

Cryogenic Valves

Series 241000 stainless steel angle valves

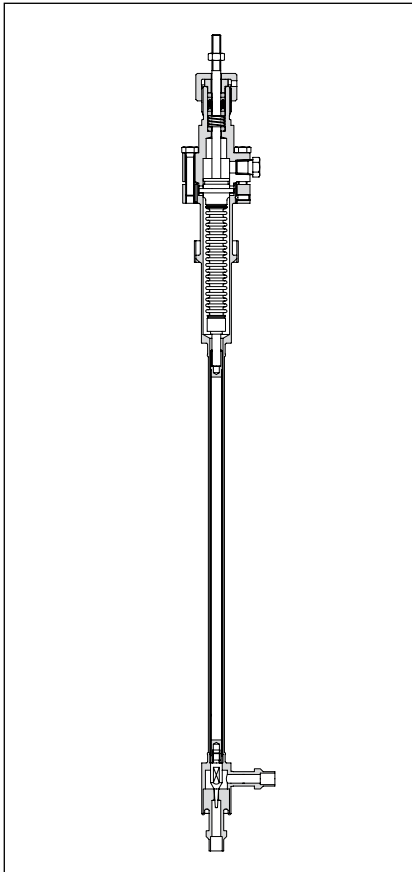
Description

Stainless steel low temperature valves for helium liquefaction and other air separation systems. Body and extension designed for vacuum insulation. Service temperature down to $-270\text{ }^{\circ}\text{C}$ (2 K).

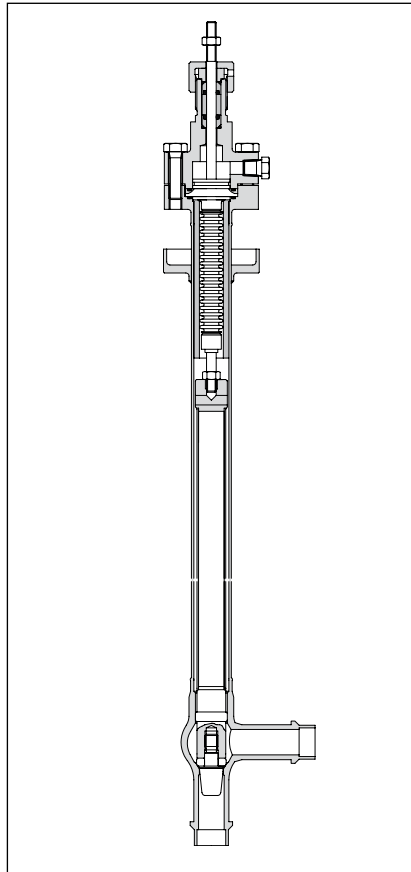


Technical Data

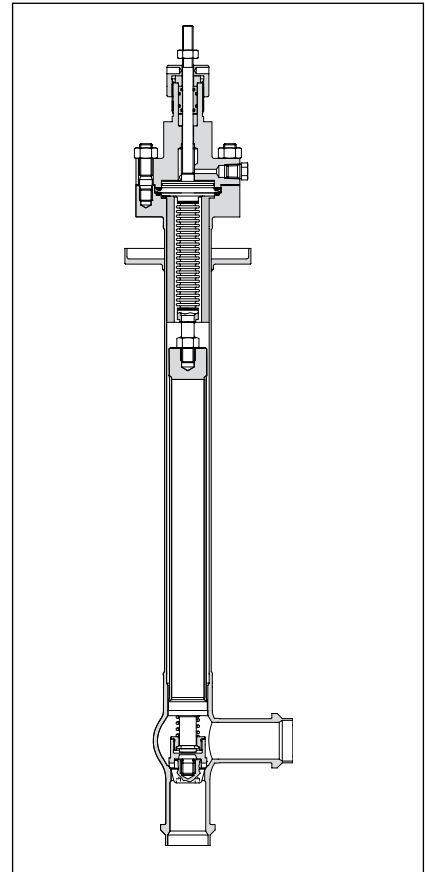
Valve body style	Angle valve, special designs like offset, 3 - way on request
Characteristics	Equal %, Linear, On - Off
Seat leakage, standard	< 0,01% of rated k_{vs} -value, other requirements on request
Body	1.4404 / 1.4435, alternative 1.4541
Material for Plug / seat	WNR 1.4404 or 1.4541, optional Alloy 6, other materials on request
Soft seat	Plug with PCTFE-insert from k_{vs} 0.1. Vespel optional for higher sealing requirements
Packing	O-Rings, PTFE oxygen packing, V-Rings
Body gasket	O-Rings or PTFE between extension and bonnet
Extension	Extensions can be made in any length
Connections	Weld ends
k_{vs}-values	See table page 3
Bellows seal	All valves available with bellows seal
Cover plate	Cover plates for vacuum sealing available in any size



DN 4 / 6 / 8



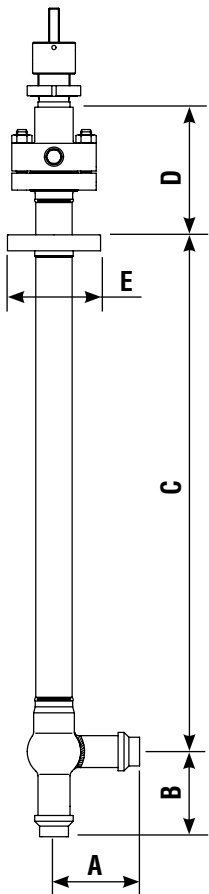
DN 8 - 15



DN 20 - 150

Dimensions [mm] and Weights [kg]

Valves with stainless steel bodies, PN 10 - 40 / ANSI Class 150 - 300



DN	ANSI	A	B	C	D	E	Weld ends	Weight
4	1/32"	40	50	600	80	30	As required by the customer	0.8
6	1/4"	40	50	600	80	30		0.9
8	5/16"	50	50	600	80	47		1.0
10	3/8"	50	50	600	80	47		2.00
15	1/2"	65	65	600	80	60		2.50
20	3/4"	80	80	600	120	80		5.50
25	1"	80	80	600	120	80		6.00
32	1 1/4"	100	100	600	120	100		9.00
40	1 1/2"	100	100	600	120	100		10.50
50	2"	120	120	600	129	110		16.00
65	2 1/2"	130	130	600	129	127		22.50
80	3"	155	155	600	139	150		34.00
100	4"	175	175	600	139	170		46.50
125	5"	220	220	600	139	216		79.50
150	6"	250	250	600	162	251		109.00
150*	6" *	250	250	600	173	251	115.00	

* With M24 connection

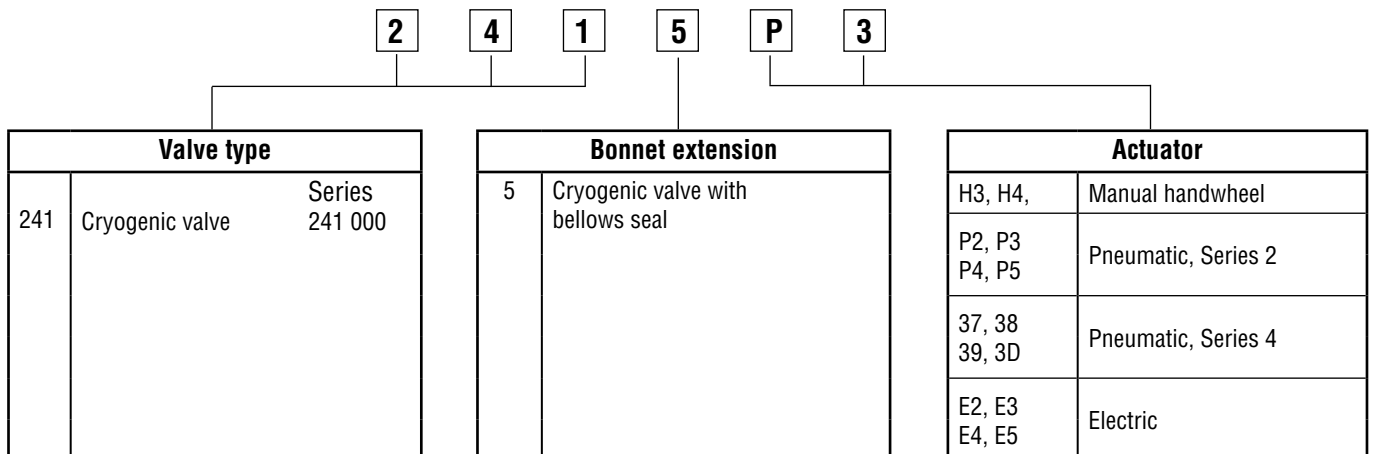
Standard K_{VS} -values

Size DIN	4	6	8	10	15	20	25	32	40	50	65	80	100	125	150	K_{VS} -value*	Seat diameter (mm)	Rangeability**
Size ANSI	1/32"	1/4"	5/16"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"			
Stroke (mm)	10	10	10	10	10	20	20	20	20	40	40	40	60	60	60			
Stem diameter (mm)	6	6	6	6	6	10	10	10	10	16	16	16	16	16	16/24			
																0.0010	2	25:1
																0.0016	2	25:1
																0.0025	2	25:1
																0.004	2	25:1
																0.0063	2	25:1
																0.010	3	50:1
																0.016	3	50:1
																0.025	3	50:1
																0.04	3	50:1
																0.063	3	50:1
																0.10	3	50:1
																0.16	3	50:1
																0.25	3	50:1
																0.4	4,5	50:1
																0.63	4,5	50:1
																1.0	7,0	50:1
																1.6	7,0	50:1
																2.5/1.6	10	50:1
																6.3/4	15	50:1
																10/6.3	20	50:1
																16/10	25	50:1
																25/16	32	50:1
																40/25	40	50:1
																63/40	50	50:1
																100/63	63	50:1
																160/100	80	50:1
																250/160	100	50:1
																400/250	125	50:1
																560/400	150	50:1

* $K_{VS} \leq 0,25 = K_V \times F_R$ acc. to IEC 534 (more information on request)
 For soft seat $K_{VS} = 0.10$ to 1.6 the seat diameter is 10 mm.
 Further special engineered K_{VS} -values on request.

**For calibrating conditions

Valve Code



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