

KNIFE GATE VALVE DUCTILE IRON BODY

TECHNICAL PASSPORT

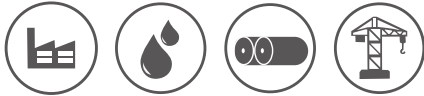
KNIFE GATE VALVE WITH GEARBOX RISING STEM DUCTILE IRON BODY - WAFER TYPE PN10

VG 4400-08

APPLICATION

The knife gate valve is particularly suitable for the most difficult applications.

Area of use: water treatment networks, pulp and paper industry, chemical plants, winemaking, cement works, pneumatic transport, storage.

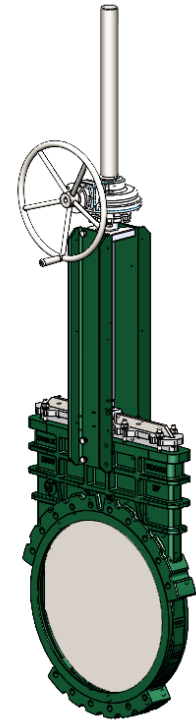


Fluids: water, sewage, pulp, pasty products, powdery, granular, fibrous, abrasive and crystallizing.

GENERAL CHARACTERISTICS

Range: from DN700 to DN1200.

- Knife Gate Valve on/off or regulation with rising stem.
- Molded monobloc body
- Unidirectional water tightness: Flow direction indicated on the body with an arrow.
- Installation between flanges ISO PN10.
- Small retention zone.
- Gate with a beveled cutting edge guided in the body with little backlash.
- Guaranteed closure, without risk of blockage.
- Standard polished gate, soft contact with the gaskets.
- Very resistant ductile iron packing flange avoids risks of breaks.
- Operating force reduced thanks to the elasticity of the gaskets.
- Full flow when fully opened, ensuring a high flow rate with low head loss.
- Flow regulation possible for pasty or abrasive fluids with installation of a deflector.



STANDARDS

Design	Manufacture according to the requirements of the European directive n° 2014/68/UE «Equipment under pressure» : modulate H. In option: product conform to European directive ATEX «ATmosphère EXplosive» n° 2014/34/UE.
Face to face	Face to face dimension according to TECOFI standard
Connection	Mounting between flanges in accordance with EN1092-2 and DIN 2501 : ISO PN10
Tests	Pressure test according to standards EN12266-1, DIN 3230 and ISO 5208. Body : 3 bar Seat : 2.2 bar

PRODUCT APPROVALS



Tecofi France

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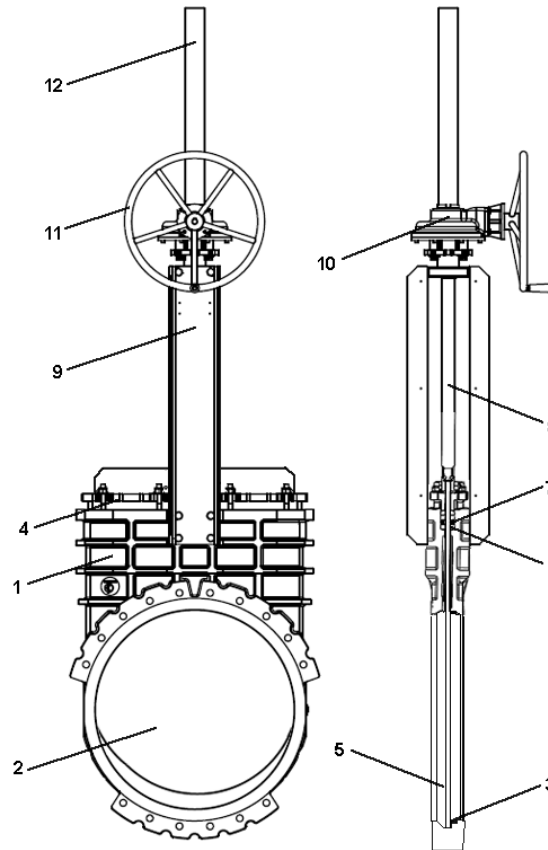
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CONSTRUCTION

The valves are coated with epoxy paint to protect them against corrosion

Component	Coating
Body (1)	Epoxy powder RAL 6005 150 microns
Support plate (9)	Liquid epoxy RAL 6005 70 microns
Gland packing (4)	
Handwheel (11)	Liquid epoxy RAL 9005 70 microns
Protection tube (12)	
Gearbox (10)	



Pos.	Q-ty	Description	Material	Equivalences		
				DIN	ASTM	BS
1	1	Body	Ductile iron EN-GJS-500-7	GGG 50	A536 65-70-50-05	1563 EN-JS1050
2	1	Gate	Stainless steel X5CrNi 18-10	X5CrNi 18 10	A 182 AISI 304	1449-2 304 S15
3	1	Seat gasket (1)	NBR			NBR
4	1	Packing gland	Ductile iron EN-GJS-400-15	GGG 40	A536 65-45-12	1563 EN-JS1030
5	1	Support ring (1)	Stainless steel X5CrNi 18-10	X5CrNi 18 10	A 182 AISI 304	1449-2 304 S15
6	2	Packing	PTFE			
7	1	O-Ring	NBR			NBR
8	1	Stem	Stainless steel 13% Cr	X12CR13	AISI 410	
9	2	Support plate	Steel			
10	1	Gearbox				
11	1	Handwheel	Cast iron			
12	1	Protection tube	Steel			

(1) - Parts missing on metal/metal sealing valve

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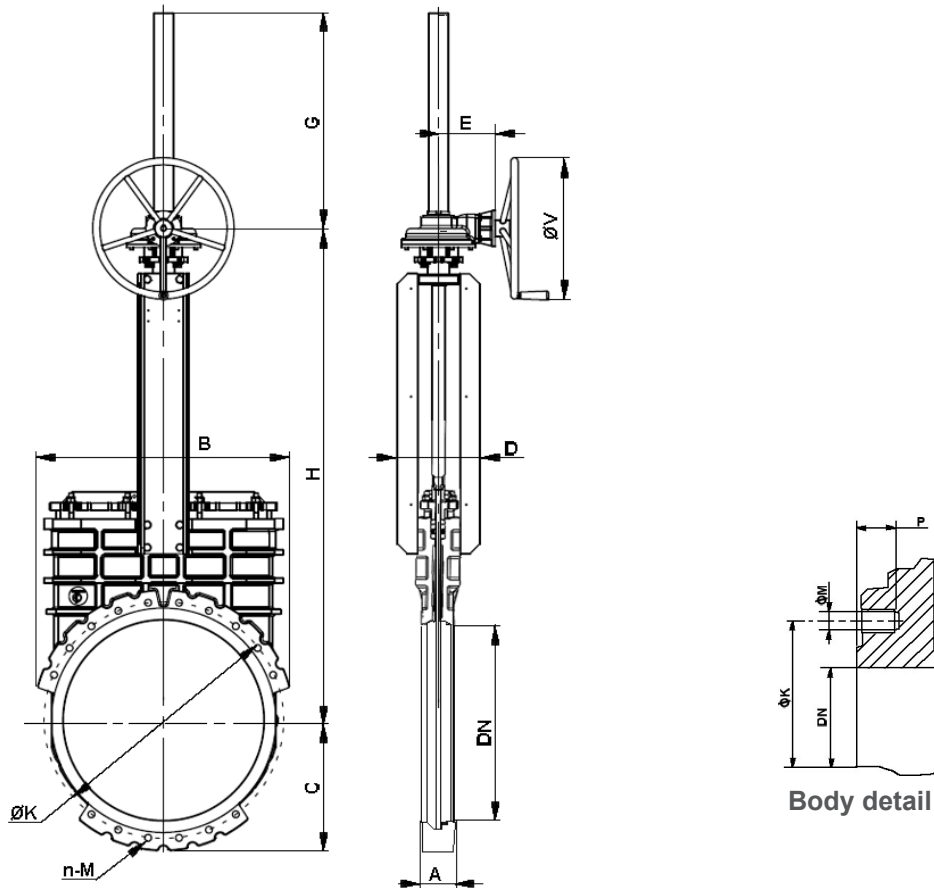


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DIMENSIONS



DN		A	B	C	D	E	G	H	ØK	P	n-M	Number of through holes	Ø V	Weight (kg)
mm	inch													
700	28"	110	892	462	300	200	780	1742	840	29	16xM27	16	200	410
800	32"	110	1013	530	300	200	880	1958	950	29	16xM30	16	200	560
900	36"	110	1127	583	355	200	1025	2210	1050	40	20xM30	20	200	780
1000	40"	110	1252	645	355	200	1115	2402	1160	40	20xM33	20	325	985
1200	48"	130	1485	755	396	200	1335	2819	1380	40	24xM36	24	325	1635

Dimension A - face to face according to TECOFI standard

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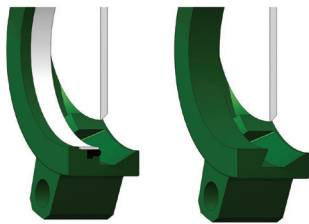
WORKING CONDITIONS

Maximum working pressure: 2 bar

Maximum working temperature : -10°C / +80°C (NBR joint in standard)

⚠ The above mentioned pressures are only valid if the direction of assembly indicated by the arrow on the valves is observed.

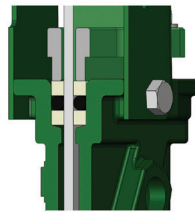
Upstream/downstream tightness



Elastomer tightness

Metal/metal tightness

Packing tightness



PTFE/Elastomer

Tightness in option

Tightness	maximum temperature
Metal/metal	Tmax : -10°C / +80°C
White NBR	Tmax : -10°C / +80°C
EPDM	Tmax : -10°C / +130°C
Silicone	Tmax : -10°C / +170°C
FPM (Type Viton®)	Tmax : -10°C / +170°C
PTFE	Tmax : +4°C / +170°C
CSM (Type Hypalon®)	Tmax : +4°C / +80°C

⚠ To ensure a satisfactory tightness, when using the PTFE gasket, the operating pressure must be at least 1 bar.

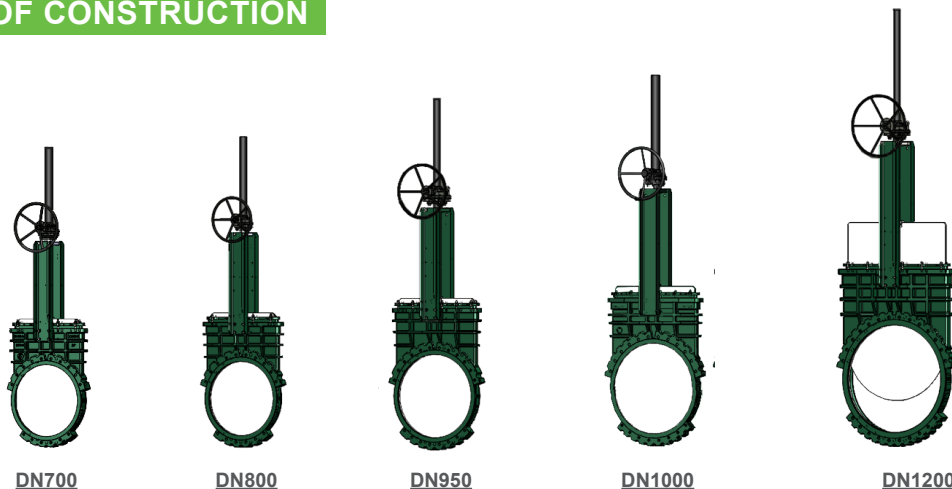
FLOW RATES

Flow rates of valves under different differential pressure (m³/h)

DN		0.2 bar	0.4 bar	0.6 bar	0.8 bar	1.0 bar
mm	inch					
700	28"	17460	29100	36860	42680	48500
800	32"	25220	38800	48500	52380	58200
900	36"	34920	50440	61110	67900	77600
1000	40"	46560	62080	77600	87300	97000
1200	48"	62080	87300	106700	121250	145500

The column of the table under 1 bar gives the values of the Kvs of the valves.

TYPES OF CONSTRUCTION



DN700

DN800

DN950

DN1000

DN1200

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