

CLASS 150 DUCTILE IRON WAFER TYPE BUTTERFLY VALVE WITH GEAR OPERATED

KITZ Fig: (JP)G-150DJM

Sizes: 2-24inch(50-600mm)

Standards

- . End to End: MSS SP-67
- . End Connection: WAFER TYPE (ASME B16.5 CLASS 150)
- . Wall Thickness: KITZ STANDARD

Test Standard

- . KITZ STANDARD

Dimensions

| SIZE (inch/mm) | L | L1 | H | D1 | Kg |
|----------------|-------|-------|-------|-------|------|
| 2 50 | 42.9 | 122.0 | 194.0 | 80.0 | 0.00 |
| 2 1/2 65 | 46.0 | 122.0 | 202.0 | 80.0 | 0.00 |
| 3 80 | 46.0 | 135.0 | 236.0 | 110.0 | 0.00 |
| 4 100 | 52.3 | 135.0 | 246.0 | 110.0 | 0.00 |
| 5 125 | 55.6 | 150.0 | 274.0 | 110.0 | 0.00 |
| 6 150 | 55.6 | 150.0 | 286.0 | 110.0 | 0.00 |
| 8 200 | 60.5 | 180.0 | 325.0 | 170.0 | 0.00 |
| 10 250 | 68.3 | 250.0 | 381.0 | 250.0 | 0.00 |
| 12 300 | 77.7 | 250.0 | 406.0 | 250.0 | 0.00 |
| 14 350 | 77.7 | 220.0 | 445.0 | 310.0 | 0.00 |
| 16 400 | 101.6 | 220.0 | 500.0 | 310.0 | 0.00 |
| 18 450 | 114.3 | 220.0 | 523.0 | 310.0 | 0.00 |
| 20 500 | 127.0 | 360.0 | 589.0 | 500.0 | 0.00 |
| 24 600 | 153.9 | 360.0 | 637.0 | 500.0 | 0.00 |



Material List

| NAME OF PART | MATERIAL | SPECIFICATION |
|--------------|----------|---------------|
| SEAT RUBBER | NBR | - |

Specifications

CLASS 150 DUCTILE IRON WAFER TYPE BUTTERFLY VALVE WITH GEAR OPERATED

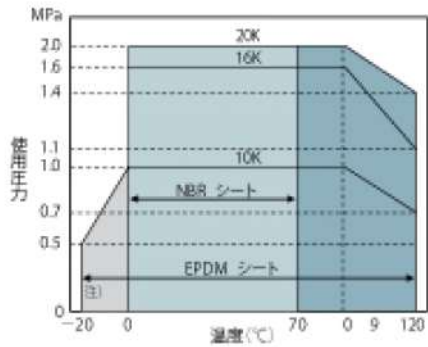
End to End : MSS SP-67, End Connection : WAFER TYPE (ASME B16.5 CLASS 150), Wall Thickness : KITZ STANDARD, Test Standard : KITZ STANDARD, Sizes : 2-24inch(50-600mm), SEAT RUBBER MATERIAL : NBR, KITZ Fig : (JP)G-150DJM

Pressure-temperature ratings and other performance data published in this catalog have been developed from our design calculation, in-house testing, field reports provided by our customers and/or published official standards or specifications. They are good only to cover typical applications as a general guideline to users of KITZ products introduced in this catalog. For any specific application, users are kindly requested to contact KITZ Corporation for technical advice, or to carry out their own study and evaluation for proving suitability of these products to such an application. Failure to follow this request could result in property damage and/or personal injury, for which we shall not be liable. Read instruction manual carefully before use.

KITZ

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ISO 9001
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Since 1989



注) 常下仕様品についてはお問合せください。
ただし、個体の確認がないこと。

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KITZ

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DJ Series Butterfly Valves



Standard Product Range

| Standard | | ASME | | EN | | | | | | JIS | | | |
|--------------|--------------|-------------|-------------|--------|---------|--------|---------|--------|---------|-------|----------------|-------|----------------|
| Pressure | | 150/200 psi | | PN10 | | PN16 | | PN25 | | 10K | | 16K | |
| Connection | | Wafer | Lugged | Wafer | Lugged | Wafer | Lugged | Wafer | Lugged | Wafer | Double Flanged | Wafer | Double Flanged |
| Nominal size | Product code | *1 | *1 | | | | | | | | *2 | | *2 |
| | | 150/200 DJ | 150/200 DJL | PN16DJ | PN16DJL | PN16DJ | PN16DJL | PN25DJ | PN25DJL | 10DJ | 10DJF | 16DJ | 16DJF |
| inch | mm | | | | | | | | | | | | |
| 2 | 50 | ● | ● | ● | ● | ● | ● | ● | ● | ● | — | ● | — |
| 2½ | 65 | ● | ● | ● | ● | ● | ● | ● | ● | ● | — | ● | — |
| 3 | 80 | ● | ● | ● | ● | ● | ● | ● | ● | ● | — | ● | — |
| 4 | 100 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 5 | 125 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 6 | 150 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| 8 | 200 | ● | ● | ● | — | ● | ● | ● | ● | ● | ● | ● | ● |
| 10 | 250 | ● | ● | ● | — | ● | ● | ● | ● | ● | ● | ● | ● |
| 12 | 300 | ● | ● | ● | — | ● | ● | ● | ● | ● | ● | ● | ● |
| 14 | 350 | ● | ● | ● | — | ● | ● | — | — | ● | ● | ● | ● |
| 16 | 400 | ● | ● | — | — | ● | ● | — | — | ● | ● | ● | ● |
| 18 | 450 | ● | ● | — | — | ● | ● | — | — | ● | ● | ● | ● |
| 20 | 500 | ● | ● | — | — | ● | ● | — | — | ● | ● | ● | ● |
| 22 | 550 | — | — | — | — | — | — | — | — | — | ● | — | ● |
| 24 | 600 | ● | ● | — | — | ● | ● | — | — | ● | ● | ● | ● |

● : Available
 * 1 : 200 psi for size 2 to 12, 150 psi for size 14 to 24
 * 2 : Not shown in this catalog

Explanation of Product Code

G - PN16 DJ L U E

① ② ③ ④ ⑤ ⑥

① Valve operation

- NoneLever handle
- GGear
- VGVertical gear
- BType B pneumatic actuator
- BSType BS pneumatic actuator
- FAType FA pneumatic actuator
- FASType FAS pneumatic actuator
- EXS110/200 ...Type EXS KELMO® electric actuator
- EXC110/200...Type EXC KELMO® electric proportional control actuator

② Class

- 150..... ASME 150 psi
- 200..... ASME 200 psi
- PN16... EN PN16
- PN25... EN PN25
- 10..... JIS 10K
- 16..... JIS 16K

③ Valve material and design

- DJ..... Ductile iron DJ series
 - FDDJ.... Ductile iron for JIS10K, Size 350-600 (Option)
- *Cast iron for JIS10K, Size 350-600

④ Connection

- None.... Wafer
- L..... Lugged
- F.....Double flanged

⑤ Disc material

- None.... Ductile iron (Ni-plated)
- U..... 304 stainless steel
- M..... 316 stainless steel
- A..... Aluminum bronze

⑥ Seat material

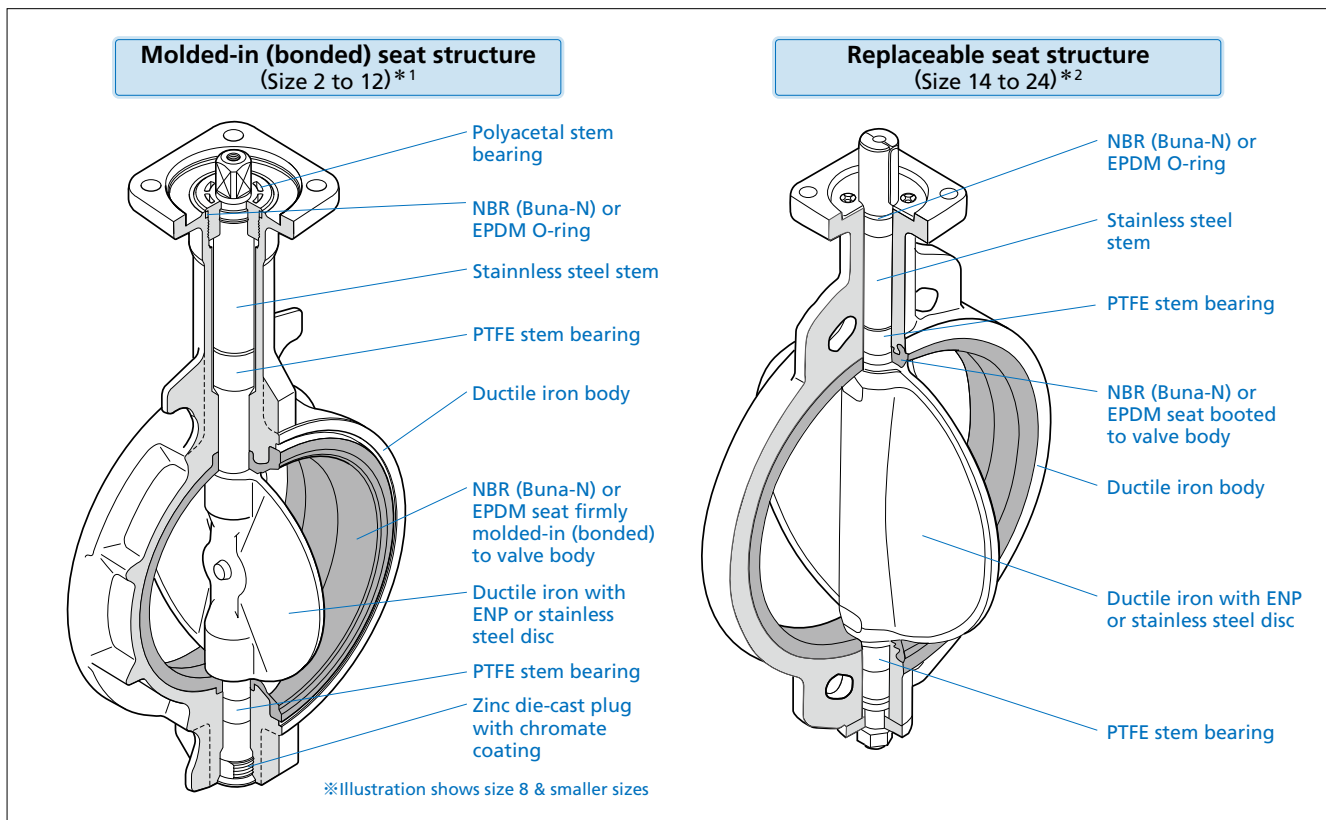
- None.... NBR (Buna-N)
- E..... EPDM

This catalog uses MPa, a SI unit, for indication of pressures.
 For readers' convenience, however, kgf/cm² is also used as an additional information.

KITZ DJ Series Butterfly Valves

Thorough pursuit of functions required for butterfly valves
Variety of product ranges to comply with customers' requirements

Design Features



Non-peeling Seat-to-body Construction

Molded-in (bonded) seat structure is employed for size **2 to 12**. Larger sized valves are provided with replaceable seat. This non-peeling seat-to-body construction assures maintenance-free application for **high fluid velocity service*1**, **vacuum service*2** and handling surging fluid velocity. It also guarantees peel-free valve mounting on pipelines.

*1 **Maximum 4 meters/second for on-off service for valves up to size 12, and 3 meters/second for size 14 and larger.**

*2 **Up to 30 torr. Vacuum service is option for size 14 and larger.**

Spherical design for Discs and Seats

Rubber seats are spherically designed where they contact top and bottom stems. This protects widely designed rubber seats from peeling or deformation for prolonged service life of valves. Thinly streamlined metal discs are the results of elaborate laboratory study to ultimately minimize the pressure loss.

Choice of Materials and Operating Devices

Choice among 4 disc and 2 seat materials and manual, pneumatic or electric valve operating devices makes service applications highly versatile.

Integral ISO 5211 Actuator Mounting Flange

Any pneumatic or electric valve actuators provided with ISO 5211 valve mounting flanges can be easily mounted for actuation of valves in the field.

Low Valve Operating Torque

Low operating torques are designed low for extension of valve service life and economic consideration in selection of valve operating devices.

Light-designed for Operation Efficiency

Designed much lighter than our conventional series for operation efficiency in piping

Emission-free Stem Sealing Mechanism

Prevention of external fluid leakage is maximized with a rubber O-ring assembled around the top stem and tight contact between spherically designed rubber seat and spherically designed top and bottom end of the disc.

Dew condensation prevention

Dew condensation prevention type is optionally available with heat insulating plate (size 2 to 6) or stainless steel stand (size 8 to 24).

Technical Specifications

Maximum Service Pressure

| | |
|--------------|---------|
| ASME 150 psi | 1.03MPa |
| ASME 200 psi | 1.38MPa |
| EN PN16 | 1.6 MPa |
| EN PN25 | 2.5 MPa |
| JIS 10K | 0.98MPa |
| JIS 16K | 1.57MPa |

Body Material

| | |
|--------------|---------------------------|
| Ductile iron | ASTM A536 Gr. 65-45-12 *1 |
|--------------|---------------------------|

*1 JIS 10K design, size 14" & larger: Cast iron ASTM A126 Class B

Service Temperature Range

| | |
|--------------------------------------|--------------------|
| NBR (Buna-N) seat | 0°C to +70°C |
| EPDM seat | -20°C to +130°C *2 |
| Continuous service temperature range | 0°C to +100°C |

*2 There are some fluid type restrictions for the service at 130°C. Contact KITZ for the details.

Applicable Standards

| | |
|-------------------------|---|
| Valve design | API 609, MSS-SP 67, EN 593, JIS B 2032 |
| Face to face dimensions | API 609 Category A, MSS-SP 67 W-1 : Size 2 to 14 W-2 : Size 16 to 24 EN 558 basic series 20, ISO 5752 20 Series, JIS B 2002 46 Series |

Coupling Flanges

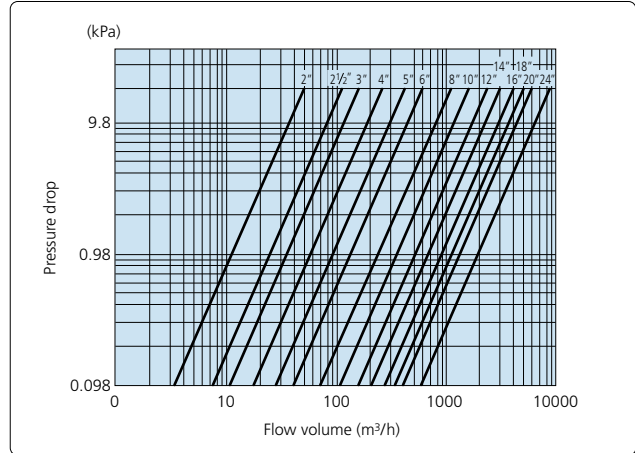
| | |
|-------------|--|
| Wafer type | ASME Class 125/150 |
| | EN 1092 PN 10: DN 50 to DN 350, PN 16: All Sizes PN 25: DN 50 to DN 300 |
| | BS 10 Table D/Table E |
| | JIS 10K/16K |
| Lugged type | ASME Class 125/150 |
| | EN 1092 PN 10: DN 50 to DN 150, PN 16: All Sizes PN 25: DN 50 to DN 300 |
| | |

Flow Coefficient (Cv)

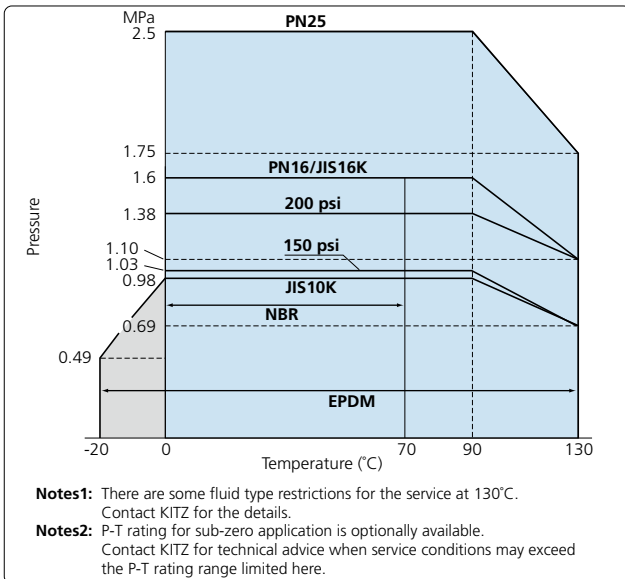
| Size | | Valve opening | | | |
|------|-----|---------------|------|------|-------|
| inch | mm | 30° | 45° | 60° | 90° |
| 2 | 50 | 10 | 23 | 47 | 124 |
| 2½ | 65 | 22 | 50 | 102 | 270 |
| 3 | 80 | 33 | 74 | 149 | 397 |
| 4 | 100 | 55 | 125 | 252 | 671 |
| 5 | 125 | 83 | 189 | 381 | 1013 |
| 6 | 150 | 126 | 286 | 576 | 1532 |
| 8 | 200 | 230 | 522 | 1050 | 2792 |
| 10 | 250 | 325 | 743 | 1514 | 4025 |
| 12 | 300 | 493 | 1123 | 2260 | 6010 |
| 14 | 350 | 617 | 1371 | 2829 | 7525 |
| 16 | 400 | 826 | 1787 | 3760 | 10080 |
| 18 | 450 | 1076 | 2441 | 4933 | 13120 |
| 20 | 500 | 1311 | 2969 | 6012 | 15990 |
| 24 | 600 | 1942 | 4449 | 8907 | 23690 |

Pressure Loss

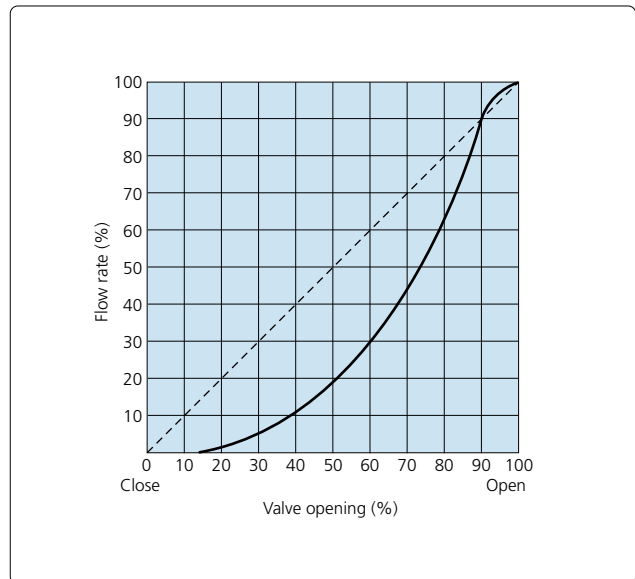
(for handling static clean water with valve fully open)



P-T Rating



Flow Characteristics



Standard Materials

| Parts | Material | |
|-----------------------------------|--|---|
| Body | Ductile Iron | |
| | Cast Iron (JIS 10K design Size 14" to 24") | |
| Stem Bottom stem | 410 Stainless Steel / 420 Stainless Steel | |
| Disc | Ductile Iron (Ni-plated) / 304SS / 316SS / Aluminum Bronze (See Explanation of Product Code) | |
| Seat O-ring | NBR (Buna-N) / EPDM (See Explanation of Product Code) | |
| Bearing | Polyacetal / Glass Filled PTFE / Metal Backed PTFE | |
| Plug (Size 2" to 8") | Zinc die-cast (Chromate Coating) | |
| Operator | Lever | Aluminum Die-cast |
| | Gear | Aluminum Die-cast (Size 2" to 12") Cast-Iron (Size 14" to 24") |
| | Vertical gear | Cast-Iron |

Wafer Type Lever Operated

ASME 150/200 psi Design

200DJ□□

EN PN16 Design

PN16DJ□□

EN PN25 Design

PN25DJ□E

JIS 10K Design

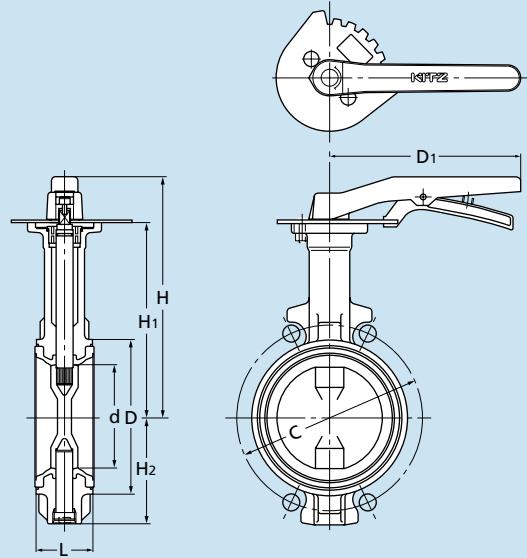
10DJ□□

JIS 16K Design

16DJ□□

□□ of product coding are disc and seat material coding

Please refer to page 1.



ASME 200 psi • EN PN16 • EN PN25 • JIS 10K • JIS 16K Design Dimensions (mm)

| Nominal Size | | d | H | H1 | H2 | L | D | C | | | | | D1 |
|--------------|-----|-----|-----|-----|-----|----|-----|----------|---------|---------|---------|---------|-----|
| inch | mm | | | | | | | ASME 200 | EN PN16 | EN PN25 | JIS 10K | JIS 16K | |
| 2 | 50 | 50 | 191 | 147 | 67 | 43 | 90 | 120.5 | 125 | 125 | 120 | 120 | 180 |
| 2½ | 65 | 65 | 199 | 155 | 75 | 46 | 104 | 139.5 | 145 | 145 | 140 | 140 | 180 |
| 3 | 80 | 80 | 217 | 173 | 91 | 46 | 124 | 152.5 | 160 | 160 | 150 | 160 | 180 |
| 4 | 100 | 100 | 227 | 183 | 101 | 52 | 146 | 190.5 | 180 | 190 | 175 | 185 | 180 |
| 5 | 125 | 125 | 265 | 211 | 127 | 56 | 176 | 216 | 210 | 220 | 210 | 225 | 230 |
| 6 | 150 | 150 | 277 | 223 | 139 | 56 | 206 | 241.5 | 240 | 250 | 240 | 260 | 230 |
| 8 | 200 | 197 | 295 | 248 | 169 | 60 | 257 | 298.5 | 295 | — | 290 | 305 | 350 |

* EN PN25 is from DN50 to DN150.

* EN PN25 is EPDM Seat only.

Wafer Type Gear Operated

ASME 150/200 psi Design

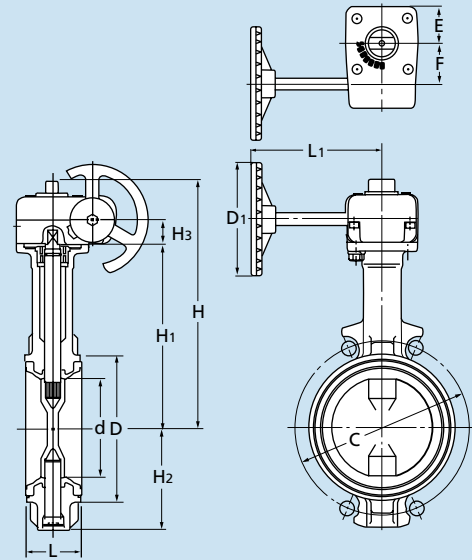
G-150/200DJ □□

JIS 10K Design

G-10DJ □□

□□ of product coding are disc and seat material coding

Please refer to page 1.



ASME 150/200 psi Dimensions (mm)

| Nominal Size | | d | H | H1 | H2 | H3 | L | D | C | D1 | L1 | E | F |
|--------------|-----|-----|-----|-----|-----|----|-----|-----|-------|-----|-----|----|----|
| inch | mm | | | | | | | | | | | | |
| 2 | 50 | 50 | 194 | 147 | 67 | 19 | 43 | 90 | 120.5 | 80 | 122 | 29 | 28 |
| 2½ | 65 | 65 | 202 | 155 | 75 | 19 | 46 | 104 | 139.5 | 80 | 122 | 29 | 28 |
| 3 | 80 | 80 | 236 | 173 | 91 | 24 | 46 | 124 | 152.5 | 110 | 135 | 36 | 40 |
| 4 | 100 | 100 | 246 | 183 | 101 | 24 | 52 | 146 | 190.5 | 110 | 135 | 36 | 40 |
| 5 | 125 | 125 | 274 | 211 | 127 | 24 | 56 | 176 | 216 | 110 | 150 | 36 | 40 |
| 6 | 150 | 150 | 286 | 223 | 139 | 24 | 56 | 206 | 241.5 | 110 | 150 | 36 | 40 |
| 8 | 200 | 197 | 325 | 248 | 169 | 32 | 60 | 257 | 298.5 | 170 | 180 | 51 | 63 |
| 10 | 250 | 246 | 381 | 304 | 219 | 32 | 68 | 312 | 362 | 170 | 180 | 51 | 63 |
| 12 | 300 | 295 | 406 | 329 | 244 | 32 | 78 | 364 | 432 | 170 | 180 | 51 | 63 |
| 14 | 350 | 334 | 447 | 360 | 309 | 47 | 78 | 407 | 476.5 | 310 | 220 | 54 | 66 |
| 16 | 400 | 385 | 502 | 415 | 341 | 47 | 102 | 466 | 539.5 | 310 | 220 | 54 | 66 |
| 18 | 450 | 434 | 526 | 439 | 365 | 47 | 114 | 522 | 578 | 310 | 220 | 54 | 66 |
| 20 | 500 | 482 | 587 | 488 | 414 | 60 | 127 | 575 | 635 | 500 | 360 | 68 | 89 |
| 24 | 600 | 579 | 635 | 536 | 463 | 60 | 154 | 680 | 749.5 | 500 | 360 | 68 | 89 |

*: ASME 200 psi for size 2 to 12, 150 psi for size 14 to 24.

JIS 10K Design Dimensions (mm)

| Nominal Size | | d | H | H1 | H2 | H3 | L | D | C | D1 | L1 | E | F |
|--------------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|----|
| inch | mm | | | | | | | | | | | | |
| 2 | 50 | 50 | 194 | 147 | 67 | 19 | 43 | 90 | 120 | 80 | 122 | 29 | 28 |
| 2½ | 65 | 65 | 202 | 155 | 75 | 19 | 46 | 104 | 140 | 80 | 122 | 29 | 28 |
| 3 | 80 | 80 | 236 | 173 | 91 | 24 | 46 | 124 | 150 | 110 | 135 | 36 | 40 |
| 4 | 100 | 100 | 246 | 183 | 101 | 24 | 52 | 146 | 175 | 110 | 135 | 36 | 40 |
| 5 | 125 | 125 | 274 | 211 | 127 | 24 | 56 | 176 | 210 | 110 | 150 | 36 | 40 |
| 6 | 150 | 150 | 286 | 223 | 139 | 24 | 56 | 206 | 240 | 110 | 150 | 36 | 40 |
| 8 | 200 | 197 | 325 | 248 | 169 | 32 | 60 | 257 | 290 | 170 | 180 | 51 | 63 |
| 10 | 250 | 246 | 381 | 304 | 219 | 32 | 68 | 312 | 355 | 170 | 180 | 51 | 63 |
| 12 | 300 | 295 | 406 | 329 | 244 | 32 | 78 | 364 | 400 | 170 | 180 | 51 | 63 |
| 14 | 350 | 333 | 445 | 360 | 309 | 47 | 78 | 407 | 445 | 310 | 220 | 54 | 66 |
| 16 | 400 | 385 | 500 | 415 | 341 | 47 | 102 | 466 | 510 | 310 | 220 | 54 | 66 |
| 18 | 450 | 434 | 524 | 439 | 365 | 47 | 114 | 522 | 565 | 310 | 220 | 54 | 66 |
| 20 | 500 | 482 | 589 | 488 | 414 | 60 | 127 | 575 | 620 | 360 | 350 | 68 | 89 |
| 24 | 600 | 579 | 637 | 536 | 463 | 60 | 154 | 680 | 730 | 360 | 350 | 68 | 89 |

Wafer Type Gear Operated

EN PN16 Design

G-PN16DJ □□

EN PN25 Design

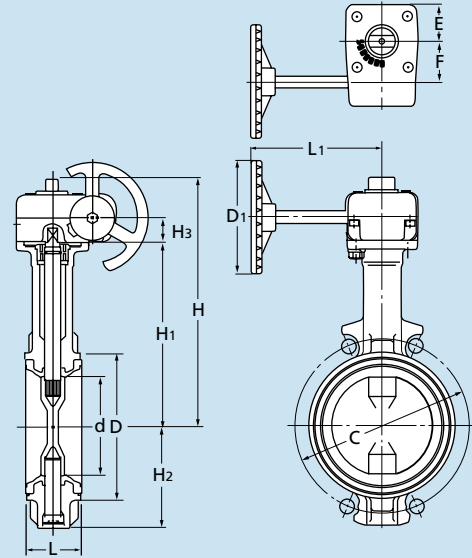
G-PN25DJ □E

JIS 16K Design

G-16DJ □□

□□ of product coding are disc and seat material coding

Please refer to page 1.



EN PN16 • EN PN25 Design Dimensions

(mm)

| Nominal Size inch | mm | d | H | H1 | H2 | H3 | L | D | C | | D1 | | L1 | | E | F |
|----------------------|-----|-----|-----|-----|-----|----|-----|-----|---------|---------|---------|---------|---------|---------|---|---|
| | | | | | | | | | EN PN16 | EN PN25 | EN PN16 | EN PN25 | EN PN16 | EN PN25 | | |
| 2 | 50 | 50 | 194 | 147 | 67 | 19 | 43 | 90 | 125 | 125 | 80 | 122 | 29 | 28 | | |
| 2½ | 65 | 65 | 202 | 155 | 75 | 19 | 46 | 104 | 145 | 145 | 80 | 122 | 29 | 28 | | |
| 3 | 80 | 80 | 236 | 173 | 91 | 24 | 46 | 124 | 160 | 160 | 110 | 135 | 36 | 40 | | |
| 4 | 100 | 100 | 246 | 183 | 101 | 24 | 52 | 146 | 180 | 190 | 110 | 135 | 36 | 40 | | |
| 5 | 125 | 125 | 274 | 211 | 127 | 24 | 56 | 176 | 210 | 220 | 110 | 150 | 36 | 40 | | |
| 6 | 150 | 150 | 286 | 223 | 139 | 24 | 56 | 206 | 240 | 250 | 110 | 150 | 36 | 40 | | |
| 8 | 200 | 197 | 325 | 248 | 169 | 32 | 60 | 257 | 295 | 310 | 170 | 180 | 51 | 63 | | |
| 10 | 250 | 246 | 381 | 304 | 219 | 32 | 68 | 312 | 355 | 370 | 250 | 250 | 51 | 63 | | |
| 12 | 300 | 295 | 406 | 329 | 244 | 32 | 78 | 364 | 410 | 430 | 250 | 250 | 51 | 63 | | |
| 14 | 350 | 333 | 461 | 360 | 309 | 60 | 78 | 407 | 470 | — | 360 | — | 68 | 89 | | |
| 16 | 400 | 385 | 516 | 415 | 348 | 60 | 102 | 466 | 525 | — | 360 | — | 68 | 89 | | |
| 18 | 450 | 434 | 540 | 439 | 372 | 60 | 114 | 522 | 585 | — | 360 | — | 68 | 89 | | |
| 20 | 500 | 482 | 623 | 488 | 423 | 65 | 127 | 575 | 650 | — | 500 | — | 90 | 134 | | |
| 24 | 600 | 579 | 671 | 536 | 472 | 65 | 154 | 680 | 770 | — | 500 | — | 90 | 134 | | |

*: EN PN25 is from DN50 to DN300. *: EN PN25 is EPDM Seat only.

JIS 16K Design Dimensions

(mm)

| Nominal Size inch | mm | d | H | H1 | H2 | H3 | L | D | C | D1 | L1 | E | F |
|----------------------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|-----|
| | | | | | | | | | | | | | |
| 2½ | 65 | 65 | 202 | 155 | 75 | 19 | 46 | 104 | 140 | 80 | 122 | 29 | 28 |
| 3 | 80 | 80 | 236 | 173 | 91 | 24 | 46 | 124 | 160 | 110 | 135 | 36 | 40 |
| 4 | 100 | 100 | 246 | 183 | 101 | 24 | 52 | 146 | 185 | 110 | 135 | 36 | 40 |
| 5 | 125 | 125 | 274 | 211 | 127 | 24 | 56 | 176 | 225 | 110 | 150 | 36 | 40 |
| 6 | 150 | 150 | 286 | 223 | 139 | 24 | 56 | 206 | 260 | 110 | 150 | 36 | 40 |
| 8 | 200 | 197 | 325 | 248 | 169 | 32 | 60 | 257 | 305 | 170 | 180 | 51 | 63 |
| 10 | 250 | 247 | 381 | 304 | 219 | 32 | 68 | 312 | 380 | 250 | 250 | 60 | 63 |
| 12 | 300 | 296 | 406 | 329 | 244 | 32 | 78 | 364 | 430 | 250 | 250 | 60 | 63 |
| 14 | 350 | 333 | 461 | 360 | 309 | 60 | 78 | 407 | 480 | 360 | 350 | 68 | 89 |
| 16 | 400 | 385 | 516 | 415 | 348 | 60 | 102 | 466 | 540 | 360 | 350 | 68 | 89 |
| 18 | 450 | 434 | 540 | 439 | 372 | 60 | 114 | 522 | 605 | 360 | 350 | 68 | 89 |
| 20 | 500 | 482 | 623 | 488 | 423 | 65 | 127 | 575 | 660 | 500 | 410 | 90 | 134 |
| 24 | 600 | 579 | 671 | 536 | 472 | 65 | 154 | 680 | 770 | 500 | 410 | 90 | 134 |

Wafer Type Vertical gear operated

ASME 150/200 psi Design

VG-150/200DJ

EN PN16 Design

VG-PN16DJ

JIS 10K Design

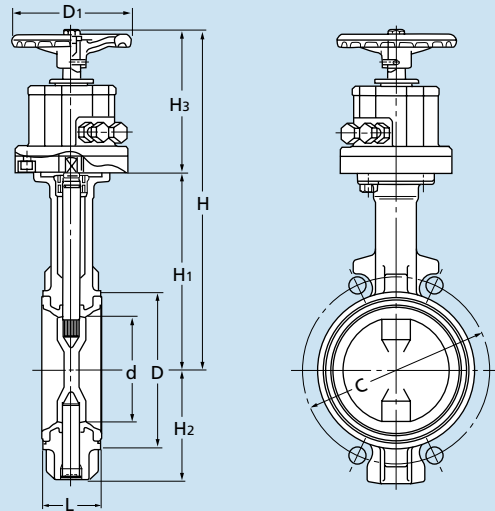
VG-10DJ

JIS 16K Design

VG-16DJ

of product coding are disc and seat material coding

Please refer to page 1.



ASME 150/200 psi • EN PN16 • JIS 10K • JIS 16K Design Dimensions (mm)

| Nominal Size | | d | H | | H1 | H2 | | H3 | | L | D | C | | | | D1 |
|--------------|-----|-----|-------------------------|--------------------|-----|-------------------------|--------------------|-------------------------|--------------------|-----|-----|--------------|---------|---------|---------|-----|
| inch | mm | | ASME 150/200 JIS 10K | EN PN16 JIS 16K | | ASME 150/200 JIS 10K | EN PN16 JIS 16K | ASME 150/200 JIS 10K | EN PN16 JIS 16K | | | ASME 150/200 | EN PN16 | JIS 10K | JIS 16K | |
| 2 | 50 | 50 | 270 | 147 | 67 | 123 | 43 | 90 | 120.5 | 125 | 120 | 120 | 110 | | | |
| 2½ | 65 | 65 | 278 | 155 | 75 | 123 | 46 | 104 | 139.5 | 145 | 140 | 140 | 110 | | | |
| 3 | 80 | 80 | 285 | 173 | 91 | 112 | 46 | 124 | 152.5 | 160 | 150 | 160 | 110 | | | |
| 4 | 100 | 100 | 295 | 183 | 101 | 112 | 52 | 146 | 190.5 | 180 | 175 | 185 | 110 | | | |
| 5 | 125 | 125 | 325 | 211 | 127 | 114 | 56 | 176 | 216 | 210 | 210 | 225 | 170 | | | |
| 6 | 150 | 150 | 337 | 223 | 139 | 114 | 56 | 206 | 241.5 | 240 | 240 | 260 | 170 | | | |
| 8 | 200 | 197 | 404 | 248 | 169 | 156 | 60 | 257 | 298.5 | 295 | 290 | 305 | 200 | | | |
| 10 | 250 | 247 | 461 | 304 | 219 | 157 | 68 | 312 | 362 | 355 | 355 | 380 | 310 | | | |
| 12 | 300 | 296 | 486 | 329 | 244 | 157 | 78 | 364 | 432 | 410 | 400 | 430 | 310 | | | |
| 14 | 350 | 333 | 569 | 360 | 309 | 209 | 78 | 407 | 476.5 | 470 | 445 | 480 | 360 | | | |
| 16 | 400 | 385 | 624 | 649 | 415 | 341 | 348 | 209 | 234 | 102 | 466 | 539.5 | 525 | 510 | 540 | 360 |
| 18 | 450 | 434 | 648 | 673 | 439 | 365 | 372 | 209 | 234 | 114 | 522 | 578 | 585 | 565 | 605 | 360 |
| 20 | 500 | 482 | 741 | 766 | 488 | 414 | 423 | 253 | 278 | 127 | 575 | 635 | 650 | 620 | 660 | 500 |
| 24 | 600 | 579 | 789 | 814 | 536 | 463 | 472 | 253 | 278 | 154 | 680 | 749.5 | 770 | 730 | 770 | 500 |

*: ASME 200 psi for size 2 to 12, 150 psi for size 14 to 24.

Lugged type **Lever Operated**

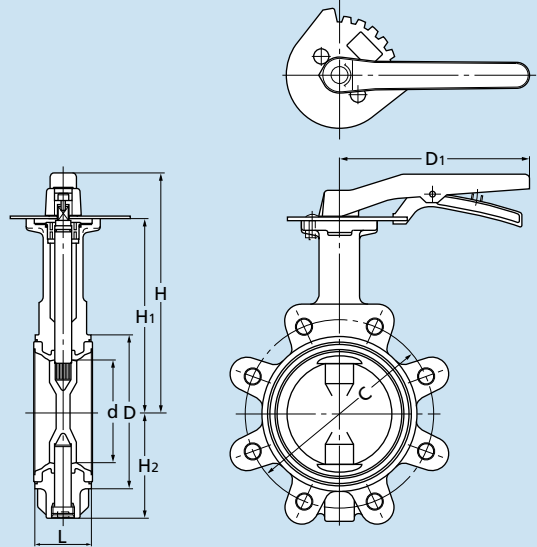
ASME 150/200 psi Design
200DJL □□

EN PN16 Design
PN16DJL □□

EN PN25 Design
PN25DJL □E

□□ of product coding
are disc and seat
material coding

Please refer to page 1.



ASME 200 psi • EN PN16 • EN PN25 Design Dimensions

(mm)

| Nominal Size | | d | H | H1 | H2 | L | D | C | | | D1 |
|--------------|-----|-----|-----|-----|-----|----|-----|----------|---------|---------|-----|
| inch | mm | | | | | | | ASME 200 | EN PN16 | EN PN25 | |
| 2 | 50 | 50 | 191 | 147 | 67 | 43 | 90 | 120.5 | 125 | 125 | 180 |
| 2½ | 65 | 65 | 199 | 155 | 75 | 46 | 104 | 139.5 | 145 | 145 | 180 |
| 3 | 80 | 80 | 217 | 173 | 91 | 46 | 124 | 152.5 | 160 | 160 | 180 |
| 4 | 100 | 100 | 227 | 183 | 101 | 52 | 146 | 190.5 | 180 | 190 | 180 |
| 5 | 125 | 125 | 265 | 211 | 127 | 56 | 176 | 216 | 210 | 220 | 230 |
| 6 | 150 | 150 | 277 | 223 | 139 | 56 | 206 | 241.5 | 240 | 250 | 230 |
| 8 | 200 | 197 | 295 | 248 | 169 | 60 | 257 | 298.5 | 295 | — | 350 |

*: EN PN25 is from DN50 to DN150.

*: EN PN25 is EPDM Seat only.

Lugged type Gear operated

ASME 150/200 psi Design

G-150/200DJL

EN PN16 Design

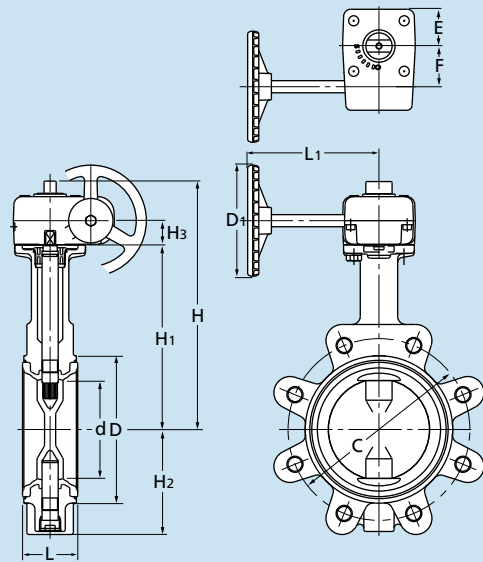
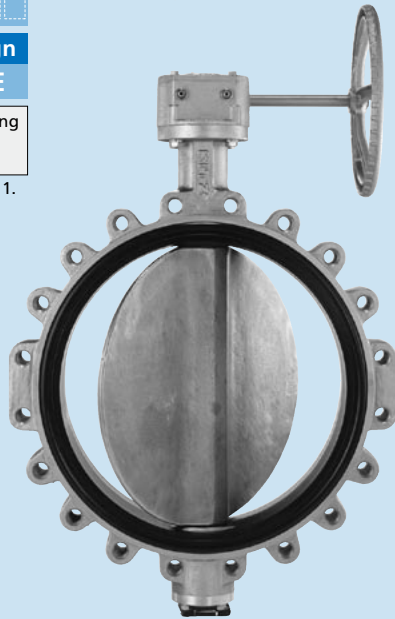
G-PN16DJL

EN PN25 Design

G-PN25DJ E

of product coding are disc and seat material coding

Please refer to page 1.



ASME 150/200 psi Design Dimensions (mm)

| Nominal Size | | d | H | H1 | H2 | H3 | L | D | C | D1 | L1 | E | F |
|--------------|-----|-----|-----|-----|-----|----|-----|-----|-------|-----|-----|----|----|
| inch | mm | | | | | | | | | | | | |
| 2 | 50 | 50 | 194 | 147 | 67 | 19 | 43 | 90 | 120.5 | 80 | 122 | 29 | 28 |
| 2½ | 65 | 65 | 202 | 155 | 75 | 19 | 46 | 104 | 139.5 | 80 | 122 | 29 | 28 |
| 3 | 80 | 80 | 236 | 173 | 91 | 24 | 46 | 124 | 152.5 | 110 | 135 | 36 | 40 |
| 4 | 100 | 100 | 246 | 183 | 104 | 24 | 52 | 146 | 190.5 | 110 | 135 | 36 | 40 |
| 5 | 125 | 125 | 274 | 211 | 127 | 24 | 56 | 176 | 216 | 110 | 150 | 36 | 40 |
| 6 | 150 | 150 | 286 | 223 | 139 | 24 | 56 | 206 | 241.5 | 110 | 150 | 36 | 40 |
| 8 | 200 | 197 | 325 | 248 | 169 | 32 | 60 | 257 | 298.5 | 170 | 180 | 51 | 63 |
| 10 | 250 | 246 | 381 | 304 | 219 | 32 | 68 | 312 | 362 | 170 | 180 | 51 | 63 |
| 12 | 300 | 295 | 406 | 329 | 244 | 32 | 78 | 364 | 432 | 170 | 180 | 51 | 63 |
| 14 | 350 | 334 | 447 | 360 | 309 | 47 | 78 | 407 | 476.5 | 310 | 220 | 54 | 66 |
| 16 | 400 | 385 | 502 | 415 | 341 | 47 | 102 | 466 | 539.5 | 310 | 220 | 54 | 66 |
| 18 | 450 | 434 | 526 | 439 | 365 | 47 | 114 | 522 | 578 | 310 | 220 | 54 | 66 |
| 20 | 500 | 482 | 587 | 488 | 414 | 60 | 127 | 575 | 635 | 500 | 360 | 68 | 89 |
| 24 | 600 | 579 | 635 | 536 | 463 | 60 | 154 | 680 | 749.5 | 500 | 360 | 68 | 89 |

*: ASME 200 psi for size 2 to 12, 150 psi for size 14 to 24.

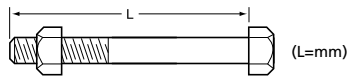
EN PN16 • EN PN25 Design Dimensions (mm)

| Nominal Size | | d | H | H1 | H2 | H3 | L | D | C | | D1 | L1 | E | F |
|--------------|-----|-----|-----|-----|-----|----|-----|-----|------|------|-----|-----|----|-----|
| inch | mm | | | | | | | | PN16 | PN25 | | | | |
| 2 | 50 | 50 | 194 | 147 | 67 | 19 | 43 | 90 | 125 | 125 | 80 | 122 | 29 | 28 |
| 2½ | 65 | 65 | 202 | 155 | 75 | 19 | 46 | 104 | 145 | 145 | 80 | 122 | 29 | 28 |
| 3 | 80 | 80 | 236 | 173 | 91 | 24 | 46 | 124 | 160 | 160 | 110 | 135 | 36 | 40 |
| 4 | 100 | 100 | 246 | 183 | 101 | 24 | 52 | 146 | 180 | 190 | 110 | 135 | 36 | 40 |
| 5 | 125 | 125 | 274 | 211 | 127 | 24 | 56 | 176 | 210 | 220 | 110 | 150 | 36 | 40 |
| 6 | 150 | 150 | 286 | 223 | 139 | 24 | 56 | 206 | 240 | 250 | 110 | 150 | 36 | 40 |
| 8 | 200 | 197 | 325 | 248 | 169 | 32 | 60 | 257 | 295 | 310 | 170 | 180 | 51 | 63 |
| 10 | 250 | 246 | 381 | 304 | 219 | 32 | 68 | 312 | 355 | 370 | 250 | 250 | 51 | 63 |
| 12 | 300 | 295 | 406 | 329 | 244 | 32 | 78 | 364 | 410 | 430 | 250 | 250 | 51 | 63 |
| 14 | 350 | 333 | 461 | 360 | 309 | 60 | 78 | 407 | 470 | — | 360 | 350 | 68 | 89 |
| 16 | 400 | 385 | 516 | 415 | 348 | 60 | 102 | 466 | 525 | — | 360 | 350 | 68 | 89 |
| 18 | 450 | 434 | 540 | 439 | 372 | 60 | 114 | 522 | 585 | — | 360 | 350 | 68 | 89 |
| 20 | 500 | 482 | 623 | 488 | 423 | 65 | 127 | 575 | 650 | — | 500 | 400 | 90 | 134 |
| 24 | 600 | 579 | 671 | 536 | 472 | 65 | 154 | 680 | 770 | — | 500 | 400 | 90 | 134 |

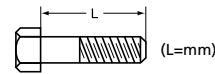
Bolting Data for Ductile Iron / Steel Flanges

Wafer type (Either type of below bolting is required)

Hexagon head bolt + Hexagon nut

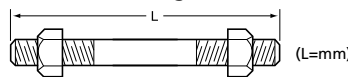


*Size 24" requires additional hexagon head bolts.

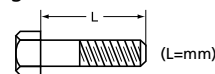


| Hexagon head bolt + Hexagon nut (mm) | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|-----|--------------------|-------------|--------|------|---------|--------|------|---------|--------|------|---------|--------|------|---------|--------|------|---------|--------|----|
| Flange | | ANSI Class 125/150 | | | | EN PN10 | | | EN PN16 | | | EN PN25 | | | JIS 10K | | | JIS 16K | | |
| inch | mm | Size | L (inch/mm) | Number | Size | L | Number | Size | L | Number | Size | L | Number | Size | L | Number | Size | L | Number | |
| 2 | 50 | 5/8 | 4.25 | 108 | 4 | M16 | 105 | 4 | M16 | 105 | 4 | M16 | 110 | 4 | M16 | 95 | 4 | M16 | 95 | 8 |
| 2 1/2 | 65 | 5/8 | 4.75 | 121 | 4 | M16 | 105 | 4 | M16 | 105 | 4 | M16 | 115 | 8 | M16 | 105 | 4 | M16 | 105 | 8 |
| 3 | 80 | 5/8 | 4.75 | 121 | 4 | M16 | 105 | 8 | M16 | 105 | 8 | M16 | 120 | 8 | M16 | 105 | 8 | M20 | 110 | 8 |
| 4 | 100 | 5/8 | 5.00 | 127 | 8 | M16 | 115 | 8 | M16 | 115 | 8 | M20 | 130 | 8 | M16 | 110 | 8 | M20 | 120 | 8 |
| 5 | 125 | 3/4 | 5.25 | 133 | 8 | M16 | 115 | 8 | M16 | 115 | 8 | M24 | 140 | 8 | M20 | 120 | 8 | M22 | 125 | 8 |
| 6 | 150 | 3/4 | 5.50 | 140 | 8 | M20 | 120 | 8 | M20 | 120 | 8 | M24 | 145 | 8 | M20 | 125 | 8 | M22 | 130 | 12 |
| 8 | 200 | 3/4 | 5.75 | 146 | 8 | M20 | 130 | 8 | M20 | 130 | 12 | M24 | 150 | 12 | M20 | 130 | 12 | M22 | 140 | 12 |
| 10 | 250 | 7/8 | 6.50 | 165 | 12 | M20 | 140 | 12 | M24 | 150 | 12 | M27 | 170 | 12 | M22 | 150 | 12 | M24 | 150 | 12 |
| 12 | 300 | 7/8 | 7.00 | 178 | 12 | M20 | 155 | 12 | M24 | 160 | 12 | M27 | 180 | 16 | M22 | 160 | 16 | M24 | 170 | 16 |
| 14 | 350 | 1 | 7.50 | 191 | 12 | M20 | 155 | 16 | M24 | 170 | 16 | — | — | — | M22 | 160 | 16 | M30X3 | 180 | 16 |
| 16 | 400 | 1 | 8.50 | 216 | 16 | — | — | — | M27 | 200 | 16 | — | — | — | M24 | 190 | 16 | M30X3 | 210 | 16 |
| 18 | 450 | 1 1/8 | 9.25 | 235 | 16 | — | — | — | M27 | 210 | 20 | — | — | — | M24 | 210 | 20 | M30X3 | 230 | 20 |
| 20 | 500 | 1 1/8 | 10.25 | 260 | 20 | — | — | — | M30 | 230 | 20 | — | — | — | M24 | 220 | 20 | M30X3 | 250 | 20 |
| 24 | 600 | 1 1/4 | 11.75 | 298 | 20 | — | — | — | M33 | 270 | 20 | — | — | — | M30 | 260 | 20 | M36X3 | 290 | 20 |
| | | | | | | | | | | | | | | | | 70* | 8* | | 90* | 8* |

Stud bolt + Hexagon nut



*Size 24" requires additional hexagon head bolts.

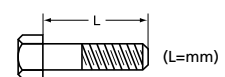


| Stud head bolt + Double hexagon nut (mm) | | | | | | | | | | | | | | | | | | | | |
|--|-----|--------------------|-------------|--------|------|---------|--------|------|---------|--------|------|---------|--------|------|---------|--------|------|---------|--------|----|
| Flange | | ANSI Class 125/150 | | | | EN PN10 | | | EN PN16 | | | EN PN25 | | | JIS 10K | | | JIS 16K | | |
| inch | mm | Size | L (inch/mm) | Number | Size | L | Number | Size | L | Number | Size | L | Number | Size | L | Number | Size | L | Number | |
| 2 | 50 | 5/8 | 5.00 | 127 | 4 | M16 | 125 | 4 | M16 | 125 | 4 | M16 | 130 | 4 | M16 | 115 | 4 | M16 | 120 | 8 |
| 2 1/2 | 65 | 5/8 | 5.25 | 133 | 4 | M16 | 130 | 4 | M16 | 130 | 4 | M16 | 140 | 8 | M16 | 120 | 4 | M16 | 120 | 8 |
| 3 | 80 | 5/8 | 5.25 | 133 | 4 | M16 | 130 | 8 | M16 | 130 | 8 | M16 | 150 | 8 | M16 | 120 | 8 | M20 | 140 | 8 |
| 4 | 100 | 5/8 | 5.75 | 146 | 8 | M16 | 135 | 8 | M16 | 135 | 8 | M20 | 150 | 8 | M16 | 130 | 8 | M20 | 140 | 8 |
| 5 | 125 | 3/4 | 6.25 | 159 | 8 | M16 | 140 | 8 | M16 | 140 | 8 | M24 | 160 | 8 | M20 | 45 | 8 | M22 | 150 | 8 |
| 6 | 150 | 3/4 | 6.50 | 165 | 8 | M20 | 145 | 8 | M20 | 145 | 8 | M24 | 170 | 8 | M20 | 150 | 8 | M22 | 160 | 12 |
| 8 | 200 | 3/4 | 6.75 | 171 | 8 | M20 | 155 | 8 | M20 | 150 | 12 | M24 | 180 | 12 | M20 | 155 | 12 | M22 | 160 | 12 |
| 10 | 250 | 7/8 | 7.50 | 191 | 12 | M20 | 170 | 12 | M24 | 170 | 12 | M27 | 200 | 12 | M22 | 170 | 12 | M24 | 180 | 12 |
| 12 | 300 | 7/8 | 8.00 | 203 | 12 | M20 | 185 | 12 | M24 | 190 | 12 | M27 | 210 | 16 | M22 | 180 | 16 | M24 | 190 | 16 |
| 14 | 350 | 1 | 8.75 | 222 | 12 | M20 | 185 | 16 | M24 | 190 | 16 | — | — | — | M22 | 180 | 16 | M30X3 | 210 | 16 |
| 16 | 400 | 1 | 9.75 | 248 | 16 | — | — | — | M27 | 220 | 16 | — | — | — | M24 | 220 | 16 | M30X3 | 240 | 16 |
| 18 | 450 | 1 1/8 | 10.75 | 273 | 16 | — | — | — | M27 | 240 | 20 | — | — | — | M24 | 230 | 20 | M30X3 | 260 | 20 |
| 20 | 500 | 1 1/8 | 11.50 | 292 | 20 | — | — | — | M30 | 260 | 20 | — | — | — | M24 | 250 | 20 | M30X3 | 280 | 20 |
| 24 | 600 | 1 1/4 | 13.25 | 337 | 20 | — | — | — | M33 | 300 | 20 | — | — | — | M30 | 290 | 20 | M36X3 | 320 | 20 |
| | | | | | | | | | | | | | | | | 70* | 8* | | 90* | 8* |

Lugged type

| Hexagon head bolt (mm) | | | | | | | | | | | | | | | | |
|------------------------|-----|--------------------|-------------|--------|------|---------|--------|------|---------|--------|------|---------|---------|--------|--|--|
| Flange | | ANSI Class 125/150 | | | | EN PN10 | | | EN PN16 | | | EN PN25 | | | | |
| inch | mm | Size | L (inch/mm) | Number | Size | L | Number | Size | L | Number | Size | Steel | Ductile | Number | | |
| | | | | | | | | | | | | L | | | | |
| 2 | 50 | 5/8 | 1.375 | 35 | 8 | M16 | 38 | 8 | M16 | 38 | 8 | M16 | 40 | 8 | | |
| 2 1/2 | 65 | 5/8 | 1.500 | 38 | 8 | M16 | 40 | 8 | M16 | 40 | 8 | M16 | 40 | 16 | | |
| 3 | 80 | 5/8 | 1.625 | 41 | 8 | M16 | 40 | 16 | M16 | 40 | 16 | M16 | 45 | 16 | | |
| 4 | 100 | 5/8 | 1.875 | 48 | 16 | M16 | 40 | 16 | M16 | 40 | 16 | M20 | 45 | 16 | | |
| 5 | 125 | 3/4 | 1.875 | 48 | 16 | M16 | 40 | 16 | M16 | 40 | 16 | M24 | 50 | 16 | | |
| 6 | 150 | 3/4 | 2.000 | 51 | 16 | M20 | 45 | 16 | M20 | 45 | 16 | M24 | 50 | 16 | | |
| 8 | 200 | 3/4 | 2.125 | 54 | 16 | — | — | — | M20 | 45 | 24 | M24 | 55 | 24 | | |
| 10 | 250 | 7/8 | 2.375 | 60 | 24 | — | — | — | M24 | 53 | 24 | M27 | 60 | 24 | | |
| 12 | 300 | 7/8 | 2.625 | 67 | 24 | — | — | — | M24 | 60 | 24 | M27 | 65 | 32 | | |
| 14 | 350 | 1 | 2.750 | 70 | 24 | — | — | — | M24 | 60 | 32 | — | — | — | | |
| 16 | 400 | 1 | 3.000 | 76 | 32 | — | — | — | M27 | 70 | 32 | — | — | — | | |
| 18 | 450 | 1 1/8 | 3.375 | 86 | 32 | — | — | — | M27 | 75 | 40 | — | — | — | | |
| 20 | 500 | 1 1/8 | 3.500 | 89 | 40 | — | — | — | M30 | 80 | 40 | — | — | — | | |
| 24 | 600 | 1 1/4 | 4.000 | 102 | 40 | — | — | — | M33 | 90 | 40 | — | — | — | | |

Hexagon head bolts.



Precautions for Trouble-free Operation of KITZ Butterfly Valves

Valve Selection

1. Ensure to select a valve with design specifications which meet the fluid type and the pressure and temperature conditions required.
2. Lubricants are applied to discs, rubber seats and PTFE seats as standard to protect their surfaces.
Oil-free treated types are available as option. Contact KITZ Corporation or its local distributors for the details.
3. Contact KITZ Corporation or its local distributors for service with pulverulent bodies.

Storage and Handling

Valves must be stored in dry, clean and corrosion-free environment with no direct exposure to the sun, leaving valves open by 10° for prevention of permanent distortion of resilient seats. Refrain from overloading valves and their actuators, such as storing them in piles or placing other objects on them.

Mounting on Pipelines

1. Valves must be mounted on flanges only after flanges have been welded to pipes and cooled down to the atmospheric temperature. Otherwise, welding heat may affect the quality of resilient seats.
2. Edges of welded flanges must be machined for smooth surface finish so that they may not damage resilient seats during valve mounting. Flange

faces must be free from damage or deformation, and be cleaned to remove rust or any other foreign objects so that there will be no concern of external leakage through valve and flange connections. Gaskets are not required for mounting KITZ DJ series butterfly valves.

3. Clean flanges and pipe bores to thoroughly remove welding spatters, scales and other foreign objects which may have been left inside.
4. Accurate centering of each couple of upstream and downstream pipes is essential for trouble-free operation of valves mounted between them. Incorrect centering shown in **Fig. 1** must be by all means avoided.
5. For valve mounting, set jack bolts under the pipes for flat support at the same height, and adjust the flange-to-flange distance so that some 6 mm to 10 mm room may be allowed beside the both sides of the valve body. Remember that valves here must be left open only by 10° from the fully closed position.
6. Set two bolts into the lower mounting guides of a valve and mount it carefully so that flange faces may not damage resilient seats. (**Fig. 2**)
7. Then set another two bolts into the upper mounting guides of a valve, ensuring the correct centering between pipes and the valve.
8. Trially open the valve to check to see if there is no disturbing contact between the valve disc and the flanges.
9. Remove the jack bolts, set all bolts around the valve body and tighten them alternately and diagonally till the flanges contact the valve body (**Fig. 3 and 4**).

Fig.1

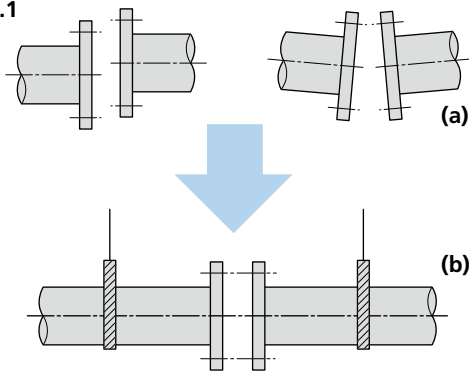


Fig.2

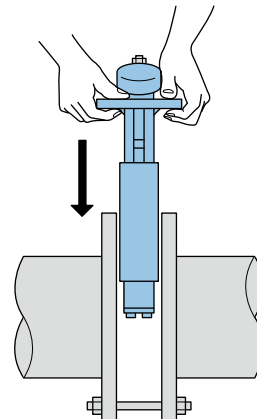


Fig.3

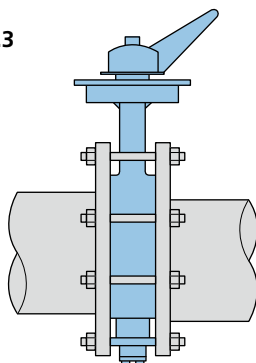
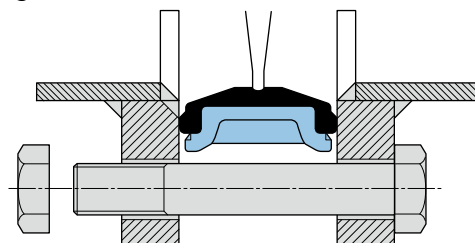


Fig.4



10. For mounting actuated valves, provide valve supports to prevent bending of valve necks and reduce valve and pipe vibration.
11. Don't step on valve necks or valve handwheels.
12. Don't mount valves of DN350 and larger with their operations upside down.
13. Don't mount butterfly valves directly to check valves or pumps, which may cause damage to them by the disc contacts.
14. Don't mount valves to downstream sides of elbows, reducers or regulating valves where fluid velocity changes. It is recommended to install valves approximately 10 times of the valve nominal sizes away from them for such cases.
15. Mount valves taking consideration of the effects which discs are given by fluid velocity or pressure changes in the pipings. Refer to the illustrations. **(Fig.5)**
Contact KITZ Corporation or its local distributors for the details.

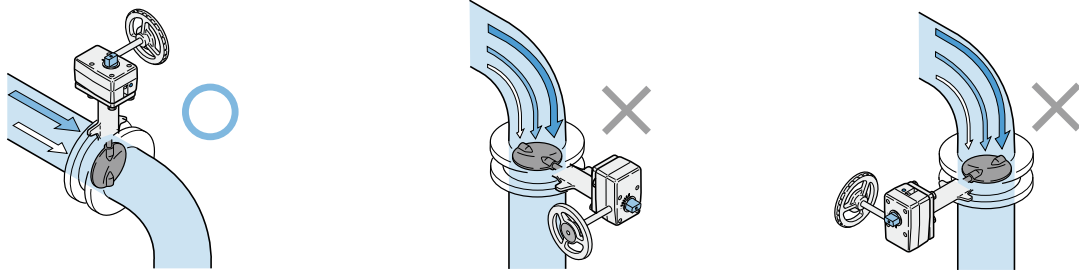
3. When valves need to be dismantled from pipes for maintenance or any other cause, ensure to thoroughly release the line pressure beforehand. Loosening piping bolts under line pressure causes a danger. Any residual fluid left inside the pipeline must be completely drained.
4. Users should contact KITZ Corporation or its local distributors for technical advice, when valves should be continuously pressurized while left open by 30% or less.
5. Don't use position indicators to operate valves, or overload position indicators. This may cause damage to indicators.
6. Ensure to use blind flanges when butterfly valves are mounted at the end of pipelines.
7. Standard actuators are referenced in this catalog for actuated valve operation. Contact KITZ Corporation or its local distributors for mounting optional actuators.
8. Contact KITZ Corporation for service at hopper or pump outlets.
9. Avoid touching gear operators and actuator stopper bolts accidentally.
10. It is recommended to perform periodical inspection for
 - Making sure of valve opening degree
 - Checking loosened bolts and leakage at each connection
 - Checking vibration and noise
11. Refer to instruction manual for other precautions. Also refer to actuator catalogs and instruction manuals for actuated valves.

Valve Operation

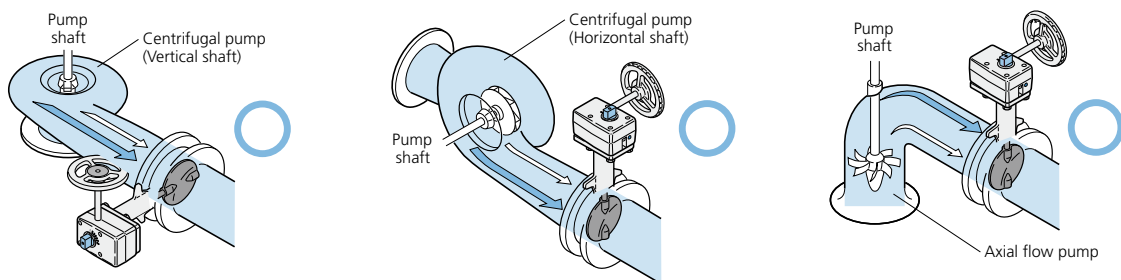
1. Valves equipped with manual operators such as levers, and handles of gears must be ONLY MANUALLY operated. Application of an excessive external force to operate valves may result in malfunction of valves and their operators.
2. Ensure to fully open valves before a loop test of the piping system is carried out with line pressure higher than the nominal pressure of tested valves.

Fig.5

● **Mounting to bent pipe**



● **Mounting to pump outlet**



Memo

A large grid of dotted lines for taking notes, covering most of the page below the 'Memo' header.

CAUTION

Pressure-temperature ratings and other performance data published in this catalog have been developed from our design calculation, in-house testing, field reports provided by our customers and/or published official standards or specifications. They are good only to cover typical applications as a general guideline to users of KITZ products introduced in this catalog.

For any specific application, users are kindly requested to contact KITZ Corporation for technical advice, or to carry out their own study and evaluation for proving suitability of these products to such an application. Failure to follow this request could result in property damage and/or personal injury, for which we shall not be liable.

While this catalog has been compiled with the utmost care, we assume no responsibility for errors, impropriety or inadequacy. Any information provided in this catalog is subject to from-time-to-time change without notice for error rectification, product discontinuation, design modification, new product introduction or any other cause that KITZ Corporation considers necessary. This edition cancels all previous issues.

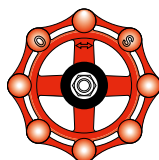
Read instruction manual carefully before use.

NOTICE

If any products designated as strategic material in the Foreign Exchange and Foreign Trade Law, Cabinet Order Concerning Control of Export Trade, Cabinet order Concerning Control of Foreign Exchange and other related laws and ordinances ("Foreign Exchange Laws") are exported to any foreign country or countries, an export license issued by the Japanese Government will be required under the Foreign Exchange Laws.

Further, there may be cases where an export license issued by the government of the United States or other country will be required under the applicable export-related laws and ordinances in such relevant countries.

The contract shall become effective subject to that a relevant export license is obtained from the Japanese Government.



*A chrysanthemum-handle is a symbol of KITZ,
the brand of valve reliability*

ISO 9001 certified since 1989

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Fax : 81-43-299-0121

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