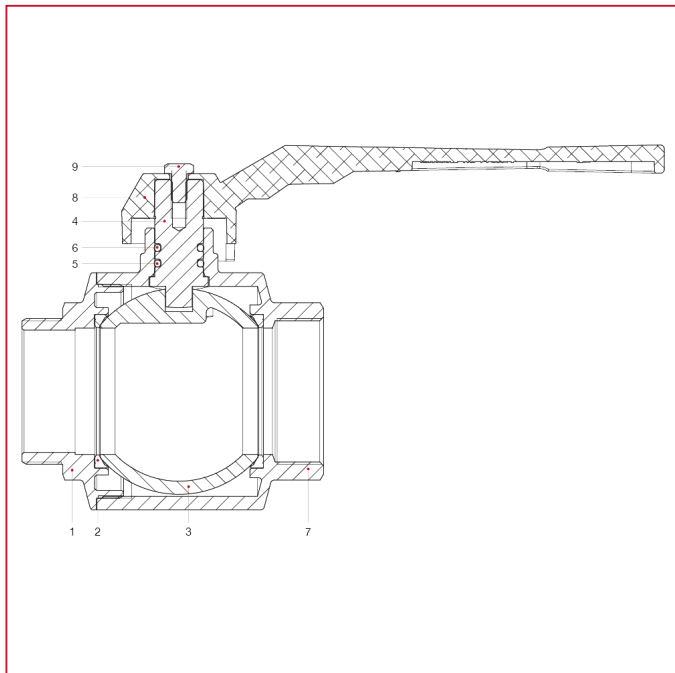


POS.	DESCRIPTION	N.	MATERIAL
1	Female end adapter	1	Nickel-plated brass CW617N
2	Seat	2	P.T.F.E.
3	Ball	1	Chrome-plated brass CW617N
4	Stem	1	Brass CW614N
5	O-ring	1	NBR
6	O-ring	1	Viton®
7	Body	1	Nickel-plated brass CW617N
8	O-ring	1	NBR
9	Lever handle	1	Varnished steel P04
10	Screw	1	Zinc-plated steel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



FULL FLOW GAS BALL VALVES: BERLIN

MATERIALS sizes 2"1/2 through 4"



POS.	DESCRIPTION	N.	MATERIAL
1	Female 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	1	Aluminium
9	Screw	1	Zinc-plated CB4 FF (C34)



FULL FLOW GAS BALL VALVES: BERLIN

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 adapter, 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.

WARNINGS

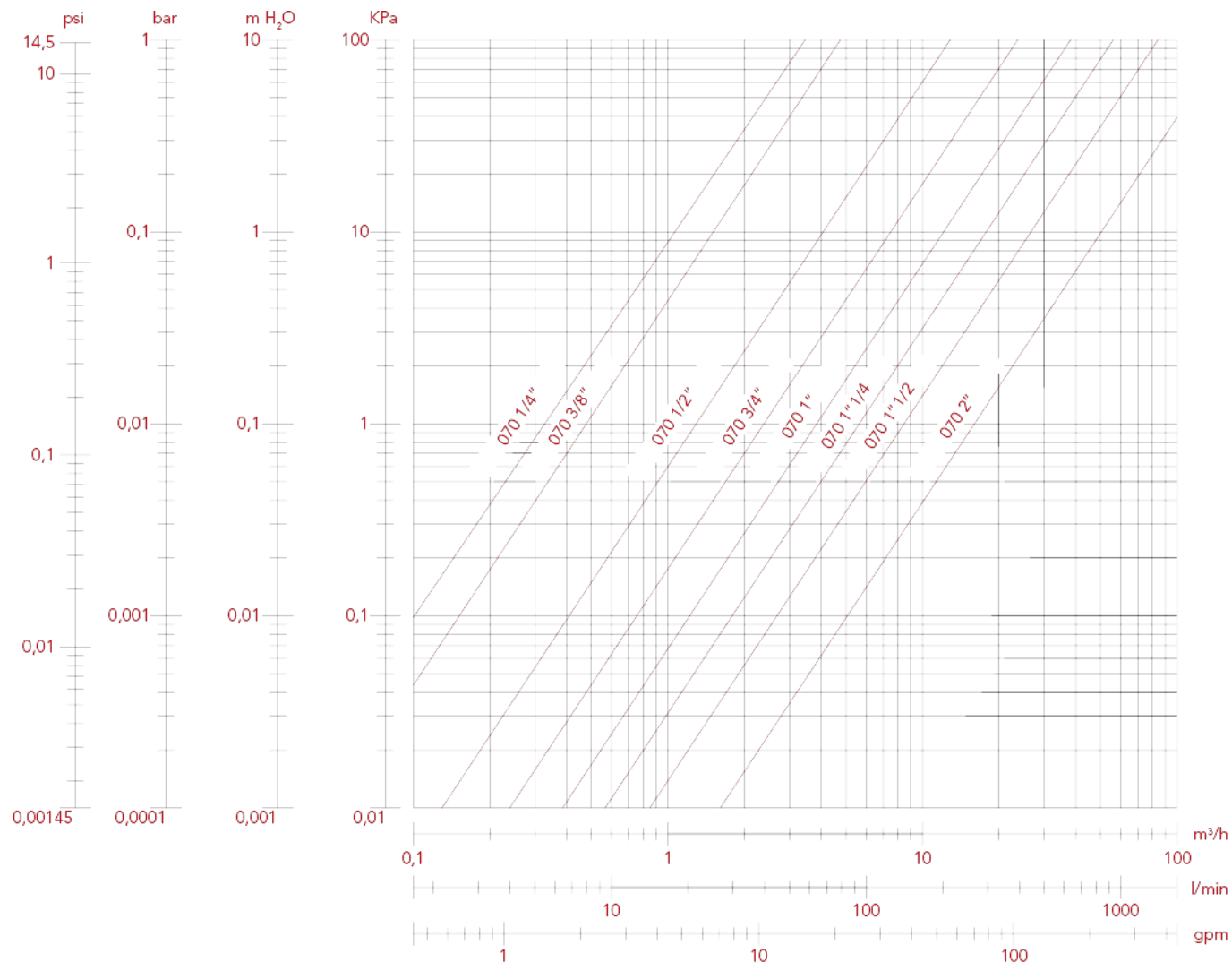
- any deterioration or destruction of any part of the manually operated ball valve shall result in the need to replace complete valve: alterations to any part of the complete valve shall result in the valve no longer being in compliance with the performance requirements of EN 331 standard;
- ensure that 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.



FULL FLOW GAS BALL VALVES: BERLIN

LOSS DIAGRAM (With water) size 1/2" through 2"

	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"	2"1/2"	3"	4"
KV	12,98	23,92	38,57	56,81	85	159	376	472	892

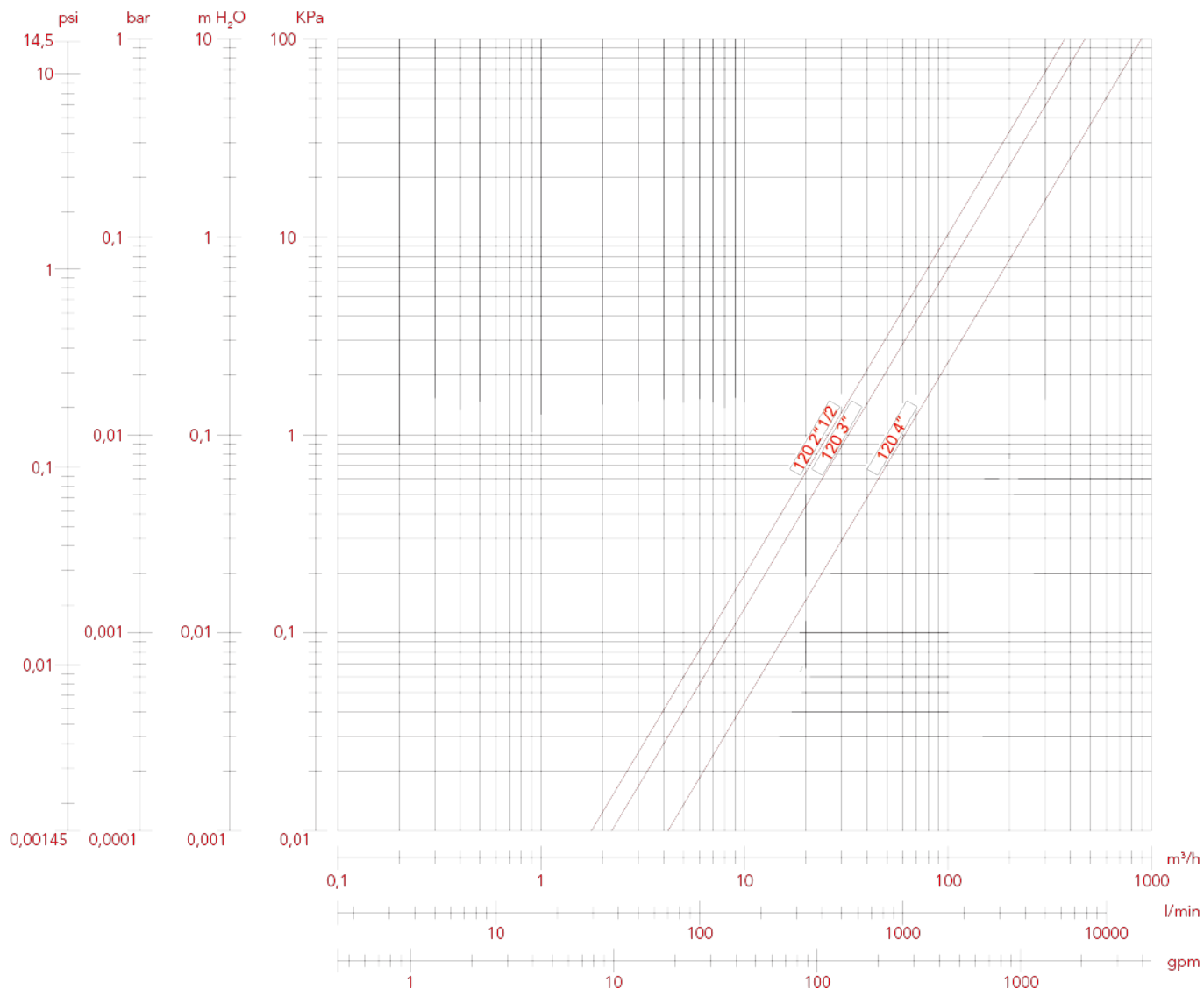




FULL FLOW GAS BALL VALVES: BERLIN

LOSS DIAGRAM (With water) size 2"1/2 through 4"

	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"	2"1/2"	3"	4"
KV	12,98	23,92	38,57	56,81	85	159	376	472	892

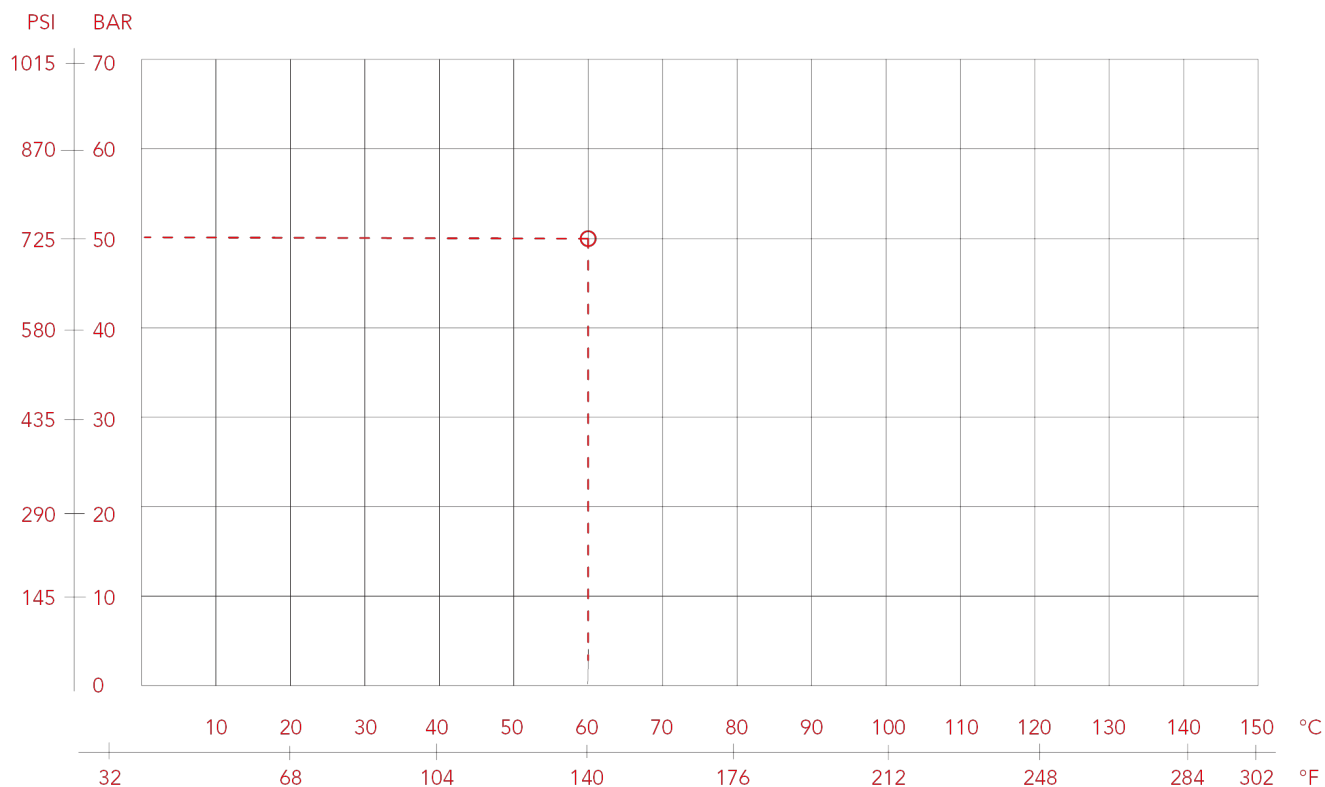




FULL FLOW GAS BALL VALVES: BERLIN

PRESSURE-TEMPERATURE DIAGRAM

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





FULL FLOW GAS BALL VALVES: BERLIN

071 Berlin ball valve, full flow

EN331 APPROVED (up to 2").



MEASURE	PRESSURE	CODE	PACKING
1/2" (DN 15)	5bar/72.5psi	071B012	8/72
3/4" (DN 20)	5bar/72.5psi	071B034	6/48
1" (DN 25)	5bar/72.5psi	071B100	4/32
1"1/4 (DN 32)	5bar/72.5psi	071B114	2/16
1"1/2 (DN 40)	5bar/72.5psi	071B112	2/10
2" (DN 50)	5bar/72.5psi	071B200	1/5
2"1/2 (DN 65)	18bar/261psi	1210212G	1/5
3" (DN 80)	16bar/232psi	1210300G	1/3
4" (DN 100)	14bar/203psi	1210400G	1/2

CERTIFICATIONS



TECHNICAL SPECIFICATIONS

Male/female threads.

Body in nickel-plated brass.

Lever handle in steel (aluminium in the sizes 2"1/2, 3" and 4").

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

Female threads:

- ISO 7/1 Rp parallel (equivalent to DIN EN 10226-1 and BS EN 10226-1) sizes 1/2" through 2".

- ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228) sizes 2"1/2, 3" and 4".

Male threads:

- ISO 7/1 R taper (equivalent to DIN EN 10226-1 and BS EN 10226-1) sizes 1/2" through 2".

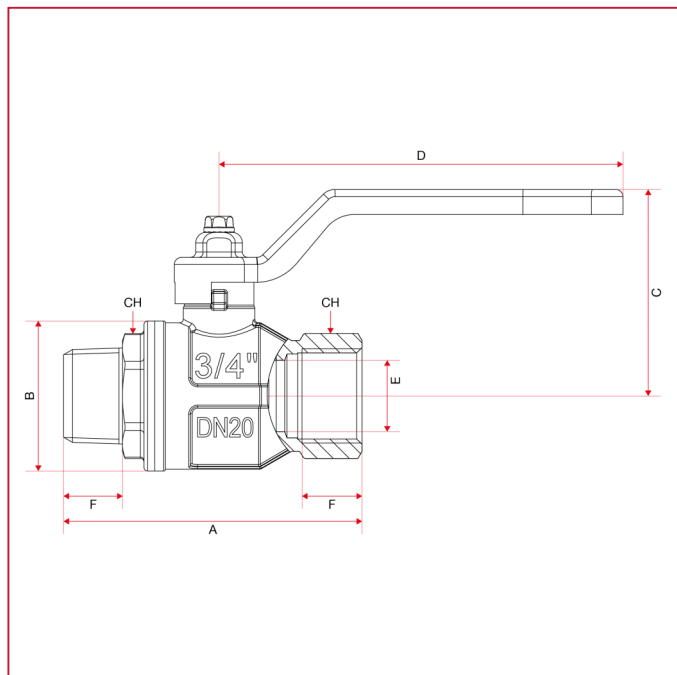
- ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228) sizes 2"1/2, 3" and 4".

EN331 APPROVED (up to 2").



FULL FLOW GAS BALL VALVES: BERLIN

OVERALL DIMENSIONS

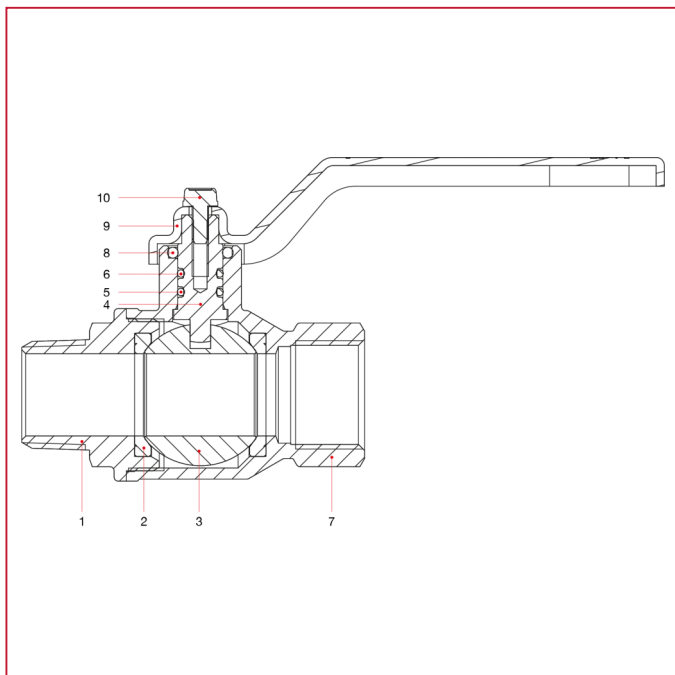


	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
DN	15	20	25	32	40	50	65	80	100
A	76,5	83,5	93	110	121	140,5	155,5	178	208
B	32,5	42	49,5	59,5	72	86	122	142	180
C	49	58	61	75	91	98	126,75	135,75	153,75
D	88,5	113	113	138	157,8	157,8	250	250	250
E	15	20	25	32	38	49	63	74	97
F	15	16,3	19,1	21,4	21,4	25,7	25	27,5	30
G	15	16,5	19	21,5	21,5	26	21	24	23
CH	25	31	40	49	54	68,5			
Kg/cm2 bar	5	5	5	5	5	5	18	16	14
LBS - psi	72,5	72,5	72,5	72,5	72,5	72,5	261	232	203



FULL FLOW GAS BALL VALVES: BERLIN

MATERIALS sizes 1/2" through 2"

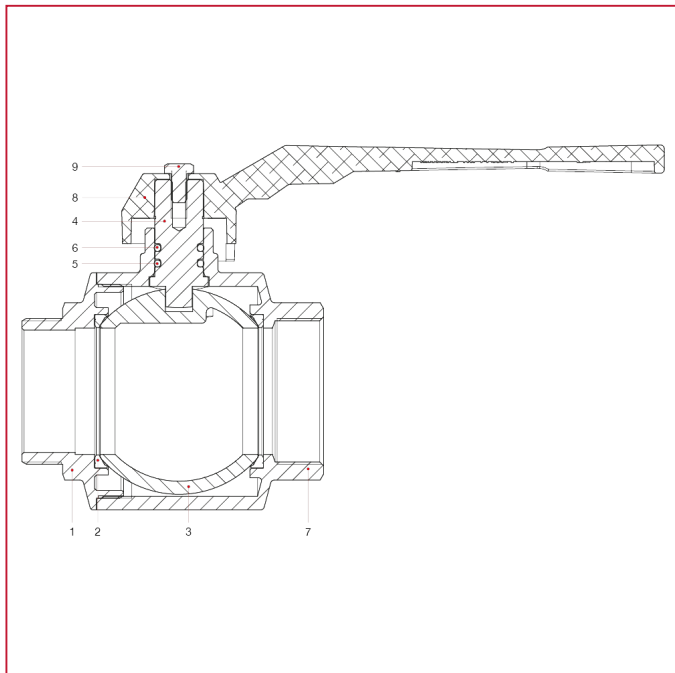


POS.	DESCRIPTION	N.	MATERIAL
1	Male end adapter	1	Nickel-plated brass CW617N
2	Seat	2	P.T.F.E.
3	Ball	1	Chrome-plated brass CW617N
4	Stem	1	Brass CW614N
5	O-ring	1	NBR
6	O-ring	1	Viton®
7	Body	1	Nickel-plated brass CW617N
8	O-ring	1	NBR
9	Lever handle	1	Varnished steel P04
10	Screw	1	Zinc-plated steel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



FULL FLOW GAS BALL VALVES: BERLIN

MATERIALS sizes 2"1/2 through 4"



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	1	Aluminium
9	Screw	1	Zinc-plated CB4 FF (C34)



FULL FLOW GAS BALL VALVES: BERLIN

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 adapter, 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.

WARNINGS

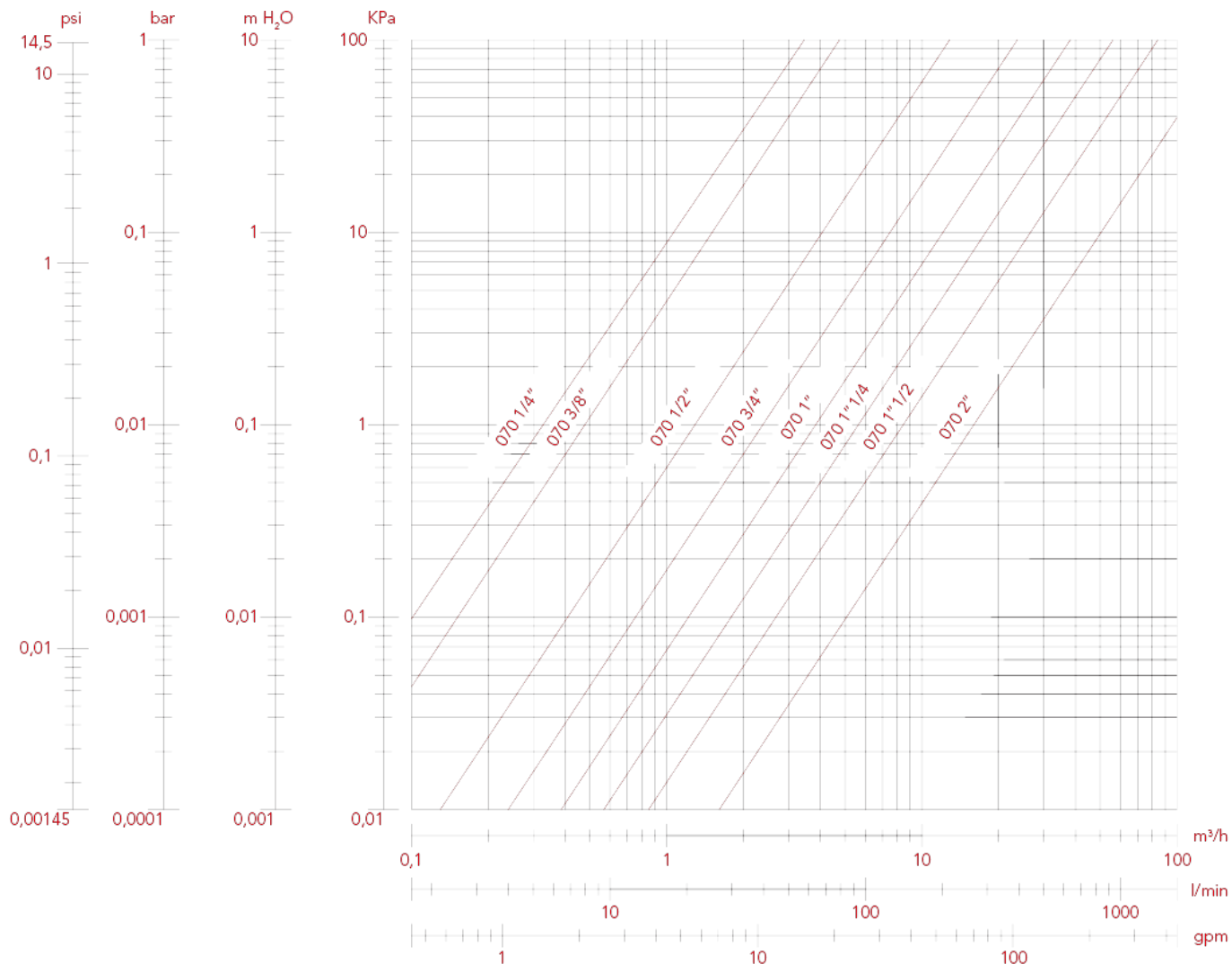
- any deterioration or destruction of any part of the manually operated ball valve shall result in the need to replace complete valve: alterations to any part of the complete valve shall result in the valve no longer being in compliance with the performance requirements of EN 331 standard;
- ensure that 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.



FULL FLOW GAS BALL VALVES: BERLIN

LOSS DIAGRAM (With water) size 1/2" through 2"

	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"	2"1/2"	3"	4"
KV	12,98	23,92	38,57	56,81	85	159	376	472	892

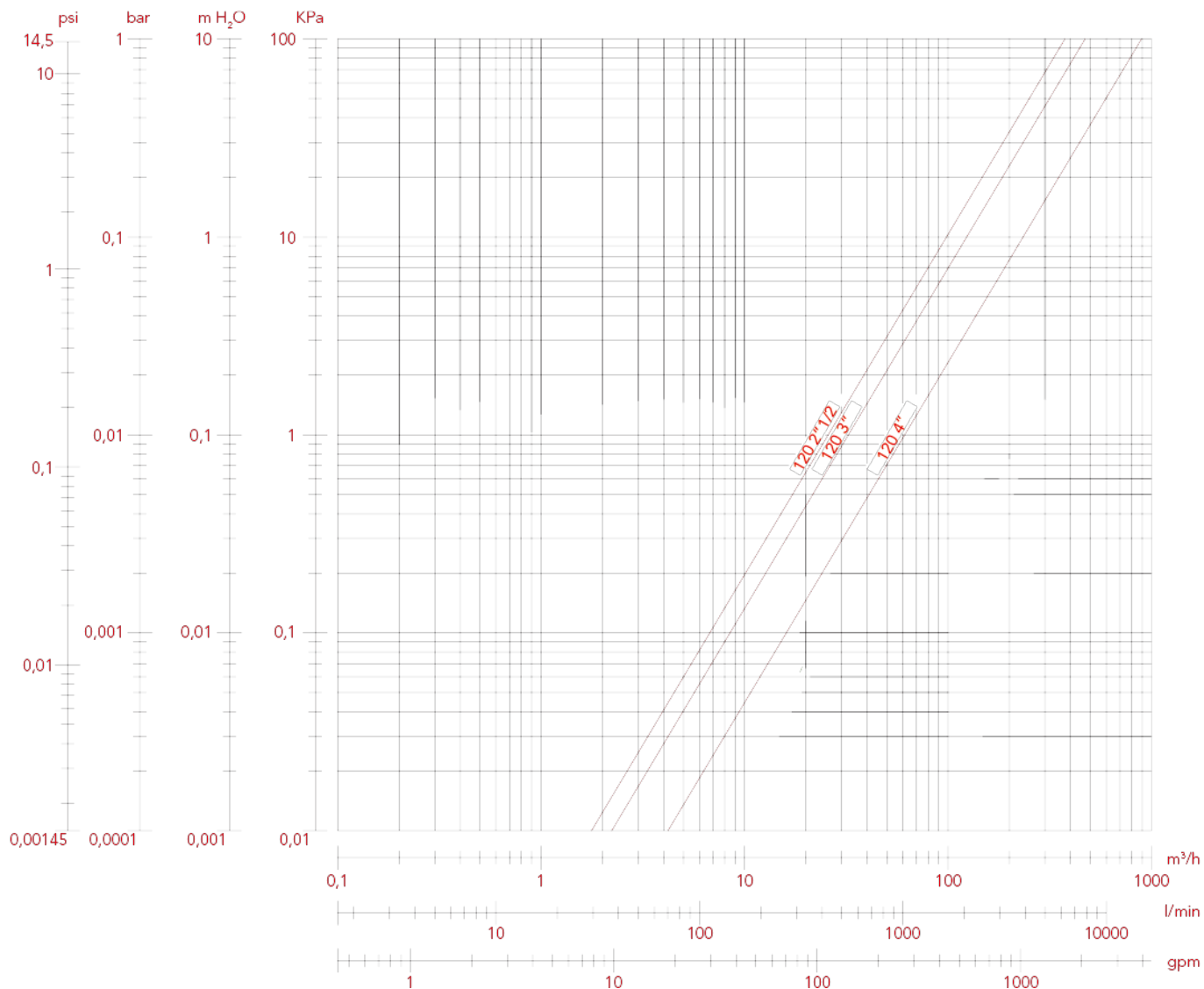




FULL FLOW GAS BALL VALVES: BERLIN

LOSS DIAGRAM (With water) size 2"1/2 through 4"

	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"	2"1/2"	3"	4"
KV	12,98	23,92	38,57	56,81	85	159	376	472	892

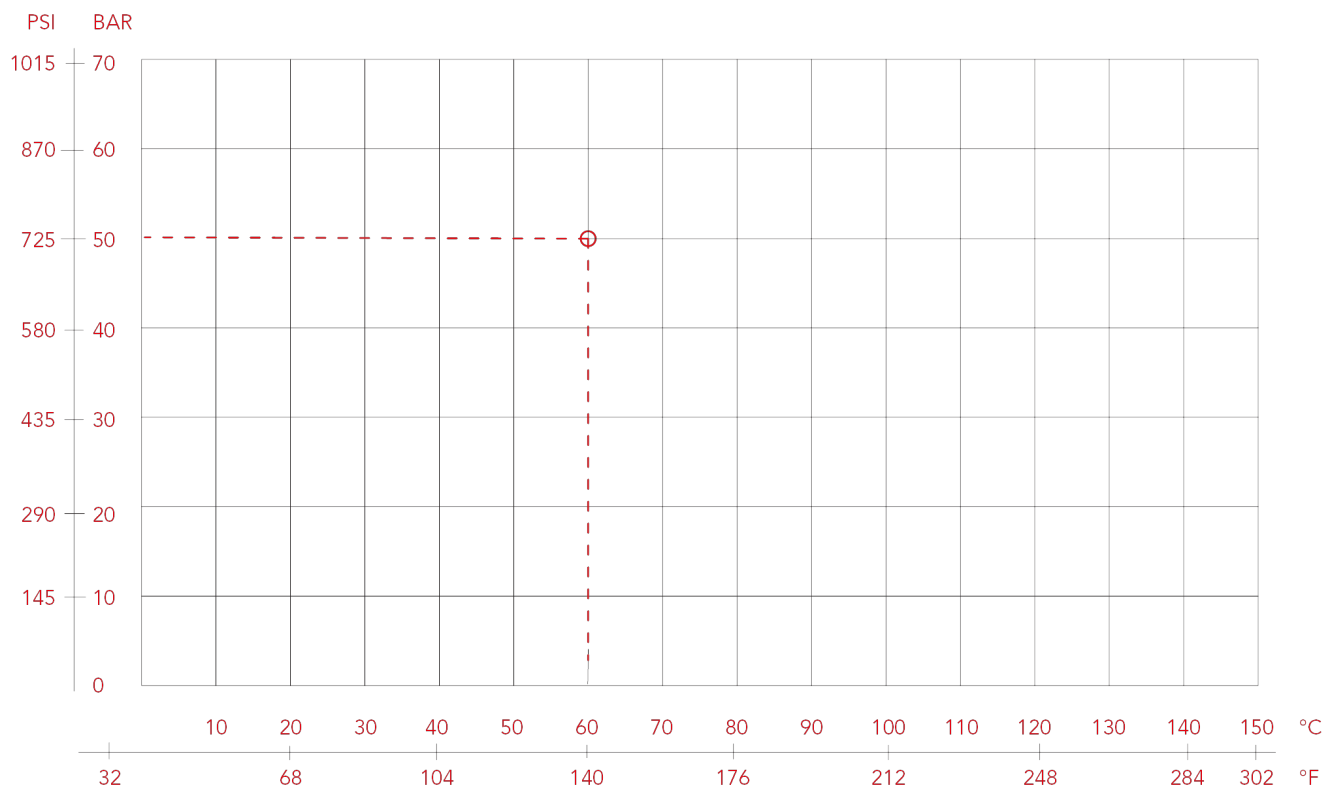




FULL FLOW GAS BALL VALVES: BERLIN

PRESSURE-TEMPERATURE DIAGRAM

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





FULL FLOW GAS BALL VALVES: BERLIN

072 Berlin ball valve, full flow

EN331 APPROVED.



MEASURE	PRESSURE	CODE	PACKING
1/2" (DN 15)	5bar/72.5psi	072B012	8/96
3/4" (DN 20)	5bar/72.5psi	072B034	6/54
1" (DN 25)	5bar/72.5psi	072B100	4/36

CERTIFICATIONS



TECHNICAL SPECIFICATIONS

Female/female threads.

Body in nickel-plated brass.

T handle in aluminium.

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

Female threads:

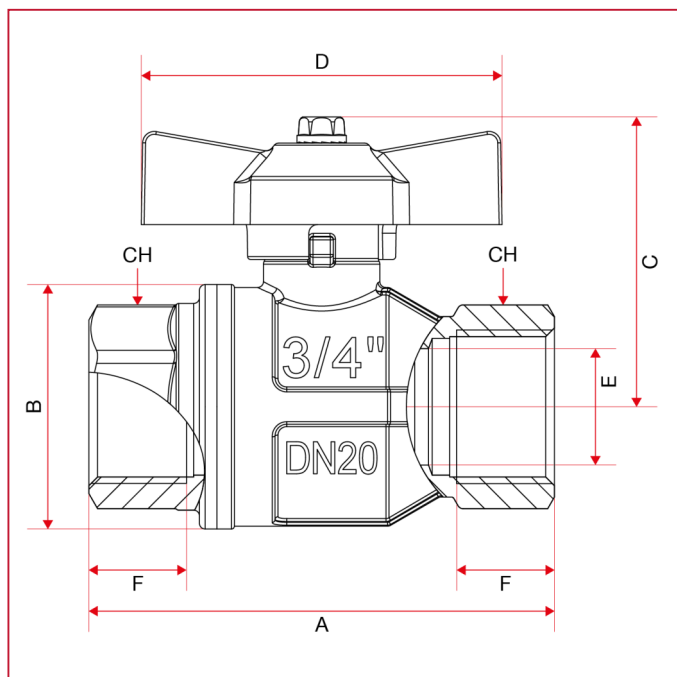
- ISO 7/1 Rp parallel (equivalent to DIN EN 10226-1 and BS EN 10226-1) sizes 1/2" through 1".

EN331 APPROVED (up to 2").



FULL FLOW GAS BALL VALVES: BERLIN

OVERALL DIMENSIONS

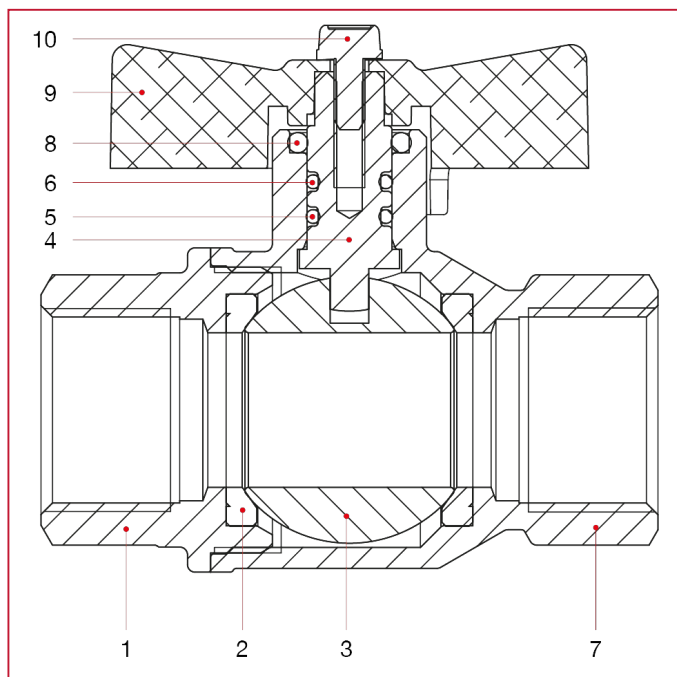


	1/2"	3/4"	1"
DN	15	20	25
A	75	80	90
B	32,5	42	49,5
C	44	50	53
D	54	62	62
E	15	20	25
F	15	16,3	19,1
CH	25	31	40
Kg/cm ² bar	5	5	5
LBS - psi	72,5	72,5	72,5



FULL FLOW GAS BALL VALVES: BERLIN

MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Female 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 C4C



FULL FLOW GAS BALL VALVES: BERLIN

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 adapter, 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.

WARNINGS

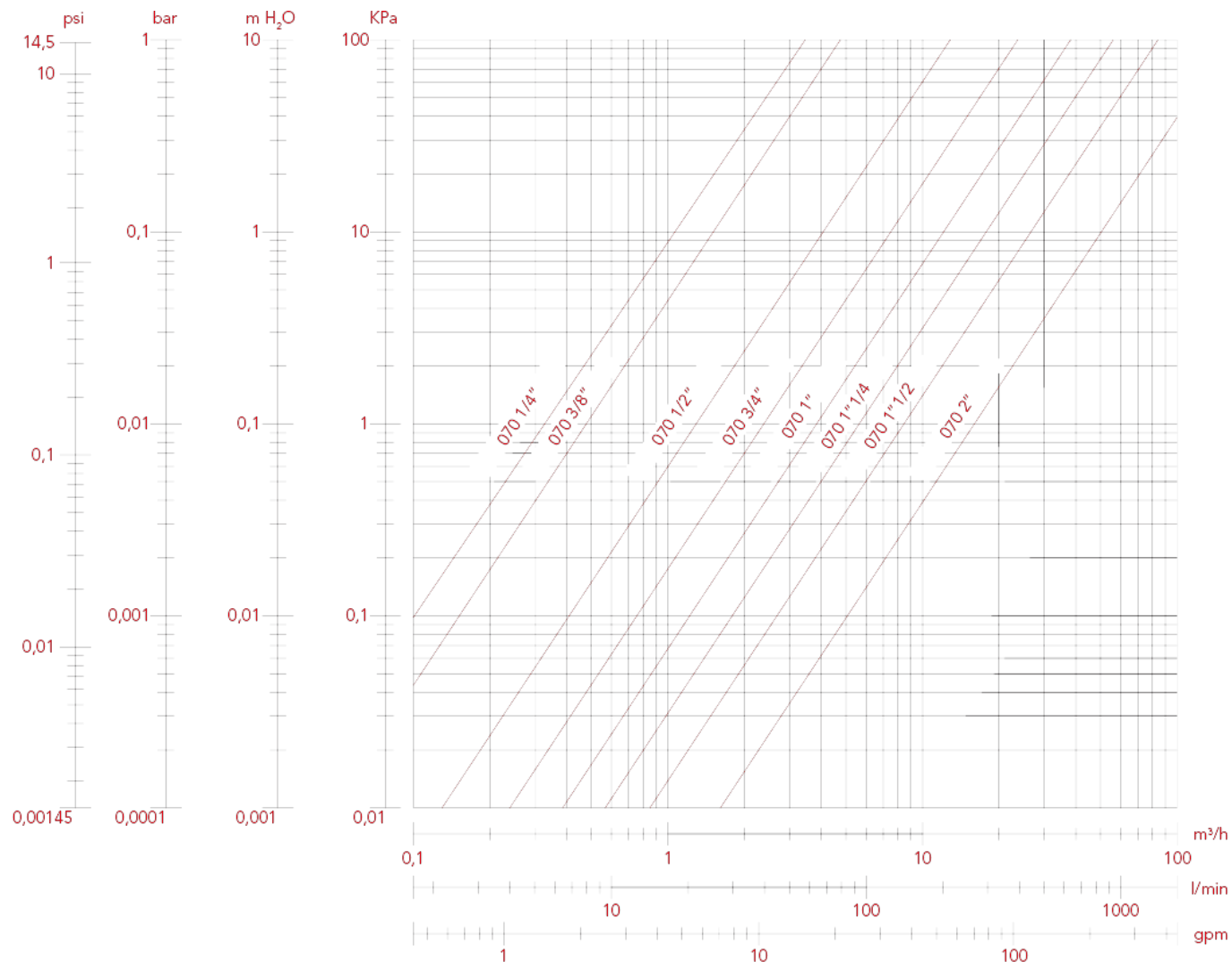
- any deterioration or destruction of any part of the manually operated ball valve shall result in the need to replace complete valve: alterations to any part of the complete valve shall result in the valve no longer being in compliance with the performance requirements of EN 331 standard;
- ensure that 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.



FULL FLOW GAS BALL VALVES: BERLIN

LOSS DIAGRAM (With water)

	1/2"	3/4"	1"
KV	12,98	23,92	38,57

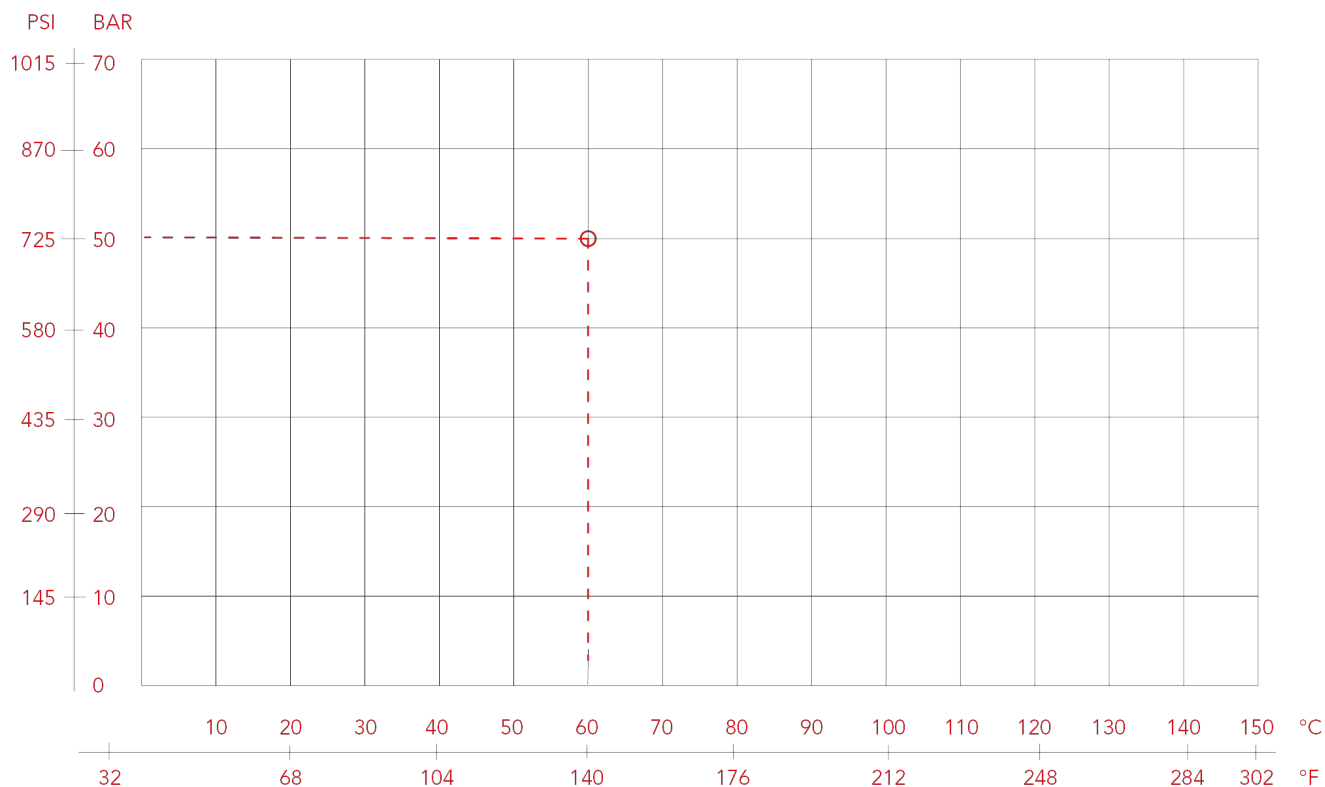




FULL FLOW GAS BALL VALVES: BERLIN

PRESSURE-TEMPERATURE DIAGRAM

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





FULL FLOW GAS BALL VALVES: BERLIN

073 Berlin ball valve, full flow

EN331 APPROVED.



MEASURE	PRESSURE	CODE	PACKING
1/2" (DN 15)	5bar/72.5psi	073B012	10/90
3/4" (DN 20)	5bar/72.5psi	073B034	6/54
1" (DN 25)	5bar/72.5psi	073B100	4/32

CERTIFICATIONS



TECHNICAL SPECIFICATIONS

Male/female threads.

Body in nickel-plated brass.

T handle in aluminium.

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

Female threads:

- ISO 7/1 Rp parallel (equivalent to DIN EN 10226-1 and BS EN 10226-1) sizes 1/2" through 1".

Male threads:

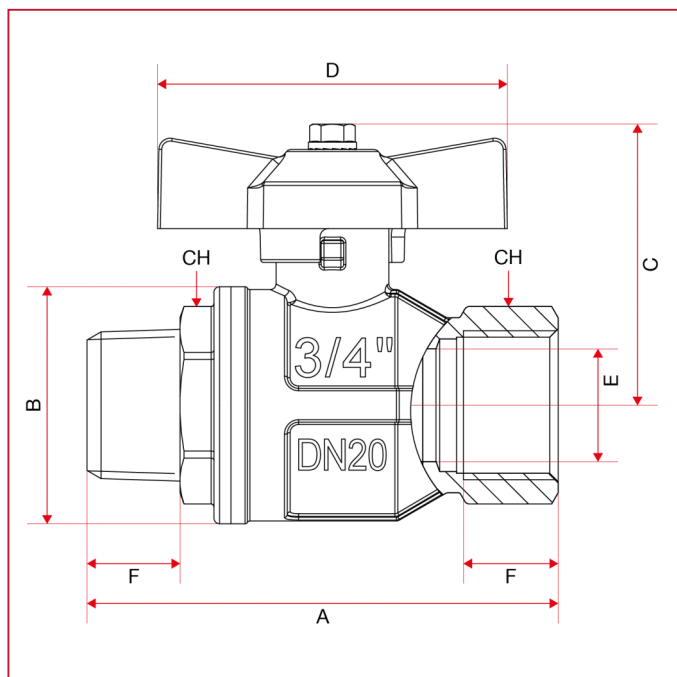
- ISO 7/1 R taper (equivalent to DIN EN 10226-1 and BS EN 10226-1) sizes 1/2" through 1".

EN331 APPROVED (up to 2").



FULL FLOW GAS BALL VALVES: BERLIN

OVERALL DIMENSIONS

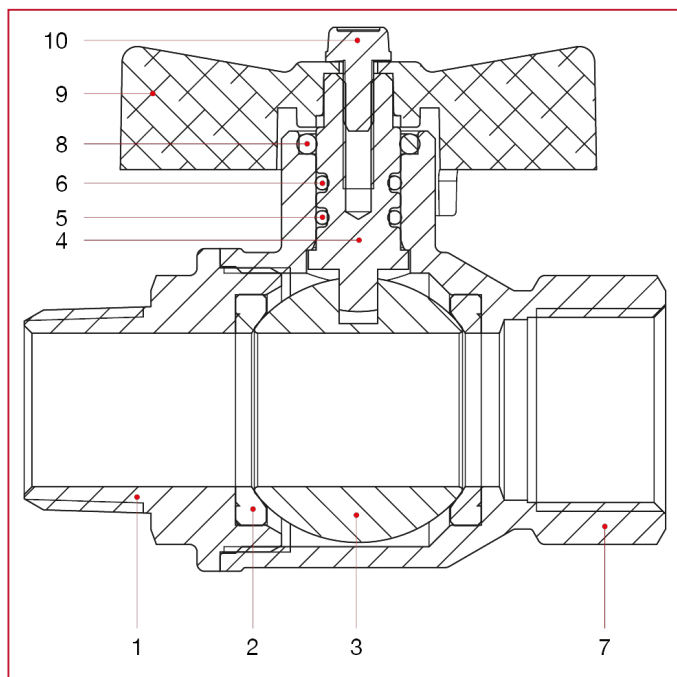


	1/2"	3/4"	1"
DN	15	20	25
A	76,5	83,5	93
B	32,5	42	49,5
C	44	50	53
D	54	62	62
E	15	20	25
F	15	16,3	19,1
G	15	16,5	19
CH	25	31	40
Kg/cm ² bar	5	5	5
LBS - psi	72,5	72,5	72,5



FULL FLOW GAS BALL VALVES: BERLIN

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	O-ring	1	NBR
9	Screw	1	Zinc-plated steel C4C



FULL FLOW GAS BALL VALVES: BERLIN

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 adapter, 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.

WARNINGS

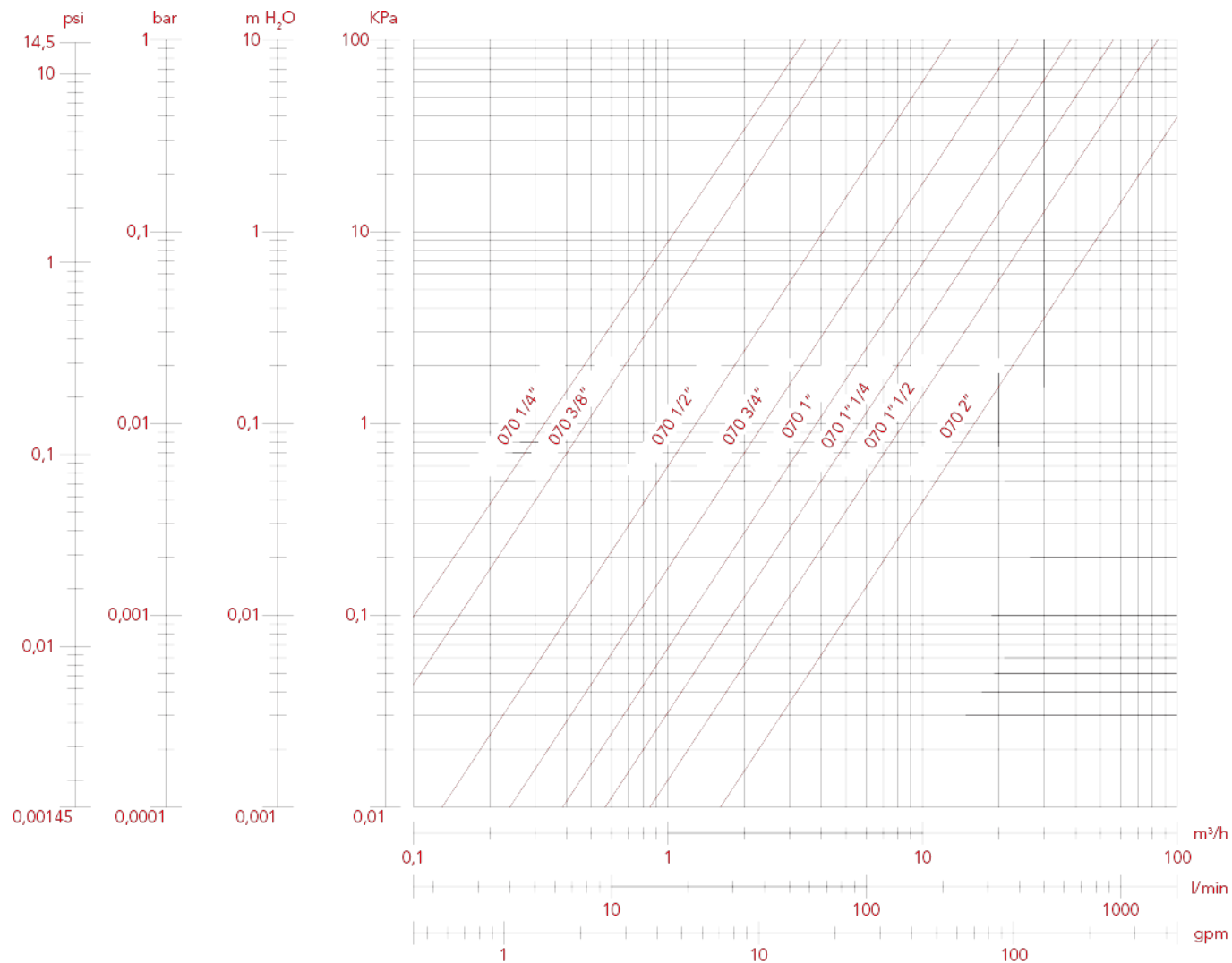
- any deterioration or destruction of any part of the manually operated ball valve shall result in the need to replace complete valve: alterations to any part of the complete valve shall result in the valve no longer being in compliance with the performance requirements of EN 331 standard;
- ensure that 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.



FULL FLOW GAS BALL VALVES: BERLIN

LOSS DIAGRAM (With water)

	1/2"	3/4"	1"
KV	12,98	23,92	38,57

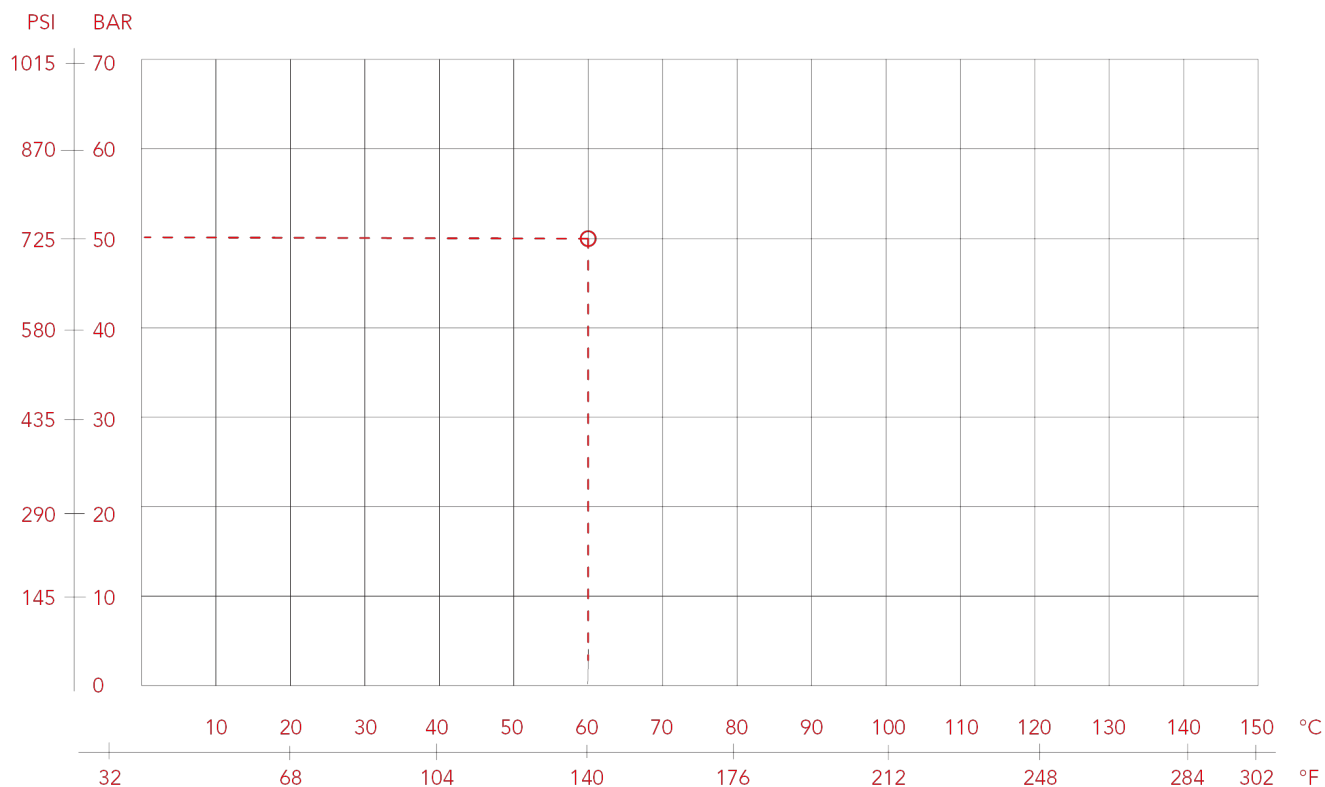




FULL FLOW GAS BALL VALVES: BERLIN

PRESSURE-TEMPERATURE DIAGRAM

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





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We reserve the right to make improvements
and changes to the products described
herein and to the relative technical data, at
any time and without forewarning.

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