

**2 PIECES CARBON STEEL BALL VALVE PN16/40 FLANGED JC RANGE LONG PATTERN  
(DIN 3202-1 F1) PTFE SEAT**

2 pieces split body ball valve JC with full bore for Chemical industries, petrochemical industries, hydraulic installation, heating, water distribution, compressed air.

Ball valve with firesafe certificate ISO 10497 and API 607 to reduce risks in case of fire.

Fugitive emission according to EN 15848-1 :2006 B Class and TA LUFT for an excellent tightness on the stem and to prevent external leakage.

PTFE seat for a temperature up to +230°C.

Compatible with explosive atmosphere, ATEX Zone 1&21 and Zone 2&22 thanks to the double antistatic device.

Handling possible with locking device, gearbox, oval handwheel or stem extension.

Thanks to the ISO 5211 plate, an actuator can be installed on the valve.



**Certificate**  
**3.1**

**NACE**  
**MR01-75**



**JC**  
**VALVES**



PED/2014/68/UE  
BUREAU VERITAS  
Certification



**Size :** DN15 to DN200  
**Connection :** Flanged PN16/40 RF  
**Min Temperature :** -29°C  
**Max Temperature :** +230°C  
**Max Pressure :** 40 Bars up to DN50, 16 bars over  
**Specifications :** PTFE seat  
ISO 5211 mounting pad  
Anti blow-out stem, full bore  
Fire safe ISO 10497 : 2004, API 607 5th, BS 6755 Part 2 and API 6FA

**Materials :** Carbon steel EN 1.0619

\*the installation defects and wear defects are not covered by the guarantee

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**SPECIFICATIONS :**

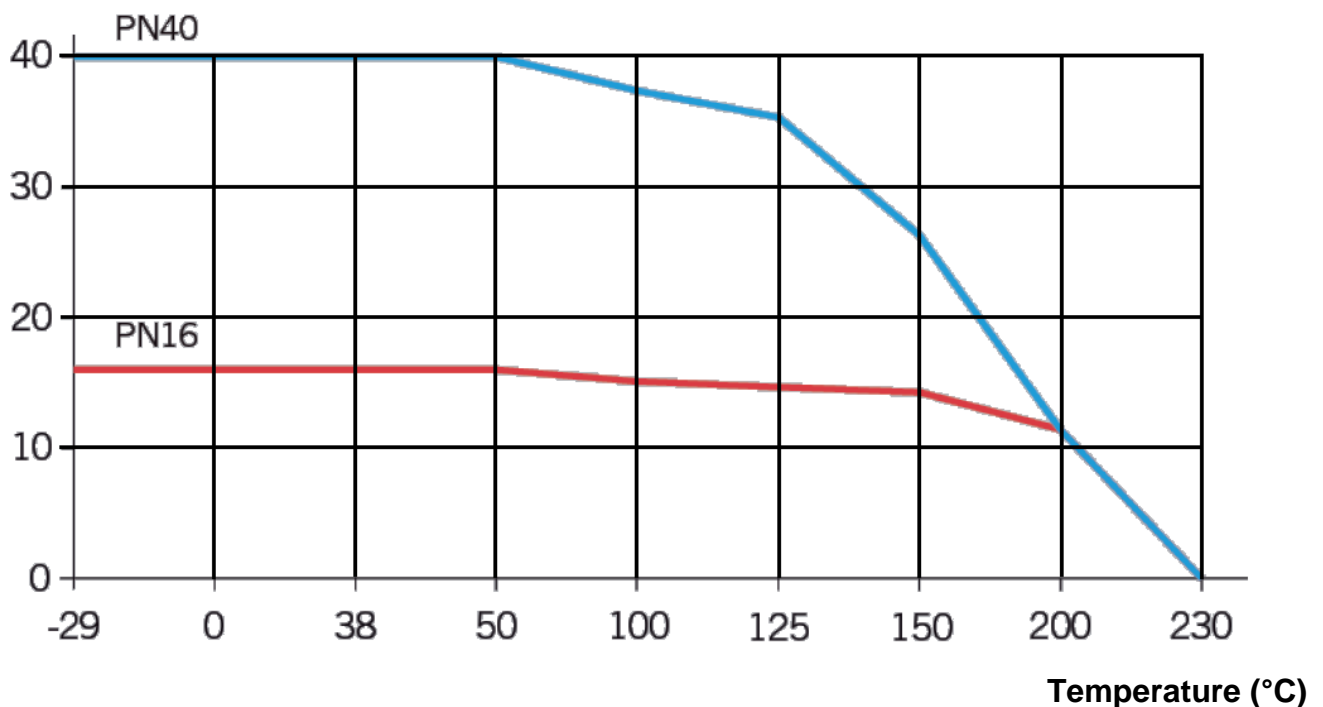
- Full bore
- Anti blow-out stem
- PTFE seat
- Locking device on request
- ISO 5211 mounting pad
- 2 pieces type ( Split body )
- PN40 Flanges R.F. up to DN50, PN16 over
- Antistatic device
- Fire safe ISO 10497 : 2004, API 607 5th, BS 6755 Part.2 and API 6FA
- Fugitive emissions EN 15848-1 : 2006 and TA LUFT VDI 2440
- Graphite packing + FKM O ring on stem
- With exhaust hole in the ball ( located in the top of the ball to avoid overpressure in it )
- Blue painting RAL 5009 color, 15-50µ thickness

**USE :**

- Chemical industries, petrochemical industries, hydraulic installation, heating, water distribution, compressed air
- Min and max Temperature Ts : -29°C to + 230°C
- Max Pressure Ps : 40 bars up to DN50, 16 bars over ( see graph )
- Vacuum  $10^{-2}$  torr
- Compressed air (ambient temperature) : 40 bars maximum up to DN50, 16 bars over
- Steam : 12 bars maximum

**PRESSURE / TEMPERATURE GRAPH ( STEAM EXCLUDED ) :**

**Pressure (Bar)**



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**FLOW COEFFICIENT Kvs (in m<sup>3</sup>/h) :**

| DN                         | 15 | 20 | 25 | 32  | 40  | 50  | 65  | 80   | 100  | 125  | 150  | 200  |
|----------------------------|----|----|----|-----|-----|-----|-----|------|------|------|------|------|
| Kvs ( m <sup>3</sup> / h ) | 20 | 40 | 75 | 130 | 170 | 270 | 550 | 1000 | 1650 | 3000 | 4200 | 9000 |

**TORQUES VALUES (in Nm without safety coefficient) :**

| DN  | BTO* | RTO | ETO | BTC | RTC | ETC* | MAST Stem<br>A479 F316 | MAST Stem<br>A182 F51 | Ps (bars) |
|-----|------|-----|-----|-----|-----|------|------------------------|-----------------------|-----------|
| 15  | 11   | 6   | 7   | 8   | 6   | 9    | 26                     | 57                    | 40        |
| 20  | 14   | 7   | 8   | 11  | 7   | 11   | 26                     | 57                    | 40        |
| 25  | 20   | 10  | 12  | 15  | 10  | 16   | 26                     | 57                    | 40        |
| 32  | 25   | 13  | 15  | 19  | 13  | 20   | 69                     | 151                   | 40        |
| 40  | 33   | 17  | 20  | 25  | 17  | 26   | 85                     | 185                   | 40        |
| 50  | 46   | 23  | 28  | 35  | 23  | 37   | 85                     | 185                   | 40        |
| 65  | 61   | 31  | 37  | 46  | 31  | 49   | 176                    | 386                   | 16        |
| 80  | 97   | 49  | 58  | 73  | 49  | 78   | 246                    | 539                   | 16        |
| 100 | 133  | 67  | 80  | 100 | 67  | 106  | 305                    | 668                   | 16        |
| 125 | 226  | 113 | 136 | 170 | 113 | 181  | 607                    | 1329                  | 16        |
| 150 | 320  | 160 | 192 | 240 | 160 | 256  | 974                    | 2131                  | 16        |
| 200 | 694  | 347 | 416 | 521 | 347 | 555  | 1387                   | 3034                  | 16        |

**RANGE :**

- Carbon steel body ball valve with handle flanged PN40 **Ref. 340AIT** from DN 15 to DN 50
- Carbon steel body ball valve with handle flanged PN16 **Ref. 316AIT** from DN 65 to DN 150
- Carbon steel body ball valve with free stem PN16 **Ref. 316AIT** DN200

**CONNECTION :**

- PN40 Flanges R.F. up to DN50, PN16 over

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**ACCESSORIES :**



- Reinforced locking device


| DN   | 15      | 20 | 25      | 32      | 40      | 50 | 65      | 80      | 100     | 125     | 150     | 200     |
|------|---------|----|---------|---------|---------|----|---------|---------|---------|---------|---------|---------|
| Ref. | 9830120 |    | 9830121 | 9830122 | 9830123 |    | 9830124 | 9830125 | 9830126 | 9830127 | 9830128 | 9830129 |

- Stainless steel handle




| DN   | 15      | 20 | 25 | 32      | 40      | 50 | 65      | 80      | 100     | 125     | 150     |
|------|---------|----|----|---------|---------|----|---------|---------|---------|---------|---------|
| Ref. | 9830513 |    |    | 9830514 | 9830515 |    | 9830516 | 9830517 | 9830518 | 9830519 | 9830520 |

- Stainless steel oval handwheel




| DN   | 15      | 20      | 25 | 32      | 40      | 50 |
|------|---------|---------|----|---------|---------|----|
| Ref. | 9830575 | 9830578 |    | 9830576 | 9830577 |    |

- Gearbox



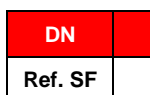
| DN      | 125     | 150     | 200     |
|---------|---------|---------|---------|
| Ref.316 | 9830598 | 9830592 | 9830593 |
| Ref.340 |         |         | 983595  |

- Single stainless steel stem extension 100 mm



| DN      | 15      | 20 | 25 | 32      | 40      | 50      | 65      | 80      | 100     | 125     | 150 |
|---------|---------|----|----|---------|---------|---------|---------|---------|---------|---------|-----|
| Ref. JC | 9810615 |    |    | 9810616 | 9810617 | 9810618 | 9810619 | 9810620 | 9810621 | 9810622 |     |

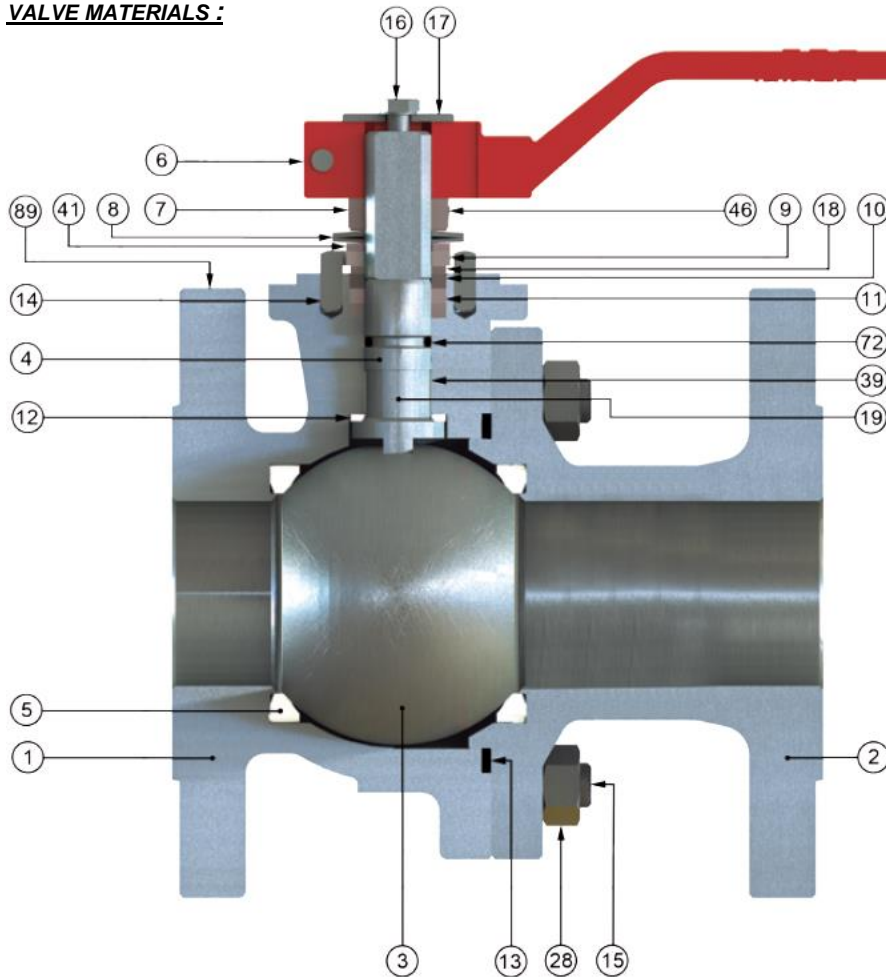
- Stainless steel stem extension 100 mm with ISO plate



| DN      | 15           | 20        | 25        | 32           | 40        | 50        | 65        | 80         | 100        | 125        | 150 | 200 |
|---------|--------------|-----------|-----------|--------------|-----------|-----------|-----------|------------|------------|------------|-----|-----|
| Ref. SF | JCRISO015020 | JCRISO025 | JCRISO032 | JCRISO040050 | JCRISO065 | JCRISO080 | JCRISO100 | JCVSSBI125 | JCVSSBI150 | JCVSSBI200 |     |     |

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**VALVE MATERIALS :**



**Repairability :**



| *Gaskets kit<br>(Item 5, 11, 12, 13, 18, 46 and 72) |         |
|---|---------|
| DN15  | 9804600 |
| DN20  | 9804601 |
| DN25  | 9804602 |
| DN32  | 9804603 |
| DN40  | 9804604 |
| DN50  | 9804605 |
| DN65  | 9804606 |
| DN80  | 9804607 |
| DN100   | 9804608 |
| DN125   | 9804609 |
| DN150   | 9804610 |
| DN200   | 9804611 |

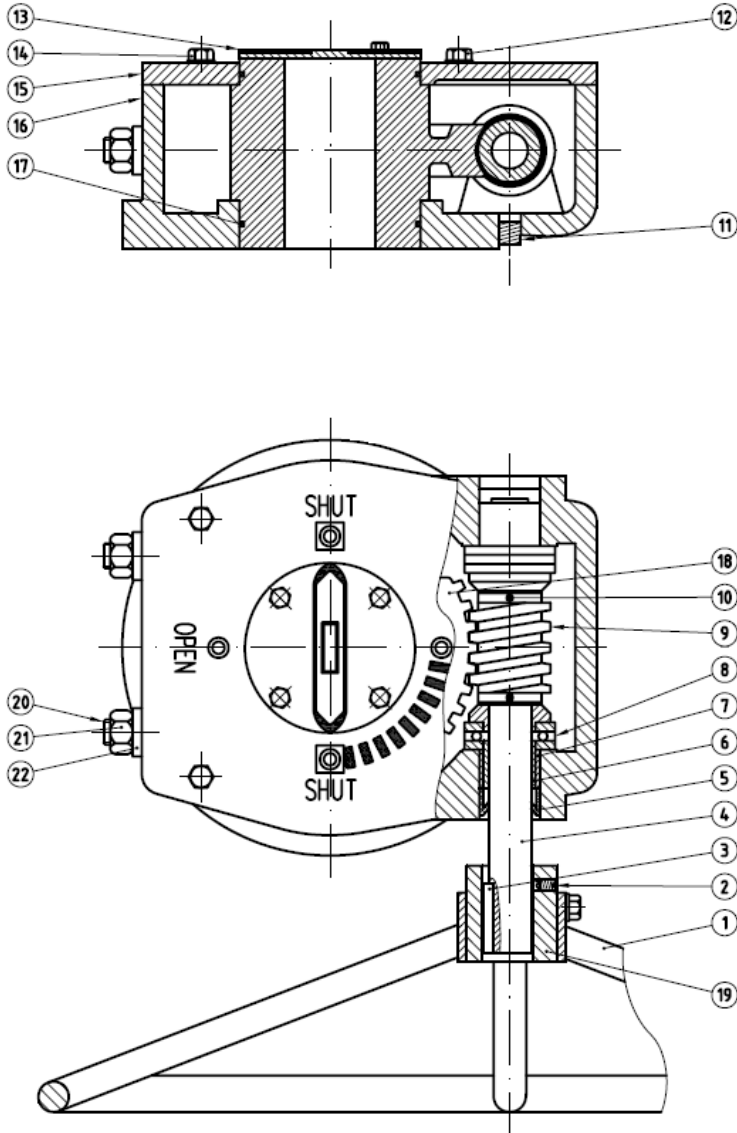
(\* : Included in gaskets kit)

| Item | Designation    | Materials                                |
|------|----------------|--|
| 1    | Body           | EN 1.0619                                |
| 2    | Ends           |  |
| 3    | Ball DN15-25   | ASTM A479 Tp.316                         |
|      | Ball DN 32-200 | Inox ASTM A 351 CF8M                     |
| 4    | Stem           | ASTM A479 Tp.316 or Duplex ASTM A182 F51 |
| 5*   | Seat           | PTFE                                     |
| 6    | Handle         | Carbon steel A216 WCB                    |
| 7    | Packing nut    | Steel                                    |
| 8    | Elastic ring   | Steel                                    |
| 9    | Stop washer    | Steel                                    |
| 10   | Packing gland  | AISI 303                                 |
| 11*  | Packing        | Graphite                                 |
| 12*  | Gasket         | PTFE filled with 25% glass               |

| Item | Designation             | Materials                   |
|------|-------------------------|-----------------------------|
| 13*  | Body spiral seat        | AISI 316L + PTFE + Graphite |
| 14   | Pin                     | Steel                       |
| 15   | Screw (stud DN32-100)   | DIN 933 8.8 zinc dichrom.   |
| 16   | Handle screw            | DIN 933 A4-70               |
| 17   | Washer                  | Zinc plated carbon steel    |
| 18*  | Thrust washer           | PTFE filled with 25% glass  |
| 19   | Antistatic device       | Stainless steel             |
| 28   | Nut (DN32-100)          | DIN 934 8.8 zinc dichrom.   |
| 39   | Stem bushing (DN25-200) | PTFE filled with 25% glass  |
| 41   | Spacer (DN40-200)       | Steel                       |
| 46*  | Washer                  | AISI 304                    |
| 72*  | O ring                  | FKM                         |
| 89   | ID plate                | Stainless steel             |

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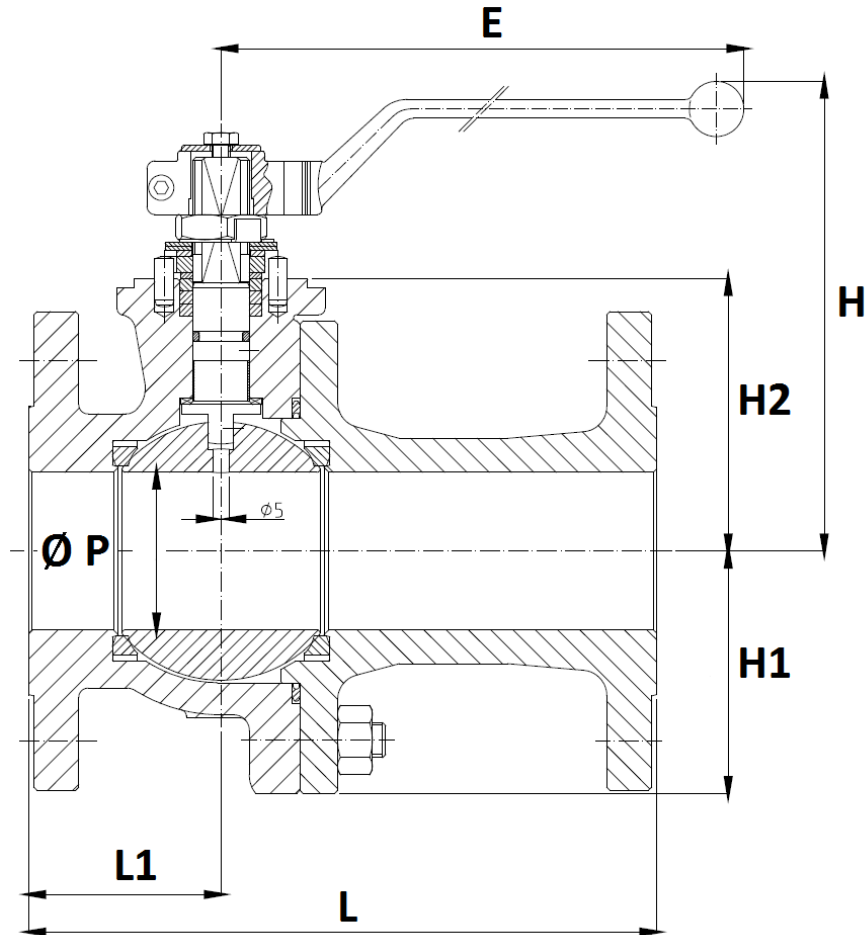
**GEARBOX MATERIALS :**



| Item     | Designation             | Materials     |
|----------|-------------------------|---------------|
| 1        | Handwheel               | Carbon steel  |
| 2        | Screw                   |               |
| 3        | Stem key                | AISI 1045     |
| 4        | Input shaft             |               |
| 5        | Oil seal                | Rubber        |
| 6        | Bearing                 | Cu Base Alloy |
| 7        | Oil bearing             |               |
| 8        | Thrust bearing          | Carbon steel  |
| 9        | Worm                    | AISI 1045     |
| 10       | Pin                     | Carbon steel  |
| 11       | Plug                    |               |
| 12       | Screw                   | Cast iron     |
| 13       | Indicator plate         |               |
| 14       | Screw                   | Cast iron     |
| 15       | Cover                   |               |
| 16       | Housing                 | Rubber        |
| 17       | O ring                  |               |
| 18       | Worm gear               | Ductile iron  |
| 19       | Nut                     | Carbon steel  |
| 20       | Stop screw              |               |
| 21       | Nut                     |               |
| 22       | Hex nut                 |               |
| 23-24    | Spur gear cover+housing | Cast iron     |
| 25       | Seal cover              | Rubber        |
| 26-27-28 | Screw+washer            | Carbon steel  |
| 29       | Gear                    |               |
| 30       | Bearing                 | Cu Base Alloy |
| 31       | Bolt                    | Carbon steel  |
| 32       | Slotted spring pin      |               |
| 33       | Spur gear               |               |
| 34       | Locator pins            |               |

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VALVE SIZE ( in mm ) :

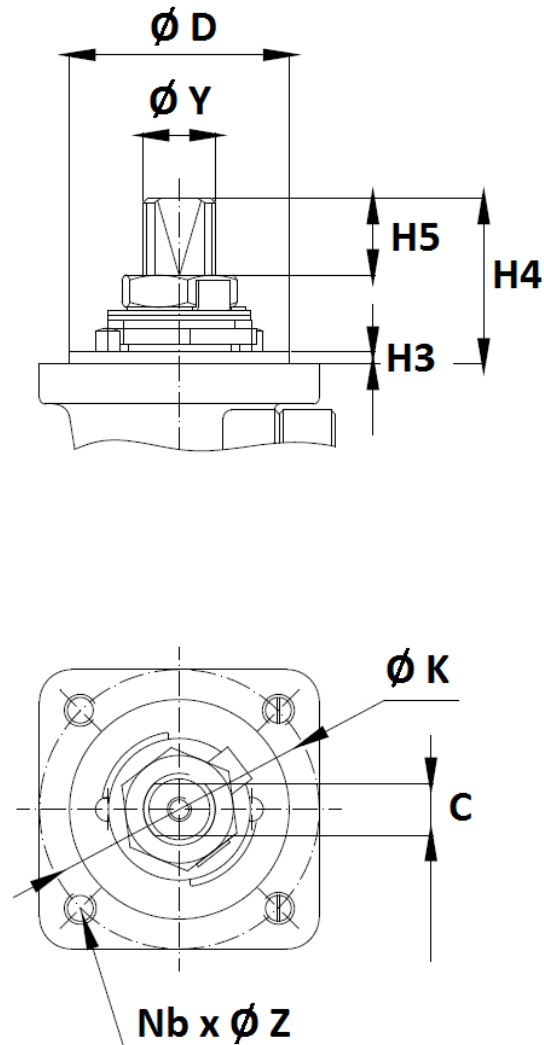


| DN         | 15            | 20            | 25            | 32            | 40            | 50            | 65            | 80            | 100           | 125           | 150           | 200*          |
|------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Ø P        | 15            | 20            | 25            | 32            | 40            | 50            | 65            | 80            | 100           | 125           | 151           | 203           |
| L          | 130           | 150           | 160           | 180           | 200           | 230           | 290           | 310           | 350           | 400           | 480           | 600           |
| L1         | 53            | 52            | 48.5          | 54            | 55            | 61            | 75.5          | 82            | 90.5          | 120           | 135           | 200           |
| E          | 164           | 164           | 164           | 210           | 213           | 213           | 348           | 445           | 495           | 698           | 698           | 868           |
| H          | 111           | 118           | 130           | 131           | 148           | 155           | 169           | 207           | 232           | 265           | 298           | 353           |
| H1         | -             | -             | -             | -             | -             | -             | -             | -             | 118           | 138           | 160           | 208           |
| H2         | 46            | 53            | 58            | 66.5          | 76            | 83.5          | 97            | 111           | 133           | 156           | 183           | 233           |
| Weig. (Kg) | 3             | 3.8           | 5.2           | 7.6           | 9.6           | 12.9          | 18.3          | 24            | 36            | 58            | 81            | -             |
| Ref.       | 340AIT<br>015 | 340AIT<br>020 | 340AIT<br>025 | 340AIT<br>032 | 340AIT<br>040 | 340AIT<br>050 | 316AIT<br>065 | 316AIT<br>080 | 316AIT<br>100 | 316AIT<br>125 | 316AIT<br>150 | 316AIT<br>200 |

\* Handle on request for DN200 (free stem in standard)

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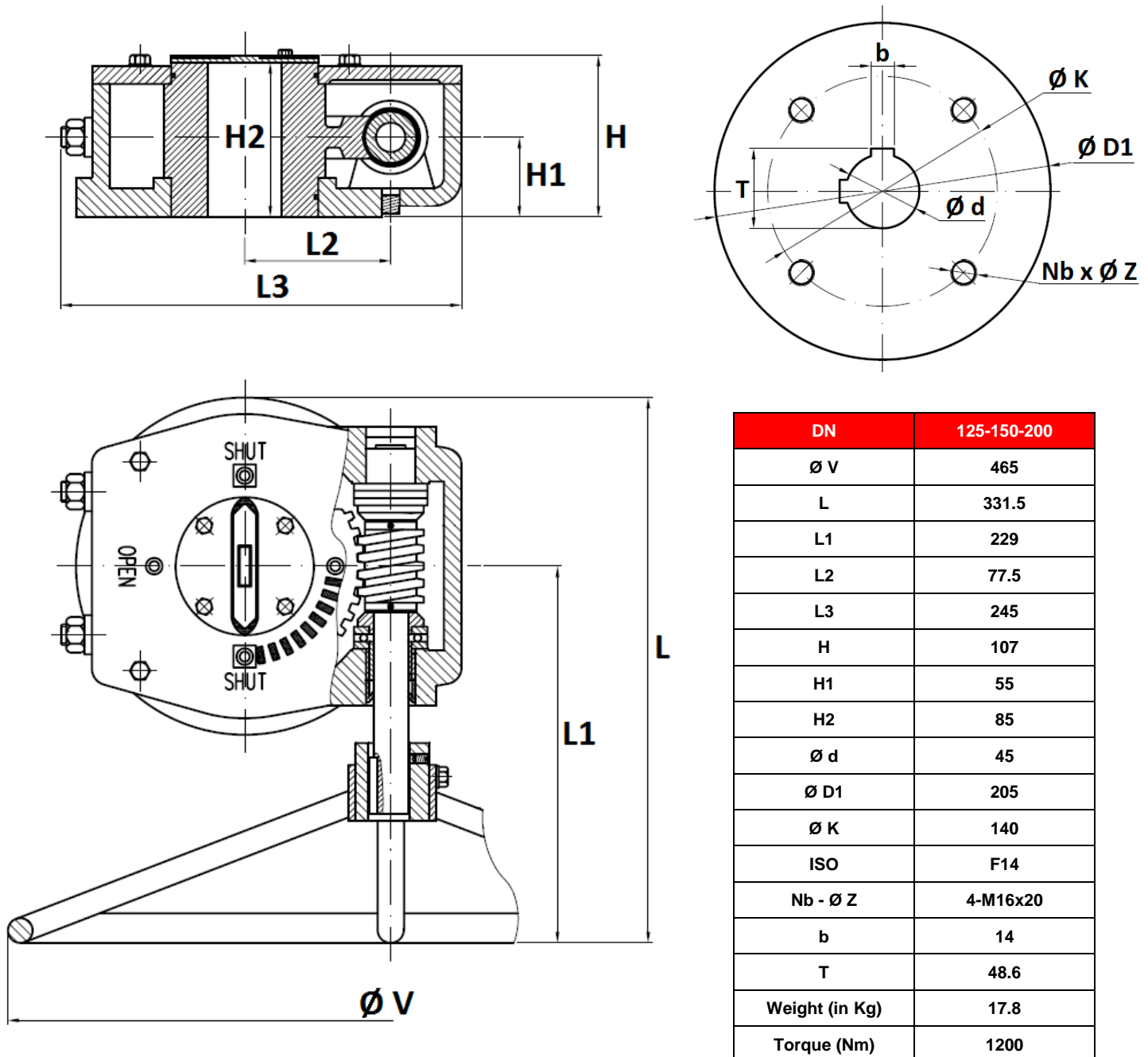
**ISO MOUNTING PAD AND STEM SIZE ( in mm ) :**



| DN      | 15      | 20     | 25     | 32      | 40      | 50     | 65      | 80      | 100     | 125     | 150     | 200     |
|---------|---------|--------|--------|---------|---------|--------|---------|---------|---------|---------|---------|---------|
| H3      | 1.5     |        |        |         | 3       |        |         |         |         |         |         | 4       |
| H4      | 11.2    | 14.7   | 22.7   | 32      | 41.5    | 41.5   | 44      | 44.5    | 56.5    | 56      | 68      | 72      |
| H5      | 5       | 8.5    | 9.5    | 13      | 18.3    | 18.3   | 18.6    | 18.6    | 27.8    | 24.7    | 37.1    | 36.5    |
| C       | 9       | 9      | 9      | 12      | 13      | 13     | 16      | 18      | 20      | 25      | 29      | 32      |
| Ø Y     | M12x1.5 |        |        | M16x1.5 | M18x1.5 |        | M22x1.5 | M25x1.5 | M28x1.5 | M35x2   | M40x2   | M45x2   |
| Ø D     | 35      |        |        |         | 55      |        |         | 70      |         | 85      |         | 100     |
| Ø K     | 50      | 50     | 50     | 50      | 70      | 70     | 70      | 102     | 102     | 125     | 125     | 140     |
| ISO     | F05     | F05    | F05    | F05     | F07     | F07    | F07     | F10     | F10     | F12     | F12     | F14     |
| N x Ø Z | 4 x M6  | 4 x M6 | 4 x M6 | 4 x M6  | 4 x M8  | 4 x M8 | 4 x M8  | 4 x M10 | 4 x M10 | 4 x M12 | 4 x M12 | 4 x M16 |

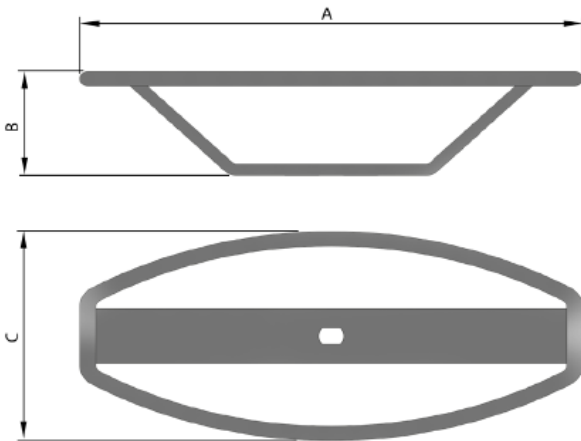
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**GEARBOX SIZE DN125-200 ( in mm ) :**



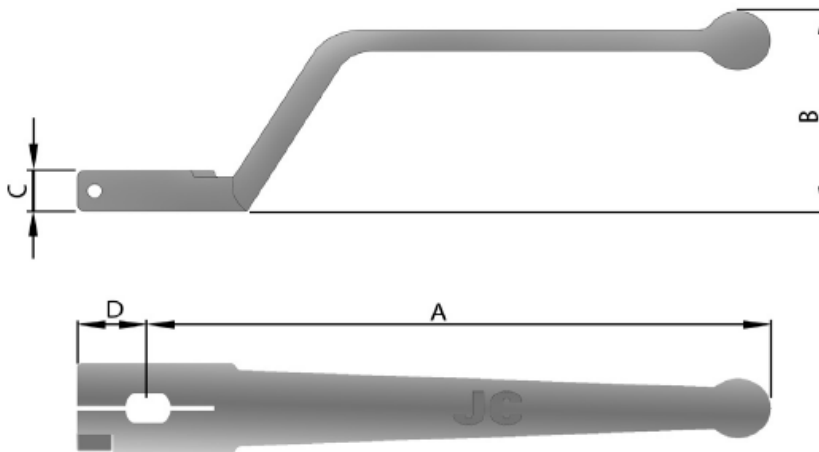
**2 PIECES CARBON STEEL BALL VALVE PN16/40 FLANGED JC RANGE LONG PATTERN  
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**OVAL HANDWHEEL SIZE DN15-50 ( in mm ) :**



| DN          | 15      | 20      | 25   | 32      | 40      | 50   |
|-------------|---------|---------|------|---------|---------|------|
| A           | 160     | 160     | 160  | 200     | 216     | 216  |
| B           | 54      | 54      | 54   | 56      | 57      | 57   |
| C           | 75      | 75      | 75   | 90      | 100     | 100  |
| Weight (Kg) | 0.25    | 0.25    | 0.25 | 0.5     | 0.55    | 0.55 |
| Ref.        | 9830575 | 9830578 |      | 9830576 | 9830577 |      |

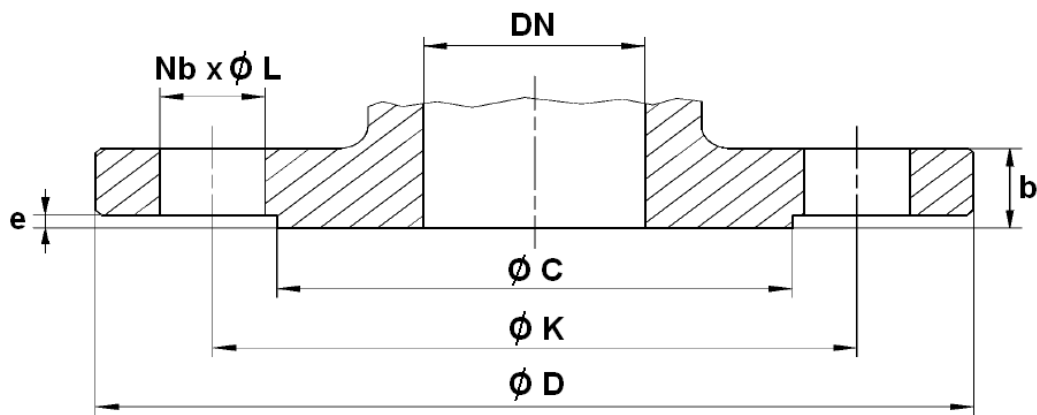
**STAINLESS STEEL HANDLE SIZE DN15-200 ( in mm ) :**



| DN          | 15      | 20 | 25      | 32      | 40    | 50      | 65      | 80      | 100     | 125     | 150  | 200   |
|-------------|---------|----|---------|---------|-------|---------|---------|---------|---------|---------|------|-------|
| A           | 163.5   |    | 300     |         | 212.5 |         | 347.5   | 445     | 495     | 697.5   |      | 867.5 |
| B           | 58.5    |    | 45      | 48.5    |       | 46.5    | 70      | 70      | 77.5    | 84.5    | 84.5 |       |
| C           | 12      |    | 16      | 21      |       | 20      |         | 29      | 30      | 40      |      |       |
| D           | 18.5    |    | 22      | 25.5    |       |         | 33      |         | 47      |         | 55   |       |
| Weight (Kg) | 0.2     |    | 0.3     | 0.53    |       | 0.63    | 1.52    | 1.85    | 2.95    | 3.4     | 4.6  |       |
| Ref.        | 9830513 |    | 9830514 | 9830515 |       | 9830516 | 9830517 | 9830518 | 9830519 | 9830520 |      |       |

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**FLANGES SIZE ( in mm ) :**



| DN       | 15     | 20     | 25     | 32     | 40     | 50     | 65     | 80     | 100    | 125    | 150    | 200     |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| Ø C      | 45     | 58     | 68     | 78     | 88     | 102    | 122    | 138    | 158    | 188    | 212    | 268     |
| Ø D      | 95     | 105    | 115    | 140    | 150    | 165    | 185    | 200    | 220    | 250    | 285    | 340     |
| Ø K      | 65     | 75     | 85     | 100    | 110    | 125    | 145    | 160    | 180    | 210    | 240    | 295     |
| Nb x Ø L | 4 x 14 | 4 x 14 | 4 x 14 | 4 x 18 | 4 x 18 | 4 x 18 | 4 x 18 | 8 x 18 | 8 x 18 | 8 x 18 | 8 x 22 | 12 x 22 |
| b        | 16     | 18     | 18     | 18     | 18     | 20     | 18     | 20     | 20     | 22     | 22     | 24      |
| e        | 2      | 2      | 2      | 2      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3       |

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**STANDARDS :**

- Manufacturer certified ISO 9001:2015 and ISO 14001 : 2015
- DIRECTIVE 2014/68/EU: For liquids or Gas of Group 1
  - DN15-25: Article 4, §3 (SEP), no CE marking
  - DN32: Risk category I, CE marking
  - DN40-50: Risk category II, CE 0056 marking
  - DN65-80: Risk category I, CE marking
  - DN100-200: Risk category II, CE 0056 marking
- Certificate 3.1 on request
- Valve designing according to EN 1983 – ISO 17292 and EN 12516
- Materials according to NACE MR 01-75
- Pressure Tests according to EN 12266-1, Rate A
- Marking according to EN 19
- Fire safe according to ISO 10497 : 2004, API 607 5th, BS6755 Part 2, and API 6FA 1994
- Fugitive Emissions according to EN 15848-1 : 2006 B Class and TA LUFT VDI 2440
- SIL2 according to IEC/EN 61508, SIL 3 possible according to the type of installation
- Flanges R.F. type B1 according to EN 1092-1 PN16/40
- Shell finishing quality : MSS SP 55
- ISO 5211 mounting pad
- Length according to EN 558 series 1 ( long pattern DIN 3202-1 F1 )
- ATEX Group II Category 2 G/2Dc Zone 1 & 21 Zone 2 & 22 ( optional marking ) up to DN200 according to directive 2014/34/EU
- Russian certificate TRCU 10, TRCU 12 and TRCU 32 (EAC marking and declaration **on request**)

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The customer must check the right choice of the products with the real service conditions.