

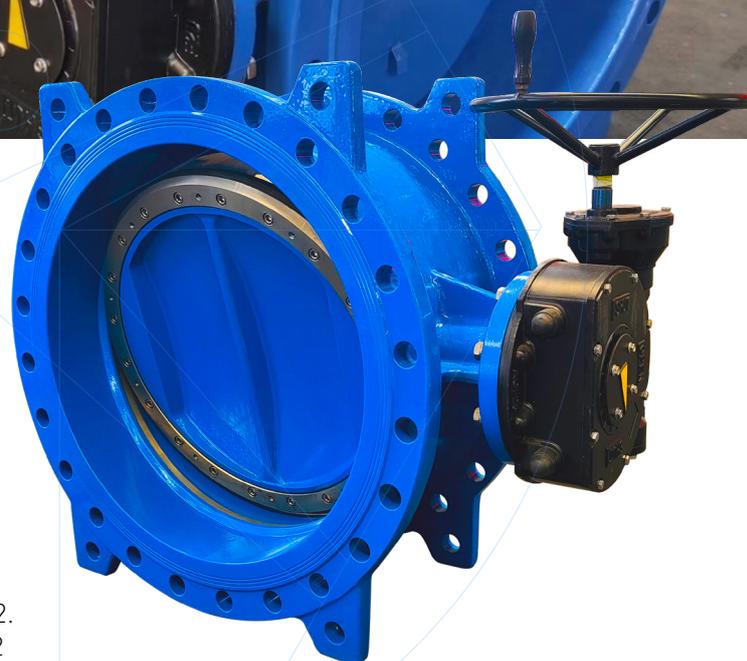


DAVINCI TECHNICAL DATA GUIDE

BUTTERFLY VALVES

DOUBLE ECCENTRIC SERIES 14

Ref. 116A-VT / PN 10-16



Application

Potable 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 14
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:
Manufacture acc. to the requirements of the EU directive 2014/68/EU
Equipment's under pressure: mod. H
WRAS certificate for drinking water.

Certifications

CE, WRAS

Range

DN80-3000, PN10-16-25

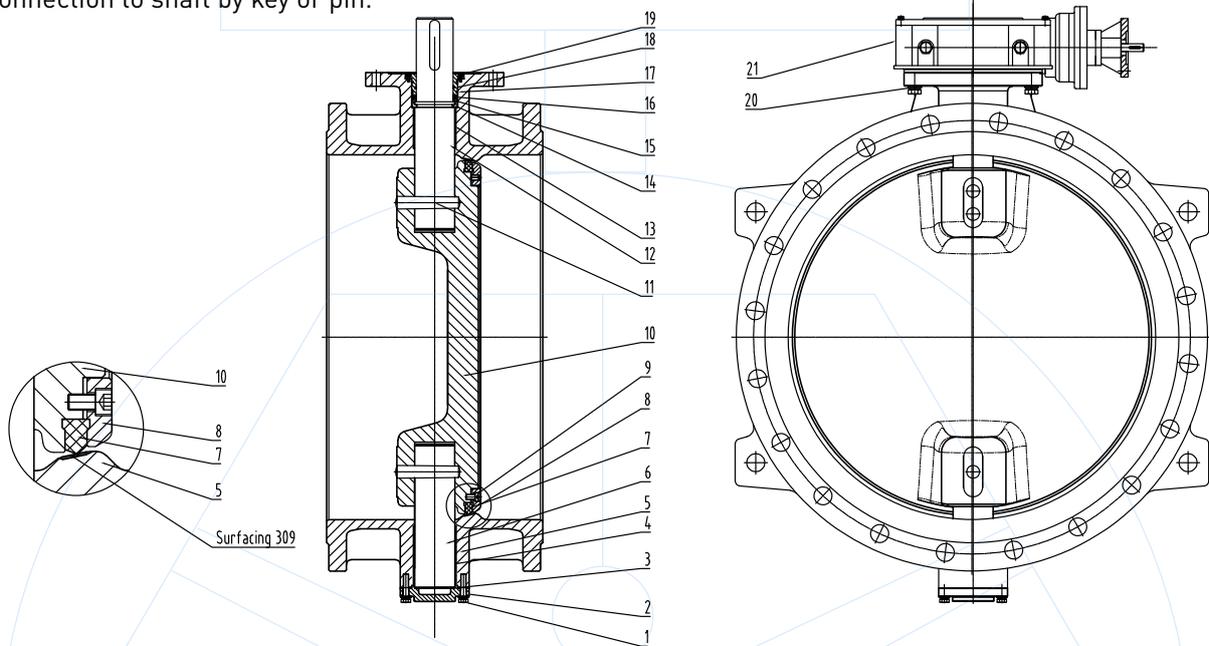


GENERAL CHARACTERISTICS

Range from DN80 up to DN3000
 Replaceable seat.
 100% Tightness in both directions.
 Low head loss.
 Top flange according to ISO 5211.
 Low torque values.
 Disc connection to shaft by key or pin.

WORKING CONDITIONS

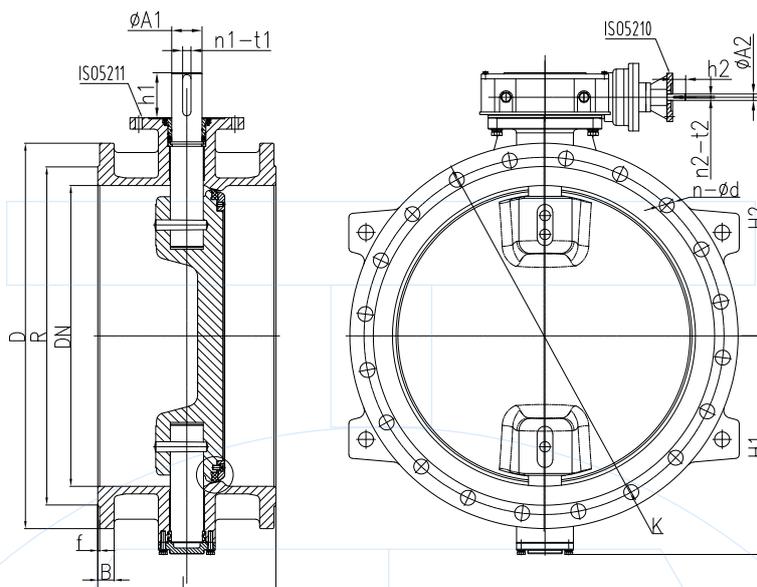
Working pressure: 1.0MPa, 1.6 MPa, 2.5 MPa
 Working temperature -10°C / 90°C.
 Suitable media according to seat material.
 Check with factory for different applications.



Nº	ITEM	MATERIAL (Standard / options)
1	Fasteners	A2
2	End cover	ST.37
3	O-ring	NBR
4	Lower bearing	Tin bronze
5	Body	GJS500-7
6	Lower shaft	AISI 420
7	Sealing ring	EPDM
8	Retainer ring	AISI 304
9	Bolt	A2
10	Disc	GJS500-7
11	Pin	AISI 420
12	Upper shaft	AISI420
13	Upper bearing	Tin bronze
14	Split ring	Hpb59-1
15	Adjusting gasket	AISI 304
16	Packing	NBR
17	O-ring	NBR
18	Packing gland	ST.37
19	Fasteners	A2
20	Fasteners	A2
21	Gearbox	GJS400
	RAL 5015 Painting	Epoxy 250 µm

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

DIMENSIONS FOR VALVES PN10

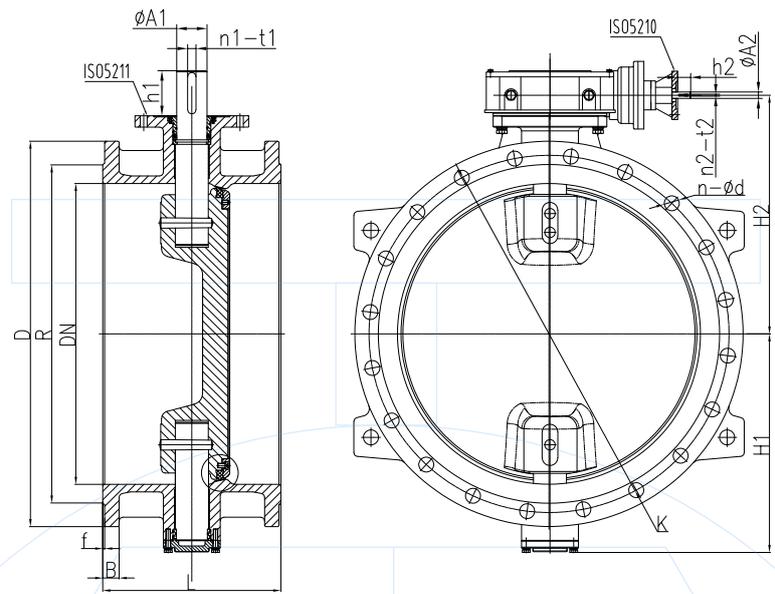


DN	L (S14)	L (S13)	H1	H2	ϕD	ϕK	n- ϕd	R	B	f	ISO 5211	$\phi A1$	h1	n1-t1	ISO 5210	$\phi A1$	h1	n1-t1
80	180	114	100	180	200	160	8-19	132	19	3	F07	14	30	1-5	F07	18	30	1-6
100	190	127	126	220	220	180	8-19	156	19	3	F07	18	30	1-6	F07	18	30	1-6
125	200	140	170	260	250	210	8-19	184	19	3	F07	18	30	1-6	F07	18	30	1-6
150	210	140	170	285	285	240	8-23	211	19	3	F10	22	40	2-6	F07	18	30	1-6
200	230	152	196	310	340	295	8-23	266	20	3	F10/F12	25	45	2-8	F07	18	30	1-6
250	250	165	216	345	395	350	12-23	319	22	3	F10/F12	28	45	2-8	F10	20	30	1-6
300	270	178	245	390	445	400	12-23	370	24.5	4	F14	32	50	2-10	F10	20	30	1-6
350	290	190	285	435	505	460	16-23	429	24.5	4	F14	32	50	2-10	F10	20	30	1-6
400	310	216	315	585	565	515	16-28	480	24.5	4	F16	40	60	2-12	F10	20	30	1-6
450	330	222	335	540	615	565	20-28	530	25.5	4	F16	45	70	2-14	F10	20	30	1-6
500	350	229	360	585	670	620	20-28	582	26.5	4	F16	50	80	2-14	F10	20	30	1-6
600	390	267	425	745	780	725	20-31	682	30	5	F25	60	90	2-18	F10	20	30	1-6
700	430	292	490	825	895	840	24-31	794	32.5	5	F25	70	100	2-20	F10	20	30	1-6
800	470	318	552	900	1015	950	24-34	901	35	5	F30	80	110	2-22	F10	20	30	1-6
900	510	330	600	965	1115	1050	28-34	1001	37.5	5	F30	90	120	2-25	F10	20	30	1-6
1000	550	410	665	1105	1230	1160	28-37	1112	40	5	F35/F40	95	130	2-25	F10	20	30	1-6
1100	590	440	735	1050	1340	1270	32-37	1218	42.5	5	F35	100	130	2-28	F10	20	30	1-6
1200	630	470	790	1090	1455	1380	32-41	1328	45	5	F35/F40	110	150	2-28	F10	20	30	1-6
1300	670	500	840	1250	1575	1490	32-44	1430	45	5	F35	120	170	2-32	F10	20	30	1-6
1400	710	530	920	1310	1675	1590	36-44	1530	46	5	F35/F40	120	170	2-32	F10	20	30	1-6
1500	750	600	1025	1380	1785	1700	36-44	1640	47.5	5	F35/F40	140	180	2-36	F10	20	30	1-6
1600	790	600	1045	1390	1915	1820	40-50	1750	49	5	F40	140	180	2-36	F10	20	30	1-6
1800	870	670	1160	1490	2115	2020	44-50	1950	52	5	F48	160	200	2-40	F10	20	30	1-6
2000	950	760	1315	1720	2325	2230	48-50	2150	55	5	F48	180	230	2-45	F10	20	30	1-6

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.



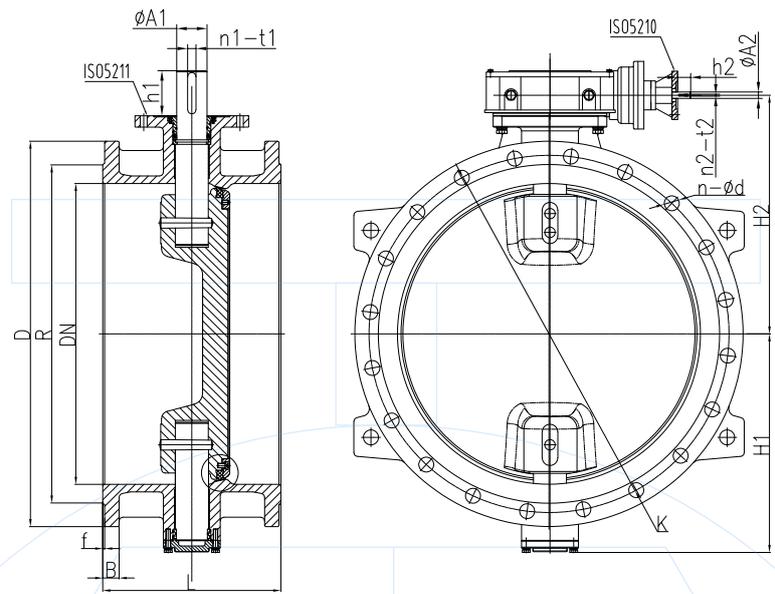
DIMMENSIONS FOR VALVES PN16



DN	L (S14)	L (S13)	H1	H2	ØD	ØK	n-Ød	R	B	f	ISO 5211	ØA1	h1	n1-t1	ISO 5210	ØA1	h1	n1-t1
80	180	114	100	180	200	160	8-19	132	19	3	F07	14	30	1-5	F07	18	30	1-6
100	190	127	126	220	220	180	8-19	156	19	3	F07	18	30	1-6	F07	18	30	1-6
125	200	140	170	260	250	210	8-19	184	19	3	F07	18	30	1-6	F07	18	30	1-6
150	210	140	170	285	285	240	8-23	211	19	3	F10	22	40	2-6	F07	18	30	1-6
200	230	152	196	310	340	295	12-23	266	20	3	F10/F12	25	45	2-8	F07	18	30	1-6
250	250	165	216	345	405	355	12-28	319	22	3	F10/F12	28	45	2-8	F10	20	30	1-6
300	270	178	245	390	460	410	12-28	370	24.5	4	F14	32	50	2-10	F10	20	30	1-6
350	290	190	285	435	520	470	16-28	429	26.5	4	F14	32	50	2-10	F10	20	30	1-6
400	310	216	315	585	580	525	16-31	480	28	4	F16	40	60	2-12	F10	20	30	1-6
450	330	222	335	540	640	585	20-31	548	30	4	F16	45	70	2-14	F10	20	30	1-6
500	350	229	360	585	715	650	20-34	609	31.5	4	F16	50	80	2-14	F10	20	30	1-6
600	390	267	425	745	840	770	24-37	682	63	5	F25	60	90	2-18	F10	20	30	1-6
700	430	292	490	825	910	840	24-37	794	39.5	5	F25	70	100	2-20	F10	20	30	1-6
800	470	318	552	900	1025	950	24-41	901	43	5	F30	80	110	2-22	F10	20	30	1-6
900	510	330	600	965	1125	1050	28-41	1001	46.5	5	F30	90	120	2-25	F10	20	30	1-6
1000	550	410	665	1105	1255	1170	28-44	1112	50	5	F35/F40	95	130	2-25	F10	20	30	1-6
1100	590	440	735	1050	1355	1270	32-44	1218	53.5	5	F35	100	130	2-28	F10	20	30	1-6
1200	630	470	790	1090	1485	1390	32-50	1328	57	5	F35/F40	110	150	2-28	F10	20	30	1-6
1300	670	500	840	1250	1585	1490	32-50	1430	58.5	5	F35	120	170	2-32	F10	20	30	1-6
1400	710	530	920	1310	1685	1590	36-50	1530	60	5	F35/F40	120	170	2-32	F10	20	30	1-6
1500	750	600	1025	1380	1820	1710	36-57	1640	62.5	5	F35/F40	140	180	2-36	F10	20	30	1-6
1600	790	600	1045	1390	1930	1820	40-57	1750	65	5	F40	140	180	2-36	F10	20	30	1-6
1800	870	670	1160	1490	2130	2020	44-57	1950	70	5	F48	160	200	2-40	F10	20	30	1-6
2000	950	760	1315	1720	2345	2230	48-62	2150	75	5	F48	180	230	2-45	F12	28	40	1-8



DIMMENSIONS FOR VALVES PN25



DN	L (S14)	L (S13)	H1	H2	ØD	ØK	n-Ød	R	B	f	ISO 5211	ØA1	h1	n1-t1	ISO 5210	ØA1	h1	n1-t1
80	180	114	100	180	200	160	8-19	132	19	3	F07	18	30	1-6	F07	18	30	1-6
100	190	127	126	220	235	190	8-23	156	19	3	F07	18	30	1-6	F07	18	30	1-6
125	200	140	170	260	270	220	8-28	184	19	3	F10	22	40	1-6	F07	18	30	1-6
150	210	140	170	285	300	250	8-28	211	20	3	F12	25	45	2-8	F10	20	30	1-6
200	230	152	196	310	360	310	12-28	274	22	3	F12	28	45	2-8	F10	20	30	1-6
250	250	165	216	345	425	370	12-31	330	24.5	3	F14	32	50	2-10	F10	20	30	1-6
300	270	178	245	390	485	430	16-31	389	27.5	4	F14	32	50	2-10	F10	20	30	1-6
350	290	190	285	435	555	490	16-34	448	30	4	F16	40	60	2-12	F10	20	30	1-6
400	310	216	315	585	620	550	16-37	503	32	4	F16	45	70	2-14	F10	20	30	1-6
450	330	222	335	540	670	600	20-37	548	34.5	4	F16	50	80	2-14	F10	20	30	1-6
500	350	229	360	585	730	660	20-37	609	36.5	4	F25	60	90	2-18	F10	20	30	1-6
600	390	267	425	745	845	700	20-41	720	42	5	F25	70	100	2-20	F10	20	30	1-6
700	430	292	490	825	960	875	24-44	820	46.5	5	F30	80	110	2-22	F10	20	30	1-6
800	470	318	552	900	1085	990	24-50	928	51	5	F35	90	120	2-25	F10	20	30	1-6
900	510	330	600	965	1185	1090	28-50	1028	55.5	5	F35	95	130	2-25	F10	20	30	1-6
1000	550	410	665	1105	1320	1210	28-57	1140	60	5	F35	110	150	2-28	F10	20	30	1-6
1100	590	440	735	1050	1420	1310	32-57	1240	64.5	5	F40	120	160	2-32	F10	20	30	1-6
1200	630	470	790	1090	1530	1420	32-57	1350	69	5	F40	120	160	2-32	F10	20	30	1-6
1300	670	500	840	1250	1645	1530	32-62	1455	71.5	5	F48	140	180	2-36	F12	28	40	1-8
1400	710	530	920	1310	1755	1640	36-62	1560	74	5	F48	140	180	2-36	F12	28	40	1-8
1500	750	600	1025	1380	1865	1750	36-62	1678	77.5	5	F48	160	200	2-40	F12	28	40	1-8
1600	790	600	1045	1390	1975	1860	40-62	1780	81	5	F48	160	200	2-40	F12	28	40	1-8
1800	870	670	1160	1490	2195	2070	44-70	1985	88	5	F60	180	230	2-45	F14	30	45	1-8
2000	950	760	1315	1720	2425	2300	48-70	2210	95	5	F60	200	260	2-50	F14	30	45	1-8



TORQUE

DN	PN10			PN16			PN25		
	Bareshaft torque	Speed ratio	Output torque	Bareshaft torque	Speed ratio	Output torque	Bareshaft torque	Speed ratio	Output torque
80	40	36	4	50	36	6	70	36	8
100	70	36	8	90	36	10	110	36	12
125	100	36	11	150	36	17	180	36	20
150	150	36	17	210	36	23	290	36	32
200	300	40	30	420	40	42	560	40	56
250	480	40	48	960	54	51	900	135	35
300	740	54	55	1100	135	42	1500	135	58
350	1050	135	40	1500	135	58	2150	187	60
400	1480	135	57	2200	187	61	3100	385	42
450	1900	187	53	2800	276	53	4100	385	55
500	2600	385	35	3800	276	72	5700	385	77
600	3900	385	53	5800	276	109	8600	405	110
700	5500	540	53	8100	405	104	12400	576	112
800	8000	540	77	11700	725	84	21400	1078	103
900	10500	725	75	15000	725	108	25000	1078	121
1000	13500	725	97	19500	850	119	33000	1445	119
1100	17300	1078	83	27000	1260	111	45500	2738	94
1200	21300	1078	103	32200	1455	116	56500	2738	117
1300	26400	1611	85	41000	1810	118	69000		250
1400	32300	1810	93	48000	3003	83	87500		250
1500	39500	1810	113	62000	3003	107	107000		250
1600	46900	2930	84	70000	4034	90	128000		250
1800	64000	3003	111	107000	5200	107	154000		500
2000	87500	4034	113	140000	3352	217	183000		500

Bareshaft torque values **don't** include security margin.
Output torque include security margin.





FLOW CHARACTERISTIC CHART

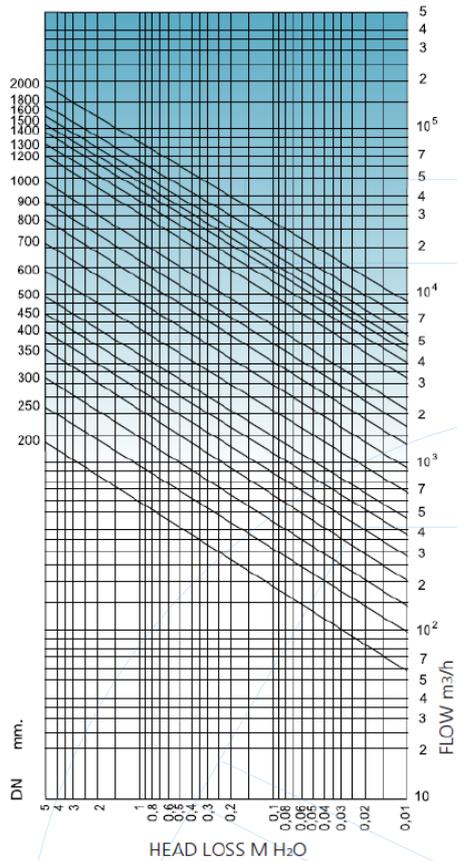
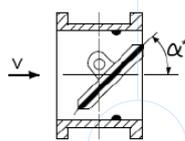
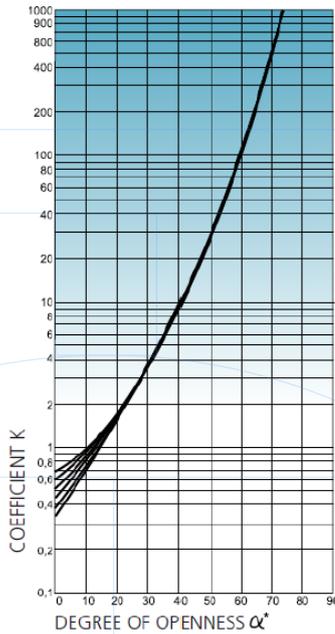


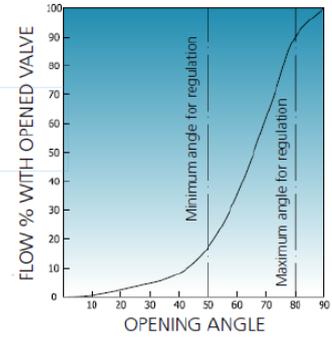
DIAGRAM OF LOAD LOSS BASED ON THE OPENING DEGREE



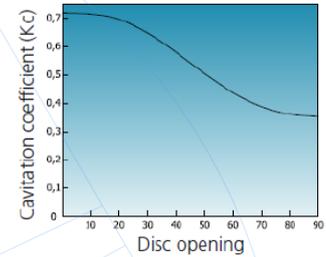
$$DH = \frac{K \times V^2}{2 \times g}$$

- DH** Load loss in column meters of water
- K** Load loss coefficient
- V** Speed of the water in the tube (m/sec)
- g** Gravitational acceleration m/sec

FLOW CHARACTERISTIC CHARTS



CAVITATION VALUES (Kc) (Cavitation coefficient)



CERTIFICATES AND CERTIFICATIONS

Standard version

- 2 years warranty Certification
- 3.1. Technical Standard Test report supplied
- Possibility of additional Testing proofs, under request
- Certification for components and for whole product per request.

Form QAT_10A055, version 02, effective since October 07th, 2022

VERIFICATION

No. 3N240126.DV0512

Test Report / Technical Construction File no. B-52401C0081

Verification's Holder: **DAVINCI VALVES**
18 Dongyu Street, Square One 11th Floor 1101, Jinjiang District, Chengde, Sichuan, China

Verification ECMA Mark:

Product: **BUTTERFLY VALVE DUCTILE IRON**
Model(s): **130 DNT100-DN1800 PN10-PN40**

Verification to: Standard: **EN 1074-1:2000, EN 1074-2:2000+A1:2004**
related to CE Directive(s): **2014/68/EU (Pressure Equipment)**

This document has been issued in accordance with the European Commission's note of 14 September 2022 ref. Ares (2022) 4342814 concerning voluntary certifications with non-notified procedure and for products intended for third countries outside the EU market.

The manufacturer has voluntarily decided to submit its documents concerning the above-mentioned product for verification. Ente Certificazione Macchine confirms that the documentation meets applicable and immediately relevant to it, or containing sensitive data, meets the essential requirements of the above-mentioned directives. The verification activity carried out exclusively concerned the technical documentation and no verification was carried out on the product. This document cannot replace the EC Declaration of Conformity. The above conformity mark can be affixed to the technical documentation in accordance with the ECMA regulation on its use and use, published on the website www.ecmacert.it

Issuance date: 26 January 2024
Expiry date: 26 January 2029

Approver
Ente Certificazione Macchine
Legal Representative

Ente Certificazione Macchine Srl
Via Cor' Bello, 243 - Loc. Costabini di Serravalle - 40053 Viduggio (BO) - ITALY
☎ +39 051 470141 - ✉ +39 051 470156 - i.info@entecmac.it - www.entecmac.it

This certifies that

DAVINCI VALVES

has had the undermentioned product(s) examined, tested and certified as being of an appropriate quality and standard as required in the Water Supply (Water Fittings) Regulations and Scottish Water Byelaws, subject to scheme requirements being met when installed.

Model Numbers

130 RANGE OF BUTTERFLY VALVES

The certificate by itself is not evidence of a valid WRAS Approval. Confirmation of the current status of an approval must be obtained from the WRAS Approvals Directory (www.wras.co.uk/ directory)

The product so mentioned will be valid until the end of:

September 2028
Certificate no.
2309067

Ian Hughes,
WRAS Approvals Manager

CE

WRAS



CONTACT US

DAVINCI GATE VALVES ORDER REQUEST

Ref. 116A-VI / PN 10-16-25



Head Office CHENGDU

Room 3109 Unit 1 Building 2,
No. 68 Dongda Street
Jinjiang District, Chengdu, Sichuan
CHINA

+86 17340168233 +86 19302892712
valves@davincivalves.com

Europe Office MADRID
SPAIN
zuzana@davincivalves.com

WEBSITE

davincivalves.com

YOUR QUALITY WATER PROJECTS PARTNER
For professionals who look for more.