



## CI BUTTERFLY VALVE LUG SS DISC L/O JIS 10K

Lug Type Resilient Seated Butterfly Valve · Cast Iron Body, Stainless steel 316 Disc · Lever operated

BRAND: SW FLOW CONTROLS

SKU: SW-0394

SIZE 2" TO 12"

JIS 10K DRILLED



FIG. 1 | CI BUTTERFLY VALVE, LUG TYPE, LEVER OPERATED

### PRODUCT OVERVIEW

The SWBM CI Butterfly Valve Lug Type is a quarter turn, concentric resilient seated valve for isolation and coarse regulation of water, oil and gas lines. The cast iron body carries threaded lugs on the full bolt circle, so the valve bolts independently to each flange and the downstream pipework can be removed without breaking the line.

The stainless steel 316 disc runs on a one piece stainless steel shaft supported in bronze bushings, and the elastomer seat forms a bi-directional bubble tight shut off against the disc edge while sealing the flange faces at the same time, so no separate gaskets are needed. Lever operation is fitted as standard and the ISO 5211 top flange accepts a pneumatic or electric actuator without an adaptor.

|                 |                                           |
|-----------------|-------------------------------------------|
| Valve type      | Lug type butterfly valve, concentric      |
| Operation       | Manual, 90° lever with notch plate        |
| Body material   | Cast iron, ASTM A126 Class B              |
| Disc material   | Stainless steel 316, ASTM A351 CF8M       |
| End connection  | Lug body, drilled JIS 10K                 |
| Pressure rating | 10 kgf/cm <sup>2</sup> (0.98 MPa, 10 bar) |

### TECHNICAL SPECIFICATION

|                 |                                 |                   |                                           |
|-----------------|---------------------------------|-------------------|-------------------------------------------|
| Design standard | BS EN 593 / MSS SP-67 / API 609 | Seat test         | 1.1 x rated pressure, bubble tight        |
| Face to face    | ISO 5752 / BS 5155              | Working pressure  | 10 kgf/cm <sup>2</sup> (0.98 MPa, 10 bar) |
| Flange drilling | JIS B 2220, 10K                 | Shaft             | Stainless steel 410, ASTM A276 S41000     |
| Top flange      | ISO 5211, F07 and F10           | Seat              | EPDM standard, NBR on request             |
| Testing         | API 598 / EN 12266-1            | Working medium    | Water, oil and gas                        |
| Shell test      | 1.5 x rated pressure            | Temperature range | -20°C to +110°C (EPDM seat)               |



## PRODUCT DATA SHEET

CI BUTTERFLY VALVE LUG SS DISC L/O JIS 10K  
Ref. SW-0394 | Rev. 01

### BILL OF MATERIALS

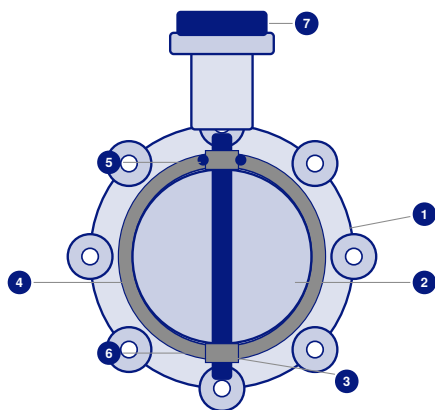


FIG. 2 | SECTIONAL ARRANGEMENT

| # | COMPONENT | MATERIAL                              |
|---|-----------|---------------------------------------|
| 1 | Body      | Cast iron, ASTM A126 Class B          |
| 2 | Disc      | Stainless steel 316, ASTM A351 CF8M   |
| 3 | Shaft     | Stainless steel 410, ASTM A276 S41000 |
| 4 | Seat      | EPDM (NBR on request)                 |
| 5 | Bushing   | Bronze, ASTM B62 C83600               |
| 6 | O-ring    | NBR                                   |
| 7 | Operator  | Lever with notch plate, steel         |

Ductile iron body to ASTM A536 Gr. 65-45-12, and bronze, SS304 or SS316 discs, can be supplied against enquiry. Shaft in SS431 to ASTM A276 S43100 is available as an alternative.

### DIMENSIONS AND WEIGHTS

| SIZE   | DN  | BODY OD | BORE | L  | H   | H1   | H2    | PCD | BOLTS | BOLT SIZE | WEIGHT (KG) |
|--------|-----|---------|------|----|-----|------|-------|-----|-------|-----------|-------------|
| 2"     | 50  | 100     | 52   | 43 | 235 | 72.5 | 130.5 | 120 | 4     | M16       | 4.1         |
| 2.1/2" | 65  | 112     | 65   | 46 | 237 | 75.5 | 129.5 | 140 | 4     | M16       | 5.5         |
| 3"     | 80  | 126     | 80   | 46 | 255 | 82   | 143   | 150 | 8     | M16       | 6.8         |
| 4"     | 100 | 153     | 100  | 52 | 292 | 99.5 | 160.5 | 175 | 8     | M16       | 8.6         |
| 5"     | 125 | 182     | 125  | 56 | 317 | 111  | 177   | 210 | 8     | M20       | 10.5        |
| 6"     | 150 | 210     | 150  | 56 | 357 | 134  | 191   | 240 | 8     | M20       | 12.5        |
| 8"     | 200 | 255     | 198  | 60 | 412 | 163  | 217   | 290 | 12    | M20       | 21.4        |
| 10"    | 250 | 328     | 248  | 68 | 519 | 218  | 267   | 355 | 12    | M22       | 29.3        |
| 12"    | 300 | 374     | 298  | 78 | 588 | 249  | 295   | 400 | 16    | M22       | 44.0        |

All dimensions in mm. L = face to face, H = overall height, h1 = centreline to top of body neck, h2 = centreline to top of operator, PCD = flange bolt circle diameter. Top flange to ISO 5211 is F07 for 2" to 8" and F10 for 10" and 12". Dimensions and weights are nominal and are given for guidance only. Size 1.1/2" (DN40) and sizes above 12" are offered against enquiry. Certified drawings for the supplied make and size are issued on request.

### ORDERING INFORMATION

| FIELD           | OPTIONS                                         |
|-----------------|-------------------------------------------------|
| Product code    | SW-0394                                         |
| Size            | 2", 2.1/2", 3", 4", 5", 6", 8", 10", 12"        |
| Body            | Cast iron, ASTM A126 Class B                    |
| Disc            | Stainless steel 316, ASTM A351 CF8M             |
| Seat            | EPDM standard. NBR on request                   |
| Operation       | Manual, 90° lever with 10 position notch plate  |
| Flange drilling | JIS 10K                                         |
| Order example   | SW-0394 / 4" / JIS 10K / SS DISC / EPDM / LEVER |

Stock held in Dubai for fast despatch across the UAE and GCC. Contact our sales desk for pricing, availability, project quantities and certification requirements.



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### PRESSURE AND TEMPERATURE

|                        |                                                 |
|------------------------|-------------------------------------------------|
| Working pressure       | <b>10 kgf/cm<sup>2</sup> (0.98 MPa, 10 bar)</b> |
| Shell test             | <b>1.5 x rated pressure</b>                     |
| Seat test              | <b>1.1 x rated pressure, bubble tight</b>       |
| Temperature, EPDM seat | <b>-20°C to +110°C</b>                          |
| Temperature, NBR seat  | <b>-10°C to +80°C</b>                           |

Ratings apply to cold, non-shock service and to a valve installed between two flanges. The dead end service rating of the lug body is lower than the line rating, confirm the figure with SWBM before specifying the valve for dead end duty.

### TYPICAL APPLICATIONS

- Water treatment and distribution networks
- HVAC chilled water and condenser cooling circuits
- Fire protection ring mains and pump rooms
- Irrigation, pumping stations and district cooling
- Marine and offshore deck service lines
- General industrial process and utility piping

### COMPLIANCE AND QUALITY

- Design in accordance with BS EN 593 and MSS SP-67
- Face to face to ISO 5752 and BS 5155
- Flange drilling to JIS B 2220, 10K
- Actuator mounting flange to ISO 5211
- Pressure testing to API 598 / EN 12266-1
- 100% shell and seat tested prior to despatch
- Material test certificate EN 10204 3.1 on request

### INSTALLATION AND OPERATION

- Flush the line thoroughly before installation to clear weld slag, sand and debris
- Install with the disc almost closed, then open it fully once the flange bolts are tight
- Do not fit flange gaskets, the resilient seat faces seal against the flanges
- Check that the disc clears the pipe bore over its full travel before pressurising
- Tighten the flange bolts evenly in a diagonal sequence to avoid distorting the seat
- The valve is fully open when the lever is in line with the pipe, and fully closed at 90°
- Operate the valve periodically to stop the seat bonding to the disc in low use lines

#### COMPANY

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#### SALES ENQUIRIES

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Brand: SW Flow Controls

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