



# SS316 CHECK VALVE CL150 FLANGE TYPE

Bolted Cover Swing Check Valve · Stainless Steel 316 · Non-Return

BRAND: SW FLOW CONTROLS

SKU: P-0058

SIZE 2" TO 4"

ASME CLASS 150 RF



FIG. 1 | SS316 SWING CHECK VALVE CL150, FLANGED RF

## PRODUCT OVERVIEW

The SWBM SS316 Check Valve CL150 Flange Type is a swing type non-return valve. Flow in the forward direction lifts the hinged disc off its seat, and the disc closes automatically under reverse flow and its own weight, protecting pumps and equipment from backflow.

Body, cover, disc, hinge and seat ring are cast in ASTM A351 CF8M stainless steel. The bolted cover with a 316 stainless and graphite gasket gives a secure joint and allows internal inspection without removing the valve from the line. Flanged ends suit ASME B16.5 Class 150 raised face pipework.

|                 |                                  |
|-----------------|----------------------------------|
| Valve type      | Swing check valve, bolted cover  |
| Operation       | Automatic, flow actuated         |
| Body material   | ASTM A351 CF8M (SS316)           |
| End connection  | Flanged, ASME B16.5 Class 150 RF |
| Pressure rating | ASME Class 150                   |
| Size range      | 2" to 4" (DN50 to DN100)         |

## TECHNICAL SPECIFICATION

|                 |                         |                   |                         |
|-----------------|-------------------------|-------------------|-------------------------|
| Design standard | ASME B16.34             | Seat test         | 2.2 MPa (22 bar), water |
| Face to face    | ASME B16.10             | Air seat test     | 0.6 MPa (6 bar)         |
| Flange standard | ASME B16.5 Class 150 RF | Temperature range | -29°C to +425°C         |
| P-T rating      | ASME B16.34             | Suitable media    | Water, steam, oil       |
| Testing         | API 598                 | Disc              | Swing, metal seated     |
| Shell test      | 3.0 MPa (30 bar), water | Cover             | Bolted                  |

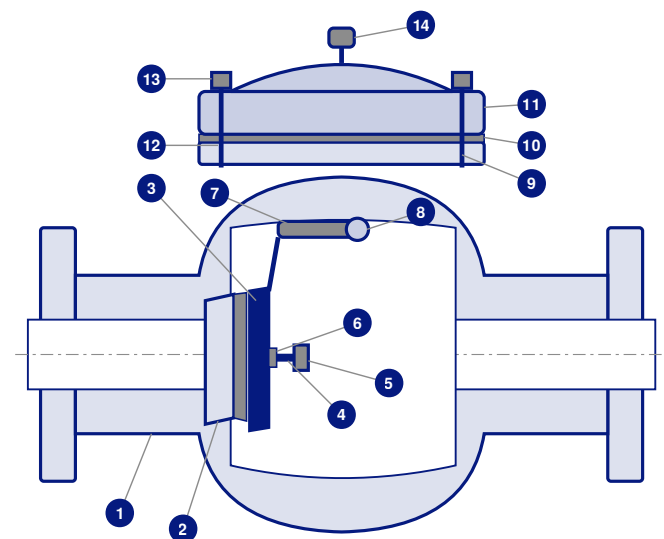
**BILL OF MATERIALS**


FIG. 2 | SECTIONAL ARRANGEMENT (SCHEMATIC)

| #  | COMPONENT      | MATERIAL               |
|----|----------------|------------------------|
| 1  | Body           | ASTM A351 CF8M (SS316) |
| 2  | Seat ring      | ASTM A351 CF8M (SS316) |
| 3  | Disc           | ASTM A351 CF8M (SS316) |
| 4  | Disc pin       | SS316                  |
| 5  | Disc nut       | SS316                  |
| 6  | Washer         | SS316                  |
| 7  | Hinge          | ASTM A351 CF8M (SS316) |
| 8  | Hinge pin      | SS316                  |
| 9  | Bolt           | ASTM A193 B8M          |
| 10 | Cover gasket   | SS316 + graphite       |
| 11 | Cover (bonnet) | ASTM A351 CF8M (SS316) |
| 12 | Cover stud     | SS316                  |
| 13 | Cover nut      | SS316                  |
| 14 | Eye screw      | Stainless steel        |

Arrow cast on the body indicates flow direction.

**DIMENSIONS AND WEIGHTS**

| SIZE   | DN  | BORE | L   | H   | D   | T  | G   | C     | BOLT HOLES |
|--------|-----|------|-----|-----|-----|----|-----|-------|------------|
| 2"     | 50  | 50   | 203 | 161 | 152 | 16 | 92  | 120.5 | 4 x Ø19    |
| 2.1/2" | 65  | 65   | 216 | 175 | 178 | 18 | 105 | 139.5 | 4 x Ø19    |
| 3"     | 80  | 80   | 241 | 190 | 190 | 19 | 127 | 152.5 | 4 x Ø19    |
| 4"     | 100 | 100  | 292 | 203 | 229 | 24 | 157 | 190.5 | 8 x Ø19    |
| 5"     | 125 | 125  | 330 | 229 | 254 | 24 | 186 | 216   | 8 x Ø22    |
| 6"     | 150 | 150  | 356 | 257 | 279 | 26 | 216 | 241.5 | 8 x Ø22    |
| 8"     | 200 | 200  | 495 | 292 | 343 | 29 | 270 | 298.5 | 8 x Ø22    |

All dimensions in mm. Bore = nominal bore, L = face to face, H = centreline to top of cover, D = flange OD, t = flange thickness, G = raised face OD, C = bolt circle. Dimensions are nominal and are given for guidance only. Certified drawings and weights for the supplied size are issued on request. Sizes 2.1/2", 5", 6" and 8" are offered against enquiry.

**ORDERING INFORMATION**

| FIELD          | OPTIONS                                      |
|----------------|----------------------------------------------|
| Product code   | P-0058                                       |
| Size           | 2", 3", 4". Other sizes on enquiry           |
| End connection | Flanged, ASME B16.5 Class 150 RF             |
| Body material  | ASTM A351 CF8M (SS316)                       |
| Type           | Swing, bolted cover                          |
| Order example  | <b>P-0058 / 3" / CL150 RF / CF8M / SWING</b> |

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



## PRODUCT DATA SHEET

SS316 CHECK VALVE CL150 FLANGE TYPE

Ref. P-0058 | Rev. 01

### PRESSURE AND TEMPERATURE

|                 |                                 |
|-----------------|---------------------------------|
| Class 150, CF8M | <b>19.0 bar at -29 to +38°C</b> |
| Class 150, CF8M | <b>16.2 bar at +100°C</b>       |
| Class 150, CF8M | <b>13.7 bar at +200°C</b>       |
| Class 150, CF8M | <b>10.2 bar at +300°C</b>       |
| Class 150, CF8M | <b>5.5 bar at +425°C</b>        |

Body ratings to ASME B16.34 Class 150 for CF8M. Maximum service temperature +425°C as stated by the manufacturer. Swing check valves need a minimum forward flow to hold the disc fully open. Confirm duty with SWBM for pulsating flow.

### TYPICAL APPLICATIONS

- Pump discharge lines
- Water distribution and treatment
- Steam and condensate lines
- Oil and gas pipelines
- Chemical and petrochemical plant
- General industrial process piping

### COMPLIANCE AND QUALITY

- Design and manufacture to ASME B16.34
- Face to face dimensions to ASME B16.10
- Flanged ends to ASME B16.5 Class 150 RF
- Pressure testing to API 598
- Cast stainless steel body, cover and disc to ASTM A351 CF8M
- Material test certificate EN 10204 3.1 on request
- Flow direction arrow on body

### INSTALLATION AND OPERATION

- Flush the line thoroughly before installation to clear weld slag, scale and debris
- Check that mating flanges are Class 150 RF, aligned and parallel, with no pipe strain on the valve
- Use new gaskets suitable for the service and tighten flange bolts evenly in a cross pattern
- Install with the body arrow pointing in the direction of flow
- Install in horizontal lines with the cover on top, or in vertical lines with upward flow only
- Allow at least 5 pipe diameters of straight pipe after pumps and elbows

#### COMPANY

**Sunel Wala Building Materials**  
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#### SALES ENQUIRIES

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Brand: SW Flow Controls

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