

450

Ball valve of stainless steel DN 25 - 250

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Operation

Ball valve 450 is an on-off and control valve which is tight in both directions of flow. It is used for example in industrial and ship's pipe work as well as in oil pipelines.

Nominal pressure PN 25 DN 25 - 80, PN16 DN 100 - 250

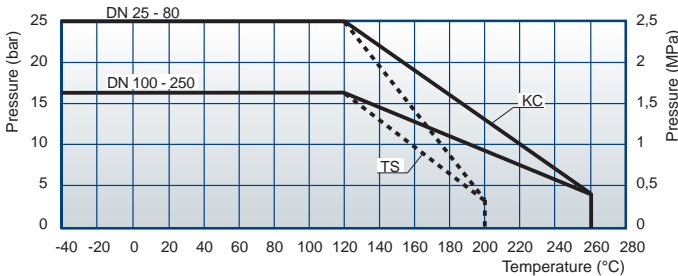
Disc seal alternatives Stellite, PTFE

Temperature and tightness class

Stellite max +260°C/ min -40°C
ISO 5208, EN 12266-1 RATE D

PTFE max +200°C/ min -40°C
ISO 5208, EN 12266-1 RATE A

The max pressure difference depends on the working temperature



Construction

Valve 450 is a full bore valve with flanges. The two piece body, floating ball and blow out proof stem are made of stainless steel. The PTFE seals in stem are self adjusting. Conform with the requirements of the Council Directive 97/23/EC on Pressure Equipment, marking: Class: Gas, group 1



Face-to-face length according to

- DN 25 - 100
DIN 3202 F4 = ISO 5752, EN 558-1 series 14
- DN 125 - 250
DIN 3202 F5 = ISO 5752, EN 558-1 series 15

Nominal dimensions: DN 25 - 250

Product codes: 450KC___ Stellite
450TS___ PTFE

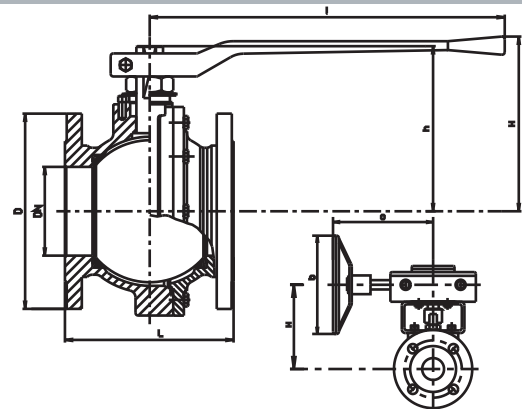
- 450___ with handlever
- 450___Z with bare shaft
- 450___M with manual gear

Connection between flanges SFS 2123 DIN 2501 PN 16

Dimensions

DN	PN	ξ- dragcoeff.	Kv ₁₀₀	L	D	h	H	I	a	b	Weight kg
25	25	0,3	46	125	115	78	90	140	-	-	4,8
32	25	0,3	75	130	140	93	115	180	-	-	7,0
40	25	0,2	140	140	150	99	122	180	-	-	8,5
50	25	0,2	220	150	165	122	157	250	-	-	11,0
65	25	0,2	390	170	185	133	168	250	-	-	15,2
80	25	0,2	660	180	200	171	215	400	-	-	20
100	16	0,2	1000	190	220	184	228	400	-	-	23
125	16	0,1	1700	325	250	236	269	600	-	-	50
150	16	0,1	2500	350	285	254	287	600	-	-	59
200	16	0,1	5300	400	340	400	370	-	362	457	140 *)
250	16	0,1	8300	450	405	436	405	-	362	457	177 *)

*) with manual gear

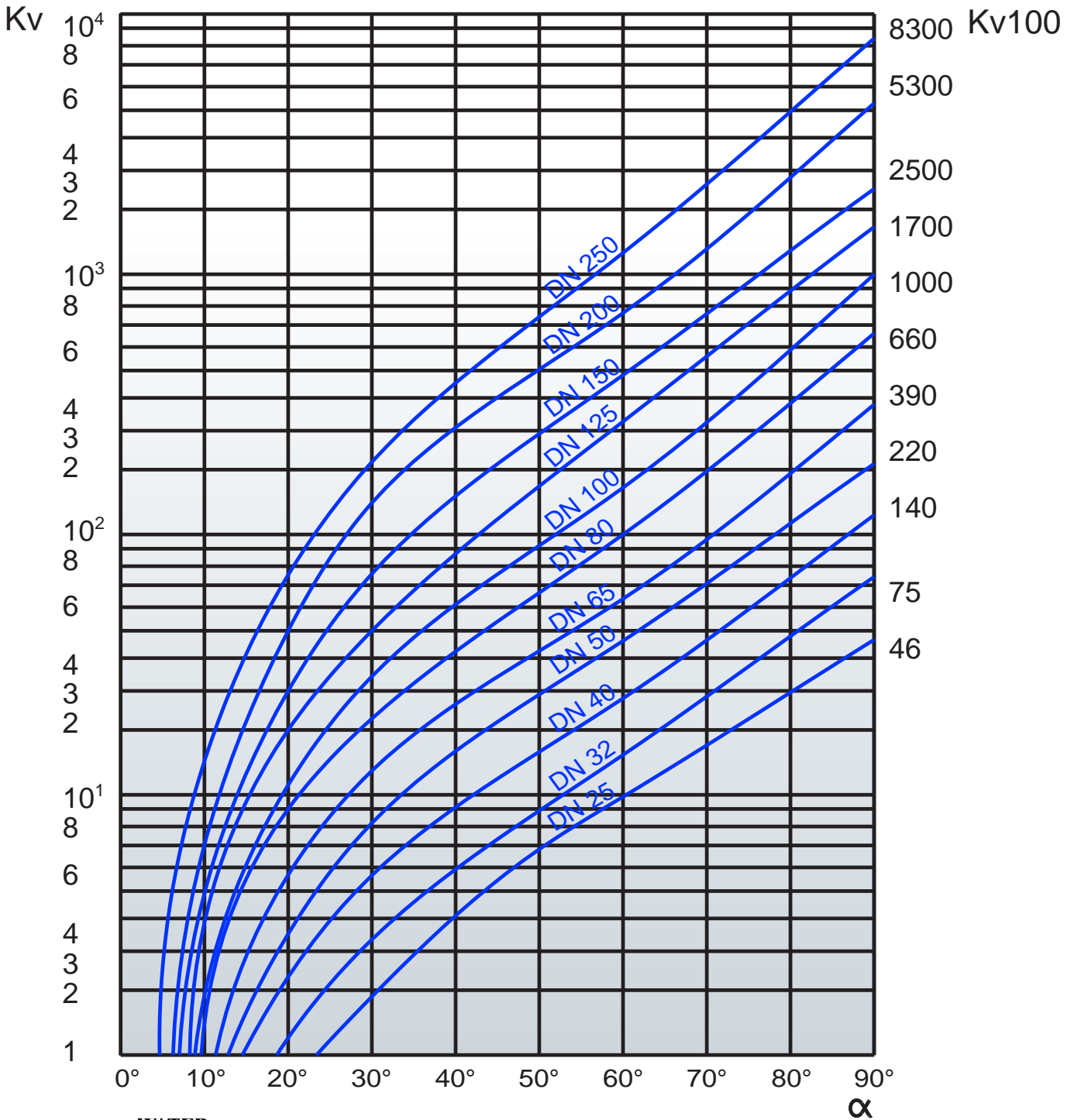


Materials

Body and flange: ASTM A351 CF8M Stem: EN 10272 1.4404
Ball: DIN 17457 1.4404 Seal: Stellite or PTFE
Stem seal: PTFE

The control curves

The curves indicate the regulating values of the valve at different opening angles.



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 = ball opening angle
- Q = volume flow m³/h
- Δp = pressure difference bar
- ρ = density of liquid kg/dm³
- v = flow velocity m/s