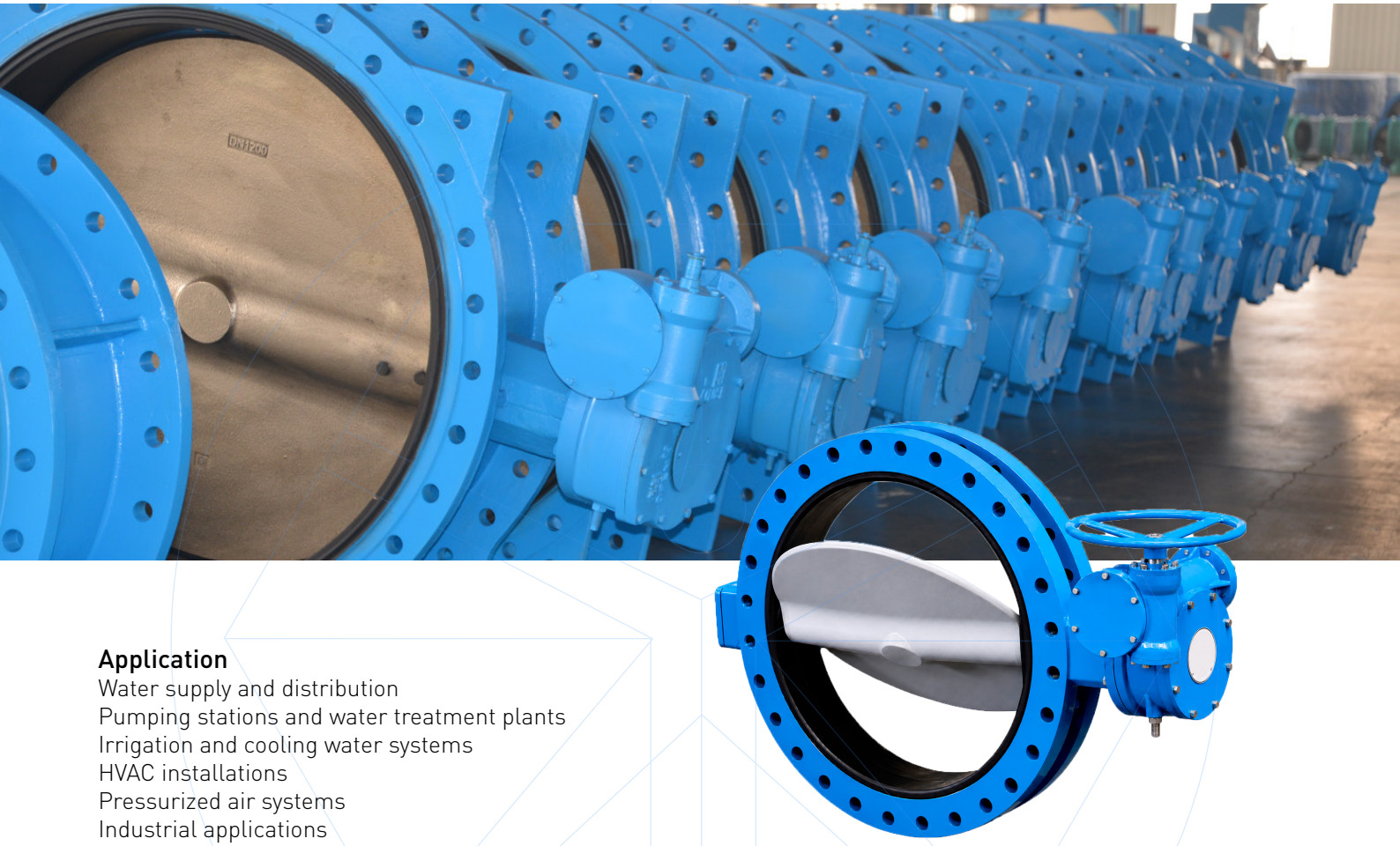
DAVINCI TECHNICAL DATA GUIDE

BUTTERFLY VALVES

CONCENTRIC FLANGED SERIES 20

Ref. 113A-DH / PN 10-16, ANSI 150



Application

Water supply and distribution
Pumping stations and water treatment plants
Irrigation and cooling water systems
HVAC installations
Pressurized air systems
Industrial applications

Approvals/Standards

Design: EN 593
Face to Face: EN 558-1 Series 20
Mounting between flanges: PN10/16 EN 1092-2, ISO 7005-2.
Pressure Tests acc. to EN 12266-1 Rate A. GB/T13927-1992
Pressure Tests: Body: 1,5 x PN. Seat: 1,1 x PN
EU directive 2014/68/EU:
Products excluded, article 1, § 2b up to DN300.
Risk Category I MoD. A from DN350 to DN600

Range

DN50-1200, PN10-16 / ANSI 150

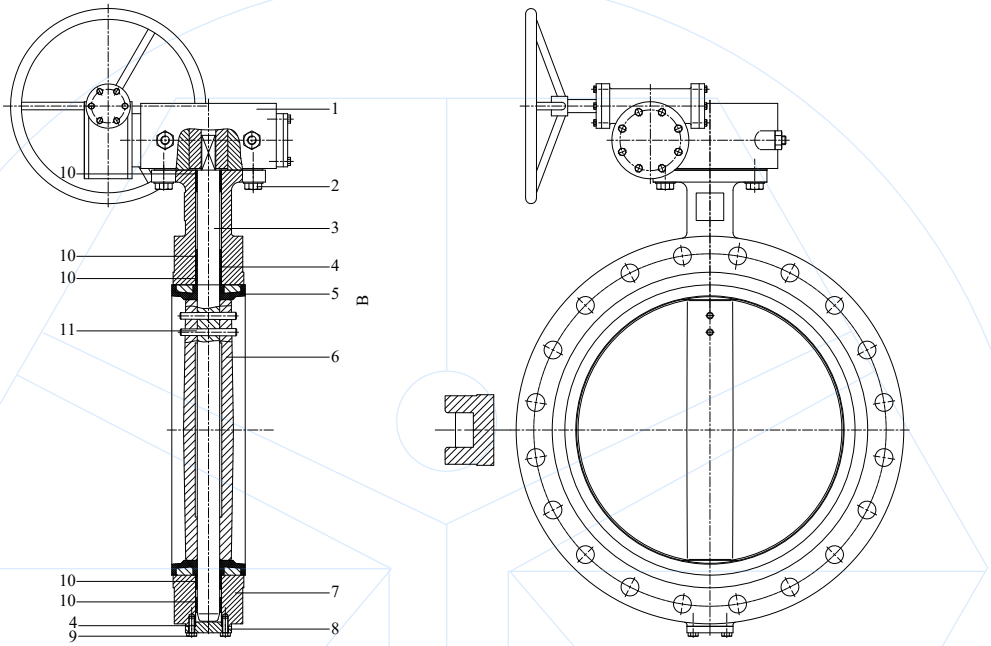
GENERAL CHARACTERISTICS

Concentric disc valves.
Range from DN50 up to DN1200
Vulcanized seat. Does not need gaskets for installation.
100% Tightness in both directions.
Low head loss.
Top flange according to ISO 5211.
One-piece shaft to avoid breackage due to water hammer.
Vulcanized seat / cartridge seat.

WORKING CONDITIONS

Working pressure: 1.0MPa, 1.6 MPa
Working temperature:
- 120ºC for EPDM seat and CF8M disc.
- 90ºC for EPDM seat and GJS400 disc.
- 80ºC for NBR seat and CF8M/GJS400 disc.

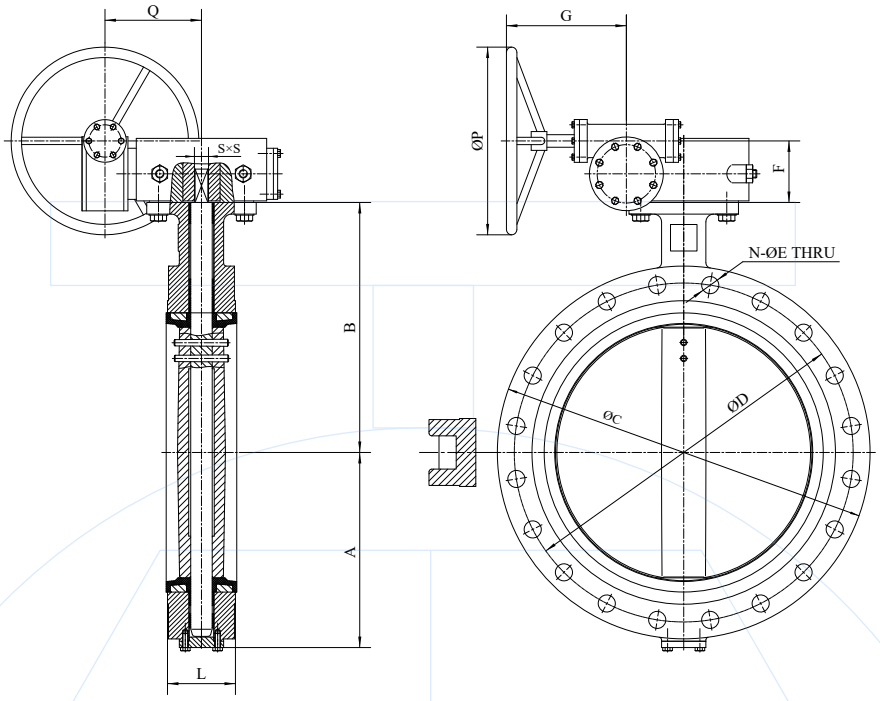
Suitable media according to seat and disc material.
Check with factory for different applications.



Nº	ITEM	MATERIAL (Standard / options)
1	Gearbox	GJL-250
2	Bolt	A2
3	Stem	AISI 420
4	O-ring	EPDM
5	Seat	EPDM / NBR, PTFE, FKM, Neoprene
6	Disc	GJS400-15 / CF8M, Al-Bronze, CF8, CF3, CF3M
7	Body	GJS400-15
8	End cap	Aluminum / Cast iron, carbon steel
9	Bolts	GJS400-15
10	Bushing	PTFE
11	Tapper pin	AISI 316
	RAL 5015 Painting	Epoxy 250 µm for body
	RAL 9005 Painting	Epoxy 250 µm for GJS400-15 disc

Components may be replaced with materials of equivalent or superior grade without prior notice, in accordance with our continuous improvement policy.

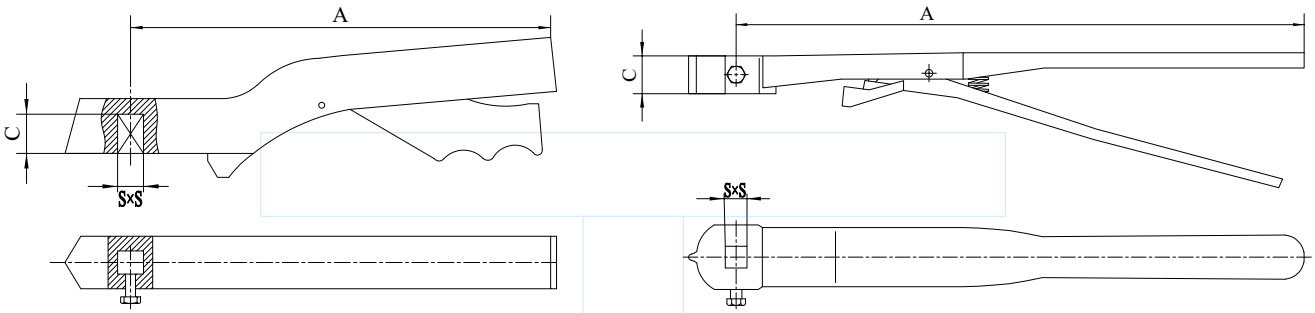
DIMMENSIONS FOR VALVES



DN	A	B	L	PN10			PN16			150LB			ISO 5211	S	F	G	Q	P
				ØC	ØD	N-ØE	ØC	ØD	N-ØE	ØC	ØD	N-ØE						
50	76	162	43	165	125	4-19	165	125	4-19	150	120.7	4-19	F05	9	27	144	43	138
65	80	174	46	185	145	4-19	185	145	4-19	180	139.7	4-19	F05	9	27	144	43	138
80	90	181	46	200	160	8-19	200	160	8-19	190	152.4	4-19	F05	9	27	144	43	138
100	110	200	52	220	180	8-19	220	180	8-19	230	190.5	8-19	F07	11	27	144	43	138
125	125	213	56	250	210	8-19	250	210	8-19	255	215.9	8-22	F07	14	27	144	43	138
150	143	225	56	285	240	8-23	285	240	8-23	280	241.5	8-2	F07	14	27	144	43	138
200	175	260	60	340	295	8-23	340	295	12-23	345	298.5	8-22	F10	17	39	208	66	278
250	203	292	58	395	350	12-23	405	355	12-28	405	362	12-26	F10	22	39	208	66	278
300	245	337	78	445	400	12-23	460	410	12-28	485	431.8	12-26	F10	22	37	225	80	278
350	277	368	78	505	460	16-23	520	470	16-28	535	476.3	12-29	F10	22	37	225	80	278
400	380	400	102	565	515	16-28	580	525	13-31	595	539.8	16-29	F14	27	52	291	98	376
450	342	422	114	615	565	20-28	640	585	20-31	635	577.9	16-32	F14	27	52	291	98	376
500	374	479	127	670	620	20-28	715	650	20-34	700	635	20-32	F14	27	120	252	170	285
600	459	562	154	780	725	20-31	840	770	20-37	815	749.3	20-35	F16	36	135	295	195	376
700	520	624	165	895	840	24-31	910	840	24-37	925	863.6	28-35	F25	---	172	353	240	376
750	545	650	165	910	840	24-34	910	840	24-37	---	---	---	F25	---	172	353	240	376
800	575	672	190	1015	950	24-34	1025	950	24-40	1060	977.9	28-41	F25	---	172	353	240	376
900	635	768	203	1115	1050	28-34	1125	1050	28-40	1170	1085.8	32-41	F25	---	185	385	250	420
1000	685	823	216	1230	1160	28-37	1255	1170	28-43	1290	1200.2	36-41	F25	---	185	385	250	420
1200	839	940	254	1455	1380	32-40	1485	1390	32-49	1510	1422.5	44-41	F30	---	200	425	260	450

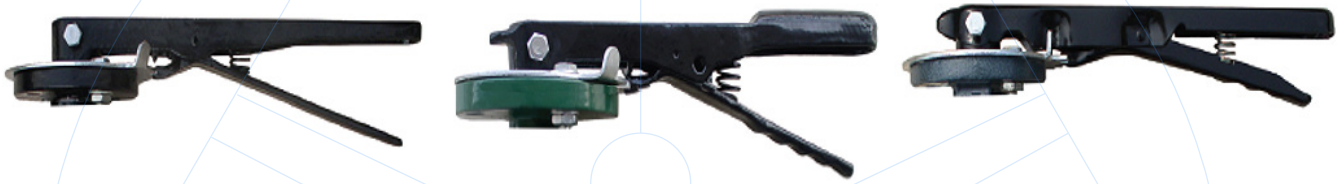
The designs, materials and technical specifications indicated herein are subject to modification without prior notice, as part of the continuous development of our manufacturing programme, product refinement and technological advancement.

DIMMENSIONS FOR LEVER AND MODELS



DN	A	S	C min
40-80	198	9	20
100	270	11	22
125-150	270	14	22
200	270	17	22

DN	A	S	C min
250-300	540	22	22



HA MODEL

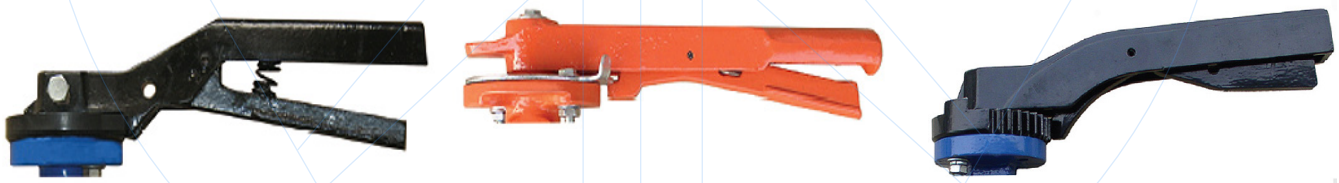
Ductile cast iron handle.
Galvanized steel plate,
with 10 positions.
Low price.

HB MODEL

Ductile cast iron handle.
Galvanized steel plate,
with 10 positions.
With hole for padlock.

HC MODEL

Carbon steel handle.
Galvanized steel plate,
with 10 positions.
Light design.



HD MODEL

Ductile cast iron handle.
ABS plate, with 10 positions.
Low price.

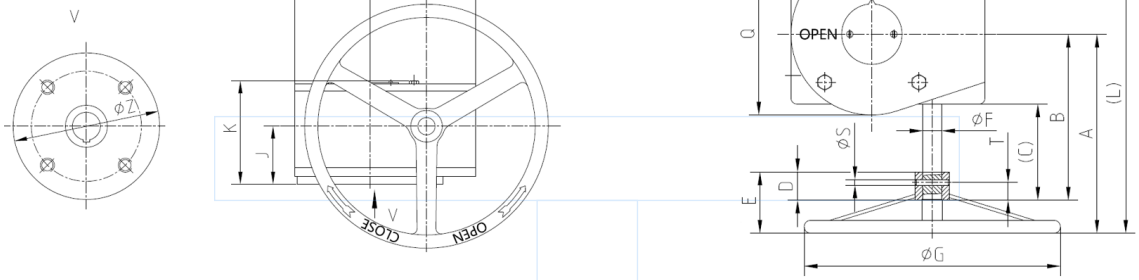
HE MODEL

Ductile cast iron handle.
Galvanized steel plate,
with 10 positions.
High resistance and endurance.

HF MODEL

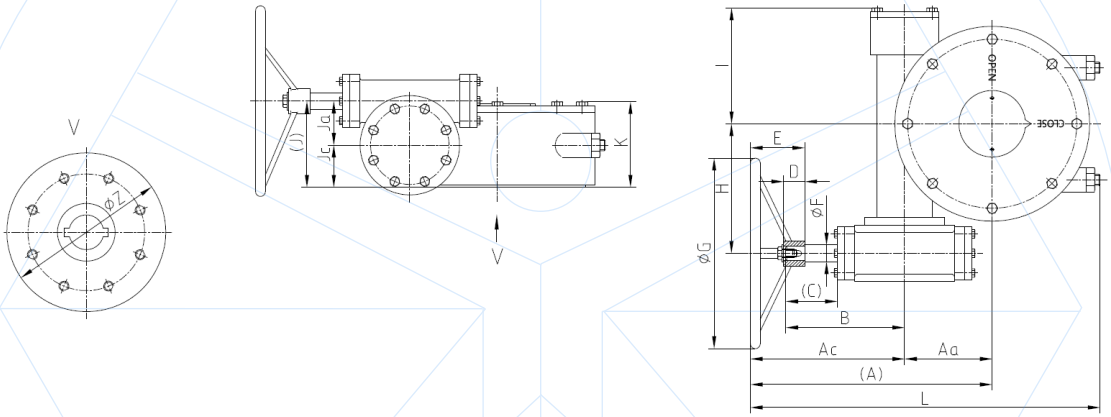
Aluminum handle.
Aluminum plate, with 10 positions.
Light design and high resistance to
corrosion.

GEARBOX DETAILS



1 STAGE GEARBOX

DN	Torque N·m	Ratio	A	B	C	D	E	ØF	ØG	H	I	J	K	L	P	Q	ØS	T	ØZ
40-150	170	27 : 1	141	110	72	25	54	15.8	135	44	48	18	27.6	189	116	96	5	17.5	93
200-250	170	24 : 1	214	187	133	32	56	18.8	275	62	72.5	38	38.6	284	164	140	6	24	125
300-350	170	24 : 1	223	196	135	32	56	18.8	275	78	76.5	39.5	40.6	300	189	154	6	23.5	140
400-450	750	30 : 1	287	251	171	48	82	25	380	109	108.5	36	54.5	397	256	220	8	52	205



2 STAGES GEARBOX

DN	Torque N·m	Ratio	A	Aa	Ac	B	C	D	E	ØF	ØG	H	I	J	Ja	Jc	K	L	ØZ
500	3000	532:1	257	102	155	121	53	29	62	25	285	167	113	116	62	54	111	364	210
600	4000	640:1	301	126	175	142	57	32	66	25	380	200	140	131	66	65	134	438	276
700-800	8000	704:1	335	140	195	165	68	48	82	30	380	223	146	158	88	70	168	495	300
900-1100	15000	832:1	365	170	195	165	68	51	80	30	420	238	170	163	88	75	168	527	300
1200	20000	800:1	425	180	245	195	70	50	89	40	500	310	250	221	126	95	221	661	350

1 Stage model

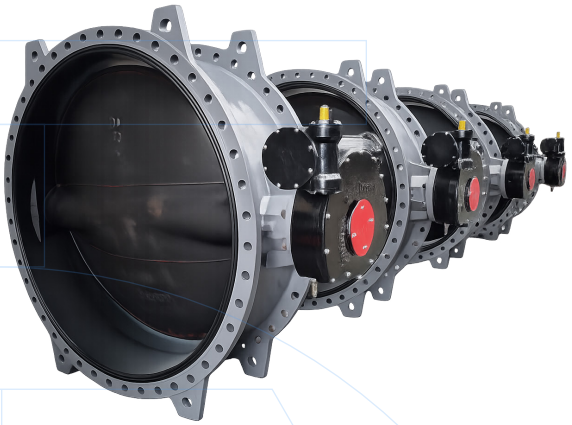
ITEM	MATERIAL (Standard / option)
Body	Cast Iron / Ductile iron, Aluminun
Gears	Ductile iron / Al-Bronze
Shaft	Carbon steel / Stainless steel

2 Stages model

TORQUE (N·m)

DN	Bares-haft Torque	Ratio	Output Torque	ISO 5210
50	19.2	36:1	2,3	F10-B3
65	30.9	36:1	3,7	F10-B3
80	39.6	36:1	4,8	F10-B3
100	64.8	36:1	7,8	F10-B3
125	101.8	36:1	12,3	F10-B3
150	147.8	36:1	17,8	F10-B3
200	240	36:1	28,9	F10-B3
250	380	36:1	45,8	F10-B3
300	538	50:1	46,6	F10-B3
350	680	50:1	58,9	F10-B3
400	1439	532:1	29,3	F10-B3
450	1827	532:1	37,2	F10-B3
500	1925	532:1	39,2	F10-B3
600	3107	640:1	52,6	F10-B3
700	4798	704:1	73,8	F10-B3
800	7426	704:1	114,3	F10-B3
900	10020	832:1	130,5	F14-B3
1000	13555	832:1	114,7	F10-B3
1200	19800	1152:1	186,2	F14-B3

Bareshaft torque values DON'T include security margin.
Output torque values include 1,3 security margin.



Cv values

DN	10°	20°	30°	40°	50°	60°	70°	80°	90°
50	0.06	3	7	15	27	44	70	105	115
65	0.1	6	12	25	45	75	119	178	196
80	0.2	9	18	39	70	116	183	275	302
100	0.3	17	36	78	139	230	364	546	600
125	0.5	29	61	133	237	392	620	930	1022
150	0.8	45	95	205	366	605	958	1437	1579
200	2	89	188	408	727	1202	1903	2854	3136
250	3	151	320	694	1237	2049	3240	4859	5340
300	4	234	495	1072	1911	3162	5005	7507	8250
350	6	338	715	1549	2761	4568	7230	10844	11917
400	8	464	983	2130	3797	6282	9942	14913	16388
450	11	615	1302	2822	5028	8320	13168	19752	21705
500	14	791	1647	3628	6465	10698	16931	25396	27908
600	22	1222	2587	5605	9989	16528	26157	39236	43116
700	31	1703	3605	7813	13961	23037	36459	54689	60102
800	37	2080	4406	9546	17010	28147	44545	66818	73246
900	100	2436	5272	10636	18025	29440	47622	70876	77897
1000	260	3050	6730	12740	20220	32500	52500	79600	87500
1200	313	3665	8089	15942	24299	39056	63093	95660	105154

For valves over DN1200, consult.

CONTACT US

DAVINCI VALVES
ORDER REQUEST

Ref. 113A-DH / PN 10-16 ANSI 150

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