





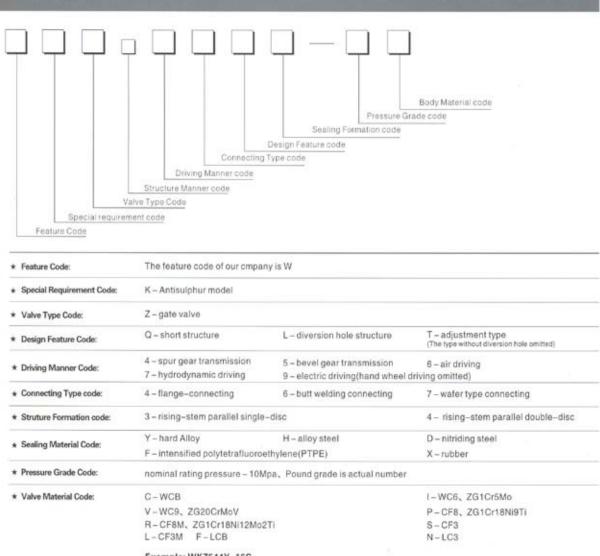


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FLAT GATE VALVE MODEL SHEDULE ILLUSTRATION



Example: WKZ544Y-16C

Denoting 1.6Mpa nominal rating pressure, bevel gear transmission, flange -connecting, nondiversion hole, antisulphur rising-stem parallel double-disc gate valve .WCB valve body material and the hard alloy as sealing material;

Example2: WZL943Y-150P

Denoting Class150 pressure grade, electric driving, flange-connecting, diversion hole type, rising stem parallel sing-ledisc, CF8 Valve body material and the hard alloy sealing material.



PARALLEL SINGLE-DISC GATE VALVE

Products design features

The series of Parallel single-disc gate valves have diversion hole, non-diversion hole and adjustment structure formations which are applied to natural gas, oil products, chemical engineering, city construction and environment protection industries. The anti-sulphur product series are fit for high speed long delivery pipeline of seriously eroded natural gas which contains H2S medium and much

The design features of series parallel single-disc gate valve include:

- ★ The valve body has two structures of casting and welding. The short non-diversion hole flat gate valve adopts welding structure, which is short in length, light-weighted and specially fit for devices demanding light weight;
 - * The floating seat structure makes it possible to seal both director of the valve;
 - ★ The valve seat sealing adopts double-seals. PTFE can remove granule ad dirties to ensure a perfect sealing.
- ★ Hard sealing surface is build-up welded on sealing surface with Co hard alloy which results in a hardness of HRC44-52 to ensuresealing reliability;
- ★ Valve with diversion hole, either full-open or full-closed, the disc will be kept in contact with seat so that the sealing surface will not be washed out directly by mediums and the valve will become more durable;
- ★ The fire-resistant design of the valve complies with API 6Fa and API 607 standards. As for valves applied to hydrocarbon liquids. and oil gas pipelines, to the carry these out standards will fulfill firefighting tasks;
- ★ When the valve is in full-opening, the passage is a straight pipeline with small fluid resistance coefficient and little pressure loss. It can be cleaned by passing a wool ball;
 - ★ The valve has got a automatic pressure relief device which can ensure operation security:
 - ★ The valve adopts full-shut structure which has good protection function and can be used in all weather.

Serial models	$W(K)Z_{(P, L, T)} 43, W(K)Z_{(P, L, T)} 54;$ $W(K)Z_{(P, L, T)} 63, W(K)Z_{(P, L, T)} 56;$			
Pressure grade range	PN1.6 - 16,0MPa			Class 150 900
Drift diameter specification range	DN25 ~ 1200MM			1"-48"
Driving manner and Class 150 - 3	Hand wheel driving 00(PN1.6~4.0) Class400(PN6.4) Cl V25 - 150) 1° - 4°(DN25 - 100)	ass600 - 900(PN10.0 - 16.0) 1" - 3"(DN25 - 80)	A STATE OF THE STA	ting hydrodynamic driving and electric driving Class 150~900

Notes:Our Company can provide products at customres' request.

Decesure		No	minal rat	ing pres	sure(PN)			P	ound grad	e(Class)	
Pressure	1.6	2.5	4.0	6.4	10.0	16.0	150	300	400	600	900
Test pressure	Intensity test		1.	5×PN					1.5 × PN		
(MPa)	Sealing test		1.	1×PN					1.1×PN		
Applicable ten	nperature			-	196°C ~ 55	50°C (different	raw material fo	r different v	vork tempe	rature)	
Applicable	Ordinary type				Petro	oleum natural g	as and finished	foil			
Medium	antisulphur type				Natural	gas and petrole	um with H, S a	nd CO			
Test pressure	Back seal test					1,1×	PN				
(MPa)	Air test					0.4~0.7	7MPa				

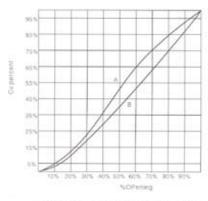
Note: PN is requested pressure for the body material under the 38°C.



PARALLEL SINGLE-DISC GATE VALVE

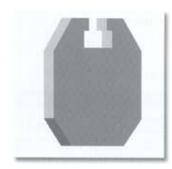
Flow Charalteristic

The flow characteristic of flat gate valves with a diversion hole is. equal to that of pipelines of thesame specification. The characteristic is shown in per centum form. As for valves without a diversion hole, its cavity fly span is smaller than that of wedge gate valesand it is a regular cylindrical object, therefore, characteristics of the valves are similar except that they have a larger pressure loss. Besides, their flux adjustment behavior is better than that of the ones with a



valve-opening-Cv characteristic graph

Outside Drawing of Different Types of Shutter





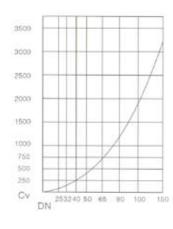


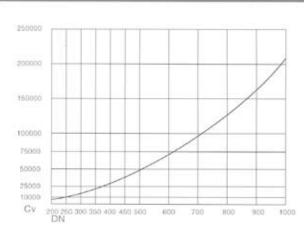
Ordinary type

Adjustment type

Diversion hole type

DN-Cv Graph of Flat Valves with A Diversion Hole



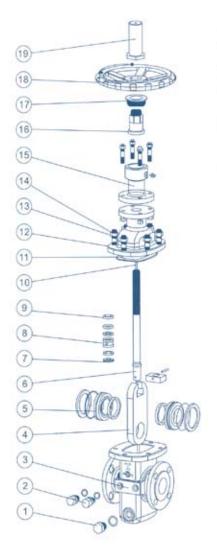






Technic	al specification	V 5.30 5 7		
	Design reference	GB	API	ASME
	Design standard	JB/T 5298	API 6D	ASME B16.34
	, Flanged ends	GB/T 12221 JB/T 5298	API 6D	ASME B16.10
Structura length	Welded connection	GB/T15188.1	API 6D	ASME B16.10
	Flanged ends	GB/T 9113 JB/T 79 HG 20592	ASME B16.5.	ASME B16.47
1	Butt-welding ends	GB/T 12224	ASME	B16.25
	Test & inspection	JB/T 9092	API 6D	API 598

Notes: Serial valve connecting flange and butt-welding terminal size can be designed, at customers' request.



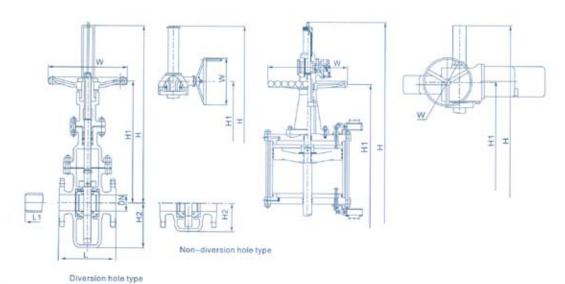
			Material		
No.	Accessory	Ordinary			phur type
	name	GB	ASTM	GB	ASTM
1	blow downstopple	2Cr13	A276-420	1Cr18Ni9	A276-304
2	Grease injection joint	25	A105	25	A105
3	Body	WCB	A216-WCB	WCB	A216-WCB
4	gate disc	25	A105	1Cr18Ni9	A182-F304
5	Seat	25+PTFE+NBR	A105+PTFE+NBR 10	r18Ni9+PTFE+F	PM 304+PTFE+FPM
6	Stem	1Cr13	A182-F6a	1Cr18Ni9	A182-F304
7	Lower packing	PTFE	PTFE	PTFE	PTFE
8	Spacing ring	2Cr13	A276-420	2Cr13	A276-420
9	Upper packing	PTFE	PTFE	PTFE	PTFE
10	Indicating finger	2Cr13	A276-420	2Cr13	A276-420
11	Gasket		graphite+stain	less steel	
12	Bonnet	WCB	A216-WCB	WCB	A216-WCB
13	Bolt	35CrMoA	A193-B7	0Ni18Ni9	A193-B7M
14	Nut	35	A194-2H	0Cr18Ni9	A194-2HM
15	Yoke	WCB	A216-WCB	WCB	A216-WCB
16	Stem nut	ZQA19-4	C95500	ZQA19-4	C95500
17	Gland	25	A105	25	A105
18	Hand wheel	QT400-174	536-60-40-18	QT400-17	A536-60-40-1
19	Indicating cover	25	A105	25	A105

Notes: The major parts of the serial valves and materials of sealing surface can be designed and selected according to actual work condition or customers' specific requirement.



PARALLEL SINGLE-DISC GATE VALVE

W(K)Z (L,T) (5,6,7,9) 3F (H,Y,D)

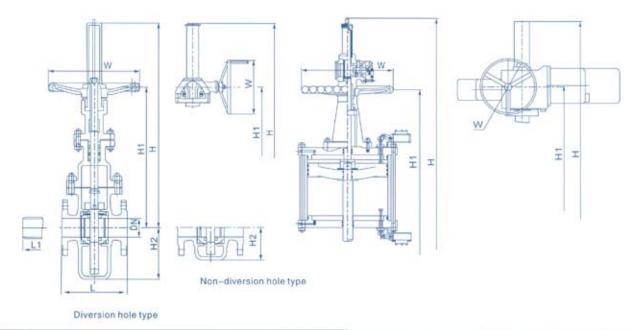


DN NPS Flange Butt Welding Hand-Operated	MM in L	25 1	32 1¼	40	50	65																
Butt Welding	LI	127		11/2	2	21/z	3	100	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28	800 32	900 36	1000	1200 48
	LI		140	165	178	190	203	229	267	292	330	356	381	406	432	457	508	610	660	711	1575	1803
Hand-Operated		127	140	165	216	241	283	305	403	419	457	502	572	610	660	711	813	914	965	1016		nei
	н	278	350	435	475	535	600	700	910	1095	1370	1470	1730	1870	2185	2335		-	-	-	-	-
Hand-Operated	H1	220	270	335	360	425	460	535	685	815	965	1100						-	-		-	
Hand-Operated	W	200	200	250	250	300	300	350	350	350	450	500	600	650	700	800	1000	-	_	-	-	-
Weight(Non-diversion hole type)	Kg	15	20	22	25	42	48	55	115	150	260	350	500	610	970	1200	1850	-	191	Nu I	1141	-
Weightpulversion have type)	Kg	17	22	24	27	46	52	62	126	165	286	385	550	670	1067	1320	2035	-	-		-	-
Gear driving	H	-	1		-	1	12	114	72	1235	1510	1610	1890	2030	2415	2565	3045	-	-	-	-	
Gear driving	HI	-	-	-	-	-	-	-	-	900	1050	1185	1345	1470	1625	1715	2135	-	_	_	-	-
Gear driving	W	13	170	130	-	(4)	-	30	-	BA-0	BA-0	BA-0	BA-1	BA-1	BA-2	BA-2	BA-2	11	(4)	10+01	-	=
Gear device		-	-	-	-	-	-	-	-	305	305	305	458	458	458	458	458	-	-		-	-
Weight (Non-diversion hale type)	Kg	-	-	14	-	-	1	-	72	185	295	400	550	660	1030	1300	1950		-		-	-
Weight(Unversion hale type)	Kg	-	-	-	-	-	-	-	-	200	318	432	596	713	1100	1400	3885	_	-	-	-	-
Air-sperating and fluid driving	H	-	-	+	-	-	1075	1240	1400	1595	1800	2090	2420	2615	2895	3160	3885	4065	12	Bell		- 12
Ar-operating and Fluid driving	HI	-	-	-	-	-	820	945	1065	1210	1370	1590	1845	1995	2205	2405	2955	3090	-	-	-	-
Air-sperating and Fluid priving	W	2	8	-	-	-	250	250	300	300	350	350	350	400	500	600	650	700	-	lanta.	-	
Weight/Non-diversion hale type)	Kg	-	100	-	-	-	67	77	161	210	364	490	700	854	1358	1680	2590	4074	-	-	-	-
Weight(Diversion hale type)	Kg	-	141	-		-	73	84	176	231	400	539	770	939	1493	1848	2849	4481	-	1	174	+
Electric Driving	Н	-	-	-	690	747	812	960	1170	1355	1630	1730	2020	2160	2500	2650	3130	3630	4135	4605	5140	5670
Electric Driving	HI	-	-	-	572	637	672	795	945	1075	1095	1230	1417	1532	1651	1741	2161	2470	2933	3260	3645	4040
Electric Driving	W	-	-	-	200	200	200	508	508	508	305	305	305	305	305	305	457	457	610	610	610	610
Electric Driving Device		-	-	-		SMC -D4		SMC -03	SMC -03	SMC -03	SMC -00	SMC -00	SMC -0	SMC -0	SMC -1	SMC -1	SMC	SMC	SMC	SMC -3	SMC	SMC
Weight(Non-aversion hale type)	Kg	-	-	-	50	61	69	100	160	220	330	420	610		1160	made	1000000	20020	-	5620	2217	1000
Weight: Liversion hole type)	Kg	8	-	+	52	65	75	107	172	235	353	452	656		1248					6045		
Non-diversion hole type	H2	60	70	75	80	90	100	110	145	170	210	240	265	290	325	360	425	455	505	545	610	000000
Diversion note type	H2	90	105	115	122	152	178	220	345	420	495	600	640	720	798	875				1500		



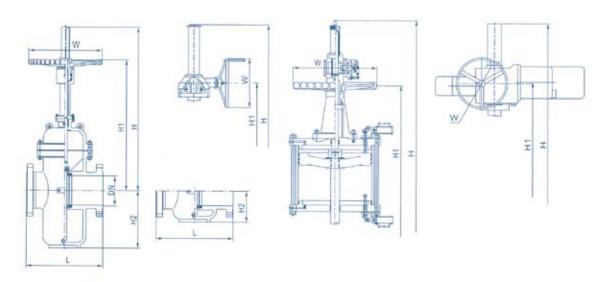
PARALLEL SINGLE-DISC GATE VALVE

W(K)Z (L,T) (5,6,7,9) 3F (H,Y,D)



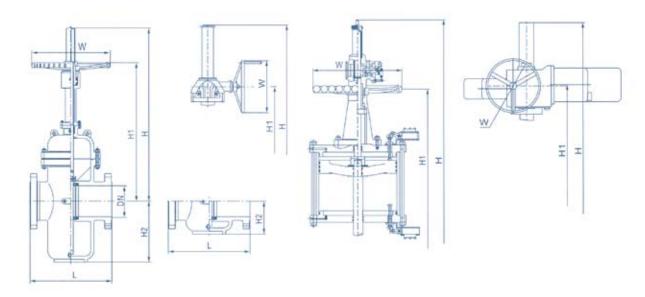
Main Size of out	side	W.								- 18				PI	V4.01	ИРа	F	N5.0	MPa	(Cla	ass3	00)
DN NPS	MM in	25 1	32 11/4	40 11/2	50 2	65 21/2	80 3	100 4	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28	800 32	900 36	1000 40	1200 48
Flange	L	165	178	190	216	241	283	305	403	419	457	502	762	838	914	991	1143	1346	1524	1727	2083	2286
Butt Welding	L1	165	178	190	216	241	283	305	403	419	457	502	762	838	914	914	1143	1346	1524	1727	2083	2286
Hand-Operated	Н	280	350	435	475	535	600	700	910	1095	1370	1470	1730	1870	2185	2335	2815	-	-	-	-	+
Hand-Operated	HI	220	270	335	360	425	460	535	685	815	965	1100	1250	1375	1485	1575	1995	-	7	-	2	-
Hand-Operated	W	200	200	250	250	300	300	350	350	350	450	500	600	650	700	800	1000	-	-	-	-	-
Weight/Non-arversion hole type)	Kg	18	24	28	38	57	68	75	165	315	410	620	790	1270	1480	1835	2880	-	-	-	*	-
Weight(Diversion hale type)	Kg	20	26	31	42	62	75	82	181	346	451	682	860	1380	1610	2000	3130	-	-	-	-	-
Gear driving	Н	113	-	-	-	-	22	-	-	1235	1510	1610	1890	2030	2415	2565	3045	-	123	-	2	-
Gear driving	H1	-	-	-	-	-	-	-	-	900	1050	1185	1345	1470	1625	1715	2135	-	-	_	-	-
Gear driving	W	1	-	-	-	-	-	-	-	305	305	305	458	458	458	458	458	-	-	-	-	-
Gear device		-	-	-	-	_	-	_	-	BA-0	BA-0	BA-0	BA-1	BA-1	BA-2	BA-2	BA-2	1	-	-	-	-
Weight[Non-giversion hole type]	Kg	141	-	-	-	2	223	-	-	350	460	670	870	1390	1620	2050	3140	4	-	1	-	-
Weight(Diversion hole type)	Kg	-	-	-	-	-	-	-	-	378	497	723	939	1500	1750	2215	3390	-	-	Ψ.	_	-
Air-operating and Hisld driving	H	-	12	-	=	-	1075	1240	1400	1595	1800	2090	2420	2615	2895	3160	3885	4065	-	-	-	-
Air-operating and Fluid driving	H1	-	-	_	-	_	820	945	1065	1210	1370	1590	1845	1995	2205	2405	2955	3090	-	-	-	-
Air-operating and riving	W	1100	-	-	-	1	250	250	300	300	350	350	350	400	500	600	650	700	-	- 23	-	12
Weight(Non-diversion hole type)	Kg	-	-	-	-	-	95	105	231	441	574	868	1148	1806	2128	2730	4116	4925	-	-	_	-
Weightsurversion noie type)	Kg	-	1	-	-	-	105	115	253	485	632	955	1262	2002	2352	2961	4556	5400	-	-	-	-
Electric Driving	Н	-	-	-	690	747	860	960	1170	1355	1630	1760	2020	2185	2500	2695	3175	3670	4136	4673	5747	6820
Electric Driving	H1	-	-	-	572	637	720	795	945	945	1095	1257	1407	1541	1651	1757	2177	2606	2933	3317	4085	4850
Electric Driving	W	-	-	_	200	200	508	508	508	305	305	305	305	305	305	457	457	610	610	610	610	610
Electric Driving Device				-	SMC -04	SMC -04	SMC -03	SMC -03	SMC -03	SMC -00	SMC -00	SMC -0	SMC -0	SMC -1	SMC -1	SMC -2	SMC -2	SMC -3	SMC -3	SMC -4	SMC -4	SMC -4
(Veight(Non-diversion hole type)	Kg	-	-	-	76	90	110	125	235	385	520	770	1000	1450	1700	2160	3400	4170	5580	7200	10440	13680
Weight(Diversion bale type)	Kg		-	-	82	98	120	138	250	413	557	823	1039	1500	1830	2325	3540	4770	6295	7680	10450	14200
Non-diversion hole type	H2	60	70	75	80	90	100	110	145	170	210	240	265	290	325	360	425	455	505	545	625	705
Diversion hole type	H2	90	105	115	122	152	178	220	345	420	495	600	640	720	798	875	1170	1250	1370	1500	1760	2020





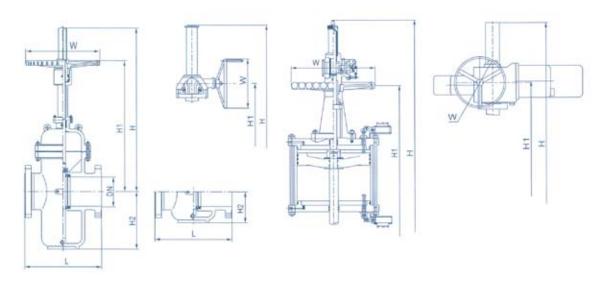
Main Size of outs	ide						1949	100		100	W. I			23	150		M	1 0000	0000	PN	6.41	ЛРа
DN NPS	MM in	25 1	32 1¼	40 1½	50 2	65 2½	80	100 4	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28	800 32	900 36	1000 40	1200 48
Flange	L	216	229	241	250	280	310	350	450	550	650	750	850	950	1050	1150	1350	1450	1850	1880	2028	2464
Butt Welding	LI	216	229	241	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1651	1880	2028	2464
Hand-Operated	н	295	368	457	499	562	630	735	956	1150	1439	1545	1817	1965	2295	2452	-	-	-	7 :	-	-
Hand-Operated	HI	230	285	352	378	446	483	562	720	856	1013	1155	1313	1445	1560	1655	1 30		I SI	L.	320	100
Hand-Operated	W	200	200	250	250	300	300	350	350	400	500	600	650	700	800	1000	-	-	-	-	-	-
Weight(Non-giversion hole type)	Kg	20	27	38	55	72	85	98	205	350	496	760	960	1400	1610	2130	1	400		1000		14
Weight(Diversion hole type)	Kg	23	31	43	60	79	93	108	225	385	539	836	1040	1550	1830	2320	-	-	-	-	-	-
Gear driving	H	-	12	-	2	121	-	120	1096	1290	1580	1705	1977	2125	2525	2682	3186	-	-	10	-	i de
Gear driving	HI	-	-		-	-	-	-	805	941	1098	1250	1408	1540	1700	1795	2235	-		-	-	-
Gear driving	W	-	1	14	=	-	-	-	305	305	305	458	458	458	458	458	458	-	-	1191	1341	131
Gear device			-	-	-	-	-	-	BA-0	BA-0	BA-D	BA-1	BA-1	BA-1	BA-2	BA-2	BA-2	_	-	-	-	-
Weight(Non-diversion hole type)	Kg	- 5	EL.	-	-	-	-	-	240	400	540	810	1200	1680	1980	2400	3850	111400	120	1140	1	-
Weight(Diversion hole type)	Kg	-	-	-	-		-	-	260	432	583	875	1300	1815	2140	2590	4156	-	-	-	-	-
Air-operating and Fluid driving	H	-		-	-	-	1130	1302	1470	1675	1890	2195	2542	2746	3040	3318	4080	4268	-	-	-	-
Air-operating and Fluid driving	H1	-	-	-	-	+	861	992	1118	1271	1440	1670	1937	2095	2315	2525	3103	3245	-	-	-	-
Air-operating and Fluid driving	W	15	350	30	118	10	250	250	300	300	350	350	350	400	500	600	650	700	121	8211	1/2	101
Weight(Non-diversion hale type)	Kg	+	-		-	+	200	250	354	470	592	895	1210	1835	2185	2750	4190	4980			£-	
Weight(Diversion hole type)	Kg	-	-	70	-		250	305	405	500	650	970	1320	2160	2410	2982	4596	5450	-	101	123	541
Electric Driving	Н	-	-	-	723	785	902	1007	1216	1440	1728	1833	2131	2278	2655	2812	3356	3902	4393	4863	5804	6745
Electric Driving	HT	-	121	-	601	670	756	835	848	1013	1170	1312	1480	1610	1741	1936	2413	2777	3121	3428	4042	
Electric Driving	W	-	-	-	200	200	508	508	305	305	305	305	305	305	457	457	610	610	610	760	760	760
Electric Driving Device		+	-	-	SMC -04	SMC -04	SMC -03	SMC -03	SMC -00	SMC -0	SMC -0	SMC -0	SMC -1	SMC -1	SMC	SMC	SMC	SMC	SMC	SMC -5	SMC -5	SMC -5
Weight(Non-diversion hale type)	Kg	-	-		105	122	135	148	300	460	640	860	1280	1790	2090	2410	3880	5030	5920	7290		12770
Weight(Diversion hale type)	Kg	21	-	-	107	126	140	153	320	492	683	975	1380	1925	2250	2600	4450	5300	6630	7740		12180
Non-diversion hole type	H2	66	77	83	88	100	110	121	160	187	230	265	292	320	358	396	468	500	556	600	680	770
Diversion hole type	H2	100	116	127	135	167	196	242	380	462	545	660	705	792	878	963	1287	1375	1507	1650	1935	2220





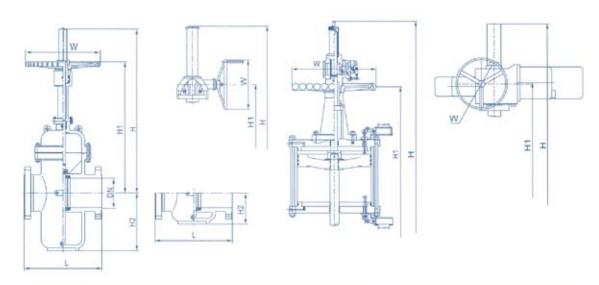
Main Size of ou	ıtsi	de		W		16									911	350				C	lass4	100
DN NPS	MM in	25 1	32 1¼	40 1½	50 2	65 21/2	80 3	100	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28	800 32	900 36	1000 40	1200 48
Flange	L	216	229	241	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1650	1880	2028	2464
Butt Welding	Lt.	216	229	241	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1651	1880	2028	2464
Hand-Operated	Н	295	368	457	499	562	630	735	956	1150	1439	1545	1817	1965	2295	2452	-	-	(+)	-	-	+
Hand-Operated	H1	230	285	352	378	446	483	562	720	856	1013	1155	1313	1445	1560	1655	EHN	URI	11.2	15+15	131	16-3
Hand-Operated	W	200	200	250	250	300	300	350	350	400	500	600	650	700	800	1000	-	-	-	-	-	-
Weight(Non-diversion hole type	Kg	20	27	38	55	72	85	98	205	350	490	760	960	1400	1610	2130	HHIE	HHI	HEI	1181	Hai	3-8
Weights Diversion hole type) Gear driving	Kg H	23	31	43	60	79	93	108	225	385 1290	539 1580	836 1705	1040 1977	1550 2125	1830	2320 2682	3186	-	HÜH	1101		-
Gear driving	H1	11711	1111	Hit	11721	2111	mia.	1012	805	941	1098	1250	1408	1540	1700	1795	2235	-		10000	1022	100
Gear driving	w	1121	2121	illi		101	1		305	305	305	458	458	458	458	458	458	HIS	115211	11231	1710	130
Gear device	- 77	11111	91191		14931	2011	12.61	-	BA-0	BA-0		BA-1	BA-1	7777	11/00	BA-2	10000	-	-	-	2200	
Weight[Non-diversion hole type	Ka	H	EEASS	1111	HEI	H	123	-	240	400	540	810	1200	1680	1980	2400	4980	11111	113211	HWH	1141	122
Weight (Diversion hole type)	Kg			-	-	-	-		260	432	583	875	1300	1815	2140	2590	5450	-	-		-	-
Air-operating and Fluid driving		141	17231	6921	121	1649	1130	1302	1470	1675	1890	2195	2542	2746	3040	3318	4080	4268	HHH	1131	H	3.3
Ak-operating and Fluid driving			-	-	-	-	861	992	1118	1271	1440	1670	1937	2095	2315	2525	3103	3245	-	-	-	
Air-operating and Fluid driving		ESE:	1121	65433	1546	HAFE	250	250	300	300	350	350	350	400	500	600	650	700	117411	1121	1120	3.5
Weight/Non-diversion hale type	24.		-		-	-	200	250	354	470	592	895	1210	1835	2185	2750	4190	4980		-	-	-
Weight(Diversion hole type)	Ka	Hall	191	HE!	1141	1	250	305	405	500	650	970	1320	2100	2410	2982	4596	5450	141	HK.	HEE	333
Electric Driving	Н	-	-	5-	723	785	902	1007	1216	1440	1728	1833	2131	2278	2655	2812	3356	3902	4393	4863	5804	6745
Electric Driving	H1:	HE	1153	HE	60.1	670	756	835	848	1013	1170	1312	1480	1610	1741	1936	2413	2777	3121	3428	4042	4656
Electric Driving	W	-	-	-	200	200	508	508	305	305	305	305	305	305	457	610	610	610	610	760	760	760
Electric Driving Device		-			SMC -04	SMC -04	SMC -03	SMC -03	SMC -00	SMC -0	SMC -0	SMC -0	SMC -1	SMC	SMC -2	SMC -3	SMC -3	SMC -4	SMC -4	SMC -5	SMC -5	SMC -5
Weight Non-diversion hole type	Kg	_	-	-	105	122	135	148	300	460	640	860	1280	1790	2090	2410	3880	5030	5920	7290	10050	12770
Weight[Diversion hole type)	Kg		EEQT.		107	126	140	153	320	492	683	975	1380	1925	2250	2600	4458	5300	6630	7740	9960	12180
Non-diversion hole type	110	66	77	83	88	100	110	121	160	187	230	265	292	320	358	396	468	500	556	600	680	770
Diversion hole type	H2	100	116	127	135	167	196	242	380	462	545	660	705	792	878	963	1287	1375	1507	1650	1935	2220





Main Size of out	side	•						100	<u> 44</u>	MB.	-		31,2			P	N10.0)MPa	(Cla	iss6	00)
DN NPS	MM in	25 1	32 1¼	40 11/2	50 2	65 21/2	80	100	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28	800 32	900 36	1000
Flange	L	216	229	241	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2387
Butt Welding	LI	216	229	241	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778	2083	2387
Hand-Operated	н	295	368	457	499	562	630	735	956	1150	1439	1545	1817	1965	-	-	-	-	-	-	-
Hand-Operated	Ht	230	285	352	378	446	483	562	720	856	1013	1155	1313	1445	-	114	1121	132	1022	MAN	-
Hand-Operated	W	200	250	250	300	350	350	400	500	600	650	700	800	1000	-	-	-	-	-	-	-
Weight(Non-diversion hole type)	Kg	24	32	45	59	85	98	122	288	495	570	790	1000	1498	-	-	-	(et	11-1	4	-
Weight(Diversion hole type)	Kg	28	36	53	65	93	108	134	317	545	627	869	1100	1630	-	-	-	-	-	-	-
Gear driving	H	-	-	-	-	-	-	-	1096	1290	1580	1705	1977	2125	2525	2682	-	11:51	No.	1565	-
Gear driving	H1		-	-	-	-	-	-	805	941	1098	1250	1408	1540	1700	1795	-		-		-
Gear driving	W	191	15	Hell			-	-	305	305	458	458	458	458	458	458	HELL	11411	-	-	-
Gear device		-	-	-	-		-	BA-0	BA-0	BA-0	BA-1	BA-1	BA-1	BA-2	BA-2	BA-2	-	-	-	-	-
Weight(Non-diversion hole type)	Kg	141	44	HEI	18	-	-	172	338	445	670	1190	1800	2260	2910	3350	HE	11401	-	-	-
Weight(Diversion hale type)	Kg	-	-	-	-	-	-	185	365	480	725	1285	1945	2470	2970	3610	-	-	-	-	+
Ar-operating and Fluid driving	H	3-11	150	20-15	Te I	25	1130	1302	1470	1675	1890	2195	2542	2746	3040	3318	4080	4268	1	5+3	-
Air-operating and Fluid driving	H1	-	-	-	-	-	861	992	1118	1271	1440	1670	1937	2095	2315	2525	3103	3245	-	-	-
Air-operating and Fluid driving	W	-	-	-	-	-	250	250	300	300	350	350	350	400	500	600	650	700	-	-	-
Weight(Non-diversion hale type)	Kg	-	-	-	-	-	215	260	390	490	630	935	1590	1915	2258	2840	4285	5120	-	-	-
Weight Diversion hale type)	Kg	-	-	-	-	-	265	315	446	540	695	1010	1410	2254	2635	3055	4690	5610	1	-	-
Electric Driving	H	-	-	-	723	821	890	995	1245	1440	1753	1858	2177	2365	2695	2922	3426	3983	4485	5490	6495
Electric Driving	H1	-	1943	-	600	705	742	690	876	1013	1199	1321	1495	1762	1877	2030	2470	2835	3186	3890	4600
Electric Driving	W	-	-	-	200	508	508	305	305	305	305	305	457	610	610	610	610	760	760	760	760
Electric Driving Device				-	SMC -04	SMC -03	SMC -03	SMC -00	SMC -0	SMC -0	SMC -1	SMC -1	SMC -2	SMC -3	SMC -3	SMC -4	SMC 4	SMC -5	SMC -5	SMC -5	SMC -5
Weight(Non-diversion hale type)	Kg	-	-	-	109	135	150	192	398	544	720	1270	1880	2480	2930	3380	4210	5260	6220	8150	1000
Weight(Diversion hole type)	Kg	125	121	-	112	140	155	205	425	580	775	1365	2025	2270	2980	3650	4650	5610	6850	9300	1100
Non-diversion hole type	H2	66	77	83	88	100	100	121	160	187	230	265	292	320	358	396	468	500	556	670	780
Diversion hole type	H2	100	116	127	135	167	196	242	380	462	545	660	705	792	878	963	1287	1375	1507	1770	2035

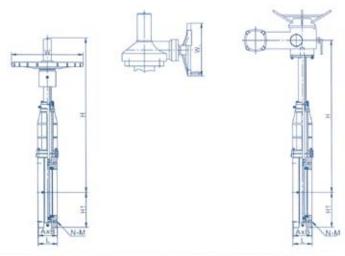




Main Size of out	siue	12							11-1 ¹² -				0-1584	FI	115.01	vira	Class	(000
DN NPS	MM in	25 1	32 11/4	40 1½	50 2	65 21/2	80	100	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28
Flange	L	254	279	305	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1905
Butt Welding	1.1	254	279	305	368	419	381	457	610	737	838	965	1029	1130	1219	1321	1549	1905
Hand-Operated	Н	325	405	503	550	618	693	810	1052	1263	1583	1698		-	-	-	-	-
Hand-Operated	H1	253	312	387	416	491	531	618	791	942	1136	1271	1-	HEID	11+11	1120	-	-
Hand-Operated	W	250	300	300	350	400	500	600	650	700	800	1000	-	-	-	*	-	-
Weight(Non-diversion hole type)	Kg	27	34	50	81	115	155	200	600	780	1060	1280	11 - 31	-		10	1.5	1 50
Weight(Diversion hale type)	Kg	31	38	58	90	125	170	220	650	840	1120	1390	-	-	-	-	-	-
Gear driving	Н	-	-	-	-	100	833	950	1212	1423	1813	1928	2230	-	-	1	-	-
Gear driving	H1	-	-		-	-	616	703	886	1037	1276	1411	1585	-	-	-	-	-
Gear driving	W	N.		144	-	-	305	305	458	458	458	458	458		-	121	-	2
Gear device		-	-	-	-	-	BA-0	BA-0	BA-1	BA-1	BA-2	BA-2	BA-2	-	-	-	-	-
Weight(Non-deversion hole type)	Kg	11-11	1341	(+0)	-	1940	190	250	650	880	1160	1380	1990	11 860	N#G	High.	234	-
Weight(Liversion hale type)	Kg	-	-	-	-	-	205	270	700	950	1250	1490	2115	-	-	-	-	-
Air-operating and Fluid driving	Н		117		-	100	1242	1432	1617	1843	2080	2415	2795	3021	3345	3650	4487	5350
Air-spending and Fluid driving	H1	-	-	-	-	-	947	1091	1230	1398	1583	1837	2131	2305	2547	2778	3413	4050
Air-operating and Fluid driving	W	TEX.	920	722	1	-	250	300	300	350	350	400	400	500	600	700	800	800
Neight(Non-diversion hole type)	Kg	-	-	-	-	-	230	286	840	1092	1484	1792	2140	2830	3295	3850	4320	4800
Weight(Diversion hole type)	Kg	-	-	de	-		285	345	910	1176	1568	1946	2450	3015	3520	4210	4810	5400
Electric Driving	H	-	-	+	809	878	982	1098	1366	1577	1943	2058	2400	2630	2993	3147	3706	4265
Electric Driving	HI	-	-	-	545	620	688	775	957	1108	1318	1453	1762	1963	2090	2168	2655	3150
Electric Driving	W	-	-	700	305	305	305	305	305	305	457	457	610	610	610	760	760	760
				1	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC
Electric Driving Device		180			-00	-00	-0	-0	-1	-1	-2	-2	-3	-4	-4	-5	-5	-5
Reight(Non-diversion hale type)	Kg	- 40	-		131	155	225	270	750	960	1270	1490	1910	2350	3010	3480	4012	4550
Weights Diversion hole type)	Kg	(+1)	14	-	135	161	240	290	800	1030	1360	1600	2059	2790	3285	3840	4350	4860
Non-diversion hole type	H2	73	85	91	97	110	121	133	176	206	255	290	321	351	395	436	515	600
Diversion hole type	H2	10	128	140	147	184	216	266	418	508	600	726	775	871	966	1060	1416	1770



LIGHT-TYPE THROUGH CONDUIT GATE VALVE



							N-M(GB)	N-M(JB)			
1.	B	L	н	H1	W	W,	1.6/2.5	1.6/2.5	N-M(API)	A×B	weight(kg
)()	127	712	257	250	_	8-M16/M20	8-M16/M20	8-M16	106×204	70
20	5	140	820	278	350	-31	8-M16/M24	8-M16/M22	8-M20	120×228	100
50)	140	894	339	350		8-M20/M24	8-M20/M22	8-M20	120×260	120
H)	152	1074	432	450	310	12-M20/M24	12-M20/M22	8-M20	140×260	210
50)	165	1277	498	450	310	12-M24/M27	12-M22/M27	12-M22	150×260	240
)()	178	1505	570	550	460	12-M24/16-M27	12-M22/16-M27	12-M22	160×270	340
50)	190	1705	640	650	460	16-M24/M30	16-M22/M30	12-M27	172×370	430
00)	216	1835	710	650	460	16-M27/M33	16-M27/M30	16-M27	180×400	580
50)	222	2037	800	750	460	20-M27/M33	20-M27/M30	16-M30	190×420	600
)()	229	2265	877	750	460	20-M30/M33	20-M30/M36	20-M30	193×460	700
50)	267	2500	960	-	610	•	•	20-M33	230×500	800
)()	267	2730	1030	11401	610	20-M33/M36	20-M36/M36	20-M33	230×540	980
50)	292	3040	1110	-	610	•	•	24-M33	254×600	1200
)()	292	3090	1190	-	610	24-M33/M39	24-M36/M42	28-M33	254×600	1380
5()	318	3500	1260	-	813	•	•	28-M33	270×700	2240
)()	318	3680	1340	-	813	24-M36/M45	24-M36/M42	28-M39	270×760	2600
50)	330	4000	1420	-	813	•	•	32-M39	280×760	3090
)()	330	4230	1490	-	813	28-M36/M45	28-M36/M48	32-M39	280×800	3500
50)	410	4460	1570	-	813	•	•	32-M39	360×850	3970
0	0	410	4700	1650	1 - 1	813	28-M39/M52	28-M42/M52	36-M39	360×900	4120
5	0	410	4950	1730	-	813	•	•	36-M39	360×900	5035
0	0	470	5670	1950	-	813	32-M45/M52	32-M48/M52	44-M39	420×1000	6380
0	0	530	6580	2290	~	813	36-M45/M56	36-M48/M56	44-M45	480×1200	7200
0	0	600	7100	2410	-	813	•	• /	52-M45	540 x 1300	98000



PARALLEL DOUBLE-DISC GATE VALVE

Products design features

Parallel double-disc gate valve is a product with new structure, which has small open-and-close moment, high speed, little vibration, long performance life and reliable operation. It is mainly applied to cut-off or discharge of gas and liquid delivery pipelines.

The structural features include:

- ★ A sealing structure consists of two parallel shutters and a wedge-tightening device it is taken to replace the traditional wedg eshaped gate valve structure;
- ★ The components of valve sealing mechanism are separated so the sealing can retain when transmuting caused by the tem perature changes, and will not jam where swelling in high temperature;
- ★ The sealing surface of the valve adopts abrasion—resistant and anti—corrosive materials which can lengthen the performance life of the valve;
- ★ In high temperature or pressure, the disc on inlet side can be designed in pressure relief style which can avoid abnormal pressure rising in cavity caused by temperature changes, thus to ensure used safety.
 - ★ The valve adopts full-shut structure which has good protection function and can be used in all weather,

Products specifi	cation	4 8 4 8 77	THE REAL PROPERTY.	
Serial mode	İs	W(K)Z44、W(K)Z55 W(K)Z64、W(K)Z56	4. W(K)Z644. W(K 4. W(K)Z664. W(K	
Pressure grade r	ange PN1.	6 ~ 10MPa		Class 150 - 600
Drift diameter specificat	ion range DN50	~ 1000mm		2*~40*
	Hand v	wheel driving		Gear driving, air - operating, hydrodynamic driving and electric driving
Driving manner and scope of application	Class150 - 300(PN1.6 - 4.0)	Class400(PN6.4)	Class600(PN10.0)	DN100 - 900mm 4" - 36"
	2° ~ 6°(DN50 ~ 150)	2" ~ 4"(DN50 ~ 100)	2" ~ 3"(DN50 ~ 80)	DN100 ~ 900mm 4" ~ 36"

lotes:Our Company can provide products at customres'request.

	N	lominal rating	g pressure (PN)		P	ound grad	e(Class)	
Pressure	1.6 2.5	4.0 6.	4 10.0	16.0	150	300	400	600	900
(MPa)	Intensity test	1.5 × PN					1.5 × PN		
est pressure	Sealing test	1.1 × PN					1.1×PN		
Applicable tempera	ture	-196	C ~ 425°C(dif	ferent raw mate	rial for differen	t work tem	perature)		
Amplinghia	Ordinary type		Petr	oleum.natural g	gas and finishe	d oil			
Applicable Medium	Antisulphur type		Natura	gas and petrol	eum with H ₂ S	and CO			
(MPa)	Back seal test	1.1 x PN					1.1 × PN		
Test pressure	Air test	0.4-0.7MP	a				0.4-0.7MP	а	

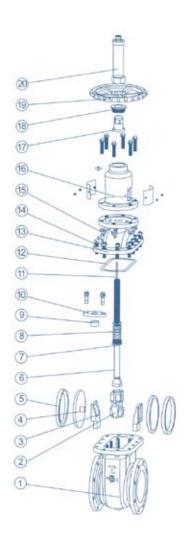
Note: PN is requested pressure for the body material under the 38℃.





Technica	I specification	Control of the same of	3 111 111	
	Design reference	GB	API	ASME
	Design standard	JB/T 5298	API 6D	ASME B16.34
Structural	Flanged ends	GB/T 12221 JB/T 5298	API 6D	ASME B16.10
length	Welded connection	GB/T15188.1	API 6D	ASME B16.10
	Flanged ends	GB/T9113 JB/T79 HG 20592	ASME B16.5.	ASME B16.47
8	Butt-welding ends	GB/T 12224	ASME	B16.25
	Test & inspection	JB/T 9092	API 6D	API 598

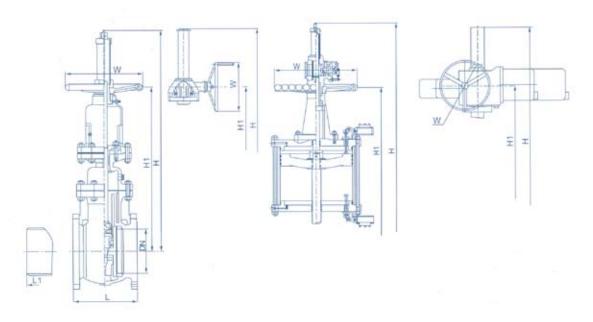
Notes: Serial valve connecting flange and butt-welding terminal size can be designed. at customers request.



	n of major parts		Mate	rial	
No.	Accessory	Ordin	ary type		ulphur type
	name	GB	ASTM	GB	ASTM
1	Body	WCB	A216-WCB	WCB	A216-WCB
2	Disc frame	WCB	A216-WCB	WCB	A216-WCB
3	Wedge block	WCB+STL	A216-WCB+STL	WCB+STL	A216-WCB+STU
4	Disc	25+STL	A105+STL	1Cr18Ni9+STL	A276-304+STL
5	Seat	25+STL	A105+STL	1Cr18Ni9+STL	A276-304+STL
6	Stem	2Cr13	A276-410	1Cr18Ni9	A276-304
7	Back seat	1Cr13	A276-410	1Cr18Ni9	A276-304
В	Packing			lexible Graphi	ite
9	Gland	2Cr13	A276-420	2Cr13	A276-420
10	Gland fland	WCB	A276-WCB	WCB	A216-WCB
11	Indicating finger	1Cr13	A276-410	1Cr13	A276-410
12	Gasket			Graphite+stair	less steel
13	Bonnet	WCB	A216-WCB	WCB	A216-WCB
14	Bolt	35CrMoA	A193-B7	35CrMoA	A193-B7
15	Nut	35	A194-2H	35	A194-2H
16	Yoke	WCB	A216-WCB	WCB	A216-WCB
17	Stem nut	ZQA19-4	C95500	ZQA19-4	C95500
18	Gland	25	A105	25	A105
19	Hand wheel	QT400-17	A536-60-40-18	QT400-17	A536-60-40-18
20	Indicting cover	25	A105	25	A105

Notes: The major parts of the serial valves and materials of sealing surface can be designed and selected according to actual work condition or customers' specific requirement.



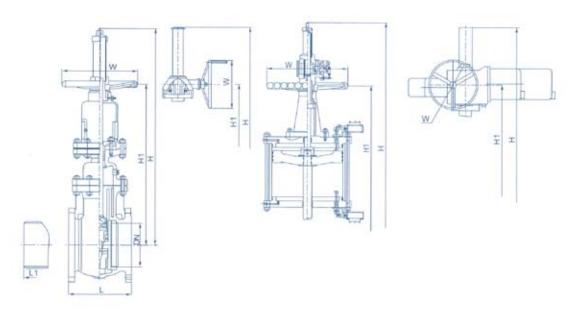


Main Size of outsi	de	4	10. 10	10.7	J. 18		945		K I	100	PN1.6	. 2.51	ИРа	PN2.0	MPa	(Class	150)
DN NPS	MM in	50 2	65 21/2	80	100 4	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28	800 32	900 36
Flange	L	178	190	203	229	267	292	330	356	381	406	432	457	508	610	660	813
Butt Welding	L1	216	241	283	305	403	419	457	502	572	610	660	711	813	914	965	1016
Hand-Operated	H	475	535	600	700	910	1095	1370	1470	1730	1870	2185	2335	2815	-	-	-
Hand-Operated	H1	360	425	460	535	685	815	965	1100	1250	1375	1485	1575	1995	-	101	-
Hand-Operated	W	250	300	300	350	350	350	450	500	600	650	700	800	1000	-	-	-
Weight	kg	27	46	52	62	128	163	280	381	551	668	1060	1310	2030	1	100	100
Gear driving	Н	-	-	141	-		1235	1510	1610	1890	2030	2415	2565	3045	(m:	-	-
Gear driving	H1	15	-	-	-		900	1050	1185	1345	1470	1625	1715	2135	1/20	1945	
Gear driving	W	(-)	-	-	-	-	305	305	305	458	458	458	458	45B	-	7	-
Gear device		1(+)	-	(m)	+	+	BA-0	BA-0	BA-0	BA-1	BA-1	BA-2	BA-2	BA-2	1	1	
Weight	kg	-	-	-	-	-	195	310	420	585	705	1050	1350	2010	-	(40.	-
Air-operating and Fluid driving	Н	141	-	1075	1240	1400	1595	1800	2090	2420	2615	2895	3160	3885	4065	104	-
Air-operating and Fluid driving	H1	-	=	820	945	1065	1210	1370	1590	1845	1995	2205	2405	2955	3090	1/2	-
Air-operating and Fluid driving	W	H-	-	250	250	300	300	350	350	350	400	500	600	650	700	17	-
Weight	kg	-	-	70	81	172	226	392	530	760	925	1480	1835	28110	4435	-	-
Electric Driving	Н	690	747	812	960	1170	1355	1630	1730	2020	2160	2500	2650	3130	3630	4135	4605
Electric Driving	H1	572	637	672	795	945	1075	1095	1230	1417	1532	1651	1741	2161	2470	2933	3260
Electric Driving	W	200	200	200	508	508	508	305	305	305	305	305	305	457	457	610	610
		SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC
Electric Driving Device		-04	-04	-04	-03	-03	-03	-00	-00	-00	-00	-1	-1	-2	-2	-3	-3
Weight	kg	50	62	71	102	165	230	348	441	650	768	1240	1563	2295	3445	4610	602



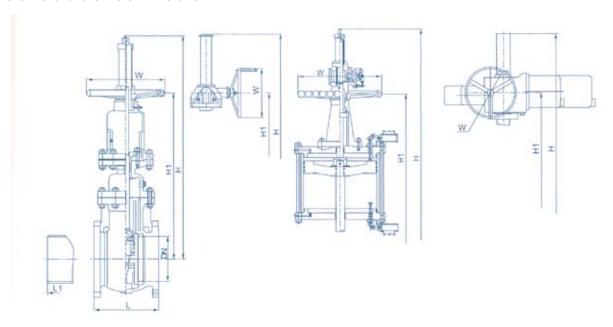
PARALLEL DOUBLE-DISC GATE VALVE

W(K)Z (5,6,7,9) 4(6) 4H (Y,D)



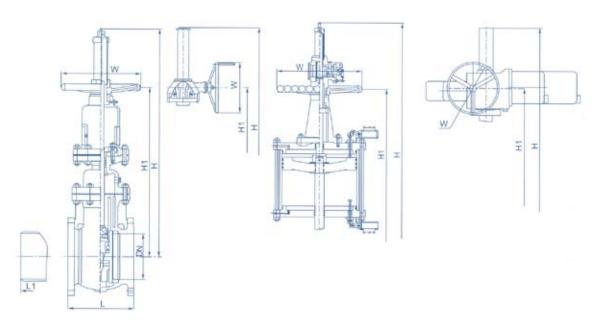
Main Size of outsi	de		The same								PN	14.0M	Pa	PN5.0	MPa	(Clas	s300)
DN NPS	MM in	50 2	65 2½	80 3	100 4	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28	800 32	900 36
Flange	t	216	241	283	305	403	419	457	502	762	838	914	991	1143	1346	1524	1727
Butt Welding	LI	216	241	283	305	403	419	457	502	762	838	914	991	1143	1346	1524	1727
Hand-Operated	Н	475	535	600	700	910	1095	1370	1470	1730	1870	2185	2335	2815	-	-	
Hand-Operated	H1	360	425	460	535	685	815	965	1100	1250	1375	1485	1575	1995	-	-	17.75
Hand-Operated	W	250	300	300	350	350	350	450	500	600	650	700	B00	1000	-	-	-
Weight	kg.	40	60	72	79	178	340	445	675	850	1375	1590	1985	3100	HELL	141	11-
Gear driving	H	-	-	-	+	4.5	1235	1510	1610	1890	2030	2415	2565	3045	2	-	-
Gear driving	H1	1043	HH	-	2	-	900	1050	1185	1345	1470	1625	1715	2135	-	DE LA	HE
Gear driving	W	-	-	-	-	-	305	305	305	458	458	458	458	458	-	-	-
Gear device			-			5	BA-0	BA-0	BA-D	BA-1	BA-1	BA-2	BA-2	BA-2		Tatal I	13.5
Weight	kg	-	*	-	-	-	370	490	715	915	1480	1720	2195	3355	-		-
Air-operating and Fiuld driving	Н	1843	1	1075	1240	1400	1595	1800	2090	2420	2615	2895	3160	3885	4065	-	1
Air-operating and Fluid driving	H1:	-	-	820	945	1065	1210	1370	1590	1845	1995	2205	2405	2955	3090	-	-
Air-operating and Field driving	W	360	+	250	250	300	300	350	350	350	400	500	600	650	700	-	-
Weight	kg	-	-	100	110	245	470	620	945	1240	1985	2310	2935	4520	5320	-	-
Electric Driving	H	690	747	860	960	1170	1355	1630	1760	2020	2185	2500	2695	3175	3670	4136	4673
Electric Driving	H1	572	637	720	795	945	945	1095	1257	1407	1541	1651	1757	2177	2606	2933	3317
Electric Driving	W	200	200	508	508	508	305	305	305	305	305	305	.457	457	610	610	610
Electric Driving Device		SMC -04	SMC -04	SMC -03	SMC -03	SMC -03	SMC -00	SMC -00	SMC -0	SMC -0	SMC	SMC -1	SMC -2	SMC	SMC	SMC	SMC
Weight	kg	80	92	110	130	243	400	540	810	1010	1483	1815	2310	2535	4735	6243	7647
100000000000000000000000000000000000000												NAME OF STREET	DOWN TO	23000	Deli December	1117.050	11/22





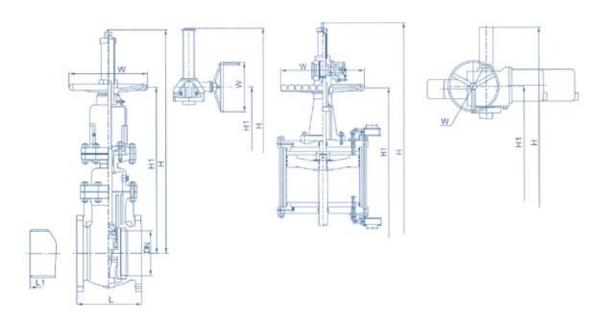
Main Size of out:	side	901 E	2000	900	96 1			EU AND	3200	0.000	1300	1000			9)3	PN6.4	MPa
DN NPS	MM in	50 2	65 2½	80	100	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28	800 32	900 36
Flange	L	250	280	310	350	450	550	650	750	850	950	1050	1150	1350	1450	1650	1880
Butt Welding	L1	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1651	1880
Hand-Operated	Н	499	562	630	735	956	1150	1439	1545	1817	1965	2295	2452	=	-	100	100
Hand-Operated	H1	378	446	483	562	720	856	1013	1155	1313	1445	1560	1655		-	1	- 14
Hand-Operated	W	250	300	300	350	350	400	500	600	650	700	800	1000	-	12	-	-
Weight	kg	58	76	89	102	210	370	521	815	1010	1515	1810	2300			Total .	-
Gear driving	Н	-	-	-	-	1096	1290	1580	1705	1977	2125	2525	2682	3186	- 17	-7	
Gear driving	H1	Nyi	1	1-	-	805	941	1098	1250	1408	1540	1700	1795	2235	-	10	-
Gear driving	W	-	-	-	-	305	305	305	458	458	458	458	458	458	-	+	-
Gear device		-	-	123	148	BA-0	BA-0	BA-0	BA-1	BA-1	BA-1	BA-2	BA-2	BA-2		112	- 2
Weight	kg	-	-	-	-	250	415	560	854	1285	1794	2115	2574	4132	-	-	1-
Air-operating and Fluid driving	H		1124	1130	1302	1470	1675	1890	2195	2542	2746	3040	3318	4080	4268	-	-
Air-operating and Fluid driving	H1	-	-	861	992	1118	1271	1440	1670	1937	2095	2315	2525	3103	3245	-	-
Air-operating and Fluid driving	W	-	-	250	250	300	300	350	350	350	400	500	600	650	700	-	-
Weight	kg		-	240	295	390	485	634	958	1305	2038	2367	2965	4572	5425	-	-
Electric Driving	н	723	785	902	1007	1216	1440	1728	1833	2131	2278	2655	2812	3356	3902	4393	4863
Electric Driving	H1	601	670	756	838	848	1013	1170	1312	1480	1610	1741	1836	2413	2777	3121	3428
Electric Driving	W	200	200	508	508	305	305	305	305	305	305	457	610	610	610	610	760
		SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC
Electric Driving Device		-04	-04	-03	-03	-00	-0	-0	-0	-1	-1	-2	-3	-3	-4	-4	-5
Weight	kg	100	122	136	150	310	485	665	940	1350	1900	2215	2574	4437	5268	6590	7695





Size of outside		9	-											2.3	Assi	Clas	s400
DN NPS	MM in	50 2	65 2½	80 3	100 4	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28	800 32	900 36
Flange	L	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1650	1880
Butt Welding	LT	292	330	356	406	495	597	673	762	826	902	978	1054	1232	1397	1650	1880
Hand-Operated	Н	499	562	630	735	956	1150	1439	1545	1817	1965	2295	2452	-	-	243	-
Hand-Operated	H1	378	446	483	562	720	856	1013	1155	1313	1445	1560	1655	-	134	III-41	-
Hand-Operated	W	250	300	300	350	350	400	500	600	650	700	800	1000	-7-	-	-	-
Weight	kg	58	76	89	102	210	370	521	815	1010	1515	1810	2300	11345			1
Gear driving	Н		-	-	-	1096	1290	1580	1705	1977	2125	2525	2682	3186	-	-	
Gear driving	H1	-	Lik4	-		805	941	1098	1250	1408	1540	1700	1795	2235	-	10213	- 2
Gear driving	W	2	23	-	-	305	305	305	458	458	458	458	458	458	-	-	-
Gear device		12	10-21	i n		BA-0	BA-0	BA-0	BA-1	BA-1	BA-1	BA-2	BA-2	BA-2	-	-	1
Weight	kg	2	-	-		250	415	560	854	1285	1794	2115	2574	4132	-		
Air-operating and Fluid driving	H	131		1130	1302	1470	1675	1890	2195	2542	2748	3040	3318	4080	4268		-
Air-operating and Fluid driving	H1	-	-	861	992	1118	1271	1440	1670	1937	2095	2315	2525	3103	3245	-	-
Air-operating and Fluid driving	W		-	250	250	300	300	350	350	350	400	500	600	650	700	11-11	-
Weight	kg	-	-	240	295	390	485	634	958	1305	2038	2367	2965	4572	5425		
Electric Driving	Н	723	785	902	1007	1216	1440	1728	1833	2131	2278	2655	2812	3356	3902	4393	4863
Electric Driving	Ht	601	670	756	838	848	1013	1170	1312	1480	1610	1741	1836	2413	2777	3121	3428
Electric Driving	W	200	200	508	508	305	305	305	305	305	305	457	610	610	610	610	760
Electric Driving Device		SMC -04	SMC -04	SMC -03	SMC -03	SMC -00	SMC -0	SMC -0	SMC -0	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC
Weight	ka	100	122	136	150	310	485	665	940	1350	1900	-2 2215	-3 2574	-3	-4	-4	-5
rieigin	0.8	100	166	100	100	3310	900	.000	840	(300	1900	2210	2014	4437	5268	6590	7695

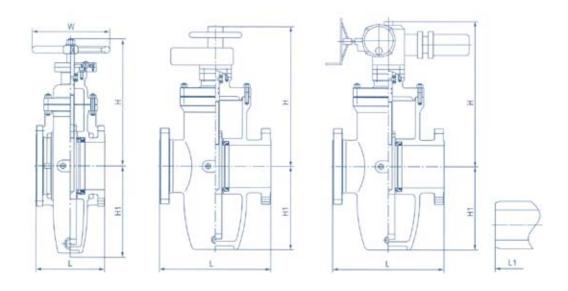




DN NPS	MM in	50	65 21/2	80	100	150	200	250 10	300 12	350 14	400 16	450 18	500 20	600 24	700 28	800 32
Flange	L	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778
Butt Welding	L1	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1549	1778
Hand-Operated	Н	499	562	630	735	956	1150	1439	1545	1817	1965	-	-	-	-	-
Hand-Operated	H1	378	-446	483	562	720	856	1013	1155	1313	1445	Tag.	747	+	-	-
Hand-Operated	W	300	350	350	400	500	600	650	700	800	1000	- 1	-	-	-	-
Weight	kg	62	90	105	125	298	520	600	846	1025	1560	-		my -	-	-
Gear driving	H	-	-	(-)	-	1096	1290	1580	1705	1977	2125	2525	2682	-	-	-
Gear driving	H1	13943	-	(m)	*	805	941	1098	1250	1408	1540	1700	1795	-	-	-
Gear driving	W.	-	-	+	-	305	305	458	458	458	458	458	458	-	-	-
Gear device		+	1/2	021	-	BA-0	BA-0	BA-1	BA-1	BA-1	BA-2	BA-2	BA-2	11-1	H4.1	-
Weight	kg	5.73	-		-	340	465	700	1215	1920	2435	2928	2570		17	-
Air-operating and Fluid driving	Н	-	(#)	1130	1302	1470	1675	1890	2195	2542	2746	3040	3318	4080	4268	7-
Air-operating and Fluid driving	H1	-	()	861	992	1118	1271	1440	1670	1937	2095	2315	2525	3103	3245	-
Air-operating and round duving	W	1141	414	250	250	300	300	350	350	350	400	500	600	650	700	2
Weight	kg		-	250	295	426	520	655	985	1396	2215	2600	3015	4645	5570	-
Electric Driving	Н	723	821	890	995	1245	1440	1753	1858	2177	2365	2695	2922	3426	3983	4488
Electric Driving	HT	600	705	742	690	876	1013	1199	1321	1495	1762	1877	2030	2470	2835	3186
Electric Driving	W	200	.508	508	305	305	305	305	305	457	610	610	610	610	760	760
		SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC	SMC
Electric Driving Device		-04	-03	-03	-00	-0	-0	-1	-1	-2	-3	-3	-4	-4	-5	-5
Weight	kg	105	130	150	204	410	560	755	1334	2005	2245	2930	2615	4595	5580	6810



GAS THROUGH-CONDUIT GATE VALVE (K)Z4 (5,9b) 4(6) 7F

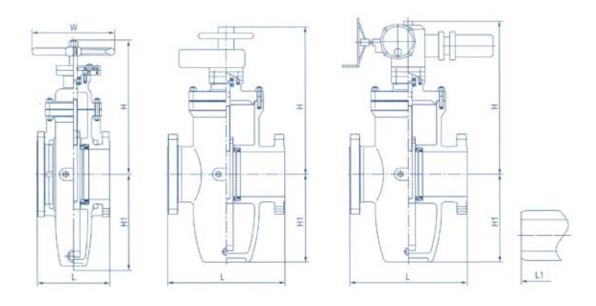


iain S	ize of (outside		100					100			PN2.0	WIPa(Class150)
DN	NPS	Flange	Butt Welding	Hai	nd-Operat	ed		Gear Drivin	ng	Gear	Ele	ctric Drivin	g	Electric
(mm)	(in)	L	L1	H1	Н	W	H1	Н	W	Device	H1	н	W	Driving Device
25	1	165	12	85	228	180	-	-	-	-	-	-	-	-
32	1 1/4	165		103	231	180		-	-	-	-	-	14	
40	11/2	178	-	115	240	250	2+1	-	-	-	-	-	-	-
50	2	178	216	130	255	250	-	-	- 1	David.	102	LINE IN	121	
65	21/2	190	241	160	355	300	1.7	-	-	-	5.5	-	-	1.00
80	3	203	283	180	360	300	-	-	100	-			-	
100	4	229	305	214	400	300	-		-	-	-	Ξ.	-	_
125	5	254	381	257	460	350	17.0	-	-		V.51		-	
150	6	267	403	300	500	350	-	-		3.00	-	-	-	-
200	8	292	419	388	570	350	-	-	-	725	2245	MISIN	1 141	
250	10	330	457	475	680	400	475	700	350	0	475	710	500	SMC-03
300	12	356	502	547	750	450	547	870	350	0	547	880	305	SMC-00
350	14	381	572	625	875	450	625	995	450	1	625	1015	305	SMC-00
400	16	406	610	712	1000	500	712	1120	450	1	712	1130	305	SMC-00
450	18	432	660	785	1130	500	785	1280	450	1	785	1360	305	SMC-0
500	20	457	711	880	1200	600	880	1350	500	1:	880	1430	305	SMC-0
600	24	508	813	1045	1420	800	1045	1570	500	2	1045	1650	305	SMC-1
700	28	610	914	1190	1650	800	1190	1800	500	2	1190	1910	305	SMC-1
800	32	660	914	1360	1880	1000	1360	2040	500	2	1360	2140	305	SMC-1
900	36	771	1016	1510	2100	1000	1510	2280	600	3	1510	2390	458	SMC-2
1000	40	811	- 2	1715	2300	1200	1715	2480	600	3	1715	2590	458	SMC-2



GAS THROUGH-CONDUIT GATE VALVE

(K)Z4 (5,9b) 4(6) 7F

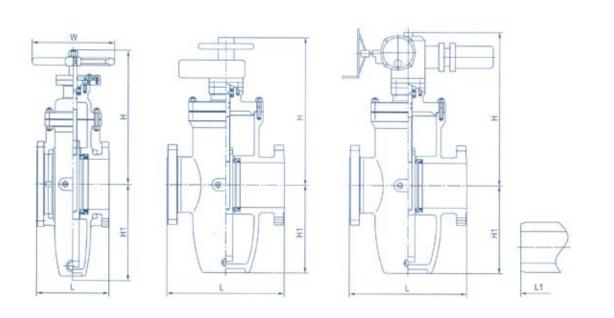


Main S	ize of o	utside		45				333		PN4	.0MPa	PN5.0	MPa(0	Class300)
DN	NPS	F1	D. st. III - L.II	Hai	nd-Opera	ted	G	ear Driving	9		Elec	ctric Drivi	ng	Electric
(mm)	(in)	Flange	Butt Welding L1	H1	Н	W	H1	Н	W	Gear Device	H1	Н	W	Driving Device
25	1	165	165	85	238	180	-			11.5	-	-	-	1 = 1
32	1 1/4	178	178	103	238	180	-7	-	14	-	4116	-	-	
40	1 1/2	190	190	115	245	250	-	-	12	-	7	-	-	-
50	2	216	216	130	265	250	-	-	11-	-	-	14	*	I I I I
65	21/2	241	241	160	365	300	-	-	-	-	_	2	2	12
80	3	283	283	180	375	300	-	-	134	-	-	-	(+)	-
100	4	305	305	214	420	300	_	- 2	-	-	- 2	-	-	14
125	5	381	381	257	480	350	70	15	15	100	-		-	
150	6	403	403	300	520	350	-	-	-	-	-	-	-	-
200	8	419	419	388	590	350	388	710	350	0	388	720	305	SMC-00
250	10	457	457	475	700	400	475	820	350	0	475	830	305	SMC-00
300	12	502	502	547	780	450	547	900	450	1	547	910	305	SMC-D
350	14	572	762	625	895	450	625	1015	450	1	625	1095	305	SMC-0
400	16	610	838	712	1020	550	712	1150	450	1	712	1230	305	SMC-0
450	18	660	914	785	1150	700	785	1300	500	2	785	1400	305	SMC-1
500	20	711	991	880	1220	800	880	1370	500	2	880	1470	305	SMC-1
600	24	787	1143	1045	1440	1000	1045	1620	600	3	1045	1730	305	SMC-1



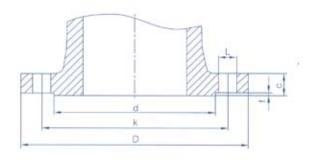
GAS THROUGH-CONDUIT GATE VALVE

(K)Z4 (5,9b) 4(6) 7F



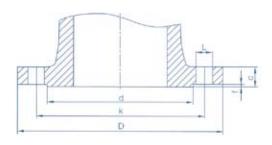
DN	NPS	_		Har	nd-Operate	ed :		Gear Drivin	g		El	ectric Drivi	ng	
(mm)	(in)	Flange L	Butt Welding L1	H1	Н	W	H1	Н	W	Gear Device	H1	Н	W	Electric Driving Device
50	2	216	250	158	265	300	140	-	-	-	-	-	_	
65	21/2	241	280	190	365	300	-	5	1.77	-	-	-	-	-
80	3	283	310	225	375	350	-	-	-	-	-	-	-	-
100	4	305	350	255	420	350	2	2	-	-	-	-	1 2	1111
125	5	381	400	275	480	400	5 + 5		-	-	-	-	-	-
150	6	403	450	330	520	400	140	-	-	-	12	HISPLIN	1 2	120
200	8	419	550	410	590	500	388	710	350	0	388	720	305	SMC-0
250	10	457	650	490	700	500	475	820	350	0	475	830	305	SMC-0
300	12	502	750	570	780	600	547	900	450	1	547	910	305	SMC-0
350	14	762	850	625	910	600	625	1015	450	1	625	1095	305	SMC-1
400	16	838	950	735	1020	700	712	1150	450	1	712	1230	305	SMC-1





136			Time I all	100			J	B/T 79.1-94	98 H/B	PN1	.6MP
			Size ends								
DN					Bolt	Sealing	size	С	V	Velding ne	ck
Nominal size	Outside diameter of flange series1/series2	Diameter of bolt Circle	Diameter of bolt holes series1/ series2	Number of bolts	Th. Thread series1/ series2	d	f	Thickness of flange	Nmax	Smax	R
15	95	65	14	4	M12	45	2	14	39	12	4
20	105	75	14	4	M12	55	2	14	44	12	4
25	115	85	14	4	M12	65	2	14	49	12	4
32	140/135	100	18	4	M16	78	2	16	56	12	4
40	150/145	110	18	4	M16	85	3	16	64	12	4
50	165/160	125	18	4	M16	100	3	16	74	12	5
65	185/180	145	18	4	M16	120	3	18	95	15	5
80	200/195	160	18	8	M16	135	3	20	110	15	5
100	220/215	180	18	8	M16	155	3	20	130	15	5
125	250/245	210	18	8	M16	185	3	22	161	18	6
150	285/280	240	23	8	M20	210	3	24	186	18	6
(175)	310	270	23	8	M20	240	3	26	215	20	6
200	340/335	295	23	12	M20	265	3	26	240	20	6
(225)	365	325	23	12	M20	295	3	26	269	22	6
250	405	355	26/25	12	M24/M22	320	3	30	298	24	8
300	460	410	26/25	12	M24/M22	375	4	30	348	24	8
350	520	470	26/25	16	M24/M22	435	4	34	402	26	8
400	580	525	30	16	M27	485	4	36	456	28	10
450	640	585	30	20	M27	545	4	40	510	30	10
500	715/705	650	34	20	M30	608	4	44	564	32	10
600	840	770	36/41	20	M33/M36	718	5	48	672	36	10
700	910	840	36/41	24	M33/M36	788	5	50	776	38	12
800	1025/1020	950	41	24	M36	898	5	52	880	40	12
900	1125/1120	1050	41	28	M36	998	5	54	984	42	12
1000	1255	1170	42/48	28	M39/M42	1110	5	56	1084	42	12
1200	1485	1390	48/54	32	M45/M48	1325	5	58	1288	44	15
1400	1685	1590	48/54	36	M45/M48	1525	5	60	1492	46	15
1600	1930	1820	58	40	M52	1750	5	68	1704	52	15

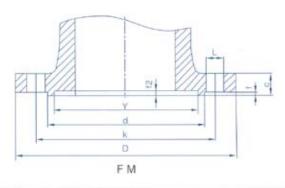




B. A. S.					THE REAL PROPERTY.	25 3 90		JB/T 79.	1-94	PN2	.5MP
			Size ends			Sealine	size		v	Velding ne	ck
DN Nominal	Outside	Diameter	Diameter	n	Th.	d	f	C	Nmax		R
size	diameter of flange series1/series2	of bolt Circle	of bolt holes series1/ series2	Number of bolts	Thread series1/ series2	u		of flange	Nax	Smax	
15	95	65	14	4	M12	45	2	16	39	12	4
20	105	75	14	4	M12	55	2	16	44	12	5
25	115	85	14	4	M12	65	2	16	49	12	5
32	140/135	100	18	4	M16	78	2	18	62	15	5
40	150/145	110	18	4	M16	85	3	18	70	15	5
50	165/160	125	18	4	M16	100	3	20	80	15	5
65	185/180	145	18	8	M16	120	3	22	101	18	6
80	200/195	160	18	8	M16	135	3	22	116	18	6
100	230	190	23	8	M20	160	3	24	136	18	6
125	270	220	26/25	8	M24/M22	188	3	28	169	22	8
150	300	250	26/25	8	M24/M22	218	3	30	198	24	8
(175)	330	280	26/25	12	M24/M22	248	3	32	223	24	8
200	360	310	26/25	12	M24/M22	278	3	34	252	26	8
(225)	395	340	30	12	M27	302	3	36	281	28	8
250	425	370	30	12	M27	332	3	36	306	28	10
300	485	430	30	16	M27	390	4	40	360	30	10
350	555/550	490	34	16	M30	448	4	44	418	34	10
400	620/610	550	36/34	16	M33/M30	505	4	48	472	36	10
450	670/660	600	36/34	20	M33/M30	555	4	50	522	38	12
500	730	660	36/41	20	M33/M36	610	4	52	580	40	12
600	845/840	770	41	20	M36	718	5	56	684	42	12
700	960/955	875	42/48	24	M39/M42	815	5	60	792	46	12
800	1085/1070	990	48	24	M45/M42	930	5	64	896	48	15
900	1185/1180	1090	48/54	28	M45/M48	1025	5	66	1000	50	15
1000	1320/1305	1210	58	28	M52	1140	5	68	1104	52	18
1200	1520/1525	1420	58	32	M52	1350	5	72	1308	54	18
1400	1755/1750	1640	65	36	M56	1560	5	78	1516	58	18



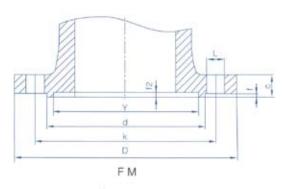
MALE-FEMALE FACE INTEGRAL STEEL PIPE FLANGE



	32.00	100	W = /2	13.0	77.5		- 100	-	JB	/T 79.2	-94		N4.0N	lPa
			s	ize ends			95						1200000000	
DN					Bolt		Se	ealing size			С	Weld	ding nec	k
TO THE PARTY OF TH				n	Th.	335	X	Y		M0 3221	200	2022		216.0
Nominal size	Outside diameter of flange series1/ series2	Diameter of bolt Circle	Diameter of bolt holes series1/ series2	Number of bolts	Thread series1/ series2	d	Series1/ Series2	Series1/ Series2	f	f1, f2	Thickness of flange	Nmax	Smax	R
15	95	65	14	4	M12	45	39	40	2	4	16	39	12	4
20	105	75	14	4	M12	55	50	51	2	4	16	44	12	5
25	115	85	14	4	M12	65	57	58	2	4	16	49	12	5
32	140/135	100	18	4	M16	78	65	66	2	4	18	62	15	5
40	150/145	110	18	4	M16	85	75	76	3	4	18	70	15	5
50	165/160	125	18	4	M16	100	87	88	3	4	20	80	15	5
65	185/180	145	18	8	M16	120	109	110	3	4	22	101	18	6
80	200/195	160	18	8	M16	135	120	121	3	4	22	116	18	6
100	235/230	190	23	8	M20	160	149	150	3	4.5	-24	140	20	6
125	270	220	26/25	8	M24	188	175	176	3	4.5	28	169	22	8
150	300	250	26/25	8	M24/M22	218	203	204	3	4.5	30	198	24	8
(175)	350	295	30	12	M27	258	233	234	3	4.5	34	231	28	10
200	375	320	30	12	M27	282	259	260	3	4.5	38	256	28	10
(225)	415	355	34	12	M30	315	286	287	3	4.5	40	285	30	10
250	450/445	385	34	12	M30	345	312	313	3	4.5	42	314	32	10
300	515/510	450	34	16	M30	408	363	364	4	4.5	46	368	- 34	12
350	580/570	510	36/34	16	M33/M30	465	421	422	4	5	52	430	40	12
400	660/655	585	41	16	M36	535	473	474	4	5	58	488	44	12
450	685/680	610	41	20	M36	560	523	524	4	5	60	542	46	14
500	755	670	42/48	20	M39/M42	612	575	576	4	5	62	592	46	15
600	890	795	48/54	20	M45/M48	730	675/677	676/678	5	6	62	696	48	15
700	995	900	48/54	24	M45/M48	835	777/767	778/768	5	6	68	804	52	18
800	1140/1135	1030	58	24	M52	960	882/875	883/876	5	6	76	920	60	18



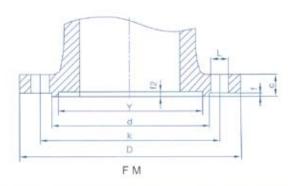
MALE-FEMALE FACE INTEGRAL STEEL PIPE FLANGE



STATE OF	医石岩		-1-31	SAT		199	WI TO	9. 3	JB/	T 79.2-	-94	P	N6.3M	Pa
			S	ize ends			S	ealing size				Wal	ding nec	i.
DN					Bolt		34	saming size			C	44610	mig nec	R.
Nominal size	Outside diameter of flange series1/ series2	Diameter of bolt Circle	Diameter of bolt holes series1/ series2	Number of bolts	Thread series1/ series2	d	X Series1/ Series2	Y Series1/ Series2	f	f1, f2	Thickness of flange	Nmax	Smax	R
15	105	75	14	4	M12	55	39	40	2	4	18	45	15	4
20	130/125	90	18	4	M16	68	50	51	2	4	20	52	16	5
25	140/135	100	18	4	M16	78	57	58	2	4	22	61	18	5
32	155/150	110	23	4	M20	82	65	66	2	4	24	68	18	5
40	170/165	125	23	4	M20	.95	75	76	3	4	24	80	20	5
50	180/175	135	23	4	M20	105	87	88	3	4	26	90	20	5
65	205/200	160	23	8	M20	130	109	110	3	4	28	111	23	6
80	215/210	170	23	8	M20	140	120	121	3	4	30	128	24	6
100	250	200	26/25	8	M24/M22	168	149	150	3	4.5	32	152	26	6
125	295	240	30	8	M27	202	175	176	3	4.5	36	181	28	8
150	345/340	280	34	8	M30	240	203	204	3	4.5	38	210	30	8
(175)	370	310	34	12	M30	270	233	234	3	4.5	42	239	32	10
200	405	345	36/34	12	M33/M30	300	259	260	3	4.5	44	268	34	10
(225)	430	370	36/34	12	M33/M30	325	286	287	3	4.5	46	301	38	10
250	470	400	36/41	12	M33/M36	352	312	313	3	4.5	48	326	38	10
300	530	460	36/41	16	M33/M36	412	363	364	4	4.5	54	384	42	12
350	600/595	525	41	16	M36	475	421	422	4	5	60	442	46	12
400	670	585	42/48	16	M39/42	525	473	474	4	5	66	500	50	12
500	800	705	48/54	20	M45/M48	640	575	576	4	5	70	610	55	18
600	930	820	58	20	M52	750	675/677	676/678	5	6	76	720	60	18

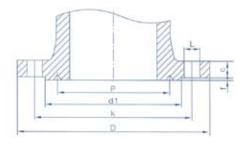


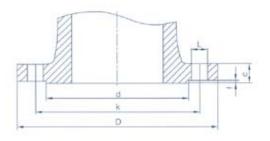
MALE-FEMALE FACE INTEGRAL STEEL PIPE FLANGE



size of flange series 1/ series 2 circle series 1/ series 2/ series 2/ Series 2/ series 2/ series 2/ Series 1/ se	100					2011		700	NEW Y	JB/	T 79.2-	-94	PN	10.0M	Pa
Nominal size				S	ize ends			Se	ealing size				Welc	ling nec	k
size of flange series 1/ series 2 of bolt holes of bolts series 1/ series 2/ series 2/ Series 2/ series 2/ series 2/ Series 2/ series 2/ series 2/ Series 2/ series 2/ series 2/ series 2/ Series 2/ series 2/ series 2/ series 2/ series 2/ series 2/ Series 2/ seri	DN				_	Bolt	_	50.10				C	150000	VO. 100.00.	
20		diameter of flange series1/	of bolt	of bolt holes series1/	Number of bolts	series1/	d	Series1/	Series1/	f	f1, f2	of	Nmax	Smax	R
25	15	105	75	14	4	M12	55	39	40	2	4	20	45	15	4
32 155/150 110 23 4 M20 82 65 66 2 4 24 24 68 10 40 170/165 125 23 4 M20 95 75 76 3 4 26 80 20 50 195 145 26/25 4 M24/M22 112 87 88 3 4 28 94 22 65 220 170 26/25 8 M24/M22 138 109 110 3 4 32 115 28 80 230 180 26/25 8 M24/M22 148 120 121 3 4 34 132 26 100 265 210 30 8 M27 172 149 150 3 4.5 38 160 36 125 315/310 250 34 812 M30 210 175 176 3 4.5 42 189 36 150 355/350 290 34 12 M30 250 203 204 3 4.5 46 222 36 (175) 380 320 36 36/41 12 M30 280 233 234 3 4.5 48 251 36 200 430 360 36/41 12 M30/M36 312 259 260 3 4.5 54 284 46 (225) 470 400 41 12 M36 352 286 287 3 4.5 56 313 42 250 505/500 430 41 12 M36 385 312 313 3 4.5 60 346 46 300 585 500 42/48 16 M39/M42 442 363 364 4 4.5 70 408 56 350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 56	20	130/125	90	18	4	M16	68	50	51	2	4	22	54	17	4
40 170/165 125 23 4 M20 95 75 76 3 4 26 80 26 50 195 145 26/25 4 M24/M22 112 87 88 3 4 28 94 22 65 220 170 26/25 8 M24/M22 138 109 110 3 4 32 115 22 80 230 180 26/25 8 M24/M22 148 120 121 3 4 34 132 21 100 265 210 30 8 M27 172 149 150 3 4.5 38 160 36 125 315/310 250 34 812 M30 210 175 176 3 4.5 42 189 33 150 355/350 290 34 12 M30 280 233 234 3 4.5 46 222 36 (175) 380 320	25	140/135	100	18	4	M16	78	57	58	2	4	24	61	18	4
50 195 145 26/25 4 M24/M22 112 87 88 3 4 28 94 22 65 220 170 26/25 8 M24/M22 138 109 110 3 4 32 115 28 80 230 180 26/25 8 M24/M22 148 120 121 3 4 34 132 28 100 265 210 30 8 M27 172 149 150 3 4.5 38 160 36 125 315/310 250 34 812 M30 210 175 176 3 4.5 42 189 36 150 355/350 290 34 12 M30 250 203 204 3 4.5 46 222 36 (175) 380 320 34 12 M30 280 233 <td< td=""><td>32</td><td>155/150</td><td>110</td><td>23</td><td>4</td><td>M20</td><td>82</td><td>65</td><td>66</td><td>2</td><td>4</td><td>24</td><td>68</td><td>18</td><td>4</td></td<>	32	155/150	110	23	4	M20	82	65	66	2	4	24	68	18	4
65 220 170 26/25 8 M24/M22 138 109 110 3 4 32 115 25 80 230 180 26/25 8 M24/M22 148 120 121 3 4 34 132 26 100 265 210 30 8 M27 172 149 150 3 4.5 38 160 36 125 315/310 250 34 812 M30 210 175 176 3 4.5 42 189 36 150 355/350 290 34 12 M30 250 203 204 3 4.5 46 222 36 175 380 320 34 12 M30 280 233 234 3 4.5 48 251 36 200 430 360 36/41 12 M36/M36 312 259 260 3 4.5 54 284 46 1225 470 400 41 12 M36 352 286 287 3 4.5 56 313 46 250 505/500 430 41 12 M36 385 312 313 3 4.5 60 346 46 300 585 500 42/48 16 M39/M42 442 363 364 4 4.5 70 408 56 350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 56	40	170/165	125	23	4	M20	95	75	76	3	4	26	80	20	4
80 230 180 26/25 8 M24/M22 148 120 121 3 4 34 132 24 100 265 210 30 8 M27 172 149 150 3 4.5 38 160 34 125 315/310 250 34 812 M30 210 175 176 3 4.5 42 189 34 150 355/350 290 34 12 M30 250 203 204 3 4.5 46 222 34 175 380 320 34 12 M30 280 233 234 3 4.5 48 251 34 200 430 360 36/41 12 M36/M36 312 259 260 3 4.5 54 284 44 1225 470 400 41 12 M36 352 286 287 3 4.5 56 313 44 250 505/500 430 41 12 M36 385 312 313 3 4.5 60 346 44 300 585 500 42/48 16 M39/M42 442 363 364 4 4.5 70 408 56 350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 56	50	195	145	26/25	4	M24/M22	112	87	88	3	4	28	94	22	4
100 265 210 30 8 M27 172 149 150 3 4.5 38 160 30 125 315/310 250 34 812 M30 210 175 176 3 4.5 42 189 36 150 355/350 290 34 12 M30 250 203 204 3 4.5 46 222 36 (175) 380 320 34 12 M30 280 233 234 3 4.5 48 251 36 200 430 360 36/41 12 M33/M36 312 259 260 3 4.5 54 284 44 (225) 470 400 41 12 M36 352 286 287 3 4.5 56 313 4 250 505/500 430 41 12 M36 385 312 313 3 4.5 60 346 44 300 585 500 42/48 16 M39/M42 442 363 364 4 4,5 70 408 5 350 655	65	220	170	26/25	8	M24/M22	138	109	110	3	4	32	115	25	5
125 315/310 250 34 812 M30 210 175 176 3 4.5 42 189 33 150 355/350 290 34 12 M30 250 203 204 3 4.5 46 222 36 (175) 380 320 34 12 M30 280 233 234 3 4.5 48 251 36 200 430 360 36/41 12 M33/M36 312 259 260 3 4.5 54 284 44 (225) 470 400 41 12 M36 352 286 287 3 4.5 56 313 4 250 505/500 430 41 12 M36 385 312 313 3 4.5 60 346 44 300 585 500 42/48 16 M39/M42 442 363 364 4 4,5 70 408 56 350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 56	80	230	180	26/25	8	M24/M22	148	120	121	3	4	34	132	26	5
150 355/350 290 34 12 M30 250 203 204 3 4.5 46 222 36 (175) 380 320 34 12 M30 280 233 234 3 4.5 48 251 36 200 430 360 36/41 12 M33/M36 312 259 260 3 4.5 54 284 45 (225) 470 400 41 12 M36 352 286 287 3 4.5 56 313 4 250 505/500 430 41 12 M36 385 312 313 3 4.5 60 346 44 300 585 500 42/48 16 M39/M42 442 363 364 4 4.5 70 408 56 350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 56	100	265	210	30	8	M27	172	149	150	3	4,5	38	160	30	5
(175) 380 320 34 12 M30 280 233 234 3 4.5 48 251 38 200 430 360 36/41 12 M33/M36 312 259 260 3 4.5 54 284 48 (225) 470 400 41 12 M36 352 286 287 3 4.5 56 313 4 250 505/500 430 41 12 M36 385 312 313 3 4.5 60 346 44 300 585 500 42/48 16 M39/M42 442 363 364 4 4.5 70 408 56 350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 56	125	315/310	250	34	812	M30	210	175	176	3	4.5	42	189	32	6
200 430 360 36/41 12 M33/M36 312 259 260 3 4.5 54 284 4.5 (225) 470 400 41 12 M36 352 286 287 3 4.5 56 313 4.5 250 505/500 430 41 12 M36 385 312 313 3 4.5 60 346 44 300 585 500 42/48 16 M39/M42 442 363 364 4 4,5 70 408 56 350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 56	150	355/350	290	34	12	M30	250	203	204	3	4.5	46	222	36	6
(225) 470 400 41 12 M36 352 286 287 3 4.5 56 313 4.5 250 505/500 430 41 12 M36 385 312 313 3 4.5 60 346 44 300 585 500 42/48 16 M39/M42 442 363 364 4 4.5 70 408 50 350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 50	(175)	380	320	34	12	M30	280	233	234	3	4.5	48	251	38	8
250 505/500 430 41 12 M36 385 312 313 3 4.5 60 346 40 300 585 500 42/48 16 M39/M42 442 363 364 4 4.5 70 408 50 350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 50	200	430	360	36/41	12	M33/M36	312	259	260	3	4.5	54	284	42	8
300 585 500 42/48 16 M39/M42 442 363 364 4 4,5 70 408 50 350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 50	(225)	470	400	41	12	M36	352	286	287	3	4.5	56	313	:44	8
350 655 560 48/54 16 M45/M48 498 421 422 4 5 76 466 56	250	505/500	430	41	12	M36	385	312	313	3	4.5	60	346	48	8
	300	585	500	42/48	16	M39/M42	442	363	364	4	4,5	70	408	54	10
	350	655	560	48/54	16	M45/M48	498	421	422	4	5	76	466	58	12
400 715 620 48/54 16 M45/M48 558 473 474 4 5 80 520 60	400	715	620	48/54	16	M45/M48	558	473	474	4	5	80	520	60	12

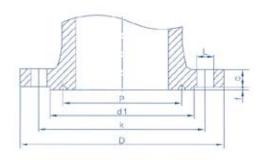


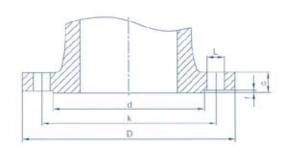




00 E E	THARLIN	100	0000 TI	WHILE I	Car S	GB	/T 9113.	1-2000	PN1.6MP	a 16ba
		S	ize ends			0 1			***	
DN				В	olt	Sealing	g size	С	Weldir	ng neck
Nominal size	Outside diameter of flange	Diameter of bolt Circle	Diameter of bolt holes	Number of bolts	Diameter of bolt	d	f	Thickness of flange	N	R
10	90	60	14	4	M12	41	2	14	28	3
15	95	95	14	4	M12	46	2	14	32	3
20	105	75	14	4	M12	56	2	16	40	4
25	115	85	14	4	M12	65	2	16	50	4
32	140	100	18	4	M16	76	2	18	60	5
40	150	110	18	4	M16	84	2	18	70	5
50	165	125	18	4	M16	99	2	20	84	. 5
65	185	145	18	4	M16	118	2	20	104	6
80	200	160	18	8	M16	132	2	20	120	6
100	220	180	18	8	M16	156	2	22	140	6
125	250	210	18	8	M16	184	2	22	170	6
150	285	240	22	8	M20	211	2	24	190	8
200	340	295	22	12	M20	266	2	24	246	8
250	405	355	26	12	M24	319	2	26	296	10
300	460	410	26	12	M24	370	2	28	350	10
350	520	470	26	16	M24	429	2	30	410	10
400	580	525	30	16	M27	480	2	32	458	10
450	640	585	30	20	M27	548	2	40	516	12
500	715	650	33	20	M30	609	2	44	576	12
600	840	770	36	20	M33	720	2	54	690	12
700	910	840	36	24	M33	794	-5	40	760	12
800	1025	950	39	24	M36	901	5	42	862	12
900	1125	1050	39	28	M36	1001	5	44	962	12
1000	1255	1170	42	28	M39	1112	5	46	1076	12
1200	1485	1390	48	32	M45	1328	5	52	1282	12
1400	1685	1590	48	36	M45	1530	5	58	1482	12
1600	1930	1820	55	40	M52	1750	5	64	1696	12







	1 32		SPINSS	1		GB	/T 9113.	1-2000	PN2.5MP	a 25ba
			Size end	ls	Bolt	Sealing	g size		Weldir	ng neck
DN					DOIL			С		
Nominal size	Outside diameter of flange	Diameter of bolt Circle	Diameter of bolt holes	Number of bolts	Diameter of bolt	d	f	Thickness of flange	N	R
10	90	60	14	4	M12	41	2	14	28	3
15	95	95	14	4	M12	46	2	14	32	3
20	105	75	14	4	M12	56	2	16	40	4
25	115	85	14	4	M12	65	2	16	50	4
32	140	100	18	4	M16	76	2	18	60	5
40	150	110	18	4	M16	84	2	18	70	5
50	165	125	18	4	M16	99	2	20	84	5
65	185	145	18	4	M16	118	2	22	104	6
80	200	160	18	.8	M16	132	2	24	120	6
100	235	190	22	8	M20	156	2	24	142	6
125	270	220	26	8	M24	184	2	26	162	6
150	300	250	26	8	M24	211	2	28	192	8
200	360	310	26	12	M24	274	2	30	252	8
250	425	370	30	12	M27	330	2	32	304	10
300	485	430	30	16	M27	389	2	34	364	10
350	555	490	33	16	M30	448	2	38	418	10
400	620	550	36	16	M33	503	2	40	472	10
450	670	600	36	20	M33	548	2	46	520	12
500	730	660	36	20	M33	609	2	48	580	12
600	845	770	39	20	M36	720	2	58	684	12
700	960	875	42	24	M39	820	5	50	780	12
800	1085	990	48	24	M45	928	.5	54	882	12
900	1185	1090	48	28	M45	1028	5	58	982	12
1000	1320	1210	55	28	M52	1140	5	62	1086	12
1200	1530	1420	55	32	M52	1350	5	70	1296	12
1400	1755	1640	60	36	M56	1560	5	76	1508	12
1600	1975	1860	60	40	M56	1780	5	84	1726	12



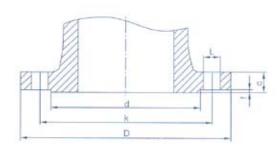
	THE REAL PROPERTY.			1000		GB	/T 9113.1-	-2000	PN4.0MP	a 40ba
10	90	60	14	4	M12	41	2	14	28	3
15	95	95	14	4	M12	46	2	14	32	3
20	105	75	14	4	M12	56	2	16	40	4
25	115	85	14	4	M12	65	2	16	50	4
32	140	100	18	4	M16	76	2	18	60	5
40	150	110	18	4	M16	84	2	18	70	5
50	165	125	18	4	M16	99	2	20	84	5
65	185	145	18	4	M16	118	2	22	104	6
80	200	160	18	8	M16	132	2	24	120	6
100	235	190	22	8	M20	156	2	24	142	6
125	270	220	26	8	M24	184	2	26	162	6
150	300	250	26	8	M24	211	2	28	192	8
200	375	320	30	12	M27	284	2	34	254	8
250	450	385	33	12	M30	345	2	38	312	10
300	515	450	33	16	M30	409	2	42	378	10
350	580	510	36	16	M33	465	2	46	432	10
100	660	585	39	16	M36	535	2	50	498	10
450	685	610	39	20	M36	560	2	57	522	12
500	755	670	42	20	M39	615	2	57	576	12
500	890	795	48	20	M45	735	2	72	686	12
			11110000		THE RESERVE		/T 9113.1-		PN6.3MP	
10	100	70	14	4	M12	41	2	20	40	4
15	105	75	14	4	M12	46	2	20	45	4
20	130	90	18	4	M16	56	2	20	50	4
25	140	100	18	4	M16	65	2	24	61	4
32	155	110	22	4	M20	76	2	24	68	4
40	170	125	22	4	M20	84	2	26	82	4
50	180	135	22	4	M20	99	2	26	90	5
65	205	160	22	8	M20	118	2	26	105	5
80	215	170	22	8	M20	132	2	28	122*	5
100	250	200	26	8	M24	156	2	30	146	5
125	295	240	30	8	M27	184	2	34	177	6
150	345	280	33	8	M30	211	2	36	204	6
200	415	345	36	12	M33	284	2	42	264	8
250	470	400	36	12	M33	345	2	46	320	8
300	530	460	36	16	M33	409	2	52	378	10
350	600	525	39	16	M36	465	2	56	434	10
400	670	585	42	16	M39	535	2	60	490	12



	ALTER ST		1113	BEN S	17 July 1963	GB	/T 9113.1-	-2000	PN10.0MPa	100bar
10	100	70	14	4	M12	41	2	20	40	4
15	105	75	14	4	M12	46	2	20	45	4
20	130	90	18	4	M16	56	2	20	50	4
25	140	100	18	4	M16	65	2	24	61	4
32	155	110	22	- 4	M20	76	2	24	68	4
40	170	125	22	4	M20	84	2	26	82	4
50	195	145	26	4	M24	99	2	28	96	5
65	220	170	26	8	M24	118	2	30	113	5
80	230	180	26	8	M24	132	2	32	128	5
100	265	210	30	8	M27	156	2	36	150	5
125	315	250	33	8	M30	184	2	40	185	6
150	355	290	33	12	M30	211	2	44	216	6
200	430	360	36	12	M33	284	2	52	278	8
250	505	430	39	12	M36	345	2	60	340	- 8
300	585	500	42	16	M39	409	2	68	402	10
350	655	560	48	16	M45	465	2	74	460	10
400	715	620	48	16	M45	535	2	82	518	12
	S. L. L. D. N	3500	31-22	The same	Wall to	GB	/T 9113.1-	-2000	PN16.0MPa	160bar
10	100	70	14	4	M12	41	2	24	40	4
15	105	75	14	4	M12	46	2	26	45	4
20	130	90	18	4	M16	56	2	30	50	4
25	140	100	18	4	M16	65	2	32	61	4
32	155	110	22	4	M20	76	2	34	68	4
40	170	125	22	4	M20	84	2	6	82	4
50	195	145	26	4	M24	99	2	38	96	5
65	220	170	26	8	M24	118	2	42	113	5
80	230	180	26	8	M24	132	2	46	128	5
100	265	210	30	8	M27	156	2	52	150	5
125	315	250	33	8	M30	184	2	56	184	6
150	355	290	33	8	M30	211	2	62	224	6
200	430	660	36	12	M33	284	2	66	288	8
250	515	430	42	12	M39	345	2	76	346	8
300	585	500	42	16	M39	409	2	88	414	10



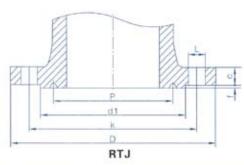
INTEGRAL STEEL PIPE FLANGE



	CLASS	150 R	FASME	B16.5, AS	ME B16	.47			CLASS	300 RF	ASME	B16.5, AS	ME B16	.47	
DN	D	K	L	(Bolt)n-Th	d	f	С	DN	D	К	L	(Bolt)n-Th	d	f	С
2	152	120.5	18	4-M16	92	2	16	2	165	127	18	8-M16	92	2	23
2-1/2	178	139.5	18	4-M16	105	2	18	2-1/2	190	149	18	8-M20	105	2	26
3	190	152.5	18	4-M16	127	2	19	3	210	168.5	18	8-M20	127	2	29
4	229	190.5	18	8-M16	157	2	24	4	254	200	18	8-M20	157	2	32
5	254	216	22	8-M20	186	2	24	5	279	235	22	8-M20	186	2	35
6	279	241.5	22	8-M20	216	2	26	6	318	270	22	12-M20	216	2	37
8	343	298.5	22	8-M20	270	2	29	8	381	330	22	12-M24	270	2	42
10	406	362	26	12-M24	324	2	31	10	445	387.5	26	16-M27	324	2	48
12	483	432	26	12-M24	381	2	32	12	521	451	26	16-M30	381	2	51
14	533	476	29.5	12-M27	413	2	35	14	584	514.5	29.5	20-M30	413	2	54
16	597	540	29.5	16-M27	470	2	37	16	648	571.5	29.5	20-M33	470	2	58
18	635	578	32.5	16-M30	533	2	40	18	711	628.5	32.5	24-M33	533	2	61
20	699	635	32.5	20-M30	584	2	43	20	775	686	32.5	24-M33	584	2	64
24	813	749.5	35.5	30-M33	692	2	48	24	914	813	35.5	24-M39	692	2	70
26	870	806.5	35	24-M33	749	2	68	26	972	876	35	28-M42	749	2	79
28	927	863.6	35	28-M33	800	2	72	28	1035	940	35	28-M42	800	2	86
30	984	914	35	28-M33	857	2	75	30	1092	997	35	28-M45	857	2	92
32	1060	978	41	28-M39	914	2	81	32	1149	1054	41	28-M48	914	2	99
36	1168	1086	41	32-M39	1022	2	90	36	1270	1168	41	32-M52	1022	2	105
40	1289	1200	41	36-M39	1124	2	90	40	1238	1156	41	32-M42	1086	2	114
42	1346	1257	41	36-M39	1194	2	97	42	1289	1206.5	41	32-M42	1137	2	119
48	1511	1422	41	44-M39	1359	2	108	48	1467	1372	41	32-M48	1302	2	133
	01 400														
	CLASS	600 R	FASME	B16.5, AS	EM B16	5.47	10000	110	CLASS		ASME			-	100
DN	D	600 RI	F ASME	B16.5、AS (Bolt)n-Th	EM B16	6.47 f	С	DN			ASME	B16.5、AS		-	C
DN 2				(Bolt)n-Th	d	f	С	DN	CLASS D	600 RF	L	B16.5、AS (Bolt)n-Th	ME B16	6.47 f	С
2	D	K 127	L 19	(Bolt)n-Th 8-M16	d 92	f 6.4	C 25.5	DN 2	D 165	600 RF K 127	L 19	(Bolt)n-Th 8-M16	ME B16 d 92	f 6.4	C
2	D 165	127 149.2	19 22	(Bolt)n-Th 8-M16 8-M20	d 92 105	f 6.4 6.4	C 25.5 29	DN 2 2 2-1/2	D 165 190	600 R F K 127 149	19 22	B16.5、AS (Bolt)n-Th 8-M16 8-M20	ME B16 d 92 100	f 6.4 6.4	C 26 29
2 2-1/2	D 165 190	127 149.2 168.3	19 22 22	(Bolt)n-Th 8-M16 8-M20 8-M20	92 105 127	f 6.4 6.4 6.4	C 25.5 29 32	DN 2 2-1/2 3	D 165 190 210	600 R F K 127 149 168	19 22 22	B16.5、AS (Bolt)n-Th 8-M16 8-M20 8-M20	92 100 127	6.4 6.4 6.4	26 29 32
2 2-1/2 3	D 165 190 210 254	127 149.2 168.3 200	19 22 22 26	(Bolt)n-Th 8-M16 8-M20 8-M20 8-M20	92 105 127 157	f 6.4 6.4 6.4 6.4	C 25.5 29 32 35	DN 2 2-1/2 3 4	D 165 190 210 273	600 R F K 127 149 168 216	19 22 22 26	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M20 8-M24	92 100 127 157	6.4 6.4 6.4 6.4 6.4	26 29 32 38
2 2-1/2 3 4	165 190 210 254 279	127 149.2 168.3 200 234.9	19 22 22 26 26	(Boltin-Th 8-M16 8-M20 8-M20 8-M24 8-M24	92 105 127 157 186	f 6.4 6.4 6.4 6.4 6.4	C 25.5 29 32 35 38.5	DN 2 2-1/2 3 4 5	D 165 190 210 273 330 -	600 R F K 127 149 168 216 266.5	L 19 22 22 26 29	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M20 8-M24 8-M27	92 100 127 157 186	6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45
2 2-1/2 3 4 5	D 165 190 210 254	127 149.2 168.3 200 234.9 269.9	19 22 22 26 26 26 26	(Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M24 12-M24	92 105 127 157 186 216	f 6.4 6.4 6.4 6.4 6.4	C 25.5 29 32 35 38.5 41.5	DN 2 2-1/2 3 4 5	D 165 190 210 273 330 - 356	600 R F K 127 149 168 216 266.5 292	19 22 22 26 29 29	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M20 8-M24 8-M27 12-M27	92 100 127 157 186 216	6.4 6.4 6.4 6.4 6.4 6.4 6.4	C 26 29 32 38 45 48
2 2-1/2 3 4 5	D 165 190 210 254 279 318	K 127 149.2 168.3 200 234.9 269.9 330.2	19 22 22 26 26 26 26 29	(Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M24 12-M24 12-M27	92 105 127 157 186 216 270	f 6.4 6.4 6.4 6.4 6.4 6.4	C 25.5 29 32 35 38.5 41.5 48	2 2-1/2 3 4 5 6 8	D 165 190 210 273 330 - 356 419	600 R F K 127 149 168 216 266.5 292 349	19 22 22 26 29 29 32	B16.5、AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M27 12-M27 12-M30	92 100 127 157 186 216 270	6.4 6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45 48 56
2 2-1/2 3 4 5 6 8	D 165 190 210 254 279 318 381	127 149.2 168.3 200 234.9 269.9	19 22 22 26 26 26 26	(Boltln-Th 8-M16 8-M20 8-M20 8-M24 8-M24 12-M24 12-M27 16-M30	92 105 127 157 186 216 270 324	f 6.4 6.4 6.4 6.4 6.4 6.4 6.4	C 25.5 29 32 35 38.5 41.5 48 54	DN 2 2-1/2 3 4 5 6 8	D 165 190 210 273 330 - 356 419 508	600 R F K 127 149 168 216 266.5 292 349 432	L 19 22 22 26 29 29 32 35	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M27 12-M27 12-M30 16-M33	92 100 127 157 186 216 270 324	6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45 48 56
2 2-1/2 3 4 5 6 8	D 165 190 210 254 279 318 381 445	K 127 149.2 168.3 200 234.9 269.9 330.2 387.3 450.8	L 19 22 22 26 26 26 26 29 32	8-M16 8-M20 8-M20 8-M20 8-M24 12-M24 12-M24 12-M27 16-M30 16-M33	d 92 105 127 157 186 216 270 324 381	f 6.4 6.4 6.4 6.4 6.4 6.4 6.4	25.5 29 32 35 38.5 41.5 48 54 57.5	DN 2 2-1/2 3 4 5 6 8 10	CLASS D 165 190 210 273 330 356 419 508 559	600 R F K 127 149 168 216 266.5 292 349 432 489	L 19 22 22 26 29 29 32 35 35	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M27 12-M27 12-M27 12-M30 16-M33 20-M33	92 100 127 157 186 216 270 324 381	6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45 48 56 64 67
2 2-1/2 3 4 5 6 8 10	D 165 190 210 254 279 318 381 445 520	K 127 149.2 168.3 200 234.9 269.9 330.2 387.3	L 19 22 26 26 26 26 29 32 35	8-M16 8-M20 8-M20 8-M20 8-M24 12-M24 12-M27 16-M30 16-M33 20-M33	d 92 105 127 157 186 216 270 324 381 413	f 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	25.5 29 32 35 38.5 41.5 48 54 57.5 60.5	DN 2 2-1/2 3 4 5 6 8 10 12 14	CLASS D 165 190 210 273 330 356 419 508 559 603	600 R F K 127 149 168 216 266.5 292 349 432 489 527	L 19 22 22 26 29 29 32 35 35 35	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M27 12-M27 12-M30 16-M33 20-M36	ME B16 92 100 127 157 186 216 270 324 381 413	6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45 48 56 64 67 70
2 2-1/2 3 4 5 6 8 10 12 14	D 165 190 210 254 279 318 381 445 520 585	K 127 149.2 168.3 200 234.9 269.9 330.2 387.3 450.8 514.3 5715	L 19 22 22 26 26 26 29 32 35 35 39	8-M16 8-M20 8-M20 8-M24 8-M24 12-M24 12-M27 16-M30 16-M33 20-M33 20-M36	d 92 105 127 157 186 216 270 324 381 413 470	f 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	C 25.5 29 32 35 38.5 41.5 48 54 57.5 60.5 63.5	DN 2 2-1/2 3 4 5 6 8 10 12 14 16	CLASS D 165 190 210 273 330 - 356 419 508 559 603 686	600 R F K 127 149 168 216 266.5 292 349 432 489 527 603	L 19 22 22 26 29 29 32 35 35 35 38 41	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M27 12-M27 12-M30 16-M33 20-M36 20-M39	92 100 127 157 186 216 270 324 381 413 470	6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45 48 56 64 67 70
2 2-1/2 3 4 5 6 8 10 12 14	D 165 190 210 254 279 318 381 445 520 585 650	K 127 149.2 168.3 200 234.9 330.2 387.3 450.8 514.3 5715 628	L 19 22 22 26 26 26 29 32 35 35 35 39	8-M16 8-M20 8-M20 8-M20 8-M24 8-M24 12-M24 12-M27 16-M30 16-M33 20-M33 20-M36 24-M36	d 92 105 127 157 186 216 270 324 381 413 470 533	f 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	25.5 29 32 35 38.5 41.5 48 54 57.5 60.5 63.5 67	DN 2 2 2-1/2 3 4 5 6 8 10 12 14 16 18	CLASS D 165 190 210 273 330 356 419 508 559 603 686 743	600 R F K 127 149 168 216 266.5 292 349 432 489 527 603 654	L 19 22 22 26 29 29 32 35 35 35 38 41 44	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M27 12-M37 12-M30 16-M33 20-M33 20-M39 20-M42	ME B16 92 100 127 157 186 216 270 324 381 413 470 533	6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45 48 56 64 67 70 77 83
2 2-1/2 3 4 5 6 8 10 12 14 16 18	D 165 190 210 254 279 318 381 445 520 585 650 710 775	K 127 149.2 168.3 200 234.9 269.9 330.2 387.3 450.8 514.3 571.5 628 685.8	L 19 22 22 26 26 26 29 32 35 35 35 39 42	(Boltin-Th 8-M16 8-M20 8-M20 8-M24 12-M24 12-M27 16-M30 16-M33 20-M33 20-M36 24-M39	92 105 127 157 186 216 270 324 381 413 470 533 584	f 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	C 25.5 29 32 35 38.5 41.5 48 54 57.5 60.5 63.5 67 70	DN 2 2-1/2 3 4 5 6 8 10 12 14 16 18 20	CLASS D 165 190 210 273 330 356 419 508 559 603 686 743 813	600 R F K 127 149 168 216 266.5 292 349 432 489 527 603 654 724	L 19 22 22 26 29 29 32 35 35 35 38 41 44 44	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M27 12-M27 12-M30 16-M33 20-M33 20-M36 20-M39 20-M42 24-M42	ME B16 d 92 100 127 157 186 216 270 324 381 413 470 533 584	6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45 48 56 64 67 70 77 83 89
2 2-1/2 3 4 5 6 8 10 12 14 16 18 20 24	D 165 190 210 254 279 318 381 445 520 585 650 710 775 915	K 127 149.2 168.3 200 234.9 269.9 330.2 387.3 450.8 514.3 5715 628 685.8 812.8	L 19 22 22 26 26 26 29 32 35 35 39 42 48	(Boltin-Th 8-M16 8-M20 8-M20 8-M24 12-M24 12-M27 16-M30 16-M33 20-M33 20-M36 24-M36 24-M39 24-M45	92 105 127 157 157 186 216 270 324 381 413 470 533 584 692	f 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	C 25.5 29 32 35 38.5 41.5 48 54 57.5 60.5 63.5 67 70 76.5	DN 2 2-1/2 3 4 5 6 8 10 12 14 16 18 20 24	CLASS D 165 190 210 273 330 356 419 508 559 603 686 743 813 940	600 R F K 127 149 168 216 266.5 292 349 432 489 527 603 654 724 838	L 19 22 22 26 29 29 32 35 35 35 38 41 44 44 52	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M27 12-M27 12-M30 16-M33 20-M33 20-M33 20-M39 20-M39 20-M39 20-M42 24-M42 24-M48	ME B16 d 92 100 127 157 186 216 270 324 381 413 470 533 584 692	6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45 48 56 64 67 70 77 83 89
2 2-1/2 3 4 5 6 8 10 12 14 16 18 20 24 26	D 165 190 210 254 279 318 381 445 520 585 650 710 775 915 851	K 127 149.2 168.3 200 234.9 269.9 330.2 387.3 450.8 514.3 571.5 628 685.8 812.8 781	L 19 22 22 26 26 26 29 32 35 35 39 42 48 39	8-M16 8-M20 8-M20 8-M24 8-M24 12-M27 16-M30 16-M33 20-M33 20-M36 24-M39 24-M36 24-M39	d 92 105 127 157 186 216 270 324 381 413 470 533 584 692 711	f 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	C 25.5 29 32 35 38.5 41.5 48 54 57.5 60.5 63.5 67 70 76.5 89	DN 2 2-1/2 3 4 5 6 8 10 12 14 16 18 20 24 26	CLASS D 165 190 210 273 330 -356 419 508 559 603 686 743 813 940 1016	600 R F K 127 149 168 216 266.5 292 349 432 489 527 603 654 724 838 914.4	L 19 22 22 26 29 29 32 35 35 35 38 41 44 44 52 51	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M27 12-M27 12-M30 16-M33 20-M33 20-M38 20-M39 20-M42 24-M42 24-M48 28-M48	92 100 127 157 186 216 270 324 381 413 470 533 584 692 749	6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45 48 56 64 67 77 83 89 102
2 2-1/2 3 4 5 6 8 10 12 14 16 18 20 24	D 165 190 210 254 279 318 381 445 520 585 650 710 775 915	K 127 149.2 168.3 200 234.9 269.9 330.2 387.3 450.8 514.3 5715 628 685.8 812.8	L 19 22 22 26 26 26 29 32 35 35 39 42 48	(Boltin-Th 8-M16 8-M20 8-M20 8-M24 12-M24 12-M27 16-M30 16-M33 20-M33 20-M36 24-M36 24-M39 24-M45	92 105 127 157 157 186 216 270 324 381 413 470 533 584 692	f 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	C 25.5 29 32 35 38.5 41.5 48 54 57.5 60.5 63.5 67 70 76.5	DN 2 2-1/2 3 4 5 6 8 10 12 14 16 18 20 24	CLASS D 165 190 210 273 330 356 419 508 559 603 686 743 813 940	600 R F K 127 149 168 216 266.5 292 349 432 489 527 603 654 724 838	L 19 22 22 26 29 29 32 35 35 35 38 41 44 44 52	B16.5, AS (Bolt)n-Th 8-M16 8-M20 8-M20 8-M24 8-M27 12-M27 12-M30 16-M33 20-M33 20-M33 20-M39 20-M39 20-M39 20-M42 24-M42 24-M48	ME B16 d 92 100 127 157 186 216 270 324 381 413 470 533 584 692	6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4	26 29 32 38 45 48 56 64 67 70 77 83 89



INTEGRAL STEEL PIPE FLANGE

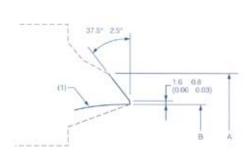


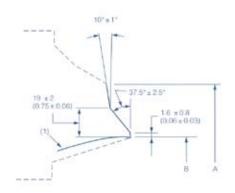
CLAS	SS 900	RTJ	AS	SME B 16	5.5	ASME	3 16.47	A
DN	D	K	L	(Bolt)n-Th	d1	P	f	C
2	216	165.1	26	8-M24	124	95.25	8	38.5
2-1/2	244	190.5	29	8-M27	137	107.95	8	41.5
3	241	190.5	26	8-M27	168	123.82	8	38.5
4	292	234.9	32	8-M30	194	149.22	8	44,5
5	349	279.4	35	8-M33	229	180.98	8	51
6	381	317.5	32	12-M30	248	211.12	8	56
8	470	393.7	39	12-M36	318	269.88	8	63.5
10	545	469.9	39	16-M36	371	323.85	8	70
12	610	533.4	39	20-M36	438	381	11,13	79.5
14	640	558.8	42	20-M39	489	419.1	11.13	86
16	705	615.9	45	20-M42	546	469.9	12.7	89
18	785	685.8	51	20-M48	613	533.4	12.7	102
20	855	749.3	54	20-M52	673	584.2	15.88	108
24	1040	901,7	67	20-M64	794	692.15	17.48	140
26	1086	952.5	73	20-M70	832	749.3	17,48	140
28	1168	1022.4	79	20-M76	889	800.1	17.48	143
30	1232	1085.9	79	20-M76	946	857.25	17.48	149
32	1314	1155.7	86	20-M84	1003	914.4	17,48	159

DN	D	K	L	(Bolt)n-Th	d1	P	f	C
2	215	165	26	8-M24	92	95.25	7.92	38.5
2-1/2	245	190.5	29.5	8-M27	105	107.95	7.92	41.5
3	265	203	32.5	8-M30	127	138.52	7.92	48
4	310	241.5	35.5	8-M33	157	161.92	7.92	54
5	375	292	42	8-M39	186	193,68	7.92	73.5
6	395	317.5	39	12-M36	216	211.12	9.52	83
8	485	393.5	45	12-M42	270	269.88	11.13	92
10	585	482.5	51	12-M48	324	323.85	11.13	108
12	675	571.5	55	16-M52	381	381	14.27	124
14	750	635	60	16-M56	413	419.1	15.88	133.5
16	825	705	68	16-M64	470	469.9	17.48	146.5
18	915	774.5	74	16-M70	533	533.4	17,48	162
20	985	832	80	16-M76	584	584.2	17.48	178
24	1170	990.5	94	16-M90	692	692.15	20.62	203.5



BUTT-WELDING ENDS



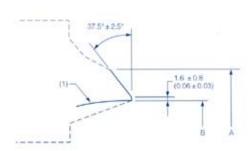


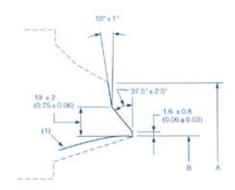
Pipe nominal specifi- cation (DN)	Series of pipe schedule thikness [Note(1)]	Welded-end out diameters				
		Forged or manufactured components [Note(1)]A	Casting steel valve [Note(2)]A	В	C[Note(3)]	t
65	40	73.0	75	62.5	662.93	5.16
	80	73.0	75	59	59.69	7.01
	160	73.0	75	54	55.28	9.35
	XXS	73.0	75	45	47.43	14.02
	40	88.9	91	78	78.25	5.49
80	80	88.9	91	73.5	74.53	7.62
BU	160	88.9	91	66.5	68.38	11.13
	XXS	88.9	91	58.5	61.19	15.24
-90	40	101.6	105	90	90.52	5.74
90	80	101.6	105	85.5	86.42	8.08
	40	114.3	117	102	102.73	6.02
100	80	114.3	117	97	98.28	8.56
	120	114.3	117	92	93.78	11.13
	160	114,3	117	87.5	89.65	13.49
	XXS	114.3	117	80	83.30	17.12
	40	141.3	144	128	128.80	6.55
	80	141.3	144	122	123.58	9.3
125	120	141.3	144	116	118.04	12.70
	160	141.3	144	109.5	112.47	15.88
	XXS	141.3	144	103	106.92	19.05
	40	168.3	172	154	154.82	7.11
	80	168.3	172	146.5	148.06	10.97
150	120	168.3	172	140	142.29	14.27
	160	168.3	172	132	135.31	18.26
	XXS	168.3	172	124.5	128.85	21.95
	40	219.1	223	203	203.75	8.18
	60	219.1	223	198.5	200.02	10.31
	80	219.1	223	193.5	195.84	12.70
000	100	219.1	223	189	191.65	15.09
200	120	219.1	223	182.5	186.11	18.26
	140	219.1	223	178	181.98	20.62
	XXS	219.1	223	174.5	179.16	22.23
	160	219.1	223	173	177.79	23.01
	40	273.0	278	254.5	255.74	9.27
	60	273.0	278	247.5	249.74	12.70
250	80	273.0	278	243	245.55	15.09
	100	273.0	278	236.5	240.01	18.26
	120	273.0	278	230	234.44	21.44
	140	273.0	278	222	227.51	25,40
	160	273.0	278	216	221.95	28.58

Pipe nominal specifi- cation (DN)	Series of pipe schedule thikness [Note(1)]	Welded-end out diameters				
		Forged or manufactured components [Note(1)]A	Casting steel valve [Note(2)]A	В	C[Note(3)]	t
	STD	323.8	329	305	306.08	9,53
300	40	323.8	329	303	304.72	10.31
	XS	323.8	329	298.5	300.54	12.70
	60	323.8	329	295	297.79	14.27
	80	323.8	329	289	292.17	17.48
300	100	323.8	329	281	285.24	21,44
	120	323.8	329	273	278.31	25.40
	140	323.8	329	266.5	272.75	28.58
	160	323.8	329	257	264.45	33.32
	STD	355.6	362	336.5	337.88	9.53
	40	355.6	362	333.5	335.08	11.13
	XS	355.6	362	330	332.34	12.70
12.202	60	355.6	362	325.5	328.15	15.09
350	80	355.6	362	317.5	321.22	19.05
	100	355.6	362	308	312.86	23.83
	120	355.6	362	300	305.93	27.79
	140	355.6	362	292	299.00	31.75
	160	355.6	362	284	292.07	35.71
	STD	406.4	413	387.5	388.68	9.53
	40	406.4	413	381	383.14	12.70
	60	406.4	413	373	376.21	16.66
400	80	406.4	413	363.5	367.84	21,44
	100	406.4	413	354	359.53	26.19
	120	406.4	413	344.5	351.18	30.96
	140	406.4	413	333.5	341.43	36.53
	160	406.4	413	325.5	334.50	40.49
450	STD	457.2	464	438	439.48	9,53
	40	457.2	464	432	433.94	12.70
	XS	457.2	464	428.5	431.19	14.27
	60	457.2	464	419	422.82	19.05
	80	457.2	464	409.5	414.46	23.83
	100	457.2	464	398.5	404.78	29.36
	120	457.2	464	387.5	395.03	34.93
	140	457.2	464	378	386.77	39.67
	160	457.2	464	366.5	376.99	45.24



BUTT-WELDING ENDS





Pipe nominal specifi- cation (DN)	Series of pipe schedule thikness [Note(1)]	Welded-end out diameters				
		Forged or manufactured components [Note(1)]A	Casting steel valve [Note(2)]A	В	C[Note(3)]	t
	STD	508.0	518	489	490.28	9.53
	XS	508.0	516	482.5	484.74	12.70
	40	508.0	516	478	480.55	15.09
	60	508.0	516	467	470.88	20.62
500	80	508.0	516	455.5	461.13	26.19
500	100	508.0	516	443	450.02	32.54
	120	508.0	516	432	440.29	38.10
	140	508.0	516	419	429,17	44.45
	160	508.0	516	408	419.44	50.01
	STD	558.8	567.	539	541.08	9.53
	XS	558.8	567	533	535.54	12.70
	60	558.8	567	514	518.86	22.23
	80	558.8	567	501	507.75	28.58
550	100	558.8	567	488.5	496.63	34.93
	120	558.8	567	476	485,52	41.28
	140	558.8	567	463	474.41	47.63
	160	558.8	567	450.5	463.30	53.98
	STD	609.6	619	590.5	591.88	9.53
	XS	609.6	619	584	586.34	12.70
	30	609.6	619	581	583.59	14.27
	40	609.6	619	574.5	577.97	17.48
600	60	609.6	619	560.5	565.49	24.61
	80	609.6	619	547.5	554,38	30.96
	100	609.6	619	532	540.49	38.89
	120	609.6	619	517.5	528.03	46.02
	140	609.6	619	505	516.91	52.37
	160	609.6	619	490.5	504.37	59.54
650	10	660.4	670	645.5	645.50	7.92
	20	660.4	670	635	637,14	12.70
700	10	711.2	721	695.5	696.30	7.92
	20	711.2	721	686	687.94	12.70
	30	711.2	721	679.5	682.37	15.88
750	10	762.0	772	746	747.10	7.92
	20	762.0	772	736.5	738.74	12.70
	30	762.0	772	730	733.17	15.88
	10	812.8	825	797	797.90	7.92
12327	20	812.8	825	787.5	789.54	12.70
800	30	812.8	825	781	783.97	15.88
	40	812.8	825	778	781.17	17.48

DN850-900						
Pipe nominal specifi- cation (DN)	Series of pipe schedule thikness [Note(1)]	Welded-end out diameters				
		Forged or manufactured components [Note(1)]A	Casting steel valve [Note(2)]A	В	C[Note(3)]	t
850	10	863.6	876	848	848.70	7.92
	20	863.6	876	838	840.34	12.70
	30	863.6	876	832	834.77	15.88
	40	863.6	876	828.5	831.97	17.48
900	10	914.4	927	898.5	889.50	7.92
	20	914.4	927	889	891.14	12.70
	30	914.4	927	882.5	885.57	15.88
	40	914.4	927	876.5	880.02	19.05

Note:(1)Characters stand for:

(a)STD=Standard schedule thikness

(b)XS=Thickened

(c)XXS=Super thickened

(2)All the diameters are not required size, just be convenient for users.







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