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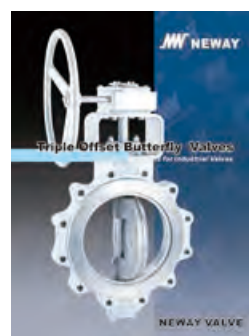
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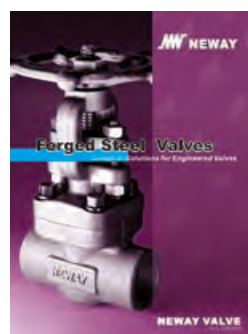
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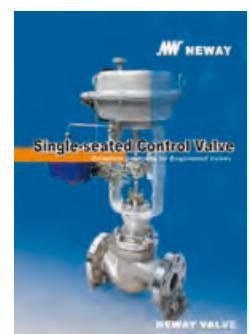
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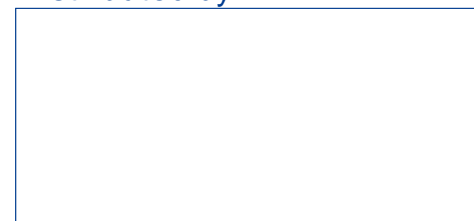


Cat.no.:E-CSC

NEWAY
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Cat.no.:E-FBV-2016

NEWAY

Floating Ball Valve

Complete Solutions for Introduction Valves



NEWAY VALVE

Cat.no.:E-FBV-2016

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Complete Solutions for Industrial Valves

As a global leader of valve manufacturing, Neway (SSE:603699) is dedicated to the production, research, and development of industrial valves. Neway is committed to providing complete valve solutions to all industries through advanced engineering and innovation.

Neway’s product line includes Ball, Gate, Globe, Check, Butterfly, Nuclear, Control, Subsea, Safety valves. Our high quality standards and innovative ability are recognized by many global end users and EPCs. Neway valves are utilized in a wide variety of industries and working conditions such as Gas, Oil, Refining, Chemical, Coal Chemical, Offshore, FPSO, Air Separation, LNG, Nuclear Power, Power Generation, and Pipeline Transmission applications.

Facilities & Service

Neway has developed a sophisticated multi-plant management system operating one valve assembly plant, one API6A valve plant, three foundries, and one R&D center. Our newest assembly plant was expanded in 2013, and it now covers 35,000 square meters.

Advanced software (ANSYS, FE-Safe, CF-Design, Siemens PLM and NX) is applied here at Neway for the Research & Development of products. We use SAP to control the traceability and status of all products during the manufacturing process. In order to ensure the safety, eco-friendliness, and reliability of our products, we use the most advanced fire-safe, cryogenic, high pressure, and fugitive emission test equipment.

As part of Neway’s global strategy, to provide better service to our customers, we have established our overseas subsidiaries in North America, Brazil, Netherlands, Italy, Singapore, and Dubai along with over 80 agents and distributors worldwide.

High Quality, High Value

Neway is dedicated to the pursuit of “Zero Defect”. We maintain a quality management system that encompasses our entire operation from order entry, to final inspection. Through Neway’s continuous efforts, our products have achieved industrial certificates including ISO 9001, API 6A, API 6D, CE/PED, ASME N & NPT, TA-Luft, ABS, CU-TR, and Fire-Safe approvals.

Introduction

In this catalogue, you will find the latest developed NEWAY Ball Valves, which include 4 different designs:

- BA series 1PC uni-body floating type
- B series 2PC cast steel floating type
- BB series 2PC forged steel floating type
- BC series 3PC forged steel floating type

NORSOK



ISO 9001



API 6D



TA Luft



CE/PED



ABS



AD2000



Fire Safe Test



Design and Inspection Standard:

| | | |
|------------------------------|-------------------|--|
| Pressure-Temperature Ratings | | ASME B16.34, ASME B16.5 (Class 400), API 602 (Class 800) |
| Shell Wall Thickness | | ASME B16.34 |
| Face-to-face Dimensions | Flange | ASME B16.10 |
| | Socket Weld & NPT | Neway standard |
| End connection Dimensions | Flange | ASME B16.5 |
| | Butt-Weld | ASME B16.25 |
| | Socket Weld | ASME B16.11 |
| | NPT | ASME B1.20.1 |
| Pressure Test | | API 598 or API 6D (Optional) |
| Fire Safe Test | | API 607 or API 6FA (Optional) |
| Marking | | MSP-SP 25 |
| Surface Quality | | MSP-SP 55 |
| Sour Service | | NACE Std. (MR 0175 or MR 0103) |
| Low Fugitive Emission | | ISO 15848, TA-Luft, SPE 77/312 |

With cutting-edge computer technology utilized, NEWAY Technical Center focuses on providing outstanding quality products and developing new lines. There is a highly educated and well-trained engineering team, supported by a comprehensive internal computer network which links the entire operations of design, manufacturing and administration.

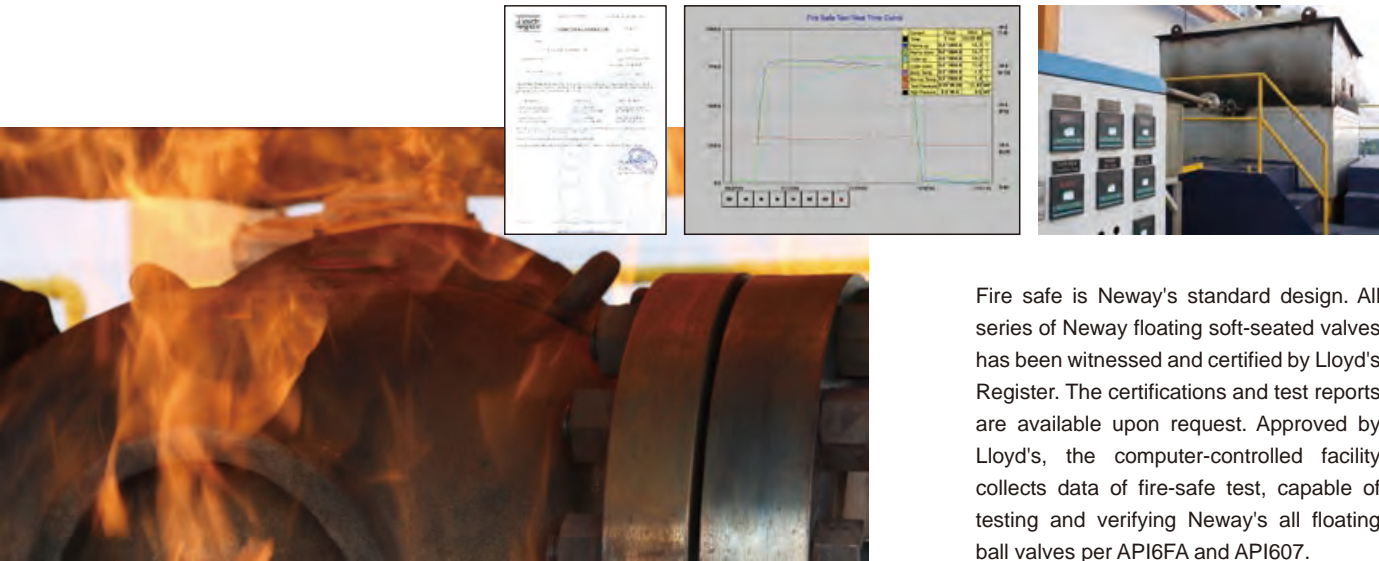
NEWAY design philosophy is to develop a safe and cost-efficient valve. We introduced the latest Ansys, Fe-safe, CF-design and NX software for all our new product design research which include the advanced finite element analysis, fluid and fatigue analysis to virtually verify the new design prior to production, which has resulted in dramatically shortening development duration and assure a safe and cost-efficient final product.

NEWAY technical personnel are always ready to offer on line or on site technical training and support for all of its distributors, agents and end users.

Product Range:

| Product Coding | Class | Size | | | | | | | | | | | | |
|----------------|-------|------|------|------|------|----|--------|----|--------|----|----|----|----|-----|
| | | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1-1/2" | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" |
| BA | 150 | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | 300 | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| B | 150 | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | 300 | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| BB | 150 | | | ● | ● | ● | ● | ● | ● | ● | ● | | | |
| | 300 | | | ● | ● | ● | ● | ● | ● | ● | ● | | | |
| | 400 | | | ● | ● | ● | ● | ● | | | | | | |
| | 600 | | | ● | ● | ● | ● | ● | | ● | ● | | | |
| | 900 | | | ● | ● | ● | ● | ● | | ● | | | | |
| | 1500 | | | ● | ● | ● | ● | ● | | | | | | |
| BC | 150 | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| | 300 | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| | 600 | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| | 800 | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| | 900 | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| | 1500 | ● | ● | ● | ● | ● | ● | ● | | | | | | |
| | 2500 | ● | ● | ● | ● | ● | ● | ● | | | | | | |

- Design Standard: ASME B16.34, ISO 17292, API 608, API 6D
- Design Standard: ASME B16.34, API 6D
- Design Standard: ASME B16.34, API 608, API 6D



Fire safe is Neway's standard design. All series of Neway floating soft-seated valves has been witnessed and certified by Lloyd's Register. The certifications and test reports are available upon request. Approved by Lloyd's, the computer-controlled facility collects data of fire-safe test, capable of testing and verifying Neway's all floating ball valves per API6FA and API607.



Valve casting quality is of prime importance for product life, personnel and environmental safety, particularly in high temperature and high pressure service as valve serves as one of pressure-containing equipment in process-controlled pipeline. Thus, castings are always certified firstly by the customers requiring strictly before a valve manufacturer is pre-qualified and approved as a qualified supplier.



Compared with most of other competitors, we own three foundries: two of them work on produce large-sized sand castings by organic ester water glass, and two of them are for production of small-sized investment castings by lost-wax casting. Besides, each is equipped with all kinds of quality inspection facilities, such as spectrum instrument, non-destructive test machinery, and mechanical property test device. Against such backdrop, Neway can monitor the whole process of manufacture to ensure product quality, delivery and competitive price and enable Neway to remain a creditable supplier for every customer.



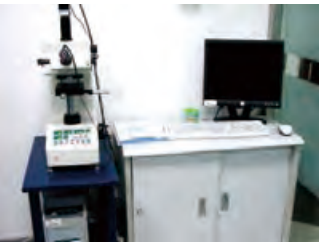
Supply Range & capacity :

| Plant Name | Dafeng Foundry | Suzhou Foundry |
|-----------------------|--|--|
| Process Technology | Lost wax investment casting | Organic ester water glass sand casting |
| Size Range(in) | 1/2" ~10" | 2" ~64" |
| Pressure Rating | ANSI Class 150~600 | ANSI Class 150~2500 |
| Weight(Kg) | 1~150 | 100~11000 |
| Material | WCB, WCC, LCB, LCC, WC6, WC9, C5, C12, C12A, CF8, CF8M, CF3, CF3M, CN7M, Monel, Inconel, Duplex Steel, 4A,5A | |
| Monthly Capacity(Ton) | 1500 | 1800 |
| Quality Certificate | ISO9001,CE/PED, AD W0 | ISO9001,CE/PED, Norsok |

The latest computer technology has been extensively applied in NEWAY manufacturing, which includes a large number of numeric control machines (machining center, CNC horizontal and vertical lathe and CNC drilling machine) and ERP management system. Additionally, the data through all factories have been connected and shared. These facilitate resource integration, boost productivity, evidently enhancing machining quality and tightening process control.



NEWAY developed comprehensive and advanced inspection and test facilities to control the quality from rough castings or forgings to final products, which enable us to perform radiographic test, liquid penetrant test, magnetic-particle test, spectrum analysis, Material Positive Identification (MPI), impact test, tensile test, hardness test, fire safe test, cryogenic test, vacuum test, low fugitive emission test, high pressure gas test, ultrasonic testing and hydrostatic test.



How to order

Example:

| | | | | | | | | | |
|-----|----|---|---|---|---|---|-----|---|-------|
| 8*6 | BA | 1 | R | - | G | , | WCB | / | 1N662 |
| ① | ② | ③ | ④ | | ⑤ | | ⑥ | | ⑦ |

Neway part numbers are designed to cover essential features. When ordering, please show the part numbers and a detailed description to avoid misunderstanding of your requirements.

Following descriptions provide a basic guideline in valve specification:

① Valve Sizes

Full bore:

| | | | | | | | | | | | | | | | | |
|----|-----|-------|-------|----|-------|-------|----|-------|----|-------|-----|-----|-----|-----|-----|-----|
| in | 3/8 | 1 / 2 | 3 / 4 | 1 | 1-1/4 | 1-1/2 | 2 | 2-1/2 | 3 | 3-1/2 | 4 | 5 | 6 | 8 | 10 | 12 |
| mm | 10 | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 90 | 100 | 125 | 150 | 200 | 250 | 300 |

Reduced bore:

| | | | | | | | | | | | | | |
|----|---------|---------|---------|-------|---------|---------|---------|-------|--------|---------|---------|---------|---------|
| in | 3/8*1/4 | 1/2*3/8 | 3/4*1/2 | 1*3/4 | 1-1/2*1 | 2*1-1/2 | 2-1/2*2 | 3*2 | 4*3 | 6*4 | 8*6 | 10*8 | 12*10 |
| mm | 10*6.4 | 15*10 | 20*15 | 25*20 | 40*25 | 50*40 | 65*60 | 80*50 | 100*80 | 150*100 | 200*150 | 250*200 | 300*250 |

② Valve Types

| Symbol | Valve Type | Symbol | Valve Type |
|--------|-------------------------------------|--------|------------------------------------|
| BA | Uni-body Floating ball valve - cast | | |
| B | 2-pcs Floating ball valve - cast | BB | 2-pcs floating ball valve - forged |
| BC | 3-pcs floating ball valve - forged | | |

③ ASME Class

| | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|------|------|
| Code | 1 | 3 | 4 | 6 | 8 | 9 | 15 | 25 |
| Class (LB) | 150 | 300 | 400 | 600 | 800 | 900 | 1500 | 2500 |

④ End Connections

| Symbol | End | Symbol | End |
|--------|-------------------------|--------|-------------------------|
| R | Raised face flanged end | S | Socket weld end |
| J | RTJ flanged end | N | Screwed end |
| B | Butt-weld end | SN | Socket Weld/Screwed End |
| F | Flat Face Flanged End | NC | 55° Taper Screwed End |

⑤ Operator

| Symbol | Description | Symbol | Description |
|--------|--------------------|--------|-----------------------|
| | Lever | BS | Bare shaft |
| G | Gear operator | H | Hydraulic actuator |
| M | Electric actuator | L | Gas over oil actuator |
| P | Pneumatic actuator | C | Chainwheel |

⑥ Body Materials

| | | | | | | | | |
|----------|-------|----------|-----------|-----------|------------|------------|----------|----------|
| Material | A105 | LF2 | F316 | F304 | F316L | F304L | Alloy 20 | F51 |
| ASTM Ref | A105N | A350 LF2 | A182 F316 | A182 F304 | A182 F316L | A182 F304L | Alloy 20 | A182 F51 |

| | | | | | | | | |
|----------|----------|----------|-----------|----------|-----------|----------|-----------|---------|
| Material | WCB | LCB | CF8M | CF8 | CF3M | CF3 | CN7M | 4A |
| ASTM Ref | A216 WCB | A352 LCB | A351 CF8M | A351 CF8 | A351 CF3M | A351 CF3 | A351 CN7M | A890 4A |

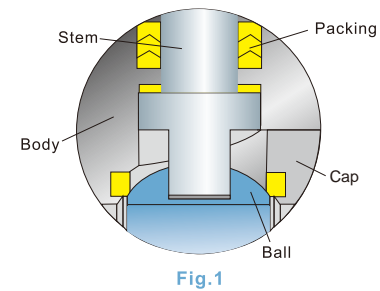
⑦ Trim Codes

| Seat | | O-ring | | Stem | | Ball | | Packing | |
|------|-------------|--------|-------------|------|---------------|------|---------------|---------|-----------------------|
| Code | Material | Code | Material | Code | Material | Code | Material | Code | Material |
| 1 | PTFE | 1 | NBR | 1 | AISI 410 | 1 | AISI 410 | 1 | PTFE |
| 2 | NYLON1010 | 2 | VITON | 2 | F304 | 2 | F304 | 2 | Graphite |
| 3 | PEEK | 3 | VITON AED | 3 | A105/ENP | 3 | A105/ENP | 9 | Garlock(low emission) |
| 7 | NYLON 12 | 4 | VITON B | 4 | 17-4PH | 4 | 17-4PH | | |
| 8 | PCTFE | 5 | HNBR-70 | 5 | AISI 4140/ENP | 5 | AISI 4140/ENP | | |
| C | FILLED PTFE | 8 | VITON GLT | 6 | F316 | 6 | F316 | | |
| F | TFM1700 | 9 | BUNA-N | 9 | LF2/ENP | 9 | LF2/ENP | | |
| | | N | None O-Ring | A | F51 | A | F51 | | |

Note: Other materials upon request.

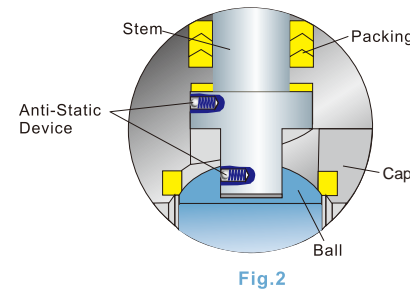
Blow-out Proof Stem

The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention at any pressure and acts as backseat. (Fig 1)



Anti-static Device

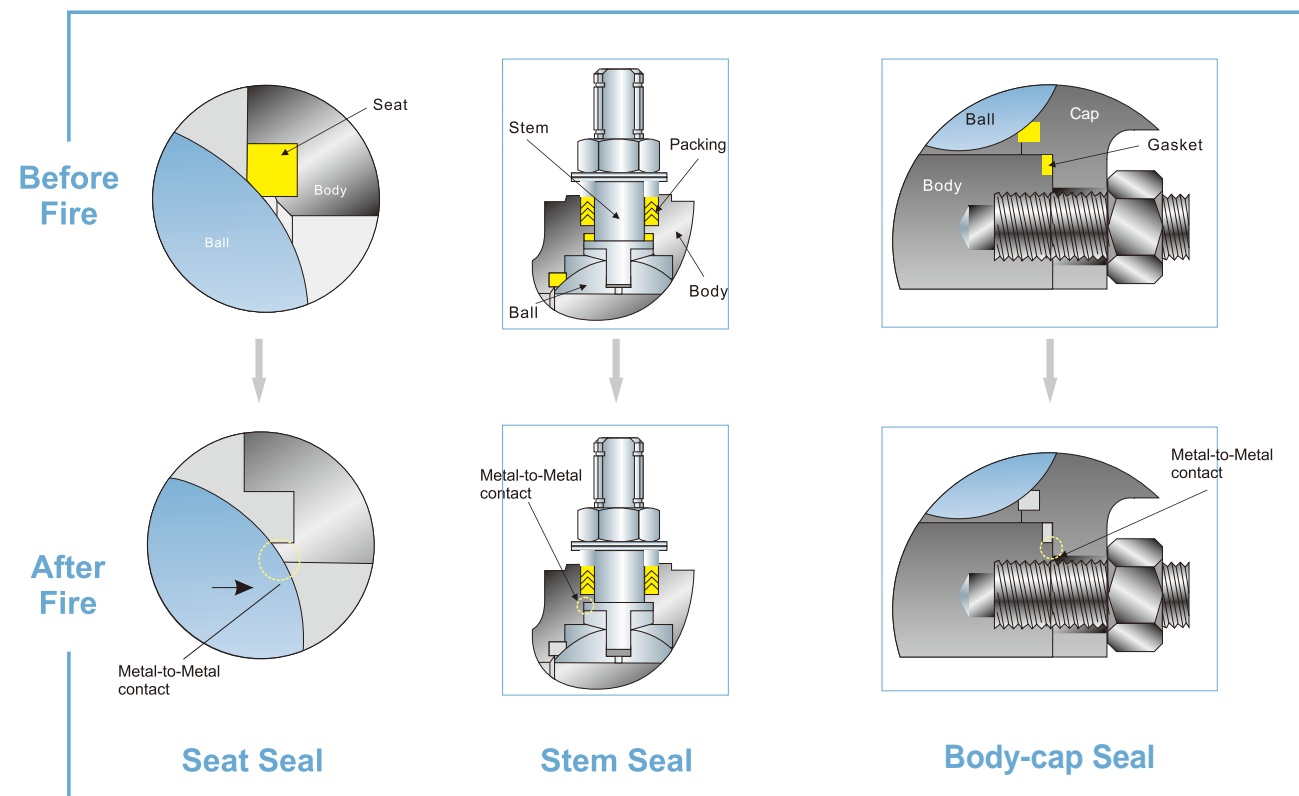
A spring-loaded plunger fitted on stem keeps constant contact between ball, stem and body to create an electric path to transfer charges, avoiding acceleration of static electricity as a result of friction during valve on-off. Such build-up is utterly hazardous to some services. (Fig2)



Fire Safe - Metal to Metal Sealing

When soft seats are decomposed or ruined by fire, the ball, driven by pressure, comes into contact with the metal lipseal seat of original soft seat, creating a metal-to-metal seal to shut off service fluids and minimize internal leakage.

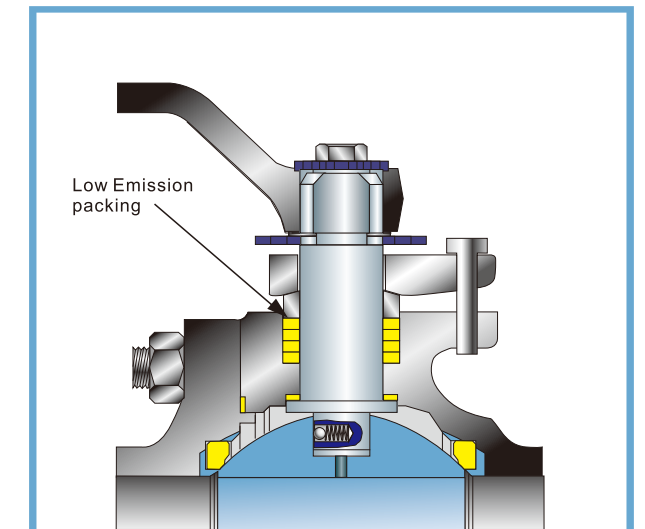
Additionally, the fire safe metal seat prevents damage the medium imposed on soft seat and minimizes creep of nonmetal materials. All the NEWAY floating valves are designed to be fire safe per API 607 and are tested and certified by the third party.



Modern industry sectors are challenged by valve fugitive emission to control service fluids released from the valve and curb environmental degradation. Therefore, emission control features NEWAY floating ball valves of B, BA, BB and BC Series. Low emission packing is assembled, whose max. leaking rate of design and test stands at 100 PPM (Test is performed according to ISO15848)

Roughness control over stem and packing

Stem surface roughness is strictly restricted between Ra0.4 and Ra0.8, which ensures entry of graphite packing powder into tiny stem scratches to function as a lubricator, minimizing leakages around stem. Max. roughness of stuffing box is RA3.2, which is a proper value to hold packing ring in place and result in better sealing performance.



Low Emission Test

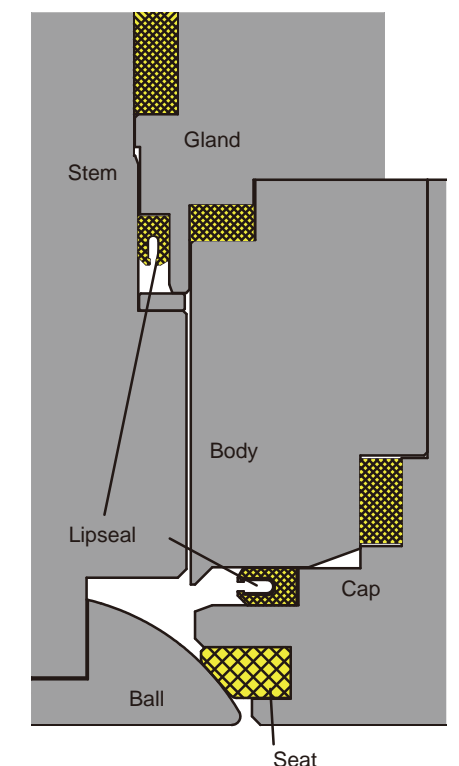
Low Emission Packing

The packing is combination of parallel and vertical layer which is made of die-formed graphite ring processed by flexible graphite, characterizing heat resistance, less stress relaxation and low creep. The special structure means low friction on rotary stem, providing stabilized seal capability for the valve for a long time under frequent functioning.

For low-temperature and cryogenic service, the standard V shape PTFE packing rings are installed for low emission control.

Lipseal Design (Optional)

Lipseal is the spring-energized seal, including Elgiloy or Inconel spring and PTFE jacket. It's effective in a wide breadth of applications, such as highly corrosive chemical media, high sour gas, low temperature or cryogenic service.



Neway offers four series of floating ball valves:

- BA Series, one piece, side-entry, cast steel
- B Series, two-piece,side-entry, cast steel
- BB Series, two-piece, side-entry, forged steel
- BC Series, three-piece, side-entry, forged steel

NEWAY floating ball valves function in service ranging from -196°C to 200°C (from -320°F to 392°F), with size which varies from 1/2 inch to 12 inch (15mm~300mm) and pressure range of ASME Class150~Class 2500 (2.0Mpa~25.0Mpa). Our floating ball valves are capable of fulfilling sour service requirements stated in NACE MR0175.



3 PC Floating Ball Valve



Pneumatic Actuated Ball Valve



2PC Forged Steel Design



Cryogenic floating ball valve



Hastelloy Ball Valve



Pneumatic Actuator Ball valve



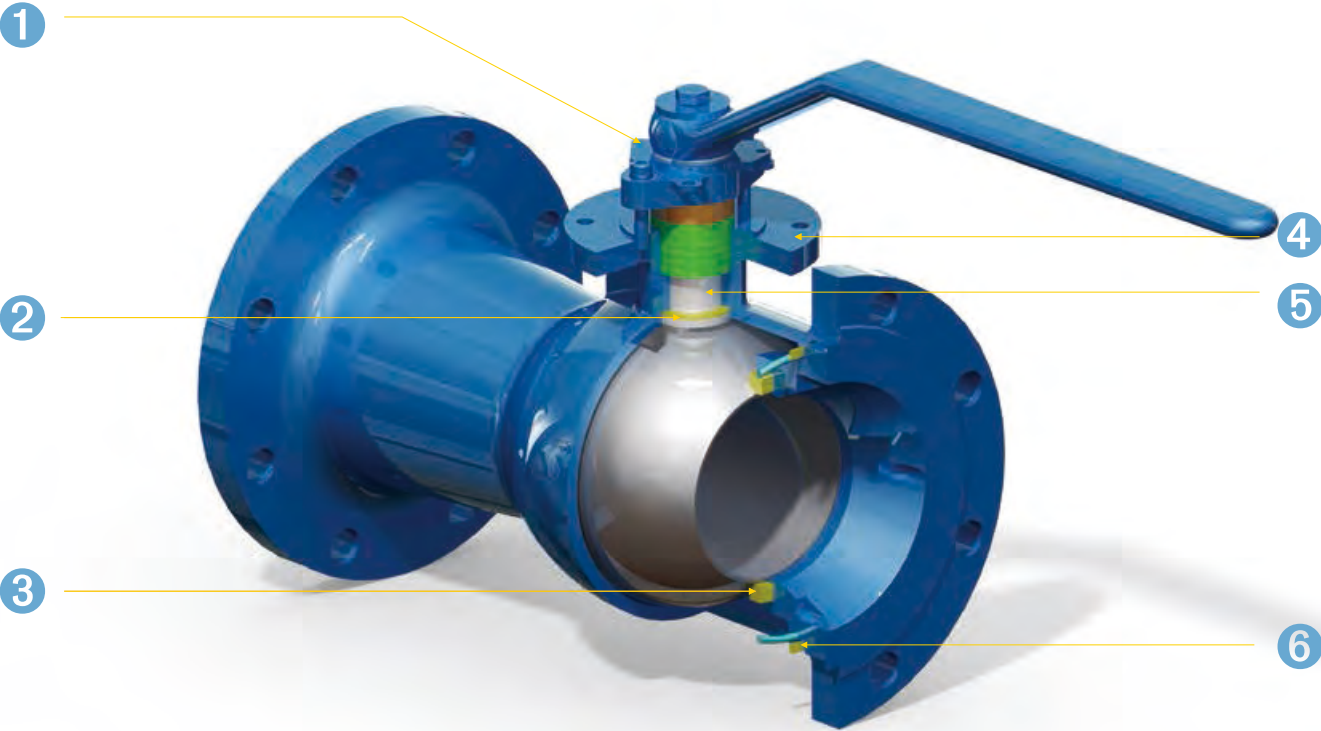
1PC Cast Steel Design



2PC Cast Steel Design



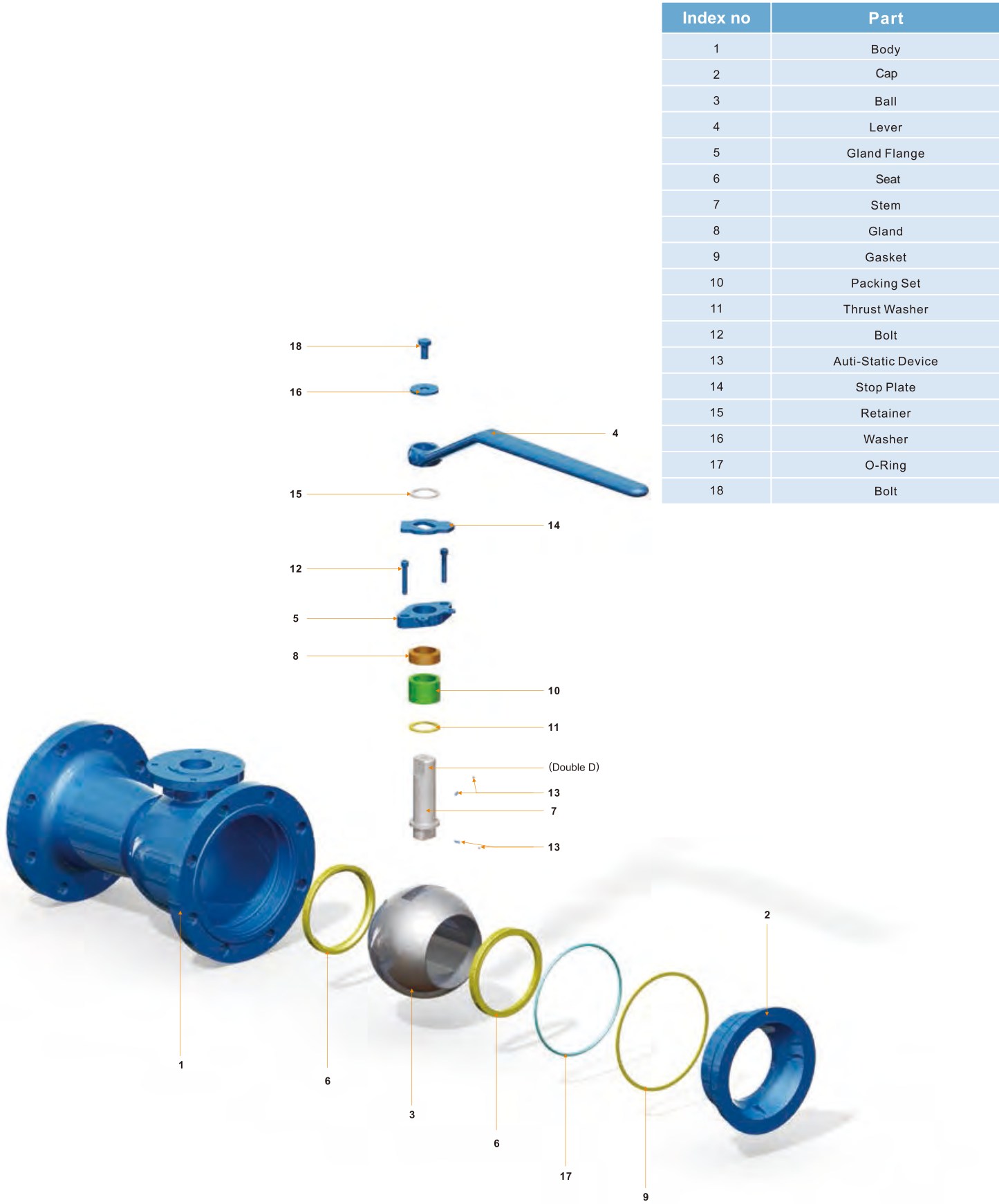
Stainless Steel



- 1 Reliable Flow Locking Device: Valve is equipped with an integral locking device to secure flow.
- 2 Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
- 3 Fire Safe Design: Metal to metal sealing shuts off valve flow when soft sealing materials are destroyed by fire.
- 4 ISO5211 connection dimension: actuator installation is simplified by using connection dimension recognized in international standards.
- 5 Double "D" Stem Head: ensures handle lever will always be mounted correctly, parallel to the media flow, indicating valve open and closed positions.
- 6 Emission-free Gasket: Low-emission graphite is employed in gasket to eliminate leakage.

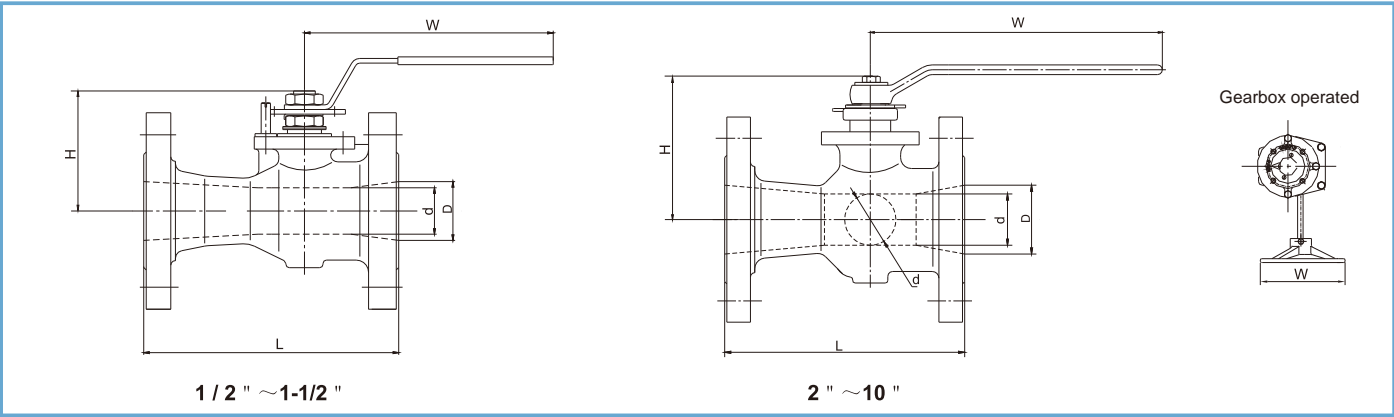
APPLICATIONS

- Refinery
- Petrochemical
- Paper
- Chemical
- Pharmaceutical
- Food and Beverage



| No | Part | Standard | Stainless Steel | Sour Service | Low Temperature Service |
|----|--------------------|-------------------|-------------------|-------------------|-------------------------|
| 1 | Body | ASTMA216-WCB | ASTMA351-CF8M | ASTMA216-WCB | ASTMA352-LCB |
| 2 | Cap | ASTMA216-WCB | ASTMA351-CF8M | ASTMA216-WCB | ASTMA352-LCB |
| 3 | Ball | ASTMA105N/ENP | ASTMA182-F316 | ASTMA105N/ENP | ASTMA182-F316 |
| 4 | Lever | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 5 | Gland Flange | ASTMA216-WCB | ASTMA351-CF8 | ASTMA216-WCB | ASTMA352-LCB |
| 6 | Seat | PTFE | PTFE | PTFE | PTFE |
| 7 | Stem | ASTMA182-F6a | ASTMA182-F316 | ASTMA182-F6a | ASTMA182-F316 |
| 8 | Gland | ASTMA276-420 | ASTMA276-316 | ASTMA276-420 | ASTMA276-316 |
| 9 | Gasket | 316 S.S.+Graphite | 316 S.S.+Graphite | 316 S.S.+Graphite | 316 S.S.+Graphite |
| 10 | Packing Set | Graphite | Graphite | Graphite | Graphite |
| 11 | Thrust Washer | PTFE | PTFE | PTFE | PTFE |
| 12 | Bolt | ASTMA193-B7 | ASTMA193-B8 | ASTMA193-B7M | ASTMA320-L7M |
| 13 | Anti-Static Device | S.S. | S.S. | S.S. | S.S. |
| 14 | Stop Plate | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 15 | Retainer | Carbon Steel | S.S. | Carbon Steel | S.S. |
| 16 | Washer | Carbon Steel | S.S. | Carbon Steel | S.S. |
| 17 | O-Ring | Viton A | Viton A | Viton A | HNBR |
| 18 | Bolt | Carbon Steel | S.S. | Carbon Steel | S.S. |

ISO5211 connection dimension: actuator installation is simplified by using connection dimension recognized in international standards.



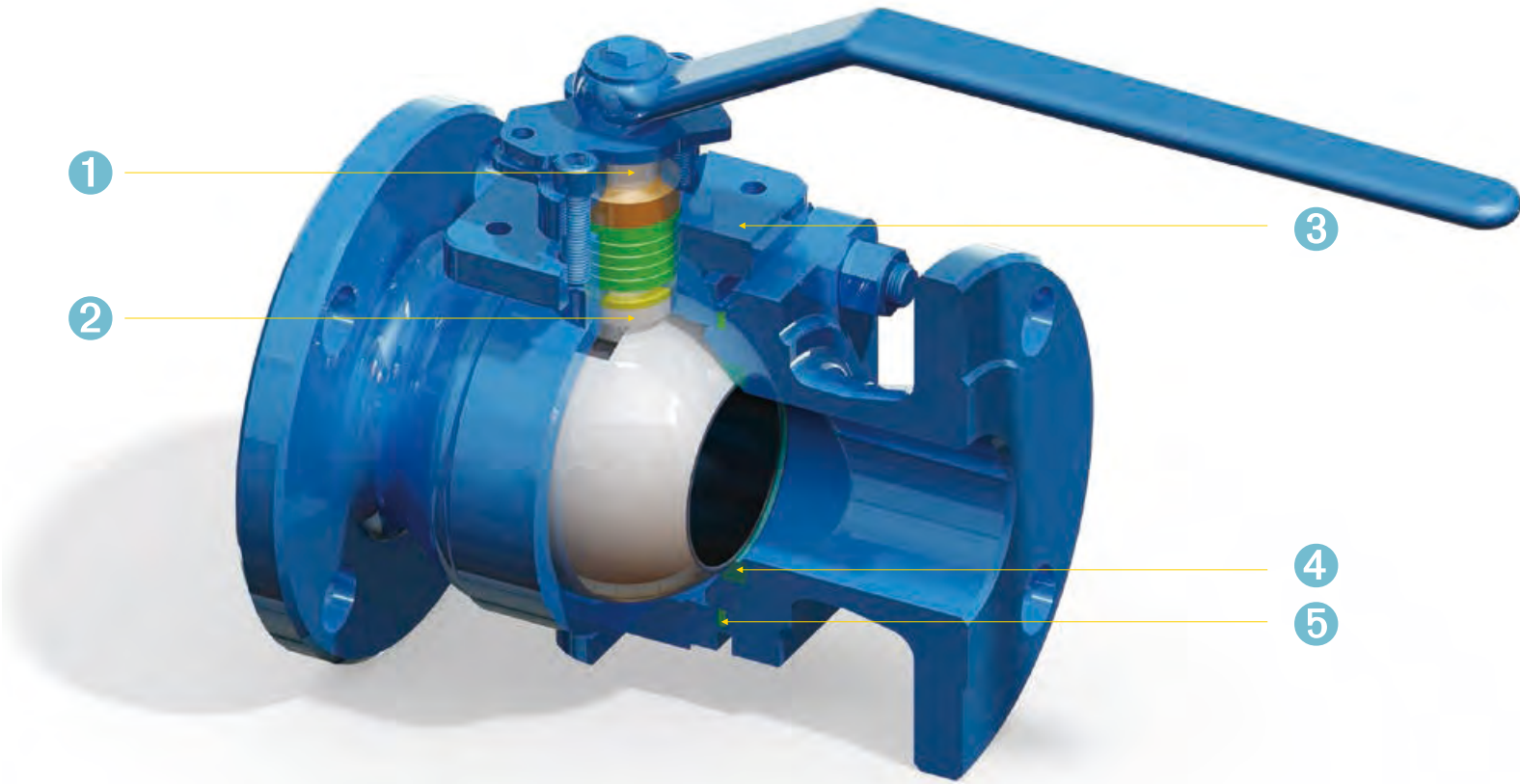
Class 150 Dimension and Weight

| Size | | d | | D | | L | | H | | W | | Weight | |
|---------|---------|------|-----|-------|-----|-------|-----|-------|-------|-------|------|--------|-------|
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1/2*3/8 | 15*10 | 0.37 | 10 | 0.50 | 13 | 4.25 | 108 | 1.75 | 44.50 | 4.72 | 145 | 3.3 | 1.5 |
| 3/4*1/2 | 20*15 | 0.50 | 13 | 0.75 | 19 | 4.61 | 117 | 2.11 | 53.50 | 5.51 | 165 | 5.5 | 2.5 |
| 1*3/4 | 25*20 | 0.75 | 19 | 1.00 | 25 | 5.00 | 127 | 2.42 | 61.50 | 5.51 | 165 | 6.6 | 3.0 |
| 1-1/2*1 | 40*25 | 1.18 | 30 | 1.50 | 38 | 6.50 | 165 | 3.15 | 80 | 6.30 | 215 | 11.0 | 5.0 |
| 2*1-1/2 | 50*40 | 1.50 | 38 | 2.00 | 51 | 7.01 | 178 | 4.17 | 106 | 10.43 | 265 | 19.2 | 8.7 |
| 2-1/2*2 | 65*50 | 2.00 | 51 | 2.50 | 64 | 7.52 | 191 | 4.72 | 120 | 10.43 | 265 | 27.3 | 12.4 |
| 3*2-1/2 | 80*65 | 2.50 | 64 | 3.00 | 76 | 7.99 | 203 | 5.67 | 144 | 10.43 | 285 | 36.8 | 16.7 |
| 4*3 | 100*80 | 3.00 | 76 | 4.00 | 102 | 9.02 | 229 | 6.54 | 166 | 11.81 | 300 | 53.8 | 24.4 |
| 6*4 | 150*100 | 4.50 | 114 | 6.00 | 152 | 10.51 | 267 | 8.39 | 213 | 15.75 | *300 | 110.2 | 50.0 |
| 8*6 | 200*150 | 6.00 | 152 | 8.00 | 203 | 11.50 | 292 | 20.71 | 526 | 11.81 | *400 | 222.7 | 101.0 |
| 10*8 | 250*200 | 7.36 | 187 | 10.00 | 254 | 12.99 | 330 | 21.65 | 550 | 16 | *400 | 330.7 | 150.0 |

Class 300 Dimension and Weight

| Size | | d | | D | | L | | H | | W | | Weight | |
|---------|---------|------|-----|-------|-----|-------|-----|-------|-------|-------|------|--------|-------|
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1/2*3/8 | 15*10 | 0.37 | 10 | 0.50 | 13 | 5.51 | 140 | 1.75 | 44.50 | 4.72 | 145 | 6.2 | 2.8 |
| 3/4*1/2 | 20*15 | 0.50 | 13 | 0.75 | 19 | 5.98 | 152 | 2.11 | 53.50 | 5.51 | 165 | 7.9 | 3.6 |
| 1*3/4 | 25*20 | 0.75 | 19 | 1.00 | 25 | 6.50 | 165 | 2.42 | 61.50 | 5.51 | 165 | 10.6 | 4.8 |
| 1-1/2*1 | 40*25 | 1.18 | 30 | 1.50 | 38 | 7.48 | 190 | 3.15 | 80 | 6.30 | 215 | 21.2 | 9.6 |
| 2*1-1/2 | 50*40 | 1.50 | 38 | 2.00 | 51 | 8.50 | 216 | 4.17 | 106 | 10.43 | 265 | 24.3 | 11.0 |
| 2-1/2*2 | 65*50 | 2.00 | 51 | 2.50 | 64 | 9.49 | 241 | 4.72 | 120 | 10.43 | 265 | 33.3 | 15.1 |
| 3*2-1/2 | 80*65 | 2.50 | 64 | 3.00 | 76 | 11.14 | 283 | 5.67 | 144 | 10.43 | 285 | 49.6 | 22.5 |
| 4*3 | 100*80 | 3.00 | 76 | 4.00 | 102 | 12.01 | 305 | 6.54 | 166 | 11.81 | 300 | 81.6 | 37.0 |
| 6*4 | 150*100 | 4.50 | 114 | 6.00 | 152 | 15.87 | 403 | 8.39 | 213 | 11.81 | *300 | 159.8 | 72.5 |
| 8*6 | 200*150 | 5.67 | 144 | 8.00 | 203 | 16.50 | 419 | 20.71 | 526 | 15.75 | *400 | 275.6 | 125.0 |
| 10*8 | 250*200 | 7.36 | 187 | 10.00 | 254 | 17.99 | 457 | 21.65 | 550 | 15.75 | *400 | 451.9 | 205.0 |

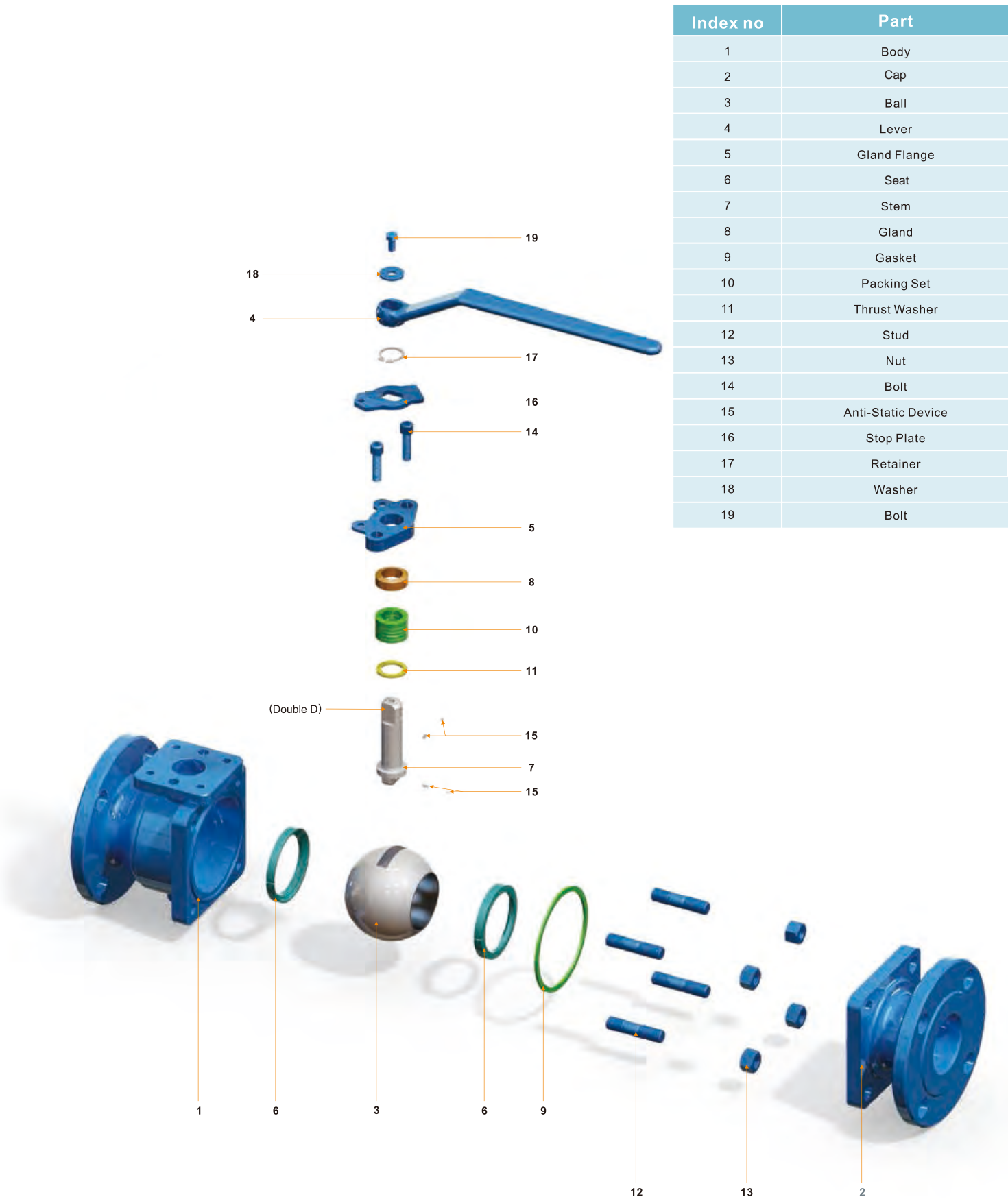
*Gearbox operated



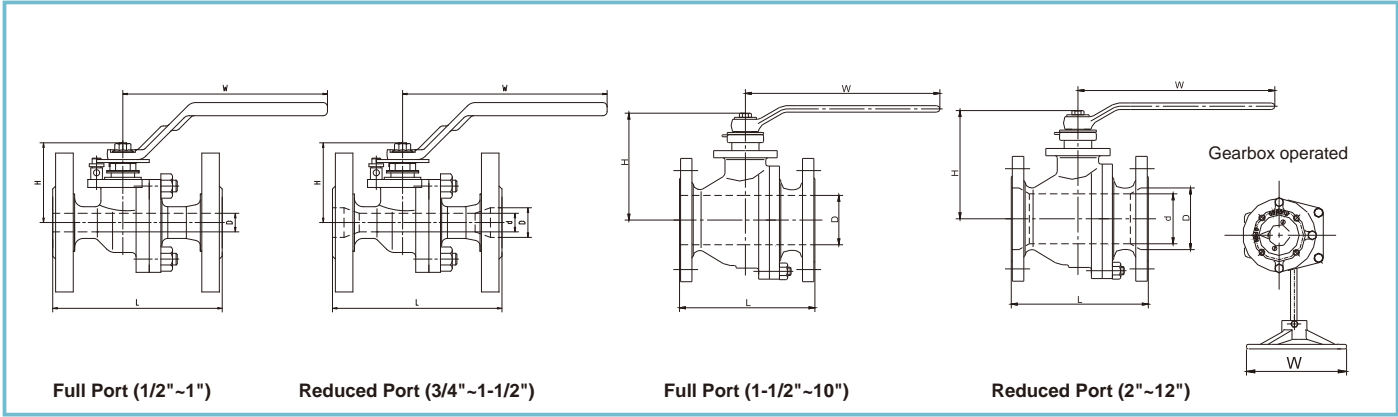
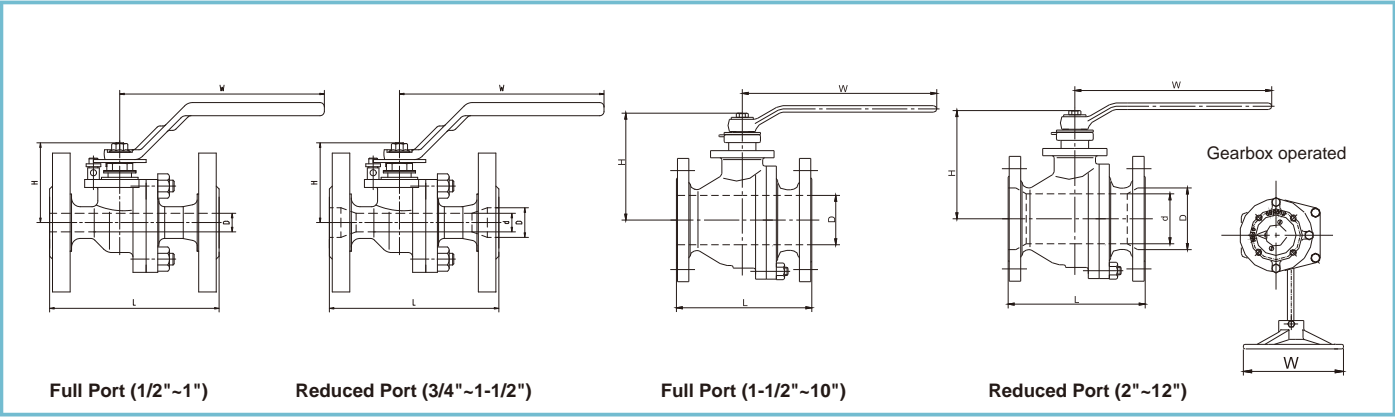
- 1 Double "D" Stem Head: ensures handle lever will always be mounted correctly, parallel to the media flow, indicating valve open and closed positions.
- 2 Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
- 3 ISO5211 connection dimension: actuator installation is simplified by using connection dimension recognized in international standards.
- 4 Fire Safe Design: Metal to metal sealing shuts off valve flow when soft sealing materials are destroyed by fire.
- 5 Emission-free Gasket: Low-emission graphite is employed in gasket to eliminate leakage.

APPLICATIONS

- Refinery
- Petrochemical
- Power
- Chemical
- Pharmaceutical



| No | Part | Standard | Stainless Steel | Sour Service | Low Temperature Service |
|----|--------------------|-------------------|-------------------|-------------------|-------------------------|
| 1 | Body | ASTMA216-WCB | ASTMA351-CF8M | ASTMA216-WCB | ASTMA352-LCB |
| 2 | Cap | ASTMA216-WCB | ASTMA351-CF8M | ASTMA216-WCB | ASTMA352-LCB |
| 3 | Ball | ASTMA105N/ENP | ASTMA182-F316 | ASTMA105N/ENP | ASTMA182-F316 |
| 4 | Lever | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 5 | Gland Flange | ASTMA216-WCB | ASTMA351-CF8 | ASTMA216-WCB | ASTMA352-LCB |
| 6 | Seat | PTFE | PTFE | PTFE | PTFE |
| 7 | Stem | ASTMA182-F6a | ASTMA182-F316 | ASTMA182-F6a | ASTMA182-F316 |
| 8 | Gland | ASTMA276-420 | ASTMA276-316 | ASTMA276-420 | ASTMA276-316 |
| 9 | Gasket | 316 S.S.+Graphite | 316 S.S.+Graphite | 316 S.S.+Graphite | 316 S.S.+Graphite |
| 10 | Packing Set | Graphite | Graphite | Graphite | Graphite |
| 11 | Thrust Washer | PTFE | PTFE | PTFE | PTFE |
| 12 | Stud | ASTMA193-B7 | ASTMA193-B8 | ASTMA193-B7M | ASTMA320-L7M |
| 13 | Nut | ASTMA194-2H | ASTMA194-8 | ASTMA194-2HM | ASTMA194-7M |
| 14 | Bolt | ASTMA193-B7 | ASTMA193-B8 | ASTMA193-B7M | ASTMA320-L7M |
| 15 | Anti-Static Device | S.S. | S.S. | S.S. | S.S. |
| 16 | Stop Plate | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 17 | Retainer | Carbon Steel | S.S. | Carbon Steel | S.S. |
| 18 | Washer | Carbon Steel | S.S. | Carbon Steel | S.S. |
| 19 | Bolt | Carbon Steel | S.S. | Carbon Steel | S.S. |



Class 150 Dimension and Weight

| Full Port | | | | | | | | | | | |
|-----------|-----|-------|-----|-------|-----|-------|-------|-------|------|--------|-------|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | kg |
| 1/2 | 15 | 0.50 | 13 | 4.25 | 108 | 2.19 | 55.50 | 6.50 | 165 | 4.0 | 1.8 |
| 3/4 | 20 | 0.75 | 19 | 4.61 | 117 | 2.58 | 65.50 | 6.50 | 165 | 4.4 | 2.0 |
| 1 | 25 | 1.00 | 25 | 5.00 | 127 | 3.03 | 77 | 8.46 | 215 | 7.9 | 3.6 |
| 1-1/2 | 40 | 1.50 | 38 | 6.50 | 165 | 4.21 | 107 | 10.43 | 265 | 15.9 | 7.2 |
| 2 | 50 | 2.00 | 51 | 7.01 | 178 | 4.84 | 123 | 10.43 | 265 | 24.5 | 11.1 |
| 2-1/2 | 65 | 2.50 | 64 | 7.48 | 190 | 5.91 | 150 | 11.22 | 285 | 30.9 | 14.0 |
| 3 | 80 | 3.00 | 76 | 7.99 | 203 | 6.69 | 170 | 11.81 | 300 | 48.5 | 22.0 |
| 4 | 100 | 4.00 | 102 | 9.02 | 229 | 8.11 | 206 | 15.75 | 400 | 116.8 | 53.0 |
| 6 | 150 | 6.00 | 152 | 15.51 | 394 | 20.91 | 531 | 15.75 | *400 | 238.1 | 108.0 |
| 8 | 200 | 7.99 | 203 | 17.99 | 457 | 24.65 | 626 | 19.68 | *500 | 429.9 | 195.0 |
| 10 | 250 | 10.00 | 254 | 20.98 | 533 | 26.30 | 668 | 19.68 | *500 | 687.8 | 312.0 |

Class 300 Dimension and Weight

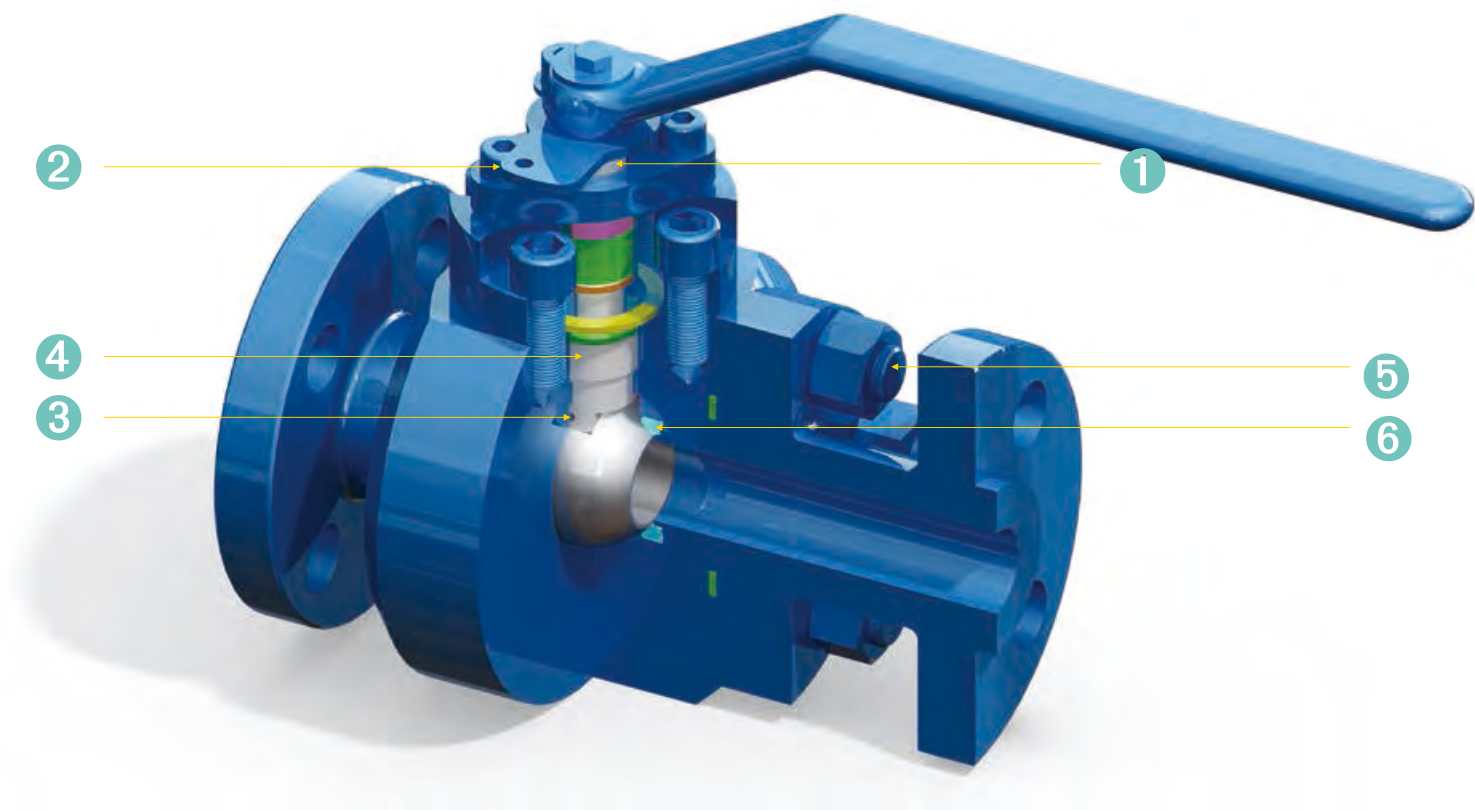
| Full Port | | | | | | | | | | | |
|-----------|-----|-------|-----|-------|-----|-------|-------|-------|------|--------|-------|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | kg |
| 1/2 | 15 | 0.50 | 13 | 5.51 | 140 | 2.19 | 55.50 | 6.50 | 165 | 5.1 | 2.3 |
| 3/4 | 20 | 0.75 | 19 | 5.98 | 152 | 2.58 | 65.50 | 6.50 | 165 | 7.9 | 3.6 |
| 1 | 25 | 1.00 | 25 | 6.50 | 165 | 3.03 | 77 | 8.46 | 215 | 11.2 | 5.1 |
| 1-1/2 | 40 | 1.50 | 38 | 7.48 | 190 | 4.21 | 107 | 10.43 | 265 | 22.0 | 10.0 |
| 2 | 50 | 2.00 | 51 | 8.50 | 216 | 4.84 | 123 | 10.43 | 265 | 30.9 | 14.0 |
| 2-1/2 | 65 | 2.50 | 64 | 9.49 | 241 | 5.91 | 150 | 11.22 | 285 | 50.7 | 23.0 |
| 3 | 80 | 3.00 | 76 | 11.14 | 283 | 6.69 | 170 | 11.81 | 300 | 67.5 | 30.6 |
| 4 | 100 | 4.00 | 102 | 12.01 | 305 | 8.11 | 206 | 15.75 | 400 | 110.2 | 50.0 |
| 6 | 150 | 6.00 | 152 | 15.87 | 403 | 20.91 | 531 | 15.75 | *400 | 255.7 | 116.0 |
| 8 | 200 | 8.00 | 203 | 19.76 | 502 | 27.56 | 700 | 23.62 | *600 | 517.0 | 234.5 |
| 10 | 250 | 10.00 | 254 | 22.36 | 568 | 36.30 | 922 | 23.62 | *600 | 1086.9 | 493.0 |

| Reduced Port | | | | | | | | | | | | | |
|--------------|---------|-------|-----|-------|-----|-------|-----|-------|-------|-------|------|--------|-------|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | kg |
| 3/4*1/2 | 20*15 | 0.50 | 13 | 0.75 | 19 | 4.63 | 118 | 2.19 | 55.50 | 6.50 | 165 | 6.6 | 3.0 |
| 1*3/4 | 25*20 | 0.75 | 19 | 1.00 | 25 | 5.00 | 127 | 2.58 | 65.50 | 6.50 | 165 | 9.9 | 4.5 |
| 1-1/2*1 | 40*25 | 1.00 | 25 | 1.50 | 38 | 6.50 | 165 | 3.03 | 77 | 8.46 | 215 | 15.4 | 7.0 |
| 2*1-1/2 | 50*40 | 1.50 | 38 | 2.00 | 51 | 7.01 | 178 | 4.21 | 107 | 10.43 | 265 | 19.8 | 9.0 |
| 2-1/2*2 | 65*50 | 2.00 | 51 | 2.50 | 64 | 7.48 | 190 | 4.84 | 123 | 10.43 | 265 | 33.1 | 15.0 |
| 3*2 | 80*50 | 2.00 | 51 | 3.00 | 76 | 7.99 | 203 | 4.84 | 123 | 11.22 | 285 | 35.3 | 16.0 |
| 4*3 | 100*80 | 3.00 | 76 | 4.00 | 102 | 9.02 | 229 | 6.69 | 170 | 11.81 | 300 | 65.0 | 29.5 |
| 6*4 | 150*100 | 4.00 | 102 | 6.00 | 152 | 15.51 | 394 | 8.11 | 206 | 15.75 | 400 | 105.8 | 48.0 |
| 8*6 | 200*150 | 6.00 | 152 | 8.00 | 203 | 17.99 | 457 | 20.91 | 531 | 15.75 | *400 | 271.2 | 123.0 |
| 10*8 | 250*200 | 8.00 | 203 | 10.00 | 254 | 20.98 | 533 | 24.65 | 626 | 19.68 | *500 | 480.6 | 218.0 |
| 12*10 | 300*250 | 10.00 | 254 | 12.00 | 305 | 24.02 | 610 | 26.30 | 668 | 19.68 | *500 | 507.1 | 230.0 |

*Gearbox operated

| Reduced Port | | | | | | | | | | | | | |
|--------------|---------|------|-----|-------|-----|-------|-----|-------|-------|-------|------|--------|-------|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | kg |
| 3/4*1/2 | 20*15 | 0.50 | 13 | 0.75 | 19 | 5.98 | 152 | 2.19 | 55.50 | 6.50 | 165 | 7.7 | 3.5 |
| 1*3/4 | 25*20 | 0.75 | 19 | 1.00 | 25 | 6.50 | 165 | 2.58 | 65.50 | 6.50 | 165 | 12.1 | 5.5 |
| 1-1/2*1 | 40*25 | 1.00 | 25 | 1.50 | 38 | 7.48 | 190 | 3.03 | 77 | 8.46 | 215 | 22.0 | 10.0 |
| 2*1-1/2 | 50*40 | 1.50 | 38 | 2.00 | 51 | 8.50 | 216 | 4.21 | 107 | 10.43 | 265 | 24.3 | 11.0 |
| 2-1/2*2 | 65*50 | 2.00 | 51 | 2.50 | 64 | 9.49 | 241 | 4.84 | 123 | 10.43 | 265 | 51.8 | 23.5 |
| 3*2 | 80*50 | 2.50 | 64 | 3.00 | 76 | 11.14 | 283 | 4.84 | 123 | 10.43 | 265 | 66.1 | 30.0 |
| 4*3 | 100*80 | 3.00 | 76 | 4.00 | 102 | 12.01 | 305 | 6.69 | 170 | 11.81 | 300 | 86.0 | 39.0 |
| 6*4 | 150*100 | 4.00 | 102 | 6.00 | 152 | 15.87 | 403 | 8.11 | 206 | 15.75 | 400 | 159.8 | 72.5 |
| 8*6 | 200*150 | 6.00 | 152 | 8.00 | 203 | 19.76 | 502 | 20.91 | 531 | 15.75 | *400 | 326.3 | 148.0 |
| 10*8 | 250*200 | 8.00 | 203 | 10.00 | 254 | 22.36 | 568 | 36.30 | 700 | 23.62 | *600 | 705.5 | 320.0 |

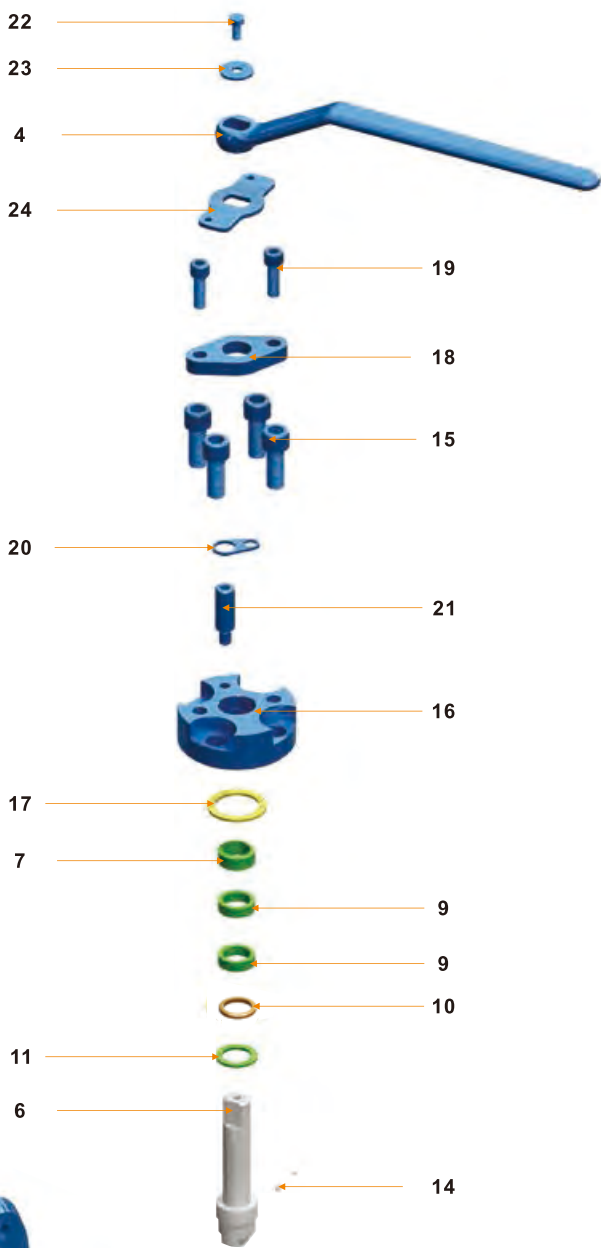
*Gearbox operated



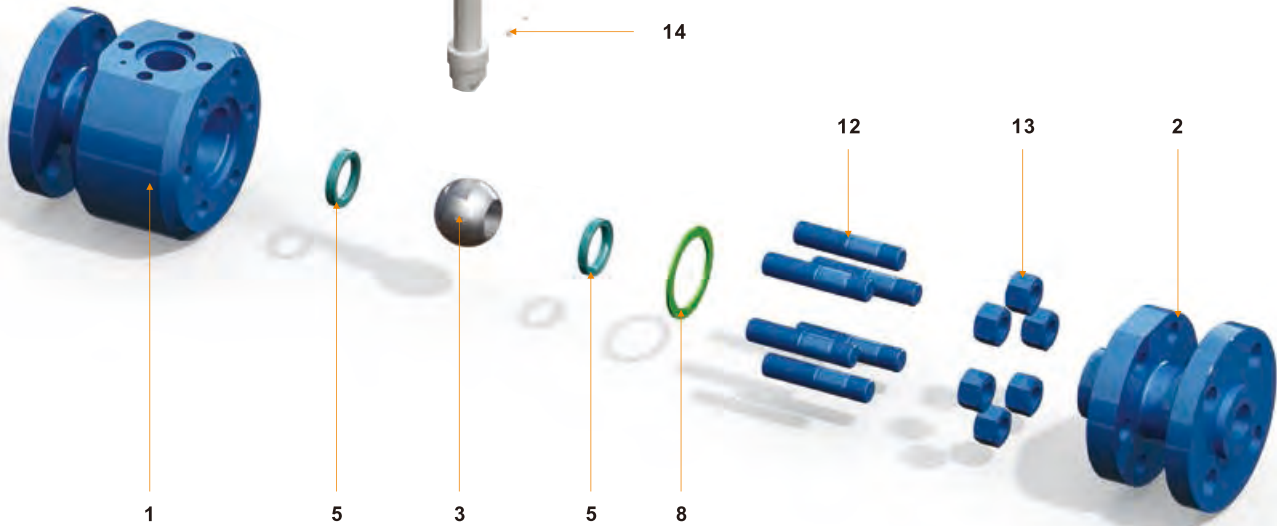
- 1 Double "D" Stem Head: ensures handle lever will always be mounted correctly, parallel to the media flow, indicating valve open and closed positions.
- 2 Reliable Flow Locking Device: Valve is equipped with an integral locking device to secure flow.
- 3 Anti-static Device: Spring-loaded plunger assures the electrical continuity between the ball, stem and body, to avoid static buildup.
- 4 Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
- 5 Bolted body-cap configuration: Properly torqued nut is used to maintain seal performance.
- 6 Fire Safe Design: Metal to metal sealing shuts off valve flow when soft sealing materials are destroyed by fire.

APPLICATIONS

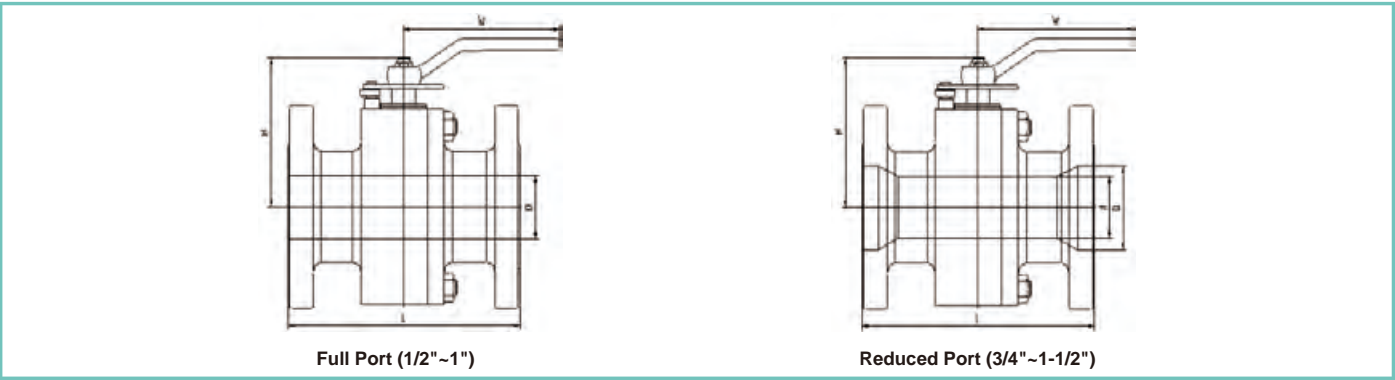
- Refinery
- Petrochemical
- Power
- Chemical
- Pharmaceutical
- Paper



| Index no | Part |
|----------|--------------------|
| 1 | Body |
| 2 | Cap |
| 3 | Ball |
| 4 | Lever |
| 5 | Seat |
| 6 | Stem |
| 7 | Gland |
| 8 | Gasket |
| 9 | Packing Set |
| 10 | Spacer Ring |
| 11 | Thrust Washer |
| 12 | Stud |
| 13 | Nut |
| 14 | Anti Static Device |
| 15 | Bolt |
| 16 | Cover |
| 17 | Gasket |
| 18 | Gland Flange |
| 19 | Bolt |
| 20 | Locking Plate |
| 21 | Screw |
| 22 | Bolt |
| 23 | Washer |
| 24 | Stop Plate |



| No | Part | Standard | Stainless Steel | Sour Service | Low Temperature Service |
|----|--------------------|-------------------|-------------------|-------------------|-------------------------|
| 1 | Body | ASTMA105N | ASTMA182-F316 | ASTMA105N | ASTMA350-LF2 |
| 2 | Cap | ASTMA105N | ASTMA182-F316 | ASTMA105N | ASTMA350-LF2 |
| 3 | Ball | ASTMA105N/ENP | ASTMA182-F316 | ASTMA105N/ENP | ASTMA182-F316 |
| 4 | Lever | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 5 | Seat | PTFE | PTFE | PTFE | PTFE |
| 6 | Stem | ASTMA182-F6a | ASTMA182-F316 | ASTMA182-F6a | ASTMA182-F316 |
| 7 | Gland | ASTMA276-420 | ASTMA276-316 | ASTMA276-420 | ASTMA276-316 |
| 8 | Gasket | 316 S.S.+Graphite | 316 S.S.+Graphite | 316 S.S.+Graphite | 316 S.S.+Graphite |
| 9 | Packing Set | Graphite | Graphite | Graphite | Graphite |
| 10 | Spacer Ring | ASTMA276-420 | ASTMA276-316 | ASTMA276-420 | ASTMA276-316 |
| 11 | Thrust Washer | PTFE | PTFE | PTFE | PTFE |
| 12 | Stud | ASTMA193-B7 | ASTMA193-B8 | ASTMA193-B7M | ASTMA320-L7M |
| 13 | Nut | ASTMA194-2H | ASTMA194-8 | ASTMA194-2HM | ASTMA194-7M |
| 14 | Anti Static Device | S.S. | S.S. | S.S. | S.S. |
| 15 | Bolt | Carbon Steel | S.S. | Carbon Steel | S.S. |
| 16 | Cover | ASTMA105N | ASTMA182-F316 | ASTMA105N | ASTMA350-LF2 |
| 17 | Gasket | 316 S.S.+Graphite | 316 S.S.+Graphite | 316 S.S.+Graphite | 316 S.S.+Graphite |
| 18 | Gland Flange | ASTMA216-WCB | ASTMA351-CF8 | ASTMA216-WCB | ASTMA352-LCB |
| 19 | Bolt | ASTMA193-B7 | ASTMA193-B8 | ASTMA193-B7M | ASTMA320-L7M |
| 20 | Locking Plate | S.S. | S.S. | S.S. | S.S. |
| 21 | Screw | S.S. | S.S. | S.S. | S.S. |
| 22 | Bolt | Carbon Steel | S.S. | Carbon Steel | S.S. |
| 23 | Washer | Carbon Steel | S.S. | Carbon Steel | S.S. |
| 24 | Stop Plate | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |



Class 150 Dimension and Weight

| Full Port | | | | | | | | | | | |
|-----------|----|------|----|------|-----|------|-------|------|-----|--------|------|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1/2 | 15 | 0.50 | 13 | 4.25 | 108 | 2.19 | 55.50 | 6.50 | 165 | 5.50 | 2.50 |
| 3/4 | 20 | 0.75 | 19 | 4.61 | 117 | 2.58 | 65.50 | 6.50 | 165 | 7.70 | 3.50 |
| 1 | 25 | 1.00 | 25 | 5.00 | 127 | 3.03 | 77 | 8.46 | 215 | 11.00 | 5.00 |

| Reduced Port | | | | | | | | | | | | | |
|--------------|-------|------|----|------|----|------|-----|------|-------|------|-----|--------|------|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 3/4*1/2 | 20*15 | 0.50 | 13 | 0.75 | 19 | 4.61 | 117 | 2.19 | 55.50 | 6.50 | 165 | 6.60 | 3.00 |
| 1*3/4 | 25*20 | 0.75 | 19 | 1.00 | 25 | 5.00 | 127 | 2.58 | 65.50 | 6.50 | 165 | 8.80 | 4.00 |
| 1-1/2*1 | 40*25 | 1.00 | 25 | 1.50 | 38 | 6.50 | 165 | 3.03 | 77 | 8.46 | 215 | 15.40 | 7.00 |

Class 300 Dimension and Weight

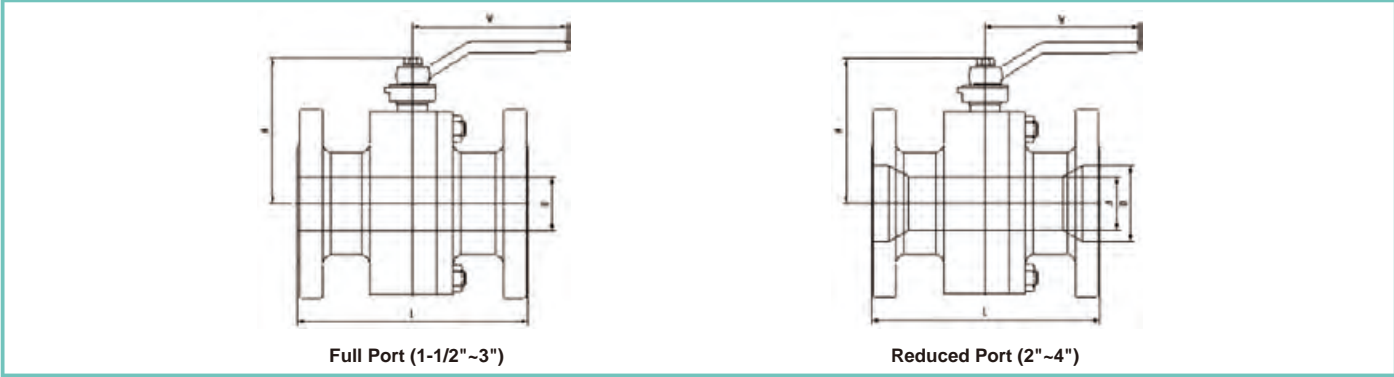
| Full Port | | | | | | | | | | | |
|-----------|----|------|----|------|-----|------|-------|------|-----|--------|------|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1/2 | 15 | 0.50 | 13 | 5.51 | 140 | 2.19 | 55.50 | 6.50 | 165 | 6.60 | 3.00 |
| 3/4 | 20 | 0.75 | 19 | 5.98 | 152 | 2.58 | 65.50 | 6.50 | 165 | 8.80 | 4.00 |
| 1 | 25 | 1.00 | 25 | 6.50 | 165 | 3.03 | 77 | 8.46 | 215 | 15.40 | 7.00 |

| Reduced Port | | | | | | | | | | | | | |
|--------------|-------|------|----|------|----|------|-----|------|-------|------|-----|--------|------|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 3/4*1/2 | 20*15 | 0.50 | 13 | 0.75 | 19 | 5.98 | 152 | 2.19 | 55.50 | 6.50 | 165 | 8.80 | 4.00 |
| 1*3/4 | 25*20 | 0.75 | 19 | 1.00 | 25 | 6.50 | 165 | 2.58 | 65.50 | 6.50 | 165 | 11.00 | 5.00 |
| 1-1/2*1 | 40*25 | 1.00 | 25 | 1.50 | 38 | 7.48 | 190 | 3.03 | 77 | 8.46 | 215 | 19.80 | 9.00 |

Class 600 Dimension and Weight

| Full Port | | | | | | | | | | | |
|-----------|----|------|----|-------|-----|------|-----|-------|-----|--------|-------|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 3 | 80 | 3.00 | 76 | 14.02 | 356 | 6.30 | 160 | 15.75 | 400 | 136.70 | 62.00 |

| Reduced Port | | | | | | | | | | | | | |
|--------------|--------|------|----|------|-----|-------|-----|------|-----|-------|-----|--------|-------|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 4*3 | 100*80 | 3.00 | 76 | 4.00 | 102 | 17.01 | 432 | 6.30 | 160 | 15.75 | 400 | 180.80 | 82.00 |



Class 150 Dimension and Weight

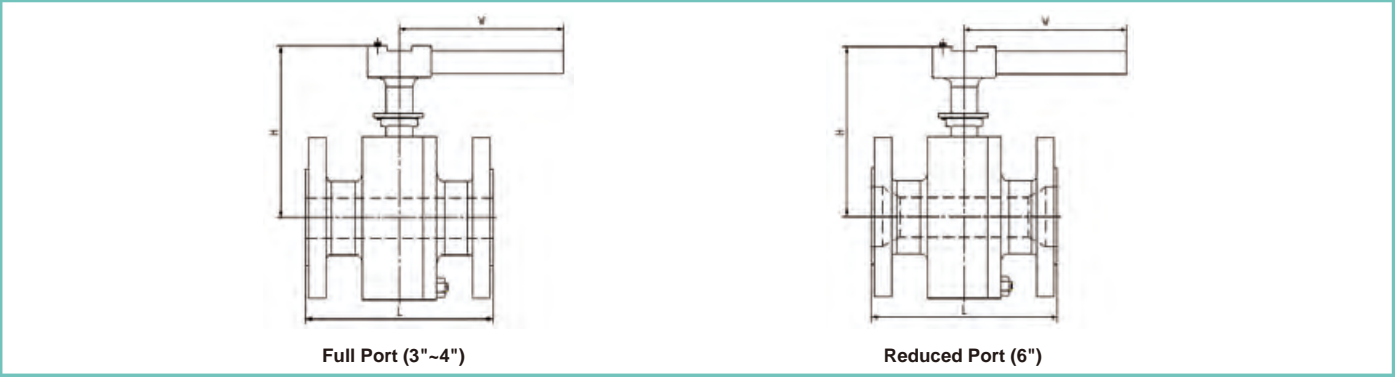
| Full Port | | | | | | | | | | | |
|-----------|-----|------|-----|------|-----|------|-----|-------|-----|--------|-------|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1-1/2 | 40 | 1.50 | 38 | 6.50 | 165 | 4.21 | 107 | 10.43 | 265 | 24.30 | 11.00 |
| 2 | 50 | 2.00 | 51 | 7.01 | 178 | 4.84 | 123 | 10.43 | 265 | 35.30 | 16.00 |
| 2-1/2 | 65 | 2.50 | 64 | 7.48 | 190 | 5.71 | 145 | 11.22 | 285 | 57.30 | 26.00 |
| 3 | 80 | 3.00 | 76 | 7.99 | 203 | 6.50 | 165 | 11.81 | 300 | 70.50 | 32.00 |
| 4 | 100 | 4.00 | 102 | 9.02 | 229 | 7.68 | 195 | 15.75 | 400 | 116.80 | 53.00 |

| Reduced Port | | | | | | | | | | | | | |
|--------------|---------|------|-----|------|-----|-------|-----|------|-----|-------|-----|--------|-------|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 2*1-1/2 | 50*40 | 1.50 | 38 | 2.00 | 51 | 7.01 | 178 | 4.21 | 107 | 10.43 | 265 | 29.80 | 13.50 |
| 3*2 | 80*50 | 2.00 | 51 | 2.50 | 64 | 7.99 | 203 | 4.84 | 123 | 10.43 | 265 | 44.10 | 20.00 |
| 4*3 | 100*80 | 3.00 | 76 | 4.00 | 102 | 9.02 | 229 | 6.50 | 165 | 11.81 | 300 | 83.80 | 38.00 |
| 6*4 | 150*100 | 4.00 | 102 | 6.00 | 152 | 15.51 | 394 | 7.68 | 195 | 15.75 | 400 | 158.70 | 72.00 |

Class 300 Dimension and Weight

| Full Port | | | | | | | | | | | |
|-----------|-----|------|-----|-------|-----|------|-----|-------|-----|--------|-------|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1-1/2 | 40 | 1.50 | 38 | 7.48 | 190 | 4.21 | 107 | 10.43 | 265 | 30.90 | 14.00 |
| 2 | 50 | 2.00 | 51 | 8.50 | 216 | 4.84 | 123 | 10.43 | 265 | 39.70 | 18.00 |
| 2-1/2 | 65 | 2.50 | 64 | 9.49 | 241 | 5.71 | 145 | 11.22 | 285 | 63.90 | 29.00 |
| 3 | 80 | 3.00 | 76 | 11.14 | 283 | 6.50 | 165 | 11.81 | 300 | 88.20 | 40.00 |
| 4 | 100 | 4.00 | 102 | 12.01 | 305 | 7.68 | 195 | 15.75 | 400 | 163.10 | 74.00 |

| Reduced Port | | | | | | | | | | | | | |
|--------------|---------|------|-----|------|-----|-------|-----|------|-----|-------|-----|--------|-------|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 2*1-1/2 | 50*40 | 1.50 | 38 | 2.00 | 51 | 8.50 | 216 | 4.21 | 107 | 10.43 | 265 | 32.00 | 14.50 |
| 3*2 | 80*50 | 2.00 | 51 | 2.50 | 64 | 11.14 | 283 | 4.84 | 123 | 10.43 | 265 | 55.10 | 25.00 |
| 4*3 | 100*80 | 3.00 | 76 | 4.00 | 102 | 12.01 | 305 | 6.50 | 165 | 11.81 | 300 | 110.20 | 50.00 |
| 6*4 | 150*100 | 4.00 | 102 | 6.00 | 152 | 15.87 | 403 | 7.68 | 195 | 15.75 | 400 | 211.60 | 96.00 |



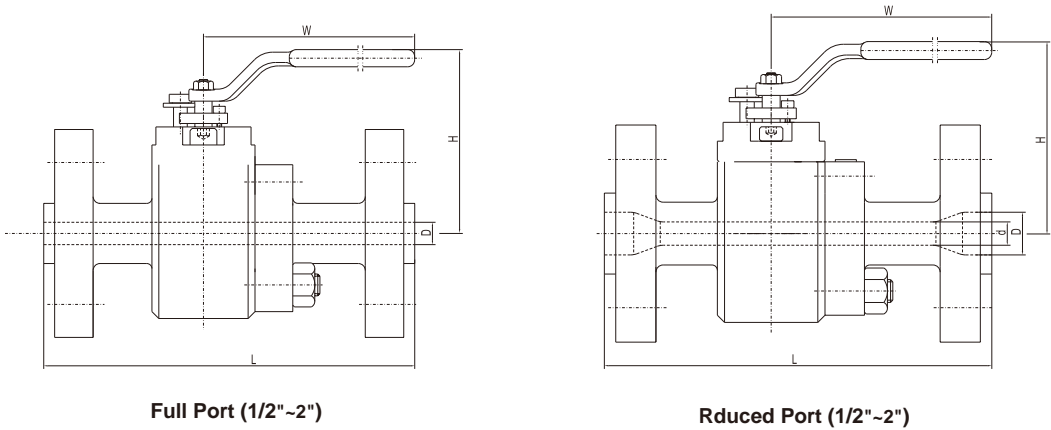
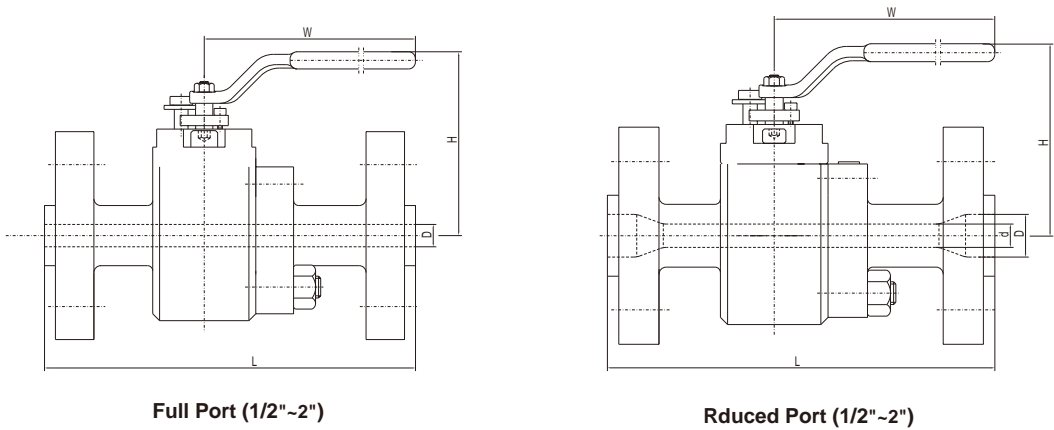
Class 600 Dimension and Weight

| Full Port | | | | | | | | | | | |
|-----------|-----|------|-----|-------|-----|-------|-----|-------|-----|--------|--------|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 4 | 100 | 4.00 | 102 | 17.01 | 432 | 11.93 | 303 | 39.17 | 995 | 297.60 | 135.00 |

Class 900 Dimension and Weight

| Full Port | | | | | | | | | | | |
|-----------|----|------|----|-------|-----|------|-----|-------|-----|--------|-------|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 3 | 80 | 3.00 | 76 | 15.00 | 381 | 9.80 | 249 | 31.50 | 800 | 198.40 | 90.00 |

| Reduced Port | | | | | | | | | | | | | |
|--------------|--------|------|----|------|-----|-------|-----|------|-----|-------|-----|--------|--------|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 4*3 | 100*80 | 3.00 | 76 | 4.00 | 102 | 18.00 | 457 | 9.80 | 249 | 31.50 | 800 | 249.10 | 113.00 |



Class 400/600 Dimension and Weight

| Full Port | | | | | | | | | | | |
|-----------|----|------|------|-------|-----|------|--------|-------|-----|--------|-------|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1/2" | 15 | 0.50 | 12.7 | 6.50 | 165 | 4.59 | 116.50 | 5.91 | 150 | 7.70 | 3.50 |
| 3/4" | 20 | 0.75 | 19 | 7.52 | 191 | 5.14 | 130.50 | 7.09 | 180 | 12.80 | 5.80 |
| 1" | 25 | 1.00 | 25.4 | 8.50 | 216 | 5.83 | 148 | 10.43 | 265 | 28.66 | 13.00 |
| 1-1/2" | 40 | 1.50 | 38 | 9.49 | 241 | 6.32 | 160.50 | 11.81 | 300 | 50.71 | 23.00 |
| 2" | 50 | 2.00 | 51 | 11.50 | 292 | 7.56 | 192 | 15.75 | 400 | 63.90 | 29.00 |

| Reduced Port | | | | | | | | | | | | | |
|--------------|-------|------|------|------|------|-------|-----|------|--------|-------|-----|--------|-------|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1/2*3/8 | 15*10 | 0.37 | 9.5 | 0.50 | 12.7 | 6.50 | 165 | 4.59 | 116.50 | 5.91 | 150 | 11.02 | 5.00 |
| 3/4**1/2 | 20*15 | 0.50 | 12.7 | 0.75 | 19 | 7.52 | 191 | 4.59 | 116.50 | 5.91 | 150 | 17.64 | 8.00 |
| 1*3/4 | 25*20 | 0.75 | 19 | 1.00 | 25.4 | 8.50 | 216 | 5.14 | 130.50 | 7.09 | 180 | 26.46 | 12.00 |
| 1-1/2*1 | 40*25 | 1.00 | 25.4 | 1.50 | 38 | 9.49 | 241 | 5.83 | 148 | 10.43 | 265 | 37.48 | 17.00 |
| 2*1-1/2 | 50*40 | 1.50 | 38 | 2.00 | 51 | 11.50 | 292 | 6.32 | 160.50 | 11.81 | 300 | 59.52 | 27.00 |

Class 900 Dimension and Weight

| Full Port | | | | | | | | | | | |
|-----------|----|------|------|-------|-----|------|--------|-------|-----|--------|----|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1/2" | 15 | 0.50 | 12.7 | 8.50 | 216 | 4.59 | 116.50 | 5.91 | 150 | 22.04 | 10 |
| 3/4" | 20 | 0.75 | 19 | 9.02 | 229 | 5.35 | 136 | 7.09 | 180 | 28.66 | 13 |
| 1" | 25 | 1.00 | 25.4 | 10.00 | 254 | 6.20 | 157.50 | 10.43 | 265 | 44.09 | 20 |
| 1-1/2" | 40 | 1.50 | 38 | 12.01 | 305 | 6.99 | 177.50 | 11.81 | 300 | 90.39 | 41 |
| 2" | 50 | 2.00 | 51 | 14.49 | 368 | 8.35 | 212 | 15.75 | 400 | 132.28 | 60 |

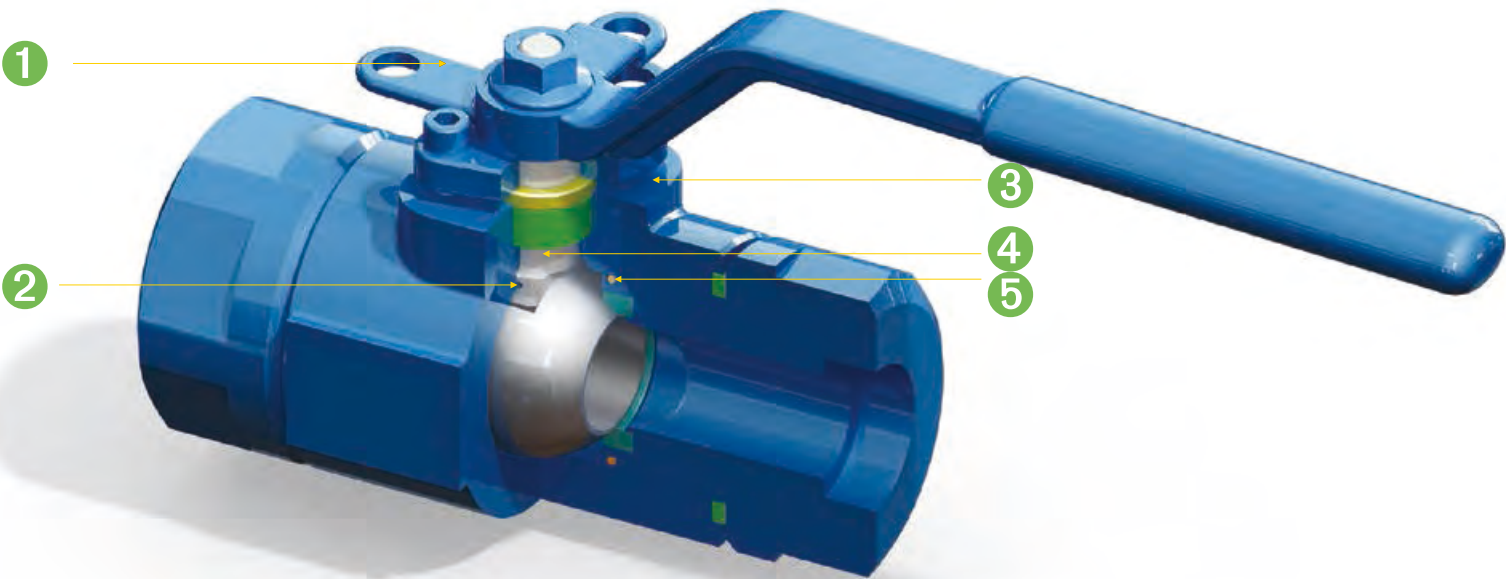
Class 900 Dimension and Weight

| Reduced port | | | | | | | | | | | | | |
|--------------|-------|------|------|------|------|-------|-----|------|--------|-------|-----|--------|----|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1/2*3/8 | 15*10 | 0.37 | 9.5 | 0.50 | 12.7 | 8.50 | 216 | 4.59 | 116.50 | 5.91 | 150 | 19.84 | 9 |
| 3/4*1/2 | 20*15 | 0.50 | 12.7 | 0.75 | 19 | 9.02 | 229 | 4.59 | 116.50 | 5.91 | 150 | 24.25 | 11 |
| 1*3/4 | 25*20 | 0.75 | 19 | 1.00 | 25.4 | 10.00 | 254 | 5.35 | 136 | 7.09 | 180 | 35.27 | 16 |
| 1-1/2*1 | 40*25 | 1.00 | 25.4 | 1.50 | 38 | 12.01 | 305 | 6.20 | 157.50 | 10.43 | 265 | 55.12 | 25 |
| 2*1-1/2 | 50*40 | 1.50 | 38 | 2.00 | 51 | 14.49 | 368 | 6.99 | 177.50 | 11.81 | 300 | 123.46 | 56 |

Class 1500 Dimension and Weight

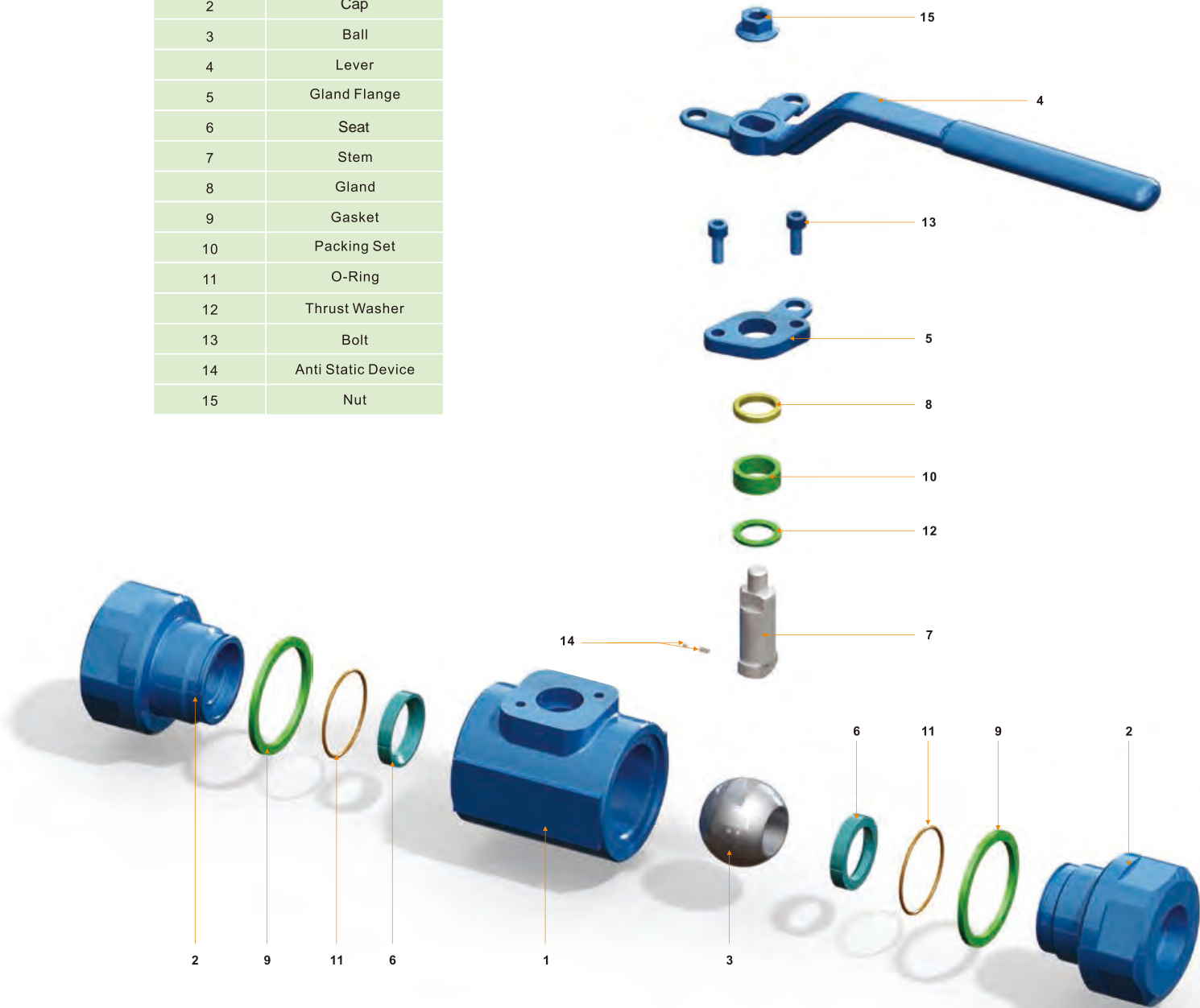
| Full Port | | | | | | | | | | | |
|-----------|----|------|------|-------|-----|------|--------|-------|-----|--------|----|
| Size | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1/2" | 15 | 0.50 | 12.7 | 8.50 | 216 | 4.59 | 116.50 | 5.91 | 150 | 22.04 | 10 |
| 3/4" | 20 | 0.75 | 19 | 9.02 | 229 | 5.35 | 136 | 7.09 | 180 | 28.66 | 13 |
| 1" | 25 | 1.00 | 25.4 | 10.00 | 254 | 6.20 | 157.50 | 10.43 | 265 | 44.09 | 20 |
| 1-1/2" | 40 | 1.50 | 38 | 12.01 | 305 | 6.99 | 177.50 | 11.81 | 300 | 90.39 | 41 |
| 2" | 50 | 2.00 | 51 | 14.49 | 368 | 8.35 | 212 | 15.75 | 400 | 132.28 | 60 |

| Reduced port | | | | | | | | | | | | | |
|--------------|-------|------|------|------|------|-------|-----|------|--------|-------|-----|--------|----|
| Size | | d | | D | | L | | H | | W | | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lb | Kg |
| 1/2*3/8 | 15*10 | 0.37 | 9.5 | 0.50 | 12.7 | 8.50 | 216 | 4.59 | 116.50 | 5.91 | 150 | 19.84 | 9 |
| 3/4*1/2 | 20*15 | 0.50 | 12.7 | 0.75 | 19 | 9.02 | 229 | 4.59 | 116.50 | 5.91 | 150 | 24.25 | 11 |
| 1*3/4 | 25*20 | 0.75 | 19 | 1.00 | 25.4 | 10.00 | 254 | 5.35 | 136 | 7.09 | 180 | 35.27 | 16 |
| 1-1/2*1 | 40*25 | 1.00 | 25.4 | 1.50 | 38 | 12.01 | 305 | 6.20 | 157.50 | 10.43 | 265 | 55.12 | 25 |
| 2*1-1/2 | 50*40 | 1.50 | 38 | 2.00 | 51 | 14.49 | 368 | 6.99 | 177.50 | 11.81 | 300 | 123.46 | 56 |



- 1 Reliable Flow Locking Device: Valve is equipped with an integral locking device to secure flow.
- 2 Anti-static Device: Spring-loaded plunger assures the electrical continuity between the ball, stem and body, to avoid static buildup.
- 3 ISO5211 connection dimension: actuator installation is simplified by using connection dimension recognized in international standards.
- 4 Blow-out proof stem: The lower end of the stem is T-shaped structured, protected by boss of body, which assures stem retention against any pressure.
- 5 O-ring Seal Design: Protects threads from crevice corrosion.

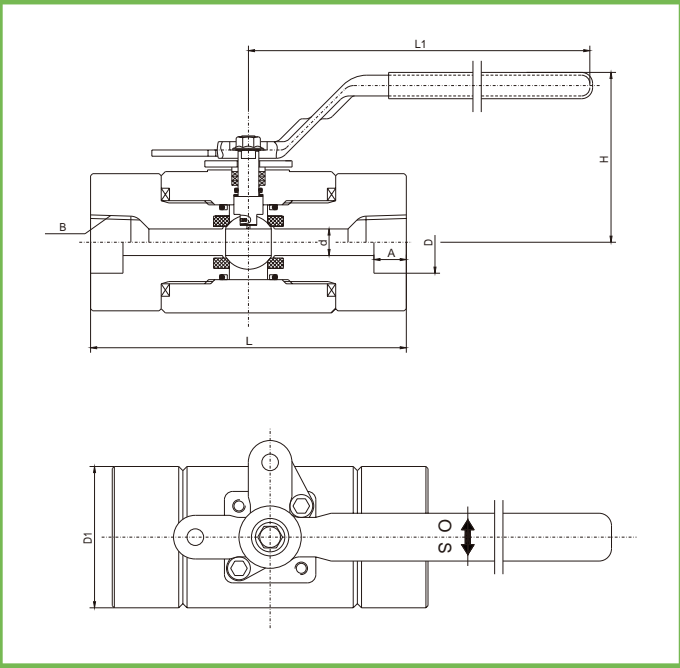
| Index no | Part |
|----------|--------------------|
| 1 | Body |
| 2 | Cap |
| 3 | Ball |
| 4 | Lever |
| 5 | Gland Flange |
| 6 | Seat |
| 7 | Stem |
| 8 | Gland |
| 9 | Gasket |
| 10 | Packing Set |
| 11 | O-Ring |
| 12 | Thrust Washer |
| 13 | Bolt |
| 14 | Anti Static Device |
| 15 | Nut |



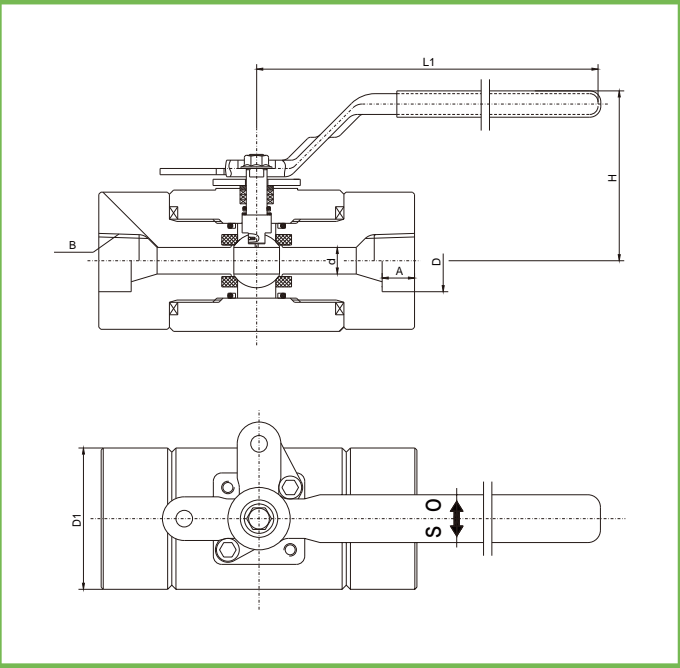
APPLICATIONS

- Refinery
- Chemical
- Power
- Petrochemical

| No | Part | Standard | Stainless Steel | Sour Service | Low Temperature Service |
|----|--------------------|-------------------|-------------------|-------------------|-------------------------|
| 1 | Body | ASTM A105N | ASTM A182-F316 | ASTM A105N | ASTM A350-LF2 |
| 2 | Cap | ASTM A105N | ASTM A182-F316 | ASTM A105N | ASTM A350-LF2 |
| 3 | Ball | ASTM A105N/ENP | ASTM A182-F316 | ASTM A105N/ENP | ASTM A182-F316 |
| 4 | Lever | Carbon Steel | Carbon Steel | Carbon Steel | Carbon Steel |
| 5 | Gland Flange | ASTM A216-WCB | ASTM A351-CF8 | ASTM A216-WCB | ASTM A352-LCB |
| 6 | Seat | PTFE | PTFE | PTFE | PTFE |
| 7 | Stem | ASTM A182-F6a | ASTM A182-F316 | ASTM A182-F6a | ASTM A182-F316 |
| 8 | Gland | ASTM A276-420 | ASTM A276-316 | ASTM A276-420 | ASTM A276-316 |
| 9 | Gasket | 316 S.S.+Graphite | 316 S.S.+Graphite | 316 S.S.+Graphite | 316 S.S.+Graphite |
| 10 | Packing Set | Graphite | Graphite | Graphite | Graphite |
| 11 | O-Ring | Viton AED | Viton AED | Viton AED | HNBR |
| 12 | Thrust Washer | PTFE | PTFE | PTFE | PTFE |
| 13 | Bolt | ASTM A193-B7 | ASTM A193-B8 | ASTM A193-B7M | ASTM A320-L7M |
| 14 | Anti Static Device | S.S. | S.S. | S.S. | S.S. |
| 15 | Nut | Carbon Steel | S.S. | Carbon Steel | S.S. |



Full Bore (1/2"-2")

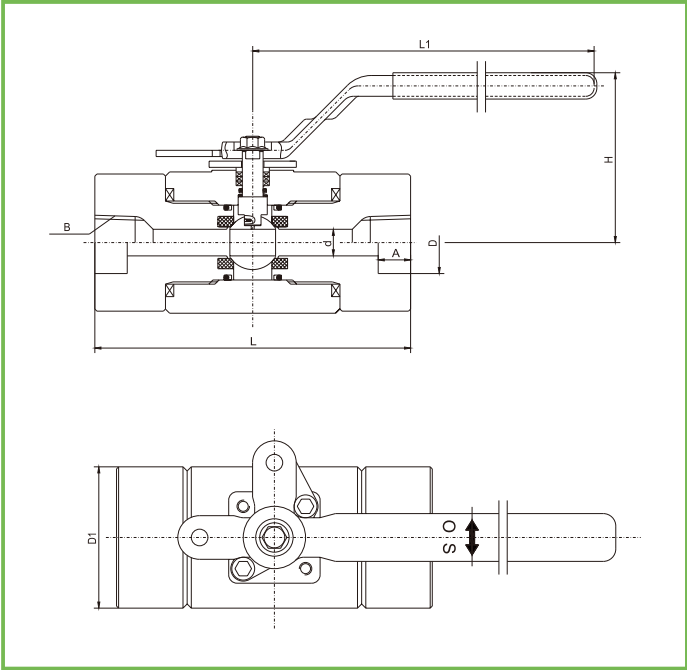


Reduced Bore (1/2"-2")

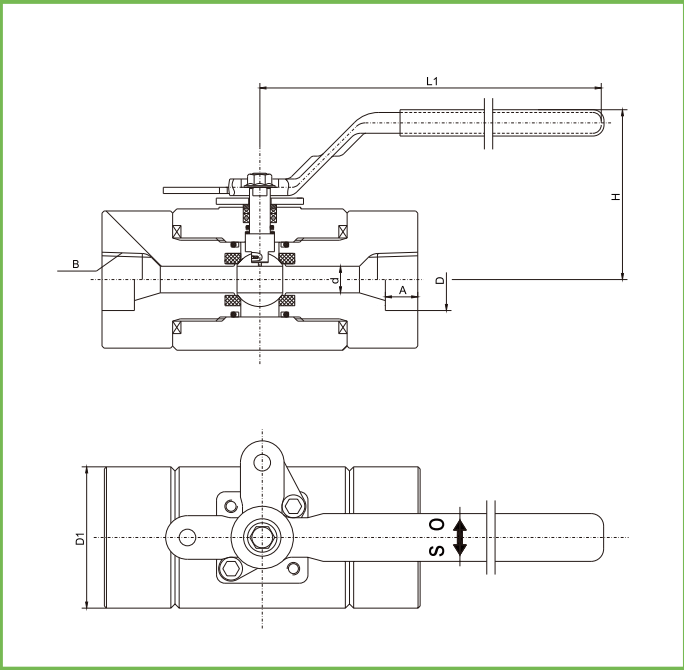
Class 150/300/600/800/900 Dimension and weight

| Full Bore | | | | | | | | | | | | | | | | | | |
|-----------|----|------|------|------|-----|------|-----|-------|-----|------|-------|------|-------|------|-----|---------------|--------|-------|
| Size | | d | | L | | H | | L1 | | A | | D | | D1 | | B | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | | lb | kg |
| 1/4 | 8 | 0.25 | 6.40 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.37 | 9.50 | 0.56 | 14.20 | 1.65 | 42 | 1/4-18NPT | 3.30 | 1.50 |
| 3/8 | 10 | 0.37 | 9.50 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.37 | 9.50 | 0.69 | 17.60 | 1.65 | 42 | 3/8-18NPT | 3.30 | 1.50 |
| 1/2 | 15 | 0.50 | 13 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.37 | 9.50 | 0.86 | 21.80 | 1.65 | 42 | 1/2-14NPT | 3.30 | 1.50 |
| 3/4 | 20 | 0.75 | 20 | 5.00 | 127 | 3.23 | 82 | 7.09 | 180 | 0.49 | 12.50 | 1.07 | 27.20 | 2.28 | 58 | 3/4-14NPT | 6.39 | 2.90 |
| 1 | 25 | 1.00 | 25 | 4.53 | 115 | 3.94 | 100 | 9.06 | 230 | 0.49 | 12.50 | 1.33 | 33.90 | 2.68 | 68 | 1-11.5NPT | 7.72 | 3.50 |
| 1-1/2 | 40 | 1.50 | 38 | 5.63 | 143 | 5.31 | 135 | 11.81 | 300 | 0.49 | 12.50 | 1.92 | 48.80 | 3.66 | 93 | 1-1/2-11.5NPT | 16.53 | 7.50 |
| 2 | 50 | 2.00 | 51 | 6.30 | 160 | 6.50 | 165 | 14.57 | 370 | 0.63 | 16.00 | 2.41 | 61.20 | 4.49 | 114 | 2-11.5NPT | 28.66 | 13.00 |

| Reduced Bore | | | | | | | | | | | | | | | | | | |
|--------------|-------|------|------|------|-----|------|-----|-------|-----|------|-------|------|-------|------|----|---------------|--------|------|
| Size | | d | | L | | H | | L1 | | A | | D | | D1 | | B | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | | lb | kg |
| 3/8*1/4 | 10*8 | 0.25 | 6.40 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.37 | 9.50 | 0.69 | 17.60 | 1.65 | 42 | 3/8-18NPT | 3.30 | 1.50 |
| 1/2*3/8 | 15*10 | 0.37 | 9.50 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.37 | 9.50 | 0.86 | 21.80 | 1.65 | 42 | 1/2-14NPT | 3.30 | 1.50 |
| 3/4*1/2 | 20*15 | 0.51 | 13 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.49 | 12.50 | 1.07 | 27.20 | 1.65 | 42 | 3/4-14NPT | 3.30 | 1.50 |
| 1*3/4 | 25*20 | 0.79 | 20 | 5.00 | 127 | 3.23 | 82 | 7.09 | 180 | 0.49 | 12.50 | 1.33 | 33.90 | 2.28 | 58 | 1-11.5NPT | 6.39 | 2.90 |
| 1-1/2*1 | 40*25 | 0.98 | 25 | 4.53 | 115 | 3.94 | 100 | 9.06 | 230 | 0.49 | 12.50 | 1.92 | 48.80 | 2.68 | 68 | 1-1/2-11.5NPT | 7.72 | 3.50 |
| 2-*1-1/2 | 50*40 | 1.50 | 38 | 5.63 | 143 | 5.31 | 135 | 11.81 | 300 | 0.63 | 16 | 2.41 | 61.20 | 3.66 | 93 | 2-11.5NPT | 16.53 | 7.50 |



Full Bore (1/2"~2")



Reduced Bore (1/2"~2")

Class 1500/2500 Dimension and weight

| Full Bore | | | | | | | | | | | | | | | | | | |
|-----------|----|------|------|------|-----|------|-----|-------|-----|------|-------|------|-------|------|-----|---------------|--------|------|
| Size | | d | | L | | H | | L1 | | A | | D | | D1 | | B | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | | lb | kg |
| 1/4 | 8 | 0.25 | 6.40 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.37 | 9.50 | 0.56 | 14.20 | 1.65 | 42 | 1/4-18NPT | 3.30 | 1.50 |
| 3/8 | 10 | 0.37 | 9.50 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.37 | 9.50 | 0.69 | 17.60 | 1.65 | 42 | 3/8-18NPT | 3.30 | 1.50 |
| 1/2 | 15 | 0.50 | 13 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.37 | 9.50 | 0.86 | 21.80 | 1.65 | 42 | 1/2-14NPT | 3.30 | 1.50 |
| 3/4 | 20 | 0.75 | 20 | 5.00 | 127 | 3.23 | 82 | 7.09 | 180 | 0.49 | 12.50 | 1.07 | 27.20 | 2.28 | 58 | 3/4-14NPT | 6.39 | 2.90 |
| 1 | 25 | 1.00 | 25 | 4.53 | 115 | 3.94 | 100 | 9.06 | 230 | 0.49 | 12.50 | 1.33 | 33.90 | 2.83 | 72 | 1-11.5NPT | 11 | 5 |
| 1-1/2 | 40 | 1.50 | 38 | 5.63 | 143 | 5.31 | 135 | 11.81 | 300 | 0.49 | 12.50 | 1.92 | 48.80 | 4.13 | 105 | 1-1/2-11.5NPT | 28.66 | 13 |
| 2 | 50 | 2.00 | 51 | 6.30 | 160 | 6.50 | 165 | 14.57 | 370 | 0.63 | 16.00 | 2.41 | 61.20 | 5.28 | 134 | 2-11.5NPT | 40.09 | 20 |

| Reduced Bore | | | | | | | | | | | | | | | | | | |
|--------------|-------|------|------|------|-----|------|-----|-------|-----|------|-------|------|-------|------|-----|---------------|--------|------|
| Size | | d | | L | | H | | L1 | | A | | D | | D1 | | B | Weight | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | | lb | kg |
| 3/8*1/4 | 10*8 | 0.25 | 6.40 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.37 | 9.50 | 0.69 | 17.60 | 1.65 | 42 | 3/8-18NPT | 3.30 | 1.50 |
| 1/2*3/8 | 15*10 | 0.37 | 9.50 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.37 | 9.50 | 0.86 | 21.80 | 1.65 | 42 | 1/2-14NPT | 3.30 | 1.50 |
| 3/4*1/2 | 20*15 | 0.51 | 13 | 4.09 | 104 | 2.44 | 62 | 5.91 | 150 | 0.49 | 12.50 | 1.07 | 27.20 | 1.65 | 42 | 3/4-14NPT | 3.30 | 1.50 |
| 1*3/4 | 25*20 | 0.79 | 20 | 5.00 | 127 | 3.23 | 82 | 7.09 | 180 | 0.49 | 12.50 | 1.33 | 33.90 | 2.28 | 58 | 1-11.5NPT | 6.39 | 2.90 |
| 1-1/2*1 | 40*25 | 0.98 | 25 | 4.53 | 115 | 3.94 | 100 | 9.06 | 230 | 0.49 | 12.50 | 1.92 | 48.80 | 2.83 | 72 | 1-1/2-11.5NPT | 11 | 5 |
| 2*1-1/2 | 50*40 | 1.50 | 38 | 5.63 | 143 | 5.31 | 135 | 11.81 | 300 | 0.63 | 16 | 2.41 | 61.20 | 4.13 | 105 | 2-11.5NPT | 28.66 | 13 |

Flow Coefficient (Cv value)

| Size (inch) | Class 150 | Class 300 | Class 600 | Class 900 | Class 1500 |
|-------------|-----------|-----------|-----------|-----------|------------|
| 1/2 | 25 | 25 | 20 | 16 | 16 |
| 3/4 | 56 | 56 | 48 | 34 | 34 |
| 1 | 95 | 95 | 64 | 55 | 55 |
| 1-1/2 | 308 | 308 | 308 | 165 | 165 |
| 2 | 500 | 430 | 370 | 320 | 320 |
| 3 | 1360 | 1100 | 1020 | 920 | |
| 4 | 2500 | 2000 | 1850 | | |
| 6 | 5300 | 5250 | | | |
| 8 | 10750 | 10100 | | | |
| 10 | 17500 | 16820 | | | |
| 12 | 26750 | 25950 | | | |

Notes:

1. All the sizes are in full port.
2. Pressure Ratings are according to ASME B16.34.

Method of Calculating Flow

The flow coefficient Cv is the flow rate of water (gallons/minute) through a fully opened valve, with a pressure drop of 1 psi across the valve. Cv is given using the formula.

Liquid Flow:

$Q_L = C_v (P/G)^{1/2}$

Q_L= Flow rate of liquid (gal. /min.)

P= differential pressure across the valve

G= specific gravity of liquid (for water, G=1)

Gas Flow:

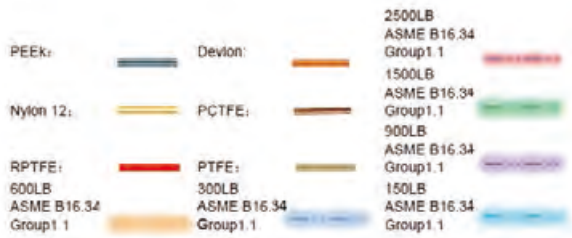
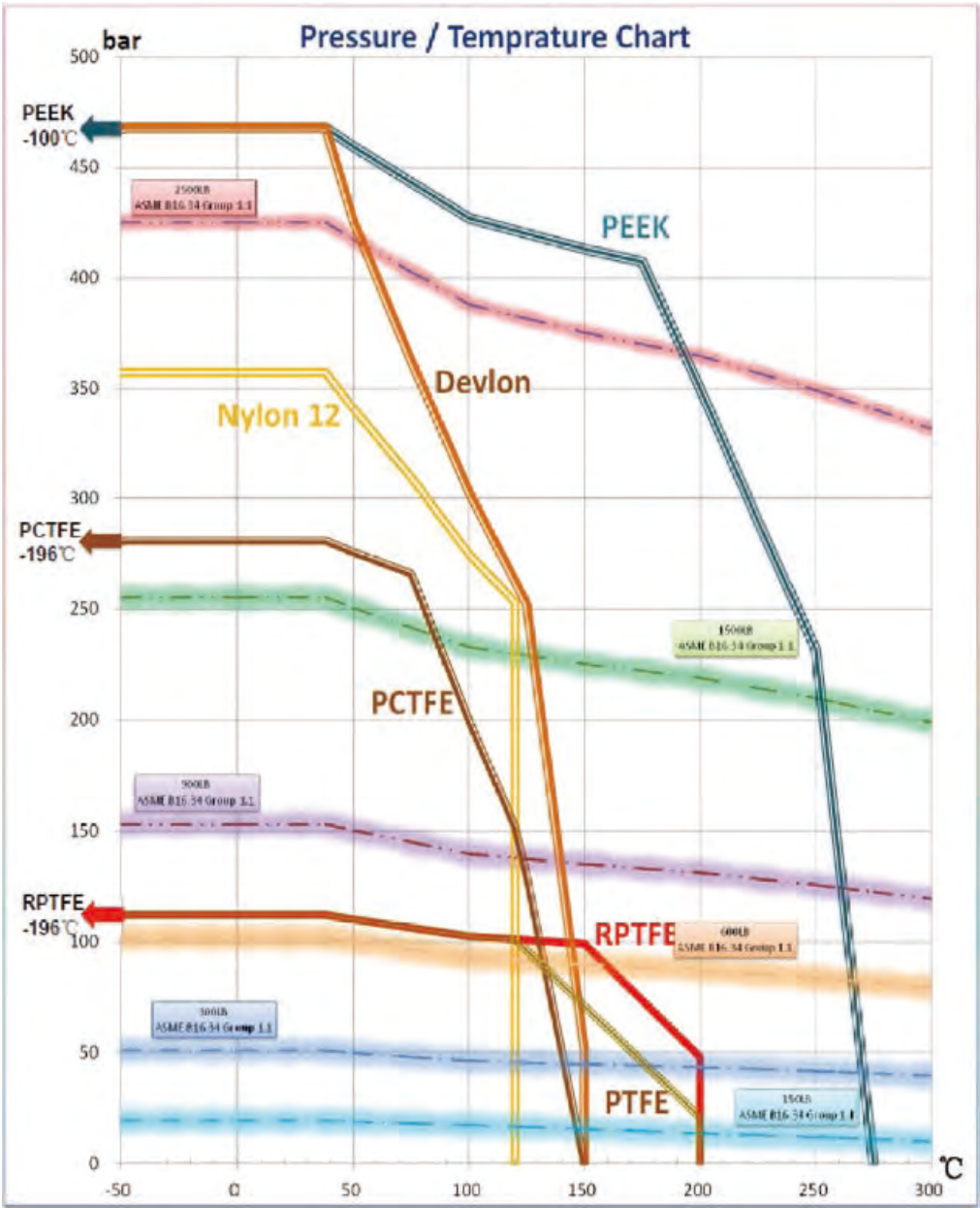
$Q_g = 61 C_v (P_2 P/g)^{1/2}$

(For non-critical flow, P/P<1.0)

Q_g = Flow rate of gas (CFH at STP)

P₂ = outlet pressure (psia)

g = specific gravity of gas (for air, g=1.0)



Note: Other materials are available upon request.
If the operating condition is beyond the range above, please contact NEWAY's technical team.
NEWAY reserves the right to update without notice.

Operating Torque

| Size | Class 150 | | Class 300 | | Class 400 | | Class 600 | |
|-------|-----------|---------|-----------|---------|-----------|--------|-----------|--------|
| | N.m | Ft/Lbs | N.m | Ft/Lbs | N.m | Ft/Lbs | N.m | Ft/Lbs |
| 1/2 | 5 | 3.69 | 6 | 4.43 | 11 | 8.12 | 16 | 11.81 |
| 3/4 | 8 | 5.90 | 10 | 7.38 | 14 | 10.33 | 20 | 14.76 |
| 1 | 15 | 11.07 | 17 | 12.55 | 29 | 21.40 | 42 | 31.00 |
| 1-1/4 | 30 | 22.14 | 45 | 33.21 | 50 | 36.90 | 72 | 53.14 |
| 1-1/2 | 35 | 25.83 | 45 | 33.21 | 62 | 45.76 | 90 | 66.42 |
| 2 | 40 | 29.52 | 55 | 40.59 | 90 | 66.42 | 130 | 95.94 |
| 2-1/2 | 70 | 51.67 | 90 | 66.42 | 104 | 76.75 | 150 | 110.70 |
| 3 | 90 | 66.42 | 120 | 88.56 | 138 | 101.84 | 200 | 147.60 |
| 4 | 180 | 132.84 | 230 | 169.74 | 265 | 188.19 | 370 | 273.06 |
| 6 | 480 | 354.27 | 930 | 686.34 | | | | |
| 8 | 900 | 664.26 | 1930 | 1424.34 | | | | |
| 10 | 1800 | 1328.51 | 4000 | 2952.25 | | | | |

| Size | Class 800 | | Class 900 | | Class 1500 | | Class 2500 | |
|-------|-----------|--------|-----------|--------|------------|--------|------------|--------|
| | N.m | Ft/Lbs | N.m | Ft/Lbs | N.m | Ft/Lbs | N.m | Ft/Lbs |
| 1/2 | 19 | 14.02 | 25 | 18.45 | 32 | 23.62 | 56 | 41.33 |
| 3/4 | 33 | 24.35 | 40 | 29.52 | 60 | 44.28 | 95 | 70.12 |
| 1 | 65 | 47.97 | 80 | 59.05 | 140 | 103.33 | 175 | 129.16 |
| 1-1/4 | 100 | 73.81 | 115 | 84.88 | 155 | 114.40 | | |
| 1-1/2 | 130 | 95.94 | 140 | 103.32 | 171 | 126.21 | | |
| 2 | 187 | 138.01 | 336 | 247.99 | 420 | 309.96 | | |
| 3 | | | 431 | 318.08 | | | | |

- Note:
- Torque is calculated based on ambient temperature, with RPTFE seat for Class 150~Class 800, NYLON for Class 900~1500, PEEK for Class 2500, NYLON (4" in size) for Class 600.
 - Torque shown in this table is the reference for actuator selection. A safety factor of 1.3~1.5 is recommended for identifying actuator sizing.
 - For cryogenic service, torque shall be increased about 2~2.5 times.
 - Torque may vary with fluids and trim materials. Contact NEWAY Ball Valve Engineering Department for specific requirements.

NEWAY Head Office

Total area: 2,295sqm
Office area: 6,885sqm

Founded in 2014



Neway Manufacturing Base

Main products: Ball Valve, Gate Valve,
Globe Valve, Check Valve,
Forged Steel Valve, Butterfly Valve
Building area: 230,000 sqm
Work shop: 140,061 sqm

Expanded in 2013



NEWAY Foundry (Suzhou)

Main products: Sand Casting
Building area: 112,500 sqm
Work shop: 98000 sqm

Founded in 2008



NEWAY Foundry (Dafeng)

Main products: Lost wax investment casting
Building area: 46,000 sqm
Work shop: 12,000 sqm

Founded in 2004



NEWAY Foundry (Dafeng)

Main products: Lost wax investment casting
Building area: 40,000 sqm
Work shop: 20,000 sqm

Founded in 2008



Seller will replace without charge or refund the purchase price of products provided by Seller which prove to be defective in material or workmanship, provided in each case that the product is properly installed and is used in the service for which Seller recommends it and that written claim, specifying the alleged defect, is presented to the Seller within 18 months from the date of shipment or 12 months after installation, whichever occurs first. Seller shall in no event bear any labor, equipment, engineering or other costs incurred in connection with repair or replacement. The warranty stated in this paragraph is in lieu of all other warranties, either expressed or implied. With respect to warranties, this paragraph states Buyer's exclusive remedy and seller's exclusive liability.