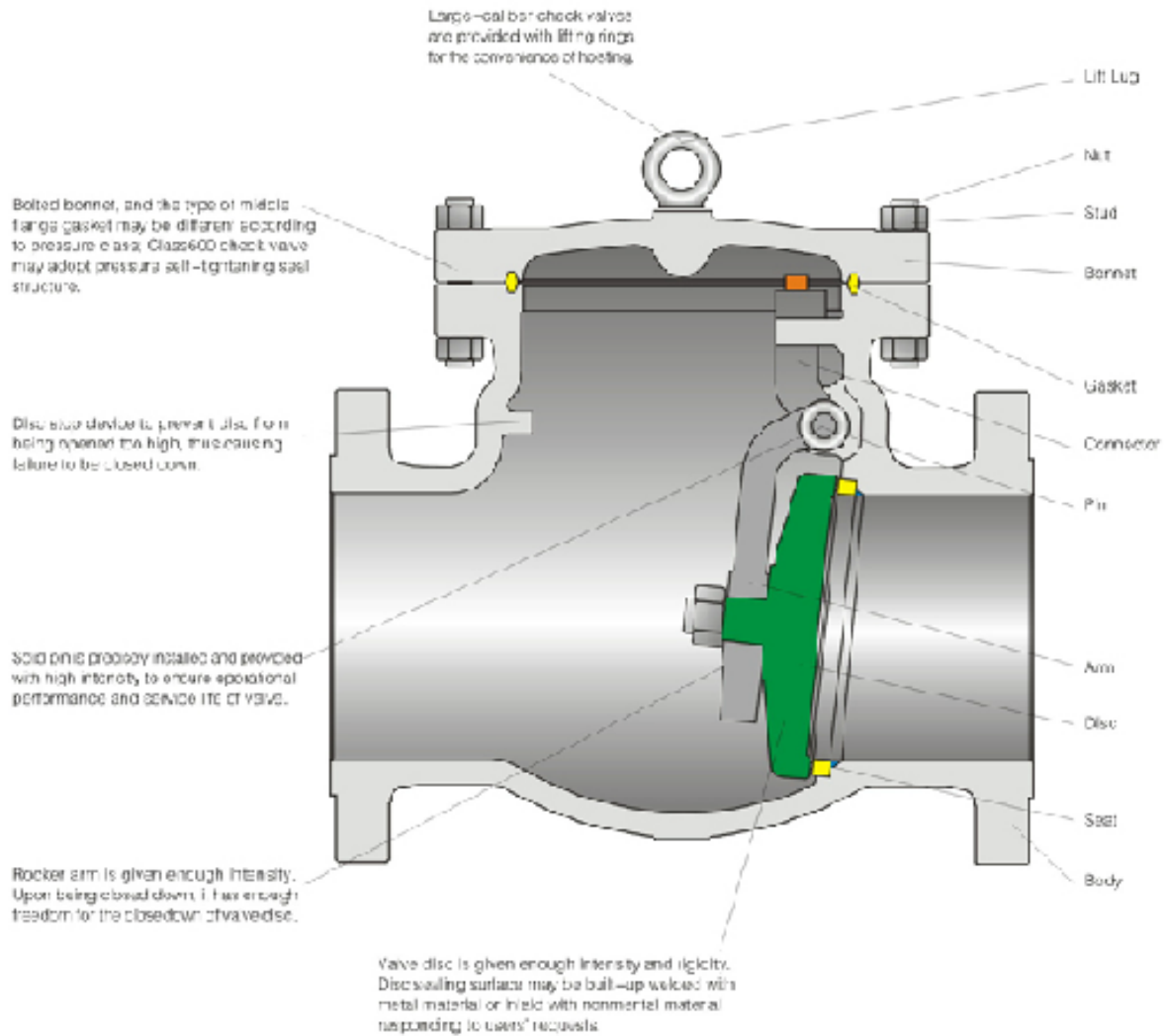


Swing Type Check Valve

<http://www.cnjoch.com>

Structure of Cast Steel Swing Type Check Valve



Materials List of Cast Steel Swing Type Check Valve

ASTM Standard Material

| No. | Part Name | Carbon Steel | Stainless Steel | Alloy Steel | Low Temperature Steel |
|-----|-----------|----------------------|--------------------|-------------------|-----------------------|
| 1 | Body | ASTM A216 GR WCB | ASTM A351 GR CF8 | ASTM A 217 GR WCB | ASTM A352 GR LCB |
| 2 | Seat | ASTM A105 | ASTM A106 | ASTM A182 GR F304 | ASTM A182 GR F304 |
| 3 | Disk | ASTM A216 GR WCB | ASTM A351 GR CF8 | ASTM A 217 GR WCB | ASTM A352 GR LCB |
| 4 | Arm | ASTM A216 GR WCB | ASTM A351 GR CF8 | ASTM A 217 GR WCB | ASTM A352 GR LCB |
| 5 | Pin | ASTM A182 GR F8a | ASTM A276 TYPE 304 | ASTM A182 GR F304 | ASTM A182 GR F304 |
| 6 | Connector | ASTM A216 GR WCB | ASTM A351 GR CF8 | ASTM A 217 GR WCB | ASTM A352 GR LCB |
| 7 | Gasket | Soft Graphite +SS304 | | | |
| 8 | Donnet | ASTM A216 GR WCB | ASTM A351 GR CF8 | ASTM A 217 GR WCB | ASTM A352 GR LCB |
| 9 | Stud | ASTM A193 GR B7 | ASTM A194 GR B8 | ASTM A193 GR B7 | ASTM A194 GR B8 |
| 10 | Nut | ASTM A194 GR 2H | ASTM A 193 GR 8 | ASTM A194 GR 8 | ASTM A193 GR 8 |

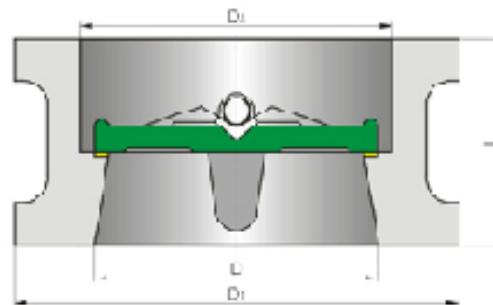
Technical Specification

| | | | | | | | |
|-----------------------------|---|------|------|-------|-------|-------|-------|
| Design Standard | ES105B | | | | | | |
| Pressure-Temperature Rating | ASME B16.34 | | | | | | |
| End-to-end | ASME B16.10 | | | | | | |
| Flange Ends | ASME B16.5, ASME B16.47 | | | | | | |
| Butt-welding Ends | ASME B16.25 | | | | | | |
| Inspection & Test | API608 | | | | | | |
| Nominal Pressure(Class) | 150 | 300 | 400 | 600 | 900 | 1500 | |
| Test Pressure (MPa) | Shell Test | 2.94 | 7.67 | 10.24 | 15.32 | 22.96 | 38.30 |
| | High Pressure Gee. Test | 2.10 | 5.02 | 7.51 | 11.23 | 16.80 | 28.08 |
| | Low Pressure Seal Test | 0.6 | | | | | |
| Applicable Temperature | -196°C ~ 550°C(Different raw material for different working temperature) | | | | | | |
| Applicable Medium | Water, oil, gas and other corrosivity medium(Different raw material for different medium) | | | | | | |

Double-plate Wafer Type Check Valve

<http://www.cnjoch.com>

Pressure: Class150 ~ 2500



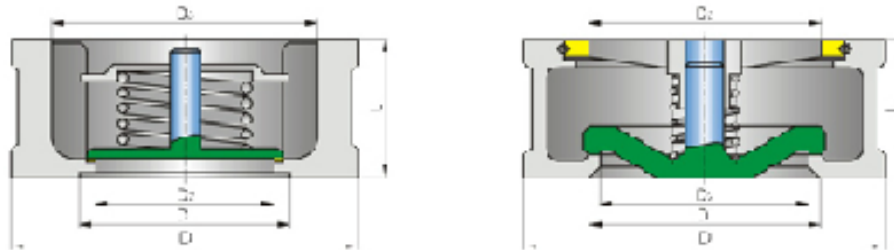
Main Dimensions & Weight

| Pressure | Size | | Dimension (mm) | | | | Wght (kg) | Qv |
|----------|------|-------|----------------|------|------|------|-----------|-------|
| | mm | in | L | D | D1 | D2 | | |
| Class150 | 50 | 2 | 60 | 51 | 103 | 56 | 2 | 48 |
| | 65 | 2 1/2 | 67 | 55 | 122 | 73 | 3 | 128 |
| | 90 | 3 | 73 | 60 | 135 | 88 | 4 | 150 |
| | 100 | 4 | 73 | 102 | 173 | 108 | 5 | 384 |
| | 125 | 5 | 86 | 127 | 198 | 132 | 8 | 830 |
| | 150 | 6 | 98 | 152 | 220 | 160 | 13 | 900 |
| | 200 | 8 | 127 | 203 | 277 | 210 | 25 | 1500 |
| | 250 | 10 | 146 | 254 | 307 | 203 | 39 | 3000 |
| | 300 | 12 | 161 | 305 | 407 | 310 | 54 | 3500 |
| | 350 | 14 | 164 | 350 | 446 | 325 | 60 | 5410 |
| | 400 | 16 | 191 | 400 | 512 | 405 | 117 | 6250 |
| | 450 | 18 | 203 | 450 | 547 | 425 | 138 | 10452 |
| | 500 | 20 | 219 | 500 | 594 | 505 | 193 | 14251 |
| | 600 | 24 | 222 | 600 | 715 | 605 | 33 | 26511 |
| | 700 | 28 | 305 | 700 | 773 | 700 | 330 | 33600 |
| | 750 | 30 | 305 | 746 | 824 | 750 | 425 | 48000 |
| | 800 | 32 | 305 | 795 | 878 | 800 | 550 | 55200 |
| 900 | 36 | 368 | 898 | 985 | 910 | 650 | 84000 | |
| 1050 | 42 | 432 | 1050 | 1142 | 1055 | 950 | 96000 | |
| 1200 | 48 | 524 | 1200 | 1302 | 1205 | 1400 | 117500 | |
| Class300 | 50 | 2 | 60 | 51 | 110 | 58 | 3 | 48 |
| | 65 | 2 1/2 | 67 | 55 | 126 | 73 | 4 | 128 |
| | 90 | 3 | 73 | 60 | 147 | 88 | 5 | 150 |
| | 100 | 4 | 73 | 102 | 179 | 100 | 7 | 384 |
| | 125 | 5 | 86 | 127 | 214 | 132 | 15 | 830 |
| | 150 | 6 | 98 | 152 | 246 | 160 | 18 | 900 |
| | 200 | 8 | 127 | 203 | 305 | 210 | 31 | 1580 |
| | 250 | 10 | 146 | 254 | 359 | 266 | 51 | 3200 |
| | 300 | 12 | 161 | 305 | 420 | 310 | 77 | 3500 |
| | 350 | 14 | 222 | 350 | 485 | 325 | 117 | 5410 |
| | 400 | 16 | 232 | 400 | 537 | 405 | 130 | 6250 |
| | 450 | 18 | 261 | 450 | 594 | 425 | 200 | 10452 |
| | 500 | 20 | 282 | 500 | 652 | 505 | 235 | 14251 |
| | 600 | 24 | 318 | 600 | 772 | 608 | 410 | 26511 |
| | 750 | 30 | 368 | 735 | 882 | 740 | 650 | 48000 |
| | 900 | 36 | 483 | 873 | 1041 | 840 | 1020 | 84000 |
| | 1050 | 42 | 548 | 1035 | 1196 | 1045 | 1540 | 96000 |
| 1200 | 48 | 629 | 1170 | 1365 | 1197 | 2470 | 117500 | |

Wafer Type Lift Check Valve

<http://www.cnjoch.com>

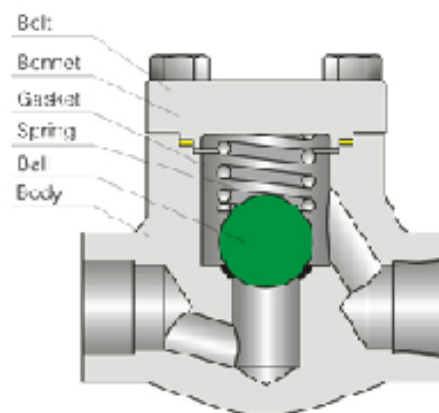
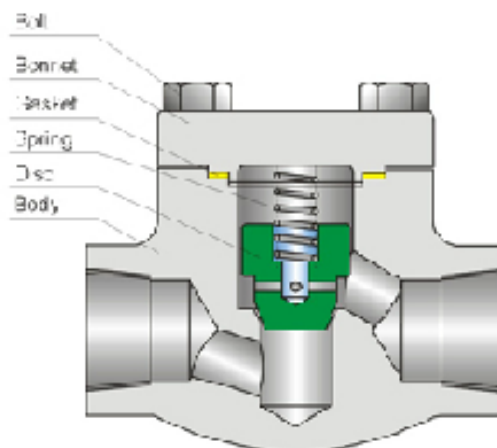
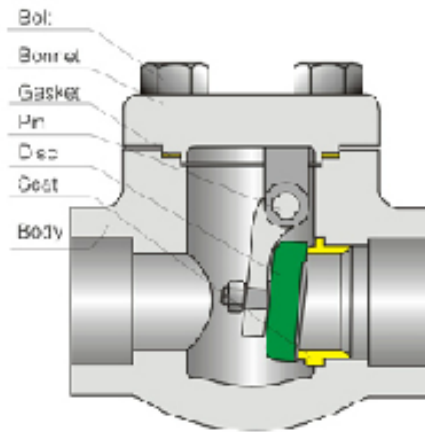
Pressure: Class 150 ~ 300



Main Dimensions & Weight

| Pressure | S23 | | Dimension (mm) | | | | | Weight (kg) | Cv |
|----------|-----|-------|----------------|-----|-----|-----|-----|-------------|-----|
| | mm | in | - | D | D1 | D2 | D3 | | |
| Class150 | 15 | 1/2 | 16 | 46 | 26 | 5 | 25 | 0.28 | - |
| | 20 | 3/4 | 19 | 55 | 30 | 7.5 | 30 | 0.42 | - |
| | 25 | 1 | 22 | 65 | 36 | 24 | 36 | 0.56 | - |
| | 32 | 1 1/4 | 28 | 74 | 43 | 31 | 43 | 0.75 | - |
| | 40 | 1 1/2 | 31.5 | 84 | 52 | 30 | 52 | 1.0 | - |
| | 50 | 2 | 40 | 100 | 62 | 45 | 62 | 2.1 | - |
| | 65 | 2 1/2 | 46 | 122 | 75 | 62 | 75 | 2.9 | - |
| | 80 | 3 | 50 | 135 | 90 | 75 | 90 | 3.5 | 106 |
| | 100 | 4 | 60 | 173 | 112 | 95 | 112 | 4.8 | 189 |
| | 125 | 5 | 90 | 195 | 125 | 110 | 132 | 12 | 381 |
| | 150 | 6 | 126 | 220 | 150 | 127 | 155 | 17 | 423 |
| 200 | 8 | 140 | 277 | 200 | 155 | 205 | 29 | 708 | |
| Class300 | 15 | 1/2 | 25 | 52 | 25 | 5 | 25 | 0.3 | - |
| | 20 | 3/4 | 31.5 | 65 | 30 | 7.5 | 30 | 0.45 | - |
| | 25 | 1 | 35.5 | 72 | 36 | 24 | 36 | 0.6 | - |
| | 32 | 1 1/4 | 40 | 81 | 43 | 31 | 43 | 0.9 | - |
| | 40 | 1 1/2 | 45 | 94 | 52 | 30 | 52 | 1.5 | - |
| | 50 | 2 | 56 | 110 | 62 | 45 | 62 | 2.4 | - |
| | 65 | 2 1/2 | 63 | 138 | 75 | 62 | 75 | 3 | - |
| | 80 | 3 | 71 | 147 | 90 | 70 | 90 | 4 | 106 |
| | 100 | 4 | 80 | 179 | 112 | 95 | 112 | 5.5 | 189 |
| | 125 | 5 | 110 | 214 | 125 | 110 | 132 | 13 | 381 |
| | 150 | 6 | 126 | 240 | 150 | 127 | 155 | 22 | 423 |
| 200 | 8 | 130 | 305 | 200 | 155 | 205 | 36 | 798 | |

Design of Forged Steel Check Valve



Material List For Main Parts

| No. | Part Name | ASTM | | | |
|-----|-----------|-------------------|----------|-----------------|------------------|
| | | Carbon Steel | | Stainless Steel | Alloy Steel |
| 1 | Body | A105 | LF2/LF3 | A182 F304 | A182F11/F22 |
| 2 | Seat | A182F6a | A182F6a | A182 F304 | A182F11/F22 |
| 3 | Disc/Ball | A182F6a | A182F6a | A182 F304 | A182F6a |
| 4 | Pin | A276-410 | A276-410 | A276-304 | A276-410 |
| 5 | Spring | Si-Mn Alloy Steel | | Stainless Steel | Cr.V Alloy Steel |
| 6 | Gasket | Graphite +304 | | | |
| 7 | Bonnet | A105 | LF2/LF3 | A182 F304 | A182 F11/F22 |
| 8 | SOE | A133 B7 | A320L7 | A193 B8 | A193 B7b |

Performance Specification

| Nominal Pressure | | Class | | | | | | |
|------------------------|------------------------|------------------|------|-------|-------|-------|-------|-------|
| | | 150 | 300 | 600 | 800 | 900 | 1500 | 2500 |
| Test Pressure (MPa) | Shell Test | 2.94 | 7.67 | 16.32 | 20.48 | 22.58 | 38.50 | 63.83 |
| | High Pressure Sea Test | 2.16 | 5.62 | 11.23 | 14.68 | 16.55 | 28.08 | 46.81 |
| | Low Pressure Sea Test | 0.5 | | | | | | |
| Applicable Temperature | | ≤425℃ | | | | | | |
| Applicable Medium | | Water, oil & gas | | | | | | |