



Swing Check Valves Type Bolted Cover
Class 150 DN 50-900 (2" – 36")
 Carbon, Alloy and Stainless Steel

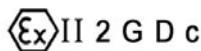


Fig. VR150BC

Design:

BS 1868 & API 6D / ISO 14313

ASME B16.34 and MSS SP- 42

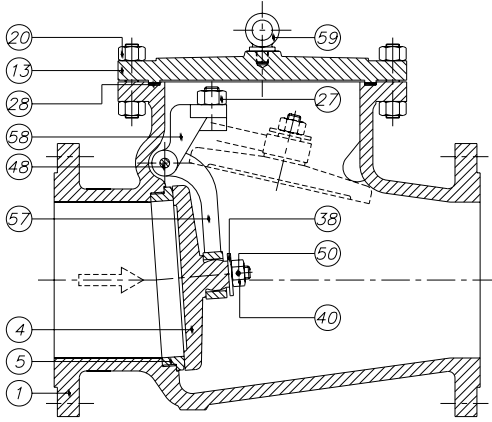




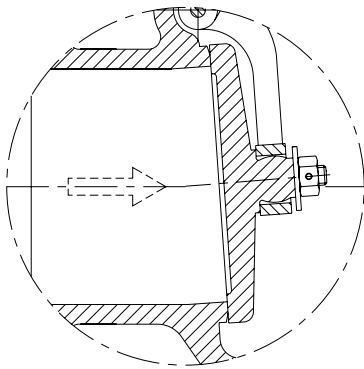
Swing Check Valves Class 150

Type Bolted Cover

Parts and materials



Stainless Steel Construction



Trim Material

| API 600 Trim No. | Nominal Trim | Stem / Backseat ⁽¹⁾ | Seating Surface Body / Wedge |
|------------------|------------------------|--------------------------------|------------------------------|
| 1 | F6 | 13Cr | 13Cr |
| 2 | 304 | 18Cr-8Ni | 18Cr-8Ni |
| 3 | F310 | 25Cr-20Ni | 25Cr-20Ni |
| 4 | Hard F6 | 13Cr | Hard 13Cr |
| 5 | Hardfaced | 13Cr | Co-Cr A (2) |
| 5A | Hardfaced | 13Cr | Ni-Cr |
| 6 | F6 and Cu-Ni | 13Cr | 13Cr and Cu-Ni |
| 7 | F6 and Hard F6 | 13Cr | 13Cr and Hard 13Cr |
| 8 | F6 and Hardfaced | 13Cr | 13Cr and Co-Cr A (2) |
| 8A | F6 and Hardfaced | 13Cr | 13Cr and Ni-Cr |
| 9 | Monel | Ni-Cu Alloy | Ni-Cu Alloy |
| 10 | 316 | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo |
| 11 | Monel and Hardfaced | Ni-Cu Alloy | Ni-Cu Alloy and Trim 5 or 5A |
| 12 | 316 and Hardfaced | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo and Trim 5 or 5A |
| 13 | Alloy 20 | 19Cr-29Ni | 19Cr-29Ni |
| 14 | Alloy 20 and Hardfaced | 19Cr-29Ni | 19Cr-29Ni and Trim 5 or 5A |
| 15 | Hardfaced | 18Cr-8Ni | Co-Cr A (2) |
| 16 | Hardfaced | 18Cr-8Ni-Mo | Co-Cr A (2) |
| 17 | Hardfaced | 18Cr-10Ni-Cb | Co-Cr A (2) |
| 18 | Hardfaced | 19Cr-29Ni | Co-Cr A (2) |

(1) „and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

| Item | Description | Material of construction** | | | |
|------|--------------------|----------------------------|------------------------------|---------------------------|------------------------------|
| | | Carbon Steel | Carbon Steel (Low Temp.) | Alloy Steel | Stainless Steel |
| 1 | Body | A 216 Gr.WCB | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 4 | Disc | A105 + ER 410 | A 182 Gr.F304 | A 182 Gr.F6a | A 182 Gr.F316 |
| 5 | Seat Ring | A105 + Stellite | A 182 Gr.F304 | A 182 Gr.F6a + Stellite | ----- |
| 13 | Cover | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB / A 182 Gr.F304 | A 217 Gr.C5 | A 351 Gr.CF8M |
| 20 | Cover Bolt & Nut | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H(3) |
| 27 | Bracket Stud & Nut | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8M / A 194 Gr.8M |
| 28 | Gasket | S.S. 304 / Graphite | S.S. 304 / Graphite | S.S. 304 / Graphite | S.S. 316 / Graphite |
| 38 | Washer | AISI 410 | AISI 304 | AISI 410 | AISI 316 |
| 40 | Disc Nut | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 48 | Hinge Pin * | A 182 Gr.F6a | A182 Gr.F304 | A182 Gr.F6a | A 182 Gr.F316 |
| 50 | Split Pin | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 57 | Hinge | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 58 | Hinge Bracket | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 59 | Lifting Hook | A105 | A105 | A105 | A105 |

(3) Zinc coating

* It's also manufactured with Hinge Pin Passing through Body with Plug

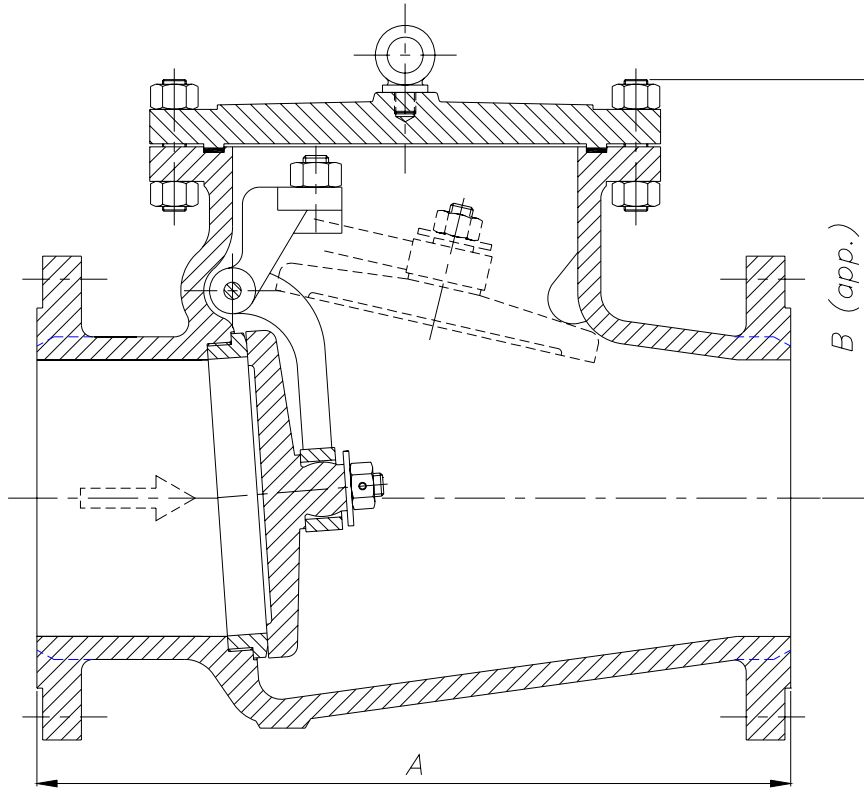
** Standard constructions with Trim 8, 2 and 10, other options are available



Swing Check Valves Class 150

Type Bolted Cover

Dimensions



| DN | A (RF/BW) | B | WEIGHT |
|-----------|-----------|------|--------|
| 50 (2") | 203 | 135 | 17 |
| 65 (2½") | 216 | 155 | 21 |
| 80 (3") | 241 | 168 | 29 |
| 100 (4") | 292 | 235 | 42 |
| 125 (5") | 330 | 249 | 59 |
| 150 (6") | 356 | 277 | 68 |
| 200 (8") | 495 | 339 | 118 |
| 250 (10") | 622 | 398 | 197 |
| 300 (12") | 698 | 525 | 302 |
| 350 (14") | 787 | 553 | 372 |
| 400 (16") | 864 | 584 | 570 |
| 450 (18") | 978 | 668 | 665 |
| 500 (20") | 978 | 712 | 900 |
| 550 (22") | 1067 | 725 | 1100 |
| 600 (24") | 1295 | 740 | 1359 |
| 650 (26") | 1295 | 780 | 1850 |
| 700 (28") | 1448 | 810 | 2000 |
| 750 (30") | 1524 | 1050 | 2400 |
| 900 (36") | 1956 | 1390 | 3380 |

(*) Dimensions in mm and weight in kg
For other sizes consult to the technical department.



® Swing Check Valves Class 150

Type Bolted Cover

General Characteristics, Cv, P&T Rating

| GENERAL CHARACTERISTICS | Fig. VR150BC | | |
|-------------------------------|---------------------------------|-------------|------------|
| DESIGN STANDARDS | | | |
| Valves design | BS 1868 & API 6D | ASME B16.34 | MSS SP- 42 |
| End to End Dimensions | ASME B16.10 & ISO 5752 | | |
| Flanged Dimensions | ASME B16.5 & ISO 7005-1 Part. 1 | BS 3293 | MSS SP-44 |
| Butt weld Dimensions | ASME B16.25 | | |
| Visual Inspection | MSS SP- 55 | | |
| Marking | MSS SP-25 & ISO 5209 | | |
| TESTS AND CERTIFICATES | | | |
| Pressure testing | API 598 & ISO 5208 | EN 12266-1 | MSS SP-61 |
| Other | ATEX, CE | | |

Cv Values in U.S. Gallons/min.

| DN | Cv | DN | Cv |
|-----------|------|-----------|-------|
| 50 (2") | 125 | 400 (16") | 8700 |
| 65 (2½") | 190 | 450 (18") | 11900 |
| 80 (3") | 280 | 500 (20") | 14800 |
| 100 (4") | 490 | 550 (22") | 17500 |
| 125 (5") | 800 | 600 (24") | 21000 |
| 150 (6") | 1150 | 650 (26") | 24000 |
| 200 (8") | 2250 | 700 (28") | 27400 |
| 250 (10") | 3400 | 750 (30") | 31000 |
| 300 (12") | 4900 | 900 (36") | 52000 |
| 350 (14") | 6100 | | |

Pressure-Temperature (STANDARD CLASS ACCORDING TO ASME B16.34)

| Temp °C | MATERIAL | | | |
|------------|-----------------|-----------------|----------------|-----------------------|
| | A216 WCB Bar | A352 LCB Bar | A217 C5 Bar | A351 CF8M (**) Bar |
| -29 to 38 | 19,6 | 18,3 | 20,0 | 18,9 |
| 95 | 17,9 | 17,2 | 17,9 | 16,2 |
| 150 | 15,8 | 15,8 | 15,8 | 14,8 |
| 205 | 13,8 | 13,8 | 13,8 | 13,4 |
| 260 | 11,7 | 11,7 | 11,7 | 11,7 |
| 315 | 9,6 | 9,6 | 9,6 | 9,6 |
| 345 | 8,6 | 8,6 | 8,6 | 8,6 |
| 375 | 7,6 | | 7,6 | 7,6 |
| 400 | 6,5 | | 6,5 | 6,5 |
| 425 | 5,5 | | 5,5 | 5,5 |
| 450 | 4,5 | | 4,5 | 4,5 |
| 485 | 3,4 | | 3,4 | 3,4 |
| 510 | 2,4 | | 2,4 | 2,4 |
| 540 | 1,4 | | 1,4 | 1,4 |
| 565 | | | 1,4 * | 1,4 * |
| 595 | | | 1,4 * | 1,4 * |
| 620 | | | 1,4 * | 1,4 * |
| 650 | | | 1,4 * | 1,4 * |
| 675 | | | | 1,4 * |
| 705 | | | | 1,4 * |
| 735 | | | | 1,4 * |
| 760 | | | | 1,4 * |
| 790 | | | | 1,4 * |
| 815 | | | | 1,4 * |

* FOR WELD END VALVES ONLY. FLANGED END RATINGS TERMINATE AT 540°C

** A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.



Swing Check Valves Type Bolted Cover
Class 300 DN 50-500 (2" – 20")
 Carbon, Alloy and Stainless Steel

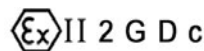


Fig. VR300BC

Design:

BS 1868 & API 6D / ISO 14313

ASME B16.34

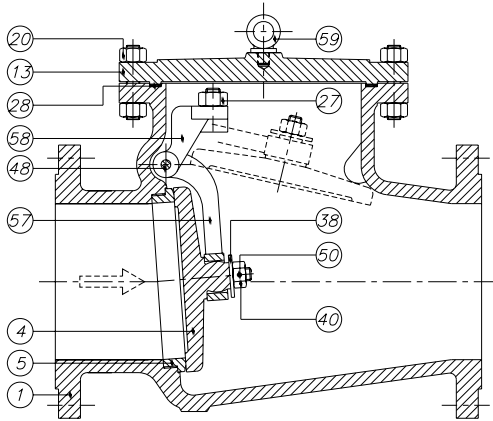




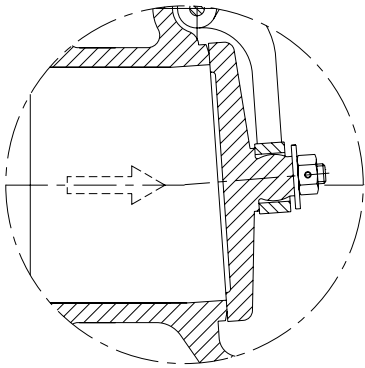
Swing Check Valves Class 300

Type Bolted Cover

Parts and materials



Stainless Steel Construction



Trim Material

| API 600 Trim No. | Nominal Trim | Stem / Backseat (1) | Seating Surface Body / Wedge |
|------------------|------------------------|---------------------|------------------------------|
| 1 | F6 | 13Cr | 13Cr |
| 2 | 304 | 18Cr-8Ni | 18Cr-8Ni |
| 3 | F310 | 25Cr-20Ni | 25Cr-20Ni |
| 4 | Hard F6 | 13Cr | Hard 13Cr |
| 5 | Hardfaced | 13Cr | Co-Cr A (2) |
| 5A | Hardfaced | 13Cr | Ni-Cr |
| 6 | F6 and Cu-Ni | 13Cr | 13Cr and Cu-Ni |
| 7 | F6 and Hard F6 | 13Cr | 13Cr and Hard 13Cr |
| 8 | F6 and Hardfaced | 13Cr | 13Cr and Co-Cr A (2) |
| 8A | F6 and Hardfaced | 13Cr | 13Cr and Ni-Cr |
| 9 | Monel | Ni-Cu Alloy | Ni-Cu Alloy |
| 10 | 316 | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo |
| 11 | Monel and Hardfaced | Ni-Cu Alloy | Ni-Cu Alloy and Trim 5 or 5A |
| 12 | 316 and Hardfaced | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo and Trim 5 or 5A |
| 13 | Alloy 20 | 19Cr-29Ni | 19Cr-29Ni |
| 14 | Alloy 20 and Hardfaced | 19Cr-29Ni | 19Cr-29Ni and Trim 5 or 5A |
| 15 | Hardfaced | 18Cr-8Ni | Co-Cr A (2) |
| 16 | Hardfaced | 18Cr-8Ni-Mo | Co-Cr A (2) |
| 17 | Hardfaced | 18Cr-10Ni-Cb | Co-Cr A (2) |
| 18 | Hardfaced | 19Cr-29Ni | Co-Cr A (2) |

(1) ...and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

| Item | Description | Material of construction** | | | |
|------|--------------------|----------------------------|------------------------------|---------------------------|------------------------------|
| | | Carbon Steel | Carbon Steel (Low Temp.) | Alloy Steel | Stainless Steel |
| 1 | Body | A 216 Gr.WCB | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 4 | Disc | A 105 + ER 410 | A 182 Gr.F304 | A 182 Gr.F6a | A 182 Gr.F316 |
| 5 | Seat Ring | A 105 + Stellite | A 182 Gr.F304 | A 182 Gr.F6a + Stellite | ----- |
| 13 | Cover | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB / A 182 Gr.F304 | A 217 Gr.C5 | A 351 Gr.CF8M |
| 20 | Cover Bolt & Nut | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H(3) |
| 27 | Bracket Stud & Nut | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8M / A 194 Gr.8M |
| 28 | Gasket | SPW S.S. 304 / Graphite | SPW S.S. 304 / Graphite | SPW S.S. 304 / Graphite | SPW S.S. 316 / Graphite |
| 38 | Washer | AISI 410 | AISI 304 | AISI 410 | AISI 316 |
| 40 | Disc Nut | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 48 | Hinge Pin * | A 182 Gr.F6a | A 182 Gr.F304 | A 182 Gr.F6a | A 182 Gr.F316 |
| 50 | Split Pin | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 57 | Hinge | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 58 | Hinge Bracket | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 59 | Lifting Hook | A 105 | A 105 | A 105 | A 105 |

(3) Zinc coating

* It's also manufactured with Hinge Pin Passing through Body with Plug

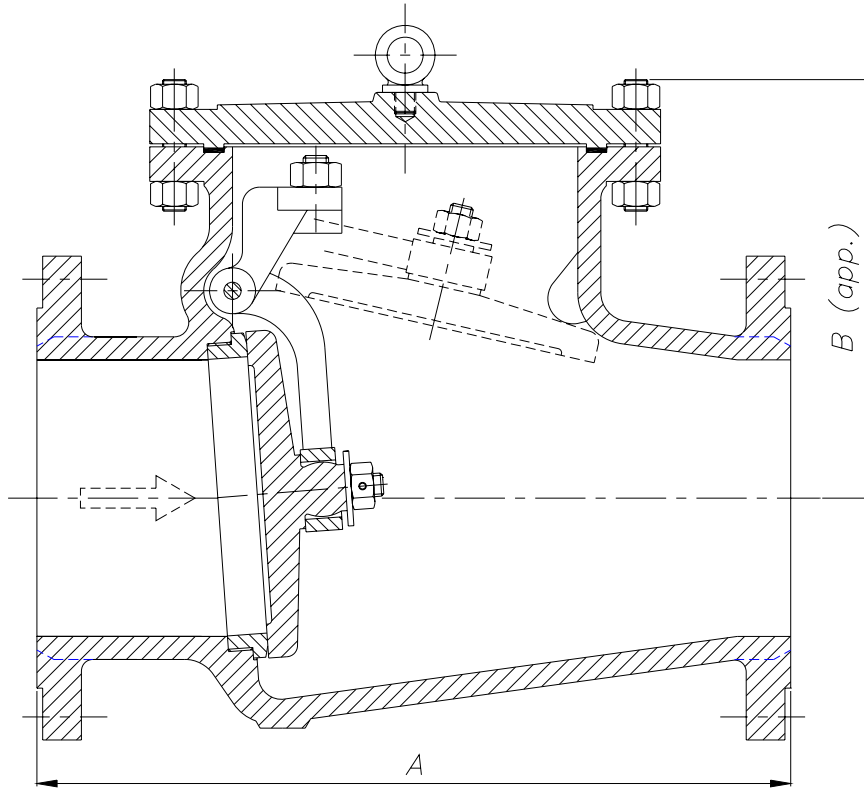
** Standard constructions with Trim 8, 2 and 10, other options are available



Swing Check Valves Class 300

Type Bolted Cover

Dimensions



| DN | A (RF/BW) | B | WEIGHT |
|-----------|-----------|-----|--------|
| 50 (2") | 267 | 158 | 21 |
| 65 (2½") | 292 | 167 | 35 |
| 80 (3") | 318 | 188 | 43 |
| 100 (4") | 356 | 259 | 60 |
| 125 (5") | 400 | 281 | 85 |
| 150 (6") | 444 | 319 | 131 |
| 200 (8") | 533 | 401 | 213 |
| 250 (10") | 622 | 483 | 384 |
| 300 (12") | 711 | 555 | 449 |
| 350 (14") | 838 | 585 | 680 |
| 400 (16") | 864 | 615 | 840 |
| 450 (18") | 978 | 643 | 1025 |
| 500 (20") | 1016 | 681 | 1180 |

(* Dimensions in mm and weight in kg
For other sizes consult to the technical department.



Swing Check Valves Class 300

Type Bolted Cover

General Characteristics, Cv, P&T Rating

| | | | | |
|--------------------------------|---------------------------------|-------------|-----------|--|
| GENERAL CHARACTERISTICS | Fig. VR300BC | | | |
| DESIGN STANDARDS | | | | |
| Valves design | BS 1868 & API 6D | ASME B16.34 | | |
| End to End Dimensions | ASME B16.10 & ISO 5752 | | | |
| Flanged Dimensions | ASME B16.5 & ISO 7005-1 Part. 1 | BS 3293 | MSS SP-44 | |
| Buttweld Dimensions | ASME B16.25 | | | |
| Visual Inspection | MSS SP- 55 | | | |
| Marking | MSS SP-25 & ISO 5209 | | | |
| TESTS AND CERTIFICATES | | | | |
| Pressure testing | API 598 & ISO 5208 | EN 12266-1 | MSS SP-61 | |
| Other | ATEX, CE | | | |

Cv Values in U.S. Gallons/min.

| DN | Cv | DN | Cv |
|----------|------|-----------|-------|
| 50 (2") | 125 | 250 (10") | 3400 |
| 65 (2½") | 190 | 300 (12") | 4900 |
| 80 (3") | 280 | 350 (14") | 6100 |
| 100 (4") | 490 | 400 (16") | 8700 |
| 125 (5") | 800 | 450 (18") | 11550 |
| 150 (6") | 1150 | 500 (20") | 14000 |
| 200 (8") | 2250 | | |

Pressure-Temperature (STANDARD CLASS According to ASME B16.34)

| Temp °C | MATERIAL | | | |
|------------|-----------------|-----------------|----------------|-----------------------|
| | A216 WCB Bar | A352 LCB Bar | A217 C5 Bar | A351 CF8M (**) Bar |
| -29 to 38 | 51,0 | 47,9 | 51,7 | 49,6 |
| 95 | 46,5 | 45,1 | 51,3 | 42,7 |
| 150 | 45,1 | 44,1 | 49,3 | 38,6 |
| 205 | 43,8 | 42,7 | 48,6 | 35,5 |
| 260 | 41,3 | 40,3 | 45,8 | 33,1 |
| 315 | 37,9 | 36,9 | 41,7 | 31,0 |
| 345 | 36,9 | 36,2 | 40,7 | 30,7 |
| 375 | 36,9 | | 39,3 | 29,6 |
| 400 | 34,8 | | 36,5 | 29,3 |
| 425 | 28,2 | | 35,1 | 28,9 |
| 450 | 18,6 | | 33,4 | 28,9 |
| 485 | 11,7 | | 25,5 | 28,6 |
| 510 | 7,2 | | 18,9 | 26,5 |
| 540 | 3,4 | | 13,8 | 24,1 |
| 565 | | | 10,0 * | 23,8 * |
| 595 | | | 6,9 * | 21,0 * |
| 620 | | | 4,1 * | 16,2 * |
| 650 | | | 2,4 * | 12,7 * |
| 675 | | | | 10,0 * |
| 705 | | | | 7,9 * |
| 735 | | | | 6,5 * |
| 760 | | | | 5,2 * |
| 790 | | | | 4,1 * |
| 815 | | | | 2,8 * |

* FOR WELD END VALVES ONLY. FLANGED END RATINGS TERMINATE AT 540°C

** A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.



®

Swing Check Valves Type Bolted Cover

Class 600 DN 50-400 (2" – 16")

Carbon, Alloy and Stainless Steel

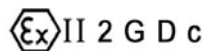


Fig. VR600BC

Design:

BS 1868 & API 6D / ISO 14313

ASME B16.34

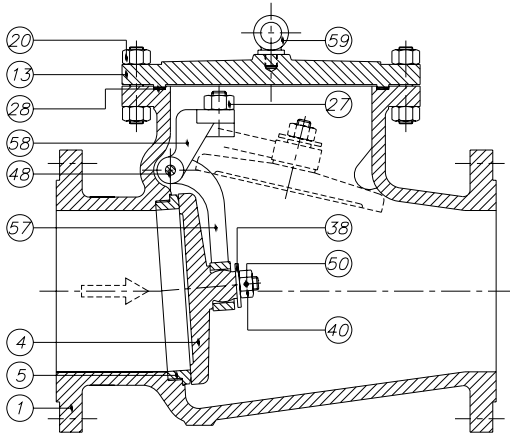




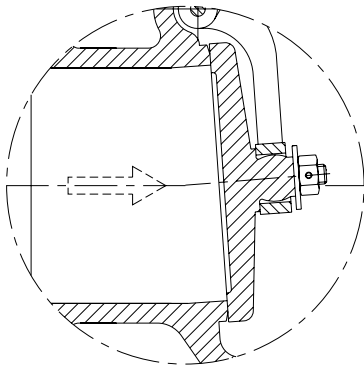
Swing Check Valves Class 600

Type Bolted Cover

Parts and materials



Stainless Steel Construction



Trim Material

| API 600 Trim No. | Nominal Trim | Stem / Backseat (1) | Seating Surface Body / Wedge |
|------------------|------------------------|---------------------|------------------------------|
| 1 | F6 | 13Cr | 13Cr |
| 2 | 304 | 18Cr-8Ni | 18Cr-8Ni |
| 3 | F310 | 25Cr-20Ni | 25Cr-20Ni |
| 4 | Hard F6 | 13Cr | Hard 13Cr |
| 5 | Hardfaced | 13Cr | Co-Cr A (2) |
| 5A | Hardfaced | 13Cr | Ni-Cr |
| 6 | F6 and Cu-Ni | 13Cr | 13Cr and Cu-Ni |
| 7 | F6 and Hard F6 | 13Cr | 13Cr and Hard 13Cr |
| 8 | F6 and Hardfaced | 13Cr | 13Cr and Co-Cr A (2) |
| 8A | F6 and Hardfaced | 13Cr | 13Cr and Ni-Cr |
| 9 | Monel | Ni-Cu Alloy | Ni-Cu Alloy |
| 10 | 316 | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo |
| 11 | Monel and Hardfaced | Ni-Cu Alloy | Ni-Cu Alloy and Trim 5 or 5A |
| 12 | 316 and Hardfaced | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo and Trim 5 or 5A |
| 13 | Alloy 20 | 19Cr-29Ni | 19Cr-29Ni |
| 14 | Alloy 20 and Hardfaced | 19Cr-29Ni | 19Cr-29Ni and Trim 5 or 5A |
| 15 | Hardfaced | 18Cr-8Ni | Co-Cr A (2) |
| 16 | Hardfaced | 18Cr-8Ni-Mo | Co-Cr A (2) |
| 17 | Hardfaced | 18Cr-10Ni-Cb | Co-Cr A (2) |
| 18 | Hardfaced | 19Cr-29Ni | Co-Cr A (2) |

(1) „,„and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

| Item | Description | Material of construction** | | | |
|------|--------------------|----------------------------|------------------------------|---------------------------|------------------------------|
| | | Carbon Steel | Carbon Steel (Low Temp.) | Alloy Steel | Stainless Steel |
| 1 | Body | A 216 Gr.WCB | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 4 | Disc | A105 + ER 410 | A 182 Gr.F304 | A 182 Gr.F6a | A 182 Gr.F316 |
| 5 | Seat Ring | A 105 + Stellite | A 182 Gr.F304 | A 182 Gr.F6a + Stellite | ----- |
| 13 | Cover | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB / A 182 Gr.F304 | A 217 Gr.C5 | A 351 Gr.CF8M |
| 20 | Cover Bolt & Nut | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H(3) |
| 27 | Bracket Stud & Nut | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8M / A 194 Gr.8M |
| 28 | Gasket | SPW S.S. 304 / Graphite | SPW S.S. 304 / Graphite | SPW S.S. 304 / Graphite | SPW S.S. 316 / Graphite |
| 38 | Washer | AISI 410 | AISI 304 | AISI 410 | AISI 316 |
| 40 | Disc Nut | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 48 | Hinge Pin * | A 182 Gr.F6a | A 182 Gr.F304 | A 182 Gr.F6a | A 182 Gr.F316 |
| 50 | Split Pin | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 57 | Hinge | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 58 | Hinge Bracket | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 59 | Lifting Hook | A105 | A105 | A105 | A105 |

(3) Zinc coating

* It's also manufactured with Hinge Pin Passing through Body with Plug

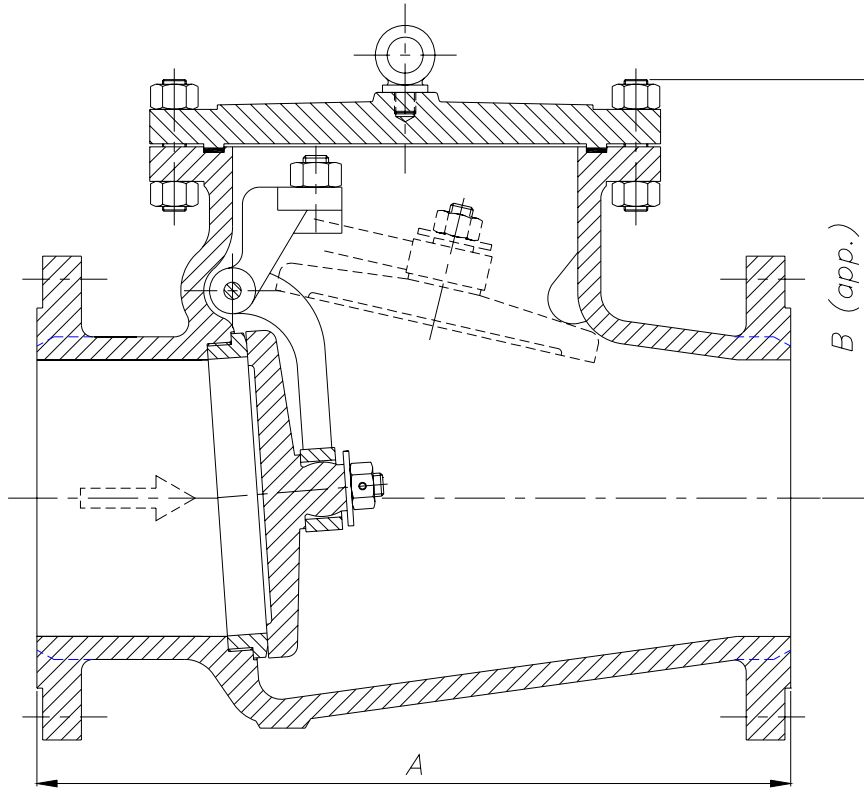
** Standard constructions with Trim 8, 2 and 10, other options are available



Swing Check Valves Class 600

Type Bolted Cover

Dimensions



| DN | A (RF/BW) | B | WEIGHT |
|-----------|-----------|-----|--------|
| 50 (2") | 292 | 197 | 26 |
| 65 (2½") | 330 | 207 | 45 |
| 80 (3") | 356 | 231 | 68 |
| 100 (4") | 432 | 281 | 90 |
| 125 (5") | 508 | 319 | 140 |
| 150 (6") | 559 | 362 | 200 |
| 200 (8") | 660 | 437 | 360 |
| 250 (10") | 787 | 490 | 673 |
| 300 (12") | 838 | 528 | 875 |
| 350 (14") | 889 | 572 | 944 |
| 400 (16") | 991 | 660 | 1220 |

(*) Dimensions in mm and weight in kg
For other sizes consult to the technical department.



® Swing Check Valves Class 600

Type Bolted Cover

General Characteristics, Cv, P&T Rating

| | | | | |
|--------------------------------|---------------------------------|-------------|-----------|--|
| GENERAL CHARACTERISTICS | Fig. VR600BC | | | |
| DESIGN STANDARDS | | | | |
| Valves design | BS 1868 & API 6D | ASME B16.34 | | |
| End to End Dimensions | ASME B16.10 & ISO 5752 | | | |
| Flanged Dimensions | ASME B16.5 & ISO 7005-1 Part. 1 | BS 3293 | MSS SP-44 | |
| Buttweld Dimensions | ASME B16.25 | | | |
| Visual Inspection | MSS SP- 55 | | | |
| Marking | MSS SP-25 & ISO 5209 | | | |
| TESTS AND CERTIFICATES | | | | |
| Pressure testing | API 598 & ISO 5208 | EN 12266-1 | MSS SP-61 | |
| Other | ATEX, CE | | | |

Cv Values in U.S. Gallons/min.

| DN | Cv | DN | Cv |
|----------|------|-----------|------|
| 50 (2") | 125 | 200 (8") | 2200 |
| 65 (2½") | 190 | 250 (10") | 3300 |
| 80 (3") | 280 | 300 (12") | 4800 |
| 100 (4") | 490 | 350 (14") | 5850 |
| 125 (5") | 800 | 400 (16") | 8100 |
| 150 (6") | 1150 | | |

Pressure-Temperature (STANDARD CLASS According to ASME B16.34)

| Temp °C | MATERIAL | | | |
|------------|-----------------|-----------------|----------------|-----------------------|
| | A216 WCB Bar | A352 LCB Bar | A217 C5 Bar | A351 CF8M (**) Bar |
| -29 to 38 | 102,0 | 95,8 | 103,4 | 99,2 |
| 95 | 93,0 | 90,6 | 102,7 | 85,4 |
| 150 | 90,6 | 87,8 | 98,5 | 77,2 |
| 205 | 87,5 | 85,1 | 87,1 | 70,6 |
| 260 | 82,7 | 80,3 | 91,6 | 65,8 |
| 315 | 75,4 | 73,4 | 83,4 | 62,0 |
| 345 | 74,1 | 72,0 | 81,0 | 61,3 |
| 375 | 73,4 | | 78,2 | 59,9 |
| 400 | 69,6 | | 72,7 | 58,9 |
| 425 | 56,8 | | 69,9 | 58,2 |
| 450 | 36,9 | | 66,5 | 57,5 |
| 485 | 23,8 | | 51,0 | 57,2 |
| 510 | 14,1 | | 37,9 | 53,4 |
| 540 | 7,2 | | 27,6 | 48,2 |
| 565 | | | 20,0 * | 47,2 * |
| 595 | | | 13,8 * | 42,0 * |
| 620 | | | 8,6 * | 32,7 * |
| 650 | | | 4,8 * | 25,5 * |
| 675 | | | | 20,3 * |
| 705 | | | | 16,2 * |
| 735 | | | | 13,1 * |
| 760 | | | | 10,3 * |
| 790 | | | | 7,9 * |
| 815 | | | | 5,9 * |

* FOR WELD END VALVES ONLY. FLANGE END RATINGS TERMINATE AT 540°C

** A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.



®

Swing Check Valves Type Bolted Cover

Class 900 DN 50-200 (2" – 8")

Carbon, Alloy and Stainless Steel

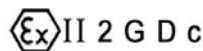


Fig. VR900BC

Design:

BS 1868 & API 6D / ISO 14313

ASME B16.34

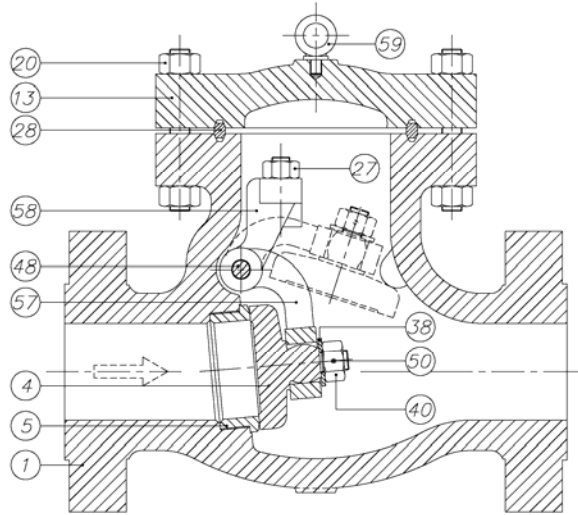




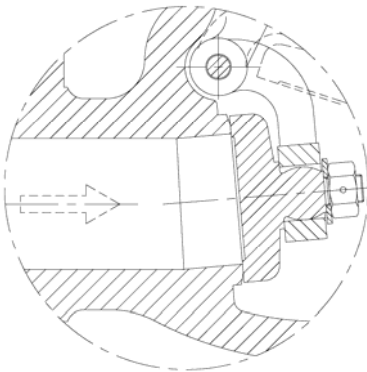
Swing Check Valves Class 900

Type Bolted Cover

Parts and materials



Stainless Steel Construction



Trim Material

| API 600 Trim No. | Nominal Trim | Stem / Backseat (1) | Seating Surface Body / Wedge |
|------------------|------------------------|---------------------|------------------------------|
| 1 | F6 | 13Cr | 13Cr |
| 2 | 304 | 18Cr-8Ni | 18Cr-8Ni |
| 3 | F310 | 25Cr-20Ni | 25Cr-20Ni |
| 4 | Hard F6 | 13Cr | Hard 13Cr |
| 5 | Hardfaced | 13Cr | Co-Cr A (2) |
| 5A | Hardfaced | 13Cr | Ni-Cr |
| 6 | F6 and Cu-Ni | 13Cr | 13Cr and Cu-Ni |
| 7 | F6 and Hard F6 | 13Cr | 13Cr and Hard 13Cr |
| 8 | F6 and Hardfaced | 13Cr | 13Cr and Co-Cr A (2) |
| 8A | F6 and Hardfaced | 13Cr | 13Cr and Ni-Cr |
| 9 | Monel | Ni-Cu Alloy | Ni-Cu Alloy |
| 10 | 316 | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo |
| 11 | Monel and Hardfaced | Ni-Cu Alloy | Ni-Cu Alloy and Trim 5 or 5A |
| 12 | 316 and Hardfaced | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo and Trim 5 or 5A |
| 13 | Alloy 20 | 19Cr-29Ni | 19Cr-29Ni |
| 14 | Alloy 20 and Hardfaced | 19Cr-29Ni | 19Cr-29Ni and Trim 5 or 5A |
| 15 | Hardfaced | 18Cr-8Ni | Co-Cr A (2) |
| 16 | Hardfaced | 18Cr-8Ni-Mo | Co-Cr A (2) |
| 17 | Hardfaced | 18Cr-10Ni-Cb | Co-Cr A (2) |
| 18 | Hardfaced | 19Cr-29Ni | Co-Cr A (2) |

(1) ...and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

| Item | Description | Material of construction** | | | |
|------|--------------------|----------------------------|------------------------------|---------------------------|------------------------------|
| | | Carbon Steel | Carbon Steel (Low Temp.) | Alloy Steel | Stainless Steel |
| 1 | Body | A 216 Gr.WCB | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 4 | Disc | A105 + ER 410 | A 182 Gr.F304 | A 182 Gr.F6a | A 182 Gr.F316 |
| 5 | Seat Ring | A105 + Stellite | A 182 Gr.F304 | A 182 Gr.F6a + Stellite | ----- |
| 13 | Cover | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB / A 182 Gr.F304 | A 217 Gr.C5 | A 351 Gr.CF8M |
| 20 | Cover Bolt & Nut | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H(3) |
| 27 | Bracket Stud & Nut | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8M / A 194 Gr.8M |
| 28 | Gasket | S.S. 304 | S.S. 304 | S.S. 304 | S.S. 316 |
| 38 | Washer | AISI 410 | AISI 304 | AISI 410 | AISI 316 |
| 40 | Disc Nut | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 48 | Hinge Pin * | A 182 Gr.F6a | A 182 Gr.F304 | A 182 Gr.F6a | A 182 Gr.F316 |
| 50 | Split Pin | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 57 | Hinge | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 58 | Hinge Bracket | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 59 | Lifting Hook | A105 | A105 | A105 | A105 |

(3) Zinc coating

* It's also manufactured with Hinge Pin Passing through Body with Plug

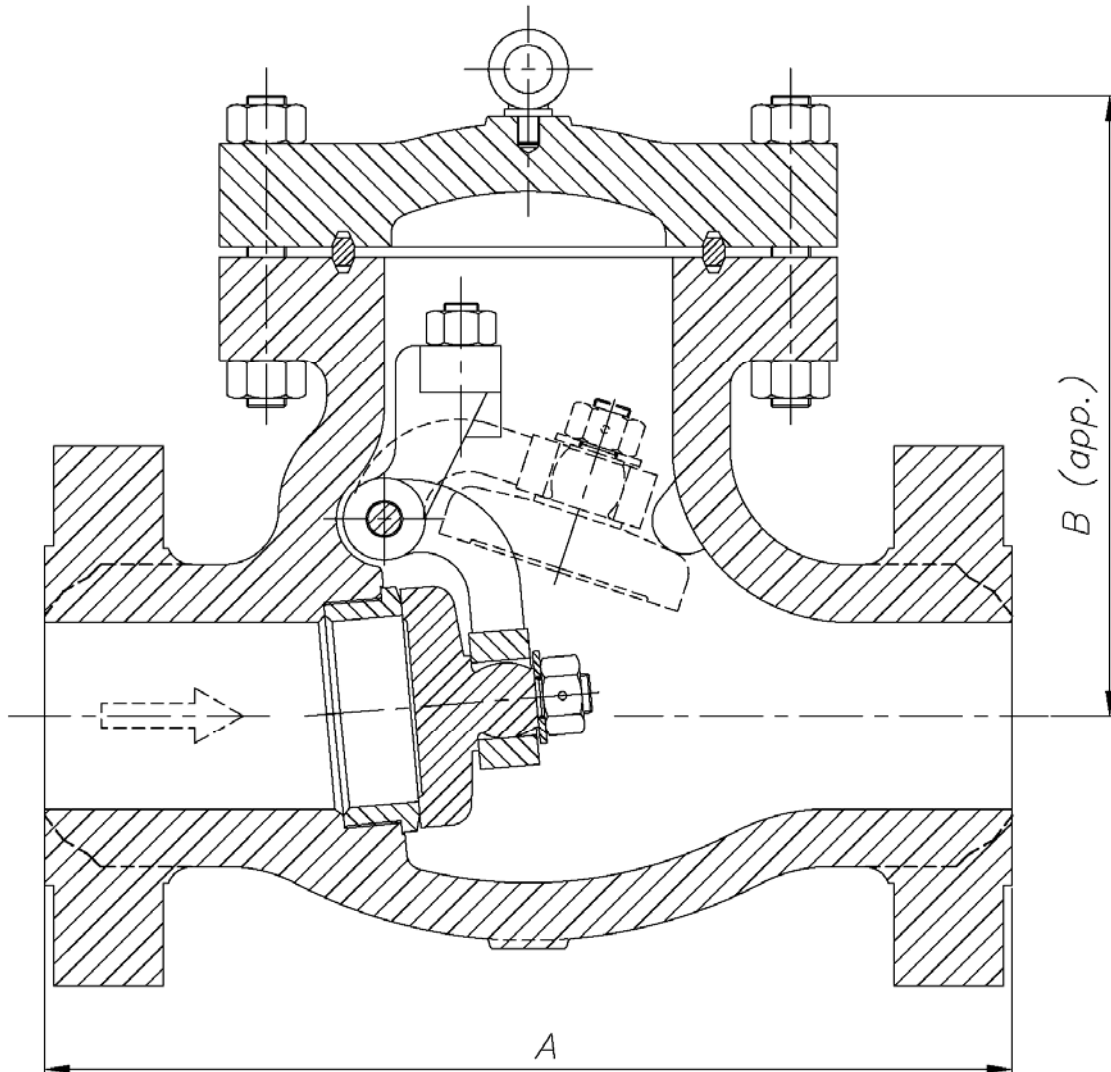
** Standard constructions with Trim 8, 2 and 10, other options are available



Swing Check Valves Class 900

Type Bolted Cover

Dimensions



| DN | A (RF/BW) | B | WEIGHT |
|----------|-----------|-----|--------|
| 50 (2") | 368 | 240 | 76 |
| 65 (2½") | 419 | 250 | 86 |
| 80 (3") | 381 | 260 | 98 |
| 100 (4") | 457 | 320 | 145 |
| 125 (5") | 559 | 350 | 175 |
| 150 (6") | 610 | 382 | 259 |
| 200 (8") | 737 | 530 | 565 |

(*) Dimensions in mm and weight in kg
For other sizes consult to the technical department.



Swing Check Valves Class 900

Type Bolted Cover

General Characteristics, Cv, P&T Rating

| | | | | |
|--------------------------------|---------------------------------|-------------|-----------|--|
| GENERAL CHARACTERISTICS | Fig. VR900BC | | | |
| DESIGN STANDARDS | | | | |
| Valves design | BS 1868 & API 6D | ASME B16.34 | | |
| End to End Dimensions | ASME B16.10 & ISO 5752 | | | |
| Flanged Dimensions | ASME B16.5 & ISO 7005-1 Part. 1 | BS 3293 | MSS SP-44 | |
| Buttweld Dimensions | ASME B16.25 | | | |
| Visual Inspection | MSS SP- 55 | | | |
| Marking | MSS SP-25 & ISO 5209 | | | |
| TESTS AND CERTIFICATES | | | | |
| Pressure testing | API 598 & ISO 5208 | EN 12266-1 | MSS SP-61 | |
| Other | ATEX, CE | | | |

Cv Values in U.S. Gallons/min.

| DN | Cv | DN | Cv |
|----------|-----|----------|------|
| 50 (2") | 100 | 125 (5") | 800 |
| 65 (2½") | 175 | 150 (6") | 1100 |
| 80 (3") | 240 | 200 (8") | 2000 |
| 100 (4") | 460 | | |

Pressure-Temperature (STANDARD CLASS According to ASME B16.34)

| Temp °C | MATERIAL | | | |
|------------|-----------------|-----------------|----------------|-----------------------|
| | A216 WCB Bar | A352 LCB Bar | A217 C5 Bar | A351 CF8M (**) Bar |
| -29 to 38 | 153,0 | 143,7 | 155,0 | 148,8 |
| 95 | 139,5 | 135,7 | 154,0 | 128,2 |
| 150 | 135,7 | 131,9 | 148,1 | 115,8 |
| 205 | 130,9 | 127,5 | 145,7 | 106,1 |
| 260 | 123,7 | 120,2 | 137,5 | 98,9 |
| 315 | 113,0 | 110,2 | 125,1 | 93,4 |
| 345 | 110,9 | 108,2 | 121,6 | 91,6 |
| 375 | 110,2 | | 117,5 | 89,9 |
| 400 | 104,0 | | 109,2 | 88,2 |
| 425 | 85,1 | | 105,1 | 87,2 |
| 450 | 55,5 | | 99,9 | 86,5 |
| 485 | 35,5 | | 76,5 | 85,8 |
| 510 | 21,4 | | 56,8 | 79,9 |
| 540 | 10,7 | | 41,0 | 72,3 |
| 565 | | | 29,6 * | 71,0 * |
| 595 | | | 20,7 * | 63,0 * |
| 620 | | | 12,7 * | 48,9 * |
| 650 | | | 7,2 * | 38,2 * |
| 675 | | | | 30,3 * |
| 705 | | | | 24,1 * |
| 735 | | | | 20,0 * |
| 760 | | | | 15,5 * |
| 790 | | | | 12,1 * |
| 815 | | | | 8,6 * |

* FOR WELD END VALVES ONLY. FLANGED END RATINGS TERMINATE AT 540°C

** A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.



®

Swing Check Valves Type Bolted Cover

Class 1500 DN 50-200 (2" – 8")

Carbon, Alloy and Stainless Steel



Fig. VR1500BC

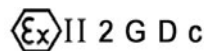
Design:

BS 1868 & API 6D / ISO 14313

ASME B16.34



6D-0197

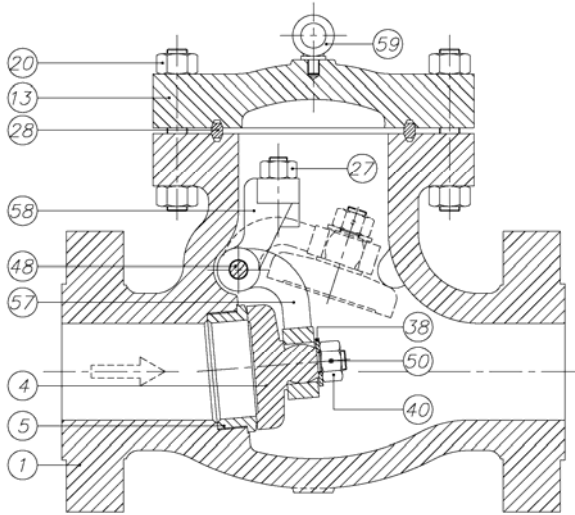




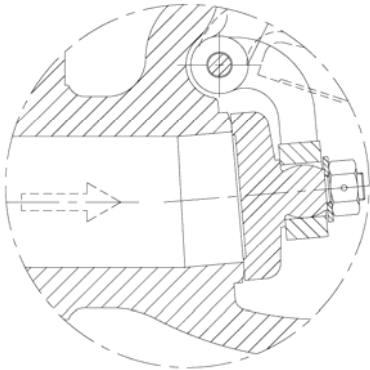
Swing Check Valves Class 1500

Type Bolted Cover

Parts and materials



Stainless Steel Construction



Trim Material

| API 600 Trim No. | Nominal Trim | Stem / Backseat (1) | Seating Surface Body / Wedge |
|------------------|------------------------|---------------------|------------------------------|
| 1 | F6 | 13Cr | 13Cr |
| 2 | 304 | 18Cr-8Ni | 18Cr-8Ni |
| 3 | F310 | 25Cr-20Ni | 25Cr-20Ni |
| 4 | Hard F6 | 13Cr | Hard 13Cr |
| 5 | Hardfaced | 13Cr | Co-Cr A (2) |
| 5A | Hardfaced | 13Cr | Ni-Cr |
| 6 | F6 and Cu-Ni | 13Cr | 13Cr and Cu-Ni |
| 7 | F6 and Hard F6 | 13Cr | 13Cr and Hard 13Cr |
| 8 | F6 and Hardfaced | 13Cr | 13Cr and Co-Cr A (2) |
| 8A | F6 and Hardfaced | 13Cr | 13Cr and Ni-Cr |
| 9 | Monel | Ni-Cu Alloy | Ni-Cu Alloy |
| 10 | 316 | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo |
| 11 | Monel and Hardfaced | Ni-Cu Alloy | Ni-Cu Alloy and Trim 5 or 5A |
| 12 | 316 and Hardfaced | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo and Trim 5 or 5A |
| 13 | Alloy 20 | 19Cr-29Ni | 19Cr-29Ni |
| 14 | Alloy 20 and Hardfaced | 19Cr-29Ni | 19Cr-29Ni and Trim 5 or 5A |
| 15 | Hardfaced | 18Cr-8Ni | Co-Cr A (2) |
| 16 | Hardfaced | 18Cr-8Ni-Mo | Co-Cr A (2) |
| 17 | Hardfaced | 18Cr-10Ni-Cb | Co-Cr A (2) |
| 18 | Hardfaced | 19Cr-29Ni | Co-Cr A (2) |

(1) „„and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

| Item | Description | Material of construction** | | | |
|------|--------------------|----------------------------|------------------------------|---------------------------|------------------------------|
| | | Carbon Steel | Carbon Steel (Low Temp.) | Alloy Steel | Stainless Steel |
| 1 | Body | A 216 Gr.WCB | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 4 | Disc | A 105 + ER 410 | A 182 Gr.F304 | A 182 Gr.F6a | A 182 Gr.F316 |
| 5 | Seat Ring | A 105 + Stellite | A 182 Gr.F304 | A 182 Gr.F6a + Stellite | ----- |
| 13 | Cover | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB / A 182 Gr.F304 | A 217 Gr.C5 | A 351 Gr.CF8M |
| 20 | Cover Bolt & Nut | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H(3) |
| 27 | Bracket Stud & Nut | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8M / A 194 Gr.8M |
| 28 | Gasket | S.S. 304 | S.S. 304 | S.S. 304 | S.S. 316 |
| 38 | Washer | AISI 410 | AISI 304 | AISI 410 | AISI 316 |
| 40 | Disc Nut | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 48 | Hinge Pin * | A 182 Gr.F6a | A 182 Gr.F304 | A 182 Gr.F6a | A 182 Gr.F316 |
| 50 | Split Pin | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 57 | Hinge | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 58 | Hinge Bracket | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 59 | Lifting Hook | A 105 | A 105 | A 105 | A 105 |

(3) Zinc coating

* It's also manufactured with Hinge Pin Passing through Body with Plug

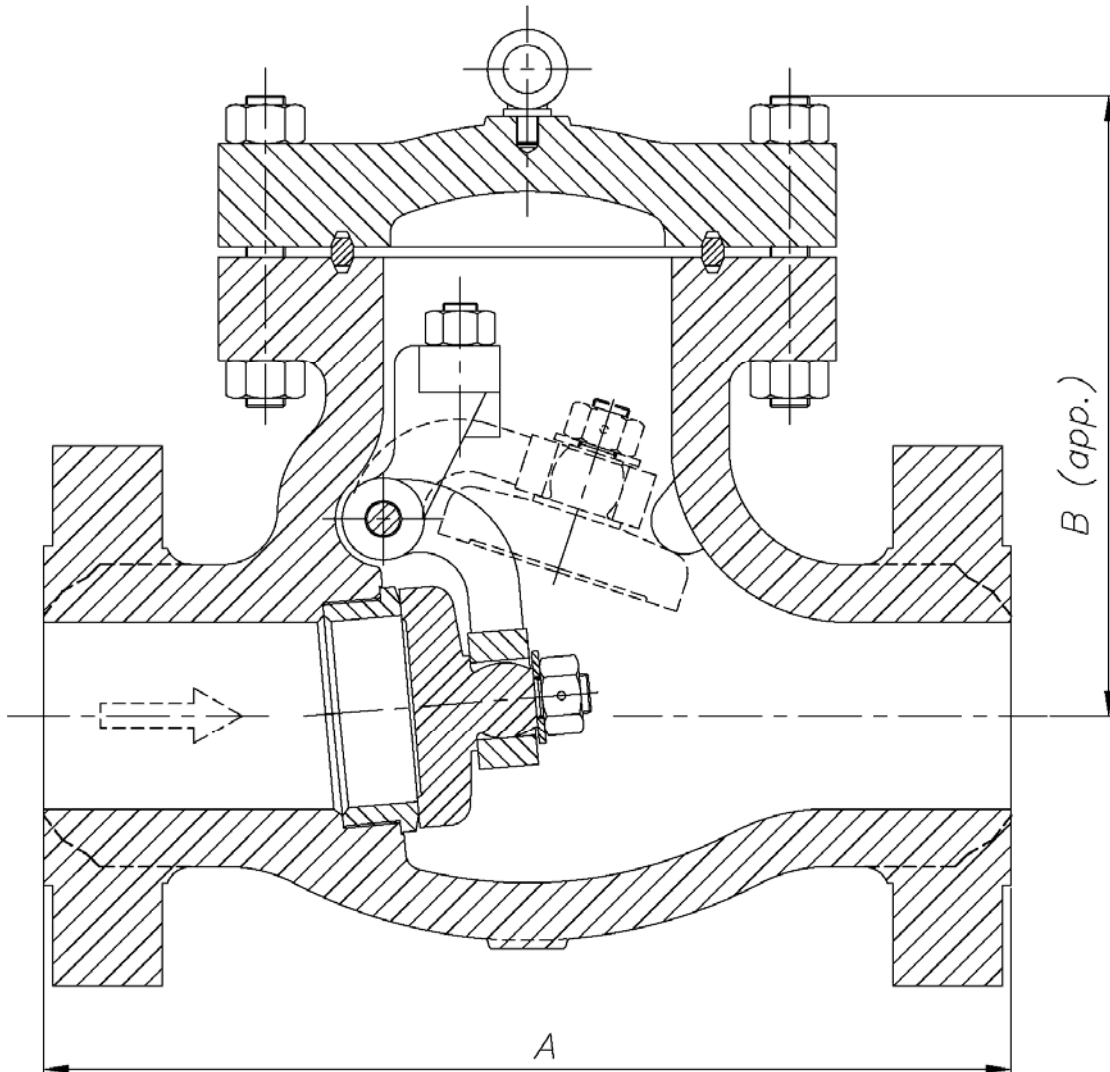
** Standard constructions with Trim 8, 2 and 10, other options are available



Swing Check Valves Class 1500

Type Bolted Cover

Dimensions



| DN | A (RF/BW) | B | WEIGHT |
|----------|-----------|-----|--------|
| 50 (2") | 368 | 265 | 76 |
| 65 (2½") | 419 | 275 | 93 |
| 80 (3") | 470 | 290 | 140 |
| 100 (4") | 546 | 385 | 232 |
| 125 (5") | 673 | 430 | 362 |
| 150 (6") | 705 | 470 | 490 |
| 200 (8") | 832 | 625 | 990 |

(*) Dimensions in mm and weight in kg
For other sizes consult to the technical department.



Swing Check Valves Class 1500

Type Bolted Cover

General Characteristics, Cv, P&T Rating

| GENERAL CHARACTERISTICS | Fig. VR1500BC | | |
|-------------------------------|---------------------------------|-------------|-----------|
| DESIGN STANDARDS | | | |
| Valves design | BS 1868 & API 6D | ASME B16.34 | |
| End to End Dimensions | ASME B16.10 & ISO 5752 | | |
| Flanged Dimensions | ASME B16.5 & ISO 7005-1 Part. 1 | BS 3293 | MSS SP-44 |
| Buttweld Dimensions | ASME B16.25 | | |
| Visual Inspection | MSS SP- 55 | | |
| Marking | MSS SP-25 & ISO 5209 | | |
| TESTS AND CERTIFICATES | | | |
| Pressure testing | API 598 & ISO 5208 | EN 12266-1 | MSS SP-61 |
| Other | ATEX, CE | | |

Cv Values in U.S. Gallons/min.

| DN | Cv | DN | Cv |
|----------|-----|----------|------|
| 50 (2") | 100 | 125 (5") | 730 |
| 65 (2½") | 165 | 150 (6") | 1050 |
| 80 (3") | 220 | 200 (8") | 1650 |
| 100 (4") | 400 | | |

Pressure-Temperature (STANDARD CLASS According to ASME B16.34)

| Temp °C | MATERIAL | | | |
|------------|-----------------|-----------------|----------------|-----------------------|
| | A216 WCB Bar | A352 LCB Bar | A217 C5 Bar | A351 CF8M (**) Bar |
| -29 to 38 | 255,3 | 239,1 | 258,4 | 248,0 |
| 95 | 232,5 | 226,0 | 256,7 | 213,2 |
| 150 | 226,0 | 219,8 | 246,7 | 192,6 |
| 205 | 218,4 | 212,6 | 243,2 | 177,1 |
| 260 | 206,4 | 200,5 | 229,1 | 164,7 |
| 315 | 188,4 | 183,6 | 208,4 | 155,4 |
| 345 | 185,0 | 180,2 | 202,6 | 153,0 |
| 375 | 183,6 | | 195,7 | 149,5 |
| 400 | 173,6 | | 181,9 | 147,1 |
| 425 | 141,9 | | 175,0 | 145,4 |
| 450 | 92,3 | | 166,4 | 144,0 |
| 485 | 59,3 | | 127,5 | 143,0 |
| 510 | 35,5 | | 94,4 | 133,0 |
| 540 | 17,9 | | 68,6 | 120,6 |
| 565 | | | 49,6 * | 118,5 * |
| 595 | | | 34,1 * | 105,1 * |
| 620 | | | 21,4 * | 81,6 * |
| 650 | | | 11,7 * | 63,7 * |
| 675 | | | | 50,6 * |
| 705 | | | | 40,3 * |
| 735 | | | | 33,1 * |
| 760 | | | | 26,2 * |
| 790 | | | | 20,0 * |
| 815 | | | | 14,1 * |

* FOR WELD END VALVES ONLY. FLANGED END RATINGS TERMINATE AT 540°C

** A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.



Swing Check Valves Type Bolted Cover

Class 2500 DN 50-200 (2" – 8")

Carbon, Alloy and Stainless Steel

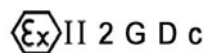


Fig. VR2500BC

Design:

BS 1868 & API 6D / ISO 14313

ASME B16.34

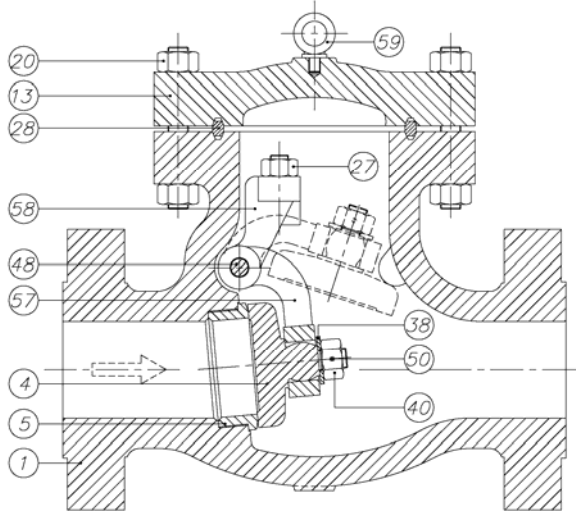




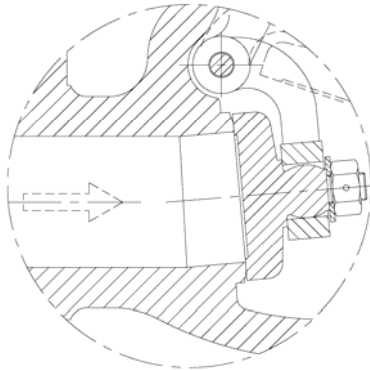
Swing Check Valves Class 2500

Type Bolted Cover

Parts and materials



Stainless Steel Construction



Trim Material

| API 600 Trim No. | Nominal Trim | Stem / Backseat (1) | Seating Surface Body / Wedge |
|------------------|------------------------|---------------------|------------------------------|
| 1 | F6 | 13Cr | 13Cr |
| 2 | 304 | 18Cr-8Ni | 18Cr-8Ni |
| 3 | F310 | 25Cr-20Ni | 25Cr-20Ni |
| 4 | Hard F6 | 13Cr | Hard 13Cr |
| 5 | Hardfaced | 13Cr | Co-Cr A (2) |
| 5A | Hardfaced | 13Cr | Ni-Cr |
| 6 | F6 and Cu-Ni | 13Cr | 13Cr and Cu-Ni |
| 7 | F6 and Hard F6 | 13Cr | 13Cr and Hard 13Cr |
| 8 | F6 and Hardfaced | 13Cr | 13Cr and Co-Cr A (2) |
| 8A | F6 and Hardfaced | 13Cr | 13Cr and Ni-Cr |
| 9 | Monel | Ni-Cu Alloy | Ni-Cu Alloy |
| 10 | 316 | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo |
| 11 | Monel and Hardfaced | Ni-Cu Alloy | Ni-Cu Alloy and Trim 5 or 5A |
| 12 | 316 and Hardfaced | 18Cr-8Ni-Mo | 18Cr-8Ni-Mo and Trim 5 or 5A |
| 13 | Alloy 20 | 19Cr-29Ni | 19Cr-29Ni |
| 14 | Alloy 20 and Hardfaced | 19Cr-29Ni | 19Cr-29Ni and Trim 5 or 5A |
| 15 | Hardfaced | 18Cr-8Ni | Co-Cr A (2) |
| 16 | Hardfaced | 18Cr-8Ni-Mo | Co-Cr A (2) |
| 17 | Hardfaced | 18Cr-10Ni-Cb | Co-Cr A (2) |
| 18 | Hardfaced | 19Cr-29Ni | Co-Cr A (2) |

(1) „,„and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

| Item | Description | Material of construction** | | | |
|------|--------------------|----------------------------|------------------------------|---------------------------|------------------------------|
| | | Carbon Steel | Carbon Steel (Low Temp.) | Alloy Steel | Stainless Steel |
| 1 | Body | A 216 Gr.WCB | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 4 | Disc | A105 + ER 410 | A 182 Gr.F304 | A 182 Gr.F6a | A 182 Gr.F316 |
| 5 | Seat Ring | A105 + Stellite | A 182 Gr.F304 | A 182 Gr.F6a + Stellite | ----- |
| 13 | Cover | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB / A 182 Gr.F304 | A 217 Gr.C5 | A 351 Gr.CF8M |
| 20 | Cover Bolt & Nut | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H | A 193 Gr.B7 / A 194 Gr.2H(3) |
| 27 | Bracket Stud & Nut | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8 / A 194 Gr.8 | A 193 Gr.B8M / A 194 Gr.8M |
| 28 | Gasket | S.S. 304 | S.S. 304 | S.S. 304 | S.S. 316 |
| 38 | Washer | AISI 410 | AISI 304 | AISI 410 | AISI 316 |
| 40 | Disc Nut | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 48 | Hinge Pin * | A182 Gr.F6a | A182 Gr.F304 | A182 Gr.F6a | A 182 Gr.F316 |
| 50 | Split Pin | AISI 304 | AISI 304 | AISI 304 | AISI 316 |
| 57 | Hinge | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 58 | Hinge Bracket | A 216 Gr.WCB / A 515 Gr.70 | A 352 Gr.LCB | A 217 Gr.C5 | A 351 Gr.CF8M |
| 59 | Lifting Hook | A105 | A105 | A105 | A105 |

(3) Zinc coating

* It's also manufactured with Hinge Pin Passing through Body with Plug

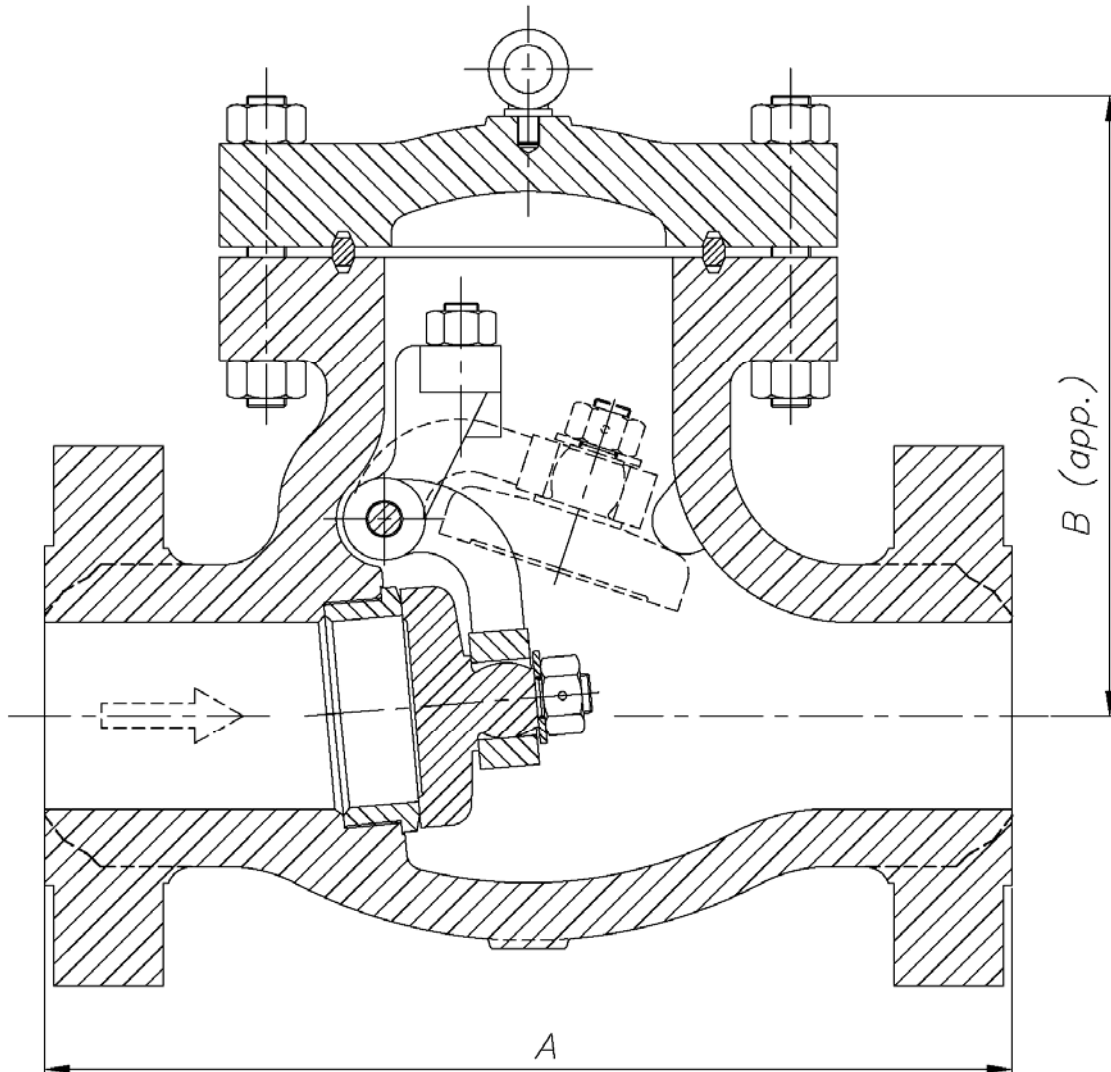
** Standard constructions with Trim 8, 2 and 10, other options are available



Swing Check Valves Class 2500

Type Bolted Cover

Dimensions



| DN | A (RF/BW) | B | WEIGHT |
|----------|-----------|-----|--------|
| 50 (2") | 451 | 315 | 100 |
| 65 (2½") | 508 | 345 | 185 |
| 80 (3") | 578 | 380 | 225 |
| 100 (4") | 673 | 410 | 370 |
| 125 (5") | 794 | 495 | 595 |
| 150 (6") | 914 | 560 | 805 |
| 200 (8") | 1022 | 695 | |

(*) Dimensions in mm and weight in kg
For other sizes consult to the technical department.



Swing Check Valves Class 2500

Type Bolted Cover

General Characteristics, Cv, P&T Rating

| GENERAL CHARACTERISTICS | Fig. VR2500BC | | | |
|-------------------------------|---------------------------------|-------------|-----------|--|
| DESIGN STANDARDS | | | | |
| Valves design | BS 1868 & API 6D | ASME B16.34 | | |
| End to End Dimensions | ASME B16.10 & ISO 5752 | | | |
| Flanged Dimensions | ASME B16.5 & ISO 7005-1 Part. 1 | BS 3293 | MSS SP-44 | |
| Buttweld Dimensions | ASME B16.25 | | | |
| Visual Inspection | MSS SP- 55 | | | |
| Marking | MSS SP-25 & ISO 5209 | | | |
| TESTS AND CERTIFICATES | | | | |
| Pressure testing | API 598 & ISO 5208 | EN-12266-1 | MSS SP-61 | |
| Other | ATEX, CE | | | |

Cv Values in U.S. Gallons/min.

| DN | Cv | DN | Cv |
|----------|-----|----------|------|
| 50 (2") | 60 | 125 (5") | 425 |
| 65 (2½") | 105 | 150 (6") | 600 |
| 80 (3") | 150 | 200 (8") | 1050 |
| 100 (4") | 250 | | |

Pressure-Temperature (STANDARD CLASS According to ASME B16.34)

| Temp °C | MATERIAL | | | |
|------------|-----------------|-----------------|----------------|-----------------------|
| | A216 WCB Bar | A352 LCB Bar | A217 C5 Bar | A351 CF8M (**) Bar |
| -29 to 38 | 425,1 | 398,6 | 430,6 | 413,4 |
| 95 | 387,6 | 376,9 | 427,5 | 355,5 |
| 150 | 376,9 | 366,2 | 411,0 | 321,1 |
| 205 | 363,8 | 354,5 | 405,1 | 294,9 |
| 260 | 343,8 | 334,2 | 381,7 | 274,2 |
| 315 | 314,2 | 305,9 | 347,3 | 259,1 |
| 345 | 308,3 | 300,1 | 338,0 | 254,9 |
| 375 | 305,9 | | 325,9 | 249,4 |
| 400 | 289,4 | | 303,2 | 245,3 |
| 425 | 236,3 | | 291,4 | 242,5 |
| 450 | 153,6 | | 277,7 | 239,8 |
| 485 | 98,5 | | 212,6 | 238,4 |
| 510 | 59,3 | | 157,4 | 221,9 |
| 540 | 29,6 | | 114,0 | 200,8 |
| 565 | | | 82,7 * | 197,4 * |
| 595 | | | 57,2 * | 175,4 * |
| 620 | | | 35,5 * | 135,7 * |
| 650 | | | 19,6 * | 106,5 * |
| 675 | | | | 84,7 * |
| 705 | | | | 66,8 * |
| 735 | | | | 55,1 * |
| 760 | | | | 43,4 * |
| 790 | | | | 33,4 * |
| 815 | | | | 23,8 * |

* FOR WELD END VALVES ONLY. FLANGED END RATINGS TERMINATE AT 540°C

** A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.