DAVINCI TECHNICAL DATA GUIDE

RESILIENT SEAT GATE VALVES

NON-RISING STEM F4/F5

Ref. 121A-VI / PN 25

WRAS APPROVED PRODUCT · ACS · EN 1074-2

Application

Drinking water networks
Bulk water storage
Process water systems
Pump stations
Sewage water networks
Irrigation projects

Approvals/Standards

Design: DIN 3352
Manufacture according to: EN 1074-2./GB/T12232-1989
Face to Face: EN 558-1 Series 14/15 (F4/F5)
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 DN400

Certifications

WRAS, ACS, EN 1074-2

Range

DN40-400, PN25

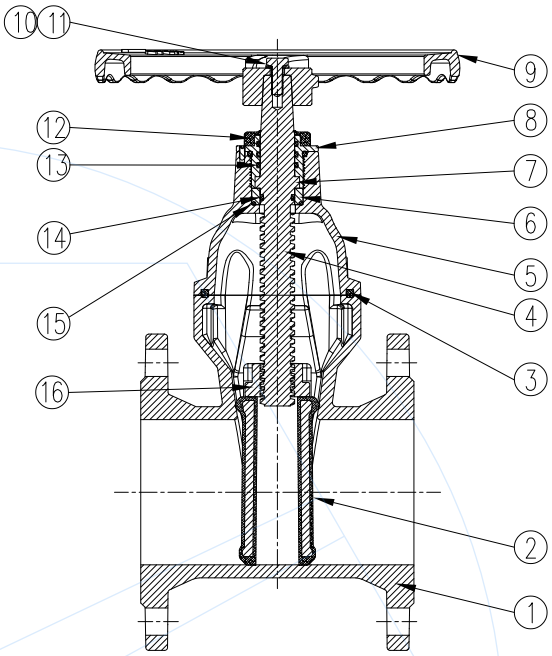
GENERAL CHARACTERISTICS

100% suitable for underground installations
Range from DN40 up to DN400
Full bore.
100% Tightness in both directions.
Minimum head loss.
Repackable under pipeline pressure.
Low torque values.
WRAS epoxy paint 250 microns:

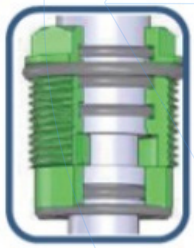
WORKING CONDITIONS

Pressure ratings: 2.5 Mpa.
Working temperature: -10ºC + 90ºC
Suitable media:
- Water
- Alkaline solutions.
- Diluted acids.
- Glycols.
- Alcohols.
- Inert gases.

Nº	ITEM	MATERIAL	STANDARD
1	Body	GJS500-7	DIN 1693
2	Gate	GJS500-7 + EPDM	DIN 1693
3	Gasket body-bonnet	NBR	ISO 4633
4	Stem	AISI 420	ASTM A959
5	Bonnet	GJS500-7	DIN 1693
6	Washer	CuZn39Pb1	EN 12167
7	Washer	CuZn39Pb1	EN 12167
8	Thrust nut	CuZn39Pb1	EN 12167
9	Handwheel	GJS500-7	DIN 1693
10	Bolts	A2-70	ASTM A959
11	Flat washer	A2-70	ASTM A959
12	Set screw	A2-70	ASTM A959
13-15	Stem O-rings	NBR	ISO 4633
16	Stem nut	CuZn39Pb1	EN 12167
	RAL 5015 Painting	Epoxy 250 µm	DIN 3476-1



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



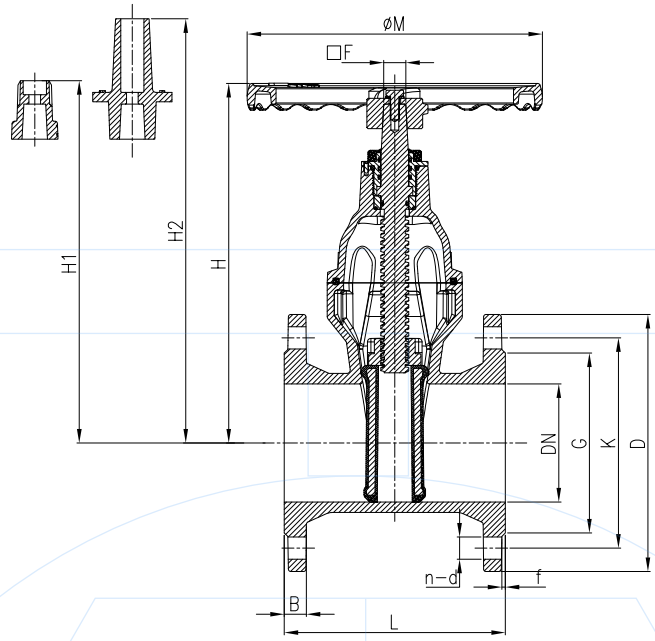
The stem is sealed with a total of six O-rings inside the bonnet.
The three O-rings placed in the upper internal part of the nut and the one located on the exterior, can be changed with pressure in the pipeline if the valve is fully open.

The liner's sealing face provides a more effective seal and reduces the torque required to close the valve.

Most factories design the gate at the same level as the sealing face. However, when the valve is closed, the increasing inlet pressure pushes the disc outward and forces it against the valve body. Over time, this constant stress damages the rubber coating on the area marked as "A."
DAVINCI design recognizes this issue and introduces an innovation that prevents such wear, extending significantly the disc's service life and ensuring more reliable valve performance.

The body of the valve has guides to facilitate the movement of the gate and ensure a 100% watertight seal.

DIMMENSIONS FOR VALVES BARE SHAFT



DN	L		H	H1	H2	F	M	D	G	K	n-d	B	f	Nº Turns	Torque (N·m)	Weight (kg)
	F4	F5														
40	140	240	215	220	275	14	180	150	84	110	4-19	19	3	8	30	7.6
50	150	250	215	220	275	14	180	165	99	125	4-19	19	3	8	40	8.5
65	170	270	250	250	310	17	200	185	118	145	8-19	19	3	9	50	11
80	180	280	275	275	330	17	200	200	132	160	8-19	19	3	11	60	13
100	190	300	320	330	380	19	220	235	156	190	8-23	19	3	11	80	20.5
125	200	325	355	365	415	19	254	270	184	220	8-28	19	3	14	100	27
150	210	350	400	405	450	19	280	300	211	250	8-28	20	3	17	120	34.5
200	230	400	495	515	550	24	315	360	274	310	12-28	22	3	18	150	53.9
250	250	450	590	610	645	27	406	425	330	370	12-31	24.5	3	22	200	83.6
300	270	500	670	690	725	27	406	485	389	430	16-31	27.5	4	26	250	108.6
350	290	550	765	--	--	27	500	555	448	490	16-34	30	4	30.5	300	174.5
400	310	600	855	--	--	27	500	620	503	550	16-37	32	4	34.5	350	248.5

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.

OPERATING OPTIONS AND OPTIONAL ACCESSORIES

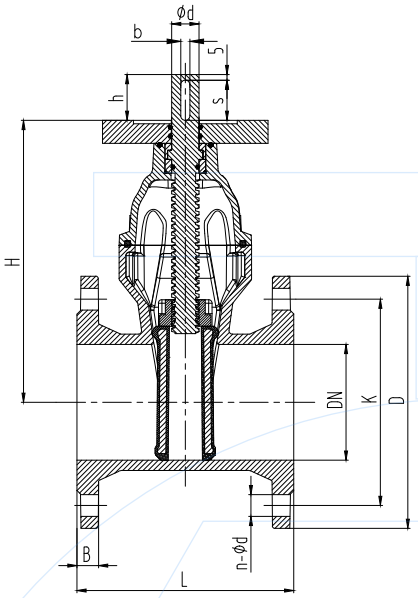
Our engineering team provides customized solutions tailored to each customer's specific project requirements. Our manufacturing plan includes the following operation options for manual gate valves.

Standard version:
- Supplied with top cap.

Optional accessories:
- Handwheel.
- Position indicator
- Extension spindles.
  - Rigid
  - Telescopic




DIMMENSIONS FOR VALVES WITH ISO TOP FLANGE



DN	L		H	Ød	h	s	b	D	K	n-Ød	B	Torque (N·m)	Nº Turns	Weight (kg)
	F4	F5												
40	140	240	160	18	45	40	6	150	110	4-19	19	40	8	8.5
50	150	250	160	18	45	40	6	165	125	4-19	19	40	8	9
65	170	270	190	20	45	40	6	185	145	8-19	19	50	9	12
80	180	280	210	20	45	40	6	200	160	8-19	19	60	11	14
100	190	300	250	20	45	40	6	235	190	8-23	19	80	11	19
125	200	325	290	20	45	40	6	270	220	8-28	19	100	14	24
150	210	350	330	20	45	40	6	300	250	8-28	20	120	17	30
200	230	400	420	30	65	56	8	360	310	12-28	22	150	18	48
250	250	450	515	30	65	56	8	425	370	12-31	24.5	200	22	73
300	270	500	595	30	65	56	8	485	430	16-31	27.5	250	26	100
350	290	550	700	30	65	56	8	555	490	16-34	30	300	30	160
400	310	600	785	40	80	70	12	620	550	16-37	32	350	34	223

OPERATING OPTIONS: GEARBOX or ELECTRIC ACTUATOR

Horizontal gearbox 1 phase

Horizontal gearbox 2 phases

Vertical gearbox 2 phases

Vertical gearbox 1 phase

Electric actuator

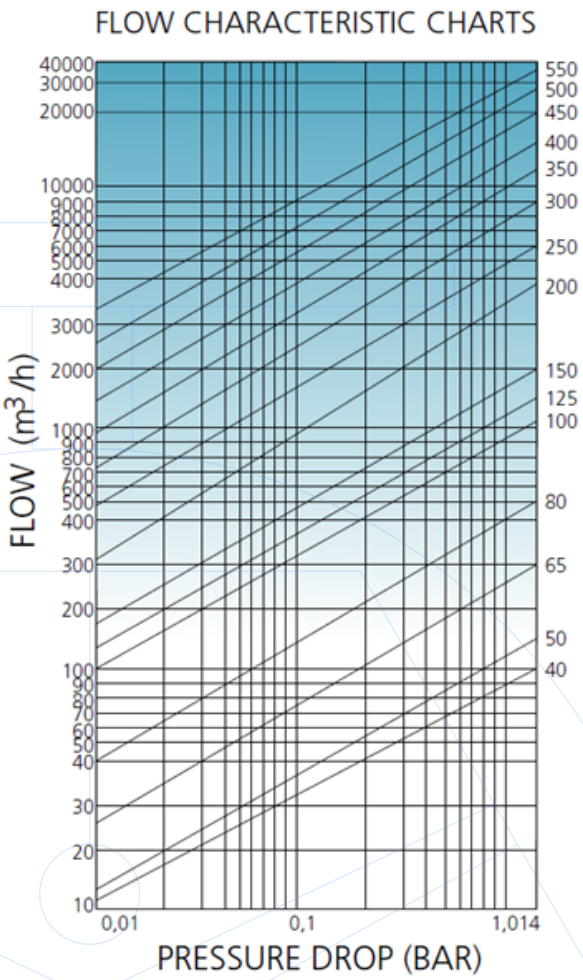
GEARBOX CONNECTION DETAILS

DN	Gearbox REduction	Input torque gearbox	Nº turns to close gearbox	Gearbox connection	Type
40	2.35:1	22,1	21	F10-EMD05	
50	2.35:1	22,1	21	F10-EMD05	
65	2.35:1	27,7	24	F10-EMD05	
80	2.35:1	33,2	28	F10-EMD05	
100	2.35:1	44,3	28	F10-EMD05	BA-000D
125	2.35:1	55,3	34	F10-EMD10	
150	2.35:1	66,4	40	F10-EMD10	
200	2.35:1	83,0	43	F10-EMD10	
250	3:1	86,7	69	F10-EMD10	
300	3:1	108,3	81	F10-EMD15	BA-00D
350	3:1	130,0	92	F10-EMD15	
400	3.6:1	126,4	124	F10-EMD15	BA-0D

FLOW CHARACTERISTIC CHART

The Flow Characteristic Chart illustrates the relationship between flow rate and pressure drop across the gate valve under different operating conditions. By reading the diagonal curves, end customer can quickly determine how much pressure loss will occur at a given flow rate for various valve sizes.

DAVINCI VALVES full-bore design allows very low flow resistance and minimal pressure drop when the valve is fully open, ensuring efficient performance in water distribution and industrial piping systems.



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.


WRAS
APPROVED PRODUCT

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

200 RANGE OF GATE VALVES: DN50-400

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)

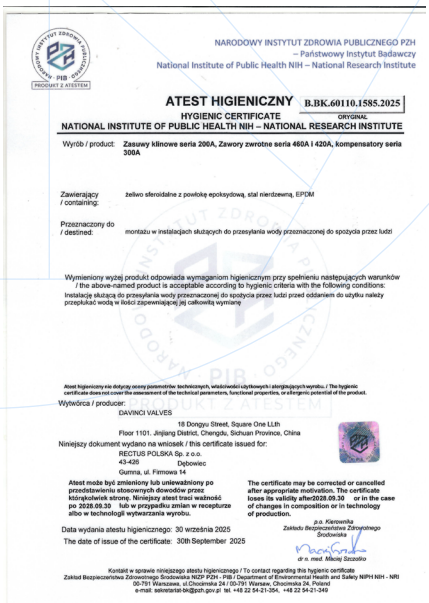
The product so mentioned will be valid until the end of:

April 2028

Certificate No.

2304364

Ian Hughes,
WRAS Approvals Manager


NARODOWY INSTYTUT ZDROWIA PUBLICZNEGO PZH
– Państwowy Instytut Badawczy
National Institute of Public Health NIH – National Research Institute

ATEST HIGIENICZNY B.BK.60110.1585.2025
ORYGINAŁ
HYGIENIC CERTIFICATE
NATIONAL INSTITUTE OF PUBLIC HEALTH NIH – NATIONAL RESEARCH INSTITUTE

Wyrób / product: **Zasuwy klinowe seria 200A, Zawory zwrotne seria 460A i 420A, kompensatory seria 300A**

Zawierający / containing: zeliwo sferoidalne z powłokę epoksydową, stal nierdzewną, EPDM

Przeznaczony do / destined: montażu w instalacjach służących do przesyłania wody przeznaczonej do spożycia przez ludzi

Wymieniony wyżej produkt odpowiada wymaganiom higienicznym przy spełnieniu następujących warunków / the above-named product is acceptable according to hygienic criteria with the following conditions:
Instalacje służącą do przesyłania wody przeznaczonej do spożycia przez ludzi przed oddaniem do użytku należy przepłukać wodą w ilości zapewniającej jej całkowitą wymianę

Atest higieniczny nie dotyczy oceny parametrów technicznych, właściwości użytkowych i alergizujących wyrobu. / The hygienic certificate does not cover the assessment of the technical parameters, functional properties, or allergenic potential of the product.

Wytwórca / producer:
DAVINCI VALVES
18 Dongyu Street, Square One LLth
Floor 1101. Jinjiang District, Chengdu, Sichuan Province, China

Niniejszy dokument wydano na wniosek / this certificate issued for:
RECTUS POLSKA Sp. z o.o.
43-426 Dębowiec
Gumna, ul. Firmowa 14

Atest może być zmieniony lub unieważniony po przedstawieniu stosownych dowodów przez którąkolwiek stronę. Niniejszy atest traci ważność po 2028.09.30 lub w przypadku zmian w receptura albo w technologii wytwarzania wyrobu.

The certificate may be corrected or cancelled after appropriate motivation. The certificate loses its validity after2028.09.30 or in the case of changes in composition or in technology of production.

Data wydania atestu higienicznego: 30 września 2025
The date of issue of the certificate: 30th September 2025

p.o. Kierownika Zakładu Bezpieczeństwa Zdrowotnego Środowiska
dr n. med. Maciej Szczaśko

Kontakt w sprawie niniejszego atestu higienicznego / To contact regarding this hygienic certificate
Zakład Bezpieczeństwa Zdrowotnego Środowiska NIZP PZH - PIB / Department of Environmental Health and Safety NIPH NIH - NRI
00-791 Warszawa, ul.Chocimska 24 / 00-791 Warsaw, Chocimska 24, Poland
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PZH

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ORDER REQUEST

Ref. 121A-VI / PN 25

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For professionals who look for more.