9555J

Variable Orifice Cast Iron Double Regulating Valve

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Variable orifice cast iron double regulating valve
Grooved (ANSI/AWWA C606 / Metric)
Lengths according to EN558-1 series 1 (ex DIN3202 F1)
Testing according to EN12266-1
Test points included

PN16
Free of CE marking (cat. according to Art. 4.3 Dir. 2014/68/EU)

Working conditions

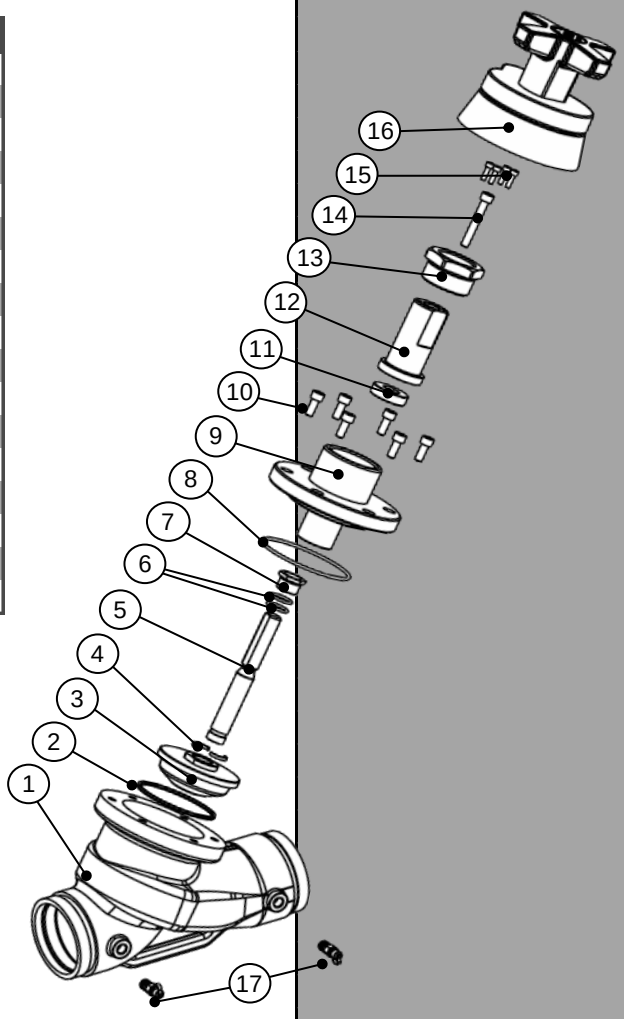
- Suitable for: water, -10°C to +110°C
  below 0°C only for water with added antifreeze fluids
  over 100°C only for water with added anti-boiling fluids
  (ethylene glycol or propylene glycol mixtures up to 50% may be used)
- Not suitable for: gases group 1 & 2, liquids group 1 (Dir. 2014/68/EU)

PARTLIST

N.	Part	Material	Norm
1	Body	Ductile iron	EN-GJL-400
2	Cone gasket	EPDM	-
3	Balancing cone	Ductile iron	EN-GJS-400
4	Segment ring	Brass	-
5	Stem	Stainless steel	AISI 420
6	Stem O-ring	EPDM	-
7	Stem bushing	Zinc plated steel	St37
8	Body/bon. O-ring	EPDM	-
9	Bonnet	Cast iron	EN-GJL-250
10	Screws	Zinc plated steel	-
11	Ring	Brass	-
12	Yoke nut	Brass	-
13	Bushing	Zinc plated steel	St37
14	Memory stop	Stainless steel	-
15	Handwheel screw	Stainless Steel	-
16	Handwheel	Ebonite[1]	-
17	Test point	DZR Brass[2]	EN12164 CW602N

[1]Cast iron for DN200, Ductile iron from DN250

[2]Test points with EPDM gaskets and polypropylene ties



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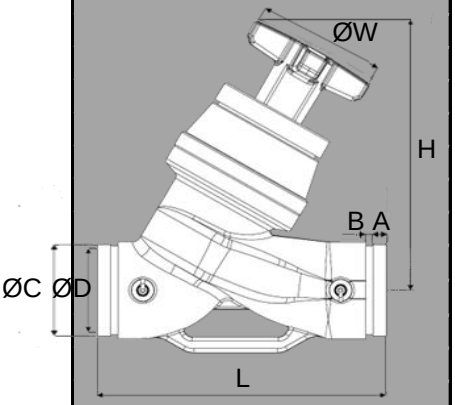
DIMENSIONS

DN	ØC [mm]	ØD [mm]	A [mm]	B [mm]	L [mm]	H [mm]	ØW [mm]	Weight [kg]	Flow range[1] [l/s]
040	48,0	45,1	15,9	7,9	200	176	86	5,8	0,81-1,88
050	60,3	57,2	15,9	7,9	230	190	86	9,0	1,52-3,51
065	76,1[2]	69,1	15,9	7,9	290	214	86	10,8	3,02-6,95
080	88,9	84,9	15,9	7,9	310	225	86	26,8	6,40-15,36
100	114,3	110,1	15,9	9,5	350	334	86	27,4	10,85-26,04
125	139,7[2]	137,0	15,9	9,5	400	388	86	52,8	16,85-39,75
150	165,1[2]	164,0	19,1	9,5	480	403	86	63,8	23,71-56,91
200	219,1	214,4	19,1	11,1	600	825	315	161,0	41,86-100,47
250	273,0	268,3	19,1	12,7	730	900	400	252,0	66,58-156,78
300	323,9	318,3	19,1	12,7	850	945	400	310,0	94,16-255,99

[1]Suggested flow range applicability (BS7350)

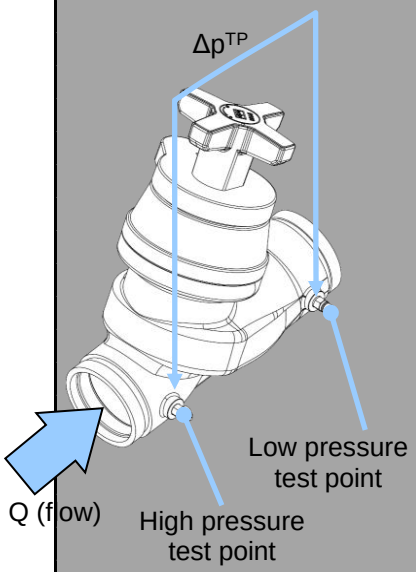
[2]Metric groove standard



If used with measuring manometers different from those proposed by VIR please verify that sensibility of the measuring device is compatible with indicated minimum flow (see flow measurement paragraph)

FLOW MEASUREMENT

Handwheel position	K_v [m^3/h @ 1bar]									
	040	050	065	080	100	125	150	200	150	200
1,0	9,1	7,8	10,2	10,2	25,5	44,9	21,3	21,3	196,1	181,5
2,0	16,8	11,6	18,4	18,6	38,9	79,1	31,7	111,9	326,6	376,4
3,0	22,1	15,8	30,9	26,8	56,0	106,2	41,4	185,7	428,4	532,3
4,0	26,4	25,4	46,4	43,2	87,8	139,0	53,1	274,2	465,3	693,8
5,0	28,9	34,6	58,3	67,3	126,5	178,6	91,3	382,6	705,0	783,4
6,0	29,7	41,6	67,0	86,3	156,3	220,0	154,2	422,1	732,5	898,6
7,0	-	46,2	70,4	98,8	179,2	260,5	217,5	484,8	814,0	999,1
8,0	-	48,3	72,8	104,9	188,2	291,5	278,4	568,3	852,8	1064,9
9,0	-	-	-	-	-	304,3	329,1	617,6	879,6	1101,6
10,0	-	-	-	-	-	311,6	359,6	638,9	906,1	1126,5
11,0	-	-	-	-	-	-	-	659,1	938,5	1177,2
12,0	-	-	-	-	-	-	-	683,3	966,9	1215,6
13,0	-	-	-	-	-	-	-	-	-	1236,9
14,0	-	-	-	-	-	-	-	-	-	1369,9



$$Q = \frac{K_v \cdot \sqrt{\Delta p^{TP}}}{36}$$

Formula linking flow Q (in l/s) and Δp measured at test points (in kPa). K_v depends on handwheel position as indicated on table.
Minimum flow that can be measured for each diameter may be calculated by using in the formula minimum Δp that can be measured by used manometer.
Valves are anyway designed for best performances when used on range previously suggested and as indicated by BS7350.

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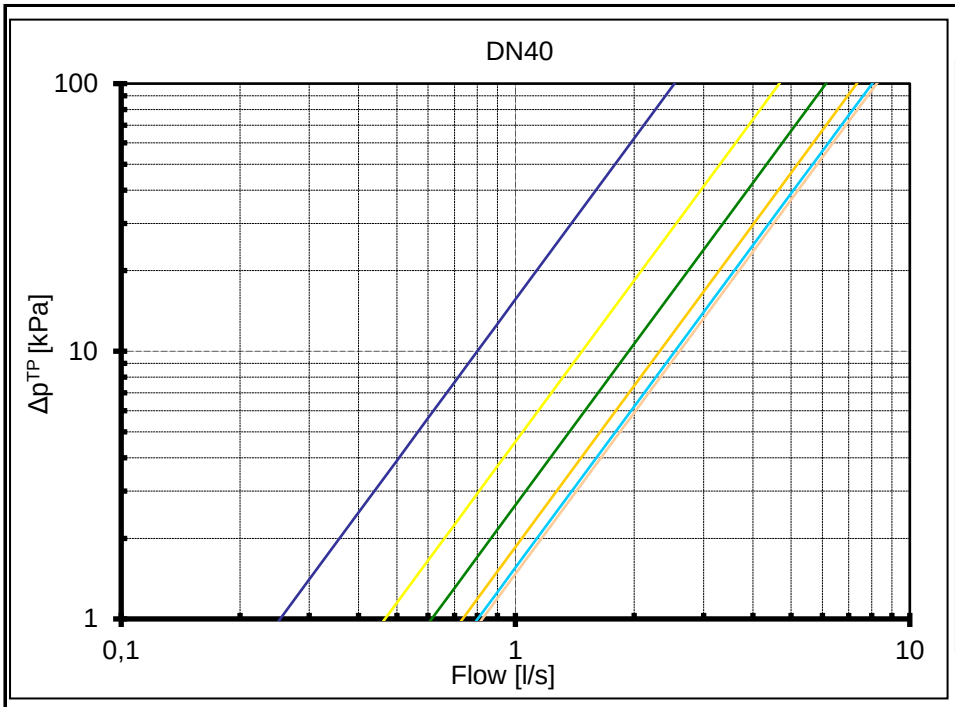

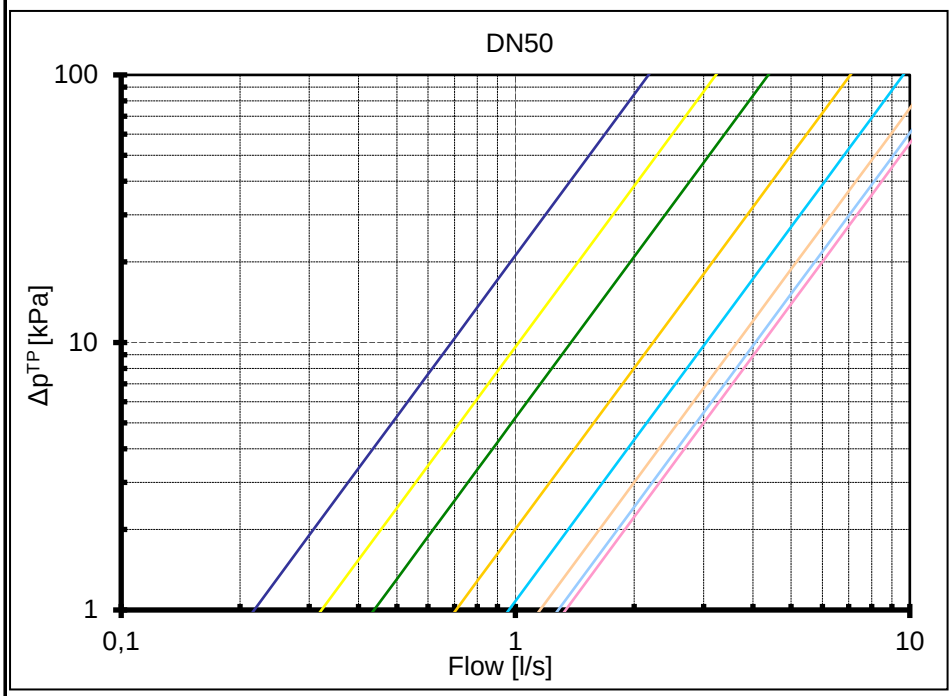

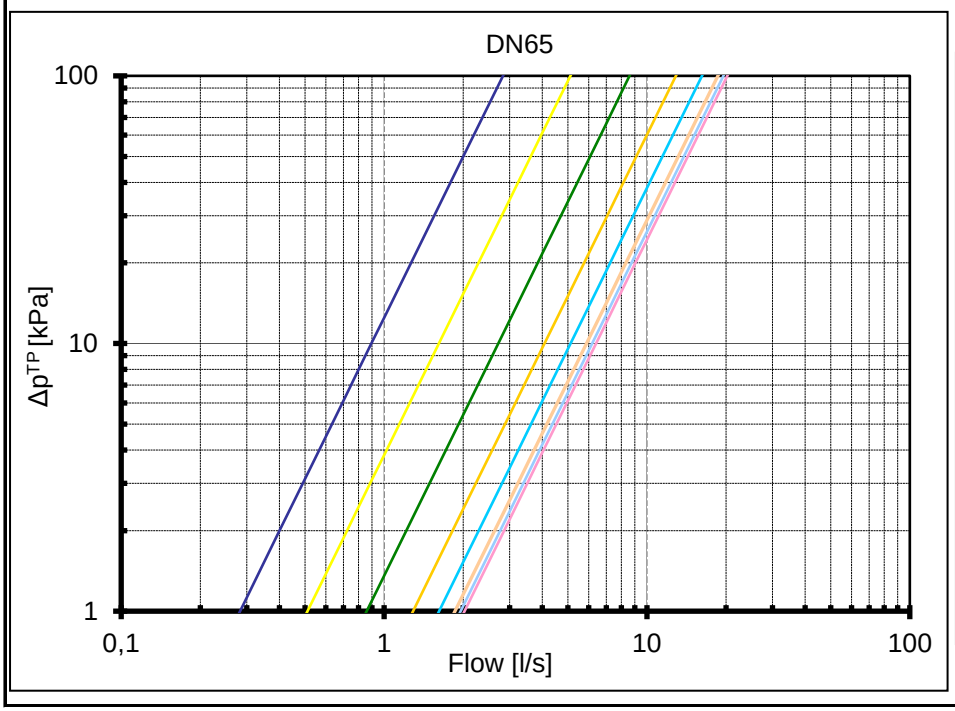

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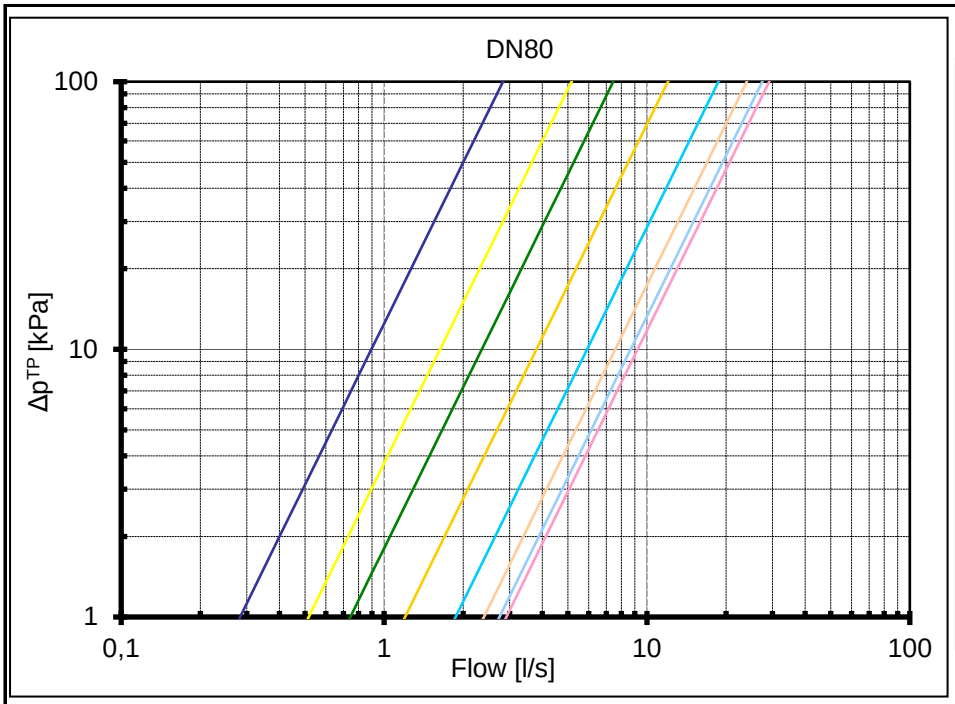

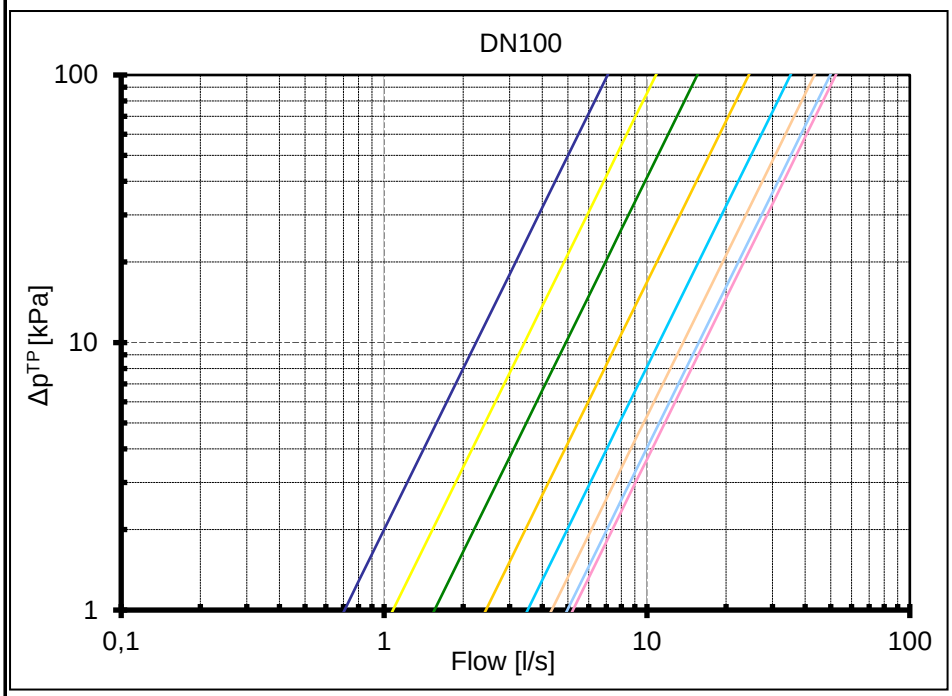

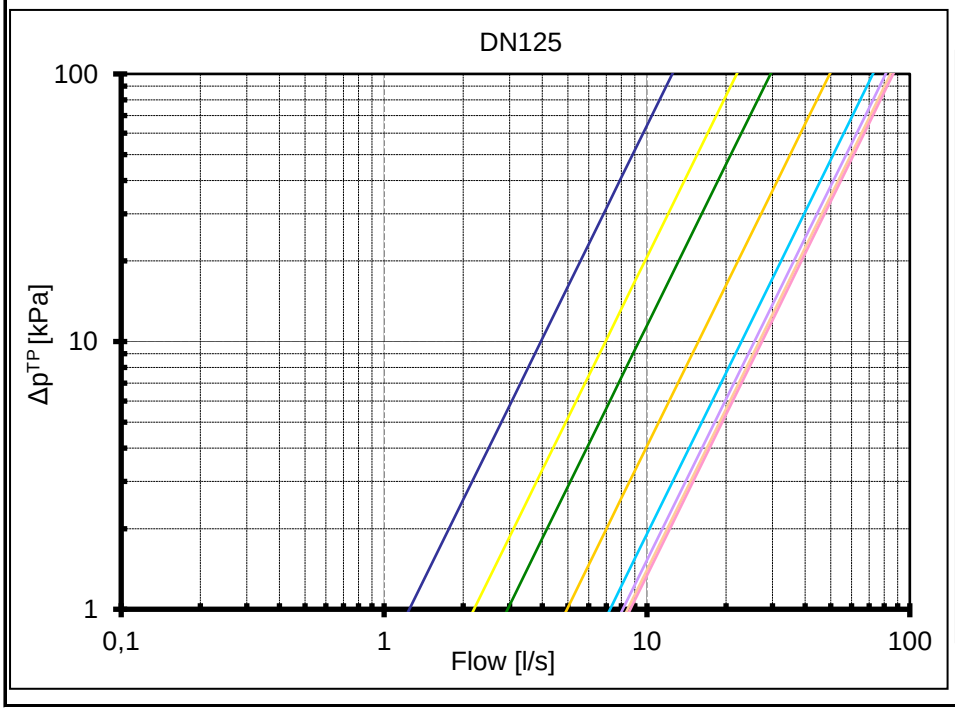

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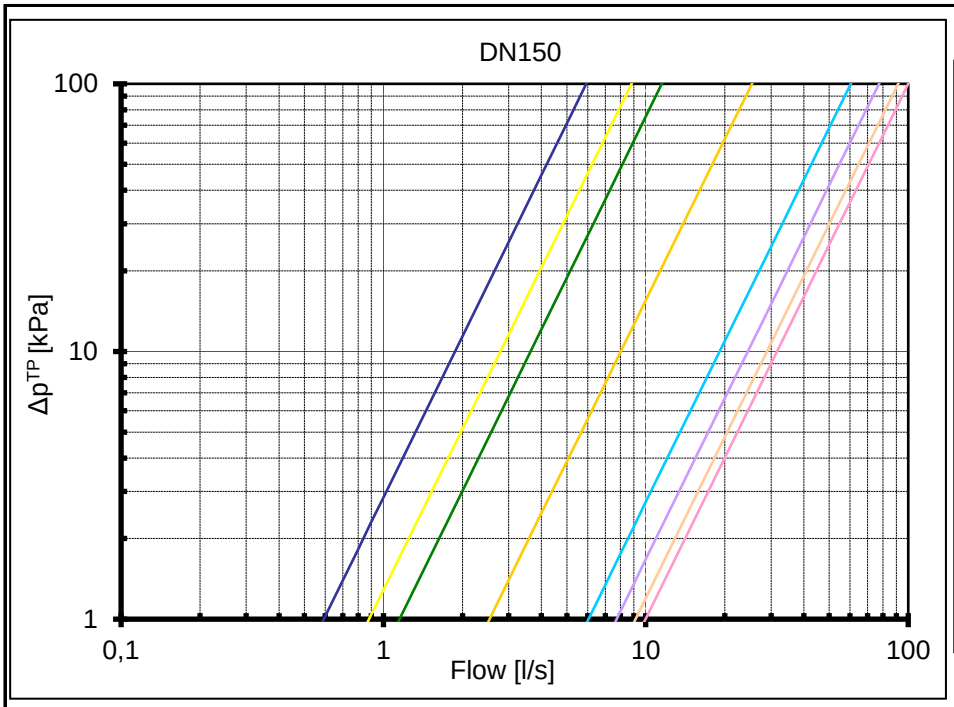

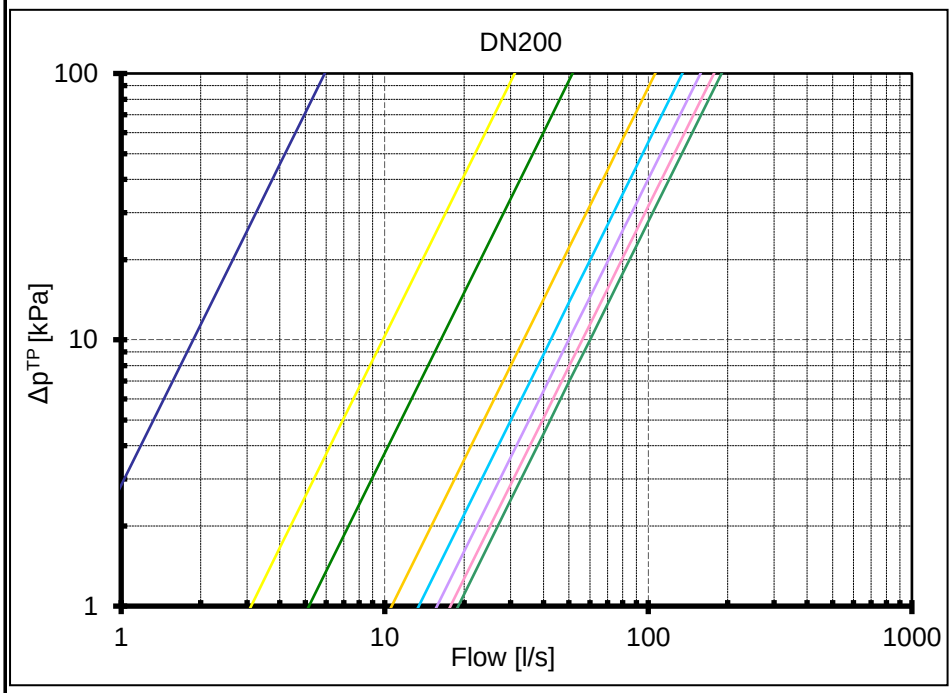

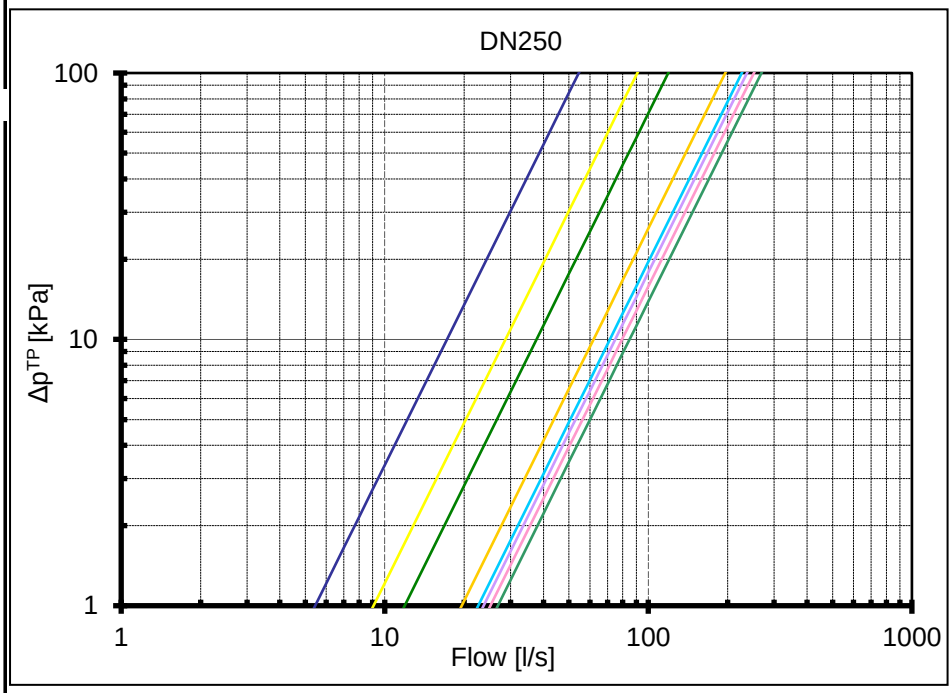

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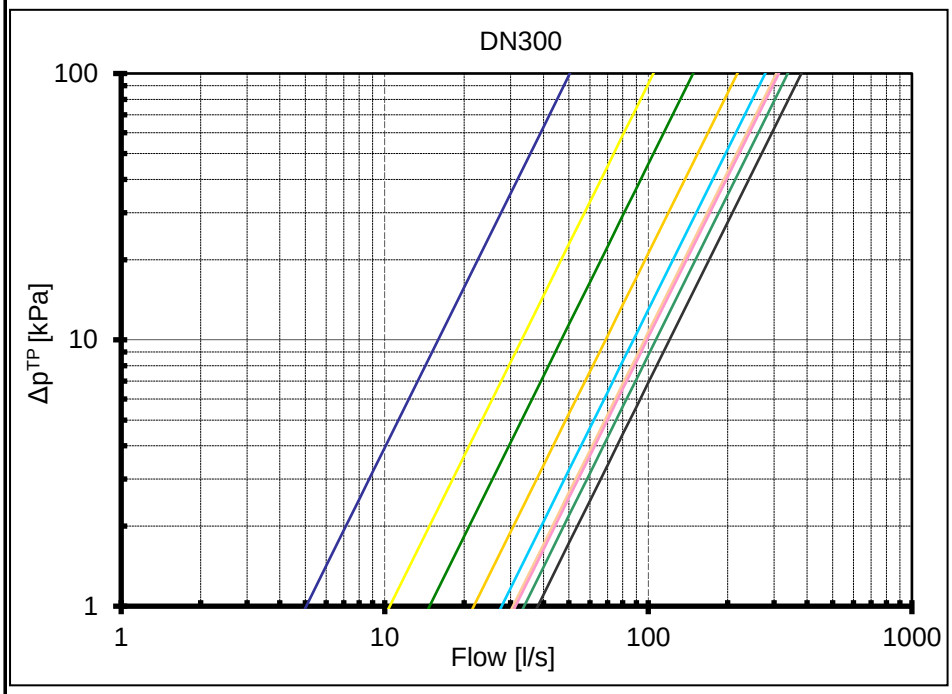

HEADLOSS CALCULATION

Handwheel position	K_v [m³/h @ 1bar]									
	040	050	065	080	100	125	150	200	250	300
1,0	9,1	7,8	10,2	10,2	25,5	44,9	21,3	21,3	196,1	181,5
2,0	16,8	11,6	18,4	18,6	38,9	79,1	31,7	111,9	326,6	376,4
3,0	22,1	15,8	30,9	26,8	56,0	106,2	41,4	185,7	428,4	532,3
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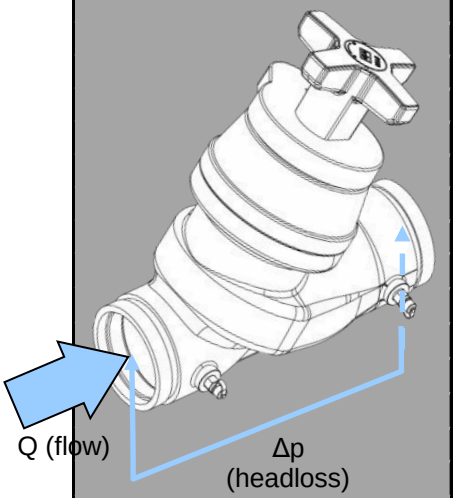
11,0	-	-	-	-	-	-	-	659,1	938,5	1177,2
12,0	-	-	-	-	-	-	-	683,3	966,9	1215,6
13,0	-	-	-	-	-	-	-	-	-	1236,9
14,0	-	-	-	-	-	-	-	-	-	1369,9

Copy of the table presented in flow measurement paragraph

Δp (headloss) approximately equal to Δp^{TP}

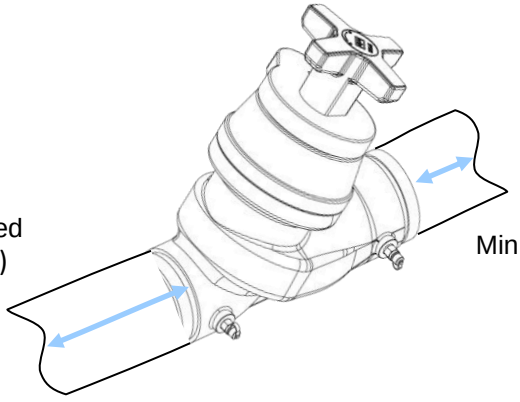


$$\Delta p = \left(\frac{36 \cdot Q}{K_V} \right)^2$$

Formula linking flow Q (in l/s) and theoretical valve headloss Δp (in kPa).
K_v depends on handwheel position as indicated on table.

INSTALLATION

To obtain the best performances valve must be installed on a pipe with its same nominal size preceded and followed by straight pipe lengths as per figure indications.



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