

# FLAPCON®

Tomorrow's Safety Today

## FBA202-BS BALL VALVE



Two Pieces Body  
Lever Operation  
ISO 5211 Top Flange  
DIN 3202-F4/F5



ISO 9001:2015 ISO 14001:2015 ISO 45001:2018

ACCREDITED  
Management System  
Certification Body  
MSCB-135



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more than  
**Flow Control**

## ABOUT FLAPCON

### Company Profile

As a Flapcon Family;

Based on our knowledge and experience gained in the field of valves and automation for over 17 years, we meet customer needs with the best solution applications. Flapcon was established in 2017 to meet the valve and actuator needs of industrial users with accurate, timely and highest quality solutions.

Flapcon was established to bring industrial valves - actuators and automation technology equipment together with industrial users. We produce high quality solutions in the design, manufacturing and sales of manual and automatic process valves for all industry areas. With our comprehensive technical knowledge and experienced staff, we produce solutions for our customers to meet most valve and actuator requirements.

We aim to be a constantly preferred brand thanks to our high quality products compiled according to the needs of the processes and our competitive pricing policy.

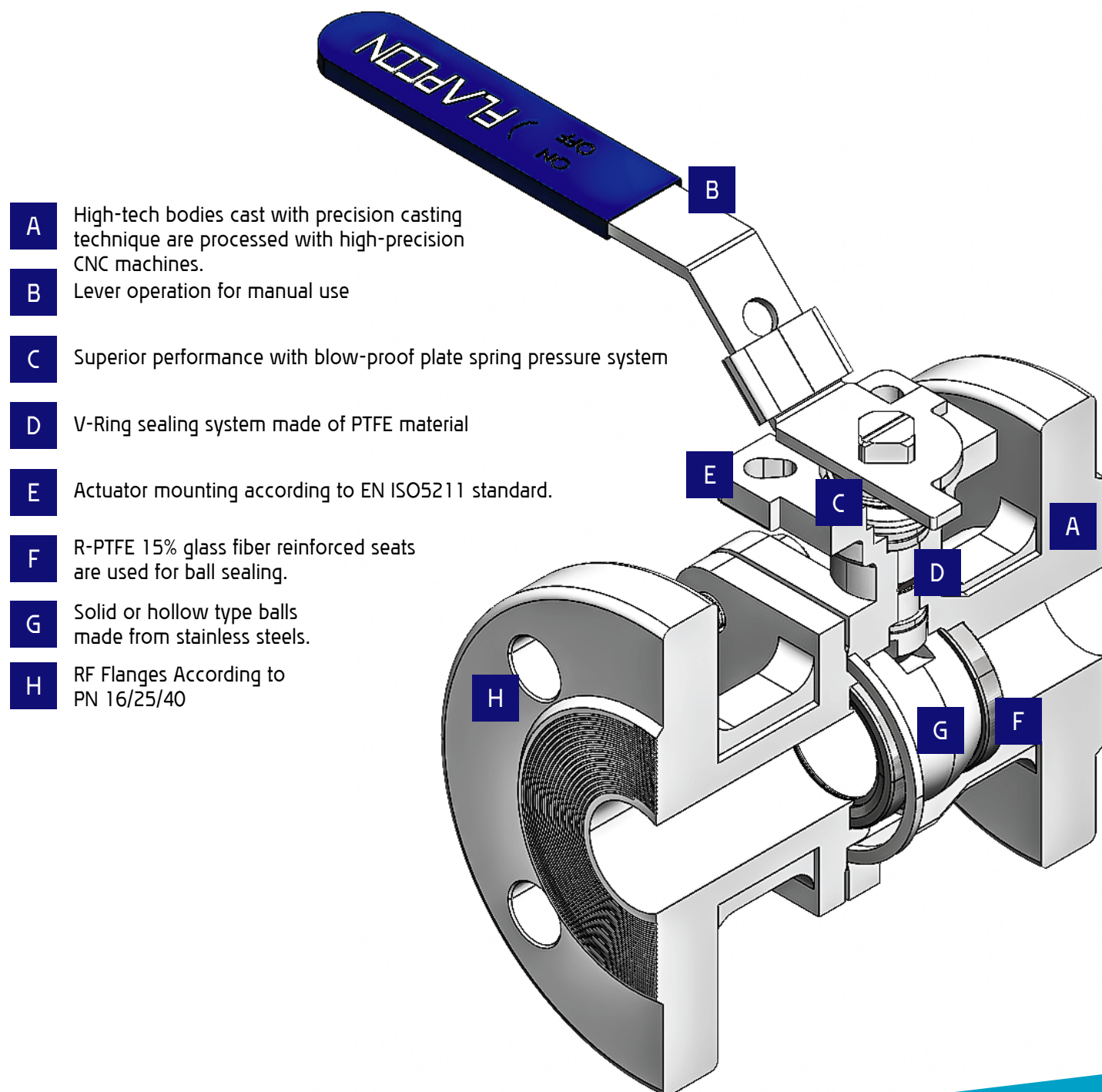
Our products; It is used in nearly every industry including Oil & Gas, Refining, Petrochemical, Chemical Processing, Pulp & Paper, Mining, Transportation, Food & Beverage, Pharmaceutical, Marine, HVAC, Drinking and Wastewater treatment and more.

Kind Regards

**FLAPCON VALVES & AUTOMATION SYSTEMS CO. LTD.**

## FBA 202-BS SERIES BALL VALVES

### Performance Features



## FBA 202-BS SERIES BALL VALVES

### Technical Literature

#### A - Body

FBA202-BS Series ball valves have a two pieces construction with investment castings.

#### B - Body

FBA202-BS series ball valves are produced with lever control as standard and are not compatible with actuator use.

#### C - Plate Springs

The plate spring system ensures shaft sealing by applying constant pressure to the shaft. The plate springs provide constant pressure to the Teflon sealing unit located in the shaft neck. Additionally, a gland maintains this pressure, eliminating the risk of explosion. An anti-static device is available upon request.

#### D - V-Ring System

Packings with a V-shaped bearing create a concentric coating under the pressure of the plate spring. This increases the adhesion of the gasket to the body, preventing leakage.

#### E - Top Flange

FBA202-BS Series ball valves are produced with lever control as standard and are compatible with EN ISO5211 top flange to actuator use.

#### F - Ball Seats

Teflon materials reinforced with 15% glass fiber reinforcement are machined with high precision on CNC machines. When the housing covers are tightened with bolts, these seats fit perfectly onto the ball surface. As pressure increases, sealing is achieved.

#### G - Ball

Balls are manufactured from solid stainless steel up to DN32 as standard. Larger diameters are manufactured as hollow. However, all balls can be manufactured as solid upon request.

#### H - Ends

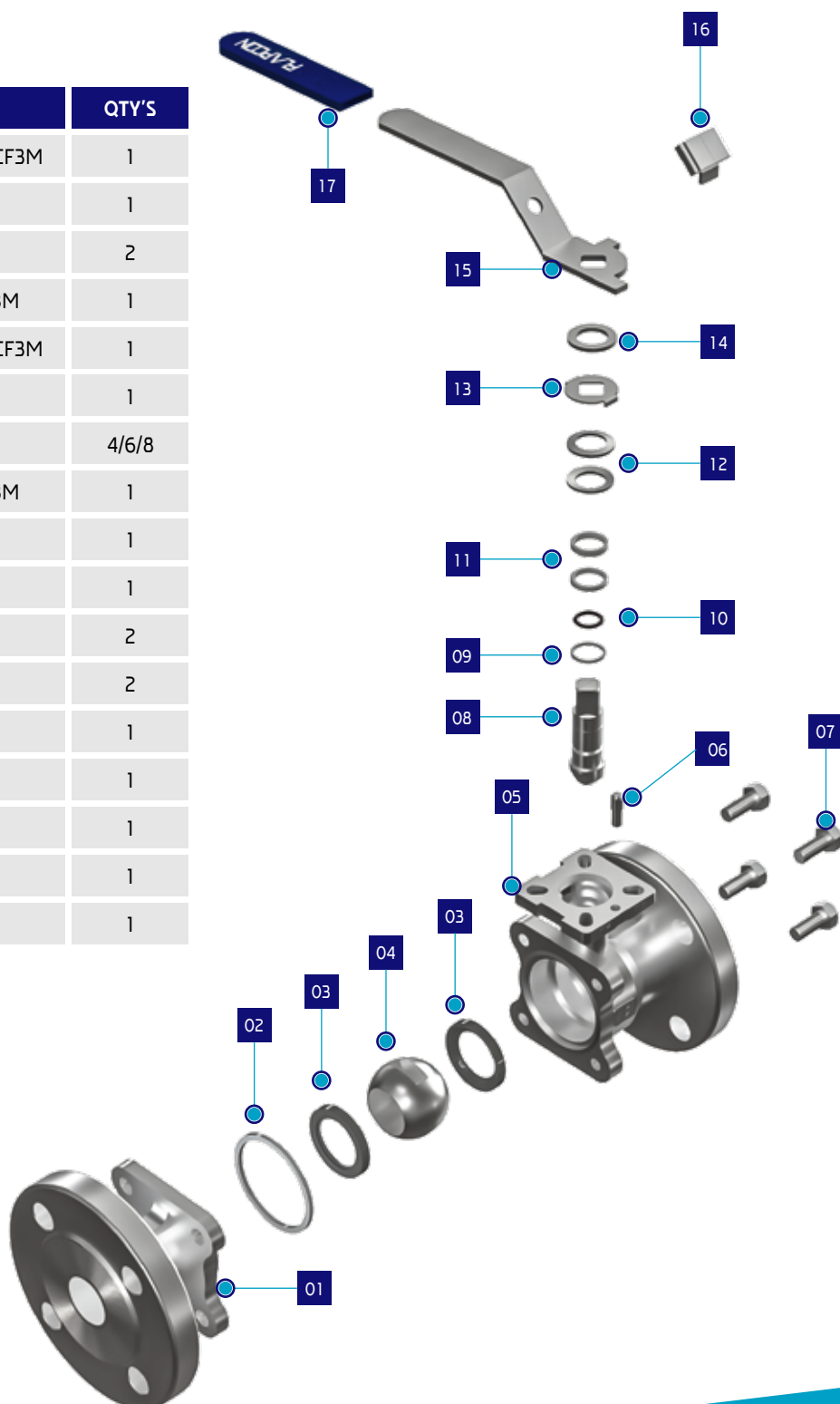
FBA202-BS series ball valves are manufactured with RF PN16~40 Flanged.

| SPECIFICATIONS      | DESCRIPTIONS                                                                                              |
|---------------------|-----------------------------------------------------------------------------------------------------------|
| Dimensions          | DN15 ~ DN200 (NPS 1/2" ~ NPS 8")                                                                          |
| Pressure Class      | PN 16 ~ 40 (232 ~ 580 PSI) , ASME B16.5 150Lb / 300 Lb                                                    |
| Vacuum              | -760 mm/HG                                                                                                |
| Temperature Ratings | -25 °C ~ +180 °C (-13 °F ~ 356 °F)                                                                        |
| Face to Face        | EN 558-1 Series 27: DIN 3202-F4 (DN15 ~ 100) / DIN 3202-F5 (DN125 ~ 200)<br>ASME B16.10 : 150 Lb / 300 Lb |
| Materials           | Investment casting for body & caps                                                                        |

## FBA 202-BS SERIES BALL VALVES

### Part List "DN15 ~ 100"

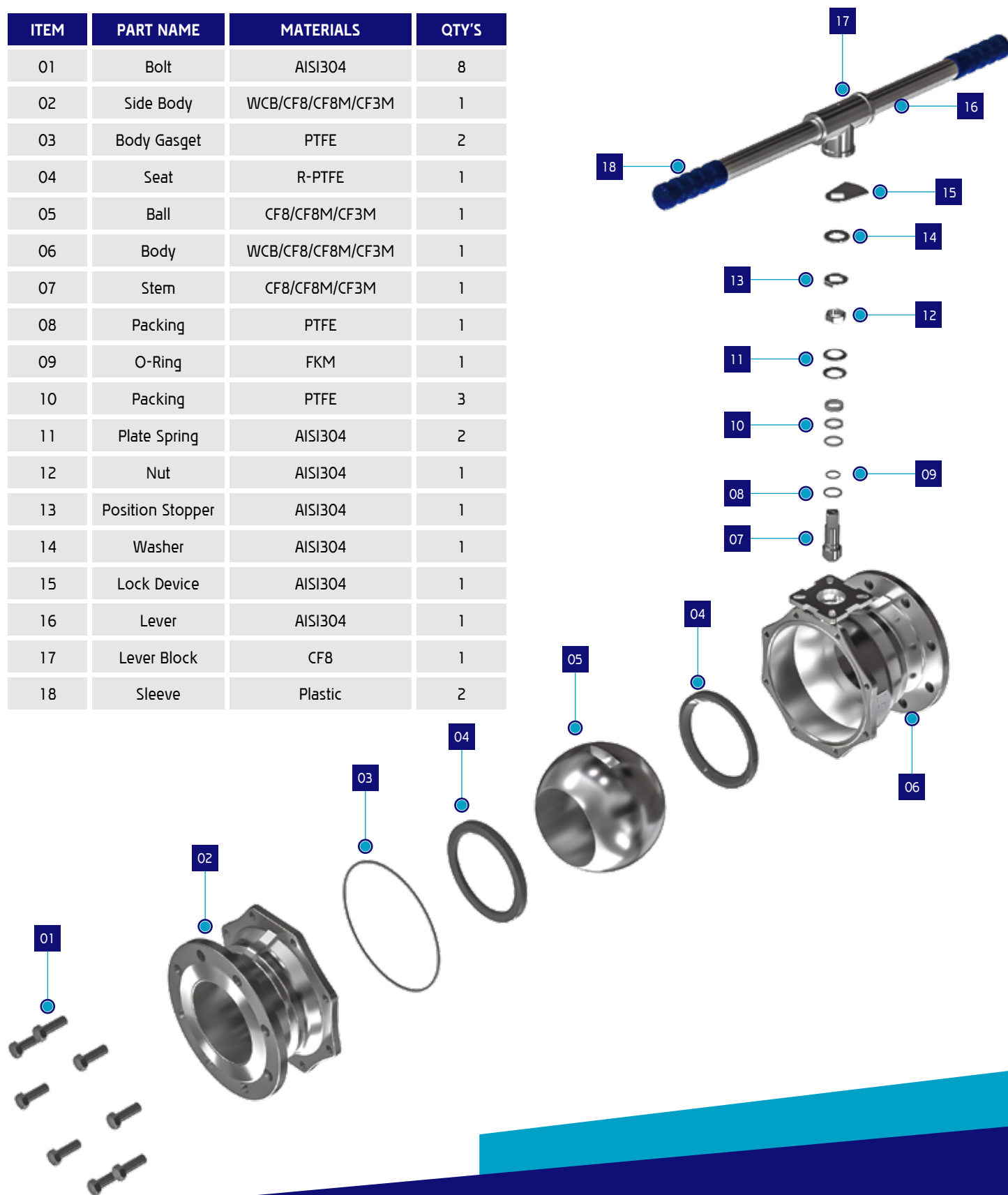
| ITEM | PART NAME        | MATERIALS         | QTY'S |
|------|------------------|-------------------|-------|
| 01   | Side Body        | WCB/CF8/CF8M/CF3M | 1     |
| 02   | Body Gasget      | R-PTFE            | 1     |
| 03   | Seat             | R-PTFE            | 2     |
| 04   | Ball             | CF8/CF8M/CF3M     | 1     |
| 05   | Body             | WCB/CF8/CF8M/CF3M | 1     |
| 06   | Stop Pin         | AISI304           | 1     |
| 07   | Bolt             | AISI304           | 4/6/8 |
| 08   | Stem             | CF8/CF8M/CF3M     | 1     |
| 09   | Packing          | PTFE              | 1     |
| 10   | O-Ring           | FKM               | 1     |
| 11   | Packing          | PTFE              | 2     |
| 12   | Plate Spring     | AISI304           | 2     |
| 13   | Position Stopper | AISI304           | 1     |
| 14   | Washer           | AISI304           | 1     |
| 15   | Lever            | AISI304           | 1     |
| 16   | Lock Device      | AISI304           | 1     |
| 17   | Sleeve           | Plastic           | 1     |



## FBA 202-BS SERIES BALL VALVES

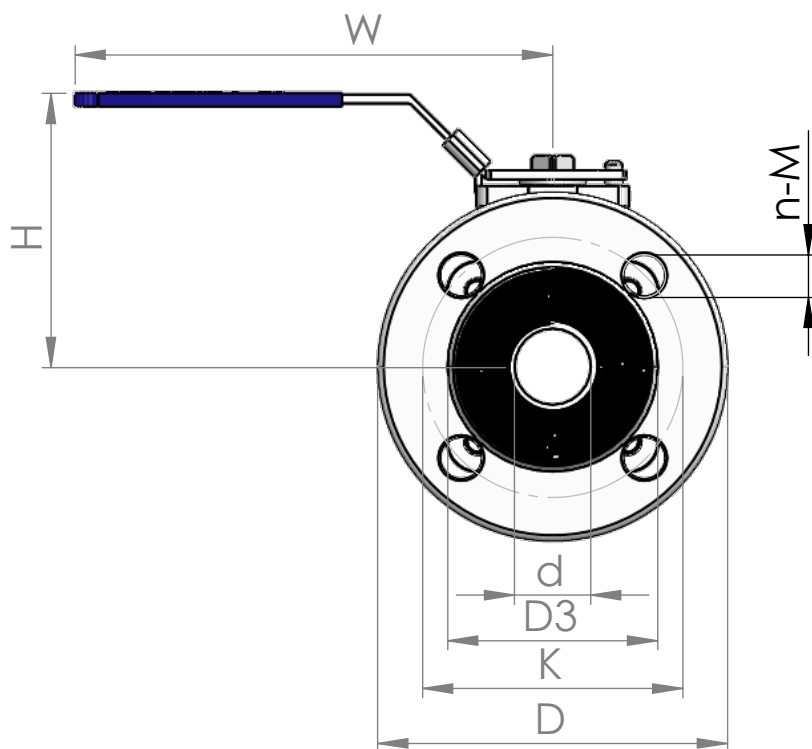
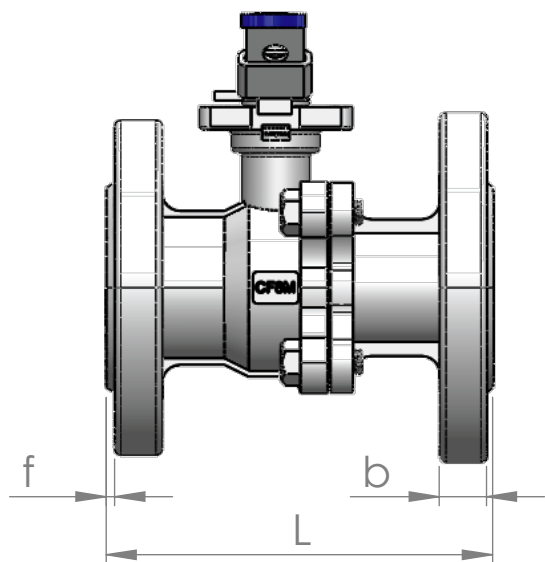
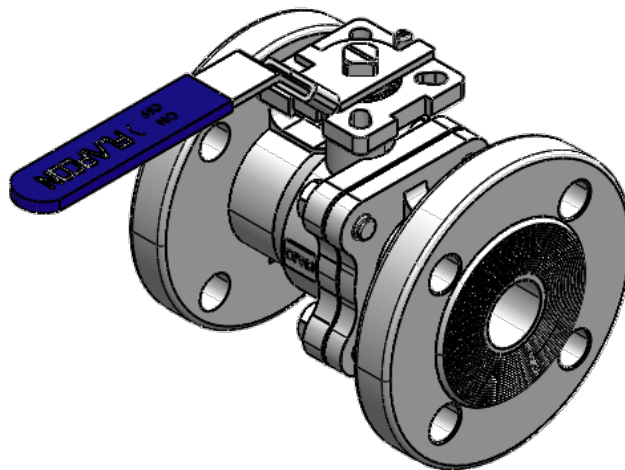
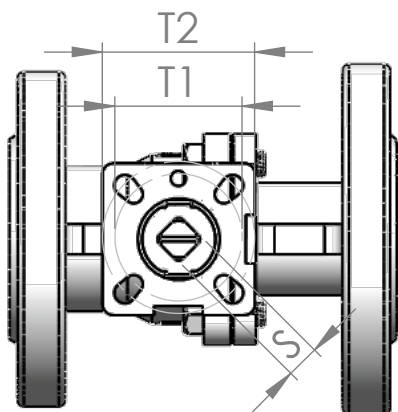
### Part List "DN15 ~ 100"

| ITEM | PART NAME        | MATERIALS         | QTY'S |
|------|------------------|-------------------|-------|
| 01   | Bolt             | AISI304           | 8     |
| 02   | Side Body        | WCB/CF8/CF8M/CF3M | 1     |
| 03   | Body Gasget      | PTFE              | 2     |
| 04   | Seat             | R-PTFE            | 1     |
| 05   | Ball             | CF8/CF8M/CF3M     | 1     |
| 06   | Body             | WCB/CF8/CF8M/CF3M | 1     |
| 07   | Stem             | CF8/CF8M/CF3M     | 1     |
| 08   | Packing          | PTFE              | 1     |
| 09   | O-Ring           | FKM               | 1     |
| 10   | Packing          | PTFE              | 3     |
| 11   | Plate Spring     | AISI304           | 2     |
| 12   | Nut              | AISI304           | 1     |
| 13   | Position Stopper | AISI304           | 1     |
| 14   | Washer           | AISI304           | 1     |
| 15   | Lock Device      | AISI304           | 1     |
| 16   | Lever            | AISI304           | 1     |
| 17   | Lever Block      | CF8               | 1     |
| 18   | Sleeve           | Plastic           | 2     |



## FBA 202-BS SERIES BALL VALVES

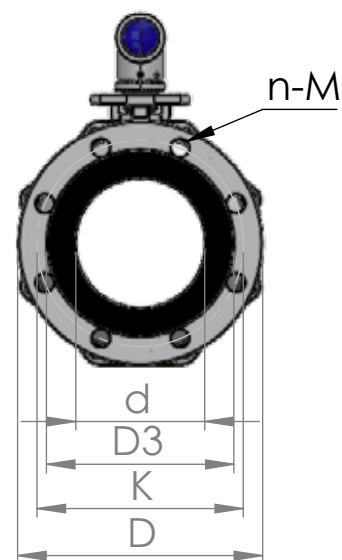
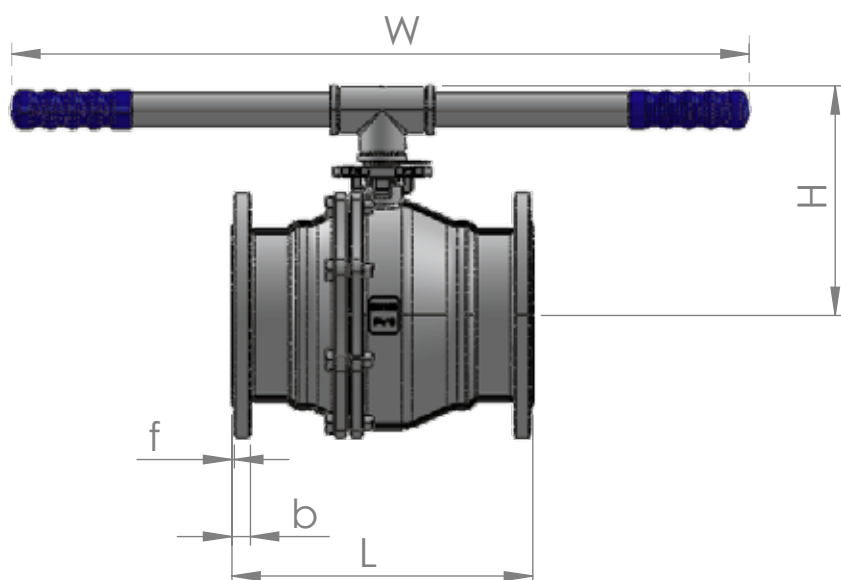
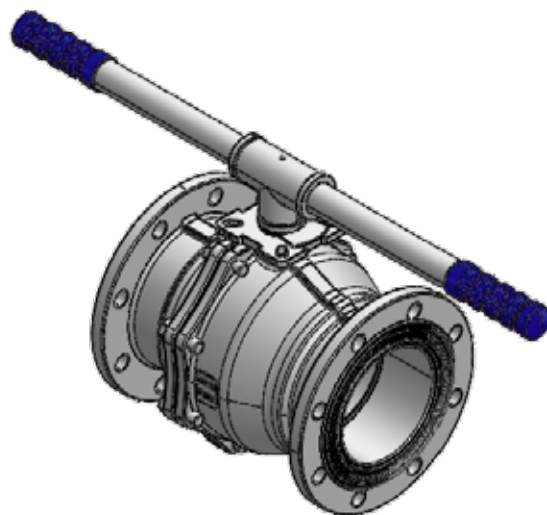
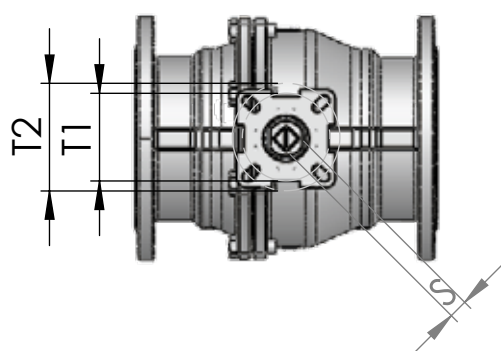
Technical Drawing "DN15 ~ 100"





## FBA 202-BS SERIES BALL VALVES

Technical Drawing "DN125 ~ 200"





## FBA 202-BS SERIES BALL VALVES

Dimensions in "mm" DIN EN 1092-1 PN 16 ~ 40

| DN  | INCH   | PN    | L   | d   | D3  | K   | D   | n-M    | b  | f | H   | W   | T1  | T2  | S     | Nm  |
|-----|--------|-------|-----|-----|-----|-----|-----|--------|----|---|-----|-----|-----|-----|-------|-----|
| 15  | 1/2"   | 10~40 | 115 | 15  | 45  | 65  | 95  | 4-Ø14  | 16 | 2 | 82  | 117 | F03 | F04 | 9X9   | 5   |
| 20  | 3/4"   | 10~40 | 120 | 20  | 58  | 75  | 105 | 4-Ø14  | 18 | 2 | 87  | 117 | F03 | F04 | 9X9   | 8   |
| 25  | 1"     | 10~40 | 125 | 25  | 68  | 85  | 115 | 4-Ø14  | 18 | 2 | 90  | 164 | F04 | F05 | 11X11 | 10  |
| 32  | 1-1/4" | 10~40 | 130 | 32  | 78  | 100 | 140 | 4-Ø18  | 18 | 2 | 100 | 164 | F04 | F05 | 11X11 | 14  |
| 40  | 1-1/2" | 10~40 | 140 | 40  | 88  | 110 | 150 | 4-Ø18  | 18 | 3 | 116 | 203 | F05 | F07 | 14X14 | 18  |
| 50  | 2"     | 10~40 | 150 | 50  | 102 | 125 | 165 | 4-Ø18  | 20 | 3 | 125 | 203 | F05 | F07 | 14X14 | 25  |
| 65  | 2-1/2" | 10~16 | 170 | 65  | 122 | 145 | 185 | 4-Ø18  | 18 | 3 | 164 | 255 | F07 | F10 | 17X17 | 48  |
|     |        | 25~40 |     |     |     |     |     | 8-Ø18  | 22 |   |     |     |     |     |       |     |
| 80  | 3"     | 10~16 | 180 | 80  | 138 | 160 | 200 | 8-Ø18  | 20 | 3 | 174 | 255 | F07 | F10 | 17X17 | 75  |
|     |        | 25~40 |     |     |     |     |     |        | 24 |   |     |     |     |     |       |     |
| 100 | 4"     | 10~16 | 190 | 100 | 158 | 180 | 220 | 8-Ø18  | 20 | 3 | 200 | 302 | F07 | F10 | 17X17 | 110 |
|     |        | 25~40 |     |     | 162 | 190 | 235 | 8-Ø22  | 24 |   |     |     |     |     |       |     |
| 125 | 5"     | 10~16 | 325 | 125 | 188 | 210 | 250 | 8-Ø18  | 22 | 3 | 260 | 600 | F10 | F12 | 22X22 | 200 |
|     |        | 25~40 |     |     |     | 220 | 270 | 8-Ø26  | 26 |   |     |     |     |     |       |     |
| 150 | 6"     | 10~16 | 350 | 150 | 212 | 240 | 285 | 8-Ø22  | 22 | 3 | 278 | 600 | F10 | F12 | 22X22 | 300 |
|     |        | 25~40 |     |     | 218 | 250 | 300 | 8-Ø26  | 28 |   |     |     |     |     |       |     |
| 200 | 8"     | 10~16 | 400 | 200 | 268 | 295 | 340 | 12-Ø22 | 24 | 3 | 340 | 800 | F12 | F14 | 27X27 | 400 |
|     |        | 25~40 |     |     | 285 | 320 | 375 | 12-Ø30 | 34 |   |     |     |     |     |       |     |

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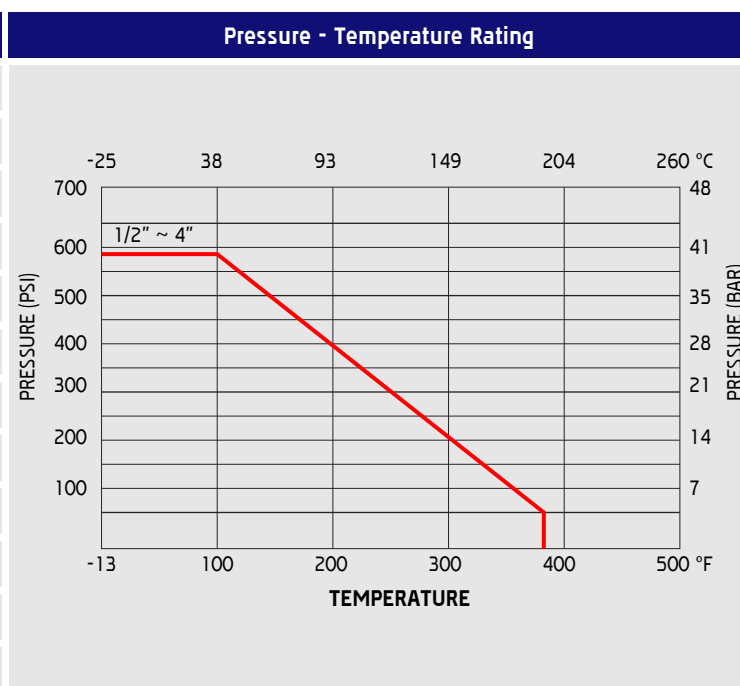
Dimensions in "mm" ASME B16.5 150Lb / 300 Lb

| DN  | INCH   | PN    | L   | d   | D3  | K     | D   | n-M    | b    | f | H   | W   | T1  | T2  | S     | Nm  |
|-----|--------|-------|-----|-----|-----|-------|-----|--------|------|---|-----|-----|-----|-----|-------|-----|
| 15  | 1/2"   | 150Lb | 108 | 15  | 35  | 60,5  | 89  | 4-Ø15  | 11   | 2 | 82  | 117 | F03 | F04 | 9X9   | 5   |
|     |        | 300Lb | 140 |     |     | 66,5  | 95  |        | 14,5 |   |     |     |     |     |       |     |
| 20  | 3/4"   | 150Lb | 117 | 20  | 43  | 70    | 98  | 4-Ø15  | 11   | 2 | 87  | 117 | F03 | F04 | 9X9   | 8   |
|     |        | 300Lb | 152 |     |     | 82,5  | 117 | 4-Ø19  | 16   |   |     |     |     |     |       |     |
| 25  | 1"     | 150Lb | 127 | 25  | 51  | 79,5  | 108 | 4-Ø15  | 12   | 2 | 90  | 164 | F04 | F05 | 11X11 | 10  |
|     |        | 300Lb | 165 |     |     | 89    | 124 | 4-Ø19  | 17,5 |   |     |     |     |     |       |     |
| 32  | 1-1/4" | 150Lb | 140 | 32  | 64  | 89    | 117 | 4-Ø15  | 13   | 2 | 100 | 164 | F04 | F05 | 11X11 | 14  |
|     |        | 300Lb | 178 |     |     | 98,5  | 133 | 4-Ø19  | 19,5 |   |     |     |     |     |       |     |
| 40  | 1-1/2" | 150Lb | 165 | 40  | 73  | 98,5  | 127 | 4-Ø15  | 15   | 2 | 116 | 203 | F05 | F07 | 14X14 | 18  |
|     |        | 300Lb | 190 |     |     | 114,5 | 156 | 4-Ø22  | 21   |   |     |     |     |     |       |     |
| 50  | 2"     | 150Lb | 178 | 50  | 92  | 120,5 | 152 | 4-Ø19  | 16   | 2 | 125 | 203 | F05 | F07 | 14X14 | 25  |
|     |        | 300Lb | 216 |     |     | 127   | 165 | 8-Ø19  | 22,5 |   |     |     |     |     |       |     |
| 65  | 2-1/2" | 150Lb | 190 | 65  | 105 | 139,5 | 178 | 4-Ø19  | 18   | 2 | 164 | 255 | F07 | F10 | 17X17 | 48  |
|     |        | 300Lb | 241 |     |     | 149   | 190 | 8-Ø22  | 25,5 |   |     |     |     |     |       |     |
| 80  | 3"     | 150Lb | 203 | 80  | 127 | 152,5 | 190 | 4-Ø19  | 19   | 2 | 174 | 255 | F07 | F10 | 17X17 | 75  |
|     |        | 300Lb | 283 |     |     | 168,5 | 210 | 8-Ø22  | 29   |   |     |     |     |     |       |     |
| 100 | 4"     | 150Lb | 229 | 100 | 157 | 190,5 | 229 | 8-Ø19  | 24   | 2 | 200 | 302 | F07 | F10 | 17X17 | 110 |
|     |        | 300Lb | 305 |     |     | 200   | 254 | 8-Ø22  | 32   |   |     |     |     |     |       |     |
| 125 | 5"     | 150Lb | 356 | 125 | 186 | 216   | 254 | 8-Ø22  | 24   | 2 | 260 | 600 | F10 | F12 | 22X22 | 200 |
|     |        | 300Lb | 381 |     |     | 235   | 279 | 8-Ø22  | 35   |   |     |     |     |     |       |     |
| 150 | 6"     | 150Lb | 394 | 150 | 216 | 241,5 | 279 | 8-Ø22  | 26   | 2 | 278 | 600 | F10 | F12 | 22X22 | 300 |
|     |        | 300Lb | 403 |     |     | 270   | 318 | 12-Ø22 | 37   |   |     |     |     |     |       |     |
| 200 | 8"     | 150Lb | 457 | 200 | 270 | 298,5 | 343 | 8-Ø22  | 29   | 2 | 340 | 800 | F12 | F14 | 27X27 | 400 |
|     |        | 300Lb | 502 |     |     | 330   | 381 | 12-Ø25 | 41,5 |   |     |     |     |     |       |     |

## FBA 202-BS SERIES BALL VALVES

### Technical Details

| DN  | NPS    | Cv       | Kv (m <sup>3</sup> /h) | Kgs (Hollow) |
|-----|--------|----------|------------------------|--------------|
| 15  | 1/2"   | 22.20    | 19.00                  | 2.08 (Solid) |
| 20  | 3/4"   | 46.70    | 40.00                  | 2.80 (Solid) |
| 25  | 1"     | 75.90    | 65.00                  | 3.73 (Solid) |
| 32  | 1-1/4" | 128.40   | 110                    | 5.18 (Solid) |
| 40  | 1-1/2" | 210.10   | 180.00                 | 6.38         |
| 50  | 2"     | 426.00   | 365.00                 | 8.50         |
| 65  | 2-1/2" | 577.70   | 495.00                 | 12.70        |
| 80  | 3"     | 1132.00  | 970.00                 | 16.00        |
| 100 | 4"     | 1890.50  | 1620.00                | 22.10        |
| 125 | 5"     | 2952.50  | 2530.00                | 40.20        |
| 150 | 6"     | 4726.40  | 4050.00                | 52.20        |
| 200 | 8"     | 10094.60 | 8650.00                | 86.20        |





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**FLAPCON VALVES & AUTOMATION SYSTEMS CO. LTD.**

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