

BALL SECTOR VALVE of stainless steel

455 series



Description

Edition 24-05-2016

Högfors ball sector valve series 455 is specially designed for control applications of various media like liquids, pulps and steam.

455KC is used for sticky and crystallizing mediums, because of cleaning function of metal seat for both control and on/off applications where std PTFE seated valves does not lasting. If the medium contains solid particles, the geometry of metal seat and segment will warranty better function as std. valves.

These valves are tight to one direction which is shown by an arrow according to EN 12266-1.

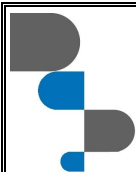
The sector ball valve with flanges has a full bore design. The two piece body, v-port ball and stems are of stainless steel. The shaft packing box has tightable graphite seals.

Nominal dimensions:	455 DN 25 – 300	
Nominal pressure	PN 100 DN 25-80 PN 63 DN 100-300	
Pressure difference (ΔP)	16 bar	100 / 63 / 40 / 25 / 16 bar
Ball seal alternatives	Stellite (KC)	PTFE (TC)
Tightness class ISO 5208, EN 12266-1	RATE D	RATE A
* Working temperature of liquid media	+260°C -40°C PN 63-100 : +200°C -40°C	+200°C -40°C PN 63-100 : +200°C -40°C
** Connection	EN1092-1 Type B: PN100/63/40/25/16, ANSI CLASS 600/400/300/150	
Safety	Conform to the requirements of the Council Directive 97/23/EC on Pressure Equipment, marking: Class: gas, group 1. Explosion-proof design is available as per special order. Marking in accordance to ATEX Directive 94/9/EC: group II 2 GD, protection concept of non-electrical components: c T6.	

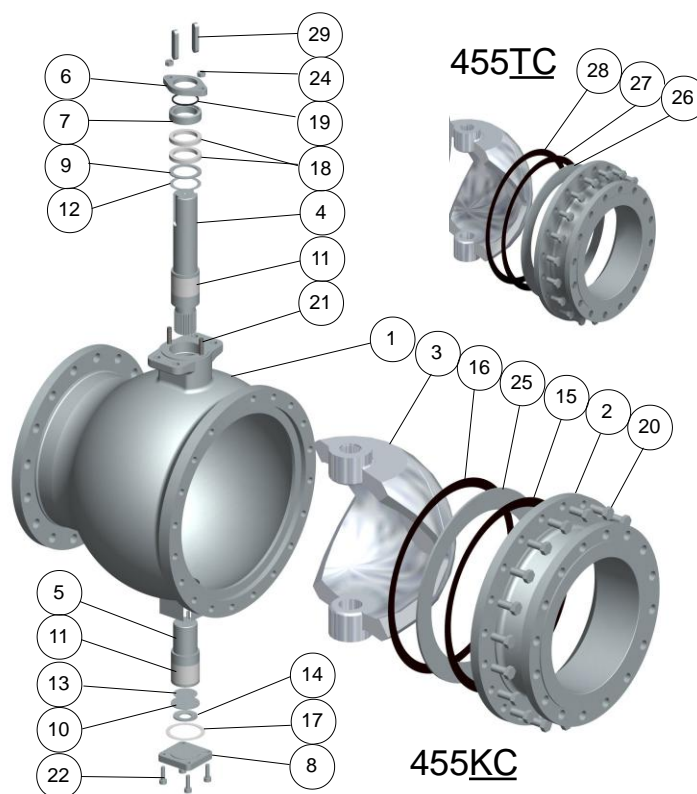
*) The max pressure difference depends on the working temperature.

**) Flange drilling for others standards and pressures are also available as per special order.

Consult factory for details.

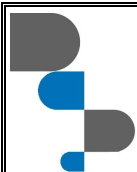


Exploded view

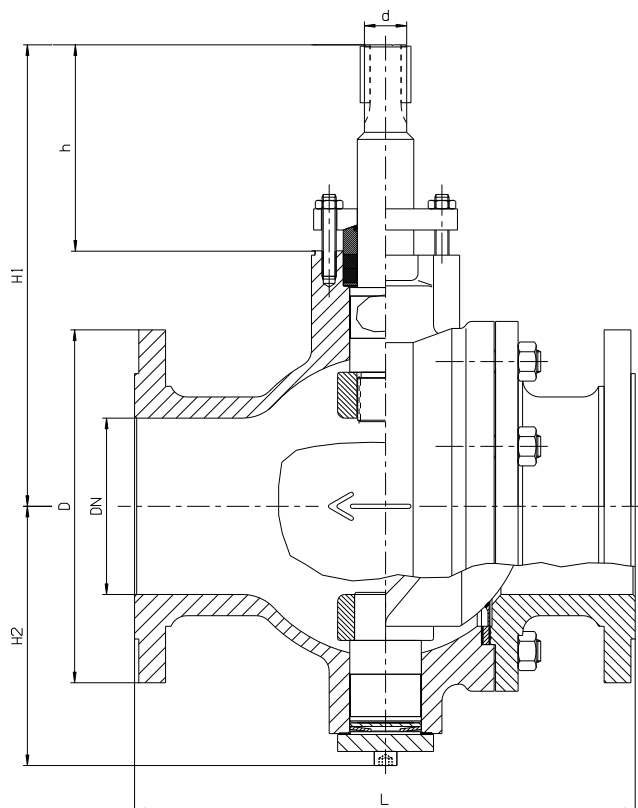


Parts list and standard materials

Part	Material	
1	Body	Stainless steel ASTM A351 CF8M / 1.4462
2	Body flange	Stainless steel ASTM A351 CF8M / 1.4462
3	V-ball	Stainless steel ASTM A351 CF8M
4	Stem	Stainless steel 1.4418
5	Subshaft	Stainless steel 1.4418
6	Gland	Stainless steel 1.4404
7	Spacer ring	Stainless steel 1.4404
8	Subshaft cover	Stainless steel 1.4404
9	Thrust bearing ring	Stainless steel 1.4404
10	Thrust bearing plate	Stainless steel 1.4404
11	Shaft bearing	PTFE on stainless steel net ("Pampus")
12	Upper thrust bearing	PTFE on stainless steel net ("Pampus")
13	Lower thrust bearing	PTFE on stainless steel net ("Pampus")
14	Cup spring	Stainless steel 1.4404
15, 16	Shim	Carbon Fibre SFS5811/ Graphite
17	Subshaft cover packing	Carbon Fibre SFS5811/ Graphite
18	Packing	Graphite
19	O-ring	EPDM or FPM
20	Bolt or stud and nut	Stainless steel ISO 3506 A4-80
21	Stud	Stainless steel ISO 3506 A4-80
22	Hexagonal socket screw	Stainless steel ISO 3506 A4-80
24	Nut	Stainless steel ISO 3506 A4-80
25	Seat	Stellite
26	Seat	PTFE
27	Support ring	Stainless steel 1.4404
28	Shim	Carbon Fibre SFS5811/ Graphite
29	Key	Carbon steel



Dimensions: 455 series valve

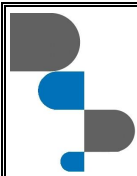


DN	L	H1	H2	h	d	D
25	127	143	68	85	11	115
32	140	166	79	95	15	140
40	165	170	83	95	15	150
50	178	196	91	110	20	165
65	190	204	99	110	20	185
80	203	235	126	115	25	200
100	229	245	136	115	25	220
125	356	329	185	150	30	250
150	394	343	199	150	30	285
200	457	404	248	170	45	340
250	533	439	283	170	45	405
300	610	510	337	185	60	460

Operation

Högfors valves can be equipped with an actuator to your specification.

- bare shaft,
- manual gear,
- electric actuator,
- pneumatic or hydraulic actuator.



SILVER LINE

BALL SECTOR VALVE
of stainless steel



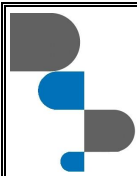
Valves

455 series

24-05-2016

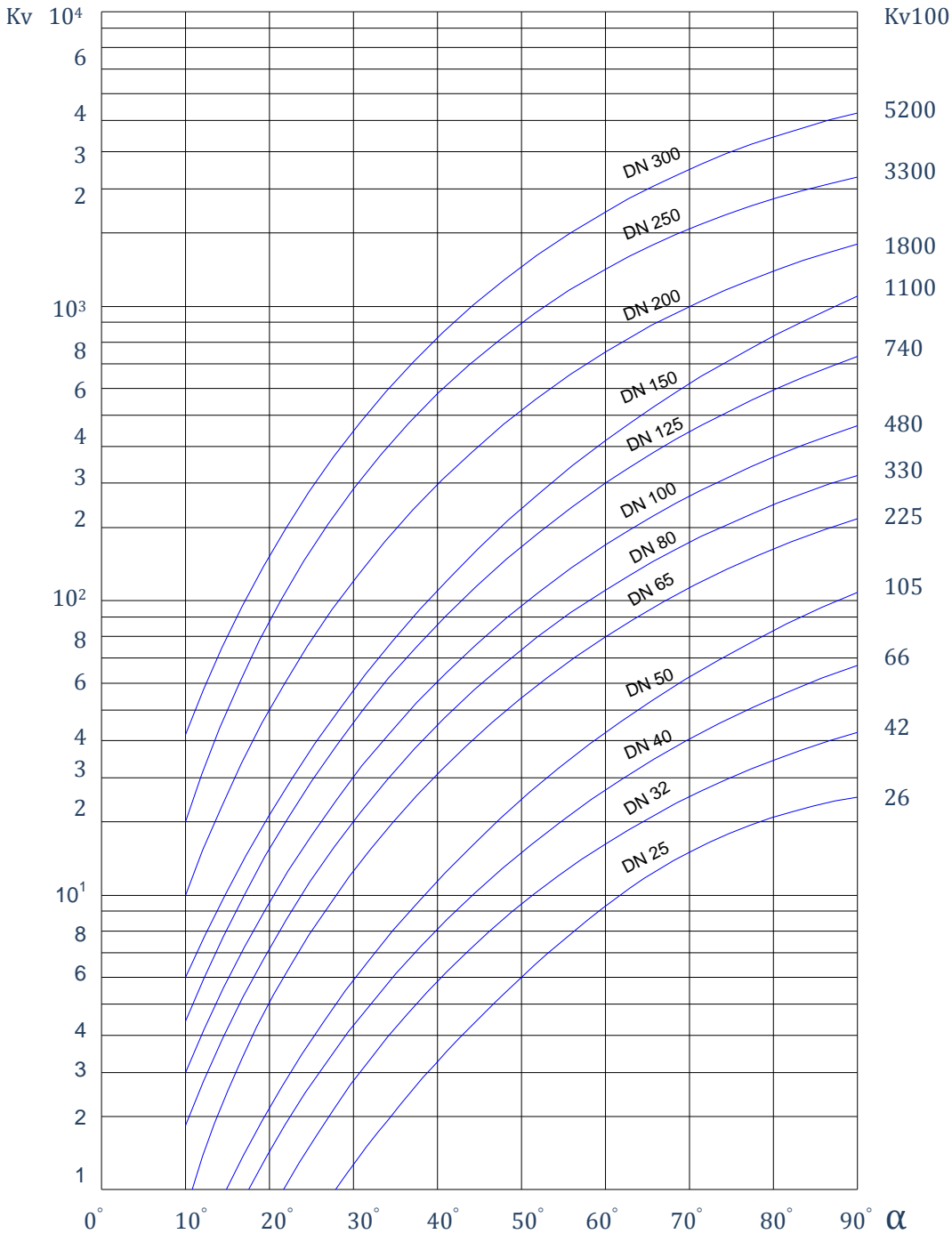
How to order

		4	55	01	T	C	200	M
Body material:	4 – Stainless steel							
Valve type:	55 – ball sector valve with flanges							
Special options:	_ _ – standard,							
Ball seal	(K) - Stellite, (T) - PTFE							
Ball surface treatment	C – hard chrome							
Size DN								
Operation:	(_) - handlever, (Z) - bare shaft, (M) - manual gear							



Flow curves

Indicating typical Kv value.



WATER:

Volume flow:

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

K_v = KV value – Capacity factor

DN = nominal valve size, mm

α = disc opening angle

Δp = pressure difference, bar

ρ = density of liquid, kg/dm³

V = flow velocity, m/s

Q = volume flow, m³/h

Flow velocity:

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