

# XJ Series

Aluminum Butterfly Valves



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## XJ Series

KITZ XJ series aluminum butterfly valves: Featuring a unique style for the neck designs (U.S.P. No. 6676109) to accommodate various piping designs, piping positions, and installation environments.

### **Your choice of two neck designs :**

A long neck type and a short neck type are available for use in a variety of applications.

### **Easy valve-to-flange centering :**

The light weight of the die-cast aluminum valve body (which is only one third of the weight of KITZ's conventional cast-iron butterfly valves) eases valve-to-flange centering work on mounting valves on pipelines.

### **Wide range of service applications :**

Austenitic stainless steel discs and EPDM\* rubber seats can handle many different types of line fluid without risk of corrosion.

\*EPDM:ethylene propylene diene terpolymer

### **Stabilized operating torque :**

A pair of stem bearings assembled around the top and bottom stems prevents stem galling and stabilizes the valve operating torque for smooth and trouble-free disc rotation.

### **On-the-spot actuator assembly :**

The actuator mounting pads of all necks are designed in conformity with ISO 5211 requirements for direct on-site mounting of actuators that are provided with ISO 5211 valve mounting flanges.



### **Prevention of dew condensation (Long neck type) :**

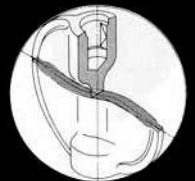
A long stainless steel neck blocks transfer of fluid heat to the valve operating device, so no insulation is needed on the operating device. Dew condensation is also minimized for gear-operated valves used in cold water service.

### **Rust prevention :**

The main parts such as the stems, discs, necks, neck connectors, and endplates and small parts such as stopper plates, washers, and boltings are all made of stainless steel for high-grade rust prevention.

### **S-shaped spherical disc for high sealing performance (patented) :**

KITZ's original cross-sectionally S-shaped valve discs with spherical surfaces make evenly tight contact with rubber liners for excellent sealing performance with reduced operating torque. Complete 360° shut-off mechanisms help to extend the service life of rubber liners. (Size:≥2 inches)



Short Neck



Long Neck



3ADG12

## Technical Specification

| Class                                  | JIS 10K  | Class 150                                 | PN16                |
|--|--|---|---------------------|
| Maximum service pressure               | 1 MPa  | 1 MPa                                     | 1.6 MPa<br>(16 bar) |
| Service temperature range*1            | -20°C to +120°C  |   |                     |
| Continuous service Temperature range*2 | -20°C to +100°C  |   |                     |
| Face-to-face dimension                 | API609, BS EN558 Basic Series20<br>ISO 5752-20, JIS B 2002 46 series |   |                     |
| Coupling flanges                       | JIS B 2220/<br>2239 10K  | ASME Class 150<br>JIS B 2220/<br>2239 10K | EN1092<br>PN16*3    |

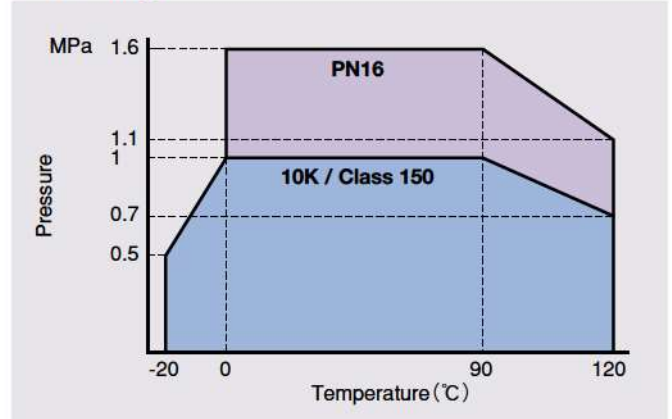
\*1 Condition: Fluid is not frozen.

\*2 Refer to P-T rating chart.

\*3 With centering sleeves.

Refer to the product range chart on page 3 and precautions on page 14 for details.

## P-T Rating

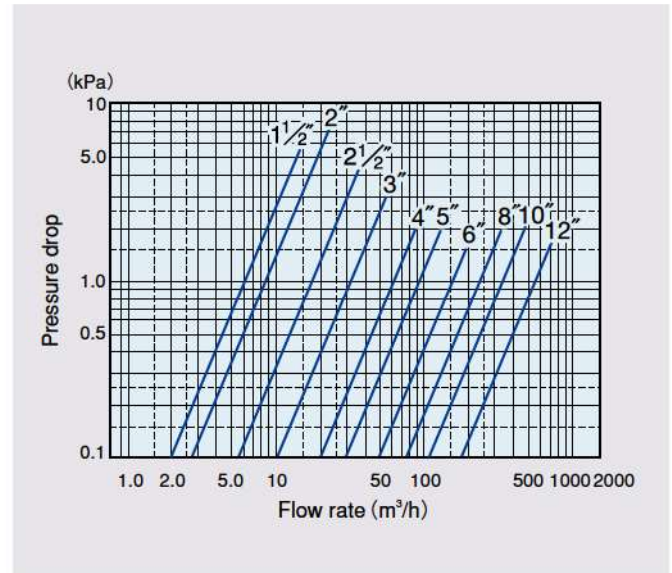


Note : Contact the KITZ Corporation for technical advice when service conditions may exceed the limits of the P-T rating range shown here.

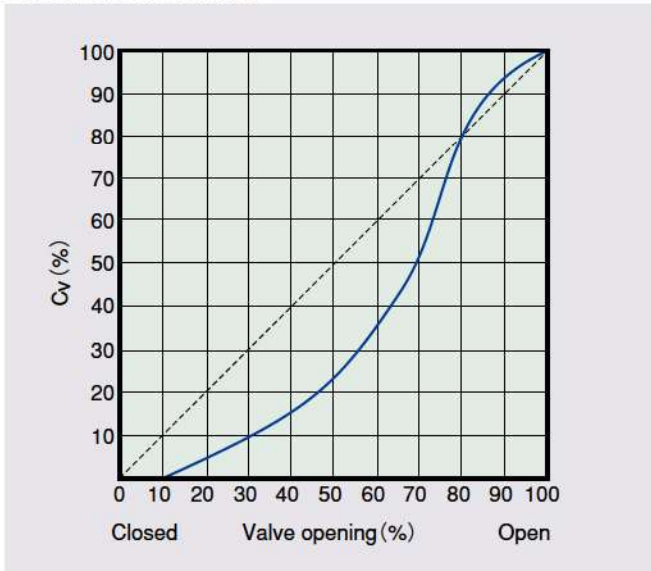
## Cv Value

| Valve size |      | Valve opening |
|------------|------|---------------|
| mm         | inch | 90°           |
| 40         | 1½   | 77            |
| 50         | 2    | 99            |
| 65         | 2½   | 205           |
| 80         | 3    | 372           |
| 100        | 4    | 723           |
| 125        | 5    | 1100          |
| 150        | 6    | 1820          |
| 200        | 8    | 2780          |
| 250        | 10   | 4350          |
| 300        | 12   | 6860          |

## Pressure Loss (for handling static clean water)



## Flow Characteristics



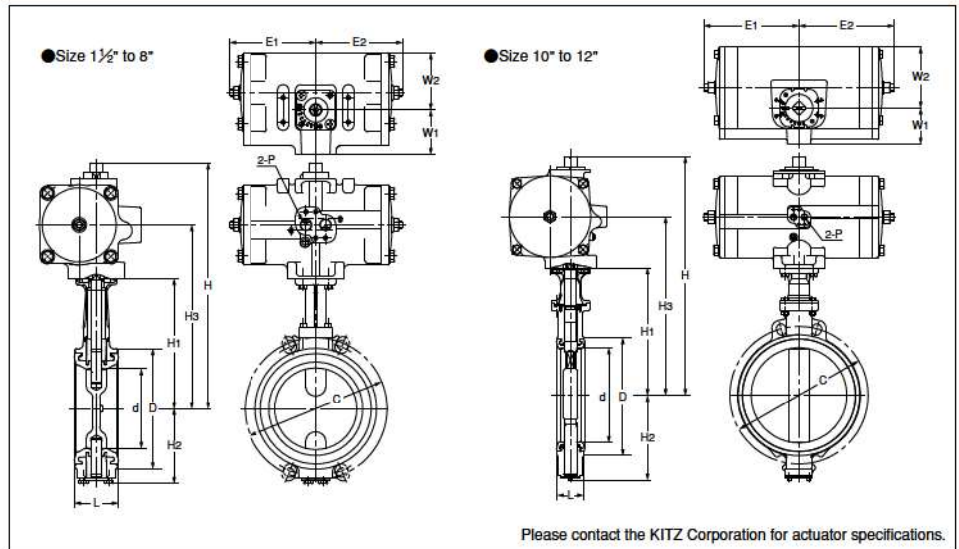
## Material

| Parts       | Material  |
|-------------|---|
| Body        | Aluminum Die-cast/Equivalent ASTM B85-84-383.0  |
| Neck        | 304 Stainless Steel   |
| Stem        | (Equivalent ASTM A276 Type 410)   |
| Disc        | A351 Gr. CF8M   |
| O-ring      | EPDM  |
| Rubber seat | EPDM  |
| Bottom stem | (Equivalent ASTM A276 Type 410)   |
| Bearing     | Metal Backed PTFE (Size 10" and 12")<br>Polyphenylenesulfide (10XJMEA : Size 1½" to 8")<br>Bronze : CAC401 (PN16XJME : Size 2" to 8") |

## Long Neck Type

## Pneumatically Operated - Double Action Actuator

FA-10XJME (Size: "1½" to "12")  
FA-10XJMEA (Size: "2" to "10")\*



### Dimensions

unit: mm

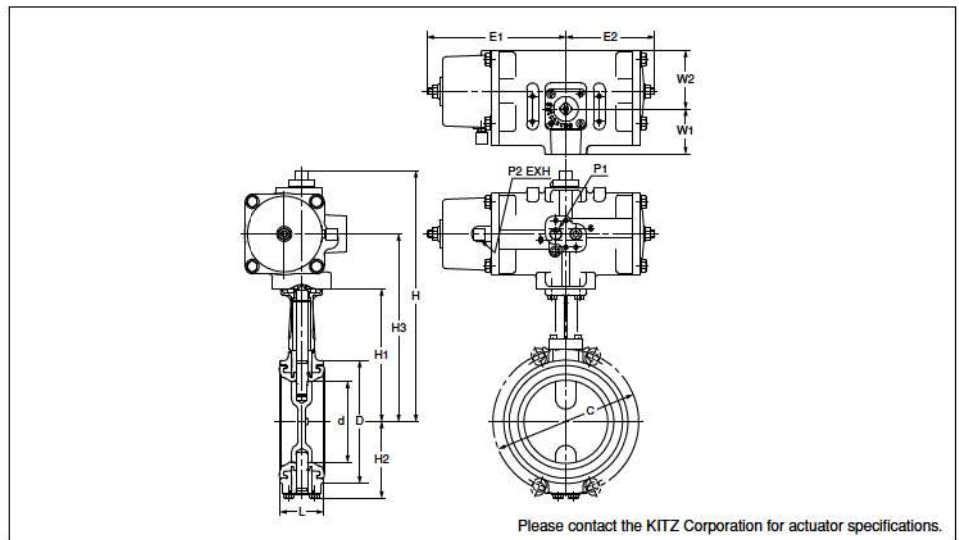
| Size |      | d   | H   | H1  | H2  | H3  | L  | D   | C   |          | Actuator |     |     |     |     |      |
|------|------|-----|-----|-----|-----|-----|----|-----|-----|----------|----------|-----|-----|-----|-----|------|
| mm   | inch |     |     |     |     |     |    |     | 10K | Class150 | E1       | E2  | W1  | W2  | P   | Type |
| 40   | 1½   | 40  | 251 | 128 | 40  | 181 | 33 | 80  | 105 | —        | 87       | 87  | 50  | 54  | Rc¼ | FA-1 |
| 50   | 2    | 50  | 255 | 132 | 66  | 185 | 43 | 93  | 120 | 120.5    | 87       | 87  | 50  | 54  | Rc¼ | FA-1 |
| 65   | 2½   | 65  | 287 | 141 | 74  | 207 | 46 | 118 | 140 | 139.5    | 107      | 107 | 54  | 70  | Rc¼ | FA-2 |
| 80   | 3    | 80  | 295 | 149 | 83  | 215 | 46 | 129 | 150 | 152.5    | 107      | 107 | 54  | 70  | Rc¼ | FA-2 |
| 100  | 4    | 100 | 306 | 160 | 94  | 226 | 52 | 149 | 175 | 190.5    | 107      | 107 | 54  | 70  | Rc¼ | FA-2 |
| 125  | 5    | 125 | 357 | 195 | 122 | 271 | 56 | 184 | 210 | 216      | 128      | 128 | 57  | 87  | Rc¼ | FA-3 |
| 150  | 6    | 150 | 369 | 207 | 135 | 283 | 56 | 214 | 240 | 241.5    | 128      | 128 | 57  | 87  | Rc¼ | FA-3 |
| 200  | 8    | 196 | 435 | 234 | 161 | 327 | 60 | 258 | 290 | 298.5    | 160      | 160 | 68  | 111 | Rc¼ | FA-4 |
| 250  | 10   | 245 | 573 | 328 | 238 | 441 | 68 | 316 | 355 | 362      | 208      | 208 | 78  | 135 | Rc¼ | FA-5 |
| 300  | 12   | 295 | 627 | 353 | 263 | 475 | 78 | 367 | 400 | —        | 268      | 268 | 101 | 178 | Rc¼ | FA-6 |

\* JIS 10K and ASME Class 150. Refer to Page 3 for details.

## Long Neck Type

## Pneumatically Operated - Spring Return Action Actuator

FAS-10XJME (Size: "1½" to "8")  
FAS-10XJMEA (Size: "2" to "8")\*



### Dimensions

unit: mm

| Size |      | d   | H   | H1  | H2  | H3  | L  | D   | C   |          | Actuator |     |     |     |     |     |       |
|------|------|-----|-----|-----|-----|-----|----|-----|-----|----------|----------|-----|-----|-----|-----|-----|-------|
| mm   | inch |     |     |     |     |     |    |     | 10K | Class150 | E1       | E2  | W1  | W2  | P1  | P2  | Type  |
| 40   | 1½   | 40  | 274 | 128 | 40  | 194 | 33 | 80  | 105 | —        | 166      | 107 | 54  | 70  | Rc¼ | Rc⅛ | FAS-2 |
| 50   | 2    | 50  | 278 | 132 | 66  | 198 | 43 | 93  | 120 | 120.5    | 166      | 107 | 54  | 70  | Rc¼ | Rc⅛ | FAS-2 |
| 65   | 2½   | 65  | 303 | 141 | 74  | 217 | 46 | 118 | 140 | 139.5    | 203      | 128 | 57  | 87  | Rc¼ | Rc⅛ | FAS-3 |
| 80   | 3    | 80  | 311 | 149 | 83  | 225 | 46 | 129 | 150 | 152.5    | 203      | 128 | 57  | 87  | Rc¼ | Rc⅛ | FAS-3 |
| 100  | 4    | 100 | 364 | 160 | 94  | 256 | 52 | 149 | 175 | 190.5    | 290      | 160 | 68  | 111 | Rc¼ | Rc⅛ | FAS-4 |
| 125  | 5    | 125 | 396 | 195 | 122 | 288 | 56 | 184 | 210 | 216      | 290      | 160 | 68  | 111 | Rc¼ | Rc⅛ | FAS-4 |
| 150  | 6    | 150 | 453 | 207 | 135 | 320 | 56 | 214 | 240 | 241.5    | 363      | 208 | 78  | 135 | Rc¼ | Rc⅛ | FAS-5 |
| 200  | 8    | 196 | 508 | 234 | 161 | 359 | 60 | 258 | 290 | 298.5    | 483      | 268 | 101 | 178 | Rc¼ | Rc⅛ | FAS-6 |

\* JIS 10K and ASME Class 150. Refer to Page 3 for details.