

Fig 455 Full Bore ball sector valve of stainless steel PN 16



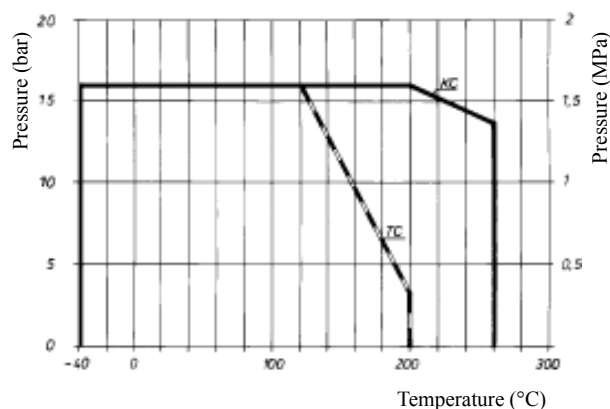
Application

The Högfors Fig 455 ball sector control valve is specially design for the control applications of different media as liquits, pulps and steam.

The arrow on the body denotes the correct tightness direction according to ISO 5208.

| | | |
|------------------------------|-----------|-----------|
| Nominal pressure | PN 16 | |
| Operating temperature | KC | TC |
| max | +260 °C | +200 °C |
| min | -40 °C | -40 °C |

Pressure/ temperature graph



Design

The Högfors Fig 455 full bore ball sector valve is manufactured in stainless steel throughout with a hard chromed ball and stellite seat (PTFE is available as an option). The V-port gives an excellent control characteristic intermediate between linear and equal percentage. The full bore design permits high K_v -values. The two piece body is flanged PN 16 as standard, some sizes can accomodate alternative drillings.

Face to face lengths

DN 25 ... 100 according to ISO 5752 basic serie 3,
DN 125 ... 300 according to ISO 5752 basic serie 12

Flange drilling according to ISO 2084 PN 16

Nominal sizes DN 25 ... 300

Conform with the requirements of the Council Directive 97/23/EC on Pressure Equipement, marking:

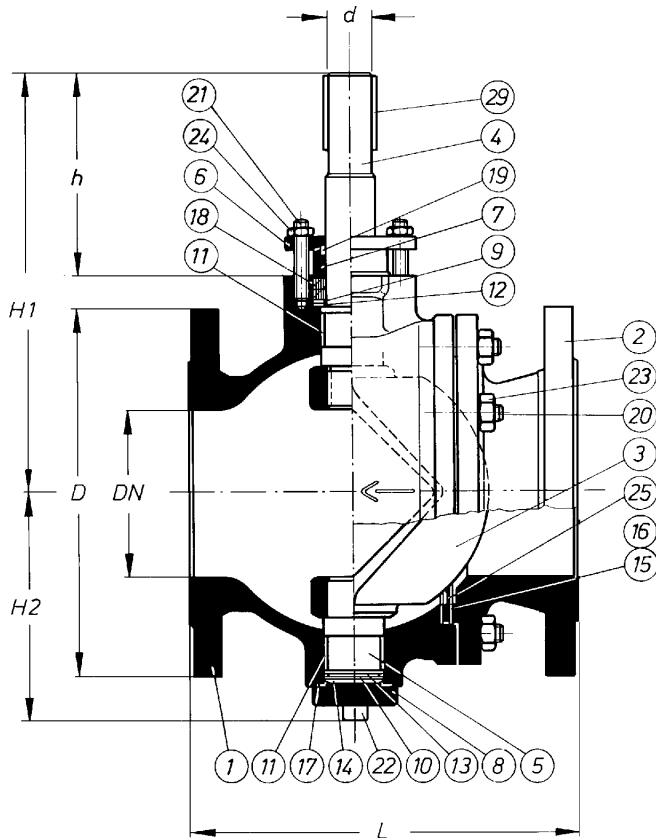


Leakrate

| Code number | | Seat | ISO 5208 |
|-------------|-------------------|----------|----------|
| 455KC___ | with manual lever | Stellite | D |
| 455KC___Z | with bare shaft | Stellite | D |
| 455KC___M | with gear | Stellite | D |
| 455TC___ | with manual lever | PTFE | A |
| 455TC___Z | with bare shaft | PTFE | A |
| 455TC___M | with gear | PTFE | A |

For steam: Code number 45501KC with graphite shim

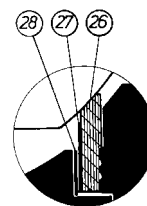
Ball sector valve



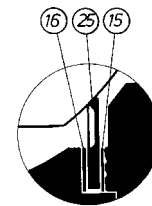
Parts

- | | |
|--------------------------|----------------------|
| 1. Body | CF-8M |
| 2. Body flange | CF-8M |
| 3. V-ball | CF-8M |
| 4. Upper shaft | W:no 4401 |
| 5. Lower shaft | W:no 4401 |
| 6. Gland | W:no 4401 |
| 7. Spacer ring | W:no 4401 |
| 8. Cover | W:no 4401 |
| 9. Thrust bearing ring | W:no 4401 |
| 10. Thrust bearing disc | W:no 4401 |
| 11. Shaft bearing | Pampus |
| 12. Upper thrust bearing | Pampus |
| 13. Lower thrust bearing | Pampus |
| 14. Cup spring | W:no 4401 |
| 15. Shim | SFS5811 carbon fibre |
| 16. Shim | SFS5811 carbon fibre |
| 17. Cover gasket | SFS5811 carbon fibre |
| 18. Packing | Graphite |
| 19. O-ring | EPDM |
| 20. Stud | |
| 21. Stud | |
| 22. Screw | |
| 23. Hexagon nut | |
| 24. Hexagon nut | |
| 25. K-seat | Stellite |
| 26. T-seat | PTFE |
| 27. Support ring | W:no 4401 |
| 28. Shim | SFS5811 carbon fibre |
| 29. Key | Fe |

Seat alternatives



PTFE
455TC

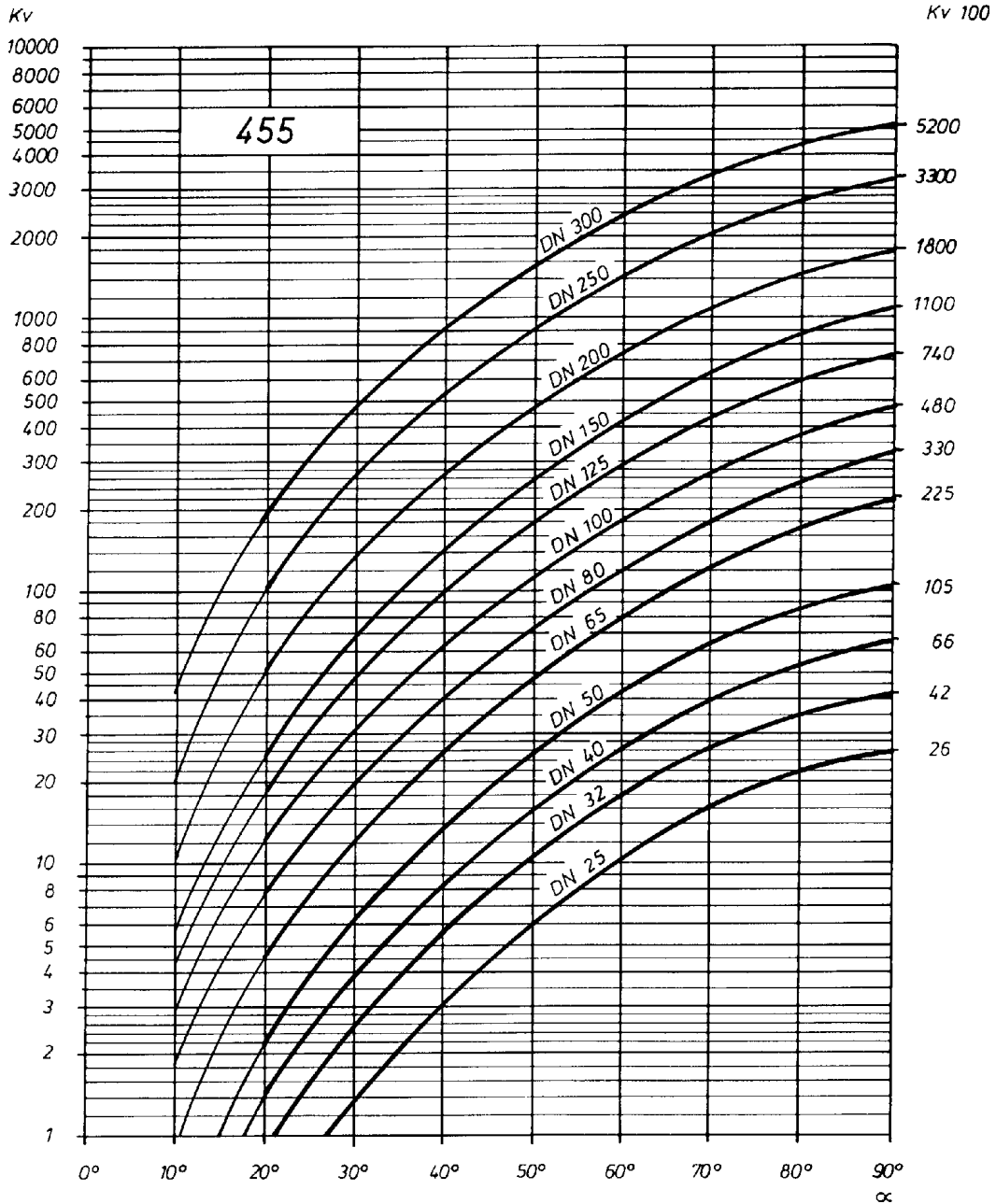


Stellite
455KC

Dimensions

| DN | L | H1 | H2 | h | d | D | Connection PN 16 | | | Weight kg |
|-----|-----|-----|-----|-----|----|-----|------------------|-----------|-------|-----------|
| | | | | | | | pcd | bolt hole | holes | |
| 25 | 127 | 143 | 68 | 85 | 11 | 115 | 85 | 14 | 4 | 5,0 |
| 32 | 140 | 166 | 79 | 95 | 15 | 140 | 100 | 18 | 4 | 7,7 |
| 40 | 165 | 170 | 83 | 95 | 15 | 150 | 110 | 18 | 4 | 9,6 |
| 50 | 178 | 196 | 91 | 110 | 20 | 165 | 125 | 18 | 4 | 12 |
| 65 | 190 | 204 | 99 | 110 | 20 | 185 | 145 | 18 | 4 | 17 |
| 80 | 203 | 235 | 126 | 115 | 25 | 200 | 160 | 18 | 8 | 23 |
| 100 | 229 | 245 | 136 | 115 | 25 | 220 | 180 | 18 | 8 | 27 |
| 125 | 356 | 329 | 185 | 150 | 30 | 250 | 210 | 18 | 8 | 55 |
| 150 | 394 | 343 | 199 | 150 | 30 | 285 | 240 | 22 | 8 | 67 |
| 200 | 457 | 404 | 248 | 170 | 45 | 340 | 295 | 22 | 12 | 127 |
| 250 | 533 | 439 | 283 | 170 | 45 | 405 | 355 | 26 | 12 | 230 |
| 300 | 610 | 495 | 337 | 185 | 60 | 460 | 410 | 26 | 12 | 280 |

Regulation curves



WATER:

Volume flow:

$$Q = K_V \sqrt{\frac{\Delta p}{\rho}}$$

Flow velocity:

$$v = 354 \frac{Q}{DN^2}$$

- K_V = kv-value — Capacity factors
- DN = nominal valve size (mm)
- α = disc opening angle
- Q = volume flow m³/h
- Δp = pressure difference bar
- ρ = density of liquid kg/dm³
- v = flow velocity m/s