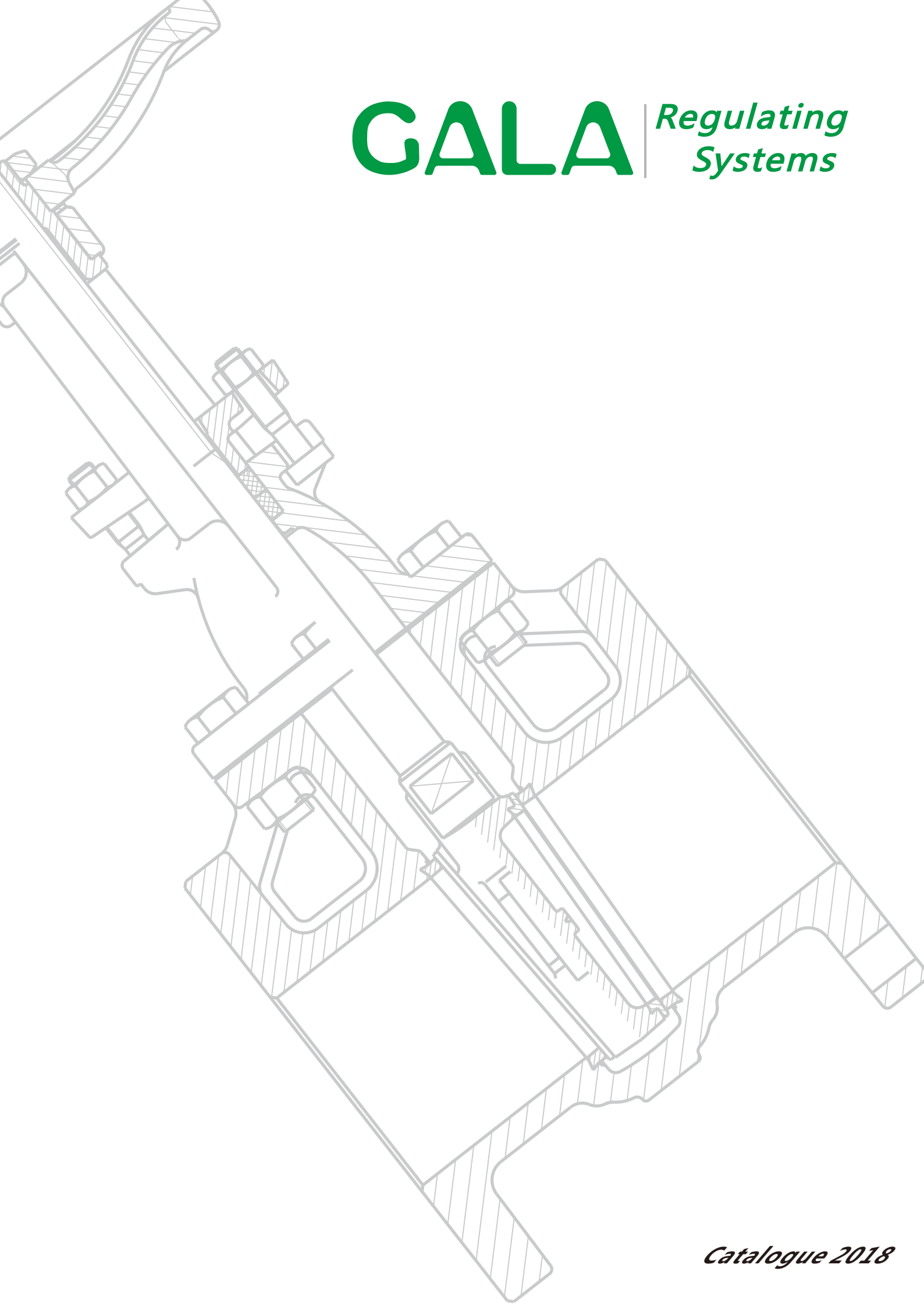


A detailed technical line drawing of a mechanical assembly, likely a window or door regulator system. The drawing shows a complex arrangement of metal components, including a long horizontal beam, various brackets, bolts, and a cable or rod running through the assembly. The components are shown in cross-section with hatching to indicate different materials or internal structures. The drawing is oriented diagonally across the page.

# GALA | *Regulating Systems*

*Catalogue 2018*



# CONTENTS

## Butterfly Valves

|                                           |    |
|-------------------------------------------|----|
| Wafer Butterfly Valves                    | 1  |
| Lug Butterfly Valves                      | 3  |
| U-Type Butterfly Valves                   | 5  |
| AWWA C504 Double Flanged Butterfly Valves | 7  |
| ISO Double Flanged Butterfly Valves       | 8  |
| AWWA Double Eccentric Butterfly Valves    | 10 |
| Double Eccentric Butterfly Valves         | 11 |
| Triple Eccentric Butterfly Valves         | 12 |

## BFV Design of Construction

|                            |    |
|----------------------------|----|
| BFV Design of Construction | 13 |
|----------------------------|----|

## BFV Design of Seat

|                    |    |
|--------------------|----|
| BFV Design of Seat | 15 |
|--------------------|----|

## Actuators and Controls

|                               |    |
|-------------------------------|----|
| Lever Operator                | 18 |
| Gear Box                      | 21 |
| Signal Gearbox                | 23 |
| Electric Actuator             | 23 |
| Pneumatic Actuator            | 27 |
| Position Monitoring Switchbox | 28 |

## Gate Valve

|                                                |    |
|------------------------------------------------|----|
| BS/MSS OS&Y Metal Seated Gate Valve PN16       | 29 |
| BS/MSS OS&Y Metal Seated Gate Valve PN25       | 30 |
| BS/MSS NRS Metal Seated Gate Valve PN16        | 31 |
| DIN F4 OS&Y Metal Seated Gate Valve PN16       | 32 |
| BS3464 NRS Metal Seated Gate Valve PN10        | 33 |
| DIN F4 NRS Metal Seated Gate Valve PN16        | 34 |
| DIN F4 NRS Metal Seated Gate Valve PN10        | 35 |
| DIN F5 NRS Metal Seated Gate Valve PN16        | 36 |
| BS5150 NRS Gate Valve Heavy pattern, Vertical  | 37 |
| BS5150NRS Gate Valve Heavy Pattern, Horizontal | 38 |

## Gate Valve

|                                                |    |
|------------------------------------------------|----|
| AWWA C509 NRS Resilient Seat Gate Valve 200Psi | 39 |
| BS5163 OS&Y Resilient Seat Gate Valve PN16     | 40 |
| BS5163 NRS Resilient Seat Gate Valve PN16      | 41 |
| DIN F4/F5 NRS Resilient Seat Gate Valve PN16   | 42 |

## Ball Valve

|            |    |
|------------|----|
| Ball Valve | 43 |
|------------|----|

## Check Valve

|                                               |    |
|-----------------------------------------------|----|
| Wafer Type Single Door Check Valve            | 44 |
| Wafer Type Double Door Check Valve            | 45 |
| Full Rubber Lined Double Door Check Valve     | 46 |
| Wafer Type Silent Check Valve                 | 47 |
| Globe Type Silent Check Valve                 | 48 |
| Flange Type Swing Check Valve-BS/MSS Standard | 49 |
| Flange Type Swing Check Valve-DIN Standard    | 50 |
| Flange Type Lifting Check Valve               | 51 |
| Ball Check Valve                              | 52 |
| Swing-Flex Check Valve                        | 53 |

## Foot Valve

|            |    |
|------------|----|
| Foot Valve | 54 |
|------------|----|

## Globe Valve

|                           |    |
|---------------------------|----|
| BS / MSS OS&Y Globe Valve | 55 |
| DIN OS&Y Globe Valve      | 56 |

## Strainer

|                      |    |
|----------------------|----|
| Y-Type Strainer      | 57 |
| Basket Type Strainer | 59 |

## Air Vent

|                                  |    |
|----------------------------------|----|
| Screwed Air Vent                 | 60 |
| Flanged Orifice Air Valve        | 61 |
| Flanged Double Orifice Air Valve | 62 |

## Company Profile

### **GALA - Extends Business on a Global Perspective.**

GALA company offers a wide range of products and systems in the field of valves, piping, and seismic isolation for applications ranging from equipment for office buildings, fire fighting, heating, water works, sewerage, marine, industrial to top fluid control. Our aim is meaningful contribution to society by providing comfort and safety through our products, technical skills and services!

### **GALA - Professional Manufacturer of Industrial Valves**

GALA have variety products to meet customer demand of different valve. Designing, manufacture and sale of one-stop service is the company's core strengths.

### **GALA products cover the following industry area:**

Water supply system, water treatment, food, chemical, cement, air-conditioning systems, industry engineering, nuclear power, papermaking, Petrochemical Industry, pharmaceutical, Powder Industry, steel industry, sugar refining, textiles and so on. GALA anti-pollution environmental protection industry is one of the major business. GALA provides various valve for wastewater processing and exhaust gas processing.

### **GALA have wide variety of industrial valves, including following main products:**

- ◆ Fire Protection Valve
- ◆ Balancing Valve
- ◆ Butterfly Valve
- ◆ Gate Valve, Globe Valve, Check Valve, Ball Valve
- ◆ Strainer
- ◆ Flexible Rubber Joint
- ◆ Flexible Stainless Steel Hose, Expansion Joints

Other Valves and fittings are also available from GALA.

All products will be designed, manufactured and assembly by GALA.



CLASS 125/ CLASS 250/  
PN16/PN25/JIS 10K/JIS 16K

Wafer Butterfly Valves

Fig. 2302



### Valve Standard :

Comply with ISO 5752/BS 5155/  
BS EN 593/MSS SP-67/API 609

### Pressure Temperature Ratings

|                     |                          |
|---------------------|--------------------------|
| Working pressure    | 16bar/25bar              |
| Testing Pressure    | Shell:24bar/37.5bar      |
|                     | Seal:17.6bar/27.5bar     |
| Working Temperature | -20°C to 110°C EPDM Seat |
|                     | -10°C to 80°C NBR Seat   |
| Suitable Media      | Water,Oil&Gas            |

### Material Specification

| Part      | Material                  | ASTM              |
|-----------|---------------------------|-------------------|
| Body      | Cast Iron                 | A126 Class B      |
|           | Ductile Iron              | A536 Gr. 65-45-12 |
| Disc      | Ductile Iron              | A536 Gr. 65-45-12 |
|           | Bronze                    | B148 C95400       |
|           | Stainless Steel           | A351 CF-8         |
|           | Stainless steel           | A351 CF-8M        |
| Shaft     | Stainless Steel           | A276 S 410 00     |
|           | Stainless Steel           | A276 S 431 00     |
| Seat Ring | EPDM / NBR / Viton / PTFE |                   |
| O-Ring    | EPDM / NBR                |                   |
| Bushing   | PTFE                      |                   |
|           | Bronze                    | B62 C83600        |

### NOTE :

ONLY DN50-DN300 DOUBLE SHAFT DESIGNED VALVES  
ARE WRAS APPROVED.

### Dimensions

| DN | mm   | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 |
|----|------|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16  |
| A  |      | 68    | 80  | 89    | 95  | 114 | 127 | 139 | 175 | 203 | 242 | 267 | 316 |
| B  |      | 110   | 161 | 175   | 181 | 200 | 213 | 226 | 260 | 292 | 337 | 368 | 400 |
| C  |      | 24    | 30  | 30    | 30  | 30  | 30  | 30  | 34  | 34  | 34  | 40  | 52  |
| L  |      | 33    | 42  | 45    | 45  | 51  | 55  | 55  | 60  | 67  | 76  | 76  | 102 |

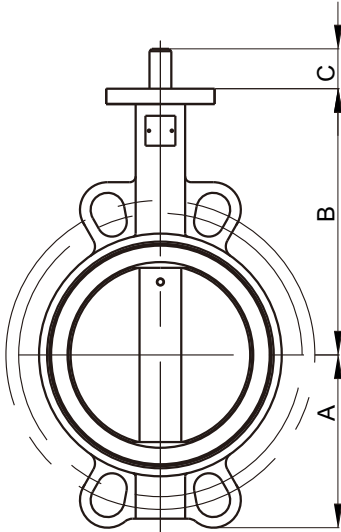
  

| DN | mm   | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 900 | 1000 | 1200 | - |
|----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|---|
|    | inch | 18  | 20  | 22  | 24  | 26  | 28  | 30  | 32  | 36  | 40   | 48   | - |
| A  |      | 334 | 370 | 433 | 468 | 484 | 530 | 565 | 602 | 661 | 724  | 869  | - |
| B  |      | 422 | 480 | 533 | 562 | 540 | 626 | 660 | 666 | 722 | 806  | 938  | - |
| C  |      | 52  | 64  | 70  | 70  | 70  | 95  | 95  | 95  | 130 | 130  | 150  | - |
| L  |      | 114 | 127 | 151 | 151 | 172 | 165 | 167 | 188 | 203 | 216  | 276  | - |

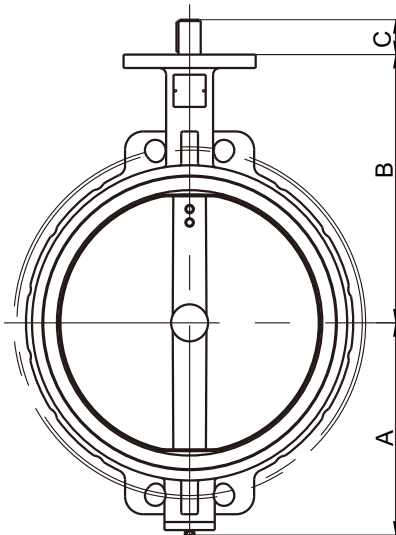
CLASS 125/ CLASS 250/  
PN 16/PN25/JIS 10K/JIS 16K

Wafer Butterfly Valves

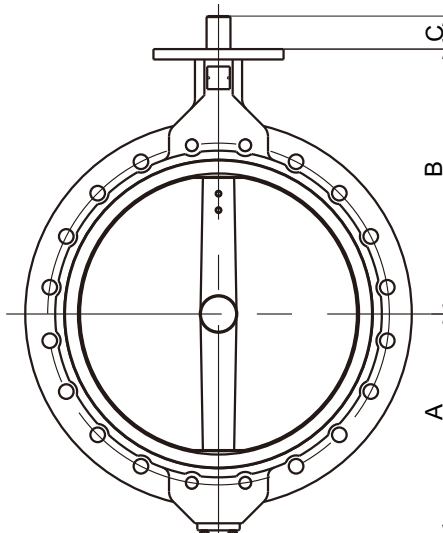
## Appearance



Fit DN40-DN350 Wafer Butterfly valves



Fit DN400-DN500 Wafer Butterfly valves

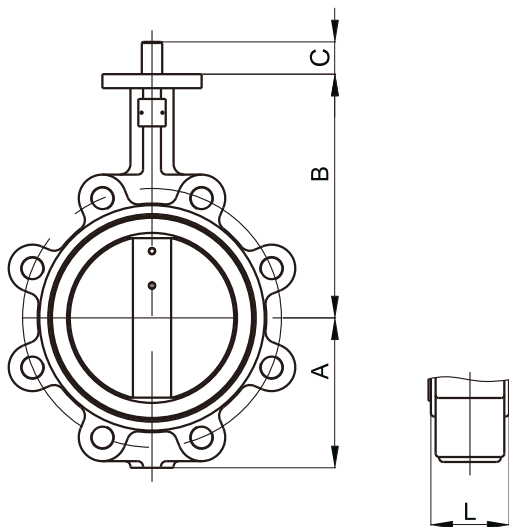


Fit DN550-DN1200 Wafer Butterfly valves

CLASS 125/ CLASS 250/  
PN 16/PN25/JIS 10K/JIS 16K

Lug Butterfly Valves

Fig. 2502



### Valve Standard :

Comply with ISO 5752/BS 5155/  
BS EN 593/MSS SP-67/API 609

### Pressure Temperature Ratings

|                     |                          |
|---------------------|--------------------------|
| Working pressure    | 16bar/25bar              |
| Testing Pressure    | Shell:24bar/37.5bar      |
|                     | Seal:17.6bar/27.5bar     |
| Working Temperature | -20°C to 110°C EPDM Seat |
|                     | -10°C to 80°C NBR Seat   |
| Suitable Media      | Water,Oil&Gas            |

### Material Specification

| Part      | Material                  | ASTM              |
|-----------|---------------------------|-------------------|
| Body      | Cast Iron                 | A126 Class B      |
|           | Ductile Iron              | A536 Gr. 65-45-12 |
| Disc      | Ductile Iron              | A536 Gr. 65-45-12 |
|           | Bronze                    | B148 C95400       |
|           | Stainless Steel           | A351 CF-8         |
|           | Stainless steel           | A351 CF-8M        |
| Shaft     | Stainless Steel           | A276 S 410 00     |
|           | Stainless Steel           | A276 S 431 00     |
| Seat Ring | EPDM / NBR / Viton / PTFE |                   |
| O-Ring    | EPDM / NBR                |                   |
| Bushing   | PTFE                      |                   |
|           | Bronze                    | B62 C83600        |

### NOTE :

ONLY DN50-DN300 DOUBLE SHAFT DESIGNED VALVES  
ARE WRAS APPROVED.

### Dimensions

| DN | mm<br>inch | 40<br>1-1/2 | 50<br>2 | 65<br>2-1/2 | 80<br>3 | 100<br>4 | 125<br>5 | 150<br>6 | 200<br>8 | 250<br>10 | 300<br>12 |
|----|------------|-------------|---------|-------------|---------|----------|----------|----------|----------|-----------|-----------|
| A  |            | 68          | 80      | 89          | 95      | 114      | 127      | 139      | 175      | 203       | 242       |
| B  |            | 110         | 161     | 175         | 181     | 200      | 213      | 226      | 260      | 292       | 337       |
| C  |            | 24          | 30      | 30          | 30      | 30       | 30       | 30       | 34       | 34        | 34        |
| L  |            | 33          | 42      | 45          | 45      | 51       | 55       | 55       | 60       | 67        | 76        |

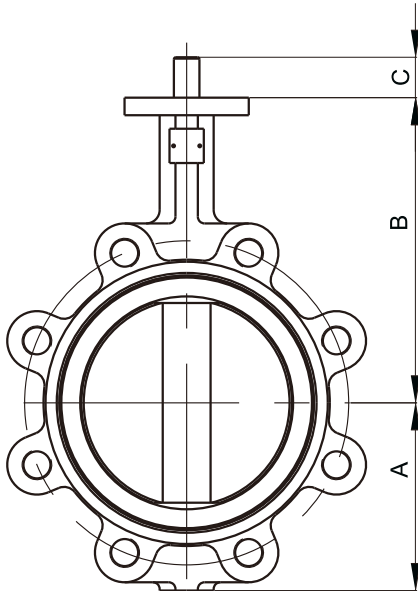
  

| DN | mm<br>inch | 350<br>14 | 400<br>16 | 450<br>18 | 500<br>20 | 550<br>22 | 600<br>24 | 650<br>26 | 700<br>28 | 800<br>32 | 1000<br>40 |
|----|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| A  |            | 267       | 316       | 334       | 370       | 433       | 468       | 484       | 530       | 675       | 810        |
| B  |            | 368       | 400       | 422       | 480       | 533       | 562       | 540       | 626       | 602       | 724        |
| C  |            | 40        | 52        | 52        | 64        | 70        | 70        | 70        | 95        | 95        | 130        |
| L  |            | 76        | 102       | 114       | 127       | 151       | 151       | 172       | 165       | 190       | 216        |

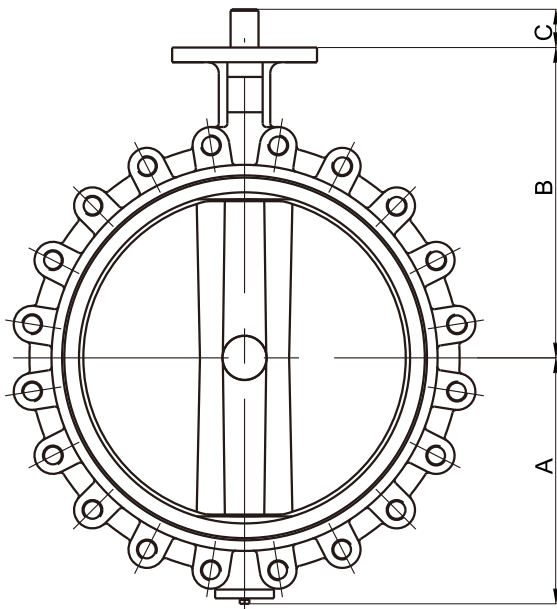
CLASS 125/ CLASS 250/  
PN 16/PN25/JIS 10K/JIS 16K

Lug Butterfly Valves

## Appearance



Fit DN40-DN350 Lug Butterfly valves

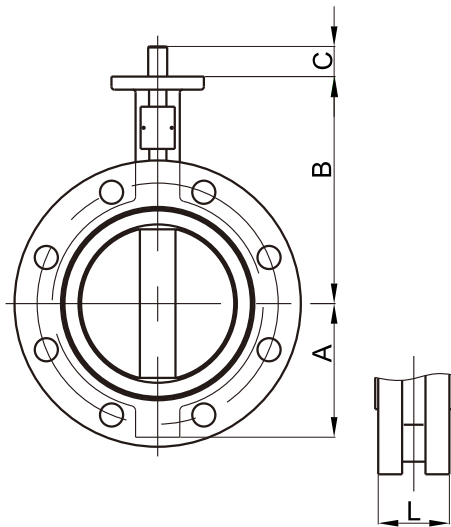


Fit DN400-DN1000 Lug Butterfly Valves

CLASS 125/PN 16/JIS 10K

U-Type Butterfly Valves

Fig. 2122



**Valve Standard :**

Comply with ISO 5752/BS 5155/  
BS EN 593/MSS SP-67/API 609

**Pressure Temperature Ratings**

|                     |                                                    |
|---------------------|----------------------------------------------------|
| Working pressure    | 16bar/25bar                                        |
| Testing Pressure    | Shell:24bar/37.5bar<br>Seal:17.6bar/27.5bar        |
| Working Temperature | -20°C to 110°C EPDM Seat<br>-10°C to 80°C NBR Seat |
| Suitable Media      | Water,Oil&Gas                                      |

**Material Specification**

| Part      | Material                  | EN Spec.       |
|-----------|---------------------------|----------------|
| Body      | Ductile Iron              | EN-JS 1050     |
| Disc      | Ductile Iron              | EN-JS 1050     |
|           | Bronze                    | EN 1982 CC491K |
|           | Stainless Steel           | BS970 304 C 15 |
|           | Stainless steel           | BS970 316 C 16 |
| Shaft     | Stainless Steel           | BS970 410 S 21 |
|           | Stainless Steel           | BS970 431 S 29 |
| Seat Ring | EPDM / NBR / Viton / PTFE |                |
| O-Ring    | EPDM / NBR                |                |
| Bushing   | Bronze                    | EN 1982 CC491K |

**Dimensions**

| DN | mm   | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 225 | 250 | 300 | 350 | 375 | 400 | 450 |
|----|------|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 9   | 10  | 12  | 14  | 15  | 16  | 18  |
| A  |      | 70    | 83  | 93    | 95  | 114 | 127 | 133 | 175 | 190 | 201 | 242 | 267 | 320 | 316 | 344 |
| B  |      | 120   | 161 | 175   | 181 | 200 | 213 | 226 | 260 | 275 | 292 | 337 | 368 | 375 | 400 | 422 |
| C  |      | 26    | 26  | 30    | 30  | 30  | 30  | 30  | 34  | 34  | 34  | 34  | 40  | 52  | 52  | 52  |
| L  |      | 33    | 43  | 46    | 46  | 52  | 56  | 55  | 60  | 67  | 67  | 76  | 76  | 102 | 102 | 114 |

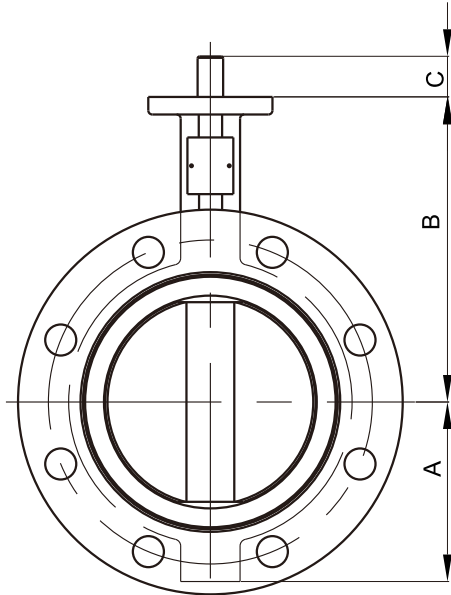
  

| DN | mm   | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1200 | - |
|----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|---|
|    | inch | 20  | 22  | 24  | 26  | 28  | 30  | 32  | 34  | 36  | 38  | 40   | 42   | 44   | 48   |   |
| A  |      | 380 | 432 | 468 | 484 | 530 | 564 | 602 |     | 661 |     | 724  | 784  | 804  | 869  | - |
| B  |      | 480 | 533 | 562 | 540 | 626 | 660 | 666 |     | 722 |     | 806  | 865  | 820  | 938  | - |
| C  |      | 64  | 70  | 70  | 70  | 95  | 95  | 95  |     | 130 |     | 130  | 150  | 150  | 150  | - |
| L  |      | 127 | 151 | 151 | 172 | 165 | 167 | 188 |     | 203 |     | 216  | 251  | 253  | 276  | - |

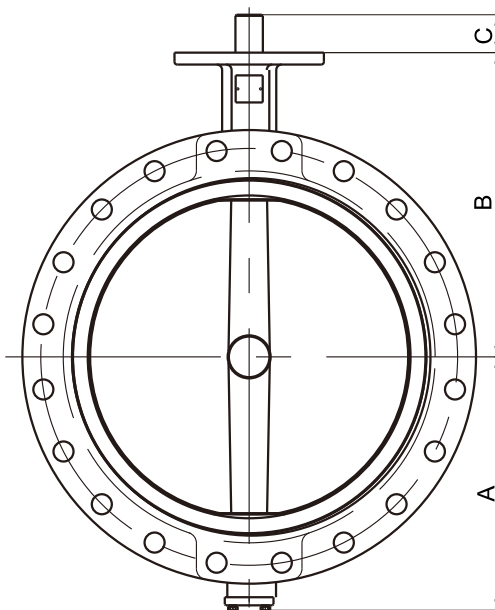
CLASS 125/PN 16/JIS 10K

U-Type Butterfly Valves

Appearance



Fit DN40-DN350 U-Type Butterfly Valves



Fit DN400-DN1200 U-Type Butterfly valves

CLASS 150

AWWA C504 Double Flanged Butterfly Valves

Fig. 2102



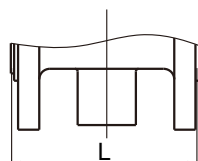
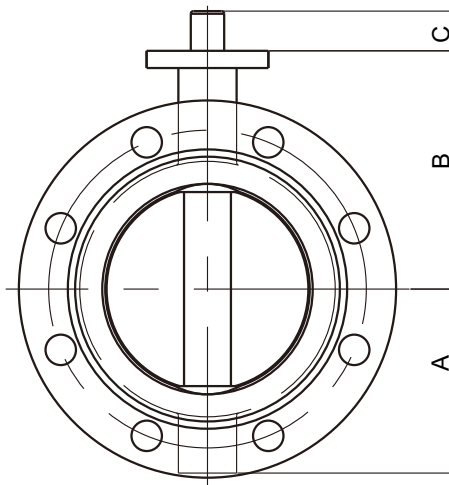
**Valve Standard :**  
Comply with AWWA C504

**Pressure Temperature Ratings**

|                     |                         |
|---------------------|-------------------------|
| Working pressure    | 150psi                  |
| Testing Pressure    | Shell:300psi            |
|                     | Seal:165psi             |
| Working Temperature | -4°F to 230°F EPDM Seat |
|                     | 14°F to 176°F NBR Seat  |
| Suitable Media      | Water,Oil&Gas           |

**Material Specification**

| Part      | Material        | ASTM              |
|-----------|-----------------|-------------------|
| Body      | Ductile Iron    | A536 Gr. 65-45-12 |
| Disc      | Ductile Iron    | A536 Gr. 65-45-12 |
|           | Bronze          | B148 C95400       |
|           | Stainless Steel | A351 CF-8         |
|           | Stainless steel | A351 CF-8M        |
| Shaft     | Stainless Steel | A276 S 410 00     |
|           | Stainless Steel | A276 S 410 00     |
| Seat Ring | EPDM / NBR      |                   |
| O-Ring    | EPDM / NBR      |                   |
| Bushing   | Bronze          | B62 C83600        |



**Dimensions**

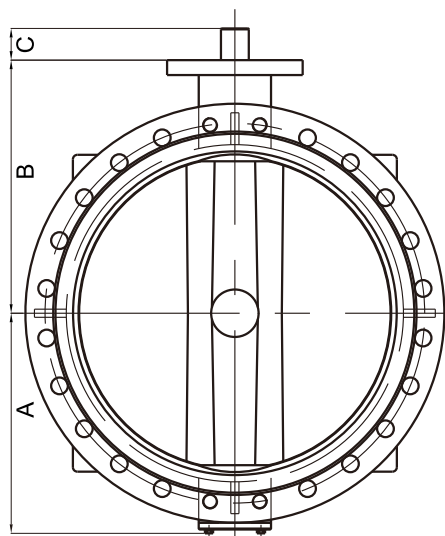
| DN | mm<br>inch | 80<br>3 | 100<br>4 | 150<br>6 | 200<br>8 | 250<br>10 | 300<br>12 | 350<br>14 | 400<br>16 | 450<br>18 |
|----|------------|---------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| A  |            | 3.82    | 4.69     | 6.14     | 7.36     | 8.2       | 9.86      | 11.42     | 12.63     | 13.52     |
| B  |            | 5.16    | 5.91     | 7.09     | 8.27     | 9.67      | 10.83     | 12.91     | 14.8      | 16.01     |
| C  |            | 1.18    | 1.18     | 1.26     | 1.57     | 1.97      | 1.97      | 1.97      | 2.76      | 3.35      |
| L  |            | 5       | 5        | 5        | 6        | 8         | 8         | 8         | 8         | 8         |

| DN | mm<br>inch | 500<br>20 | 600<br>24 | 750<br>30 | 900<br>36 | 1050<br>42 | 1150<br>46 | 1200<br>48 | 1350<br>54 | 1500<br>60 |
|----|------------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|
| A  |            | 16.08     | 18.78     | 20.33     | 24.21     | 28.74      | 41.2       | 39.4       | 45.7       | 50.1       |
| B  |            | 17.64     | 20.39     | 24.02     | 27.24     | 34.06      | 41.8       | 34.8       | 39.2       | 41.8       |
| C  |            | 3.74      | 4.33      | 3.74      | 5         | 5.12       | 5.91       | 5.91       | 7.87       | 7.87       |
| L  |            | 8         | 8         | 12        | 12        | 12         | 15         | 15         | 15         | 15         |

CLASS 125/PN16/JIS 10K

Double Flanged Butterfly Valves

Fig. 2123



**Valve Standard :**

Comply with ISO 5752/BS 5155/BS EN 593

**Pressure Temperature Ratings**

|                     |                                                    |
|---------------------|----------------------------------------------------|
| Working pressure    | 16bar                                              |
| Testing Pressure    | Shell:24bar<br>Seal:17.6bar                        |
| Working Temperature | -20°C to 110°C EPDM Seat<br>14°F to 176°F NBR Seat |
| Suitable Media      | Water,Oil&Gas                                      |

**Material Specification**

| Part      | Material            | EN Spec.       |
|-----------|---------------------|----------------|
| Body      | Ductile Iron        | EN-JS 1050     |
| Disc      | Ductile Iron        | EN-JS 1050     |
|           | Bronze              | EN 1982 CC491K |
|           | Stainless Steel 304 | BS970 304 C 15 |
|           | Stainless steel 316 | BS970 316 C 16 |
| Shaft     | Stainless Steel 410 | BS970 410 S 21 |
|           | Stainless Steel 431 | BS970 431 S 29 |
| Seat Ring | EPDM / NBR          |                |
| O-Ring    | EPDM / NBR          |                |
| Bushing   | Bronze              | EN 1982 CC491K |

**Dimensions**

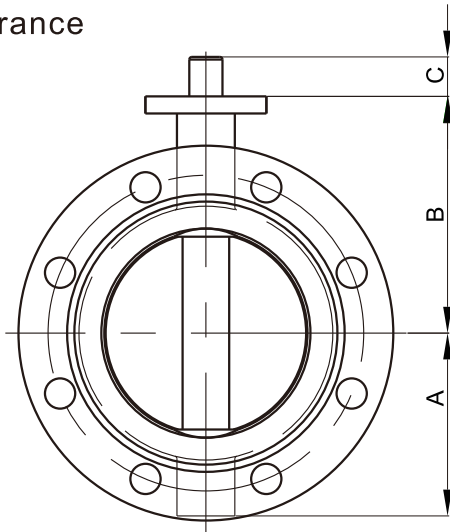
| DN | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 750 |
|----|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16  | 18  | 20  | 24  | 28  | 30  |
| A  |      | 80  | 80    | 95  | 114 | 114 | 139 | 175 | 203 | 242 | 250 | 317 | 341 | 367 | 432 | 488 | 517 |
| B  |      | 110 | 134   | 131 | 150 | 170 | 180 | 210 | 245 | 276 | 328 | 376 | 407 | 433 | 508 | 560 | 610 |
| C  |      | 30  | 30    | 30  | 30  | 30  | 30  | 34  | 34  | 34  | 40  | 52  | 52  | 64  | 70  | 95  | 95  |
| L  |      | 108 | 112   | 114 | 127 | 140 | 140 | 152 | 165 | 178 | 190 | 216 | 222 | 229 | 267 | 292 | 305 |

| DN | mm   | 800 | 900 | 1000 | 1200 | 1300 | 1350 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200    | 2400 | 2600 | 2800 | 3000 |
|----|------|-----|-----|------|------|------|------|------|------|------|------|------|---------|------|------|------|------|
|    | inch | 32  | 36  | 40   | 48   | 52   | 54   | 56   | 60   | 64   | 72   | 80   | 88      | 96   | 104  | 112  | 120  |
| A  |      | 544 | 615 | 669  | 794  | 968  | 1062 | 1066 | 950  | 1054 | 1164 | 1363 | 1445    | 1610 | 1795 | 1900 | 2040 |
| B  |      | 620 | 692 | 735  | 917  | 990  | 1046 | 1000 | 1050 | 1150 | 1200 | 1360 | 1500    | 1650 | 1780 | 1900 | 2070 |
| C  |      | 95  | 130 | 130  | 150  | 200  | 200  | 200  | 200  | 200  | 200  | 200  | 300     | 300  | 300  | 300  | 350  |
| L  |      | 318 | 330 | 410  | 470  | 490  | 490  | 530  | 570  | 600  | 670  | 760  | 636/800 | 850  | 900  | 950  | 1000 |

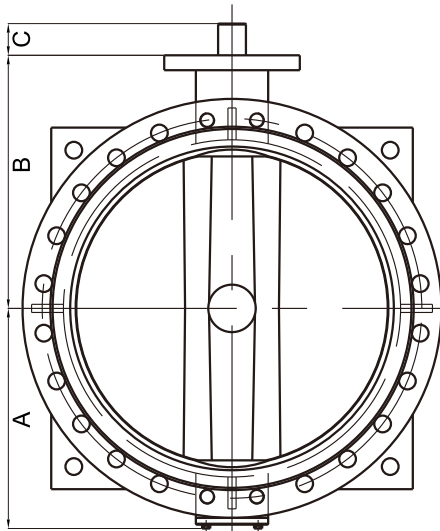
CLASS 125/PN16/JIS 10K

Double Flanged Butterfly Valves

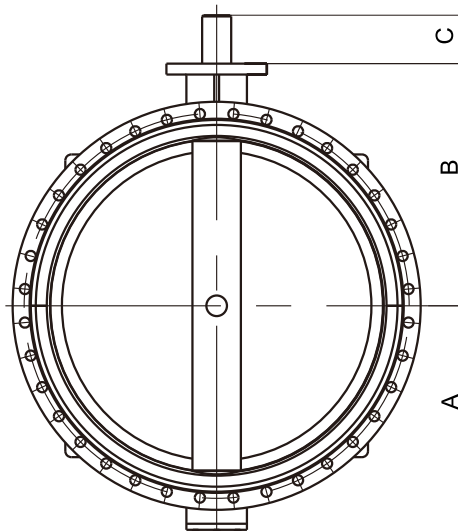
Appearance



Fit DN50-DN350 Double Flanged Butterfly valves



Fit DN400-DN1200 Double Flanged Butterfly valves



Fit DN1300-DN3000 Double Flanged Butterfly valves

Fig. 2630



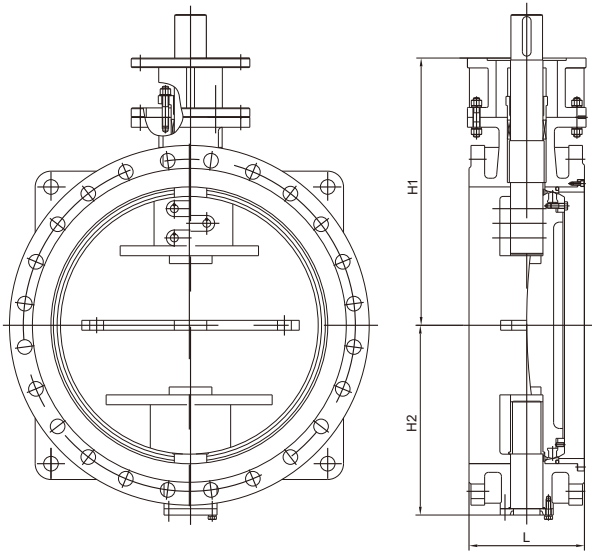
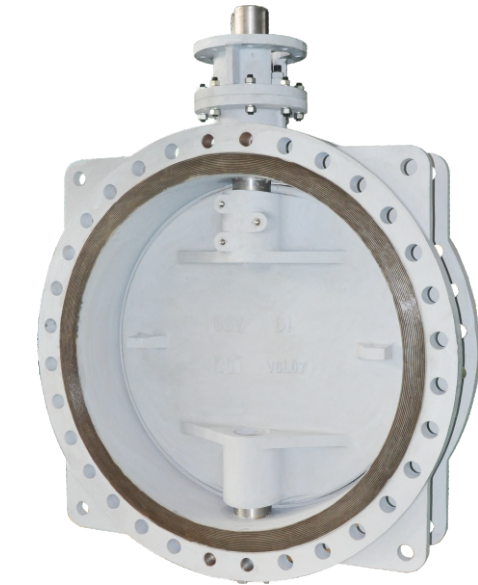
**Valve Standard :**  
Comply with AWWAC504

### Pressure Temperature Ratings

|                     |                          |
|---------------------|--------------------------|
| Working pressure    | 16bar                    |
| Testing Pressure    | Shell:24bar              |
|                     | Seal:17.6bar             |
| Working Temperature | -20°C to 110°C EPDM Seat |
|                     | 14°F to 176°F NBR Seat   |
| Suitable Media      | Water,Oil&Gas            |

### Material Specification

| Part           | Material     | ASTM             |
|----------------|--------------|------------------|
| Body           | Ductile Iron | A536 Gr.65-45-12 |
| Disc           | Ductile Iron | A536 Gr.65-45-12 |
| Body Seat Ring | Ductile Iron | A536 Gr.65-45-12 |
|                | SS304        | A351 CF8         |
| Disc Seat Ring | EPDM / NBR   |                  |
|                | PTFE         |                  |
| Shaft          | SS410        | A276 S410        |
|                | SS431        | A276 S431        |
| O-Ring         | EPDM / NBR   |                  |
| Bushing        | Bronze       |                  |



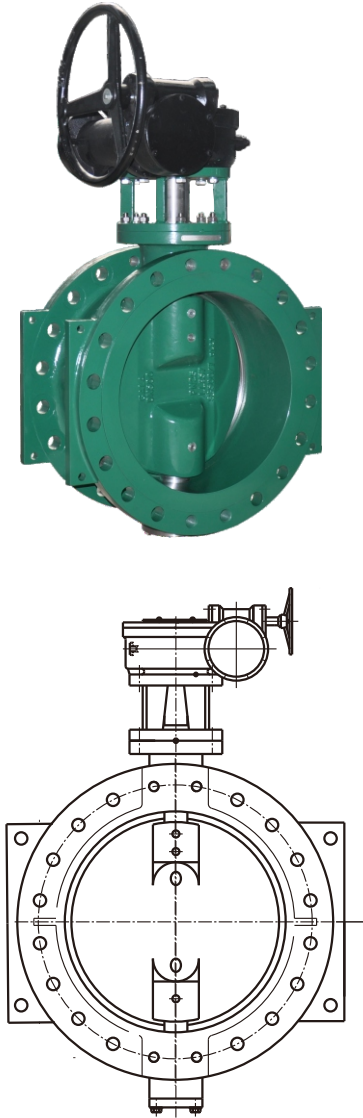
### Dimensions

| DN | mm<br>inch | 200<br>8 | 250<br>10 | 300<br>12 | 350<br>14 | 400<br>16 | 450<br>18 | 500<br>20 | 600<br>24 | 700<br>28 | 750<br>30 | 800<br>32 | 900<br>36 | 1000<br>40 | 1200<br>48 |
|----|------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|
| L  |            | 152      | 203       | 203       | 203       | 203       | 203       | 203       | 203       | 305       | 305       | 305       | 305       | 305        | 381        |
| H1 |            | 284      | 349       | 386       | 412       | 447       | 491       | 541       | 602       | 655       | 698       | 740       | 805       | 916        | 1043       |
| H2 |            | 185      | 217.5     | 257       | 284       | 316       | 336       | 373       | 428       | 485       | 515       | 552       | 607       | 672        | 782        |

PN10/PN16/PN25

Double Eccentric Butterfly Valves

Fig. 2688



### Valve Standard :

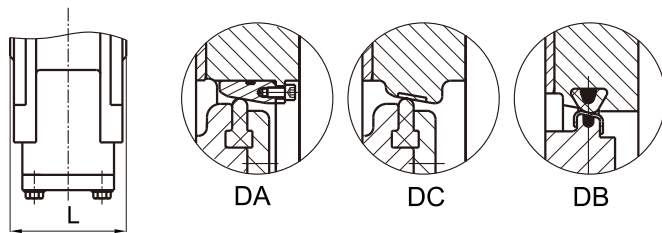
Comply with ISO 5752/BS5155/BS EN593

### Pressure Temperature Ratings

|                     |                                                         |
|---------------------|---------------------------------------------------------|
| Working pressure    | 10bar/16bar/25bar                                       |
| Testing Pressure    | Shell:15bar/24bar/37.5bar<br>Seal:11bar/17.6bar/27.5bar |
| Working Temperature | -10°C to 120°C                                          |
| Suitable Media      | Water,Oil&Gas                                           |

### Material Specification

| Part         | Material          | EN Spec.       |
|--------------|-------------------|----------------|
| Body         | Ductile Iron      | EN-JS 1050     |
| Disc         | Ductile Iron      | EN-JS 1050     |
| Shaft        | Stainless Steel   | BS970 431 S 29 |
| Packing      | Flexible Graphite | Non-Asbestos   |
| Seat Ring    | Stainless Steel   | BS970 304 S 15 |
| Rubber Seals | EPDM / NBR        |                |



### Dimensions

| DN        | mm   | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|-----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|           | inch | 4   | 6   | 8   | 10  | 12  | 14  | 16  | 18  | 20  | 24  |
| L(Long)   |      | 190 | 210 | 230 | 250 | 270 | 290 | 310 | 330 | 350 | 390 |
| L(Middle) |      | 127 | 140 | 152 | 165 | 178 | 190 | 216 | 222 | 229 | 267 |
| L(Short)  |      | -   | -   | 89  | 114 | 114 | 127 | 140 | 152 | 152 | 178 |

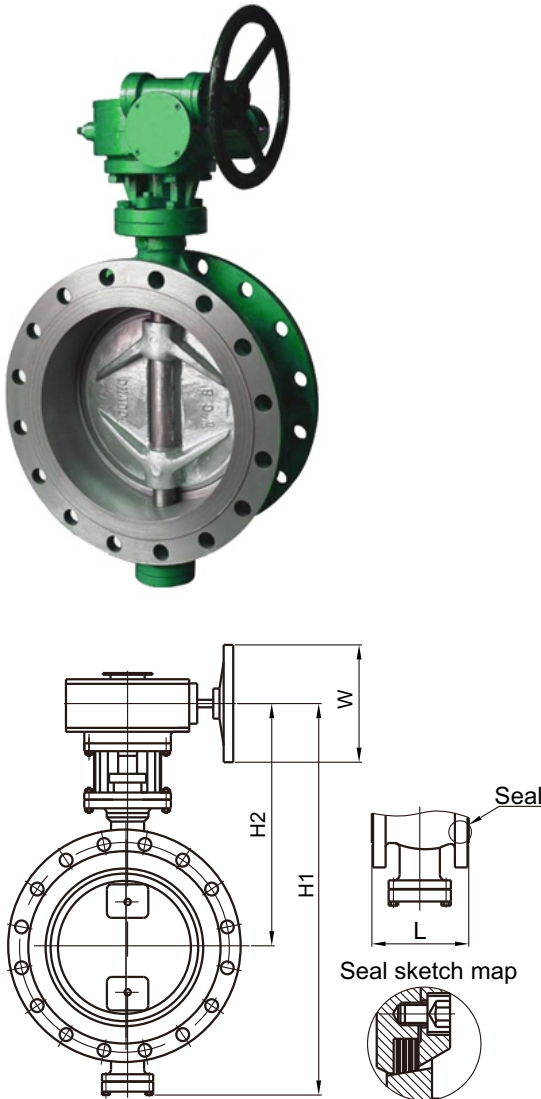
  

| DN        | mm   | 700 | 800 | 900 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | - |
|-----------|------|-----|-----|-----|------|------|------|------|------|------|---|
|           | inch | 28  | 32  | 36  | 40   | 48   | 56   | 64   | 72   | 80   |   |
| L(Long)   |      | 430 | 470 | 510 | 550  | 630  | 710  | 790  | 870  | 950  | - |
| L(Middle) |      | 292 | 318 | 330 | 410  | 470  | 530  | 600  | 670  | 760  | - |
| L(Short)  |      | 229 | 241 | 241 | 300  | 350  | 390  | 440  | 190  | 540  | - |

PN10/PN16/PN25/PN40/PN63

Triple Eccentric Butterfly Valves

Fig. 2986



### Valve Standard :

Comply with ISO 5752/BS5155/BS EN 593

### Pressure Temperature Ratings

|                     |                                                             |
|---------------------|-------------------------------------------------------------|
| Working pressure    | 10/16/25/40/63bar                                           |
| Testing Pressure    | Shell:15/24/37.5/60/94.5bar<br>Seal:11/17.6/27.5/44/69.3bar |
| Working Temperature | -196°C to 550°C                                             |
| Suitable Media      | Water,Oil&Gas                                               |

### Material Specification

| Part       | Material              | ASTM            |
|------------|-----------------------|-----------------|
| Body       | Carbon Steel          | ASTMA216 WCB    |
|            | Stainless Steel       | ASTMA351 CF8    |
|            | Alloy Steel           | ASTMA217 WC6    |
|            | Low Temperature Steel | ASTMA352 LCB    |
| Disc       | Carbon Steel          | ASTMA216 WCB    |
|            | Stainless Steel       | ASTMA351 CF8    |
|            | Alloy Steel           | ASTMA217 WC6    |
|            | Low Temperature Steel | ASTMA352 LCB    |
| Shaft      | Stainless Steel 304   | ASTMA276 S30400 |
|            | Stainless Steel 431   | ASTMA276 S43100 |
| Packing    | Flexible Graphite     |                 |
| Disc Seals | Graphite+SS304        |                 |

### Dimensions

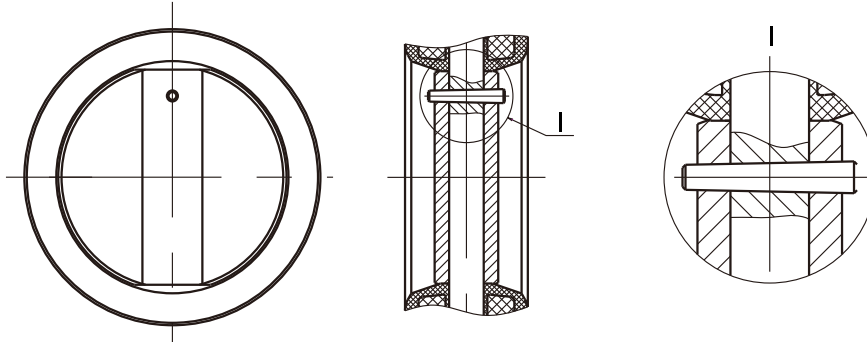
| DN | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|----|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16  | 18  | 20  |
| H1 |      | 293 | 313   | 333 | 345 | 370 | 425 | 488 | 575 | 642 | 731 | 786 | 844 | 945 |
| H2 |      | 218 | 228   | 238 | 255 | 270 | 305 | 362 | 410 | 444 | 492 | 522 | 552 | 606 |
| W  |      | 160 | 160   | 180 | 180 | 200 | 200 | 350 | 350 | 400 | 400 | 600 | 600 | 600 |
| L  |      | 108 | 112   | 114 | 127 | 140 | 140 | 152 | 165 | 178 | 190 | 216 | 222 | 229 |

| DN | mm   | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 |
|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|    | inch | 28   | 32   | 36   | 40   | 48   | 56   | 64   | 72   | 80   | 88   | 96   | 104  | 112  |
| H1 |      | 1222 | 1340 | 1391 | 1596 | 1861 | 2066 | 2397 | 2674 | 2901 | 3119 | 3324 | 3780 | 3933 |
| H2 |      | 726  | 862  | 915  | 1020 | 1075 | 1235 | 1355 | 1600 | 1725 | 1970 | 2080 | 2351 | 2425 |
| W  |      | 800  | 400  | 400  | 400  | 400  | 600  | 600  | 600  | 600  | 800  | 800  | 800  | 800  |
| L  |      | 292  | 318  | 330  | 410  | 470  | 530  | 600  | 670  | 950  | 1000 | 1110 | 1190 | 1270 |

## BFV Design of Construction

One Shaft Type

Type 1  
c/w Pin

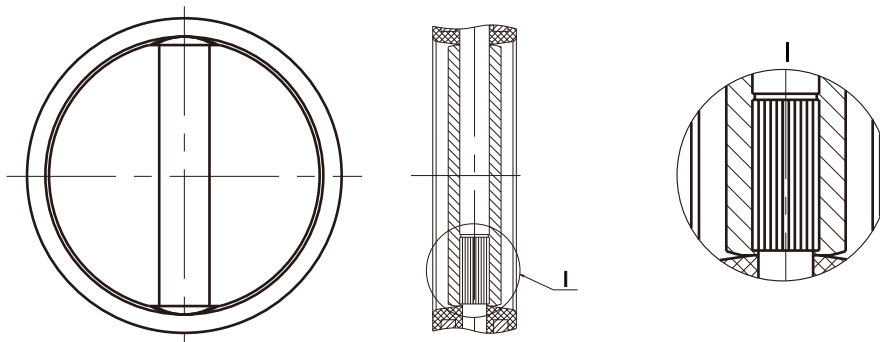


Note:  
Size from DN25-3000

## BFV Design of Construction

One Shaft Type

Type 2  
Spline Type Pinless

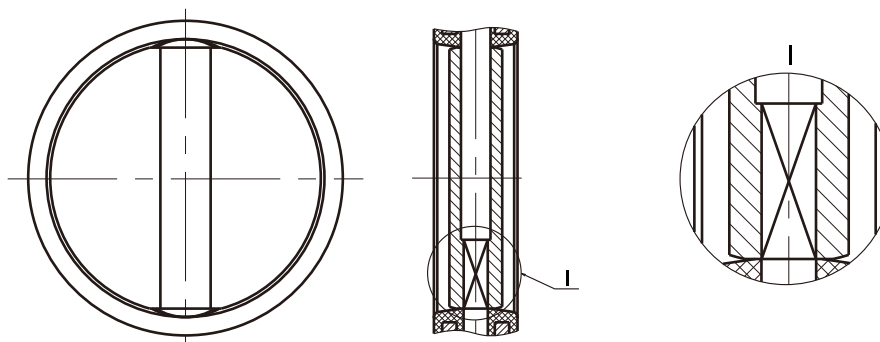


Note:  
Size from DN40-400

## BFV Design of Construction

One Shaft Type

Type 3  
Square Type Pinless

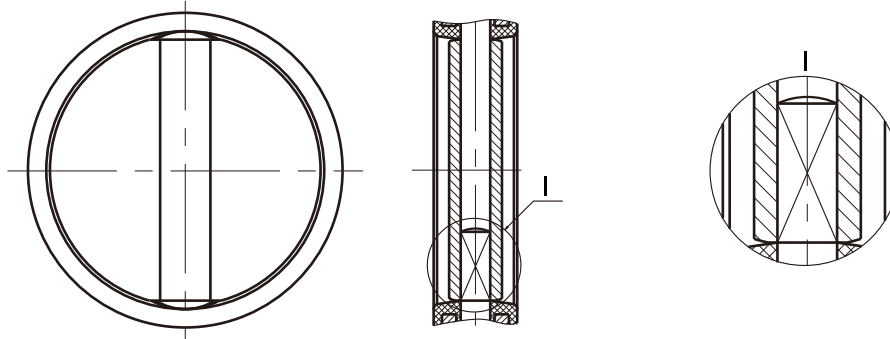


Note:  
Size from DN40-400

## BFV Design of Construction

One Shaft Type

Type 4  
Flat Type Pinless

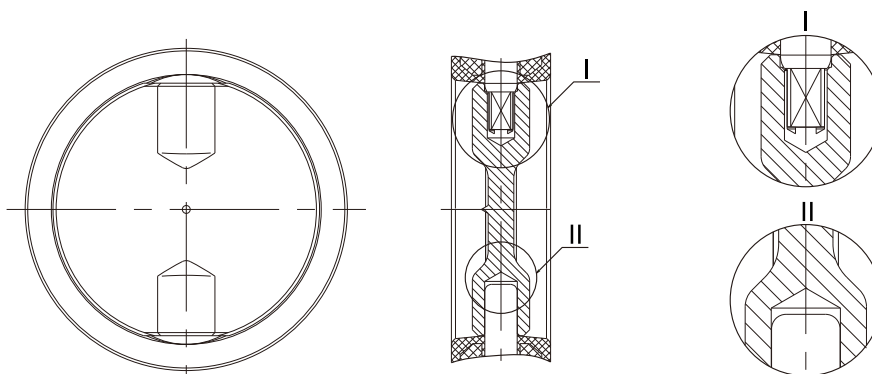


Note:  
Size from DN40-400

## BFV Design of Construction

Two Shaft Type

Type 5  
Square Type Pinless

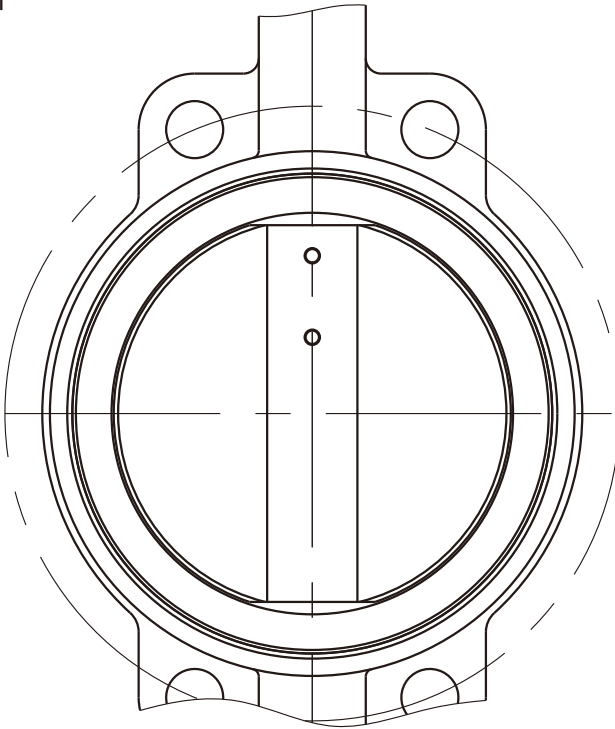


Note:  
Size from DN40-3000

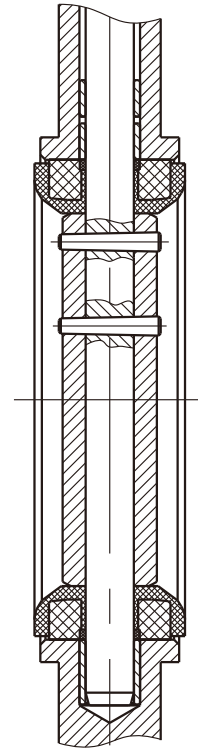
## BFV Design of Seat

With Backing, Replaceable

Type 1



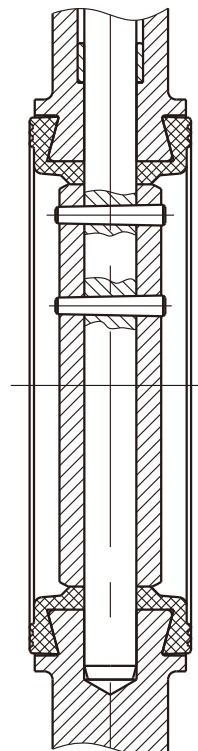
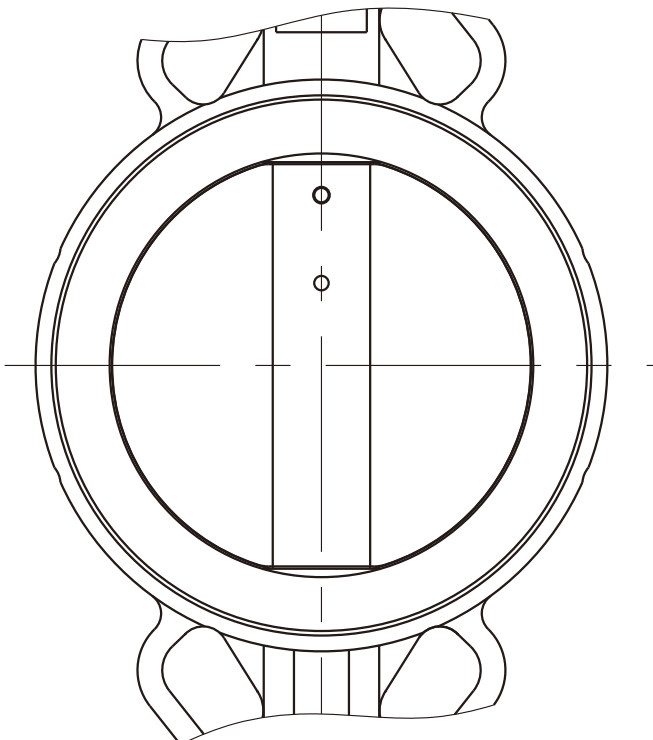
Note: Backing is Phenolic resin or Aluminum



## BFV Design of Seat

Without Backing, Replaceable

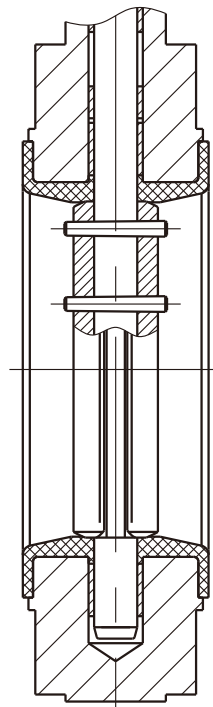
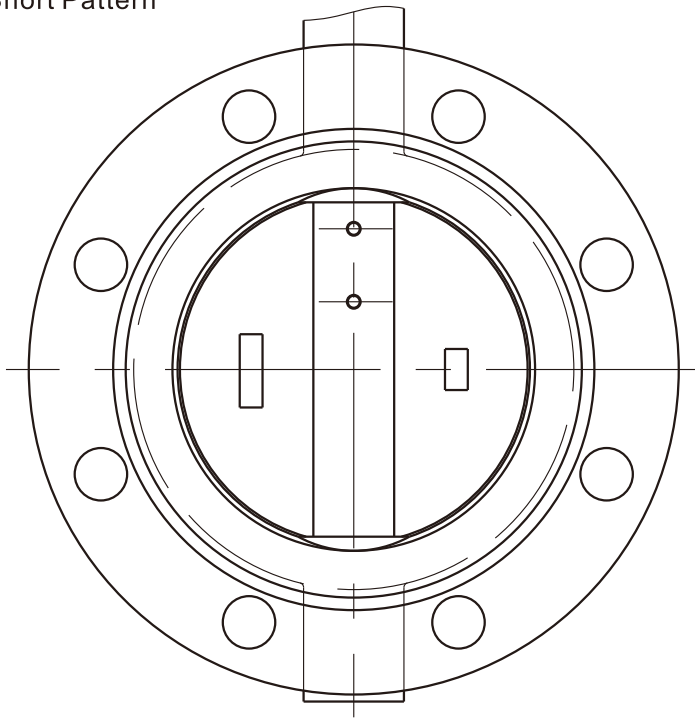
Type 2



## BFV Design of Seat

Without Backing, un-replaceable

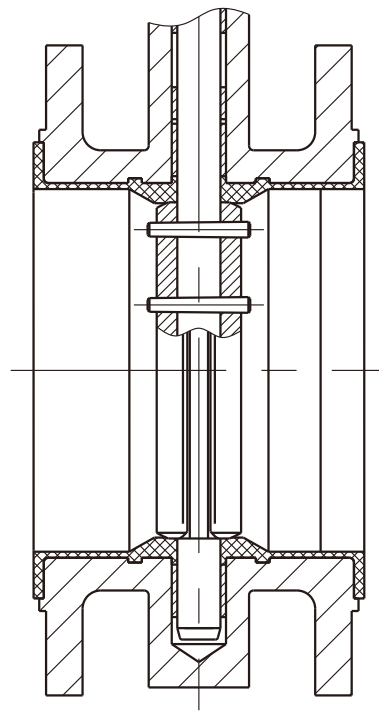
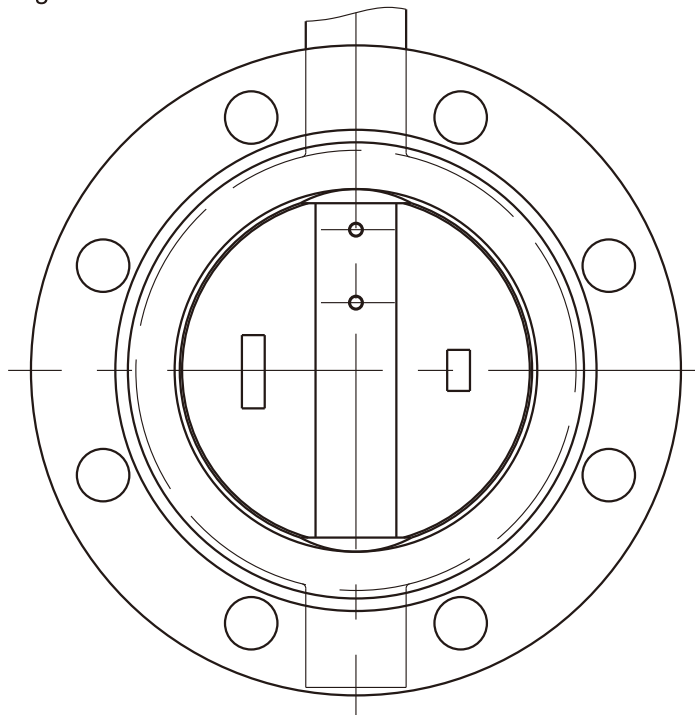
Type 3A  
Short Pattern



## BFV Design of Seat

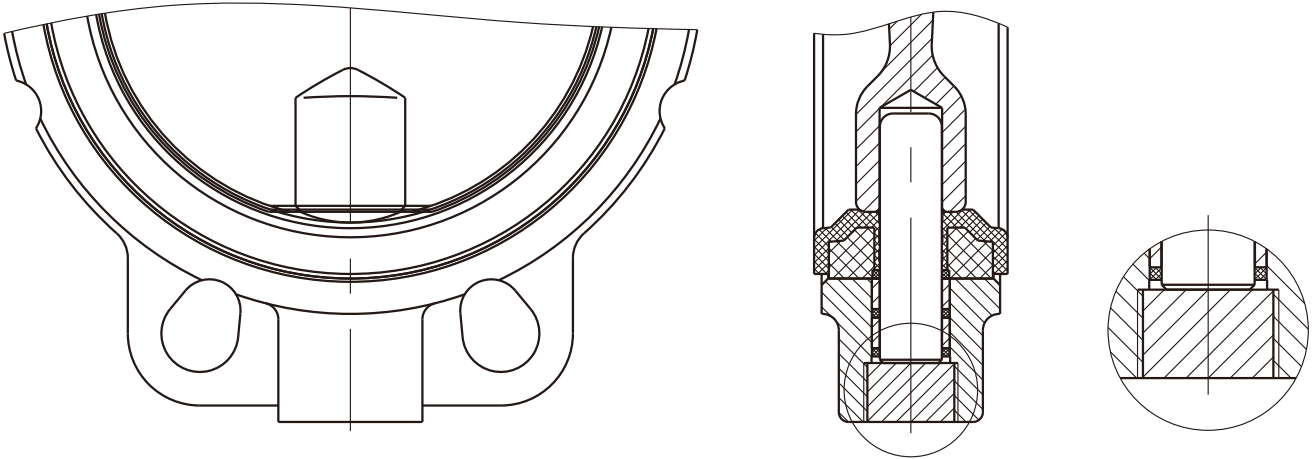
Without Backing, un-replaceable

Type 3B  
Long Pattern



## BFV Construction of Two Shaft Type

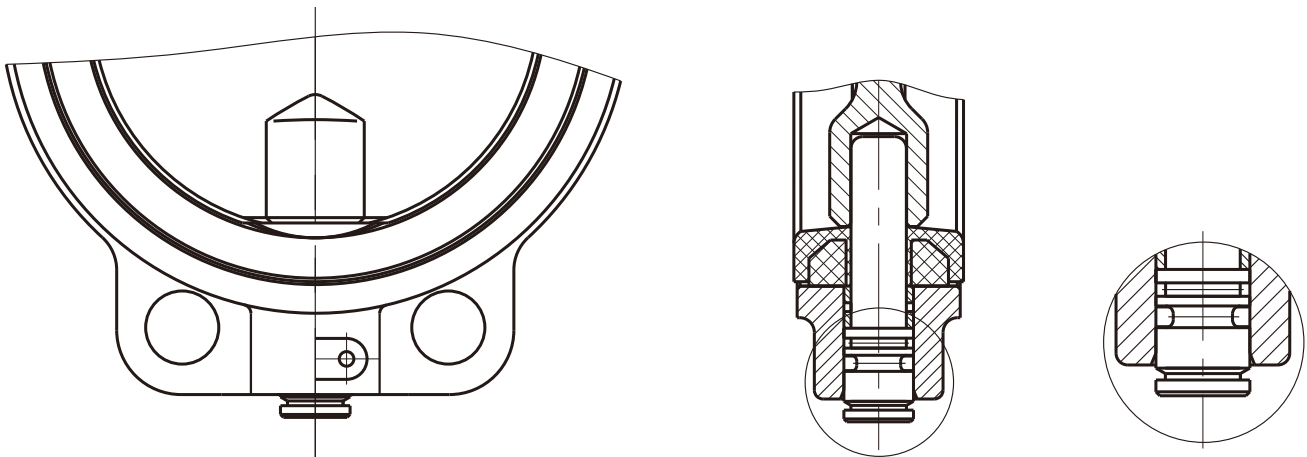
Type 4A  
Lower Shaft Inside (Fixed by Plug)



Note:  
Size from DN40-3000

## BFV Construction of Two Shaft Type

Type 4B  
Lower Shaft Outside (Fixed by Pin)

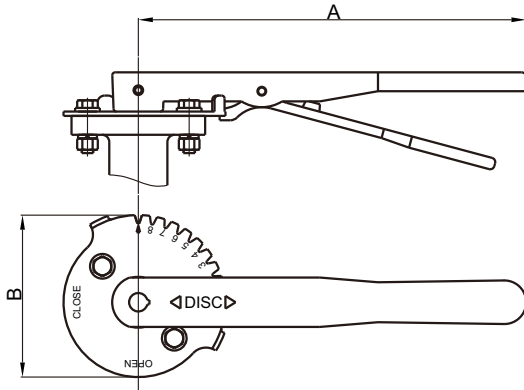


Note:  
Size from DN40-400

## Lever Operator

Malleable Iron Lever

Type 1



### Material Specification

| Part      | Material            |
|-----------|---------------------|
| Lever     | Malleable Iron      |
|           | Carbon Steel        |
| Top Plate | Stainless Steel 304 |
|           | Stainless Steel 316 |



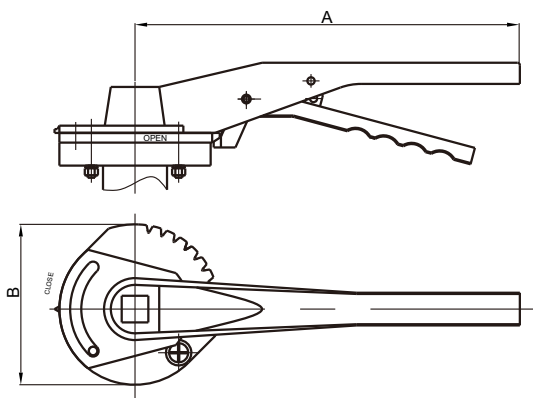
### Dimensions

| DN | mm<br>inch | 40<br>1-1/2 | 50-150<br>2-6 | 200-300<br>8-12 |
|----|------------|-------------|---------------|-----------------|
| A  |            | 165         | 266           | 357             |
| B  |            | 110         | 110           | 163             |

## Lever Operator

Malleable Iron Lever

Type 2



### Material Specification

| Part      | Material       |
|-----------|----------------|
| Lever     | Malleable Iron |
| Top Plate | Aluminum       |



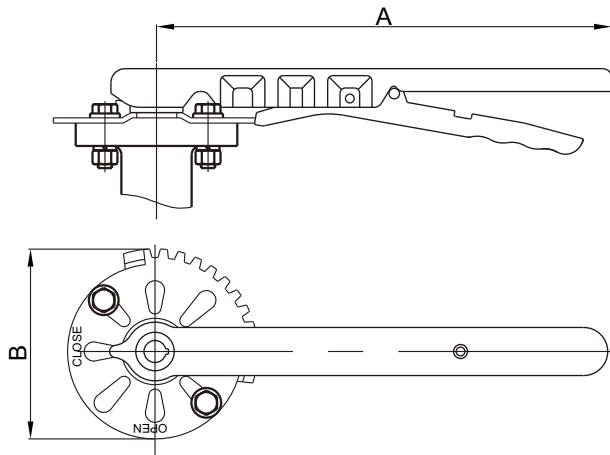
### Dimensions

| DN | mm<br>inch | 50-80<br>2-3 | 100<br>4 | 125-150<br>6 | 200-300<br>8-12 |
|----|------------|--------------|----------|--------------|-----------------|
| A  |            | 180          | 220      | 276          | 318             |
| B  |            | 70           | 97       | 97           | 133             |

## Lever Operator

Steel Lever

Type 3



### Material Specification

| Part      | Material            |
|-----------|---------------------|
|           | Carbon Steel        |
| Lever     | Stainless Steel 304 |
|           | Stainless Steel 316 |
| Top Plate | Carbon Steel        |
|           | Stainless Steel 304 |
|           | Stainless Steel 316 |



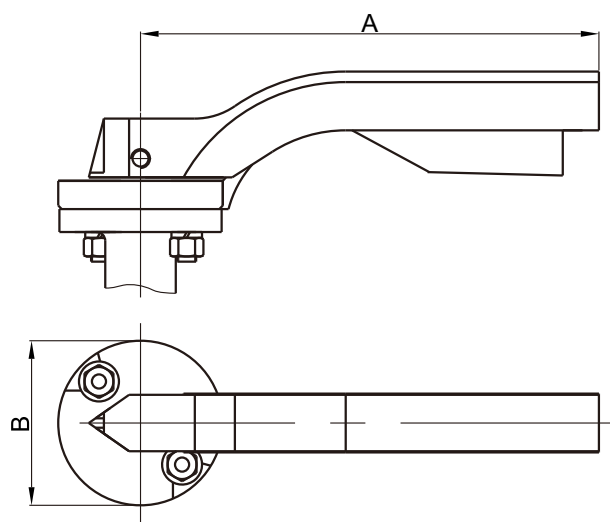
### Dimensions

| DN | mm   | 50-150 | 200-300 |
|----|------|--------|---------|
|    | inch | 2-6    | 8-12    |
| A  |      | 259    | 373     |
| B  |      | 109    | 163     |

## Lever Operator

Aluminum Lever

Type 4



### Material Specification

| Part      | Material |
|-----------|----------|
| Lever     | Aluminum |
| Top Plate | Aluminum |



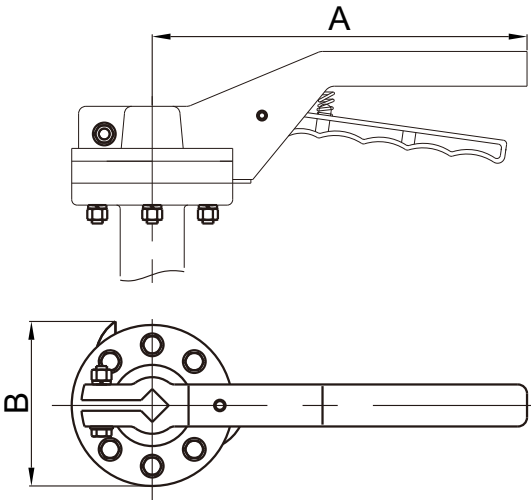
### Dimensions

| DN | mm   | 50-80 | 100-150 |
|----|------|-------|---------|
|    | inch | 2-3   | 4-6     |
| A  |      | 195   | 276     |
| B  |      | 70    | 95      |

Lever Operator

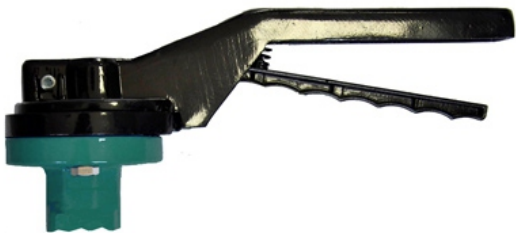
Aluminum Lever

Type 5



Material Specification

| Part      | Material |
|-----------|----------|
| Lever     | Aluminum |
| Top Plate | Aluminum |

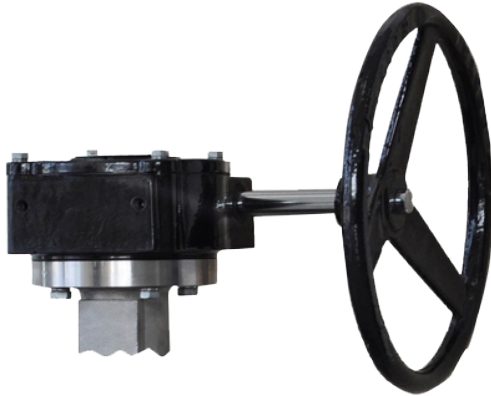


Dimensions

| DN | mm<br>inch | 40<br>1-1/2 | 50-80<br>2-3 | 100-150<br>4-6 |
|----|------------|-------------|--------------|----------------|
| A  |            | 205         | 205          | 250            |
| B  |            | 88          | 88           | 88             |

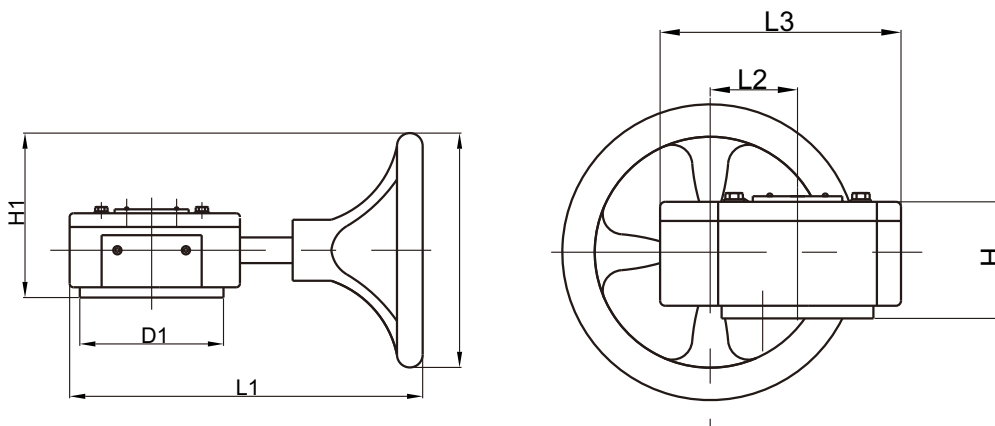
## Gear Box

1-Stage Transmission



### Material Specification

| Part      | Material     |
|-----------|--------------|
| Housing   | Cast Iron    |
| Cover     | Cast Iron    |
| Worm      | Carbon Steel |
| Worm Gear | Ductile Iron |
| Shaft     | Carbon Steel |
| Handwheel | Cast Iron    |

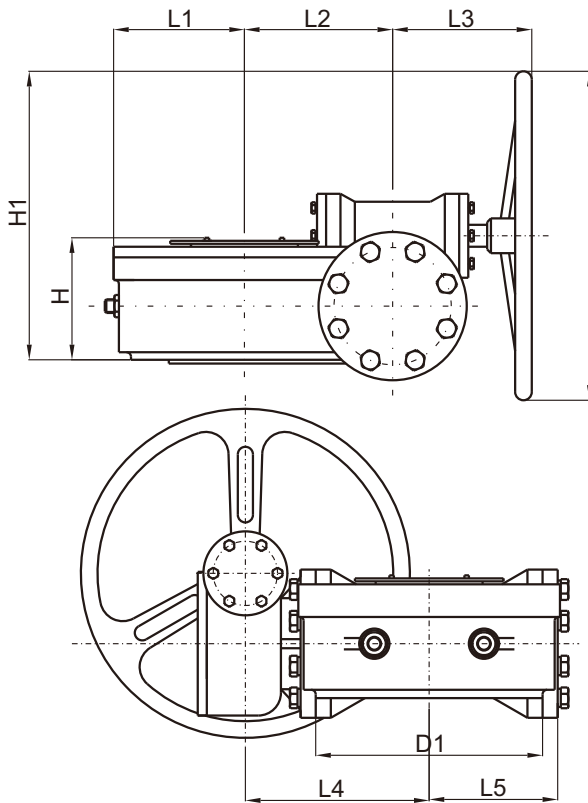


### Dimensions

| Model  | Concentric Valve | Eccentric Valve |     |     |     |     |     |     |     | Output Torque | Rate    |
|--------|------------------|-----------------|-----|-----|-----|-----|-----|-----|-----|---------------|---------|
|        | Size             | Size            | D1  | Ø   | H   | H1  | L1  | L2  | L3  | ( N. M )      |         |
|        | inch             | inch            |     |     |     |     |     |     |     |               |         |
|        | mm               | mm              |     |     |     |     |     |     |     |               |         |
| 3D-15  | 2-6              | 2-5             | 108 | 145 | 65  | 113 | 212 | 45  | 129 | 200           | 24:1    |
|        | 50-150           | 50-125          |     |     |     |     |     |     |     |               |         |
| 3D-50  | 8-10             | 6-8             | 146 | 285 | 70  | 182 | 305 | 62  | 171 | 500           | 30:1    |
|        | 200-250          | 150-200         |     |     |     |     |     |     |     |               |         |
| 3D-120 | 12-14            | 10-12           | 165 | 285 | 77  | 182 | 300 | 85  | 198 | 1200          | 50:1    |
|        | 300-350          | 250-300         |     |     |     |     |     |     |     |               |         |
| XJ80   | 16-18            | 14-16           | 234 | 385 | 103 | 247 | 423 | 120 | 280 | 2500          | 80:1    |
|        | 400-450          | 350-400         |     |     |     |     |     |     |     |               |         |
| XJ300  | 20-24            | 18-20           | 276 | 385 | 143 | 270 | 490 | 122 | 316 | 4000          | 293.5:1 |
|        | 500-600          | 450-500         |     |     |     |     |     |     |     |               |         |

## Gearbox

## 2-Stage/3-Stage Transmission



### Material Specification

| Part      | Material     |
|-----------|--------------|
| Housing   | Cast Iron    |
| Cover     | Cast Iron    |
| Worm      | Carbon Steel |
| Worm Gear | Ductile Iron |
| Shaft     | Carbon Steel |
| Handwheel | Cast Iron    |

### Dimensions

| Model           | Concentric Valve Eccentric Valve |                     | D1  | Ø   | H   | H1  | L1  | L2  | L3  | L4    | L5  | Output torque<br>(N. M) | Rate   |
|-----------------|----------------------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-------|-----|-------------------------|--------|
|                 | Size<br>inch<br>mm               | Size<br>inch<br>mm  |     |     |     |     |     |     |     |       |     |                         |        |
| 3DE-30/250      | 16-18<br>400-450                 | 16<br>400           | 197 | 285 | 125 | 271 | 107 | 100 | 156 | 168   | 107 | 2500                    | 560:1  |
| 3DE1-30/250     | 20<br>500                        | 16<br>450           | 197 | 285 | 124 | 276 | 107 | 100 | 160 | 175   | 107 | 2500                    | 560:1  |
| 3DE1-30/400     | 24<br>600                        | 20<br>500           | 276 | 385 | 136 | 330 | 131 | 125 | 160 | 193   | 131 | 4000                    | 560:1  |
| 3D-60/800       | 28-30<br>700-750                 | 24<br>600           | 300 | 425 | 158 | 373 | 173 | 162 | 197 | 244.5 | 173 | 8000                    | 704:1  |
| 3DE-60/800      | 32-36<br>800-900                 | 28-30<br>700-750    | 300 | 425 | 149 | 378 | 146 | 140 | 197 | 230   | 146 | 8000                    | 704:1  |
| 3D-120/1500     | 40-44<br>1000-1100               | 32-36<br>800-900    | 300 | 425 | 185 | 409 | 201 | 196 | 203 | 279   | 201 | 15000                   | 680:1  |
| 3D-120/2500     | 48<br>1200                       | 40-44<br>1000-1100  | 350 | 425 | 216 | 423 | 185 | 240 | 203 | 311   | 255 | 25000                   | 850:1  |
| 3D-200/4000     | 56<br>1400                       | 48<br>1200          | 415 | 510 | 267 | 553 | 208 | 345 | 258 | 435   | 355 | 40000                   | 1440:1 |
| 3D-200/6300     | 64<br>1600                       | 56<br>1400          | 470 | 510 | 312 | 562 | 316 | 410 | 237 | 450   | 425 | 63000                   | 1728:1 |
| 3D-200/8550     | 72<br>1800                       | 64<br>1600          | 560 | 510 | 326 | 570 | 360 | 460 | 237 | 466   | 475 | 80000                   | 1920:1 |
| 3D-600/12000    | 80<br>2000                       | 72<br>1800          | 650 | 600 | 48  | 240 | 410 | 602 | 265 | 725   | 630 | 120000                  | 1875:1 |
| 3D-30/600/18000 | 88-96<br>2200-2400               | 80-88<br>2000-2200  | 800 | 600 | 570 | 240 | 442 | 696 | 364 | 742   | 726 | 180000                  | 3750:1 |
| 3D-30/600/68000 | 104-120<br>2600-3000             | 96-112<br>2400-2800 | 800 | 600 | 520 | 240 | 438 | 768 | 364 | 742   | 726 | 680000                  | 4000:1 |

## Signal Gearbox

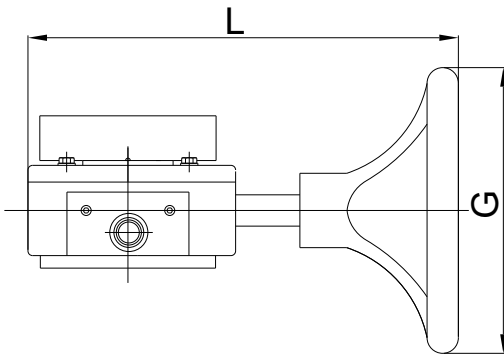


### Note:

Specification of BFV with limit Switch

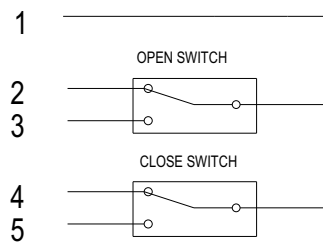
1. Indicator light is bright when valve is open fully; Control room give an alarm and indicator light 24V is put out when valve is close to 20° direction.

2. There are two switch in gear box ,one controls indicator light and the other connects to control room.

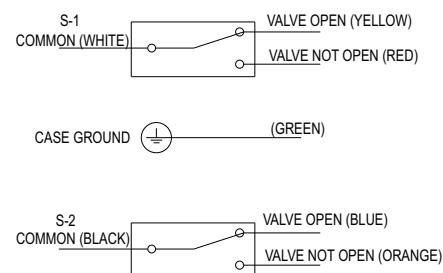


### SWITCH WIRE

#### OPTION 1



#### OPTION 2

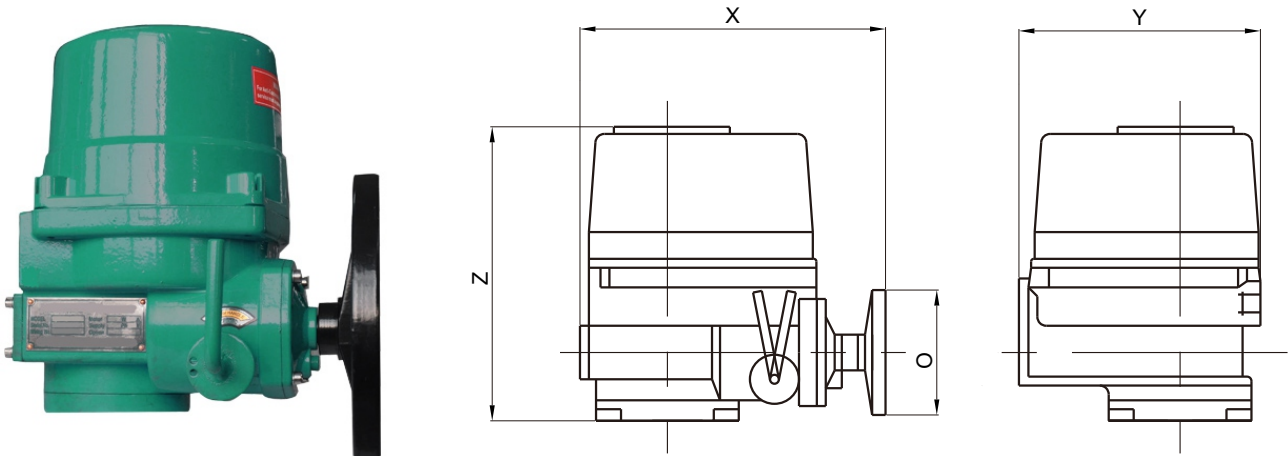


### Dimensions

| Size | L   | G   |
|------|-----|-----|
| 50   | 210 | 145 |
| 65   | 210 | 145 |
| 80   | 210 | 145 |
| 100  | 210 | 145 |
| 125  | 210 | 145 |
| 150  | 210 | 145 |
| 200  | 300 | 285 |
| 250  | 300 | 285 |
| 300  | 300 | 285 |

## Electric Actuator

## 1-Stage Quarter-Turn Transmission



### Base features

The case is processed by means of aluminum die-casting technology and precision machining technique.

Light weight and small size, outer surface is treated through flame plating technique to give an excellent appearance.

Easy to adjust the end position of stroke control and set torque switch and reliable on control.

High accuracy of driving medium, ball bearings are fitted at all rotating positions, high efficiency of whole machine and negligible noise.

Driving of the output shaft is carried out through worm gear and can be self-locked at any position.

There is an mechanical adjustable stop for valve and position control.

The manual/electric declutch is of semi-automation and electric-priority to ensure safe and reliable operation

Possessing ideal outdoor performance

Various flange connection modes, there is a valve stem adapter in the inner of output shaft, easy to mount and dismount.

### Selected Function

4-20mA DC valve position feedback signal

Increasing electric block with automatic adjusting function

Increasing limit switch to give passive control contacts

Performing integral control, possessing local/remote-control shifting function and opening, closing and stop at local control functions

Fitted with heat protection element for electric motor.

Fitted with space heater in the inner of electric control cave.

Turn angle of output shaft is more or less than 90°

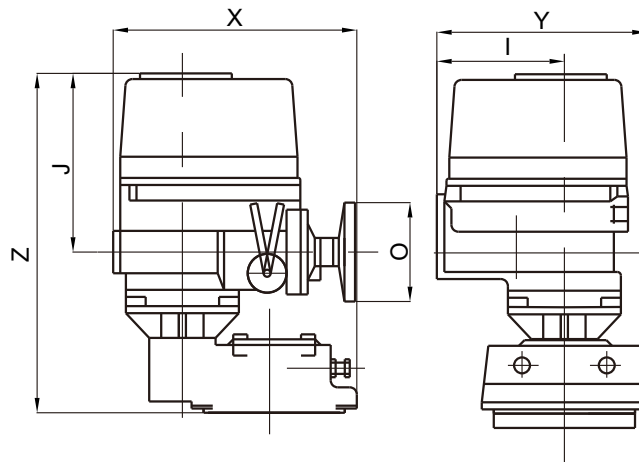
Other special function requirement.

### Dimensions

| Type                | QT03 | QT04 | QT06 | QT09 | QT15 | QT19 | QT28 | QT38 | QT50 | QT60       | QT80       | QT100      |
|---------------------|------|------|------|------|------|------|------|------|------|------------|------------|------------|
| Flange              | F05  | F05  | F07  | F07  | F07  | F07  | F10  | F10  | F10  | F10<br>F12 | F05<br>F12 | F10<br>F12 |
| ISO5211             | F07  | F07  |      |      | F10  | F10  | F12  | F12  | F12  | F14        | F14        | F14        |
| X                   | 241  | 241  | 241  | 241  | 272  | 272  | 290  | 290  | 290  | 331        | 331        | 331        |
| O                   | 200  | 200  | 200  | 200  | 250  | 250  | 350  | 350  | 350  | 350        | 350        | 350        |
| Z                   | 256  | 256  | 256  | 256  | 263  | 263  | 298  | 298  | 298  | 342        | 342        | 342        |
| Y                   | 208  | 208  | 208  | 208  | 239  | 239  | 274  | 274  | 274  | 306        | 306        | 306        |
| Output Torque(N*m)  | 30   | 40   | 60   | 90   | 150  | 190  | 280  | 380  | 500  | 600        | 800        | 1000       |
| Output Speed(r/min) | 0.9  | 0.9  | 0.9  | 0.9  | 0.7  | 0.7  | 0.6  | 0.6  | 0.6  | 0.5        | 0.5        | 0.5        |
| Reference power(kw) | 0.01 | 0.01 | 0.02 | 0.03 | 0.04 | 0.04 | 0.04 | 0.06 | 0.09 | 0.09       | 0.18       | 0.2        |
| Rated current(A)    | 0.2  | 0.2  | 0.25 | 0.3  | 0.8  | 0.8  | 0.8  | 1.2  | 1.6  | 1.6        | 3.2        | 3.6        |

## Electric Actuator

## 2-Stage Quarter-Turn Transmission



### Base features

The case is processed by means of aluminum die-casting technology and precision machining technique.

Light weight and small size, outer surface is treated through flame plating technique to give an excellent appearance.

Easy to adjust the end position of stroke control and set torque switch and reliable on control.

High accuracy of driving medium, ball bearings are fitted at all rotating positions, high efficiency of whole machine and negligible noise.

Driving of the output shaft is carried out through worm gear and can be self-locked at any position.

There is an mechanical adjustable stop for valve and position control.

The manual/electric declutch is of semi-automation and electric-priority to ensure safe and reliable operation

Possessing ideal outdoor performance

Various flange connection modes, there is a valve stem adapter in the inner of output shaft, easy to mount and dismount.

### Selected Function

4-20mA DC valve position feedback signal

Increasing electric block with automatic adjusting function

Increasing limit switch to give passive control contacts

Performing integral control, possessing local/remote-control shifting function and opening, closing and stop at local control functions

Fitted with heat protection element for electric motor.

Fitted with space heater in the inner of electric control cave.

Turn angle of output shaft is more or less than 90°

Other special function requirement.

### Dimensions

| Type                | QT150 | QT200 | QT250 |
|---------------------|-------|-------|-------|
| Flange              | F16   | F16   | F16   |
| ISO5211             | F14   | F14   | F14   |
| Z                   | 505   | 505   | 505   |
| J                   | 264   | 264   | 264   |
| H                   | 241   | 241   | 241   |
| X                   | 357   | 357   | 357   |
| O                   | 350   | 350   | 350   |
| T                   | 132   | 132   | 132   |
| Y                   | 323   | 323   | 323   |
| Output Torque(N*m)  | 1500  | 2000  | 2500  |
| Output Speed(r/min) | 0.2   | 0.2   | 0.17  |

## Electric Actuator

## Multi-Turn Transmission



SMC actuators can be controlled individually or collectively. Not only local operating, but also remote control are provided.

In addition to Basic Model SMC, there are other models of SMC such as Explosion-proof (Explosion-proof Grade dIIBT4); Integral; Integral Explosion-proof; Radiation-proof; Auto-Regulation; Two-Wired; Two-Speed etc. Various actuators of different protection, such as Water-Resistant, Marine Type, Fire-Proof, are available on the request of customers. With so many kinds of SMC actuators, we are able to meet various requirements.

### Working conditions for Basic Modes SMC:

Ambient Temperature: -20~55℃

Relative Humidity: no more than 90% (25℃)

Sea level Height: no more than 1000m

Working Circumstance: without flammable, explosive, corrosive medium

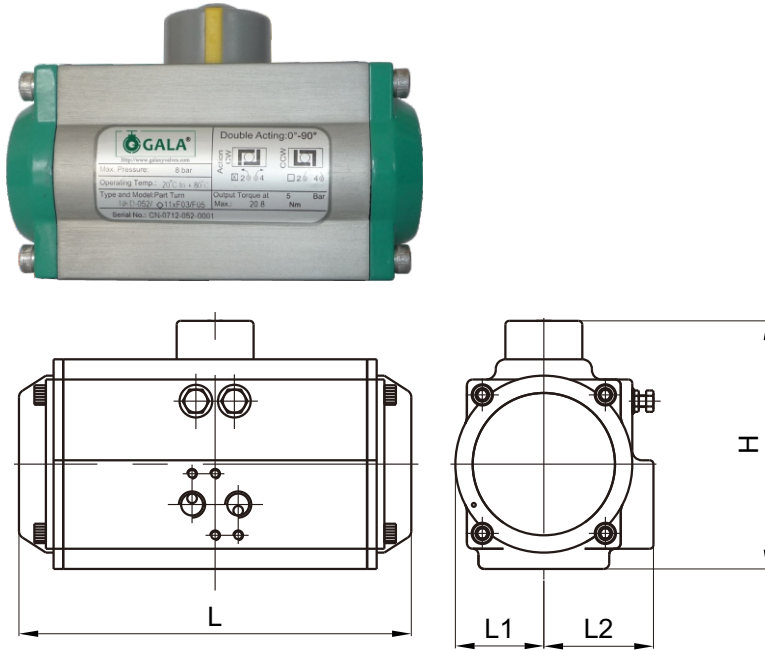
Protection Grade: IP65~IP67

Power Supply: 380V, 50Hz

## Dimensions

| Item Model | Output Torque (N*m) | Thrust Allowed (kN) | Valve Stem Diameter Allowed (mm) | Output Speed (r/min) | Motor (kw) |
|------------|---------------------|---------------------|----------------------------------|----------------------|------------|
| SMC-04     | 110                 | 35                  | 24                               | 20                   | 0.2        |
|            |                     |                     |                                  | 35                   | 0.3        |
| SMC-03     | 270                 | 45                  | 36                               | 18                   | 0.4        |
|            |                     |                     |                                  | 27                   | 0.6        |
| SMC-00     | 500                 | 90                  | 50                               | 24                   | 1.1        |
|            |                     |                     |                                  | 42                   | 1.5        |
| SMC-0      | 970                 | 150                 | 65                               | 18                   | 1.5        |
|            |                     |                     |                                  | 31                   | 2.2        |
| SMC-1      | 1800                | 250                 | 76                               | 12                   | 2.2        |
|            |                     |                     |                                  | 18                   | 3          |
| SMC-2      | 2700                | 300                 | 89                               | 10                   | 3          |
|            |                     |                     |                                  | 18                   | 4          |
| SMC-3      | 5800                | 600                 | 127                              | 12                   | 5.5        |
|            |                     |                     |                                  | 18                   | 7.5        |
| SMC-4      | 10000               | 1000                | 127                              | 10                   | 7.5        |
|            |                     |                     |                                  | 18                   | 13         |
| SMC-5      | 27000               | -                   | 159                              | 6                    | 17         |

## Pneumatic Actuator



### Dimensions

| Model  | L   | H   | L1   | L2   | Valve Connection | Air Connection           |
|--------|-----|-----|------|------|------------------|--------------------------|
| NK-032 | 110 | 65  | 22.5 | 22.5 | □ 9              | F03 - 1/8"               |
| NK-052 | 137 | 94  | 30   | 41   | □ 11             | F05 F03 1/8"or1/4"(std.) |
| NK-063 | 158 | 108 | 36   | 45   | □ 14             | F07 F05 1/8"or1/4"(std.) |
| NK-075 | 168 | 120 | 42   | 50   | □ 14             | F07 F05 1/8"or1/4"(std.) |
| NK-083 | 192 | 129 | 46   | 52.5 | □ 17             | F07 F05 1/8"or1/4"(std.) |
| NK-092 | 249 | 140 | 50.5 | 56   | □ 17             | F07 F05 1/8"or1/4"(std.) |
| NK-105 | 262 | 153 | 57.5 | 64   | □ 22             | F10 F07 1/4"             |
| NK-125 | 313 | 175 | 67.5 | 70   | □ 22             | F10 F07 1/4"             |
| NK-140 | 380 | 192 | 75   | 76   | □ 27             | F12 F10 1/4"             |
| NK-160 | 434 | 217 | 86.5 | 87.5 | □ 27             | F12 F10 1/4"             |
| NK-190 | 491 | 260 | 102  | 102  | □ 36             | F14 - 1/4"               |
| NK-210 | 548 | 285 | 113  | 113  | □ 36             | F14 - 1/4"               |
| NK-240 | 626 | 320 | 130  | 130  | □ 46             | F16 - 1/4"(std.)or3/8"   |
| NK-270 | 698 | 355 | 147  | 147  | □ 46             | F16 - 1/4"(std.)or1/2"   |

### Base Features:

#### 1. Indicator

A position indicator with Namur mounting is standard on all pneumatic actuators for mounting accessories.

#### 2. Pinion

The hardened alloy steel pinion is precision ground and Nickel plated (over 25um) in order to reduce friction, provide maximum wear resistance. Full conformance with the newest standards of ISO5211, DIN3337. The dimension can be customized and as options, stainless steel and aluminium are also available.

#### 3. Actuator Body

The aluminum extrusion is hard anodized (over 30um) to protect against wear and corrosion while reducing piston friction to the absolute minimum. Other options such as Nickel plating, PTFE and powder polyester painting are available.

#### 4. End Caps

Epoxy coated (over 200um) die cast aluminum end caps provide maximum resistance against potentially corrosive elements.

#### 5. Pistons

The precisely-balanced and hard anodized (over 30um) die cast aluminum pistons are fitted with high quality rings and guides. The twin rack and position design creates a constant torque output on all actuators.

#### 6. Travel Adjustment

The standard adjustment is  $\pm 5^\circ$  in both the open and closed positions through easily accessible external adjustment bolts.

#### 7. High Performance Springs

The high tensile steel springs are coated with zinc phosphate for corrosion resistance and longer service. The pre-loaded springs can be safely & rapidly disassembled.

#### 8. Bearings & Guides

The highly durable compound material provides high trust stability with minimum friction and long life.

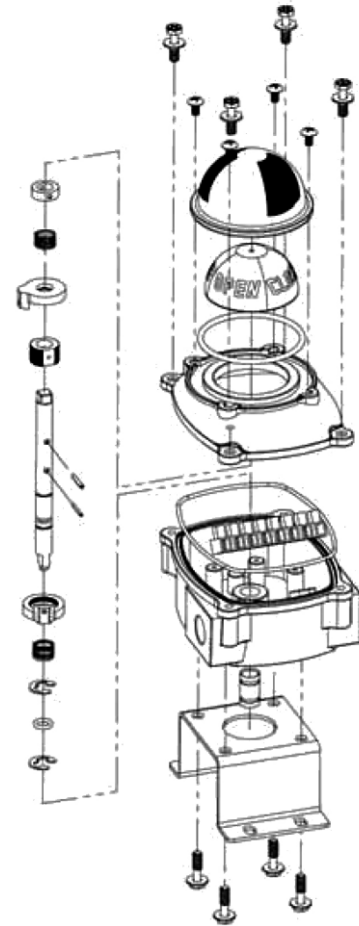
#### 9. O-Rings

NBR O-Rings provide trouble-free operation at standard temperature ranges. Viton and Silicone O-rings are available for high or low temperature applications.

## Position Monitoring Switchbox



The position monitoring switch box is a rotary position indication device and is designed to integrate with valve or NAMUR rotary pneumatic actuator with a variety of mounting options, internal switches, sensors and configurations.

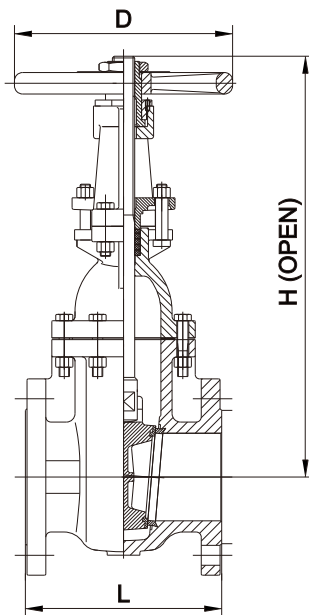


| Specification      | Standard                                             | Optional                     |
|--------------------|------------------------------------------------------|------------------------------|
| Enclosure          | Weather-proof, IP67 (NEMA 4 & 4X)                    |                              |
| Outside Coating    | Polyester powder coating                             |                              |
| Ambient Temp       | -20°C to +80 °C (-4°F to 176°F)                      |                              |
| Cable Entries      | 2-1/2"NPT                                            | 2-PF1/2", PT1/2", M20&PG13.5 |
| Terminal Block     | 8 nos of terminal strips                             |                              |
| Position Indicator | 0°-90°, Dome type                                    |                              |
| Mounting Bracket   | Stainless steel acc. To VDI/VDE 3845, NAMUR standard |                              |
| Switches(Sensors)  | 2-SPDT mechanical switches (form c) as standard      | Proximity Sensors            |

CLASS 125/PN16/JIS 10K

OS & Y Metal Seated Gate Valve

Fig. 3113



**Valve Standard :**

Comply with EN 1171 (BS 5150) & MSS SP-70

**Pressure Temperature Ratings**

|                  |                                    |
|------------------|------------------------------------|
| Working pressure | 25bar / 125LB                      |
| Testing Pressure | Shell: 37.5bar / 24.1bar (2"~12")  |
|                  | 18.3bar (14"~24")                  |
|                  | Seal: 27.5bar / 13.8bar (2"~12")   |
|                  | 10.3bar (14"~24")                  |
|                  | Working Temperature -10°C to 120°C |

**Material Specification**

| Part      | Material        | ASTM         |
|-----------|-----------------|--------------|
| Body      | Cast Iron       | A126 Class B |
| Bonnet    | Cast Iron       | A126 Class B |
| Disc      | Cast Iron       | A126 Class B |
| Seat Ring | Bronze          | B62 C83600   |
| Stem      | Brass           | B16 C36000   |
|           | Stainless Steel | AISI 420     |
| Packing   | Graphite        | Non-Asbestos |
| Hand      | Cast Iron       | A126 Class B |

**Dimensions**

| DN | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 600  |
|----|------|-----|-------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
|    | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8    | 10   | 12   | 14   | 16   | 18   | 20   | 24   |
| L  |      | 178 | 190   | 203 | 229 | 254 | 267 | 292  | 330  | 356  | 381  | 406  | 432  | 457  | 508  |
| H  |      | 375 | 422   | 475 | 606 | 683 | 828 | 1003 | 1211 | 1421 | 1641 | 1828 | 2047 | 2246 | 2632 |
| D  |      | 178 | 178   | 200 | 254 | 300 | 300 | 348  | 400  | 457  | 560  | 560  | 610  | 610  | 765  |

CLASS 250/PN25

OS & Y Metal Seated Gate Valve

Fig. 3115



**Valve Standard :**

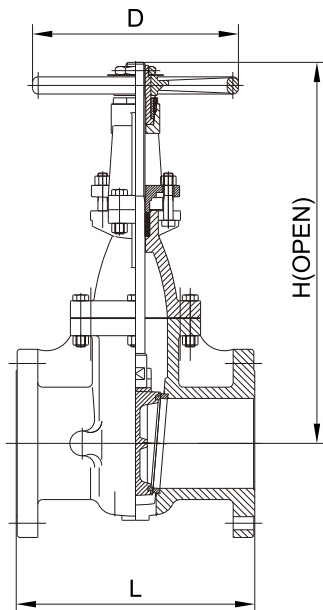
Comply with EN 1171 (BS 5150) & MSS SP-70

**Pressure Temperature Ratings**

|                     |                                                 |
|---------------------|-------------------------------------------------|
| Working pressure    | 16bar / 250LB                                   |
| Testing Pressure    | Shell:24bar / 60.3bar<br>Seal:17.6bar / 34.5bar |
| Working Temperature | -10°C to 120°C                                  |

**Material Specification**

| Part      | Material        | ASTM         |
|-----------|-----------------|--------------|
| Body      | Cast Iron       | A126 Class B |
| Bonnet    | Cast Iron       | A126 Class B |
| Disc      | Cast Iron       | A126 Class B |
| Seat Ring | Bronze          | B62 C83600   |
| Stem      | Brass           | B16 C36000   |
|           | Stainless Steel | AISI 420     |
| Packing   | Graphite        | Non-Asbestos |
| Hand      | Cast Iron       | A126 Class B |



**Dimensions**

| DN | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200  | 250  | 300  |
|----|------|-----|-------|-----|-----|-----|-----|------|------|------|
|    | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8    | 10   | 12   |
| L  |      | 216 | 241   | 283 | 305 | 381 | 403 | 419  | 457  | 502  |
| H  |      | 384 | 436   | 492 | 610 | 715 | 812 | 1024 | 1211 | 1386 |
| D  |      | 175 | 200   | 254 | 300 | 300 | 348 | 400  | 457  | 457  |

CLASS 125/PN16

NRS Metal Seated Gate Valve

Fig. 3123



**Valve Standard :**

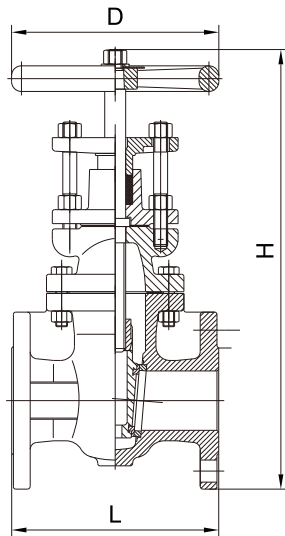
Comply with EN 1171 (BS 5150) & MSS SP-70

**Pressure Temperature Ratings**

|                     |                                |
|---------------------|--------------------------------|
| Working pressure    | 16bar / 125LB                  |
| Testing Pressure    | Shell:24bar / 24.1bar(2"~12")  |
|                     | 18.3bar(14"~24")               |
|                     | Seal:17.6bar / 13.8bar(2"~12") |
|                     | 10.3bar(14"~24")               |
| Working Temperature | -10°C to 120°C                 |

**Material Specification**

| Part      | Material        | ASTM         |
|-----------|-----------------|--------------|
| Body      | Cast Iron       | A126 Class B |
| Bonnet    | Cast Iron       | A126 Class B |
| Disc      | Cast Iron       | A126 Class B |
| Seat Ring | Bronze          | B62 C83600   |
| Stem      | Brass           | B16 C36000   |
|           | Stainless Steel | AISI 420     |
| Packing   | Graphite        | Non-Asbestos |
| Hand      | Cast Iron       | A126 Class B |



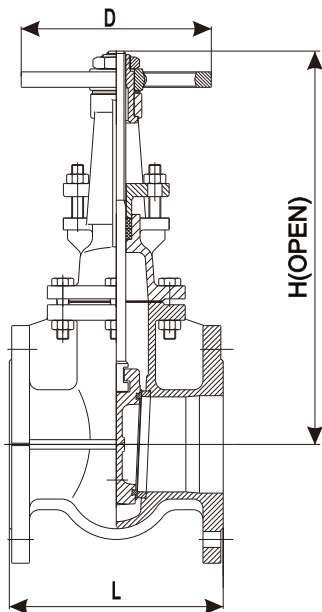
**Dimensions**

| DN | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400  | 450  | 500  | 600  |
|----|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
|    | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16   | 18   | 20   | 24   |
| L  |      | 178 | 190   | 203 | 229 | 254 | 267 | 292 | 330 | 356 | 381 | 406  | 432  | 457  | 508  |
| H  |      | 302 | 332   | 335 | 423 | 485 | 545 | 644 | 769 | 860 | 987 | 1044 | 1148 | 1257 | 1418 |
| D  |      | 178 | 178   | 200 | 254 | 300 | 300 | 348 | 400 | 457 | 560 | 560  | 610  | 610  | 765  |

PN10/PN16

OS & Y Metal Seated Gate Valve

Fig. 3213



### Valve Standard :

Comply with DIN 3352 F4

### Pressure Temperature Ratings

|                     |                                         |
|---------------------|-----------------------------------------|
| Working pressure    | 10bar/16bar                             |
| Testing Pressure    | Shell:15bar/24bar<br>Seal:11bar/17.6bar |
| Working Temperature | -10°C to 120°C                          |

### Material Specification

| Part       | Material        | EN Spec.       |
|------------|-----------------|----------------|
| Body       | Cast Iron       | EN-JL1040      |
|            | Ductile Iron    | EN-JS1050      |
| Bonnet     | Cast Iron       | EN-JL1040      |
|            | Ductile Iron    | EN-JS1050      |
| Disc       | Cast Iron       | EN-JL1040      |
|            | Ductile Iron    | EN-JS1050      |
| Seat Ring  | Brass           | EN 12165 W603N |
| Stem       | Stainless Steel | BS970 420S37   |
| Packing    | Graphite        | Non-Asbestos   |
| Hand Wheel | Cast Iron       | EN-JL1040      |

### Note :

DI Body For PN16

### Dimensions

| DN | mm   | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250  | 300  |
|----|------|-------|-----|-------|-----|-----|-----|-----|-----|------|------|
|    | inch | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10   | 12   |
| L  |      | 140   | 150 | 170   | 180 | 190 | 200 | 210 | 230 | 250  | 270  |
| H  |      | 295   | 315 | 371   | 424 | 500 | 598 | 711 | 901 | 1093 | 1273 |
| D  |      | 160   | 160 | 160   | 160 | 200 | 200 | 250 | 250 | 320  | 320  |

PN10/JIS 10K

NRS Metal Seated Gate Valve

Fig. 3129



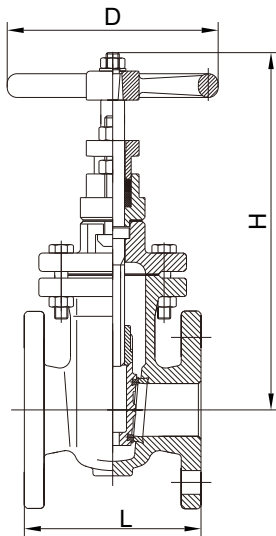
**Valve Standard :**  
Comply with BS 3464

### Pressure Temperature Ratings

|                     |                           |
|---------------------|---------------------------|
| Working pressure    | 10bar                     |
| Testing Pressure    | Shell:15bar<br>Seal:11bar |
| Working Temperature | -10°C to 120°C            |

### Material Specification

| Part       | Material        | EN Spec.       |
|------------|-----------------|----------------|
| Body       | Cast Iron       | EN-JL1040      |
| Bonnet     | Cast Iron       | EN-JL1040      |
| Disc       | Cast Iron       | EN-JL1040      |
| Seat Ring  | Bronze          | EN1982 CC491K  |
| Stem       | Brass           | EN 12165 W603N |
|            | Stainless Steel | BS970 420S37   |
| Packing    | Graphite        | Non-Asbestos   |
| Hand Wheel | Cast Iron       | EN-JL1040      |



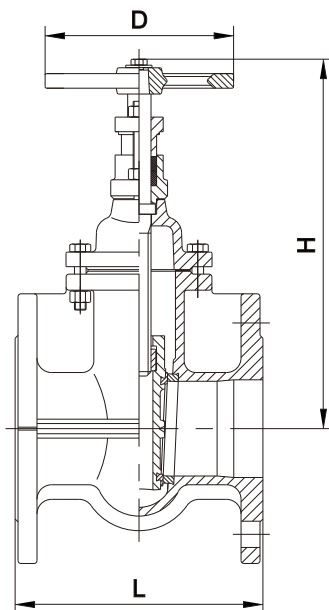
### Dimensions

| DN | mm   | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 |
|----|------|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  |
| L  |      | 140   | 146 | 159   | 165 | 171 | 190 | 210 | 241 | 273 | 305 |
| H  |      | 270   | 292 | 324   | 360 | 380 | 454 | 490 | 578 | 711 | 767 |
| D  |      | 160   | 160 | 160   | 160 | 200 | 250 | 250 | 250 | 320 | 320 |

PN10/PN16

NRS Metal Seated Gate Valve

Fig. 3125



**Valve Standard :**

Comply with DIN 3352 (F4)

**Pressure Temperature Ratings**

|                     |                    |
|---------------------|--------------------|
| Working pressure    | 10bar/16bar        |
| Testing Pressure    | Shell:15bar/24bar  |
|                     | Seal:11bar/17.6bar |
| Working Temperature | -10°C to 120°C     |

**Material Specification**

| Part       | Material        | EN Spec.       |
|------------|-----------------|----------------|
| Body       | Cast Iron       | EN-JL1040      |
|            | Ductile Iron    | EN-JS1050      |
| Bonnet     | Cast Iron       | EN-JL1040      |
|            | Ductile Iron    | EN-JS1050      |
| Disc       | Cast Iron       | EN-JL1040      |
|            | Ductile Iron    | EN-JS1050      |
| Seat Ring  | Brass           | EN 12165 W603N |
| Stem       | Brass           | EN 12165 W603N |
|            | Stainless Steel | BS970 420S37   |
| Packing    | Graphite        | Non-Asbestos   |
| Hand Wheel | Cast Iron       | EN-JL1040      |

**Note :**

DI Body For PN16

**Dimensions**

| DN | mm   | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 |
|----|------|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  |
| L  |      | 140   | 150 | 170   | 180 | 190 | 200 | 210 | 230 | 250 | 270 |
| H  |      | 245   | 255 | 277   | 303 | 340 | 387 | 454 | 538 | 629 | 730 |
| D  |      | 130   | 130 | 130   | 150 | 185 | 185 | 195 | 225 | 245 | 285 |

PN10

NRS Metal Seated Gate Valve

Fig. 3126



**Valve Standard :**

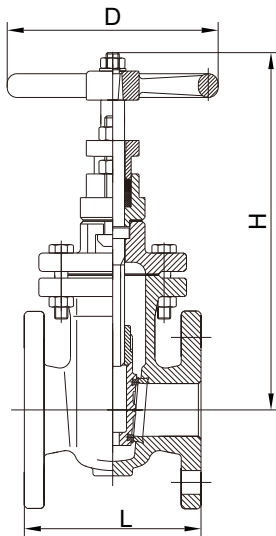
Comply with DIN 3352 (F4)

**Pressure Temperature Ratings**

|                     |                           |
|---------------------|---------------------------|
| Working pressure    | 10bar                     |
| Testing Pressure    | Shell:15bar<br>Seal:11bar |
| Working Temperature | -10°C to 120°C            |

**Material Specification**

| Part       | Material        | EN Spec.       |
|------------|-----------------|----------------|
| Body       | Cast Iron       | EN-JL1040      |
| Bonnet     | Cast Iron       | EN-JL1040      |
| Disc       | Cast Iron       | EN-JL1040      |
| Seat Ring  | Brass           | EN 12165 W603N |
| Stem       | Stainless Steel | 17440X20Cr13   |
| Packing    | Graphite        | Non-Asbestos   |
| Hand Wheel | Cast Iron       | EN-JL1040      |



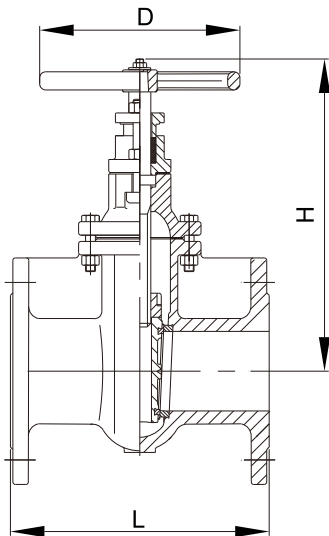
**Dimensions**

| DN | mm   | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 |
|----|------|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16  |
| L  |      | 140   | 150 | 170   | 180 | 190 | 200 | 210 | 230 | 250 | 270 | 290 | 310 |
| H  |      | 271   | 291 | 321   | 360 | 378 | 451 | 489 | 573 | 708 | 764 | 870 | 940 |
| D  |      | 160   | 160 | 160   | 160 | 200 | 250 | 250 | 250 | 320 | 320 | 400 | 400 |

PN16

NRS Metal Seated Gate Valve

Fig. 3127



### Valve Standard :

Comply with DIN 3352 (F5)

### Pressure Temperature Ratings

|                     |                |
|---------------------|----------------|
| Working pressure    | 16bar          |
| Testing Pressure    | Shell:24bar    |
|                     | Seal:17.6bar   |
| Working Temperature | -10°C to 120°C |

### Material Specification

| Part       | Material        | EN Spec.       |
|------------|-----------------|----------------|
| Body       | Cast Iron       | EN-JL1040      |
| Bonnet     | Cast Iron       | EN-JL1040      |
| Disc       | Cast Iron       | EN-JL1040      |
| Seat Ring  | Brass           | EN 12165 W603N |
| Stem       | Stainless Steel | BS970 420S37   |
| Packing    | Graphite        | Non-Asbestos   |
| Hand Wheel | Cast Iron       | EN-JL1040      |

### Dimensions

| DN | mm<br>inch | 40<br>1-1/2 | 50<br>2 | 65<br>2-1/2 | 80<br>3 | 100<br>4 | 125<br>5 | 150<br>6 | 200<br>8 | 250<br>10 | 300<br>12 | 350<br>14 | 400<br>16 |
|----|------------|-------------|---------|-------------|---------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
| L  |            | 240         | 250     | 270         | 280     | 300      | 325      | 350      | 400      | 450       | 500       | 550       | 600       |
| H  |            | 271         | 291     | 321         | 360     | 378      | 451      | 489      | 573      | 708       | 764       | 970       | 940       |
| D  |            | 160         | 160     | 160         | 160     | 200      | 250      | 250      | 250      | 320       | 320       | 400       | 400       |

PN16

NRS Metal Seated Gate Valve(Heavy pattern, Vertical)

Fig. 3141



### Valve Standard :

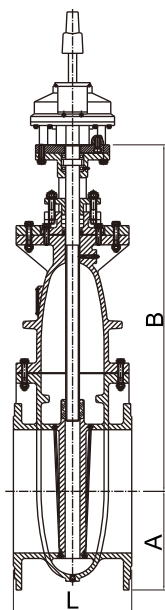
Comply with BS 5163 / BS 5150 / EN1047

### Pressure Temperature Ratings

|                     |                |
|---------------------|----------------|
| Working pressure    | 16bar          |
| Testing Pressure    | Shell:24bar    |
|                     | Seal:17.6bar   |
| Working Temperature | -10°C to 120°C |

### Material Specification

| Part           | Material        | EN Spec.        |
|----------------|-----------------|-----------------|
| Body           | Ductile Iron    | EN-JS1050       |
| Bonnet         | Ductile Iron    | EN-JS1050       |
| Disc           | Ductile Iron    | EN-JS1050       |
| Body Seat Ring | Stainless Steel | BS970 316 C 16  |
|                | Copper Alloy    | EN 1982 CC 333G |
| Gate Seat Ring | Copper Alloy    | EN 1982 CC 333G |
|                |                 | EN 1982 CC 491K |
| Stem           | Stainless Steel | BS970 431 S 29  |
|                | Stainless Steel | BS970 316 S 16  |
| Packing        | Buna-N          | Non-Asbestos    |
|                | F4              |                 |
| Cap Top        | Cast Iron       | EN-JL1040       |



### Dimensions

| DN | mm   | 300 | 400  | 450  | 500  | 600  | 700  | 800  | 900  | 1000 | 1200 | 1400 |
|----|------|-----|------|------|------|------|------|------|------|------|------|------|
|    | inch | 12  | 16   | 18   | 20   | 24   | 28   | 32   | 36   | 40   | 48   | 56   |
| L  |      | 356 | 406  | 432  | 457  | 508  | 610  | 660  | 711  | 811  | 950  | 1200 |
| A  |      | 265 | 325  | 360  | 381  | 463  | 520  | 575  | 650  | 700  | 845  | 990  |
| B  |      | 631 | 1158 | 1281 | 1548 | 1720 | 1920 | 2075 | 2240 | 2455 | 2800 | 3080 |

PN16

NRS Metal Seated Gate Valve(Heavy Pattern, Horizontal)

Fig. 3143

**Valve Standard :**

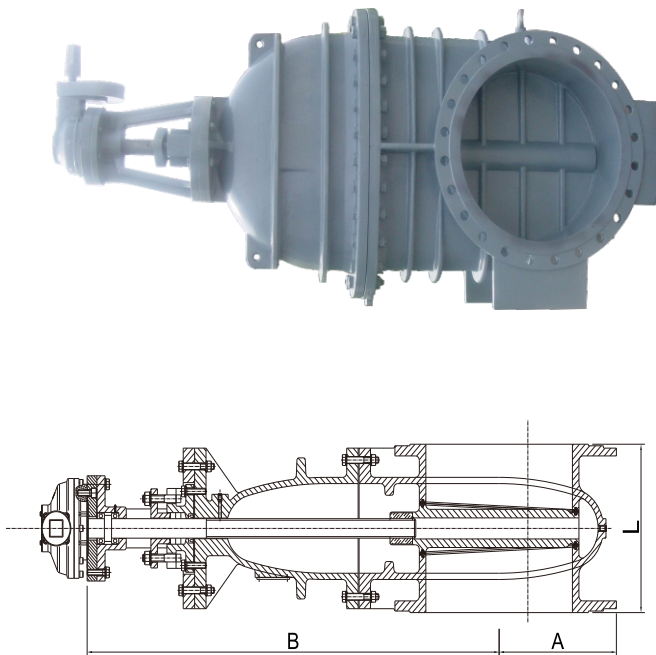
Comply with BS 5163 / BS 5150 / EN1047

**Pressure Temperature Ratings**

|                     |                |
|---------------------|----------------|
| Working pressure    | 16bar          |
| Testing Pressure    | Shell:24bar    |
|                     | Seal:17.6bar   |
| Working Temperature | -10°C to 120°C |

**Material Specification**

| Part           | Material        | EN Spec.        |
|----------------|-----------------|-----------------|
| Body           | Ductile Iron    | EN-JS1050       |
| Bonnet         | Ductile Iron    | EN-JS1050       |
| Disc           | Ductile Iron    | EN-JS1050       |
| Body Seat Ring | Stainless Steel | BS970 316 C 16  |
|                | Copper Alloy    | EN 1982 CC 333G |
| Gate Seat Ring | Copper Alloy    | EN 1982 CC 333G |
|                |                 | EN 1982 CC 491K |
| Stem           | Stainless Steel | BS970 431 S 29  |
|                | Stainless Steel | BS970 316 S 16  |
| Packing        | Buna-N<br>F4    | Non-Asbestos    |
| Cap Top        | Cast Iron       | EN-JL1040       |



**Dimensions**

| DN | mm   | 300 | 400  | 450  | 500  | 600  | 700  | 800  | 900  | 1000 | 1200 | 1400 |
|----|------|-----|------|------|------|------|------|------|------|------|------|------|
|    | inch | 12  | 16   | 18   | 20   | 24   | 28   | 32   | 36   | 40   | 48   | 56   |
| L  |      | 356 | 406  | 432  | 457  | 508  | 610  | 660  | 711  | 811  | 950  | 1200 |
| A  |      | 265 | 325  | 360  | 381  | 463  | 520  | 575  | 650  | 700  | 845  | 990  |
| B  |      | 631 | 1158 | 1281 | 1548 | 1720 | 1920 | 2075 | 2240 | 2455 | 2800 | 3080 |

CLASS125

AWWA C509 NRS Resilient Seat Gate Valve

Fig. 3226



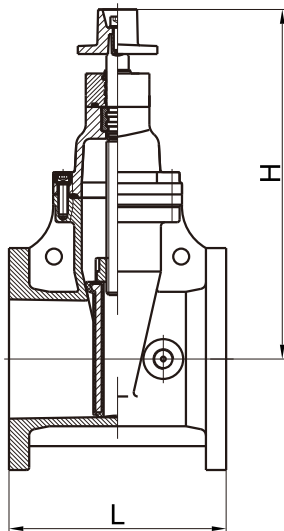
**Valve Standard :**  
Comply with AWWA C509

**Pressure Temperature Ratings**

|                     |                    |
|---------------------|--------------------|
| Working pressure    | 200psi             |
| Testing Pressure    | Shell:300psi       |
|                     | Seal:220psi        |
| Working Temperature | -4°F to 230°F EPDM |
|                     | 14°F to 176°F NBR  |

**Material Specification**

| Part       | Material        | ASTM              |
|------------|-----------------|-------------------|
| Body       | Ductile Iron    | A536 Gr. 65-45-12 |
| Bonnet     | Ductile Iron    | A536 Gr. 65-45-12 |
| Disc       | EPDM Coated DI  | A536 Gr. 65-45-12 |
| Stem       | Stainless Steel | AISI 420          |
| O-Ring     | EPDM / NBR      | Commercial        |
| Wrench Nut | Ductile Iron    | A536 Gr. 65-45-12 |



**Dimensions**

| DN | inch | 2    | 2-1/2 | 3    | 4    | 5    | 6    | 8    | 10   | 12   | 14 | 16 | 18 | 20 | 24 |
|----|------|------|-------|------|------|------|------|------|------|------|----|----|----|----|----|
| L  |      | 7.0  | 7.5   | 8.0  | 9.0  | 10.0 | 10.5 | 11.5 | 13.0 | 14.0 | 15 | 16 | 17 | 18 | 20 |
| H  |      | 10.8 | 11.7  | 12.7 | 14.1 | 16.3 | 17.6 | 21.0 | 24.3 | 27.8 |    |    |    |    |    |

PN16

OS&Y Resilient Seat Gate Valve

Fig. 3233



**Valve Standard :**  
Comply with BS5163 / AWWA C509

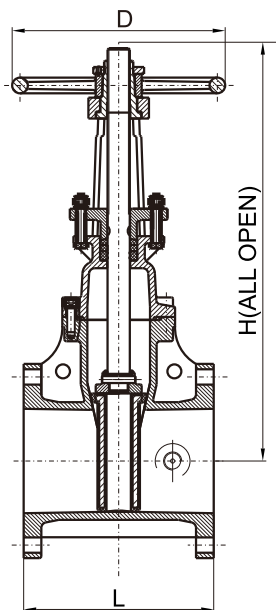
### Pressure Temperature Ratings

|                     |                     |
|---------------------|---------------------|
| Working pressure    | 16bar               |
| Testing Pressure    | Shell:24bar         |
|                     | Seat:17.6bar        |
| Working Temperature | -20°C to 110°C EPDM |
|                     | -10°C to 80°C NBR   |

### Material Specification

| Part       | Material           | EN Spec.     |
|------------|--------------------|--------------|
| Body       | Ductile Iron       | EN-JS1050    |
| Bonnet     | Ductile Iron       | EN-JS1050    |
| Disc       | EPDM Coated DI     | EN-JS1050    |
| Stem       | Stainless Stee 420 | BS970 420S37 |
|            | Stainless Stee 431 | BS970 431S29 |
| O-Ring     | EPDM / NBR         | Commercial   |
| Wrench Nut | Ductile Iron       | EN-JS1050    |
| Hand Wheel | Ductile Iron       | EN-JS1050    |

**NOTE :**  
ONLY DN50-DN300 BS5163 VALVES  
ARE WRAS APPROVED.



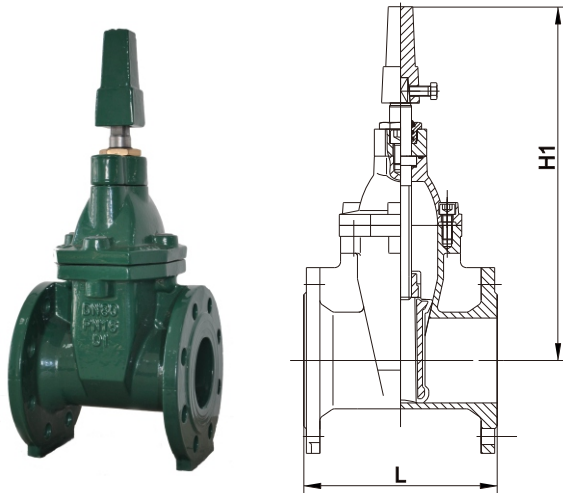
### Dimensions

| DN inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10   | 12   | 14   | 16   | 18  | 20  | 24  |
|---------|-----|-------|-----|-----|-----|-----|-----|------|------|------|------|-----|-----|-----|
| L       | 178 | 190   | 203 | 229 | 254 | 267 | 292 | 330  | 356  | 381  | 406  | 432 | 457 | 508 |
| H       | 362 | 402   | 483 | 534 | 661 | 727 | 830 | 1112 | 1291 | 1164 | 1284 |     |     |     |
| D       | 180 | 180   | 200 | 200 | 250 | 250 | 320 | 370  | 370  | 450  | 450  | 640 | 640 | 640 |

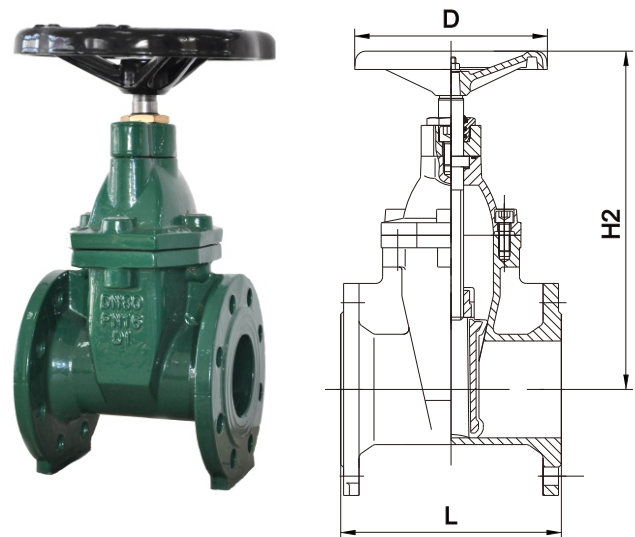
PN16

NRS Resilient Seat Gate Valve

Fig. 3243



A



B

## Material Specification

| Part       | Material            | EN Spec.     |
|------------|---------------------|--------------|
| Body       | Ductile Iron        | EN-JS1050    |
| Bonnet     | Ductile Iron        | EN-JS1050    |
| Disc       | EPDM Coated DI      | EN-JS1050    |
| Stem       | Stainless Steel 420 | BS970 420S37 |
|            | Stainless Steel 431 | BS970 431S29 |
| O-Ring     | EPDM/NBR            | Commercial   |
| Wrench Nut | Ductile Iron        | EN-JS1050    |
| Hand Wheel | Ductile Iron        | EN-JS1050    |

## NOTE :

ONLY DN50-DN300 TYPE B ARE WRAS APPROVED.

## Valve Standard :

Comply with BS 5163 Type A&B

## Pressure Temperature Ratings

|                     |                     |
|---------------------|---------------------|
| Working pressure    | 16bar               |
| Testing Pressure    | Shell:24bar         |
|                     | Seat:17.6bar        |
| Working Temperature | -20°C to 110°C EPDM |
|                     | -10°C to 80°C NBR   |

## Dimensions

| DN | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400  | 450  | 500  | 600  |
|----|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
|    | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16   | 18   | 20   | 24   |
| L  |      | 178 | 190   | 203 | 229 | 254 | 267 | 292 | 330 | 356 | 381 | 406  | 432  | 457  | 508  |
| H1 |      | 291 | 318   | 355 | 381 | 445 | 485 | 572 | 656 | 773 | 947 | 1022 | 1092 | 1171 | 1313 |
| H2 |      | 210 | 237   | 274 | 300 | 364 | 404 | 497 | 590 | 667 | 882 | 956  | 1027 | 1106 | 1258 |
| D  |      | 160 | 200   | 200 | 200 | 250 | 250 | 320 | 370 | 370 | 450 | 450  | 640  | 640  | 640  |

PN16

NRS Resilient Seat Gate Valve

Fig. 3246 (DIN F4)  
3247 (DIN F5)



**Valve Standard :**

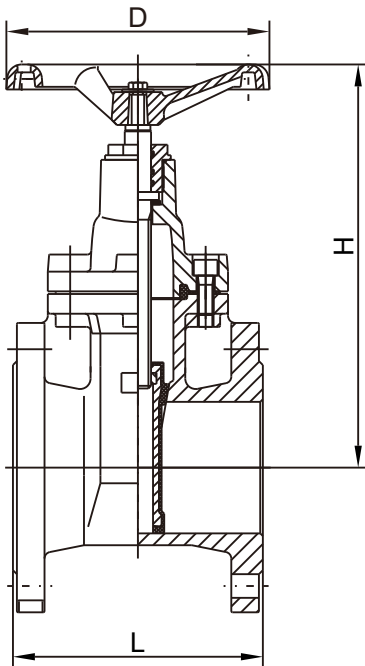
Comply with DIN 3352 (F4) / (F5)

**Pressure Temperature Ratings**

|                     |                     |
|---------------------|---------------------|
| Working pressure    | 16bar               |
| Testing Pressure    | Shell:24bar         |
|                     | Seal:17.6bar        |
| Working Temperature | -20°C to 110°C EPDM |
|                     | -10°C to 80°C NBR   |

**Material Specification**

| Part       | Material        | EN Spec.     |
|------------|-----------------|--------------|
| Body       | Cast Iron       | EN-JL1040    |
|            | Ductile Iron    | EN-JS1050    |
| Bonnet     | Cast Iron       | EN-JL1040    |
|            | Ductile Iron    | EN-JS1050    |
| Disc       | EPDM Coated DI  | EN-JS1050    |
| Stem       | Stainless Steel | BS970 420S37 |
| Gasket     | NBR             | Commercial   |
| Hand Wheel | Ductile Iron    | EN-JS1050    |



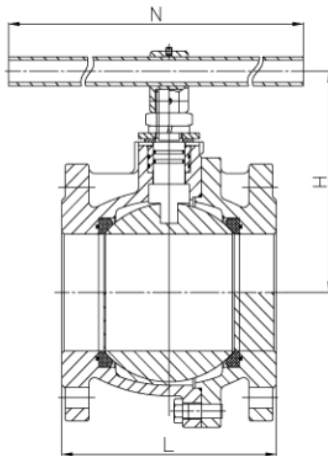
**Dimensions**

| DN     | mm   | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500  | 600  |
|--------|------|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
|        | inch | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16  | 18  | 20   | 24   |
| L / F4 |      | 140   | 150 | 170   | 180 | 190 | 200 | 210 | 230 | 250 | 270 | 290 | 310 | 330 | 350  | 390  |
| L / F5 |      |       | 240 | 250   | 270 | 280 | 300 | 320 | 350 | 450 | 500 | 550 | 600 | 650 | 700  | 800  |
| H      |      | 184   | 195 | 222   | 251 | 282 | 340 | 379 | 461 | 559 | 639 | 762 | 836 | 957 | 1036 | 1188 |
| D      |      | 160   | 160 | 200   | 200 | 200 | 250 | 250 | 320 | 370 | 370 | 450 | 450 | 640 | 640  | 640  |

CLASS 125 /PN 16 /JIS 10K

Cast Iron Ball Valve

Fig. 4102



#### Valve Standard :

Comply with MSS SP-72

Face-to-face Dimension Conforms to

BS EN558-1 Series 14 (DIN 3202 F4) for DN50-DN100

BS EN558-1 Series 15 (DIN 3202 F5) for DN125-DN200

#### Pressure Temperature Ratings

|                     |                             |
|---------------------|-----------------------------|
| Working pressure    | 16bar                       |
| Testing Pressure    | Shell:24bar<br>Seal:17.6bar |
| Working Temperature | -10°C to 120°C              |

#### Material Specification

| Part   | Material            | ASTM Spec.   |
|--------|---------------------|--------------|
| Body   | Cast Iron           | EN-JL1040    |
| Bonnet | Cast Iron           | EN-JL1040    |
| Ball   | Stainless Steel 304 | BS970 304S15 |
| Seat   | PTFE                | Commercial   |
| Shaft  | Stainless Steel 420 | BS970 420S37 |
| Handle | Carbon Steel        | Mild Steel   |

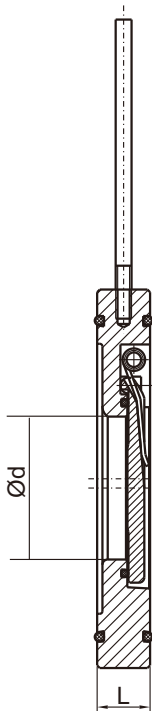
#### Dimensions

| DN | mm<br>inch | 50<br>2 | 65<br>2-1/2 | 80<br>3 | 100<br>4 | 125<br>5 | 150<br>6 | 200<br>8 |
|----|------------|---------|-------------|---------|----------|----------|----------|----------|
| L  |            | 150     | 170         | 180     | 190      | 325      | 350      | 400      |
| H  |            | 115     | 130         | 140     | 155      | 195      | 240      | 325      |
| N  |            | 220     | 284         | 284     | 500      | 600      | 800      | 1000     |

CLASS 125/PN 16/JIS 10K

Wafer Type Single Door Check Valve

Fig. 5315



### Pressure Temperature Ratings

|                     |                     |
|---------------------|---------------------|
| Working pressure    | 16bar               |
| Testing Pressure    | Shell:24bar         |
|                     | Seal:17.6bar        |
| Working Temperature | -20°C to 110°C EPDM |
|                     | -10°C to 80°C NBR   |
| Suitable Media      | Water,Oil&Gas       |

### Material Specification

| Part      | Material        | ASTM Spec.    |
|-----------|-----------------|---------------|
| Body      | Carbon Steel    | A216 WCB      |
| Disc      | Ductile Iron    | A536 65-45-12 |
|           | Carbon Steel    | A216 WCB      |
| Stem      | Stainless Steel | AISI 316      |
| Seat-Ring | EPDM / NBR      | Commercial    |
| Spring    | Stainless Steel | AISI 316      |
|           | Stainless Steel | AISI 304      |

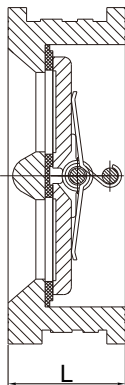
### Dimensions

| DN | mm   | 32    | 40    | 50 | 65    | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|----|------|-------|-------|----|-------|----|-----|-----|-----|-----|-----|-----|
|    | inch | 1-1/4 | 1-1/2 | 2  | 2-1/2 | 3  | 4   | 5   | 6   | 8   | 10  | 12  |
| L  |      | 14    | 14    | 18 | 20    | 20 | 20  | 22  | 22  | 22  | 26  | 32  |
| Ød |      | 20    | 22    | 32 | 40    | 54 | 70  | 92  | 112 | 154 | 192 | 227 |

CLASS 125/CLASS250/  
PN 16/PN25/JIS 10K/JIS16K

Wafer Type Double Door Check Valve

Fig. 5306 (DIN3202)  
5307 (API 594)



### Valve Standard :

Comply with DIN 3202/API 594

### Pressure Temperature Ratings

|                     |                      |
|---------------------|----------------------|
| Working pressure    | 16bar/25bar          |
| Testing Pressure    | Shell:24bar/37.5bar  |
|                     | Seal:17.6bar/27.5bar |
| Working Temperature | -20°C to 110°C EPDM  |
|                     | -10°C to 80°C NBR    |
| Suitable Media      | Water,Oil&Gas        |

### Material Specification

| Part      | Material        | ASTM Spec.    |
|-----------|-----------------|---------------|
| Body      | Cast Iron       | A126 Class B  |
|           | Ductile Iron    | A536 65-45-12 |
|           | Stainless Steel | A351 CF8      |
|           | Stainless Steel | A351 CF8M     |
|           | Carbon Steel    | A216 WCB      |
| Disc      | Ductile Iron    | A536 65-45-12 |
|           | Aluminum Bronze | B584 C95400   |
|           | Stainless Steel | A351 CF8      |
|           | Stainless Steel | A351 CF8M     |
| Stem      | Stainless Steel | AISI 316      |
| Seat-Ring | EPDM / NBR      | Commercial    |
| Spring    | Stainless Steel | AISI 316      |
|           | Stainless Steel | AISI 304      |

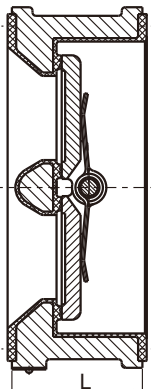
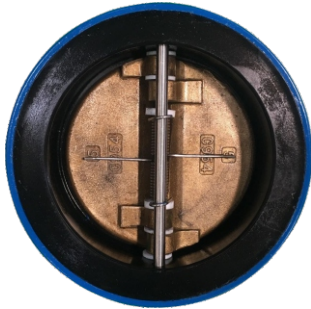
### Dimensions

| DN          | mm   | 40    | 50 | 65    | 80 | 100 | 125 | 150 | 200 | 250 |
|-------------|------|-------|----|-------|----|-----|-----|-----|-----|-----|
|             | inch | 1-1/2 | 2  | 2-1/2 | 3  | 4   | 5   | 6   | 8   | 10  |
| L (DIN3202) |      | 43    | 43 | 46    | 64 | 64  | 70  | 76  | 89  | 114 |
| L (API594)  |      | -     | 54 | 60    | 67 | 67  | 83  | 95  | 127 | 140 |

| DN          | mm   | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 |
|-------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|             | inch | 12  | 14  | 16  | 18  | 20  | 24  | 28  | 32  | 36  |
| L (DIN3202) |      | 114 | 127 | 140 | 152 | 152 | 178 | 229 | 241 | 241 |
| L (API594)  |      | 181 | 184 | 191 | 203 | 213 | 222 | 305 | 305 | 368 |

Full RubberLined Wafer Type Double Door Check Valve

Fig. 5316



**Valve Standard :**  
Comply with DIN 3202

**Pressure Temperature Ratings**

|                     |                      |
|---------------------|----------------------|
| Working pressure    | 16bar/25bar          |
| Testing Pressure    | Shell:24bar/37.5bar  |
|                     | Seal:17.6bar/27.5bar |
| Working Temperature | -20°C to 110°C EPDM  |
|                     | -10°C to 80°C NBR    |
| Suitable Media      | Water,Oil&Gas        |

**Material Specification**

| Part | Material                | ASTM Spec.    |
|------|-------------------------|---------------|
| Body | Ductile Iron            | A536 65-45-12 |
| Disc | Stainless Steel         | A351 CF8      |
|      | Stainless Steel         | A351 CF8M     |
|      | Bronze                  | B148 C95400   |
|      | Bronze                  | B148 C95800   |
|      | Bronze                  | BS1400 AB2    |
| Stem | Stainless Steel Monel   |               |
|      | Stainless Steel Inconel |               |
| Seat | EPDM / NBR              |               |

**NOTE :**

There is a Screw Eye for DN200 and above size

**Dimensions**

| DN | mm<br>inch | 50<br>2 | 65<br>2-1/2 | 80<br>3 | 100<br>4 | 125<br>5 | 150<br>6 | 200<br>8 | 250<br>10 |
|----|------------|---------|-------------|---------|----------|----------|----------|----------|-----------|
| L  |            | 43      | 46          | 64      | 64       | 70       | 76       | 89       | 114       |

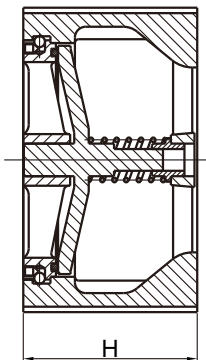
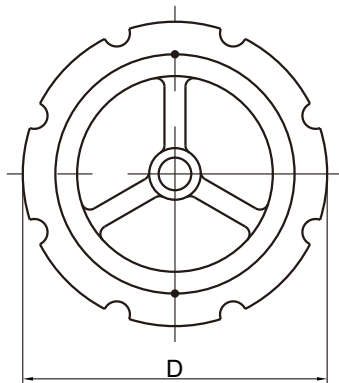
  

| DN | mm<br>inch | 300<br>12 | 350<br>14 | 400<br>16 | 450<br>18 | 500<br>20 | 600<br>24 | 700<br>28 | - |
|----|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---|
| L  |            | 114       | 127       | 140       | 152       | 152       | 178       | 229       | - |

CLASS 125/CLASS250/  
PN 16/PN25/JIS 10K/JIS16K

Wafer Type Silent Check Valve

Fig. 5312



### Pressure Temperature Ratings

|                     |                      |
|---------------------|----------------------|
| Working pressure    | 16bar/25bar          |
| Testing Pressure    | Shell:24bar/37.5bar  |
|                     | Seal:17.6bar/27.5bar |
| Working Temperature | -20°C to 110°C EPDM  |
|                     | -10°C to 80°C NBR    |
| Suitable Media      | Water,Oil&Gas        |

### Material Specification -20°C

| Part      | Material        | ASTM Spec.    |
|-----------|-----------------|---------------|
| Body      | Cast Iron       | A126 Class B  |
|           | Ductile Iron    | A536 65-45-12 |
| Disc      | Stainless Steel | A351 CF8      |
|           | Bronze          | B62 C83600    |
| Seat      | Stainless Steel | A351 CF8      |
|           | Bronze          | B62 C83600    |
| Seat Ring | EPDM / NBR      | Commercial    |
| Bushing   | Bronze          | B62 C83600    |
| Spring    | Stainless Steel | AISI 304      |

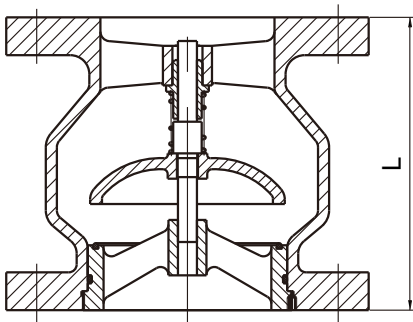
### Dimensions

| DN | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 |
|----|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  |
| D  |      | 110 | 136   | 152 | 178 | 221 | 248 | 340 | 404 | 415 | 484 |
| H  |      | 67  | 73    | 80  | 102 | 118 | 140 | 165 | 210 | 286 | 350 |

CLASS 125/CLASS250/  
PN 16/PN25/JIS 10K/JIS16K

Globe Type Silent Check Valve

Fig. 5104



### Pressure Temperature Ratings

|                     |                      |
|---------------------|----------------------|
| Working pressure    | 16bar/25bar          |
| Testing Pressure    | Shell:24bar/37.5bar  |
|                     | Seal:17.6bar/27.5bar |
| Working Temperature | -20°C to 110°C EPDM  |
|                     | -10°C to 80°C NBR    |
| Suitable Media      | Water,Oil&Gas        |

### Material Specification

| Part      | Material        | ASTM Spec.    |
|-----------|-----------------|---------------|
| Body      | Cast Iron       | A126 Class B  |
|           | Ductile Iron    | A536 65-45-12 |
| Disc      | Stainless Steel | A351 CF8      |
|           | Bronze          | B62 C83600    |
| Seat      | Stainless Steel | A351 CF8      |
|           | Bronze          | B62 C83600    |
| Seat Ring | EPDM / NBR      | Commercial    |
| Bushing   | Bronze          | B62 C83600    |
| Spring    | Stainless Steel | AISI 304      |

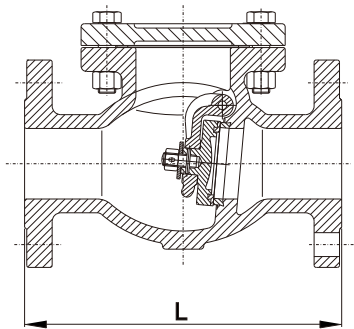
### Dimensions

| DN | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|----|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16  | 18  | 20  | 24  |
| L  |      | 133 | 140   | 152 | 185 | 216 | 229 | 257 | 393 | 362 | 400 | 448 | 476 | 524 | 610 |

PN 16 / CLASS 125 / CLASS 250

Flange Type Swing Check Valve-BS/MSS Metal Seated

Fig. 5101(PN16/Class 125)  
5102(Class 250)



**Valve Standard :**

Comply with EN 12334(BS 5153) & MSS SP-71

**Pressure Temperature Ratings**

|                     |                   |
|---------------------|-------------------|
| Working pressure    | 16bar/125Lb/250Lb |
| Testing Pressure    | Shell:24bar/51.7  |
|                     | Seal:17.6bar/34.5 |
| Working Temperature | -10°C to 120°C    |
| Suitable Media      | Water,Oil&Gas     |

**Material Specification**

| Part      | Material  | ASTM Spec.   |
|-----------|-----------|--------------|
| Body      | Cast Iron | A126 Class B |
| Disc      | Cast Iron | A126 Class B |
| Seat Ring | Bronze    | B62 C83600   |
| Disc Ring | Bronze    | B62 C83600   |

**Dimensions**

| DN               | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500  | 600  |
|------------------|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
|                  | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16  | 18  | 20   | 24   |
| L(PN16/Class125) |      | 203 | 216   | 241 | 292 | 330 | 356 | 495 | 622 | 699 | 787 | 914 | 914 | 1016 | 1219 |
| L(Class250)      |      | 267 | 292   | 318 | 356 | 400 | 444 | 533 | 622 | 711 | -   | -   | -   | -    | -    |

PN 16

Flange Type Swing Check Valve-DIN Standard

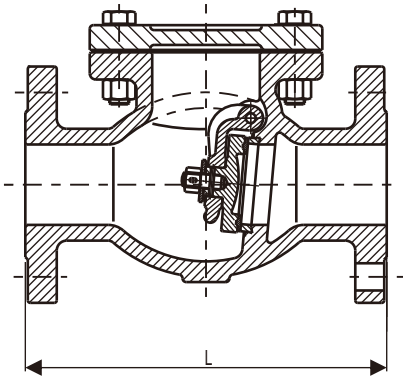
Fig. 5201(Metal Seated)  
5202(Resilient Seated)



**Valve Standard :**  
Comply with EN DIN3202 F6

### Pressure Temperature Ratings

|                     |                |
|---------------------|----------------|
| Working pressure    | 16bar          |
| Testing Pressure    | Shell:24bar    |
|                     | Seal:17.6bar   |
| Working Temperature | -10°C to 120°C |
| Suitable Media      | Water,Oil&Gas  |



### Material Specification

| Part            | Material  | Spec.      |
|-----------------|-----------|------------|
| Body            | Cast Iron | EN-GJL-250 |
| Disc            | Cast Iron | EN-GJL-250 |
| Seat Ring       | Bronze    | Brass      |
| Disc Ring(5201) | Bronze    | Brass      |
| Disc Ring(5202) | EPDM      |            |

### Dimensions

| DN | mm   | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 |
|----|------|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  |
| L  |      | 180   | 200 | 240   | 260 | 300 | 350 | 400 | 500 | 600 | 700 |

PN 16

Flange Type Lifting Check Valve

Fig. 5203

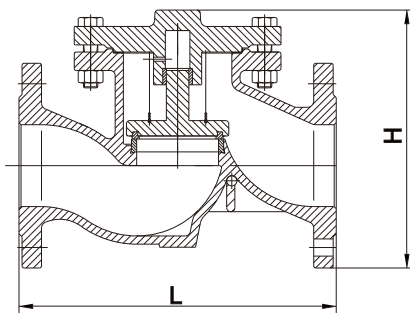


#### Valve Standard :

Face-to-face Dimension Conforms to  
DIN 3202 F1 series

#### Pressure Temperature Ratings

|                     |                             |
|---------------------|-----------------------------|
| Working pressure    | 16bar                       |
| Testing Pressure    | Shell:24bar<br>Seal:17.6bar |
| Working Temperature | -10°C to 120°C              |
| Suitable Media      | Water,Oil&Gas               |



#### Material Specification

| Part      | Material        | EN Spec.      |
|-----------|-----------------|---------------|
| Body      | Cast Iron       | EN-JL 1040    |
| Bonnet    | Cast Iron       | EN-JL 1040    |
| Disc/Stem | Stainless Steel | BS970 420S37  |
|           | Cast Iron       | EN-JL1040     |
| Disc Ring | Stainless Steel | BS970 420S37  |
| Seat Ring | Stainless Steel | BS970 420S37  |
| Gasket    | Graphite        | Non-Asbestos  |
| Spring    | Stainless Steel | BS970 304S15  |
| Bushing   | Bronze          | EN1982 CC491K |

#### Dimensions

| DN | mm   | 15  | 20  | 25  | 32    | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 |
|----|------|-----|-----|-----|-------|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 1/2 | 3/4 | 1   | 1-1/4 | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  |
| L  |      | 130 | 150 | 160 | 180   | 200   | 230 | 290   | 310 | 350 | 400 | 480 | 600 | 730 | 850 |
| H  |      | 64  | 68  | 81  | 95    | 100   | 113 | 128   | 148 | 162 | 190 | 220 | 260 | 318 | 378 |

CLASS150/PN10/PN16

Ball Check Valve

Fig. 5109



### Pressure Temperature Ratings

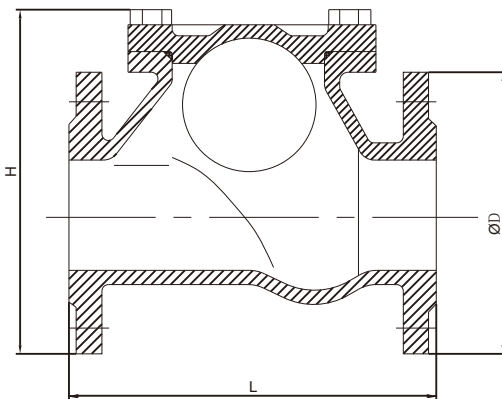
|                  |                             |
|------------------|-----------------------------|
| Working pressure | 16bar                       |
| Testing Pressure | Shell:24bar<br>Seal:17.6bar |
| Suitable Media   | Water,Oil&Gas               |

### Material Specification

| Part                 | Material | ASTM Spec.    |
|----------------------|----------|---------------|
| Body                 | DI       | A536 60-40-18 |
| Ball for DN50~DN100  | AL+EPDM  |               |
| Ball for DN125~DN300 | DI+EPDM  |               |
| Cover                | DI       | A536 60-40-18 |
| Ring                 | EPDM     |               |
| Bolt                 | SS304    | AISI304       |

### Note:

Face to face according to EN558-1 basic series 48 except DN350



### Dimensions

| DN       | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 |
|----------|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|
|          | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  |
| L        |      | 200 | 240   | 260 | 300 | 350 | 400 | 500 | 600 | 700 | 800 |
| H (open) |      | 186 | 211   | 245 | 282 | 333 | 380 | 660 | 582 | 721 | 820 |
| D        |      | 165 | 185   | 200 | 220 | 250 | 285 | 340 | 400 | 455 | 505 |

CLASS 125

Swing-Flex Check Valve

Fig. 5121



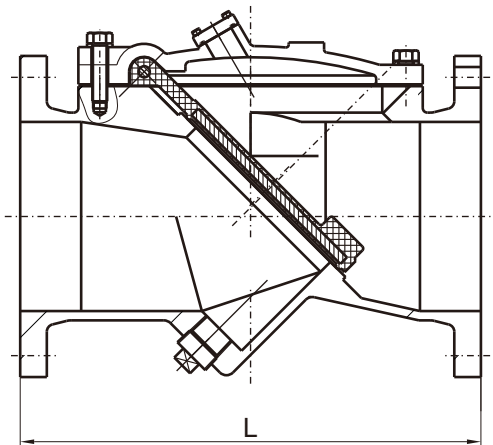
**Valve Standard :**  
Comply with AWWA C508

**Pressure Temperature Ratings**

|                         |                                           |
|-------------------------|-------------------------------------------|
| Working pressure(Bar)   | 250PSI/PN16                               |
| Testing Pressure        | Shell:375PSI/24Bar<br>Seal:275PSI/17.6Bar |
| Working Temperature(°C) | -10°C to +120°C                           |
| Suitable Media          | Water, Oil & Gas                          |

**Material Specification**

| Part   | Material                  | Material Code    |
|--------|---------------------------|------------------|
| Body   | Ductile Iron              | A536 Gr.65-45-12 |
| Disc   | Ductile Iron + EPDM / NBR | A536 Gr.65-45-12 |
| Gasket | EPDM / NBR                | EN-JS 1050+EPDM  |
| Plug   | Ductile Iron              | A536 Gr.65-45-12 |
| Cover  | Ductile Iron              | A536 Gr.65-45-12 |



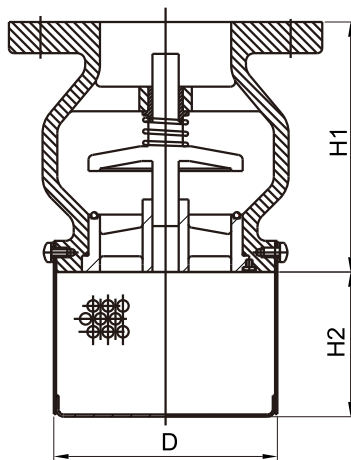
**Dimensions**

| DN | mm   | 50  | 65     | 80  | 100 | 150 | 200 | 250 | 300 |
|----|------|-----|--------|-----|-----|-----|-----|-----|-----|
|    | inch | 2"  | 2-1/2" | 3"  | 4"  | 6"  | 8"  | 10" | 12" |
| L  |      | 203 | 216    | 241 | 292 | 356 | 495 | 622 | 699 |

CLASS 125/ CLASS 250/  
PN16/PN25/JIS 10K/JIS 16K

Foot Valve

Fig. 1120



### Pressure Temperature Ratings

|                     |                      |
|---------------------|----------------------|
| Working pressure    | 16bar/25bar          |
| Testing Pressure    | Shell:24bar/37.5bar  |
|                     | Seal:17.6bar/27.5bar |
| Working Temperature | -20°C to 110°C EPDM  |
|                     | -10°C to 80°C NBR    |
| Suitable Media      | Water,Oil&Gas        |

### Material Specification

| Part      | Material        | ASTM Spec.    |
|-----------|-----------------|---------------|
| Body      | Cast Iron       | A126 Class B  |
|           | Ductile Iron    | A536 65-45-12 |
| Disc      | Stainless Steel | A351 CF8      |
|           | Bronze          | B62 C83600    |
|           | Ductile Iron    | A536 65-45-12 |
| Seat      | Stainless Steel | A351 CF8      |
|           | Bronze          | B62 C83600    |
| Seat Ring | EPDM / NBR      | Commercial    |
| Bushing   | Bronze          | B62 C83600    |
| Spring    | Stainless Steel | AISI 304      |
| Screen    | Stainless Steel | AISI 304      |

### Note :

DI Body For PN16&Class 250

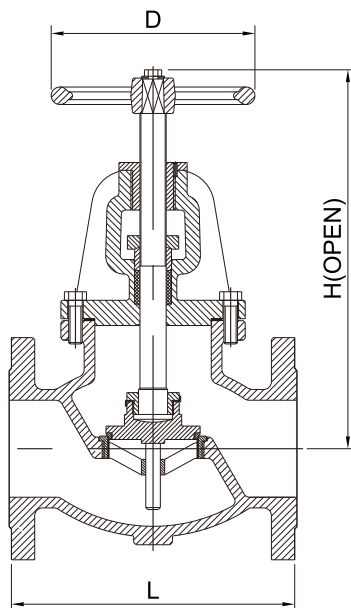
### Dimensions

| DN | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|----|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16  | 18  | 20  | 24  |
| H1 |      | 133 | 140   | 152 | 185 | 216 | 229 | 257 | 393 | 362 | 400 | 448 | 476 | 524 | 610 |
| H2 |      | 68  | 93    | 108 | 138 | 163 | 189 | 208 | 238 | 260 | 270 | 290 | 315 | 340 | 365 |
| D  |      | 114 | 130   | 144 | 177 | 203 | 237 | 290 | 330 | 383 | 470 | 516 | 570 | 630 | 740 |

CLASS 125 /PN16

OS&Y Globe Valve

Fig. 6123



**Valve Standard :**

Comply with BS EN 13789 (BS 5152) /MSS SP-85

**Pressure Temperature Ratings**

|                     |                        |
|---------------------|------------------------|
| Working pressure    | 16bar / 125LB          |
| Testing Pressure    | Shell:24bar / 24.1bar  |
|                     | Seal:17.6bar / 13.8bar |
| Working Temperature | -29°C to 65°C 13.8bar  |
|                     | 66°C to 232°C 8.6bar   |
| Suitable Media      | Water,Oil&Gas          |

**Material Specification**

| Part       | Material        | ASTM Spec.   |
|------------|-----------------|--------------|
| Body       | Cast Iron       | A126 Class B |
| Bonnet     | Cast Iron       | A126 Class B |
| Disc       | Bronze          | B62 C83600   |
| Seat Ring  | Bronze          | B62 C83600   |
| Stem       | Brass           | B16 C36000   |
|            | Stainless Steel | AISI 420     |
| Packing    | Graphite        | Non-Asbestos |
| Hand Wheel | Cast Iron       | A126 Class B |

**Dimensions**

| DN       | mm | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 |
|----------|----|-----|-------|-----|-----|-----|-----|-----|-----|-----|
| inch     |    | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  |
| L        |    | 203 | 216   | 241 | 292 | 330 | 356 | 495 | 622 | 699 |
| H (open) |    | 295 | 336   | 345 | 389 | 425 | 511 | 580 | 720 | 859 |
| D        |    | 178 | 178   | 200 | 254 | 300 | 300 | 348 | 400 | 457 |

PN16

OS&Y Globe Valve

Fig. 6125



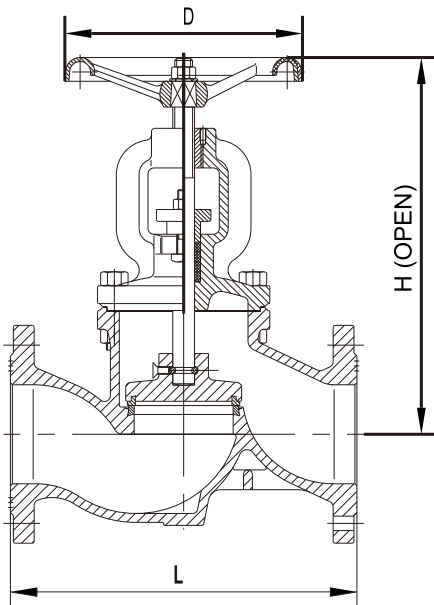
**Valve Standard :**  
Comply with DIN 3356

### Pressure Temperature Ratings

|                     |                       |
|---------------------|-----------------------|
| Working pressure    | 16bar                 |
| Testing Pressure    | Shell:24bar           |
|                     | Seal:17.6bar          |
| Working Temperature | -29°C to 65°C 13.8bar |
|                     | 66°C to 232°C 8.6bar  |
| Suitable Media      | Water,Oil&Gas         |

### Material Specification

| Part       | Material                        | EN Spec.     |
|------------|---------------------------------|--------------|
| Body       | Cast Iron                       | EN-JL 1040   |
| Bonnet     | Cast Iron                       | EN-JL 1040   |
| Disc       | Stainless Steel 420 ( 15-50mm ) | BS970 420S37 |
|            | Cast Iron ( 65-300mm )          | EN-JL 1040   |
| Disc Ring  | Stainless Steel 420             | BS970 420S37 |
| Seat Ring  | Stainless Steel 420             | BS970 420S37 |
| Stem       | Stainless Steel 420             | BS970 420S37 |
| Packing    | Graphite                        | Non-Asbestos |
| Hand Wheel | Cast Iron                       | EN-JL 1040   |



### Dimensions

| DN       | mm   | 15  | 20  | 25  | 32    | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 |
|----------|------|-----|-----|-----|-------|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|
|          | inch | 1/2 | 3/4 | 1   | 1-1/4 | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  |
| L        |      | 130 | 150 | 160 | 180   | 200   | 230 | 290   | 310 | 350 | 400 | 480 | 600 | 730 | 850 |
| H (open) |      | 183 | 191 | 216 | 255   | 277   | 304 | 335   | 380 | 426 | 480 | 555 | 660 | 749 | 965 |
| D        |      | 100 | 100 | 120 | 120   | 140   | 140 | 200   | 200 | 240 | 280 | 315 | 360 | 400 | 400 |

CLASS 125/ CLASS 250/  
PN16/PN25/JIS 10K/JIS 16K

Y-Type Strainer

Fig. 7101



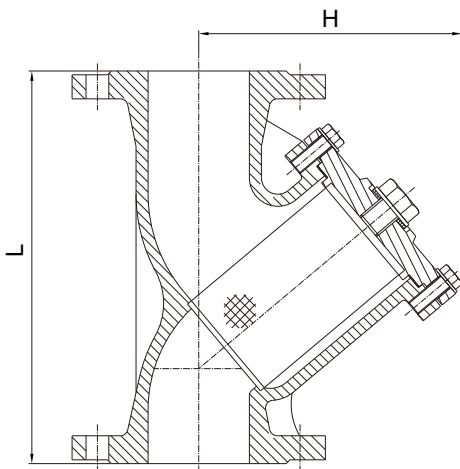
### Material Specification

| Part          | Material        | ASTM Spec.    |
|---------------|-----------------|---------------|
| Body          | Cast Iron       | A126 Class B  |
|               | Ductile Iron    | A536 65-45-12 |
| Cover         | Cast Iron       | A126 Class B  |
|               | Ductile Iron    | A536 65-45-12 |
| Screen        | Stainless Steel | AISI 304      |
| Blow-Off Plug | Carbon Steel    |               |

**Working pressure:**  
16bar/25bar

### Note:

CI Body For PN16 & Class 125  
DI Body For PN25 & Class 250



### Standard Screen

| Size ( mm ) | Hole Dia. ( mm ) | Mesh |
|-------------|------------------|------|
| 40~150      | 1.5              | 104  |
| 200~350     | 2.5              | 26   |
| 400~650     | 3.5              | 22   |

### Dimensions

| DN | mm   | 40    | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400  | 450  | 500  | 600  | 650  |
|----|------|-------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
|    | inch | 1-1/2 | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16   | 18   | 20   | 24   | 26   |
| L  |      | 200   | 230 | 290   | 310 | 350 | 400 | 480 | 600 | 730 | 850 | 980 | 1100 | 1200 | 1250 | 1450 | 1550 |
| H  |      | 150   | 160 | 180   | 215 | 235 | 275 | 305 | 390 | 540 | 680 | 740 | 845  | 838  | 908  | 1078 | 1100 |

PN16

EN Y-Type Strainer

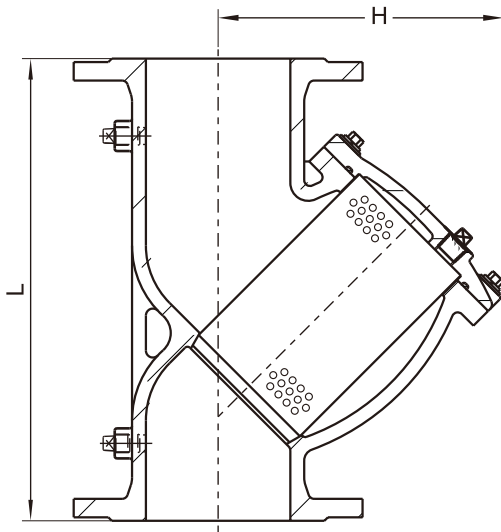
Fig. 7201



### Material Specification

| Part       | Material        | EN Spec.          |
|------------|-----------------|-------------------|
| Body       | Ductile Iron    | 1563 EN-GJS-400   |
| Cover      | Ductile Iron    | 1563 EN-GJS-400   |
| Screen     | Stainless Steel | 10088 X5CrNi18-10 |
| Drain Plug | Stainless Steel | 10088 X5CrNi18-10 |

**Working pressure:**  
16bar



### Standard Screen

| Size ( mm ) | Hole Dia. ( mm ) | Mesh |
|-------------|------------------|------|
| 50~150      | 1.5              | 104  |
| 200~350     | 2.5              | 26   |
| 400         | 3.5              | 22   |

**NOTE:**

Plug is fitted only when required

### Dimensions

| DN | mm   | 50  | 65    | 80  | 100 | 150 | 125 | 200 | 250 | 300 | 350 | 400  |
|----|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|------|
|    | inch | 2   | 2-1/2 | 3   | 4   | 6   | 5   | 8   | 10  | 12  | 14  | 16   |
| L  |      | 230 | 290   | 310 | 350 | 480 | 400 | 600 | 730 | 850 | 980 | 1100 |
| H  |      | 124 | 137   | 152 | 205 | 269 | 244 | 341 | 455 | 476 | 725 | 820  |

CLASS 125/ CLASS 250/  
PN16/PN25/JIS 10K/JIS 16K

Basket Type Strainer

Fig. 7105



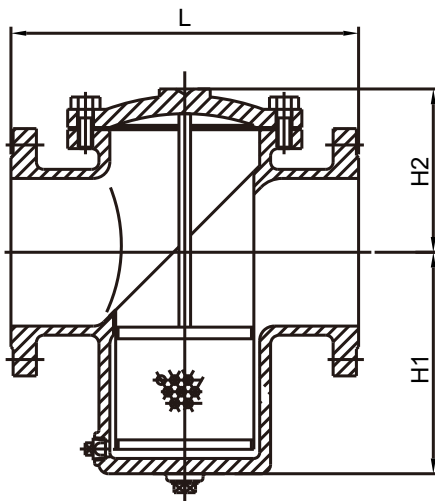
### Material Specification

| Part          | Material          | ASTM Spec.    |
|---------------|-------------------|---------------|
| Body          | Ductile Iron      | A536 65-45-12 |
|               | Cast Iron         | A126 Class B  |
| Cover         | Ductile Iron      | A536 65-45-12 |
|               | Cast Iron         | A126 Class B  |
| Screen        | Stainless Steel   | AISI 304      |
| Blow-Off Plug | Carbon Steel      |               |
| Gasket        | Graphite / Teflon | Commercial    |

**Working pressure:**  
16bar/25bar

### Note:

CI Body For PN16&Class 125  
DI Body For PN25&Class 250



### Standard Screen

| Size ( mm ) | Hole Dia. ( mm ) | Mesh |
|-------------|------------------|------|
| 50~80       | 1.5              | 104  |
| 100~400     | 3.0              | 40   |
| 450~600     | 5.0              | 12   |

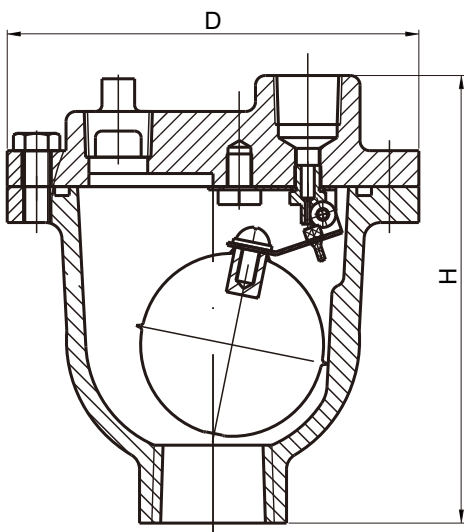
### Dimensions

| DN | mm   | 50  | 65    | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600  |
|----|------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
|    | inch | 2   | 2-1/2 | 3   | 4   | 5   | 6   | 8   | 10  | 12  | 14  | 16  | 18  | 20  | 24   |
| L  |      | 207 | 210   | 251 | 292 | 334 | 378 | 472 | 511 | 680 | 769 | 842 | 842 | 842 | 1054 |
| H1 |      | 135 | 155   | 190 | 205 | 219 | 235 | 295 | 335 | 405 | 585 | 590 | 590 | 600 | 1175 |
| H2 |      | 90  | 95    | 105 | 117 | 146 | 165 | 215 | 325 | 355 | 345 | 390 | 420 | 510 | 515  |

CLASS 125 / PN16 / JIS 10K

Screwed Air Vent

Fig. 9701



### Pressure Temperature Ratings

|                     |                |
|---------------------|----------------|
| Working pressure    | 16bar          |
| Testing Pressure    | Shell:24bar    |
|                     | Seal:17.6bar   |
| Working Temperature | -10°C to 100°C |

### Material Specification

| Part           | Material        | ASTM Spec.    |
|----------------|-----------------|---------------|
| Body           | Cast Iron       | A126 Class B  |
|                | Ductile Iron    | A536 65-45-12 |
| Cover          | Cast Iron       | A126 Class B  |
|                | Ductile Iron    | A536 65-45-12 |
| Level          | Stainless Steel | AISI 304      |
| Seat Ring      | Stainless Steel | AISI 304      |
| Float          | Stainless Steel | AISI 304      |
| Float Arm      | Stainless Steel | AISI 304      |
| Orifice Button | Viton           | Commercial    |

### Dimensions

| DN |      | Inlet | Outle | Orifice | D   | H   |
|----|------|-------|-------|---------|-----|-----|
| mm | inch |       |       |         |     |     |
| 15 | 1/2  | 15    | 15    | 1.6     | 125 | 137 |
| 20 | 3/4  | 20    | 15    | 1.6     | 125 | 137 |
| 25 | 1    | 25    | 15    | 1.6     | 125 | 137 |

CLASS 125 / PN16 / JIS 10K

Flanged Orifice Air Valve

Fig. 9101

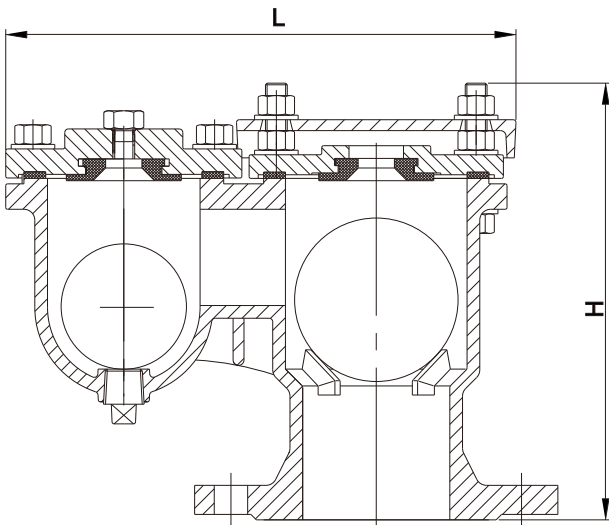


### Pressure Temperature Ratings

|                     |                |
|---------------------|----------------|
| Working pressure    | 16bar          |
| Testing Pressure    | Shell:24bar    |
|                     | Seal:17.6bar   |
| Working Temperature | -10°C to 100°C |

### Material Specification

| Part               | Material      | EN Spec.        |
|--------------------|---------------|-----------------|
| Body               | Ductile Iron  | EN-JS1050       |
| Orifice Cover      | Ductile Iron  | EN-JS1050       |
| Air Release Nipple | Brass         | EN 12165 CW603N |
| Screw Plug         | Brass         | EN 12165 CW603N |
| Float Ball         | ABS (ISO2580) | Commercial      |
| Ball Seal Orifice  | EPDM          | Commercial      |



### Note:

DN25 is only available by screw thread.

### Dimensions

| DN | mm<br>inch | 25<br>1 | 40<br>1-1/2 | 50<br>2 | 65<br>2-1/2 | 80<br>3 | 100<br>4 | 125<br>5 | 150<br>6 | 200<br>8 | 250<br>10 |
|----|------------|---------|-------------|---------|-------------|---------|----------|----------|----------|----------|-----------|
| L  |            | 147     | 224         | 273     | 273         | 283     | 302      | 353      | 353      | 433      | 491       |
| H  |            | 185     | 187         | 214     | 214         | 244     | 270      | 323      | 323      | 401      | 450       |

CLASS 125 / PN16 / JIS 10K

Flanged Double Orifice Air Valve

Fig. 9201

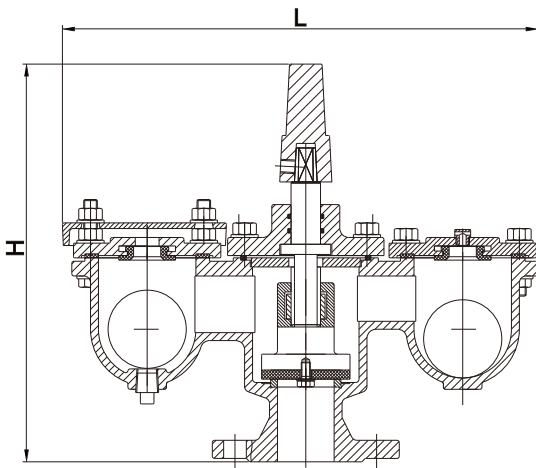


### Pressure Temperature Ratings

|                     |                             |
|---------------------|-----------------------------|
| Working pressure    | 16bar                       |
| Testing Pressure    | Shell:24bar<br>Seal:17.6bar |
| Working Temperature | -10°C to 100°C              |

### Material Specification

| Part               | Material      | EN Spec.        |
|--------------------|---------------|-----------------|
| Body               | Ductile Iron  | EN-JS1050       |
| Orifice Cover      | Ductile Iron  | EN-JS1050       |
| Air Release Nipple | Brass         | EN 12165 CW603N |
| Screw Plug         | Brass         | EN 12165 CW603N |
| Float Ball         | ABS (ISO2580) | Commercial      |
| Ball Seal Orifice  | EPDM          | Commercial      |



### Dimensions

| DN | mm<br>inch | 50<br>2 | 80<br>3 | 100<br>4 | 150<br>6 | 200<br>8 |
|----|------------|---------|---------|----------|----------|----------|
| L  |            | 418     | 454     | 492      | 595      | 698      |
| H  |            | 351     | 375     | 419      | 440      | 475      |



# GALA

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