

KNIFE GATE VALVE CATALOGUE

SERVICE

Linuo DQ knife gate valves are linear shut off valves that are light weight with compact construction. Valves are available as manual with hand-wheel, or can be automated with pneumatic cylinder actuator for remote operation. The arc shape of the gate of our knife gate valve is designed to be particularly suitable for cutting off fluid containing fiber or suspended particles, so the knife gate valves are ideal for many applications in the process industries of Pulp & Paper, Wastewater Treatment, Mining, Sugar Making, and Chemical Processing.

Replaceable Seats

Seats in the Linuo knife gate valves are backed with by an o-ring to give the seat a self-compensating wear function. This results in excellent seat tightness and prolonged life cycle. When seats do wear and need replacement, maintenance to change the seats is easy and fast. Available seat materials include metal seated, EPDM seated, and PTFE seated. Contact Linuo for assistance in seat selection.

Gate Design

Each gate is precision ground and hard chrome plated as a standard. This provides superior abrasion and corrosion resistance. The arc shape design of the bottom of the gate is particularly suitable to provide strong cutting force for pulp media.

Guiding Wedges

Guiding wedges are point-located at the valve outlet, providing for a groove-free and smooth port. This reduces clogging or material build-up.

Internal Packing

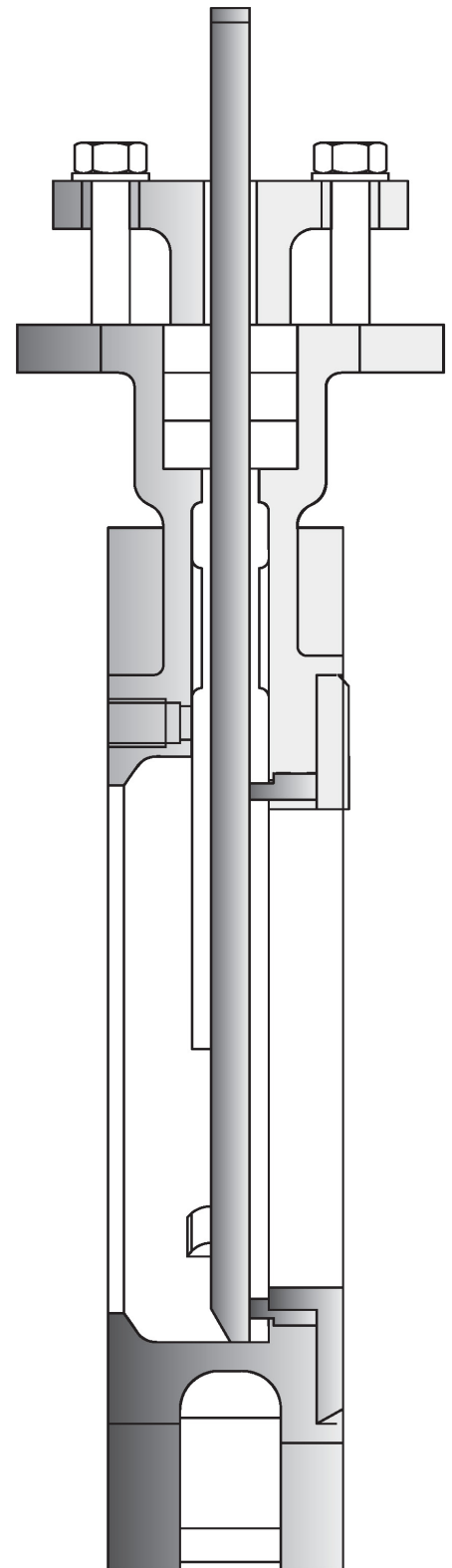
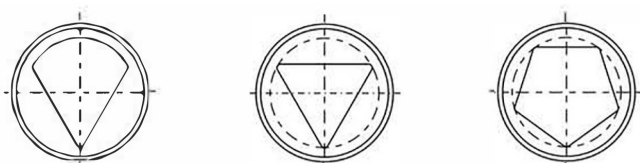
Packing gland and packing are Internally located, packing leakage can be avoid by construction.

Double Stem Bearings

At the top of the yoke, our knife gate valves are equipped with two stem bearings for reduced torque and easy operation.

Port Shape Option

Custom port shapes including V-port, triangle port, and hexagon port are available.



TECHNICAL PARAMETERS

Nominal Diameter: DN50 through DN1200/2" through 48"
 Nominal Pressure Rating: PN 10/PN 16/ANSI 150
 Connection Type: Wafer

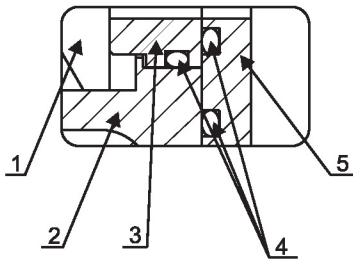
Temperature: Metal Seat -20°C to 100°C (-4°F to 212°F)
 PTFE Seat -20°C to 120°C (-4°F to 248°F)
 EPDM Seat -20°C to 100°C (-4°F to 212°F)

Applicable Media: Pulp, Sewage, Coal Slurry, Syrup, Slag.

Leakage: Each Linuo valve undergoes pressure testing. As per the MSS SP-61 Standard, the maximum allowable leakage of metal seated knife gate valves is 40 ml/min/in.
 For soft seated knife gate valves, the maximum leakage is 4 ml/min/in.

Bi-Directional: Soft seated knife gate valves are bi-directional with zero leakage to 10 bar/150 psi in the preferred direction and limited tightness in the non-preferred direction at low pressure.

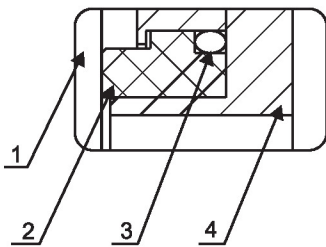
SEAT CONSTRUCTION



Metal Seat

Metal Seat

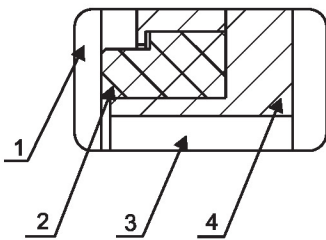
No.	Name	Temperature
1	Gate	-20°C to 100°C
2	Valve Body	-4°F to 212°F
3	Seat	option:
4	O-ring	-20°C to 230°C
5	Retainer	-4°F to 212°F



PTFE Seat

PTFE Seat

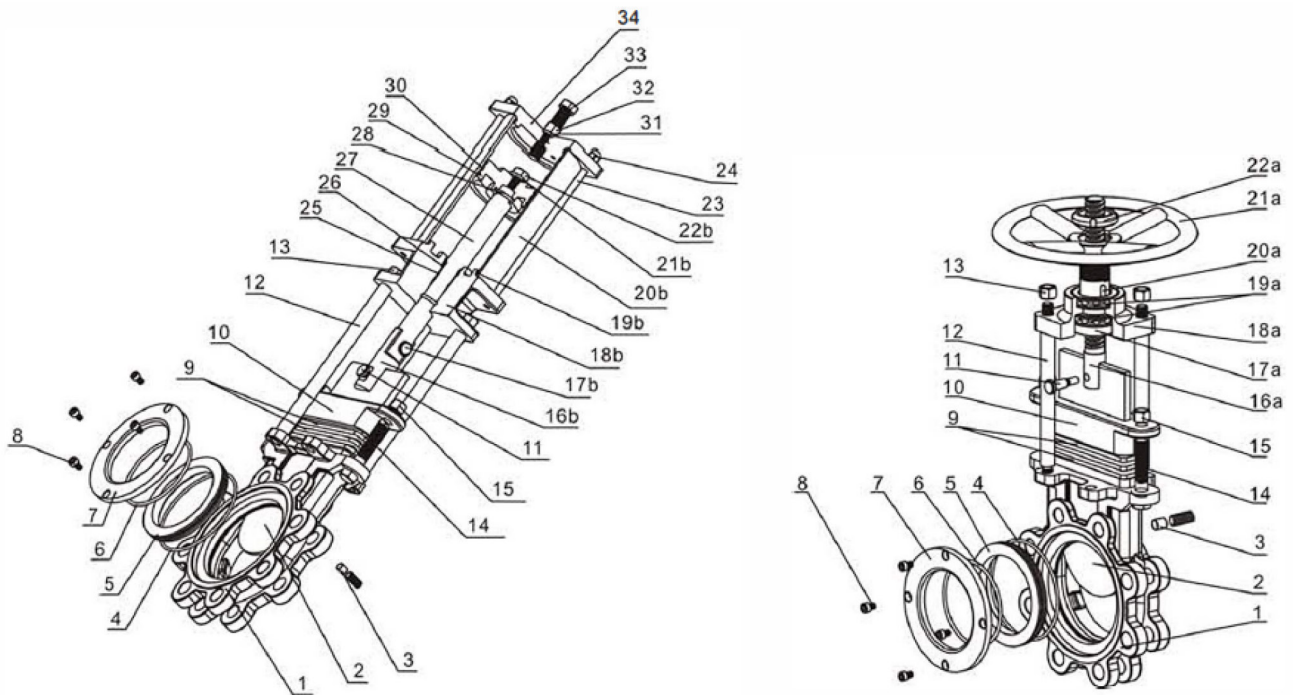
No.	Name	Temperature
1	Gate	
2	Seat	-20°C to 120°C
3	O-ring	-4°F to 248°F
4	Retainer	



EPDM Seat

EPDM Seat

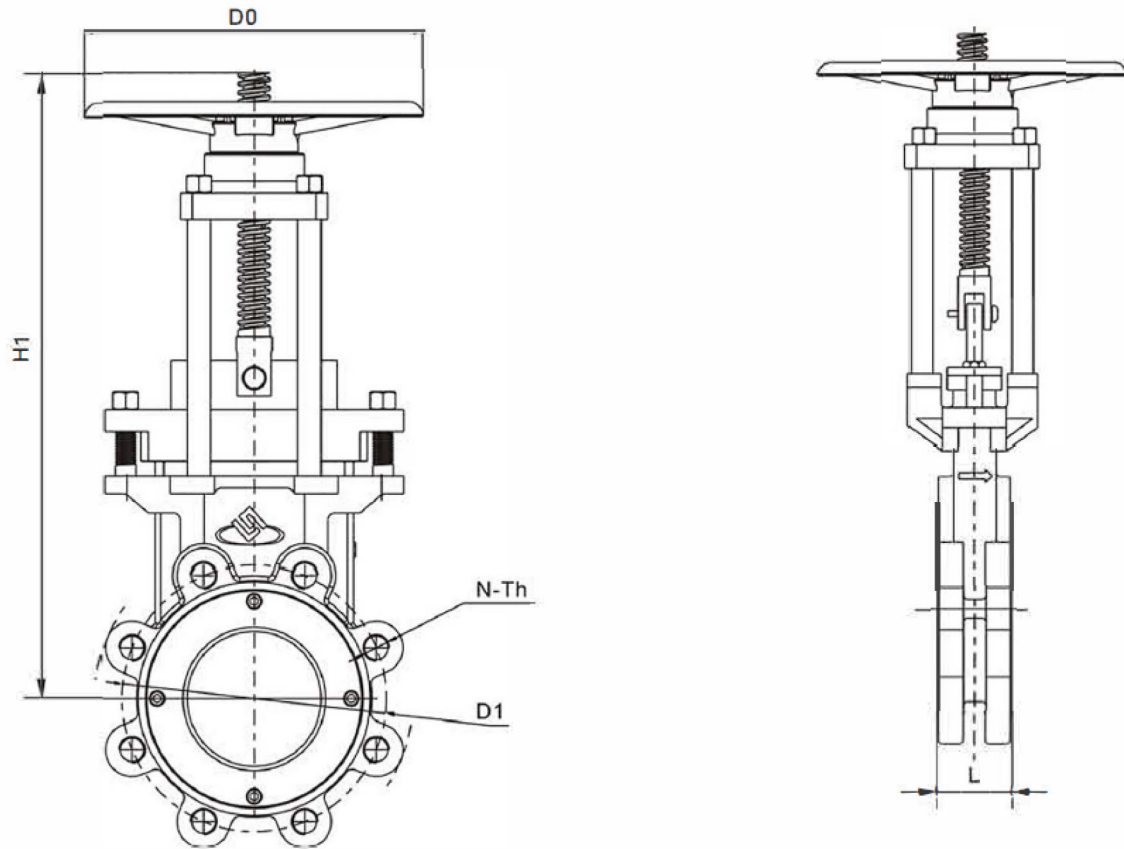
No.	Name	Temperature
1	Gate	
2	Seat	-20°C to 100°C
3	Valve Body	-4°F to 212°F
4	Retainer	



PARTS LIST - Model DC

Table 1

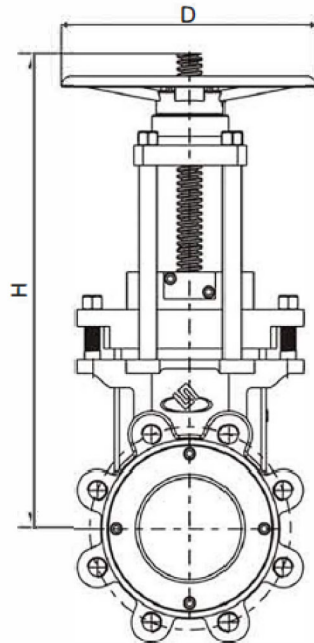
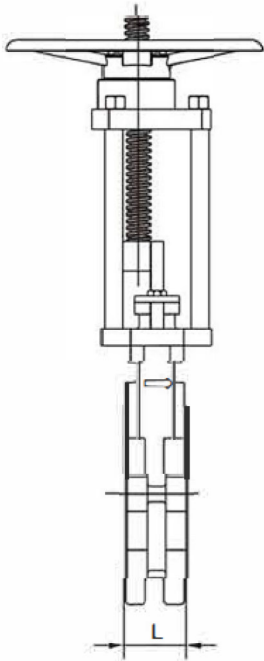
No.	Description	QTY	Material of Construction	No.	Description	QTY	Material of Construction
1	Body	1	WCB, CF8, CF8M	16b	Connection Rod	1	45# Hard Chrome Plating, SS304
2	Gate	1	SS410, SS304, SS316 Hard Chrome Plating	17b	Connection Pin	1	SS 304
3	Travel Aligning Block	2	SS304+Nylon, PTFE, PPL	18b	Lower Cylinder Cover	1	WCB
4	O-ring	1	NBR, Viton	19b	O-ring	1	NBR
5	Seat	1	SS304, SS316 Hard Chrome Plating, PTFE, EPDM	20b	Cylinder	1	Aluminium alloy with inner face PTFE coated or Carbon Steel Hard Chrome Plating
6	O-ring	1	NBR, Viton	21b	Washer	1	SS304
7	Retainer	1	Carbon Steel, SS304, SS316	22b	Hexagon Bolt	1	Carbon Steel
8	Socket Head Screw	varies	SS304, SS316	23	Connection Rod	4	45# Zinc plating
9	Packing	1set	PTFE Graphite	24	Nut	4	Carbon Steel Hard Chrome Plating
10	Gland	1	WCB, CF8	25	Bushing	1	Composite material
11	Connection Pin	1	SS304	26	Y-ring	1	TPU(Polyurethane)
12	Pillar	4	45# Hard Chrome Plating, SS304	27	Piston Rod	1	45# Hard Chrome Plating
13	Hexagon Nut	4	Carbon Steel, SS304	28	O-ring	1	NBR
14	Hexagon Bolt	2	Carbon Steel, SS304	29	Piston	1	Z1102, Carbon Steel
15	Hexagon Nut	2	Carbon Steel, SS304	30	Guiding Ring	1	Reinforced PTFE
16a	Stem	1	SS410	31	Gasket	1	PTFE
17a	Nut	1	H59	32	Hexagon Nut	1	Carbon Steel
18a	Square Plate	1	WCB	33	Adjusting Bolt	1	Carbon Steel
19a	Plane Bearing	2	GCr6	34	Upper Cylinder Cover	1	WCB
20a	Flat Key	1	45#				
21a	Handwheel	1	WCB				
22a	Nut	1	45# Anti-Corrosion Treated				



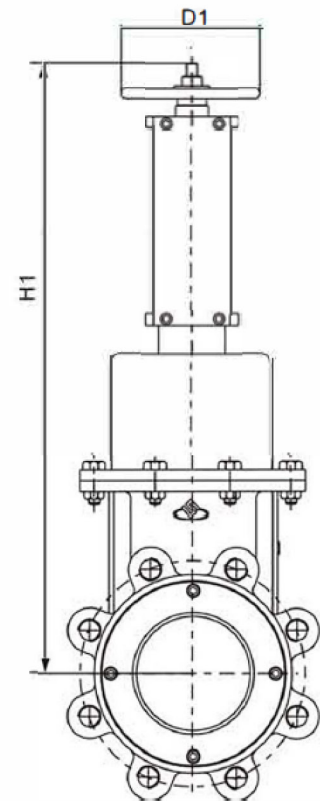
DIMENSIONS - Model DC with Handwheel

Dimensions in mm/inches Table 2

Size	L	D0	H1 Full Closed	H1 Full Open	D1		N-Th	
					150lb	PN10/PN16	150lb	PN10/PN16
DN50/2"	48/1.9	200/7.9	290/11.4	350/13.8	120.5/4.7	125	4 X 5/8 - 11 NC	4-M16
DN65/2-1/2"	48/1.9	200/7.9	310/12.2	375/14.8	139.7/5.5	145	4 X 5/8 - 11 NC	4-M16
DN80/3"	51/2.0	220/8.7	350/13.8	430/16.9	152.5/6.0	160	4 X 5/8 - 11 NC	8-M16
DN100/4"	51/2.0	220/8.7	436/17.2	535/21.1	190.5/7.5	180	8 X 5/8 - 11 NC	8-M16
DN125/5"	57/2.2	220/8.7	460/18.1	585/23.0	216/8.5	210	8 X 3/4 - 11 NC	8-M16
DN150/6"	57/2.2	280/11.0	510/20.1	660/26.0	241.5/9.5	240	8 X 3/4 - 11 NC	8-M20
DN200/8"	70/2.8	280/11.0	610/24.0	810/31.9	298.5/11.8	295	8 X 3/4 - 11 NC	8-M20/12-M20
DN250/10"	70/2.8	280/11.0	765/30.1	1015/40.0	362/14.3	350/355	12 X 7/8 - 9 NC	12-M20/12-M24
DN300/12"	76/3.0	380/15.0	820/32.3	1120/44.1	432/17.0	400/410	12 X 7/8 - 9 NC	12-M20/12-M24
DN350/14"	76/3.0	450/17.7	970/38.2	1320/52.0	476/18.7	460/470	12 X 1 - 8 NC	16-M20/16-M24
DN400/16"	89/3.5	500/19.7	1024/40.3	1424/56.1	540/21.3	515/525	16 X 1 - 8 NC	16-M24/16-M27
DN450/18"	89/3.5	600/23.6	1235/48.6	1685/66.3	578/22.8	565/585	16 X 1-1/8 - 7 NC	16-M24/16-M27
DN500/20"	114/4.5	600/23.6	1286/50.6	1786/70.3	635/25.0	620/650	20 X 1-1/8 - 7 NC	20-M24/20-M27



DCA-Non-Rising-Stem

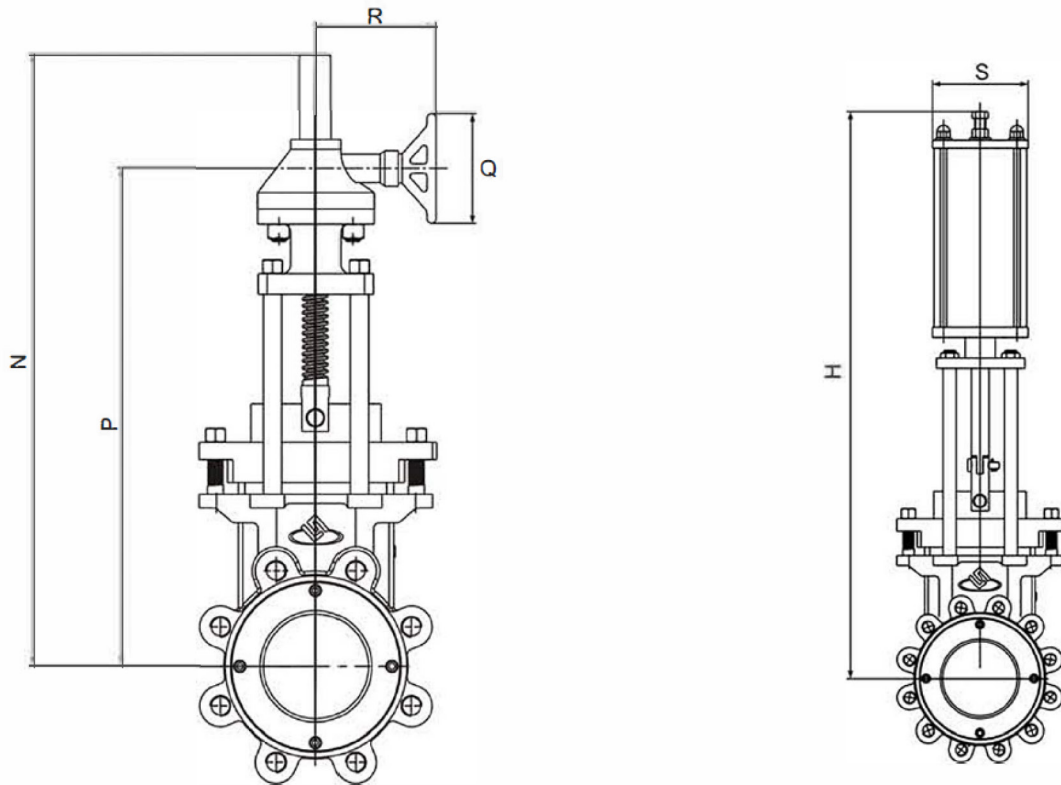


DCB-Bonneted

DIMENSIONS - Model DCA Non-Rising Stem and DCB Bonneted

Dimensions in mm/inches Table 3

Size	L	DCA Non-Rising Stem		DCB Bonneted	
		D	H	D1	H1
DN50/2"	48/1.9	180/7.1	300/11.8	180/7.1	330/13.0
DN65/2-1/2"	48/1.9	180/7.1	310/12.2	180/7.1	360/14.2
DN80/3"	51/2.0	220/8.7	373/14.7	180/7.1	390/15.4
DN100/4"	51/2.0	240/9.4	420/16.5	220/8.7	440/17.3
DN125/5"	57/2.2	260/10.2	460/18.1	240/9.4	510/20.1
DN150/6"	57/2.2	280/11.0	510/20.1	260/10.2	600/23.6
DN200/8"	70/2.8	300/11.8	610/24.0	280/11.0	700/27.6
DN250/10"	70/2.8	340/13.4	765/30.1	300/11.8	840/33.1
DN300/12"	76/3.0	380/15.0	820/32.3	340/13.4	960/37.8
DN350/14"	76/3.0	400/15.7	970/38.2	380/15.0	1100/43.3
DN400/16"	89/3.5	450/17.7	1024/40.3	400/15.7	1250/49.2
DN450/18"	89/3.5	530/20.9	1235/48.6	450/17.7	1380/54.3
DN500/20"	114/4.5	600/23.6	1286/50.6	530/20.9	1530/60.2



DIMENSIONS - Bevel Gear

Dimensions in mm/inches Table 4

Size	N	R	Q	P
DN200/8"	964/38.0	200/7.9	310/12.2	650/25.6
DN250/10"	1064/41.9	200/7.9	310/12.2	800/31.5
DN300/12"	1210/47.6	260/10.2	310/12.2	860/33.9
DN350/14"	1563/61.5	260/10.2	310/12.2	1010/39.8
DN400/16"	1660/65.4	260/10.2	460/18.1	1150/45.3
DN450/18"	1810/71.3	260/10.2	460/18.1	1305/51.4
DN500/20"	1900/74.8	340/13.4	460/18.1	1420/55.9
DN600/24"	2100/85.7	340/13.4	460/18.1	1660/65.4
DN700/28"	2650/104.3	480/18.9	460/18.1	1950/76.8
DN800/32"	2900/114.2	480/18.9	460/18.1	2200/86.6
DN900/36"	3200/126.0	480/18.9	460/18.1	2400/94.5
DN1000/40"	3600/141.7	500/19.7	460/18.1	2610/102.8

DIMENSIONS - Pneumatic

Dimensions in mm/inches Table 5

Size	S	H
DN50/2"	120/4.7	430/16.9
DN65/2-1/2"	120/4.7	465/18.3
DN80/3"	120/4.7	592/23.3
DN100/4"	120/4.7	640/25.2
DN125/5"	145/5.7	715/28.2
DN150/6"	145/5.7	811/31.9
DN200/8"	180/7.1	955/37.6
DN250/10"	225/8.9	1200/47.2
DN300/12"	275/10.8	1322/52.1
DN350/14"	330/13.0	1537/60.5
DN400/16"	330/13.0	1805/71.1
DN450/18"	380/15.0	2200/86.6
DN500/20"	380/15.0	2600/102.4
DN600/24"	425/16.7	2960/116.5