



TECHNICAL CATALOGUE

# STANDARD FLOW BALL VALVES: VIENNA



## > 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.





## STANDARD FLOW BALL VALVES: VIENNA

### 116 Vienna ball valve, standard flow

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

VIENNA



MEASURE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	0900014	12/168
3/8" (DN 10)	50bar/725psi	0900038	12/168
1/2" (DN 15)	30bar/435psi	1160012	15/135
3/4" (DN 20)	30bar/435psi	1160034	8/72
1" (DN 25)	30bar/435psi	1160100	8/48
1"1/4 (DN 32)	25bar/362.5psi	1160114	4/32
1"1/2 (DN 40)	25bar/362.5psi	1160112	3/18
2" (DN 50)	25bar/362.5psi	1160200	2/10
2"1/2 (DN 65)	18bar/261psi	1160212	1/9
3" (DN 80)	14bar/203psi	1160300	1/5
4" (DN 100)	12bar/174psi	1160400	1/3

#### CERTIFICATIONS



#### TECHNICAL SPECIFICATIONS

Female/female threads.

Lever handle in steel (aluminium for sizes 2"1/2 - 3" - 4").

Body in nickel-plated brass.

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

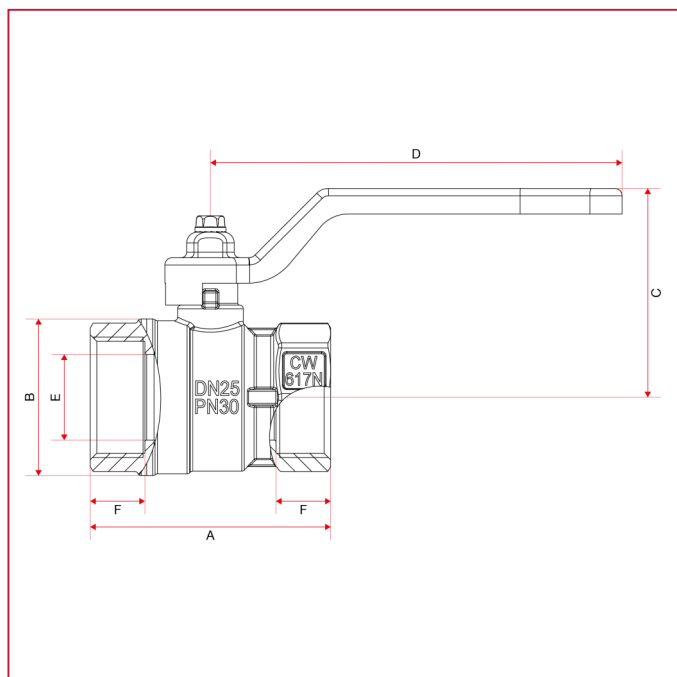
Threads: ISO 228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).

Available also with NPT thread in the sizes 2"1/2, 3" and 4".



## STANDARD FLOW BALL VALVES: VIENNA

### OVERALL DIMENSIONS



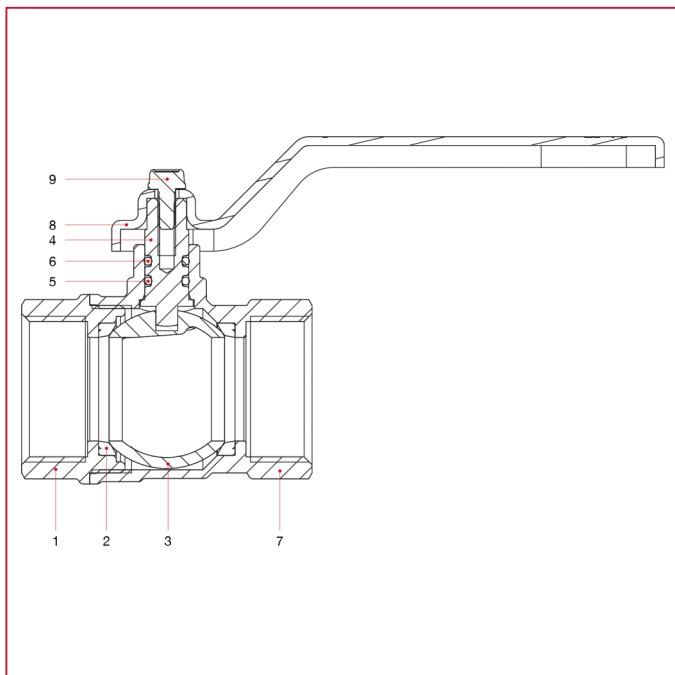
	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
DN	8	10	15	20	25	32	40	50	65	80	100
A	44,4	44,4	48	53	66	76	88	103	128,5	145	175
B	23,5	24	29	36	43	53	63	79	97	117,5	149,5
C	37,3	37,3	40	54	57	73	78	94	110	127	142
D	80	80	80	113	113	138	138	158	197	250	250
E	10	10	14	18,5	23,5	30	37	47	58	70	90
F	10	10	12	12	15	16	18	19	24	24	27
Kg/cm2 bar	50	50	30	30	30	25	25	25	18	14	12
LBS - psi	725	725	435	435	435	362,5	362,5	362,5	261	203	174





## STANDARD FLOW BALL VALVES: VIENNA

**MATERIALS** sizes 1/4" through 2"

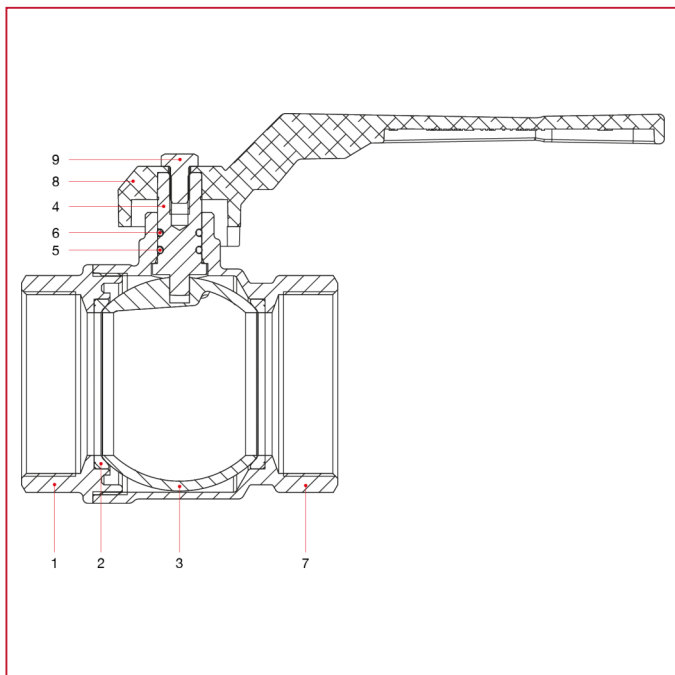


POS.	DESCRIPTION	N.	MATERIAL
1	Female end adapter	1	Nickel-plated brass CW617N
2	Seat	2	P.T.F.E.
3	Ball	1	Chrome-plated brass CW617N
4	Stem	1	Brass CW614N
5	O-ring	1	NBR
6	O-ring	1	Viton®
7	Body	1	Nickel-plated brass CW617N
8	Lever handle	1	Varnished steel P04
9	Screw	1	Zinc-plated steel C4C



## STANDARD FLOW BALL VALVES: VIENNA

**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 handle	1	Varnished aluminium
9	Screw	1	Zinc-plated CB4 FF (C34)



# STANDARD FLOW BALL VALVES: VIENNA

## 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

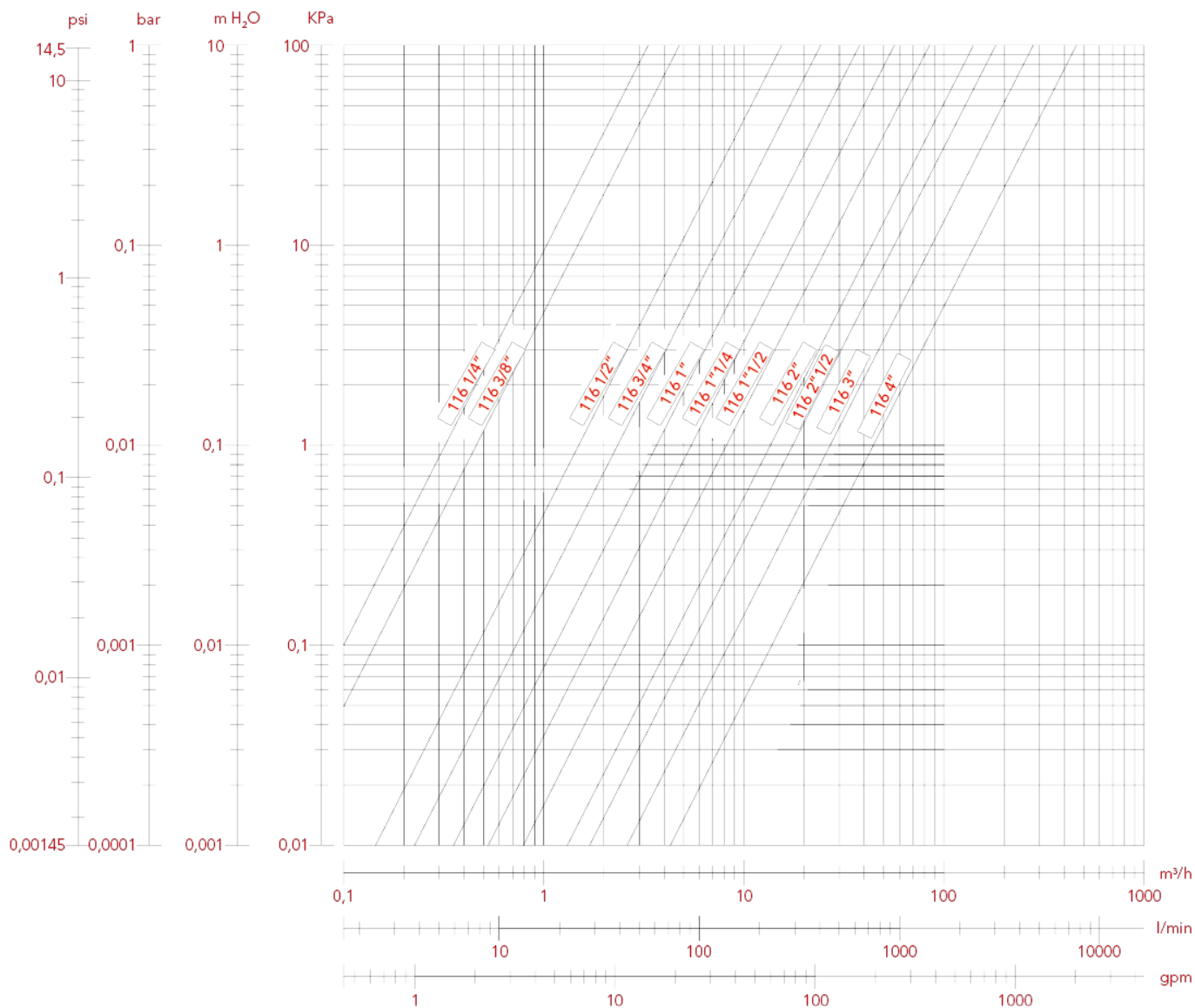
Verify the valve periodically, according to its application's field and its works' field and its work's conditions, in order to be sure that the valve works correctly.



# STANDARD FLOW BALL VALVES: VIENNA

## LOSS DIAGRAM (With water)

	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
KV	3,33	4,92	14,65	23,46	38,67	56,07	86,60	160,5	183,1	280,6	461

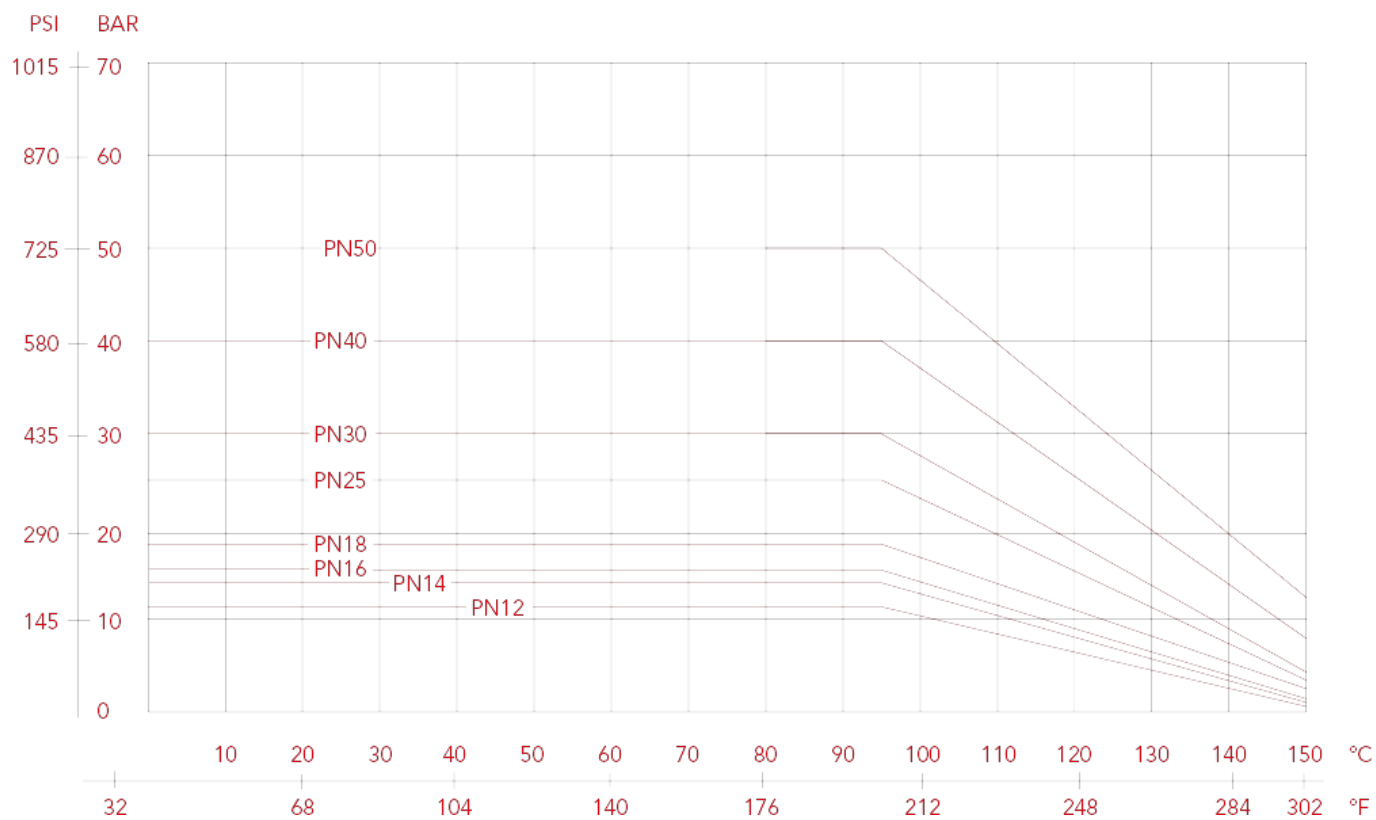




## STANDARD FLOW BALL VALVES: VIENNA

### PRESSURE-TEMPERATURE DIAGRAM

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





# STANDARD FLOW BALL VALVES: VIENNA

## 116N Vienna ball valve, standard flow

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

VIENNA



MEASURE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	0900014N	12/168
3/8" (DN 10)	50bar/725psi	0900038N	12/168
1/2" (DN 15)	30bar/435psi	1160012N	15/135
3/4" (DN 20)	30bar/435psi	1160034N	8/72
1" (DN 25)	30bar/435psi	1160100N	8/48
1"1/4 (DN 32)	25bar/362.5psi	1160114N	4/32
1"1/2 (DN 40)	25bar/362.5psi	1160112N	3/18
2" (DN 50)	25bar/362.5psi	1160200N	2/10
2"1/2 (DN 65)	18bar/261psi	1160212N	1/9
3" (DN 80)	14bar/203psi	1160300N	1/5
4" (DN 100)	12bar/174psi	1160400N	1/3

### CERTIFICATIONS



### TECHNICAL SPECIFICATIONS

Female/female threads.

Lever handle in steel (aluminium for sizes 2"1/2 - 3" - 4").

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).

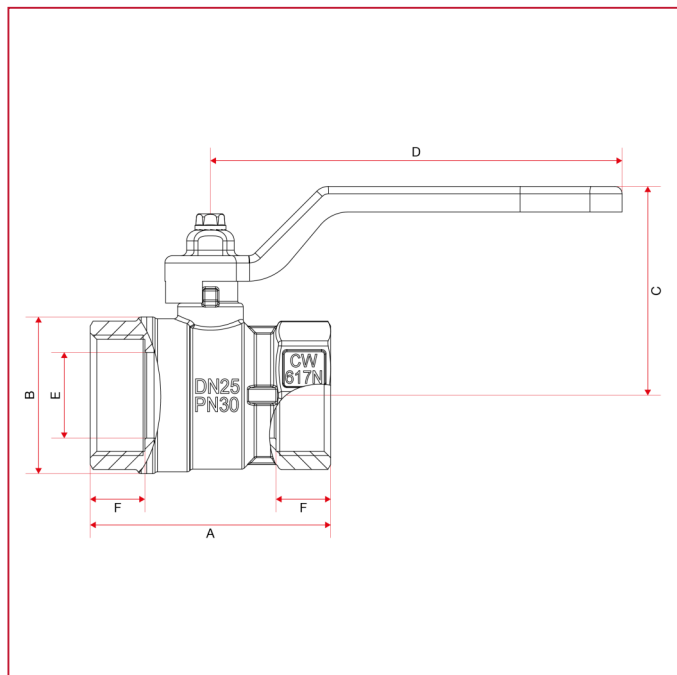
Available also with NPT thread in the sizes 2"1/2, 3" and 4".





## STANDARD FLOW BALL VALVES: VIENNA

### OVERALL DIMENSIONS

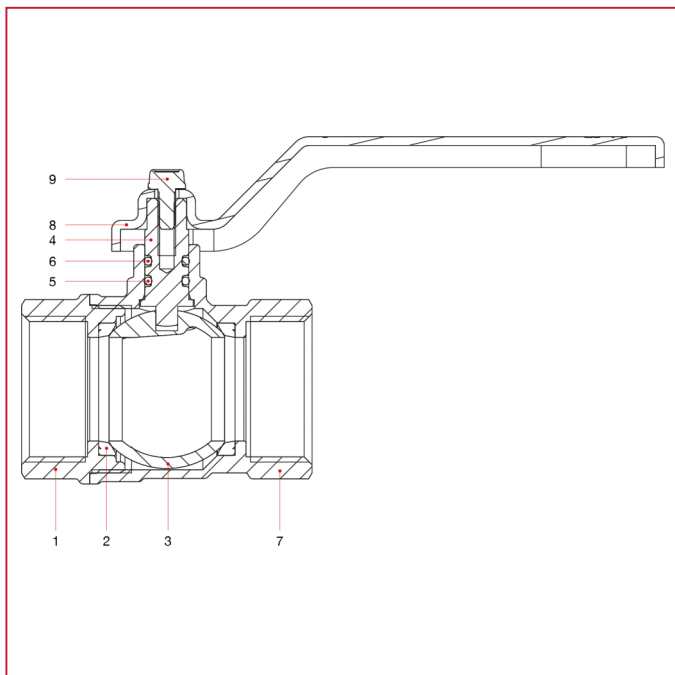


	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
DN	8	10	15	20	25	32	40	50	65	80	100
A	44,4	44,4	48	53	66	76	88	103	128,5	145	175
B	23,5	24	29	36	43	53	63	79	97	117,5	149,5
C	37,3	37,3	40	54	57	73	78	94	110	127	142
D	80	80	80	113	113	138	138	158	197	250	250
E	10	10	14	18,5	23,5	30	37	47	58	70	90
F	10	10	12	12	15	16	18	19	24	24	27
Kg/cm2 bar	50	50	30	30	30	25	25	25	18	14	12
LBS - psi	725	725	435	435	435	362,5	362,5	362,5	261	203	174



## STANDARD FLOW BALL VALVES: VIENNA

**MATERIALS** sizes 1/4" through 2"

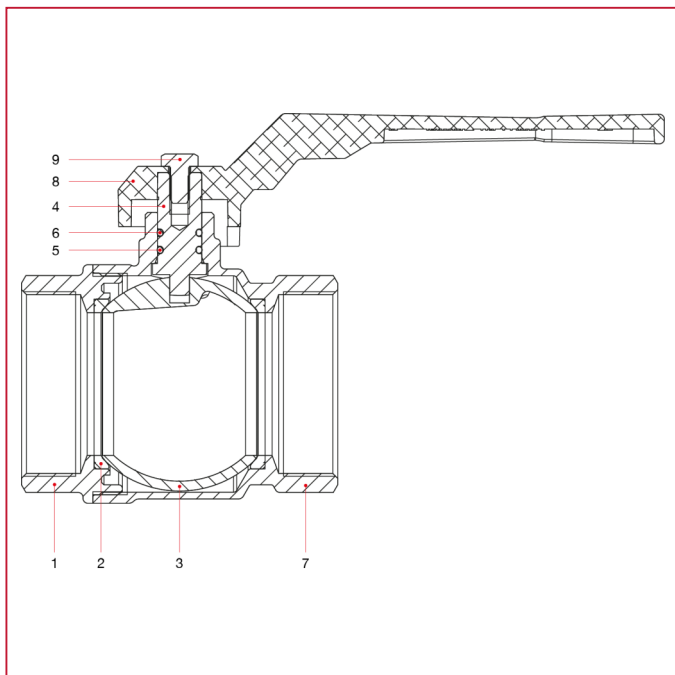


POS.	DESCRIPTION	N.	MATERIAL
1	Female end adapter	1	Nickel-plated brass CW617N
2	Seat	2	P.T.F.E.
3	Ball	1	Chrome-plated brass CW617N
4	Stem	1	Brass CW614N
5	O-ring	1	NBR
6	O-ring	1	Viton®
7	Body	1	Nickel-plated brass CW617N
8	Lever handle	1	Varnished steel P04
9	Screw	1	Zinc-plated steel C4C



## STANDARD FLOW BALL VALVES: VIENNA

**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 handle	1	Varnished aluminium
9	Screw	1	Zinc-plated CB4 FF (C34)



# STANDARD FLOW BALL VALVES: VIENNA

## 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

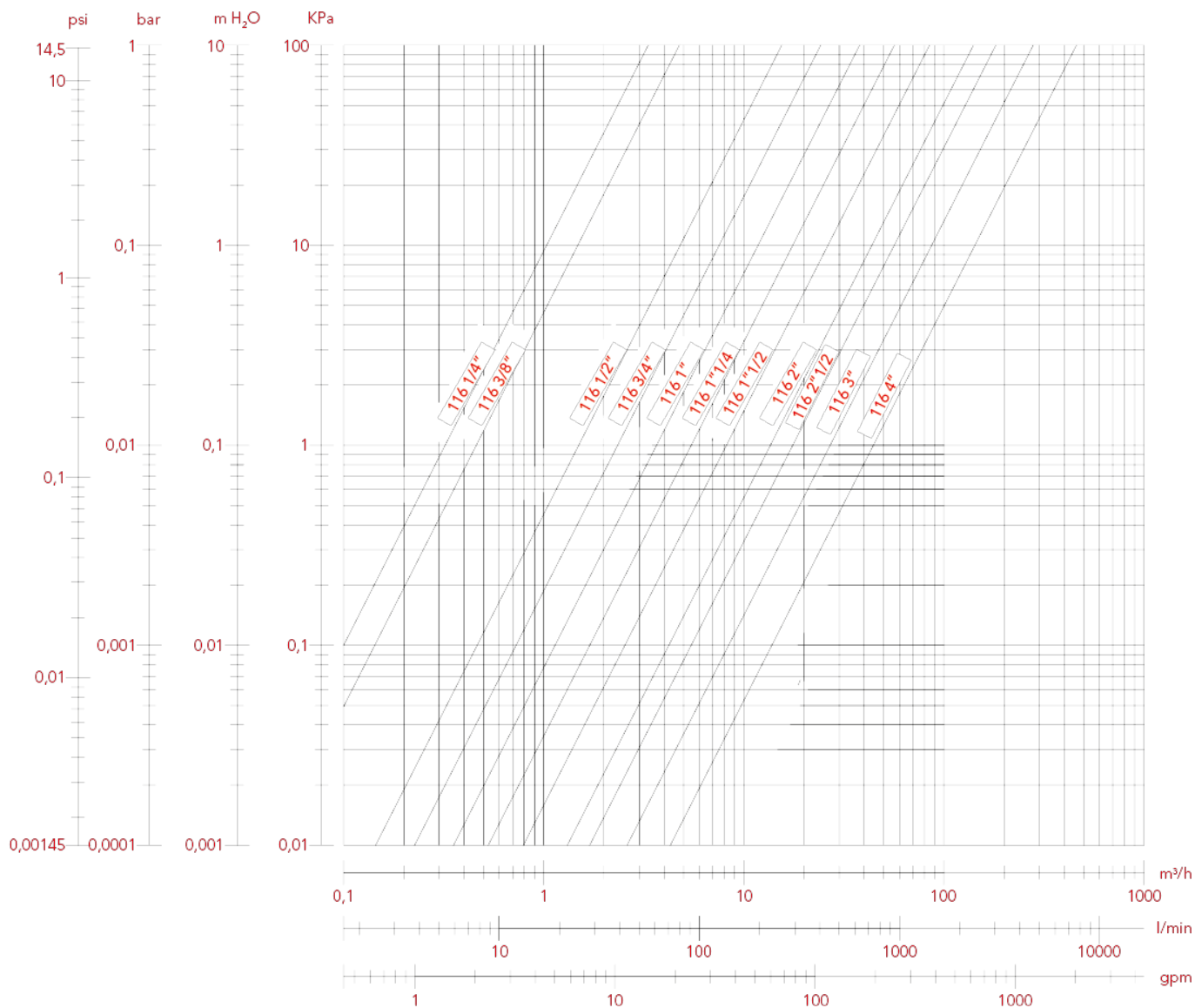
Verify the valve periodically, according to its application's field and its works' field and its work's conditions, in order to be sure that the valve works correctly.



# STANDARD FLOW BALL VALVES: VIENNA

## LOSS DIAGRAM (With water)

	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
KV	3,33	4,92	14,65	23,46	38,67	56,07	86,60	160,5	183,1	280,6	461

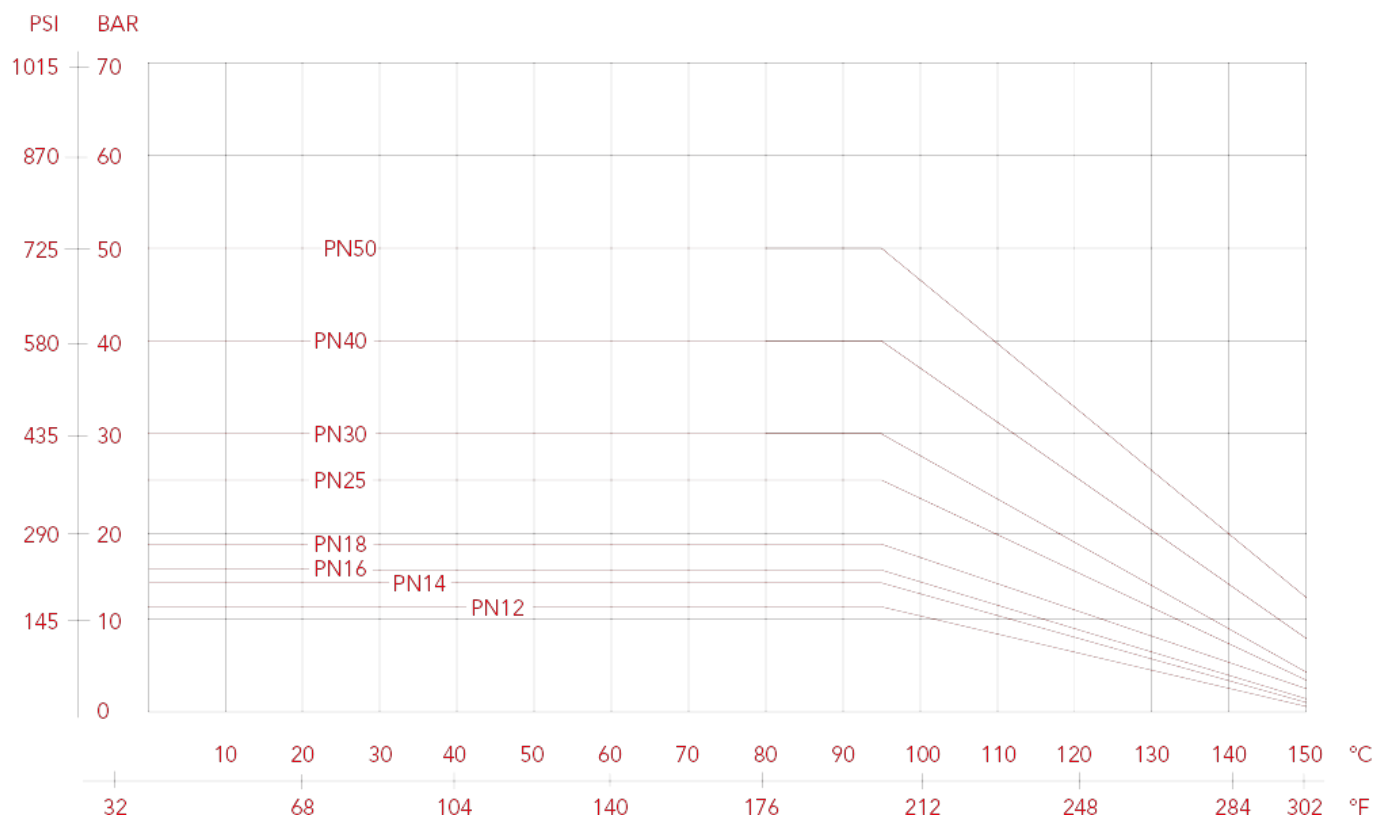




# STANDARD FLOW BALL VALVES: VIENNA

## PRESSURE-TEMPERATURE DIAGRAM

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







# STANDARD FLOW BALL VALVES: VIENNA

## 117 Vienna ball valve, standard flow

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



MEASURE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	0910014	12/144
3/8" (DN 10)	50bar/725psi	0910038	12/144
1/2" (DN 15)	30bar/435psi	1170012	15/120
3/4" (DN 20)	30bar/435psi	1170034	8/64
1" (DN 25)	30bar/435psi	1170100	6/48
1"1/4 (DN 32)	25bar/362.5psi	1170114	4/32
1"1/2 (DN 40)	25bar/362.5psi	1170112	2/16
2" (DN 50)	25bar/362.5psi	1170200	2/10

### CERTIFICATIONS



### TECHNICAL SPECIFICATIONS

Male/female threads.

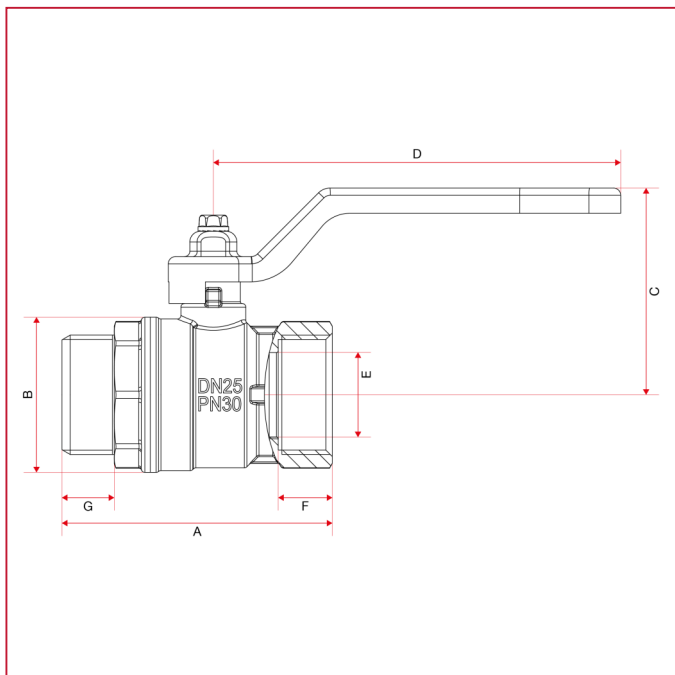
Lever handle in steel.

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).

### OVERALL DIMENSIONS

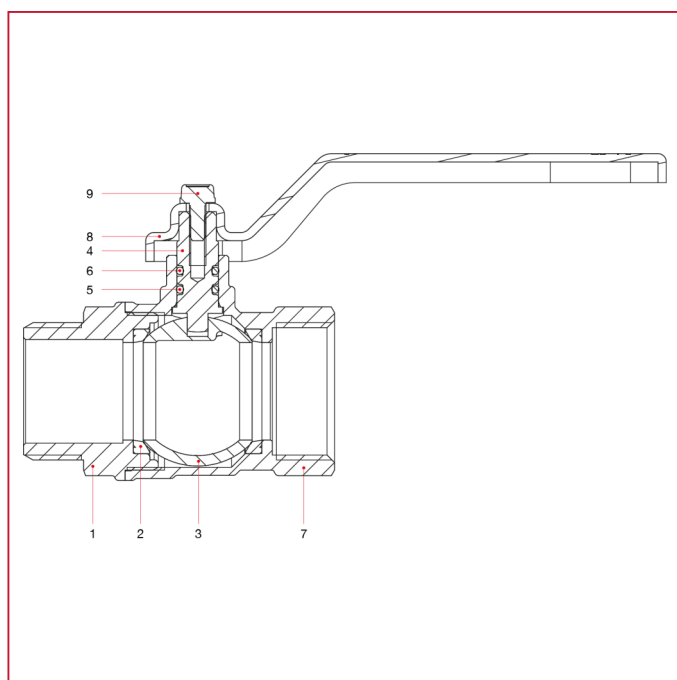




## STANDARD FLOW BALL VALVES: VIENNA

	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	53,9	53,9	58	62,5	75	87,5	100,5	115,5
B	23,5	24	29	36	43	53	63	79
C	37,3	37,3	40	54	57	73	78	94
D	80	80	80	113	113	138	138	158
E	8	10	14	18,5	23,5	30	37	47
F	10	10	12	12	15	16	18	19
G	10,5	10,5	11,5	12,5	14,5	17	19	21
Kg/cm2 bar	50	50	30	30	30	25	25	25
LBS - psi	725	725	435	435	435	362,5	362,5	362,5

### 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



# STANDARD FLOW BALL VALVES: VIENNA

## 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

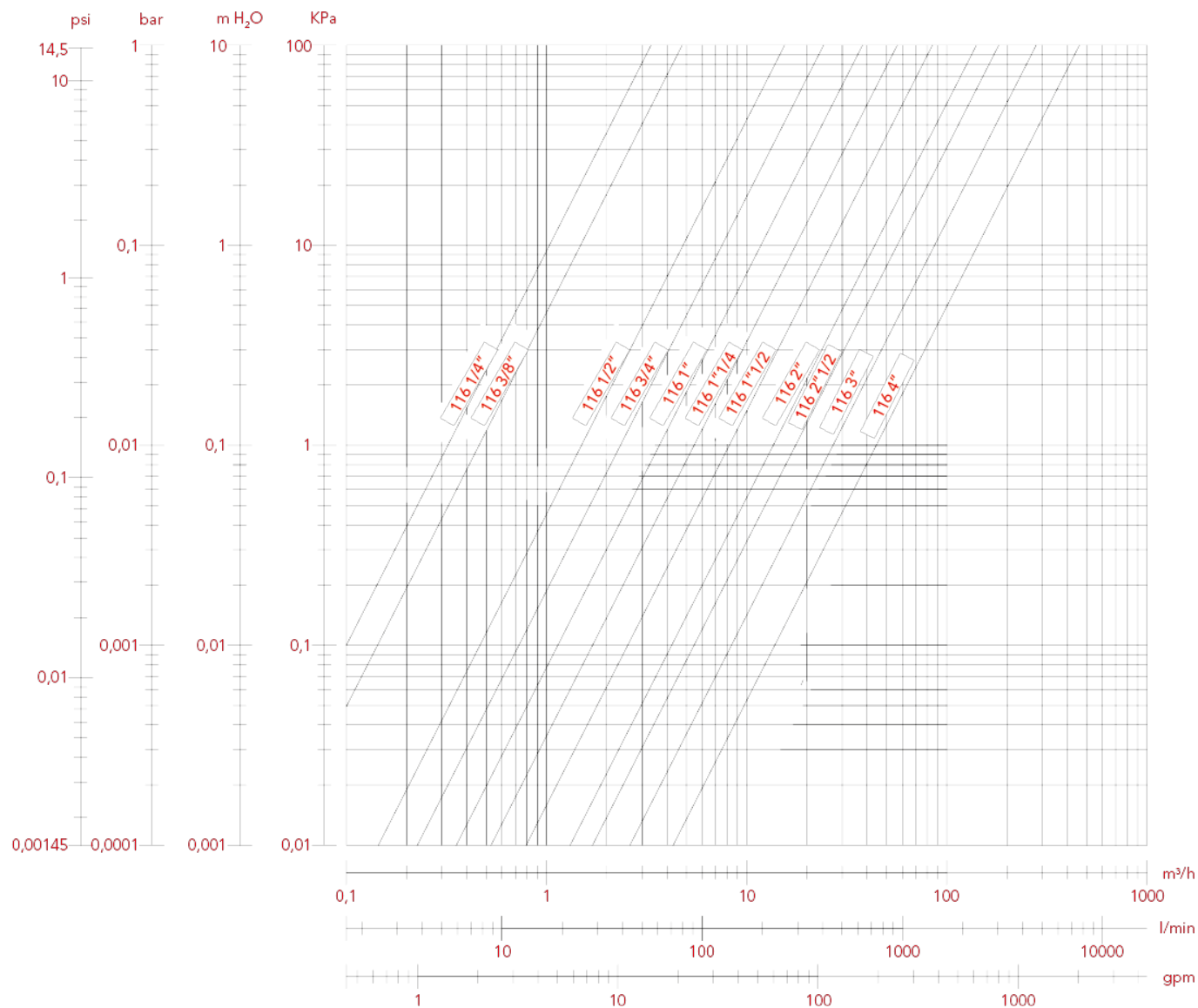
Verify the valve periodically, according to its application's field and its works' field and its work's conditions, in order to be sure that the valve works correctly.



# STANDARD FLOW BALL VALVES: VIENNA

## LOSS DIAGRAM (With water)

	1/4"	3/8"	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"
KV	3,33	4,92	14,65	23,46	38,67	56,07	86,60	160,5

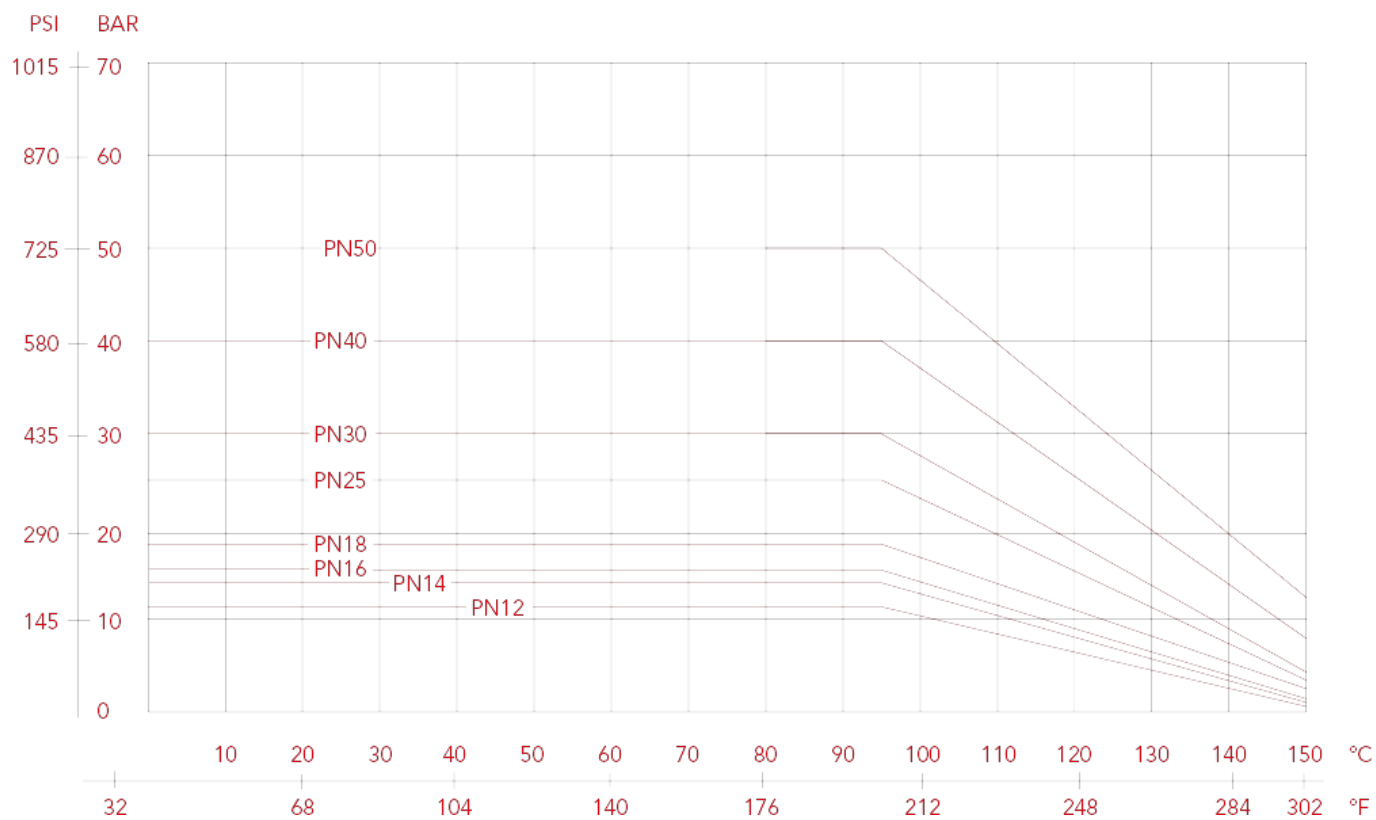




## STANDARD FLOW BALL VALVES: VIENNA

### PRESSURE-TEMPERATURE DIAGRAM

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## 117N Vienna ball valve, standard flow

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

VIENNA



MEASURE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	0910014N	12/144
3/8" (DN 10)	50bar/725psi	0910038N	12/144
1/2" (DN 15)	30bar/435psi	1170012N	15/120
3/4" (DN 20)	30bar/435psi	1170034N	8/64
1" (DN 25)	30bar/435psi	1170100N	6/48
1"1/4 (DN 32)	25bar/362.5psi	1170114N	4/32
1"1/2 (DN 40)	25bar/362.5psi	1170112N	2/16
2" (DN 50)	25bar/362.5psi	1170200N	2/10

### CERTIFICATIONS



### TECHNICAL SPECIFICATIONS

Male/female threads.

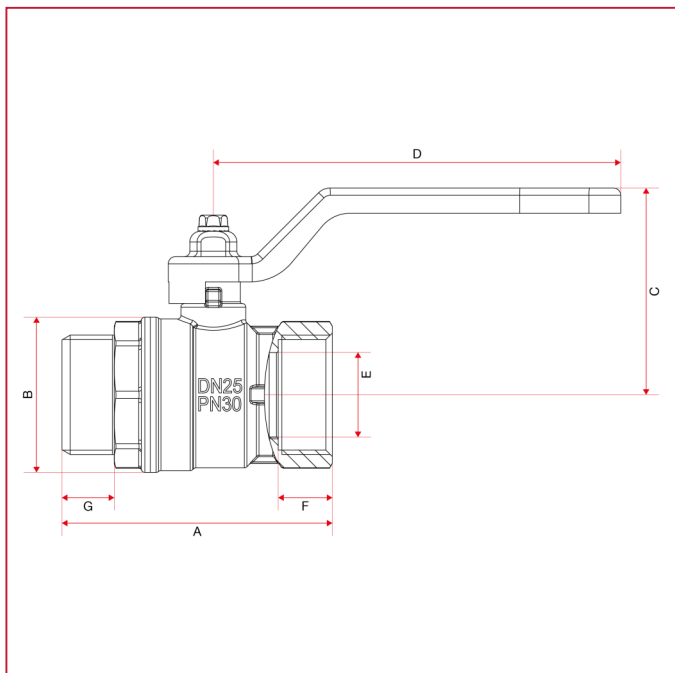
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### OVERALL DIMENSIONS



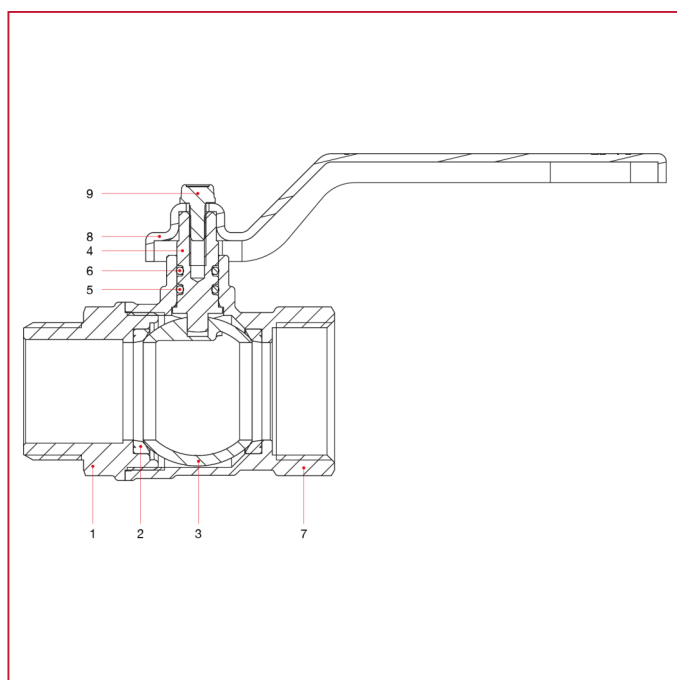




## STANDARD FLOW BALL VALVES: VIENNA

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B	23,5	24	29	36	43	53	63	79
C	37,3	37,3	40	54	57	73	78	94
D	80	80	80	113	113	138	138	158
E	8	10	14	18,5	23,5	30	37	47
F	10	10	12	12	15	16	18	19
G	10,5	10,5	11,5	12,5	14,5	17	19	21
Kg/cm2 bar	50	50	30	30	30	25	25	25
LBS - psi	725	725	435	435	435	362,5	362,5	362,5

### MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Male end adapter	1	Nickel-plated brass CW617N
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3	Ball	1	Chrome-plated brass CW617N
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5	O-ring	1	NBR
6	O-ring	1	Viton®
7	Body	1	Nickel-plated brass CW617N
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9	Screw	1	Zinc-plated steel C4C



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## MAINTENANCE

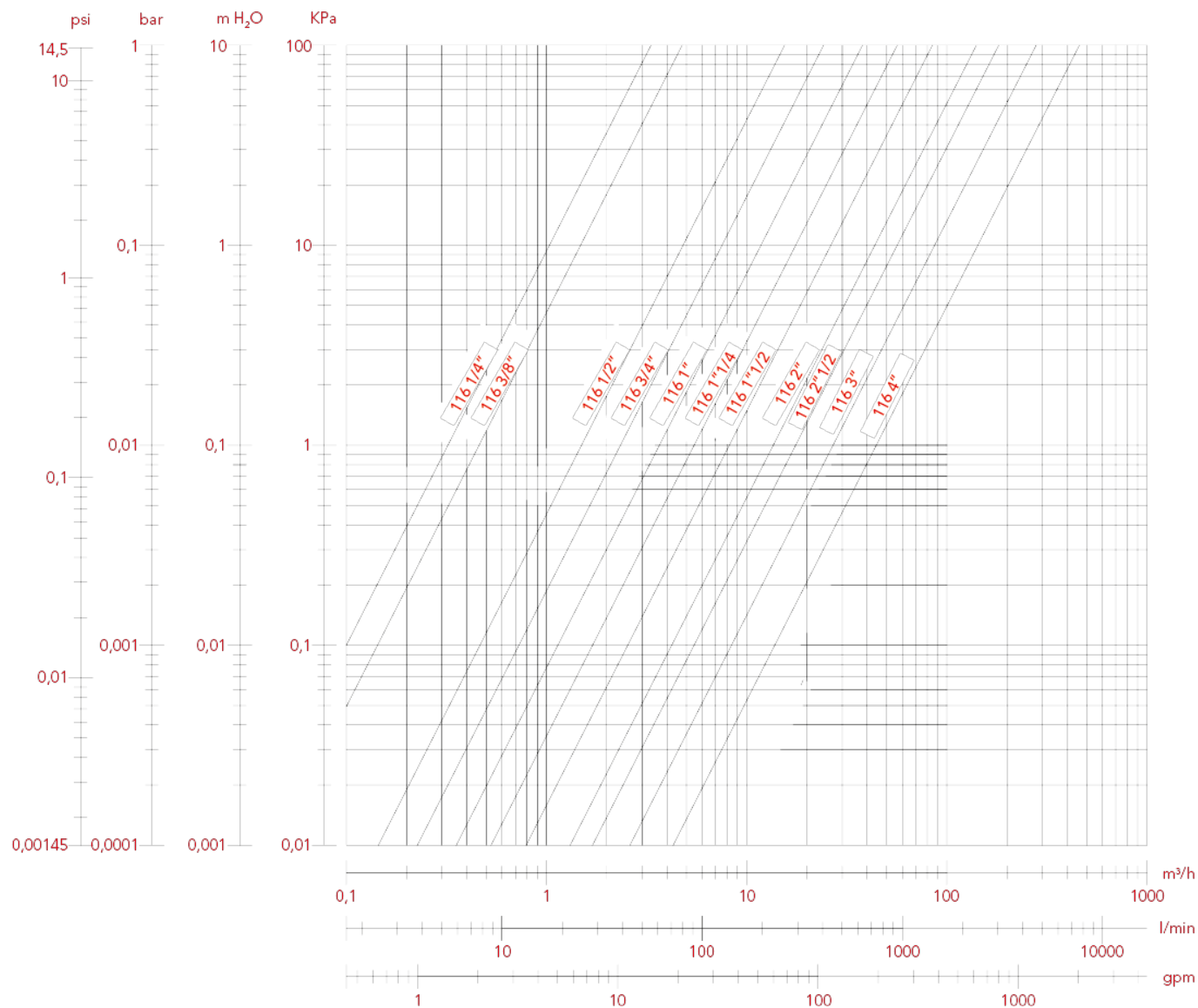
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# STANDARD FLOW BALL VALVES: VIENNA

## LOSS DIAGRAM (With water)

	1/4"	3/8"	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"
KV	3,33	4,92	14,65	23,46	38,67	56,07	86,60	160,5

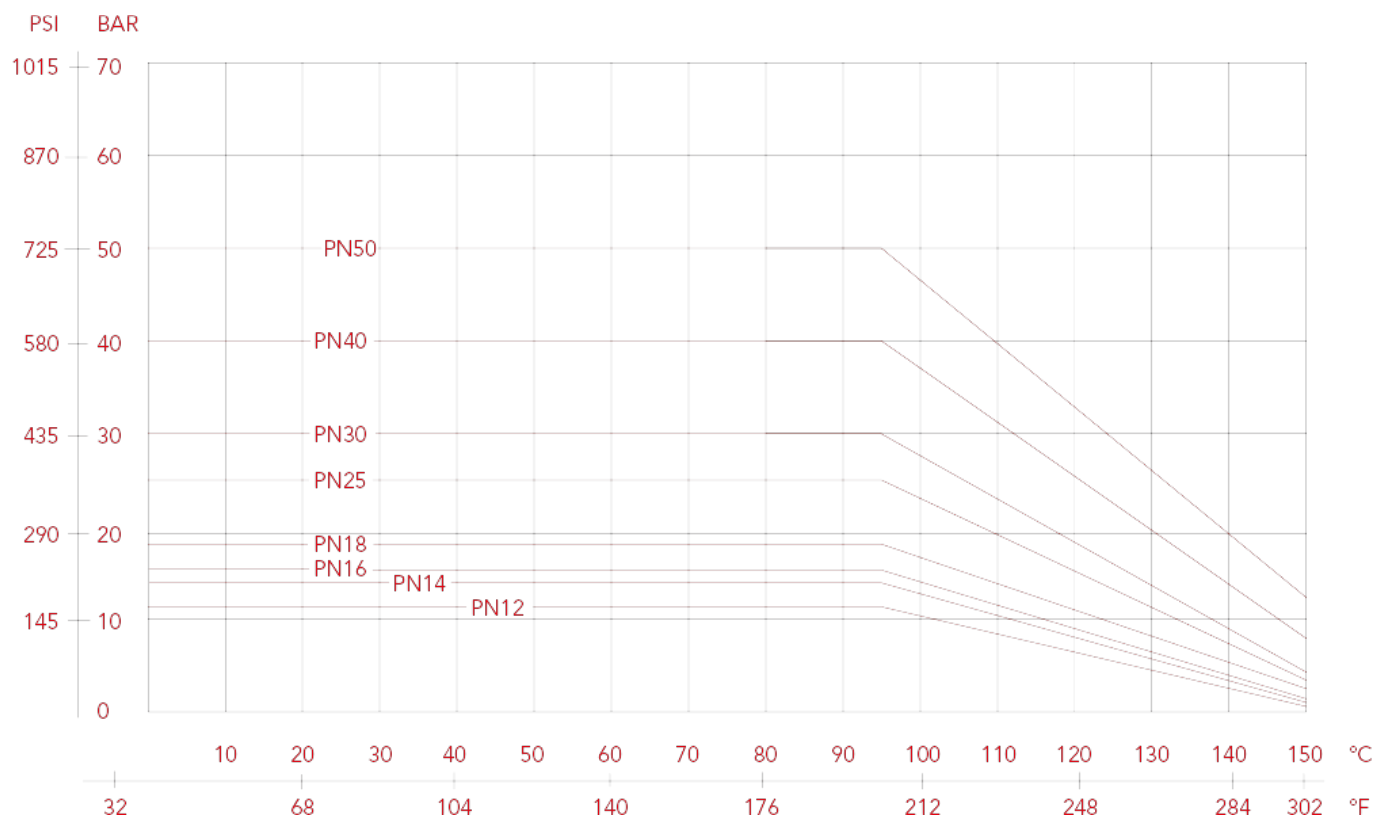




## STANDARD FLOW BALL VALVES: VIENNA

### PRESSURE-TEMPERATURE DIAGRAM

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





# STANDARD FLOW BALL VALVES: VIENNA

## 118 Vienna ball valve, standard flow

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



MEASURE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	0920014	15/210
3/8" (DN 10)	50bar/725psi	0920038	15/210
1/2" (DN 15)	30bar/435psi	1180012	15/180
3/4" (DN 20)	30bar/435psi	1180034	8/96
1" (DN 25)	30bar/435psi	1180100	8/72

### CERTIFICATIONS



### TECHNICAL SPECIFICATIONS

Female/female threads.

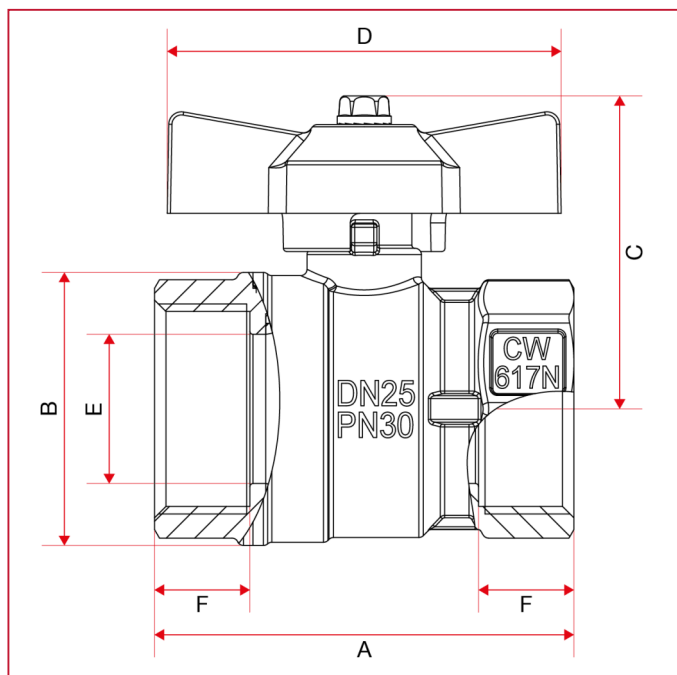
T handle in aluminium.

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).

### OVERALL DIMENSIONS

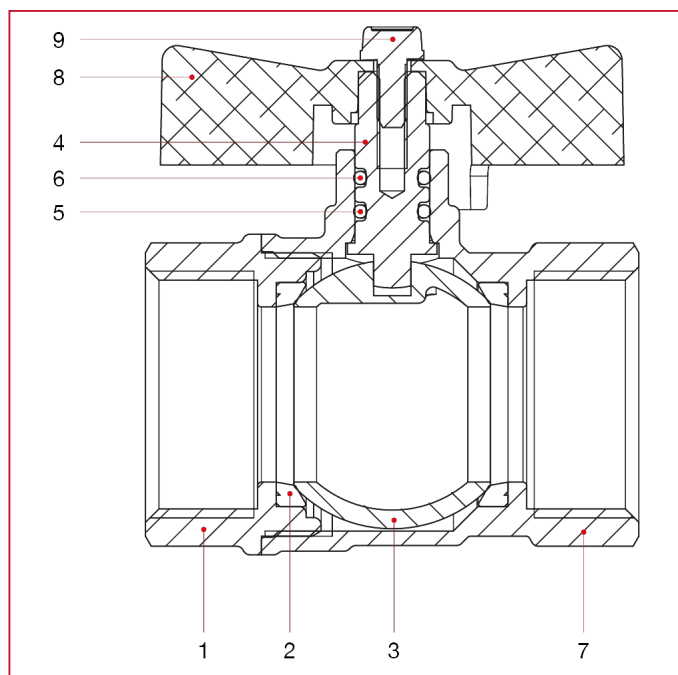




## STANDARD FLOW BALL VALVES: VIENNA

	1/4"	3/8"	1/2"	3/4"	1"
DN	8	10	15	20	25
A	44,4	44,4	48	53	66
B	23,5	24	29	36	43
C	37,3	37,3	40	46	49
D	47	47	47	54	62
E	10	10	14	18,5	23,5
F	10	10	12	12	15
Kg/cm2 bar	50	50	30	30	30
LBS - psi	725	725	435	435	435

### 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	T handle	1	Varnished aluminium
9	Screw	1	Zinc-plated steel C4C





# STANDARD FLOW BALL VALVES: VIENNA

## 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

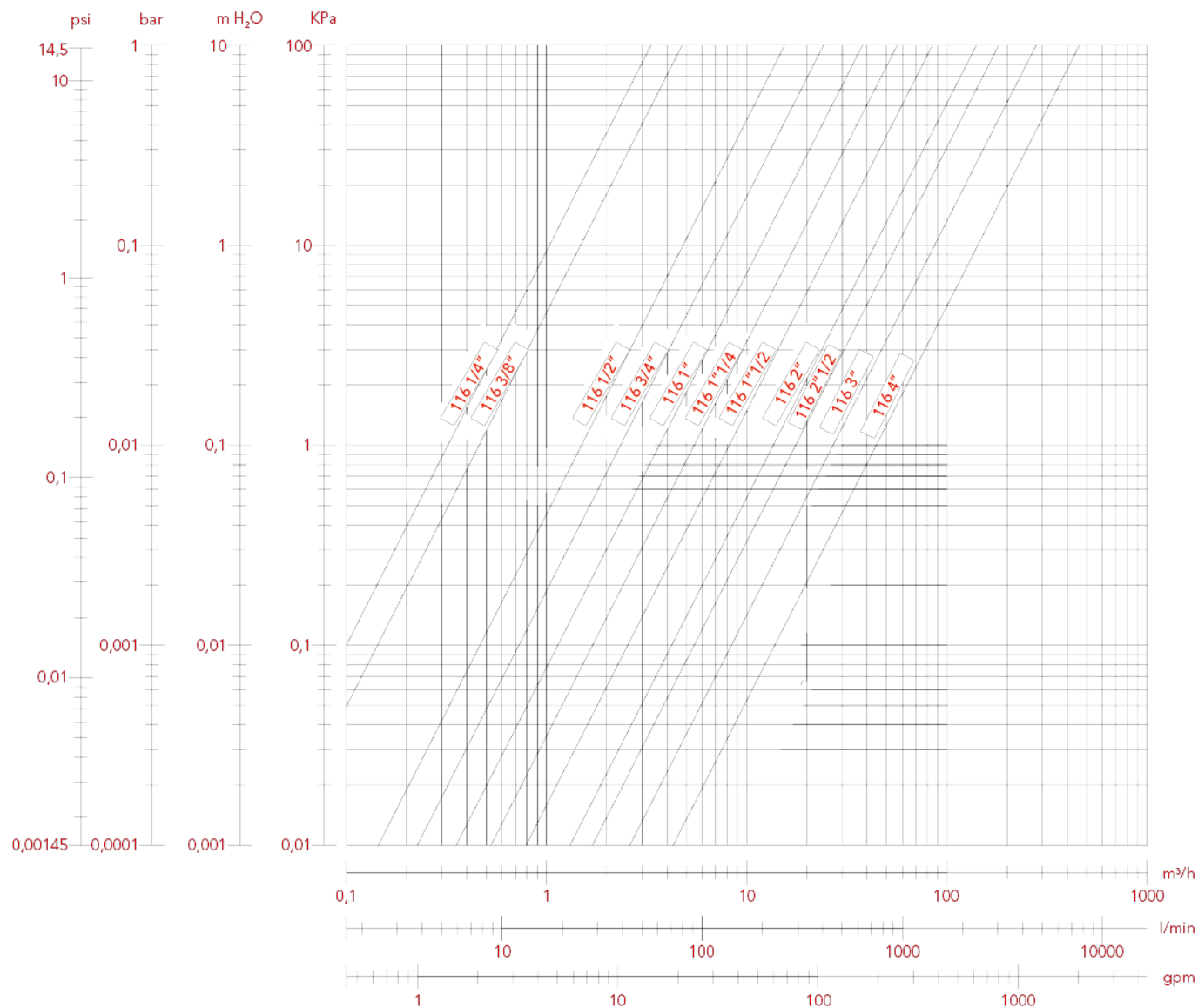
Verify the valve periodically, according to its application's field and its works' field and its work's conditions, in order to be sure that the valve works correctly.



# STANDARD FLOW BALL VALVES: VIENNA

## LOSS DIAGRAM (With water)

	1/4"	3/8"	1/2"	3/4"	1"
KV	3,33	4,92	14,65	23,46	38,67

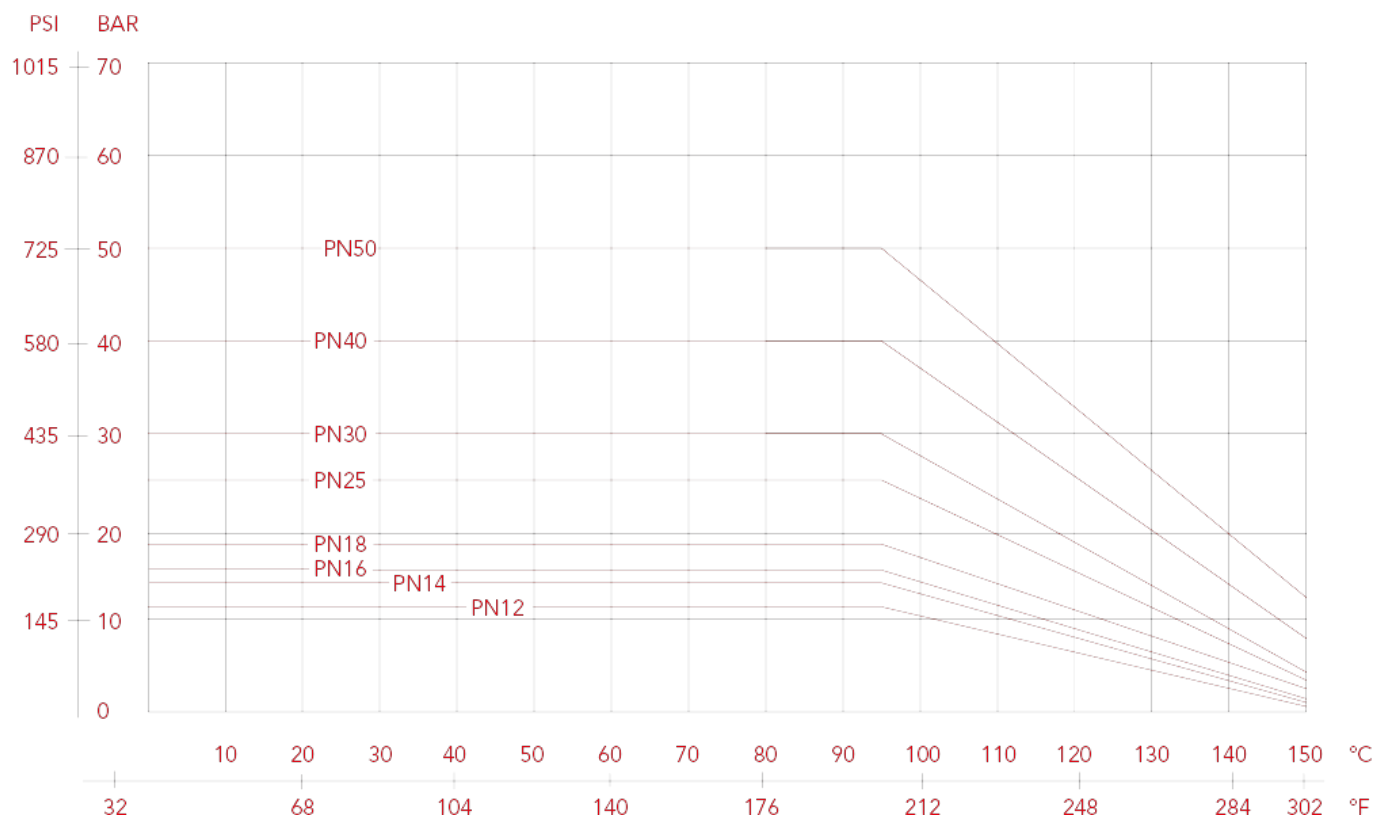




# STANDARD FLOW BALL VALVES: VIENNA

## PRESSURE-TEMPERATURE DIAGRAM

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





# STANDARD FLOW BALL VALVES: VIENNA

## 118N Vienna ball valve, standard flow

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

VIENNA



MEASURE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	0920014N	15/210
3/8" (DN 10)	50bar/725psi	0920038N	15/210
1/2" (DN 15)	30bar/435psi	1180012N	15/180
3/4" (DN 20)	30bar/435psi	1180034N	8/96
1" (DN 25)	30bar/435psi	1180100N	8/72

### CERTIFICATIONS



### TECHNICAL SPECIFICATIONS

Female/female threads.

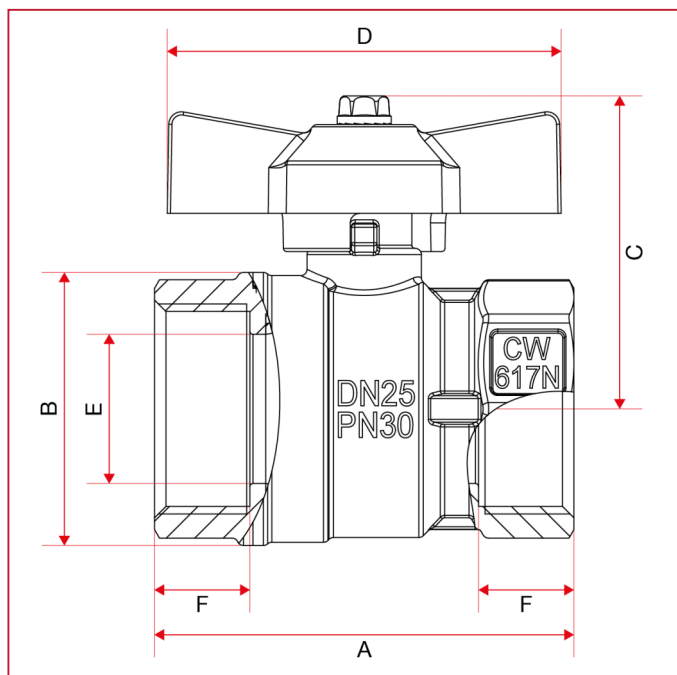
T handle in aluminium.

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).

### OVERALL DIMENSIONS

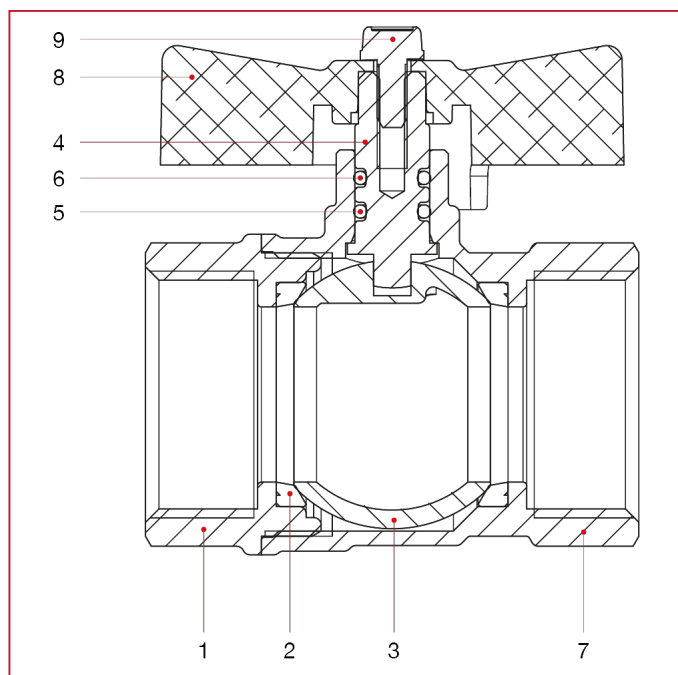




## STANDARD FLOW BALL VALVES: VIENNA

	1/4"	3/8"	1/2"	3/4"	1"
DN	8	10	15	20	25
A	44,4	44,4	48	53	66
B	23,5	24	29	36	43
C	37,3	37,3	40	46	49
D	47	47	47	54	62
E	10	10	14	18,5	23,5
F	10	10	12	12	15
Kg/cm2 bar	50	50	30	30	30
LBS - psi	725	725	435	435	435

### 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	T handle	1	Varnished aluminium
9	Screw	1	Zinc-plated steel C4C



# STANDARD FLOW BALL VALVES: VIENNA

## 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

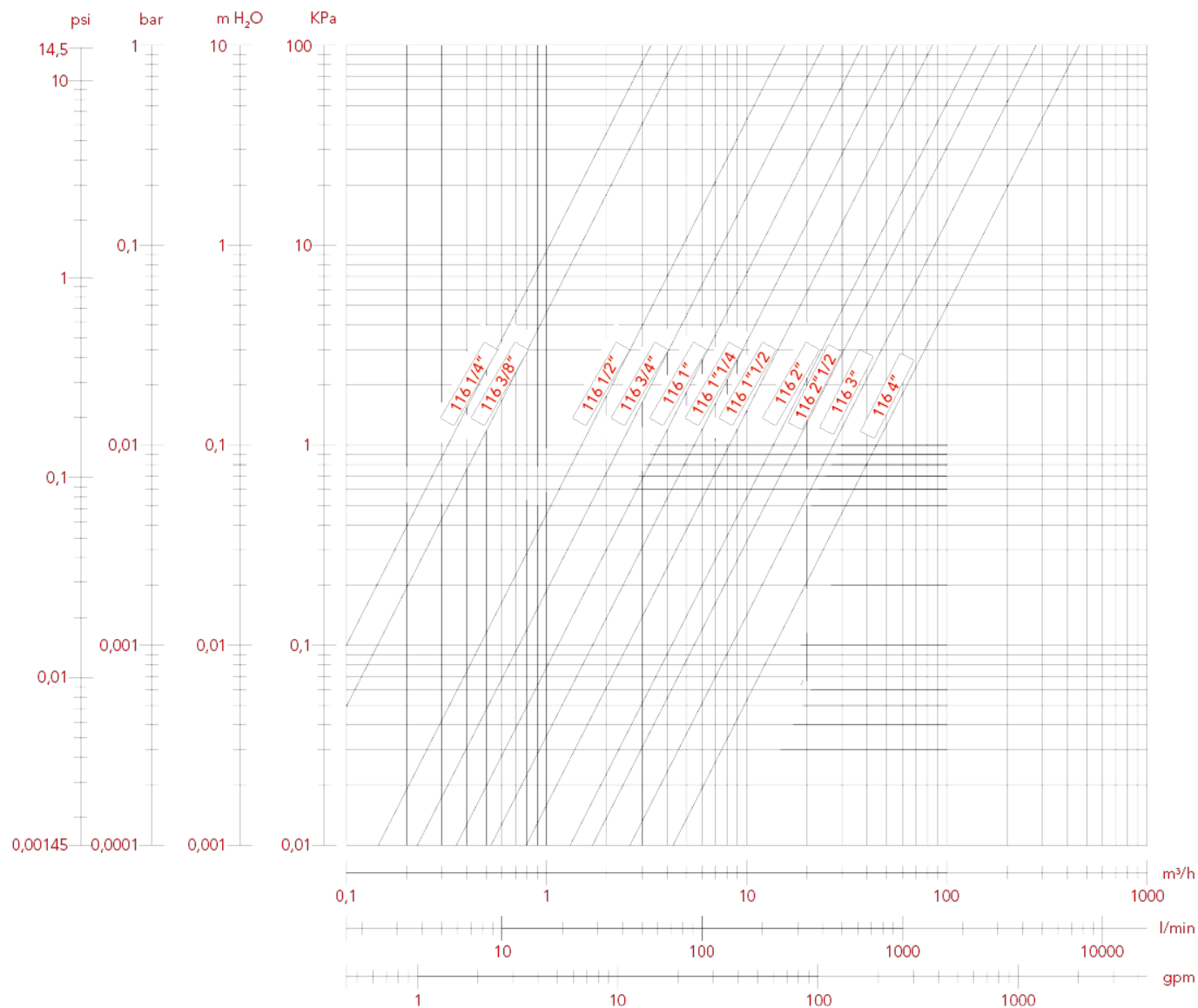
Verify the valve periodically, according to its application's field and its works' field and its work's conditions, in order to be sure that the valve works correctly.



# STANDARD FLOW BALL VALVES: VIENNA

## LOSS DIAGRAM (With water)

	1/4"	3/8"	1/2"	3/4"	1"
KV	3,33	4,92	14,65	23,46	38,67

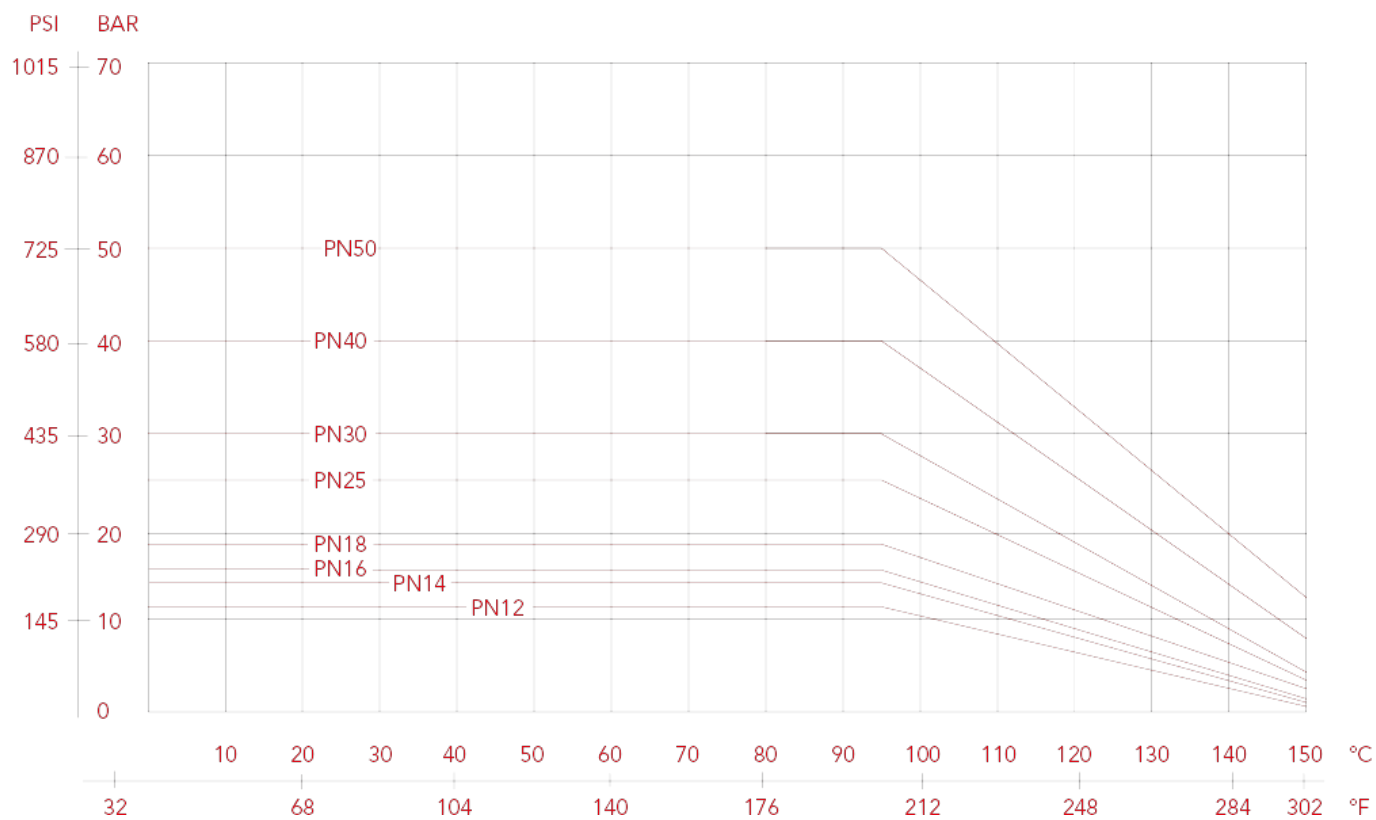




## STANDARD FLOW BALL VALVES: VIENNA

### PRESSURE-TEMPERATURE DIAGRAM

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







## STANDARD FLOW BALL VALVES: VIENNA

### 119 Vienna ball valve, standard flow

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

VIENNA



MEASURE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	0930014	15/180
3/8" (DN 10)	50bar/725psi	0930038	15/180
1/2" (DN 15)	30bar/435psi	1190012	15/135
3/4" (DN 20)	30bar/435psi	1190034	8/96
1" (DN 25)	30bar/435psi	1190100	6/54

#### CERTIFICATIONS



#### TECHNICAL SPECIFICATIONS

Male/female threads.

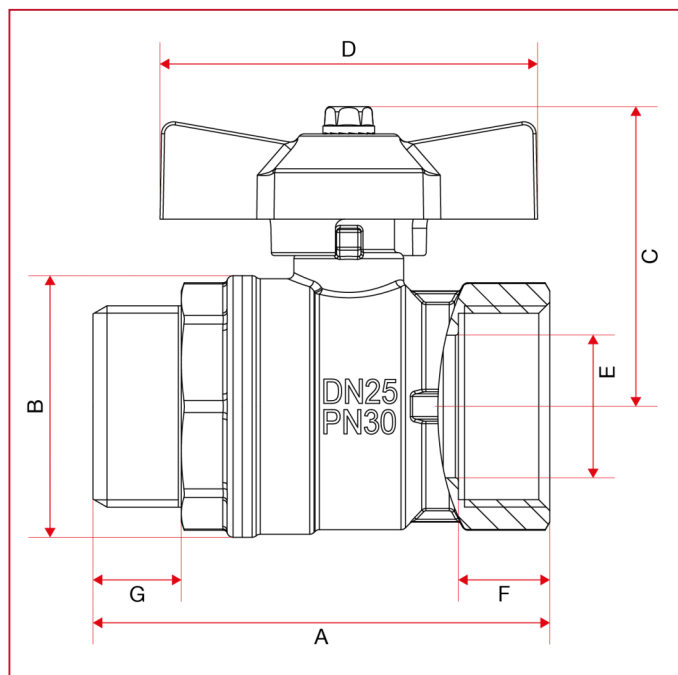
T handle in aluminium.

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).

#### OVERALL DIMENSIONS

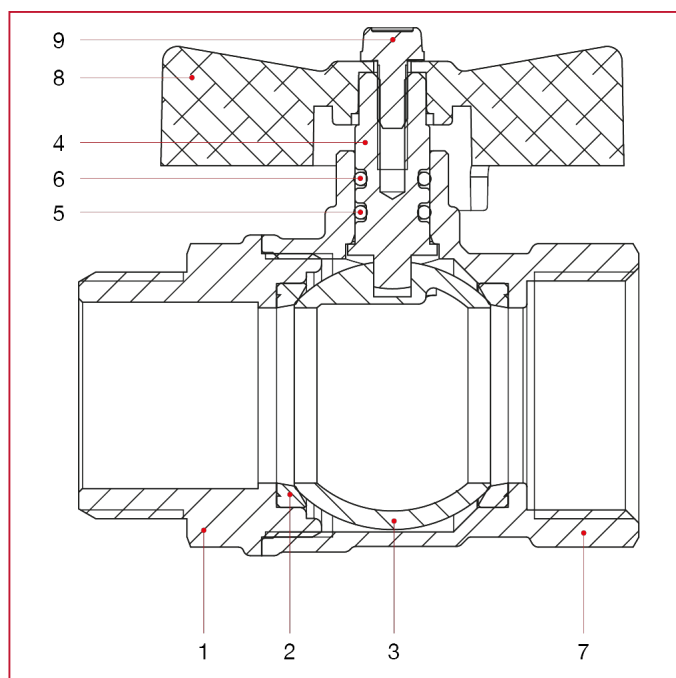




## STANDARD FLOW BALL VALVES: VIENNA

	1/4"	3/8"	1/2"	3/4"	1"
DN	8	10	15	20	25
A	53,9	53,9	58	62,5	75
B	23,5	24	29	36	43
C	37,3	37,3	40	46	49
D	47	47	47	54	62
E	8	10	14	18,5	23,5
F	10	10	12	12	15
G	10,5	10,5	11,5	12,5	14,5
Kg/cm <sup>2</sup> bar	50	50	30	30	30
LBS - psi	725	725	435	435	435

### 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	T handle	1	Varnished aluminium
9	Screw	1	Zinc-plated steel C4C



# STANDARD FLOW BALL VALVES: VIENNA

## 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

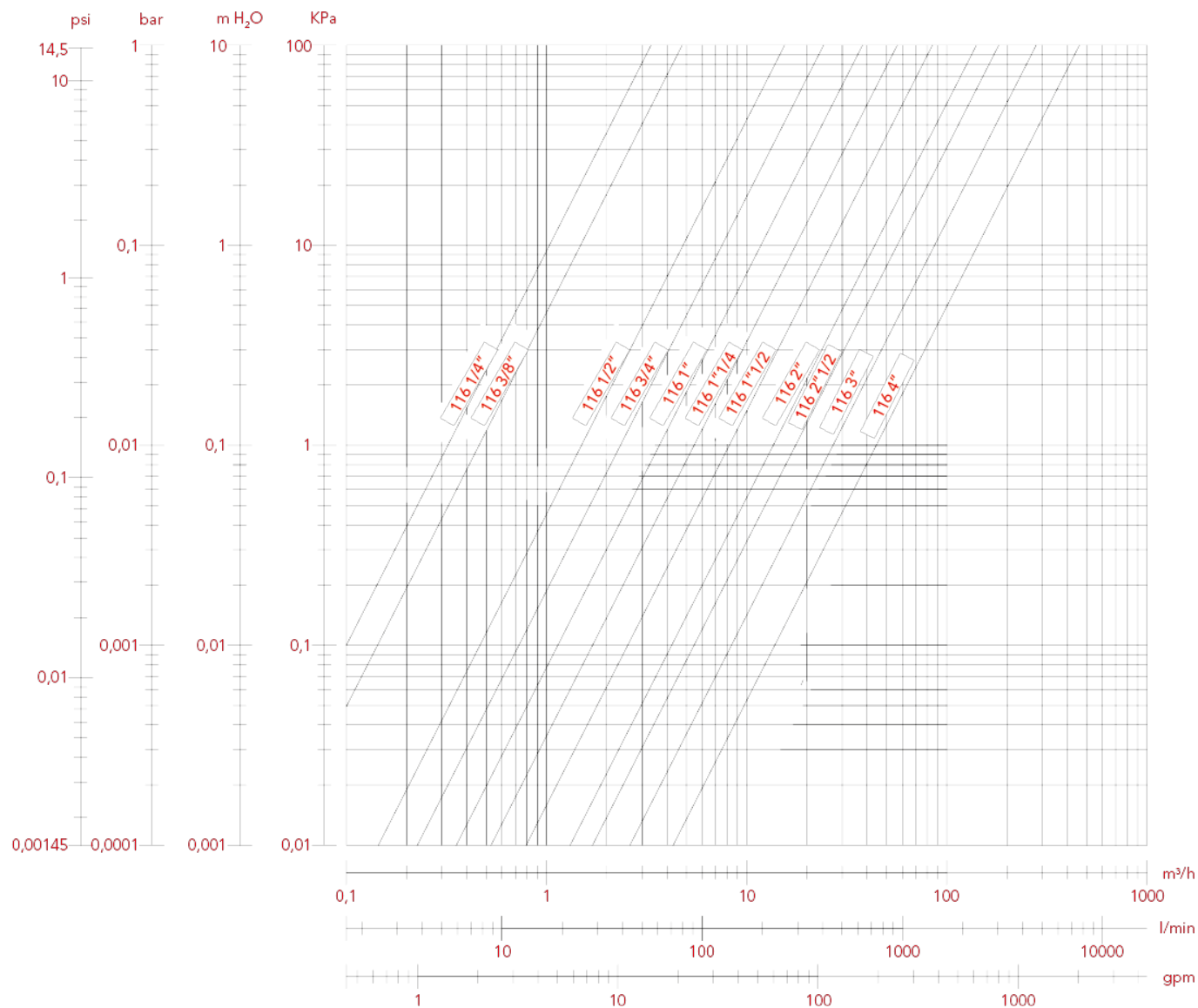
Verify the valve periodically, according to its application's field and its works' field and its work's conditions, in order to be sure that the valve works correctly.



# STANDARD FLOW BALL VALVES: VIENNA

## LOSS DIAGRAM (With water)

	1/4"	3/8"	1/2"	3/4"	1"
KV	3,33	4,92	14,65	23,46	38,67

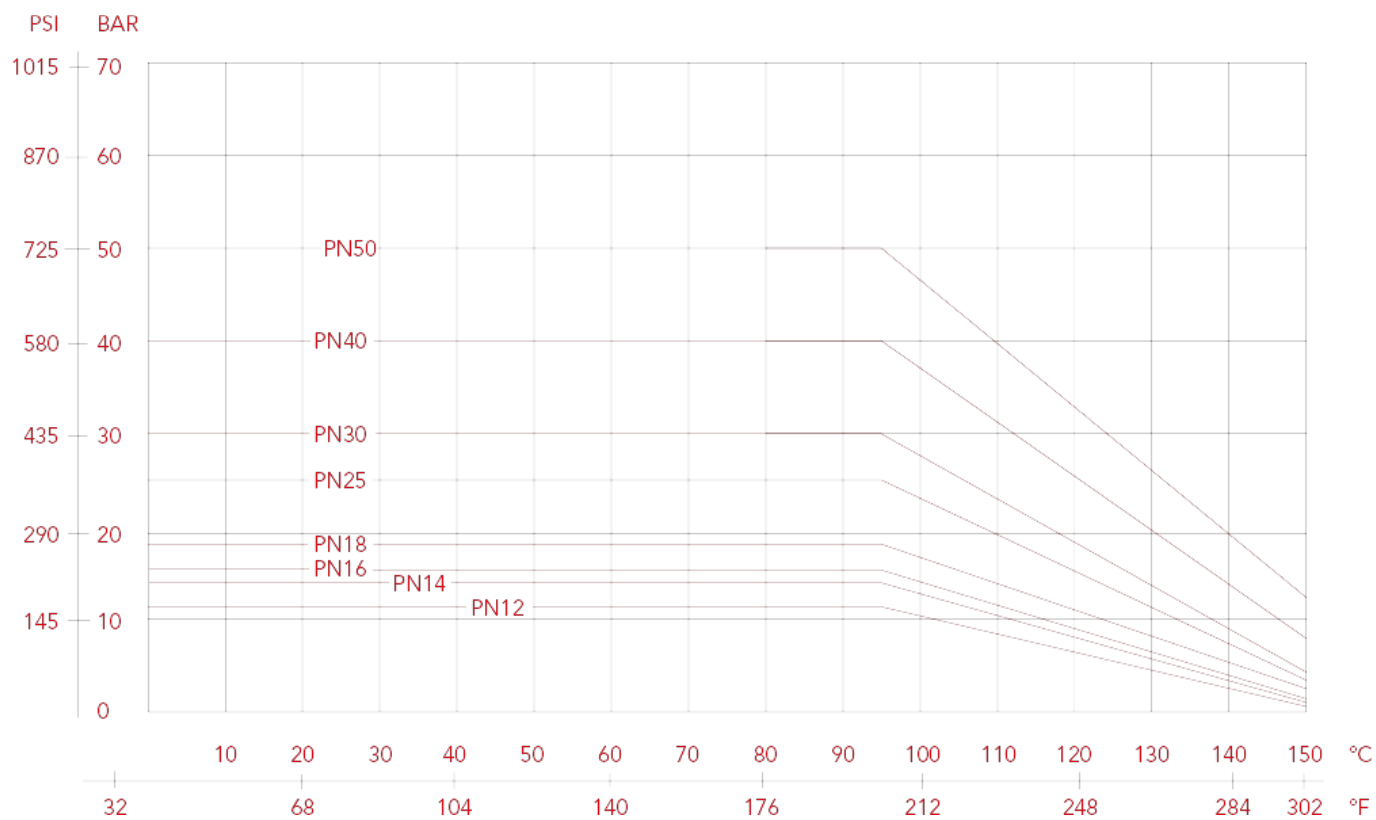




# STANDARD FLOW BALL VALVES: VIENNA

## PRESSURE-TEMPERATURE DIAGRAM

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





# STANDARD FLOW BALL VALVES: VIENNA

## 119N Vienna ball valve, standard flow

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



MEASURE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	0930014N	15/180
3/8" (DN 10)	50bar/725psi	0930038N	15/180
1/2" (DN 15)	30bar/435psi	1190012N	15/135
3/4" (DN 20)	30bar/435psi	1190034N	8/96
1" (DN 25)	30bar/435psi	1190100N	6/54

### CERTIFICATIONS



### TECHNICAL SPECIFICATIONS

Male/female threads.

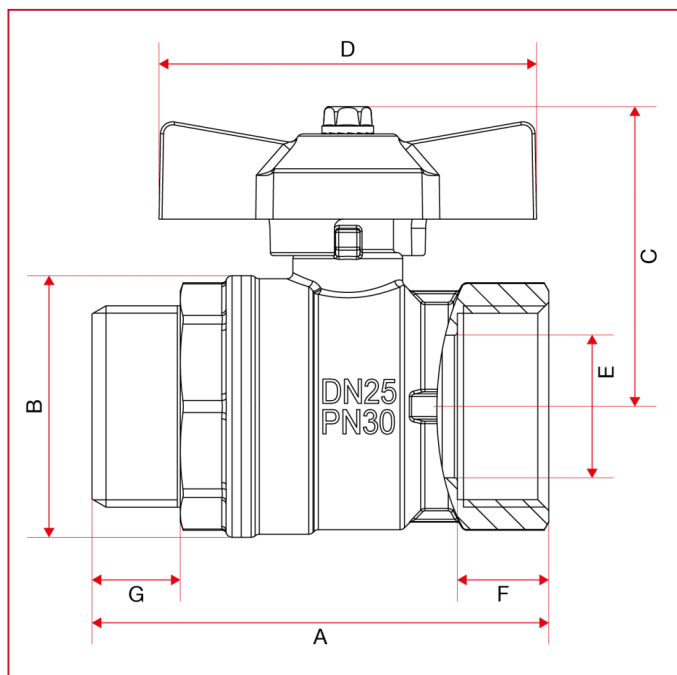
T handle in aluminium.

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).

### OVERALL DIMENSIONS

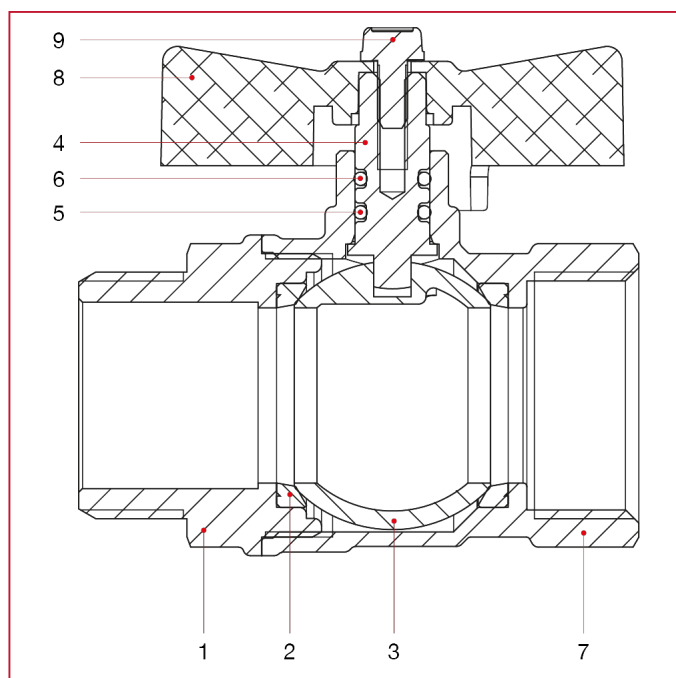




## STANDARD FLOW BALL VALVES: VIENNA

	1/4"	3/8"	1/2"	3/4"	1"
DN	8	10	15	20	25
A	53,9	53,9	58	62,5	75
B	23,5	24	29	36	43
C	37,3	37,3	40	46	49
D	47	47	47	54	62
E	8	10	14	18,5	23,5
F	10	10	12	12	15
G	10,5	10,5	11,5	12,5	14,5
Kg/cm2 bar	50	50	30	30	30
LBS - psi	725	725	435	435	435

### 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	T handle	1	Varnished aluminium
9	Screw	1	Zinc-plated steel C4C



# STANDARD FLOW BALL VALVES: VIENNA

## 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.

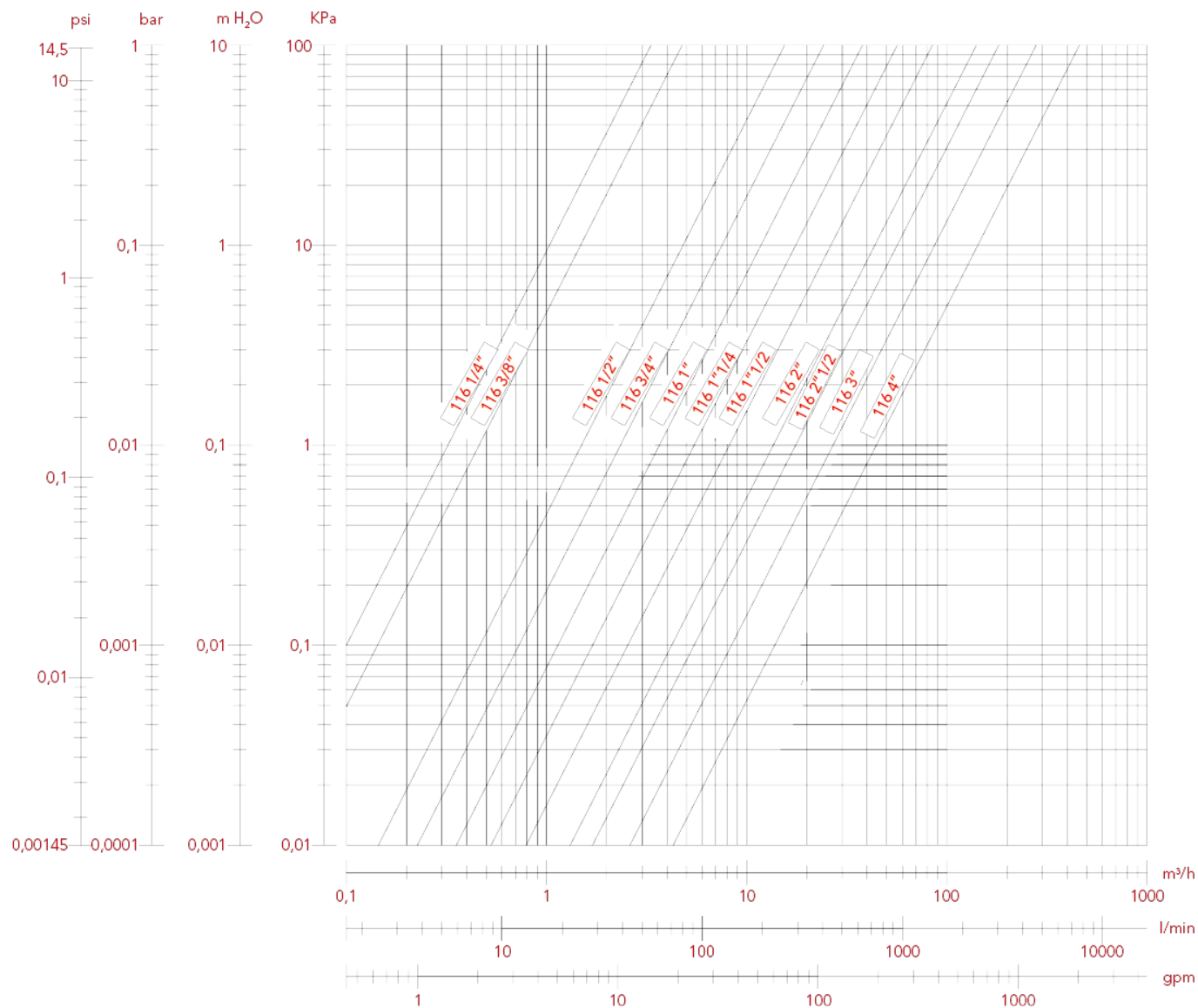




# STANDARD FLOW BALL VALVES: VIENNA

## LOSS DIAGRAM (With water)

	1/4"	3/8"	1/2"	3/4"	1"
KV	3,33	4,92	14,65	23,46	38,67

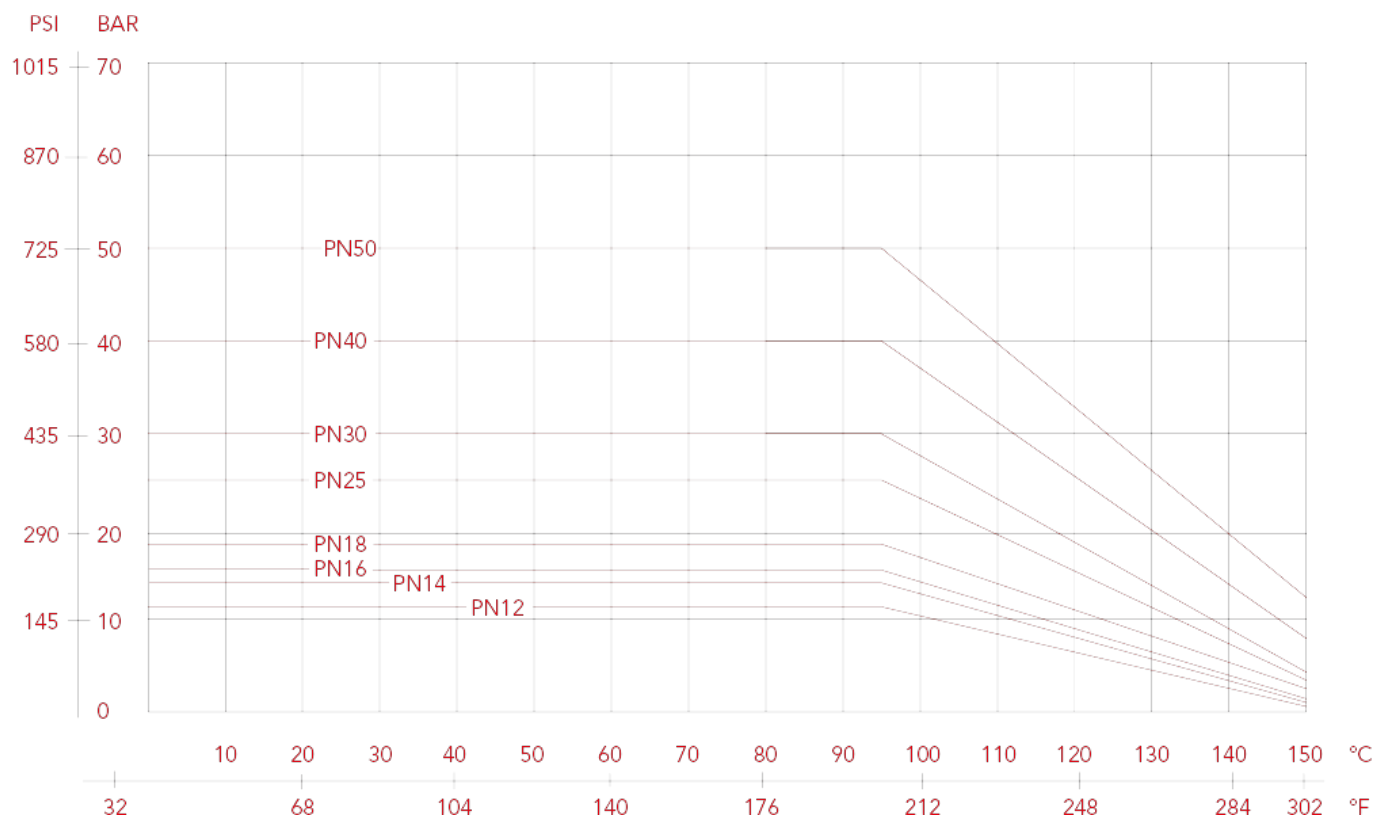




## STANDARD FLOW BALL VALVES: VIENNA

### PRESSURE-TEMPERATURE DIAGRAM

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





# STANDARD FLOW BALL VALVES: VIENNA

## 115 Vienna ball valve, standard flow with revolving drain cock

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

VIENNA



MEASURE	PRESSURE	CODE	PACKING
1/2" (DN 15)	25bar/362.5psi	1150012	14/84
3/4" (DN 20)	25bar/362.5psi	1150034	8/64
1" (DN 25)	25bar/362.5psi	1150100	4/36
1"1/4 (DN 32)	20bar/290psi	1150114	4/32
1"1/2 (DN 40)	20bar/290psi	1150112	2/18
2" (DN 50)	20bar/290psi	1150200	2/10

### CERTIFICATIONS



### TECHNICAL SPECIFICATIONS

Female/female threads.

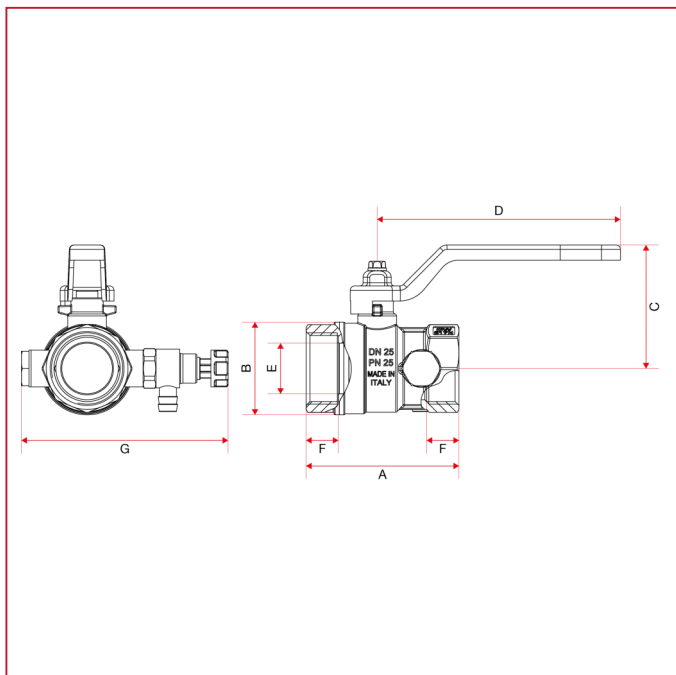
Lever handle in steel.

Body in nickel-plated brass.

Minimum and maximum working temperatures: -20°C, 110°C in absence of steam.

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

### OVERALL DIMENSIONS

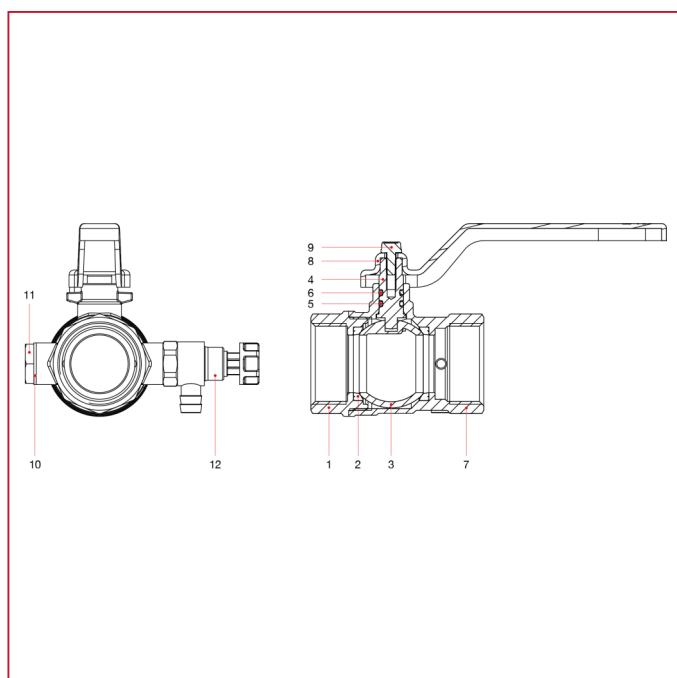




## STANDARD FLOW BALL VALVES: VIENNA

	1/2"	3/4"	1"	1"1/4	1"1/2	2"
DN	15	20	25	32	40	50
A	53	58	71	81	93	108
B	29	36	43	53	63	79
C	40	54	57	73	78	94
D	80	113	113	138	138	158
E	14	18,5	23,5	30	37	47
F	12	12	15	16	18	19
G	84	89	96	104	111	124
Kg/cm2 bar	25	25	25	20	20	20
LBS - psi	362,5	362,5	362,5	290	290	290

### 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	Lever handle	1	Varnished steel P04
9	Screw	1	Zinc-plated steel C4C
10	Washer	1	Aluminium
11	Plug	1	Nickel-plated brass CW614N
12	Adjustable drain valve	1	Nickel-plated brass CW614N



## STANDARD FLOW BALL VALVES: VIENNA

### 216 Vienna ball valve, standard flow

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

VIENNA



MEASURE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	2160014	12/144
3/8" (DN 10)	50bar/725psi	2160038	12/144
1/2" (DN 15)	30bar/435psi	2160012	15/120
3/4" (DN 20)	30bar/435psi	2160034	8/64
1" (DN 25)	30bar/435psi	2160100	6/48
1"1/4 (DN 32)	25bar/362.5psi	2160114	4/32
1"1/2 (DN 40)	25bar/362.5psi	2160112	2/18
2" (DN 50)	25bar/362.5psi	2160200	2/10

#### CERTIFICATIONS



#### TECHNICAL SPECIFICATIONS

Female/female threads.

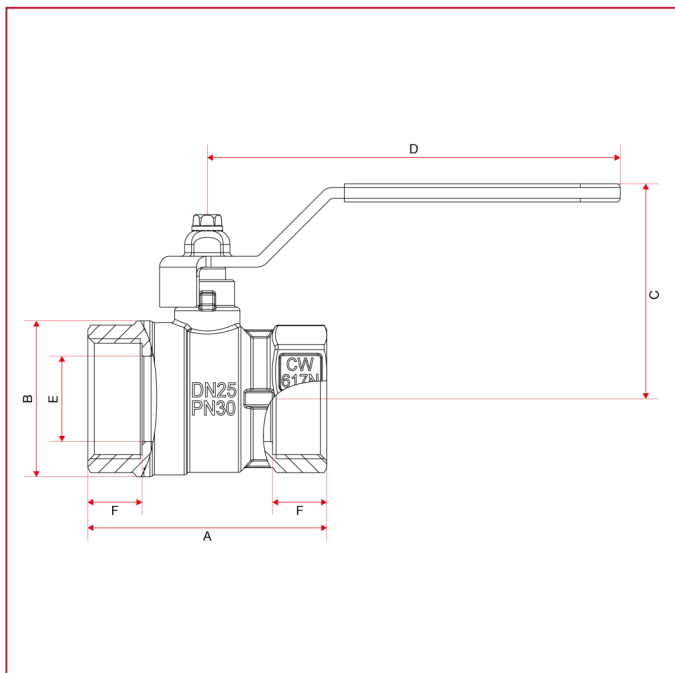
Flat lever handle in lined steel.

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).

#### OVERALL DIMENSIONS

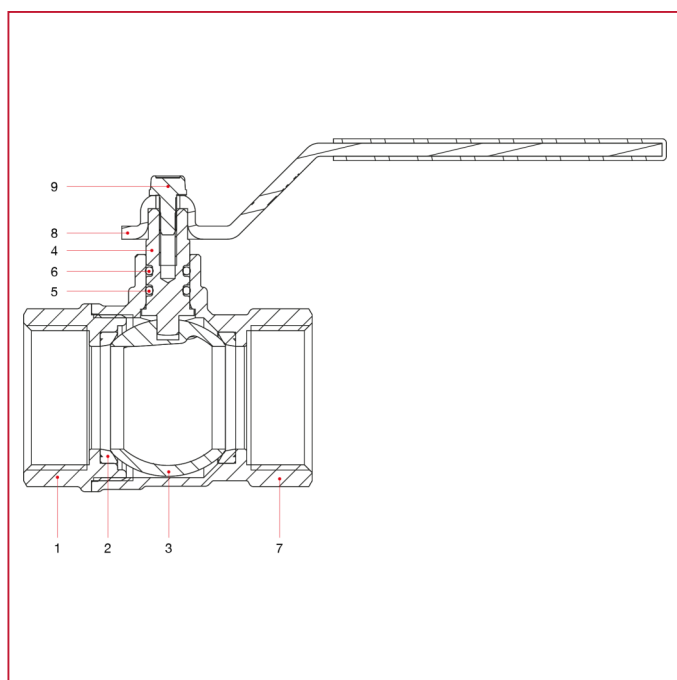




## STANDARD FLOW BALL VALVES: VIENNA

	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	44,4	44,4	48	53	66	76	88	103
B	23,5	24	29	36	43	53	63	79
C	42,3	42,3	44,8	55,8	59,3	74,3	79,3	95,8
D	86	86	86	114	114	138,5	138,5	158
E	10	10	14	18,5	23,5	30	37	47
F	10	10	12	12	15	16	18	19
G	10							
Kg/cm2 bar	50	50	30	30	30	25	25	25
LBS - psi	725	725	435	435	435	362,5	362,5	362,5

### 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	Flat lever handle	1	Zinc-plated and plastic coated steel P04
9	Screw	1	Zinc-plated steel C4C



# STANDARD FLOW BALL VALVES: VIENNA

## 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

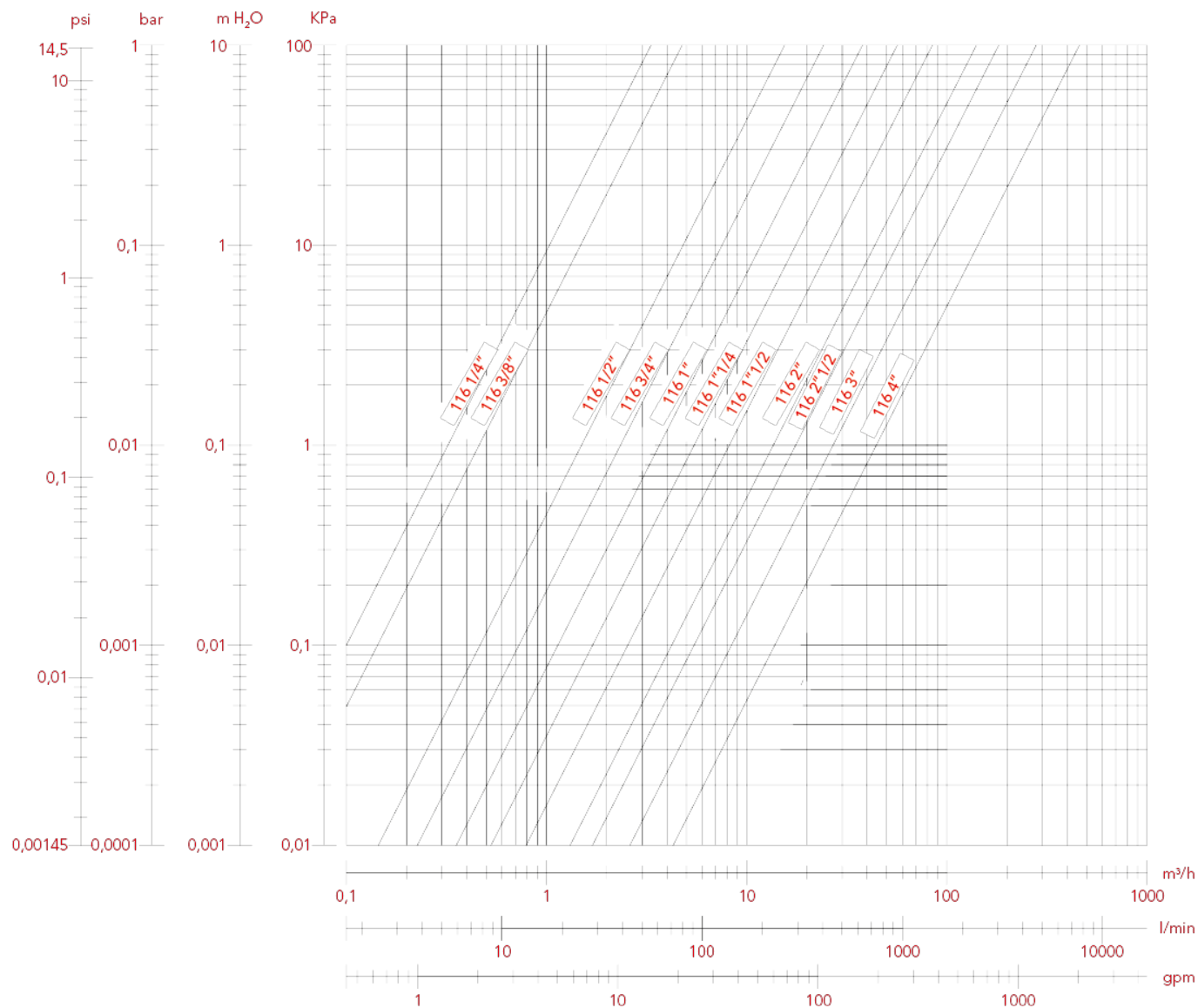
Verify the valve periodically, according to its application's field and its works' field and its work's conditions, in order to be sure that the valve works correctly.



# STANDARD FLOW BALL VALVES: VIENNA

## LOSS DIAGRAM (With water)

	1/4"	3/8"	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"
KV	3,33	4,92	14,65	23,46	38,67	56,07	86,60	160,5



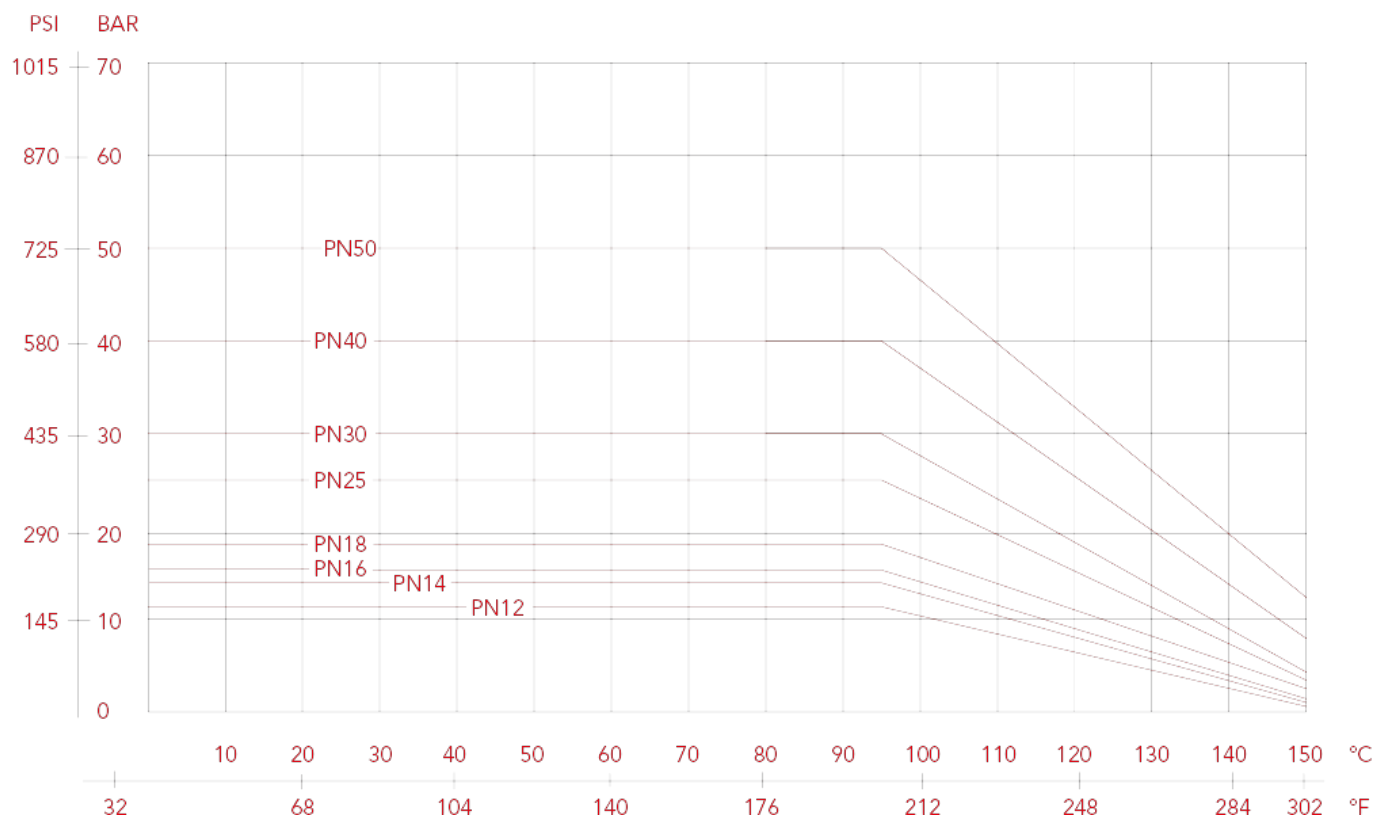




# STANDARD FLOW BALL VALVES: VIENNA

## PRESSURE-TEMPERATURE DIAGRAM

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





# STANDARD FLOW BALL VALVES: VIENNA

## 217 Vienna ball valve, standard flow

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

VIENNA



MEASURE	PRESSURE	CODE	PACKING
1/4" (DN 8)	50bar/725psi	2170014	12/144
3/8" (DN 10)	50bar/725psi	2170038	12/144
1/2" (DN 15)	30bar/435psi	2170012	15/120
3/4" (DN 20)	30bar/435psi	2170034	8/64
1" (DN 25)	30bar/435psi	2170100	6/48
1"1/4 (DN 32)	25bar/362.5psi	2170114	4/32
1"1/2 (DN 40)	25bar/362.5psi	2170112	2/16
2" (DN 50)	25bar/362.5psi	2170200	2/10

### CERTIFICATIONS



### TECHNICAL SPECIFICATIONS

Male/female threads.

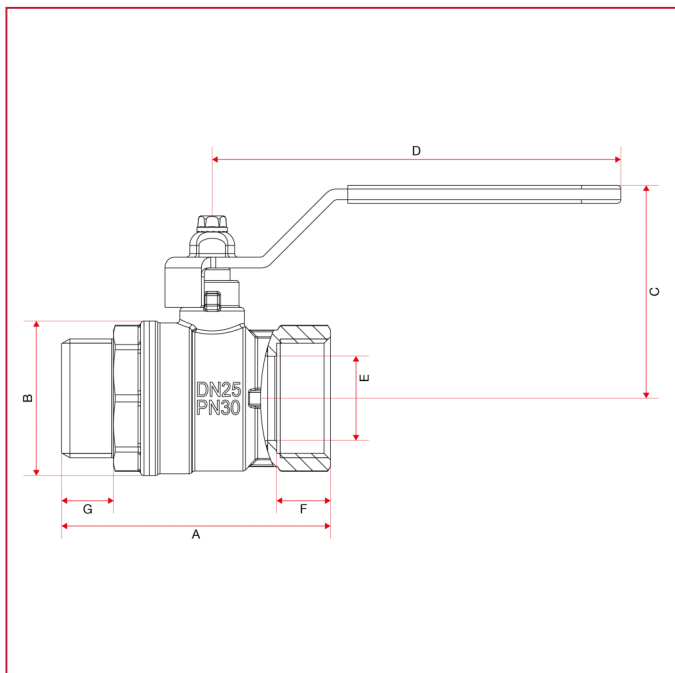
Flat lever handle in lined steel.

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).

### OVERALL DIMENSIONS

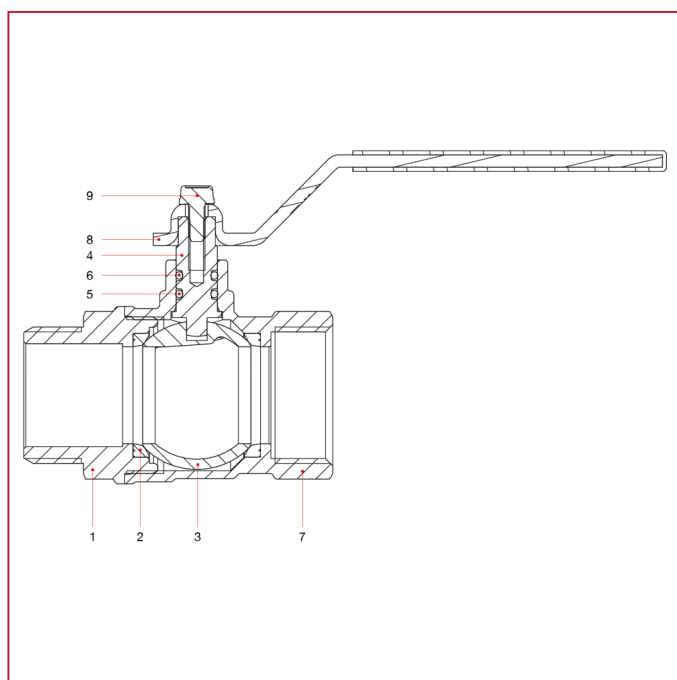




## STANDARD FLOW BALL VALVES: VIENNA

	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	62,5	75	87,5	100,5	115,5
B	23,5	24	29	36	43	53	63	79
C	42	42	44	55	59	74	79	95
D	86	86	86	114	114	138,5	138,5	158,5
E	8	10	14	18,5	23,5	30	37	47
F	10	10	12	12	15	16	18	19
G	10,5	10,5	11,5	12,5	14,5	17	19	21
Kg/cm <sup>2</sup> bar	50	50	30	30	30	25	25	25
LBS - psi	725	725	435	435	435	362,5	362,5	362,5

### MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Male end adapter	1	Nickel-plated brass CW617N
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3	Ball	1	Chrome-plated brass CW617N
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- 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;
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## MAINTENANCE

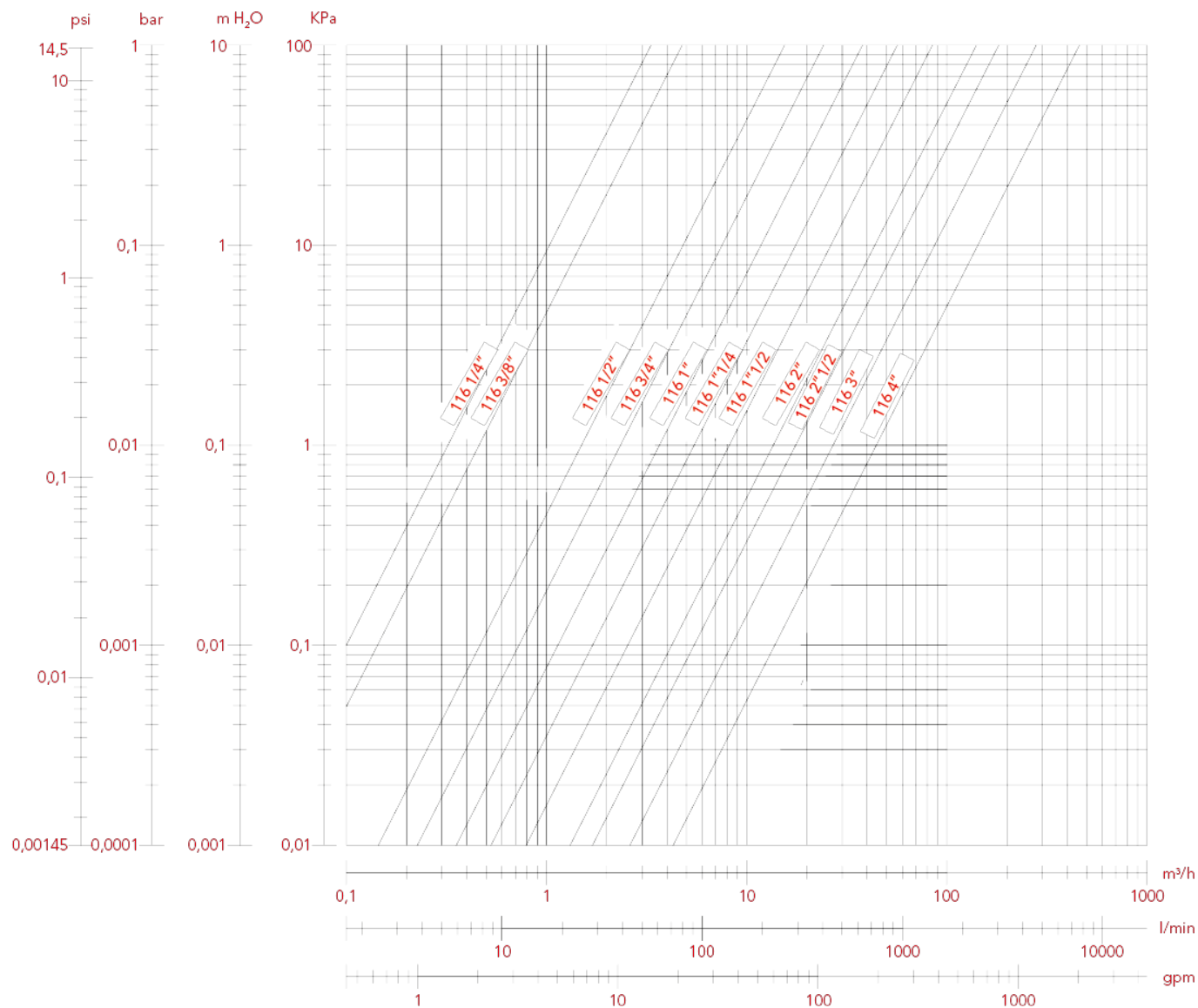
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# STANDARD FLOW BALL VALVES: VIENNA

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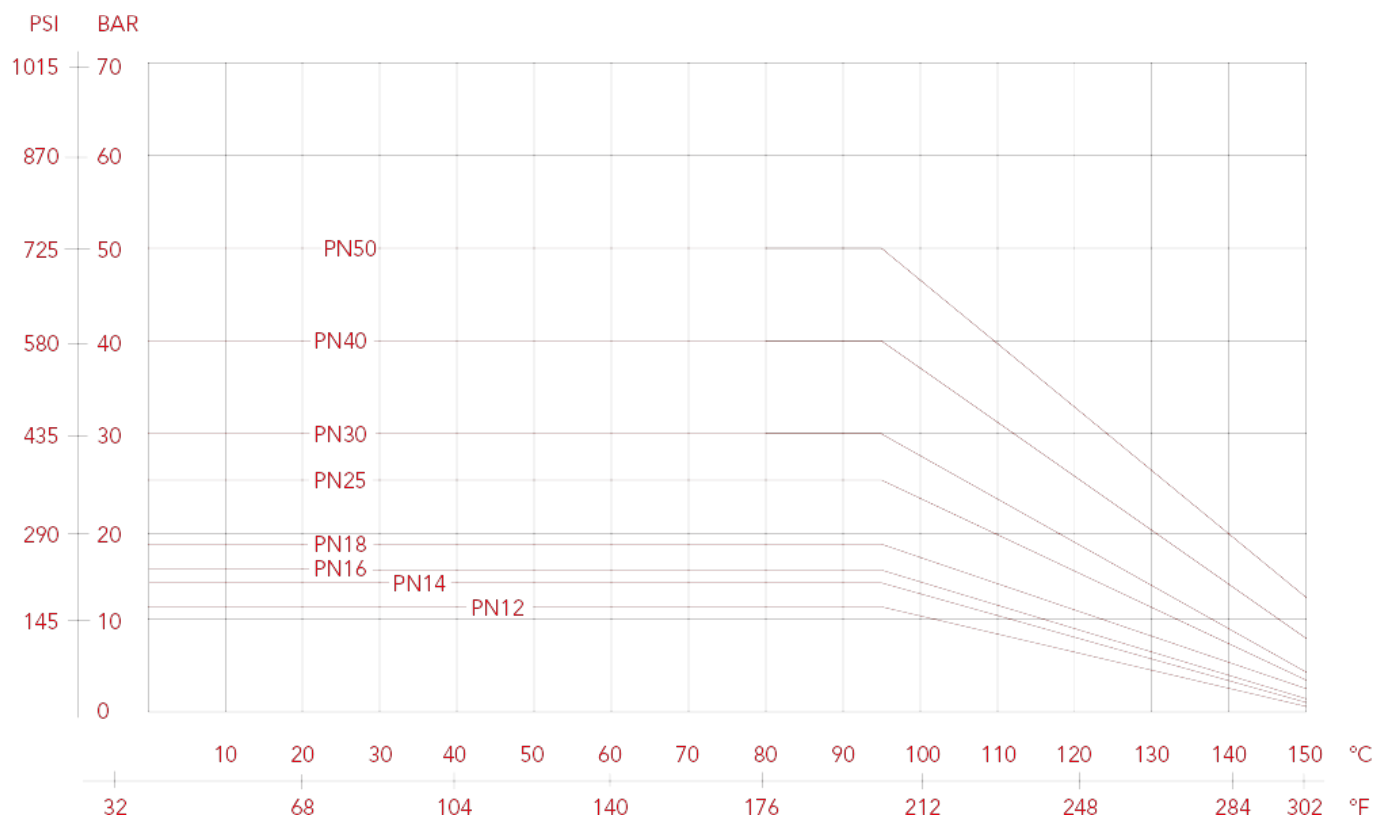




# STANDARD FLOW BALL VALVES: VIENNA

## PRESSURE-TEMPERATURE DIAGRAM

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





**ITAP S.p.A.**  
Via Ruca 19  
25065 Lumezzane  
Brescia (ITALY)  
Tel 030 8927011  
Fax 030 8921990  
[www.itap.it](http://www.itap.it) - [info@itap.it](mailto:info@itap.it)

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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