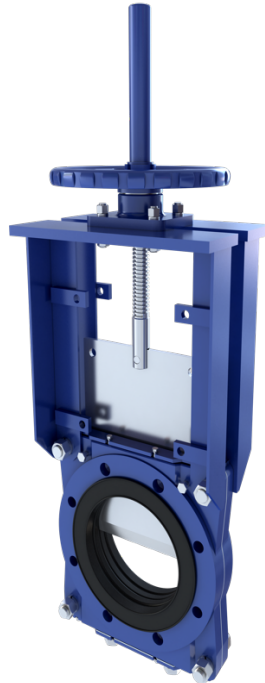


Wafer Style Slurry Knife Gate Valve

ISO9001 & CE Accredited



1. Description

The slurry knife gate valve is a bi-directional wafer valve equipped with two metal reinforced rubber sleeves, designed for applications with abrasive slurries.

2. Technical Data

Size: DN 50 to DN 600 (larger diameters on request)

Working pressure:

DN 50 to DN400	10 Bar	NPS 2-16	150 psi
DN 450 to DN600	6Bar	NPS 18-24	90 psi

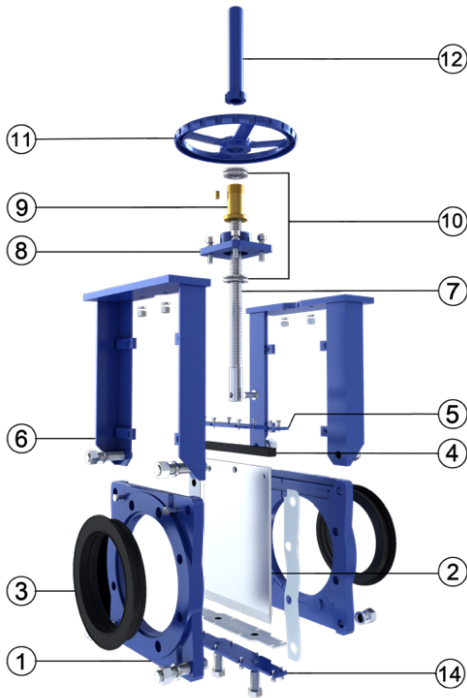
Standard flange connection:

EN1092	GB/T 9113
ASME B16.5	AS 2129/4087
JIS B2220	Others on request

Application:

Pulp and Paper/ Mining /Waste Water Treatment/ Food and Beverage/
Chemical Plants/ Power Plants/ Steel Industry/Etc.

3. Design Features



STANDARD PART LIST

Parts	GGG40	CF8	CF8M
1. Body	GGG40	CF8	CF8M
2. Gate	304	304	316
3. Sleeve	NBR or EPDM		
4. Packing	NBR		
5. Gland	#45	CF8	CF8M
6. Yoke	#45	#45	#45
7. Stem	2Cr13	2Cr13	2Cr13
8. Bearing Housing	WCB		
9. Stem Nut	Brass		
10. Thrust Bearing	65Mn		
11. Hand Wheel	GGG30		
12. Stem Protector	304	304	304
13. Fasteners	A2-70	A2-70	A4-70
14. Splash Guard	#45	CF8	CF8M

Note: Hand wheel nut is available for valve without stem protector. Non-stainless parts are epoxy coated.

BODY:

- Split-body design, grease nipples on valve body (locate between packing and sleeves) for gate lubrication.
- Port at body bottom allows media to be discharged, avoid media accumulation at lower body.
- Full port design minimizes pressure drop and maximize flow capacity.

GATE:

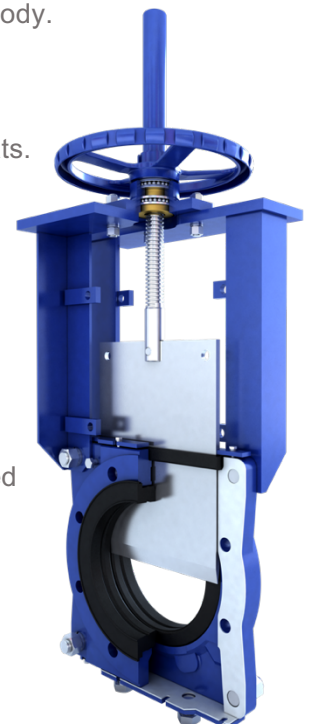
- Rectangular gate is machined to a sharp edge for big shear stress without damaging seats.
- Gate surface is well polished at both side for tight seal and less jamming.
- Gate is hard chrome coated for abrasive application.

SEAT:

- Two seats, metal reinforced rubber sleeves can handle flow in both directions.
- The rubber sleeves are replaceable with easy installation.
- When gate is at open position, the seats compress each other tightly to achieve bubble tight seal and protect valve inner cavity from flushing. Consequently, gate can be changed without shutting down pipeline.
- When gate is closing, sleeves are separated and compress on gate for bubble tight seal.

OTHER:

- Stem cover is available to ensure long service life of stem.
- Two thrust bearings minimize torque for operation.
- Grease nipple is available to ease bearing lubrication.



4. Actuator Options

Manual

Hand wheel (rising stem)
 Bevel Gear
 Chain wheel
 Lever

Automatic

Electric
 Pneumatic (single & double-acting)
 Hydraulic

***Note: for other options, please contact us for availability.**

Accessories

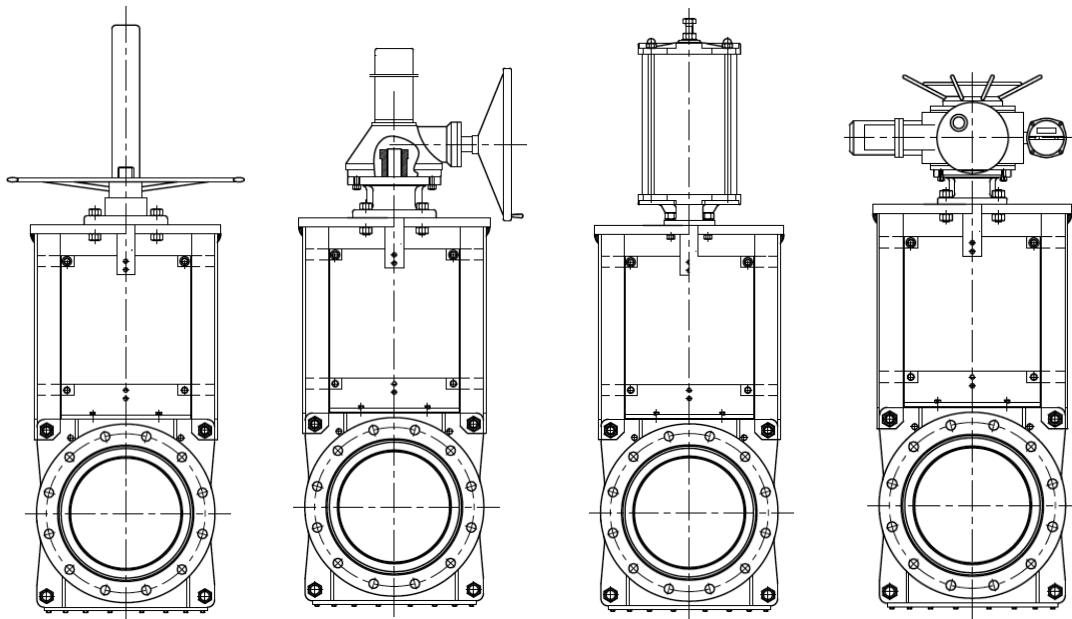
Actuator manual override
 Stem Extensions
 Positioners
 Proximity Switches

Locking device
 Solenoid valves
 Limit Switches
 ISO Mount

5. Other Options

Fabricated Valve
 Other materials for valve

Semi-lug design



Hand Wheel Valve

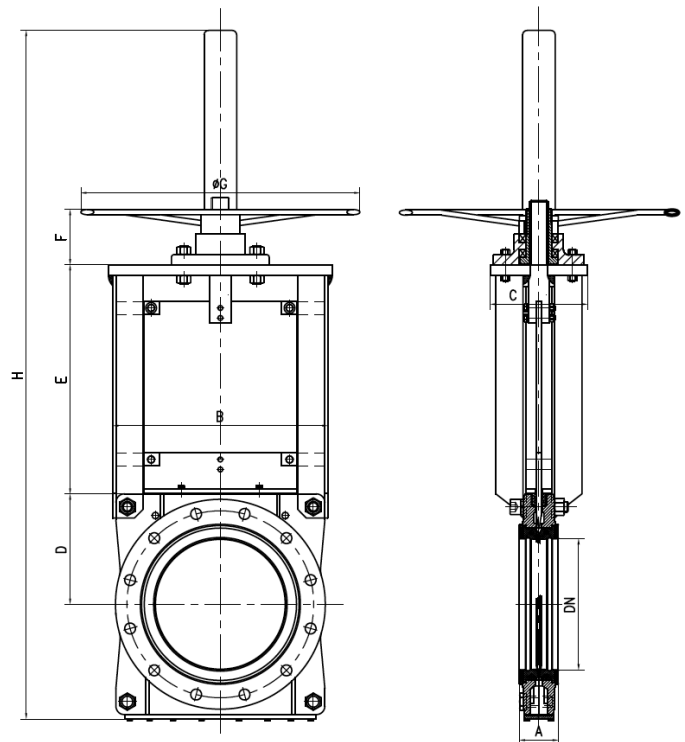
Bevel Gear Valve

Pneumatic Valve

Electric Valve

Dimension I – Hand Wheel Operated Valve (Rising Stem)

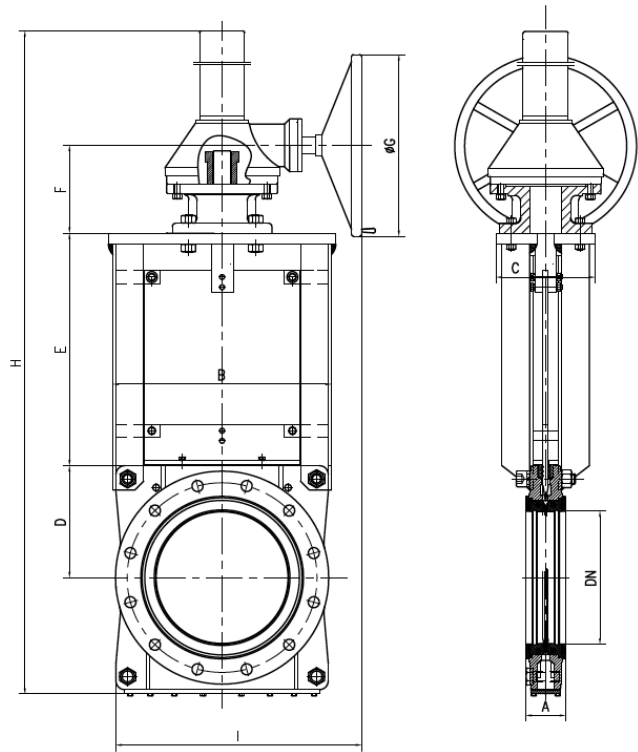
- Standard Manual Actuator
- Including:
 - ⊕ Hand Wheel
 - ⊕ Stem
 - ⊕ Stem Nut
- Size Range:
 - ⊕ DN50-DN350
 - ⊕ Bevel Gear is suggested for size \geq DN 400
- Options:
 - ⊕ Stem Cover
 - ⊕ Gate Cover for safe operation
 - ⊕ Plate-type Yoke
 - ⊕ Locking Device
 - ⊕ Extensions



DN	A	B	C	D	E	F	G	H	Weight (kg)
50	60	180	150	105	145	85	200	490	20
80	63	205	150	125	175	85	200	570	25
100	63	245	150	130	200	87	280	625	35
150	69	280	190	150	265	105	300	755	40
200	83	345	200	180	325	105	350	935	65
250	83	420	210	210	350	105	400	1090	90
300	90	485	210	250	415	117	450	1260	170
350	90	535	230	275	490	117	500	1410	200

Dimension II – Bevel Gear Operated Valve

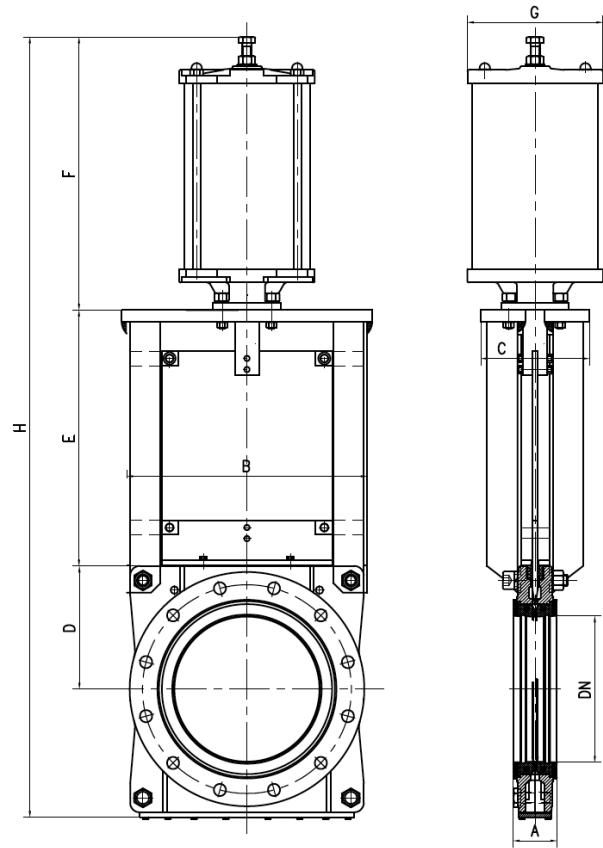
- Mainly applied to valve size \geq DN400
- Including:
 - ⊕ Gear box (Standard Ratio: 4.5:1) with hand wheel
 - ⊕ Stem
 - ⊕ Stem Protector
- Options:
 - ⊕ Locking Device
 - ⊕ Extensions
 - ⊕ Chain wheel



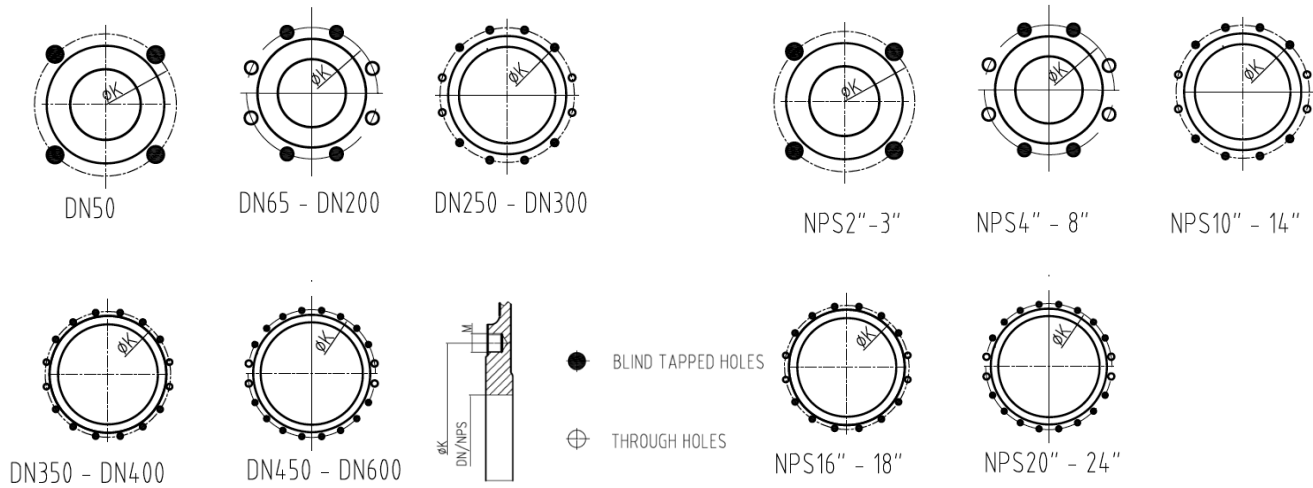
DN	A	B	C	D	E	F	G	H	I	Weight (kg)
200	83	345	200	180	325	105	310	950	480	85
250	83	420	210	210	350	105	310	1165	610	105
300	90	485	210	250	415	105	310	1285	740	190
350	90	535	230	275	490	117	310	1385	765	220
400	102	605	250	305	540	117	310	1530	790	260
450	103	650	290	310	590	100	460	1780	770	280
500	129	715	320	370	650	100	460	1915	790	340
600	132	840	330	420	750	100	460	2190	880	490

Dimension III – Double Acting Pneumatic Valve

- Standard DA pneumatic actuator including:
 - ⊕ ≤DN200 : Aluminum Cylinder
 - ⊕ ≥DN250 : WCB cylinder (Epoxy Coated)
 - ⊕ WCB caps (Epoxy Coated)
 - ⊕ #45 Steel+Cr Piston Rod
- Size Range: DN50-DN600
- Air Supply Pressure Range
 - ⊕ 4 bar to 7 bar.
- Options:
 - ⊕ Gate cover for safe operation
 - ⊕ Manual override
 - ⊕ Locking Device
 - ⊕ Air tank for fail-safe operation
 - ⊕ Limit Switch
 - ⊕ Positioner
 - ⊕ Solenoid Valve
 - ⊕ Flow Regulator



DN	A	B	C	D	E	F	G	H	Cylinder	Connect	Weight (kg)
50	60	180	150	105	145	300	100	610	C100/91	F1/4	30
80	63	205	150	125	175	330	120	695	C125/121	F1/4	40
100	63	245	150	130	200	350	120	740	C125/140	F1/4	42
150	69	280	190	150	265	410	150	880	C160/194	F3/8	65
200	83	345	200	180	325	490	195	1020	C200/252	F3/8	85
250	83	420	210	210	350	580	240	1200	C250/320	F3/8	145
300	90	485	210	250	415	650	280	1350	C300/380	F3/8	220
350	90	535	230	275	490	780	280	1450	C350/440	F3/8	295
400	102	605	250	305	540	830	395	1580	C350/490	F1/2	330
450	103	650	290	310	590	910	395	1800	C400/545	F1/2	375
500	129	715	320	370	650	940	425	1980	C400/606	F1/2	520
600	132	840	330	420	750	1230	425	2300	C400/712	F1/2	720

Dimension V – FLANGE AND BOLTING DETAILS

EN 1092

DN	K	n°	M	T	● ⊕
50	125	4	M-16	11	4 - 0
65	145	4	M-16	11	4 - 4
80	160	8	M-16	11	4 - 4
100	180	8	M-16	11	4 - 4
125	210	8	M-16	11	4 - 4
150	240	8	M-20	14	4 - 4
200	295	8	M-20	14	4 - 4
250	350	12	M-20	18	8 - 4
300	400	12	M-20	18	8 - 4
350	460	16	M-20	22	12 - 4
400	515	16	M-24	24	12 - 4
450	565	20	M-24	24	16 - 4
500	620	20	M-24	24	16 - 4
600	725	20	M-27	24	16 - 4

ANSI B16.5

DN	K	n°	M	T	● ⊕
2"	4 3/4"	4	5/8" UNC	3/8"	4 - 0
2 1/2"	5 1/2"	4	5/8" UNC	3/8"	4 - 0
3"	6"	4	5/8" UNC	3/8"	4 - 0
4"	7 1/2"	8	5/8" UNC	3/8"	4 - 4
5"	8 1/2"	8	3/4" UNC	3/8"	4 - 4
6"	9 1/2"	8	3/4" UNC	1/2"	4 - 4
8"	11 1/2"	8	3/4" UNC	1/2"	4 - 4
10"	14 1/2"	12	7/8" UNC	3/4"	8 - 4
12"	17"	12	7/8" UNC	3/4"	8 - 4
14"	18 1/2"	12	1" UNC	7/8"	8 - 4
16"	21 1/2"	16	1" UNC	1"	12 - 4
18"	22 1/2"	16	1 1/8" UNC	1"	12 - 4
20"	25"	20	1 1/8" UNC	1"	16 - 4
24"	29 1/2"	20	1 1/4" UNC	1"	16 - 4

Appendix – Actuator Selection Data

DN	Thrust (N)	Torque (N*M)	# of Turns	Stem Size
50	3015	70	23	Tr20x4BH
80	4300	80	31	Tr20x4BH
100	4720	120	28	Tr22x5BH
150	7730	210	39	Tr22x5BH
200	12100	350	42	Tr28x6BH
250	18900	530	53	Tr28x6BH
300	27100	580	63	Tr28x6BH
350	37000	810	74	Tr32x6BH
400	46000	980	82	Tr32x6BH
450	48300	1410	78	Tr40x7BH
500	52300	1820	87	Tr40x7BH
600	59800	2160	102	Tr40x7BH

Note: Thrust and Torque data are reference for normal application, for specific conditions, please contact us for further support.