



NAVAL

Navaltrim stainless steel
control valve



NAVALTRIM CONTROL VALVE

NAVALTRIM control valves are designed for control of liquid flows in heating, and cooling systems. They are also suitable for various process industry applications. NAVALTRIM control valves can also be used as shut-off valves.

CONSTRUCTION:

NAVALTRIM is a control valve, where two cross linked specially designed trim plates decrease the turbulence of the flow, improve the measuring accuracy and practically eliminate the cavitation and noise. This construction is used in sizes from DN40 up to DN300.

The valve has an all-welded body and it is fitted with reinforced teflon seals which are durable even if the valve is frequently operated, and are resistant to impurities and chemicals.

The polished stainless steel ball is easy to turn and is designed to provide many years of reliable service. The blow-out proof stem is sealed with 2 O-rings. In smaller sizes the upper one can be changed and in sizes DN65-300 both can be changed. The valve is equipped with fittings for measuring of pressure difference.

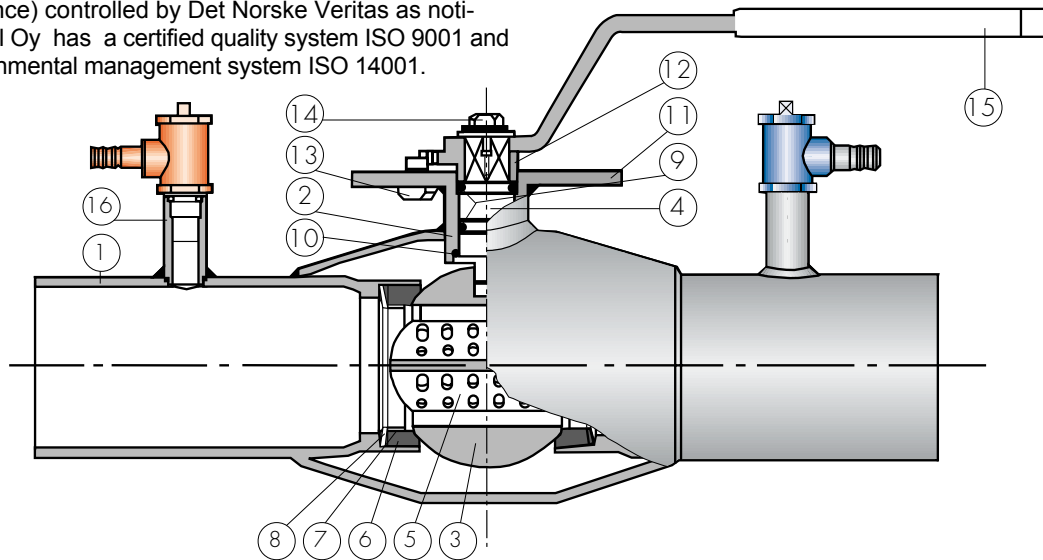
Naval ball valves are manufactured in accordance with European Pressure Equipment Directive 97/23/EY. Naval Oy applies Module H as conformity assessment procedure (=full quality assurance) controlled by Det Norske Veritas as notified body. Naval Oy has a certified quality system ISO 9001 and certified environmental management system ISO 14001.

CHARACTERISTICS:

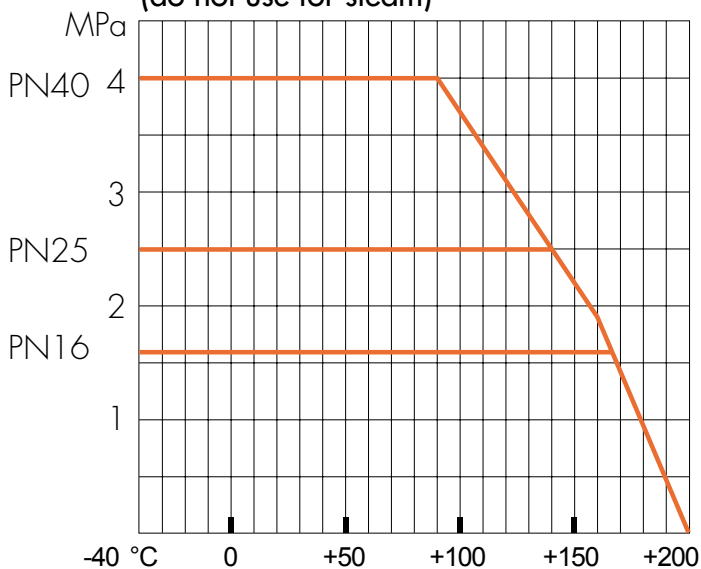
The unique Navaltrim construction provides a broad linear and exact control range. The flow resistance is very low in fully open position and the control plates inside the ball allow exact flow control without disturbing turbulence or cavitation. Therefore the information obtained from the measuring outlet is reliable.

The valve needs no servicing nor lubrication and is easy to install. These features combined guarantee a long and reliable life time with low running costs. The long and circular stem housing makes the valve easy to insulate.

The operating lever can be dismantled, turned 180° and reinstalled to a new position.



Pressure/temperature curves
(do not use for steam)

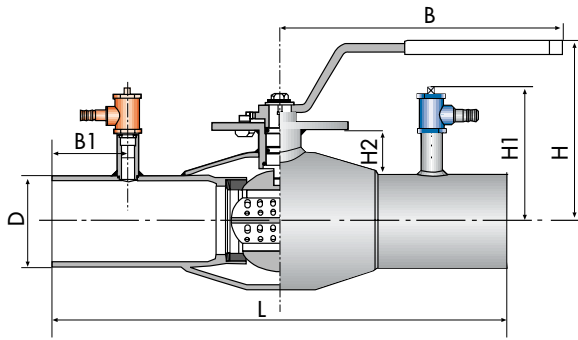


For temperatures below -20°C, please mention separately when ordering.

MATERIAL SPECIFICATION

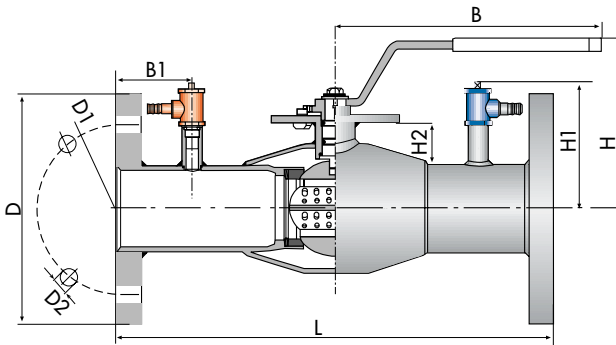
POS	DESCRIPTION	MATERIAL	
1.	Body	Carbon steel	AISI 316 L
2.	Stem housing	Carbon steel	AISI 316 L
3.	Ball	Stainless steel	AISI 316 L
4.	Stem	Stainless steel	AISI 316 L
5.	Trim plates	Stainless steel	AISI 316 L
6.	Seat ring	Reinforced teflon	PTFE+GF
7.	Support ring	Stainless steel	AISI 316 L
8.	Bevel washer	Spring steel	AISI 316 L
9.	O-ring	Viton	FPM
10.	Thrust washer	Teflon	PTFE
11.	Face plate	Carbon steel	AISI 316 L
12.	Indicator/end stop	DN10-50 Cast steel	AISI 316 L
		DN 65-250 Stainless steel	AISI 430
13.	Locking screw	Steel	AISI 316 L
14.	Screw	Steel	AISI 316 L
15.	Handle	DN10-50 Cast steel	
		DN 65-250 Stainless steel	
16.	Measuring outlet		

WITH BUTT WELD CONNECTION



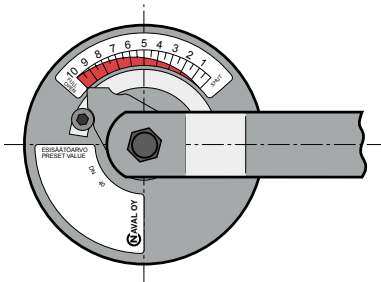
DN	PN	NAVAL NO	LVI NO	L	D	H	H1	H2	B	B1	KG
15	40	266 403	4018002	230	21,3	103	71	18	145	50	1,0
20	40	266 405	4018003	230	26,9	103	71	18	145	50	1,0
25	40	266 406	4018004	260	33,7	116	79	22	145	50	1,6
32	40	266 407	4018005	260	42,4	116	79	22	145	50	1,6
40	40	266 408	4018006	260	48,3	111	82	29	190	50	2,3
50	40	266 409	4018007	300	60,3	118	88	29	190	50	3,4
65	25	266 410	4018008	300	76,1	150	120	50	280	40	4,7
80	25	266 411	4018009	300	88,9	160	127	53	280	40	5,9
100	25	266 412	4018010	325	114,3	175	139	47	280	40	7,9
125	16	266 413	4018011	325	139,7	220	152	63	400	25	14,3
150	16	266 414	4018012	350	168,3	240	167	68	600	25	20,9
200	16	266 416	4018013	390	219,1	271	193	80	900	20	40,0
250	16	266 417	4018014	520	273,0	345	219	104	1200	20	80,0

WITH FLANGES

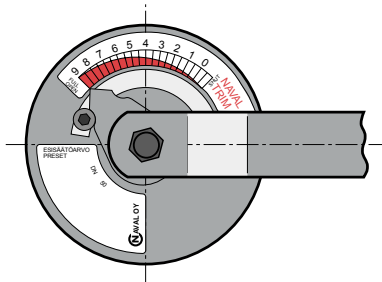


DN	PN	NAVAL NO	LVI NO	L	D	D1	D2	H	H1	H2	B	B1	KG
15	40	266 503	4018032	250	95	65	14	108	71	18	145	60	1,8
20	40	266 505	4018033	250	105	75	14	103	71	18	145	60	2,0
25	40	266 506	4018034	280	115	85	14	116	74	22	145	60	4,3
32	40	266 507	4018035	280	140	100	18	116	79	22	145	60	5,0
40	40	266 508	4018036	270	150	110	18	111	82	29	190	55	8,0
50	40	266 509	4018037	310	165	125	18	118	88	29	190	55	10,0
65	16	266 510	4018038	310	185	145	18	150	120	50	280	45	12,0
80	16	266 511	4018039	310	200	160	18	160	127	53	280	45	15,0
100	16	266 512	4018040	350	220	180	18	175	139	47	280	52	18,0
125	16	266 513	4018041	360	250	210	18	230	152	63	400	42	26,0
150	16	266 514	4018042	390	285	240	22	240	167	68	600	45	33,0
200	16	266 516	4018043	500	340	295	22	271	193	80	900	20	50,0
250	16	266 517	4018044	650	405	355	26	345	219	104	1200	20	100,0

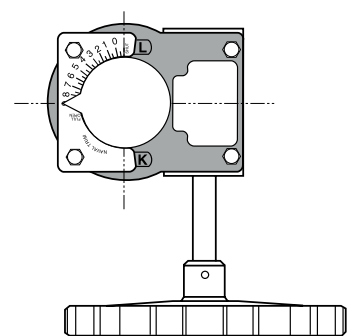
FLANGES: SFS 2123, SS335, DIN 2501, ISO 2084, ISO 7005-1



CONTROL SCALE
(WITH HANDLE)
DN15 - DN32

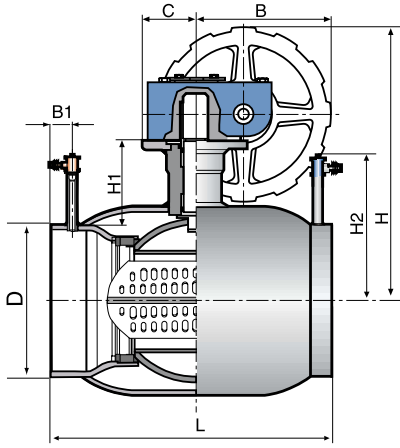


CONTROL SCALE
(WITH HANDLE)
DN40 - DN250



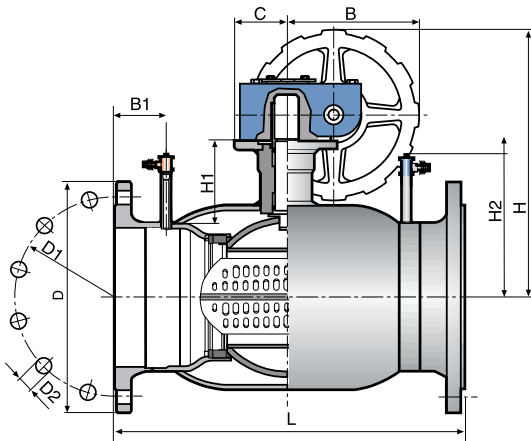
CONTROL SCALE
(WITH GEARBOX)
DN150 - DN250

DN 150-250 WITH BUTT WELD CONNECTION AND WITH GEAR



DN	PN	NAVAL NO	LVI NO	L	D	H	H1	H2	B	B1	C	KG
125	16	266433	4018021	325	139,7	276	68	152	145	25	50	20
150	16	266434	4018122	350	168,3	297	74	167	145	25	50	25
200	16	266436	4018123	390	219,1	369	94	193	196	20	75	50
250	16	266437	4018124	520	273,0	451	122	219	236	20	100	100

DN 150-250 WITH FLANGES AND WITH GEAR



DN	PN	NAVAL NO	LVI NO	L	D	D1	D2	H	H1	H2	B	B1	C	KG
125	16	266533	4018051	360	250	210	18	276	68	152	145	42	50	30
150	16	266534	4018052	390	285	240	22	297	74	167	145	25	50	38
200	16	266536	4018052	500	340	295	22	369	94	193	196	20	75	50
250	16	266537	4018052	650	405	355	26	451	122	219	236	20	100	115

FLANGES: SFS 2123, SS335, DIN 2501, ISO 2084, ISO 7005-1

NAVALTRIM KV-FACTORS

SET VALUE	DN 15/20	DN 25/32
1		
2	0,22	0,50
3	0,42	0,95
4	0,76	1,7
5	1,2	2,7
6	1,7	3,9
7	2,5	5,6
8	3,7	8,4
9	5,4	12,2
10	7,1	16,0

SET VALUE	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250
1	1,06	1,60	2,40	5,10	11,5	14,6	21,4	46,6	50,6
2	2,84	3,99	6,40	12,4	24,8	28,9	50,9	91,3	138
3	4,93	7,12	10,6	20,9	37,0	46,4	76,1	129	200
4	6,83	10,5	15,9	30,7	54,3	68,0	111	185	289
5	9,85	15,6	23,7	46,2	80,8	102	171	284	419
6	14,4	23,2	34,3	66,3	113	149	251	391	628
7	21,0	33,9	51,3	101	162	211	392	571	918
8	29,7	47,9	78,6	149	247	314	594	914	1480
9	41,4	66,2	110	233	341	519	952	1300	2580

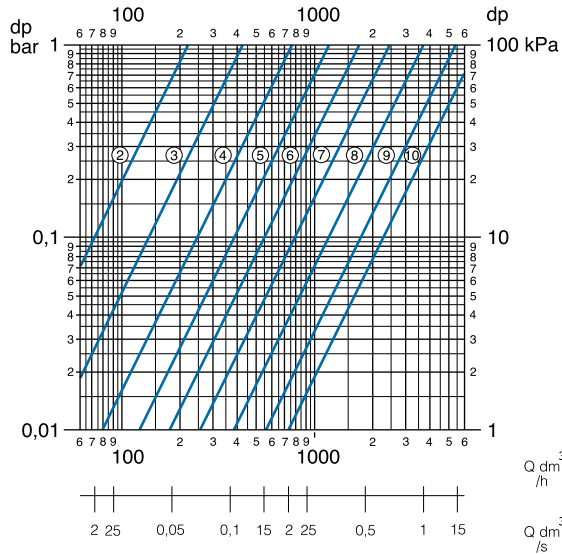
TA-CMI measuring equipment can be used for accurate information on actual pressure and flow values (ask for full technical data)

NAVAL NO 264 100

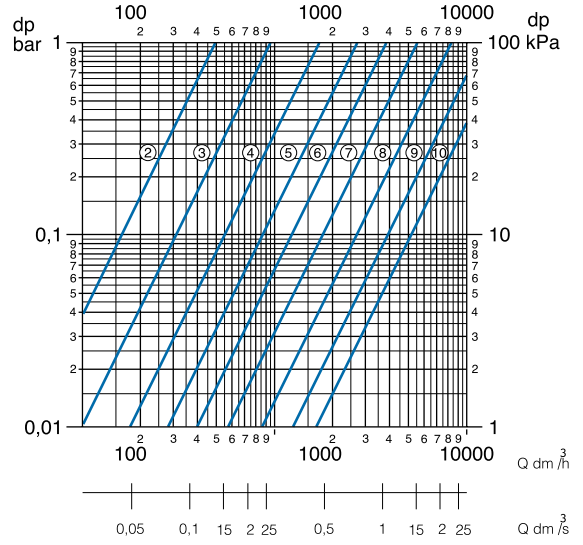


CONTROL GRAPHS *

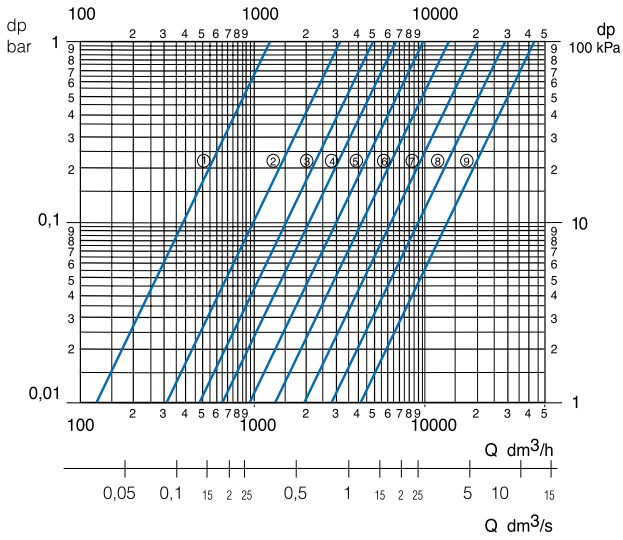
DN15 AND DN20



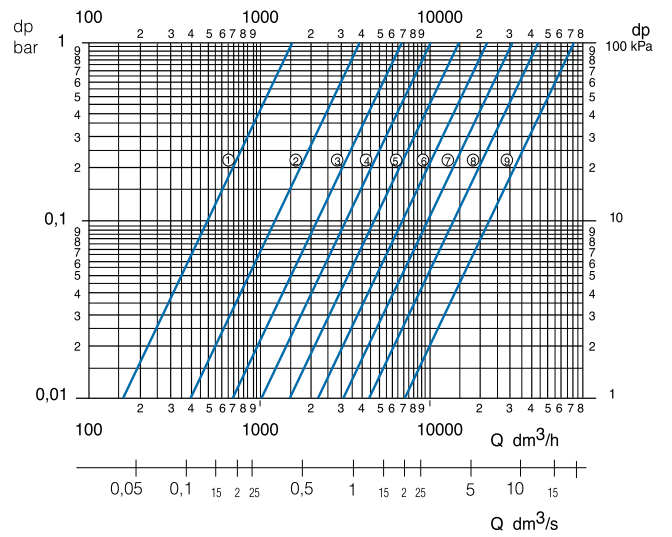
DN25 AND DN32



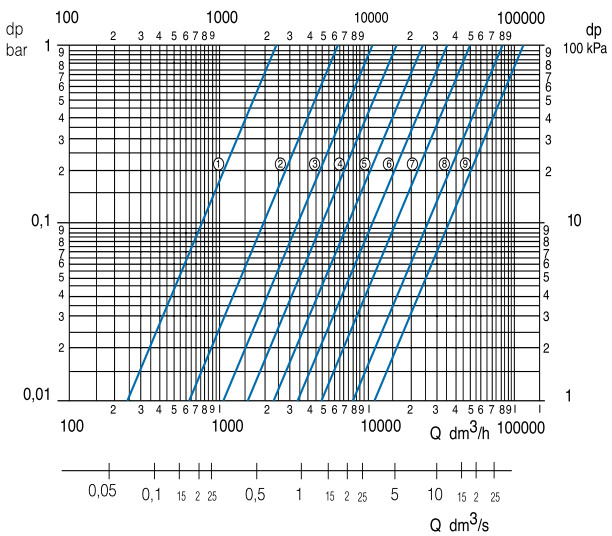
DN40



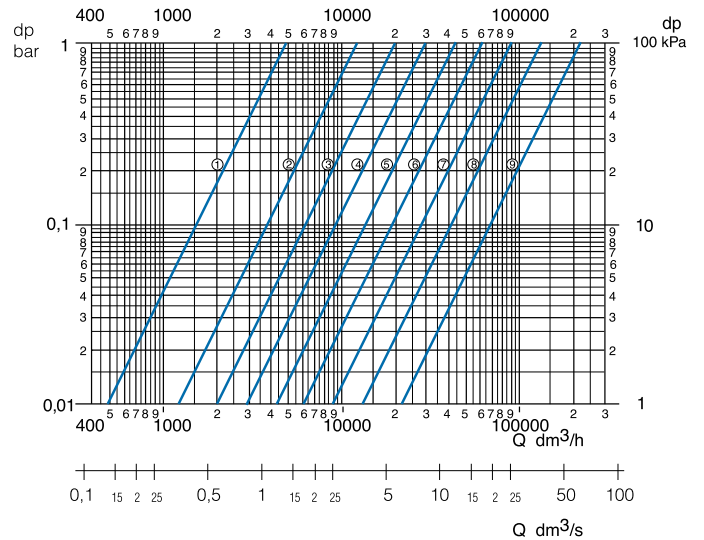
DN50



DN65

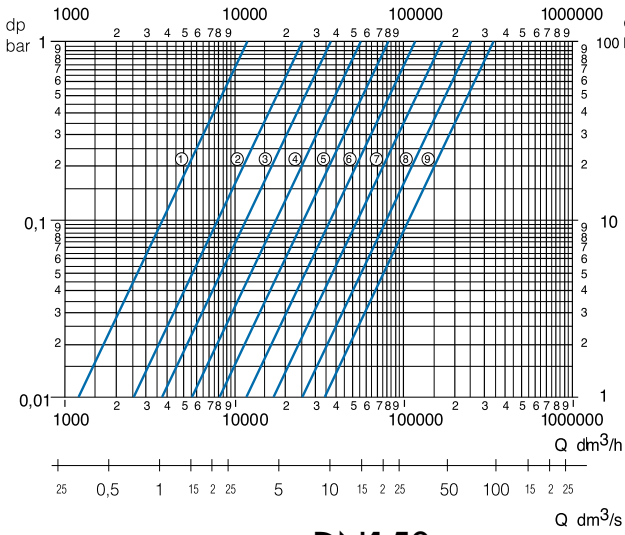


DN80

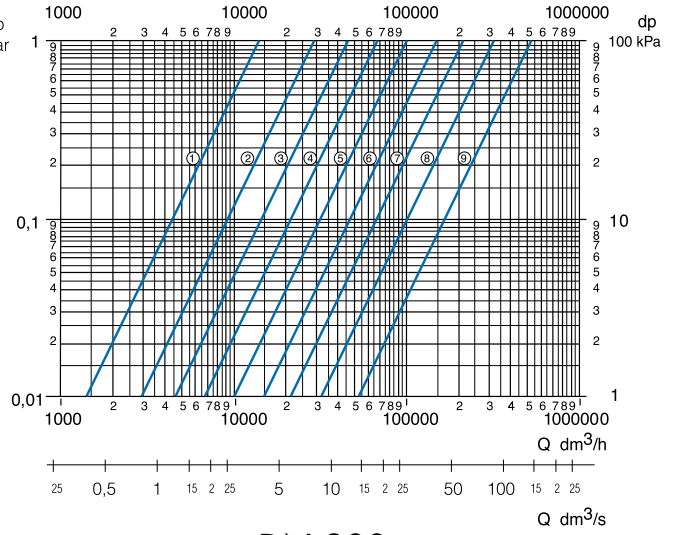


* ask for NAVALTRIM operating instructions for more detailed information

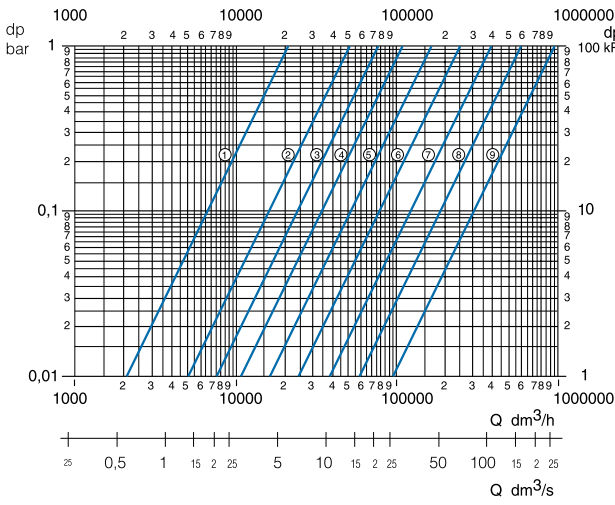
DN100



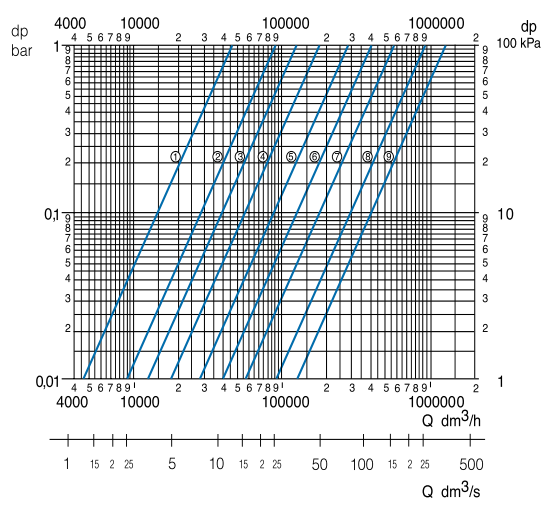
DN125



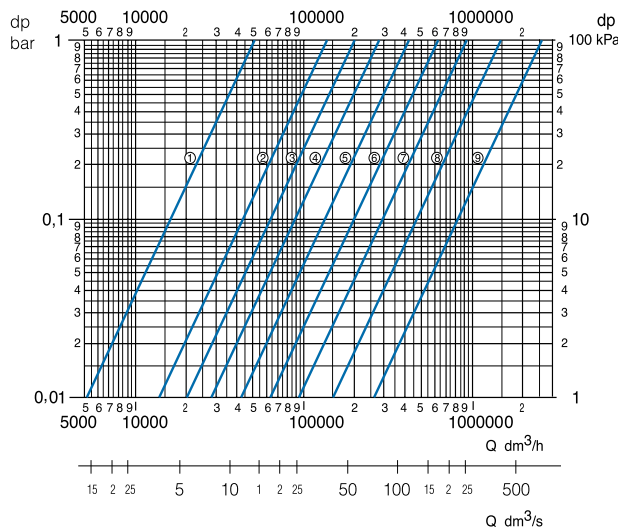
DN150



DN 200



DN 250



Flow Control Division

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