YFPZ73X
KNIFE GATE VALVE

Product Description

YFPZ73X knife gate valve is an on-off type valve designed for pipeline systems containing media with solid pa rticles, impurities, or high viscosity.
It adopts a non-rising stem structure, in which the stem is enclosed within the valve body and does not move vertically during operation. This design reduces installation space requirements and protects the stem from e xternalenvironmental influence.
The valve operates by driving a knife-edged gate to move up and down, enabling effective cutting and isol ation of media such as slurry, sewage, coal slurry, ore pulp, and viscous fluids.
Its structure ensures low flow resistance and minimizes the risk of clogging, making it suitable for applications i nvolving difficult media.
The valve is mainly used for shut-off purposes and is not recommended for throttling control.
Typical applications include water treatment systems, mining operations, pulp and paper processing, and ch emical industries.

Technical Data	
Size range	DN40-DN1600
Pressure range	PN 10-16/Class 150/JIS10K
Temperature	EPDM:-10℃ to+120℃ PTFE:-10℃ to +180℃ Matel:≤425℃
Design	JB/T8691-1998,BS5150
Face to face	GB/T15188.2,EN558-1
Connection	GB/T9113.1,DIN2532
Coating	Electrostatic Powder Epoxy/Spray
Testing	GB/T13927,EN12266-1
Medium	Water,oil,Gas

Application Range

- HVAC Systems
- PumpingStations
- Water Treatment Plants
- Reservoirs and Tanks
- Irrigation
- Industrial Applications

Related Products

- YFZ44T MATEL SEAT GATE VALVE
- YFPZ73X KNIFE GATE VALVE
- YFH44X SWING CHECK VALVE

HVAC IRRIGATION POTABLEWATER INDUSTRY

ISO CE EAC WRAS APPROVED PRODUCT

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KNIFE GATE VALVE

Product Description

1. Knife-Type Gate- Strong Cutting Capability

The sharp-edged gate can cut through solids, fibers, and slurry, preventing blockage and ensuring reliable shut-off.

2. Excellent Anti-Clogging Performance

Full bore design allows smooth flow of media containing particles, sludge, or fibers, reducing the risk of clogging.

3. Ideal for Slurry & Dirty Media

Specially designed for difficult media such as wastewater, pulp, mining slurry, and viscous fluids.

4. Compact Structure – Space Saving

Short face-to-face design reduces installation space and weight.

5. Low Pressure Drop

Straight-through flow path minimizes flow resistance and improves system efficiency.

6. Optional Bi-Directional Sealing

Available in uni-directional or bi-directional sealing design based on application requirements.

7. Replaceable Seat & Easy Maintenance

Simple structure allows easy maintenance and replacement of wearing parts.

8. Various Actuation Options

Manual, pneumatic, and electric actuators are available to meet different operating needs.

9. Robust Body Construction

Available in cast iron, ductile iron, or steel materials for different working conditions.

10. Cost-Effective for Harsh Media Applications

Provides an economical solution compared to complex valves in slurry systems.e

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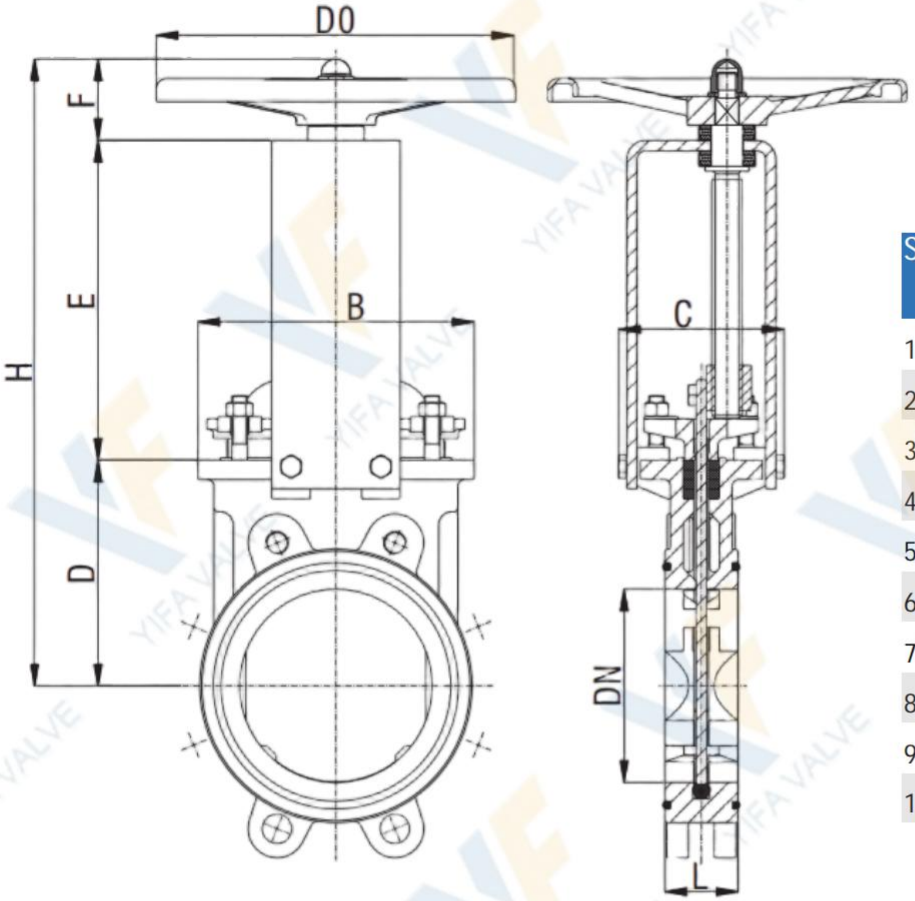
Manual DN50-DN600(NON RISING STEM)



Spare parts	Material
1-Body	HT200、QT450、GGG40
2-Sealing	NBR、E PDM
3-Gland	WCB
4-Yoke	Q235
5- O-ring	NBR
6- Packing	PTFE+NBR
7-Disc	2Cr13、201、304、316(L)
8-Stem Nut	Brass
9-Stem	2Cr13、201、304、316(L)
10-Bearing	GGG40

DN	L	B	C	D	E	F	D0	H	Weight(Kg)
50	48	135	90	105	135	55	180	290	7
65	48	155	90	115	152	55	180	320	8
80	51	165	120	124	171	55	220	350	10
100	51	195	122	135	190	60	240	385	13
125	57	220	127	160	214	60	240	430	18
150	57	220	136	175	250	60	280	485	23
200	60	270	136	205	300	62	300	565	30
250	70	335	160	240	370	70	320	680	51
300	76	385	165	275	410	70	320	755	63
350	76	450	168	305	477	72	350	922	87
400	89	525	168	365	535	72	350	970	117
450	89	565	200	435	570	72	450	1120	147
500	114	630	240	475	680	95	450	1255	231
600	114	735	255	580	780	103	450	1460	318

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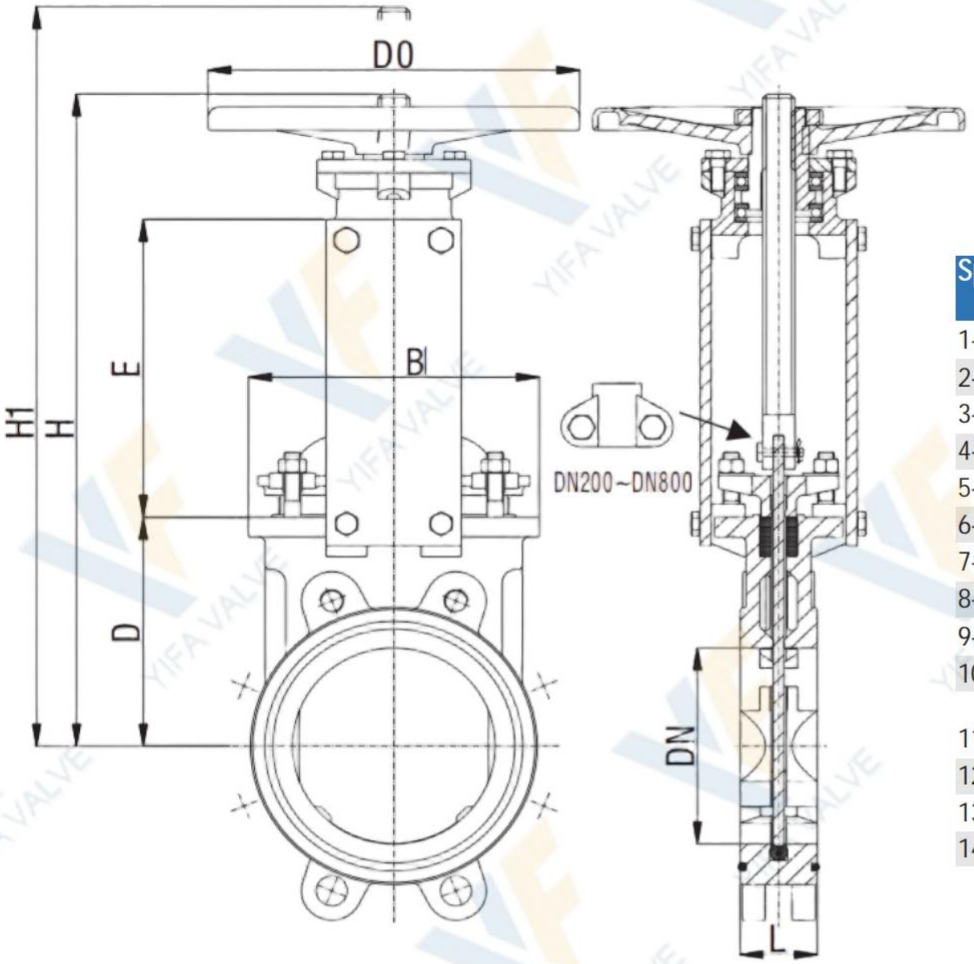
KNIFE GATE VALVE

Manual DN50-DN600(RISING STEM)



Spare parts	Material
1-Body	HT200、QT450、GGG40
2-Sealing	NBR、EPDM
3-Gland	WCB
4-Yoke	Q235
5-O -Ring	NBR
6-Packing	PTFE
7- Disc	2Cr13、201、304、316(L)
8-Stem Nut	Brass
9-Stem	2Cr13、201、304、316(L)
10-Bearing	GCr9
11- Handwheel	GGG40
12-Clamp	WCB
13-Yoke head	WCB
14 -Nut	WCB

DN	L	B	C	D	E	D0	H	H1	Weight(Kg)
50	48	135	90	105	119	180	295	360	8
65	48	155	90	115	135	180	335	415	10
80	51	165	120	124	150	220	360	455	13
100	51	195	122	135	180	240	400	515	16
125	57	220	127	160	203	240	455	595	21
150	57	220	136	175	235	280	510	675	26
200	60	270	136	205	280	320	585	805	33
250	70	335	160	240	347	320	695	965	54
300	76	385	165	275	395	320	765	1085	66
350	76	450	168	305	460	350	880	1250	91
400	89	525	168	365	530	350	995	1415	121
450	89	565	200	435	570	450	1150	1620	151
500	114	630	240	475	680	450	1250	1770	237
600	114	735	255	580	780	450	1460	2080	326

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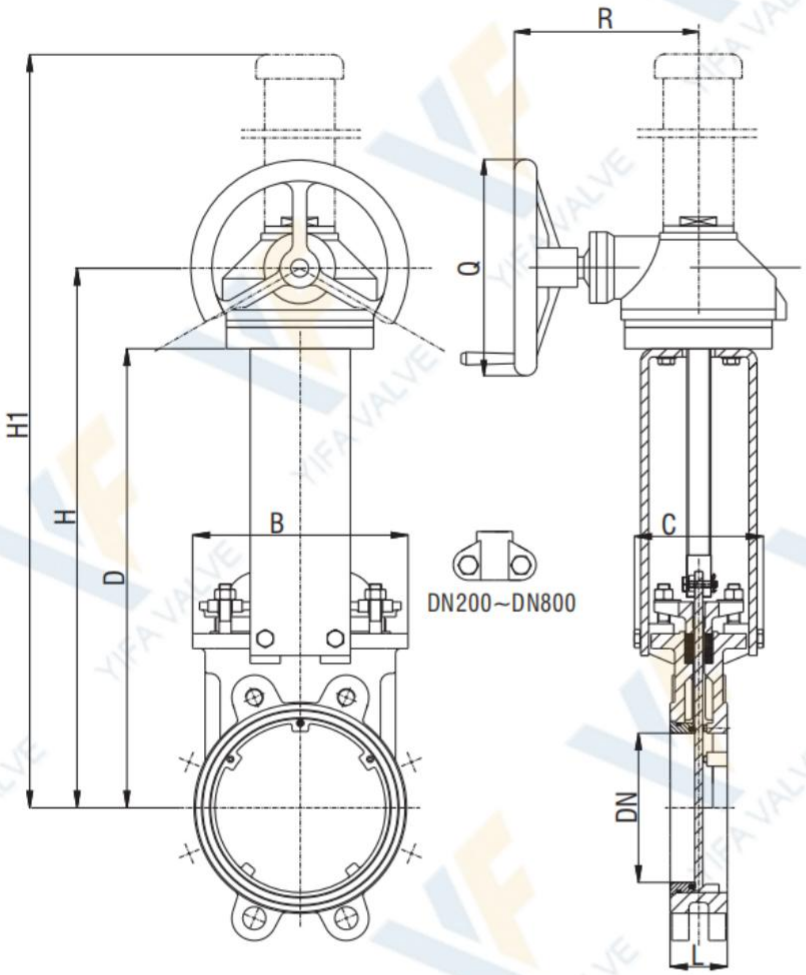
WORM GEAR DN200-DN1600(RISING STEM)



Spare parts	Material
1-Body	HT200、QT450、GGG40
2-Sealing	NBR、EPDM
3-Gland	WCB
4-Yoke	Q235
5-O -Ring	NBR
6-Packing	PTFE
7- Disc	2Cr13、201、304、316(L)
8-Stem Nut	Brass
9-Stem	2Cr13、201、304、316(L)
10-Bearing	GCr9
11- Handwheel	GGG40
12-Clamp	WCB
13-Yoke head	WCB
14 -Nut	WCB

DN	L	B	C	D	Q	R	H	H1	Weight(Kg)
200	60	270	136	535	250	190	615	785	43
250	70	335	160	585	250	190	665	965	64
300	76	385	165	670	310	190	750	1100	77
350	76	450	168	765	310	225	835	1245	104
400	89	525	168	900	310	225	970	1440	134
450	89	565	200	1030	310	225	1100	1580	165
500	114	630	240	1130	310	260	1200	1770	237
600	114	735	255	1330	310	260	1410	2080	326
700	127	865	255	1590	310	260	1670	2390	520
800	127	980	255	1730	310	260	1935	2760	840
900	127	1065	255	2000	460	340	2100	3020	960
1000	149	1185	300	2195	460	340	2310	3330	1065
1200	156	1460	410	2760	530	415	2890	4120	2065
1600	160	1930	410	3600	600	490	3770	5400	4190

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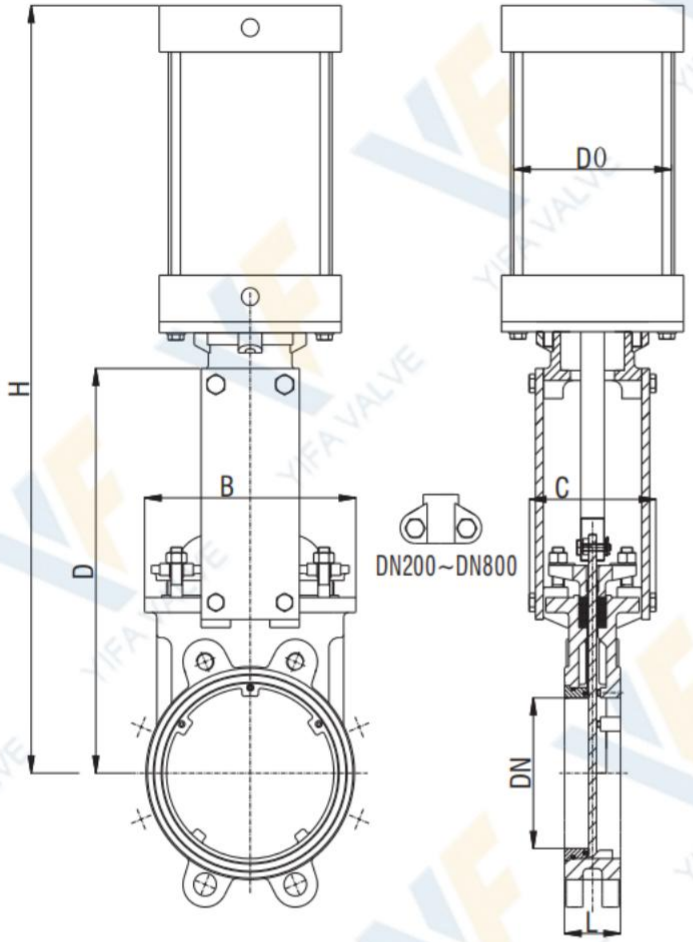
Pnuematic DN50-DN600(NON RISING STEM)



Spare parts	Material
1-Body	HT200、QT450、GGG40
2-Sealing	NBR、E PDM
3-Gland	WCB
4-Yoke	Q235
5- O-ring	NBR
6- Packing	PTFE+NBR
7-Disc	2Cr13、201、304、316(L)
8-Stem Nut	Brass
9-Stem	2Cr13、201、304、316(L)
10-Bearing	GGG40

DN	L	B	C	D	F	D0	H	Weight(Kg)
50	48	135	90	226	230	80	455	12
65	48	155	90	256	245	80	500	13
80	51	165	120	275	255	100	530	15
100	51	195	122	315	320	125	635	23
125	57	220	127	365	350	160	715	28
150	57	215	136	410	400	160	810	32
200	60	270	136	505	450	200	955	40
250	70	335	160	590	500	200	1090	96
300	76	385	165	670	555	200	1225	108
350	76	450	168	765	610	250	1375	136
400	89	525	168	895	660	250	1555	169
450	89	565	200	990	710	300	1700	235
500	114	630	240	1100	780	350	1880	357
600	114	735	255	1310	830	400	2140	466

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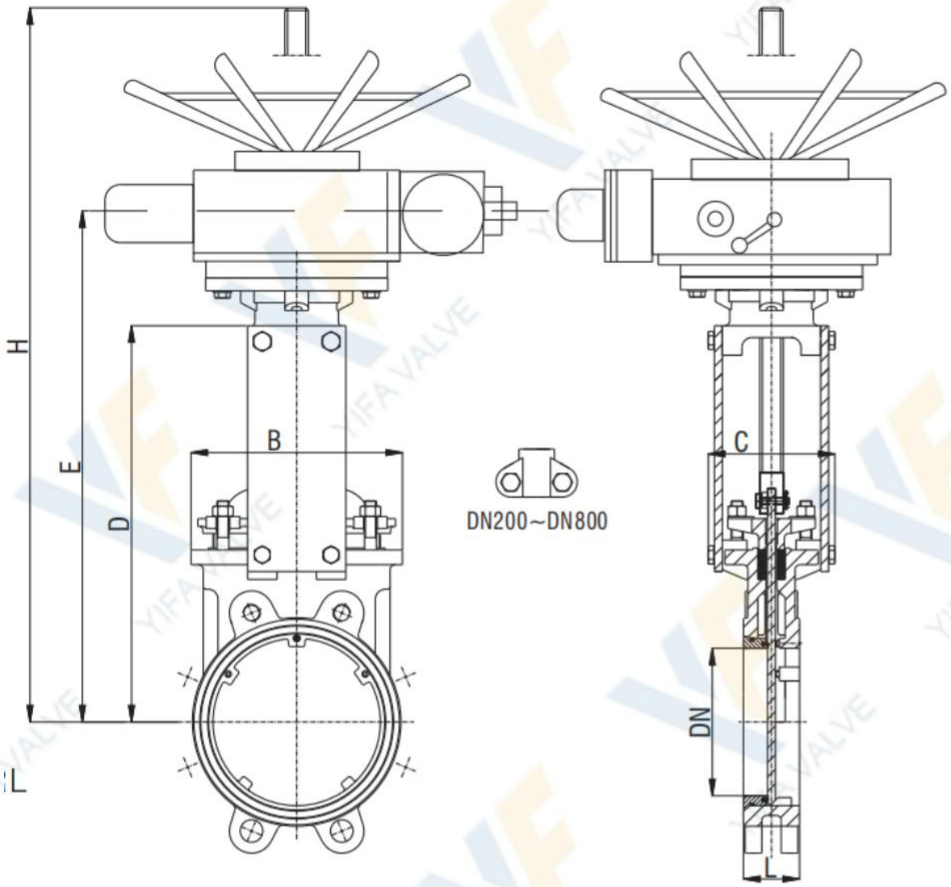
KNIFE GATE VALVE

Electric DN50-DN1600(NON RISING STEM)



Spare parts	Material
1-Body	HT200、QT450、GGG40
2-Sealing	NBR、E PDM
3-Gland	WCB
4-Yoke	Q235
5- O-ring	NBR
6- Packing	PTFE+NBR
7-Disc	2Cr13、201、304、316(L)
8-Stem Nut	Brass
9-Stem	2Cr13、201、304、316(L)
10-Bearing	GGG40

DN	L	B	C	D	E	F	G	H	Weight(Kg)
50	48	135	90	225	533	370	575	595	52
65	48	155	90	255	533	370	575	625	53
80	51	165	120	275	533	370	575	645	56
100	51	195	122	315	533	370	575	685	59
125	57	220	127	365	533	370	575	735	64
150	57	220	136	410	533	370	575	780	69
200	60	270	136	535	533	370	575	905	80
250	70	335	160	585	533	380	575	965	106
300	76	385	165	670	533	380	575	1095	118
350	76	450	168	765	533	385	575	1245	142
400	89	525	168	900	533	385	575	1430	175
450	89	565	200	1030	533	390	575	1615	215
500	114	630	240	1130	671	495	625	1770	346
600	114	735	255	1330	671	495	625	2070	442
700	127	865	255	1590	671	495	625	2430	606
800	127	980	255	1730	693	545	707	2685	801
900	127	1065	255	2000	693	545	707	3055	1049
1000	149	1185	300	2195	693	545	707	3360	1176
1200	150	1460	410	2760	794	705	771	4150	2100
1600	160	1930	410	3600	1475	860	975	5415	4320

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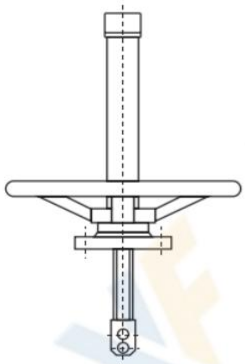
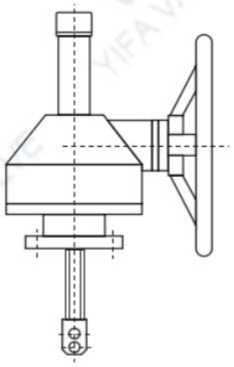
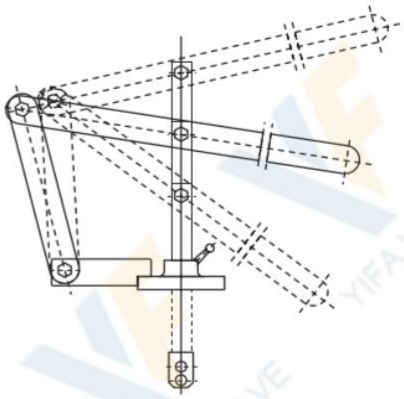
Selection for Actuator



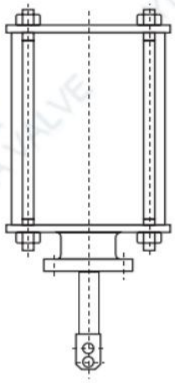
Handwheel



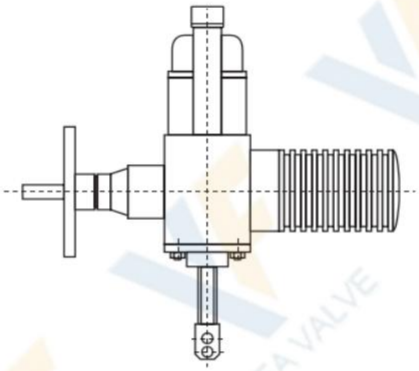
Gear



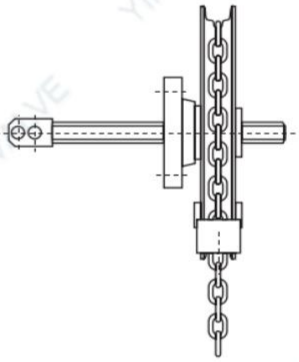
Lever



Pneumatic Actuator



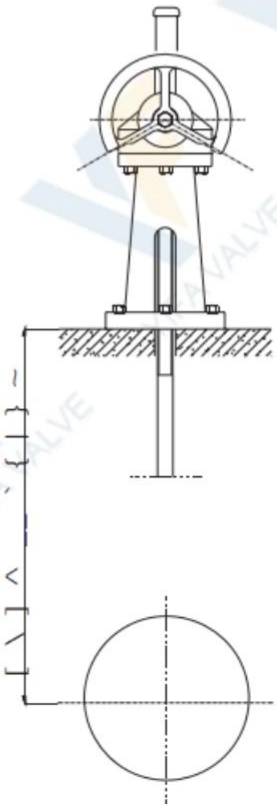
Electric Actuator



Chain wheel

SELECTION FOR SPARE PARTS

- Solenoid valve
- Air filter
- Limit switch
- Proximity switch
- Positioner
- Distribution box
- Hoist for platform operation
- If customers have special requirements for valve stem, they shall provide the distance from platform to center of valve pipeline.



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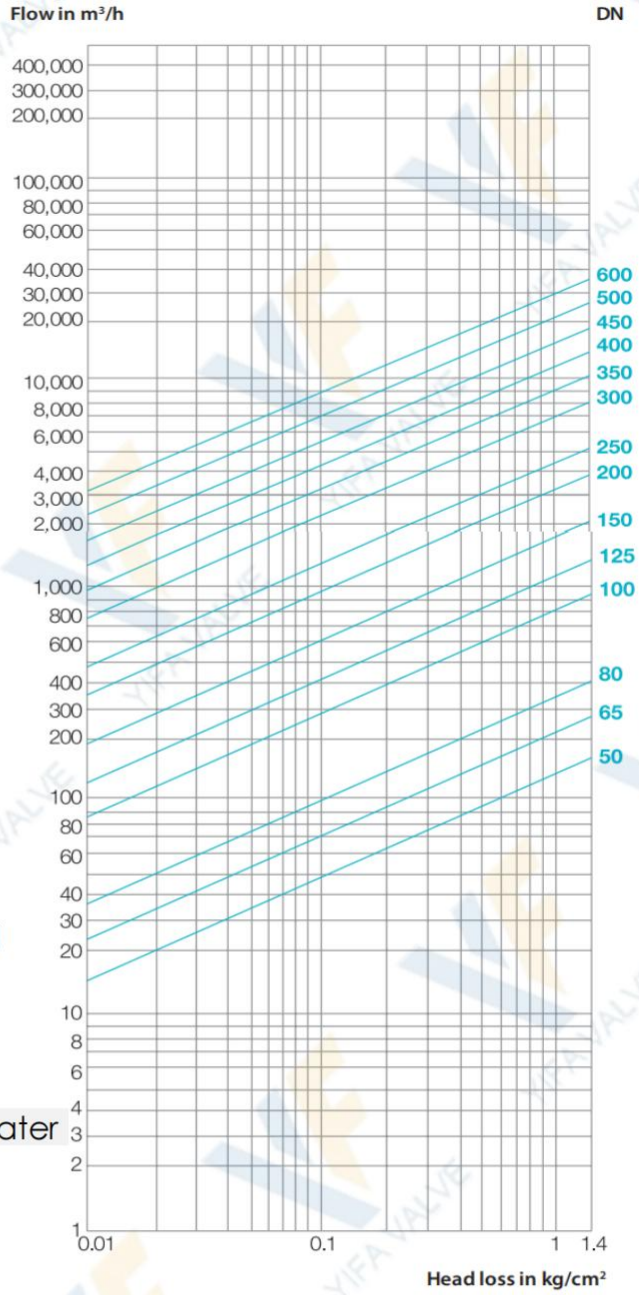
Pressure drops

DN	Kv	Cv
50	167	160
65	290	275
80	380	365
100	650	620
125	1165	1115
150	1520	1450
200	2835	2710
250	4485	4285
300	5675	5420
350	7130	6810
400	9220	8805
450	11465	10950
500	14940	14270
600	21875	20895



$$Kv = Q\sqrt{\frac{d'}{\Delta P}}$$

$$\Delta P = \left(\frac{Q}{Kv}\right)^2 d$$

Kv: flow coefficient. Flow of water in m3/hpassing through the valve and generatinga pressure drop of 1 bar.
Q: flow in m3/h
Δ P: pressure drop in bar
d: relative density of the fluid (1 in the case of water at 4°C)

$$Cv = Q\sqrt{\frac{d}{\Delta P}}$$

$$\Delta P = \left(\frac{Q}{Kv}\right)^2 d$$

Cv: gallons per minute that pass throughthe valve for the pressure drop to be 1 psi.
Q: flow in gallons/min
Δ P: pressure drop in psi
d: relative density of the fluid (1 in the caseof water at 60°F)

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Installation

1. Pre-Installation Inspection
· Verify valve specifications (size, pressure rating, material).
· Inspect the valve for transport damage, especially the gate and sealing surfaces.
· Ensure the valve is in a slightly open position before installation.
· Remove protective covers and clean internal parts.

2. Pipeline Preparation
· Clean the pipeline thoroughly to remove debris, welding slag, and solid particles.
· Ensure proper alignment of flanges or pipeline ends.
· Provide adequate pipeline support to avoid external stress on the valve.

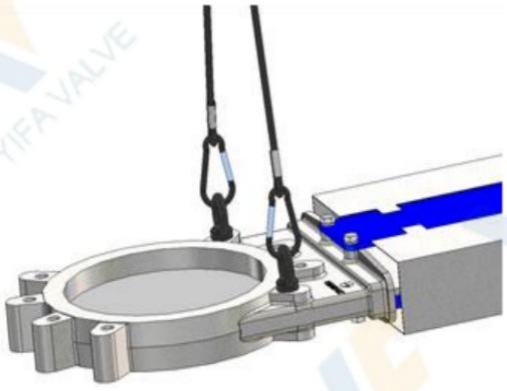
3. Installation Position
· Recommended installation: stem vertically upward
· The valve can be installed in horizontal pipelines.
·Avoid installing upside down or in positions where solids may accumulate around the gate.

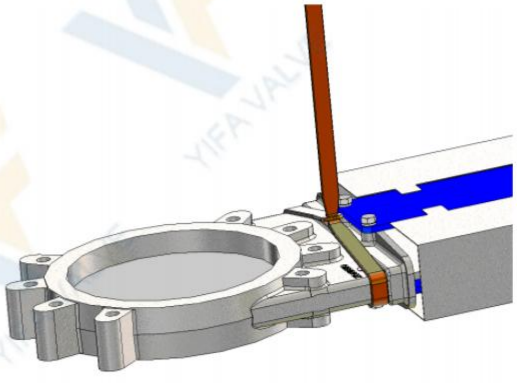
4. Flow Direction
· For uni-directional valves, follow the flow direction arrow on the valve body.
· For bi-directional valves, installation direction is flexible.

5. Flange Connection
· Use appropriate gaskets suitable for slurry or dirty media.
· Tighten bolts evenly in a cross (diagonal) pattern.
· Avoid over-tightening to prevent deformation.

6. Operation Check After Installation
· Operate the valve slowly to ensure smooth movement.
· Check for any abnormal resistance or blockage.
· Ensure there is no leakage at connections.

7. System Testing
· Perform pressure testing according to standards.
· Gradually increase pressure to avoid shock loads.





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KNIFE GATE VALVE

Precautions / Important Notes

1. Do Not Use for High-Precision Sealing

Knife gate valves are designed for shut-off in dirty media, not for fine sealing applications.

2. Avoid Long-Term Throttling

Not recommended for flow regulation, as partial opening may accelerate wear.

3. Regular Cleaning Recommended

In heavy slurry conditions, periodic flushing helps prevent buildup.

4. Check for Solid Accumulation

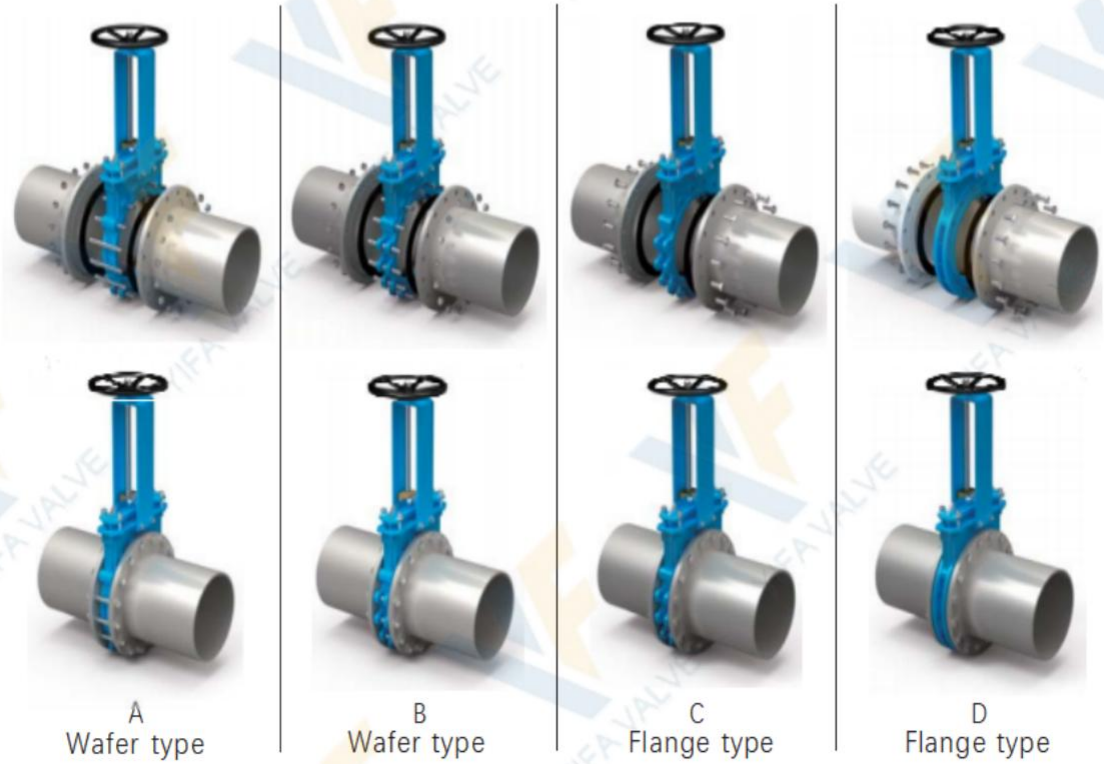
Ensure no excessive solids are trapped around the gate before operation.

5. Operate Smoothly – Avoid Impact Closing

Fast or forceful closing may damage the gate or seat.

6. Maintenance Under No Pressure Only

Always release system pressure before disassembly or maintenance.



A
Wafer type

B
Wafer type

C
Flange type

D
Flange type

Material Table-Metal

PARTS	ASME	DIN/EN	Cr	Ni	Mo	Ti	Temp.Range
Casting	A216 WCB	GS-20 Mn 5	0.5	0.5	0.2	-	-29~425
	A216WCC	G20Mn5	0.5	0.5	0.2	-	-29~425
	A217 WC1		0.35	0.5	0.45~0.65		≤455
	A217 WC5		0.5~0.9	0.6~1	0.9~1.2	-	≤565
	A217 WC6	GS 17CrMo55	1~1.5		0.45~0.65		≤595
	A217 WC9		2~2.75	-	0.9~1.2	-	≤595
	A217 C5		4~6.5		0.45~0.65	-	≤650
	A217 C12		8~10	-	0.9~1.2	-	≤650
	A296 CA15	1.4006,1.4008	11.5~14	1	0.5	-	-20~480
	A351 CF8	G-X5CrNi¹8-10	18~21	8~11	0.05	-	≤458(540)
	A351 CF8M	X5CrNiMo18-10	18~21	9~13	2~3	-	≤425(540)
	A351 CF3	X2CrNiMo18-10	17~21	8~12	0.5	-	≤425
	A351 CF3M	GX10CrNiMo18-9	17~21	9~13	2~3		≤455
	Aisi 321	X10CrNiTi18-9,1.4541	17~19	9~12	-	0.5	≤700/540
	Aisi904L	X1NiCrMoCuN25-20-6,1.4539	19~21	24~26	-		-165~600
	Aisi 316Ti	X6CrNiMoTil7-12-2	16~18	10~14	-	0.7	-165~600
	Aisi 310S	X8CrNi25-21,1.4845	24~26	19~22	-	-	≤850
	A352 LCB		-	-	-	-	-46~345
	A352 LCC		-			-	-46~345
	A352 LC1	G20Mo5,1.5419	-	-	-	-	-59~345
	A352 LC2			2~3	-		-73~200
	A352 LC3		-	3~4	-	-	-101~200
	A105(N)	C21,1.0432,S+35.8	0.3	0.4	0.12		≤450
	A350 LF1		-	-	-	-	-46~425
	A350 LF2			-			-60
	A350 LF3	10Ni14,1.5637	-	3.25~3.75	-		-101~345
	A516 Gr70	1.0539,1.0545			-	-	-46~425

Material Table-Metal

PARTS	ASME	DIN/EN	Cr	Ni	Mo	Ti	Temp.Range
Forging	A182 F304	174,401.4301	18~20	8~11	-	-	≤800/540
	A182 F321	X10CrNiTi18-9,1.4541	17~21	9~12	-	0.7	≤800/540
	A182 F316	174,401.4401	16~18	10~14	2~3	-	800/540
	A182 F316L	174,401.4404	16~18	10~15	2~3	-	≤450
	A182 F304L	174,401.4306	18~20	8~13	-	-	≤425
	A182F310		24~26	19~22			-29~800
	Duplex2205	X2CrNiMoN22-5-3,1.4462	21~24	4.5~6.5	2.5~3.5	-	≤450
	Duplex2304	X2CrNiN23-4,1.4362	21.5~24.5	3~5.5	0.05~0.6	-	≤425
	Duplex2507	X2CrNiMoN25-7-4,1.4410	24~26	6~8	3~5	-	-40~315
	A182 F51	X2 CrNiMoN 22-5-3,1.4462	21~23	4.5~6.5	2.5~3.5	-	-40~315
	A182 FI	15Mo3,1.5415	-	-	0.44~0.65	-	≤470
	A182 F2	1.7335,1.7337	0.5~0.81	-	0.44~0.65	—	≤540
	A182 F11	13CrMo4-4,1.7335	1~1.5	-	0.44~0.65	-	≤545
	A182F22	10CrMo9-10,1.7380		0.87~1.13		-	≤550
	A182 FI2	13CrMo4-5,1.7335	0.8~1.25	-	0.44~0.65	-	≤545
	A182 F9	X12CrMo 9-1,1.7386	8~10	-	0.9~1.1	-	≤673
	A182 F91	1.4903,1.7332	8~9.5	0.4	0.85~1.05	-	≤673
	A182 F5		4~6.5	0.5	0.44~0.65	-	≤550
	A182F6a	X10Cr13	11.5~13.5	0.5	-	-	-101~480
	A182 F44	X1CRNiMoCuN20-18-7,1.4547	19.5~20.5	17.5~18.5	6~6.5	-	≤540
Rod	Aisi 410	X12CrN13,1.4006	11.5~13.5	0.6	-	-	
	Aisi 416	X20Cr13	12~14	-		-	-38~350
	Aisi 420	X20Cr13	12~14	-	-	-	-101~480
	Aisi 430	X6Cr17	16~18	-			
	Aisi431	Z15CN16-02,1.4057	16~18	1.5~2.5	-	0.2	-38~425
	A276 XM-19	GX4CrNiMnN22-12-5,1.3964	20.5~23.511.5~13.5		1.5~3		≤550
	A193 B7		0.75~1.2		0.15~0.25		-45.6~510
	A193 B7M		0.75~1.2		0.15~0.25	—	-20~510
	A193 B16		0.8~1.15	-	0.5~0.65	-	-10~600
	A320 L7		0.8~1	-	0.15~0.25	-	-101-550
	A320 B8		18~20	8~10.5	-	-	254~700
	A320 B8A		18~20	8~10.5	-	-	254~700
	A320 B8M		16~18	10~14	-	-	254~816
	A320 B8T		17~19	9~12	2~3	-	196~700
Fasteners	A1942H		-	-	-	-	-38~450
	A1946		11.5~13.5	-		-	-101~480
	A1948,8A		8~10.5	18~20	-		-254~800
	A1948M,8MA		16~18	10~14	2~3	-	-254~816
	A1948T,8TA		17~19	9~12	-		0.3~0.6 -196~700
	D507Mo		10~16	6	2.5	-	≤450
	Alloy 20		19~21	32~38	2~3	-	≤427
	Alloy 904L		19~23	23~28	4~5	-	≤700
Surfacing welding	Uranus B-6		20.5	25.5	4.5	-	≤700
	Lewmet 25		29	-	4.5	-	≤700
	Stellite Alloy 6		27~32	3	1	-	≤700
	Inconel Alloy 625		20~23	58	8~10	0.4	≤700
	Hastelloy AlloyC-276		15.5	-	16	-	≤700

Seal parts

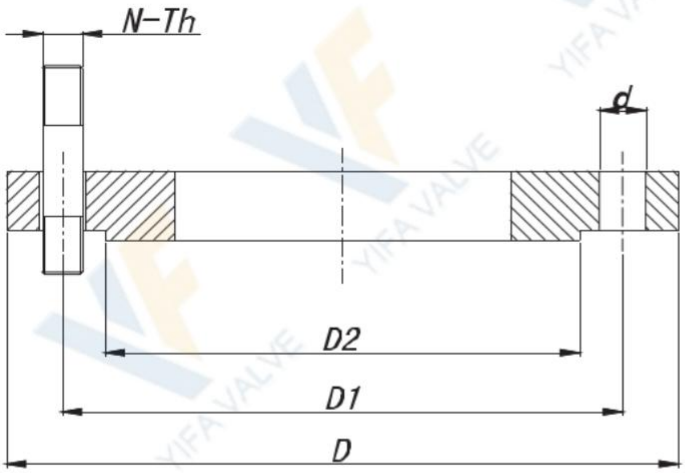
Parts	Characteristic	Low/High Temperature		Recommeded
NR	High elasticity	-20	85	-5~70
NBR	Oil resistivity	-30	100	-15~90
EPDM	Aging resistance, ozone resistance, corrosion resistance	-40	125	-25~110
HT EPDM	Same as above, added heat resistance	-40	150	-25~135
SBR (wear-resistant)	Excellent traction performance and wear resistance	-30	100	-15~80
CR (neoprene)	Oil, heat, flame, sunlight, ozone, acid and alkali resistance	-30	125	-15~100
Hypalon	Oxidation resistance, resistance to winding and cracking	-40	120	-25~110
FPM (viton)	Chemical and most oils resistance, (except ketones & esters)	-20	200	-5~150
MVQ (silicon)	High and low temperature resistance, oil, corrosion resistance	-55	200	-30~180
PU	Chemical, oil, wear, low temperature, aging resistance	-20	120	-5~90
FEP (F46)	Chemical resistance, radiation resistance	-20	150	-5~120
PTFE	Heat, cold, acid, alkali, organic solvents resistant	-60	180	-45~150
RPTFE	Corrosion resistance, low friction coefficient	-60	180	-45~150
PFA	Excellent chemical corrosion resistance, low friction coefficient	-196	200	-60~180
PPL	High temperature and chemical corrosion resistance	-60	230	-45~200
UPVC	Corrosion and pressure resistance, hygiene	-30	100	-15~80
CPVC	Corrosion and pressure resistance, hygiene	-30	110	-15~95
PVDF	Anti aging and chemical resistance	-30	100	-15~70
PEEK	High temperature and chemical resistance	-60	300	-45~260
Flexible graphite	Cold and hot resistant, corrosion resistant, self-lubricating	-200	600	-60~550
Ceramic fiber	Fire, high temperature resistance, low thermal conductivity	-200	1050	-60~950
Metal to metal	High temperature, high pressure, wear, corrosion resistance	Refer to the material		

Unit: Degree

Inspection Standards and Requirements

Inspection Standards and Requirements								
		ISO5208:2008 / GB/T13927			API598-2004			
Shell strength	Medium temperature	5~40			5~40			
	Medium	Water, kerosene, air, suitable gas			Water, kerosene, air, suitable gas			
	Test pressure	Norminal pressure (PN)×1.5			Norminal pressure×1.5			
	Minimum duration of the test	DN	Seconds		NPS	Check valve	Others	
		≤50	15		≤2"	60	15	
		65~200	60		2½"~6"	60	60	
		≥250	180		8"~12"	60	120	
					≥14"	120	300	
	Assessment	No visible leakage allowed			No visible leakage allowed			
Back seal		DN	PN	Pressure	NPS	Class	Pressure	
	Test pressure	≤80	All	0.6Mpa	All	≤300	0.4~0.7Mpa	
		100~200	≤5.0	0.6Mpa				
		100~200	>5.0	PN ×1.1		>300	Class x 1.1	
		≥250	All	PN ×1.1				
	Assessment	No visible leakage allowed			No visible leakage allowed			
High pressure sealing test	Test pressure	DN	PN	Pressure	Class	Ductile iron	Steel	
		≤80	All	PN ×1.1 (liquid)				
				0.5~0 .7Mpa (air)	150	1.7 Mpa		
		100~200	≤5.0	PN ×1.1 (liquid)				
				0.5~0 .7Mpa (air)			Class x 1.1	
		100~200	>5.0	PN ×1.1 (liquid)	300	4.4 Mpa		
		≥250	All	PN ×1.1 (liquid)				
	Minimum duration of the test	DN	Metal seal	Resilient seal	NPS	Check valve	Others	
		≤50	15	15	≤2"	60	15	
		65~200	30	15	2½"~6"	60	60	
		250~450	60	30	8"~12"	60	120	
		≥500	120	60	≥14"	120	120	
		Class (level)	Liquid leakage	Air leakage	NPS	Liquid & Air	Liquid & Air	
	Assessment	A	No visible leakage allowed (mm3/s)		≤2"	Liquid:3cm³/in. min Air:0.042m³/ in.h	0 drop(bubble)/ min	
		B	DN x 0.01	DN x 0.3	2½"~6"		12 & 24	
		C	DN x 0.03	DN x 3	8"~12"		20 & 40	
		D	DN x 0.1	DN x 30	≥14"		2 & 4 / in ·min	
Low pressure sealing test	Medium	Air, suitable gas			Air, suitable gas			
	Test pressure	0.5~0 .7 Mpa			0.4~0 .7 Mpa			
		DN	Metal seal	Resilient seal	NPS	Check valve	Others	
	Minimum duration of the test	≤50	15	15	≤2"	60	15	
		65~200	30	15	2½"~6"	60	60	
		250~450	60	30	8"~12"	60	120	
		≥500	120	60	≥14"	120	120	
	Assessment	Class (level)	Air leakage		NPS	Air leakage		
		A	No visible leakage allowed (mm3/s)		≤2"		0 bubble /min	
		B	DN x 0.3		2½"~6"	0.042 m3/in·h	24	
		C	DN x 3		8"~12"		40	
		D	DN x 30		≥14"		4 / in ·min	

Flange connection dimensions



D-	Flange outer diameter
D1-	Bolt circle diameter
D2-	Diameter of sealing surface
N-Th	Bolt size
d-	Bolt hole diameter

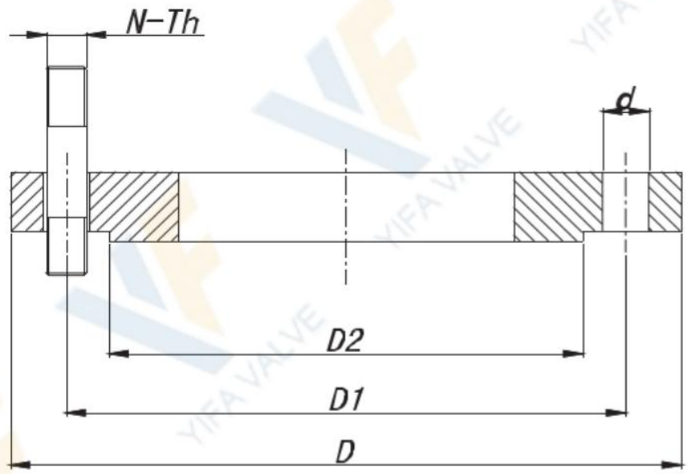
PN10 (DIN2632)

DN	D	D1	D2	N-Th	d
DN	D	D1	D2	N-Th	d
50	165	125	102	4-M16	Φ18
65	185	145	122	4-M16	Φ18
80	200	160	138	8-M16	Φ18
100	220	180	158	8-M16	Φ18
125	250	210	188	8-M16	Φ18
150	285	240	212	8-M20	Φ23
200	340	295	268	12-M20	Φ23
250	405	355	320	12-M24	Φ27
300	460	410	378	12-M24	Φ27
350	520	470	438	16-M24	Φ27
400	580	525	490	16-M27	Φ30
450	640	585	550	20-M27	Φ30
500	715	650	610	20-M30	Φ33
600	840	770	725	20-M33	Φ36
700	910	840	795	24-M33	Φ36
800	1025	950	900	24-M36	Φ39
900	1125	1050	1000	28-M36	Φ39
1000	1255	1170	1115	28-M39	Φ42
1200	1485	1390	1330	32-M45	Φ48
1400	1685	1590	1530	36-M45	Φ48
1600	1930	1820	1750	40-M52	Φ56
1800	2130	2020	1950	44-M52	Φ56
2000	2345	2230	2150	48-M56	Φ62

PN16 (DIN2632)

DN	D	D1	D2	N-Th	d
DN	D	D1	D2	N-Th	d
50	165	125	102	4-M16	Φ18
65	185	145	122	4-M16	Φ18
80	200	160	138	8-M16	Φ18
100	220	180	158	8-M16	Φ18
125	250	210	188	8-M16	Φ18
150	285	240	212	8-M20	Φ23
200	340	295	268	12-M20	Φ23
250	405	355	320	12-M24	Φ27
300	460	410	378	12-M24	Φ27
350	520	470	438	16-M24	Φ27
400	580	525	490	16-M27	Φ30
450	640	585	550	20-M27	Φ30
500	715	650	610	20-M30	Φ33
600	840	770	725	20-M33	Φ36
700	910	840	795	24-M33	Φ36
800	1025	950	900	24-M36	Φ39
900	1125	1050	1000	28-M36	Φ39
1000	1255	1170	1115	28-M39	Φ42
1200	1485	1390	1330	32-M45	Φ48
1400	1685	1590	1530	36-M45	Φ48
1600	1930	1820	1750	40-M52	Φ56
1800	2130	2020	1950	44-M52	Φ56
2000	2345	2230	2150	48-M56	Φ62

Flange connection dimensions



D- Flange outer diameter
D1- Bolt circle diameter
D2- Diameter of sealing surface
N-Th Bolt size
d- Bolt hole diameter

PN10 (GB/T9113.1)

DN	D	D1	D2	N-Th	d
50	165	125	99	4-M16	Φ18
65	185	145	118	4-M16	Φ18
80	200	160	132	8-M16	Φ18
100	220	180	156	8-M16	Φ18
125	250	210	184	8-M16	Φ18
150	285	240	211	8-M20	Φ23
200	340	295	266	8-M20	Φ23
250	395	350	319	12-M20	Φ23
300	445	400	370	12-M20	Φ23
350	505	460	429	16-M20	Φ23
400	565	515	480	16-M24	Φ27
450	615	565	530	20-M24	Φ27
500	670	620	582	20-M24	Φ27
600	780	725	682	20-M27	Φ30
700	895	840	794	24-M27	Φ30
800	1015	950	901	24-M30	Φ33
900	1115	1050	1001	28-M30	Φ33
1000	1230	1160	1112	28-M33	Φ36
1200	1455	1380	1328	32-M36	Φ39

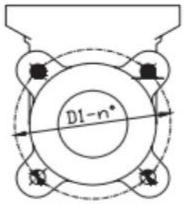
PN16 (GB/T9113.1)

DN	D	D1	D2	N-Th	d
50	165	125	99	4-M16	Φ18
65	185	145	118	4-M16	Φ18
80	200	160	132	8-M16	Φ18
100	220	180	156	8-M16	Φ18
125	250	210	184	8-M16	Φ18
150	285	240	211	8-M20	Φ23
200	340	295	266	12-M20	Φ23
250	405	355	319	12-M24	Φ27
300	460	410	370	12-M24	Φ27
350	520	470	429	16-M24	Φ27
400	580	525	480	16-M27	Φ30
450	640	585	548	20-M27	Φ30
500	715	650	609	20-M30	Φ33
600	840	770	720	20-M33	Φ36
700	910	840	794	24-M33	Φ36
800	1025	950	901	24-M36	Φ39
900	1125	1050	1001	28-M36	Φ39
1000	1255	1170	1112	28-M39	Φ42
1200	1485	1390	1328	32-M45	Φ48

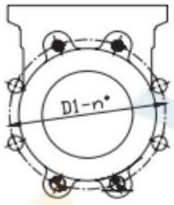
Flange and connection details

GB/T9113.1 PN10

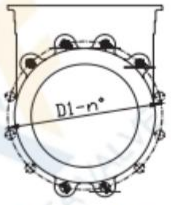
DN	D1	n°	M	T	● Φ	+
50	125	4	M-16	10	2--0	-2
65	145	4	M-16	10	2--0	-2
80	160	8	M-16	12	2--4	-2
100	180	8	M-16	12	2--4	-2
125	210	8	M-16	14	2--4	-2
150	240	8	M-20	14	2--4	-2
200	295	8	M-20	14	2--4	-2
250	350	12	M-20	18	4--6	-2
300	400	12	M-20	21	4--6	-2
350	460	16	M-20	21	6--8	-2
400	515	16	M-24	25	6--8	-2
450	565	20	M-24	25	8--10	-2
500	620	20	M-24	26	8--10	-2
600	725	20	M-27	26	8--10	-2
700	840	24	M-27	22	10--12	-2
800	950	24	M-30	22	10--12	-2
900	1050	28	M-30	22	12--12	-4
1000	1160	28	M-33	22	12--12	-4
1200	1380	32	M-36	33	14--14	-4



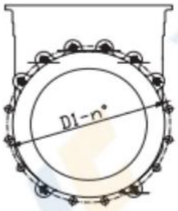
DN50-65



DN80-200

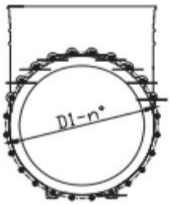


DN250-300

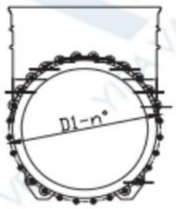


DN350-400

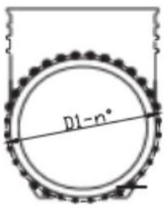
DN450-600



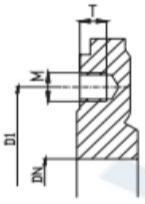
DN700-800



DN900-1000



DN1200

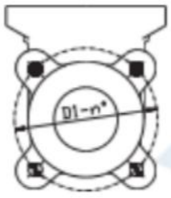


Blind hole tapping

● Blind hole thread
Φ Through hole
● Drilling through

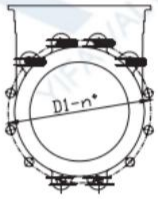
GB/T9113.1 PN16

DN	D1	n°	M	T	● Φ	+
50	125	4	M-16	10	2--0	-2
65	145	4	M-16	10	2--0	-2
80	160	8	M-16	12	2--4	-2
100	180	8	M-16	12	2--4	-2
125	210	8	M-16	14	2--4	-2
150	240	8	M-20	14	2--4	-2
200	295	12	M-20	14	2--4	-2
250	355	12	M-24	18	4--6	-2
300	410	12	M-24	21	4--6	-2
350	470	16	M-24	21	6--8	-2
400	525	16	M-27	25	6--8	-2
450	585	20	M-27	25	8--10	-2
500	640	20	M-30	26	8--10	-2
600	725	20	M-33	26	8--10	-2
700	840	24	M-33	22	10--12	-2
800	950	24	M-36	22	10--12	-2
900	1050	28	M-36	22	12--12	-4
1000	1170	28	M-39	22	12--12	-4
1200	1390	32	M-45	33	14--14	-4



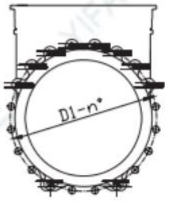
DN50-65

DN80-150

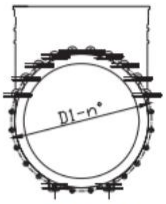


DN200-300

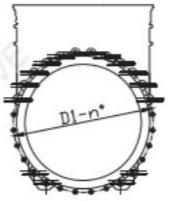
DN350-400



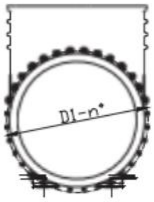
DN450-600



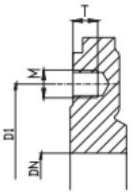
DN700-800



DN900-1000

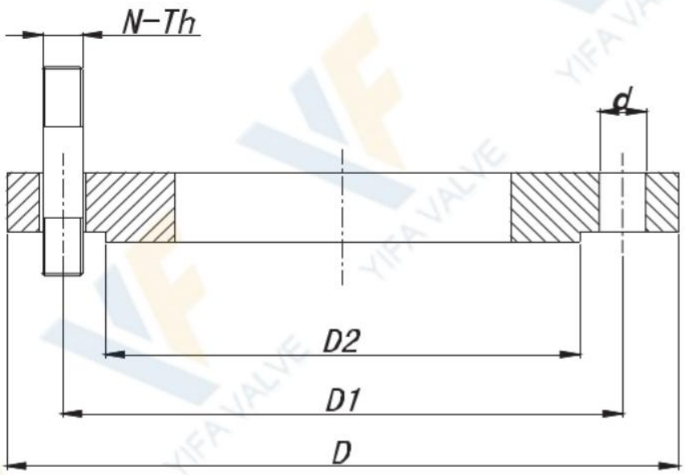


DN1200



Blind hole tapping

Flange connection dimensions



D- Flange outer diameter
D1- Bolt circle diameter
D2- Diameter of sealing surface
N-Th Bolt size
d- Bolt hole diameter

10K（JIS B2239-2004）

DN	D	D1	D2	N-Th	d
50	155	120	96	4-M16	Φ19
65	175	140	116	4-M16	Φ19
80	185	150	126	8-M16	Φ19
100	210	175	151	8-M16	Φ19
125	250	210	182	8-M20	Φ23
150	280	240	212	8-M20	Φ23
200	330	290	262	12-M20	Φ23
250	400	355	324	12-M22	Φ25
300	445	400	368	16-M22	Φ25
350	490	445	413	16-M22	Φ25
400	560	510	475	16-M24	Φ27
450	620	565	530	20-M24	Φ27
500	675	620	585	20-M24	Φ27
550	745	680	640	20-M30	Φ33
600	795	730	690	24-M30	Φ33
650	845	780	740	24-M30	Φ33
700	905	840	800	24-M30	Φ33
750	970	900	855	24-M30	Φ33
800	1020	950	905	28-M30	Φ33
850	1070	1000	955	28-M30	Φ33
900	1120	1050	1005	28-M30	Φ33
1000	1235	1160	1110	28-M36	Φ39
1100	1345	1270	1220	28-M36	Φ39
1200	1465	1380	1325	32-M36	Φ39
1350	1630	1540	1480	36-M42	Φ45
1500	1795	1700	1635	40-M42	Φ45

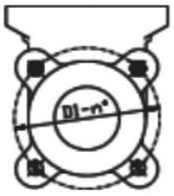
150Lb（ANSI B16.5 & ASME B16.47

DN	D	D1	D2	N-Th	d
2D	153	120.5	92	4-5/8DUNC	Φ19
2.5D	178	139.5	105	4-5/8DUNC	Φ19
3D	191	152.5	127	4-5/8DUNC	Φ19
4D	229	190.5	157	8-5/8DUNC	Φ19
5D	254	216	186	8-3/4DUNC	Φ22
6D	280	241.5	216	8-3/4DUNC	Φ22
8D	343	298.5	270	8-3/4DUNC	Φ22
10D	407	362	324	12-7/8DUNC	Φ25
12D	483	432	381	12-7/8DUNC	Φ25
14D	534	476	413	12-1DUNC	Φ29
16D	597	539.5	470	16-1DUNC	Φ29
18D	635	578	534	16-1 1/8DUNC	Φ32
20D	699	635	584	20-1 1/8DUNC	Φ32
24D	813	749.5	692	20-1 1/4DUNC	Φ35
26D	870	806.5	749	24-1 1/4DUNC	Φ35
28D	925	863.5	800	28-1 1/4DUNC	Φ35
30D	985	914.5	857	28-1 1/4DUNC	Φ35
32D	1060	978	914	28-1 1/2DUNC	Φ41
36D	1170	1086	1022	32-1 1/2DUNC	Φ41
40D	1290	1200	1124	36-1 1/2DUNC	Φ41
42D	1345	1257	1194	36-1 1/2DUNC	Φ41
44D	1405	1314	1245	40-1 1/2DUNC	Φ41
48D	1510	1422	1359	44-1 1/2DUNC	Φ41
52D	1625	1537	1461	44-1 3/4DUNC	Φ47
56D	1745	1651	1575	48-1 3/4DUNC	Φ47
60D	1855	1759	1676	52-1 3/4DUNC	Φ47

Flange and connection details

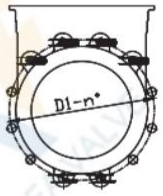
JIS B2239-2004 10K

DN	D1	n°	M	T	● Φ	+
50	120	4	M-16	10	2--0	-2
65	140	4	M-16	10	2--0	-2
80	150	8	M-16	12	2--4	-2
100	175	8	M-16	12	2--4	-2
125	210	8	M-20	14	2--4	-2
150	240	8	M-20	14	2--4	-2
200	290	12	M-20	14	2--4	-2
250	355	12	M-22	18	4--6	-2
300	400	16	M-22	21	4--6	-2
350	445	16	M-22	21	6--8	-2
400	510	16	M-24	25	6--8	-2
450	565	20	M-24	25	8--10	-2
500	620	20	M-24	26	8--10	-2
600	730	24	M-30	26	8--10	-2
700	840	24	M-30	22	10--12	-2
800	950	28	M-30	22	10--12	-2
900	1050	28	M-30	22	12--12	-4
1000	1160	28	M-30	22	12--12	-4
1200	1380	32	M-36	33	14--14	-4

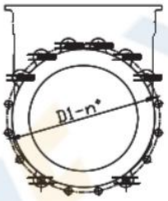


DN50-65

DN80-150

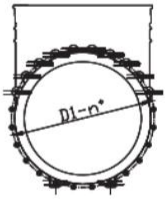


DN200-250

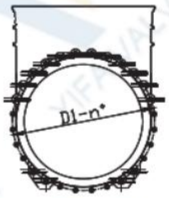


DN300-400

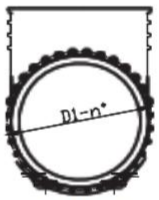
DN450-500



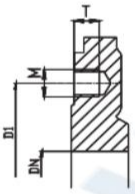
DN600-700



DN800-1000



DN1200

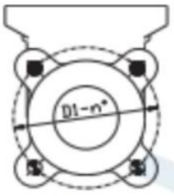


Blind hole tapping

● Blind hole thread
Φ Through hole
● Drilling through

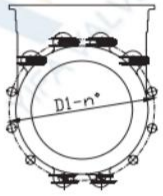
ANSI B16.5 & ASME B16.47 150Lb

DN	D1	n°	M	T	● Φ	+
2"	120.5	4	5/8" UNC	10	2--0	-2
2 1/2"	139.5	4	5/8" UNC	10	2--0	-2
3"	152.5	4	5/8" UNC	12	2--4	-2
4"	190.5	8	5/8" UNC	12	2--4	-2
5"	216	8	3/4" UNC	14	2--4	-2
6"	241.5	8	3/4" UNC	14	2--4	-2
8"	298.5	8	3/4" UNC	14	2--4	-2
10"	362	12	7/8" UNC	18	4--6	-2
12"	432	12	7/8" UNC	21	4--6	-2
14"	476	12	1" UNC	21	6--8	-2
16"	540	16	1" UNC	25	6--8	-2
18"	578	16	1 1/8" UNC	25	8--10	-2
20"	635	20	1 1/8" UNC	26	8--10	-2
24"	749.5	20	1 1/4" UNC	26	8--10	-2
28"	863.5	28	1 1/4" UNC	26	10--12	-2
30"	914	28	1 1/4" UNC	22	10--12	-2
32"	978	28	1 1/2" UNC	22	12--12	-4
36"	1085.8	32	1 1/2" UNC	22	12--12	-4
40"	1200.2	36	1 1/2" UNC	30	14--14	-4

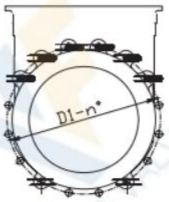


2"-3"

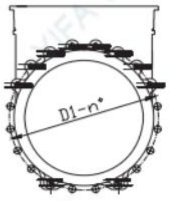
4"-8"



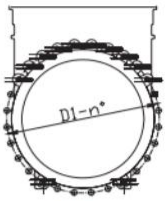
10"-14"



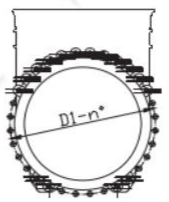
16"-18"



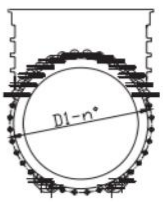
20"-24"



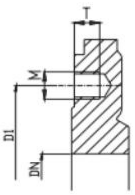
28"-32"



36"



40"



Blind hole tapping

YIFA VALVE

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