

Stainless Steel Ball Valve FIRE-SAFE PN16, PN25



Application

The Fig 452 is available with metal seats, design has been firesafe tested to BS 6755. The valve can be used with confidence to provide bidirectional shut off on demanding duties.

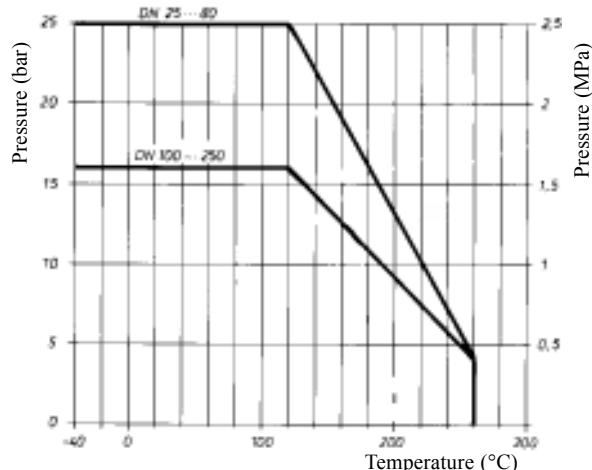
It is used, for instance in

- industrial and ship's pipework
- oil pipelines

Nominal pressure PN 25 DN 25 ... 80
PN 16 DN 100 ... 250

Operating temperature max +260 °C
min -40 °C

Pressure/temperature graph



Design

This ball valve is a full bore valve of floating ball design manufactured in 316 stainless steel with a two piece body, the stem design is blow out proof with self adjusting gland packing, seats are in stellite. Used in conjunction with a hard chromed ball.

The valve can be equipped with

- a drain plug
- an actuator
- ANSI 150 flanges

Face to face lengths

DN 25...100 according to DIN 3202 F4 = ISO 5752 series 14

DN 125...250 according to DIN 3202 F5 = ISO 5752 series 15

Flange drillings according to DIN 2501 PN 16

Conform with the requirements of the Council Directive 97/23/EC on Pressure Equipment, marking: **CE**₀₄₃₄

Nominal sizes DN 25...250

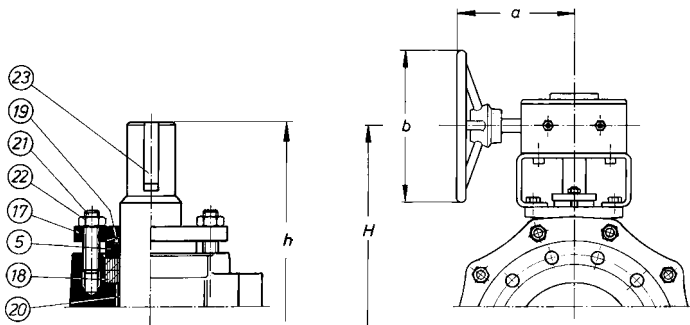
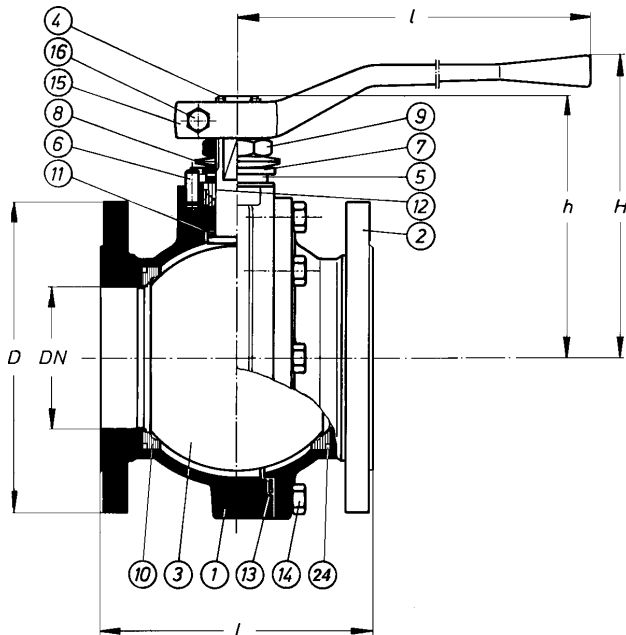
Code number

452KC___ with manual lever
452KC___Z with bare shaft
452KC___M with gear

Seat

Stellite
Stellite
Stellite

Stainless Steel Ball Valve FIRE-SAFE



Parts

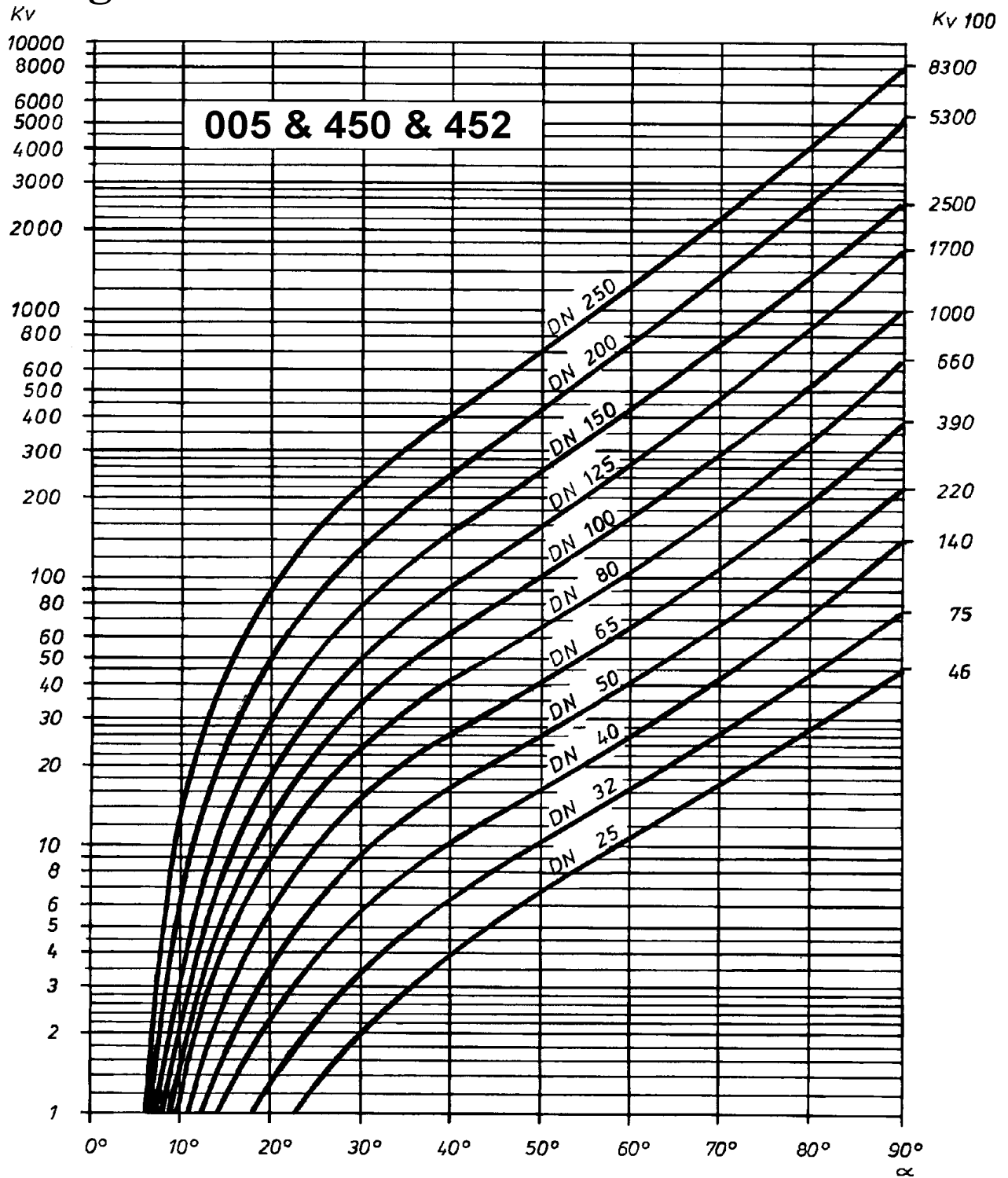
- | | |
|-----------------------------------|-----------------------|
| 1. Body | CF-8M |
| 2. Body cap | CF-8M |
| 3. Ball | W:no 4401 (AISI 316) |
| 4. Stem | W:no 4401 (AISI 316) |
| 5. Gland | W:no 4401 (AISI 316) |
| 6. Parallel pin | W:no 4401 (AISI 316) |
| 7. Limit plate | W:no 4401 (AISI 316) |
| 8. Disc spring | W:no 4401 (AISI 316) |
| 9. Hexagon nut | W:no 4401 (AISI 316) |
| 10. Metal seat | W:no 4401/ Stellite |
| 11. Thrust bearing | PTFE |
| 12. Double cone packing | Graphite |
| | (DN25 ... 150) |
| 13. Gasket | Graphite |
| 14. Hexagon bolt (DN25 ... 100) | ASTM A193 BM8 |
| 14. Hexagon bolt and nut | ASTM A193 BM8 |
| | (DN125 ... 250) |
| 15. Hand lever | DN 25 ... 65 AISI 316 |
| | DN 80 ... 150 GRP400 |
| 16. Hexagon bolt and nut | W:no 4401 |
| 17. Gland flange | W:no 4401 (AISI 316) |
| 18. Gland packing (DN200 ... 250) | Graphite |
| 19. O-ring | EPDM |
| 20. Bearing | Pampus |
| 21. Stud bolt | W:no 4401 (AISI316) |
| 22. Nut | W:no 4401 (AISI316) |
| 23. Key | Fe |
| 24. Seat ring | PTFE |

DN 200 ... 250

Dimensions

DN	PN	ξ -drag coeff.	K_{v100}	L	D	h	H	l	a	b	Weight kg
25	25	0,3	46	125	115	78	90	140	-	-	5
32	25	0,3	75	130	140	93	115	180	-	-	7
40	25	0,2	140	140	150	99	122	180	-	-	8
50	25	0,2	220	150	165	122	157	250	-	-	11
65	25	0,2	390	170	185	133	168	250	-	-	14
80	25	0,2	660	180	200	171	215	400	-	-	20
100	16	0,2	1000	190	220	184	228	400	-	-	24
125	16	0,1	1700	325	250	236	269	600	-	-	49
150	16	0,1	2500	350	285	254	287	600	-	-	59
200	16	0,1	5300	400	340	400	-	-	362	457	140
250	16	0,1	8300	450	405	436	-	-	362	457	177

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