



FULL FLOW GAS BALL VALVES: LONDON

067 London ball valve, full flow

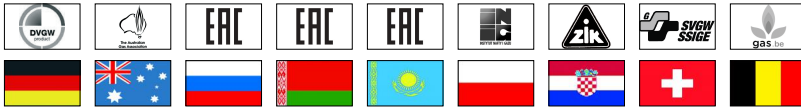
LONDON

EN331 APPROVED (up to 2").



| SIZE | PRESSURE | CODE | PACKING |
|---------------|--------------|----------|---------|
| 1/4" (DN 8) | 5bar/72.5psi | 067B014 | 12/144 |
| 3/8" (DN 10) | 5bar/72.5psi | 067B038 | 12/144 |
| 1/2" (DN 15) | 5bar/72.5psi | 067B012 | 10/90 |
| 3/4" (DN 20) | 5bar/72.5psi | 067B034 | 8/64 |
| 1" (DN 25) | 5bar/72.5psi | 067B100 | 6/48 |
| 1"1/4 (DN 32) | 5bar/72.5psi | 067B114 | 2/16 |
| 1"1/2 (DN 40) | 5bar/72.5psi | 067B112 | 2/10 |
| 2" (DN 50) | 5bar/72.5psi | 067B200 | 2/6 |
| 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 1/4" 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 1/4" through 2".

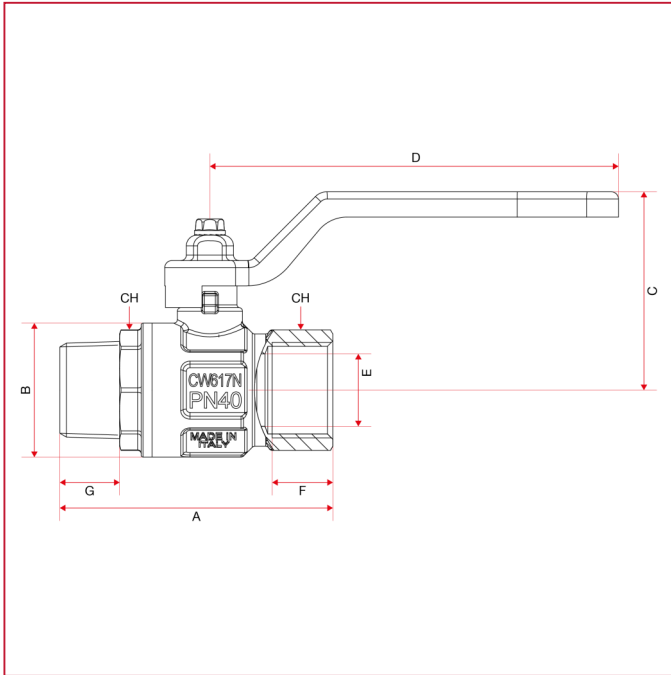
- ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228) sizes 2"1/2, 3" and 4".

EN331 APPROVED (up to 2").



FULL FLOW GAS BALL VALVES: LONDON

OVERALL DIMENSIONS

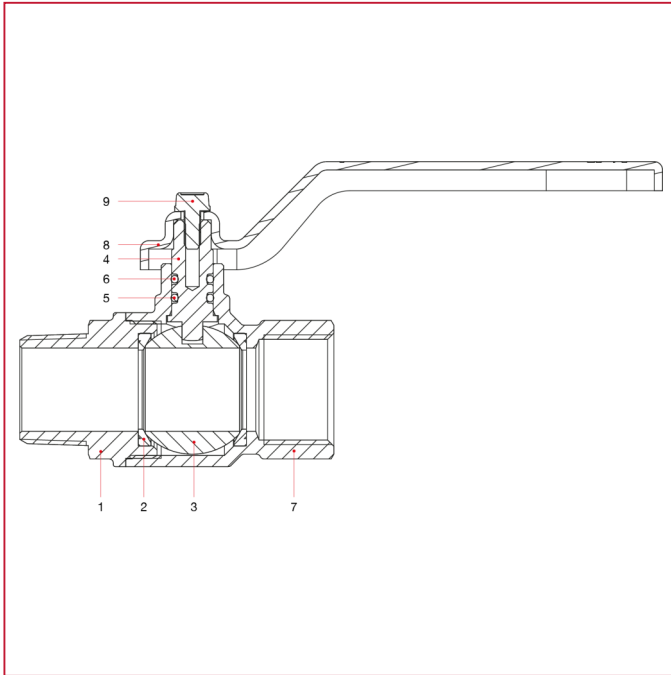


| | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4 | 1"1/2 | 2" | 2"1/2 | 3" | 4" |
|------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|
| DN | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 |
| A | 56,9 | 58,9 | 68 | 75,5 | 90,5 | 105 | 115,5 | 135,5 | 155,5 | 178 | 208 |
| B | 23,5 | 24 | 30,5 | 37 | 45,5 | 58 | 71 | 85 | 122 | 142 | 180 |
| C | 37,3 | 37,3 | 48,8 | 54,8 | 58,8 | 75 | 90,3 | 97 | 126,75 | 135,75 | 153,75 |
| D | 80 | 80 | 88,5 | 113 | 113 | 138 | 157,8 | 157,8 | 250 | 250 | 250 |
| E | 8 | 10 | 15 | 20 | 25 | 32 | 39 | 50 | 63 | 74 | 97 |
| F | 11 | 11,4 | 15 | 16,3 | 19,1 | 21,4 | 21,4 | 25,7 | 25 | 27,5 | 30 |
| G | 11 | 11,5 | 15 | 16,5 | 19 | 21,5 | 21,5 | 26 | 21 | 24 | 23 |
| CH | 18 | 21 | 25 | 31 | 38 | 47 | 54 | 66 | | | |
| Kg/cm ² bar | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 18 | 16 | 14 |
| LBS - psi | 72,5 | 72,5 | 72,5 | 72,5 | 72,5 | 72,5 | 72,5 | 72,5 | 261 | 232 | 203 |



FULL FLOW GAS BALL VALVES: LONDON

MATERIALS sizes 1/4" through 3/8"

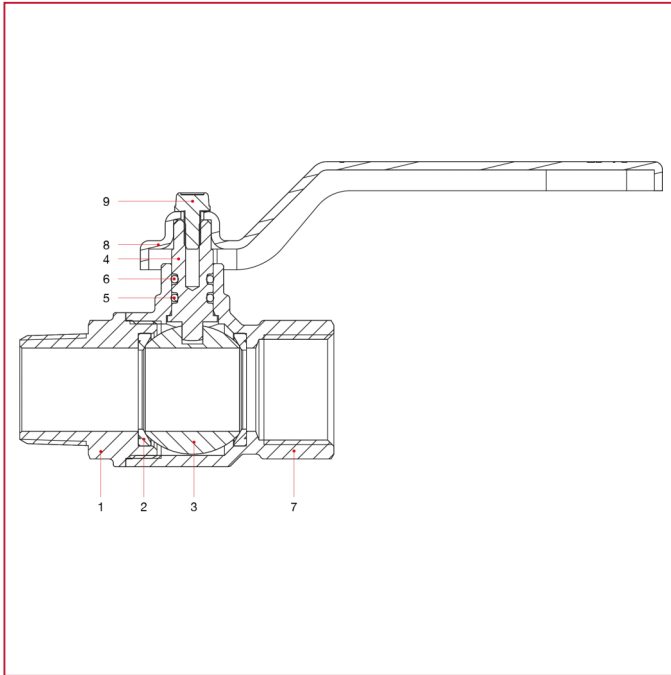


| POS. | DESCRIPTION | N. | MATERIAL |
|------|------------------|----|----------------------------|
| 1 | Male end adapter | 1 | Nickel-plated brass CW617N |
| 2 | Seat | 2 | P.T.F.E. |
| 3 | Ball | 1 | Chrome-plated brass CW614N |
| 4 | Stem | 1 | Brass CW614N |
| 5 | O-ring | 1 | NBR |
| 6 | O-ring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



FULL FLOW GAS BALL VALVES: LONDON

MATERIALS sizes 1/2" through 2"

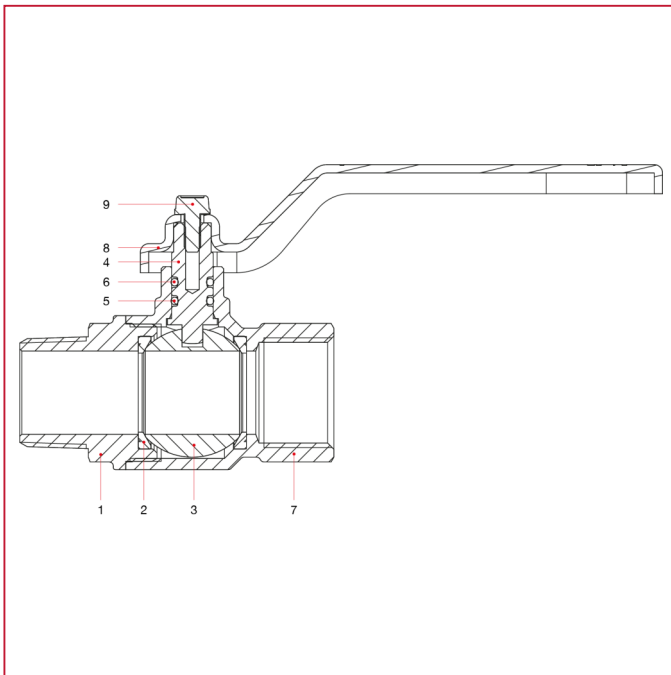


| POS. | DESCRIPTION | N. | MATERIAL |
|------|------------------|----|----------------------------|
| 1 | Male end adapter | 1 | Nickel-plated brass CW617N |
| 2 | Seat | 2 | P.T.F.E. |
| 3 | Ball | 1 | Chrome-plated brass CW617N |
| 4 | Stem | 1 | Brass CW614N |
| 5 | O-ring | 1 | NBR |
| 6 | O-ring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



FULL FLOW GAS BALL VALVES: LONDON

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: LONDON

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

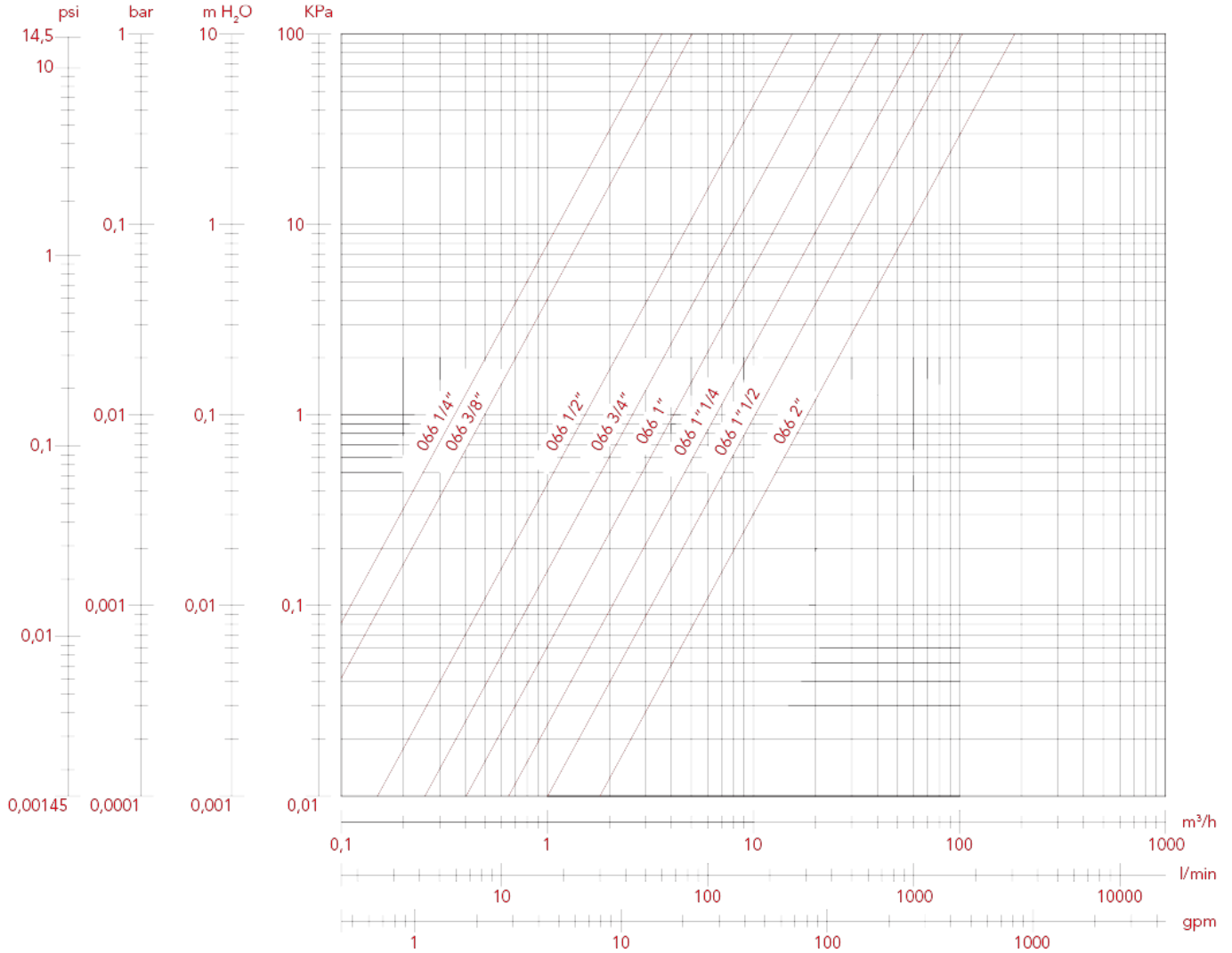
- any deterioration or destruction of any part of the manually operated ball valve shall result in the need to replace complete valve: alterations to any part of the complete valve shall result in the valve no longer being in compliance with the performance requirements of EN 331 standard;
- ensure that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

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

| | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4" | 1"1/2" | 2" | 2"1/2" | 3" | 4" |
|-----------|------|------|-------|-------|-------|--------|--------|-----|--------|-----|-----|
| KV | 3,45 | 5,00 | 15,65 | 26,26 | 41,44 | 63,69 | 101 | 169 | 376 | 472 | 892 |

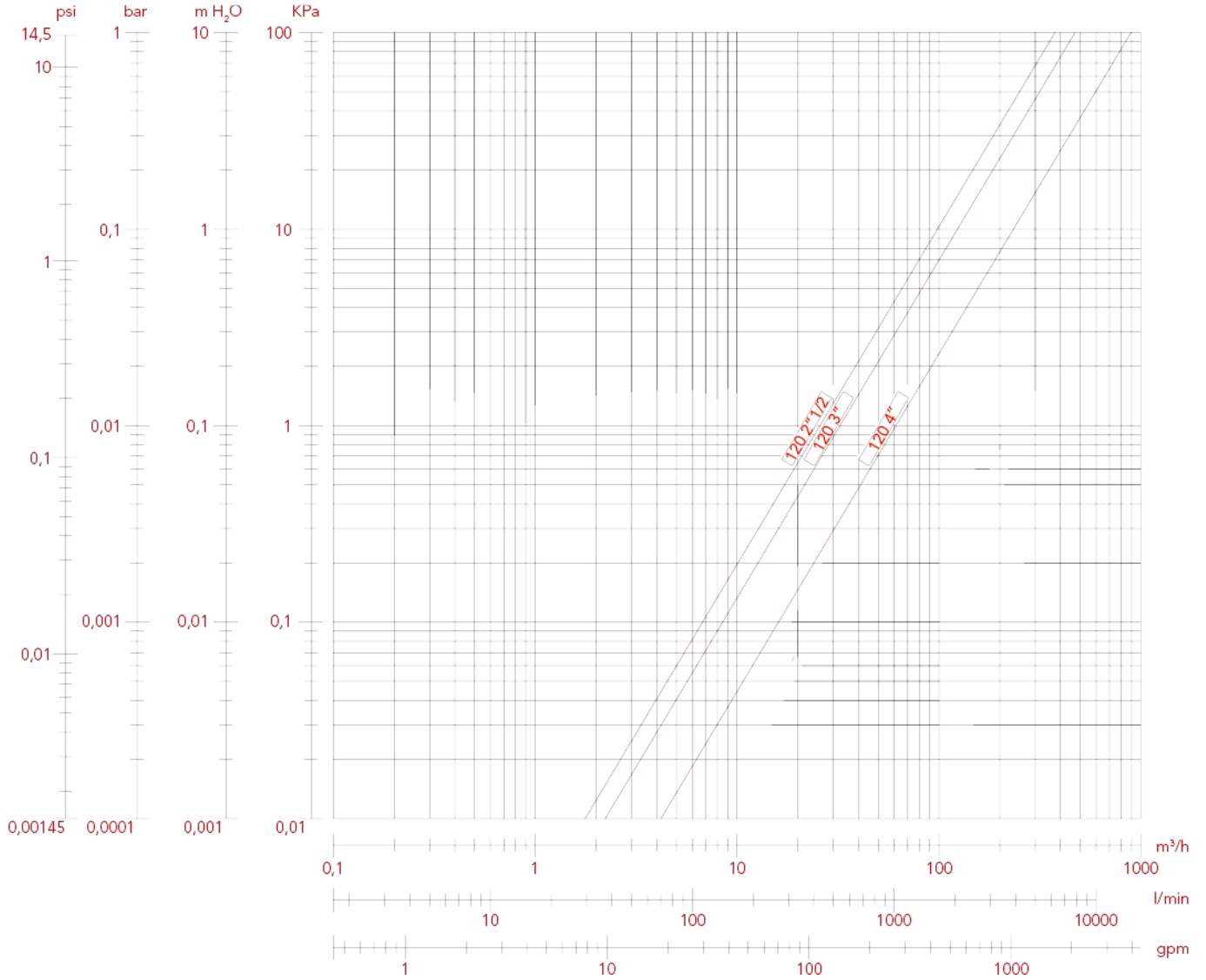




FULL FLOW GAS BALL VALVES: LONDON

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

| KV | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1"1/4" | 1"1/2" | 2" | 2"1/2" | 3" | 4" |
|----|------|------|-------|-------|-------|--------|--------|-----|--------|-----|-----|
| | 3,45 | 5,00 | 15,65 | 26,26 | 41,44 | 63,69 | 101 | 169 | 376 | 472 | 892 |

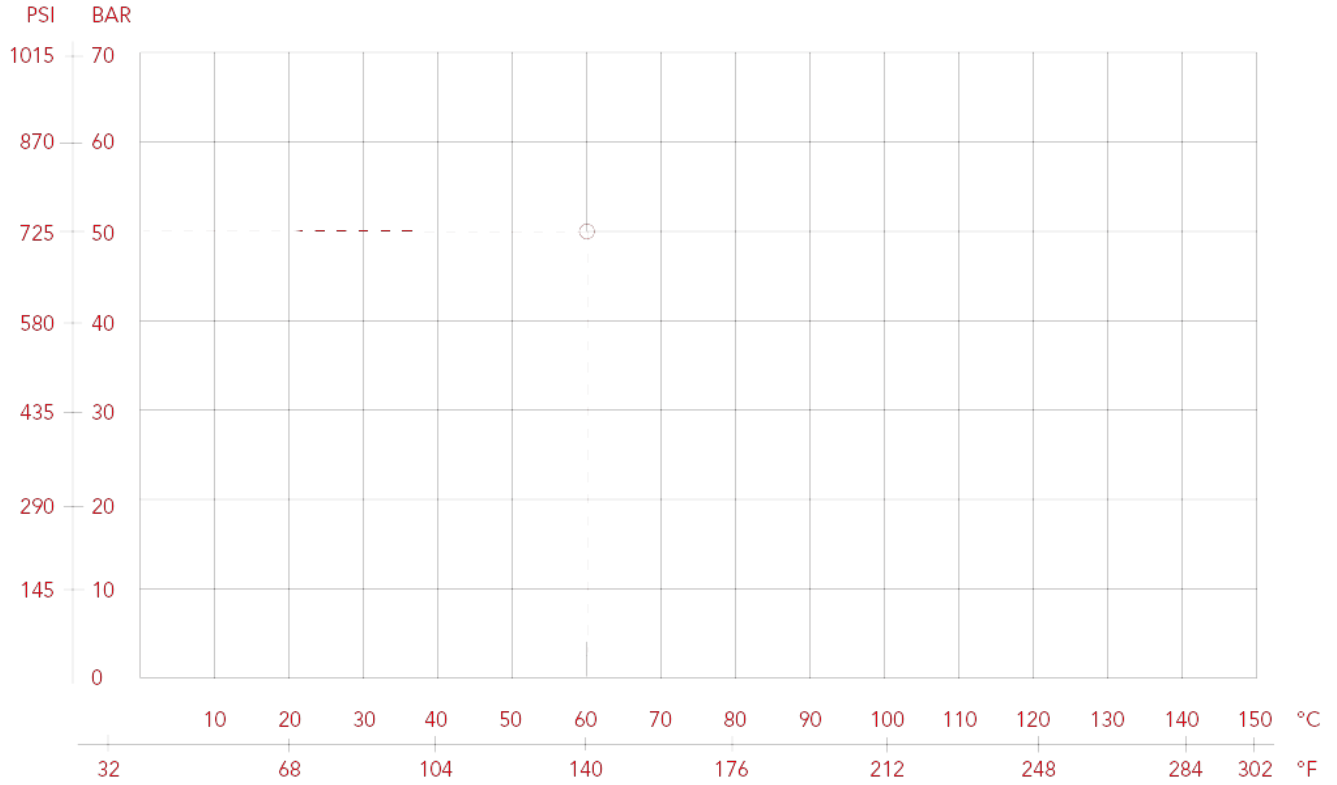




FULL FLOW GAS BALL VALVES: LONDON

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: LONDON

068 London ball valve, full flow

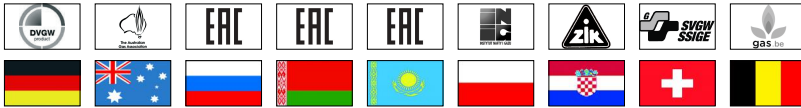
LONDON

EN331 APPROVED (up to 2").



| SIZE | PRESSURE | CODE | PACKING |
|--------------|--------------|---------|---------|
| 1/4" (DN 8) | 5bar/72.5psi | 068B014 | 15/180 |
| 3/8" (DN 10) | 5bar/72.5psi | 068B038 | 15/180 |
| 1/2" (DN 15) | 5bar/72.5psi | 068B012 | 10/120 |
| 3/4" (DN 20) | 5bar/72.5psi | 068B034 | 8/80 |
| 1" (DN 25) | 5bar/72.5psi | 068B100 | 6/42 |

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:

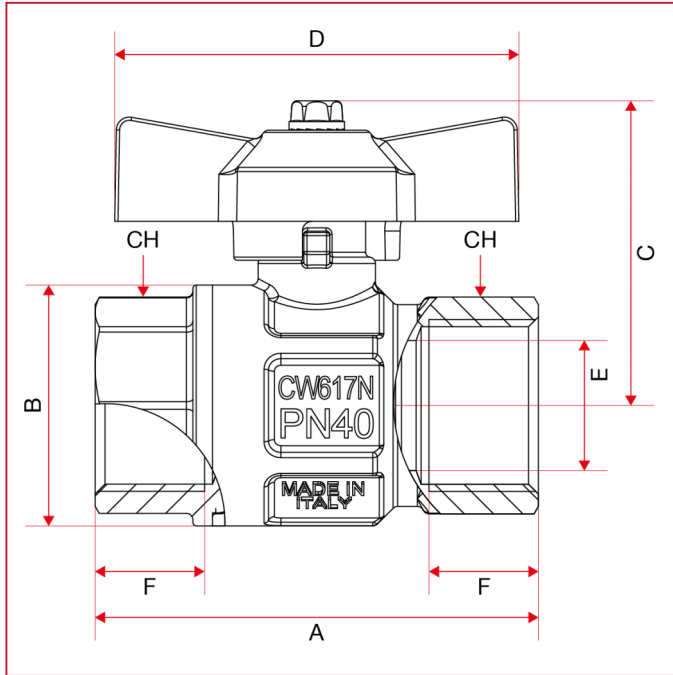
- ISO 7/1 Rp parallel (equivalent to DIN EN 10226-1 and BS EN 10226-1) sizes 1/4" through 1".

EN331 APPROVED (up to 2").



FULL FLOW GAS BALL VALVES: LONDON

OVERALL DIMENSIONS

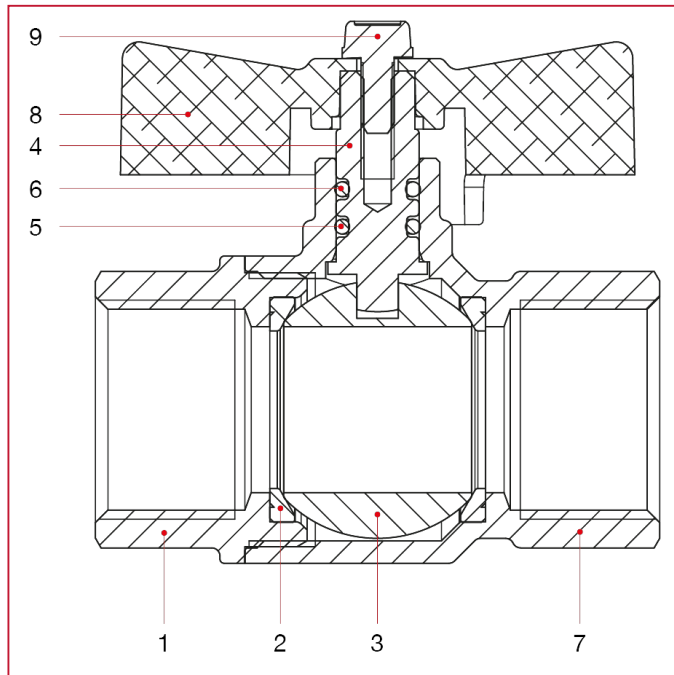


| | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
|------------------------|------|------|------|------|------|
| DN | 8 | 10 | 15 | 20 | 25 |
| A | 49,5 | 52,4 | 61 | 68 | 85 |
| B | 23,5 | 24 | 30,5 | 37 | 45,5 |
| C | 37,3 | 37,3 | 43,8 | 46,8 | 50,8 |
| D | 47 | 47 | 54 | 62 | 62 |
| E | 10 | 10 | 15 | 20 | 25 |
| F | 11 | 11,4 | 15 | 16,3 | 19,1 |
| CH | 18 | 21 | 25 | 31 | 38 |
| Kg/cm ² bar | 5 | 5 | 5 | 5 | 5 |
| LBS - psi | 72,5 | 72,5 | 72,5 | 72,5 | 72,5 |



FULL FLOW GAS BALL VALVES: LONDON

MATERIALS sizes 1/4" through 3/8"

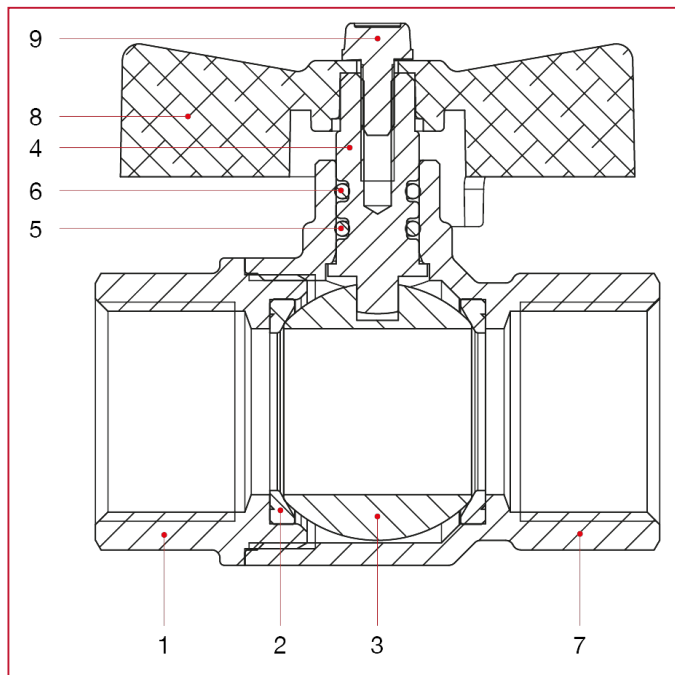


| POS. | DESCRIPTION | N. | MATERIAL |
|------|--------------------|----|----------------------------|
| 1 | Female end adapter | 1 | Nickel-plated brass CW617N |
| 2 | Seat | 2 | P.T.F.E. |
| 3 | Ball | 1 | Chrome-plated brass CW614N |
| 4 | Stem | 1 | Brass CW614N |
| 5 | O-ring | 1 | NBR |
| 6 | O-ring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



FULL FLOW GAS BALL VALVES: LONDON

MATERIALS sizes 1/2" through 1"



| 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 |



FULL FLOW GAS BALL VALVES: LONDON

INSTALLATION

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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.

WARNINGS

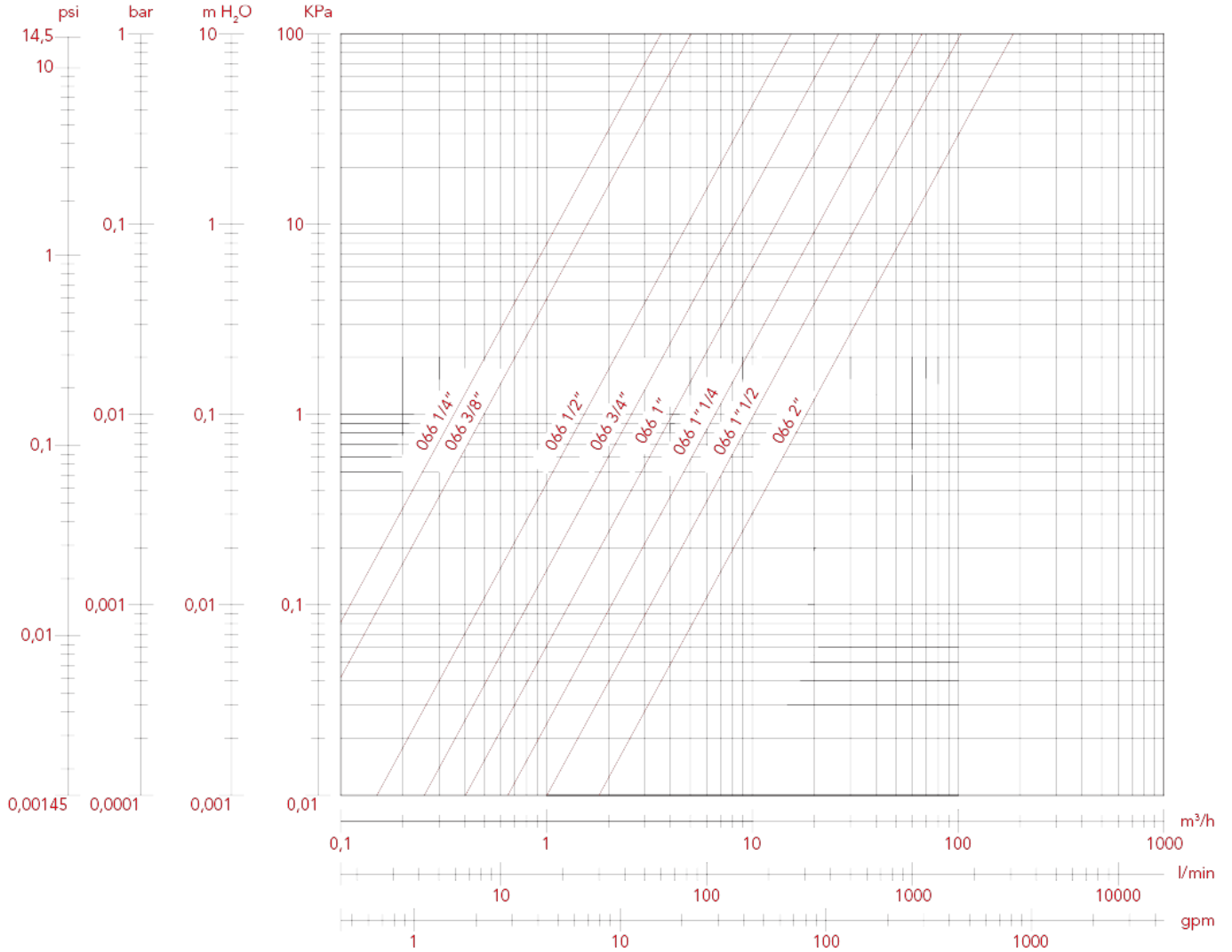
- any deterioration or destruction of any part of the manually operated ball valve shall result in the need to replace complete valve: alterations to any part of the complete valve shall result in the valve no longer being in compliance with the performance requirements of EN 331 standard;
- ensure that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

LOSS DIAGRAM (With water)

| | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
|----|------|------|-------|-------|-------|
| KV | 3,45 | 5,00 | 15,65 | 26,26 | 41,44 |

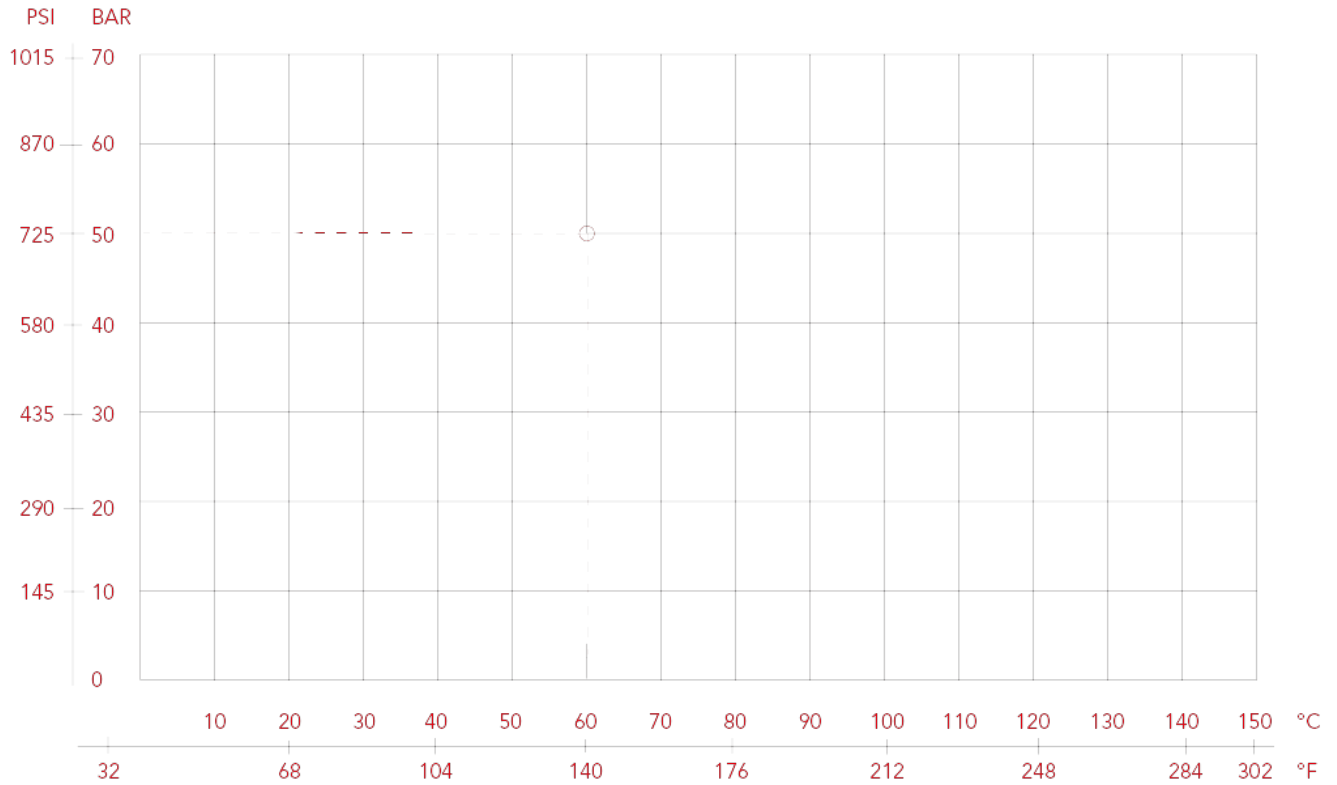




FULL FLOW GAS BALL VALVES: LONDON

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: LONDON

069 London ball valve, full flow

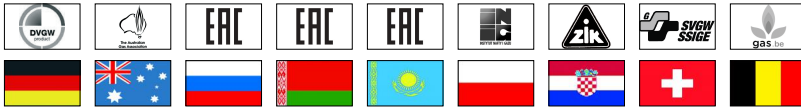
LONDON

EN331 APPROVED (up to 2").



| SIZE | PRESSURE | CODE | PACKING |
|--------------|--------------|---------|---------|
| 1/4" (DN 8) | 5bar/72.5psi | 069B014 | 15/180 |
| 3/8" (DN 10) | 5bar/72.5psi | 069B038 | 15/180 |
| 1/2" (DN 15) | 5bar/72.5psi | 069B012 | 10/120 |
| 3/4" (DN 20) | 5bar/72.5psi | 069B034 | 8/72 |
| 1" (DN 25) | 5bar/72.5psi | 069B100 | 6/48 |

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 1/4" through 1".

Male threads:

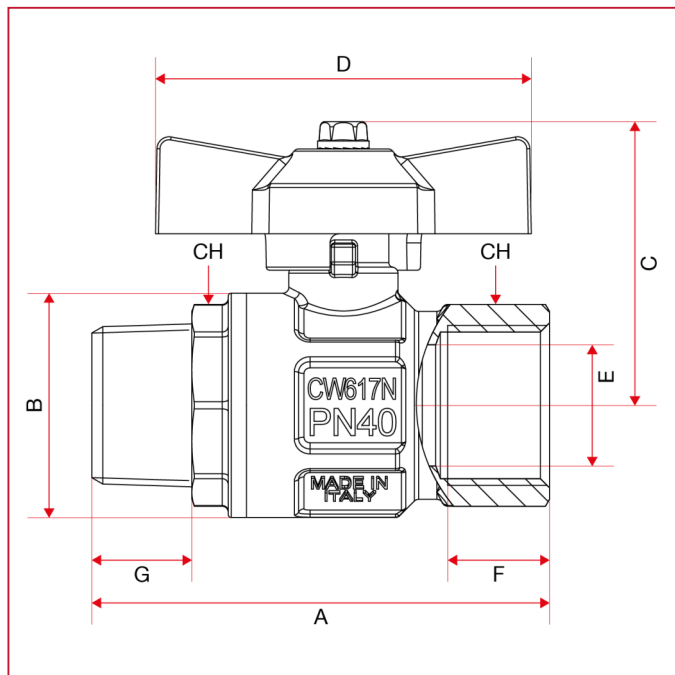
- ISO 7/1 R taper (equivalent to DIN EN 10226-1 and BS EN 10226-1) sizes 1/4" through 1".

EN331 APPROVED (up to 2").



FULL FLOW GAS BALL VALVES: LONDON

OVERALL DIMENSIONS

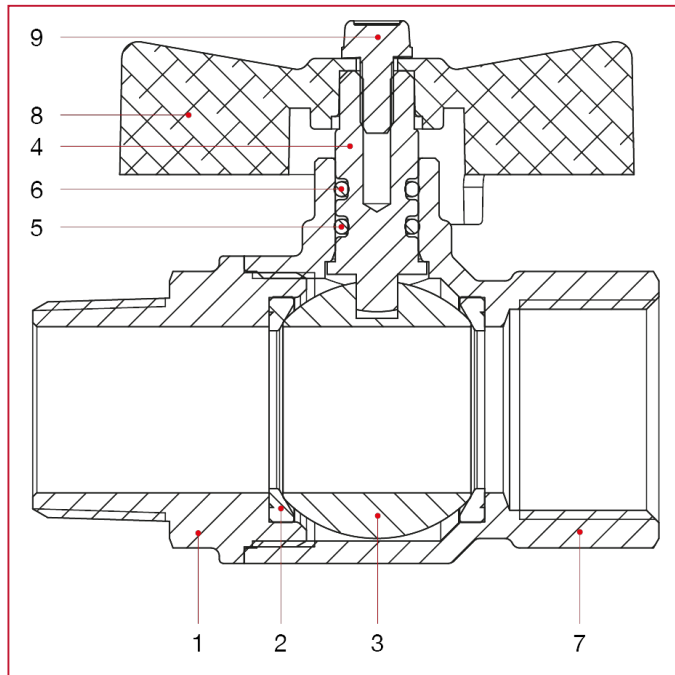


| | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
|------------------------|------|------|------|------|------|
| DN | 8 | 10 | 15 | 20 | 25 |
| A | 56,9 | 58,9 | 68 | 75,5 | 90,5 |
| B | 23,5 | 24 | 30,5 | 37 | 45,5 |
| C | 37,3 | 37,3 | 43,8 | 46,8 | 50,8 |
| D | 47 | 47 | 54 | 62 | 62 |
| E | 8 | 10 | 15 | 20 | 25 |
| F | 11 | 11,4 | 15 | 16,3 | 19,1 |
| G | 11 | 11,5 | 15 | 16,5 | 19 |
| CH | 18 | 21 | 25 | 31 | 38 |
| Kg/cm ² bar | 5 | 5 | 5 | 5 | 5 |
| LBS - psi | 72,5 | 72,5 | 72,5 | 72,5 | 72,5 |



FULL FLOW GAS BALL VALVES: LONDON

MATERIALS sizes 1/4" through 3/8"



| 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 CW614N |
| 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 |