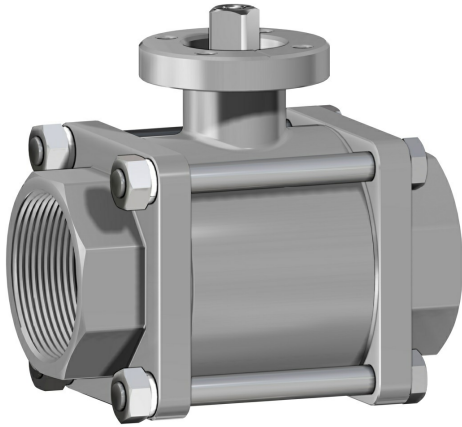


## Item 420 stainless steel ball valves



Macro [Ball valves](#)

Category [Other stainless steel ball valves](#)

2-way full-bore three piece stainless steel ball valve, threaded-ends or butt weld

### features

#### GENERAL FEATURES:

- The valve is manufactured in 316L stainless steel.
- Manufactured in three pieces to facilitate replacement on plants which requires frequent maintenance.
- Threaded ends as per ISO 7/1 specifications; socket welding; butt welding.
- Working temperature: from -20°C to +150°C
- Working pressure: see diagram.
- Fluid range: air, water, gas, petroleum and petrochemical products, aggressive media.
- 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.**

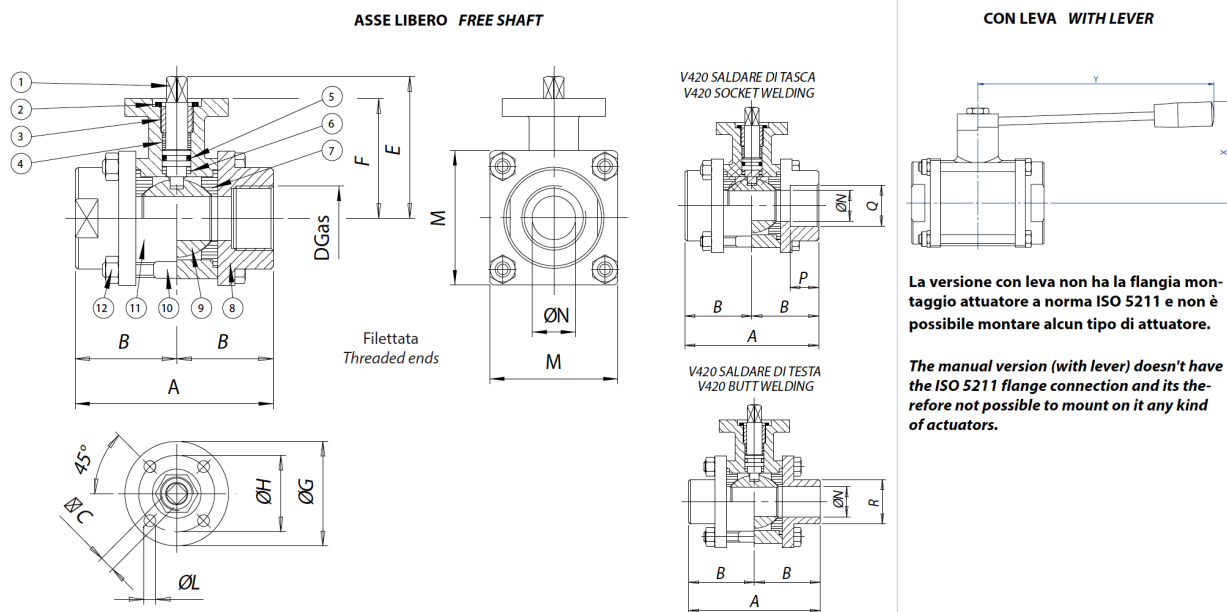
#### ON REQUEST:

- Threaded: NPT
- Seals made of: PTFE glass filled / PTFE with carbon graphite
- For other applications, please contact our sales department.

#### CERTIFICATIONS:

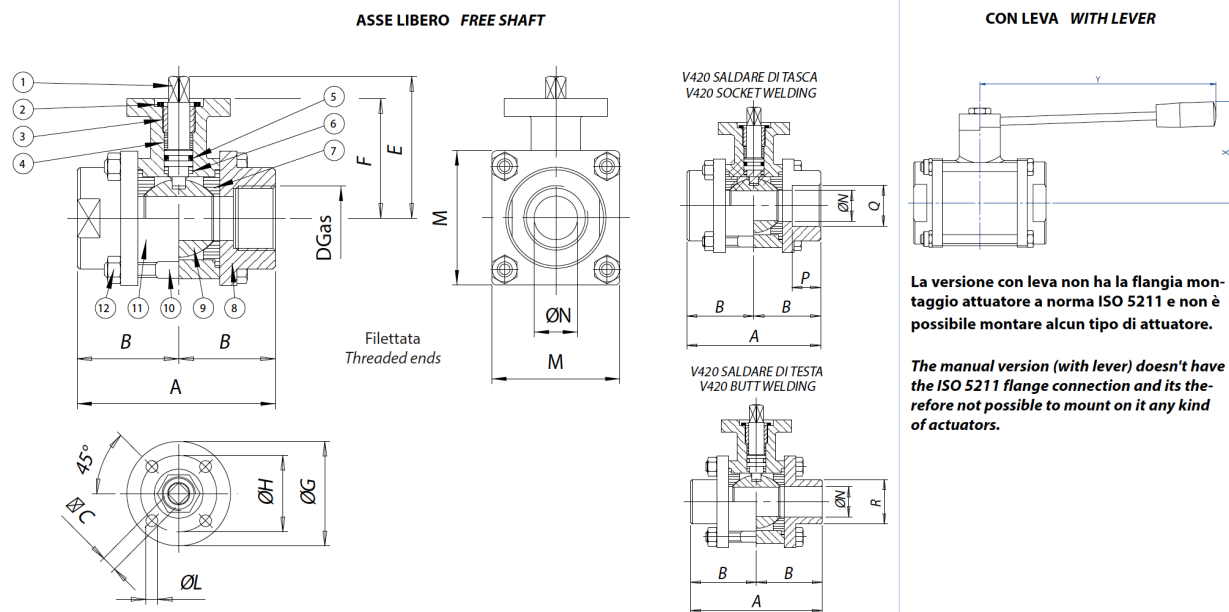
- ATEX version in conformity with directive 2014/34/EU on request.
- ATEX certificate on request.

## dimensions



| DIMENSIONS |        |     |    |    |        |      |      |    |    |   |    |    |      |      |      |     |     |
|------------|--------|-----|----|----|--------|------|------|----|----|---|----|----|------|------|------|-----|-----|
| SIZE       |        | A   | B  | C  | D      | E    | F    | G  | H  | L | M  | N  | Q    | P    | R    | X   | Y   |
| DN [mm]    | [inch] |     |    |    |        |      |      |    |    |   |    |    |      |      |      |     |     |
| DN 10      | 3/8"   | 70  | 35 | 6  | 3/8"   | 49,5 | 41,5 | 46 | 36 | 6 | 40 | 10 | 17,8 | 9,7  | 18   | 55  | 110 |
| DN 15      | 1/2"   | 70  | 35 | 6  | 1/2"   | 49,5 | 41,5 | 46 | 36 | 6 | 40 | 15 | 22   | 9,7  | 22,5 | 55  | 110 |
| DN 20      | 3/4"   | 80  | 40 | 6  | 3/4"   | 53   | 45   | 46 | 36 | 6 | 45 | 20 | 27,3 | 12,7 | 28   | 60  | 110 |
| DN 25      | 1"     | 90  | 45 | 9  | 1"     | 64,5 | 51,5 | 65 | 50 | 7 | 60 | 25 | 42,8 | 12,7 | 34,5 | 70  | 160 |
| DN 32      | 1" 1/4 | 100 | 50 | 9  | 1" 1/4 | 69,5 | 56,5 | 65 | 50 | 7 | 70 | 32 | 42,8 | 12,7 | 43,5 | 80  | 160 |
| DN 40      | 1" 1/2 | 114 | 57 | 14 | 1" 1/2 | 89   | 76   | 65 | 50 | 7 | 80 | 40 | 48,9 | 12,7 | 49,5 | 95  | 190 |
| DN 50      | 2"     | 136 | 68 | 14 | 2"     | 95   | 82   | 65 | 50 | 7 | 90 | 50 | 61,4 | 15,8 | 61,5 | 100 | 190 |

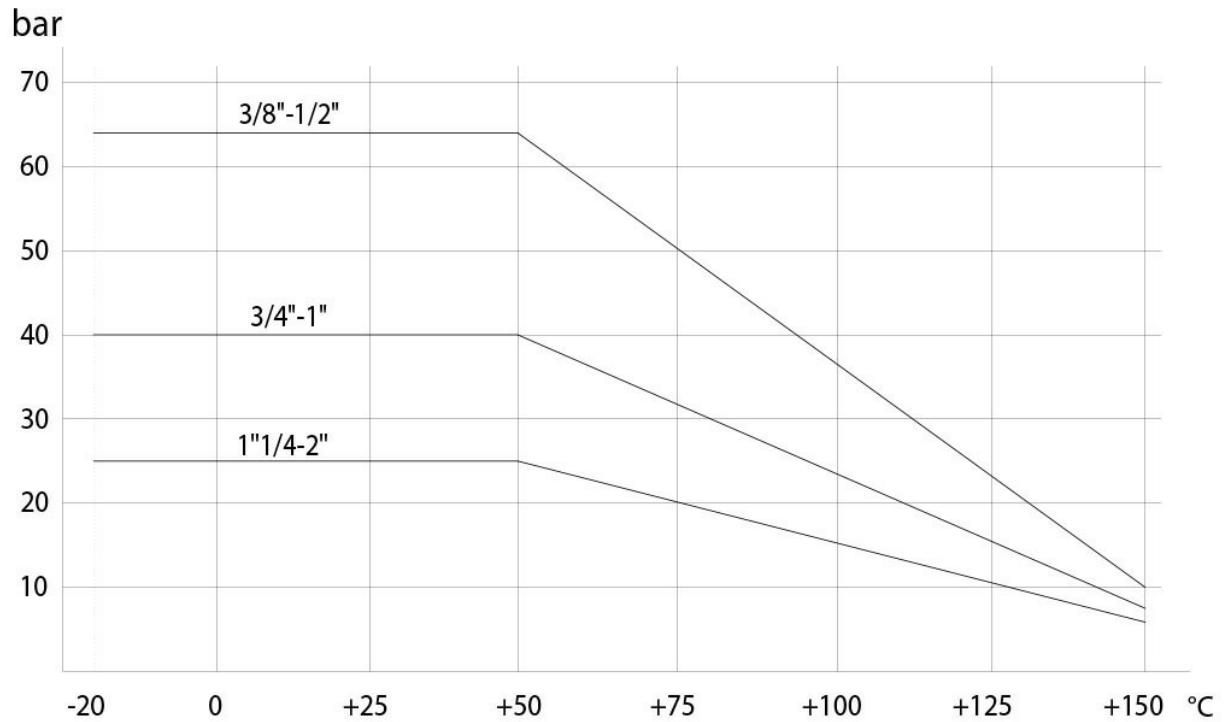
## materials



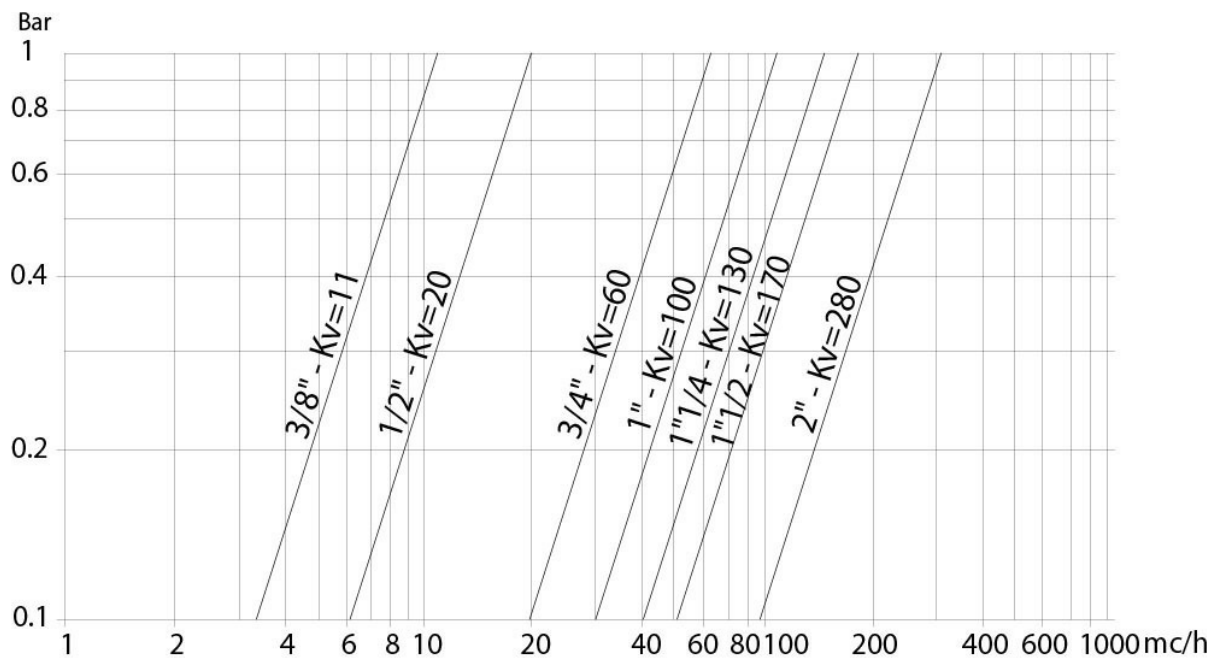
| MATERIALS                                |              |                      |        |                    |
|--|--------------|----------------------|--------|--------------------|
| 1  | Shaft        | 316L S.S.            | 1.4401 | UNI X2CrNiMo 17 12 |
| 2  | Nut          | 303 S.S.             |        |                    |
| 3  | Ring nut     | 304L S.S. (303 S.S.) |        |                    |
| 4*                                       | Shaft seal   | P.T.F.E.             |        |                    |
| 5*                                       | Shaft o-ring | FKM                  |        |                    |
| 6*                                       | Shaft seal   | P.T.F.E.             |        |                    |
| 7*                                       | Ball seal    | P.T.F.E.             |        |                    |
| 8  | Flange       | 316L S.S.            | 1.4401 | UNI X2CrNiMo 17 12 |
| 9  | Ball         | 316L S.S.            | 1.4401 | UNI X2CrNiMo 17 12 |
| 10                                       | Screws       | 303 S.S.             |        |                    |
| 11                                       | Body         | 316L S.S.            | 1.4401 | UNI X2CrNiMo 17 12 |
| 12                                       | Nut          | 303 S.S.             |        |                    |
| * Components of spare part kit KGBV55... |              |                      |        |                    |

## diagrams and breakaway torque

Pressure/temperature diagram



Flow/pressure loss diagram and Kv nominal coefficient



Kv is the coefficient, expressed in m<sup>3</sup>/h (with water at 15°C) causing a pressure loss of 1 bar.

| BREAKAWAY TORQUES Nm |               |               |               |             |                 |                 |             |
|----------------------|---------------|---------------|---------------|-------------|-----------------|-----------------|-------------|
| SIZE                 | DN 10<br>3/8" | DN 15<br>1/2" | DN 20<br>3/4" | DN 25<br>1" | DN 32<br>1 1/4" | DN 40<br>1 1/2" | DN 50<br>2" |
| PN 25 bar            |               |               |               |             | 20              | 29              | 40          |
| PN 40 bar            |               |               | 10            | 14          |                 |                 |             |
| PN 63 bar            | 7             | 8             |               |             |                 |                 |             |

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.