

NELES

BIDIRECTIONAL WAFER KNIFE GATE VALVE

SERIES KH

Neles™ knife gate valve with bi-directional sealing. Suitable for mining and mineral processing applications. Stainless steel gate and removable rubber sleeves are part of robust design. High flow rate and tight shutoff provide optimal performance for different applications such as slurry transport, fluid transport or other abrasive and challenging applications.

TECHNICAL DESCRIPTION

Suitable for bi-directional operation, with abrasive and corrosive flow mediums. Wide range of different materials for body, knives and sleeves offer most optimum solution to several different applications. Material selection and valve sizing will ensure long operation life. Mounting between flanges will compress the sleeves or seals creating seal-tight fitting and smooth travel of knife. Neles knife gate valve can be delivered with integrated purge ports or according to other specified requirement. Flexible seats will protect the valve internal parts during the open position. Seat material selection is flow medium or other specified requirement.

APPLICATIONS

- Pump isolation
- Mineral processing concentrators
- Sand and gravel plants
- Tailing lines
- Hydro cyclone
- Slurry pipelines

VERSIONS, DETAILS

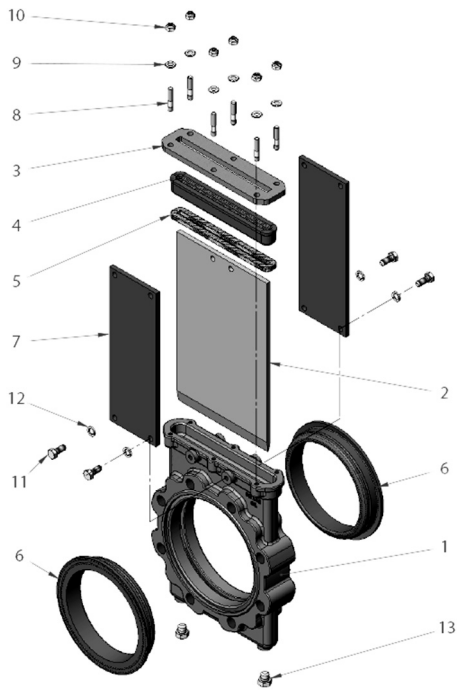
- Flange drilling PN 10 / ASME Class 150
- One-piece cast iron body
- Two rubber sleeves
- Bi-directional tightness (Rate A)
- Purge and flushing port available on request



Size range	Working Δp
DN50 – DN600	10 kg/cm ²
DN700 – DN1400	6 kg/cm ²
DN80 – DN 900	21 kg/cm ² (High pressure series)

EXPLODED VIEW AND PART LISTS

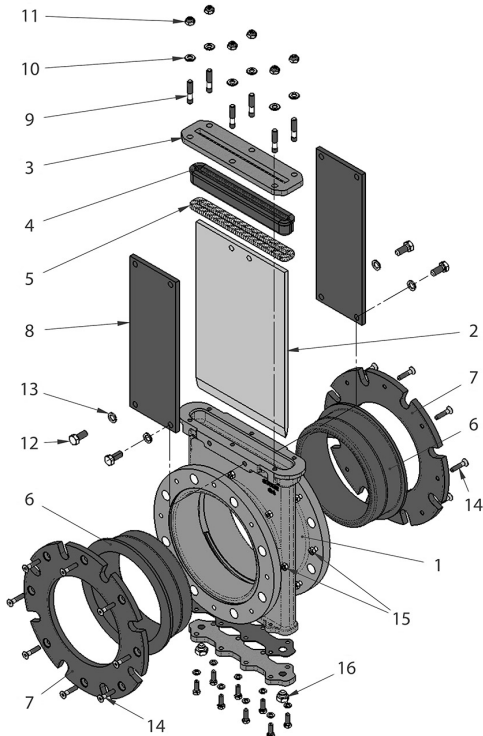
KH series



Part no.	Description	Material
1	Body	GJS-500
2	Knife	AISI-316
3	Packing gland	GJS-500
4	Packing	EPDM
5	Packing	Greased packing
6	Sleeve	Natural rubber
7	Support	S275JR
8	Stud	F-111 Zinc
9	Washer	5.6 Zinc
10	Self-locking nut	5.6 Zinc
11	Screw	5.6 Zinc
12	Washer	5.6 Zinc
13	Bottom cover joint	A-2
14	Bottom cover	GJS-500
15	Screw plug	A-2

Other materials available on request

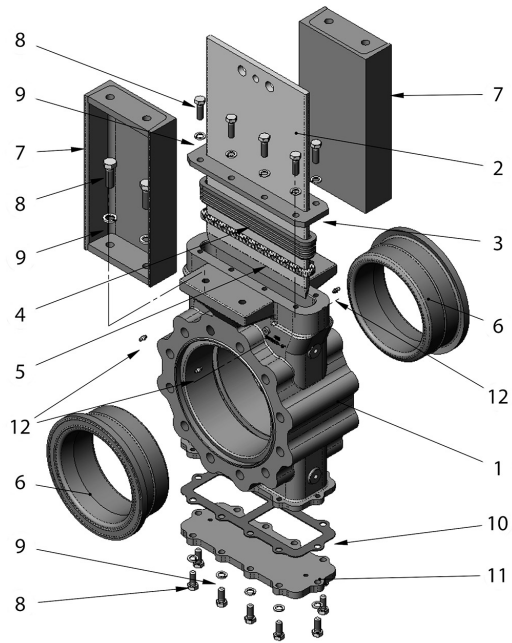
High pressure heavy duty series
(Available on request)



Part no.	Description	Material
1	Body	GJS-500
2	Knife	AISI-316
3	Packing gland	GJS-500
4	Packing	EPDM
5	Packing	Greased packing
6	Sleeve	Natural rubber
7	Sleeve retaining	Natural rubber
8	Support	S272JR
9	Stud	F-111 Zinc
10	Washer	5.6 Zinc
11	Self-locking nut	5.6 Zinc
12	Screw	5.6 Zinc
13	Washer	5.6 Zinc
14	Screw	A-2
15	Nut	A-2
16	Screw plug	A-2

Other materials available on request

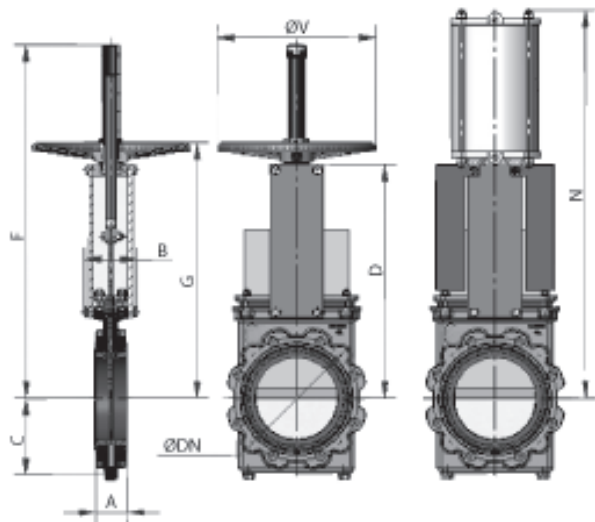
High pressure heavy duty series
(Available on request)



Part no.	Description	Material
1	Body	GJS-500
2	Knife	AISI-316
3	Packing gland	S275JR
4	Joint	EPDM
5	Packing	Greased packing
6	Bush	Natural rubber
7	Support	S275JR
8	Screw	5.6 Zinc
9	Washer	ST Zinc
10	Cover joint	EPDM
11	Bottom cover	S275JR
12	Greaser	Steel

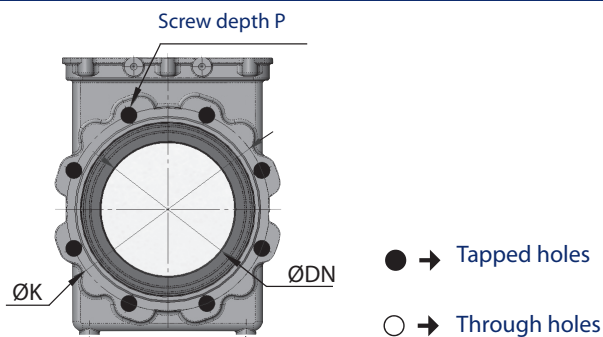
Other materials available on request

DIMENSIONS, KH SERIES



DN	ND	A	B	C	D	F	G	ØV	N
50	2"	54	109	95	280	449	319	225	466
80	3"	57	109	111	332	551	372	225	550
100	4"	57	109	125	368	587	407	225	620
150	6"	64	126	155	466	757	519	325	770
200	8"	76	126	184	565	957	618	380	939
250	10"	76	197	217	626	—	—	—	1140
300	12"	83	197	255	739	—	—	—	1296
350	14"	83	350	280	842	—	—	—	1478
400	16"	96	350	310	933	—	—	—	1651
450	18"	96	350	335	1019	—	—	—	1798
500	20"	121	380	370	1156	—	—	—	1999
600	24"	121	400	440	1338	—	—	—	2291

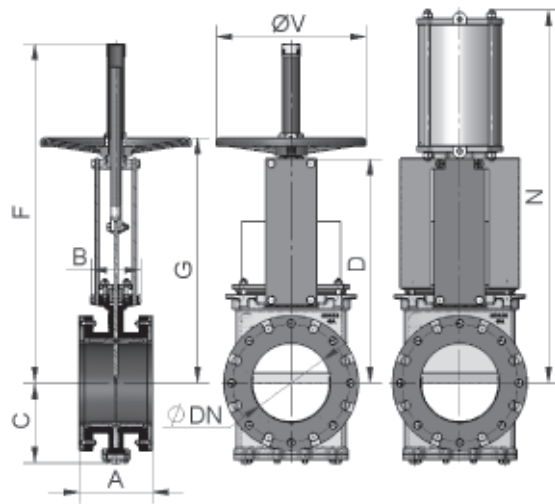
NOTE: Other sizes under request.



Boring Joint													
DIN PN-10							ANSI-150						
DN	ΔP Kg/cm ²	λ	Υ	M Metric	P	ØK	ND	ΔP psi	λ	Υ	R UNC	P	ØK
50	10	4	—	M 16	10	125	2"	150	4	—	5/8"	10	120,6
80	10	8	—	M 16	10	160	3"	150	4	—	5/8"	10	152,4
100	10	8	—	M 16	10	180	4"	150	8	—	5/8"	10	190,5
150	10	8	—	M 20	12	240	6"	150	8	—	3/4"	12	241,3
200	10	8	—	M 20	13	295	8"	150	8	—	3/4"	13	298,4
250	10	12	—	M 20	13	350	10"	150	12	—	7/8"	13	361,9
300	10	12	—	M 20	13	400	12"	150	12	—	7/8"	13	431,8
350	10	12	4	M 20	18	460	14"	150	8	4	1"	18	476,2
400	10	12	4	M 24	19	515	16"	150	12	4	1"	19	539,7
450	10	16	4	M 24	21	565	18"	150	12	4	1 1/8"	21	577,8
500	10	16	4	M 24	21	620	20"	150	16	4	1 1/8"	21	635
600	10	16	4	M 27	23	725	24"	150	16	4	1 1/4"	23	749

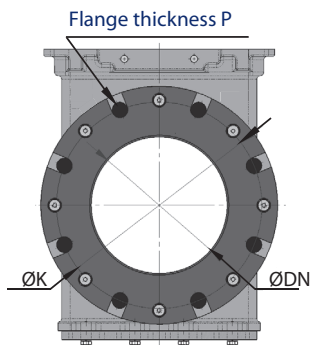
NOTE: Other sizes and standards under request.

DIMENSIONS, HIGH PRESSURE HEAVY DUTY SERIES (Available on request)



DN	ND	A	B	C	D	F	G	ØV	N
50	2"	175	109	95	280	449	319	225	466
80	3"	175	109	111	332	551	372	225	550
100	4"	175	109	125	368	587	407	225	620
150	6"	178	126	155	466	757	519	325	770
200	8"	184	126	184	565	957	618	380	939
250	10"	225	197	217	626	-	-	-	1140
300	12"	257	197	255	739	-	-	-	1296
350	14"	257	350	280	842	-	-	-	1478
400	16"	279	350	310	933	-	-	-	1651
450	18"	311	350	335	1019	-	-	-	1798
500	20"	359	380	370	1156	-	-	-	1999
600	24"	372	400	440	1338	-	-	-	2291

NOTE: Other sizes under request.

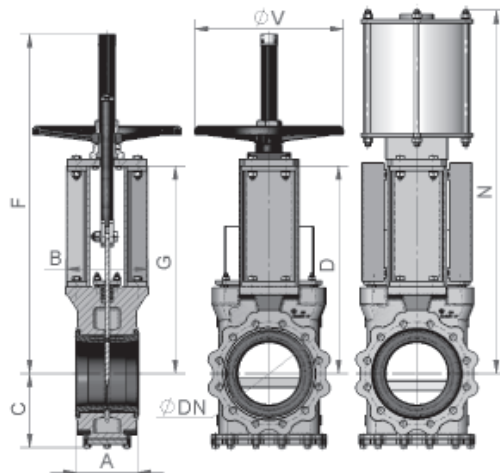


● Through holes

Boring Joint											
DIN PN-10						ANSI-150					
DN	ΔP Kg/cm ²	λ	M Metric	P	ØK	ND	ΔP psi	λ	R UNC	P	ØK
50	10	4	M 16	32	125	2"	150	4	5/8"	32	120,6
80	10	8	M 16	32	160	3"	150	4	5/8"	32	152,4
100	10	8	M 16	32	180	4"	150	8	5/8"	32	190,5
150	10	8	M 20	32	240	6"	150	8	3/4"	32	241,3
200	10	8	M 20	33	295	8"	150	8	3/4"	33	298,4
250	10	12	M 20	35	350	10"	150	12	7/8"	35	361,9
300	10	12	M 20	37	400	12"	150	12	7/8"	37	431,8
350	10	16	M 24	37	460	14"	150	12	1"	37	476,2
400	10	16	M 24	41	515	16"	150	16	1"	41	539,7
450	10	20	M 24	45	565	18"	150	16	1 1/8"	45	577,8
500	10	20	M 24	46	620	20"	150	20	1 1/8"	46	635
600	10	20	M 27	49	725	24"	150	20	1 1/4"	49	749,3

NOTE: Other sizes and standards under request.

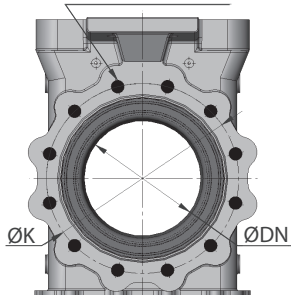
DIMENSIONS, HIGH PRESSURE HEAVY DUTY SERIES (Available on request)



DN	ND	A	B	C	D	F	G	ØV	N
80	3"	176	109	125	362	529	401	225	593
100	4"	181	109	155	418	635	457	225	689
150	6"	184	126	193	529	819	582	325	901
200	8"	184	250	223	625	1022	744	450	1158
250	10"	226	260	266	713	-	-	-	1370
300	12"	242	275	296	812	-	-	-	1522
350	14"	252	290	347	909	-	-	-	1667
400	16"	287	320	376	1052	-	-	-	1785
450	18"	311	350	401	1185	-	-	-	1875
500	20"	373	350	436	1291	-	-	-	2160
600	24"	362	350	515	1475	-	-	-	2410
750	30"	413	375	625	1800	-	-	-	-
900	36"	467	400	710	2125	-	-	-	-

NOTE: Other sizes under request.

Screw depth P



● → Blind tapped holes

Boring Joint

DN	EN 1092-2 PN-25					ANSI B16.5, class 300					
	ΔP Kg/cm ²	λ	M Metric	P	ØK	ND	ΔP psi	λ	R UNC	P	ØK
80	21	8	M 16	20	160	3"	300	8	3/4"	0,79"	6,63"
100	21	8	M 20	23	190	4"	300	8	3/4"	0,91"	7,87"
150	21	8	M 24	27	250	6"	300	12	3/4"	1,06"	10,63"
200	21	12	M 24	32	310	8"	300	12	7/8"	1,26"	13"
250	21	12	M 27	35	370	10"	300	16	1"	1,38"	15,25"
300	21	16	M 27	35	430	12"	300	16	1 1/8"	1,38"	17,75"
350	21	16	M 30	38	490	14"	300	20	1 1/8"	1,50"	20,25"
400	21	16	M 33	43	550	16"	300	20	1 1/4"	1,69"	22,5"
450	21	20	M 33	48	600	18"	300	24	1 1/4"	1,89"	24,75"
500	21	20	M 33	55	660	20"	300	24	1 1/4"	2,17"	27"
600	21	20	M 36	55	770	24"	300	24	1 1/2"	2,17"	32"
750	21	-	-	-	-	30"	300	28	1 3/4"	2,17"	39,25"
900	21	28	M 45	60	1090	36"	300	32	2"	2,36"	46"

NOTE: Other sizes and standards under request.

KNIFE GATE VALVE TYPECODE

1.	2.	3.	4.	5.	6.	7.	8.
KH	L	J	050	E	A	P	D

1.	VALVE SERIES
KH	Knife Gate Valve, Lug type, Bi-directional
-	High pressure heavy duty series, available on request

2.	END CONNECTION
L	Lug

3.	PRESSURE RATING
J	PN10
C	ASME Class 150

4.	BODY SIZE	
050	DN 50	02 2"
065	DN 65	2H 2.5"
080	DN 80	03 3"
100	DN 100	04 4"
125	DN 125	05 Upon request
150	DN 150	06 6"
200	DN 200	08 8"
250	DN 250	10 10"
300	DN 300	12 12"
350	DN 350	14 14"
400	DN 400	16 16"
450	DN 450	18 18"
500	DN 500	20 20"
600	DN 600	24 24"
700	DN 700	28 28"

SOLENOID VALVE TYPECODE

1.	2.	3.
MW	A	0242

1.	MANUFACTURER
MW	Metalwork

2.	MODEL
A	SOV35SOSOO

3.	COIL
0242	W0215000101

5.	BODY MATERIAL
E	GJS-500
A	CF8M

6.	KNIFE, PACKING GLAND, PACKING, SEAT & BOTTOM COVER MATERIALS
A	Knife: AISI 304 Packing gland: GJS-500 Packing: Natural rubber, greased cotton Seat: Natural rubber Bottom cover: GJS-500
B	Knife: AISI 316 Packing gland: CF8M Packing: Natural rubber, greased cotton Seat: Natural rubber Bottom cover: CF8M

7.	ACTUATOR TYPE
P	Pneumatic
M	Manual (handwheel with rising stem is standard if nothing else is specified)

8.	ACTUATOR SPECIFICATION
D	Double acting

LIMIT SWITCHES TYPECODE

1.	2.	3.	4.
M	TM	V	2

1.	TYPE
M	Mechanical
I	Inductive

2.	MANUFACTURER
TM	Telemecanique
PF	Pepperl-Fuchs

3.	MODEL
V	XCK-M115 (Only for Telemecanique)
A	NBB8-18GM60-US (Only for Pepperl-Fuchs)

4.	NUMBER OF SWITCHES
2	2 Pieces

Neles

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