

## MAGNUM Split Wafer 3 ways 4 seals PN 16-40 ANSI 150 carbon steel ball valve



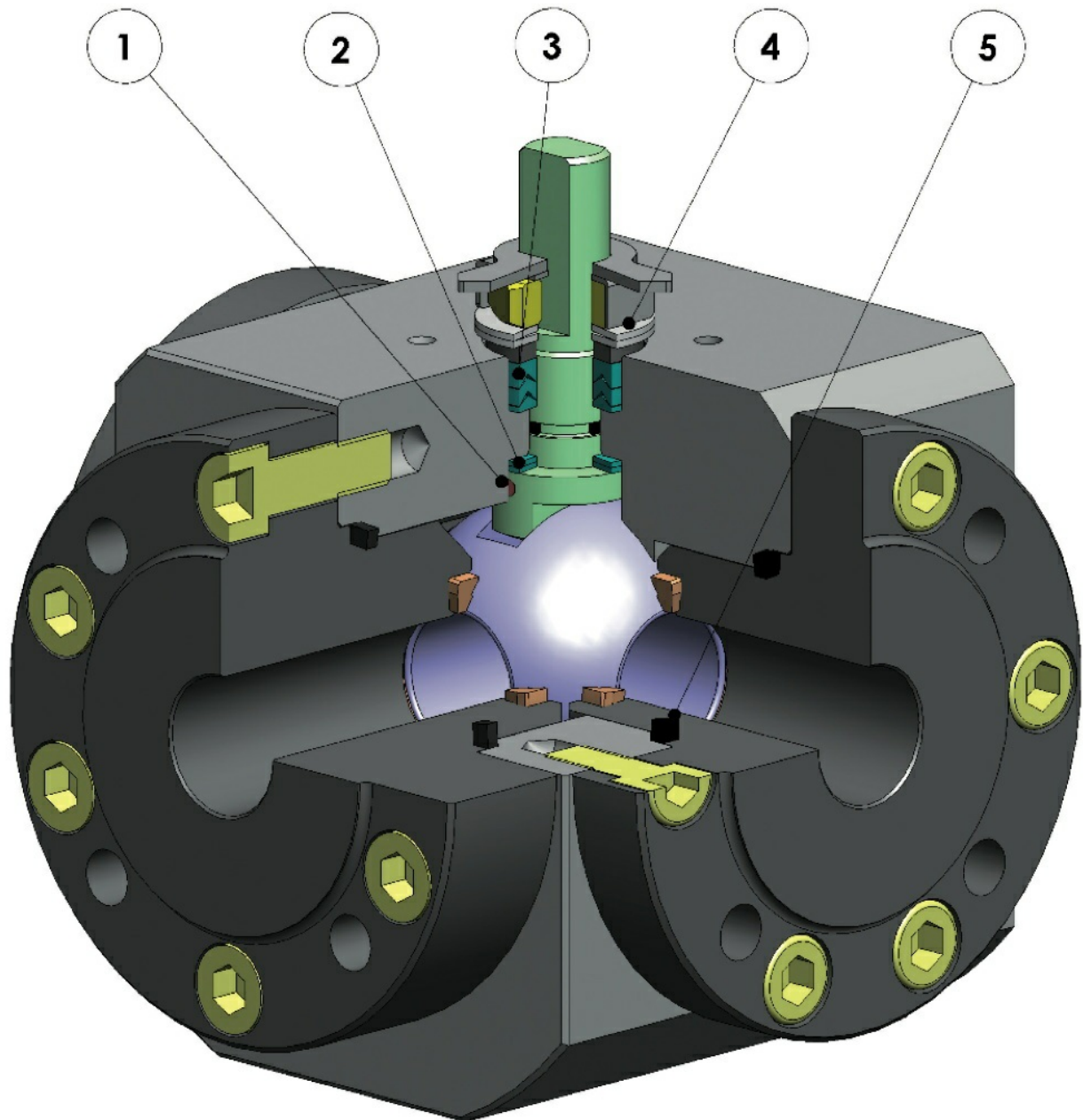
Macro Ball valves

Category **MAGNUM**

Subcategory **MAGNUM Split Wafer 3 ways 4 seals**

Family **MAGNUM Split Wafer 3 ways 4 seals PN 16-40  
ANSI 150**

**benefits**



**1. Antistatic device ((electrical continuity between ball, stem and body)**

Static electricity is avoided which can cause sparks and fire in an inflammable/explosive environment  
Contact safety throughout the entire life of the valve

**2. Double antifriction washer**

Less Breakaway Torque is granted  
Less wear comparing with the execution with the single washer

**3."V" seals pack; 3 seals + o-ring**

It ensures a perfect tightness even after a high number of cycles

**4. Spring washer on the shaft seal**

Guarantee of the recovery of the gap due to the wear caused by the rotational movement of the shaft avoiding leakage towards the outside part.  
Allow to maintain energized the "chevron" seals (V), thus avoiding any leakage to the outside, against huge temperature excursions

**5. Stretch Graphite seal**

Tightness towards outside is granted, independently by the thermal excursions to which the valve is subjected

**Greater precision in the alignment of axes due to a unique positioning in the process machining from raw material to finished valve**

Longer lifetime of the valve  
Less breakaway torque

**Valve body in carbon steel made with NACE certified material as standard**

Greater corrosion resistance  
Greater ductility of the material

**100% in- house manufacturing process technology**

Maximum control and accuracy in all the stages of the manufacturing process  
Flexibility in supply quickly special executions requested by customers

**ATEX Certificate**

Installation is possible in a potential explosive environment

**TA LUFT fugitive emission Certificate**

High level of safety of the tightness towards the outside is granted

**PED Certificate**

Full compliance with European Safety Standards for Pressure Equipment

## features

### STANDARD FEATURES

- Floating ball, full bore
- Soft-seat seal Modified PTFE
- Standard for connecting flanges: EN1092-1, ASME B16.5
- Pressure Class : ANSI 150; PN16-40
- Tightness Class: EN12266-1 rate A
- Working temperature: -20°C +150°C
- Intercepted fluid: air, water, gas, petroleum and petrochemical products, aggressive fluids.
- Antistatic device EN12266-2
- Stem seal: Modified PTFE V-pack
- Additional seal on stem with FKM O-ring
- Anti Blow-out stem
- Actuator connection as per standard ISO 5211

### EXECUTION ON REQUEST

- LF2 carbon steel for low temperature execution (-40°C)
- For other flange types please contact our sales department.
- Sealing in: PTFE reinforced with glass (PTFE-GF), PTFE reinforced with carbongraphite (PTFE-CF). For other types of materials please contact our sales department.
- Stainless steel lever
- Stainless steel stem nuts and springs
- For versions with materials (body/ball/stem) different from the standard please contact our sales department
- Surface treatment: white zinc coating, epoxy coating. For other coating please contact our sales department.
- Marking and certificate ATEX ON REQUEST

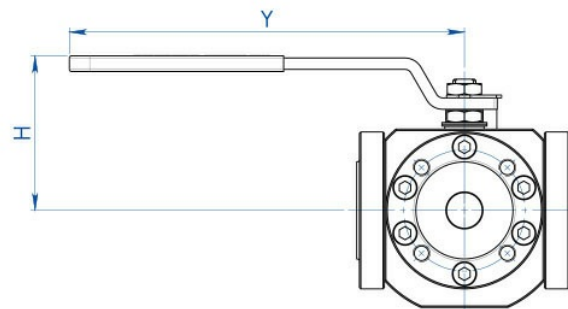
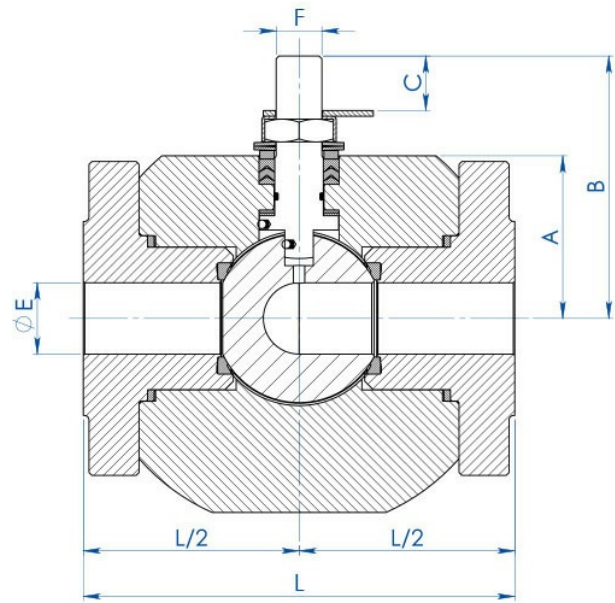
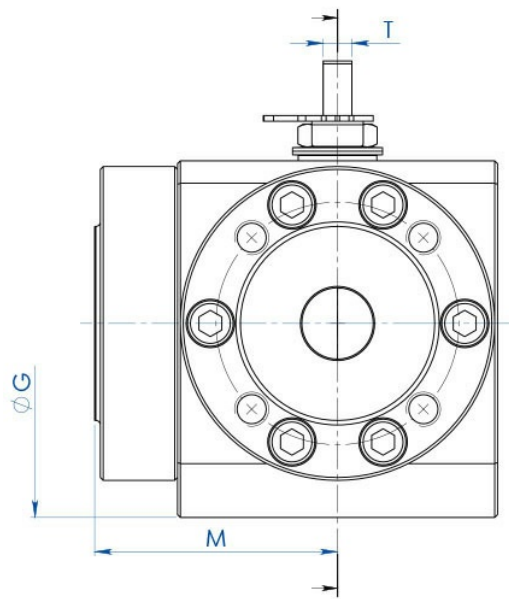
### CERTIFICATIONS

- In compliance with European Directive 2014/68/EU PED; Fugitive Emission ISO 15848 (ISO FE BH-C03-SSA 0); Ta-Luft VDI: 2440
- Safety integrity level up to SIL3 according to the IEC 61508
- In compliance with ATEX 2014/34/EU Directive , ATEX certificate ON REQUEST.

### ENGINEERING STANDARDS

- Body thickness in compliance with: ASME B16.34, ASME VIII div.1, EN12516
- Materials and rating in compliance with ASME B16.34 for ANSI valves and EN12516 for PN valves.

dimensions



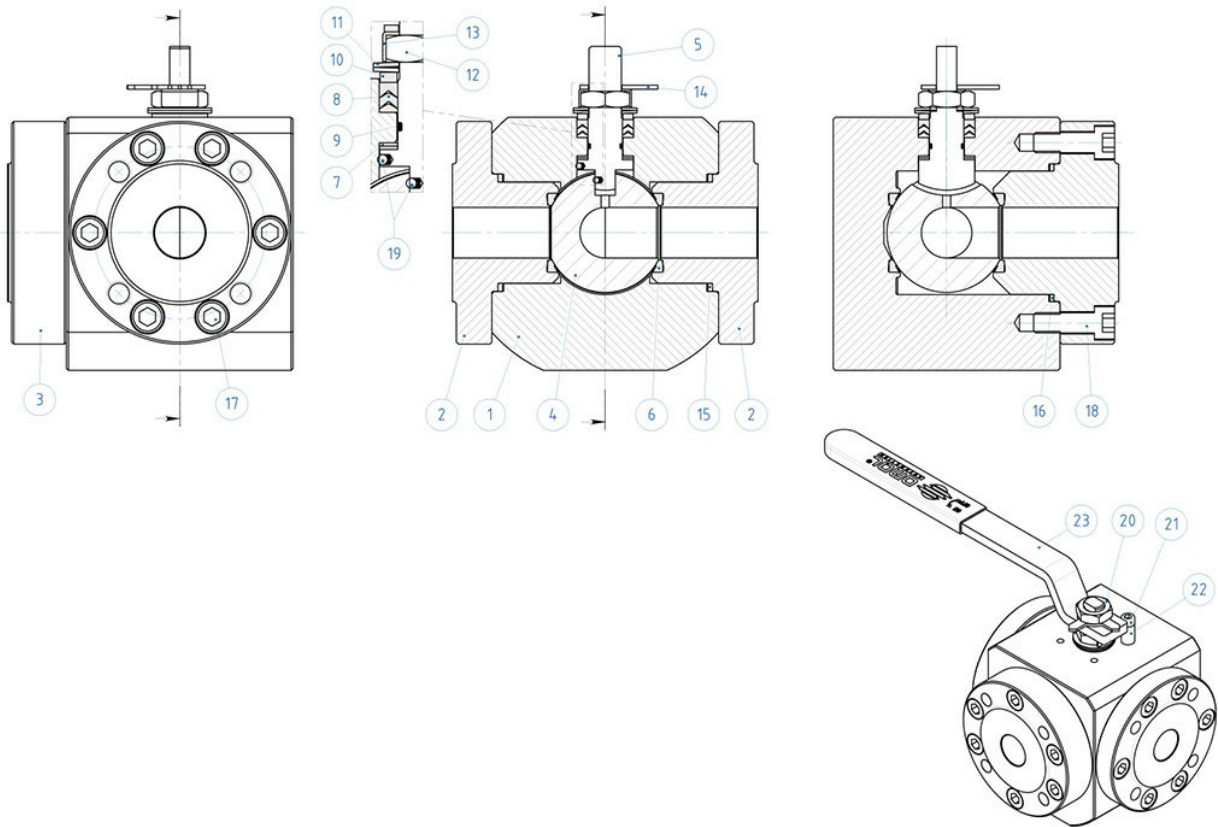
**DIMENSIONS -PN-**

| SIZE    |        | PN    | øE  | L   | M   | A   | B     | C    | ATT. ISO | F/T   | ØG  | øJ  | ØR  | S | P  | ØK  | HOLES N° | ØI  | H     | Y   | Kg.  | LEVER KIT | SEALS KIT  |
|---------|--------|-------|-----|-----|-----|-----|-------|------|----------|-------|-----|-----|-----|---|----|-----|----------|-----|-------|-----|------|-----------|------------|
| DN [mm] | [inch] |       |     |     |     |     |       |      |          |       |     |     |     |   |    |     |          |     |       |     |      |           |            |
| 15      | 1/2"   | 16-40 | 13  | 124 | 62  | 40  | 55    | 9,2  | F03      | 10/6  | 112 | 90  | 45  | 2 | 15 | 65  | 4        | M12 | 73    | 140 | 6,8  | KLV58004  | KGBV557040 |
| 20      | 3/4"   | 16-40 | 19  | 136 | 79  | 48  | 71    | 13   | F04      | 12/8  | 130 | 100 | 58  | 2 | 14 | 75  | 4        | M12 | 90,4  | 150 | 10,5 | KLV58006  | KGBV557050 |
| 25      | 1"     | 16-40 | 25  | 151 | 85  | 57  | 92    | 19,1 | F05      | 16/10 | 149 | 110 | 68  | 2 | 16 | 85  | 4        | M12 | 108,4 | 275 | 15,2 | KLV58008  | KGBV557060 |
| 32      | 1" 1/4 | 16-40 | 32  | 167 | 96  | 60  | 95    | 19,1 | F05      | 16/10 | 164 | 130 | 78  | 2 | 20 | 100 | 4        | M16 | 111,4 | 275 | 20,8 | KLV58008  | KGBV557070 |
| 40      | 1" 1/2 | 16-40 | 38  | 185 | 100 | 72  | 119,5 | 26,4 | F07      | 22/14 | 185 | 140 | 88  | 3 | 20 | 110 | 4        | M16 | 132,5 | 350 | 26,1 | KLV58010  | KGBV557080 |
| 50      | 2"     | 16-40 | 51  | 200 | 110 | 81  | 128,5 | 26,7 | F07      | 22/14 | 195 | 150 | 102 | 3 | 20 | 125 | 4        | M16 | 141,5 | 350 | 32,4 | KLV58010  | KGBV557090 |
| 65      | 2" 1/2 | 16    | 64  | 218 | 121 | 93  | 154   | 33,2 | F10      | 30/18 | 220 | 178 | 122 | 3 | 20 | 145 | 4        | M16 | 180,3 | 450 | 47,6 | KLV58012  | KGBV557100 |
| 80      | 3"     | 16    | 76  | 244 | 126 | 101 | 162   | 33,2 | F10      | 30/18 | 239 | 190 | 135 | 3 | 20 | 160 | 8        | M16 | 188,3 | 450 | 57,9 | KLV58012  | KGBV557110 |
| 100     | 4"     | 16    | 102 | 325 | 150 | 124 | 182   | 33,2 | F10      | 30/18 | 296 | 235 | 158 | 3 | 20 | 180 | 8        | M16 | 208,3 | 450 | 109  | KLV58012  | KGBV557120 |

**DIMENSIONS -ANSI-**

| SIZE    |        | ANSI | øE  | L   | M   | A   | B     | C    | ATT. ISO | F/T   | ØG  | øJ  | ØR    | S   | P  | ØK    | HOLES N° | ØI      | H     | Y   | Kg.  | LEVER KIT | SEALS KIT  |
|---------|--------|------|-----|-----|-----|-----|-------|------|----------|-------|-----|-----|-------|-----|----|-------|----------|---------|-------|-----|------|-----------|------------|
| DN [mm] | [inch] |      |     |     |     |     |       |      |          |       |     |     |       |     |    |       |          |         |       |     |      |           |            |
| 15      | 1/2"   | 150  | 13  | 124 | 62  | 40  | 55    | 9,2  | F03      | 10/6  | 112 | 90  | 35,1  | 1,6 | 16 | 60,5  | 4        | 1/2"UNC | 73    | 140 | 6,8  | KLV58004  | KGBV557040 |
| 20      | 3/4"   | 150  | 19  | 136 | 79  | 48  | 71    | 13   | F04      | 12/8  | 130 | 100 | 42,9  | 1,6 | 16 | 69,8  | 4        | 1/2"UNC | 90,4  | 150 | 10,4 | KLV58006  | KGBV557050 |
| 25      | 1"     | 150  | 25  | 151 | 85  | 57  | 92    | 19,1 | F05      | 16/10 | 149 | 110 | 50,8  | 1,6 | 16 | 79,2  | 4        | 1/2"UNC | 108,4 | 275 | 15,2 | KLV58008  | KGBV557060 |
| 32      | 1" 1/4 | 150  | 32  | 167 | 96  | 60  | 95    | 19,1 | F05      | 16/10 | 164 | 130 | 63,5  | 1,6 | 16 | 88,9  | 4        | 1/2"UNC | 111,4 | 275 | 21,3 | KLV58008  | KGBV557070 |
| 40      | 1" 1/2 | 150  | 38  | 185 | 100 | 72  | 119,5 | 26,4 | F07      | 22/14 | 185 | 140 | 73    | 1,6 | 16 | 98,6  | 4        | 1/2"UNC | 132,5 | 350 | 26,4 | KLV58010  | KGBV557080 |
| 50      | 2"     | 150  | 51  | 200 | 110 | 81  | 128,5 | 26,7 | F07      | 22/14 | 195 | 150 | 91,9  | 1,6 | 20 | 120,6 | 4        | 5/8"UNC | 141,5 | 350 | 32,6 | KLV58010  | KGBV557090 |
| 65      | 2" 1/2 | 150  | 64  | 218 | 121 | 93  | 154   | 33,2 | F10      | 30/18 | 220 | 178 | 104,6 | 1,6 | 20 | 139,7 | 4        | 5/8"UNC | 180,3 | 450 | 46,6 | KLV58012  | KGBV557100 |
| 80      | 3"     | 150  | 76  | 244 | 126 | 101 | 162   | 33,2 | F10      | 30/18 | 239 | 190 | 127   | 1,6 | 20 | 152,4 | 4        | 5/8"UNC | 188,3 | 450 | 58,5 | KLV58012  | KGBV557110 |
| 100     | 4"     | 150  | 102 | 325 | 150 | 124 | 182   | 33,2 | F10      | 30/18 | 296 | 235 | 157,2 | 1,6 | 20 | 190,5 | 8        | 5/8"UNC | 208,3 | 450 | 109  | KLV58012  | KGBV557120 |

materials



| MATERIALS - SPLIT WAFER PN16-40 ANSI 150 |                                   |                              |                       |
|--|-----------------------------------|------------------------------|-----------------------|
| N°                                       | Description                       | A105 Carbon steel            | A350 LF2 Carbon steel |
| 1  | Body                              | ASTM A105                    | ASTM A350 LF2         |
| 2  | Ring nut                          |                              |                       |
| 3  | Side entry ring nut               |                              |                       |
| 4  | Ball                              | ASTM A351 CF8M               |                       |
| 5  | Stem                              | A564 TP.630 (17-4PH)         |                       |
| 6*                                       | Seat                              | Modified PTFE                |                       |
| 7*                                       | Stem lower sealing                | Modified PTFE                |                       |
| 8*                                       | Chavron ring                      | Modified PTFE                |                       |
| 9*                                       | Stem o-ring                       | FKM                          |                       |
| 10                                       | Packing gland ring                | Carbon steel galvanized (x)  |                       |
| 11                                       | Stem springs                      | Carbon steel galvanized (xx) |                       |
| 12                                       | Stem nut                          | Carbon steel galvanized (x)  |                       |
| 13                                       | Stop nut plate                    | 304 S.S.                     |                       |
| 14                                       | Indicator                         | 304 S.S.                     |                       |
| 15*                                      | Body ring nut gasket              | Grafoil                      |                       |
| 16*                                      | Body side entry ring nut gasket   | Grafoil                      |                       |
| 17                                       | Body ring nut screw               | 8.8 galvanized               | A2-70 (304 S.S.)      |
| 18                                       | Body-side entering ring nut screw |                              |                       |
| 19                                       | Antistatic device                 | 316 S.S.                     |                       |
| 20                                       | Lock nut                          | Carbon steel galvanized (x)  |                       |
| 21                                       | Holder screw                      | A2-70 (304 S.S.)             |                       |
| 22                                       | Holder screw                      | Carbon steel galvanized (x)  |                       |
| 23                                       | Lever                             | Fe37 galvanized (x)          |                       |
| * Components of seals kit                |                                   |                              |                       |

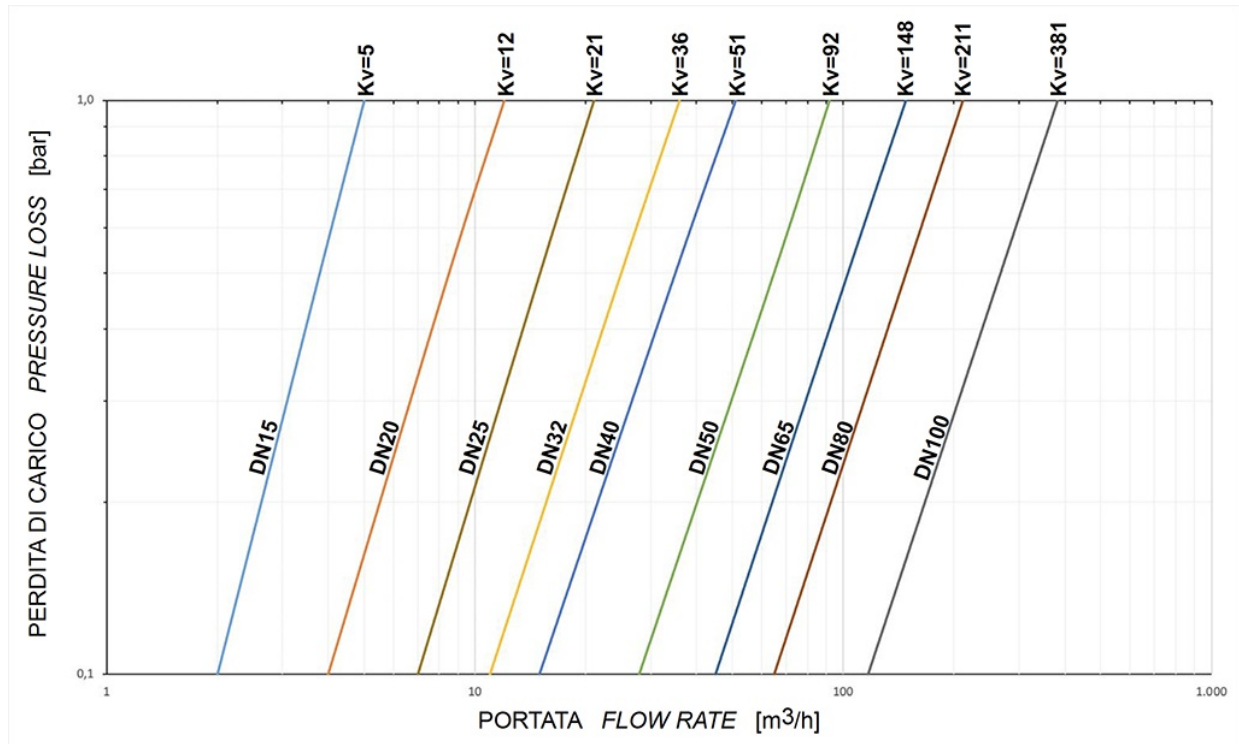
**AVAILABLE ON REQUEST:**

(x) : 304 s.s.

(xx) : 301 s.s.

## diagrams and breakaway torque

Flow/pressure loss diagram and Kv nominal coefficient



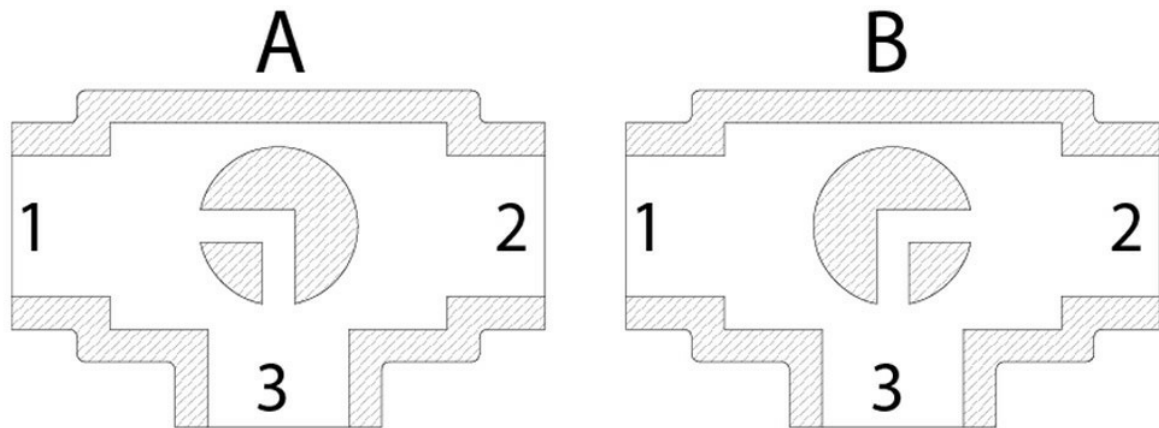
Kv is the coefficient, expressed in m³/h (with water at 15°C) causing a pressure loss of 1 bar.

## 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



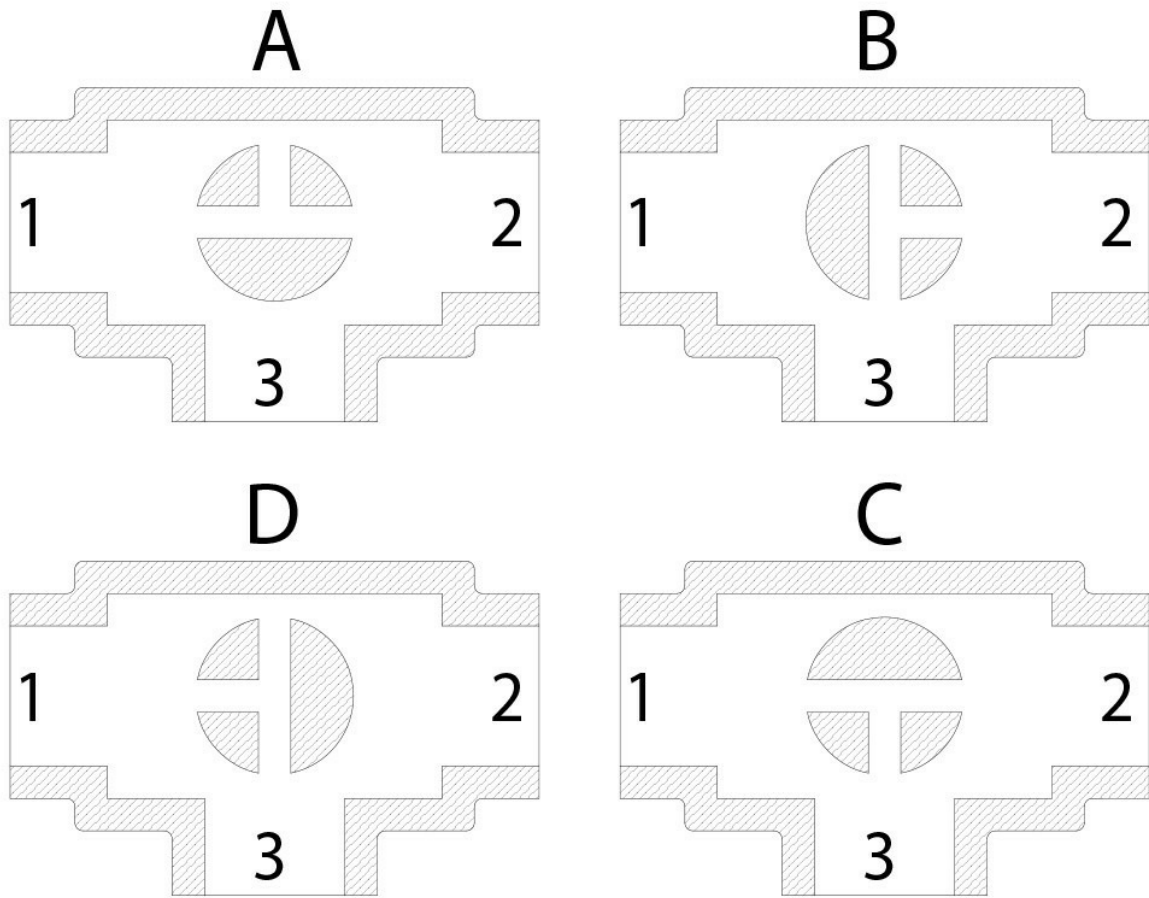
### Plan for "T" port

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.

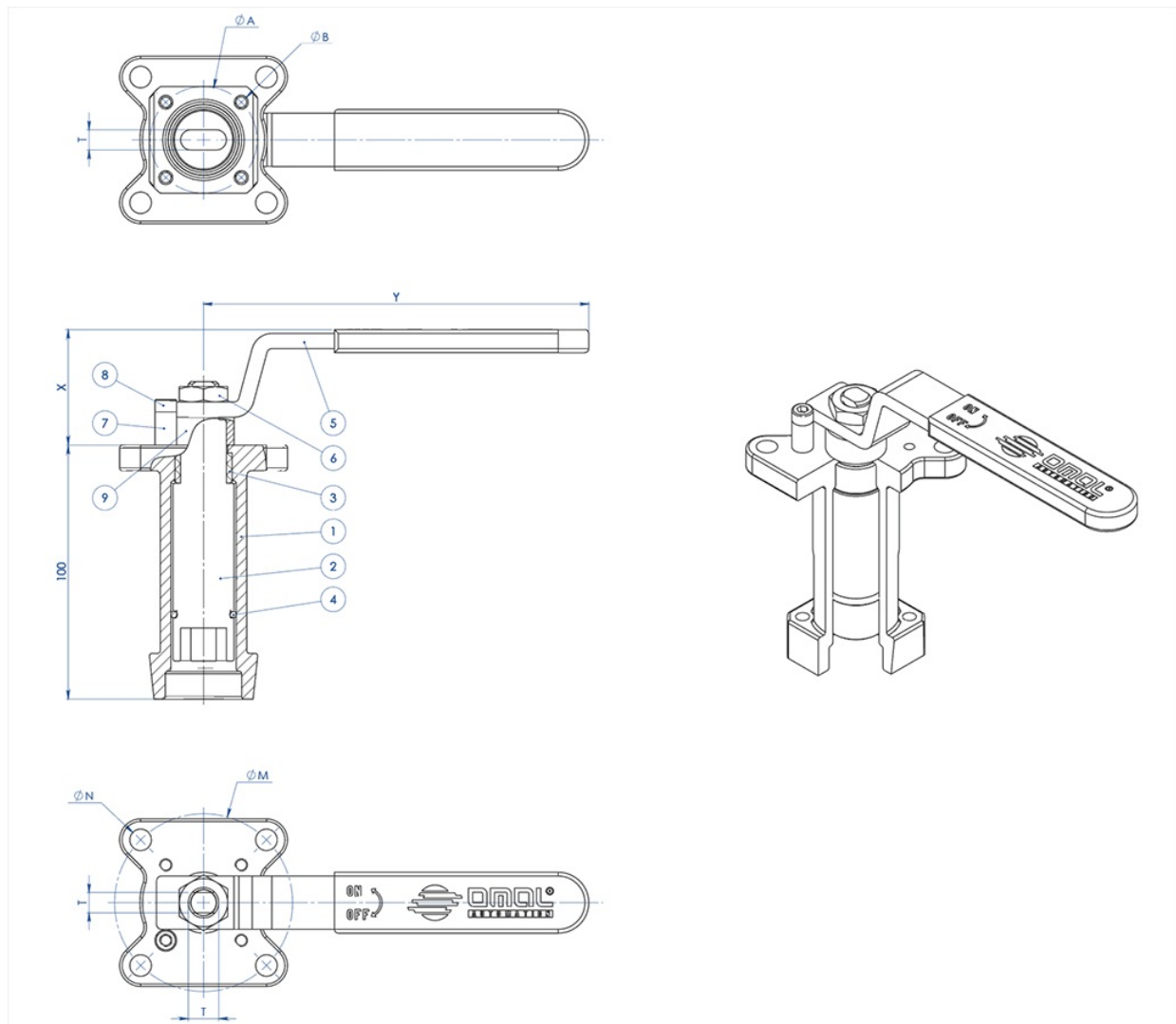
## View from above



The sizing of pneumatic actuators has been done considering a minimum supply pressure of 5,6 barg.  
 In case of not lubricated fluids and/or fluids containing solid particles, torques could be higher than the ones indicated.

accessories

CASTING STEM EXTENSION WITH LEVER



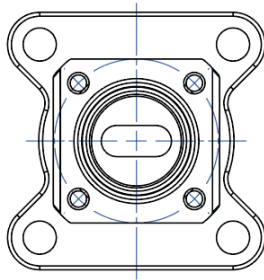
| MATERIALS |              |                             |
|-----------|--------------|-----------------------------|
| PART. N°  | DESCRIPTION  | MATERIAL                    |
| 1         | Extension    | AISI304 S.S.                |
| 2         | Pin          | AISI 430 F                  |
| 3         | Bush         | DELRIN                      |
| 4         | O-RING       | NBR                         |
| 5         | Lever        | Fe 37 galvanized (*)        |
| 6         | Nut          | galvanized carbon steel (*) |
| 7         | Holder Lever | galvanized carbon steel (*) |
| 8         | Holder screw | A2-70                       |
| 9         | Spacer       | PTFE Carbon Filled          |

(\*): On request available in Aisi 304 s.s.

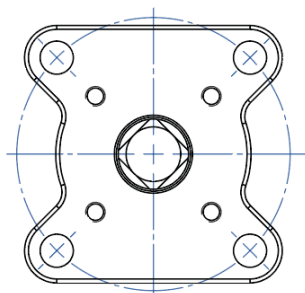
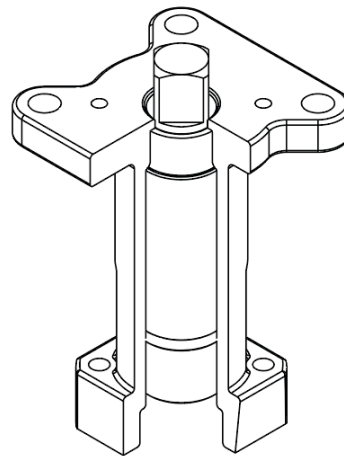
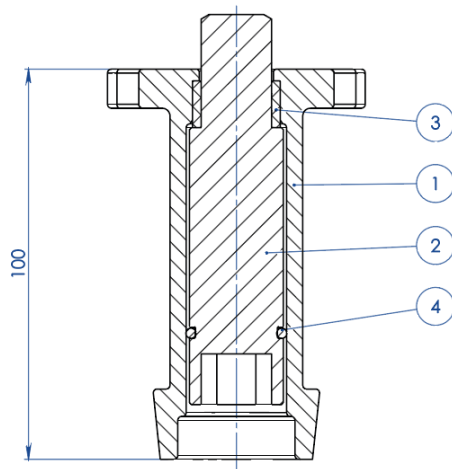
| ISO VALVE | DIMENSIONS |     |     |     |       |      |       |
|-----------|------------|-----|-----|-----|-------|------|-------|
|           | ØA         | ØB  | ØM  | ØN  | F/T   | X    | Y     |
| F03       | 36         | 5,5 | 36  | 5,5 | 10/6  | 38,5 | 141,5 |
| F04       | 42         | 5,5 | 42  | M5  | 12/8  | 45,5 | 151,5 |
| F05       | 50         | 6,5 | 50  | 6,5 | 16/10 | 48,5 | 276,5 |
| F07       | 70         | 8,5 | 70  | 8,5 | 22/14 | 57,5 | 351,5 |
| F10       | 102        | 11  | 102 | 11  | 30/18 | 79,5 | 451,5 |

**NOTE:** Code of the spindle extension depending from drive's type and valve's connection; to be requested at the order.

### CASTING STEM EXTENSION FOR ACTUATORS



**NOTA:** Le dimensioni dipendono dalle dimensioni dell'attacco valvola  
**NOTE:** Dimensions depending from valve's connection

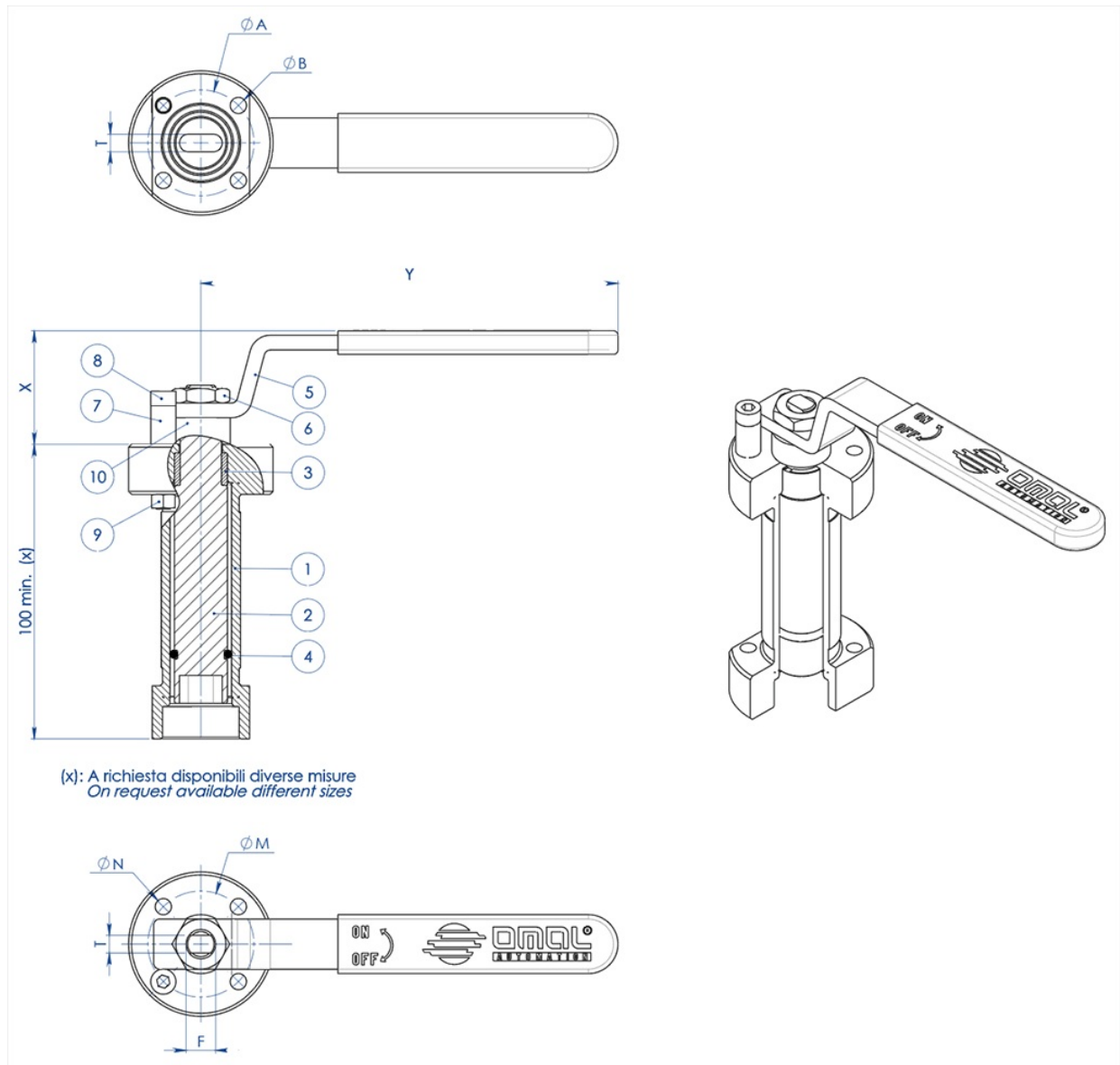


**NOTA:** Le dimensioni dipendono dalla taglia dell'attuatore  
**NOTE:** Dimensions depending from actuator's size

| MATERIALS |             |                |
|-----------|-------------|----------------|
| PART. N°  | DESCRIPTION | MATERIAL       |
| 1         | Extension   | ASTM A351 CF8M |
| 2         | Pin         | AISI 430 F     |
| 3         | Bush        | DELRIN         |
| 4         | O-RING      | NBR            |

NOTE: Code of the spindle extension depending from drive's type and valve's connection; to be requested at the order

### WELDED STEM EXTENSION WITH LEVER



| MATERIALS |              |                             |
|-----------|--------------|-----------------------------|
| PART. N°  | DESCRIPTION  | MATERIAL                    |
| 1         | Extension    | 304 s.s.                    |
| 2         | Pin          | AISI 430 F                  |
| 3         | Bush         | DELRIN                      |
| 4         | O-Ring       | NBR                         |
| 5         | Lever        | Fe 37 galvanized (*)        |
| 6         | Nut          | galvanized carbon steel (*) |
| 7         | Holder Lever | galvanized carbon steel (*) |
| 8         | Holder screw | A2-70                       |
| 9         | Holder nut   | A2-70 (**)                  |
| 10        | Spacer       | PTFE Carbon Filled          |

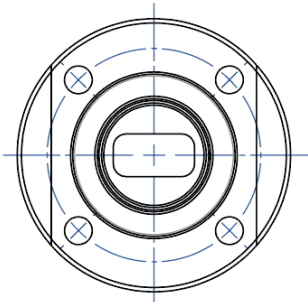
(\*): On request available in Aisi 304 s.s.

(\*\*): No available on valves with Iso connection F04

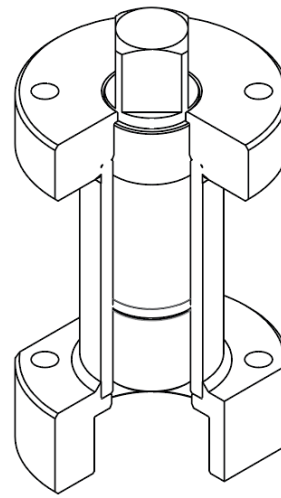
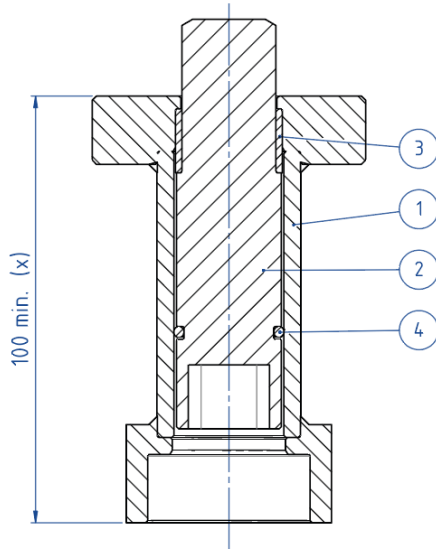
| DIMENSIONS |     |     |     |     |       |      |       |
|------------|-----|-----|-----|-----|-------|------|-------|
| ISO VALVE  | ØA  | ØB  | ØM  | ØN  | F/T   | X    | Y     |
| F03        | 36  | 5,5 | 36  | 5,5 | 10/6  | 38,5 | 141,5 |
| F04        | 42  | 5,5 | 42  | M5  | 12/8  | 45,5 | 151,5 |
| F05        | 50  | 6,5 | 50  | 6,5 | 16/10 | 48,5 | 276,5 |
| F07        | 70  | 9   | 70  | 9   | 22/14 | 57,5 | 351,5 |
| F10        | 102 | 11  | 102 | 11  | 30/18 | 79,5 | 451,5 |

**NOTE:** Code of the stem extension depending from drive's type and valve's connection; to be requested at the order.

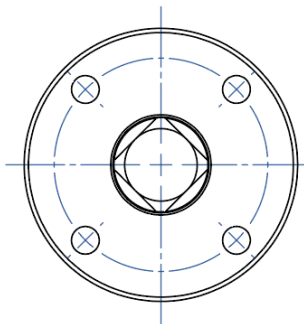
### WELDED STEM EXTENSION FOR ACTUATORS



**NOTA: Le dimensioni dipendono dalle dimensioni dell'attacco valvola**  
**NOTE: Dimensions depending from valve's connection**



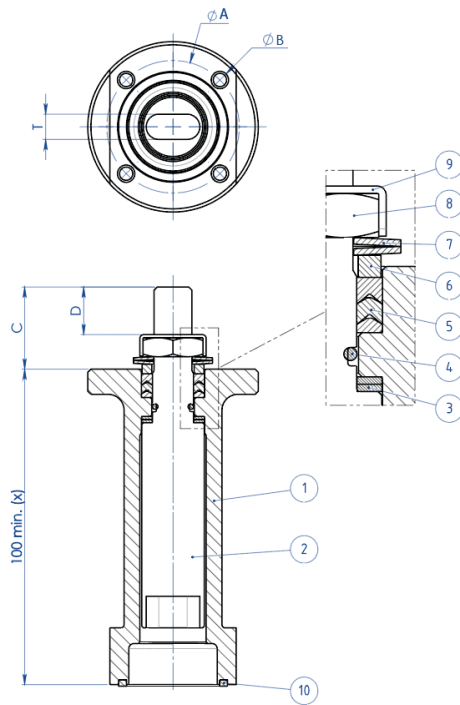
(x): A richiesta disponibili diverse misure  
 On request available different sizes



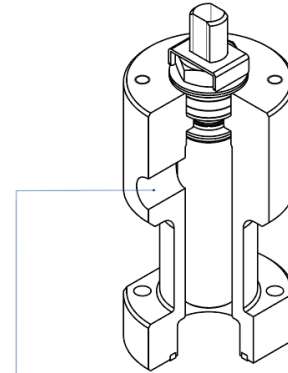
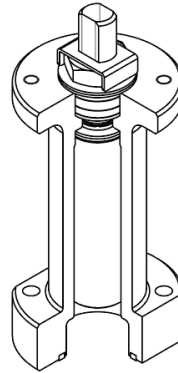
**NOTA: Le dimensioni dipendono dalla taglia dell'attuatore**  
**NOTE: Dimensions depending from actuator's size**

| MATERIALS |             |            |
|-----------|-------------|------------|
| PART. N°  | DESCRIPTION | MATERIAL   |
| 1         | Extension   | 304 S.S.   |
| 2         | Pin         | AISI 430 F |
| 3         | Bush        | DELRIN     |
| 4         | O-RING      | NBR        |

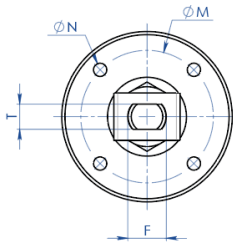
**NOTE:** Code of the stem extension depending from drive's type and valve's connection; to be requested at the order.

**STEM EXTENSION WITH ADDITIONAL SEAL**


(x): A richiesta disponibili diverse misure  
 On request available different sizes



A richiesta disponibile anche la versione con presa per Sniffer  
 Stem extension with sniffer also available on request



| MATERIALS |                    |                          |
|-----------|--------------------|--------------------------|
| PART. N°  | DESCRIPTION        | MATERIAL                 |
| 1         | Extension          | 304 s.s.                 |
| 2         | Pin                | A564 TP.630 (17-4ph)     |
| 3         | Bottom Sealing     | TFM1600                  |
| 4         | O-Ring             | FKM                      |
| 5         | Chevron Ring       | TFM1600                  |
| 6         | Packing Gland Ring | 304 s.s.                 |
| 7         | Spring Washer      | 50CrV4 Galvanized        |
| 8         | Stem Nut           | UNI 3740-1 6S Galvanized |
| 9         | Stop Nut Plate     | 304 s.s.                 |
| 10        | Gasket             | GRAFOIL                  |

| DIMENSIONS |     |      |     |     |       |      |      |
|------------|-----|------|-----|-----|-------|------|------|
| ISO VALVE  | ØA  | ØB   | ØM  | ØN  | F/T   | C    | D    |
| F03        | 36  | 5,5  | 36  | M5  | 10/6  | 20   | 10,2 |
| F04        | 42  | 5,5  | 42  | M5  | 12/8  | 26   | 15,1 |
| F05        | 50  | 6,5  | 50  | M6  | 16/10 | 35   | 21,2 |
| F07        | 70  | 8,5  | 70  | M8  | 22/14 | 47,5 | 28,4 |
| F10        | 102 | 10,5 | 102 | M10 | 30/18 | 61   | 35,2 |

**NOTE:** Code of the spindle extension depending from drive's type and valve's connection; to be requested at the order.

## documents

### Certificati

TA LUFT - MAGNUM & THOR  
ATEX - Ball Valves  
SIL IEC 61508 - MAGNUM & THOR  
FUGITIVE EMISSION DN25 CL.300 T1-T2-T3-M1-M4-M5-M6  
FUGITIVE EMISSION DN100 CL.300 T1-T2-T3-M1-M4-M5-M6  
PED  
UKCA

### Manuali

MANUALE UMAH1000

### Istruzioni

ISTRUZIONI USO 8\_0844-33