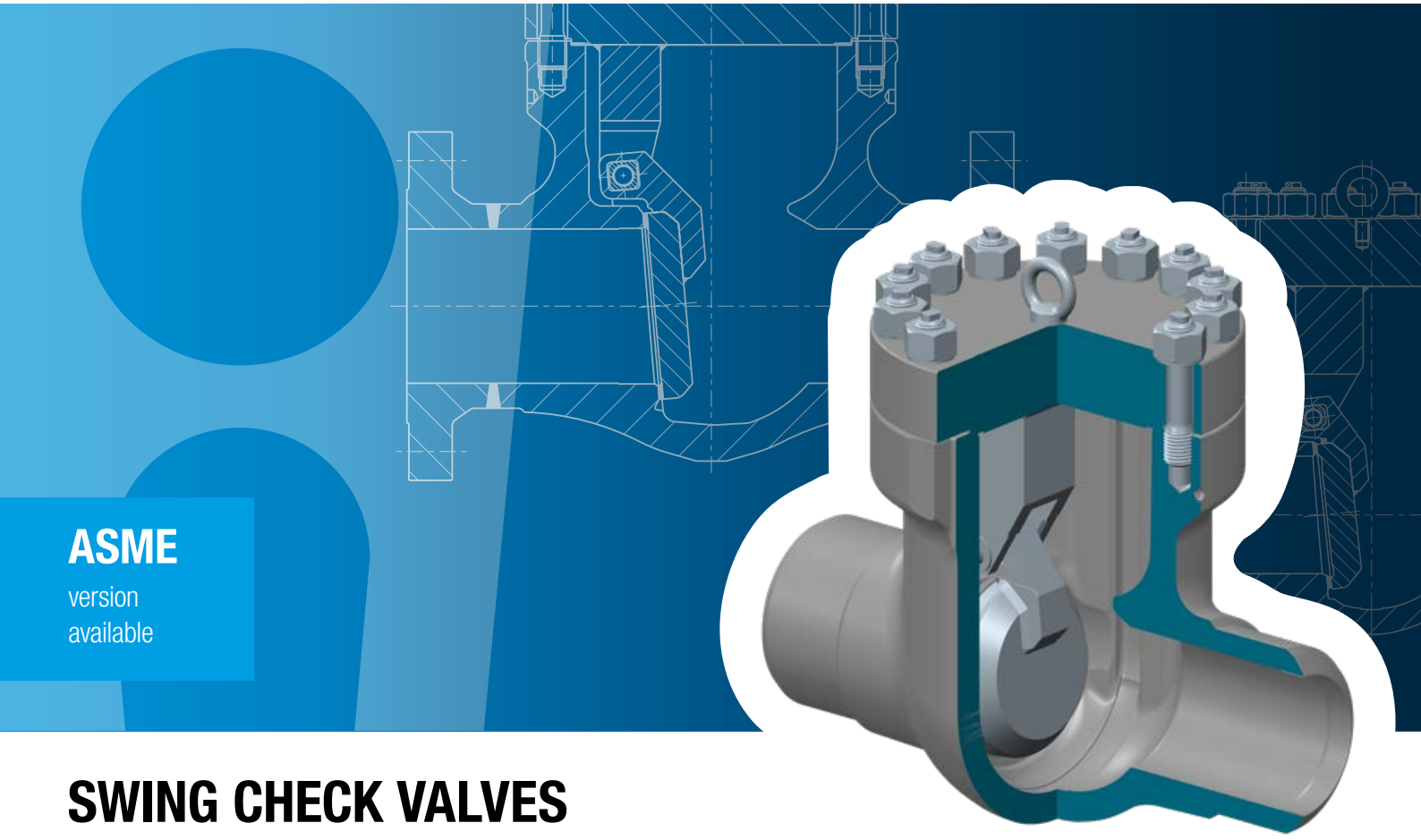



# SWING CHECK VALVES

640 AA  PN 63-160 (PD 18)  DN 50-250

## Design highlights

- Forged body
- Integral seat
- Valve lever mounted on the valve shaft by a sliding block
- Bolted cover
- Swing check disc attached to cover

## Advantages

- Free of pores and cavities compared to cast steel
- No gap corrosion
- Optimum adjustment of the disc on the body seat thanks to movement of the sliding block
- Easy to service, cover and disc can be removed and reinstalled together



Subject to technical modifications

## Version
- Body forged
- Swing check valve with internal shaft
- Swing check disc attached to the cover
- Available with flanged and butt-weld connections

## Operating data
- Operating pressure, butt-weld ends, up to 254 bar (DIN 2401; DIN EN 1092-1 or DIN EN 12516-1)
- Operating pressure, flange ends, up to 160 bar (DIN 2401 or DIN EN 1092-1)
- Operating temperature up to 600 °C

## Materials
- 1.5415
- 1.7335
- 1.7383

Other materials available on request.

## Flow media
Depending on the choice of materials, the swing check valves can be used for water, steam, gas, oil or other non-aggressive media.

## Applications
In chemical, industrial and power plants.

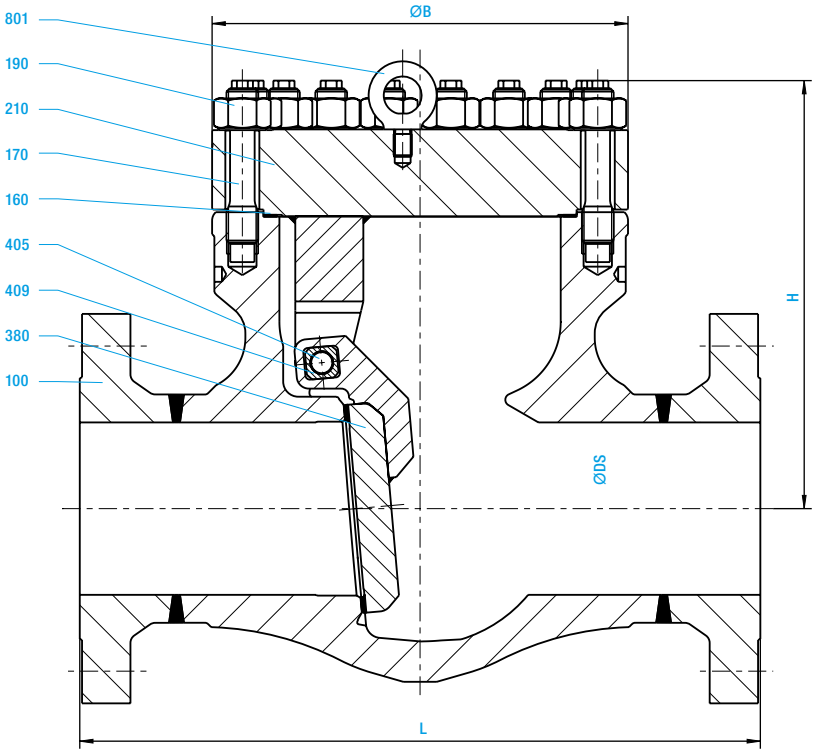
## Max. area of application for butt-weld ends [3]

Permissible operating pressure [bar(g)] at calculation temperature [°C] [1]

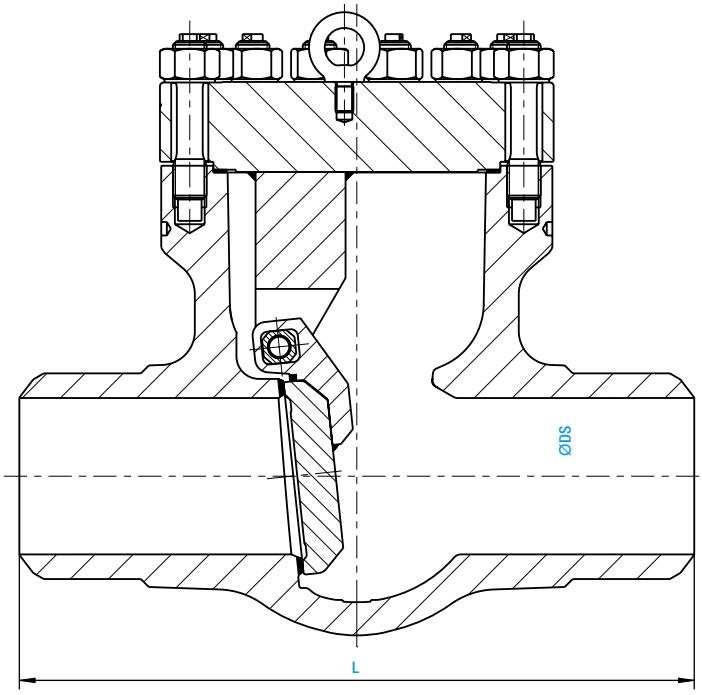
| Material | PD | 20 | 50 | 100 | 120 | 150 | 200 | 250 | 300 | 350 | 400 | 420 | 430 | 440 | 460 | 470 | 480 | 490 | 500 | 510 | 520 | 530 | 540 | 550 | 560 | 570 | 580 | 590 | 600 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1.5415** | **18** | 258 | 246 | 229 | 219 | 204 | 185 | 170 | 146 | 141 | 136 | 134 | 133 | 132 | 130 | 129 | 128 | 112 | 88 | 67 | 53 | 42 | | | | | | | |
| **1.7335** | **18** | 258 | 249 | 234 | 228 | 219 | 205 | 194 | 180 | 170 | 161 | 156 | 155 | 153 | 150 | 149 | 148 | 147 | 133 | 112 | 89 | 72 | 58 | 46 | 37 | 30 | | | |
| **1.7383** [2] | **18** | 258 | 250 | 239 | 233 | 224 | 210 | 205 | 194 | 180 | 170 | 166 | 164 | 162 | 159 | 156 | 155 | 153 | 131 | 115 | 100 | 88 | 76 | 66 | 56 | 50 | 43 | 37 | 33 |

1) Operating temperature = calculation temperature minus temperature surcharge according to the standard codes.
2) For temperatures > 570 °C, stem material 1.4980, seat armoured with Stellite, and high-temperature packing.
3) Max. area of application for flange ends or pressure ratings valves; see technical appendix from page 138.

## Flange version




## Butt-weld end version






Subject to technical modifications

## Materials

| Item | Designation | 1.5415 (42) | 1.7335 (44) | 1.7383 (45) |
|---|---|---|---|---|
| **100** | Body | 1.5415 | 1.7335 | 1.7383 |
| | Body seat | Stellite | Stellite | Stellite |
| **160** | *Gasket* | *Graphite* | *Graphite* | *Graphite* |
| **170** | Bolt | 1.7709 | 1.7709 | 1.7709 |
| **190** | Hexagonal nut | 1.7218 | 1.7218 | 1.7218 |
| **210** | Cover | 1.5415 | 1.7335 | 1.7383 |
| **380** | *Swing check disc* | *1.5415* | *1.7335* | *1.7383* |
| | *Armoured with* | *Stellite* | *Stellite* | *Stellite* |
| **405** | *Valve shaft* | *1.4021* | *1.4021* | *1.4021* |
| **409** | *Sliding block* | *5.3106* | *5.3106* | *5.3106* |
| **801** | *Ring bolt* | *1.0401* | *1.0401* | *1.0401* |

*Spare parts*

Other materials available on request.

## Dimensions/mm

| PN / DN | ØDS | 63-100 L | 160 L | H | ØB |
|---|---|---|---|---|---|
| **50** | 47 | 250 | 300 | 220 | 192 |
| **80** | 74 | 380 | 390 | 275 | 236 |
| **100** | 95 | 430 | 450 | 320 | 265 |
| **150** | 139 | 550 | 600 | 415 | 350 |
| **200** | 183 | 650 | 750 | 510 | 440 |
| **250** | 228 | 775 | 900 | 595 | 550 |

## Weights/kg

| DN | Flange | | Butt-weld ends | |
|---|---|---|---|---|
| | PN63-100 | PN160 | PN63-100 | PN160 |
| **50** | 31 | 32 | 42 | 43 |
| **80** | 58 | 59 | 73 | 74 |
| **100** | 86 | 88 | 106 | 110 |
| **150** | 202 | 209 | 244 | 256 |
| **200** | 389 | 407 | 458 | 490 |
| **250** | 729 | 765 | 826 | 897 |