

9595

Variable Orifice Stainless Steel Balancing Ball Valve



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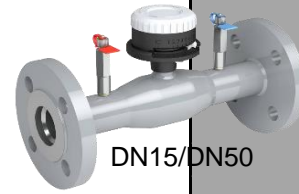


Variable orifice stainless steel balancing ball valve
Flanged according to EN1092-1 (PN25 for DN≤50, PN16 above)
With knob for DN15 up to DN50 and flanged from DN65 to DN250
TR CU 010 compliant

PN25 for DN≤50 (Max 25bar up to 131°C, max 0bar at 200°C)
PN16 for DN≥65 (Max 16bar up to 156°C, max 0bar at 200°C)
Free of CE marking for DN≤32 (cat. according to Art. 4.3 Dir. 2014/68/EU)

Working conditions:

- Suitable for: water, -20°C to +200°C
below 0°C only for water with added antifreeze fluids
over 100°C only for water with added anti-boiling fluids
- Not suitable for: gases group 1 & 2, liquids group 1 (Dir. 2014/68/EU)



DN15/DN50



DN65/150



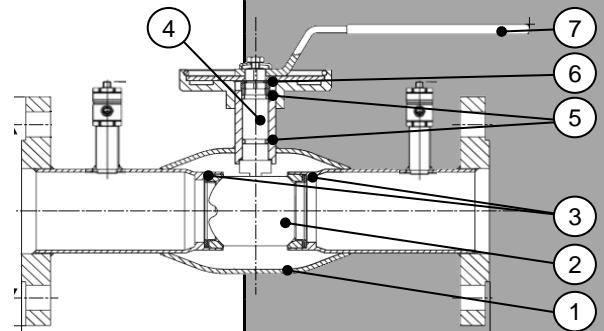
DN200/DN250



PARTLIST

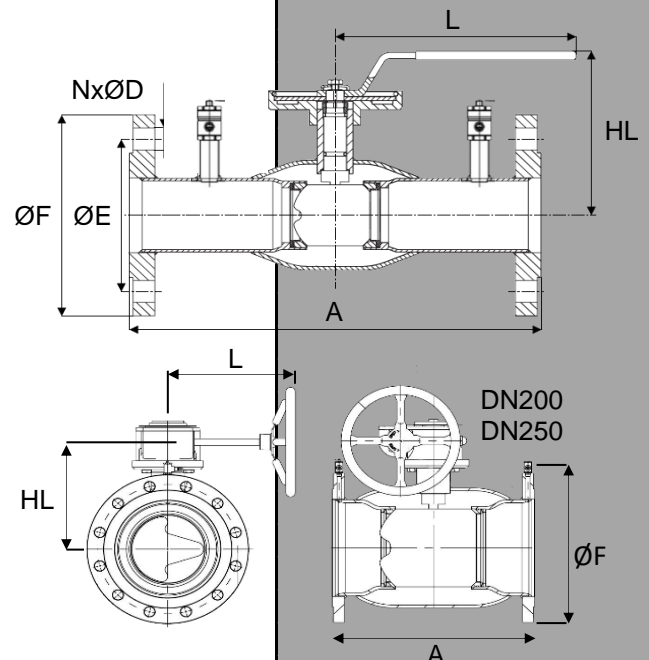
N.	Part	Material	Norm
1	Body	Stainless steel AISI316L	X2CrNiMo17-12-2
2	Ball	Stainless steel AISI316L	X2CrNiMo17-12-2
3	Seat	PTFE+graphite	-
4	Stem	Stainless steel AISI316L	X2CrNiMo17-12-2
5	O-ring	FPM/NBR	-
6	Gasket	PTFE+GF	-
7	Handle ¹	Stainless steel AISI316L ¹	X2CrNiMo17-12-2

¹with precision control knob DN 15-50 and with manual gear for DN200-250



DIMENSIONS

DN	ØF [mm]	ØE [mm]	NxØD [mm]	A [mm]	L [mm]	HL [mm]	Weight [kg]
015	95	65	4x14	250	140	101	1,9
020	105	75	4x14	250	140	105	2,5
025	115	85	4x14	240	150	107	3,0
032	140	100	4x18	280	150	111	4,8
040	150	110	4x18	270	190	116	5,6
050	165	125	4x18	310	190	123	7,7
065	185	145	4x18	310	280	148	10,1
080	200	160	8x18	310	280	160	12,0
100	220	180	8x18	350	280	173	15,9
125	250	210	8x18	355	400	221	25,6
150	285	240	8x22	370	600	240	30,0
200	340	295	12x22	425	268	244	56,7
250	405	355	12x26	550	301	294	103,9



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FLOW MEASUREMENT

Valve regulation	K _v [m ³ /h @ 1bar]											
	015/020	025	032	040	050	065	080	100	125	150	200	250
1,0	-	-	0,39	0,60	1,26	2,52	3,42	6,48	8,60	13,68	19,70	35,00
1,5	-	0,35	0,57	1,01	1,80	3,64	5,37	9,47	13,32	20,16	29,00	51,20
2,0	0,14	0,49	0,83	1,48	2,70	4,75	7,31	12,46	18,00	26,64	38,40	66,50
2,5	0,28	0,99	1,08	2,02	3,55	6,34	10,23	16,28	24,30	35,46	51,10	90,00
3,0	0,42	1,36	1,44	2,70	4,39	7,92	13,14	20,09	30,60	44,28	63,80	110,0
3,5	0,61	1,66	1,80	3,24	5,61	9,78	16,11	24,45	37,80	55,08	79,30	140,0
4,0	0,80	2,00	2,30	3,96	6,84	11,63	19,08	28,84	45,00	65,88	95,00	165,0
4,5	1,02	2,40	2,74	4,86	8,34	14,15	23,31	35,82	55,26	84,06	121,0	215,0
5,0	1,24	3,00	3,42	5,98	9,83	16,67	27,54	42,84	65,52	102,2	147,0	260,0
5,5	1,64	3,50	4,21	7,18	11,94	20,94	33,21	51,84	81,72	127,1	183,0	325,0
6,0	2,04	4,50	5,11	8,57	14,04	25,20	38,88	60,84	97,92	151,9	219,0	380,0
6,5	2,64	5,10	5,97	10,15	16,92	29,52	46,26	75,42	121,9	196,6	282,0	500,0
7,0	3,24	6,70	7,27	12,31	19,80	33,84	53,64	90,00	145,8	241,2	325,0	576,0
7,5	3,84	7,30	8,64	14,40	23,40	39,78	64,62	113,4	177,3	289,8	417,0	740,0
8,0	4,45	9,30	10,08	17,64	27,00	45,72	75,60	136,8	208,8	338,4	486,0	866,0
8,5	5,04	10,00	11,52	20,88	30,60	53,46	91,80	169,2	251,3	399,8	576,0	1020
9,0	5,83	12,65	13,14	22,57	34,20	61,20	108,0	216,0	293,8	460,8	660,0	1170

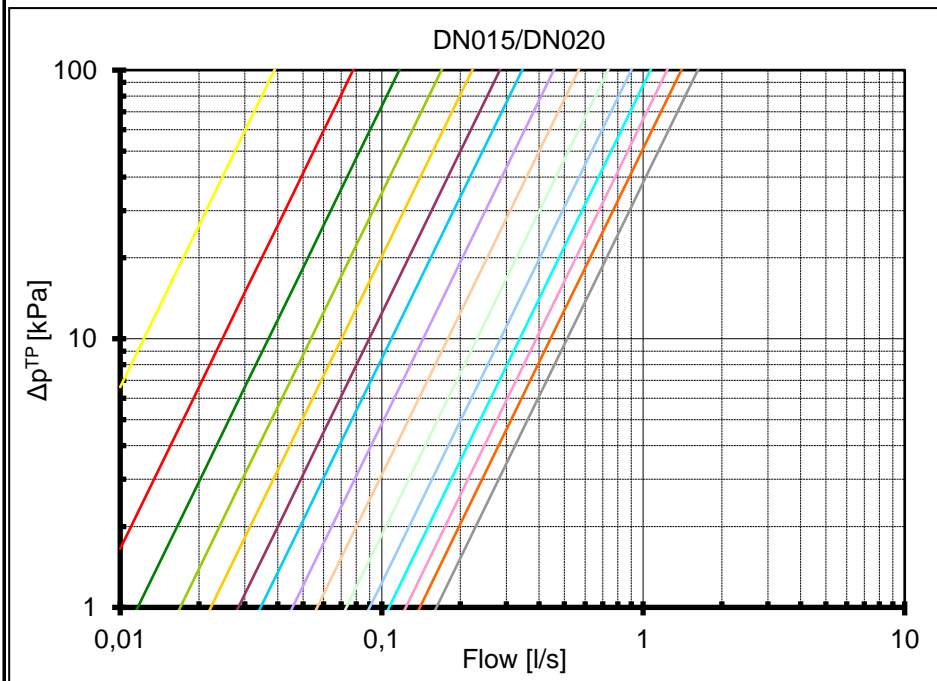
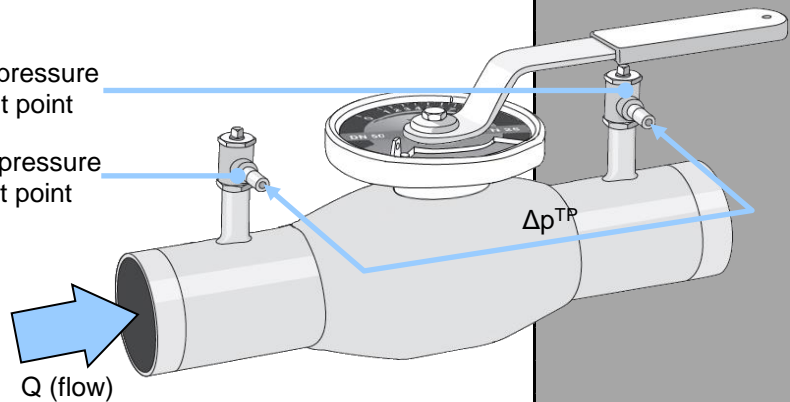
$$Q = \frac{K_v \cdot \sqrt{\Delta p^{TP}}}{36}$$

Formula linking flow Q (in l/s) and Δp measured at test points (in kPa). K_v depends on handle / gear regulation 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.

Low pressure test point

High pressure test point

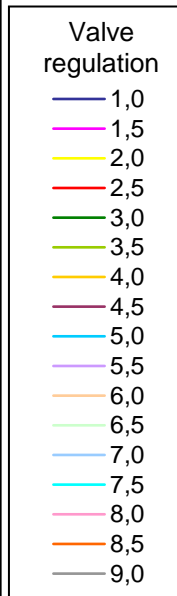
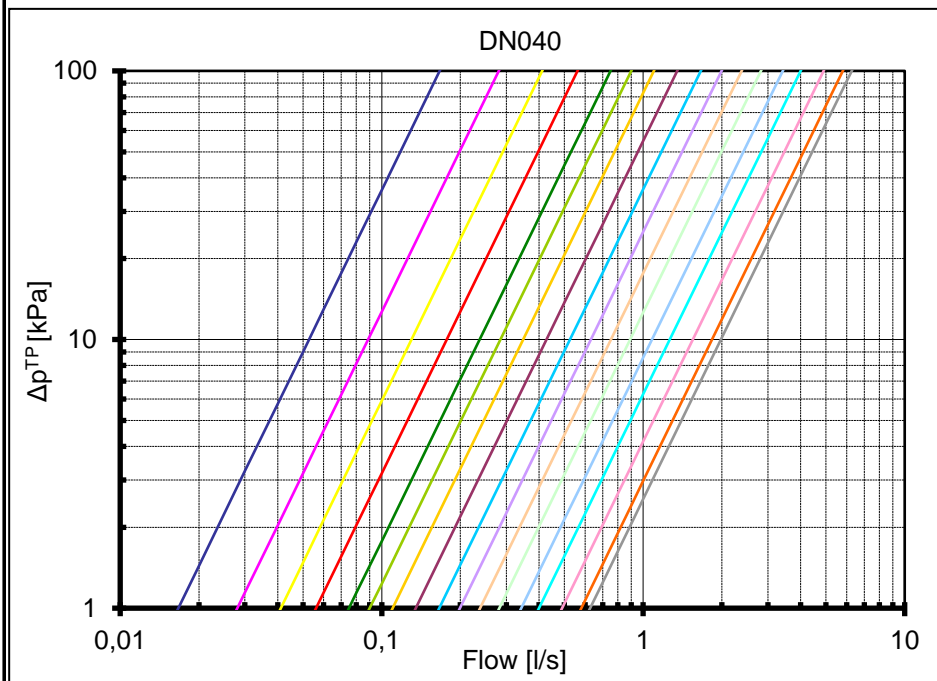
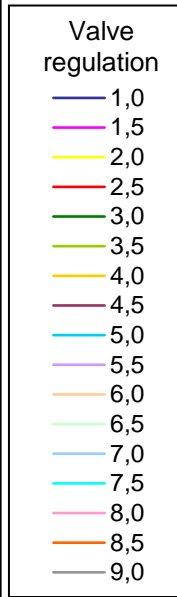
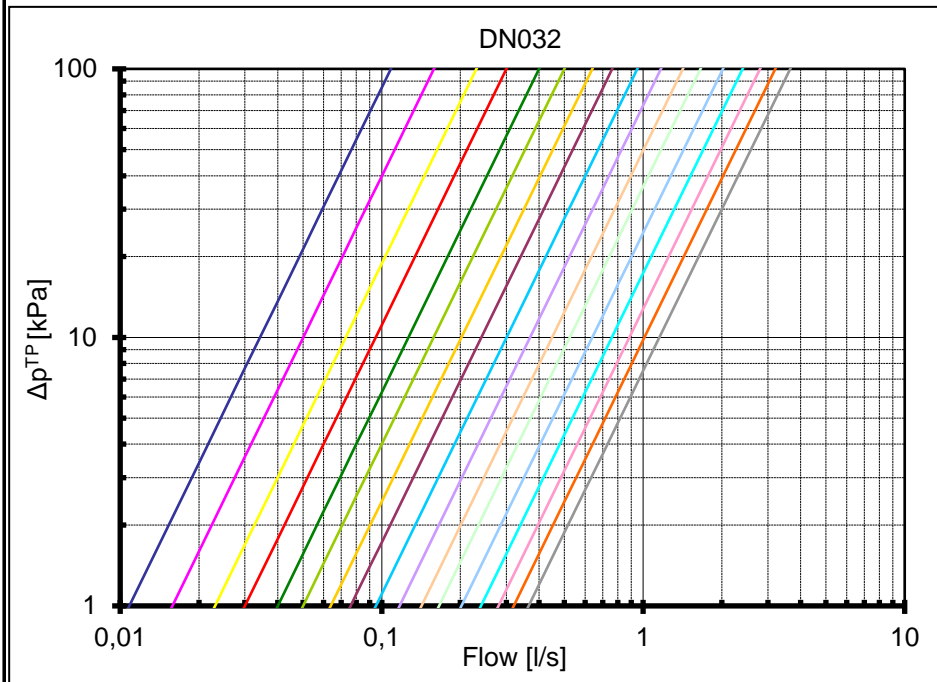
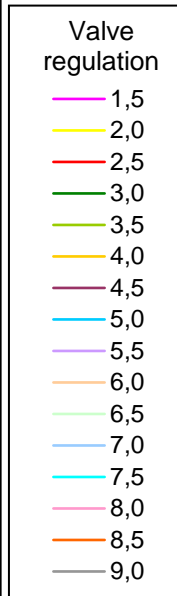
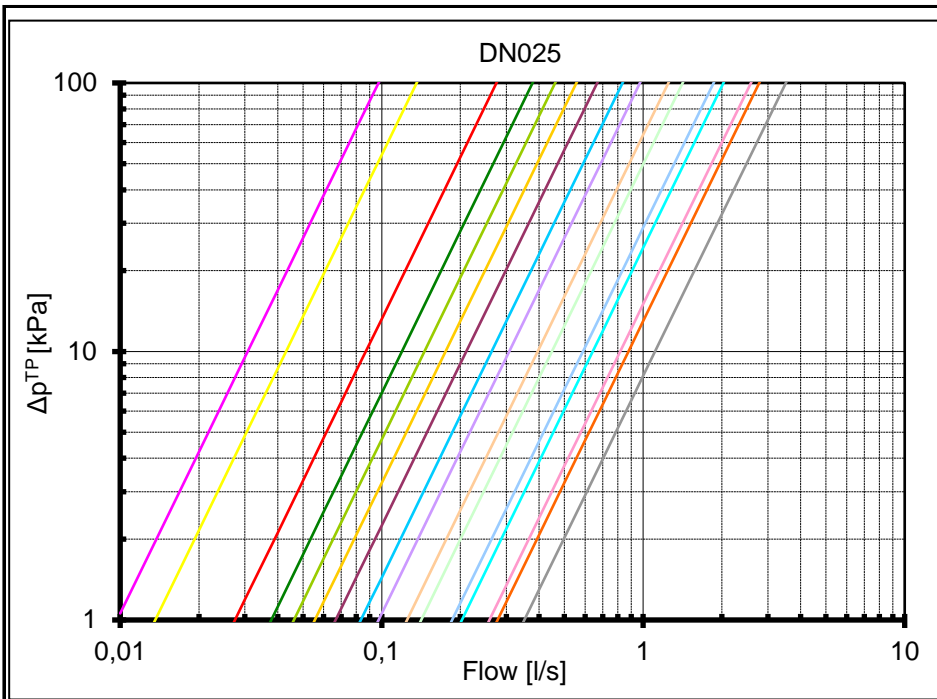


Valve regulation

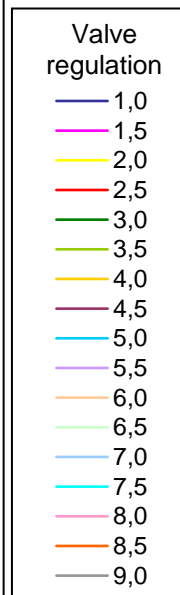
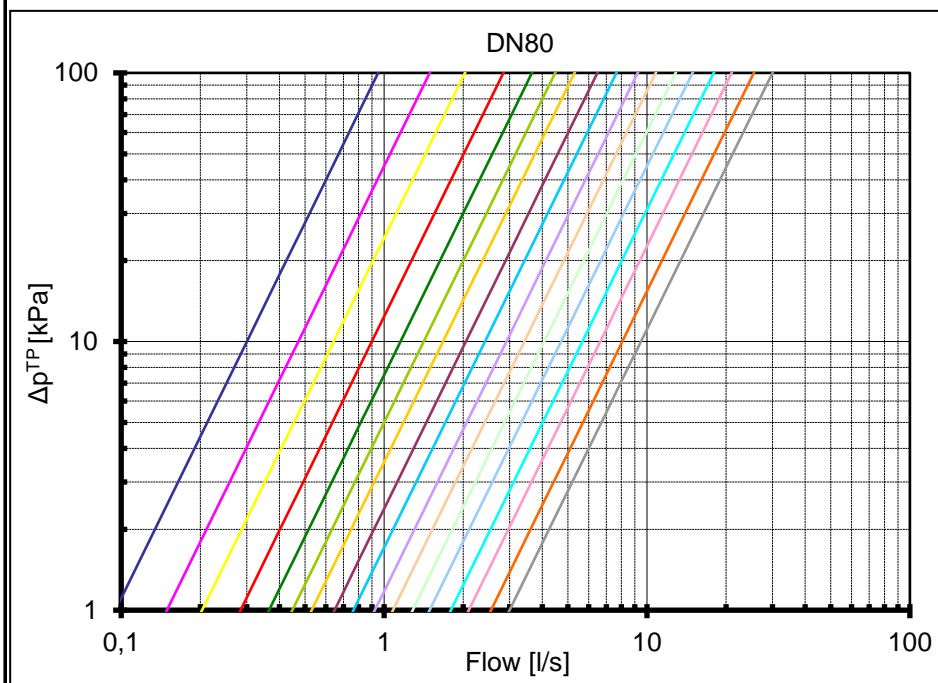
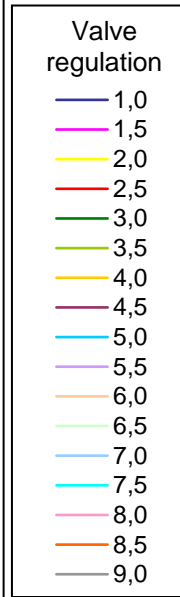
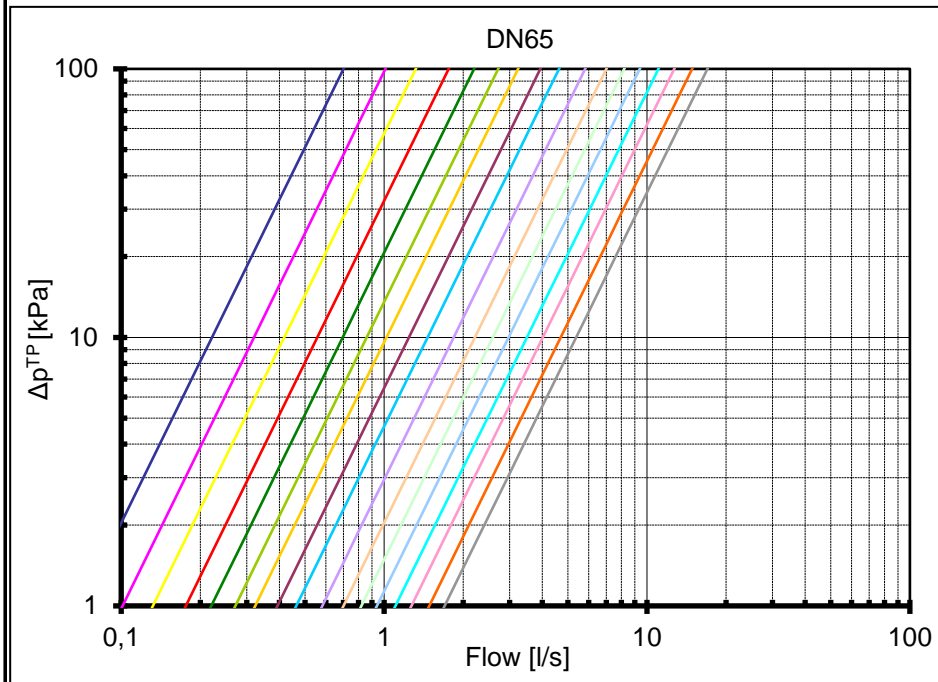
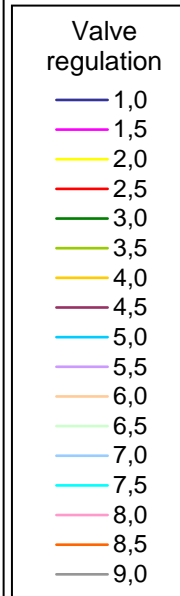
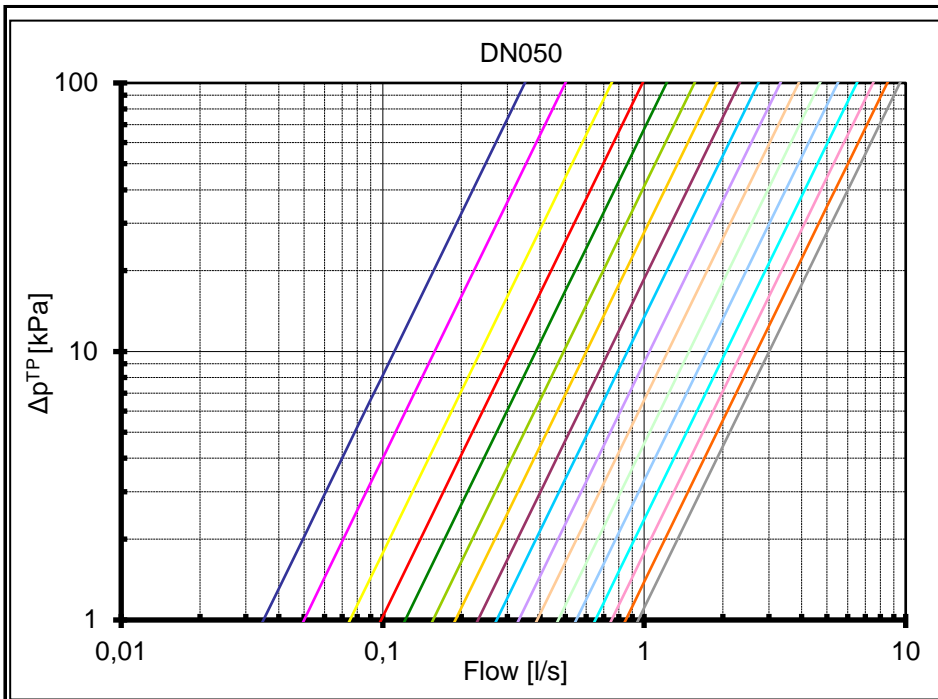
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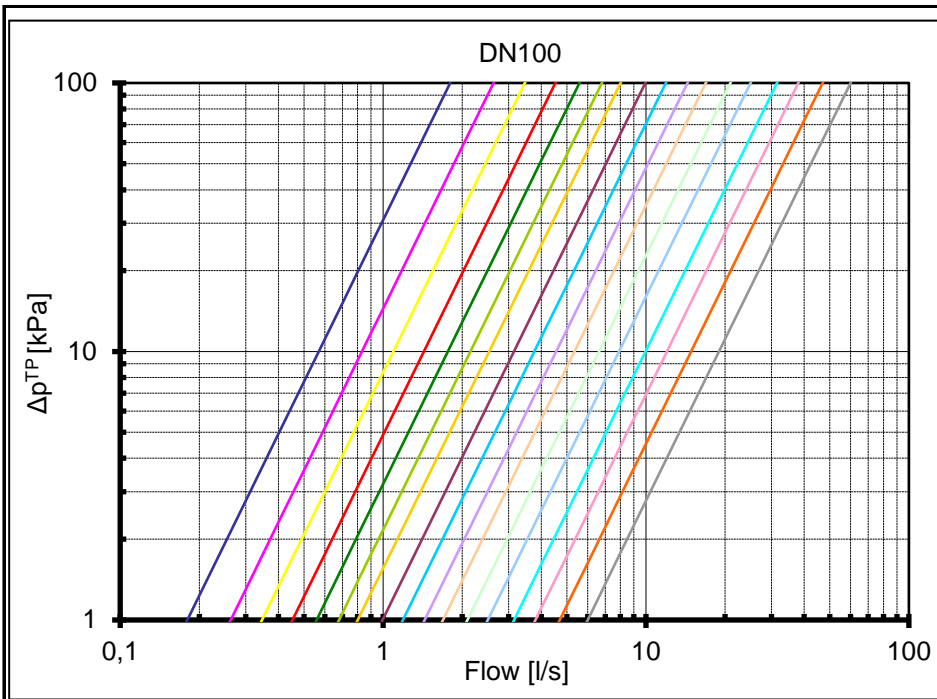
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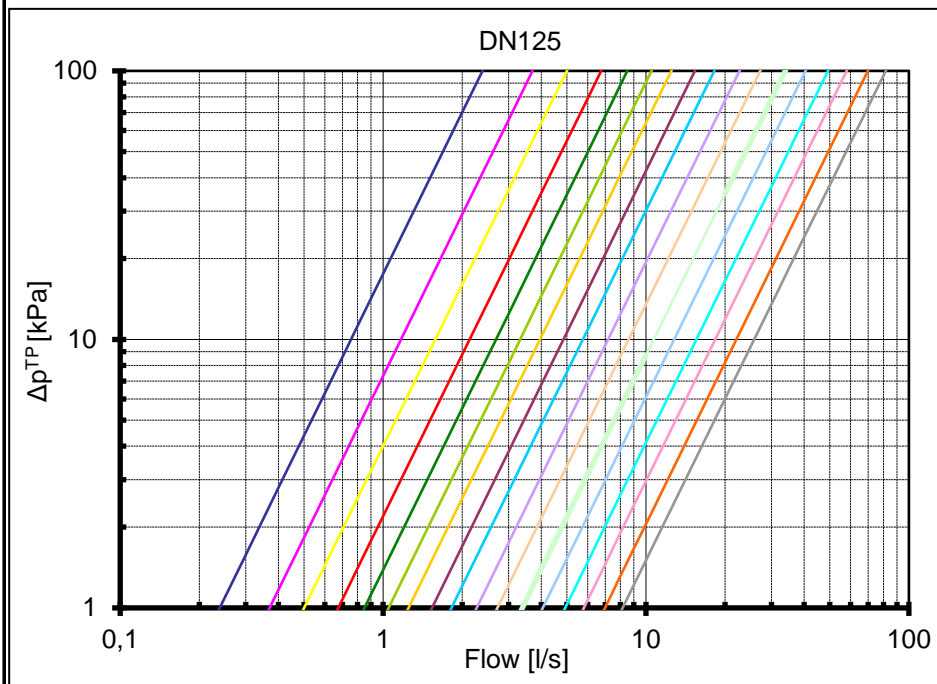
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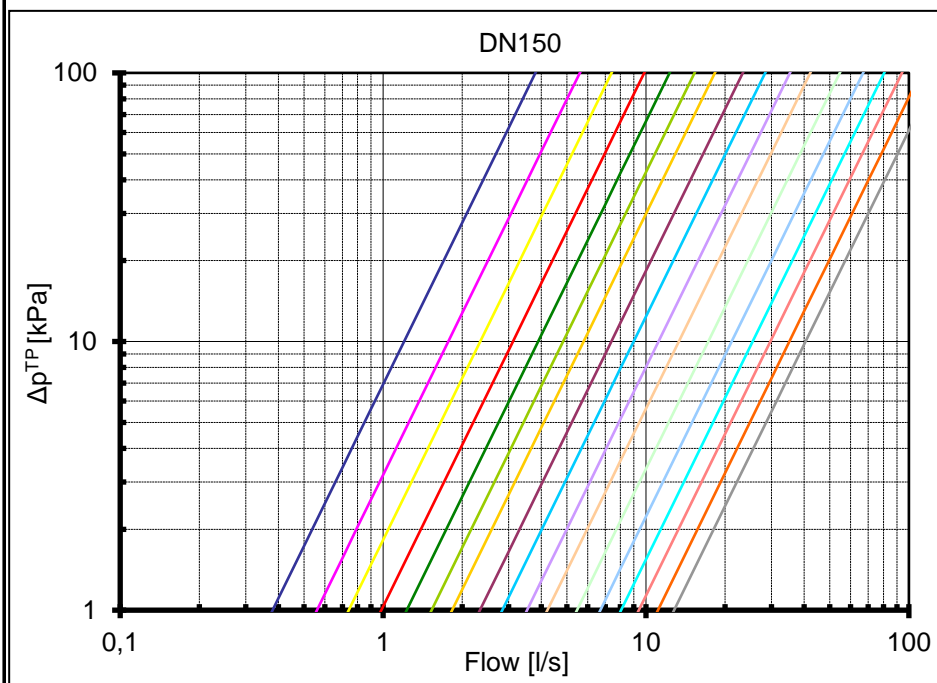
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- Valve regulation**
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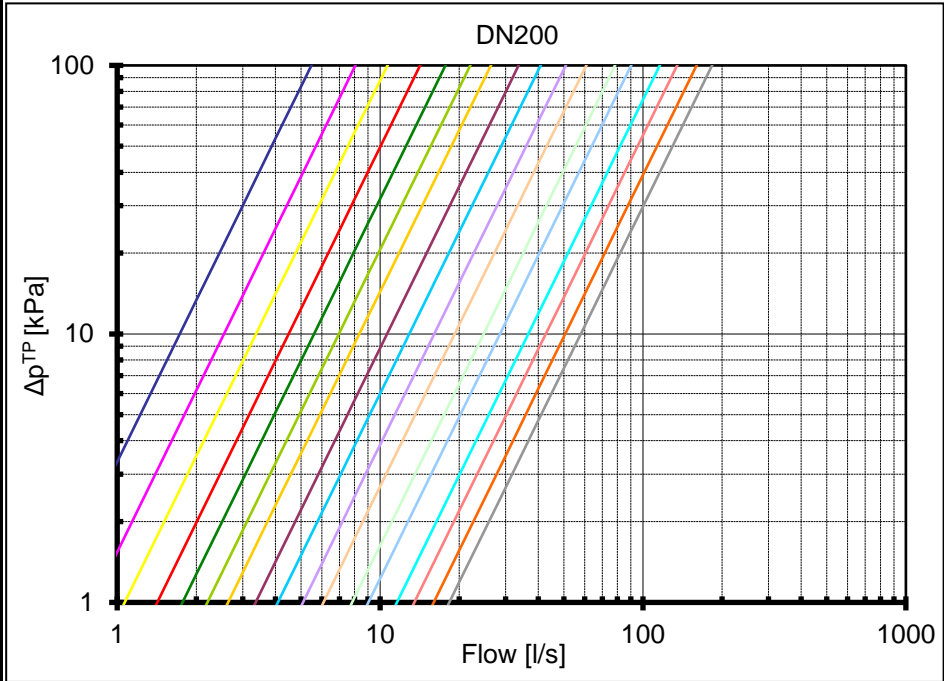
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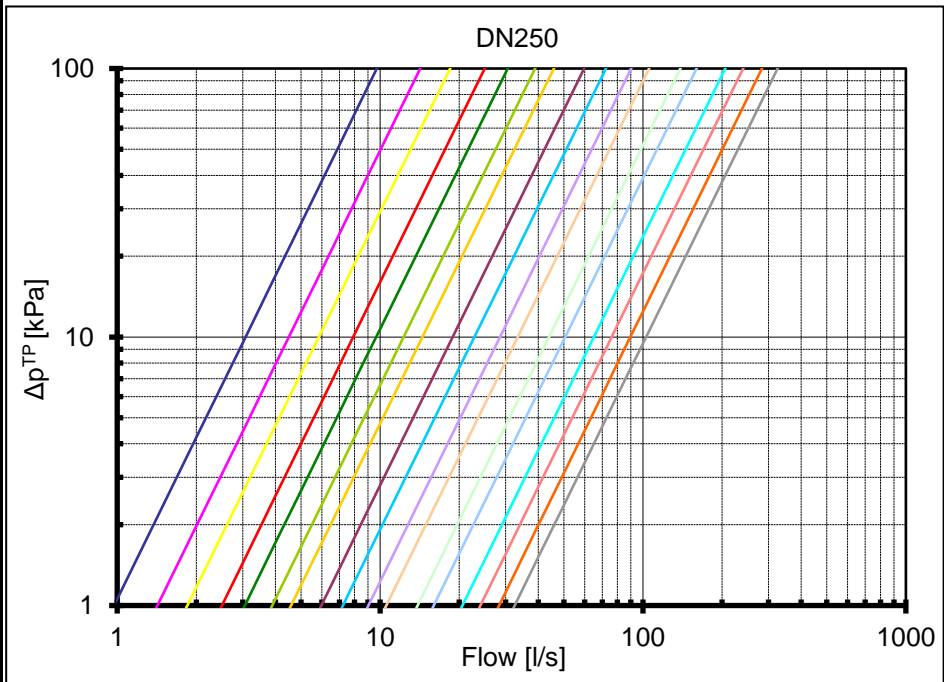
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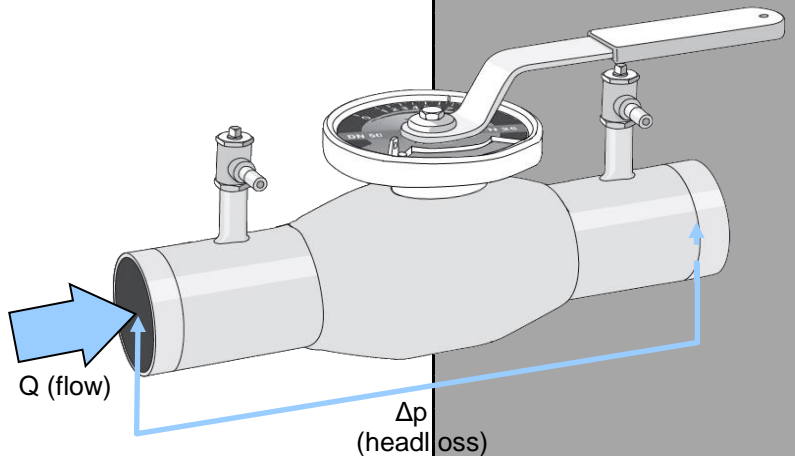
HEADLOSS CALCULATION

Valve regulation	K_v [m ³ /h @ 1bar]											
	015/020	025	032	040	050	065	080	100	125	150	200	250
1,0	-	-	0,39	0,60	1,26	2,52	3,42	6,48	8,60	13,68	19,70	35,00
1,5	-	0,35	0,57	1,01	1,80	3,64	5,37	9,47	13,32	20,16	29,00	51,20
2,0	0,14	0,49	0,83	1,48	2,70	4,75	7,31	12,46	18,00	26,64	38,40	66,50
2,5	0,28	0,99	1,08	2,02	3,55	6,34	10,23	16,28	24,30	35,46	51,10	90,00
3,0	0,42	1,36	1,44	2,70	4,39	7,92	13,14	20,09	30,60	44,28	63,80	110,0
3,5	0,61	1,66	1,80	3,24	5,61	9,78	16,11	24,45	37,80	55,08	79,30	140,0
4,0	0,80	2,00	2,30	3,96	6,84	11,63	19,08	28,84	45,00	65,88	95,00	165,0
4,5	1,02	2,40	2,74	4,86	8,34	14,15	23,31	35,82	55,26	84,06	121,0	215,0
5,0	1,24	3,00	3,42	5,98	9,83	16,67	27,54	42,84	65,52	102,2	147,0	260,0
5,5	1,64	3,50	4,21	7,18	11,94	20,94	33,21	51,84	81,72	127,1	183,0	325,0
6,0	2,04	4,50	5,11	8,57	14,04	25,20	38,88	60,84	97,92	151,9	219,0	380,0
6,5	2,64	5,10	5,97	10,15	16,92	29,52	46,26	75,42	121,9	196,6	282,0	500,0
7,0	3,24	6,70	7,27	12,31	19,80	33,84	53,64	90,00	145,8	241,2	325,0	576,0
7,5	3,84	7,30	8,64	14,40	23,40	39,78	64,62	113,4	177,3	289,8	417,0	740,0
8,0	4,45	9,30	10,08	17,64	27,00	45,72	75,60	136,8	208,8	338,4	486,0	866,0
8,5	5,04	10,00	11,52	20,88	30,60	53,46	91,80	169,2	251,3	399,8	576,0	1020
9,0	5,83	12,65	13,14	22,57	34,20	61,20	108,0	216,0	293,8	460,8	660,0	1170

Copy of the table presented in flow measurement paragraph
 Δp (headloss) approximately equal to Δp^{TP}

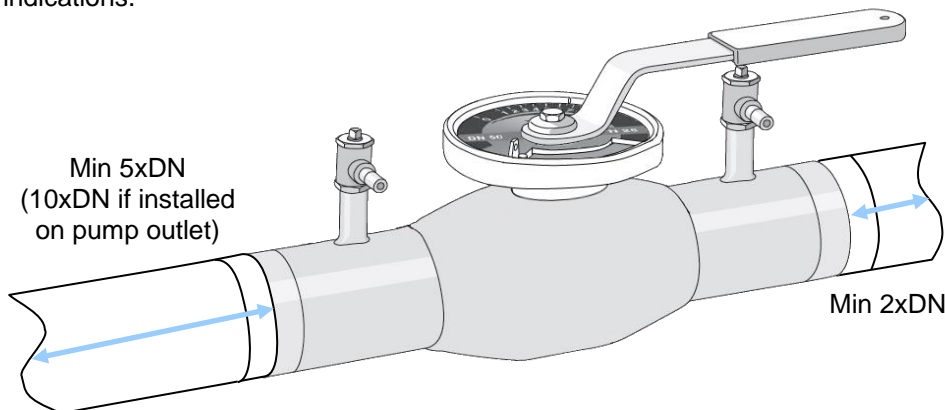
$$\Delta p = \left(\frac{36 \cdot Q}{K_v} \right)^2$$

Formula linking flow Q (in l/s) and theoretical valve headloss Δp (in kPa).
 K_v depends on handle / gear regulation 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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