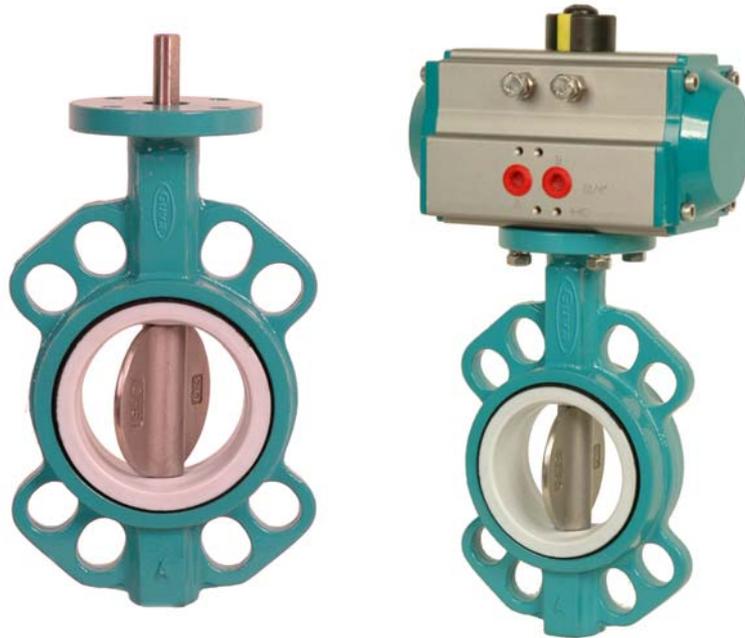


**Guva**  
Guva Flow Control



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Guva Flow Control  
Resilient seat butterfly valves  
F10 Series wafer&lug

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# 01 Resilient seat butterfly valves



Guva, is a leading manufacturer of international specialized valve and fluid control equipment. They have the professional research institutes and manufacture plants in USA, Europe and Asia. The products are used widely throughout demanding markets, including power generation, petrochemical, steel, light industry, environmental protection and water.

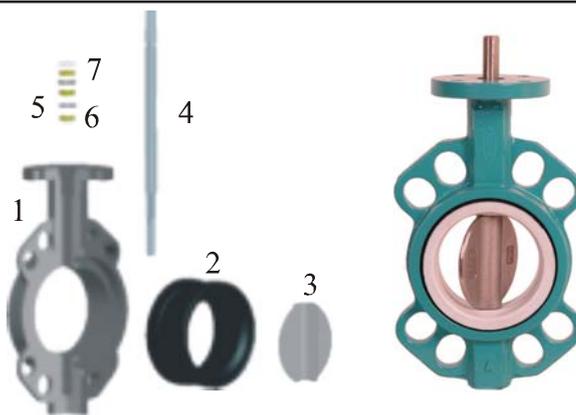
## F10/F11/F12/F13Series

GUVA control is proud to offer a high quality line of butterfly valves to meet the requirements of today's market. The series of F10/F11/F12/F13 are longer service life, greater reliability, ease of parts replacement and interchangeability of components. Because of the seats original design, the flow characteristics and capabilities are better than those of general butterfly valves, which have a wide range of applications in all lines.

| F10/F11             | Resilient Seat Butterfly Valve  |
|---------------------|---|
| Structure           | F10/F12(wafer)F11/F13(lug)  |
| Size                | ( 1.5"-24" ) DN40-DN600/NPS   |
| Structure length    | ISO5752/20, EN 558-1/20   |
| Top mounting flange | ISO5211/1   |
| Operating pressure  | PN6/PN10/PN16   |
| Flange standard     | PN6, PN10, PN16, ANSI CLASS125/150, JIS 10K   |
| Temperature range   | according to the material of the valve seat   |
| Application         | Water treatment, chemical industry, light industry, power plant, papermaking, municipal works, metallurgy industry, shipping, building & desulfurization. |

### CONSTRUCTION

| No. | Q. ty | Parts        |
|-----|-------|--------------|
| 1   | 1     | Body         |
| 2   | 1     | Seat         |
| 3   | 1     | Disc         |
| 4   | 1     | Stem         |
| 5   | 2     | Stem seal    |
| 6   | 3     | Stem bushing |
| 7   | 1     | Spring clip  |

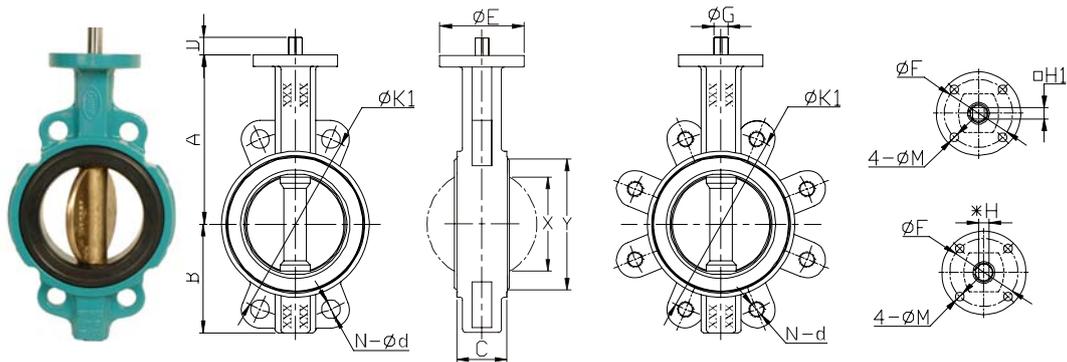


#### Features

- Valve disc and stem is connected by the precise spline. There is no seamless when stem drives disc, which is avoid the leakage and breakage easily produced when the pin or screw connections.
- The water shape design of the disc make the GUYA butterfly valve has a higher CV than the general butterfly valve. Hand-polished valve disc sealing surface has a mirror smooth finish, which made the GUYA Butterfly valve has lower torque.
- The seat features a molded O-ring which eliminates the use of flange gaskets.
- The ISO 5211 standard top disk can be connected with a variety of actuators, and also has a better interchangeability with various actuators of GUYA.
- The unique seat is nested in the tongue groove, and the projecting ring in the center of seat is coordinate with the intermediate groove of the body, which can prevent the seat lateral movement when open or close the disc. Thicker layer of rubber is easy to eliminate friction, and it also has a longer life than the general design resilient seat butterfly valve.
- Seat provides two seals. The ledge between seat and disc provides a rated pressure seal, and the shrink fit between seat and stem provides the second seal.
- The flow rate: Liquid:9m/s Gas:52m/s

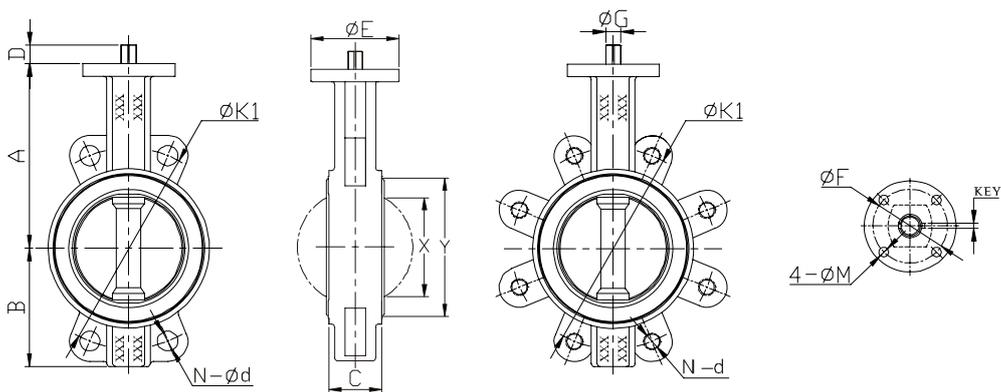
# 02 Resilient seat butterfly valves

## DATA F10/F11 Series



| DN<br>inc mm | A   | B   | C   | D  | E  | F   | G   | X    | Y   | *H  | H1   | 4-ØM | ØK1   | N-d | N-d    | ØK1    | N-d | N-d    | ØK1    | N-d   | N-d    | kg     |     |      |
|--------------|-----|-----|-----|----|----|-----|-----|------|-----|-----|------|------|-------|-----|--------|--------|-----|--------|--------|-------|--------|--------|-----|------|
|              |     |     |     |    |    |     |     |      |     |     |      |      |       |     |        |        |     |        |        |       |        | F10    | F11 |      |
| 1.5          | 40  | 120 | 75  | 33 | 32 | 90  | 50  | 12.6 | 26  | 58  | 9.5  | 9    | 4-Ø7  | 110 | 4-Ø19  | 4-M16  | 110 | 4-Ø19  | 4-M16  | 98.5  | 4-Ø16  | 4-5/8  | 1.9 | 3.0  |
| 2            | 50  | 161 | 80  | 43 | 32 | 90  | 50  | 12.6 | 35  | 79  | 9.5  | 9    | 4-Ø10 | 125 | 4-Ø19  | 4-M16  | 125 | 4-Ø19  | 4-M16  | 120.5 | 4-Ø19  | 4-1/2  | 3.0 | 3.9  |
| 2.5          | 65  | 175 | 89  | 46 | 32 | 90  | 50  | 12.6 | 49  | 92  | 9.5  | 9    | 4-Ø10 | 145 | 4-Ø19  | 4-M16  | 145 | 4-Ø19  | 4-M16  | 139.5 | 4-Ø19  | 4-5/8  | 3.9 | 4.8  |
| 3            | 80  | 181 | 95  | 46 | 32 | 90  | 50  | 12.6 | 65  | 108 | 9.5  | 9    | 4-Ø10 | 160 | 8-Ø19  | 8-M16  | 160 | 8-Ø19  | 8-M16  | 152.5 | 4-Ø19  | 4-5/8  | 4.3 | 5.0  |
| 4            | 100 | 200 | 114 | 52 | 32 | 90  | 70  | 15.8 | 91  | 137 | 11   | 11   | 4-Ø10 | 180 | 8-Ø19  | 8-M16  | 180 | 8-Ø19  | 8-M16  | 190.5 | 8-Ø19  | 8-5/8  | 5.4 | 7.8  |
| 5            | 125 | 213 | 127 | 56 | 32 | 90  | 70  | 18.9 | 118 | 169 | 12.7 | 14   | 4-Ø10 | 210 | 8-Ø19  | 8-M16  | 210 | 8-Ø19  | 8-M16  | 216   | 8-Ø22  | 8-3/4  | 7.0 | 9.5  |
| 6            | 150 | 226 | 140 | 56 | 32 | 90  | 70  | 18.9 | 138 | 192 | 12.7 | 14   | 4-Ø10 | 240 | 8-Ø24  | 8-M23  | 240 | 8-Ø23  | 8-M20  | 241.5 | 8-Ø22  | 8-3/4  | 9.0 | 12   |
| 8            | 200 | 260 | 175 | 60 | 45 | 125 | 102 | 22.1 | 189 | 245 | 15.9 | 17   | 4-Ø12 | 295 | 8-Ø24  | 8-M23  | 295 | 12-Ø23 | 12-M20 | 298.5 | 8-Ø22  | 8-3/4  | 16  | 18.5 |
| 10           | 250 | 292 | 220 | 68 | 45 | 125 | 102 | 28.5 | 242 | 298 | 22   | 22   | 4-Ø12 | 350 | 12-Ø24 | 12-M23 | 355 | 12-Ø28 | 12-M24 | 362   | 12-Ø25 | 12-7/8 | 22  | 28.5 |
| 12           | 300 | 337 | 255 | 78 | 45 | 150 | 125 | 31.6 | 291 | 342 | 24   | 22   | 4-Ø14 | 400 | 12-Ø24 | 12-M23 | 410 | 12-Ø28 | 12-M24 | 432   | 12-Ø25 | 12-7/8 | 39  | 49   |

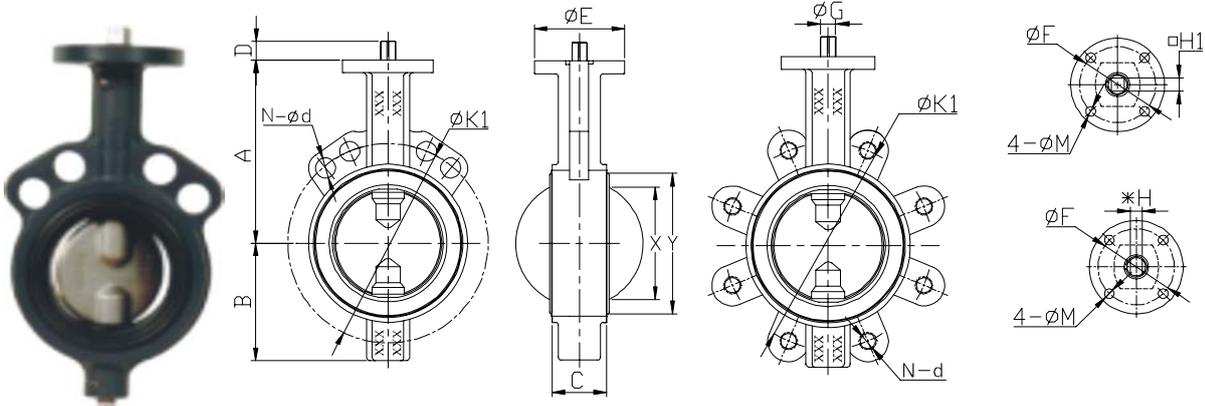
H is the width size of flat-square design on the stem.



| DN<br>inc mm | A   | B   | C   | D   | E  | F   | G   | X     | Y   | KEY<br>SIZE | 4-ØM | ØK1   | N-d | N-d    | ØK1    | N-d | N-d    | ØK1    | N-d | N-d    | kg       |     |     |
|--------------|-----|-----|-----|-----|----|-----|-----|-------|-----|-------------|------|-------|-----|--------|--------|-----|--------|--------|-----|--------|----------|-----|-----|
|              |     |     |     |     |    |     |     |       |     |             |      |       |     |        |        |     |        |        |     |        | F10      | F11 |     |
| 14           | 350 | 368 | 267 | 78  | 45 | 150 | 125 | 31.6  | 331 | 378         | 10x6 | 4-Ø14 | 460 | 16-Ø23 | 16-M23 | 470 | 16-Ø28 | 16-M24 | 476 | 12-Ø29 | 12-1"    | 53  | 63  |
| 16           | 400 | 400 | 299 | 102 | 50 | 150 | 125 | 33.15 | 337 | 435         | 10x6 | 4-Ø14 | 515 | 16-Ø28 | 16-M24 | 525 | 16-Ø31 | 16-M27 | 540 | 16-Ø29 | 16-1"    | 83  | 105 |
| 18           | 450 | 422 | 318 | 114 | 50 | 210 | 140 | 37.95 | 428 | 495         | 10x6 | 4-Ø18 | 565 | 20-Ø28 | 20-M24 | 585 | 20-Ø31 | 20-M27 | 578 | 16-Ø32 | 16-11/8" | 96  | 113 |
| 20           | 500 | 479 | 350 | 127 | 60 | 210 | 140 | 41.12 | 476 | 549         | 12x6 | 4-Ø18 | 620 | 20-Ø28 | 20-M24 | 650 | 20-Ø34 | 20-M30 | 635 | 20-Ø32 | 20-11/8" | 138 | 160 |
| 24           | 600 | 562 | 410 | 154 | 70 | 210 | 160 | 50.62 | 568 | 654         | 14x9 | 4-Ø22 | 725 | 20-Ø31 | 20-M24 | 770 | 20-Ø37 | 20-M33 | 750 | 20-Ø35 | 20-11/4" | 210 | 250 |

# 03 Resilient seat butterfly valves

## F12/F13 Series



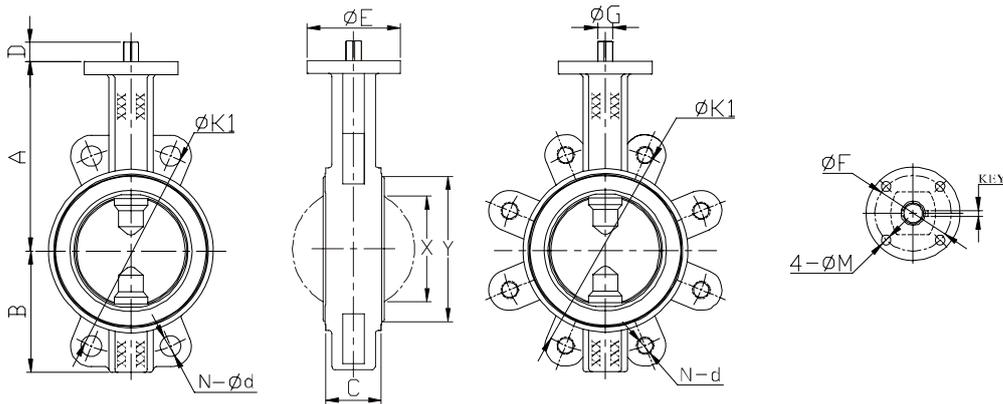
| DN<br>Inc/mm | A   | B   | C   | D  | øE   | øF  | øG  | X    | Y   | *H  | øH1  | 4-øM | øK1   | N-ød | N-d    | øK1    | N-ød | N-d    | øK1    | N-ød  | N-d    | kg     |     |      |
|--------------|-----|-----|-----|----|------|-----|-----|------|-----|-----|------|------|-------|------|--------|--------|------|--------|--------|-------|--------|--------|-----|------|
|              |     |     |     |    |      |     |     |      |     |     |      |      |       |      |        |        |      |        |        |       |        | F12    | F13 |      |
| 2            | 50  | 126 | 75  | 43 | 14.5 | 65  | 50  | 12.6 | 35  | 79  | 9.5  | 11   | 4-ø7  | 125  | 4-ø19  | 4-M16  | 125  | 4-ø19  | 4-M16  | 120.5 | 4-ø19  | 4-1/2  | 3.0 | 3.9  |
| 2.5          | 65  | 134 | 81  | 46 | 14.5 | 65  | 50  | 12.6 | 49  | 92  | 9.5  | 11   | 4-ø7  | 145  | 4-ø19  | 4-M16  | 145  | 4-ø19  | 4-M16  | 139.5 | 4-ø19  | 4-5/8  | 3.9 | 4.8  |
| 3            | 80  | 157 | 95  | 46 | 14.5 | 65  | 50  | 12.6 | 65  | 108 | 9.5  | 11   | 4-ø7  | 160  | 8-ø19  | 8-M16  | 160  | 8-ø19  | 8-M16  | 152.5 | 4-ø19  | 4-5/8  | 4.3 | 5.0  |
| 4            | 100 | 167 | 113 | 52 | 14.5 | 65  | 50  | 15.8 | 91  | 137 | 11   | 11   | 4-ø7  | 180  | 8-ø19  | 8-M16  | 180  | 8-ø19  | 8-M16  | 190.5 | 8-ø19  | 8-5/8  | 5.4 | 7.8  |
| 5            | 125 | 180 | 128 | 56 | 20.5 | 90  | 70  | 18.9 | 118 | 169 | 12.7 | 14   | 4-ø9  | 210  | 8-ø19  | 8-M16  | 210  | 8-ø19  | 8-M16  | 216   | 8-ø22  | 8-3/4  | 7.0 | 9.5  |
| 6            | 150 | 203 | 141 | 56 | 20.5 | 90  | 70  | 18.9 | 138 | 192 | 12.7 | 14   | 4-ø9  | 240  | 8-ø24  | 8-M23  | 240  | 8-ø23  | 8-M20  | 241.5 | 8-ø22  | 8-3/4  | 9.0 | 12   |
| 8            | 200 | 228 | 171 | 60 | 20.5 | 90  | 70  | 22.1 | 189 | 245 | 15.9 | 17   | 4-ø9  | 295  | 8-ø24  | 8-M23  | 295  | 12-ø23 | 12-M20 | 298.5 | 8-ø22  | 8-3/4  | 16  | 18.5 |
| 10           | 250 | 266 | 211 | 68 | 25.5 | 125 | 102 | 28.5 | 242 | 298 | 22   | 22   | 4-ø11 | 350  | 12-ø24 | 12-M23 | 355  | 12-ø28 | 12-M24 | 362   | 12-ø25 | 12-7/8 | 22  | 28.5 |
| 12           | 300 | 291 | 241 | 78 | 27.5 | 125 | 102 | 31.6 | 291 | 342 | 24   | 22   | 4-ø11 | 400  | 12-ø24 | 12-M23 | 410  | 12-ø28 | 12-M24 | 432   | 12-ø25 | 12-7/8 | 39  | 49   |

H is the width size of flat-square design on the stem.

ISOPN10

ISOPN16

ANSI150



| DN<br>Inc/mm | A   | B   | C   | D   | øE | øF  | øG  | X    | Y   | KEY<br>SIZE | 4-øM   | øK1   | N-ød | N-d    | øK1    | N-ød | N-d    | øK1    | N-ød | N-d    | kg       |     |     |
|--------------|-----|-----|-----|-----|----|-----|-----|------|-----|-------------|--------|-------|------|--------|--------|------|--------|--------|------|--------|----------|-----|-----|
|              |     |     |     |     |    |     |     |      |     |             |        |       |      |        |        |      |        |        |      |        | F12      | F13 |     |
| 14           | 350 | 332 | 268 | 78  | 44 | 175 | 140 | 31.6 | 331 | 378         | 10 × 6 | 4-ø18 | 460  | 16-ø23 | 16-M23 | 470  | 16-ø28 | 16-M24 | 476  | 12-ø29 | 12-1"    | 53  | 63  |
| 16           | 400 | 363 | 312 | 102 | 44 | 175 | 140 | 33.2 | 337 | 435         | 10 × 6 | 4-ø18 | 515  | 16-ø28 | 16-M24 | 525  | 16-ø31 | 16-M27 | 540  | 16-ø29 | 16-1"    | 83  | 105 |
| 18           | 450 | 397 | 343 | 114 | 44 | 210 | 165 | 38   | 428 | 495         | 10 × 6 | 4-ø22 | 565  | 20-ø28 | 20-M24 | 585  | 20-ø31 | 20-M27 | 578  | 16-ø32 | 16-11/8" | 96  | 113 |
| 20           | 500 | 425 | 390 | 127 | 54 | 210 | 165 | 41   | 476 | 549         | 12 × 6 | 4-ø22 | 620  | 20-ø28 | 20-M24 | 650  | 20-ø34 | 20-M30 | 635  | 16-ø32 | 20-11/8" | 138 | 160 |
| 24           | 600 | 498 | 450 | 154 | 54 | 300 | 254 | 50.6 | 568 | 654         | 14 × 9 | 4-ø22 | 725  | 20-ø31 | 20-M24 | 770  | 20-ø37 | 20-M33 | 750  | 20-ø35 | 20-11/4" | 210 | 250 |

ISOPN10

ISOPN16

ANSI150

# 04 Resilient seat butterfly valves



Torques(Unit: N-M)

| DN  | 6bar | 10bar | 16bar |
|-----|------|-------|-------|
| 40  | --   | --    | 11    |
| 50  | 15   | 15    | 16    |
| 65  | 23   | 24    | 27    |
| 80  | 31   | 33    | 38    |
| 100 | 48   | 51    | 55    |
| 125 | 79   | 82    | 87    |
| 150 | 104  | 114   | 130   |
| 200 | 187  | 207   | 210   |
| 250 | 286  | 318   | 360   |
| 300 | 440  | 491   | 475   |
| 350 | 647  | 733   | 760   |
| 400 | 875  | 1022  | 1300  |
| 450 | 1124 | 1352  | 1600  |
| 500 | 1465 | 1760  | 2340  |
| 600 | 1680 | 2540  | 3300  |



Note: The data in the table is the torque value for the valve in the general media under the rated pressure. In the mud and other working conditions, the torque need multiplied by 1.5 times. If necessary, please consult GUYA manufacturers and dealers. Diameter DN 600 and above please contact the manufacturer.

## CV Valves-- Valve Sizing Coefficient

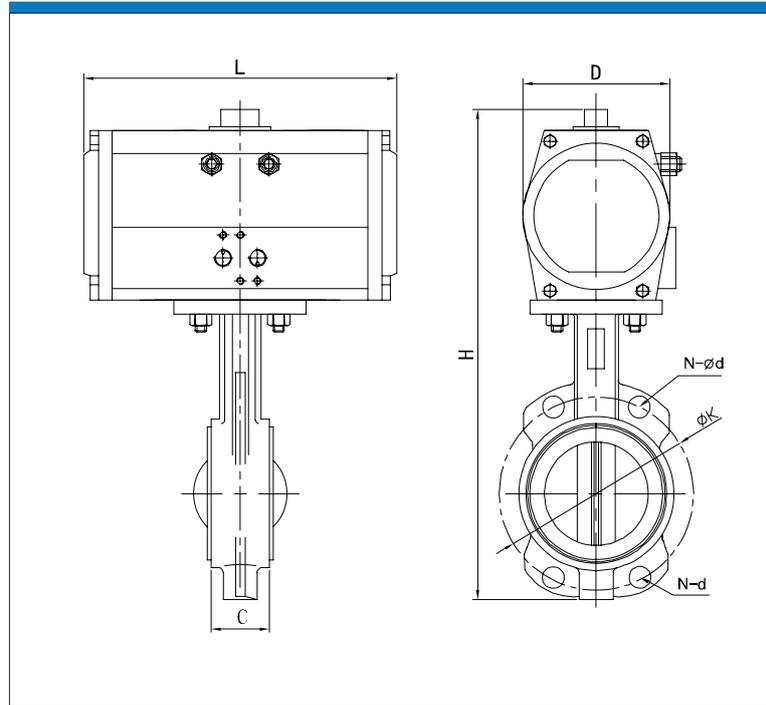
| DN  | Disc Position(degree) |      |      |      |      |      |       |       |       |
|-----|-----------------------|------|------|------|------|------|-------|-------|-------|
|     | 10°                   | 20°  | 30°  | 40°  | 50°  | 60°  | 70°   | 80°   | 90°   |
| 40  | 1.0                   | 2.9  | 8.4  | 17.5 | 29   | 44   | 74    | 102   | 140   |
| 50  | 1.5                   | 4.4  | 11.6 | 25.6 | 44   | 67   | 114   | 149   | 221   |
| 65  | 2.5                   | 8.6  | 21   | 40   | 72   | 108  | 216   | 275   | 364   |
| 80  | 3.1                   | 11.6 | 30   | 56   | 99   | 149  | 254   | 403   | 505   |
| 100 | 5                     | 17.5 | 47.8 | 87   | 143  | 265  | 434   | 729   | 869   |
| 125 | 7.5                   | 28   | 70   | 135  | 248  | 450  | 686   | 1188  | 1423  |
| 150 | 11.6                  | 45.5 | 109  | 198  | 368  | 613  | 988   | 1429  | 2106  |
| 200 | 22                    | 74.6 | 191  | 352  | 662  | 1149 | 1811  | 2670  | 3610  |
| 250 | 32.6                  | 120  | 291  | 534  | 989  | 1730 | 2666  | 3853  | 5630  |
| 300 | 39.6                  | 148  | 359  | 706  | 1307 | 2439 | 3729  | 5732  | 8106  |
| 350 | 55                    | 190  | 452  | 922  | 1738 | 2985 | 4616  | 6669  | 9651  |
| 400 | 70                    | 260  | 571  | 1211 | 2217 | 3799 | 6054  | 9102  | 12879 |
| 450 | 90                    | 310  | 751  | 1463 | 2800 | 4749 | 7662  | 11465 | 16472 |
| 500 | 115                   | 389  | 966  | 1902 | 3469 | 6010 | 9569  | 14733 | 21071 |
| 600 | 160                   | 569  | 1325 | 2748 | 5140 | 8700 | 13747 | 20813 | 29020 |

CV is a flux unit passed a valve or a flow hole at the room temperature and pressure drop 0.07bar (1psi). The control angle is recommended between 25-70 degrees, and the better control angle is between 60-65 degrees.

# 05 Resilient seat butterfly valves



## Structure Size



| DN  | PD<br>air supply 5.5bar |       |       | L   | H     | C   | D     | ISOPN10 |        |        | ISO PN16 |        |        | ANSI 150 |        |          |
|-----|-------------------------|-------|-------|-----|-------|-----|-------|---------|--------|--------|----------|--------|--------|----------|--------|----------|
|     | 6bar                    | 10bar | 16bar |     |       |     |       | ΦK      | N-Φd   | n-d    | ΦK       | N-Φd   | n-d    | ΦK       | N-Φd   | n-d      |
| 40  | --                      | --    | 0020  | 147 | 287   | 33  | 71.5  | 110     | 4-Φ19  | 4-M16  | 110      | 4-Φ19  | 4-M16  | 98.5     | 4-Φ16  | 4-5/8    |
| 50  | 0020                    | 0020  | 0020  | 147 | 333   | 43  | 71.5  | 125     | 4-Φ19  | 4-M16  | 125      | 4-Φ19  | 4-M16  | 120.5    | 4-Φ19  | 4-1/2    |
| 65  | 0035                    | 0035  | 0035  | 168 | 371.5 | 46  | 83    | 145     | 4-Φ19  | 4-M16  | 145      | 4-Φ19  | 4-M16  | 139.5    | 4-Φ19  | 4-5/8    |
| 80  | 0075                    | 0075  | 0075  | 204 | 404.7 | 46  | 103   | 160     | 8-Φ19  | 8-M16  | 160      | 8-Φ19  | 8-M16  | 152.5    | 4-Φ19  | 4-5/8    |
| 100 |                         |       |       | 204 | 442.7 | 52  | 103   | 180     | 8-Φ19  | 8-M16  | 180      | 8-Φ19  | 8-M16  | 190.5    | 8-Φ19  | 8-5/8    |
| 125 | 0110                    | 0110  | 0110  | 262 | 476.5 | 56  | 108.5 | 210     | 8-Φ19  | 8-M16  | 210      | 8-Φ19  | 8-M16  | 216      | 8-Φ22  | 8-3/4    |
| 150 | 0160                    | 0160  | 0160  | 268 | 519   | 56  | 121.5 | 240     | 8-Φ24  | 8-M23  | 240      | 8-Φ23  | 8-M20  | 241.5    | 8-Φ22  | 8-3/4    |
| 200 | 0250                    | 0250  | 0250  | 296 | 610   | 60  | 142   | 295     | 8-Φ24  | 8-M23  | 295      | 12-Φ23 | 12-M20 | 298.5    | 8-Φ22  | 8-3/4    |
| 250 | 0435                    | 0435  | 0435  | 390 | 704   | 68  | 152   | 350     | 12-Φ24 | 12-M23 | 355      | 12-Φ28 | 12-M24 | 362      | 12-Φ25 | 12-7/8   |
| 300 | 0665                    | 0665  | 0665  | 458 | 809   | 78  | 175   | 400     | 12-Φ24 | 12-M23 | 410      | 12-Φ28 | 12-M24 | 432      | 12-Φ25 | 12-7/8   |
| 350 | 1200                    | 1200  | 1200  | 532 | 920   | 78  | 226   | 460     | 16-Φ23 | 16-M23 | 470      | 16-Φ28 | 16-M24 | 476      | 12-Φ29 | 12-1     |
| 400 | 1200                    | 1200  | ---   | 532 | 984   | 102 | 226   | 515     | 16-Φ28 | 16-M24 | 525      | 16-Φ31 | 16-M27 | 539.5    | 16-Φ29 | 16-1     |
|     | ---                     | ---   | 1800  | 722 | 1055  | 102 | 294   | 515     | 16-Φ28 | 16-M24 | 525      | 16-Φ31 | 16-M27 | 539.5    | 16-Φ29 | 16-1     |
| 450 | 1200                    | ---   | ---   | 532 | 1025  | 114 | 226   | 565     | 20-Φ28 | 20-M24 | 585      | 20-Φ31 | 20-M27 | 578      | 16-Φ32 | 16-1 1/8 |
|     | --                      | 1800  | 1800  | 722 | 1096  | 114 | 294   | 565     | 20-Φ28 | 20-M24 | 585      | 20-Φ31 | 20-M27 | 578      | 16-Φ32 | 16-1 1/8 |
| 500 | 1800                    | 2000  | 2000  | 722 | 1185  | 127 | 294   | 620     | 20-Φ28 | 20-M24 | 650      | 20-Φ34 | 20-M30 | 635      | 16-Φ32 | 20-1 1/8 |
|     | --                      | --    | 3000  | 742 | 1207  | 127 | 324   | 620     | 20-Φ28 | 20-M24 | 650      | 20-Φ34 | 20-M30 | 635      | 16-Φ32 | 20-1 1/8 |
| 600 | 2000                    |       |       | 722 | 1328  | 154 | 294   | 725     | 20-Φ31 | 20-M24 | 770      | 20-Φ37 | 20-M33 | 749.5    | 20-Φ35 | 20-1 1/4 |
|     |                         | 3000  | 3000  | 742 | 1350  | 154 | 324   | 725     | 20-Φ31 | 20-M24 | 770      | 20-Φ37 | 20-M33 | 749.5    | 20-Φ35 | 20-1 1/4 |
|     |                         |       | 4500  | 860 | 1404  | 154 | 380   | 725     | 20-Φ31 | 20-M24 | 770      | 20-Φ37 | 20-M33 | 749.5    | 20-Φ35 | 20-1 1/4 |

# 06 Resilient seat butterfly valves



## Applicable Temperature Of Seat And Medium List

| Material name | Maximal temperature | Minimum temperature | Applicable Medium                                  | Non-applicable Medium                 | Characteristics                         |
|---------------|---------------------|---------------------|--|---------------------------------------|---|
| BUNA-N        | 100°C               | -18°C               | water,salt,gas,inorganic weak acid,alkalis,oil     | ozone,oxide,strong acid,Alcohol,steam | resist oil                              |
| EPDM          | 121°C               | -29°C               | water,salt,gas,mineral acids,soda,ozone,Alcohol    | petrol, organic acid                  | Aging resistant                         |
| PTFE/EPDM     | 121°C               | -29°C               | mineral acids,soda,ozone,synthetic lubricating oil | organic acid                          | with the characteristics of EPDM & PTFE |
| PTFE          | 121°C               | -29°C               | mineral acids,soda,ozone,synthetic lubricating oil | organic acid                          | Resist Strong corrupt; resist heat      |



## Installation&Maintenance

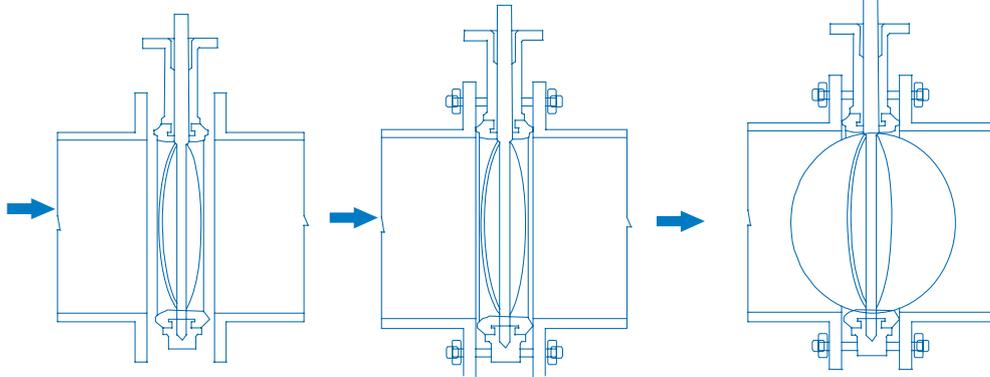
### The installation of butterfly valve and pipe lines

- 1 Before install the valve into the pipe, it should weld the flange to the pipe firstly and cooled it to ambient temperature. Otherwise the heat generated by welding will damage or affect the performance of the valve seat.
- 2 Separating the two flanges for a certain distance, when the disc in a small angle open position, the valve can be insert to the flanges.(If the two flanges are not separated enough distance, it may damage the seat.)
- 3 Do not use flange gaskets when the valve insert to the two flanges. When the disc in a small angle open position, all bolts should be installed and pre-tightened, but shouldn't be tightened. (Because when the valve completely closed, tighten all bolts will cause the rubber gasket excessive compressed, and then result the torque opened too much that will affect the normally open and may damage the valve seat.
- 4 Open the butterfly valve completely to make sure the valve and pipe have been centered and also can work normally. Then tighten the bolts one by one follow the diagonal direction.

### Maintenance and Repair

The many GUYA butterfly valve features minimize wear and maintenance requirements. No routine lubrication is required.

All components: stem, disc, seat, bushing, stem seal, etc., are field replaceable, no adjustment is needed, remove the valve from the line by placing the disc near the closed position, spread the flanges, support the valve, then remove the flange bolts.



Place the partially opened disc between the flanges and install flange bolts. Don't use flange gaskets.

Position the disc in the partially open position, and place the flange bolt, tightening it later

Open the disc to the full open position, carefully to ensure proper alignment and clearance of the disc O.D. with the adjustment pipe I.D. and then tighten the flange bolts.



## ORDER CODE

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|                                      |  |  |  |  |
|--------------------------------------|--|--|--|--|
| Size                                 | 1-DN25/1"<br>1.5-DN40/1.5"<br>2-DN50/2"<br>3-DN80/3"   | 4-DN100/4"<br>5-DN125/5"<br>6-DN150/6"<br>8-DN200/8" | 10-DN250/10"<br>12-DN300/12"<br>14-DN350/14"<br>16-DN400/16" | 18-DN450/18"<br>20-DN500/20"<br>24-DN600/24" |
| Valve Series                         | F10/F12  | wafer DN40---DN600                                   | F11/F13  | lug DN40---DN600                             |
| Standards of Flange Nominal Pressure | 00-PN10/PN16/Class150/wafer 06-PN6 10-PN10 16-PN16<br>20-ANSI Class125/150   |  |  |  |
| Body Material                        | CI   | Gray Cast Iron ASTM A126 CLASS B                     | DI   | Ductile Cast Iron ASTM A536                  |
|                                      | CS   | Carbon Cast Iron ASTM A276-Gr.WCB                    | S4   | 304SS ASTM A351 CF8                          |
|                                      | S6   | 316SS ASTM A351 CF8M                                 | Al   | Alloy 20 ASTM B26                            |
| Disc Material                        | A  | Ductile Cast Iron ASTM A536/Nickel coating           | F  | 304SS ASTM A351 CF8                          |
|                                      | B  | Ductile Cast Iron ASTM A536/Nylon 11 coating         | G  | 316SS ASTM A351 CF8M                         |
|                                      | C  | Ductile Cast Iron ASTM A536/Ilalar coating           | H  | Alloy 20 ASTM B148 C954                      |
|                                      | D  | Duplex SS 2205/2507                                  | I  | Others                                       |
|                                      | E  | Hastelloy C-376                                      |  |  |
| Stem Material                        | A  | 304SS ASTM A276                                      | C  | 416SS ASTM A582                              |
|                                      | B  | 17-4PH ASTM A747                                     | D  | 316SS ASTM A276                              |
| Seat Material                        | E  | EPDM -29°C - 121°C                                   | F  | EPDM/PTFE -29°C-121°C                        |
|                                      | N  | NBR -18°C - 100°C                                    | V  | VITON -18°C - 204C                           |
| Operation Mode                       | B-slick rod PD-Double Acting PS-Spring Return E-Electric G-Manual worm wheel   |  |  |  |
| Limit Switch                         | O-None PL2-Climate Protection type PL4-Flame proof type PL5-Special Materials  |  |  |  |
| Other                                | O-None S23-2 positions&3-ways magnet valve S25-2positions&5ways magnet valve PE-Standard Electro-Pneumatic positioner PES-Smart Electro-Pneumatic positioner |  |  |  |

Need more information, please contact with GUYA manufacturers and leaders.

All the instructions, technical information and specifications in this article are only suitable for general application. As for the special requirements material selection you need, please consult GUYA manufacturer.

### Guya International, Inc

 U.S. Valves and Flow Controls Manufacturers

GUYA have the right to modify the product design and specification without informing the customer.

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