

Item 450-451 stainless steel ball valves



Macro [Ball valves](#)

Category [Other stainless steel ball valves](#)

3 way 4 seals, full-bore threaded-ends stainless steel ball valve, "T" or "L" port

ITEM 450
Valve "T" port
ITEM 451
Valve "L" port

features

GENERAL FEATURES:

- The valve is manufactured in 316L stainless steel with 4 seals on ball. See plant for the operation.
- Working temperature: from -20°C to +150°C
- Working pressure: see table.
- Fluid range: food industry.
- Surface treatment: polished.
- Threaded ends as per ISO 228 specifications.
- ISO 5211 flange connection.
- **The manual version (with lever) doesn't have the ISO 5211 flange connection and its therefore not possible to mount on it any kind of actuators.**

ON REQUEST:

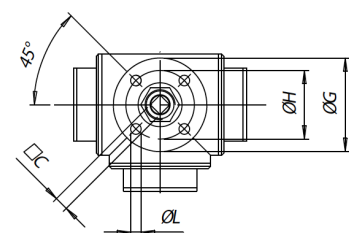
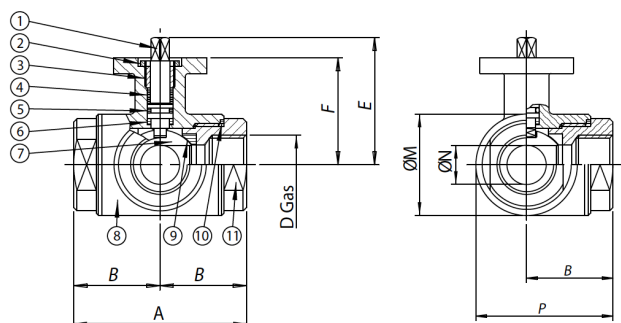
- Connection: NPT.
- Seals made of:
 - PTFE glass filled,
 - PTFE with carbon graphite,
 - High-molecular weight polyethylene.
- For other applications, please contact our sales department.

CERTIFICATIONS:

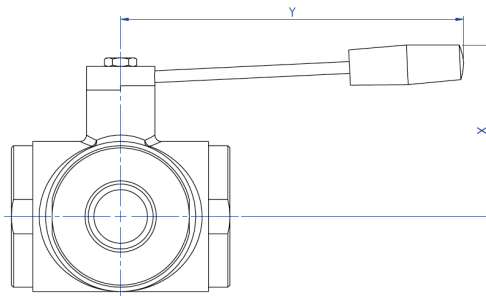
- ATEX version in conformity with European Directive 2014/34/EU.
- ATEX certificate on request.

dimensions

ASSE LIBERO FREE SHAFT



CON LEVA WITH LEVER



La versione con leva non ha la flangia montaggio attuatore a norma ISO 5211 e non è possibile montare alcun tipo di attuatore.

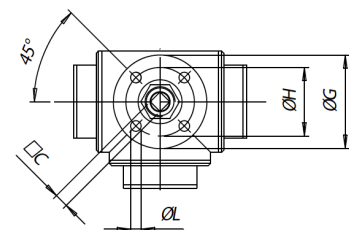
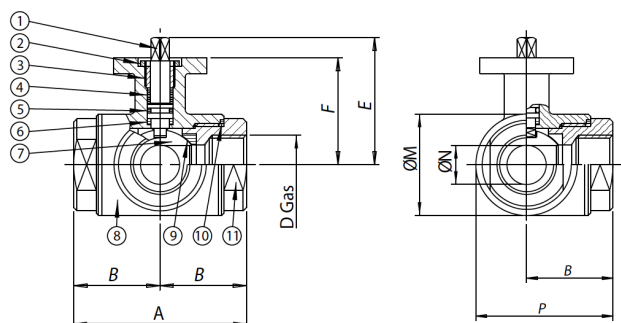
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DIMENSIONS

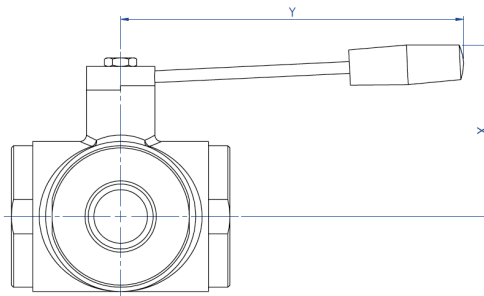
| SIZE | | A | B | C | D | E | F | G | H | L | M | N | P | X | Y |
|---------|--------|-----|-----|----|--------|-------|-------|-----|-----|----|-----|-----|-------|-----|-----|
| DN [mm] | [inch] | | | | | | | | | | | | | | |
| DN 10 | 3/8" | 72 | 36 | 6 | 3/8" | 54,5 | 46,5 | 46 | 36 | 6 | 45 | 12 | 58,5 | 60 | 110 |
| DN 15 | 1/2" | 82 | 41 | 6 | 1/2" | 57 | 49 | 54 | 42 | 6 | 52 | 15 | 67 | 65 | 110 |
| DN 20 | 3/4" | 92 | 46 | 9 | 3/4" | 69,5 | 56,5 | 65 | 50 | 7 | 60 | 20 | 76 | 70 | 160 |
| DN 25 | 1" | 102 | 51 | 9 | 1" | 74 | 61 | 65 | 50 | 7 | 70 | 25 | 86 | 80 | 160 |
| DN 32 | 1" 1/4 | 118 | 59 | 14 | 1" 1/4 | 94,5 | 81,5 | 90 | 70 | 9 | 85 | 32 | 101,5 | 95 | 190 |
| DN 40 | 1" 1/2 | 134 | 67 | 14 | 1" 1/2 | 102 | 89 | 90 | 70 | 9 | 100 | 40 | 117 | 110 | 190 |
| DN 50 | 2" | 144 | 72 | 17 | 2" | 106,5 | 91,5 | 90 | 70 | 9 | 110 | 50 | 127 | 120 | 220 |
| DN 65 | 2" 1/2 | 160 | 80 | 17 | 2" 1/2 | 116,5 | 101,5 | 125 | 102 | 11 | 122 | 65 | 141 | 130 | 285 |
| DN 80 | 3" | 200 | 100 | 17 | 3" | 134 | 116 | 125 | 102 | 11 | 150 | 80 | 175 | 145 | 310 |
| DN 100 | 4" | 240 | 120 | 17 | 4" | 149 | 131 | 125 | 102 | 11 | 192 | 100 | 216 | 160 | 310 |

materials

ASSE LIBERO FREE SHAFT



CON LEVA WITH LEVER



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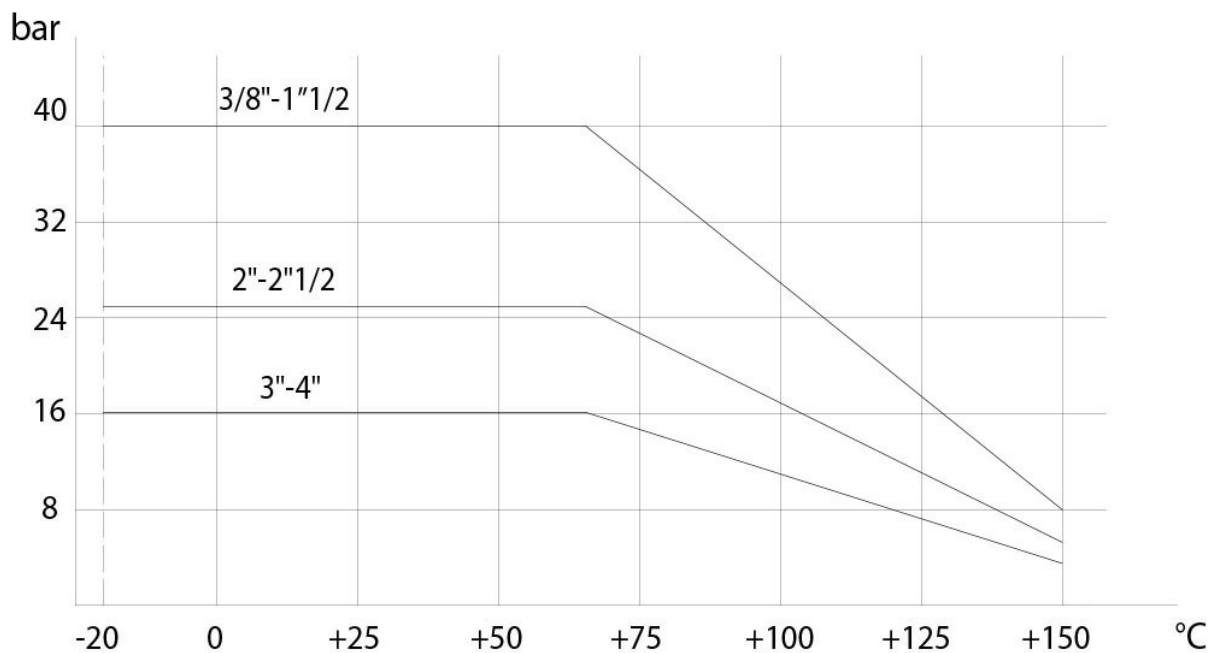
MATERIALS

| | | | | |
|-----|----------------|----------------------|--------|--------------------|
| 1 | Shaft | 316L S.S. | 1.4401 | UNI X2CrNiMo 17 12 |
| 2 | Nut | 303 S.S. | | |
| 3 | Gland nut ring | 304L S.S. (303 S.S.) | | |
| 4* | Top tight ring | P.T.F.E. | | |
| 5* | Shaft o-ring | FKM | | |
| 6* | Washer | P.T.F.E. | | |
| 7 | Ball | 316L S.S. | 1.4401 | UNI X2CrNiMo 17 12 |
| 8 | Body | 316L S.S. | 1.4401 | UNI X2CrNiMo 17 12 |
| 9* | Seals | P.T.F.E. | | |
| 10* | End sealings | P.T.F.E. | | |
| 11 | End | 316L S.S. | 1.4401 | UNI X2CrNiMo 17 12 |

* Components of spare part kit KGBV45...

diagrams and breakaway torque

Pressure/temperature diagram



| BREAKAWAY TORQUES Nm | | | | | | | | | | |
|----------------------|---------------|------------|------------|-------------|--------------|--------------|-------------|--------------|-------------|--------------|
| SIZE | DN 10 3/8" | DN 15 1/2" | DN 20 3/4" | DN 25 1" | DN 32 1 1/4" | DN 40 1 1/2" | DN 50 2" | DN 65 2 1/2" | DN 80 3" | DN 100 4" |
| PN 16 bar | | | | | | | | | 212 | 304 |
| PN 25 bar | | | | | | | 83 | 142 | | |
| PN 40 bar | 9 | 18 | 23 | 27 | 36 | 54 | | | | |

Torque can vary depending on temperature and type of fluid; a safety factor of 1.4 must be applied. Torque can drop on high frequency of operations. The actuator/valve sizing, indicated on the following pages, are based for valves to be used with liquids or gaseous fluids, clean, and for medium temperatures. For further information, or different uses please contact our sales department.

specifications

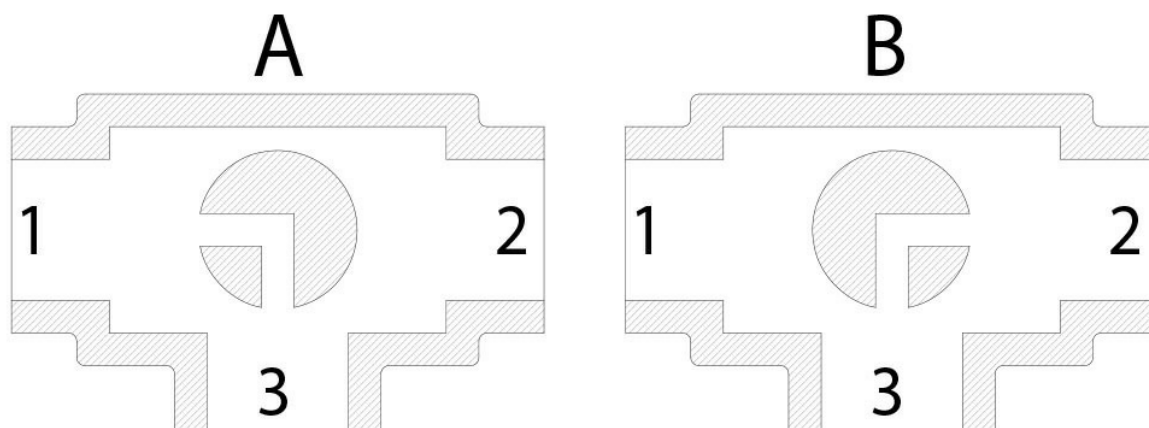
Plan for "L" port

N.B.:

"A" must be the rest position of the ball with **SR FAIL CLOSE** actuator.

"B" must be the rest position of the ball with **SR FAIL OPEN** actuator.

View from above



Plan for "T" port

With actuator 2 positions with 90° rotation are possible only: the configuration of the ball must always be communicated at our sales department.

N.B.:

Choose the rest position of the ball with **SR FAIL CLOSE** actuator; whenever supplied with air, actuator turns in an anticlockwise direction.

Choose the rest position of the ball with **SR FAIL OPEN** actuator; whenever supplied with air, actuator turns in a clockwise direction.

View from above

