Flow Characteristics 2019

PN 10/16
DN 15-200

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Flow Characteristics PN 10/16

Soft-seated Globe Valves to DIN/EN

BOA-Compact EKB

Flow characteristics

The characteristic curves are based on water with a temperature of 5 to 30 °C. The flow velocity (v) in the valve passage (DN) should not exceed 4 m/s. Due to the elastic closing process on soft-seated globe valves we recommend to set the number of stem turns starting from the OPEN position.

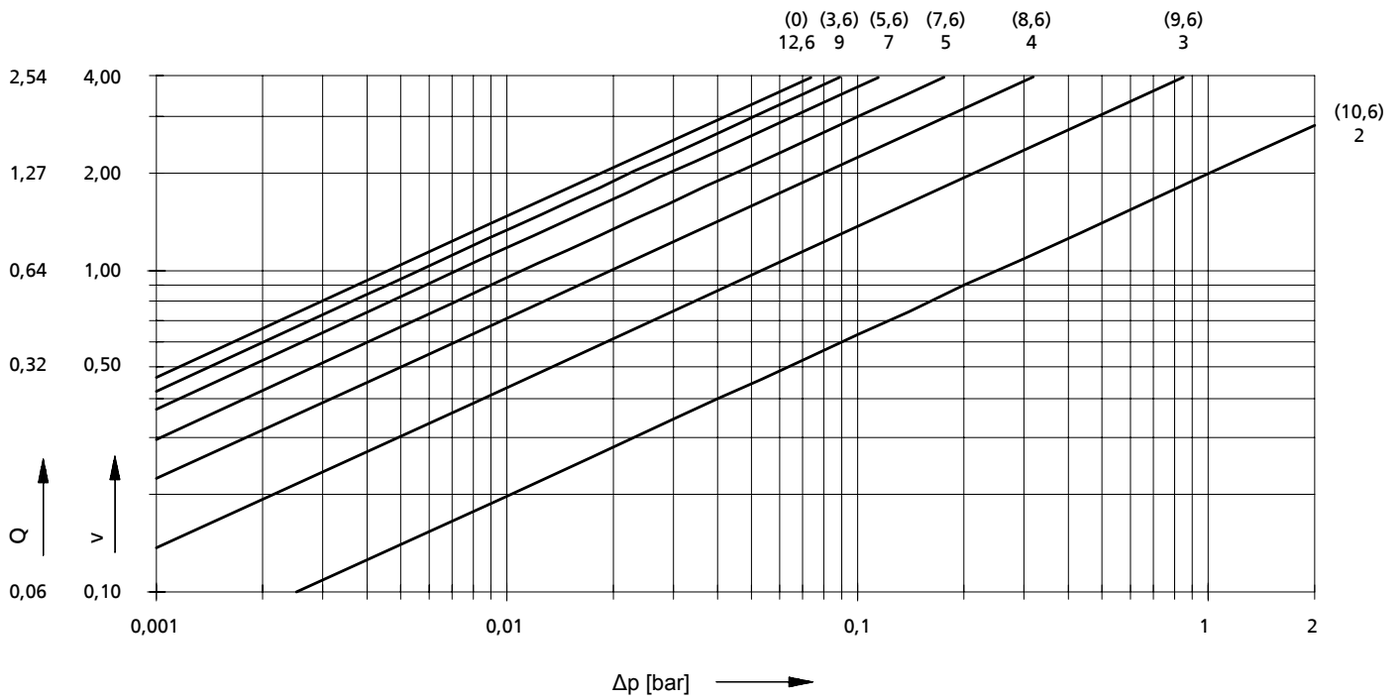
Unit	Description
Q	Volume flow rate in m^3/h
V	Flow velocity in m/s

Table 1: Description of units

DN 15, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
9,3	0,9	12,6	(0)
8,4	1,1	9	(3.6)
7,5	1,4	7	(5.6)
6,0	2,2	5	(7.6)
4,5	3,9	4	(8.6)
2,7	10,5	3	(9.6)
1,3	49,3	2	(10.6)

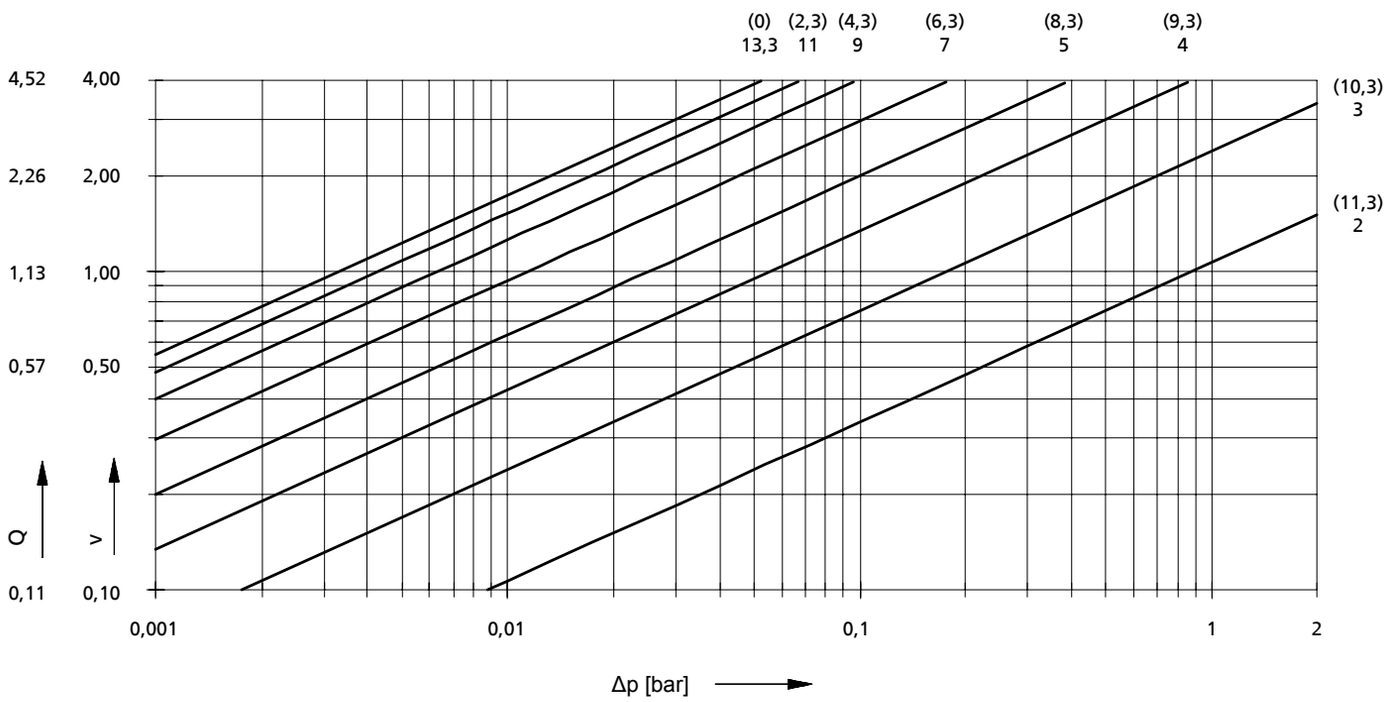
Table 2: Selection table



DN 20, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
19,6	0,7	13,3	(0)
17,2	0,8	11	(2.3)
14,3	1,2	9	(4.3)
10,6	2,2	7	(6.3)
7,1	4,9	5	(8.3)
4,8	11,3	4	(9.3)
2,7	34,4	3	(10.3)
1,2	174	2	(11.3)

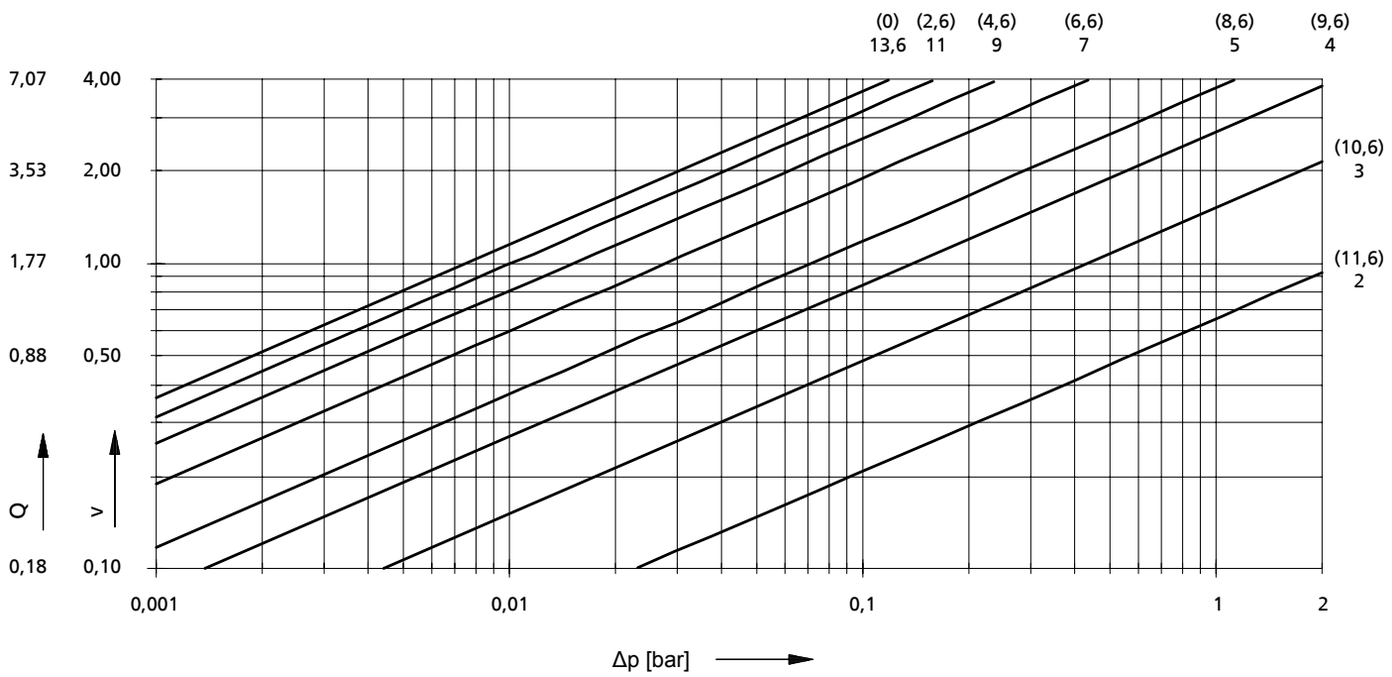
Table 3: Selection table



DN 25, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
20,3	1,5	13,6	(0)
17,6	2,0	11	(2.6)
14,3	3,0	9	(4.6)
10,6	5,4	7	(6.6)
6,6	14,1	5	(8.6)
4,8	27,0	4	(9.6)
2,7	86,5	3	(10.6)
1,2	451	2	(11.6)

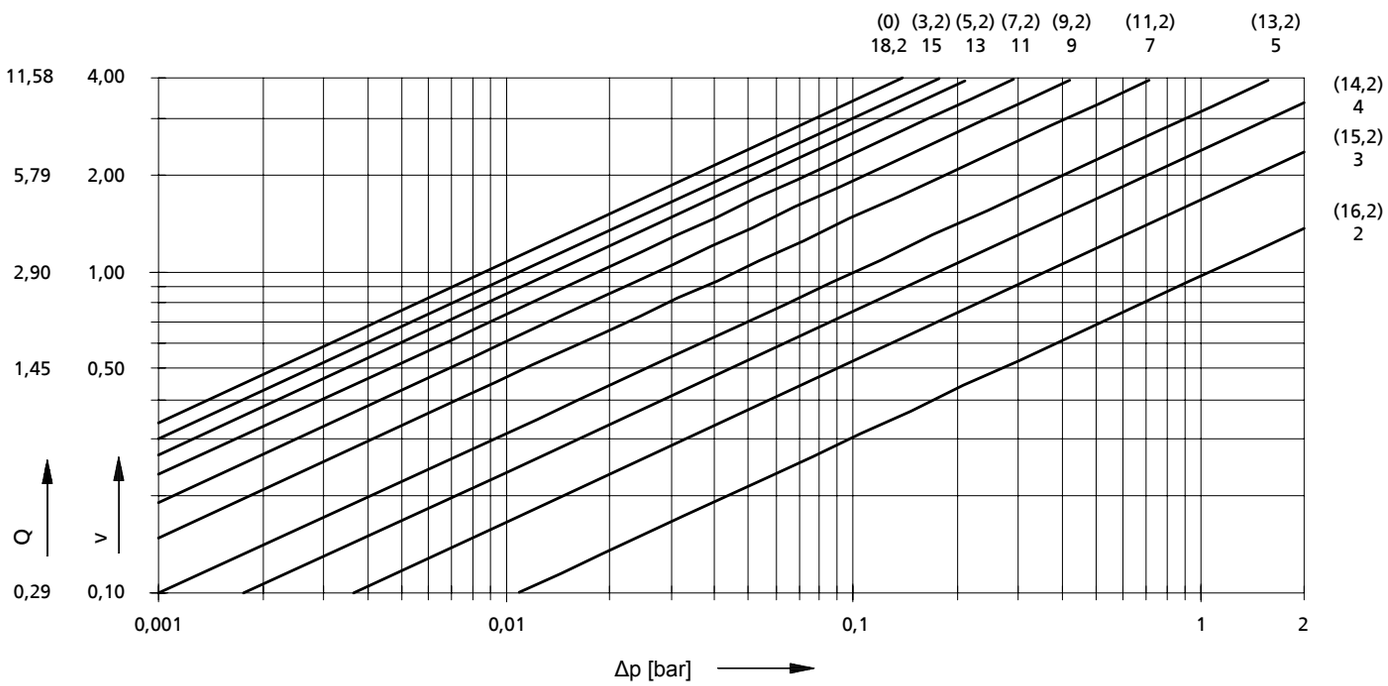
Table 4: Selection table



DN 32, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
31,1	1,7	18,2	(0)
27,6	2,2	15	(3.2)
24,7	2,7	13	(5.2)
21,3	3,6	11	(7.2)
17,5	5,4	9	(9.2)
13,5	9,0	7	(11.2)
9,1	19,8	5	(13.2)
6,9	34,6	4	(14.2)
4,8	71,3	3	(15.2)
2,8	210	2	(16.2)

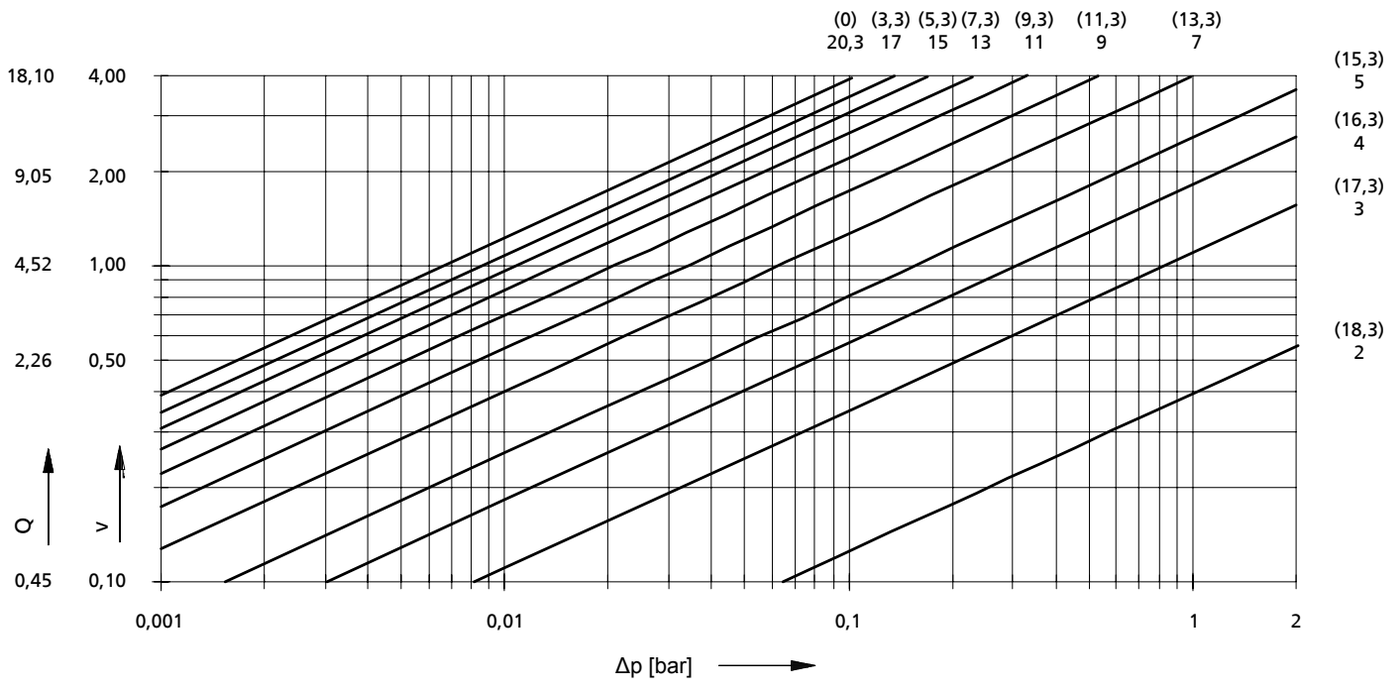
Table 5: Selection table



DN 40, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
55,7	1,3	20,3	(0)
48,9	1,7	17	(3.3)
43,6	2,1	15	(5.3)
37,7	2,8	13	(7.3)
31,5	4,1	11	(9.3)
24,7	6,6	9	(11.3)
18,1	12,2	7	(13.3)
11,6	30,0	5	(15.3)
8,2	59,9	4	(16.3)
5,0	161	3	(17.3)
1,8	1252	2	(18.3)

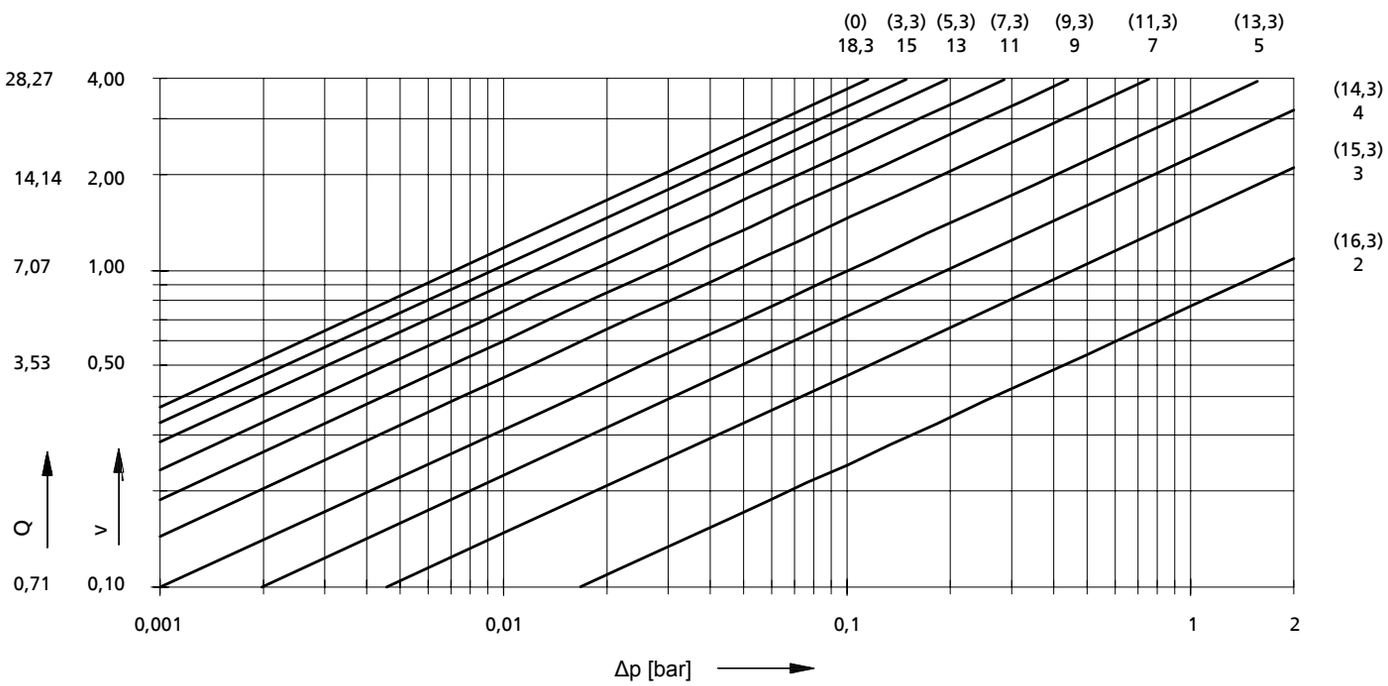
Table 6: Selection table



DN 50, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
82,9	1,5	18,3	(0)
73,1	1,8	15	(3.3)
63,8	2,4	13	(5.3)
52,6	3,5	11	(7.3)
42,3	5,5	9	(9.3)
32,3	9,4	7	(11.3)
22,2	19,8	5	(13.3)
15,9	38,9	4	(14.3)
10,4	90,0	3	(15.3)
5,5	329	2	(16.3)

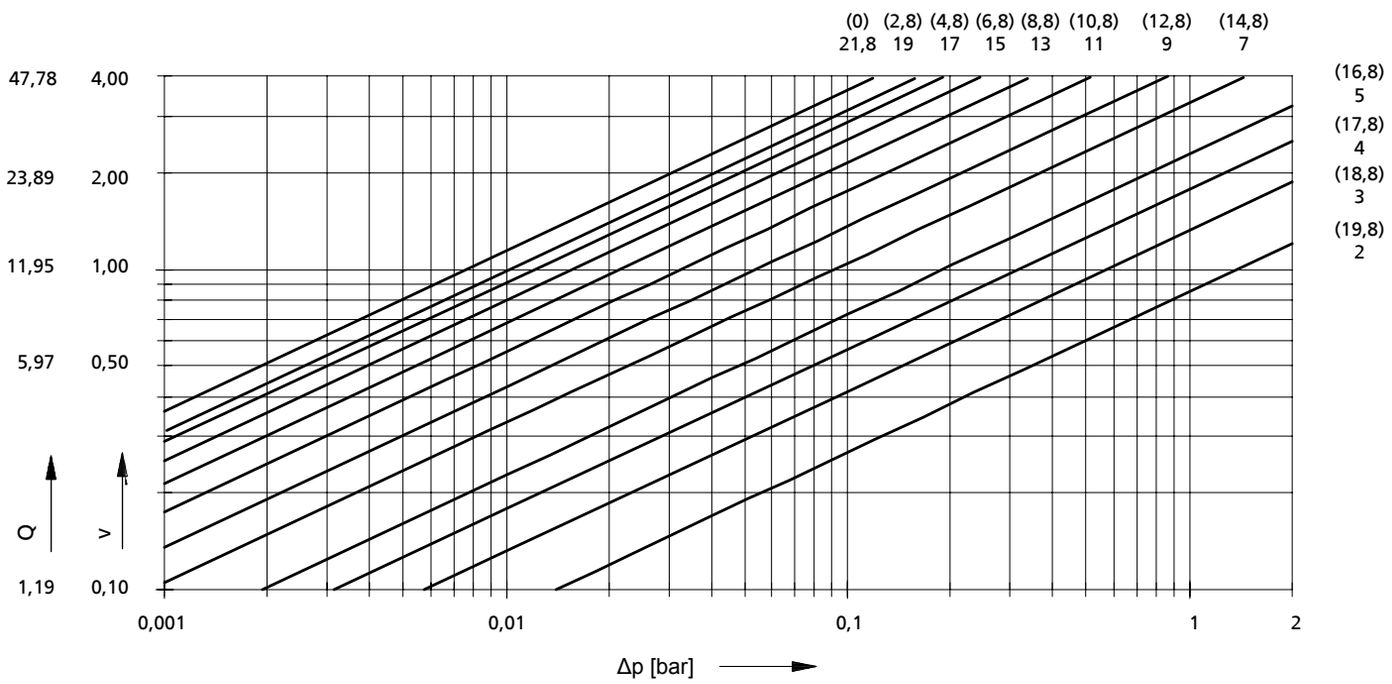
Table 7: Selection table



DN 65, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
137	1,5	21,8	(0)
122	1,9	19	(2.8)
109	2,4	17	(4.8)
95,8	3,1	15	(6.8)
81,0	4,3	13	(8.8)
66,0	6,4	11	(10.8)
51,3	10,6	9	(12.8)
39,6	17,8	7	(14.8)
27,3	37,5	5	(16.8)
21,3	61,8	4	(17.8)
15,7	113	3	(18.8)
10,2	271	2	(19.8)

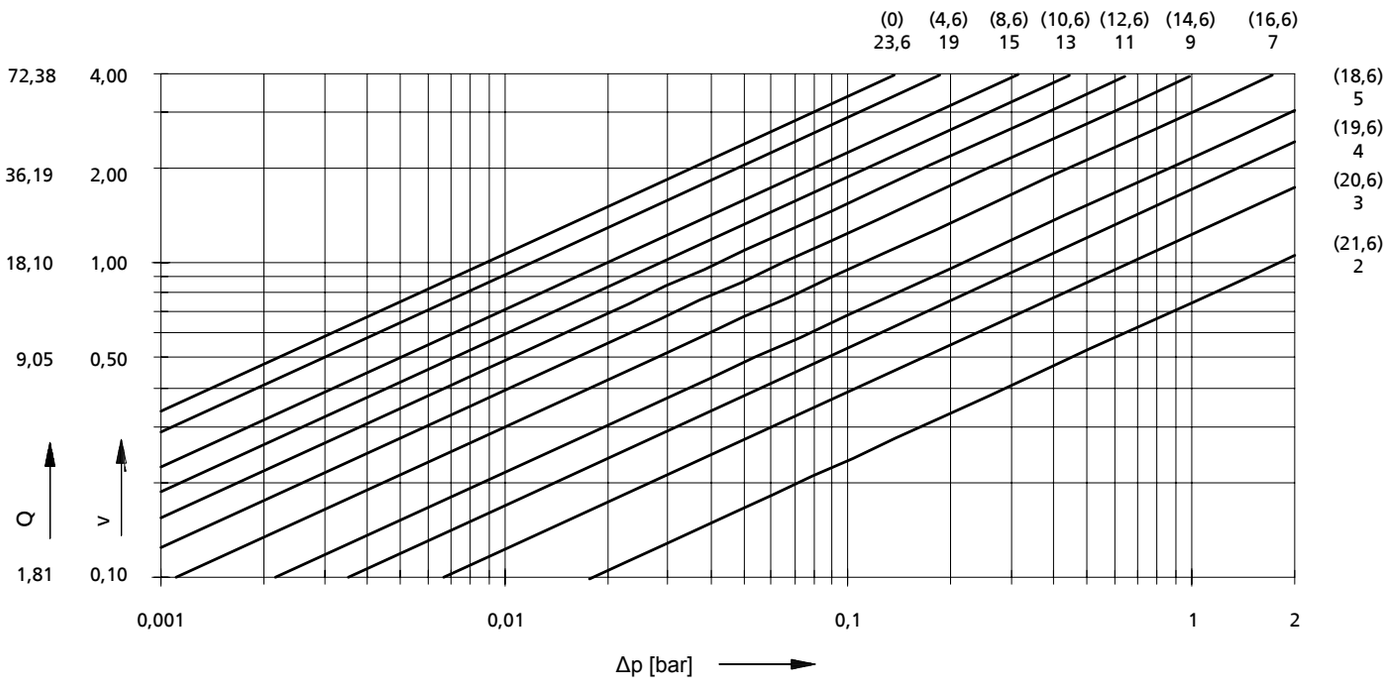
Table 8: Selection table



DN 80, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
192	1,8	23,6	(0)
165	2,4	19	(4.6)
128	3,9	15	(8.6)
107	5,6	13	(10.6)
88,6	8,2	11	(12.6)
71,2	12,7	9	(14.6)
54,2	21,8	7	(16.6)
39,1	42,0	5	(18.6)
30,7	68,0	4	(19.6)
22,1	132	3	(20.6)
13,4	357	2	(21.6)

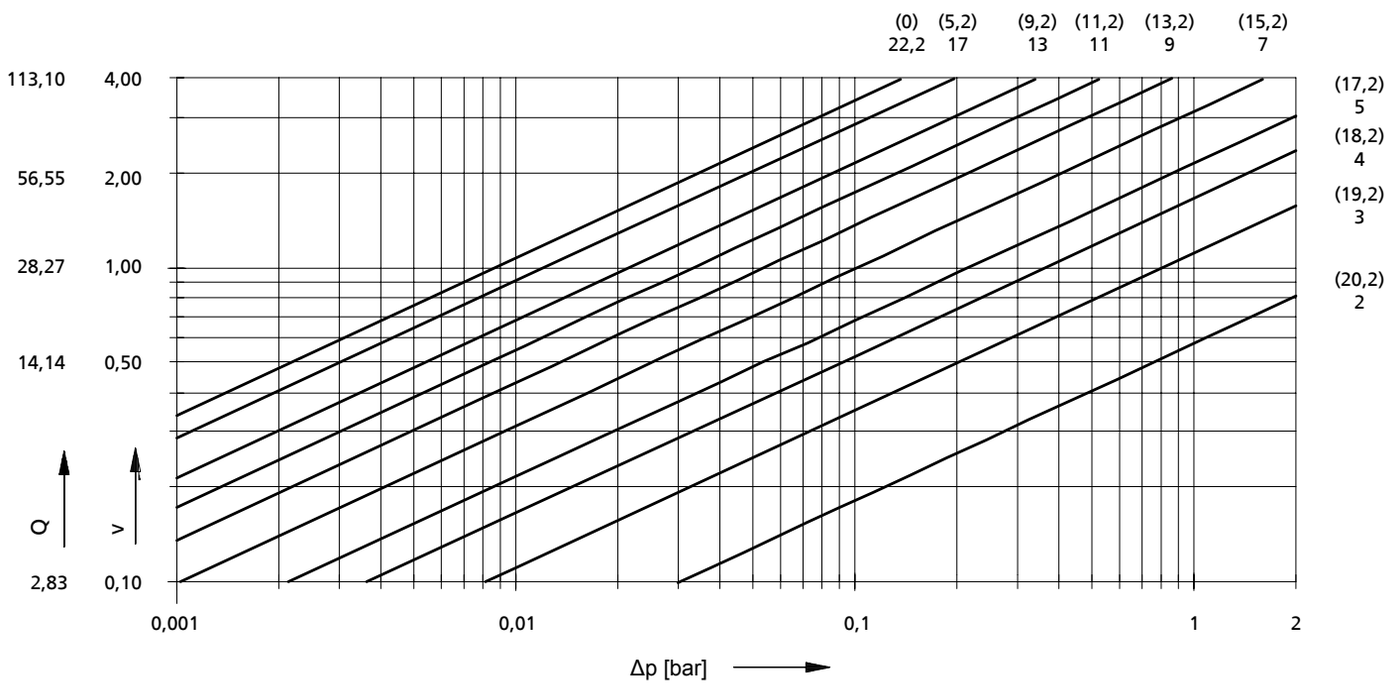
Table 9: Selection table



DN 100, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
304	1,7	22,2	(0)
256	2,4	17	(5.2)
192	4,3	13	(9.2)
155	6,5	11	(11.2)
122	10,6	9	(13.2)
88,4	20,0	7	(15.2)
60,9	42,2	5	(17.2)
46,8	71,7	4	(18.2)
31,4	158	3	(19.2)
16,1	602	2	(20.2)

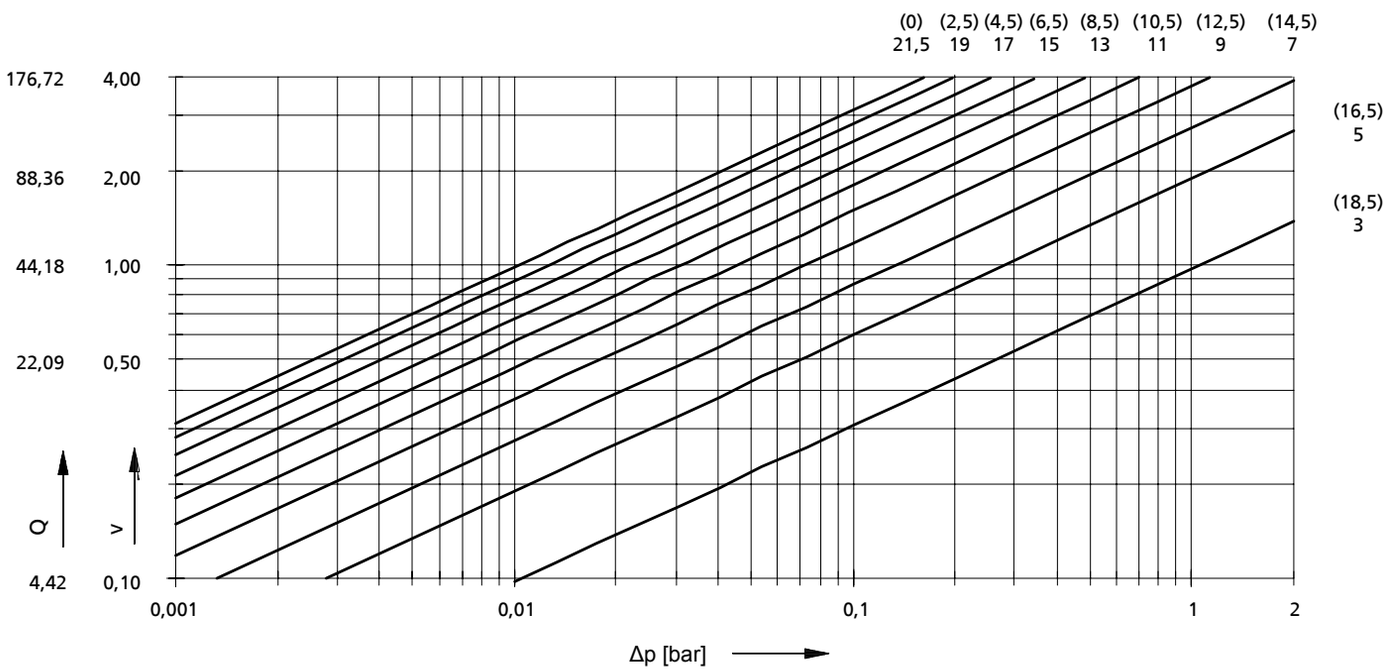
Table 10: Selection table



DN 125, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
438	2,0	21,5	(0)
393	2,5	19	(2.5)
345	3,2	17	(4.5)
297	4,4	15	(6.5)
252	6,0	13	(8.5)
209	8,8	11	(10.5)
165	14,1	9	(12.5)
122	25,9	7	(14.5)
84,0	54,2	5	(16.5)
42,8	209	3	(18.5)

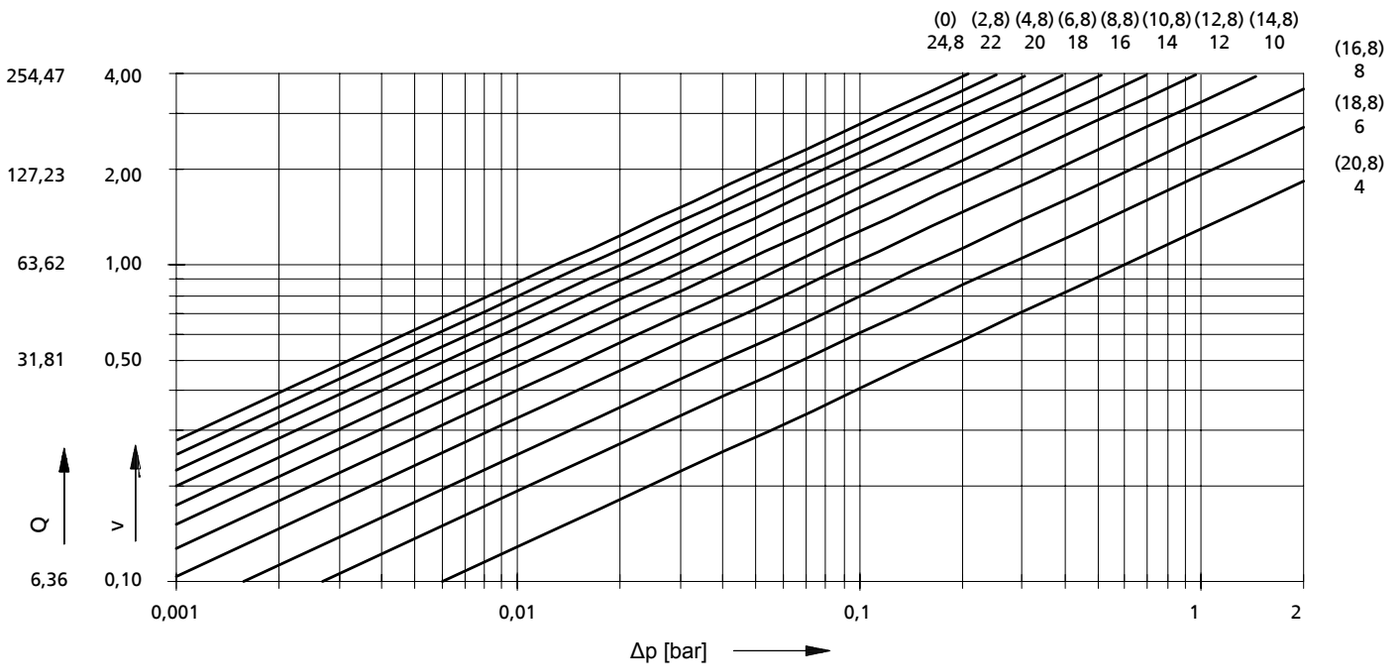
Table 11: Selection table



DN 150, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
558	2,6	24,8	(0)
504	3,1	22	(2.8)
453	3,9	20	(4.8)
402	4,9	18	(6.8)
353	6,4	16	(8.8)
304	8,6	14	(10.8)
257	12,1	12	(12.8)
209	18,2	10	(14.8)
160,6	30,8	8	(16.8)
122,4	53	6	(18.8)
82,2	117	4	(20.8)

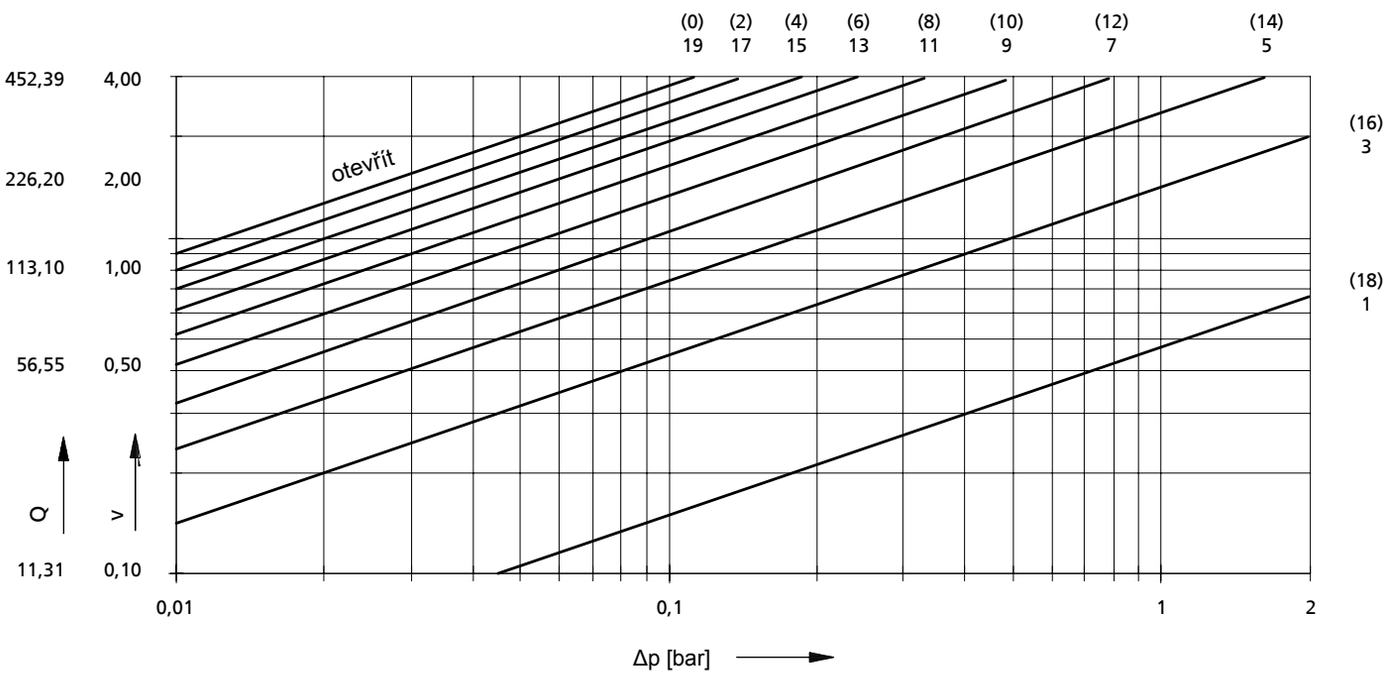
Table 12: Selection table



DN 200, PN 10/16

Kv [m³/h]	Resistance coefficient [ζ]	Number of stem turns n1 from CLOSED position	Number of stem turns n2 from OPEN position
1008	2,5	19	(0)
902	3,1	17	(2)
796	4,0	15	(4)
690	5	13	(6)
584	8	11	(8)
477	11	9	(10)
371,4	19	7	(12)
265,3	36	5	(14)
159,2	101	3	(16)
53,1	909	1	(18)

Table 13: Selection table



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