

SAPAG

Tilting disc and swing type check valves for the prevention of flow reversal in power industry applications.

Features

- ASME B16.34 design, offered in swing check and tilting disc configurations in 4 standard cast body materials.
- Easy assembly increased by a pressure seal closure with threaded ring (in small sizes) or segmental ring (in larger sizes, depending on pressure ratings).
- Pressure seal-type closure of hinge pin.
- Seat and disc are stellited gr. 6.
- Seats are welded in.

Swing Check:

- Disc is equipped with standard anti-rotation device.
- Friction ring in the connection between hinge and disc.

Tilting Disc:

- Disc is equipped with a dome to balance the weight.
- Spring-assisted closure to avoid slamming.



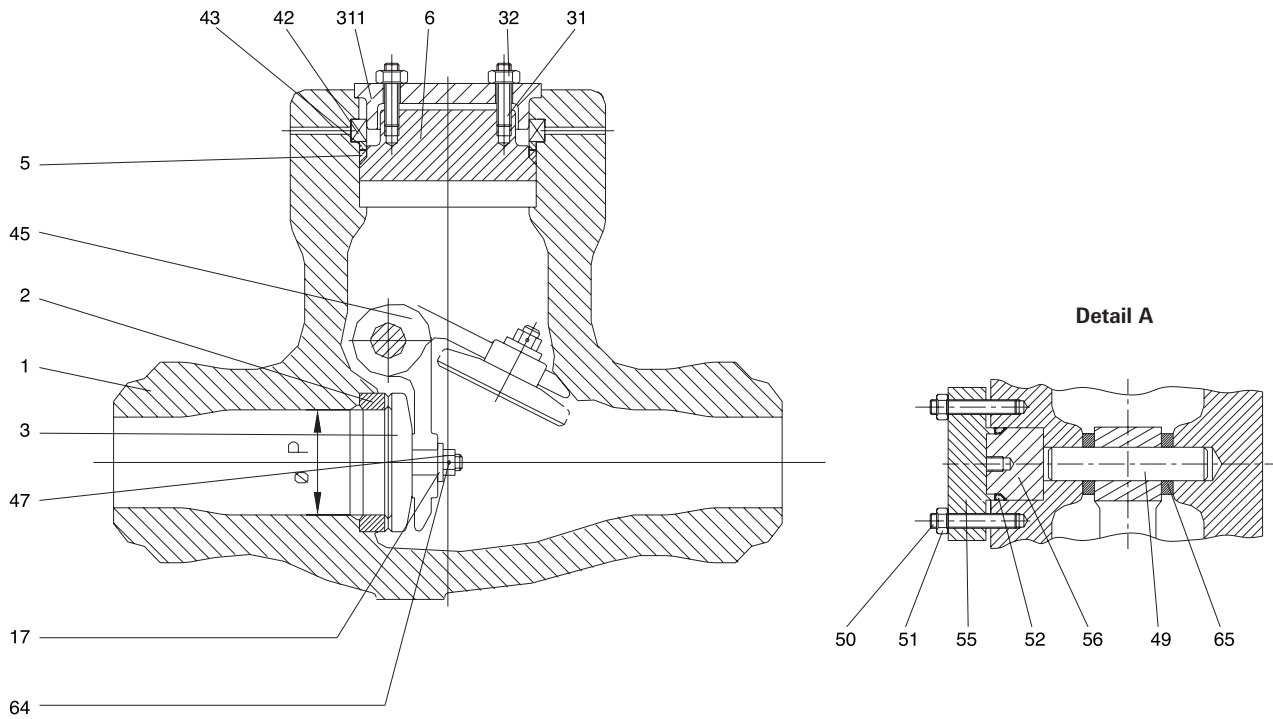
Technical data

| | |
|-----------------------|---|
| Pressure ratings | : ASME classes 900 & 1500 (swing check); 1500 & 2500 (tilting disc) |
| Body materials | : A216 WCB, A217 WC6, A217 WC9, A217 C12A |
| Temperature (°C) | : -46 to +650 |
| Sizes | : 50 to 400 (2"-16") for swing check; 50 to 600 (2"-24") for tilting disc |
| Connections standards | : ASME B16.25 |

General application

Recommended for power plant applications which require flow reversal prevention.

Swing Check Configuration



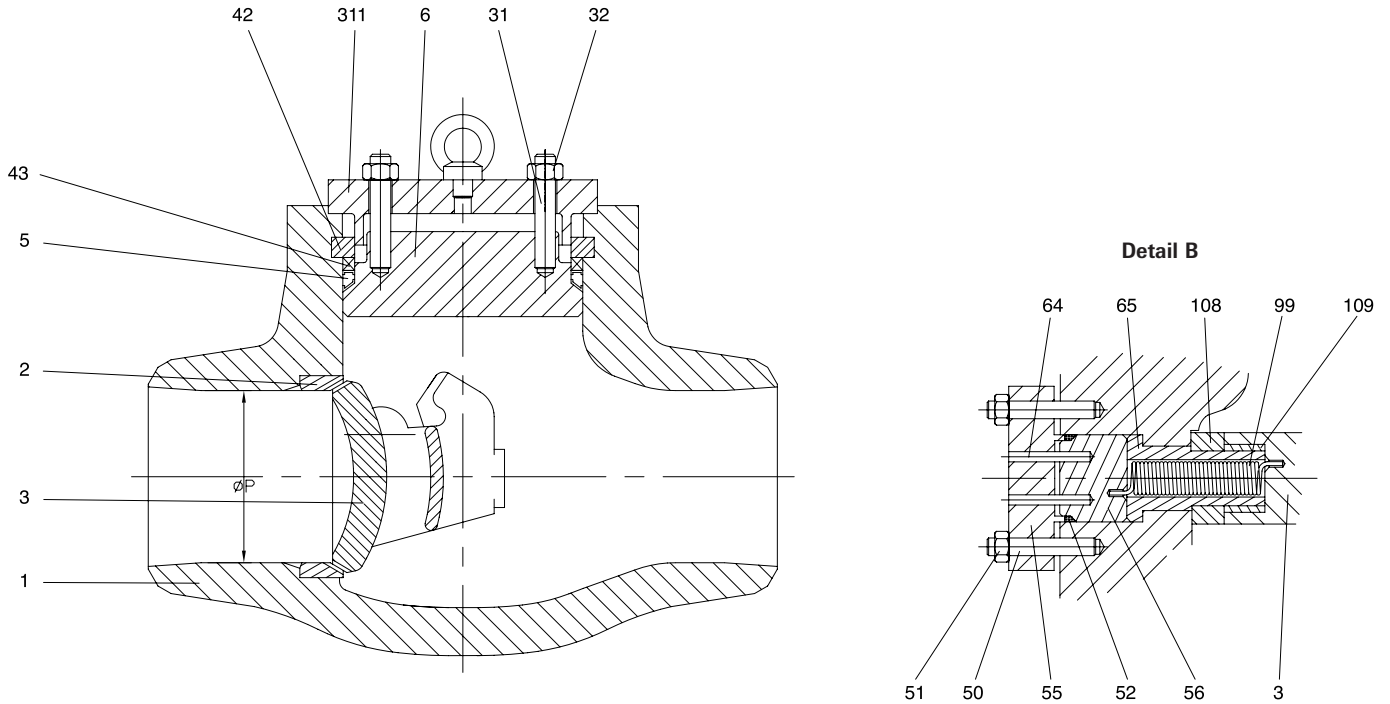
Material specifications

| Ref | Description | Body Mat.: WCB | Body Mat.: WC6 | Body Mat.: WC9 | Notes |
|-----|--------------------------|-------------------------|----------------------------|----------------------------|-------|
| 1 | Body | A 216 WCB | A 217 WC6 | A 217 WC9 | |
| 2 | Seat | A 105 + Stellite gr. 6 | A 182 F22 + Stellite gr. 6 | A 182 F22 + Stellite gr. 6 | (1) |
| 3 | Disc | A 105 + Stellite gr. 6 | A 182 F22 + Stellite gr. 6 | A 182 F22 + Stellite gr. 6 | |
| 5 | Gasket | 316 reinforced graphite | 316 reinforced graphite | 316 reinforced graphite | |
| 6 | Bonnet | A 105 | A 182 F22 | A 182 F22 | |
| 17 | Washer | A 182 F316 | A 182 F316 | A 182 F316 | |
| 31 | Cover bolting | A 193 B7 | A 193 B16 | A 193 B16 | |
| 32 | Cover nut | A 194 2H | A 194 gr. 4 | A 194 gr. 4 | |
| 42 | Segment ring | A 182 F22 | A 182 F22 | A 182 F22 | (2) |
| 43 | Intermediate thrust ring | A 182 F22 | A 182 F22 | A 182 F22 | (2) |
| 45 | Hinge | A 216 WCB | A 217 WC9 | A 217 WC9 | |
| 47 | Disc nut | A 194 2H | A 194 gr. 4 | A 194 gr. 4 | |
| 49 | Hinge pin | A 182 F6a Cl 2 | A 565 gr 616HT | A 565 gr 616HT | |
| 50 | Plug bolting | A 193 B7 | A 193 B16 | A 193 B16 | |
| 51 | Plug nut | A 194 2H | A 194 gr. 4 | A 194 gr. 4 | |
| 52 | Pin gasket | 316 reinforced graphite | 316 reinforced graphite | 316 reinforced graphite | |
| 56 | Pressure seal plug | A 105 | A 182 F22 | A 182 F22 | |
| 55 | Flange | A 105 | A 182 F22 | A 182 F22 | |
| 64 | Pin | F316 | F316 | F316 | |
| 65 | Spacer | A 182 F316 | A 182 F316 | A 182 F316 | |
| 311 | Retaining ring | A 105 | A 105 | A 105 | (2) |

Notes

1. Seats are welded in.
2. Applicable for sizes from 6" to 16" (ASME cl. 900-1500).

Tilting Disc Configuration



Material specifications

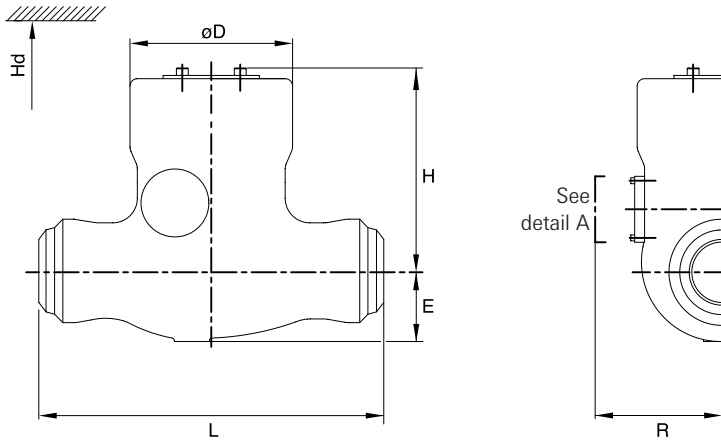
| Ref | Description | Body Mat.: WCB | Body Mat.: WC6 | Body Mat.: WC9 | Notes |
|-----|--------------------------|----------------------------|----------------------------|----------------------------|-------|
| 1 | Body | A 216 WCB | A 217 WC6 | A 217 WC9 | |
| 2 | Seat | A 105 + Stellite gr. 6 | A 182 F22 + Stellite gr. 6 | A 182 F22 + Stellite gr. 6 | (1) |
| 3 | Disc | A 216 WCB + Stellite gr. 6 | A217 WC9 + Stellite gr. 6 | A217 WC9 + Stellite gr. 6 | |
| 5 | Gasket | 316 reinforced graphite | 316 reinforced graphite | 316 reinforced graphite | |
| 6 | Bonnet | A 105 | A 182 F22 | A 182 F22 | |
| 31 | Cover bolting | A 193 B7 | A 193 B16 | A 193 B16 | |
| 32 | Cover nut | A 194 2H | A 194 gr. 4 | A 194 gr. 4 | |
| 42 | Segment ring | A 182 F22 | A 182 F22 | A 182 F22 | |
| 43 | Intermediate thrust ring | A 182 F22 | A 182 F22 | A 182 F22 | |
| 50 | Plug bolting | A 193 B7 | A 193 B16 | A 193 B16 | |
| 51 | Plug nut | A 194 2H | A 194 gr. 4 | A 194 gr. 4 | |
| 52 | Pin gasket | 316 reinforced graphite | 316 reinforced graphite | 316 reinforced graphite | |
| 56 | Pressure seal plug | A 105 | A 182 F22 | A 182 F22 | |
| 55 | Flange | A 105 | A 182 F22 | A 182 F22 | |
| 64 | Pin | F316 | F316 | F316 | |
| 65 | Spacer | A 182 F6a | A565 gr 616HT | A565 gr 616HT | |
| 99 | Spring | Stainless steel | Stainless steel | Stainless steel | |
| 108 | Bushing | A 182 F6a | A565 gr 616HT | A565 gr 616HT | |
| 109 | Bearing bushing | A 182 F22 + Stellite | A 182 F22 + Stellite | A 182 F22 + Stellite | |
| 311 | Retaining ring | A 105 | A 105 | A 105 | |

Note

Seats are welded in.

Pressure Seal Cast Check Valves -Style A- Swing Check and Tilting Disc

Swing Check Configuration



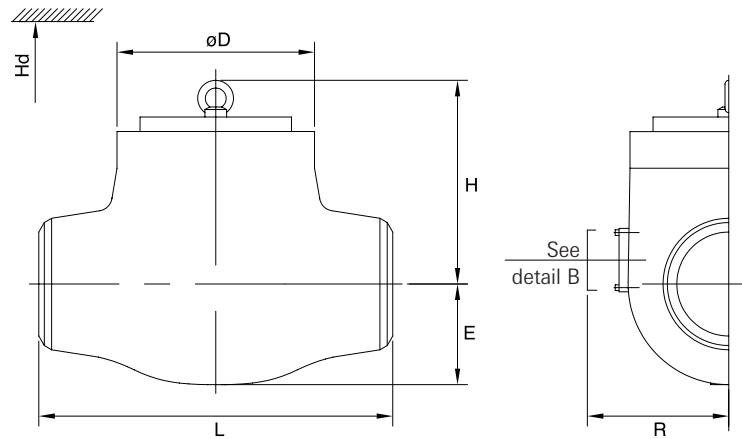
Dimensions and weights - ASME Cl. 900

| Size (in.) | diam -P | L | H | R | Hd | E | -D | Weight (Kg) |
|------------|---------|------|-----|-----|------|-----|-----|-------------|
| 2 | 51 | 330 | 230 | 225 | 335 | 65 | 160 | 35 |
| 2 1/2 | 51 | 330 | 230 | 225 | 335 | 65 | 160 | 35 |
| 3 | 68 | 305 | 240 | 240 | 365 | 70 | 170 | 45 |
| 4 | 88 | 432 | 265 | 235 | 415 | 85 | 192 | 52 |
| 6 | 131 | 508 | 310 | 330 | 530 | 115 | 270 | 115 |
| 8 | 171 | 661 | 405 | 435 | 685 | 145 | 340 | 280 |
| 10 | 214 | 787 | 455 | 500 | 800 | 170 | 396 | 380 |
| 12 | 254 | 914 | 475 | 530 | 860 | 200 | 420 | 560 |
| 14 | 280 | 991 | 540 | 560 | 975 | 225 | 516 | 665 |
| 16 | 320 | 1092 | 620 | 695 | 1120 | 250 | 580 | 950 |

Dimensions and weights - ASME Cl. 1500

| Size (in.) | diam -P | L | H | R | Hd | E | -D | Weight (Kg) |
|------------|---------|------|-----|-----|------|-----|-----|-------------|
| 2 | 51 | 330 | 230 | 225 | 335 | 65 | 160 | 35 |
| 2 1/2 | 51 | 330 | 230 | 225 | 335 | 65 | 160 | 35 |
| 3 | 65 | 381 | 235 | 235 | 360 | 75 | 170 | 53 |
| 4 | 83 | 457 | 260 | 265 | 415 | 95 | 230 | 60 |
| 6 | 123 | 559 | 350 | 360 | 560 | 125 | 285 | 140 |
| 8 | 160 | 711 | 440 | 435 | 710 | 170 | 380 | 360 |
| 10 | 200 | 864 | 490 | 500 | 825 | 190 | 430 | 465 |
| 12 | 237 | 991 | 535 | 560 | 930 | 225 | 500 | 790 |
| 14 | 260 | 1067 | 595 | 615 | 1025 | 245 | 540 | 1040 |
| 16 | 297 | 1194 | 700 | 725 | 1190 | 275 | 620 | 1490 |

Tilting Disc Configuration



Dimensions and weights - ASME Cl. 1500

| Size (in.) | diam -P | L | H | R | Hd | E | -D | Weight (Kg) |
|------------|---------|------|-----|-----|------|-----|-----|-------------|
| 2 | 57 | 254 | 185 | 220 | 360 | 80 | 170 | 60 |
| 3 | 70 | 305 | 185 | 210 | 350 | 120 | 185 | 65 |
| 4 | 92 | 406 | 295 | 245 | 400 | 110 | 215 | 110 |
| 6 | 137 | 559 | 380 | 275 | 500 | 145 | 260 | 270 |
| 8 | 178 | 711 | 460 | 350 | 620 | 180 | 365 | 530 |
| 10 | 222 | 864 | 610 | 410 | 680 | 230 | 455 | 780 |
| 12 | 264 | 991 | 700 | 460 | 800 | 260 | 480 | 1210 |
| 14 | 289 | 1067 | 730 | 470 | 840 | 280 | 510 | 1490 |
| 16 | 330 | 1194 | 790 | 600 | 950 | 335 | 665 | 2170 |
| 18 | 371 | 1346 | 840 | 640 | 1070 | 380 | 745 | 2825 |
| 20 | 416 | 1473 | 900 | 695 | 1200 | 445 | 860 | 4150 |
| 24 | 498 | 1500 | 980 | 800 | 1380 | 565 | 990 | 5200 |

Dimensions and weights - ASME Cl. 2500

| Size (in.) | diam -P | L | H | R | Hd | E | -D | Weight (Kg) |
|------------|---------|------|-----|-----|------|-----|-----|-------------|
| 2 | 57 | 330 | 160 | 220 | 360 | 80 | 170 | 60 |
| 3 | 57 | 368 | 160 | 220 | 360 | 80 | 170 | 65 |
| 4 | 73 | 457 | 185 | 210 | 350 | 120 | 185 | 105 |
| 6 | 111 | 610 | 360 | 290 | 500 | 165 | 285 | 245 |
| 8 | 146 | 762 | 360 | 350 | 580 | 180 | 365 | 520 |
| 10 | 184 | 914 | 450 | 370 | 650 | 210 | 420 | 860 |
| 12 | 219 | 1041 | 580 | 425 | 740 | 250 | 465 | 1250 |
| 14 | 241 | 1118 | 620 | 440 | 800 | 275 | 520 | 1750 |
| 16 | 276 | 1245 | 775 | 575 | 920 | 335 | 560 | 2350 |
| 18 | 311 | 1397 | 855 | 550 | 1010 | 345 | 650 | 3200 |
| 20 | 343 | 1500 | 890 | 625 | 1150 | 385 | 710 | 4540 |
| 24 | 413 | 1500 | 970 | 680 | 1270 | 465 | 815 | 5700 |

Note

All dimensions are in mm and weight is in kilos.