ABO valve

GET IN CONTROL
INTELLIGENT • INNOVATIVE • INTERNATIONAL
STAY IN CONTROL

SERIES 300 SLURRY KNIFE GATE VALVES

Body design
Wafer / Lug / Flanged

Nominal size
DN50 – DN1000

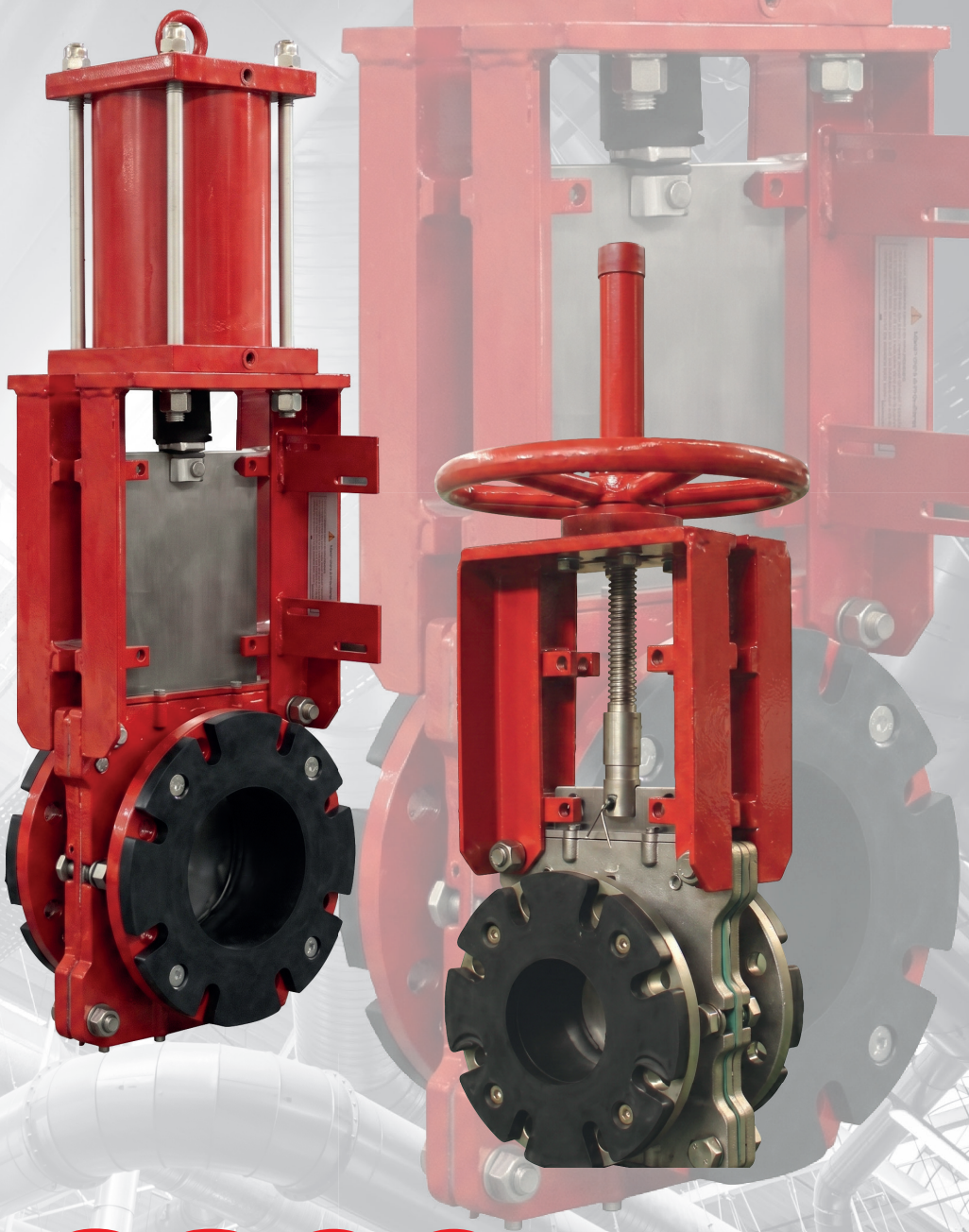
Working pressure
10/16 bar

Flange connection
PN6/PN10/PN16/Class 150

Working temperature
-10 °C/+150 °C

Working Media
Mining services Sewage treatment
Chemical plants
Energy sector
Power Plant
Slurry Sandling
Abrasive Media
Cement Plant

Features
Bidirectoral Seal
Sleeve protect body
Cleaning hole design



SERIES S300

www.abovalve.com

DESCRIPTION

A bi-directional flanged knife gate valve with metal-reinforced rubber sleeves is typically designed for abrasive and corrosive slurry service. Valves are suitable for abrasive and corrosive operating conditions and feature removable metal-reinforced rubber sleeves for extended service life.

WORKING MEDIUM

Mining and mineral processing (tailings, slurry transport)
Power generation (coal handling, ash slurry)
Cement industry (raw meal, kiln dust, slurry applications)
Wastewater and sewage treatment (grit, sludge, abrasive solids)
Chemical and petrochemical industries (abrasive or corrosive slurries)
Steel and metal processing (scale, slag, slurry handling)

SIZES

DN50 to DN600

WORKING PRESSURE AND TEMPERATURE

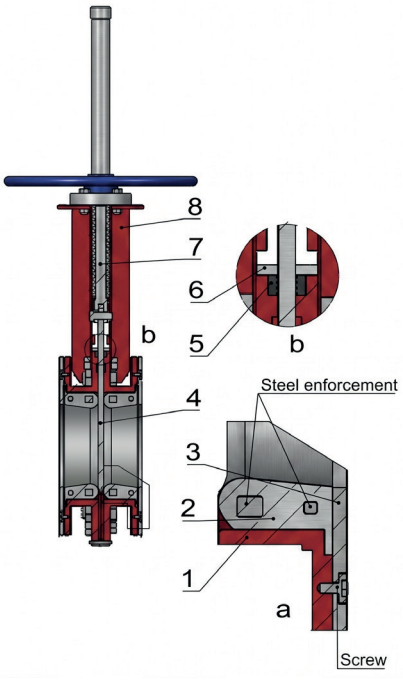
Pressure: 6-10-16 Bar
Temperature: From -20°C / 80°C

CONNECTION

EN 1092 PN10 OR PN16
ASME B16.5 (class 150)
Other flange drillings available on request

Standart part list

Part No	Part Name	Part Material
1	Body	Ductile iron A536 (60-40-18) / 0.7040 / EN-GJS400
2	Sleeve	Natural rubber / EPDM
3	Seat Retainer	Natural rubber / EPDM
4	Gate	AISI 304 /AISI 316 /Dublex 2205
5	Packing	EPDM
6	Stem	Stainless Steel
7	Yoke	A570 GR.40 / 1.0044 Epoxy coated



DESIGN ADVANTAGES

BODY

The valve is designed with a full-flanged, one-piece (monoblock) cast body suitable for installation between flanges. For larger diameters, the body is reinforced with strengthening ribs to enhance structural integrity and mechanical strength.The internal body geometry is engineered to ensure full guidance of the gate throughout the entire stroke, providing smooth and stable operation. Grease nipples are incorporated into the body design, allowing effective lubrication of the gate and guides, thereby reducing friction and improving sliding performance between the sleeves while extending service life.The lower part of the body is designed to allow drainage and can be equipped with a cover or a bottom splash guard if required. During operation, a limited amount of leakage from the bottom of the valve is expected by design. This controlled leakage enables the flushing of solids from the body cavity, preventing accumulation and ensuring unobstructed full-stroke operation of the valve.

GATE

The gate is manufactured from stainless steel, with both sides polished, and features a rectangular profile with a precision-machined sharp edge. This design minimizes friction and reduces wear on the seats while ensuring a clean and efficient cut through the fluid. Upon request, alternative gate materials can be supplied to accommodate higher operating pressures and more demanding service conditions.

SLEEVES

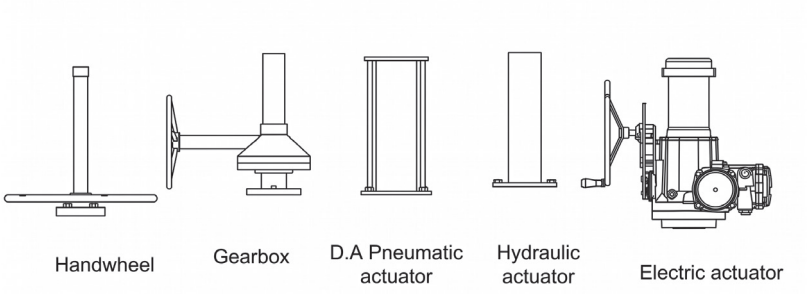
The seat consists of two highly durable sleeves made of natural rubber . The robust sleeve construction allows maximum flexibility during gate movement, minimizing operating effort. In the fully open position, the sleeves remain in continuous contact, ensuring full bore flow. The design eliminates cavities that could cause material accumulation, and the fluid does not contact the valve's metallic components. Additionally, damaged sleeves can be easily replaced, facilitating maintenance and extending service life.

STEM

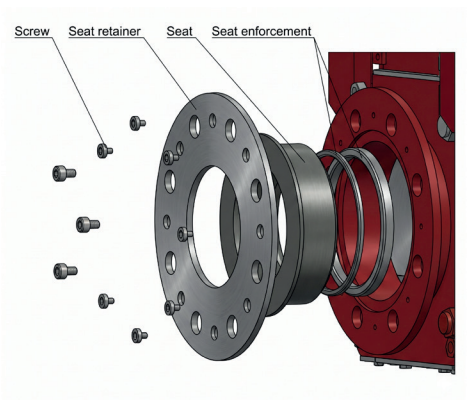
Made of all steel provide, which provides a high resistance to corrosion and a long life for your process.

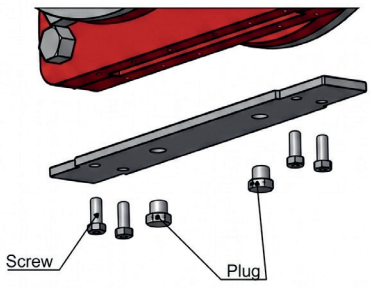
OPERATION

ABO offers actuator like manual, pneumatic, electric and hydraulic actuators.

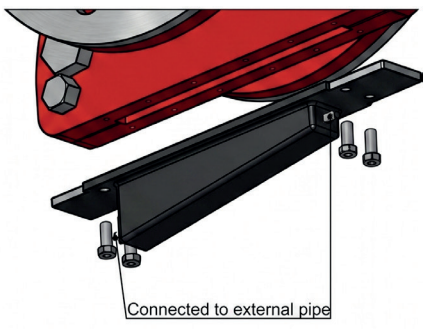


Special design advantaged



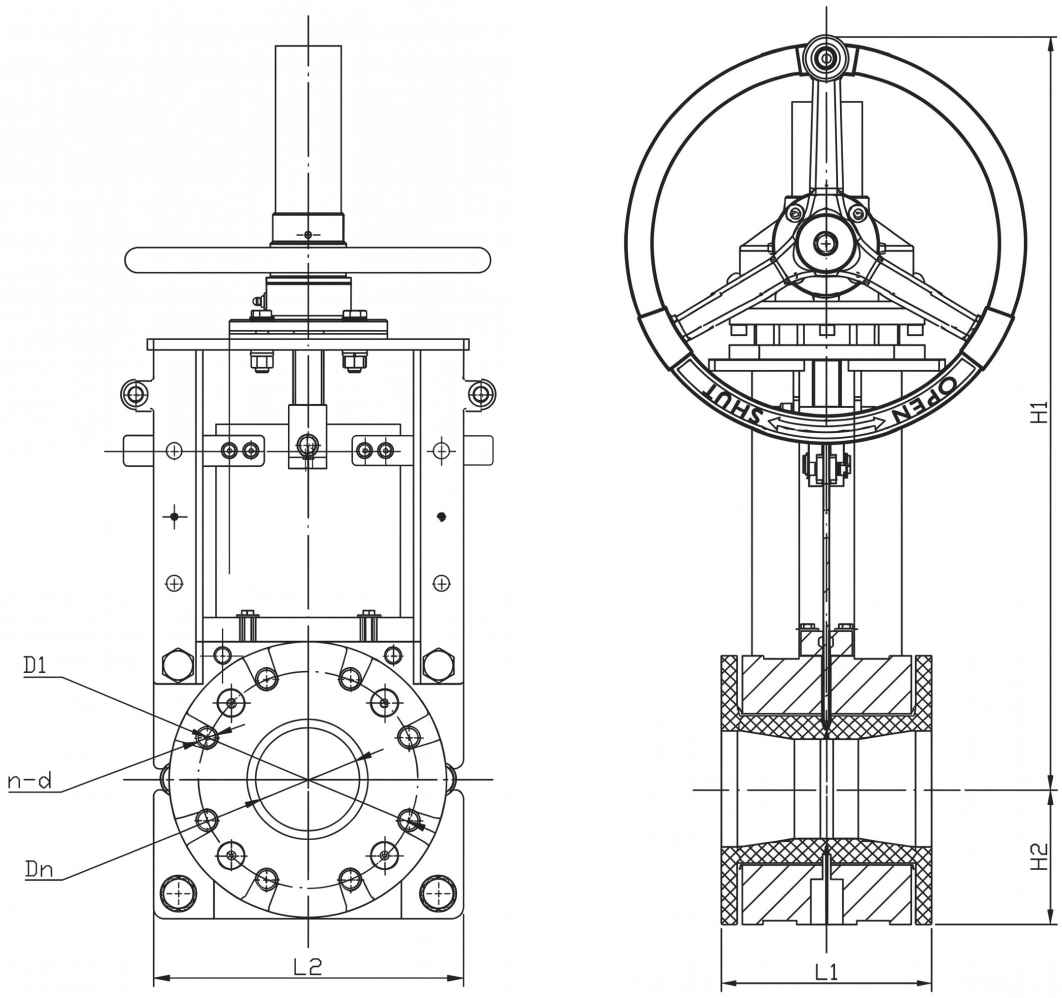


Flat panel with plug



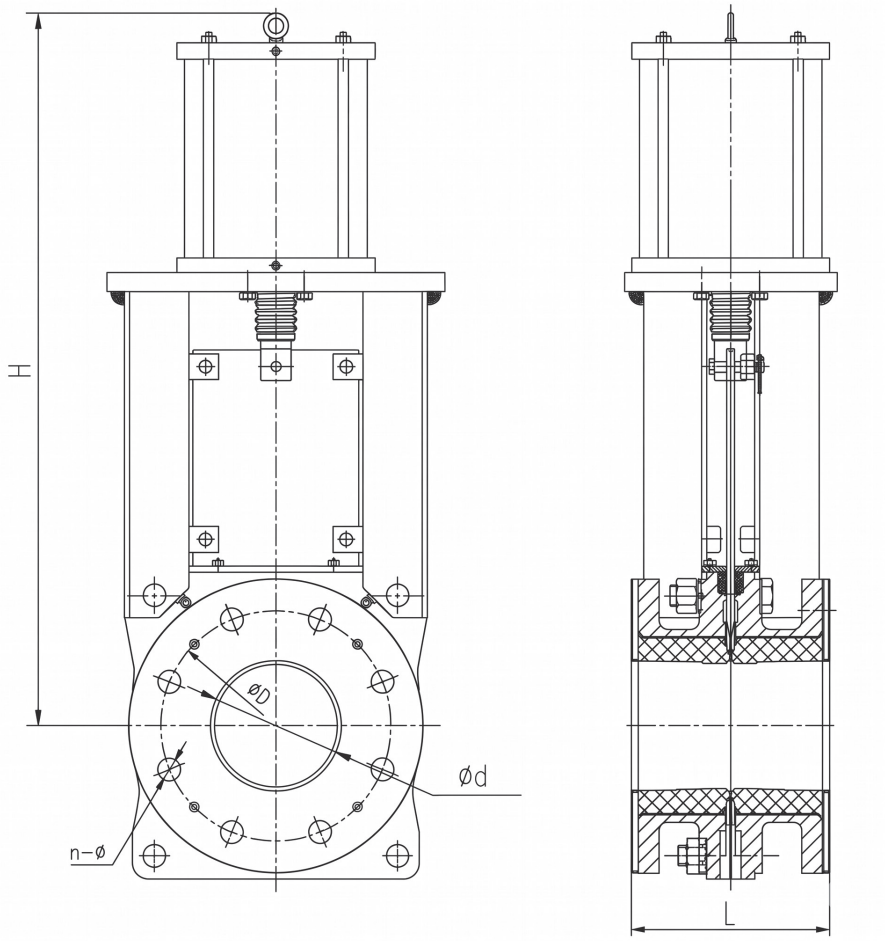
Tabular panel with spill collector

DIMENSION FOR MANUAL FOR PN10 CONNECTION



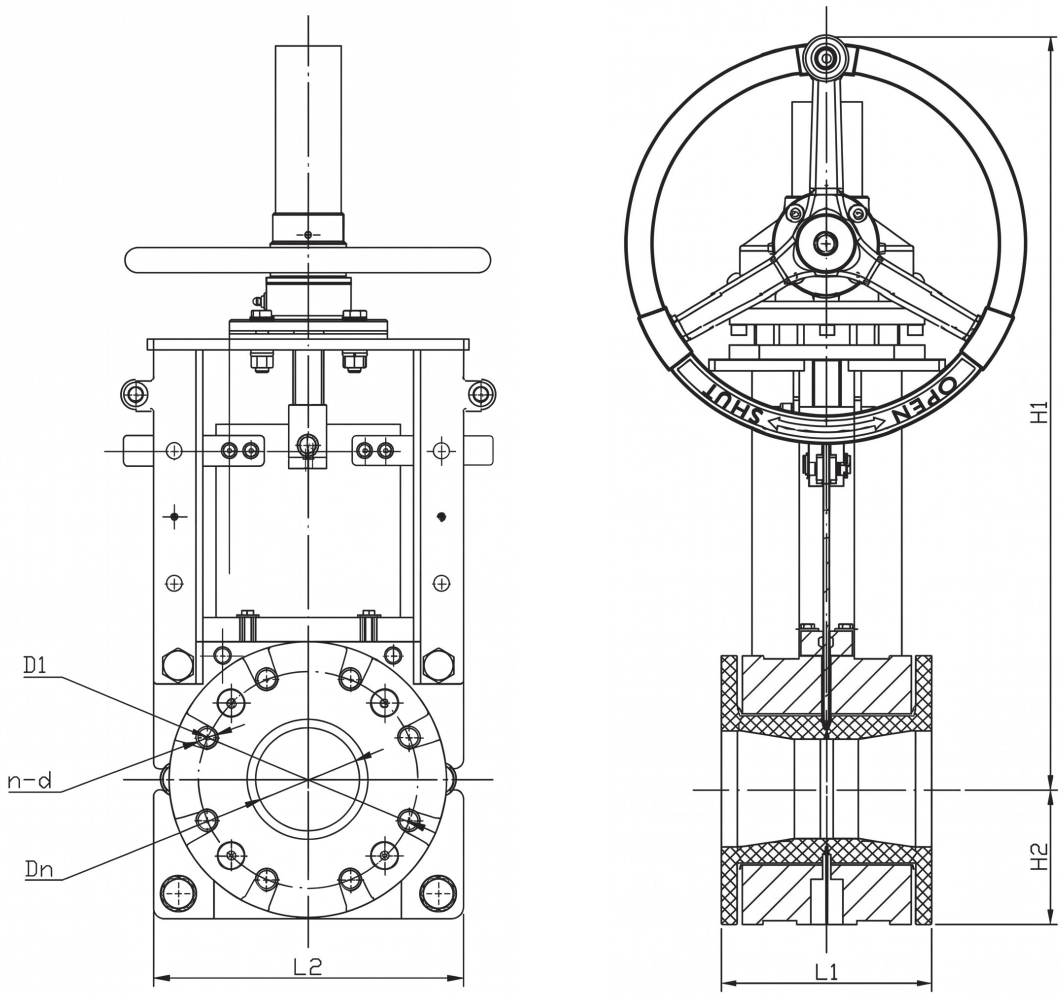
SIZE	L1	L2	H2	D1	N*D
DN50	178	160	76	125	4*19
DN65	178	165	90	140	4*19
DN80	178	216	95	160	8*19
DN100	178	254	114	180	8*19
DN150	178	305	140	240	8*23
DN200	178	356	170	295	8*23
DN250	230	406	203	350	12*23
DN300	258	483	241	410	12*23
DN350	258	533	267	470	16*28
DN400	280	597	299	525	16*28
DN500	359	700	349	650	20*34

DIMENSION FOR PNEUMATIC ACTUATOR FOR PN10 CONNECTION



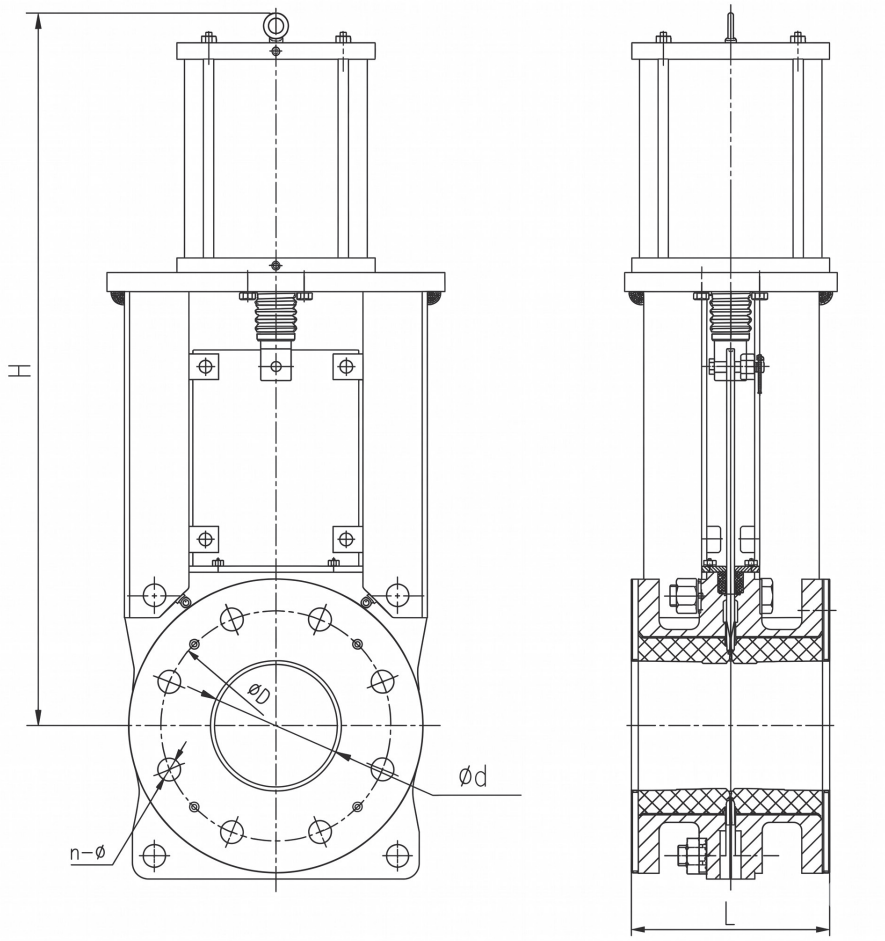
SIZE	L1	L2	H	D1	N*D
DN50	178	160	455	125	4*19
DN65	178	165	492	140	4*19
DN80	178	216	570	160	8*19
DN100	178	254	661	180	8*19
DN150	178	305	821	240	8*23
DN200	178	356	955	295	8*23
DN250	230	406	1140	350	12*23
DN300	258	483	1342	410	12*23
DN350	258	533	1490	470	16*28
DN400	280	597	1690	525	16*28
DN500	359	700	1830	650	20*34

DIMENSION FOR PNEUMATIC ACTUATOR FOR PN16 CONNECTION



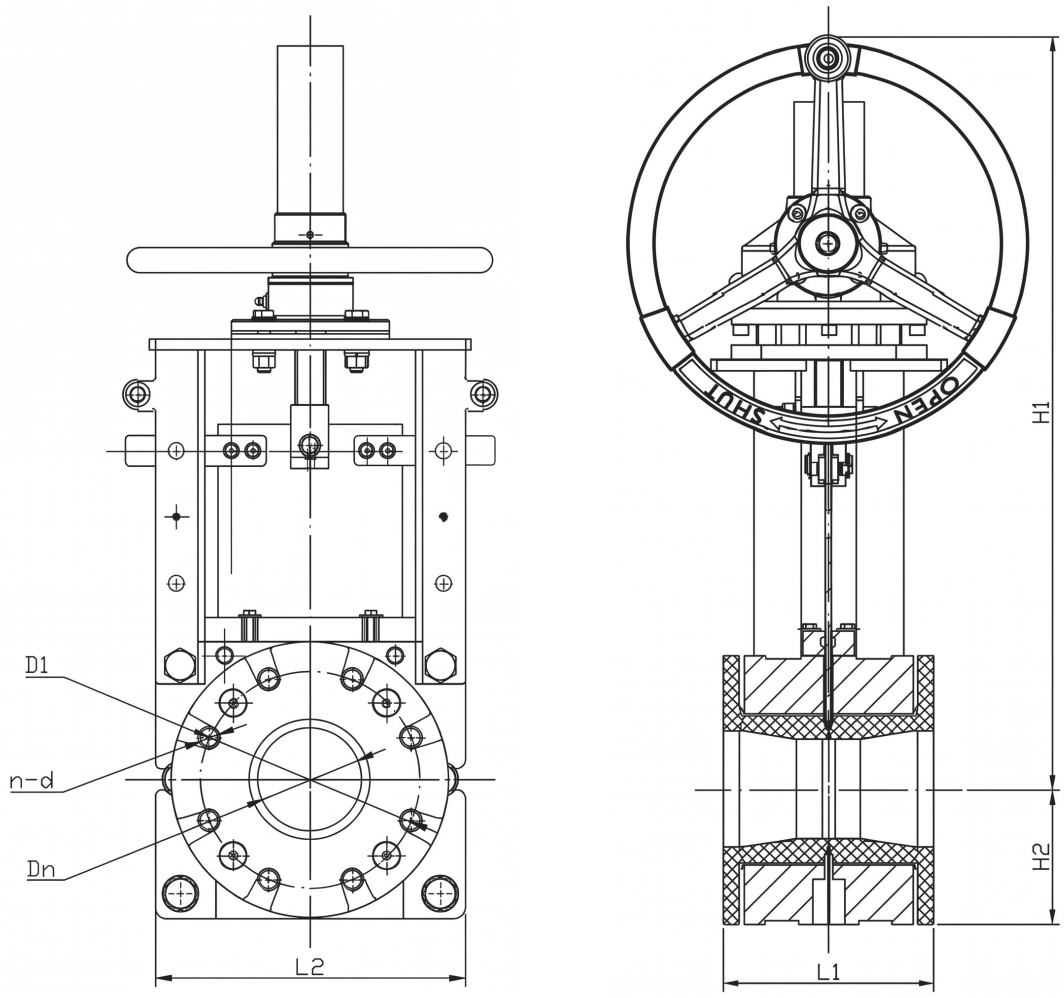
SIZE	L1	L2	H2	D1	N*D
DN50	178	160	76	125	4*19
DN65	178	165	90	140	4*19
DN80	178	216	95	160	8*19
DN100	178	254	114	180	8*19
DN150	178	305	140	240	8*23
DN200	178	356	170	295	12*23
DN250	230	406	203	350	12*28
DN300	258	483	241	410	12*28
DN350	258	533	267	470	16*28
DN400	280	597	299	525	16*31
DN500	359	700	349	650	20*34

DIMENSION FOR PNEUMATIC ACTUATOR FOR PN16 CONNECTION



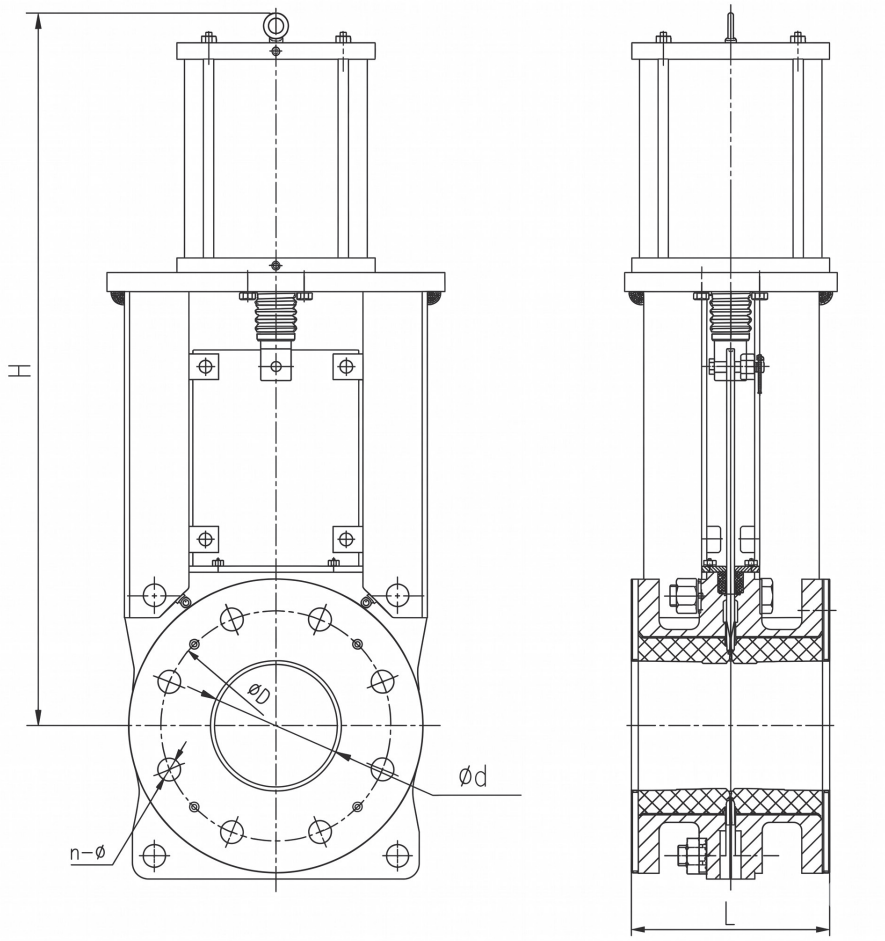
SIZE	L1	L2	H	D1	N*D
DN50	178	160	455	125	4*19
DN65	178	165	492	140	4*19
DN80	178	216	570	160	8*19
DN100	178	254	661	180	8*19
DN150	178	305	821	240	8*23
DN200	178	356	955	295	12*23
DN250	230	406	1140	350	12*28
DN300	258	483	1342	410	12*28
DN350	258	533	1490	470	16*28
DN400	280	597	1690	525	16*31
DN500	359	700	1830	650	20*34

DIMENSION FOR MANUAL CLASS 150 CONNECTION



SIZE	L1	L2	H2	D1	N*D
DN50	178	160	76	120,7	4*5/8"
DN65	178	165	90	139,7	4*5/8"
DN80	178	216	95	152,4	4*5/8"
DN100	178	254	114	190,5	4*5/8"
DN150	178	305	140	241,3	4*3/4"
DN200	178	356	170	298,5	4*3/4"
DN250	230	406	203	362	12*7/8"
DN300	258	483	241	431,8	12*7/8"
DN350	258	533	267	476,3	12*1"
DN400	280	597	299	539,8	12*1"
DN500	359	700	349	635	16*1 1/8"

DIMENSION FOR PNEUMATIC ACTUATOR FOR CLASS 150 CONNECTION



SIZE	L1	L2	H	D1	N*D
DN50	178	160	455	120,7	4*5/8"
DN65	178	165	492	139,7	4*5/8"
DN80	178	216	570	152,4	4*5/8"
DN100	178	254	661	190,5	4*5/8"
DN150	178	305	821	241,3	4*3/4"
DN200	178	356	955	298,5	4*3/4"
DN250	230	406	1140	362	12*7/8"
DN300	258	483	1342	431,8	12*7/8"
DN350	258	533	1490	476,3	12*1"
DN400	280	597	1690	539,8	12*1"
DN500	359	700	1830	635	16*1 1/8"

SERIES 300L LUG TYPE SLURRY KNIFE GATE VALVE

Bi-directional lug type knife gate valve. Secondary seal design. Reliable shut-off performance for abrasive and corrosive slurry applications.

NOMINAL SIZE

DN50 to DN600 **upper sizes request*

WORKING PRESSURE

6 bar / 10 bar

CONNECTION

EN 1092 PN10 or CL150
ASME B16.5 (Class 150)
Other flange drillings available on request

WORKING TEMPERATURE

-20 °C / +120 °C

SPARK TEST

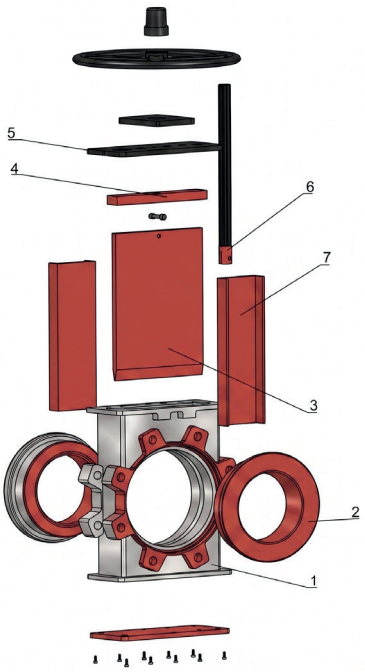
14 Kv

WORKING MEDIA

Mining and mineral processing (tailings, slurry transport)
Power generation (coal handling, ash slurry)
Cement industry (raw meal, kiln dust, slurry applications)
Wastewater and sewage treatment (grit, sludge, abrasive solids)
Chemical and petrochemical industries (abrasive or corrosive slurries)
Steel and metal processing (scale, slag, slurry handling)

Standart part list

Part No	Part Name	Part Material
1	Body	GGG40
2	Seat	Natural rubber
3	Gate	SS2205
4	Packing	EPDM
5	Packing Gland	EPDM
6	Stem	AISI420
7	Yoke	S235JR



BODY

The S300S knife gate valve features a monoblock cast body designed to provide high mechanical strength and structural rigidity. It is specifically engineered for abrasive and solid-laden fluids, combining a stainless steel gate with a double resilient sleeve sealing system to ensure high flow capacity with low pressure loss. The robust body design guarantees reliable operation and extended service life in demanding industrial applications.

GATE

The gate is manufactured from high-grade stainless steel, providing excellent resistance to corrosion, wear, and abrasion. Its precision-machined design ensures smooth operation and effective shut-off, even in applications involving solid particles and slurry media.

SEAT

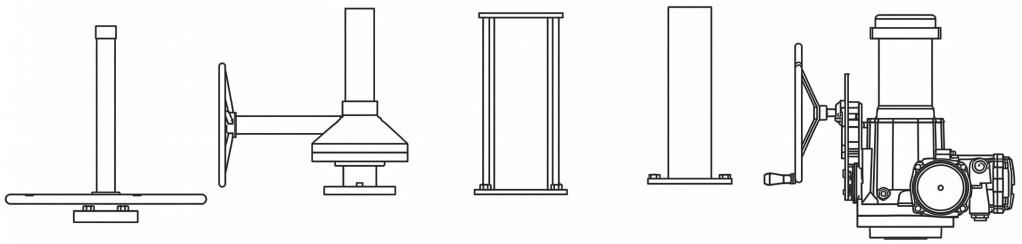
The seat consists of two replaceable resilient sleeves that provide tight shut-off and bidirectional sealing. Designed to accommodate abrasive and solid-laden media, the seat system minimizes wear on the gate while ensuring reliable sealing performance and extended service life.

STEM

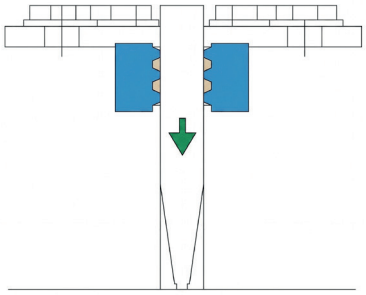
The stem is manufactured from corrosion-resistant stainless steel and is precision machined to ensure smooth and accurate gate movement. Its robust design allows reliable force transmission during operation, providing consistent performance and long service life under demanding operating conditions.

OPERATION

Available with manual, pneumatic, electric, and hydraulic actuator options.

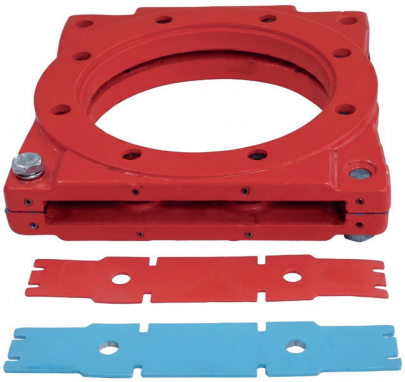


DESIGN ADVANTAGES



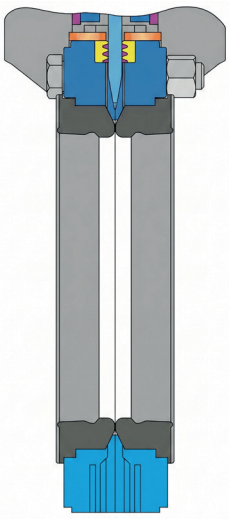
SECONDARY SEAL

Molded elastomer secondary sealing system. Eliminates any leakage between the knife and the top of the valve body in any installation orientation. Can be used for gate lubrication. Replaceable while the valve is installed in the line, reducing maintenance time and downtime.



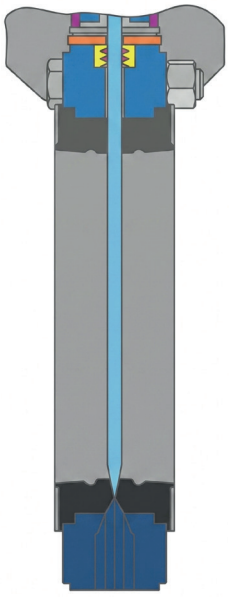
SPLASH CONTROL

Designed with a drain plate located at the base of the valve body. Splash control is provided via an optional drain plate, ensuring a safer and cleaner working environment.



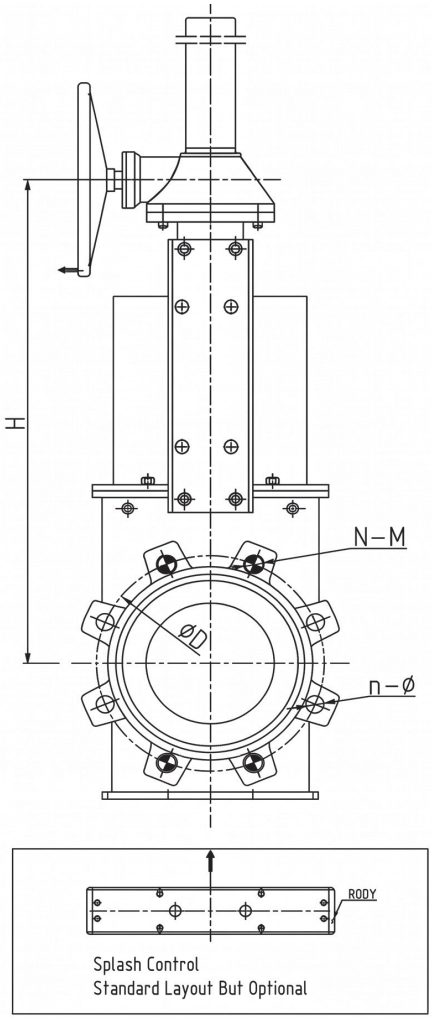
OPEN POSITION

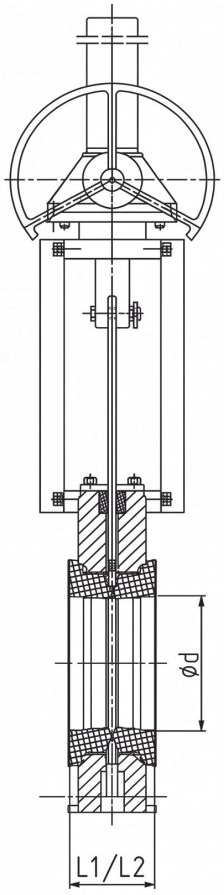
The gate is positioned above the sealing elements. Tight fit between the sleeves and the internal sleeve profile ensures reliable containment of line pressure. Metallic parts are not in contact with the slurry. Full-bore, unobstructed port design eliminates turbulence and minimizes pressure drop across the valve. No seat cavities where solids can accumulate, ensuring reliable full gate closure.



CLOSED POSITION

The gate travels through the sleeves to provide blind-flange shut-off and expels solids, ensuring complete closure. 100% isolation with bubble-tight shut-off. Controlled stroke prevents over-travel of the gate, minimizing stress on the sleeves.

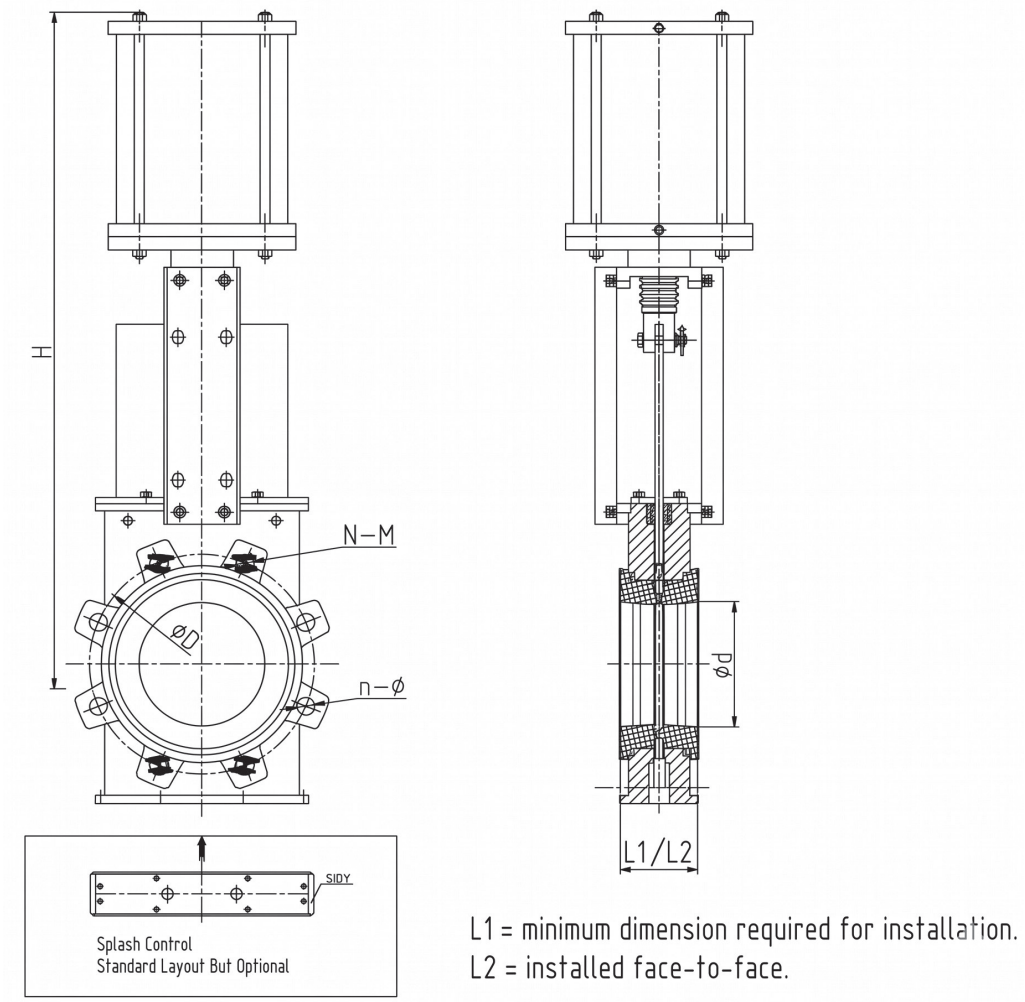




L1 = minimum dimension required for instalaton.
L2 = installed face-to-face.

DIMENSION TABLE						
SIZE	d	L2	H2	D		N*M
DN50	51	57	54	125	125	4*16
DN65	64	57	54	145	145	4*16
DN80	76	62	57	160	160	4*16
DN100	102	62	57	180	180	8*16
DN125	127	65	60	210	210	8*16
DN150	154	68	63,5	240	295	8*20
DN200	204	81	76	350	295	8*20
DN250	254	83	79	350	300	12*20
DN300	296	89	83	400	1220	12*20
DN350	296	89	83	400	1220	12*20
DN350	344	89	83	460	1620	12*24
DN400	390	102	95	515	1224	12*24
DN500	492	131	121	620	1624	16*24
DN600	590	132	121	725	1627	16*27

DIMENSION FOR PNEUMATIC ACTUATOR; FOR PN10/CLASS 150 CONNECTION



L1 = minimum dimension required for installation.
L2 = installed face-to-face.

SIZE	d	L2	H2	D	N*M
DN50	51	57	54	120,7	4-5/8"-11
DN65	64	57	54	139,7	4-5/8"-11
DN80	76	62	57	152,4	4-5/8"-11
DN100	102	65	152,4	190,5	4-5/8"-11
DN125	154	68	60	215,9	4-3/4"-10
DN150	154	68	76,5	241,3	4-3/4"-10
DN200	204	81	83	298,5	4-3/4"-10
DN250	254	83	89	432	12-7/8"-9
DN250	254	88	89	432	12-7/8"-9
DN300	296	89	83	432	12-1"-8
DN350	296	89	89	476,3	12-1"-8
DN350	344	102	89	540	12-1 1"-8
DN400	390	102	978	578	12-1/8"-7
DN500	492	131	121	635	12-1/4"-7 Gear
DN600	590	132	121	635	12-1/4"-7 Gear

SERIES 300W WAFER SLURRY KNIFE GATE VALVE

Bi-directional wafer type knife gate valve. Secondary seal design. Reliable shut-off performance for abrasive and corrosive slurry applications.

NOMINAL SIZE

DN50 to DN800 **upper sizes request*

WORKING PRESSURE

6 bar / 10 bar / 16 bar

CONNECTION

EN 1092 PN10 or CL150
ASME B16.5 (Class 150)
Other flange drillings available on request

WORKING TEMPERATURE

-20 °C / +120 °C

SPARK TEST

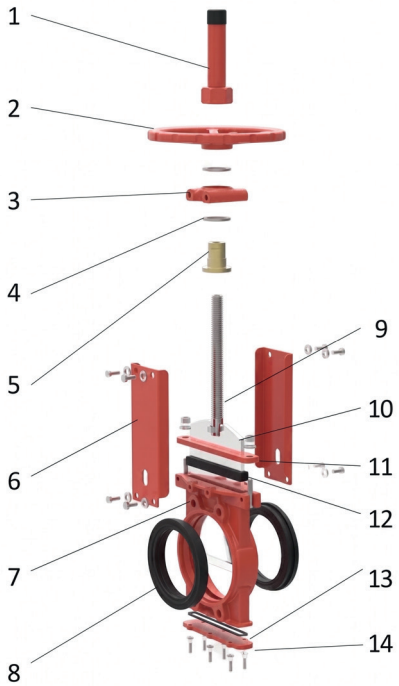
14 Kv

WORKING MEDIA

Mining and mineral processing (tailings, slurry transport)
Power generation (coal handling, ash slurry)
Cement industry (raw meal, kiln dust, slurry applications)
Wastewater and sewage treatment (grit, sludge, abrasive solids)
Chemical and petrochemical industries (abrasive or corrosive slurries)
Steel and metal processing (scale, slag, slurry handling)

Standart part list

Part No	Part Name	Part Material
1	Handle Cover	Steel
2	Handle Wheel	GGG40
3	Yoke Flange	GGG40
4	Bearing	Gcr15
5	Nut	Brass
6	Yoke	S325
7	Body	GGG40
8	Seat	NR+Steel
9	Stem	SS420/SS304/SS16
10	Bolt&Nut	Fe+Zn(Painting)/SS304
11	Packing Gland	WCB
12	Packing	Rubber
13	Packing	Rubber
14	Bottom Gland	WCB



Standart S300W Wafer knife gate valve is designed for demanding industrial applications where reliable shut-off and long service life are required. Its robust construction, bi-directional sealing capability, and selfcleaning design make it suitable for a wide range of slurry and solid-laden media.

BODY

Bi-directional sealing design ensures tight shut-off in both flow directions. Advanced seat design providing reliable sealing under various operating conditions. Self-sealing structure improves sealing performance as line pressure increases. 2-piece strong yoke construction for enhanced mechanical strength. Self-cleaning hole design prevents material build-up and ensures smooth operation. Compatible with various packing materials for flexible application requirements

PRODUCT DESCRIPTION

The Standar S300W self-sealing knife gate valve utilizes dual rubber seats that are compressed against the gate to achieve superior sealing performance. When the gate is fully open, the rubber seats remain in close contact, maintaining pipeline pressure and ensuring smooth flow.

When the valve is in the closed position, the gate can be easily removed for maintenance without affecting the normal operation of the pipeline, eliminating the need for complete valve disassembly. The full rubber seat design offers excellent wear resistance and ensures uninterrupted flow continuity.

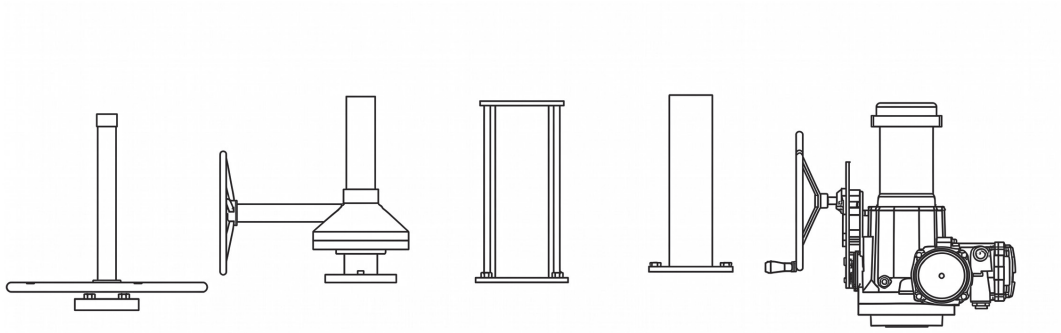
The Series 300 is especially suitable for applications requiring abrasion resistance and reliable isolation, such as mining, slurry handling, wastewater treatment, and other heavy-duty industrial processes.

STEM

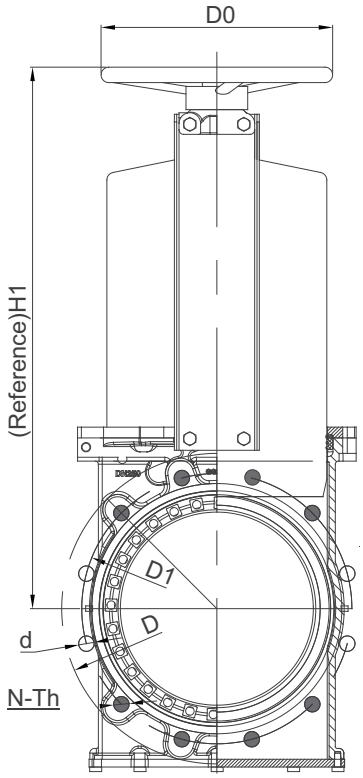
Manufactured entirely from steel.Provides high resistance to corrosion and long service life.

OPERATION

Available with manual, pneumatic, electric, and hydraulic actuator options.

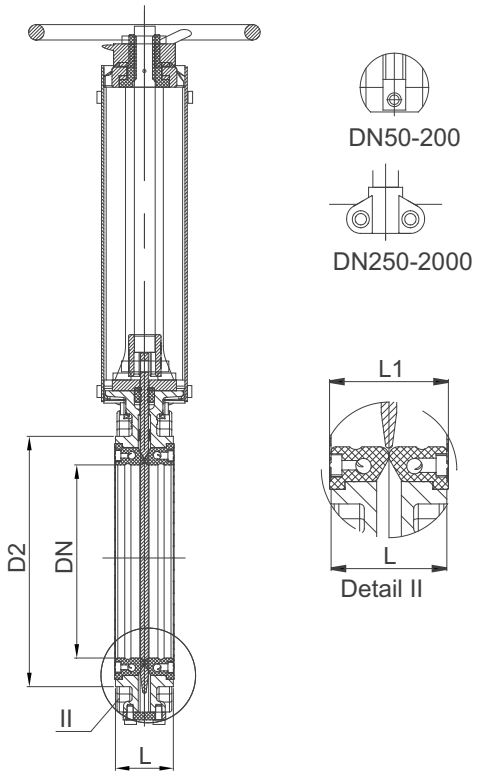


DIMENSION FOR MANUEL; FOR PN10/CLASS 150 CONNECTION



PN10 DIMENSION TABLE								
SIZE	L	D	D1	D2	D0	N-Th	Ød	H1
DN50	53	165	125	99	180	4-M16	Ø18	260
DN65	53	185	145	118	200	4-M16	Ø18	292
DN80	56,5	200	160	132	200	8-M16	Ø18	320
DN100	56,5	220	180	156	240	8-M16	Ø18	320
DN125	63	250	210	184	260	8-M16	Ø18	395
DN150	62	285	240	211	280	8-M20	Ø23	450
DN200	76,5	340	295	266	300	12-M20	Ø23	670
DN250	75,5	395	350	319	320	12-M20	Ø23	670
DN300	84	445	400	370	350	12-M20	Ø23	758
DN350	84	505	460	429	400	12-M24	Ø23	857
DN400	99	565	515	480	450	16-M24	Ø27	946
DN550	99	615	620	530	500	20-M24	Ø27	Gear
DN500	129	725	680	638	580	20-M24	Ø27	Gear
DN600	129	780	725	682	-	20-M27	Ø30 Gear	Gear
DN700	142	895	840	794	-	24-M27	Ø30 Gear	Gear
DN800	142	1015	950	901	-	24-M30	Ø33 Gear	Gear

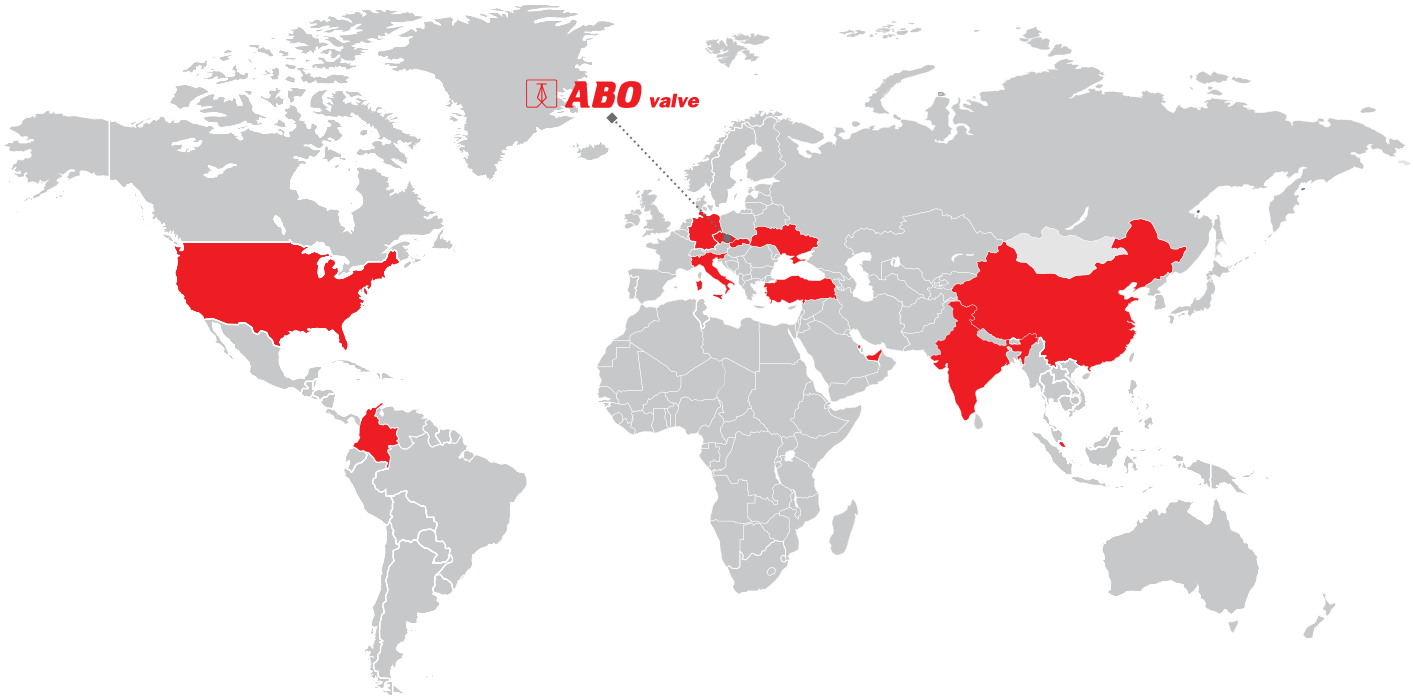
(Blind threaded) (Tapping through)

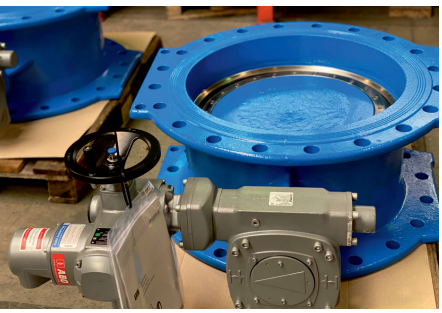


ANSI 150 LB DIMENSION TABLE									
SIZE	DN	L	D	D1	D2	D0	N-Th	Ød	H1
2"	2"	53	152	121	92	180	4-5/8"	Ø19	260
2-1/2"	2-1/2"	53	178	140	105	200	4-5/8"	Ø19	292
3"	3"	56,5	191	153	127	200	4-5/8"	Ø19	320
4"	4"	56,5	229	191	157	240	4-5/8"	Ø19	358
5"	5"	63	254	216	186	260	8-5/8"	Ø22	395
6"	8"	62	279	242	216	280	8-3/4"	Ø22	450
8"	10"	76,5	343	299	270	300	8-3/4"	Ø22	532
10"	12"	75,5	406	362	324	320	12-7/8"	Ø25	670
12"	14"	84	483	432	381	350	12-1"-11	Ø29	857
14"	16"	99	533	476	413	400	12-1"	Ø29	Gear
16"	18"	99	597	540	470	450	16-1"	Ø29	Gear
18"	20"	129	635	692	533	500	20-11/8"	Ø32	Gear
22"	22"	129	750	692	691	-	20-11/4"	Ø32	Gear
24"	22"	129	813	750	-	-	20-11/4"	Ø32 Gear	Gear
28"	26"	129	927	750	-	-	20-11/4"	Ø35 Gear	Gear
32"	32"	142	1060	978	-	Gear	28-11/4"	Ø35 Gear	Gear
32"	32"	142	1060	978	-	Gear	28-11/2"	Ø41 Gear	Gear

ABO valve

GET IN CONTROL
INTELLIGENT • INNOVATIVE • INTERNATIONAL
STAY IN CONTROL





Czech Republic

ABO valve, s.r.o.
Dalimiliova 285/54
783 35 Olomouc
tel.: +420 585 223 955
sales@abovalve.com

Slovakia

ABO Slovakia, s.r.o.
Nové Mesto nad Váhom
tel.: +421 947 902 862
sales.sk@abovalve.com

Germany

ABO Armaturen GmbH
Essen
tel.: +49 (0) 152 / 26229501
sales.de@abovalve.com

Italy

ABO valve Italiana S.r.l.
Agrate Brianza
tel.: +39 334 9102143
sales.it@abovalve.com

Ukraine

ABO Ukraine LLC
Dnipro
tel.: +38 056 733 95 70
sales.ua@abovalve.com

Turkey

ABO Armaturen LTD STI
Istanbul
tel.: +90 0543 321 54 09
sales.tr@abovalve.com

China

ABO Flow Control
Shanghai
tel.: +86 136 015 228 31
sales.cn@abovalve.com

India

ABO Controls Pvt. Ltd.
Pune
tel.: +91 773 820 4779
sales.in@abovalve.com

Singapore

ABO Valve Pte. Ltd.
Singapore
+65 6254 0861
sales.sg@abovalve.com

USA

ABO Controls, LLC
Houston
tel.: +1 832 497 5303
sales.us@abovalve.com

Bahrajn

Sales representatives
Manama
tel.: +973 - 3444 9065
sales.gulf@abovalve.com

UAE

Sales representatives
Abu Dhabi
tel.: +971 56 920 7964
sales.ae@abovalve.com

Latin America

Sales representation
Cali, Colombia
+57 316 381 8343
sales.la@abovalve.com

Follow us:

www.abovalve.com

Valid since: 06/2026