

ISOLATING VALVES (ON-OFF)

Flow data of isolating valves is normally used within the calculations for pipework sizing and system pressure losses when the valve is in the fully open position. Many on/off isolating valves spend most of the time in the fully open position and therefore these valves should have high K_v figures to reduce pressure drops, increase plant efficiency and contribute to reducing energy costs. Wouter Witzel has developed valves with a lot of attention being paid to achieving excellent flow characteristics.

Flow coefficient - at fully open valve position

DN	NPS	K_v [m ³ /h] at $\Delta p = 1$ bar (acc. EN 1267)
50	2"	43
65	2½"	85
80	3"	108
100	4"	193
125	5"	501
150	6"	878
200	8"	1430
250	10"	1952
300	12"	4044
350	14"	4592
400	16"	7679
450	18"	10375
500	20"	12932
600	24"	20273

Note: $C_v = 1.16 \times K_v$.

Flow coefficient - at different opening angles

DN	NPS	K_v [m ³ /h] at $\Delta p = 1$ bar (acc. EN 1267)						
		20°	30°	40°	50°	60°	70°	80°
50	2"	4	8	16	26	33	38	41
65	2½"	7	16	34	53	67	77	84
80	3"	11	29	52	71	87	102	110
100	4"	31	63	96	125	153	174	191
125	5"	58	110	156	221	300	385	461
150	6"	88	150	221	315	453	613	783
200	8"	149	268	420	604	830	1116	1379
250	10"	261	460	692	981	1309	1638	1900
300	12"	439	710	1066	1565	2237	3040	3789
350	14"	516	830	1249	1847	2650	3573	4374
400	16"	622	1031	1605	2459	3676	5260	6996
450	18"	842	1392	2108	3142	4579	6443	8958
500	20"	1057	1695	2592	3886	5695	8098	11304
600	24"	1454	2344	3694	5641	8356	12242	17169

Note: $C_v = 1.16 \times K_v$.

REGULATING VALVES

The sizing of regulating valves requires detailed calculations for each case, taking into account e.g. noise and cavitation.

Please ask Wouter Witzel for advice or ask for our special Technical data sheet for the selection and sizing of butterfly valves for control applications.