

河北玖源管道制造有限公司

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河北玖源管道制造有限公司

HEBEI JIUYUAN PIPELINE MANUFACTURING CO., LTD



JIUYUAN PIPELINE
— 玖源管道 —

企业简介 INTRODUCTION

河北玖源管道制造有限公司，是冀孟集团的分部，座落于“中国弯头管件之都”的孟村回族自治县，是专业生产钢制法兰、管件等系列产品的骨干企业，产品执行标准可涵盖国标、美标、德标、日标、韩标、英标以及各种非标定制管件产品。

公司设有质量检测中心，采用GB/T19001:2000标准，通过了国家质量监督检验检疫总局组织的压力管道配件验收，颁发了特种设备制造许可证。是国家中石化、中石油、电力部、船级社、法兰管件生产地定点企业。

玖源管道拥有全自动化管理的生产系统、健全的销售服务制度、简便快捷的商务运作，建立了科学的质量保证体系，行销网络遍布全球，世界各地。

我司以“国际市场为导向，科技为龙头，追求高品质，真诚为用户”为经营宗旨，始终遵循“千锤百炼出精品，精益求精谋发展”的经营策略。在此，向给予我们帮助、合作与支持的国内外各界朋友表示衷心的感谢，并竭诚与各位同仁平等互利，情深业旺。



HEBEI JIUYUAN PIPELINE MANUFACTURING CO.,LTD,which is a branch of JIMENG GROUP, is located in the "in Elbow Pipe Fittings States capital"of the Mengcun Hui Autonomous County, specializing in the production of steel flanges,pipe fittings series The backbone of enterprise products,which cover ASME/ANSI,DIN,JIS,GOST,BS and other common manufacturing standards.

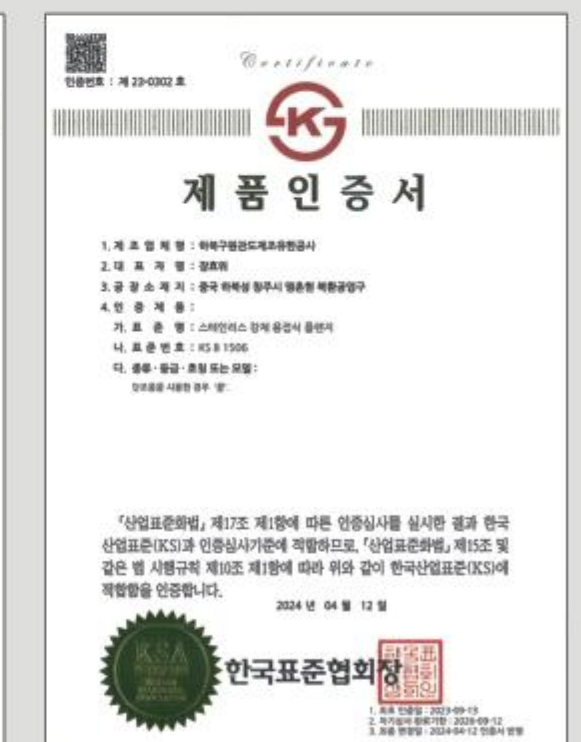
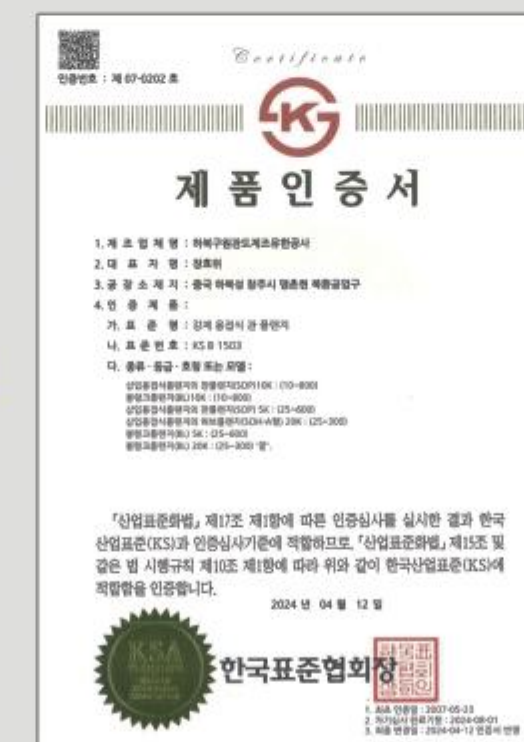
Our company has seized the quality of Measurement Center,GB/T19001:2000 standards adopted by the State General Administration of Quality Supervision,Inspection and Quarantine of the pressure pipe Organization Accessories acceptance,issued a special permit equipment manufacturers. It is also a production designated enterprise of flanges and fittings,for Sinopec, PetroChina, Ministry of Electric Power, Classification Society.

JIUYUAN PIPELINE has completely productive system with automatic management,perfect sale service system and simple and fast business operating.We established scientific quality guarantee system and selling net covers all over the world.

Our company with "the international market-oriented,science and technology as a leader,the pursuit of high-quality,in good faith for the user"as the business purpose,only Followed the end of"a thoroughly tempered quality improvement and development" business strategy. At this point, to give us help,cooperation,And support from all walks of life both at home and abroad thanks to loyal friends and colleagues of equality and mutual benefit with you wholeheartedly.



企业资质 ENTERPRISE QUALIFICATION





JIUYUAN PIPELINE
— 玖源管道 —

检测设备 TESTING EQUIPMENT

www.jiuyuanpipeline.com



玖源通过制定、实施和监督严格的质量管理制度，从源头抓起，严格控制原材料的质量，严格执行生产工艺和标准，提高设备的维护和管理，严格执行检测和测试标准，缩小产品质量差异，保证产品质量的稳定。

Jiuyuan establishes, implements, and supervises strict quality management systems, starting from the source, strictly controlling the quality of raw materials, strictly implementing production processes and standards, improving equipment maintenance and management, strictly implementing testing and inspection standards, narrowing product quality differences, and ensuring stable product quality.



● 微机控制电液伺服万能试验机
Microcomputer controlled electro-hydraulic servo universal testing machine



● 摆锤式冲击试验机
Pierce of hammer type impact tester



● 探伤仪
Flaw detector



● 五大元素检测
Five element detection



● 直读光谱仪
Direct reading spectrometer



● 多功能显微镜
Microscopio multifuncional



● 冲击试样缺口投影仪
Impact specimen notch projector



● *****



● 低温槽
Cryogenic tank



JIUYUAN PIPELINE
— 玖源管道 —

www.jiuyuanpipeline.com

优质法兰 HIGHSTRENGTH FLANGE

法兰标准 FLANGES STANDARD

HG/T20592~HG/T20635

ASME B16.5 ASME B16.47 ASME B16.48 ASME B16.36

EN1092-1

DIN

BS1560-3.1 BS4504 BS10

GOST 12820 12821 33259

ISO7005-1

JIS B2220

企航广告





JIUYUAN PIPELINE
— 玖源管道 —

www.jiuyuanpipeline.com

优质管件 HIGHSTRENGTH PIPE FITTINGS



管件标准 PIPE FITTINGS STANDARD

对焊管件 BUTT WELDING FITTINGS

HG/T21635 HG/T21631
ASME B16.9
MSS SP 75 MSS SP 43
EN10253-1~EN10253-2
DIN2605 DIN2615 DIN2616 DIN2617
GOST17375 GOST17376 GOST17378 GOST17379
JIS B2311 JIS B2312 JIS B2313

锻制管件 FORGED FITTINGS

HG/T21634 HG/T21632
ASME B16.11
MSS SP 79 MSS SP 95 MSS SP 97 MSS SP 114
BS3799
JIS B2316



可根据客户要求定制各类管件

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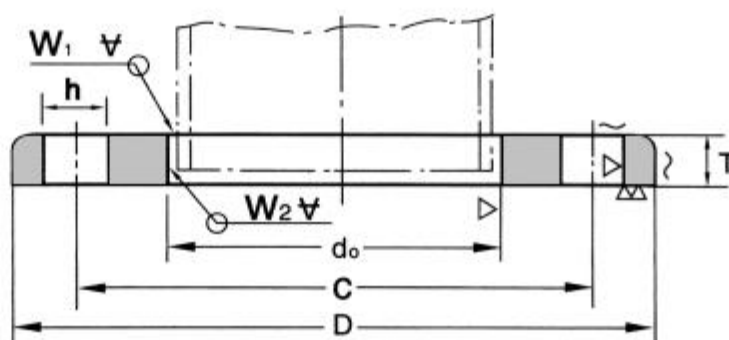
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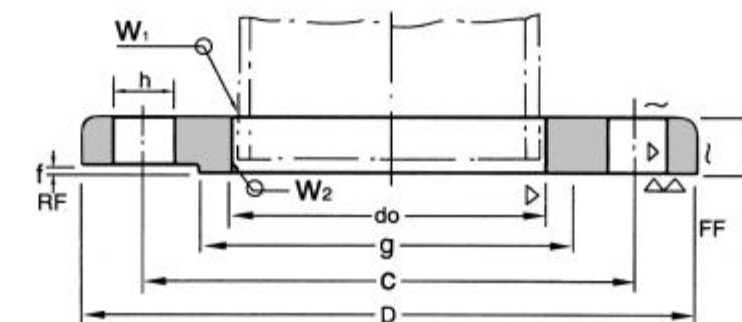
1K
KS V 7815 JIS F 7805
SLIP-ON FLANGES



Unit:mm

N/D	PIPE		FLANGE		BOLT HOLE			BOLT (M)	WT (Kg)
	O/D(d)	D	I/D(do)	T	C	N	h		
25	34.0	95	34.5	10	75	4	12	M10	0.45
(32)	42.7	115	43.2	12	90	4	15	M12	0.73
40	48.6	120	49.1	12	95	4	15	M12	0.83
50	60.5	130	61.1	14	105	4	15	M12	1.06
65	76.3	155	77.1	14	130	4	15	M12	1.48
80	89.1	180	90.0	14	145	4	19	M16	1.97
100	114.3	200	115.4	16	165	8	19	M16	2.35
125	139.8	235	141.2	16	200	8	19	M16	3.20
150	165.2	265	166.6	16	230	8	19	M16	3.90
200	216.3	320	218.0	16	280	8	23	M20	5.00
250	267.4	385	269.5	16	345	12	23	M20	6.83
300	318.5	430	321.0	16	390	12	23	M20	7.45
350	355.6	480	358.1	16	435	12	25	M22	9.45
400	406.4	540	409.0	16	495	16	25	M22	11.43
450	457.2	605	460.0	16	555	16	25	M22	14.40
500	508.0	655	511.0	16	605	16	25	M22	15.73
(550)	555.8	660	562.0	16	620	16	23	M20	12.00
600	609.6	710	613.0	16	670	16	23	M20	12.12
(650)	660.4	760	664.0	16	720	16	23	M20	12.15
700	711.2	815	715.0	16	775	16	23	M20	14.26
750	762.0	865	766.0	16	825	20	23	M20	14.88
800	812.8	915	817.0	16	875	20	23	M20	15.70
(850)	863.6	965	868.0	16	925	20	23	M20	16.50
900	914.4	1025	919.0	18	980	20	25	M22	21.48
(950)	962.0	1075	967.0	18	1030	20	25	M22	21.97
1000	1016.0	1125	1021.0	18	1080	20	25	M22	23.38
1050	1062.0	1175	1067.0	18	1130	24	25	M22	25.21
1100	1117.6	1225	1122.0	18	1180	24	25	M22	25.16
1150	1162.0	1275	1167.0	18	1230	24	25	M22	26.64
1200	1219.0	1325	1224.0	18	1280	24	25	M22	27.60
1250	1262.0	1375	1267.0	18	1330	28	25	M22	29.72
1300	1312.0	1425	1317.0	18	1380	28	25	M22	30.92
1350	1371.6	1475	1376.0	18	1430	28	25	M22	32.38
1400	1412.0	1525	1417.0	20	1480	28	25	M22	37.02
1450	1462.0	1595	1467.0	20	1540	28	27	M24	45.81
1500	1524.0	1645	1529.0	20	1590	28	27	M24	46.88
1600	1612.0	1745	1617.0	20	1690	28	27	M24	50.54
1700	1712.0	1845	1717.0	20	1790	28	27	M24	53.70
1800	1812.0	1950	1817.0	20	1895	32	27	M24	58.90
1900	1912.0	2050	1917.0	20	1995	32	27	M24	62.18
2000	2012.0	2150	2017.0	20	2095	36	27	M24	65.10
2100	2116.0	2250	2121.0	24	2195	36	27	M24	79.55
2200	2216.0	2350	2221.0	24	2295	40	27	M24	82.94
2300	2316.0	2450	2321.0	24	2395	40	27	M24	86.75
2400	2416.0	2550	2421.0	24	2495	40	27	M24	89.71
2500	2516.0	2650	2521.0	24	2595	48	27	M24	93.52
2600	2616.0	2750	2621.0	24	2695	48	27	M24	97.34

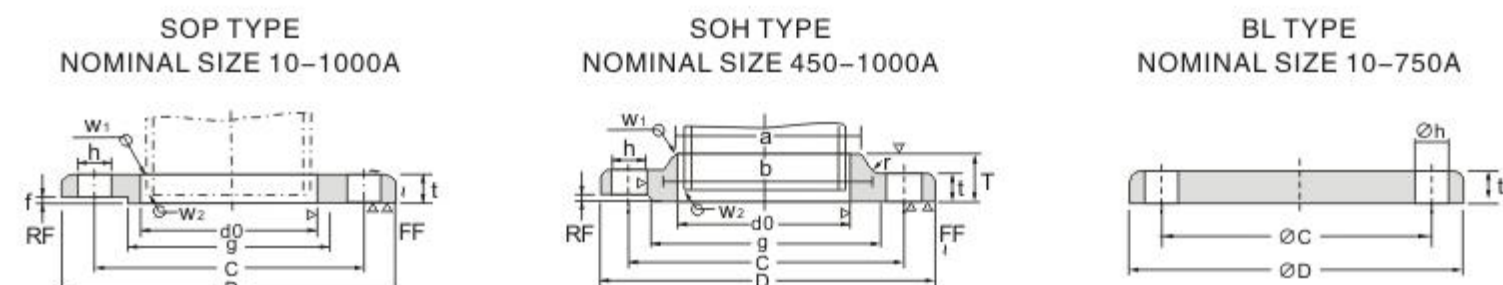
2Kg/cm²
KS B 1511-2007. JIS B 2220-2004
SLIP-ON FLANGE



Unit:mm

Nominal Bore of Flange	Outside Diam. of Applicable Pipe	Inside Diam. of Flange do	Sectional Dimensions		Bolt Hole			Nominal Bolt Size
			t	D	C	h	N	
450A	457.2	460	22	605	555	23	16	M20
500A	508.0	511	22	655	605	23	20	M20
550A	558.8	562	24	720	665	25	20	M22
600A	609.6	613	24	770	715	25	20	M22
650A	660.4	664	24	825	770	25	24	M22
700A	711.2	715	24	875	820	25	24	M22
750A	762.0	766	24	945	880	27	24	M24
800A	812.8	817	24	995	930	27	24	M24
(850A)	863.6	868	24	1.045	980	27	24	M24
900A	914.4	919	24	1.095	1.030	27	24	M24
1000A	1016.0	1.021	26	1.195	1.130	27	28	M24
(1100A)	1117.6	1.123	26	1.305	1.240	27	28	M24
1200A	1219.2	1.224	26	1.420	1.350	27	32	M24
1350A	1371.6	1.377	26	1.575	1.505	27	32	M24
1500A	1524.0	1.529	28	1.730	1.660	27	36	M24

5Kg/cm²
JIS B 2220-1984(KS B 1503-1999)
5Kg/cm² SLIP-ON WELDING STEEL PIPE FLANGES

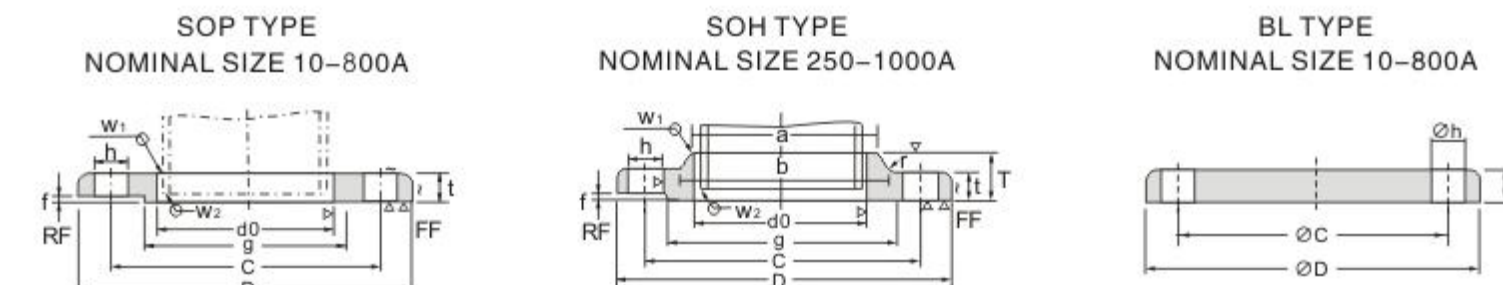


Unit: mm

Nominal Bore of Flange	Outside Diam.of Appli- cable Pipe	Inside Diam.of Flange do	Outside Diam.of Flange D	Sectional Dimensions of Flange							Dia.of Bolt			Nominal Bolt Size	Weight (Kg)		
				t	T	Diam.of Hub		Rad- ius r	Raised Face f	Diam.of Raised face g	Diam. of Bolt Circle C	Number of Bolt Holes	Hole Diam. h		SOP	BL	SOH
						a	b										
(10)	17.3	17.8	75	9	-	-	-	-	1	39	55	4	12	M10	0.27	0.3	-
15	21.7	22.2	80	9	-	-	-	-	1	44	60	4	12	M10	0.30	0.4	-
(20)	27.2	27.7	85	10	-	-	-	-	1	49	65	4	12	M10	0.37	0.5	-
25	34.0	34.5	95	10	-	-	-	-	1	59	75	4	12	M10	0.45	0.6	-
(32)	42.7	43.2	115	12	-	-	-	-	2	70	90	4	15	M12	0.78	0.9	-
40	48.6	49.1	120	12	-	-	-	-	2	75	95	4	15	M12	0.83	1.0	-
50	60.5	61.1	130	14	-	-	-	-	2	85	105	4	15	M12	1.07	1.4	-
65	76.3	77.1	155	14	-	-	-	-	2	110	130	4	15	M12	1.49	2.0	-
80	89.1	90.0	180	14	-	-	-	-	2	121	145	4	19	M16	1.99	2.7	-
(90)	101.6	102.6	190	14	-	-	-	-	2	131	155	4	19	M16	2.09	3.0	-
100	114.3	115.4	200	16	-	-	-	-	2	141	165	8	19	M16	2.39	3.7	-
125	139.8	141.2	235	16	-	-	-	-	2	176	200	8	19	M16	3.23	5.2	-
150	165.2	166.6	265	18	-	-	-	-	2	206	230	8	19	M16	4.41	7.5	-
(175)	190.7	192.1	300	18	-	-	-	-	2	232	260	8	23	M20	5.51	9.5	-
200	216.3	218.0	320	20	-	-	-	-	2	252	280	8	23	M20	6.33	12.2	-
(225)	241.8	243.7	345	20	-	-	-	-	2	277	305	12	23	M20	6.64	14.0	-
250	267.4	269.5	385	22	-	-	-	-	2	317	345	12	23	M20	9.45	19.3	-
300	318.5	321.0	430	22	-	-	-	-	3	360	390	12	23	M20	10.3	24.3	-
350	355.6	358.1	480	24	-	-	-	-	3	403	435	12	25	M22	14.0	33.2	-
400	406.4	409.0	540	24	-	-	-	-	3	463	495	16	25	M22	16.9	41.9	-
450	457.2	460.0	605	24	40	495	500	5	3	523	555	16	25	M22	21.6	53.0	24.8
500	508.0	511.0	655	24	40	546	552	5	3	573	605	20	25	M22	23.1	61.9	26.9
550	558.8	562.0	720	26	42	597	603	5	3	630	665	20	27	M24	30.3	81.2	34.1
600	609.6	613.0	770	26	44	648	654	5	3	680	715	20	27	M24	32.7	93.2	37.5
650	660.4	664.0	825	26	48	702	708	5	3	735	770	24	27	M24	35.9	106.9	42.8
700	711.2	715.0	875	26	48	751	758	5	3	785	820	24	27	M24	38.2	120.6	45.4
750	762.0	766.0	945	28	52	802	810	5	3	840	880	24	33	M30	48.7	150.5	57.4
800	812.8	817.0	995	28	52	854	862	5	3	890	930	24	33	M30	51.2	167.4	60.8
(850)	863.6	868.0	1045	28	54	904	912	5	3	940	980	24	33	M30	54.4	185.1	63.5
900	914.4	919.0	1095	30	56	956	964	5	3	990	1030	24	33	M30	61.1	218.1	75.3
1000	1016.0	1021.0	1195	32	60	1058	1066	5	3	1090	1130	28	33	M30	70.5	277.3	88.5
*(1100)	1117.6	1123	1305	32	-	-	-	-	3	1200	1240	28	33	M30	81.7	331.9	-
*1200	1219.2	1225	1420	34	-	-	-	-	3	1305	1350	32	33	M30	102.0	417.8	-
*1350	1371.6	-	1575	34	-	-	-	-	3	1460	1505	32	33	M30	115.9	515.6	-
*1500	1524.0	-	1730	36	-	-	-	-	3	1615	1660	36	33	M30	157.4	659.2	-

- 1、Flanges of parenthesized nominal diameter had letter not be used.
- 2、The facing of flanges shall conform to KS B 1509 (JIS B 2202) 1984.
- 3、Nominal diameter over 1000 is manufacturer' s standard (*)

10Kg/cm²
JIS B 2220-1984(KS B 1503-1999)
10Kg/cm² SLIP-ON WELDING STEEL PIPE FLANGES



Unit: mm

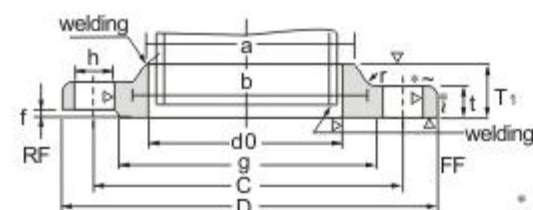
NOMINAL THICKNESS FLANGE

Nominal Diam .of Flange	Outside Diam.of Steel Pipe	Inside Diam.of Flange do	Outside Diam.of Flange D	Sectional Dimensions of Flange							Dia.Of Bolt			Nominal Bolt Size	Weight (Kg)		
				t	T	Diam.of Hub		Rad -ius r	Raised Face f	Diam.of Raised face g	Bolt Circle Diam. C	Number of Bolt Holes	Hole Dia. h		SOP	BL	SOH
						a	b										
10	17.3	17.8	90	12	-	-	-	-	1	46	65	4	15	M12	0.52	0.54	-
15	21.7	22.2	95	12	-	-	-	-	1	51	70	4	15	M12	0.57	0.61	-
20	27.2	27.7	100	14	-	-	-	-	1	56	75	4	15	M12	0.73	0.79	-
25	34.0	34.5	125	14	-	-	-	-	1	67	90	4	19	M16	1.13	1.24	-
32	42.7	43.2	135	16	-	-	-	-	2	76	100	4	19	M16	1.48	1.66	-
40	48.6	49.1	140	16	-	-	-	-	2	81	105	4	19	M16	1.56	1.81	-
50	60.5	61.1	155	16	-	-	-	-	2	96	120	4	19	M16	1.88	2.23	-
65	76.3	77.1	175	18	-	-	-	-	2	116	140	4	19	M16	2.60	3.3	-
80	89.1	90	185	18	-	-	-	-	2	126	150	8	19	M16	2.61	3.5	-
(90)	101.6	102.6	195	18	-	-	-	-	2	136	160	8	19	M16	2.76	4.0	-
100	114.3	115.4	210	18	-	-	-	-	2	151	175	8	19	M16	3.14	4.6	-
125	139.8	141.2	250	20	-	-	-	-	2	182	210	8	23	M20	4.77	7.3	-
150	165.2	166.6	280	22	-	-	-	-	2	212	240	8	23	M20	6.34	10.1	-
(175)	190.7	192.1	305	22	-	-	-	-	2	237	265	12	23	M20	6.82	11.8	-
200	216.3	218	330	22	-	-	-	-	2	262	290	12	23	M20	7.53	14.0	-
(225)	241.8	243.7	350	22	-	-	-	-	2	282	310	12	23	M20	7.74	15.8	-
250	267.4	269.5	400	24	36	288	292	6	2	324	355	12	25	M22	11.8	22.7	12.7
300	318.5	321	445	24	38	340	346	6	3	368	400	16	25	M22	12.7	27.8	13.8
350	355.6	358.1	490	26	42	380	386	6	3	413	445	16	25	M22	16.4	37.1	18.2
400	406.4	409	560	28	44	436	442	6	3	475	510	16	27	M24	23.0	52.5	25.2
450	457.2	460	620	30	48	496	502	6	3	530	565	20	27	M24	29.5	68.8	33.0
500	508	511	675	30	48	548	554	6	3	585	620	20	27	M24	33.5	82.1	37.6
(550)	558.8	562	745	32	52	604	610	6	3	640	680	20	33	M30	43.1	105.8	49.7
600	609.6	613	795	32	52	656	662	6	3	690	730	24	33	M30	45.7	120.2	52.6
(650)	660.4	664	845	34	56	706	712	6	3	740	780	24	33	M30	52.1	145.0	60.6
700	711.2	715	905	34	58	762	770	6	3	800	840	24	33	M30	59.5	167.2	70.6
(750)	762	766	970	36	62	816	824	6	3	855	900	24	33	M30	73.2	204.2	85.8
800	812.8	817	1020	36	64	868	876	6	3	905	950	28	33	M30	76.4	225.4	91.2
(850)	863.6	868	1070	36	66	920	928	6	3	955	1000	28	33	M30	80.7	248.8	98.6
900	914.4	919	1120	38	70	971	979	6	3	1005	1050	28	33	M30	89.4	288.4	109.0
1000	1016	1021	1235	40	74	1073	1081	6	3	1110	1160	28	39	M36	109.2	367.7	133.0
*(1100)	1117.6	1123	1345	42	76	-	-	-	3	1220	1270	28	39	M36	131.6	460.0	-
*1200	1219.2	1225	1465	44	78	-	-	-	3	1325	1380	32	39	M36	163.5	572.2	-
*1350	1371.6	-	1630	48	82	-	-	-	3	1480	1540	36	45	M42	204.7	769.0	-
*1500	1524.0	-	1795	50	90	-	-	-	3	1635	1700	40	45	M42	250.2	974.9	-

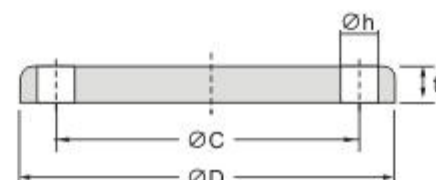
- 1、Flanges of parenthesized nominal diameter had letter not be used.
- 2、The facing of flanges shall conform to KS B 1509 (JIS B 2202) 1984.
- 3、Nominal diameter over 1000 is manufacturer' s standard (*)

JIS B 2220-1984(KS B 1503-1999)

16Kg/cm² SLIP-ON WELDING STEEL PIPE FLANGES



* The surface finish($\sim$)
is in the case of die forging.



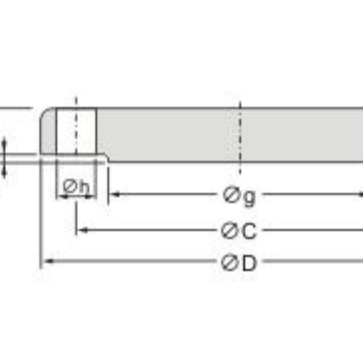
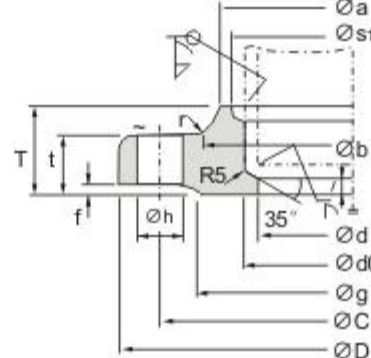
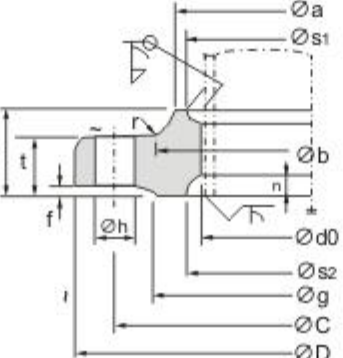
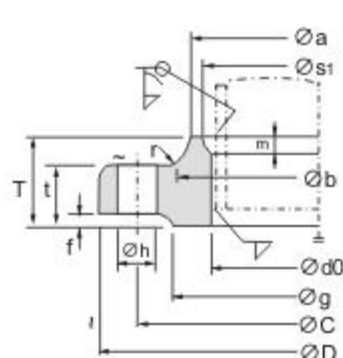
Unit: mm

Nominal Diameter of Flange	Outside Diameter of Steel Pipe	Inside Diameter of Flange do	Sectional Dimensions of Flange								Bolt Hole			Nominal Bolt Size	Weight (Kg)		
			Outside Diameter of Flange D	t	T	Diam.of Hub		Radius r	f	g	Bolt Circle Diameter C	Number of Bolt Holes	Hole Diameter h		SOP	BL	SOH
						a	b										
10	17.3	17.8	90	12	16	26	28	4	1	46	65	4	15	M12	0.52	0.54	0.52
15	21.7	22.2	95	12	16	30	32	4	1	51	70	4	15	M12	0.57	0.61	0.58
20	27.2	27.7	100	14	20	38	42	4	1	56	75	4	15	M12	0.73	0.79	0.75
25	34.0	34.5	125	14	20	46	50	4	1	67	90	4	19	M16	1.13	1.24	1.16
32	42.7	43.2	135	16	22	56	60	5	2	76	100	4	19	M16	1.48	1.66	1.53
40	48.6	49.1	140	16	24	62	66	5	2	81	105	4	19	M16	1.56	1.81	1.64
50	60.5	61.1	155	16	24	76	80	5	2	96	120	8	19	M16	1.8	2.3	1.83
65	76.3	77.1	175	18	26	94	98	5	2	116	140	8	19	M16	2.5	3.1	2.58
80	89.1	90.0	200	20	28	108	112	6	2	132	160	8	23	M20	3.5	4.5	3.66
(90)	101.6	102.6	210	20	30	120	124	6	2	145	170	8	23	M20	3.7	5.0	3.95
100	114.3	115.4	225	22	34	134	138	6	2	160	185	8	23	M20	4.5	6.3	4.94
125	139.8	141.2	270	22	34	164	170	6	2	195	225	8	25	M22	6.5	9.2	7.0
150	165.2	166.6	305	24	38	196	202	6	2	230	260	12	25	M22	8.7	12.8	9.62
200	216.3	218.0	350	26	40	244	252	6	2	275	305	12	25	M22	10.9	18.6	12.1
250	267.4	269.5	430	28	44	304	312	6	2	345	380	12	27	M24	18.0	30.6	20.0
300	318.5	321.0	480	30	48	354	364	8	3	395	430	16	27	M24	21.5	40.7	24.4
350	355.6	358.1	540	34	52	398	408	8	3	440	480	16	33	M30 x 3	30.8	57.8	35.0
400	406.4	409.0	605	38	60	446	456	10	3	495	540	16	33	M30 x 3	42.8	82.2	46.2
450	457.2	460.0	675	40	64	504	514	10	3	560	605	20	33	M30 x 3	55.1	107.6	61.9
500	508.0	511.0	730	42	68	558	568	10	3	615	660	20	33	M30 x 3	65.1	133.1	73.25
(550)	558.8	562.0	795	44	70	612	622	10	3	670	720	20	39	M36 x 3	77.9	164.1	88.1
600	609.6	613.0	845	46	74	666	676	10	3	720	770	24	39	M36 x 3	86.0	193.2	98.8
(650)	660.4	664	895	48	77	704	726	10	5	770	820	24	39	M36 x 3	96.3	227.5	101.0
700	711.2	715	960	50	80	754	776	10	5	820	875	24	42	M39 x 3	114.1	272.6	120.0
(750)	762.0	766	1020	52	83	806	832	10	5	880	935	24	42	M39 x 3	132.7	321.9	141.0
800	812.8	817	1085	54	86	865	885	10	5	930	990	24	48	M45 x 3	152.1	375.6	161.0
(850)	863.6	868	1135	56	89	916	936	10	5	980	1040	24	48	M45 x 3	166.5	428.1	177.0
900	914.4	919	1185	58	93	968	986	10	5	1030	1090	28	48	M45 x 3	178.1	481.8	191.0
1000	1016.0	1021	1320	62	99	1070	1098	12	5	1140	1210	28	56	M52 x 3	235.3	636.0	230.0
1100	1117.6	1123	1420	66	105	1180	1200	12	5	1240	1310	32	56	M52 x 3	267.9	784.0	289.0
1200	1219.2	1225	1530	70	112	1282	1302	12	5	1350	1420	32	56	M52 x 3	321.1	972.4	348.0
1300	1320.8	1326.0	1645	74	—	—	—	—	5	1450	1530	32	62		378.6	1185.2	—
1350	1371.6	1377.0	1700	76	—	—	—	—	5	1510	1590	32	62		410.0	1303.8	—
1400	1422.4	1428.0	1755	78	—	—	—	—	5	1560	1640	36	62		436.0	1422.5	—
1500	1524.0	1529.0	1865	80	—	—	—	—	5	1670	1750	36	62		496.4	1656.6	—

REMARKS: 1、Flanges of parenthesized nominal diameter had better not be used.
2、For dimensional tolerance, refer to JIS B 2203.
3、In principle material shall be SS400 specified in JIS G 3101, SF390A (or SF440A) specified in JIS G 3201, or S20C (or S25C) specified in JIS G 4051, and shall be fit for welding.

JIS B 2220-1984(KS B 1503-1999)

20Kg/cm² SLIP-ON WELDING STEEL PIPE FLANGES



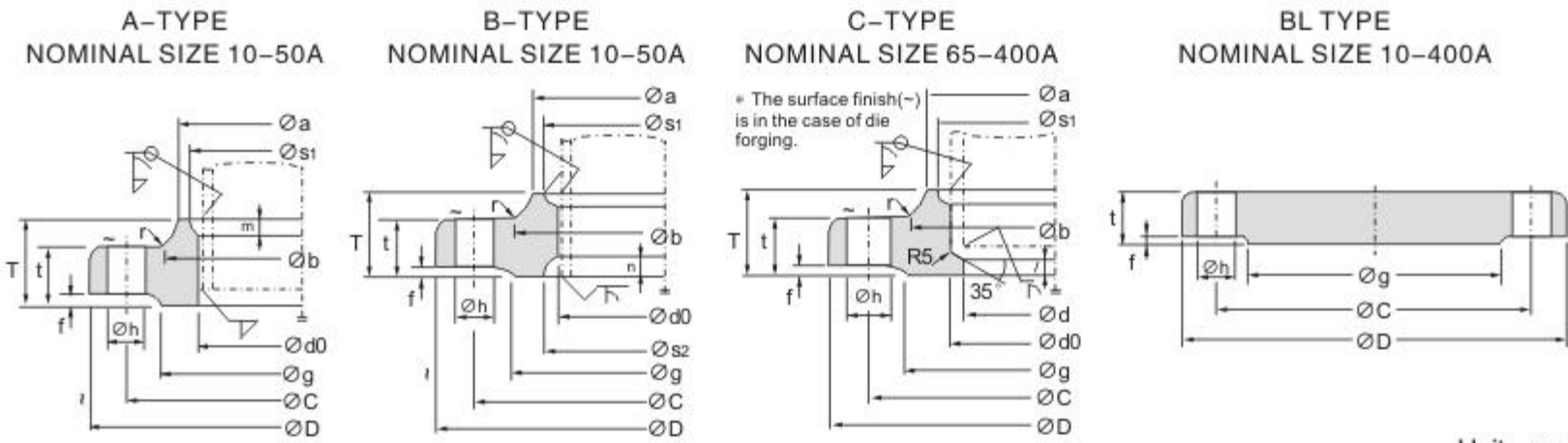
* The surface finish(—) is in the case of die forging

Unit: mm																							
Nominal Diameter of Flange	Outside Diameter of Steel Pipe	Inside Diameter of Flange do	Outside Diameter of Flange D	Sectional Dimensions of Flange								Bolt Hole				Reference					Weight (Kg)		
				t	T	Diameter of Hub		Radius r	f	g	d	Bolt Circle Diameter C	Number of Bolt Holes	Hole Diameter h	Nominal Bolt Size	S ₁	m	S ₂	n	l	SOP	BL	SOH
						a	b																
10	17.3	17.8	90	14	20	30	32	4	1	46	—	65	4	15	M12	27	4	27	4	—	0.6	0.6	0.59
15	21.7	22.2	95	14	20	34	36	4	1	51	—	70	4	15	M12	31	4	31	4	—	0.7	0.7	0.65
20	27.2	27.7	100	16	22	40	42	4	1	56	—	75	4	15	M12	37	4	37	4	—	0.8	0.9	0.81
25	34.0	34.5	125	16	24	48	50	4	1	67	—	90	4	19	M16	44	4	44	4.5	—	1.3	1.5	1.29
32	42.7	43.2	135	18	26	56	60	5	2	76	—	100	4	19	M16	52	4	53	5	—	1.6	1.8	1.6
40	48.6	49.1	140	18	26	62	66	5	2	81	—	105	4	19	M16	58	4	59	5.5	—	1.7	2.0	1.69
50	60.5	61.1	155	18	26	76	80	5	2	96	—	120	8	19	M16	70	4	72	5.5	—	1.9	2.4	1.89
65	76.3	77.0	175	20	30	100	104	5	2	116	65.9	140	8	19	M16	94	6	85	6	6	2.6	3.4	2.6
80	89.1	90.0	200	22	34	113	117	6	2	132	78.1	160	8	23	M20	107	6	—	—	6	3.8	4.9	3.93
(90)	101.6	102.6	210	24	36	126	130	6	2	145	90.2	170	8	23	M20	120	6	—	—	6	4.4	6.0	4.56
100	114.3	115.4	225	24	36	138	142	6	2	160	102.3	185	8	23	M20	132	6	—	—	6	4.9	6.9	5.13
125	139.8	141.2	270	26	40	166	172	6	2	195	126.6	225	8	25	M22	160	7	—	—	6	7.8	11.0	8.3
150	165.2	166.6	305	28	42	196	202	6	2	230	151.0	260	12	25	M22	186	8	—	—	6	10.1	14.9	10.6
200	216.3	218.0	350	30	46	244	252	6	2	275	199.9	305	12	25	M22	237	9	—	—	6	12.6	21.4	13.3
250	267.4	269.5	430	34	52	304	312	6	2	345	248.8	380	12	27	M24	290	10	—	—	6	21.9	37.2	23.4
300	318.5	321.0	480	36	56	354	364	8	3	395	297.9	430	16	27	M24	345	11	—	—	6	25.8	48.8	27.7
350	355.6	358.1	540	40	62	398	408	8	3	440	333.4	480	16	33	M30 × 3	384	12	—	—	6	36.2	68.0	39.2
400	406.4	409.0	605	46	70	446	456	10	3	495	381.0	540	16	33	M30 × 3	437	13	—	—	7	51.7	99.4	54.2
450	457.2	460.0	675	48	78	504	514	10	3	560	431.8	605	20	33	M30 × 3	490	15	—	—	7	66.1	129.1	71.7
500	508.0	511.0	730	50	84	558	568	10	3	615	482.6	660	20	33	M30 × 3	544	16	—	—	7	77.4	158.4	86.2
(550)	558.8	562.0	795	52	90	612	622	10	3	670	533.4	720	20	39	M36 × 3	595	16	—	—	7	92.2	194.0	105
600	609.6	613.0	845	54	96	666	676	10	3	720	584.2	770	24	39	M36 × 3	646	18	—	—	7	101.1	226.9	119
(650)	660.4	664.0	945	60	—	—	—	—	5	790	—	850	24	48	M45 × 3						147.6	311.6	—
700	711.2	715.0	995	64	—	—	—	—	5	840	—										168.0	370.9	—
(750)	762.0	766.0	1080	68	—	—	—	—	5	900	—	970	24	56	M52 × 3						212.7	460.1	—
800	812.8	817.0	1140	72	—	—	—	—	5	960	—	1030	24	56	M52 × 3						248.5	546.5	—
(850)	863.6	868.0	1200	74	—	—	—	—	5	1020	—	1090	24	56	M52 × 3						280.5	626.2	—
900	914.6	919.0	1250	76	—	—	—	—	5	1070	—	1140	28	56	M52 × 3						296.9	694.9	—

REMARKS: 1、 Flanges of parenthesized nominal diameter had better not be used.
2、 The flange gasket surface is based on large raised facing specified in JIS B 2202.
3、 Size d is an example of pipe thickness for schedule 40 of JIS G 3454, and JIS G 3456. But customers can order for other size as occasion demand.
4、 For dimensional tolerance, refer to JIS B 2203.
5、 In principle, material shall be SS400 specified in JIS G3101, SF390A (or SF440A) specified in JIS G 3201, or S20C (or S25C) Specified in JIS G4051. Material shall be fit for welding.
*The surface finish is the case of forging (▽ : in other cases) .



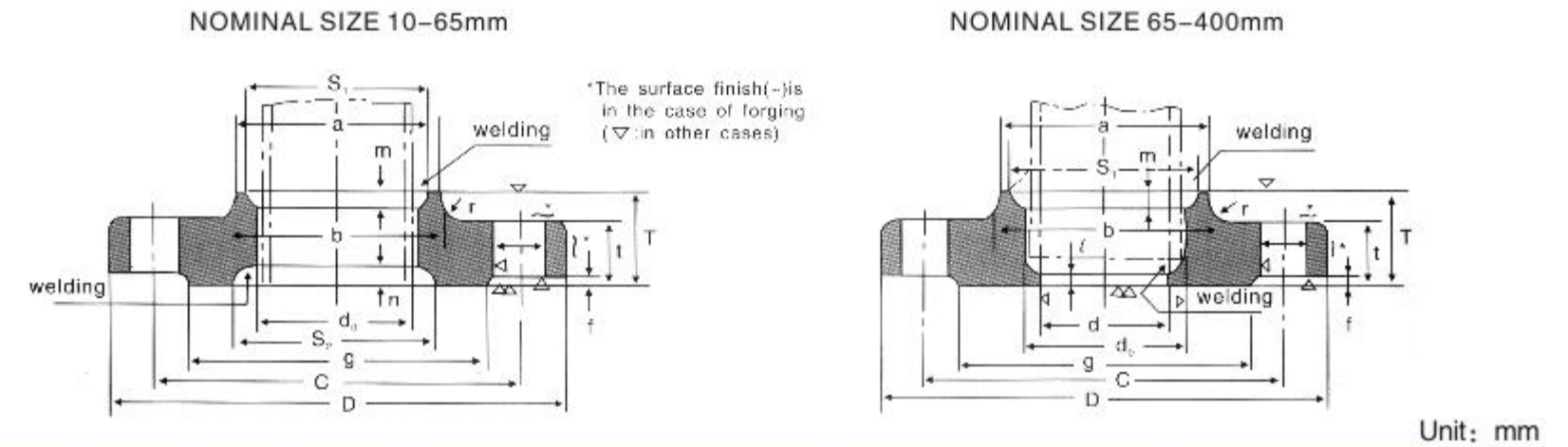
30Kg/cm²
JIS B 2220-1984(KS B 1503-1999)
30Kg/cm² SLIP-ON WELDING STEEL PIPE FLANGES



Nominal Diameter of Flange	Outside Diameter of Steel Pipe	Inside Diameter of Flange do	Outside Diameter of Flange D	Sectional Dimensions of Flange								Bolt Hole				Reference					Approx Weight (Kg)	
				t	T	Diameter of Hub		Rad- ius r	f	g	d	Bolt Circle Dia- meter C	Number of Bolt Holes	Hole Dia- meter h	Nominal Bolt Size	S ₁	m	S ₂	n	l	SOH	BL
						a	b															
10	17.3	17.8	110	16	24	30	34	4	1	52	—	75	4	19	M16	—	—	—	—	—	0.99	1.00
15	21.7	22.2	115	18	26	36	40	5	1	55	—	80	4	19	M16	31	4	40	5	—	1.23	1.25
20	27.2	27.7	120	18	28	42	46	5	1	60	—	85	4	19	M16	37	5	44	5	—	1.34	1.38
25	34.0	34.5	130	20	30	50	54	5	1	70	—	95	4	19	M16	44	6	52	5	—	1.76	1.84
32	42.7	43.2	140	22	32	60	64	6	2	80	—	105	4	19	M16	52	6	60	5	—	2.15	2.32
40	48.6	49.1	160	22	34	66	70	6	2	90	—	120	4	23	M20	58	6	66	5	—	2.82	3.00
50	60.5	61.1	165	22	36	82	86	6	2	105	—	130	8	19	M16	70	6.5	78	5	—	2.89	3.14
65	76.3	77.1	200	26	40	102	106	8	2	130	65.9	160	8	23	M20	96	9.5	94	5	6	4.70	5.50
80	89.1	90.0	210	28	44	115	121	8	2	140	78.1	170	8	23	M20	109	9.5	—	6	—	5.36	6.63
(90)	101.6	102.6	230	30	46	128	134	8	2	150	90.2	185	8	25	M22	122	9.5	—	6	—	6.85	8.55
100	114.3	115.4	240	32	48	141	147	8	2	160	102.3	195	8	25	M22	135	9.5	—	6	—	7.89	10.0
125	139.8	141.2	275	36	54	166	172	8	2	195	126.6	230	8	25	M22	160	9.5	—	6	—	11.4	15.3
150	165.2	166.6	325	38	58	196	204	8	2	235	151.0	275	12	27	M24	186	9.5	—	6	—	16.7	22.2
200	216.3	218.0	370	42	64	248	256	8	2	280	199.9	320	12	27	M24	237	9.5	—	6	—	20.6	32.6
250	267.4	269.5	450	48	72	306	314	10	2	345	248.8	390	12	33	M30 × 3	290	10	—	6	—	36.1	55.2
300	318.5	321.0	515	52	78	360	370	10	3	405	297.9	450	16	33	M30 × 3	345	12	—	6	—	49.9	77.9
350	355.6	358.1	560	54	84	402	412	12	3	450	333.4	495	16	33	M30 × 3	383	13	—	6	—	61.2	96.9
400	406.4	409.0	630	60	92	456	468	15	3	510	381.0	560	16	39	M36 × 3	435	14	—	7	—	85.2	136

REMARKS: 1. As far as possible, nominal diameter in parenthesis should be avoid from use.
2. The dimensional tolerance shall confirm to JIS B 2203.
3. The flange gasket surface is based on large raised facing specified in JIS B 2202. But, if necessary, facings other than the large raised facing specified in JIS B 2201 can be designated by customers.
4. Size d is an example of pipe thickness for schedule 40 of JIS G 3454 and JIS G 3456. When other size is necessary, customers can order it at will.
5. Material: Carbon Steel: S25C specified in JIS G 4051, or SF440A specified in JIS G 3201.
Molybdenum Steel: 1/2 Mo Steel specified in tables 1 and 2 of JIS B 2215.
Chromium-Molybdenum Steel: 1 1/4 Cr 1/2 Mo Steel specified in tables 1 and 2 of JIS B 2215.
*The surface finish is the case of forging (△: in other cases)

40Kg/cm²
JIS B 2216
40Kg/cm² SLIP-ON WELDING STEEL PIPE FLANGES



Nominal Diameter of Flange	Outside Diameter of Steel Pipe	Inside Diameter of Flange do	Outside Diameter of Flange D	Sectional Dimensions of Flange									Bolt Hole				Reference					Approx Weight (Kg)
				t	T	Diameter of Hub		Radius r	f	g	d	Bolt Circle Diameter C	Number of Bolt Holes	Hole Diameter h	Nominal Bolt Size	S ₁	m	S ₂	n	l		
						a	b															
10	17.3	17.8	110	18	26	34	38	5	1	52	—	75	4	19	M16	28.0	6	28.0	5		1.11	
15	21.7	22.2	115	20	30	39	43	5	1	58	—	80	4	19	M16	32.5	6	32.5	5		1.39	
20	27.2	27.7	120	20	30	45	49	5	1	60	—	85	4	19	M16	38.0	6	38.0	5		1.51	
25	34.0	34.5	130	22	32	55	59	5	1	70	—	95	4	19	M16	47.8	6	47.8	5		1.97	
32	42.7	43.2	140	24	35	64	68	6	2	80	—	105	4	19	M16	56.5	6	56.5	5		2.50	
40	48.6	49.1	160	24	35	70	74	6	2	90	—	120	4	23	M20	62.5	6	62.5	5		3.26	
50	60.5	61.1	165	26	38	86	90	6	2	105	—	130	8	19	M16	74.5	6	74.5	5.5		3.47	
65	76.5	77.1	200	30	44	106	110	8	2	130	62.3	160	8	23	M20	91.5	7	91.5	7		5.97	
80	89.1	90.3	210	32	46	118	124	8	2	140	73.9	170	8	23	M20	105.5	7.5	105.5	7		6.76	
100	114.3	115.4	250	36	52	145	151	8	2	165	97.1	205	8	25	M22	133.0	8.5	133.0	7		10.78	
125	139.8	141.4	300	40	58	182	188	8	2	200	120.8	250	8	27	M24	160.5	9.5	160.5	7		16.97	
150	165.2	167.0	355	44	64	200	208	8	2	240	143.2	295	12	33	M30	188.0	11	188.0	7		22.6	
200	216.3	218.2	405	50	72	255	263	8	2	290	190.9	345	12	33	M30	243.0	13	243.0	7		34.9	
250	267.4	269.5	475	56	80	310	318	10	2	355	237.2	410	12	33	M30	298.0	15	298.0	7		41.1	

REMARKS: 1. As far as possible, nominal diameter in parenthesis should be avoid from use.
2. The dimensional tolerance shall confirm to JIS B 2203.
3. The flange gasket surface is based on large raised facing specified in JIS B 2202. But, if necessary, facings other than the large raised facing specified in JIS B 2201 can be designated by customers.
4. Size d is an example of pipe thickness for schedule 40 of JIS G 3454, and JIS B 3456. When other size is necessary, customers can order it at will.
5. Refer to JIS B2216.

SCREWED PIPE FLANGES

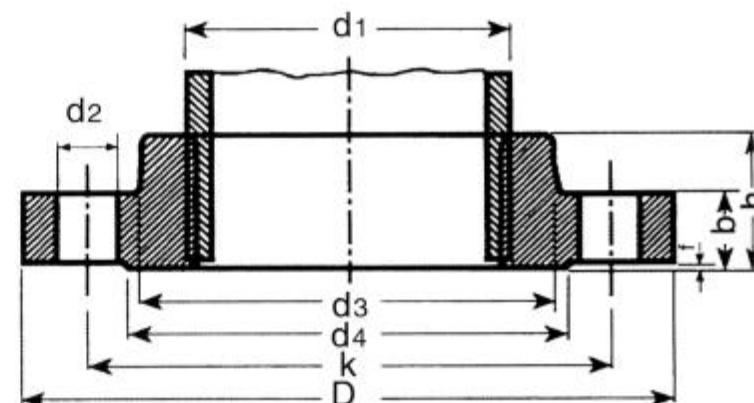
NOMINAL PRESSURE: 10 and 16 kgf/cm²—ND10—ND16

DIN2566

FLANSLAR

BORULAR ICIN, VIDALI

Anma Basincı: 10 ve 16 kgf/cm²—ND10—ND16
TS 813 (TS ISO 7005-1)



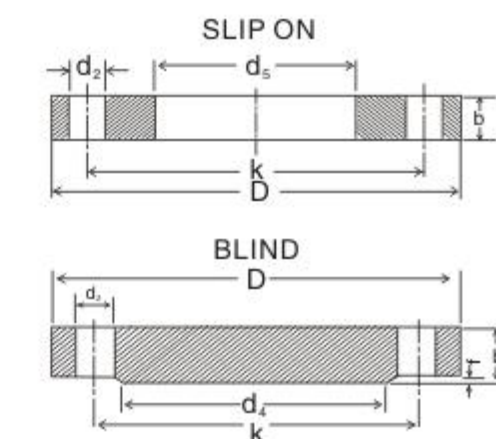
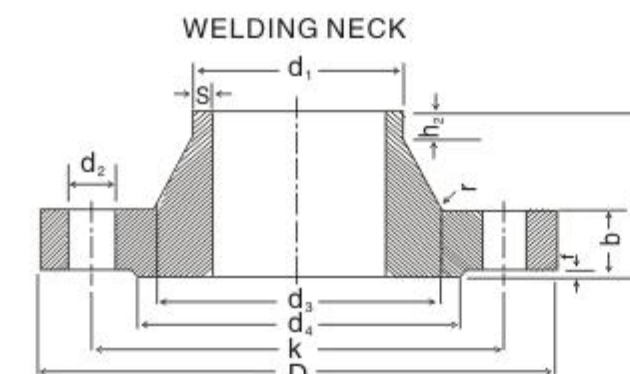
Unit: mm

BORU (Pipe)		FLANS (Flange)					BOYUN (Neck)	ALIN CIKINTISI (Raised face)			CIVATALAR (Bolts)			FLANS AGIRLIGI (Flange Weight) (7.85kg/dm ³) kg
DN	d ₁	Boru Vidası (Whitwort)	D	b	k	h ₁	d ₃	d ₄	f	Sayısı (Each)	Vida Screw	d ₂		
6	10.2	R1/8"	75	12	50	18	20	32	2	4	M10	11		0.326
8	13.5	R1/4"	80	12	55	18	25	38	2	4	M10	11		0.380
10	17.2	R3/8"	90	14	60	20	30	40	2	4	M12	14		0.544
15	21.3	R1/2"	95	14	65	20	35	45	2	4	M12	14		0.613
20	26.9	R3/4"	105	16	75	24	45	58	2	4	M12	14		0.910
25	33.7	R1"	115	16	85	24	52	68	2	4	M12	14		1.10
32	42.4	R1 1/4"	140	16	100	26	60	78	2	4	M16	18		1.60
40	48.3	R1 1/2"	150	16	110	26	70	88	3	4	M16	18		1.78
50	60.3	R2"	165	18	125	28	85	102	3	4	M16	18		2.43
65	76.1	R2 1/2"	185	18	145	32	105	122	3	4	M16	18		3.18
80	88.9	R3"	200	20	160	34	118	138	3	4/8	M16	18		4.12
100	114.3	R4"	220	20	180	38	140	158	3	8	M16	18		4.47
125	139.7	R5"	250	22	210	40	168	188	3	8	M16	18		6.13
150	165.1	R6"	285	22	240	44	195	212	3	8	M20	23		7.92

*Siparse gore galvanizli olarak imal edilebilir.

DIN 6Bar

DIN 2573 Slip On Flange
DIN 2527 Blind Flange
DIN 2631 Welding Neck Flange

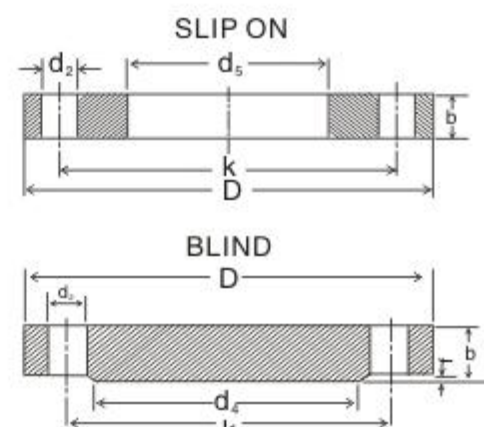
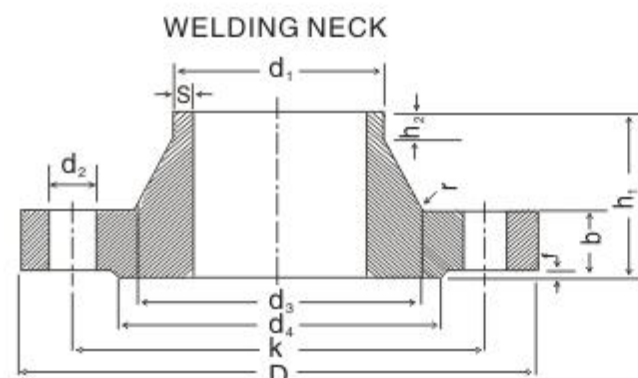


Unit: mm

Bore			Common Dimension					Hub					Raised Face		Drilling		Approx. Weight (kg)		
DN	d ₁	d ₅	D	b			k	h ₁	d ₃	s	r	h ₂	d ₄	f	Number of Bolt	d ₂	DIN 2573	DIN 2631	DIN 2527
				Welding neck	Slip On	Blind													
15	20	21	80	12	12	12	55	30	28	2	4	6	40	2	4	11	0.41	0.392	
	21.3	22							30										
20	25	26	90	14	14	14	65	32	35	2.3	4	6	50	2	4	11	0.6	0.592	
	26.9	27.6							38										
25	30	31	100	14	14	14	75	35	40	2.6	4	6	60	2	4	11	0.74	0.747	
	33.7	34.4							42										
32	38	39	120	14	16	14	90	35	50	2.6	6	6	70	2	4	14	1.19	1.05	
	42.4	43.1							55										
40	44.5	45.5	130	14	16	14	100	38	58	2.6	6	7	80	3	4	14	1.39	1.18	
	48.3	49							62										
50	57	58.1	140	14	16	14	110	38	70	2.9	6	8	90	3	4	14	1.53	1.34	
	60.3	61.1							74										
65	76.1	77.1	160	14	16	14	130	38	88	2.9	6	9	110	3	4	14	1.89	1.67	2.48
80	88.9	90.3	190	16	18	16	150	42	102	3.2	8	10	128	3	4	18	2.98	2.71	3.49
100	108	109.6	210	16	18	16	170	45	122	3.6	8	10	148	3	4	18	3.46	3.24	4.86
	114.3	115.9							130										
125	133	134.8	240	18	20	18	200	48	148	4	8	10	178	3	8	18	4.6	4.49	6.28
	139.7	141.6							155										
150	159	161.1	265	18	20	18	225	48	172	4.5	10	12	202	3	8	18	5.22	5.15	7.75
	168.3	170.5							184										
200	219.1	221.8	320	20	22	20	280	55	236	5.9	10	15	258	3	8	18	7.15	7.78	12.7
250	267	270.2	375	22	24	22	335	60	282	6.3	12	15	312	3	12	18	9.61	10.8	19
	273	276.2							290										
300	323.9	327.6	440	22	24	22	395	62	342	7.1	12	15	365	4	12	22	12.6	14	26.3
350	355.6	359.7	490	22	26	22	445	62	385	7.1	12	15	415	4	12	22	15.6	16.7	32.9
	368	372.2																	
400	406.4	411	540	22	28	22	495	65	438	7.1	12	15	465	4	16	22	18.4	19	40.2
	419	423.7																	
500	508	513.6	645	24	30	24	600	68	538	7.1	12	16	570	4	20	22	24.6	28.6	63.2

DIN 10Bar

DIN 2576 Slip On Flange
DIN 2527 Blind Flange
DIN 2632 Welding Neck Flange

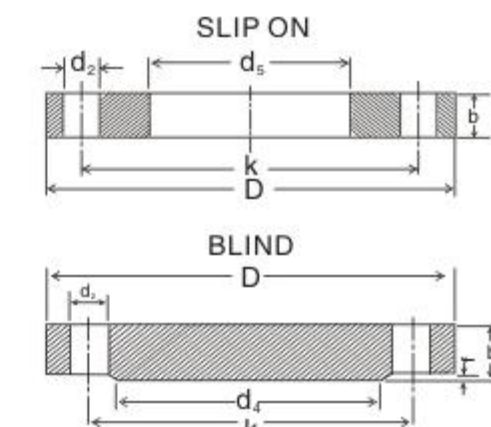
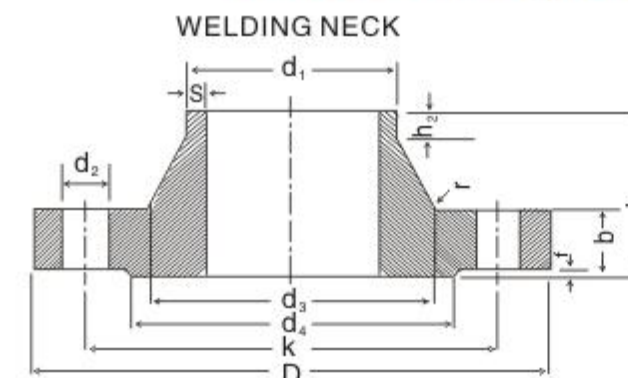


Unit: mm

Bore			Common Dimension				Hub					Raised Face		Drilling		Approx. Weight (kg)			
DN	d ₁	d ₂	D	b			k	h ₁	d ₃	s	r	h ₂	d ₄	f	Number of Bolt	d ₅	DIN 2576	DIN 2632	DIN 2527
				Welding neck	Slip On	Blind													
10	14	14.5	90	14	14	14	60	35	25	1.8	4	6	40	2	4	14	0.613	0.58	0.63
	17.2	17.7							28								0.605		
15	20	21	95	14	14	14	65	35	30	2	4	6	45	2	4	14	0.675	0.648	0.72
	21.3	22							32								0.669		
20	25	26	105	16	16	16	75	38	38	2.3	4	6	58	2	4	14	0.943	0.952	1.01
	26.9	27.6							40								0.936		
25	30	31	115	16	16	16	85	38	42	2.6	4	6	68	2	4	14	1.14	1.14	1.23
	33.7	34.4							45								1.11		
32	38	39	140	16	16	16	100	40	52	2.6	6	6	78	2	4	18	1.66	1.69	1.8
	42.4	43.1							56								1.62		
40	44.5	45.5	150	16	16	16	110	42	60	2.6	6	7	88	3	4	18	1.89	1.86	2.09
	48.3	49							64								1.86		
50	57	58.1	165	18	18	18	125	45	72	2.9	6	8	102	3	4	18	2.51	2.53	2.88
	60.3	61.1							75								2.47		
65	76.1	77.1	185	18	18	18	145	45	90	2.9	6	10	122	3	4	18	3	3.06	3.66
80	88.9	90.3	200	20	20	20	160	50	105	3.2	8	10	138	3	8	18	3.79	3.7	4.77
100	108	109.6	220	20	20	20	180	52	125	3.6	8	12	158	3	8	18	4.2	4.62	5.65
	114.3	115.9							131								4.03		
125	133	134.8	250	22	22	22	210	55	150	4	8	12	188	3	8	18	5.71	6.3	8.42
	139.7	141.6							156								5.46		
150	159	161.1	285	22	22	22	240	55	175	4.5	10	12	212	3	8	22	6.72	7.75	10.4
	168.3	170.5							184								6.57		
175	193.7	196.1	315	24	24	24	270	60	210	5.4	10	12	242	3	8	22	8.45	9.85	14
200	219.1	221.8	340	24	24	24	295	62	235	5.9	10	16	268	3	8	22	9.31	11.3	16.9
250	267	270.2	395	26	26	26	350	68	285	6.3	12	16	320	3	12	22	12.5	14.7	24.7
	273	276.2							292								11.9		

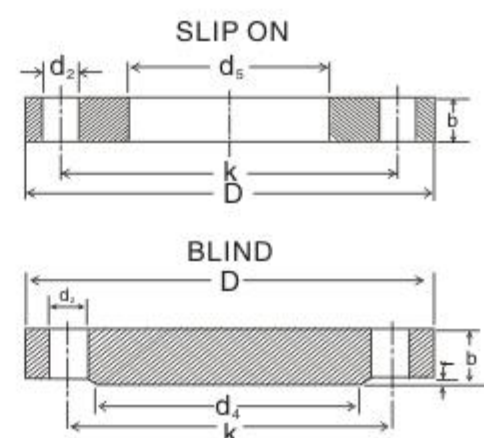
DIN 10Bar

DIN 2576 Slip On Flange
DIN 2527 Blind Flange
DIN 2632 Welding Neck Flange



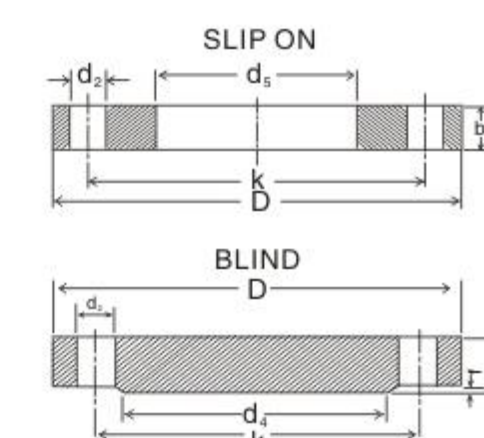
Unit: mm

Bore			Common Dimension					Hub					Raised Face		Drilling		Approx. Weight (kg)		
DN	d ₁	d ₂	D	b			k	h ₁	d ₃	s	r	h ₂	d ₄	f	Number of Bolt	d ₅	DIN 2576	DIN 2632	DIN 2527
				Welding neck	Slip On	Blind													
300	323.9	327.6	445	26	26	26	400	68	344	7.1	12	16	370	4	12	22	13.8	17.4	31.9
350	355.6	359.7	505	26	28	26	460	68	385	7.1	12	16	430	4	16	22	20.6	21.6	41.9
	368	372.2															19		
400	406.4	411	565	26	32	26	515	72	440	7.1	12	16	482	4	16	26	27.9	26.2	51.2
	419	423.7															25.9		
500	508	513.6	670	28	38	28	620	75	542	7.1	12	16	585	4	20	26	41.1	38.1	77.8
600	610	616.5	780	28	40		725	80	642	7.1	12	18	685	5	20	30	51.87	44.6	
700	711	716	895	30	40		840	80	745	8	12	18	800	5	24	30	65.79	62.4	
800	813	818	1015	32	44		950	90	850	8	12	18	905	5	24	33	90.87	84.1	
900	914	920	1115	34	48		1050	95	950	10	12	20	1005	5	28	33	108.41	98.5	
1000	1016	1022	1230	34	50		1160	95	1052	10	16	20	1110	5	28	36	133.21	115	
1200	1220	1226	1455	38	54		1380	115	1255	11	16	25	1330	5	32	39	188.2	182	
1400	1420	1426	1675	42	60		1590	120	1460	12	16	25	1535	5	36	42	262.14	248	
1600	1620	1626	1915	46	64		1820	130	1665	14	16	25	1760	5	40	48	367.43	347	
1800	1820	1826	2115	50	70		2020	140	1868	15	16	30	1960	5	44	48	447.79	430	
2000	2020	2026	2325	54	76		2230	150	2072	16	16	30	2170	5	48	48	577.77	539	
2200	2220	2226	2550	58	82		2440	160	2275	18	18	35	2370	6	52	56	699.88	658	
2400	2420	2426	2760	62	88		2650	170	2478	20	18	35	2570	6	56	56	844.49	825	
2600	2620	2626	2960	66	94		2850	180	2680	22	18	40	2780	6	60	56	972.23	979	
2800	2820	2826	3180	70	100		3070	190	2882	22	18	40	3000	6	64	56	1187.1	1156	
3000	3020	3026	3405	75	106		3290	200	3085	24	18	45	3210	6	68	62	1422.06	1420	



Unit: mm

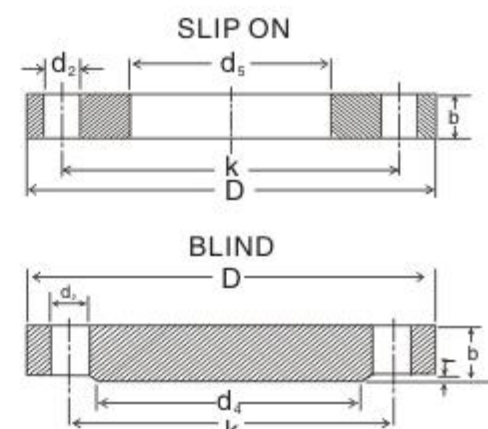
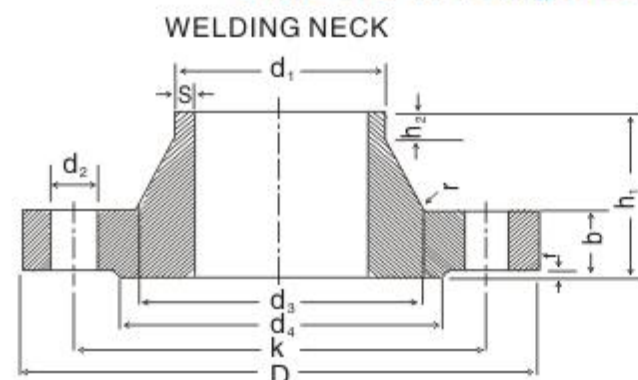
DIN 2502 Slip On Flange
DIN 2527 Blind Flange
DIN 2633 Welding Neck Flange



Unit: mm

Bore			Common Dimension				Hub						Raised Face		Drilling		Approx. Weight (kg)		
DN	d ₁	d _s	d	b			k	h ₁	d ₃	s	r	h ₂	d ₄	f	Number of Bolt	d ₂	DIN 2502	DIN 2633	DIN 2527
350	355.6	359.7	520	30	30	30	470	82	390	8	12	16	438	4	16	26	26.6	28.8	47.8
	368	372.2																	
400	406.4	411	580	32	32	32	525	85	445	8	12	16	490	4	16	30	30.9	36.3	63.5
	419	423.7																	
500	508	513.6	715	34	38	34	650	90	548	8	12	16	610	4	20	33	54	61	102
600	610	616.5	840	36	42	36	770	95	652	8.8	12	18	725	5	20	36	77.58	75.4	149.7
700	711	716	910	36	44	36	840	100	755	8.8	12	18	795	5	24	36	77.13	77	173.7
800	813	818	1025	38	50	38	950	105	855	10	12	20	900	5	24	39	106.35	101	235.5
900	914	920	1125	40	54	40	1050	110	955	10	12	20	1000	5	28	39	125.39	122	298.8
1000	1016	1022	1255	42	60	42	1170	120	1058	10	16	22	1115	5	28	42	177.99	162	390.7
1200	1220	1226	1485	48	68	48	1390	130	1262	12.5	16	30	1330	5	32	48	263.46	243	624.8
1400	1420	1426	1685	52	74	52	1590	145	1465	14.2	16	30	1530	5	36	48	329.77	323	872.6
1600	1620	1626	1930	58	82	58	1820	160	1668	16	16	35	1750	5	40	56	483.11	479	1275.1
1800	1820	1826	2130	62	88	62	2020	170	1870	17.5	16	35	1950	5	44	56	577.63	599	1661.9
2000	2020	2026	2345	66	94	66	2230	180	2072	20	16	40	2150	5	48	62	720.85	719	2142.1

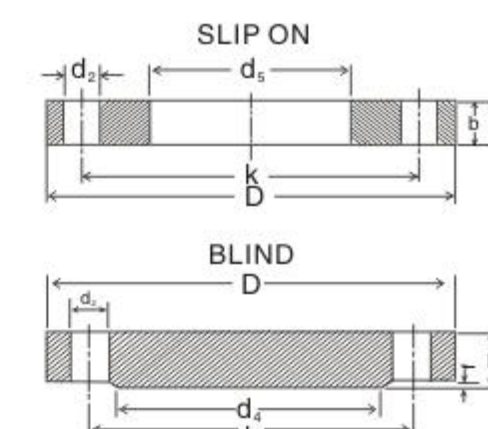
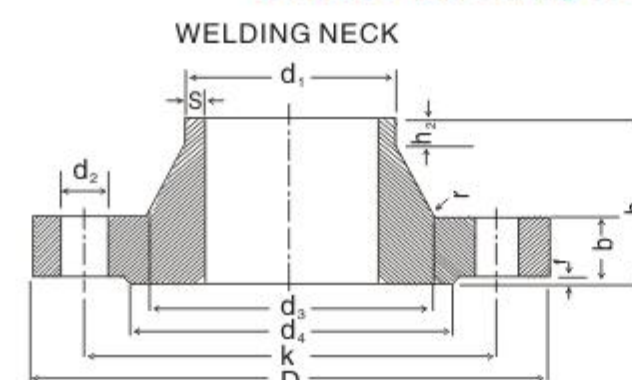
DIN 25Bar DIN 2503 Slip On Flange
DIN 2527 Blind Flange
DIN 2634 Welding Neck Flange



Unit: mm

Bore			Common Dimension					Hub					Raised Face		Drilling		Approx. Weight (kg)		
DN	d ₁	d _s	d	b			k	h ₁	d ₃	s	r	h ₂	d ₄	f	Number of Bolt	d ₂	DIN 2503	DIN 2634	DIN 2527
				Welding neck	Slip On	Blind													
10	14	14.5	90	16	16	16	60	35	25	1.8	4	6	40	2	4	14	0.7	0.661	
	17.2	17.7							28										
15	20	21	95	16	16	16	65	38	30	2	4	6	45	2	4	14	0.771	0.746	
	21.3	22							32										
20	25	26	105	18	18	18	75	40	38	2.3	4	6	58	2	4	14	1	1.06	
	26.9	27.6							40										
25	30	31	115	18	18	18	85	40	42	2.6	4	6	68	2	4	14	1.28	1.29	
	33.7	34.4							46										
32	38	39	140	18	18	18	100	42	52	2.6	6	6	78	2	4	18	1.87	1.88	
	42.4	43.1							56										
40	44.5	45.5	150	18	18	18	110	45	60	2.6	6	7	88	3	4	18	2.13	2.33	
	48.3	49							64										
50	57	58.1	165	20	20	20	125	48	72	2.9	6	8	102	3	4	18	2.79	2.82	
	60.3	61.1							75										
65	76.1	77.1	185	22	22	22	145	52	90	2.9	6	10	122	3	8	18	3.48	3.74	4.33
80	88.9	90.3	200	24	24	24	160	58	105	3.2	8	12	138	3	8	18	4.35	4.75	5.94
100	108	109.6	235	24	24	24	190	65	128	3.6	8	12	162	3	8	22	5.78	6.52	7.64
	114.3	115.9							134										
125	133	134.8	270	26	26	26	220	68	155	4	8	12	188	3	8	26	7.87	9.07	11
	139.7	141.6							162										
150	159	161.1	300	28	28	28	250	75	182	4.5	10	12	218	3	8	26	10.1	11.8	14.7
	168.3	170.5							192										
175	191	193	330	28	28	28	280	75	215	5.6	10	15	248	3	12	26	11	13.4	17.6
	193.7	196							218										

DIN 25Bar DIN 2503 Slip On Flange
DIN 2527 Blind Flange
DIN 2634 Welding Neck Flange



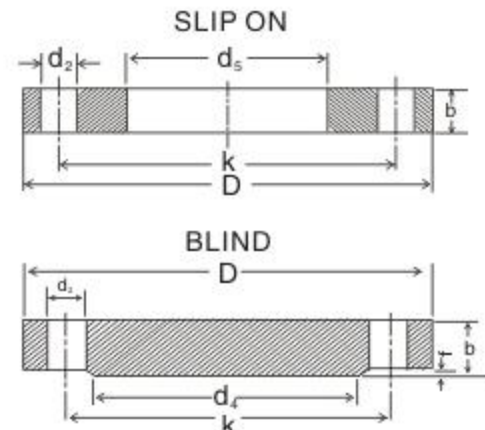
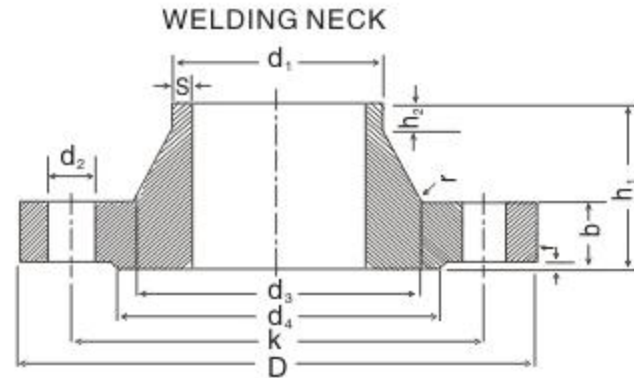
Unit: mm

Bore			Common Dimension					Hub					Raised Face		Drilling		Approx. Weight (kg)		
DN	d ₁	d _s	d	b			k	h ₁	d ₃	s	r	h ₂	d ₄	f	Number of Bolt	d ₂	DIN 2503	DIN 2634	DIN 2527
				Welding neck	Slip On	Blind													
200	216	219	360	30	30	30	310	80	240	6.3	10	16	278	3	12	26	13.6	17	22.1
	219.1	221.8							244										
250	267	270	425	32	32	32	370	88	292	7.1	12	18	335	3	12	30	19.4	24.4	34.1
	273	276.2							298										
300	318	322	485	34	34	34	430	92	345	8	12	18	395	4	16	30	25	31.2	47.1
	323.9	327.6							352										
350	355.6	359.7	555	38	38	38	490	100	398	9	12	20	450	4	16	33	38.2	47.2	69.1
	368	372.2																44.2	
400	406.4	411	620	40	40	40	550	110	452	8.8	12	20	505	4	16	36	48.8	61.7	91.1
	419	423.7																57.9	
500	508	513.6	730	44	44	45	660	125	558	10	12	20	615	4	20	36	67.2	89.6	140.1
600	610	616.5	845	46	50		770	125	660	11	12	20	720	5	20	39	93.57	104	
700	711	716	960	46	52		875	125	760	12.5	12	20	820	5	24	42	117.53	136	
800	813	818	1085	50	56		990	135	865	14.2	12	22	930	5	24	48	156.31	186	
900	914	920	1185	54	62		1090	145	968	16	12	24	1030	5	28	48	188.57	236	
1000	1016	1022	1320	58	68		1210	155	1070	17.5	16	24	1140	5	28	56	255.97	307	



DIN 40Bar

DIN 2503 Slip On Flange
DIN 2527 Blind Flange
DIN 2635 Welding Neck Flange



Unit: mm

Bore			Common Dimension				Hub					Raised Face		Drilling		Approx. Weight (kg)			
DN	d ₁	d ₂	D	b			k	h ₁	d ₃	s	r	h ₂	d ₄	f	Number of Bolt	d ₂	DIN 2503	DIN 2635	DIN 2527
				Welding neck	Slip On	Blind													
15	20	21	95	16	16	16	65	38	30	2	4	6	45	2	4	14	0.771	0.746	
	21.3	22							32										
20	25	26	105	18	18	18	75	40	38	2.3	4	6	58	2	4	14	1	1.06	
	26.9	27.6							40										
25	30	31	115	18	18	18	85	40	42	2.6	4	6	68	2	4	14	1.28	1.29	
	33.7	34.4							46										
32	38	39	140	18	18	18	100	42	52	2.6	6	6	78	2	4	18	1.87	1.88	
	42.4	43.1							56										
40	44.5	45.5	150	18	18	18	110	45	60	2.6	6	7	88	3	4	18	2.13	2.33	
	48.3	49							64										
50	57	58.1	165	20	20	20	125	48	72	2.9	6	8	102	3	4	18	2.79	2.82	
	60.3	61.1							75										
65	76.1	77.1	185	22	22	22	145	52	90	2.9	6	10	122	3	8	18	3.48	3.74	4.33
80	88.9	90.3	200	24	24	24	160	58	105	3.2	8	12	138	3	8	18	4.35	4.75	5.94
100	108	109.6	235	24	24	24	190	65	128	3.6	8	12	162	3	8	22	5.78	6.52	7.64
	114.3	115.9							134										
125	133	134.8	270	26	26	26	220	68	155	4	8	12	188	3	8	26	7.87	9.07	11
	139.7	141.6							162										
150	159	161.1	300	28	28	28	250	75	182	4.5	10	12	218	3	8	26	10.1	11.8	14.7
	168.3	170.5							192										
200	219.1	221.8	375	34	34	34	320	88	242	6.3	10	16	285	3	12	30	17.4	21.5	27.6
250	267	270.2	450	38	38	38	385	105	298	7.1	12	18	345	3	12	33	27.6	34.9	44.5
	273	276.2							306										
300	323.9	327.3	515	42	42	42	450	115	362	8	12	18	410	4	16	33	37.8	49.7	64.3
350	355.6	359.7	580	46	46	46	510	125	408	8.8	12	20	465	4	16	36	53.4	68.1	90.8
	368	372.2							408										
400	406.4	411	660	50	50	50	585	135	462	11	12	20	535	4	16	39	75.4	96.5	129
	419	423.7							462										
500	508	513.6	755	52	52	56	670	140	562	14.2	12	20	615	4	20	42	88.3	117	175

WELDING NECK FLANGES

Nominal Pressure: 64kgf/cm²-ND64
DIN 2636

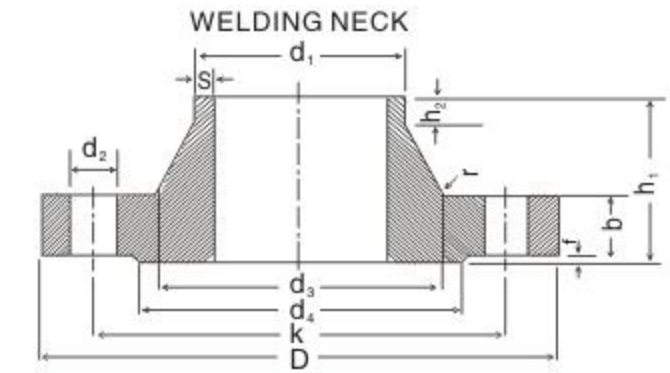
FLANSLAR

BORULAR ICIN, BOYUNLARI KAYNAKLI

Anma Basinci: 64kgf/cm²-ND64

TS 811/7

(TS ISO 7005-1)



Unit: mm

BORU (Pipe)		FLANS (Flange)				BOYUN (Neck)				ALIN CIKINTISI (Raised face)		CLVATALAR (Bolts)			FLANS AĞIRLIĞI (FlangeWeight) (7.85kg/dm³) kg
DN	d ₁ ISO/DIN	D	b	k	h ₁	d ₃	s	r	h ₂	d ₄	f	Sayisi (Each)	Vida Screw	d ₂	
10 40	17.2 48.3	Degerler DIN 2637 (100kgf/cm²)'den alınmalıdır.													
50	60.3	180	26	135	62	82	2.9	6	10	102	3	4	M20	22	4.55
65	76.1	205	26	160	68	98	3.2	6	12	122	3	8	M20	22	5.73
80	88.9	215	28	170	72	112	3.6	8	12	138	3	8	M20	22	6.69
100	114.3	250	30	200	78	138	4.0	8	12	162	3	8	M24	26	9.66
125	139.7	295	34	240	88	168	4.5	8	12	188	3	8	M27	30	15.1
150	168.3	345	36	280	95	202	5.6	10	12	218	3	8	M30	33	21.9
175	193.7	375	40	310	105	228	6.3	10	16	260	3	12	M30	33	23.7
200	219.1	415	42	345	110	256	7.1	10	16	285	3	12	M33	36	34.9
250	273	470	46	400	125	316	8.8	12	18	345	3	12	M33	36	49.6
300	323.9	530	52	460	140	372	11	12	18	410	4	16	M33	36	68.7
350	355.6	600	56	525	150	420	12.5	12	20	465	4	16	M36	39	94.6
400	406	670	60	585	160	475	14.2	12	20	535	4	16	M39	42	124

WELDING NECK FLANGES

Nominal Pressure: 100kgf/cm²-ND100
DIN 2637

FLANSLAR

BORULAR ICIN, BOYUNLARI KAYNAKLI

Anma Basinci: 100kgf/cm²-ND100

TS 811/8

(TS ISO 7005-1)

Unit: mm

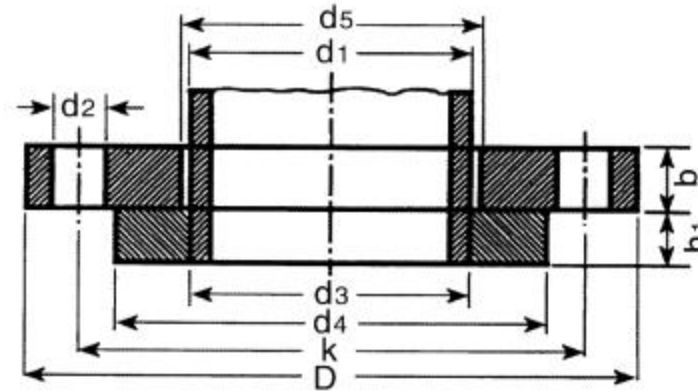
BORU (Pipe)		FLANS (Flange)				BOYUN (Neck)				ALIN CIKINTISI (Raised face)		CLVATALAR (Bolts)			FLANS AGIRLIGI (FlangeWeight) (7.85kg/dm³) kg
DN	d ₁ ISO/DIN	D	b	k	h ₁	d ₃	s	r	h ₂	d ₄	f	Sayisi (Each)	Vida Screw	d ₂	
10	17.2	100	20	70	45	32	1.8	4	6	40	2	4	M12	14	1.09
15	21.3	105	20	75	45	34	2.0	4	6	45	2	4	M12	14	1.19
25	33.7	140	24	100	58	52	2.6	4	8	68	2	4	M16	18	2.66
40	48.3	170	26	125	62	70	2.9	6	10	88	3	4	M20	22	4.09
50	60.3	195	28	145	68	90	3.2	6	10	102	3	4	M24	26	5.98
65	76.1	220	30	170	76	108	3.6	6	12	122	3	8	M24	26	7.91
80	88.9	230	32	180	78	120	4.0	8	12	138	3	8	M24	26	8.95
100	114.3	265	36	210	90	150	5.0	8	12	162	3	8	M27	30	13.7
125	139.7	315	40	250	105	180	6.3	8	12	188	3	8	M30	33	22.7
150	168.3	355	44	290	115	210	7.1	10	12	218	3	12	M30	33	30.2
175	193.7	385	48	320	127	245	8.8	10	16	260	3	12	M30	33	38.9
200	219.1	430	52	360	130	278	10.0	10	16	285	3	12	M33	36	52.8
250	273	505	60	430	157	340	12.5	12	18	345	3	12	M36	39	81.4
300	323.9	585	68	500	170	400	14.2	12	18	410	4	16	M39	42	122
400	355.6	655	74	560	189	460	16.0	12	20	465	4	16	M45	48	165

LAPPED FLANGES WITH COLLAR

Nominal Pressure:10kgf/cm²-ND10
DIN 2642

FLANSLAR BORULARICIN,DESTEKLGEVSEK

Anma Basinci:10kgf/cm²-ND10
TS 814/2 (TS ISO 7005-1)



Unit: mm

BORU (Pipe)			FLANS (Flange)			CIVATALAR (Bolts)			DESTEK (Beam)			AGIRLIK(Weight) 7.85 kg/dm³	
DN	d ₁	D	d ₂	b	k	Sayisi (Each)	Vida (Screw)	d ₂	d ₃	d ₄	h ₁	Flans (flange)kg	Destek (Beam)kg
10	14	90	16	14	60	4	M12	14	17.7	40	10	0.599	0.087
	17.2		19										
15	20	95	22	14	65	4	M12	14	22	45	10	0.689	0.105
	21.3		24										
20	25	105	28	14	75	4	M12	14	27.6	58	12	0.806	0.203
	26.9		30										
25	30	115	33	16	85	4	M12	14	34.4	68	12	1.11	0.276
	33.7		36										
32	38	140	42	16	100	4	M16	18	43.1	78	12	1.64	0.343
	42.4		46										
40	44.5	150	50	16	110	4	M16	18	49	88	12	1.86	0.426
	48.3		54										
50	57	165	62	16	125	4	M16	18	61.1	102	14	2.20	0.618
	60.3		65										
65	76.1	185	81	16	145	4	M16	18	77.1	122	14	2.62	0.786
80	88.9	200	94	18	160	4/8	M16	18	90.3	138	16	3.32	1.10
100	108	220	113	18	180	8	M16	18	115.9	158	16	3.67	1.31
	114.3		119										
125	133	250	138	18	210	8	M16	18	141.6	188	18	4.54	1.96
	139.7		145										
150	168.3	285	173	18	240	8	M20	22	170.5	212	18	5.60	2.18
200	219.1	340	225	20	295	8	M20	22	221.8	268	20	7.46	3.10
250	273	395	279	22	350	12	M20	22	276.2	320	22	10.3	4.22
300	323.9	445	329	26	400	12	M20	22	327.6	370	22	14.0	4.85
350	355.6	505	362	28	460	16	M20	22	372.2	430	22	18.5	6.71
400	406.4	565	413	32	515	16	M24	26	423.7	482	24	25.0	8.28
(450)	457	615	467	38	565	20	M24	26	462.5	532	24	30.6	9.3
500	508	670	517	38	620	20	M24	26	513.6	585	26	37.0	11.5
600	610	780	618	44	725	20	M27	30	616.3	685	26	56.3	15.6
700	711	895	721	50	840	24	M27	30	718.6	800	28	80.4	23.2
800	813	1015	824	56	950	24	M30	33	821.5	905	30	113.2	29.2

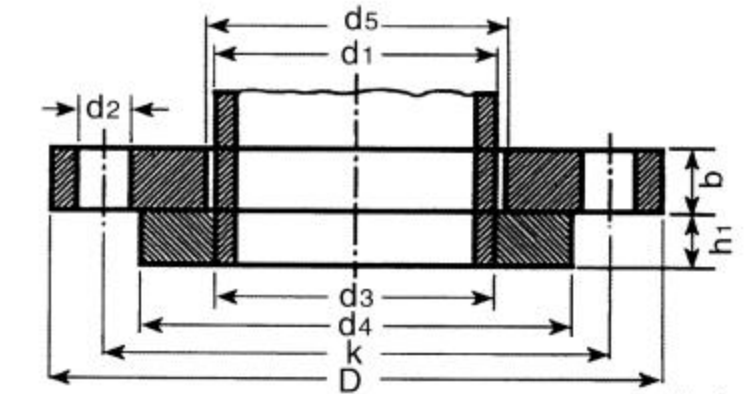
LAPPED FLANGES WITH COLLAR

Nominal Pressure:25kgf/cm²-ND25
DIN 2655

FLANSLAR BORULARICIN,DESTEKLIGEVSİK

Anma Basinci:25kgf/cm²-ND25

TS 814/4 (TS ISO 7005-1)



Unit: mm

BORU (Pipe)		FLANS (Flange)				CIVATALAR (Bolts)			DESTEK (Beam)			AGIRLIK(Weight) 7.85kg/dm³	
DN	d _i	D	d _s	b	k	Sayisi (Each)	Vida Screw	d _s	d _s	d _e	h _i	Flans (Flange) kg	Destek (Beam) kg
10	17.2	Degerler DIN 2656(40kgf/cm2)den alınmalidir											
150	168.3												
200	219.1	360	225	26	310	12	M24	26	221.8	278	24	11.7	4.53
250	273	425	279	30	370	12	M27	30	276.2	335	26	17.9	6.56
300	323.9	485	329	34	430	16	M27	30	327.6	395	28	24.7	8.80
350	368	555	362	38	490	16	M30	33	372.2	450	32	35.6	13.2
400	406.4	620	413	42	550	16	M33	36	423.7	505	34	47.5	16.5
500	508	730	517	50	660	20	M33	36	513.6	615	38	71.1	25.3

LAPPED FLANGES WITH COLLAR

Nominal Pressure:40kgf/cm²-ND40
DIN 2656

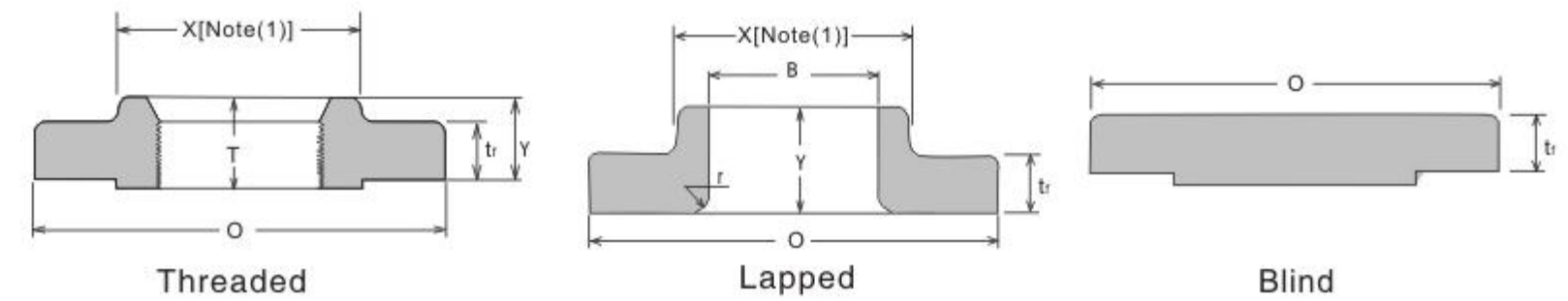
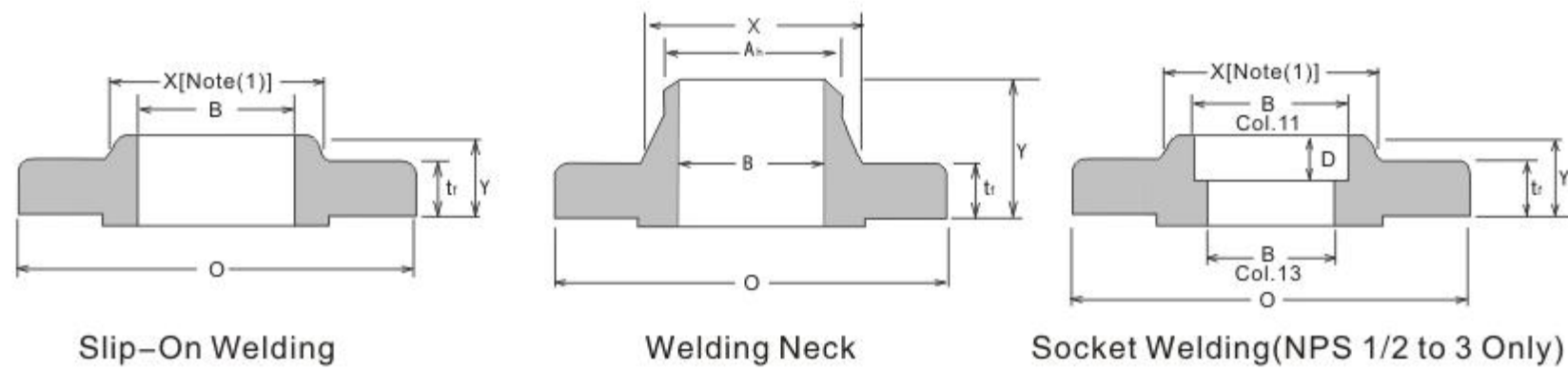
FLANSLAR BORULARICIN,DESTEKLİ GEVSİK

Anma Basinci:40kgf/cm²-ND40
TS 814/5 (TS ISO 7005-1)

Unit: mm

BORU (Pipe)		FLANS (Flange)				CIVATALAR (Bolts)			DESTEK (Beam)			AGIRLIK(Weight) 7.85kg/dm³	
DN	d _i	D	d _s	b	k	Sayisi (Each)	Vida Screw	d _s	d _s	d _i	h _i	Flans (Flange) kg	Destek (Beam) kg
10	17.2	90	19	16	60	4	M12	14	17.7	40	12	0.696	0.104
15	21.3	95	24	16	65	4	M12	14	22	45	12	0.773	0.126
20	26.9	105	30	16	75	4	M12	14	27.6	58	14	0.934	0.236
25	33.7	115	36	18	85	4	M12	14	34.4	68	14	1.26	0.321
32	42.4	140	46	18	100	4	M16	18	43.1	78	14	1.85	0.401
40	48.3	150	54	18	110	4	M16	18	49	83	14	2.10	0.498
50	60.3	165	65	20	125	4	M16	18	61.1	102	16	2.75	0.706
65	76.1	185	81	20	145	8	M16	18	77.1	122	16	3.11	0.898
80	88.9	200	94	22	160	8	M16	18	90.3	138	18	3.88	1.23
100	114.3	235	119	22	190	8	M20	22	115.9	162	20	5.23	1.80
125	139.7	270	145	24	220	8	M24	26	141.6	188	22	7.23	2.40
150	168.3	300	173	24	250	8	M24	26	170.5	218	22	8.60	3.02
200	219.1	375	225	30	320	12	M27	30	221.8	285	26	15.2	5.54
250	273	450	279	36	385	12	M30	33	276.2	345	30	25.7	8.83
300	323.9	515	329	40	450	16	M30	33	327.6	410	34	33.5	14.0
350	355.6	580	362	46	510	16	M33	36	372.2	465	38	50.2	18.9
400	406.4	660	413	50	585	16	M36	39	423.7	535	42	71.2	28.4





CLASS 150 FLANGES

ASME B16.5-2013

UNIT: mm

Nominal Pipe Size	Outside Diameter of Flange	Minimum Thickness of Flange t_r	Minimum Thickness Lap Joint	Diameter of Hub	Hub Diameter Beginning of Chamfer Welding Neck A_h	Length Through Hub			Minimum Thread Length Threaded T	Bore		
						Threaded/ Slip-on/ Socket Welding	Lapped	Welding Neck		Minimum Slip-on/ Socket Welding	Minimum Lapped	Welding Neck/Socket Welding B
NPS	O	[Notes(2)-(4)]	t_r	X	[Note(5)]	Y	Y	Y	[Note(6)]	B	B	[Note(7)]
1/2	90	9.6	11.2	30	21.3	14	16	46	16	22.2	22.9	15.8
3/4	100	11.2	12.7	38	26.7	14	16	51	16	27.7	28.2	20.9
1	110	12.7	14.3	49	33.4	16	17	54	17	34.5	34.9	26.6
1 1/4	115	14.3	15.9	59	42.2	19	21	56	21	43.2	43.7	35.1
1 1/2	125	15.9	17.5	65	48.3	21	22	60	22	49.5	50.0	40.9
2	150	17.5	19.1	78	60.3	24	25	62	25	61.9	62.5	52.5
2 1/2	180	20.7	22.3	90	73.0	27	29	68	29	74.6	75.4	62.7
3	190	22.3	23.9	108	88.9	29	30	68	30	90.7	91.4	77.9
3 1/2	215	22.3	23.9	122	101.6	30	32	70	32	103.4	104.1	90.1
4	230	22.3	23.9	135	114.3	32	33	75	33	116.1	116.8	102.3
5	255	22.3	23.9	164	141.3	35	36	87	36	143.8	144.4	128.2
6	280	23.9	25.4	192	168.3	38	40	87	40	170.7	171.4	154.1
8	345	27.0	28.6	246	219.1	43	44	100	44	221.5	222.2	202.7
10	405	28.6	30.2	305	273.0	48	49	100	49	276.2	277.4	254.6
12	485	30.2	31.8	365	323.8	54	56	113	56	327.0	328.2	304.8
14	535	33.4	35.0	400	355.6	56	79	125	57	359.2	360.2	Note (8)
16	595	35.0	36.6	457	406.4	62	87	125	64	410.5	411.2	Note (8)
18	635	38.1	39.7	505	457.0	67	97	138	68	461.8	462.3	Note (8)
20	700	41.3	42.9	559	508.0	71	103	143	73	513.1	514.4	Note (8)
24	815	46.1	46.1	663	610.0	81	111	151	83	616.0	616.0	Note (8)

NOTES:

- (1) The thickness of flange minimum dimensions for loose flanges, Table 9 sizes NPS 3 1/2, and smaller, are slightly heavier than for flanges on these fittings, which are reinforced by being cast integral with the body of fitting.
- (2) These fittings may be supplied with a flat face flange. The flat face may be either the full t_r dimension thickness plus 2 mm or the t_r dimension thickness without the raised face height. See para. 6.3.2 for additional restrictions.
- (3) The thickness of the flange dimension illustrated is for regularly furnished 2 mm raised face (except lapped); for thickness requirements of other facings, see Fig. 6.
- (4) For center-to-contact surface and center-to-end dimensions of reducing fitting, see para. 6.2.3.
- (5) For contact surface-to-contact surface and end-to-end dimensions of reducers and eccentric reducers, see para. 6.2.3.
- (6) These dimensions apply to straight sizes only (see paras. 6.2.3 and 6.4.2.2). For center-to-end dimensions of reducing fittings or end-to-end dimensions of reducers, use center-to-contact surface or contact surface-to-contact surface dimensions of 2mm raised face (flange edge) for largest opening, and add the proper height to provide for ring joint groove applying to each flange. See Table 5 for ring joint facing dimensions.

CLASS 150 FLANGES

ASME B16.5-2013

UNIT: mm

Nominal Pipe Size	Corner Bore Radius of Lapped Flange and Pipe	Depth of Socket	DRILLING			BOLTING			APPROXIMATE WEIGHT						
			Bolt Circle Diam	Number of Holes	Diam of Holes	Diam of Bolts (inch)	Machine Bolt Length	Stud Bolt Length	Welding Neck			Slip-on and Threaded	Lapped	Blind	Socket Welding
NPS	r	D					Raised Face	Raised Face	Ring Joint	SCH40	SCH80	SCH160			
1/2	3	10	60.5	4	15.7	1/2	50.8	57.2	-	0.60	0.60	0.60	0.47	0.51	0.47
3/4	3	11	69.9	4	15.7	1/2	50.8	63.5	-	0.90	0.90	0.90	0.58	0.64	0.59
1	3	13	79.2	4	15.7	1/2	57.2	63.5	76.2	1.14	1.18	1.24	0.86	0.93	0.87
1 1/4	5	14	88.9	4	15.7	1/2	57.2	69.9	82.6	1.41	1.48	1.54	1.08	1.16	1.11
1 1/2	6	16	98.6	4	15.7	1/2	63.5	69.9	82.6	1.81	1.90	2.01	1.41	1.51	1.45
2	8	17	120.7	4	19.1	5/8	69.9	82.6	95.3	2.72	2.84	3.07	2.26	2.38	2.33
2 1/2	8	19	139.7	4	19.1	5/8	76.2	88.9	101.6	4.45	4.70	4.98	3.43	3.6	3.55
3	10	21	152.4	4	19.1	5/8	76.2	88.9	101.6	5.22	5.54	5.90	3.87	4.04	4.02
3 1/2	10	-	177.8	8	19.1	5/8	76.2	88.9	101.6	6.40	6.76	7.46	5.20	5.24	5.24
4	11	-	190.5	8	19.1	5/8	76.2	88.9	101.6	7.49	7.96	8.90	5.75	5.96	5.99
5	11	-	215.9	8	22.4	3/4	82.6	95.3	108.0	9.53	10.54	12.04	6.26	6.44	6.68
6	13	-	241.3	8	22.4	3/4	82.6	101.6	114.3	11.80	13.12	15.11	7.38	7.65	8.60
8	13	-	298.5	8	22.4	3/4	88.9	108.0	120.7	19.10	21.34	25.84	12.36	12.66	13.60
10	13	-	362.0	12	25.4	7/8	101.6	114.3	127.0	24.50	28.85	35.74	17.10	17.4	19.50
12	13	-	431.8	12	25.4	7/8	101.6	120.7	133.4	39.90	46.80	58.01	27.68	28.3	29.10
14	13	-	476.3	12	28.4	1	114.3	133.4	146.1	51.80	62.58	77.60	35.2	41.5	40.90
16	13	-	539.8	16	28.4	1	114.3	133.4	146.1	64.50	79.42	98.82	45.5	52.98	47.17
18	13	-	577.9	16	31.8	1 1/8	127.0	146.1	158.8	74.90	97.63	124.32	49.71	59	54.43
20	13	-	635.0	20	31.8	1 1/8	139.7	158.8	171.5	89.40	120.44	154.18	66.5	72.12	70.31
24	13	-	749.3	20	35.1	1 1/4	152.4	171.5	184.2	121.70	169.37	223.92	90.5	99.42	95.25

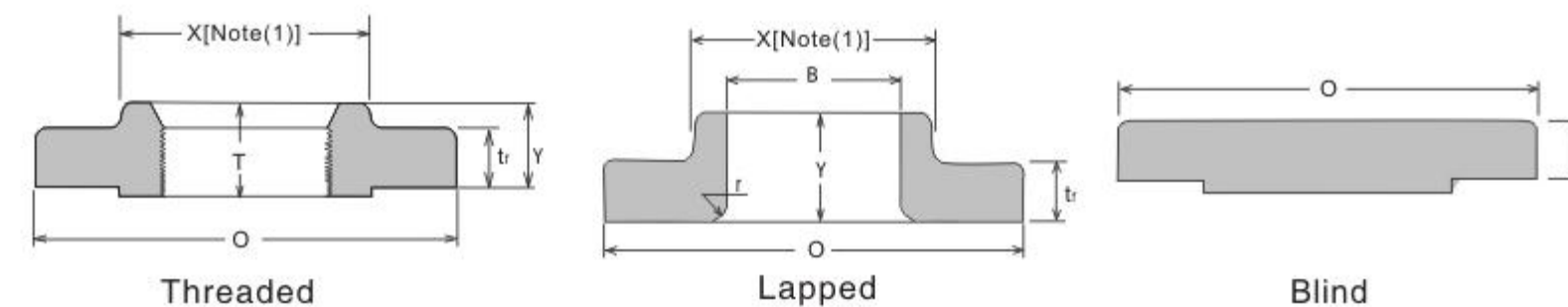
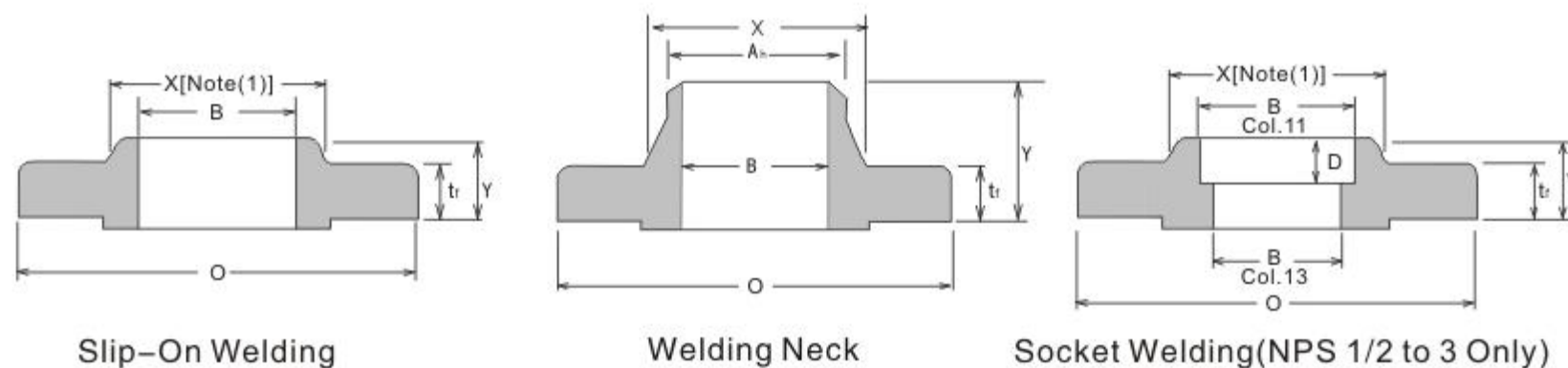
(7) The base dimensions apply to all straight and reducing sizes.

(8) For reducing fittings, the size and center-to-face dimension of base are determined by the size of the largest opening of fittings. In the case of reducing base elbows, orders shall specify whether the base shall be opposite the larger or smaller opening.

(9) Bases shall be plain faced unless otherwise specified, and the center-to-base dimension R shall be the finished dimension.

(10) Bases may be cast integral or attached as weldments at the option of the manufacturer.

(11) The bases of these fittings are intended for support in compression and are not to be used for anchors or supports in tension or shear.



CLASS 300 FLANGES

ASME B16.5-2013

UNIT: mm

Nominal Pipe Size	Outside Diameter of Flange	Minimum Thickness of Flange t_r	Minimum Thickness Lap Joint	Diameter of Hub	Hub Diameter Beginning of Chamfer Welding Neck A_h	Length Through Hub			Minimum Thread Length Threaded T	Bore		
						Threaded/ Slip-on/ Socket Welding	Lapped	Welding Neck		Minimum Slip-on/ Socket Welding	Minimum Lapped	Welding Neck/Socket Welding B
NPS	O	[Notes(2)-(4)]	t_r	X	[Note(4)]	Y	Y	Y	[Note(5)]	B	B	[Note(6)]
1/2	95	12.7	14.3	38	21.3	21	22	51	16	22.2	22.9	15.8
3/4	115	14.3	15.9	48	26.7	24	25	56	16	27.7	28.2	20.8
1	125	15.9	17.5	54	33.4	25	27	60	18	34.5	34.9	26.6
1 1/4	135	17.5	19.1	64	42.2	25	27	64	21	43.2	43.7	35.1
1 1/2	155	19.1	20.7	70	48.3	29	30	67	23	49.5	50.0	40.9
2	165	20.7	22.3	84	60.3	32	33	68	29	61.9	62.5	52.5
2 1/2	190	23.9	25.4	100	73.0	37	38	75	32	74.6	75.4	62.7
3	210	27.0	28.6	117	88.9	41	43	78	32	90.7	91.4	77.9
3 1/2	230	28.6	30.2	133	101.6	43	44	79	37	103.4	104.1	90.1
4	255	30.2	31.8	146	114.3	46	48	84	37	116.1	116.8	102.3
5	280	33.4	35.0	178	141.3	49	49	97	43	143.8	144.4	128.2
6	320	35.0	36.6	206	168.3	51	51	97	47	170.7	171.4	154.1
8	380	39.7	41.3	260	219.1	60	60	110	51	221.5	222.2	202.7
10	445	46.1	47.7	321	273.0	65	65	116	56	276.2	277.4	254.6
12	520	49.3	50.8	375	323.8	70	71	129	61	327.0	328.2	304.8
14	585	52.4	54.0	425	355.6	75	75	141	64	359.2	360.2	Note (7)
16	650	55.6	57.2	483	406.4	81	81	144	69	410.5	411.2	Note (7)
18	710	58.8	60.4	533	457.0	87	87	157	70	461.8	462.3	Note (7)
20	775	62.0	63.5	587	508.0	94	94	160	74	513.1	514.4	Note (7)
24	915	68.3	69.9	702	610.0	105	105	167	83	616.0	616.0	Note (7)

NOTES:

- (1) This dimension is for the large end of the hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges. This dimension is defined as the diameter at the intersection between the hub taper and back face of the flange.
- (2) These flanges may be supplied with a flat face. The flat face may be either the full t_r dimension thickness plus 2-mm or the t_r dimension thickness without the raised face height. See para. 6.3.2 for additional restrictions.
- (3) The flange dimensions illustrated are for regularly furnished 2-mm raised face (except lapped); for requirements of other facings, see Fig. 6.

CLASS 300 FLANGES

ASME B16.5-2013

UNIT: mm

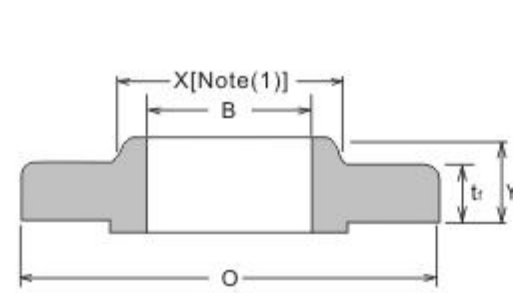
Nominal Pipe Size	Corner Bore Radius of Lapped Flange and Pipe	Minimum Counterbore Threaded Flange	Depth of Socket	DRILLING			BOLTING			APPROXIMATE WEIGHT						
				Bolt Circle Diam	Number of Holes	Diam of Holes	Diam of Bolts (inch)	Machine Bolt Length	Stud Bolt Length	Welding Neck			Slip-on and Threaded	Lapped	Blind	Socket Welding
NPS	r	Q	D					Raised Face	Raised Face	Ring Joint	SCH40	SCH80	SCH160			
1/2	3	23.6	10	66.5	4	15.7	1/2	57.2	63.5	76.2	0.91	0.91	0.91	0.63	0.63	0.63
3/4	3	29.0	11	82.6	4	19.1	5/8	63.5	76.2	88.9	1.36	1.36	1.36	1.16	1.16	1.19
1	3	35.8	13	88.9	4	19.1	5/8	63.5	76.2	88.9	1.82	1.87	1.93	1.39	1.39	1.42
1 1/4	5	44.4	14	98.6	4	19.1	5/8	69.9	82.6	95.3	2.27	2.35	2.41	1.75	1.75	1.88
1 1/2	6	50.3	16	114.3	4	22.4	3/4	76.2	88.9	101.6	3.18	3.28	3.40	2.53	2.53	2.68
2	8	63.5	17	127.0	8	19.1	5/8	76.2	88.9	101.6	3.36	3.49	3.75	2.90	2.91	3.22
2 1/2	8	76.2	19	149.4	8	22.4	3/4	82.6	101.6	114.3	5.45	5.72	6.02	4.25	4.25	4.80
3	10	92.2	21	168.1	8	22.4	3/4	88.9	108.0	120.7	7.32	7.52	8.94	5.92	5.94	6.89
3 1/2	10	104.9	-	184.2	8	22.4	3/4	95.3	108.0	127.0	8.93	9.31	10.10	7.72	7.74	9.53
4	11	117.6	-	200.2	8	22.4	3/4	95.3	114.3	127.0	12.10	12.62	13.69	10.13	10.15	11.2
5	11	144.4	-	235.0	8	22.4	3/4	108.0	120.7	133.4	16.30	17.42	19.08	12.58	12.6	15.96
6	13	171.4	-	269.7	12	22.4	3/4	108.0	120.7	139.7	20.40	21.86	24.07	16.04	16.05	21.40
8	13	222.2	-	330.2	12	25.4	7/8	120.7	139.7	152.4	31.30	33.75	38.69	24.5	24.53	34.6
10	13	276.2	-	387.4	16	28.4	1	139.7	158.8	171.5	45.40	50.43	58.38	34.16	39.92	53.50
12	13	328.6	-	450.9	16	31.8	1 1/8	146.1	171.5	184.2	64.50	72.35	85.10	51.26	58.7	78.9
14	13	360.4	-	514.4	20	31.8	1 1/8	158.8	177.8	190.5	93.50	105.61	122.49	72.12	83.46	107.5
16	13	411.2	-	571.5	20	35.1	1 1/4	165.1	190.5	203.2	113.10	130.25	152.56	90.4	106.14	139.25
18	13	462.0	-	628.7	24	35.1	1 1/4	171.5	196.9	209.6	138.90	164.74	195.07	109	133.95	176.9
20	13	512.8	-	685.8	24	35.1	1 1/4	184.2	203.2	222.3	167.70	202.32	240.17	136	157.65	223.17
24	13	614.4	-	812.8	24	41.1	1 1/2	203.2	228.6	254.0	238.68	288.15	348.28	204	240.4	342

(4) For welding end bevel, see para. 6.7.

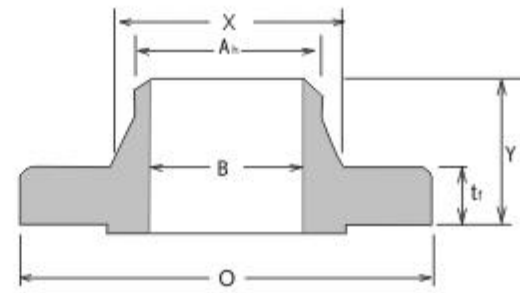
(5) For thread of threaded flanges, see para. 6.9.

(6) Dimensions in Column 13 correspond to the inside diameters of pipe as given in ASME B36.10M for standard wall pipe. Standard wall dimensions are the same as Schedule 40 in size NPS 10 and smaller. Tolerances in para. 7.5.2 apply. These bore sizes are furnished unless otherwise specified by the purchaser.

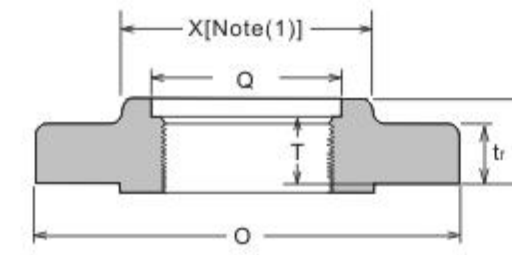
(7) To be specified by the Purchaser.



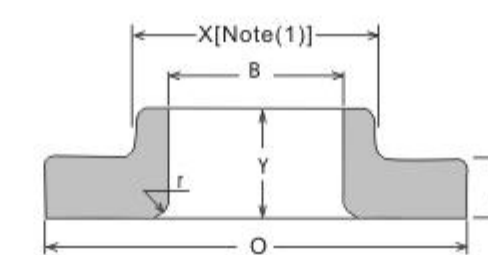
Slip-On Welding



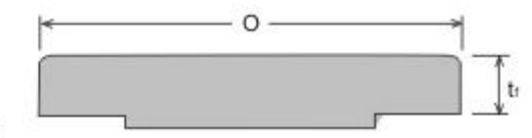
Welding Neck



Threaded



Lapped



Blind

CLASS 400 FLANGES

ASME B16.5-2013

UNIT: mm

Nominal Pipe Size NPS	Outside Diameter of Flange, O	Minimum Thickness of Flange tr	Diam. of Hub, X	Hub Diam. Beginning of Chamfer Welding Neck A _h [Note(2)]	Length Through Hub		
					Threaded/ Slip-on, Y	Lapped Y	Welding Neck, Y
1/2	Use Class 600 dimensions in these size[Note(4)]						
3/4							
1							
1 1/4							
1 1/2							
2							
2 1/2							
3							
3 1/2							
4	255	35.0	146	114.3	51	51	89
5	280	38.1	178	141.3	54	54	102
6	320	41.3	206	168.3	57	57	103
8	380	47.7	260	219.1	68	68	117
10	445	54.0	321	273.0	73	102	124
12	520	57.2	375	323.8	79	108	137
14	585	60.4	425	355.6	84	117	149
16	650	63.5	483	406.4	94	127	152
18	710	66.7	533	457.0	98	137	165
20	775	69.9	587	508.0	102	146	168
24	915	76.2	702	610.0	114	159	175

NOTES:

- (1) This dimension is for the large end of the hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on socket-welding, and lapped flanges. This dimension is defined as the diameter at the intersection between the hub taper and back face of the flange.
(2) For welding end bevel, see para. 6.7.

CLASS 400 FLANGES

ASME B16.5-2013

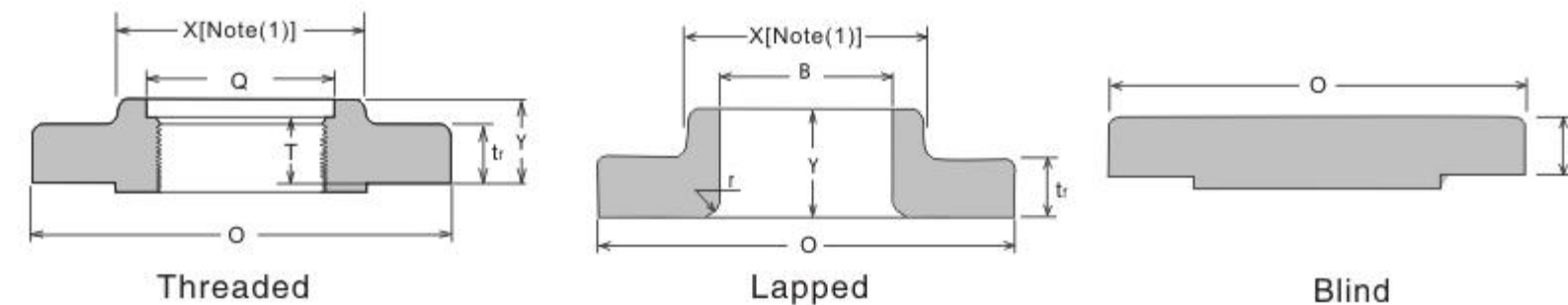
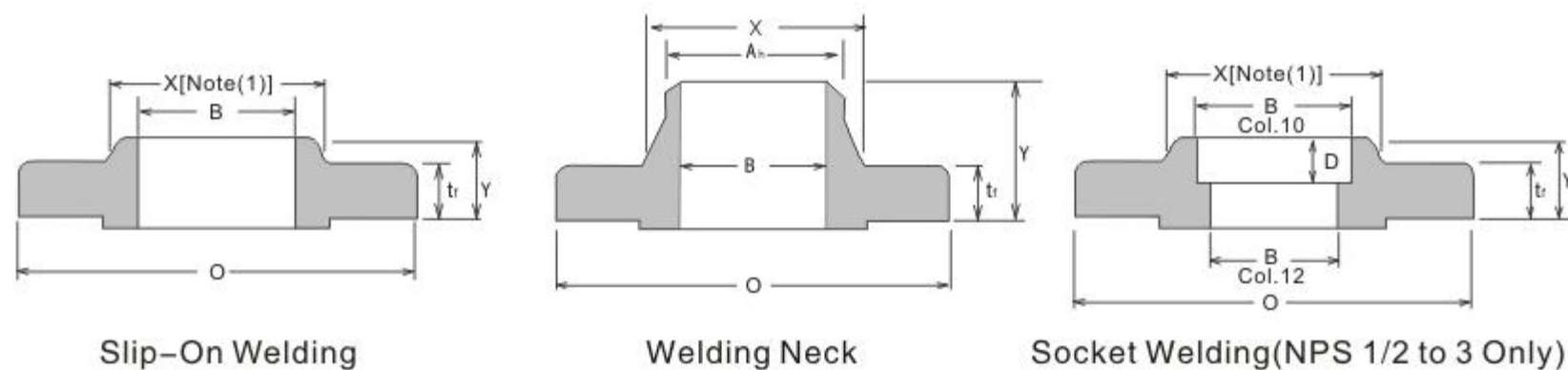
UNIT: mm

Nominal Pipe Size NPS	Minimum Thread Length Threaded Flange, T [Note(3)]	Bore			Corner Bore Radius of Lapped Flange and Pipe, r	Minimum Counterbore Threaded Flange, Q
		Min. Slip-on, B	Min. Lapped, B	Welding Neck, B		
1/2	Use Class 600 dimensions in these size[Note(4)]					
3/4						
1						
1 1/4						
1 1/2						
2						
2 1/2						
3						
3 1/2						
4	37	116.1	116.8	Note (5)	11	117.6
5	43	143.8	144.5	Note (5)	11	144.4
6	46	170.7	171.4	Note (5)	13	171.4
8	51	221.5	222.2	Note (5)	13	222.2
10	56	276.2	277.4	Note (5)	13	276.2
12	61	327.0	328.2	Note (5)	13	328.6
14	64	359.2	360.2	Note (5)	13	360.4
16	69	410.5	411.2	Note (5)	13	411.2
18	70	461.8	462.3	Note (5)	13	462.0
20	74	513.1	514.4	Note (5)	13	512.8
24	83	616.0	616.0	Note (5)	13	614.4

(3) For thread of threaded flanges, see para. 6.9.

(4) Socket welding flanges may be provided in NPS 1/2 through NPS 2 1/2, using Class 600 dimensions.

(5) To be specified by the Purchaser.



CLASS 600 FLANGES

ASME B16.5-2013

UNIT: mm

Nominal Pipe Size NPS	Outside Diameter of Flange O	Minimum Thickness of Flange tr	Diameter of Hub X	Hub Diameter Beginning of Chamfer Welding Neck A _n [Note(2)]	Length Through Hub			Minimum Thread Length Threaded Flange T [Note(3)]	Bore		
					Threaded/ Slip-on/ Socket Welding Y	Lapped Y	Welding Neck Y		Minimum Slip-on/ Socket Welding B	Minimum Lapped B	Welding Neck/Socket Welding B
1/2	95	14.3	38	21.3	22	22	52	16	22.2	22.9	Note(4)
3/4	115	15.9	48	26.7	25	25	57	16	27.7	28.2	Note(4)
1	125	17.5	54	33.4	27	27	62	18	34.5	34.9	Note(4)
1 1/4	135	20.7	64	42.2	29	29	67	21	43.2	43.7	Note(4)
1 1/2	155	22.3	70	48.3	32	32	70	23	49.5	50.0	Note(4)
2	165	25.4	84	60.3	37	37	73	29	61.9	62.5	Note(4)
2 1/2	190	28.6	100	73.0	41	41	79	32	74.6	75.4	Note(4)
3	210	31.8	117	88.9	46	46	83	35	90.7	91.4	Note(4)
3 1/2	230	35.0	133	101.6	49	49	86	40	103.4	104.1	Note(4)
4	275	38.1	152	114.3	54	54	102	42	116.1	116.8	Note(4)
5	330	44.5	189	141.3	60	60	114	48	143.8	144.4	Note(4)
6	355	47.7	222	168.3	67	67	117	51	170.7	171.4	Note(4)
8	420	55.6	273	219.1	76	76	133	58	221.5	222.2	Note(4)
10	510	63.5	343	273.0	86	111	152	66	276.2	277.4	Note(4)
12	560	66.7	400	323.8	92	117	156	70	327.0	328.2	Note(4)
14	605	69.9	432	355.6	94	127	165	74	359.2	360.2	Note(4)
16	685	76.2	495	406.4	106	140	178	78	410.5	411.2	Note(4)
18	745	82.6	546	457.0	117	152	184	80	461.8	462.3	Note(4)
20	815	88.9	610	508.0	127	165	190	83	513.1	514.4	Note(4)
24	940	101.6	718	610.0	140	184	203	93	616.0	616.0	Note(4)

NOTES:

(1) This dimension is for the large end of the hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges. This dimension is defined as the diameter at the intersection between the hub taper and back face of the flange.

CLASS 600 FLANGES

ASME B16.5-2013

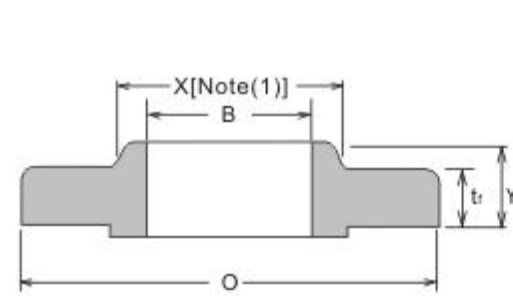
UNIT: mm

Nominal Pipe Size NPS	Corner Bore Radius of Lapped Flange and Pipe r	Minimum Counterbore Threaded Flange Q	Depth of Socket D	DRILLING			BOLTING			APPROXIMATE WEIGHT						
				Bolt Circle Diam	Number of Holes	Diam of Holes	Diam of Bolts (inch)	Stud Bolt Length	Ring Joint	Welding Neck			Slip-on and Threaded	Lapped	Blind	Socket Welding
								0.25" Raised Face	Male-Female Tongue-Groove		SCH40	SCH80	SCH160			
1/2	3	23.6	10	66.5	4	15.7	1/2	76.2	69.9	76.2	1.36	1.36	1.36	0.91	0.91	0.91
3/4	3	29.0	11	82.6	4	19.1	5/8	88.9	82.6	88.9	1.59	1.63	1.67	1.4	1.4	1.36
1	3	35.8	13	88.9	4	19.1	5/8	88.9	82.6	88.9	1.82	1.87	1.94	1.7	1.7	1.81
1 1/4	5	44.4	14	98.6	4	19.1	5/8	95.3	88.9	95.3	2.50	2.59	2.66	2.27	2.27	2.4
1 1/2	6	50.6	16	114.3	4	22.4	3/4	108.0	101.6	108.0	3.63	3.74	3.88	3.1	3.1	3.4
2	8	63.5	17	127.0	8	19.1	5/8	108.0	101.6	108.0	4.54	4.69	4.98	3.71	3.85	4.4
2 1/2	8	76.2	19	149.4	8	22.4	3/4	120.7	114.3	120.7	6.36	6.66	7.00	5.44	5.44	6.8
3	10	92.2	21	168.1	8	22.4	3/4	127.0	120.7	127.0	8.17	8.58	9.04	7.26	7.26	8.9
3 1/2	10	104.9	-	184.2	8	25.4	7/8	139.7	133.4	139.7	12.00	12.44	13.28	9.53	9.53	13.17
4	11	117.6	-	215.9	8	25.4	7/8	146.1	139.7	146.1	16.80	17.46	18.79	14.97	15.40	18.6
5	11	144.4	-	266.7	8	28.4	1	165.1	158.8	165.1	30.90	32.27	34.30	28.5	29	30.84
6	13	171.4	-	292.1	12	28.4	1	171.5	165.1	171.5	36.77	34.93	37.69	36.32	36.5	33.80
8	13	222.2	-	349.3	12	31.8	1 1/8	190.5	184.2	196.9	50.90	53.98	60.16	44	50.8	62.2
10	13	276.2	-	431.8	16	35.1	1 1/4	215.9	209.6	215.9	86.26	92.59	103.34	76.2	82	102
12	13	328.6	-	489.0	20	35.1	1 1/4	222.3	215.9	222.3	102.60	112.36	128.19	97.52	108.86	132
14	13	360.4	-	527.1	20	38.1	1 3/8	235.0	228.6	235.0	121.60	136.13	156.38	102	111.20	158
16	13	411.2	-	603.3	20	41.1	1 1/2	254.0	247.7	254.0	177.10	198.70	226.80	149.82	165.71	224.13
18	13	462.0	-	654.1	20	44.5	1 5/8	273.1	266.7	273.1	215.70	246.66	283.01	180.1	219.4	285
20	13	512.8	-	723.9	24	44.5	1 5/8	285.8	279.4	292.1	268.00	310.23	356.13	231.54	258.8	365
24	13	614.4	-	838.2	24	50.8	1 7/8	330.2	323.9	336.6	372.00	495.71	512.38	330	362	536.80

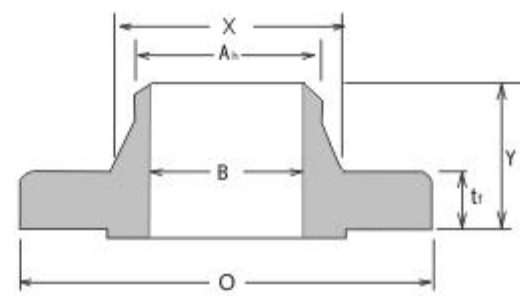
(2) For welding end bevel, see para.6.7.

(3) For thread of threaded flanges, see para.6.9.

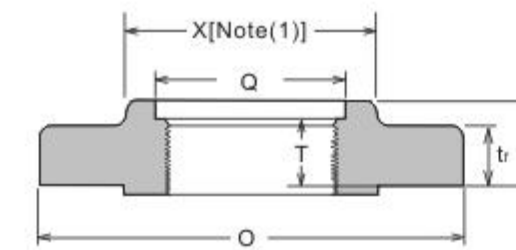
(4) To be specified by the Purchaser.



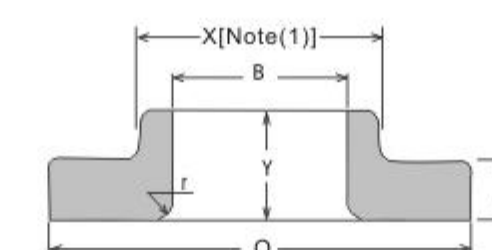
Slip-On Welding



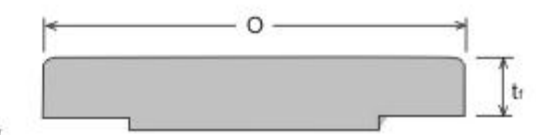
Welding Neck



Threaded



Lapped



Blind

CLASS 900 FLANGES

ASME B16.5-2013

UNIT: mm

Nominal Pipe Size, NPS	Outside Diam. of Flange O	Min. Thickness of Flange tr	Diameter of Hub X	Hub Dia. Beginning of Chamfer Welding Neck A _n [Note(2)]	Length Through Hub			Minimum Thread Length Threaded Flange T [Note(3)]	Bore		
					Threaded Slip-on, Y	Lapped, Y	Welding Neck, Y		Min. Slip-on, B	Min. Lapped, B	Welding Neck, B
1/2											
3/4											
1											
1 1/4											
1 1/2											
2											
2 1/2											
3	240	38.1	127	88.9	54	54	102	42	90.7	91.4	Note(5)
4	290	44.5	159	114.3	70	70	114	48	116.1	116.8	Note(5)
5	350	50.8	190	141.3	79	79	127	54	143.8	144.4	Note(5)
6	380	55.6	235	168.3	86	86	140	58	170.7	171.4	Note(5)
8	470	63.5	298	219.1	102	114	162	64	221.5	222.2	Note(5)
10	545	69.9	368	273.0	108	127	184	72	276.2	277.4	Note(5)
12	610	79.4	419	323.8	117	143	200	77	327.0	328.2	Note(5)
14	640	85.8	451	355.6	130	156	213	83	359.2	360.2	Note(5)
16	705	88.9	508	406.4	133	165	216	86	410.5	411.2	Note(5)
18	785	101.6	565	457.0	152	190	229	89	461.8	462.3	Note(5)
20	855	108.0	622	508.0	159	210	248	93	513.1	514.4	Note(5)
24	1040	139.7	749	610.0	203	267	292	102	616.0	616.0	Note(5)

Use Class 1500 dimensions in these sizes [Note(4)]

NOTES

(1) This dimensions is for the large end of the hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges. This dimensions is defined as the diameter at the intersection between the hub taper and back face of the flange.

(2) For welding end bevel, see para. 6.7.

CLASS 900 FLANGES

ASME B16.5-2013

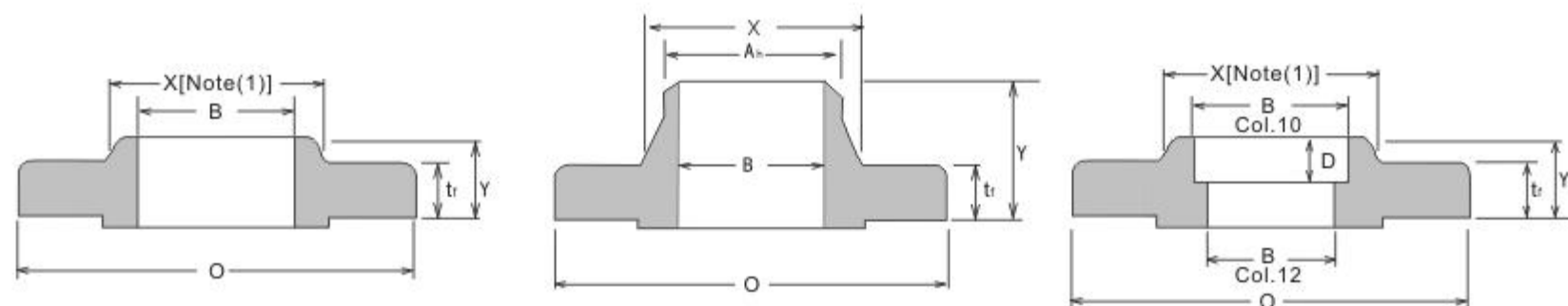
UNIT: mm

Nominal Pipe Size, NPS	Corner Bore Radius of Lapped Flange and Pipe, r	Minimum Count- er-bore Threaded Flange, Q	DRILLING			BOLTING			APPROXIMATE WEIGHT						
			Bolt Circle Diam	Number of Holes	Diam of Holes	Diam of Bolts (inch)	Stud Bolt Length			Welding Neck			Slip-on and Threaded	Lapped	Blind
							0.25" Raised Face	Male- Female Tongue- Groove	Ring Joint	SCH40	SCH80	SCH160			
1/2	Use Class 1500 dimensions in these sizes [Note(4)]		82.6	4	22.4	3/4	108.0	101.6	108.0	3.10	3.10	3.10	1.81	1.8	1.9
3/4			88.9	4	22.4	3/4	114.3	108.0	114.3	3.18	3.18	3.18	2.4	2.4	2.7
1			101.6	4	25.4	7/8	127.0	120.7	127.0	3.86	3.92	4.00	3.50	3.60	4.09
1 1/4			111.3	4	25.4	7/8	127.0	120.7	127.0	4.54	4.64	4.71	4.1	4.1	4.54
1 1/2			124.0	4	28.4	1	139.7	133.4	139.7	6.36	6.49	6.65	5.52	5.55	5.93
2			165.1	8	25.4	7/8	146.1	139.7	146.1	10.90	11.10	11.50	9.98	9.98	11.34
2 1/2			190.5	8	28.4	1	158.8	152.4	158.8	16.30	16.69	17.14	15.8	15.8	16.00
3	10	92.2	190.5	8	25.4	7/8	146.1	139.7	146.1	15.00	15.50	16.10	11.8	11.8	13.17
4	11	117.6	235.0	8	31.8	1 1/8	171.5	165.1	171.5	23.20	23.94	25.43	23.2	23.2	24.5
5	11	144.4	279.4	8	35.1	1 1/4	190.5	184.2	190.5	39.10	40.62	42.86	37.65	36.74	39.46
6	13	171.4	317.5	12	31.8	1 1/8	190.5	184.2	196.9	49.90	52.06	55.33	48.3	49	51.5
8	13	222.2	393.7	12	38.1	1 3/8	222.3	215.9	222.3	84.90	88.61	96.09	75	86	89
10	13	276.2	469.9	16	38.1	1 3/8	235.0	228.6	235.0	121.70	129.87	142.79	111.3	125.64	131.54
12	13	328.6	533.4	20	38.1	1 3/8	254.0	247.7	254.0	157.00	169.48	189.74	146	167.00	187
14	13	360.4	558.8	20	41.1	1 1/2	273.1	266.7	292.1	181.00	199.62	225.55	172.36	180.07	224.07
16	13	411.2	616.0	20	44.5	1 5/8	285.8	279.4	298.5	225.00	251.11	285.08	192.95	211.10	272.4
18	13	462.0	685.8	20	50.8	1 7/8	323.9	317.5	333.6	309.00	374.24	392.13	272.4	295.10	385.9
20	13	512.8	749.3	20	53.8	2	349.3	342.9	362.0	377.00	431.59	490.91	331.42	367.70	488
24	13	614.4	901.7	20	66.5	2 1/2	438.2	431.8	457.2	685.00	778.36	885.21	632	703.70	905

(3) For thread of threaded flanges, see para. 6.9.

(4) Socket welding flanges may be provided in NPS 1/2 through NPS 2 1/2, using Class 1500 dimensions.

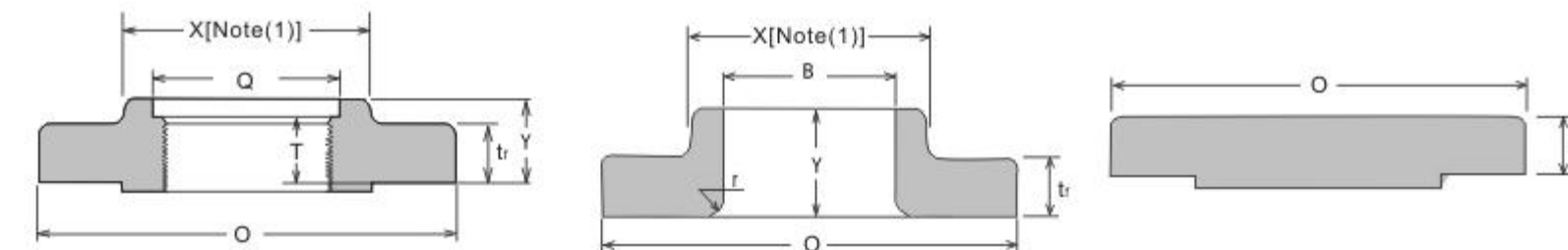
(5) To be specified by the Purchaser.



Slip-On Welding(NPS 1/2 to 2 1/2 Only)

Welding Neck

Socket Welding(NPS 1/2 to 2 1/2 Only)



Threaded (NPS 1/2 to 2 1/2 Only)

Lapped

Blind

CLASS 1500 FLANGES

ASME B16.5-2013

UNIT: mm

Nominal Pipe Size NPS	Outside Diameter of Flange O	Minimum Thickness of Flange tr	Diameter of Hub X	Hub Diameter Beginning of Chamfer Welding Neck A _h [Note(2)]	Length Through Hub			Minimum Thread Length Threaded Flange T [Note(3)]	Bore		
					Threaded/ Slip-on/ Socket Welding Y	Lapped Y	Welding Neck Y		Minimum Slip-on/ Socket Welding B	Minimum Lapped B	Welding Neck/Socket Welding B
1/2	120	22.3	38	21.3	32	32	60	23	22.2	22.9	Note(4)
3/4	130	25.4	44	26.7	35	35	70	26	27.7	28.2	Note(4)
1	150	28.6	52	33.4	41	41	73	29	34.5	34.9	Note(4)
1 1/4	160	28.6	64	42.2	41	41	73	31	43.2	43.7	Note(4)
1 1/2	180	31.8	70	48.3	44	44	83	32	49.5	50.0	Note(4)
2	215	38.1	105	60.3	57	57	102	39	61.9	62.5	Note(4)
2 1/2	245	41.3	124	73.0	64	64	105	48	74.6	75.4	Note(4)
3	265	47.7	133	88.9	-	73	117	-	-	91.4	Note(4)
4	310	54.0	162	114.3	-	90	124	-	-	116.8	Note(4)
5	375	73.1	197	141.3	-	105	156	-	-	144.4	Note(4)
6	395	82.6	229	168.3	-	119	171	-	-	171.4	Note(4)
8	485	92.1	292	219.1	-	143	213	-	-	222.2	Note(4)
10	585	108.0	368	273.0	-	178	254	-	-	277.4	Note(4)
12	675	123.9	451	323.8	-	219	283	-	-	328.2	Note(4)
14	750	133.4	495	355.6	-	241	298	-	-	360.2	Note(4)
16	825	146.1	552	406.4	-	260	311	-	-	411.2	Note(4)
18	915	162.0	597	457.0	-	276	327	-	-	462.3	Note(4)
20	985	177.8	641	508.0	-	292	356	-	-	514.4	Note(4)
24	1170	203.2	762	610.0	-	330	406	-	-	616.0	Note(4)

NOTES

(1) This dimension is for the large end of the hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded, slip-on, socket-welding, and lapped flanges. This dimension is defined as the diameter at the intersection between the hub taper and back face of the flange.

CLASS 1500 FLANGES

ASME B16.5-2013

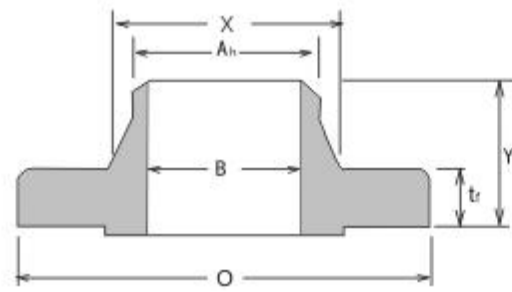
UNIT: mm

Nominal Pipe Size	Corner Bore Radius of Lapped Flange and Pipe	Minimum Counterbore Threaded Flange	Depth of Socket	DRILLING			BOLTING				APPROXIMATE WEIGHT						
				Bolt Circle Diam	Number of Holes	Diam of Holes	Diam of Bolts (inch)	Stud Bolt Length			Welding Neck			Slip-on and Threaded	Lapped	Blind	Socket Welding
								0.25* Raised Face	Male- Female Tongue- Groove	Ring Joint							
NPS	r	Q	D								SCH40	SCH80	SCH160				
1/2	3	23.6	10	82.6	4	22.4	3/4	108.0	101.6	108.0	3.10	3.10	3.10	1.8	1.9	1.9	1.8
3/4	3	29.0	11	88.9	4	22.4	3/4	114.3	108.0	114.3	3.18	3.18	3.18	2.35	2.35	2.72	2.8
1	3	35.8	13	101.6	4	25.4	7/8	127.0	120.7	127.0	3.86	3.92	4.00	3.50	3.60	4.08	3.6
1 1/4	5	44.4	14	11.3	4	25.4	7/8	127.0	120.7	127.0	4.54	4.64	4.71	4.1	4.10	4.3	4.9
1 1/2	6	50.3	16	24.0	4	28.4	1	139.7	133.4	139.7	6.36	6.49	6.65	5.45	5.45	5.9	6.7
2	8	63.5	17	165.1	8	25.4	7/8	146.1	139.7	146.1	10.90	11.10	11.50	10.5	10.45	11.3	10.8
2 1/2	8	76.2	19	190.5	8	28.4	1	158.8	152.4	158.8	16.34	16.69	17.14	15.8	15.8	16	16.3
3	10	-	-	203.2	8	31.8	1 1/8	177.8	171.5	177.8	21.80	22.37	23.01	21.80	21.80	21.79	
4	11	-	-	241.3	8	35.1	1 1/4	196.9	190.5	196.9	31.30	32.10	33.71	33.10	34.10	33.11	
5	11	-	-	292.1	8	41.1	1 1/2	247.7	241.3	247.7	59.90	61.75	64.47	59.00	63.60	60	
6	13	-	-	317.5	12	38.1	1 3/8	260.4	254.0	266.7	74.19	77.13	81.12	74	77	75	
8	13	-	-	393.7	12	44.5	1 5/8	292.1	285.8	323.9	124.0	128.83	138.56	117.73	129.73	136.98	
10	13	-	-	482.6	12	50.8	1 7/8	336.6	330.2	342.9	206.0	217.16	234.82	197.50	220.19	229.97	
12	13	-	-	571.5	16	53.8	2	374.7	368.3	387.4	306	330.75	359.07	264	286.00	316.40	
14	13	-	-	635.0	16	60.5	1 1/4	406.4	400.1	425.5	416	431.88	467.94		404.10	421	
16	13	-	-	704.9	16	66.5	2 1/2	444.5	438.2	469.9	567	562.30	610.84		522.10	559	
18	13	-	-	774.7	16	73.2	2 3/4	495.3	489.0	527.1	736	741.28	790.00		670.00	761.60	
20	13	-	-	831.9	16	79.2	3	539.8	533.4	565.2	929	892.00	980.00		806.00	967	
24	13	-	-	990.6	16	91.9	3 1/2	616.0	609.6	647.7	1504	1430.00	1580.00		1285.5	1568	

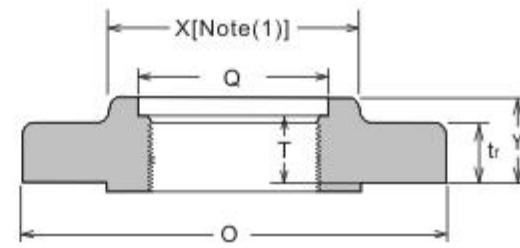
(2) For welding end bevel, see para.6.7.

(3) For thread of threaded flanges, see para.6.9.

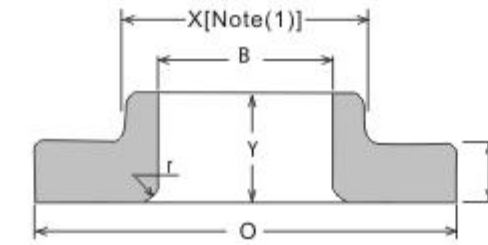
(4) To be specified by the Purchaser.



Welding Neck



Threaded (NPS 1/2 to 2 1/2 Only)



Lapped



Blind

CLASS 2500 FLANGES

ASME B16.5-2013

UNIT: mm

Nominal Pipe Size	Outside Diameter of Flange	Minimum Thickness of Flange	Diameter of Hub	Hub Diameter Beginning of Chamfer Welding Neck A _h	Length Through Hub			Minimum Thread Length Threaded Flange T
					Threaded	Lapped	Welding Neck	
NPS	O	tr	X	[Note(2)]	Y	Y	Y	[Note(3)]
1/2	135	30.2	43	21.3	40	40	73	29
3/4	140	31.8	51	26.7	43	43	79	32
1	160	35.0	57	33.4	48	48	89	35
1 1/4	185	38.1	73	42.2	52	52	95	39
1 1/2	205	44.5	79	48.3	60	60	111	45
2	235	50.9	95	60.3	70	70	127	51
2 1/2	265	57.2	114	73.0	79	79	143	58
3	305	66.7	133	88.9	-	92	168	-
4	355	76.2	165	114.3	-	108	190	-
5	420	92.1	203	141.3	-	130	229	-
6	485	108.0	235	168.3	-	152	273	-
8	550	127.0	305	219.1	-	178	318	-
10	675	165.1	375	273.0	-	229	419	-
12	760	184.2	441	323.8	-	254	464	-

NOTES

(1) This dimension is for the large end of the hub, which may be straight or tapered. Taper shall not exceed 7 deg on threaded and lapped flanges. This dimension is defined as the diameter at the intersection between the hub taper and back face of the flange.

(2) For welding end bevel, see para. 6.7.

CLASS 2500 FLANGES

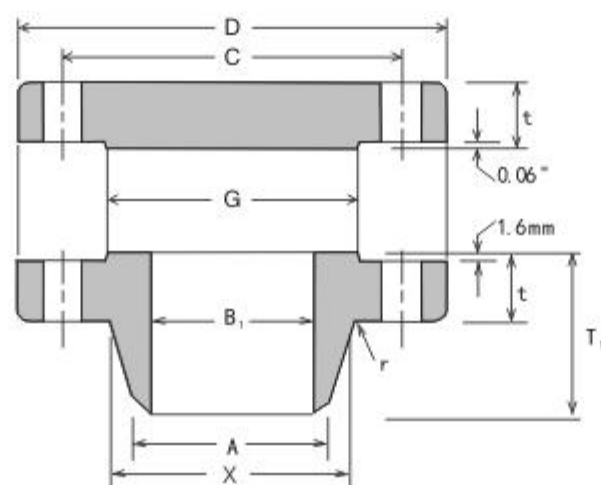
ASME B16.5-2013

UNIT: mm

Nominal Pipe Size	Bore		Corner Bore Radius of Lapped Flange and Pipe	Minimum Counte- rbore Threaded Flange	DRILLING			BOLTING				APPROXIMATE WEIGHT			
	Min. Lapped	Welding Neck			Bolt Circle Diam	Number of Holes	Diam of Holes	Diam of Bolts (inch)	Stud Bolt Length			Welding Neck	Slip-on and Threaded	Lapped	Blind
									0.25" Raised Face	Male- Female Tongue- Groove	Ring Joint				
NPS	B	B	r	Q											
1/2	22.9	Note (4)	3	23.6	88.9	4	22.4	3/4	120.7	114.3	120.7	3.63	3.20	3.20	3.11
3/4	28.2	Note (4)	3	29.0	95.3	4	22.4	3/4	127.0	120.7	127.0	4.09	4.08	4.08	4.54
1	34.9	Note (4)	3	35.8	108.0	4	25.4	7/8	139.7	133.4	139.7	5.90	5.44	5.44	5.44
1 1/4	43.7	Note (4)	5	44.4	130.0	4	28.4	1	152.4	146.1	152.4	9.08	8.16	8.16	8.16
1 1/2	50.0	Note (4)	6	50.6	146.1	4	31.8	1 1/8	171.5	165.1	171.5	12.70	11.00	11.00	10.44
2	62.5	Note (4)	8	63.5	171.5	8	28.4	1	177.8	171.5	177.8	19.10	17.25	17.25	17.71
2 1/2	75.4	Note (4)	8	76.2	196.9	8	31.8	1 1/8	196.9	190.5	203.2	23.60	25.00	25.00	25.42
3	91.4	Note (4)	10	-	228.6	8	35.1	1 1/4	222.3	215.9	228.6	42.70	37.70	37.70	39.04
4	116.8	Note (4)	11	-	273.1	8	41.1	1 1/2	254.0	247.7	260.4	66.30	58.00	58.00	60.38
5	144.4	Note (4)	11	-	323.9	8	47.8	1 3/4	298.5	292.1	311.2	110.80	95.30	95.30	101.15
6	171.4	Note (4)	13	-	368.3	8	53.8	2	342.9	336.6	355.6	176.46	146.51	147.00	156.63
8	222.2	Note (4)	13	-	438.2	12	53.8	2	381.0	374.7	393.7	261.50	220.00	220.00	240.62
10	277.4	Note (4)	13	-	539.8	12	66.5	2 1/2	489.0	482.6	508.0	484.50	421.00	421.00	465.36
12	328.2	Note (4)	13	-	619.3	12	73.2	2 3/4	539.8	533.4	558.8	730.0	590.00	590.00	664.1

(3) For thread of threaded flanges, see para. 6.9.

(4) To be specified by the Purchaser.



CLASS 150 FLANGES

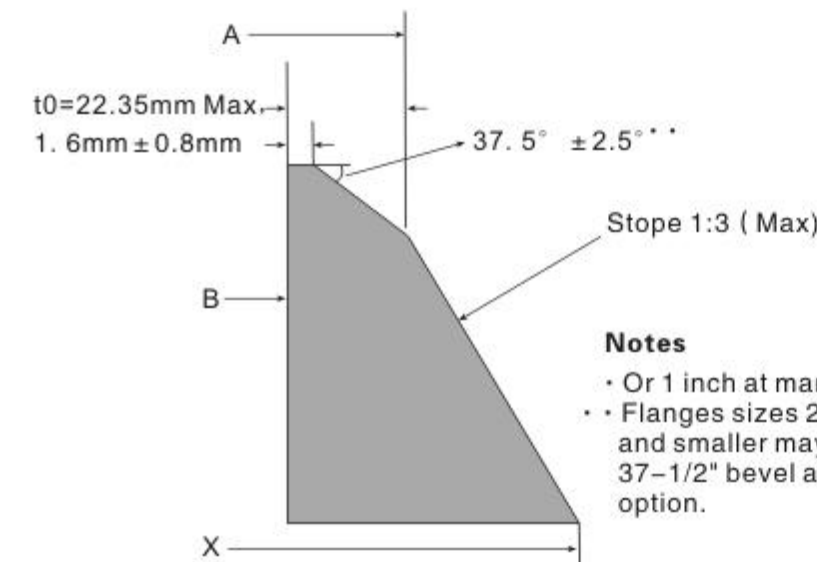
ASME B16.47 SER.A(MSS SP 44)

Unit: mm

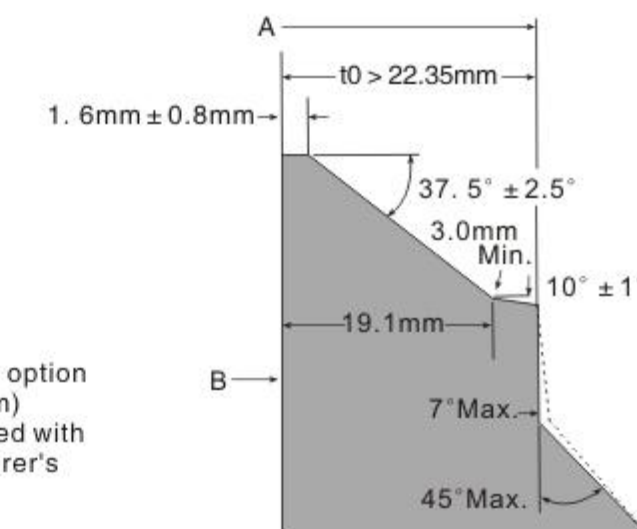
Nominal Pipe Size	Outside Diam	O.D.of Raised Face	Diam. at Base of Hub	Thickness	BORE		Length Thru Hub
					Wall Thickness		
					9.5mm	12.7mm	
	D	G	X	t	B1		T1
12	483	381.0	365.3	31.8	304.8	298.5	114.3
14	533	412.8	400.1	35.1	336.6	330.2	127.0
16	597	469.9	457.2	36.6	367.4	381.0	127.0
18	635	533.4	505.0	39.6	438.2	431.8	139.7
20	699	584.2	558.8	42.9	489.0	482.6	144.5
22	749	641.4	609.6	46.0	539.8	533.4	149.4
24	813	692.2	663.4	47.8	590.6	584.2	152.4
26	870	749.3	676.1	68.3	641.4	635.0	120.7
28	927	800.1	726.9	71.4	692.2	685.8	125.5
30	984	857.3	781.1	74.7	743.0	736.6	136.7
32	1060	914.4	831.9	80.8	793.8	787.4	144.5
34	1111	965.2	882.7	82.6	844.6	838.2	149.4
36	1168	1022.4	933.5	90.4	895.4	889.0	157.0
38	1238	1073.2	990.6	87.4	946.2	939.8	157.2
40	1289	1124.0	1041.4	90.4	997.0	990.6	163.6
42	1346	1193.8	1092.2	96.8	1047.8	1041.4	171.5
44	1403	1244.6	1143.0	101.6	1098.6	1092.2	177.8
46	1454	1295.4	1196.8	103.1	1149.4	1143.0	185.7
48	1511	1358.9	1247.6	108.0	1200.2	1193.8	192.0
50	1568	1409.7	1301.8	111.3	1251.0	1244.6	203.2
52	1626	1460.5	1352.6	115.8	1301.8	1295.4	209.6
54	1683	1511.3	1403.4	120.7	1352.6	1346.2	215.9
56	1746	1574.8	1457.5	124.0	1403.4	1397.0	228.6
58	1803	1625.6	1508.3	128.5	1454.2	1447.8	235.0
60	1854	1676.4	1559.1	131.8	1505.0	1498.6	239.8

Notes

- (1) For the "Bore" (B1) other than wall thickness 0.375"(9.5mm) and 0.500"(12.7mm), refer to page 83
- (2) Class 150 flanges will be furnished with 0.06"(1.6mm) raised face, which is included in "Thickness" (t) and "Length thru Hub" (T1).
- (3) Dimensional tolerance are in accordance with ANSI B16.5.



BEVEL FOR WALL THICKNESS (to)
0.88" IN. (22.35mm) OR LESS



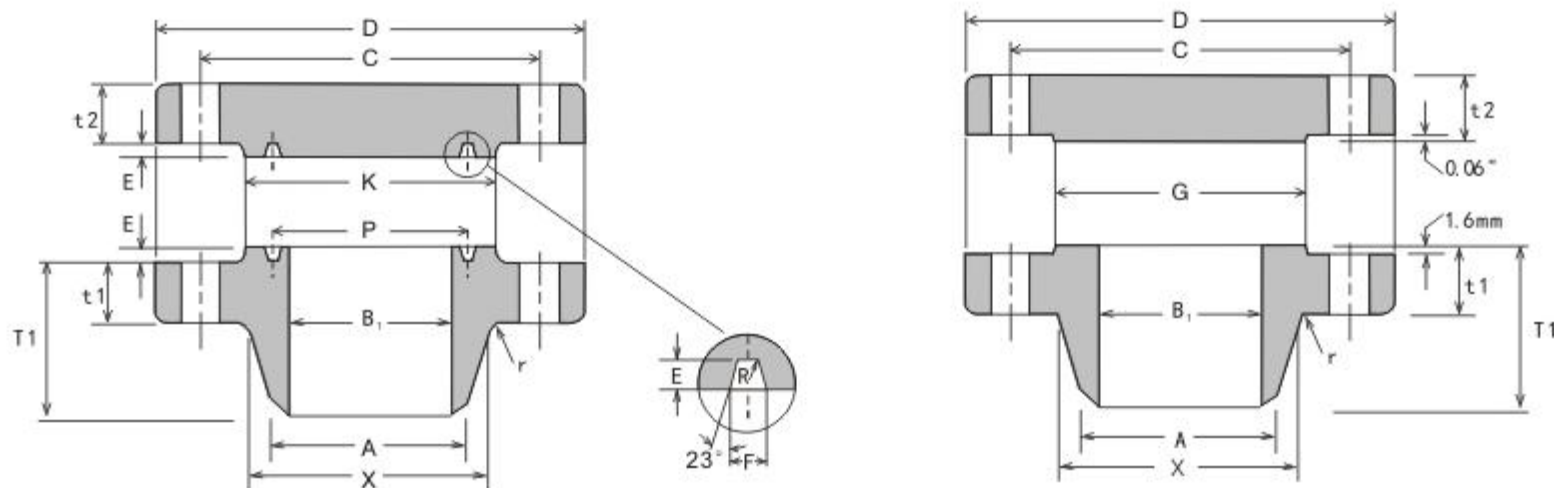
BEVEL FOR WALL THICKNESS (to)
GREATER THAN 0.88 IN. (22.35mm)

WELDING-ENDS FOR WELDING-NECK FLANGES

Unit: mm

Nominal Pipe Size	Diam. of Hub Bevel	Radius of Fillet	DRILLING			Approximate Weight (kg)	
			Bolt Circle Diam	Number of Holes	Diam. of Holes	Weld-neck	Blind
	A	r	C				
12	304.8	9.7	431.8	12	25.4	38.98	43.70
14	355.6	9.7	476.3	12	28.4	51.71	59.42
16	406.4	9.7	539.8	16	28.4	64.41	77.11
18	457.2	9.7	577.9	16	31.8	74.84	94.80
20	508.0	9.7	635.0	20	31.8	89.36	123.38
22	558.8	9.7	692.2	20	35.1	112.00	—
24	609.6	9.7	749.3	20	35.1	119.66	188.24
26	660.4	9.7	806.5	24	35.1	136.10	318.40
28	711.2	11.2	863.6	28	35.1	156.50	377.80
30	762.0	11.2	914.4	28	35.1	181.40	445.40
32	812.8	11.2	977.9	28	41.1	229.10	561.10
34	863.6	12.7	1028.7	32	41.1	244.90	627.80
36	914.4	12.7	1085.9	32	41.1	290.30	760.20
38	965.2	12.7	1149.4	32	41.1	326.60	825.10
40	1016.0	12.7	1200.2	36	41.1	351.50	925.30
42	1066.8	12.7	1257.3	36	41.1	403.70	1080.00
44	1117.6	12.7	1314.5	40	41.1	449.10	1232.40
46	1168.4	12.7	1365.3	40	41.1	480.80	1343.10
48	1219.2	12.7	1422.4	44	41.1	537.50	1518.70
50	1270.0	12.7	1479.6	44	47.8	576.10	1685.60
52	1320.8	12.7	1536.7	44	47.8	639.60	1885.20
54	1371.6	12.7	1593.9	44	47.8	719.00	2104.30
56	1422.4	12.7	1651.0	48	47.8	798.30	2327.90
58	1473.2	12.7	1708.2	48	47.8	868.60	2574.20
60	1524.0	12.7	1759.0	52	47.8	927.60	2791.50

- (4) Maximum Pressure Rating for raised face flanges is 285 psi (19.5BARS) at atmospheric temperature.
- (5) Flange dimensions of size 12" (304.8mm) through 24" (609.6mm) flanges except 22" (558.8mm) are in accordance with ANSI B 16.5.



CLASS 300 FLANGES

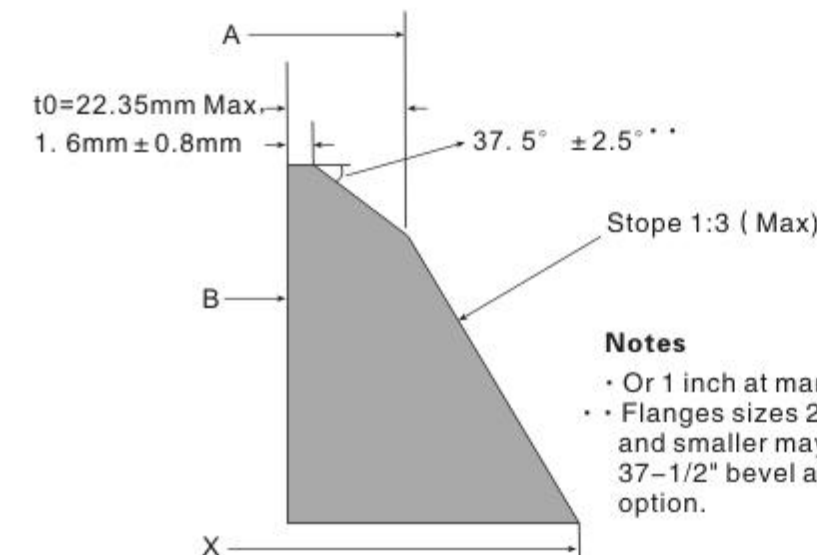
ASME B16.47 SER.A(MSS SP 44)

Unit: mm

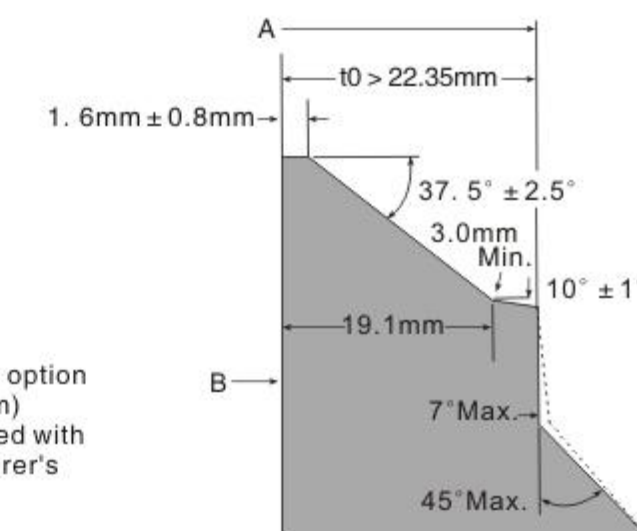
Nominal Pipe Size	Outside Diam.	O.D of Raised Face	Diam. at Base of Hub	Thickness		BORE		Length Thru Hub	Diam. of Hub at Bevel	Radius of Fillet
						Wall Thickness				
						9.5mm	12.7mm			
	D	G	X	t1	t2	B1		T1	A	r
12	521	381.0	374.7	50.8	50.8	304.8	298.5	130.0	304.8	9.7
14	584	412.8	425.5	53.8	53.8	336.6	330.2	142.7	355.6	9.7
16	648	469.9	482.6	57.2	57.2	387.4	381.0	146.1	406.4	9.7
18	711	533.4	533.4	60.5	60.5	468.2	431.8	158.8	457.2	9.7
20	775	584.2	587.2	63.5	63.5	489.0	482.6	162.1	508.0	9.7
22	838	641.4	641.4	66.5	66.5	539.8	533.4	165.1	558.8	9.7
24	914	692.2	701.5	69.9	69.9	590.6	584.2	168.1	609.6	9.7
26	972	749.3	720.9	79.2	84.1	641.4	635.0	184.2	660.4	9.7
28	1035	800.1	774.7	85.9	90.4	692.2	685.8	196.9	711.2	11.2
30	1092	857.3	827.0	91.9	95.3	743.0	736.6	209.6	762.0	11.2
32	1149	914.4	881.1	98.6	100.1	793.8	787.4	222.3	812.8	11.2
34	1207	965.2	936.8	101.6	104.6	844.6	838.2	231.6	863.6	12.7
36	1270	1022.4	990.6	104.6	111.3	895.4	889.0	241.3	914.4	12.7
38	1168	1028.7	993.6	108.0	108.0	946.2	939.8	180.8	965.2	12.7
40	1238	1085.9	1047.8	114.3	114.3	997.0	990.6	193.5	1016.0	12.7
42	1289	1136.7	1098.6	119.1	119.1	1047.8	1041.4	200.2	1066.8	12.7
44	1353	1193.8	1149.4	124.0	124.0	1098.6	1092.2	206.2	1117.6	12.7
46	1416	1244.6	1203.5	128.5	128.5	1149.4	1143.0	215.9	1168.4	12.7
48	1467	1301.8	1254.3	133.4	133.4	1200.2	1193.8	223.8	1219.2	12.7
50	1530	1358.9	1305.1	139.7	139.7	1251.0	1244.6	231.6	1270.0	12.7
52	1581	1409.7	1355.9	144.5	144.5	1301.8	1295.4	238.3	1320.8	12.7
54	1657	1466.9	1409.7	152.4	152.4	1352.6	1346.2	252.5	1371.6	12.7
56	1708	1517.7	1463.5	153.9	153.9	1403.4	1397.0	260.4	1422.4	12.7
58	1759	1574.8	1514.3	158.8	158.8	1454.2	1447.8	266.7	1473.2	12.7
60	1810	1625.6	1565.1	163.6	163.6	1505.0	1498.6	273.1	1524.0	12.7

Notes

- (1) For the "Bore" (B1) other than wall thickness 0.375"(9.5mm) and 0.500"(12.7mm), refer to page 83.
- (2) Class 300 flanges will be furnished with 0.06"(1.6mm) raised face, which is included in "Thickness" (t) and "Length thru Hub" (T1).
- (3) Dimensional tolerance are in accordance with ANSI B16.5.



BEVEL FOR WALL THICKNESS (to)
0.88" IN. (22.35mm) OR LESS



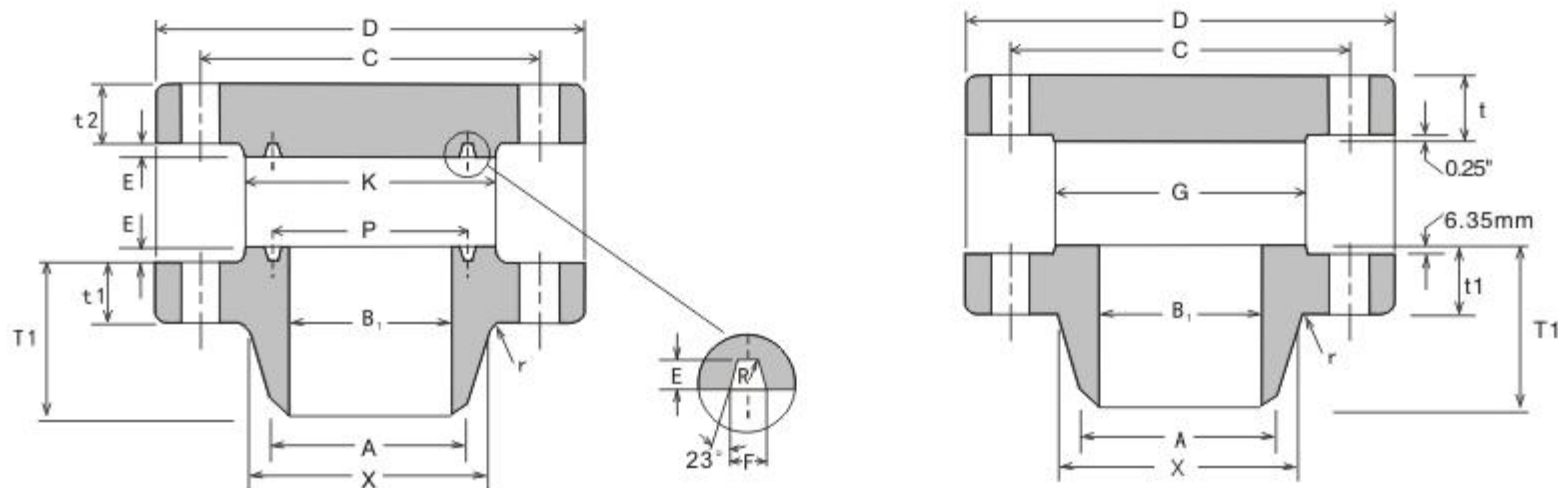
BEVEL FOR WALL THICKNESS (to)
GREATER THAN 0.88 IN. (22.35mm)

WELDING-ENDS FOR WELDING-NECK FLANGES

Unit: mm

Nominal Pipe Size	DRILLING			Pitch Diam.	GROOVE DIMENSIONS			Diam. of Raised Face	Ring and Groove Number	Approximate Weight (kg)		
	Bolt Circle Diam	Number of Holes	Diam. of Holes		Width	Depth	Radius			Weld- neck	Blind	
C	P	F	E	R	K							
12	450.9	16	31.8	381.0	11.9	7.9	0.8	412.8	R57	64.41	78.90	
14	514.4	20	31.8	419.1	11.9	7.9	0.8	457.2	R61	88.30	107.05	
16	571.5	20	35.1	469.9	11.9	7.9	0.8	508.0	R65	112.94	139.25	
18	628.7	24	35.1	533.4	11.9	7.9	0.8	574.5	R69	138.34	176.90	
20	685.8	24	35.1	584.2	13.5	9.5	1.5	635.0	R73	167.37	223.17	
22	743.0	24	41.1	635.0	15.1	11.1	1.5	685.8	R81	213.00	—	
24	812.8	24	41.1	692.2	16.7	11.1	1.5	749.3	R77	235.41	342.00	
26	876.3	28	44.5	749.3	19.8	12.7	1.5	809.8	R93	274.40	489.00	
28	939.8	28	44.5	800.1	19.8	12.7	1.5	860.6	R94	337.90	596.50	
30	997.0	28	47.8	857.3	19.8	12.7	1.5	917.4	R95	394.60	699.90	
32	1054.1	28	50.8	914.4	23.0	14.3	1.5	984.3	R96	455.90	814.20	
34	1104.9	28	50.8	965.2	23.0	14.3	1.5	1035.1	R97	519.40	938.00	
36	1168.4	32	53.8	1022.4	23.0	14.3	1.5	1092.2	R98	578.30	1105.00	
38	1092.2	32	41.1								315.30	907.70
40	1155.7	32	44.5								381.00	1079.60
42	1206.5	32	44.5								430.90	1219.30
44	1263.7	32	47.8								478.50	1396.60
46	1320.8	28	50.8								560.20	1587.10
48	1371.6	32	50.8								626.00	1767.20
50	1428.8	32	53.8								694.00	2014.90
52	1479.6	32	53.8								753.00	2225.40
54	1549.4	28	60.5								929.90	2578.30
56	1600.2	28	60.5								977.50	2766.10
58	1651.0	32	60.5								1029.70	3025.10
60	1701.8	32	60.5								1120.40	3299.50

- (4) Maximum Pressure Rating for raised face flanges is 740 psi (51 BARS) at atmospheric temperature.
- (5) Flange dimensions of size 12" (304.8mm) through 24" (609.6mm) flanges except 22" (558.8mm) are in accordance with ANSI B 16.5.
- (6) For sizes 26" (660.4mm) and larger, Diameter of Hub at Bevel (A) are in accordance with ASME Boiler and pressure vessel code.



CLASS 400 FLANGES

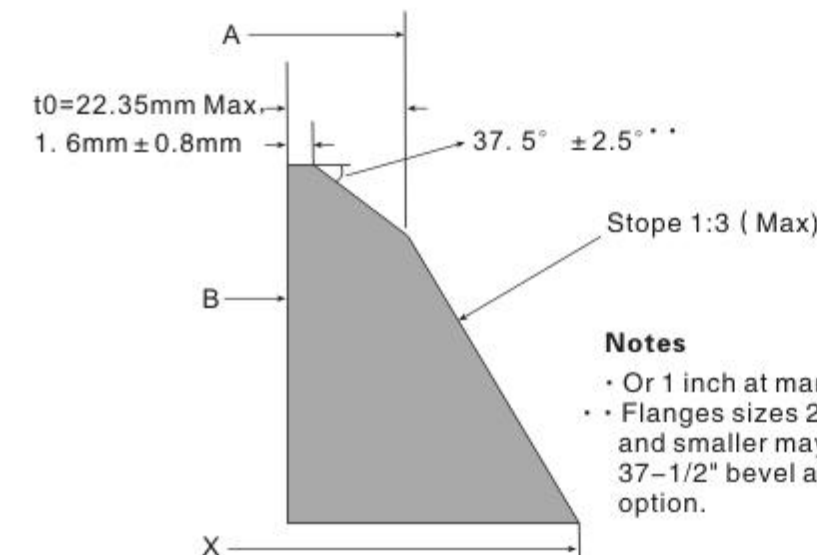
ASME B16.47 SER.A(MSS SP 44)

Unit: mm

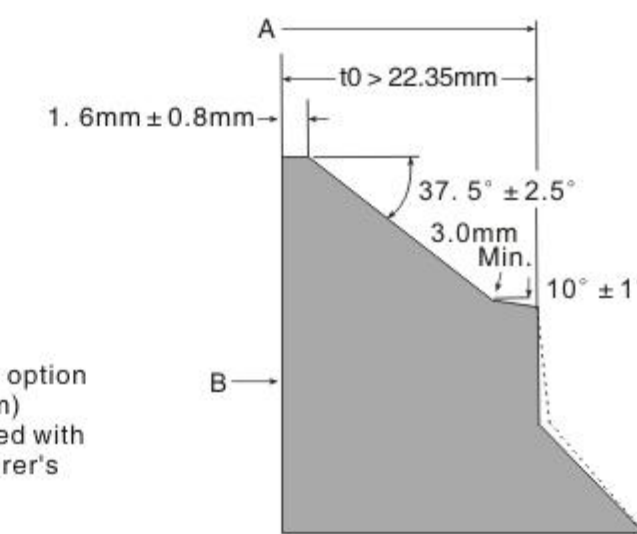
Nominal Pipe Size	Outside Diam.	O.D of Raised Face	Diam. at Base of Hub	Thickness		BORE		Length Thru Hub	Diam. of Hub at Bevel	Radius of Fillet
						Wall Thickness				
				9.5mm	12.7mm					
	D	G	X	t1	t2	B1		T1	A	r
12	521	381.0	374.7	57.2	57.2	304.8	298.5	136.7	323.9	11.2
14	584	412.8	425.5	60.5	60.5	336.6	330.2	149.4	355.6	11.2
16	648	469.9	482.6	63.5	63.5	387.4	381.0	152.4	406.4	11.2
18	711	533.4	533.4	66.5	66.5	438.2	431.8	165.1	457.2	11.2
20	775	584.2	587.2	69.9	69.9	489.0	482.6	168.1	508.0	11.2
22	838	641.4	641.4	73.2	73.2	539.8	533.4	171.5	558.8	11.2
24	914	692.2	701.5	76.2	76.2	590.6	584.2	174.8	609.6	11.2
26	972	749.3	726.9	88.9	98.6	641.4	635.0	193.5	660.4	11.2
28	1035	800.1	782.6	95.3	104.6	692.2	685.8	206.2	711.2	12.7
30	1092	857.3	836.7	101.6	111.3	743.0	736.6	218.9	762.0	12.7
32	1149	914.4	889.0	108.0	115.8	793.8	787.4	231.6	812.8	12.7
34	1207	965.2	944.6	111.3	122.2	844.6	838.2	241.3	863.6	14.2
36	1270	1022.4	1000.3	114.3	128.5	895.4	889.0	251.0	914.4	14.2
38	1207	1035.1	1003.3	124.0	124.0	946.2	939.8	206.2	965.2	14.2
40	1270	1092.2	1054.1	130.0	130.0	997.0	990.6	215.9	1016.0	14.2
42	1321	1143.0	1107.9	133.4	133.4	1047.8	1041.4	223.8	1066.8	14.2
44	1384	1200.2	1158.7	139.7	139.7	1098.6	1092.2	233.4	1117.6	14.2
46	1441	1257.3	1212.9	146.1	146.1	1149.4	1143.0	244.3	1168.4	14.2
48	1511	1308.1	1267.0	152.4	152.4	1200.2	1193.8	257.0	1219.2	14.2
50	1568	1361.9	1320.8	157.2	158.8	1251.0	1244.6	268.2	1270.0	14.2
52	1619	1412.7	1371.6	162.1	163.6	1301.8	1295.4	276.4	1320.8	14.2
54	1702	1470.2	1425.4	169.9	171.5	1352.6	1346.2	289.1	1371.6	14.2
56	1753	1527.0	1479.6	174.8	176.3	1403.4	1397.0	298.5	1422.4	14.2
58	1803	1577.8	1530.4	177.8	180.8	1454.2	1447.8	306.3	1473.2	14.2
60	1886	1635.3	1584.5	185.7	189.0	1505.0	1498.6	319.0	1524.0	14.2

Notes

- (1) For the "Bore" (B1) other than wall thickness 0.375"(9.5mm) and 0.500"(12.7mm), refer to page 83.
- (2) Class 400 flanges will be furnished with 0.25"(6.4mm) raised face, which is included in "Thickness" (t) and "Length thru Hub" (T1).
- (3) Dimensional tolerance are in accordance with ASME B16.5.



BEVEL FOR WALL THICKNESS (to)
0.88" IN. (22.35mm) OR LESS



BEVEL FOR WALL THICKNESS (to)
GREATER THAN 0.88" IN. (22.35mm)

Notes

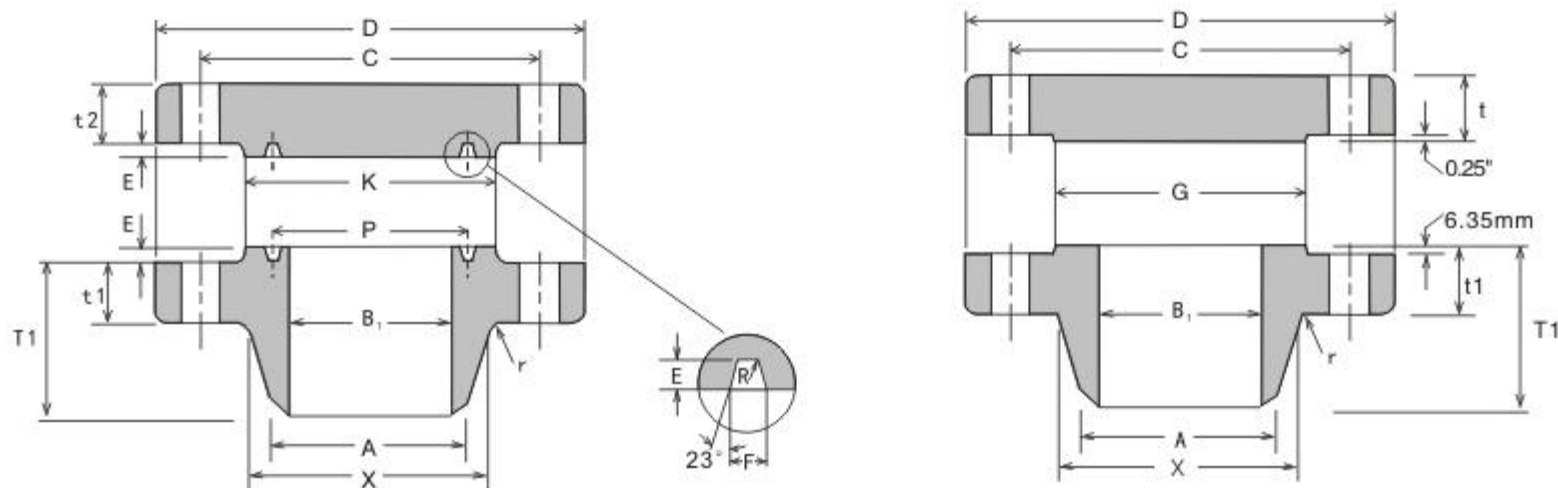
- Or 1 inch at manufacturer's option
- Flanges sizes 24" (609.6mm) and smaller may be furnished with 37-1/2° bevel at manufacturer's option.

WELDING-ENDS FOR WELDING-NECK FLANGES

Unit: mm

Nominal Pipe Size	DRILLING			Pitch Diam.	GROOVE DIMENSIONS			Diam. of Raised Face	Ring and Groove Number	Approximate Weight (kg)		
	Bolt Circle Diam	Number of Holes	Diam. of Holes		Width	Depth	Radius			Weld- neck	Blind	
C			P	F	E	R	K					
12	450.9	16	35.1	381.0	11.9	7.9	0.8	412.8	R57	72.57	98.00	
14	514.4	20	35.1	419.1	11.9	7.9	0.8	457.2	R61	105.69	131.66	
16	571.5	20	38.1	469.9	11.9	7.9	0.8	508.0	R65	133.30	167.00	
18	628.7	24	38.1	533.4	11.9	7.9	0.8	574.5	R69	158.90	206.57	
20	685.8	24	41.1	584.2	13.5	9.5	1.5	635.0	R73	193.00	261.00	
22	743.0	24	44.5	635.0	15.1	11.1	1.5	685.8	R81	235.00	—	
24	812.8	24	47.8	692.2	16.7	11.1	1.5	749.3	R77	281.48	395.00	
26	876.3	28	47.8	749.3	19.8	12.7	1.5	809.8	R93	294.80	572.90	
28	939.8	28	50.8	800.1	19.8	12.7	1.5	860.6	R94	356.10	690.40	
30	997.0	28	53.8	857.3	19.8	12.7	1.5	917.4	R95	410.50	817.40	
32	1054.1	28	53.8	914.4	23.0	14.3	1.5	984.3	R96	483.10	942.10	
34	1104.9	28	53.8	965.2	23.0	14.3	1.5	1035.1	R97	544.30	1095.40	
36	1168.4	32	53.8	1022.4	23.0	14.3	1.5	1092.2	R98	607.80	1276.90	
38	1117.6	32	47.8								424.10	1111.30
40	1174.8	32	50.8								494.40	1291.90
42	1225.6	32	50.8								539.80	1432.90
44	1282.7	32	53.8								623.70	1648.80
46	1339.9	36	53.8								691.70	1868.80
48	1403.4	28	60.5								811.90	2143.70
50	1460.5	32	60.5								884.50	2405.40
52	1511.3	32	60.5								963.90	2641.30
54	1581.2	28	66.5								1163.50	3058.20
56	1632.0	32	66.5								1229.30	3334.90
58	1682.8	32	66.5								1465.10	3622.40
60	1752.6	32	73.2								1732.80	4139.60

- (4) Maximum Pressure Rating for raised face flanges is 985 psi (68BARS) at atmospheric temperature.
- (5) Flange dimensions of size 12" (304.8mm) through 24" (609.6mm) flanges except 22" (558.8mm) are in accordance with ASME B 16.5.
- (6) For sizes 26" (660.4mm) and larger, Diameter of Hub at Bevel (A) are in accordance with ASME Boiler and pressure vessel code.



CLASS 600 FLANGES

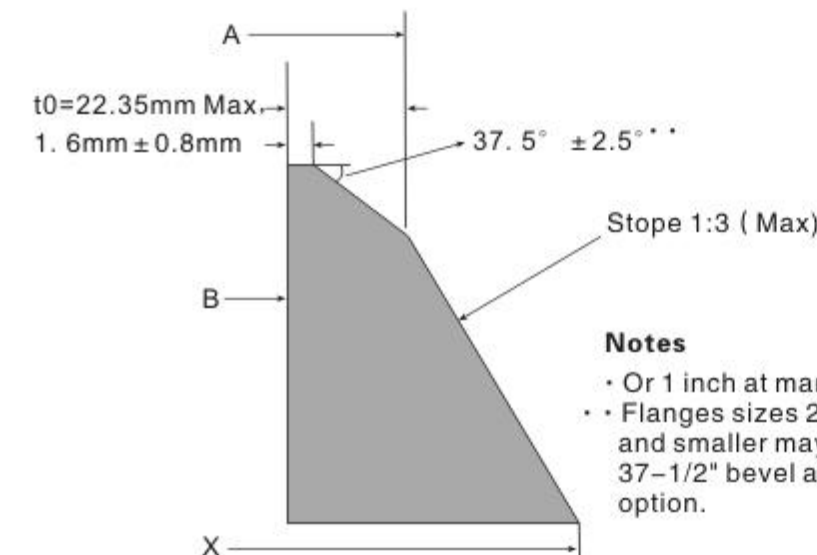
ASME B16.47 SER.A(MSS SP 44)

Unit: mm

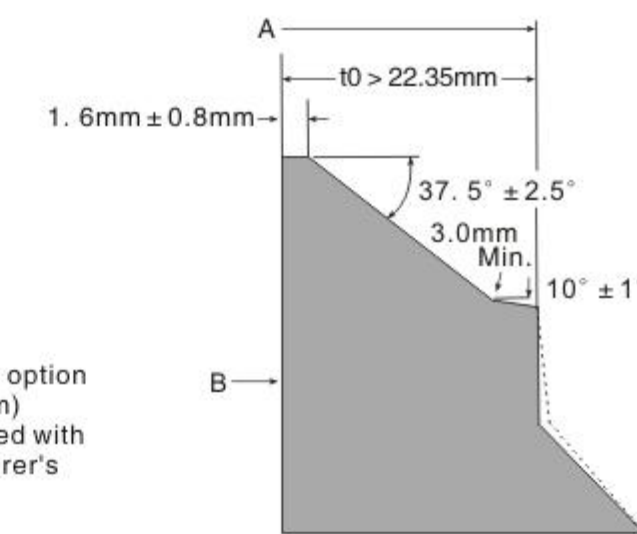
Nominal Pipe Size	Outside Diam.	O.D of Raised Face	Diam. at Base of Hub	Thickness		BORE		Length Thru Hub	Diam. of Hub at Bevel	Radius of Fillet
						Wall Thickness				
						9.5mm	12.7mm			
	D	G	X	t1	t2	B1		T1	A	r
12	559	381.0	400.1	66.5	66.5	304.8	298.5	155.4	323.9	11.2
14	603	412.8	431.8	69.9	69.9	336.6	330.2	165.1	355.6	11.2
16	686	469.9	495.3	76.2	76.2	387.4	381.0	177.8	406.4	11.2
18	743	533.4	546.1	82.6	82.6	438.2	431.8	184.2	457.2	11.2
20	813	584.2	609.6	88.9	88.9	489.0	482.6	190.5	508.0	11.2
22	870	641.2	666.8	95.3	95.3	539.8	533.4	196.9	558.8	11.2
24	940	692.2	717.6	101.6	101.6	590.6	584.2	203.2	609.6	11.2
26	1016	749.3	747.8	108.0	125.5	641.4	635.0	222.3	660.4	12.7
28	1073	800.1	803.1	111.3	131.8	692.2	685.8	235.0	711.2	12.7
30	1130	857.3	862.1	114.3	139.7	743.0	736.6	247.7	762.0	12.7
32	1194	914.4	917.4	117.3	147.6	793.8	787.4	260.4	812.8	12.7
34	1245	965.2	973.1	120.7	153.9	844.6	838.2	269.7	863.6	14.2
36	1314	1022.4	1031.7	124.0	162.1	895.4	889.0	282.4	914.4	14.2
38	1270	1054.1	1022.4	152.4	155.4	946.2	939.8	254.0	965.2	14.2
40	1321	1111.3	1073.2	158.8	162.1	997.0	990.6	263.7	1016.0	14.2
42	1403	1168.4	1127.3	168.1	171.5	1047.8	1041.4	279.4	1066.8	14.2
44	1454	1225.6	1181.1	173.0	177.8	1098.6	1092.2	289.1	1117.6	14.2
46	1511	1276.4	1234.9	179.3	185.7	1149.4	1143.0	300.0	1168.4	14.2
48	1594	1333.5	1289.1	189.0	195.3	1200.2	1193.8	316.0	1219.2	14.2
50	1670	1384.3	1343.2	196.9	203.2	1251.0	1244.6	328.7	1270.0	14.2
52	1721	1435.1	1394.0	203.2	209.6	1301.8	1295.4	336.6	1320.8	14.2
54	1778	1492.3	1447.8	209.6	217.4	1352.6	1346.2	349.3	1371.6	14.2
56	1854	1543.1	1501.6	217.4	225.6	1403.4	1397.0	362.0	1422.4	15.7
58	1905	1600.2	1552.4	222.3	231.6	1454.2	1447.8	369.8	1473.2	15.7
60	1994	1657.4	1609.9	233.4	242.8	1505.0	1498.6	388.9	1524.0	17.5

Notes

- (1) For the "Bore" (B1) other than wall thickness 0.375"(9.5mm) and 0.500"(12.7mm), refer to page 50,51.
- (2) Class 600 flanges will be furnished with 0.25"(6.4mm) raised face, which is included in "Thickness" (t) and "Length thru Hub" (T1).
- (3) Dimensional tolerance are in accordance with ASME B16.5.



BEVEL FOR WALL THICKNESS (to)
0.88" IN. (22.35mm) OR LESS



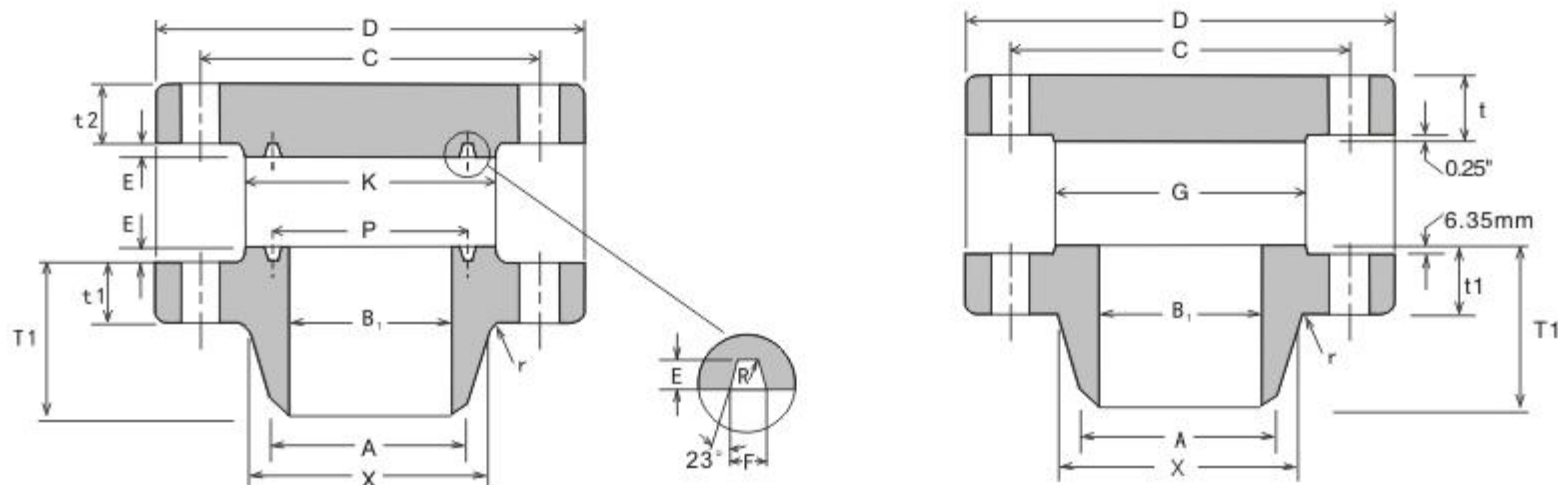
BEVEL FOR WALL THICKNESS (to)
GREATER THAN 0.88" IN. (22.35mm)

WELDING-ENDS FOR WELDING-NECK FLANGES

Unit: mm

Nominal Pipe Size	DRILLING			Pitch Diam.	GROOVE DIMENSIONS			Diam. of Raised Face	Ring and Groove Number	Approximate Weight (kg)		
	Bolt Circle Diam	Number of Holes	Diam. of Holes		Width	Depth	Radius			Weld- neck	Blind	
C	P	F	E	R	K							
12	489.0	20	35.1	381.0	11.9	7.9	0.8	412.8	R57	102.51	132.00	
14	527.1	20	38.1	419.1	11.9	7.9	0.8	457.2	R61	121.56	158.00	
16	603.3	20	41.1	469.9	11.9	7.9	0.8	508.0	R65	177.06	224.73	
18	654.1	20	44.5	533.4	11.9	7.9	0.8	574.5	R69	215.65	285.00	
20	723.9	24	44.5	584.2	13.5	9.5	1.5	635.0	R73	267.86	365.00	
22	777.7	24	47.8	635.0	15.1	11.1	1.5	685.8	R81	330.00	—	
24	838.2	24	50.8	692.2	16.7	11.1	1.5	749.3	R77	372.00	533.45	
26	914.4	28	50.8	749.3	19.8	12.7	1.5	809.8	R93	426.40	797.90	
28	965.2	28	53.8	800.1	19.8	12.7	1.5	860.6	R94	480.80	934.90	
30	1022.4	28	53.8	857.3	19.8	12.7	1.5	917.4	R95	548.90	1099.10	
32	1079.5	28	60.5	914.4	23.0	14.3	1.5	984.3	R96	623.70	1295.50	
34	1130.3	28	60.5	965.2	23.0	14.3	1.5	1035.1	R97	698.50	1468.30	
36	1193.8	28	66.5	1022.4	23.0	14.3	1.5	1092.2	R98	773.40	1724.60	
38	1162.1	28	60.5								666.80	1544.10
40	1212.9	32	60.5								739.40	1740.90
42	1282.7	28	66.5								920.80	2079.80
44	1333.5	32	66.5								979.80	2315.60
46	1390.7	32	66.5								1093.20	2611.80
48	1460.5	32	73.2								1295.00	3055.90
50	1524.0	28	79.2								1510.50	3490.50
52	1574.8	32	79.2								1614.80	3822.00
54	1632.0	32	79.2								1778.10	4233.40
56	1695.5	32	85.9								1941.40	4776.00
58	1746.3	32	85.9								2104.70	5177.40
60	1822.5	28	91.9								2268.00	5945.80

- (4) Maximum Pressure Rating for raised face flanges is 1480 psi (102.1BARS) at atmospheric temperature.
- (5) Flange dimensions of size 12" (304.8mm) through 24" (609.6mm) flanges except 22" (558.8mm) are in accordance with ASME B 16.5.
- (6) For sizes 26" (660.4mm) and larger, Diameter of Hub at Bevel (A) are in accordance with ASME Boiler and pressure vessel code.



CLASS 900 FLANGES

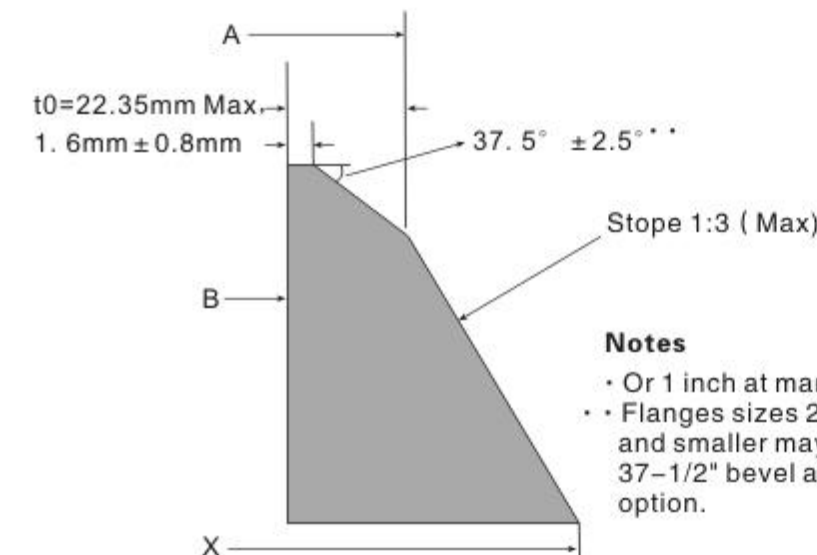
ASME B16.47 SER.A(MSS SP 44)

Unit: mm

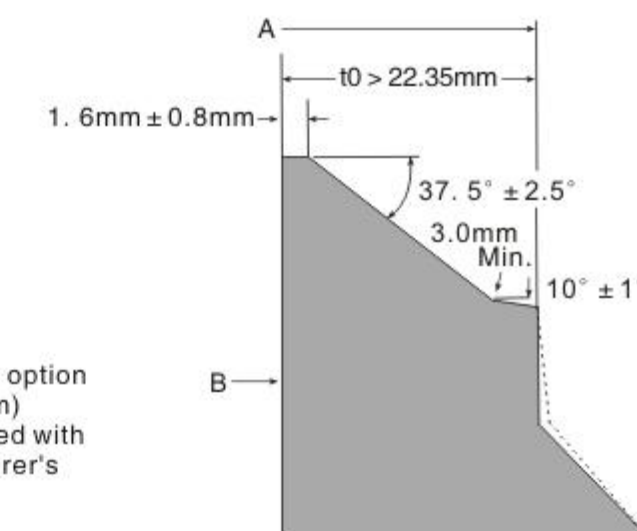
Nominal Pipe Size	Outside Diam.	O.D of Raised Face	Diam. at Base of Hub	Thickness		BORE		Length Thru Hub	Diam. of Hub at Bevel	Radius of Fillet
						Wall Thickness				
						9.5mm	12.7mm			
	D	G	X	t1	t2	B1		T1	A	r
12	610	381.0	419.1	79.2	79.2	304.8	298.5	200.2	323.9	11.2
14	641	412.8	450.9	85.9	85.9	336.6	330.2	212.9	355.6	11.2
16	705	469.9	508.0	88.9	88.9	387.4	381.0	215.9	406.4	11.2
18	787	533.4	565.2	101.6	101.6	438.2	431.8	228.6	457.2	11.2
20	857	584.2	622.3	108.0	108.0	489.0	482.6	247.7	508.0	11.2
24	1041	692.2	749.3	139.7	139.7	590.6	584.2	292.1	609.6	11.2
26	1086	749.3	774.7	139.7	160.3	641.4	635.0	285.8	660.4	11.2
28	1168	800.1	831.9	142.7	171.5	692.2	685.8	298.5	711.2	12.7
30	1232	857.3	889.0	149.4	182.4	743.0	736.6	311.2	762.0	12.7
32	1314	914.4	946.2	158.8	193.5	793.8	787.4	330.2	812.8	12.7
34	1397	965.2	1006.3	165.1	204.7	844.6	838.2	349.3	863.6	14.2
36	1461	1022.4	1063.8	171.5	214.4	895.4	889.0	362.0	914.4	14.2
38	1461	1098.6	1073.2	190.5	215.9	946.2	939.8	352.6	965.2	19.1
40	1511	1162.1	1127.3	196.9	223.8	997.0	990.6	363.5	1016.0	20.6
42	1562	1212.9	1176.3	206.2	231.6	1047.8	1041.4	371.3	1066.8	20.6
44	1648	1270.0	1234.9	214.4	242.8	1098.6	1092.2	390.7	1117.6	22.4
46	1734	1333.5	1292.4	225.6	255.5	1149.4	1143.0	411.0	1168.4	22.4
48	1784	1384.3	1343.2	233.4	263.7	1200.2	1193.8	419.1	1219.2	23.9

Notes

- (1) For the "Bore" (B1) other than wall thickness 0.375"(9.5mm) and 0.500"(12.7mm), refer to page 50, 51.
- (2) Class 600 flanges will be furnished with 0.25"(6.4mm) raised face, which is included in "Thickness" (t) and "Length thru Hub" (T1).
- (3) Dimensional tolerance are in accordance with ASME B16.5.



BEVEL FOR WALL THICKNESS(to)
0.88"IN.(22.35mm)'OR LESS



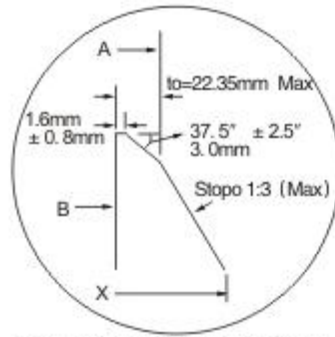
BEVEL FOR WALL THICKNESS(to)
GREATER THAN 0.88 IN.(22.35mm)

WELDING-ENDS FOR WELDING-NECK FLANGES

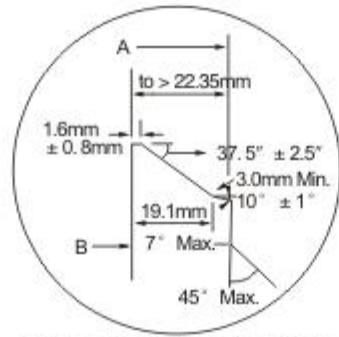
Unit: mm

Nominal Pipe Size	DRILLING			Pitch Diam.	GROOVE DIMENSIONS			Diam. of Raised Face	Ring and Groove Number	Approximate Weight (kg)	
	Bolt Circle Diam	Number of Holes	Diam. of Holes		Width	Depth	Radius			Weld- neck	Blind
12	533.4	20	38.1	381.0	11.9	7.9	0.8	419.1	R57	157.00	187.00
14	558.8	20	41.1	419.1	16.7	11.1	1.5	466.9	R62	181.00	224.07
16	616.0	20	44.5	469.9	16.7	11.1	1.5	523.7	R66	224.73	272.40
18	685.8	20	50.8	533.4	19.8	12.7	1.5	593.9	R70	308.72	385.90
20	749.3	20	53.8	584.2	19.8	12.7	1.5	647.7	R74	376.82	488.00
24	901.7	20	66.5	692.2	27.0	15.9	2.3	771.7	R78	685.00	905.00
26	952.5	20	73.2	749.3	30.2	17.5	2.3	831.9	R100	691.70	1163.90
28	1022.4	20	79.2	800.1	33.3	17.5	2.3	889.0	R101	821.00	1441.50
30	1085.9	20	79.2	857.3	33.3	17.5	2.3	946.2	R102	961.60	1704.60
32	1155.7	20	85.9	914.4	33.3	17.5	2.3	1003.3	R103	1154.40	2059.80
34	1225.6	20	91.9	965.2	36.5	20.6	2.3	1066.8	R104	1347.20	2460.80
36	1289.1	20	91.9	1022.4	36.5	20.6	2.3	1124.0	R105	1540.00	2816.40
38	1289.1	20	91.9							1535.40	2836.40
40	1339.9	24	91.9							1642.00	3148.00
42	1390.7	24	91.9							1796.30	3481.40
44	1463.5	24	98.6							1950.50	4061.50
46	1536.7	24	104.6							2104.70	4729.20
48	1587.5	24	104.6							2258.90	5170.10

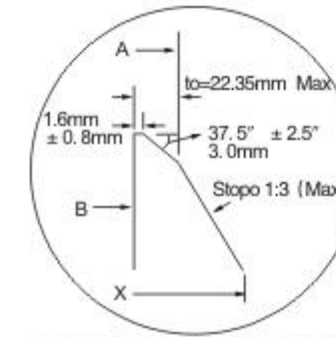
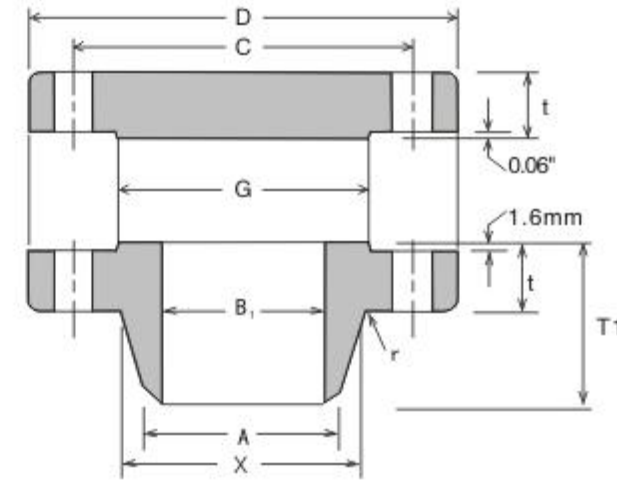
- (4) Maximum Pressure Rating for raised face flanges is 1480 psi(102.1BARS) at atmospheric temperature.
- (5) Flange dimensions of size 12" (304.8mm) through 24" (609.6mm) flanges except 22" (558.8mm) are in accordance with ASME B 16.5.
- (6) For sizes 26"(660.4mm) and larger, Diameter of Hub at Bevel(A) are in accordance with ASME Boiler and pressure vessel code.



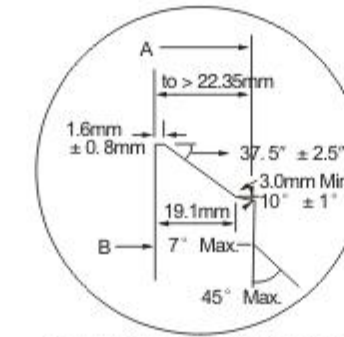
BEVEL FOR WALL THICKNESS(TO)
0.88" IN. (22.35mm) OR LESS.



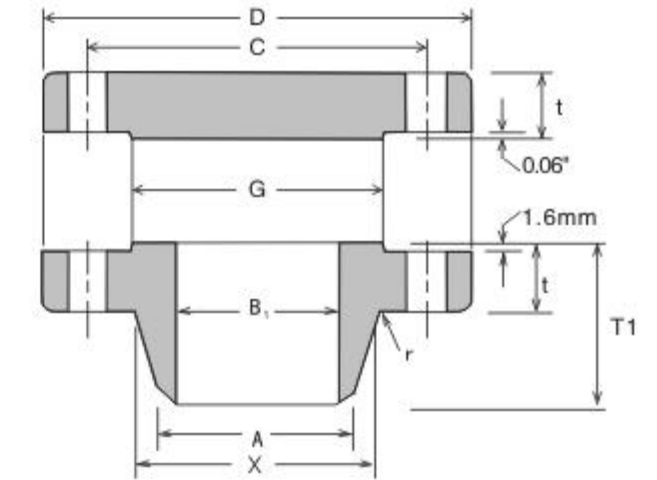
BEVEL FOR WALL THICKNESS(TO)
GREATER THAN 0.88 IN. (22.35mm)



BEVEL FOR WALL THICKNESS(TO)
0.88" IN. (22.35mm) OR LESS.



BEVEL FOR WALL THICKNESS(TO)
GREATER THAN 0.88 IN. (22.35mm)



CLASS 75 FLANGES

ASME B16.47 SER.B(API 605)

Unit: mm

Nominal Pipe Size	Outside Diam.	O.D of Raised Face	Diam. at Base of Hub	Diam. of Hub at Bevel	BORE			Length Thru Hub	THICKNESS		Rodus at Base of Hub	DRILLING			Approximate Weight(kg)	
					Wall Thickness				Blind	Welding Neck		Bolt Circle Diam	Number of Holes	Diam of Holes		
					6.35mm	9.5mm	12.7mm								Welding neck	Blind
	D	G	X	A	B1			T1	t	t	r	c				
26	762	704.9	676.1	661.9	647.7	641.4	635.0	58.7	33.3	33.3	7.9	723.9	36	19.1	36.3	115.7
28	813	755.7	726.9	712.7	698.5	692.2	685.8	62.0	33.3	33.3	7.9	774.7	40	19.1	38.6	131.5
30	864	806.5	777.7	763.5	749.3	743.0	736.6	65.0	33.3	33.3	7.9	825.5	44	19.1	40.8	149.7
32	914	857.3	828.5	814.3	800.1	793.8	787.4	69.9	36.6	35.1	7.9	876.3	48	19.1	47.6	176.9
34	965	908.1	879.3	865.1	850.9	844.6	838.2	73.2	38.1	35.1	7.9	927.1	52	19.1	49.9	195.0
36	1034	965.2	935.0	915.9	850.9	895.4	889.0	85.9	42.4	36.6	9.7	992.1	40	22.4	65.8	235.0
38	1084	1016.0	985.8	966.7	952.5	946.2	939.8	88.9	44.5	38.1	9.7	1042.9	40	22.4	72.6	269.9
40	1135	1066.8	1036.6	1017.5	1003.3	997.0	990.6	91.9	44.5	38.1	9.7	1093.7	44	22.4	77.1	344.7
42	1186	1117.6	1087.4	1068.3	1054.1	1047.8	1041.4	95.3	47.8	39.6	9.7	1144.5	48	22.4	83.9	406.0
44	1251	1174.8	1140.0	1119.1	1104.9	1098.6	1092.2	104.6	49.3	42.9	9.7	1203.5	36	25.4	104.3	483.1
46	1302	1225.6	1190.8	1169.9	1155.7	1149.4	1143.0	108.0	50.8	44.5	9.7	1254.3	40	25.4	111.1	537.5
48	1353	1276.4	1241.6	1220.7	1206.5	1200.2	1193.8	111.3	53.8	46.0	9.7	1305.1	44	25.4	122.5	596.5
50	1403	1327.2	1293.9	1271.5	1257.3	1251.0	1244.6	115.8	55.4	47.8	9.7	1355.9	44	25.4	131.5	682.7
52	1457	1378.0	1344.7	1322.3	1308.1	1301.8	1295.4	120.7	57.2	47.8	9.7	1409.7	48	25.4	140.6	755.2
54	1508	1428.8	1397.0	1373.1	1358.9	1352.6	1346.2	125.5	60.5	49.3	9.7	1460.5	48	25.4	154.2	834.6
56	1575	1485.9	1450.8	1423.9	1409.7	1403.4	1397.0	134.9	62.0	50.8	11.2	1521.0	40	28.4	181.4	957.1
58	1626	1536.7	1501.6	1474.7	1460.5	1454.2	1447.8	138.2	63.5	52.3	11.2	1571.8	44	28.4	195.0	1043.3
60	1676	1587.5	1552.4	1525.5	1511.3	1505.0	1498.6	144.5	66.5	55.6	11.2	1622.6	44	28.4	215.5	1134.0

Notes

(1)"Bore"(B1) of flanges shall be specified by the purchaser.

(2) Class 300 flanges will be furnished with 0.06" (1.6mm) raised face which is included in "Thickness " (t) and "Length thru Hub " (T1)

CLASS 150 FLANGES

ASME B16.47 SER.B(API 605)

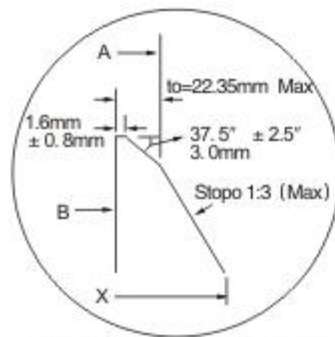
Unit: mm

Nominal Pipe Size	Outside Diam.	O.D of Raised Face	Diam. at Base of Hub	Diam. of Hub at Bevel	BORE			Length Thru Hub	THICKNESS		Rodus at Base of Hub	DRILLING			Approximate Weight(kg)	
					Wall Thickness				Blind	Welding Neck		Bolt Circle Diam	Number of Holes	Diam of Holes		
					6.35mm	9.5mm	12.7mm								Welding neck	Blind
	D	G	X	A	B1			T1	t	t	r	c				
26	786	711.2	684.3	661.9	647.7	641.4	635.0	88.9	44.5	41.1	9.7	744.5	36	22.4	54.4	169.2
28	837	762.0	735.1	712.7	698.5	692.2	685.8	95.3	47.8	44.5	9.7	795.3	40	22.4	63.5	205.9
30	887	812.8	787.4	763.5	749.3	743.0	736.6	100.1	50.8	44.5	9.7	846.1	44	22.4	68.0	246.3
32	941	863.6	839.7	814.3	800.1	793.8	787.4	108.0	53.8	46.0	9.7	900.2	48	22.4	77.1	293.9
34	1005	920.8	892.0	865.1	850.9	844.6	838.2	110.2	57.2	49.3	9.7	957.3	40	25.4	95.3	355.2
36	1057	971.6	944.6	915.9	901.7	895.4	889.0	117.3	58.7	52.3	9.7	1009.4	44	25.4	108.9	403.7
38	1124	1022.1	997.0	968.2	952.5	946.2	939.8	124.0	63.5	53.8	9.7	1069.8	40	28.4	131.5	494.0
40	1175	1079.5	1049.3	1019.0	1003.3	997.0	990.6	128.5	63.5	55.6	9.7	1120.6	44	28.4	140.6	565.6
42	1226	1130.3	1101.9	1069.8	1054.1	1047.8	1041.4	133.4	68.3	58.7	11.2	1171.4	48	28.4	156.5	631.9
44	1276	1181.1	1152.7	1120.3	1104.9	1098.6	1092.2	136.7	71.4	60.5	11.2	1222.2	52	28.4	167.8	716.2
46	1341	1234.9	1205.0	1171.4	1155.7	1149.4	1143.0	144.5	74.7	62.0	11.2	1284.2	40	31.8	197.3	827.4
48	139	1289.1	1257.3	1222.2	1206.5	1200.2	1193.8	149.4	77.7	65.0	11.2	1335.0	44	31.8	217.7	927.6
50	1443	1339.9	1308.1	1273.0	1257.3	1251.0	1244.6	153.9	80.8	68.3	11.2	1385.8	48	31.8	235.9	1036.0
52	1494	1390.7	1360.4	1323.8	1308.1	1301.8	1295.4	157.2	84.1	69.9	11.2	1436.6	52	31.8	249.5	1155.3
54	1594	1441.5	1412.7	1374.6	1358.9	1352.6	1346.2	162.1	87.4	71.4	11.2	1492.3	56	31.8	281.2	1291.9
56	1600	1492.3	1465.3	1425.4	1409.7	1403.4	1397.0	166.6	90.4	73.2	14.2	1543.1	60	31.8	294.8	1426.1
58	1675	1543.1	1516.1	1476.2	1460.5	1454.2	1447.8	174.8	93.5	74.7	14.2	1611.4	48	35.1	353.8	1614.8
60	1726	1600.2	1570.0	1527.0	1511.3	1505.0	1498.6	179.3	96.8	76.2	14.2	1662.2	52	35.1	385.6	1774.9

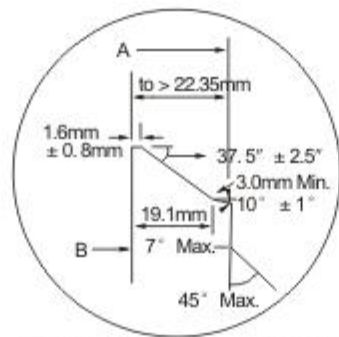
Notes

(1)"Bore"(B1) of flanges shall be specified by the purchaser.

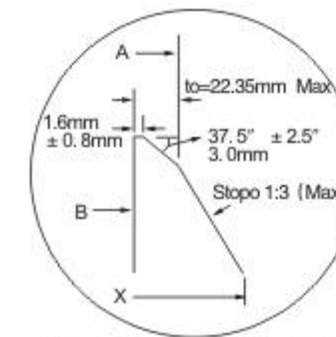
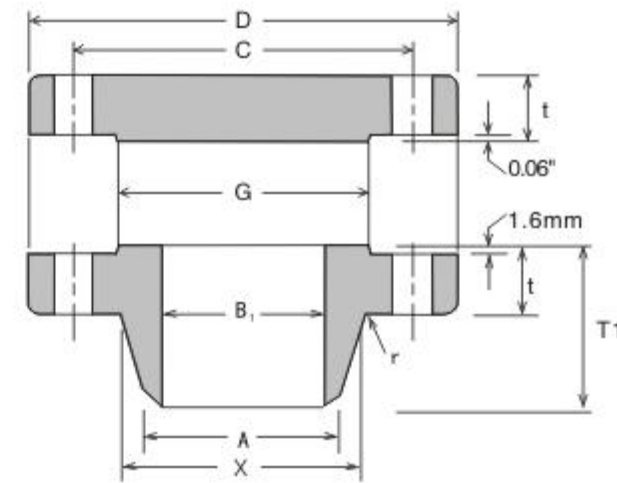
(2) Class 300 flanges will be furnished with 0.06" (1.6mm) raised face which is included in "Thickness " (t) and "Length thru Hub " (T1)



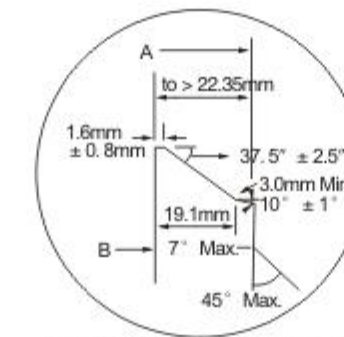
BEVEL FOR WALL THICKNESS(TO)
0.88" IN. (22.35mm) OR LESS.



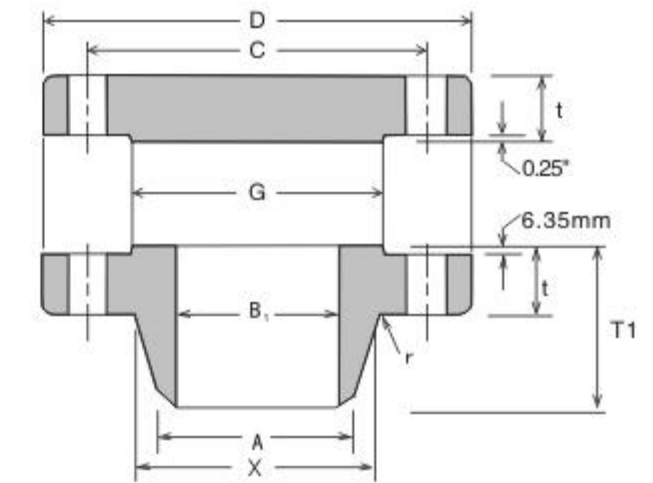
BEVEL FOR WALL THICKNESS(TO)
GREATER THAN 0.88 IN. (22.35mm)



BEVEL FOR WALL THICKNESS(TO)
0.88" IN. (22.35mm) OR LESS.



BEVEL FOR WALL THICKNESS(TO)
GREATER THAN 0.88 IN. (22.35mm)



CLASS 300 FLANGES

ASME B16.47 SER.B(API 605)

Unit: mm

Nominal Pipe Size	Outside Diam.	O.D of Raised Face	Diam. at Base of Hub	Diam. of Hub at Bevel	BORE			Length Thru Hub	THICKNESS		Rodus at Base of Hub	DRILLING			Approximate Weight(kg)	
					Wall Thickness				Blind	Welding Neck		Bolt Circle Diam	Number of Holes	Diam of Holes		
					6.35mm	9.5mm	12.7mm								Welding neck	Blind
	D	G	X	A	B1			T1	t	t	r	c				
26	867	736.6	701.5	665.2	647.7	641.4	635.0	144.5	88.9	88.9	14.2	803.1	32	35.1	181.4	411.4
28	921	787.4	755.7	716.0	698.5	692.2	685.8	149.4	88.9	88.9	14.2	857.3	36	35.1	204.1	464.0
30	991	844.6	812.8	766.4	749.3	743.0	736.6	158.0	93.7	93.7	14.2	920.8	36	38.1	249.5	566.5
32	1054	901.7	863.6	819.2	800.1	793.8	787.4	168.1	103.1	103.1	15.7	977.9	32	41.1	310.7	705.8
34	1108	952.5	917.4	870.0	850.9	844.6	838.2	173.0	103.1	103.1	15.7	1031.7	36	41.1	340.2	779.7
36	1171	1009.7	965.2	920.8	901.7	895.4	889.0	180.8	103.1	103.1	15.7	1089.2	32	44.5	381.0	871.4
38	1222	1060.5	1016.0	971.6	952.5	946.2	939.8	192.0	111.3	111.3	15.7	1140.0	36	44.5	415.0	1023.8
40	1273	1114.6	1066.8	1022.4	1003.3	997.0	990.6	198.4	115.8	115.8	15.7	1190.8	40	44.5	449.1	1156.2
42	1334	1168.4	1117.6	1074.7	1054.1	1047.8	1041.4	204.7	119.1	119.1	15.7	1244.6	36	47.8	514.8	1304.6
44	1384	1219.2	1173.2	1125.5	1104.9	1098.6	1092.2	214.4	127.0	127.0	15.7	1295.4	40	47.8	560.2	1498.7
46	1461	1270.0	1228.9	1176.3	1155.7	1149.4	1143.0	222.3	130.0	128.5	15.7	1365.3	36	50.8	666.8	1708.3
48	1511	1327.2	1277.9	1227.1	1206.5	1200.2	1193.8	223.8	134.9	128.5	15.7	1416.1	40	50.8	714.4	1897.4
50	1562	1378.0	1300.5	1277.9	1257.3	1251.0	1244.6	235.0	139.7	138.2	15.7	1466.9	44	50.8	775.7	2099.7
52	1613	1428.8	1382.8	1328.7	1308.1	1301.8	1295.4	242.8	144.3	142.7	15.7	1517.7	48	50.8	834.6	2311.5
54	1673	1479.6	1435.1	1379.5	1358.9	1352.6	1346.2	239.8	149.4	136.7	15.7	1577.8	48	50.8	898.1	2575.5
56	1765	1536.7	1493.8	1430.3	1409.7	1403.4	1397.0	268.2	157.0	153.9	17.5	1651.0	36	60.5	1177.1	3012.8
58	1827	1593.9	1547.9	1481.1	1460.5	1454.2	1447.8	274.6	162.1	153.9	17.5	1712.0	40	60.5	1256.6	3332.6
60	1878	1651.0	1598.7	1531.9	1511.3	1505.0	1498.6	271.5	166.6	150.9	17.5	1763.8	40	60.5	1301.8	3619.7

Notes

(1) "Bore"(B1) of flanges shall be specified by the purchaser.

(2) Class 300 flanges will be furnished with 0.06" (1.6mm) raised face which is included in "Thickness " (t) and "Length thru Hub " (T1)

CLASS 400 FLANGES

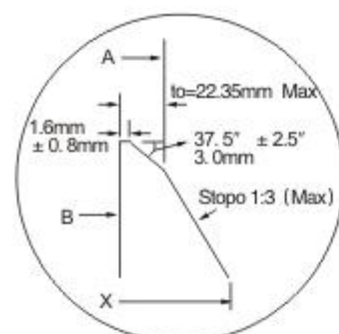
ASME B16.47 SER.B(API 605)

Unit: mm

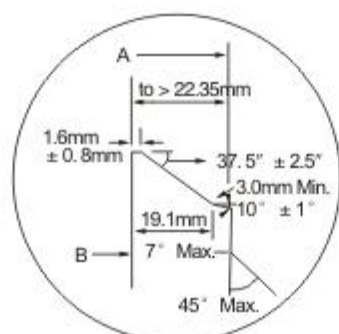
Nominal Pipe Size	Outside Diam.	O.D of Raised Face	Diam. at Base of Hub	Diam. of Hub at Bevel	BORE			Length Thru Hub	THICKNESS		Rodus at Base of Hub	DRILLING			Approximate Weight(kg)	
					Wall Thickness				Blind	Welding Neck		Bolt Circle Diam	Number of Holes	Diam of Holes		
					6.35mm	9.5mm	12.7mm	t			t				c	
	D	G	X	A	B1			T1	t	t	r				Welding neck	Blind
26	850.9	711.2	688.8	660.4	647.7	641.4	635.0	149.4	88.9	88.9	11.2	781.1	28	31.8	163.3	396.4
28	914.4	762.0	739.6	711.2	698.5	692.2	685.8	158.8	95.3	95.3	12.7	838.2	24	41.1	204.1	490.3
30	971.6	819.2	793.8	762.0	749.3	743.0	736.6	169.9	101.6	101.6	12.7	895.4	28	41.1	240.4	590.6
32	1035.1	873.3	844.6	812.8	800.1	793.8	787.4	179.3	108.0	108.0	12.7	952.5	28	44.5	288.0	712.2
34	1085.9	927.1	898.7	863.6	850.9	844.6	838.2	187.5	111.3	111.3	14.2	1003.3	32	44.5	313.0	807.9
36	1155.7	980.9	952.5	914.4	901.7	895.4	889.0	200.2	119.1	119.1	14.2	1066.8	28	47.8	387.8	979.8
38	1206.5	1035.1	1003.3	965.2	952.5	946.2	939.8	206.2	124.0	124.0	14.2	1117.6	32	47.8	424.1	1111.3
40	1270.0	1092.2	1054.1	1016.0	1003.3	997.0	990.6	215.9	130.0	130.0	14.2	1174.8	32	50.8	494.4	1291.9
42	1320.8	1143.0	1107.9	1066.8	1054.1	1047.8	1041.4	223.8	133.4	133.4	14.2	1225.6	32	50.8	539.8	1432.9
44	1384.3	1200.2	1158.7	1117.6	1104.9	1098.6	1092.2	233.2	139.7	139.7	14.2	1282.7	32	53.8	623.7	1648.8
46	1441.5	1257.3	1212.9	1168.4	1155.7	1149.4	1143.0	244.3	146.1	146.1	14.2	1339.9	36	53.8	691.7	1868.8
48	1511.3	1308.1	1267.0	1219.2	1206.5	1200.2	1193.8	257.0	152.4	152.4	14.2	1403.4	28	60.5	811.9	2143.7
50	1568.5	1361.9	1320.8	1270.0	1257.3	1251.0	1244.6	268.2	158.8	157.2	14.2	1460.5	32	60.5	884.5	2405.4
52	1619.3	1412.2	1371.6	1320.8	1308.1	1301.8	1295.4	276.4	163.6	162.1	14.2	1511.3	32	60.5	963.9	2641.3
54	1701.8	1470.2	1425.4	1371.6	1358.9	1352.6	1346.2	289.1	171.5	169.9	14.2	1581.2	28	66.5	1163.5	3058.2
56	1752.6	1527.0	1479.6	1422.4	1409.7	1403.4	1397.0	298.5	176.3	174.8	14.2	1632.0	32	66.5	1229.3	3334.9
58	1803.4	1577.8	1530.4	1473.2	1460.5	1454.2	1447.8	306.3	180.8	177.8	14.2	1682.8	32	66.5	1465.1	3622.4
60	1886.0	1635.3	1584.5	1524.0	1511.3	1505.0	1498.6	319.0	189.0	185.7	14.2	1752.6	32	73.2	1732.8	4139.6

Notes

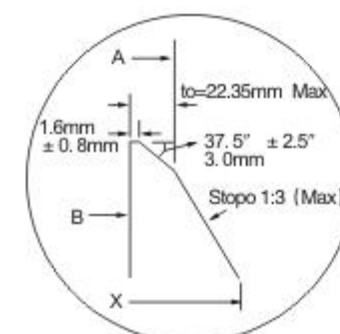
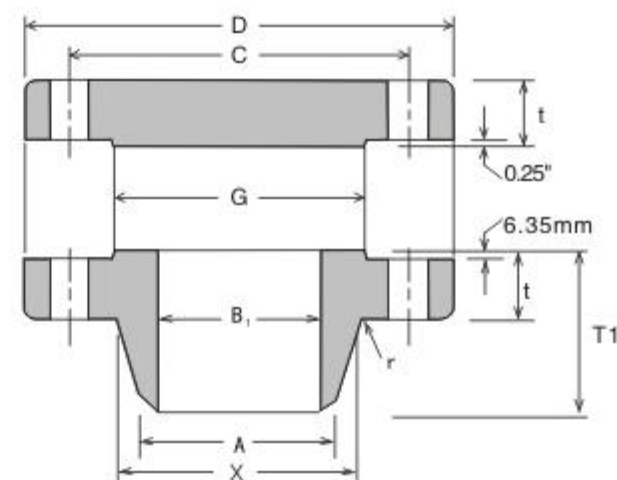
MolesDimensions for class 600,900 NPS 36" and larger as the same as for series A flanges.



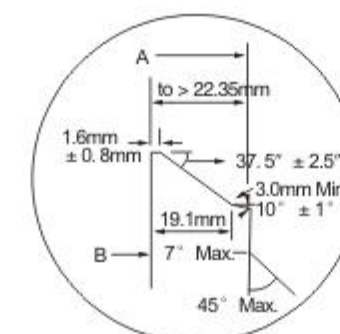
BEVEL FOR WALL THICKNESS(TO)
0.88" IN. (22.35mm) OR LESS.



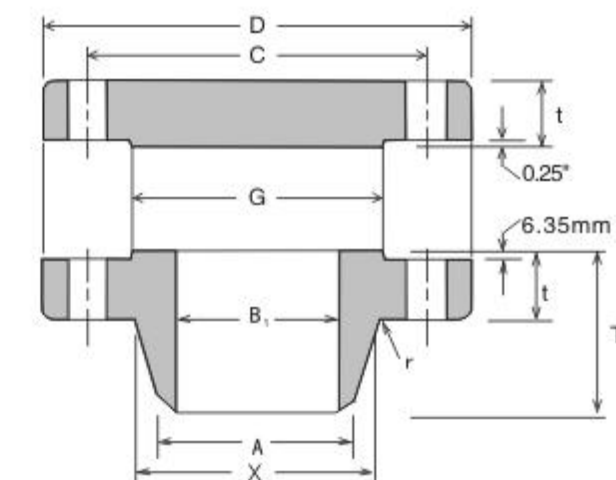
BEVEL FOR WALL THICKNESS(TO)
GREATER THAN 0.88 IN. (22.35mm)



BEVEL FOR WALL THICKNESS(TO)
0.88" IN. (22.35mm) OR LESS.



BEVEL FOR WALL THICKNESS(TO)
GREATER THAN 0.88 IN. (22.35mm)



CLASS 600 FLANGES

ASME B16.47 SER.B(API 605)

Unit: mm

Nominal Pipe Size	Outside Diam.	O.D of Raised Face	Diam. at Base of Hub	Diam. of Hub at Bevel	BORE			Length Thru Hub	THICKNESS		Rodus at Base of Hub	DRILLING			Approximate Weight(kg)	
					Wall Thickness				Blind	Welding Neck		Bolt Circle Diam	Number of Holes	Diam of Holes		
					6.35mm	9.5mm	12.7mm								Welding neck	Blind
	D	G	X	A	B1			T1	t	t	r	c				
26	889.0	726.9	698.5	660.4	647.7	641.4	635.0	180.8	111.3	111.3	12.70	806.5	28	44.5	249.5	541.6
28	952.5	784.4	752.3	711.2	698.5	692.2	685.8	190.5	115.8	115.8	12.70	863.6	28	47.8	294.8	647.3
30	1022.4	841.2	806.5	762.0	749.3	743.0	736.6	204.7	127.0	125.5	12.70	927.1	28	50.8	367.4	817.4
32	1085.9	895.4	860.6	812.8	800.1	793.8	787.4	215.9	134.9	130.0	12.70	984.3	28	53.8	430.9	979.3
34	1162.1	952.5	914.4	863.6	850.9	844.6	838.2	233.4	144.3	141.2	14.22	1054.1	24	60.5	546.6	1199.8
36	1212.9	1009.7	968.2	914.4	901.7	895.4	889.0	242.8	150.9	146.1	14.22	1104.9	28	60.5	607.8	1366.7
38	1270.0	1054.1	1022.4	965.2	952.5	946.2	939.8	254.0	155.4	152.4	14.22	1162.3	28	60.5	666.8	1544.1
40	1320.8	1111.3	1073.2	1016.0	1003.3	997.0	990.6	263.7	162.1	158.8	14.22	1212.9	32	60.5	739.4	1740.9
42	1403.4	1168.4	1127.3	1066.8	1054.1	1047.8	1041.4	279.4	171.5	168.1	14.22	1282.7	28	66.5	920.8	2079.8
44	1454.2	1225.6	1181.1	1117.6	1104.9	1098.6	1092.2	289.1	177.8	173.0	14.22	1333.5	32	66.5	979.8	2315.6
46	1511.3	1276.4	1234.9	1168.4	1155.7	1149.4	1143.0	300.0	185.7	179.3	14.22	1390.7	32	66.5	1093.2	2611.8
48	1593.9	1333.5	1289.1	1219.2	1206.5	1200.2	1193.8	316.0	195.3	189.0	14.22	1460.5	32	73.2	1295.0	3055.9
50	1670.1	1384.3	1343.2	1270.0	1257.3	1251.0	1244.6	328.7	203.2	196.9	14.22	1524.0	28	79.2	1510.5	3490.5
52	1720.9	1435.1	1394.0	1320.8	1308.1	1301.8	1295.4	336.6	209.6	203.2	14.22	1574.8	32	79.2	1614.8	3822.0
54	1778.0	1492.3	1447.8	1371.6	1358.9	1352.6	1346.2	349.3	217.4	209.6	14.22	1632.0	32	79.2	1778.1	4233.4
56	1854.2	1543.1	1501.6	1422.4	1409.7	1403.4	1397.0	362.0	225.6	217.4	15.75	1695.5	32	85.9	1941.4	4776.0
58	1905.0	1600.2	1552.4	1473.2	1460.5	1454.2	1447.8	369.8	231.6	222.3	15.75	1746.3	32	85.9	2104.7	5177.4
60	1993.9	1657.4	1609.9	1524.0	1511.3	1505.0	1498.6	388.9	242.8	233.4	17.53	1822.5	28	91.9	2268.0	5945.8

Notes

(1) "Bore"(B1) of flanges shall be specified by the purchaser.

(2) Class 300 flanges will be furnished with 0.06" (1.6mm) raised face which is included in "Thickness" (t) and "Length thru Hub" (T1)

CLASS 900 FLANGES

ASME B16.47 SER.B(API 605)

Unit: mm

Nominal Pipe Size	Outside Diam.	O.D of Raised Face	Diam. at Base of Hub	Diam. of Hub at Bevel	BORE			Length Thru Hub	THICKNESS		Rodus at Base of Hub	DRILLING			Approximate Weight(kg)		
					Wall Thickness				Blind	Welding Neck		Bolt Circle Diam	Number of Holes	Diam of Holes			
					6.35mm	9.5mm	12.7mm								T1	t	t
	D	G	X	A	B1											Welding neck	Blind
26	1022.4	762.0	743.0	660.4	647.7	641.4	635.0	258.8	153.9	134.9	11.2	901.7	20	66.5	476.3	990.7	
28	1104.9	819.2	797.1	711.2	698.5	692.2	685.8	276.4	166.6	147.6	12.7	971.6	20	73.2	689.5	1252.7	
30	1181.1	876.3	850.9	762.0	749.3	743.0	736.6	289.1	176.0	155.4	12.7	1035.1	20	79.2	825.6	1512.3	
32	1238.3	927.1	908.1	812.8	800.1	793.8	787.4	303.3	185.7	160.3	12.7	1092.2	20	79.2	936.7	1753.2	
34	1314.5	990.6	962.2	863.6	850.9	844.6	838.2	319.0	195.1	171.5	14.2	1155.7	20	85.9	1111.3	2075.7	
36	1346.2	1028.7	1016.0	914.4	901.7	895.4	889.0	325.4	201.7	173.0	14.2	1200.2	24	79.2	1143.1	2251.2	
38	1460.5	1098.6	1073.2	965.2	952.5	946.2	939.8	352.6	215.9	190.5	19.1	1289.1	20	91.9	1536.4	2836.4	
40	1511.3	1162.1	1127.3	1016.0	1003.3	997.0	990.6	363.5	223.8	196.9	20.6	1339.9	24	91.9	1642.0	3148.0	
42	1562.1	1212.9	1176.3	1066.8	1054.1	1047.8	1041.4	371.3	231.6	206.2	20.6	1390.7	24	91.9	1796.3	3481.4	
44	1648.0	1270.0	1234.9	1117.6	1104.9	1098.6	1092.2	390.7	242.8	214.4	22.4	1463.5	24	98.6	1950.5	4061.5	
46	1733.6	1333.5	1292.4	1168.4	1155.7	1149.4	1143.0	411.0	255.5	225.6	22.4	1536.7	24	104.6	2104.7	4729.2	
48	1784.4	1384.3	1343.2	1219.2	1206.5	1200.2	1193.8	419.1	263.7	233.4	23.9	1587.5	24	104.6	2258.9	5170.1	

Notes

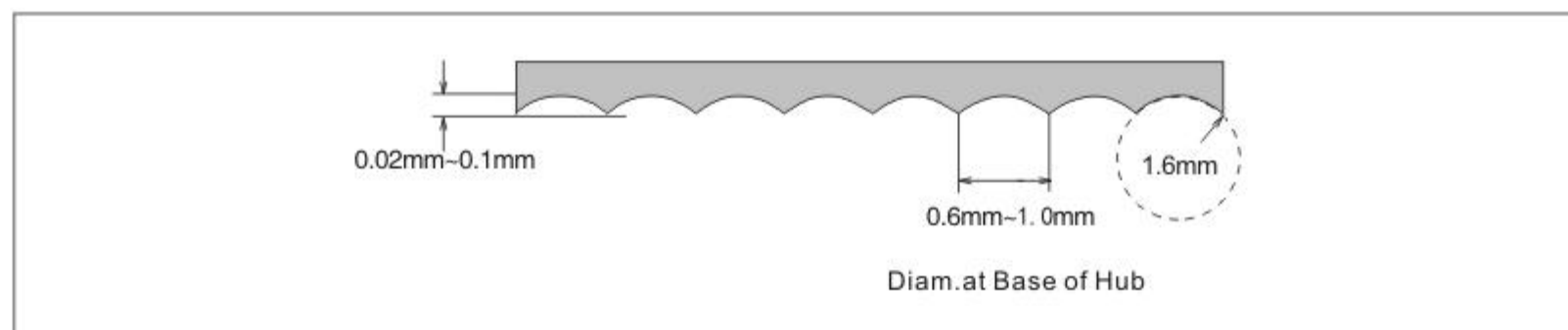
MolesDimensions for class 600,900 NPS 36" and larger as the same as for series A flanges.

FINISH & TOLERANCE

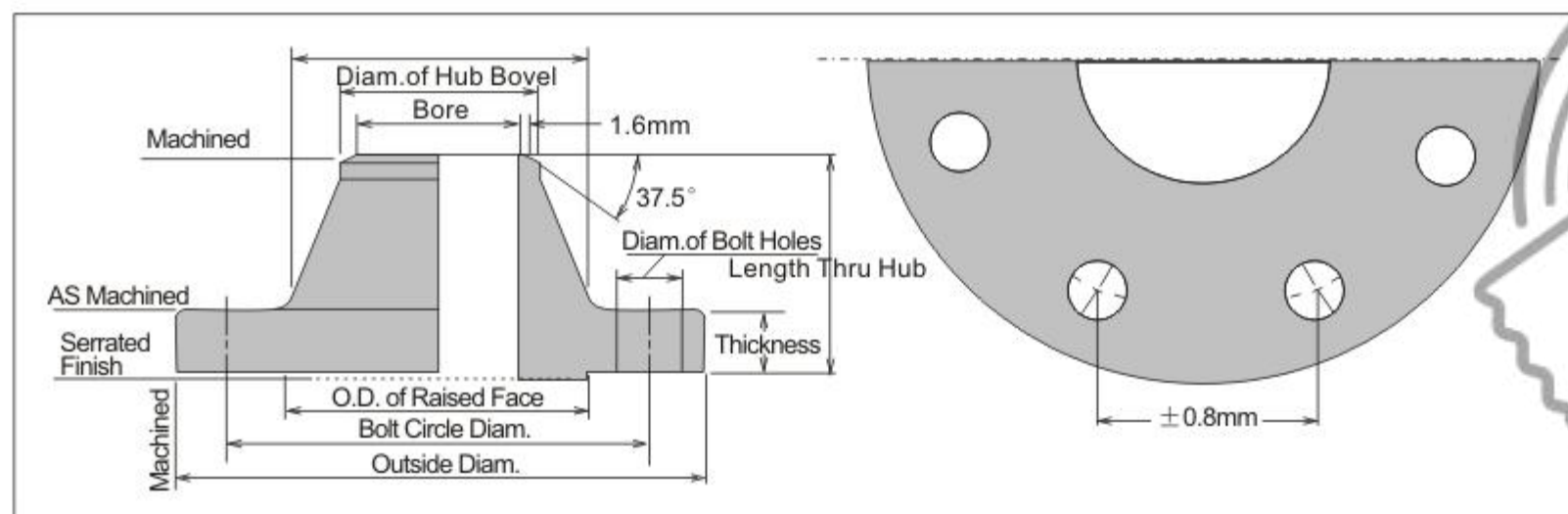
ANSI B16.47 SER.B Forged Flanges

1. Standard Finishes for Contact Face of Flanges

The flange face shall have a serrated finish consisting of 20 to 40 grooves per inch, 0.002 in. to 0.005 in. deep cut spirally or concentrically with a round-nose tool.



2. Dimensional Tolerances for ASME B16.47 SER.B Flanges.



Notes

- (1) Flanges shall have bearing surfaces for bolting that are parallel to the flange face within 1 degree. Any back facing or spot facing required to accomplish parallelism between the flange face and nut bearing surface on the back of the flange shall not reduce the flange thickness.
- (2) Tolerance for the welding end of a welding neck flange shall be in conformance with ANSI B16.25.
- (3) Other tolerances than specified the table shall be in accordance with ANSI B16.5.
- (4) The flange shall be either back-faced or spot-faced at the bolt-holes on the flange back if the nut bearing surface at the back of the flange is not parallel with the flange face within the tolerances listed in Note, if the fillet at the hub interferes with the nut bearing surface or if the flange thickness exceed the minimum required thickness by more than 0.19 inch (4.8 millimeters). The nut bearing surface is the spot-facing diameter at the bolt-holes as given in MSS SP-9. Spot-facing shall be in accordance with MSS SP-9.
- (5) Tolerances marked 'are not covered in API 605.

outside diameter of raised face	± 0.8mm
Flange thickness	+4.8mm,-0mm
Length thru hub	± 3.0mm
Diam. of hub at bevel	+4.1mm,-0.8mm
Bolt circle diameter	± 1.6mm
Center-to-center of adjacent bolt holes	± 0.8mm
Bore	+3.0mm,-1.6mm
Outside diameter	± 3.0mm
Diameter at base of hub	

MATERIAL SPECIFICATIONS

A. MATERIALS

- a. The Steel used in the manufacture of these flanges shall be selected to meet the following requirements.
- b. The F48 and higher grades of Class 400, 600 and 900 flanges shall be killed steel.
- c. The steel used shall be suitable for field welding to other flanges fittings, or pipe manufactured under ASTM specifications A105, A53, A106, A381 or API Standards 5L and 5LX.
- d. The steel used shall have a maximum carbon content of 0.35 and a carbon equivalent computed by the following equation.

$$C_E = C + \frac{Mn}{6} + \frac{Si+Cr+Mo}{5} + \frac{Ni+Cu}{15}$$

that should not exceed 50%, based on check analysis, if the carbon equivalent factor exceeds 0.50%, the acceptance of the flanges shall be based on agreement of customer.

- e. The choice and used of alloying elements, combined with the elements within the limits prescribed in paragraph A. d. to give the required tensile properties prescribed in paragraph A. f. shall be made by AJF. and reported in the chemical analysis to identify the type of steel.
- f. The steel used shall have tensile properties conforming to the requirements prescribed in following table.

B. HEAT TREATMENT

The F42 and higher grades of flanges of all pressure classes and the class 400 and higher classes of Grade F36 flanges shall be normalized or quenched and tempered.

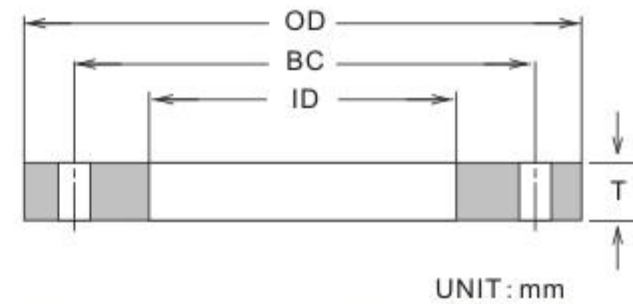
C. TEST SPECIMEN

The test specimens may be taken from the forgings or, at the manufactures option, from the billets or forging bar entering into the finished product, provided such test blank has undergone relatively the same forming and the equivalent heat treatment as the finished flange. The dimensions of the test blank must be such as to adequately reflect the heat treatment properties of the hub of the flange.

MSS SP44 FORGED FLANGES

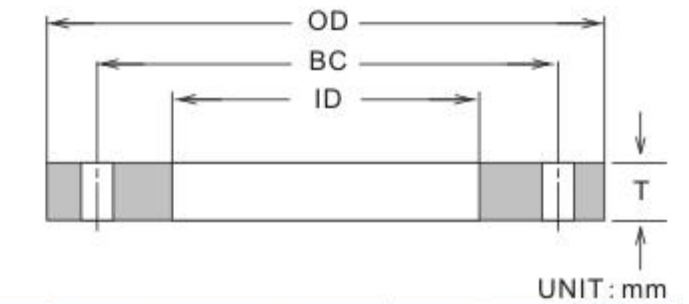
Grade	Yield Point Min.		Tensile Strength Min.		Elongation in 2 in Min.Recent
	KSI	Mpa	KSI	Mpa	
F36	F36	248	60	414	20
F42	42	290	60	414	20
F46	46	317	60	414	20
F48	48	331	62	427	20
F50	50	345	64	441	20
F52	52	359	66	455	20
F56	56	386	68	469	20
F60	60	414	75	517	20
F65	65	448	77	531	18

AWWA C207-07 Rings & Blinds CLASS B



Nominal Size	Outside Diameter (OD)	Slip-on Bore (ID)	NO.of Bolt Holes	Diameter Bolt Holes	Bolt Circle (BC)	Thickness (T)		Weight Each	
						CLASS B			
						Slip-on	Blind	Slip-on	Blind
4	228.6	116.1	8	19.1	190.5	15.9	15.9	3.52	4.84
5	254	143.8	8	22.2	215.9	15.9	15.9	3.91	5.94
6	279.4	170.7	8	22.2	241.3	17.5	17.5	4.86	8
8	342.9	221.5	8	22.2	298.5	17.5	17.5	6.97	12.27
10	406.4	276.4	12	25.4	362	17.5	17.5	8.75	17
12	482.6	327.2	12	25.4	431.8	17.5	18.3	12.75	25.42
14	533.4	360.4	12	28.6	476.3	17.5	20.1	15.64	34.07
16	596.9	411.2	16	28.6	539.8	17.5	22.7	18.8	48.07
18	635	462	16	31.8	577.9	17.5	24.1	18.74	57.55
20	698.5	512.8	20	31.8	635	17.5	26.4	22.1	76.18
22	749.3	563.6	20	34.9	692.2	19.1	28.8	25.86	95.44
24	812.8	614.4	20	34.9	749.3	19.1	30.9	30.5	121.31
26	869.95	666.8	24	34.9	806.5	20.6	33.2	35.96	149.04
28	927.1	717.6	28	34.9	863.3	22.2	35.5	42.52	180.79
30	984.25	768.4	28	34.9	914.4	22.2	37.5	47.15	216.25
32	1060.5	819.2	28	41.3	977.9	23.8	40.2	59.59	267.11
34	1111.3	870	32	41.3	1028.7	23.8	42.2	62.19	307.35
36	1168.4	920.8	32	41.3	1085.9	25.4	44.5	72.51	359.84
38	1238.3	971.6	32	41.3	1149.4	25.4	47.1	83.81	429.75
40	1289.1	1022.4	36	41.3	1200.2	25.4	49.1	86.99	484.83
42	1346.2	1073.2	36	41.3	1257.3	28.6	51.4	105.72	555.26
44	1403.4	1124	40	41.3	1314.5	28.6	53.7	112.57	629.96
48	1511.3	1225.6	44	41.3	1422.4	31.8	58	138.69	790.5
54	1682.8	1378	44	47.6	1593.9	34.9	65	179.42	1095.72
60	1854.2	1530.4	52	47.6	1759	38.1	71.6	229.93	1466.79
66	2032	1682.8	52	47.6	1930.4	41.3	78.5	300.53	1942.81
72	2197.1	1835.2	60	47.6	2095.5	44.5	85.2	363.34	2466.14
78	2362.2	1987.6	64	54	2260.6	50.8		452.23	
84	2533.7	2140	64	54	2425.7	50.8		518.24	
90	2705.1	2292.4	68	61.9	2590.8	57.2		635.94	
96	2876.6	2444.8	68	61.9	2755.9	57.2		718.99	
102	3048	2597.2	72	68.3	2908.3	63.5		865.47	
108	3219.5	2749.6	72	68.3	3067.1	63.5		967.34	
120	3562.4	3054.4	76	74.6	3371.9	69.9		1267.3	
132	3905.3	3359.2	80	81	3702.1	76.2		1618.4	
144	4248.2	3664	84	87.3	4019.6	82.6		2029.5	

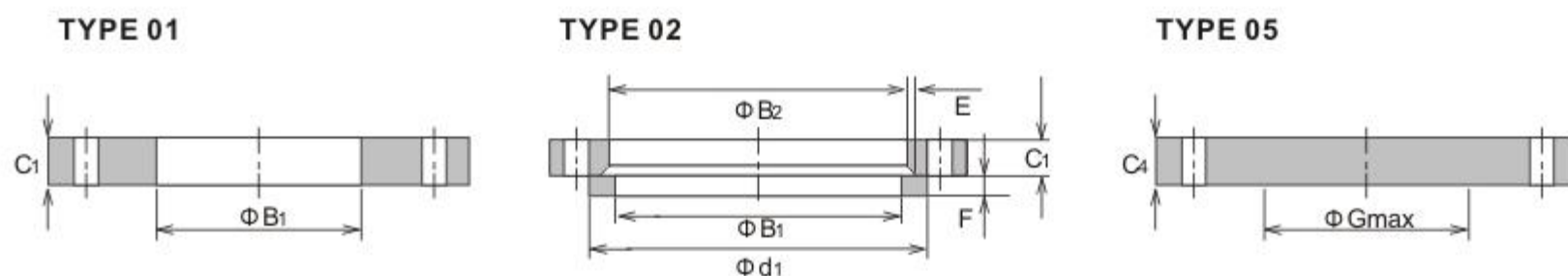
AWWA C207-07 Rings & Blinds CLASS D



Nominal Size	Outside Diameter (OD)	Slip-on Bore (ID)	NO.of Bolt Holes	Diameter Bolt Holes	Bolt Circle (BC)	Thickness (T)		Weight Each	
						CLASS D			
						Slip-on	Blind	Slip-on	Blind
4	228.6	116.1	8	19.1	190.5	15.9	15.9	3.52	4.84
5	254	143.8	8	22.2	215.9	15.9	16.5	3.91	6.17
6	279.4	170.7	8	22.2	241.3	17.5	17.6	4.86	8.05
8	342.9	221.5	8	22.2	298.5	17.5	20.6	6.97	14.44
10	406.4	276.4	12	25.4	362	17.5	24.2	8.75	23.5
12	482.6	327.2	12	25.4	431.8	20.6	28.4	15.01	39.45
14	533.4	360.4	12	28.6	476.3	23.8	28.8	21.27	48.81
16	596.9	411.2	16	28.6	539.8	25.4	32.1	27.29	67.97
18	635	462	16	31.8	577.9	27	33.8	28.92	80.72
20	698.5	512.8	20	31.8	635	28.6	36.8	36.12	106.19
22	749.3	563.6	20	34.9	692.2	30.2	39.8	40.89	131.89
24	812.8	614.4	20	34.9	749.3	31.8	42.2	50.78	165.67
26	869.95	666.8	24	34.9	806.5	33.3	45.4	58.14	203.81
28	927.1	717.6	28	34.9	863.3	33.3	48.4	63.79	246.49
30	984.25	768.4	28	34.9	914.4	34.9	51	74.12	294.1
32	1060.5	819.2	28	41.3	977.9	38.1	54.6	95.4	362.79
34	1111.3	870	32	41.3	1028.7	38.1	57.2	99.56	416.59
36	1168.4	920.8	32	41.3	1085.9	41.3	60.2	117.91	486.79
38	1238.3	971.6	32	41.3	1149.4	41.3	63.7	136.28	581.21
40	1289.1	1022.4	36	41.3	1200.2	41.3	66.3	141.44	654.67
42	1346.2	1073.2	36	41.3	1257.3	44.5	69.3	164.49	748.63
44	1403.4	1124	40	41.3	1314.5	44.5	72.4	175.15	849.33
48	1511.3	1225.6	44	41.3	1422.4	47.6	78	207.61	1063.09
54	1682.8	1378	44	47.6	1593.9	54	87.2	277.62	1469.95
60	1854.2	1530.4	52	47.6	1759	57.2	96	345.2	1966.64
66	2032	1682.8	52	47.6	1930.4	63.5	105	462.08	2598.66
72	2197.1	1835.2	60	47.6	2095.5	66.7	114	544.61	3299.77
78	2362.2	1987.6	64	54	2260.6	69.9		622.26	
84	2533.7	2140	64	54	2425.7	73		744.71	
90	2705.1	2292.4	68	61.9	2590.8	76.2		847.18	
96	2876.6	2444.8	68	61.9	2755.9	82.6		1038.26	
102	3048	2597.2	72	68.3	2908.3	82.6		1125.79	
108	3219.5	2749.6	72	68.3	3067.1	85.7		1305.53	
120	3562.4	3054.4	76	74.6	3371.9	88.9		1611.74	
132	3905.3	3359.2	80	81	3702.1	98.4		2089.89	
144	4248.2	3664	84	87.3	4019.6	105		2579.82	

EN1092-1:2007

DIMENSIONS OF PN6 FLANGES

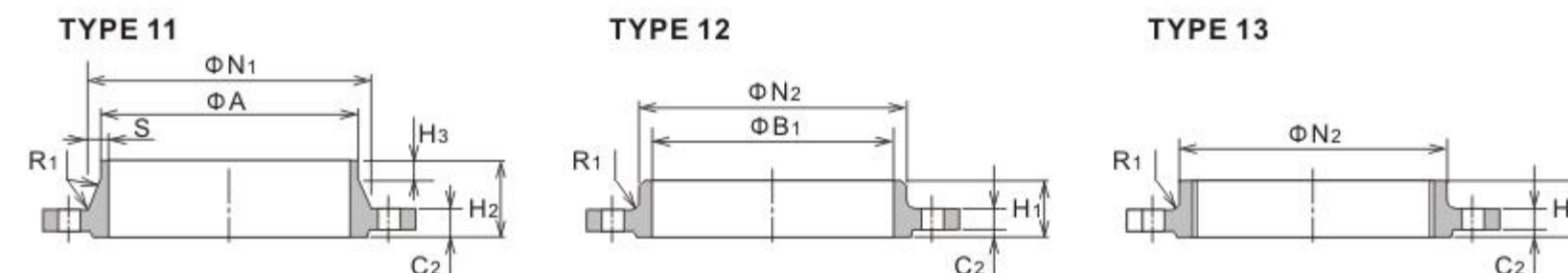


UNIT: mm

DN	Outside Diameter	Diameter of bolt circle	Diameter of bolt hole	Bolt number	Outside Diameter of neck A	Bore diameters		Flange thickness			Chamfer E	Wall thickness S	Collar thickness F	Diameter of shoulder Gmax
						B1	B2	C1	C2	C4				
Flange type														
01,02,05,11,12,13					11	01 12	02	01 02	11 12,13	05	02	11	32	05
10	75	50	11	4	17.2	18.0	21	12	12	12	3	2	10	–
15	80	55	11	4	21.3	22.0	25	12	12	12	3	2	10	–
20	90	65	11	4	26.9	27.5	31	14	14	14	4	2. 3	10	–
25	100	75	11	4	33.7	34.5	38	14	14	14	4	2. 6	10	–
32	120	90	14	4	42.4	43.5	46	16	14	14	5	2. 6	10	–
40	130	100	14	4	48.3	49.5	53	16	14	14	5	2. 6	10	–
50	140	110	14	4	60.3	61.5	65	16	14	14	5	2. 9	12	–
65	160	130	14	4	76.1	77.5	81	16	14	14	6	2. 9	12	55
80	190	150	18	4	88.9	90.5	94	18	16	16	6	3. 2	12	70
100	210	170	18	4	114.3	116.0	120	18	16	16	6	3. 6	14	90
125	240	200	18	8	139.7	141.5	145	20	18	18	6	4. 0	14	115
150	265	225	18	8	168.3	170.5	174	20	18	18	6	4. 5	14	140
200	320	280	18	8	219.1	221.5	226	22	20	20	6	6. 3	16	190
250	375	335	18	12	273.0	276.5	281	24	22	22	8	6. 3	18	235
300	440	395	22	12	323.9	327.5	333	24	22	22	8	7. 1	18	285
350	490	445	22	12	355. 6	359.5	365	26	22	22	8	7. 1	18	330
400	540	495	22	16	406. 4	411.0	416	28	22	22	8	7. 1	20	380
450	595	550	22	16	457. 0	462.0	467	30	22	24	8	7. 1	20	425
500	645	600	22	20	508. 0	513.5	519	30	24	24	8	7. 1	22	475
600	755	705	26	20	610. 0	616.5	622	32	30	30	8	7. 1	22	575
700	860	810	26	24	711. 0	To be specified by the purchaser	721	40	30	40	4	8	–	670
800	975	920	30	24	813. 0		824	44	30	44	4	8	–	770
900	1075	1020	30	24	914. 0		926	48	34	48	4	8	–	860
1000	1175	1120	30	28	1016. 0		1028	52	38	52	4	8	–	960
1200	1405	1340	33	32	1219. 0		1234	60	42	60	5	8. 8	–	1160
1400	1630	1560	36	36	1422		–	72	56	68	–	8. 8	–	1346
1600	1830	1760	36	40	1626		–	80	63	76	–	10	–	1546
1800	2045	1970	39	44	1829		–	88	69	84	–	11	–	1746
2000	2265	2180	42	48	2032		–	96	74	92	–	12. 5	–	1950

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DIMENSIONS OF PN6 FLANGES



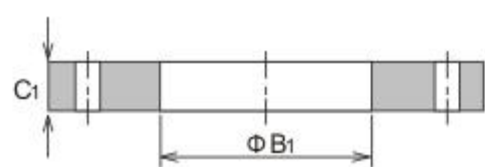
UNIT: mm

DN	Raised face		Length			Neck diameters		Corner radius	APPROXIMATE WEIGHT				
	d1	f1	H1	H2	H3	N1	N2	R1					
	Flange type												
	01,05,11,12,13	12 13	11	11	11	12 13	11 12,13	Type01	Type02	Type05	Type11	Type12	
10	35	2	20	28	6	26	25	4	0.356	0.345	0.38	0.353	0.326
15	40	2	20	30	6	30	30	4	0.402	0.388	0.438	0.408	0.373
20	50	2	24	32	6	38	40	4	0.592	0.568	0.657	0.621	0.584
25	60	2	24	35	6	42	50	4	0.719	0.688	0.821	0.762	0.729
32	70	2	26	35	6	55	60	6	1.16	1.12	1.18	1.11	1.04
40	80	3	26	38	7	62	70	6	1.35	1.29	1.39	1.26	1.20
50	90	3	28	38	8	74	80	6	1.48	1.42	1.62	1.43	1.34
65	110	3	32	38	9	88	100	6	1.86	1.76	2.14	1.77	1.83
80	128	3	34	42	10	102	110	8	2.95	2.84	3.43	2.88	2.75
100	148	3	40	45	10	130	130	8	3.26	3.10	4.22	3.41	3.01
125	178	3	44	48	10	155	160	8	4.31	4.12	6.10	4.65	4.30
150	202	3	44	48	12	184	185	10	4.76	4.53	7.51	5.50	4.63
200	258	3	44	55	15	236	240	10	6.88	6.51	12.3	8.60	6.97
250	312	3	44	60	15	290	295	12	8.92	8.32	18.5	11.7	9.13
300	365	4	44	62	15	342	355	12	11.9	11.1	25.5	15.3	12.4
350	415	4	—	62	15	385	—	12	16.8	15.9	31.8	20.3	—
400	465	4	—	65	15	438	—	12	19.8	18.8	38.5	23.1	—
450	520	4	—	65	15	492	—	12	24.6	23.3	51.2	27.0	—
500	570	4	—	68	15	538	—	12	26.4	24.9	60.1	30.8	—
600	670	5	—	70	16	640	—	12	34.8	33.0	103	44.0	—
700	775	5	—	76	16	740	—	12	—	—	178	53.7	—
800	880	5	—	76	16	842	—	12	—	—	252	64.4	—
900	980	5	—	78	16	942	—	12	—	—	336	79.2	—
1000	1080	5	—	82	16	1045	—	16	—	—	435	98.6	—
1200	1295	5	—	104	20	1248	—	16	—	—	717	152	—
1400	1510	5	—	114	20	1452	—	16	—	—	1094	246	—
1600	1710	5	—	119	20	1655	—	16	—	—	1545	309	—
1800	1920	5	—	133	20	1855	—	16	—	—	2131	400	—
2000	2125	5	—	146	25	2058	—	16	—	—	2862	516	—

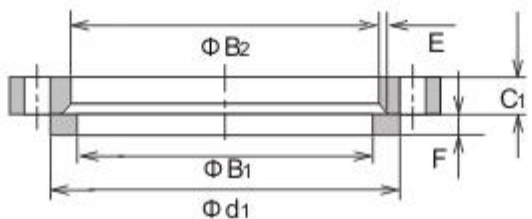
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DIMENSIONS OF PN10 FLANGES

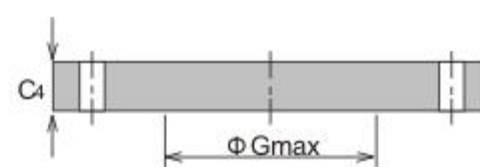
TYPE 01



TYPE 02



TYPE 05



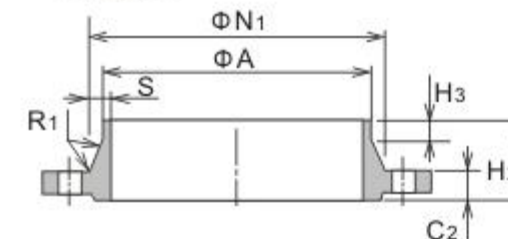
UNIT: mm

DN	Outside Diameter	Diameter of bolt circle	Diameter of bolt hole	Bolt number	Outside Diameter of neck A	Bore diameters		Flange thickness			Chamfer	Wall thickness	Collar thickness	Diameter of shoulder Gmax			
						B1	B2	C1	C2	C4					E	S	F
Flange type																	
01,02,05,11,12,13					11	01 12	02	01 02	11 12,13	05	02	11	32	05			
10	90	60	14	4	17.2	18.0	21	14	16	16	3	2	12	—			
15	95	65	14	4	21.3	22.0	25	14	16	16	3	2	12	—			
20	105	75	14	4	26.9	27.5	31	16	18	18	4	2. 3	14	—			
25	115	85	14	4	33.7	34.5	38	16	18	18	4	2. 6	14	—			
32	140	100	18	4	42.4	43.5	47	18	18	18	5	2. 6	14	—			
40	150	110	18	4	48.3	49.5	53	18	18	18	5	2. 6	14	—			
50	165	125	18	4	60.3	61.5	65	20	18	18	5	2. 9	16	—			
65	185	145	18	8	76.1	77.5	81	20	18	18	6	2. 9	16	55			
80	200	160	18	8	88.9	90.5	94	20	20	20	6	3. 2	16	70			
100	220	180	18	8	114.3	116.0	120	22	20	20	6	3. 6	18	90			
125	250	210	18	8	139.7	141.5	145	22	22	22	6	4. 0	18	115			
150	285	240	22	8	168.3	170.5	174	24	22	22	6	4. 5	20	140			
200	340	295	22	8	219.1	221.5	226	24	24	24	6	6. 3	20	190			
250	395	350	22	12	273.0	276.5	281	26	26	26	8	6. 3	22	235			
300	445	400	22	12	323.9	327.5	333	26	26	26	8	7. 1	22	285			
350	505	460	22	16	355. 6	359.5	365	30	26	26	8	7. 1	22	330			
400	565	515	26	16	406. 4	411.0	416	32	26	26	8	7. 1	24	380			
450	615	565	26	20	457. 0	462.0	467	36	28	28	8	7. 1	24	425			
500	670	620	26	20	508. 0	513.5	519	38	28	28	8	7. 1	26	475			
600	780	725	30	20	610. 0	616.5	622	42	30	34	8	8. 0	26	575			
700	895	840	30	24	711. 0	To be specified by the purchaser	721	50	35	38	8	8.8	—	670			
800	1015	950	33	24	813. 0		824	56	38	48	8	8.8	—	770			
900	1115	1050	33	28	914. 0		926	62	38	50	8	12. 5	—	860			
1000	1230	1160	36	28	1016. 0		1028	70	44	54	8	12. 5	—	960			
1200	1455	1380	39	32	1219. 0		1234	83	55	66	8	12. 5	—	1160			
1400	1675	1590	42	36	1422		—	—	65	—	—	14. 2	—	—			
1600	1915	1820	48	40	1626		—	—	75	—	—	16	—	—			
1800	2115	2020	48	44	1829		—	—	85	—	—	17.5	—	—			
2000	2325	2230	48	48	2032		—	—	90	—	—	17.5	—	—			

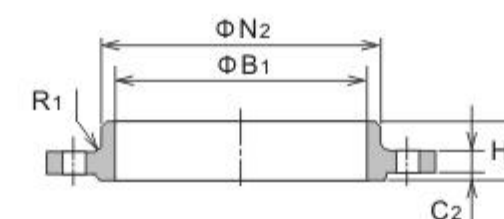
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DIMENSIONS OF PN10 FLANGES

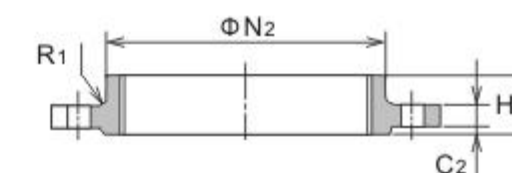
TYPE 11



TYPE 12



TYPE 13



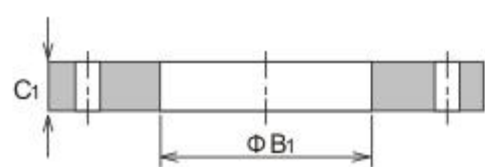
UNIT: mm

DN	Raised face		Length			Neck diameters		Comer radll	APPROXIMATE WEIGHT				
	d1	f1	H1	H2	H3	N1	N2	R1					
	Flange type												
	01,05,11,12,13		12 13	11	11	11	12 13	11 12,13	Type01	Type02	Type05	Type11	Type12
10	40	2	22	35	6	28	30	4	0.604	0.591	0.722	0.678	0.646
15	45	2	22	38	6	32	35	4	0.670	0.654	0.813	0.768	0.722
20	58	2	26	40	6	40	45	4	0.936	0.909	1.14	1.09	1.04
25	68	2	28	40	6	46	52	4	1.11	1.08	1.38	1.30	1.25
32	78	2	30	42	6	56	60	6	1.82	1.77	2.03	1.91	1.81
40	88	3	32	45	7	64	70	6	2.08	2.02	2.35	2.15	2.06
50	102	3	28	45	8	74	84	6	2.73	2.52	2.88	2.53	2.39
65	122	3	32	45	10	92	104	6	3.16	3.05	3.51	3.03	2.97
80	138	3	34	50	10	105	118	6	3.79	3.48	4.61	3.92	3.78
100	158	3	40	52	12	131	140	8	4.39	4.20	5.65	4.62	4.38
125	188	3	44	55	12	156	168	8	5.41	5.21	8.13	6.30	6.07
150	212	3	44	55	12	184	195	10	7.14	6.89	10.5	7.81	7.24
200	268	3	44	62	16	234	246	10	9.27	8.87	16.5	11.6	10.1
250	320	3	46	68	16	292	298	12	11.8	11.2	24.1	15.8	12.8
300	370	4	46	68	16	342	350	12	13.6	12.8	30.8	18.3	14.5
350	430	4	53	68	16	385	400	12	20.4	19.4	39.6	25.3	22.7
400	482	4	57	72	16	440	456	12	27.5	26.4	49.4	30.6	28.0
450	532	4	63	72	16	488	502	12	33.6	32.2	63	35.1	32.3
500	585	4	67	75	16	542	559	12	40.2	38.5	75.2	40.5	38.7
600	685	5	75	82	18	642	658	12	54.5	52.2	124	52.9	48.9
700	800	5	—	85	18	746	-	12	-	79.4	183	75.8	-
800	905	5	—	96	18	850	-	12	-	112	297	102	-
900	1005	5	—	99	20	950	-	12	-	135	374	121	-
1000	1110	5	—	105	20	1052	-	16	-	180	492	161	-
1200	1330	5	—	132	25	1256	-	16	-	278	842	258	-
1400	1535	5	—	143	25	1460	-	16	-	-	-	371	-
1600	1760	5	—	159	25	1666	-	16	-	-	-	547	-
1800	1960	5	—	175	30	1868	-	16	-	-	-	691	-
2000	2170	5	—	186	30	2072	-	16	-	-	-	830	-

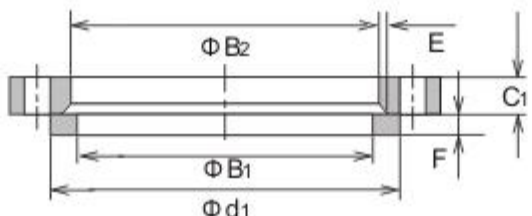
EN1092-1:2007

DIMENSIONS OF PN16 FLANGES

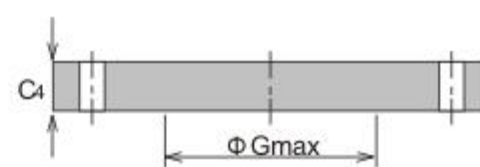
TYPE 01



TYPE 02



TYPE 05



UNIT: mm

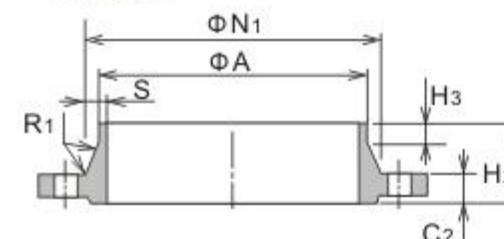
DN	Outside Diameter	Diameter of bolt circle	Diameter of bolt hole	Bolt number	Outside Diameter of neck A	Bore diameters		Flange thickness			Chamfer	Wall thickness	Collar thickness	Diameter of shoulder G _{max}
						B1	B2	C1	C2	C4	E	S	F	
Flange type														
01,02,05,11,12,13					11	01 12	02	01 02	11 12,13	05	02	11	32	05
10	90	60	14	4	17.2	18.0	21	14	16	16	3	2	12	—
15	95	65	14	4	21.3	22.0	25	14	16	16	3	2	12	—
20	105	75	14	4	26.9	27.5	31	16	18	18	4	2.3	14	—
25	115	85	14	4	33.7	34.5	38	16	18	18	4	2.6	14	—
32	140	100	18	4	42.4	43.5	47	18	18	18	5	2.6	14	—
40	150	110	18	4	48.3	49.5	53	18	18	18	5	2.6	14	—
50	165	125	18	4	60.3	61.5	65	20	18	18	5	2.9	16	—
65	185	145	18	8	76.1	77.5	81	20	18	18	6	2.9	16	55
80	200	160	18	8	88.9	90.5	94	20	20	20	6	3.2	16	70
100	220	180	18	8	114.3	116.0	120	22	20	20	6	3.6	18	90
125	250	210	18	8	139.7	141.5	145	22	22	22	6	4.0	18	115
150	285	240	22	8	168.3	170.5	174	24	22	22	6	4.5	20	140
200	340	295	22	12	219.1	221.5	226	26	24	24	6	6.3	20	190
250	405	355	26	12	273.0	276.5	281	29	26	26	8	6.3	22	235
300	460	410	26	12	323.9	327.5	333	32	28	28	8	7.1	24	285
350	520	470	26	16	355.6	359.5	365	35	30	30	8	8.0	26	330
400	580	525	30	16	406.4	411.0	416	38	32	32	8	8.0	28	380
450	640	585	30	20	457.0	462.0	467	42	34	40	8	8.8	30	425
500	715	650	33	20	508.0	513.5	519	46	36	44	8	8.8	32	475
600	840	770	36	20	610.0	616.5	622	55	40	54	8	10.0	32	575
700	910	840	36	24	711.0	To be specified by the purchaser	721	63	40	58	8	10.0	—	670
800	1025	950	39	24	813.0		824	74	41	62	8	12.5	—	770
900	1125	1050	39	28	914.0		926	82	48	64	8	12.5	—	860
1000	1255	1170	42	28	1016.0		1030	90	59	68	8	12.5	—	960
1200	1485	1390	48	32	1219.0		—	—	78	—	—	14.2	—	1160
1400	1685	1590	48	36	1422		—	—	84	—	—	16	—	1346
1600	1930	1820	56	40	1626		—	—	102	—	—	17.5	—	1546
1800	2130	2020	56	44	1829		—	—	110	—	—	20	—	1746
2000	2345	2230	62	48	2032		—	—	124	—	—	22	—	1950

To be specified by the purchaser

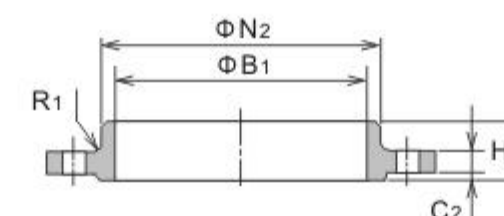
EN1092-1:2007

DIMENSIONS OF PN16 FLANGES

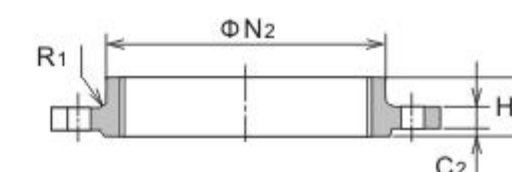
TYPE 11



TYPE 12



TYPE 13



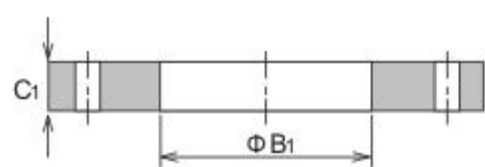
UNIT: mm

DN	Raised face		Length			Neck diameters		Comer radll	APPROXIMATE WEIGHT				
	d1	f1	H1	H2	H3	N1	N2	R1					
	Flange type												
	01,05,11,12,13	12 13	11	11	11	12 13	11 12,13	Type01	Type02	Type05	Type11	Type13	
10	40	2	22	35	6	28	30	4	0.604	0.591	0.722	0.678	0.646
15	45	2	22	38	6	32	35	4	0.670	0.654	0.813	0.768	0.722
20	58	2	26	40	6	40	45	4	0.936	0.909	1.14	1.09	1.04
25	68	2	28	40	6	46	52	4	1.11	1.08	1.38	1.30	1.25
32	78	2	30	42	6	56	60	6	1.82	1.77	2.03	1.91	1.81
40	88	3	32	45	7	64	70	6	2.08	2.02	2.35	2.15	2.06
50	102	3	28	45	8	74	84	6	2.73	2.52	2.88	2.53	2.39
65	122	3	32	45	10	92	104	6	3.16	3.05	3.51	3.03	2.97
80	138	3	34	50	10	105	118	6	3.79	3.48	4.61	3.92	3.78
100	158	3	40	52	12	131	140	8	4.39	4.20	5.65	4.62	4.38
125	188	3	44	55	12	156	168	8	5.41	5.21	8.13	6.30	6.07
150	212	3	44	55	12	184	195	10	7.14	6.89	10.5	7.81	7.24
200	268	3	44	62	16	235	246	10	9.73	9.31	16.2	11.5	9.8
250	320	3	46	70	16	292	298	12	14.2	13.5	25.0	16.7	13.6
300	378	4	46	78	16	344	350	12	19	18.0	35.1	22.1	17.2
350	438	4	57	82	16	390	400	12	28.2	27.0	48.0	32.8	27.9
400	490	4	63	85	16	445	456	12	35.9	34.6	63.5	41.1	35.7
450	550	4	68	83	16	490	502	12	46.1	44.6	96.6	50.6	45.0
500	610	4	73	84	16	548	559	12	64.0	62.0	133	66.2	60.4
600	725	5	83	88	18	670	658	12	102	98.8	226	104	94
700	795	5	83	104	18	755	760	12	-	107	285	96.5	-
800	900	5	90	108	20	855	864	12	-	152	388	122	-
900	1000	5	94	118	20	955	968	12	-	184	483	155	-
1000	1115	5	100	137	22	1058	1072	16	-	257	640	233	-
1200	1330	5	-	160	30	1262	-	16	-	-	-	390	-
1400	1530	5	-	177	30	1465	-	16	-	-	-	495	-
1600	1750	5	-	204	35	1668	-	16	-	-	-	760	-
1800	1950	5	-	218	35	1870	-	16	-	-	-	929	-
2000	2150	5	-	238	40	2072	-	16	-	-	-	1185	-

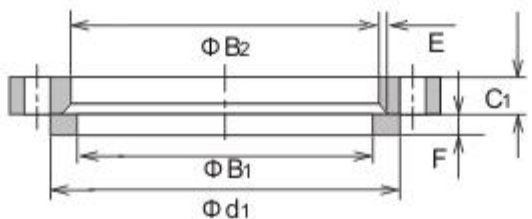
EN1092-1:2007

DIMENSIONS OF PN25 FLANGES

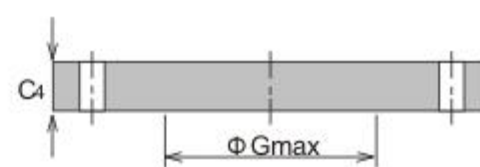
TYPE 01



TYPE 02



TYPE 05



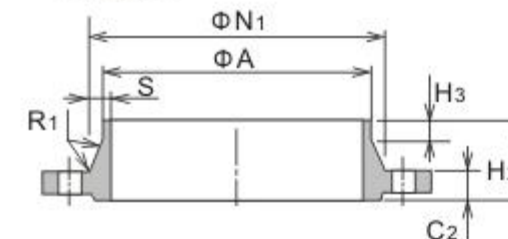
UNIT: mm

DN	Outside Diameter	Diameter of bolt circle	Diameter of bolt hole	Bolt number	Outside Diameter of neck A	Bore diameters		Flange thickness			Chamfer	Wall thickness	Collar thickness	Diameter of shoulder Gmax
						B1	B2	C1	C2	C4	E	S	F	
Flange type														
01,02,05,11,12,13					11	01 12	02	01 02	11 12,13	05	02	11	32	05
10	90	60	14	4	17.2	18.0	21	14	16	16	3	2.0	12	—
15	95	65	14	4	21.3	22.0	25	14	16	16	3	2.0	12	—
20	105	75	14	4	26.9	27.5	31	16	18	18	4	2.3	14	—
25	115	85	14	4	33.7	34.5	38	16	18	18	4	2.6	14	—
32	140	100	18	4	42.4	43.5	47	18	18	18	5	2.6	14	—
40	150	110	18	4	48.3	49.5	53	18	18	18	5	2.6	14	—
50	165	125	18	4	60.3	61.5	65	20	20	20	5	2.9	16	—
65	185	145	18	8	76.1	77.5	81	22	22	22	6	2.9	16	55
80	200	160	18	8	88.9	90.5	94	24	24	24	6	3.2	18	70
100	235	190	22	8	114.3	116.0	120	26	24	24	6	3.6	20	90
125	270	220	26	8	139.7	141.5	145	28	26	26	6	4.0	22	115
150	300	250	26	8	168.3	170.5	174	30	28	28	6	4.5	24	140
200	360	310	26	12	219.1	221.5	226	32	30	30	6	6.3	26	190
250	425	370	30	12	273.0	276.5	281	35	32	32	8	7.1	26	235
300	485	430	30	16	323.9	327.5	333	38	34	34	8	8.0	28	285
350	555	490	33	16	355.6	359.5	365	42	38	38	8	8.0	32	332
400	620	550	36	16	406.4	411.0	416	48	40	40	8	8.8	34	380
450	670	600	36	20	457.0	462.0	467	54	46	50	8	8.8	36	425
500	730	660	36	20	508.0	513.5	519	58	48	51	8	10.0	38	475
600	845	770	39	20	610.0	616.5	622	68	48	66	8	12.5	40	575
700	960	875	42	24	711.0	—	721	85	50	—	8	14.2	—	—
800	1085	990	48	24	813.0	—	824	95	53	—	8	16	—	—
900	1185	1090	48	28	914.0	—	—	—	57	—	—	17.5	—	—
1000	1320	1210	56	28	1016.0	—	—	—	63	—	—	20	—	—

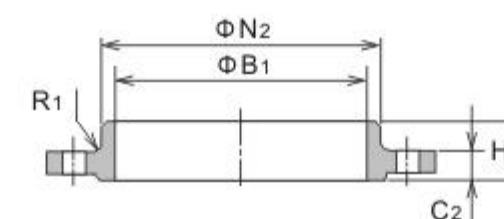
EN1092-1:2007

DIMENSIONS OF PN25 FLANGES

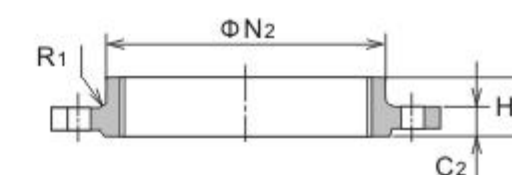
TYPE 11



TYPE 12



TYPE 13



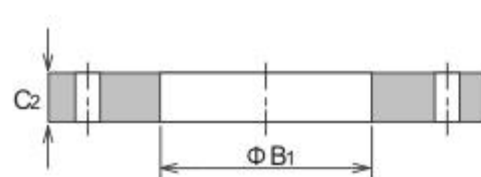
UNIT: mm

DN	Raised face		Length			Neck diameters		Corner radll R1	APPROXIMATE WEIGHT				
	d1	f1	H1	H2	H3	N1	N2		Flange type				
	01,05,11,12,13		12 13	11	11	11	12 13	11 12,13	Type01	Type02	Type05	Type11	Type12
	01,05,11,12,13		12 13	11	11	11	12 13	11 12,13	Type01	Type02	Type05	Type11	Type12
10	40	2	22	35	6	28	30	4	0.604	0.591	0.722	0.678	0.646
15	45	2	22	38	6	32	35	4	0.670	0.654	0.813	0.768	0.722
20	58	2	26	40	6	40	45	4	0.936	0.909	1.14	1.09	1.04
25	68	2	28	40	6	46	52	4	1.11	1.08	1.38	1.30	1.25
32	78	2	30	42	6	56	60	6	1.82	1.77	2.03	1.91	1.81
40	88	3	32	45	7	64	70	6	2.08	2.02	2.35	2.15	2.06
50	102	3	34	48	8	75	84	6	2.73	2.65	3.20	2.85	2.74
65	122	3	38	52	10	90	104	6	3.48	3.36	4.29	3.68	3.65
80	138	3	40	58	12	105	118	8	4.32	4.18	5.54	4.78	4.59
100	162	3	44	65	12	134	145	8	6.07	5.87	7.60	6.46	6.1
125	188	3	48	68	12	162	170	8	8.19	7.95	10.8	8.86	8.22
150	218	3	52	75	12	192	200	10	10.3	9.97	14.6	11.7	10.6
200	278	3	52	80	16	244	256	10	14.3	13.8	22.5	17.1	14.9
250	335	3	60	88	18	298	310	12	20.1	19.4	33.5	24.3	20.9
300	395	4	67	92	18	352	364	12	26.6	25.5	46.3	31.8	27.3
350	450	4	72	100	20	398	418	12	41.8	40.5	68.1	48.8	45.1
400	505	4	78	110	20	452	472	12	57.6	56.1	89.7	63.3	57.7
450	555	4	84	110	20	500	520	12	69.8	67.8	130	76	69.6
500	615	4	90	125	20	558	580	12	87.0	84.6	159	97	87
600	720	5	100	125	20	660	684	12	127	124	278	121	111
700	820	5	-	129	20	760	-	12	-	-	-	155	-
800	930	5	-	138	22	864	-	12	-	-	-	205	-
900	1030	5	-	148	24	968	-	12	-	-	-	249	-
1000	1140	5	-	160	24	1070	-	16	-	-	-	338	-

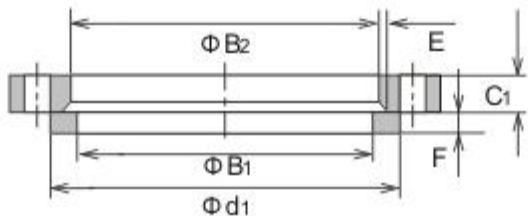
EN1092-1:2007

DIMENSIONS OF PN40 FLANGES

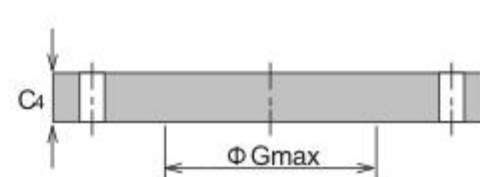
TYPE 01



TYPE 02



TYPE 05



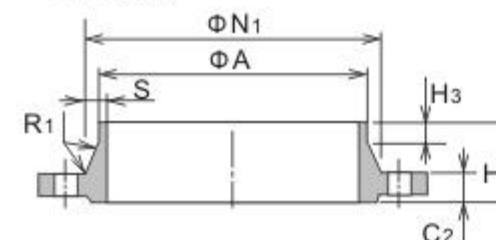
UNIT: mm

DN	Outside Diameter	Diameter of bolt circle	Diameter of bolt hole	Bolt number	Outside Diameter of neck A	Bore diameters		Flange thickness			Chamfer	Wall thickness	Collar thickness	Diameter of shoulder Gmax			
						B1	B2	C1	C2	C4	E	S	F				
						Flange type											
						01,02,05,11,12,13				11	01 12	02	01 02		11 12,13	05	02
10	90	60	14	4	17.2	18.0	21	14	16	16	3	2.0	12	—			
15	95	65	14	4	21.3	22.0	25	14	16	16	3	2.0	12	—			
20	105	75	14	4	26.9	27.5	31	16	18	18	4	2.3	14	—			
25	115	85	14	4	33.7	34.5	38	16	18	18	4	2.6	14	—			
32	140	100	18	4	42.4	43.5	47	18	18	18	5	2.6	14	—			
40	150	110	18	4	48.3	49.5	53	18	18	18	5	2.6	14	—			
50	165	125	18	4	60.3	61.5	65	20	20	20	5	2.9	16	—			
65	185	145	18	8	76.1	77.5	81	22	22	22	6	2.9	16	55			
80	200	160	18	8	88.9	90.5	94	24	24	24	6	3.2	18	70			
100	235	190	22	8	114.3	116.0	120	26	24	24	6	3.6	20	90			
125	270	220	26	8	139.7	141.5	145	28	26	26	6	4.0	22	115			
150	300	250	26	8	168.3	170.5	174	30	28	28	6	4.5	24	140			
200	375	320	30	12	219.1	221.5	226	36	34	36	6	6.3	28	190			
250	450	385	33	12	273.0	276.5	281	42	38	38	8	7.1	30	235			
300	515	450	33	16	323.9	327.5	333	52	42	42	8	8.0	34	285			
350	580	510	36	16	355.6	359.5	365	58	46	46	8	8.8	36	330			
400	660	585	39	16	406.4	411.0	416	65	50	50	8	11.0	42	380			
450	685	610	39	20	457.0	462.0	467	To be specified by the purchaser	57	57	8	12.5	46	425			
500	755	670	42	20	508.0	513.5	519		57	57	8	14.2	50	475			
600	890	795	48	20	610.0	616.5	622		72	72	8	16.0	54	575			

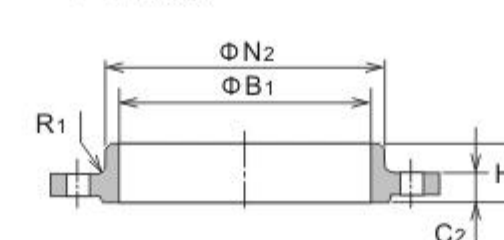
EN1092-1:2007

DIMENSIONS OF PN40 FLANGES

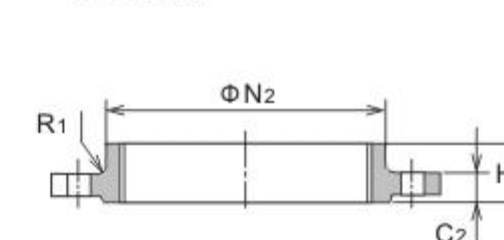
TYPE 11



TYPE 12



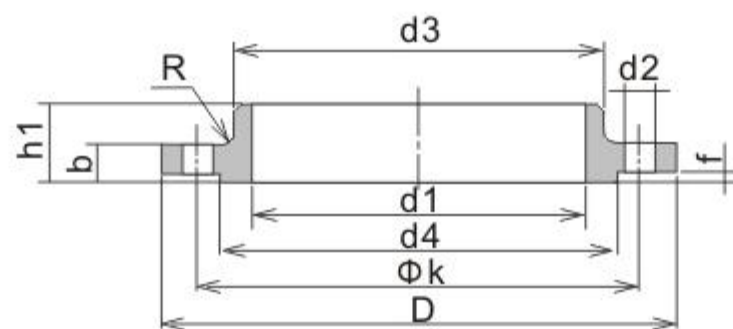
TYPE 13



UNIT: mm

DN	Raised face		Length			Neck diameters		Comer radll	APPROXIMATE WEIGHT				
	d1	f1	H1	H2	H3	N1	N2	R1					
	Flange type												
	01,05,11,12,13		12 13	11	11	11	12 13	11 12,13	Type01	Type02	Type05	Type11	Type12
10	40	2	22	35	6	28	30	4	0.604	0.591	0.722	0.678	0.646
15	45	2	22	38	6	32	35	4	0.670	0.654	0.813	0.768	0.722
20	58	2	26	40	6	40	45	4	0.936	0.909	1.14	1.09	1.04
25	68	2	28	40	6	46	52	4	1.11	1.08	1.38	1.30	1.25
32	78	2	30	42	6	56	60	6	1.82	1.77	2.03	1.91	1.81
40	88	3	32	45	7	64	70	6	2.08	2.02	2.35	2.15	2.06
50	102	3	34	48	8	75	84	6	2.73	2.65	3.20	2.85	2.74
65	122	3	38	52	10	90	104	6	3.48	3.36	4.29	3.68	3.65
80	138	3	40	58	12	105	118	8	4.32	4.18	5.54	4.78	4.59
100	162	3	44	65	12	134	145	8	6.07	5.87	7.60	6.46	6.10
125	188	3	48	68	12	162	170	8	8.19	7.95	10.8	8.86	8.22
150	218	3	52	75	12	192	200	10	10.3	9.97	14.6	11.7	10.6
200	285	3	52	88	16	244	260	10	17.9	17.4	28.8	21.0	18.3
250	345	3	60	105	18	306	312	12	29.3	28.4	44.4	34.2	28.3
300	410	4	67	115	18	362	380	12	45.1	43.6	64.2	47.6	40.4
350	465	4	72	125	20	408	424	12	66.7	64.9	89.5	69.3	58.8
400	535	4	78	135	20	462	478	12	97.1	95.1	127	98	82.1
450	560	4	84	135	20	500	522	12	-	-	154	105	86.2
500	615	4	90	140	20	562	576	12	-	-	188	130	105
600	735	5	100	150	20	666	686	12	-	-	331	209	172

UNI 2253 PN6
UNI 2254 PN16



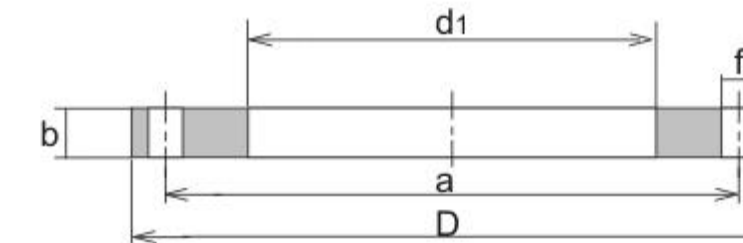
UNI 2253 PN6 UNIT: mm

Rated Diameter	d1	Flange					Neck	Raised face		Number	Screws		Weight kg
		Thread	D	b	k	h1		d3	d4		Thread	d2	
15	21.3	R1/2	80	12	55	20	30	40	2	4	M10	11	0.373
20	26.9	R3/4	90	14	65	24	40	50	2	4	M10	11	0.59
25	33.7	R1	100	14	75	24	50	60	2	4	M10	11	0.743
32	42.4	R1 1/4	120	14	90	26	60	70	2	4	M12	14	1.05
40	48.3	R1 1/2	130	14	100	26	70	80	3	4	M12	14	1.2
50	60.3	R2	140	14	110	28	80	90	3	4	M12	14	1.37
65	76.1	R2 1/2	160	14	130	32	100	110	3	4	M12	14	1.92
80	88.9	R3	190	16	150	34	110	128	3	4	M16	18	2.82
100	114.3	R4	210	16	170	38	130	148	3	4	M16	18	3.19
125	139.7	R5	240	18	200	40	160	178	3	8	M16	18	4.47
150	165.1	R6	265	18	225	44	185	202	3	8	M16	18	5.3

UNI 2254 PN16 UNIT: mm

Rated Diameter	d1	Flange					Neck	Raised face		Number	Screws		Weight kg
		Thread	D	b	k	h1		d3	d4		Thread	d2	
15	21.3	R1/2	95	14	65	20	35	45	2	4	M12	14	0.7
20	26.9	R3/4	105	16	75	24	45	58	2	4	M12	14	1.01
25	33.7	R1	115	16	85	24	52	68	2	4	M12	14	1.21
32	42.4	R1 1/4	140	16	100	26	60	78	2	4	M16	18	1.76
40	48.3	R1 1/2	150	16	110	26	70	88	3	4	M16	18	2.04
50	60.3	R2	165	18	125	28	85	102	3	4	M16	18	2.85
65	76.1	R2 1/2	185	18	145	32	105	122	3	4	M16	18	3.53
80	88.9	R3	200	20	160	34	118	138	3	8	M16	18	4.24
100	114.3	R4	220	20	180	38	140	158	3	8	M16	18	4.9
125	139.7	R5	250	22	210	40	168	188	3	8	M16	18	6.63
150	165.1	R6	285	22	240	44	195	212	3	8	M20	22	8.49

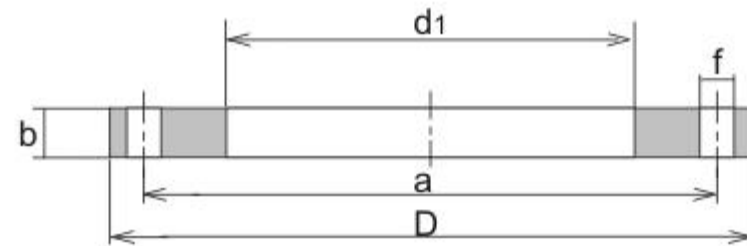
UNI 2276 PN6



UNIT: mm

Directions for the designation				d1	a	b	D	f	Number of holes	Threading of the screws	Weight kg																																															
Rated Diameter	External diameter of the pipe	Nominal	Tolerance																																																							
15	20	20.5	+0.5	55	10	80	11	4	M10	0.34																																																
	21.3	22								0.33																																																
20	25	25.5								65	12	90	11	4	M10	0.51																																										
	26.9	27.5														0.50																																										
25	30	30.5														75	12	100	11	4	M10	0.63																																				
	33.7	34																				0.61																																				
32	38	38.5																				90	14	120	14	4	M12	1.09																														
	42.4	43																										1.05																														
40	44.5	45																										100	14	130	14	4	M12	1.26																								
	48.3	49																																1.23																								
50	57	58																																110	14	140	14	4	M12	1.38																		
	60.3	61.5																																						1.35																		
65	76.1	77	130	14	160	14	4	M12	1.68																																																	
80	88.9	90							150																															16	190	18	4	M16	2.63													
100	108	109	+1.0	170	16	210	18	4**		M16	3.05																																															
	114.3	115.5							2.92																																																	
125	133	134.5							200		18	240	18	8	M16	4.11																																										
	139.7	141														3.90																																										
150	159	160.5														225	20	265	18	8	M16	5.16																																				
	168.3	170																				4.78																																				
175	193.7	195.5																				255	22	295	18	8	M16	6.27																														
200	219.1	221																										280	22	320	18	8	M16							6.91																		
250	267	269																				+1.5	495	28	540	22	16							M20	9.53																							
	273	275																										9.04																														
300	323.9	326																										± 5	550	28	595	22	16		M20	12.1																						
350	355.6	358																																		600	30	645	22	20	M20	17.0																
368	370.5	15.6																																																								
400	406.4	409	705	30	755	25	20	M22		20.1																																																
	419	422							18.3																																																	
450	457.2	460.2							810	32	860	25	24	M22	25.8																																											
500	508	511													920	34	975	30	24	M27	30.0																																					
600	609.6	612.6																			1020																					36	1075	30	24	M27	37.9											
700	711.2	714.2																																													1120	36	1175	30	28	M27	47.9					
800	812.8	815.8																																																			1120	36	1175	30	28	M27
900	914.4	917.4																				1120	36	1175	30	28	M27							74.6																								
1000	1016	1019																																1120																								

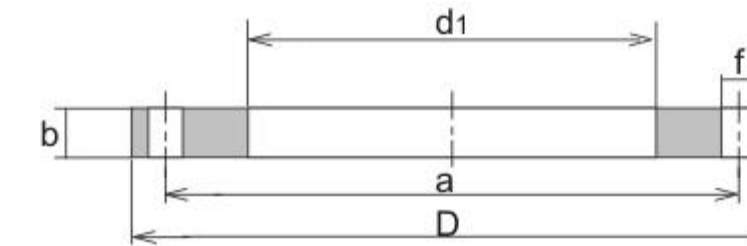
UNI 2277 PN10



UNIT: mm

Directions for the designation				d1	a	b	D	f	Number of holes	Threading of the screws	Weight kg
Rated Diameter	External diameter of the pipe	Nominal	Tolerance								
15	20	20.5	+0.5	65	12	95	14	4	M12		0.67
	21.3	22									0.66
20	25	25.5		75	14	105	14	4	M12		0.83
	26.9	27.5									0.82
25	30	30.5		85	14	115	14	4	M12		1.03
	33.7	34									1.01
32	38	38.5		100	16	140	18	4	M16		1.66
	42.4	43									1.63
40	44.5	45		110	16	150	18	4	M16		1.89
	48.3	49									1.85
50	57	58	+1.0	125	18	165	18	4	M16		2.51
	60.3	61.5									2.46
65	76.1	77		145	18	185	18	4	M16		3.00
	88.9	90									3.61
100	108	109		180	22	220	18	8	M16		4.60
	114.3	115.5									4.40
125	133	134.5		210	24	250	18	8	M16		6.19
	139.7	141									5.92
150	159	160.5		240	24	285	22	8	M20		7.63
	168.3	170									7.17
175	193.7	195.5		270	26	315	22	8	M20		9.16
	219.1	221									10.1
200	219.1	221	+1.5	295	26	340	22	8	M20		13.4
	267	269									12.9
250	273	275		350	28	395	22	12	M20		14.8
	323.9	326									22.0
300	355.6	358		400	28	445	22	12	M22		20.4
	368	370.5									28.0
350	406.4	409		460	30	505	22	16	M20		25.9
	419	422									33.3
400	457.2	460.2		515	32	565	25	16	M22		40.3
	508	511									53.0
450	508	511	± 5	620	34	670	25	20	M22		
	609.6	612.6									
500	609.6	612.6		725	36	780	30	20	M27		

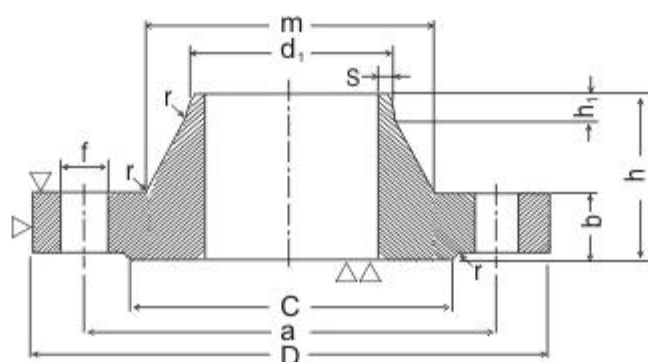
UNI 2278 PN16



UNIT: mm

Directions for the designation				d1	a	b	D	f	Number of holes	Threading of the screws	Weight kg
Rated Diameter	External diameter of the pipe	Nominal	Tolerance								
15	20	20.5	+0.5	65	12	95	14	4	M12		0.67
	21.3	22									0.66
20	25	25.5		75	14	105	14	4	M12		0.83
	26.9	27.5									0.82
25	30	30.5		85	14	115	14	4	M12		1.03
	33.7	34									1.01
32	38	38.5		100	16	140	18	4	M16		1.66
	42.4	43									1.63
40	44.5	45		110	16	150	18	4	M16		1.89
	48.3	49									1.85
50	57	58	+1.0	125	18	165	18	4	M16		2.51
	60.3	61.5									2.46
65	76.1	77		145	18	185	18	4	M16		3.00
	88.9	90									3.61
100	108	109		180	22	220	18	8	M16		4.60
	114.3	115.5									4.40
125	133	134.5		210	24	250	18	8	M16		6.19
	139.7	141									5.92
150	159	160.5		240	24	285	22	8	M20		7.63
	168.3	170									7.17
175	193.7	195.5		270	26	315	22	8	M20		9.16
	219.1	221									9.77
200	267	269	+1.5	355	32	405	25	12	M22		16.6
	273	275									16.0
250	323.9	326		410	32	460	25	12	M22		19.3
	355.6	358									29.4
300	368	370.5		470	36	520	25	16	M22		27.3
	406.4	409									36.5
350	419	422		525	38	580	30	16	M27		33.9

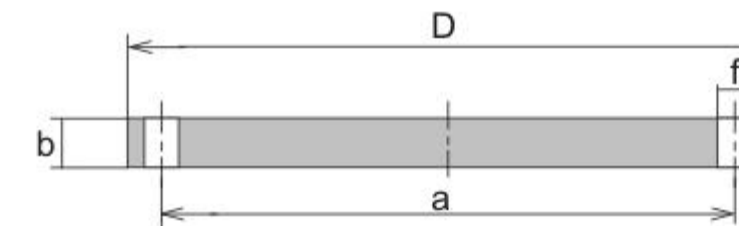
UNI 2282 PN16



UNIT: mm

Directions for the designation		d1	a	b	D	f	h	h1	m	r	s	Number of holes	Threading of the screws	Weight kg
Rated Diameter	External diameter of the pipe													
15	20	21	65	14	95	14	35	6	30	4	2.5	4	M12	0.73
	21.3	22.5							32					0.73
20	25	26	75	16	105	14	38	6	38	4	2.5	4	M12	1.03
	26.9	28							40					1.03
25	30	31	85	16	115	14	38	6	42	4	2.8	4	M12	1.24
	33.7	34.5							45					1.23
32	38	39	100	16	140	18	40	6	52	6	3	4	M16	1.82
	42.4	43.5							56					1.80
40	44.5	45.5	110	16	150	18	42	7	60	6	3	4	M16	2.10
	48.3	49.5							64					2.08
50	57	58	125	18	165	18	45	8	72	6	3.5	4	M16	2.81
	60.3	61.5							75					2.78
65	76.1	77	145	18	185	18	45	45	90	4	3.5	4	M16	3.40
80	88.9	90	160	20	200	18	50	50	105	8*	3.7	8*	M16	4.20
100	108	109	180	20	220	18	52	12	125	8	3.7	8	M16	4.90
	114.3	115.5							131					4.75
125	133	134	210	22	250	18	55	12	150	8	4	8	M16	6.70
	139.7	141							156					6.45
150	159	161	240	22	285	22	55	12	175	10	5	8	M20	8.30
	168.3	170.5							184					8.00
175	193.7	195.5	270	24	315	22	60	60	210	10	5	8	M20	10.3
200	219.1	221	295	24	340	22	62	62	235	10	5	12	M20	11.1
250	267	269	355	26	405	25	70	16	285	12	5.5	12	M22	16.7
	273	275							292					16.3
300	323.9	326	410	28	460	25	78	16	344	12	6	12	M22	21.8
350	355.6	357.5	470	30	520	25	82	16	390	12	6.4	16	M22	31.7
	368	370												29.2
400	406.4	408.5	525	32	580	30	85	16	445	12	7	16	M27	38.3
	419	421												37.0
450	457.2	459	585	32	640	30	85	85	485	12	7.3	20	M27	45.4
500	508	510	650	34	715	33	90	90	548	12	7.3	20	M30	61.1
600	609.6	611.5	770	36	840	36	95	95	652	12	7.3	20	M33	84.6
700	711.2	715	840	36	910	39	100	100	755	12	9	24	M33	87.4
800	812.8	817	950	38	1025	39	105	105	855	12	9	24	M36×3	109
900	914.4	918	1050	40	1125	42	110	110	955	12	10	28	M36×3	129
1000	1016	1020	1170	42	1255	48	120	120	1058	16	12	28	M39×3	175
1200	1220	1224	1390	48	1485	48	130	130	1262	16	14	32	M45×3	257
1400	1420	1424	1590	52	1685	48	145	145	1465	16	16	36	M45×3	337
1600	1620	1624	1820	58	1930	56	160	160	1668	16	17	40	M52×3	481
1800	1820	1824	2020	62	2130	56	170	170	1870	16	19	44	M52×3	591
2000	2020	2024	2230	66	2345	62	180	180	2072	16	21	48	M56×3	727

UNI 6092 PN10 UNI 6093 PN16



UNI 6092 PN10

UNIT: mm

Rated Diameter	a	b	D	f	Number of holes	Threading of the screws	Weight kg
15	65	14	95	14	4	M12	0.71
20	75	16	105	14	4	M12	1.01
25	85	16	115	14	4	M12	1.22
32	100	16	140	18	4	M16	1.80
40	110	16	150	18	4	M16	2.09
50	125	18	165	18	4	M16	2.87
65	145	18	185	18	4	M16	3.65
80	160	20	200	18	4	M16	4.61
100	180	20	220	18	8	M16	5.65
125	210	22	250	18	8	M16	8.12
150	240	22	285	22	8	M20	10.5
175	270	24	315	22	8	M20	14.1
200	295	24	340	22	8	M20	16.5
250	350	26	395	22	12	M20	24.1
300	400	26	445	22	12	M20	30.8
350	460	26	505	22	16	M20	39.6
400	515	26	565	25	16	M22	49.6
450	565	26	615	25	20	M22	58.6
500	620	28	670	25	20	M22	75.3

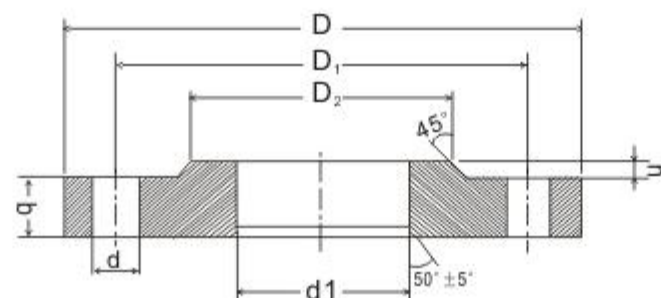
UNI 6093 PN16

UNIT: mm

Rated Diameter	a	b	D	f	Number of holes	Threading of the screws	Weight kg
15	65	14	95	14	4	M12	0.71
20	75	16	105	14	4	M12	1.01
25	85	16	115	14	4	M12	1.22
32	100	16	140	18	4	M16	1.80
40	110	16	150	18	4	M16	2.09
50	125	18	165	18	4	M16	2.87
65	145	18	185	18	4	M16	3.65
80	160	20	200	18	8*	M16	4.61
100	180	20	220	18	8	M16	5.65
125	210	22	250	18	8	M16	8.12
150	240	22	285	22	8	M20	10.5
175	270	24	315	22	8	M20	14.1
200	295	24	340	22	12	M20	16.2
250	355	26	405	25	12	M22	25.1
300	410	28	460	25	12	M22	35.2
350	470	30	520	25	16	M22	48.2
400	525	32	580	30	16	M27	63.5
450	585	32	640	30	20	M27	77.2
500	650	34	715	33	20	M30	102

Flanges GOST 33259-2015 type 01 PN6

STEEL PLAIN WELDED FLANGES

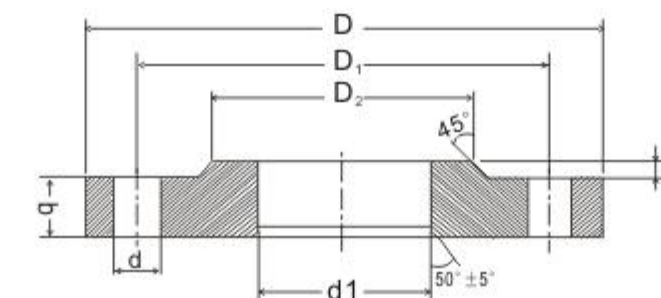


Unit: mm

Nomenclature	Dimensions,mm								Weight,kg
	D	D1	D2	d1	b	h	n	d	
P _{nom} =0.6Mpa(6kgf/cm ²)									
1-10-6	75	50	35	15	10	2	4	11	0.31
1-15-6	80	55	40	19	10	2	4	11	0.33
1-20-6	90	65	50	26	12	2	4	11	0.53
1-25-6	100	75	60	33	12	2	4	11	0.64
1-32-6	120	90	70	39	13	2	4	14	1.01
1-40-6	130	100	80	46	13	3	4	14	1.21
1-50-6	140	110	90	59	13	3	4	14	1.33
1-65-6	160	130	110	78	13	3	4	14	1.63
1-80-6	185	150	128	91	15	3	4	18	2.44
1-100-6	205	170	148	110	15	3	4	18	2.85
1-125-6	235	200	178	135	17	3	8	18	3.88
1-150-6	260	225	202	161	17	3	8	18	4.39
1-175-6	290	255	232	196	19	3	8	18	5.36
1-200-6	315	280	258	222	19	3	8	18	5.89
1-225-6	340	305	282	245	19	3	8	18	6.60
1-250-6	370	335	312	273	20	3	12	18	7.67
1-300-6	435	395	365	325	20	4	12	22	10.28
1-350-6	485	445	415	377	22	4	12	22	12.58
1-400-6	535	495	465	426	24	4	16	22	15.20
1-450-6	590	550	520	480	24	4	16	22	17.25
1-500-6	640	600	570	530	25	4	16	22	19.72
1-600-6	755	705	670	630	25	5	20	26	26.24
1-700-6	860	810	775	720	27	5	24	26	36.68
1-800-6	975	920	880	820	27	5	24	30	46.14
1-900-6	1075	1020	980	920	29	5	24	30	55.10
1-1000-6	1175	1120	1080	1020	31	5	28	30	64.36
1-1200-6	1400	1340	1295	1220	34	5	32	33	99.03

Flanges GOST 33259-2015 type 01 PN10

STEEL PLAIN WELDED FLANGES

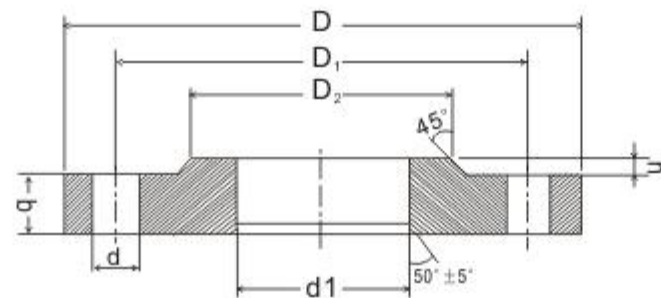


Unit: mm

Nomenclature	Dimensions,mm								Weight,kg
	D	D1	D2	d1	b	h	n	d	
P _{nom} =1.0Mpa(10kgf/cm ²)									
1-10-10	90	60	42	15	10	2	4	14	0.46
1-15-10	95	65	47	19	10	2	4	14	0.51
1-20-10	105	75	58	26	12	2	4	14	0.74
1-25-10	115	85	68	33	12	2	4	14	0.89
1-32-10	135	100	78	39	14	2	4	18	1.40
1-40-10	145	110	88	46	15	3	4	18	1.71
1-50-10	160	125	102	59	15	3	4	18	2.06
1-65-10	180	145	122	78	17	3	4	18	2.80
1-80-10	195	160	133	91	17	3	4	18	3.19
1-100-10	215	180	158	110	19	3	8	18	3.96
1-125-10	245	210	184	135	21	3	8	18	5.40
1-150-10	280	240	212	161	21	3	8	22	6.62
1-175-10	310	270	242	196	21	3	8	22	7.32
1-200-10	335	295	268	222	21	3	8	22	8.05
1-225-10	365	325	295	245	21	3	8	22	9.30
1-250-10	390	350	320	273	23	3	12	22	10.65
1-300-10	440	400	370	325	24	4	12	22	12.90
1-350-10	500	460	430	377	24	4	16	22	15.85
1-400-10	565	515	482	426	26	4	16	26	21.56
1-450-10	615	565	532	480	26	4	20	26	22.76
1-500-10	670	620	585	530	28	4	20	26	27.70
1-600-10	780	725	685	630	31	5	20	30	39.40
1-700-10	895	840	800	720	34	5	24	30	59.46
1-800-10	1010	950	905	820	37	5	24	33	79.16
1-900-10	1110	1050	1005	920	40	5	28	33	94.13
1-1000-10	1220	1160	1110	1020	43	5	28	33	118.43
1-1200-10	1455	1380	1330	1222	51	5	32	39	197.44

Flanges GOST 33259-2015 type 01 PN16

STEEL PLAIN WELDED FLANGES

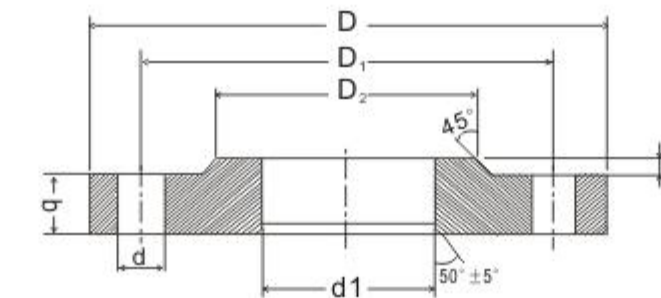


UNIT: mm

Nomenclature	Dimensions,mm								Weight,kg
	D	D1	D2	d1	b	h	n	d	
P _{nom} =1.6Mpa(16kgf/cm²)									
1-10-16	90	60	42	15	12	2	4	14	0.54
1-15-16	95	65	47	19	12	2	4	14	0.61
1-20-16	105	75	58	26	14	2	4	14	0.86
1-25-16	115	85	68	33	16	2	4	14	1.17
1-32-16	135	100	78	39	16	2	4	18	1.58
1-40-16	145	110	88	46	17	3	4	18	1.96
1-50-16	160	125	102	59	19	3	4	18	2.58
1-65-16	180	145	122	78	21	3	4	18	3.42
1-80-16	195	160	133	91	21	3	4	18	3.71
1-100-16	215	180	158	110	23	3	8	18	4.73
1-125-16	245	210	184	135	25	3	8	18	6.38
1-150-16	280	240	212	161	25	3	8	22	7.81
1-175-16	310	270	242	196	25	3	8	22	8.64
1-200-16	335	295	268	222	27	3	12	22	10.10
1-225-16	365	325	295	245	27	3	12	22	11.70
1-250-16	405	355	320	273	28	3	12	26	14.49
1-300-16	460	410	370	325	28	4	12	26	17.78
1-350-16	520	470	430	377	30	4	16	26	22.88
1-400-16	580	525	482	426	34	4	16	30	31.00
1-450-16	640	585	532	480	38	4	20	30	39.64
1-500-16	710	650	585	530	44	4	20	33	57.01
1-600-16	840	770	685	630	45	5	20	39	80.03
1-700-16	910	840	800	720	47	5	24	39	84.21
1-800-16	1020	950	905	820	49	5	24	39	104.41
1-900-16	1120	1050	1005	920	54	5	28	39	128.60
1-1000-16	1255	1170	1110	1020	58	5	28	45	179.37
1-1200-16	1485	1390	1330	1220	71	5	32	52	297.78

Flanges GOST 33259-2015 type 01 PN25

STEEL PLAIN WELDED FLANGES

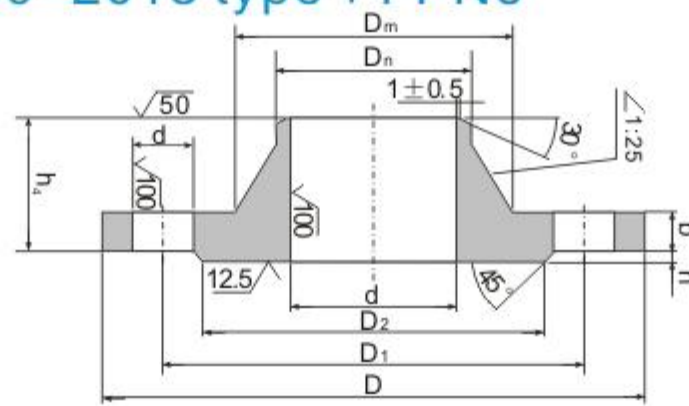


UNIT: mm

Nomenclature	Dimensions,mm								Weight,kg
	D	D1	D2	d1	b	h	n	d	
P _{nom} =2.5Mpa(25kgf/cm ³)									
1-10-25	90	60	42	15	14	2	4	14	0.63
1-15-25	95	65	47	19	14	2	4	14	0.70
1-20-25	105	75	58	26	16	2	4	14	0.98
1-25-25	115	85	68	33	16	2	4	14	1.17
1-32-25	135	100	78	39	18	2	4	18	1.77
1-40-25	145	110	88	46	19	3	4	18	2.18
1-50-25	160	125	102	59	21	3	4	18	2.71
1-65-250	180	145	122	78	21	3	8	18	3.22
1-80-25	195	160	133	91	23	3	8	18	4.06
1-100-25	230	190	158	110	25	3	8	22	5.92
1-125-25	270	220	184	135	27	3	8	26	8.26
1-150-25	300	250	212	161	27	3	8	26	10.12
1-200-25	360	310	278	222	29	3	12	26	13.34
1-250-25	425	370	335	273	31	3	12	30	18.90
1-300-25	485	430	390	325	32	4	16	30	23.95
1-350-25	550	490	450	377	38	4	16	33	34.35
1-400-25	610	550	505	426	40	4	16	33	44.62
1-500-25	730	660	615	530	48	4	20	39	67.30
1-600-25	840	770	720	630	49	5	20	39	90.87
1-800-10	1075	990	930	820	63	5	24	45	181.43

Flanges GOST 33259-2015 type 11 PN6

STEEL PLAIN WELDED FLANGES

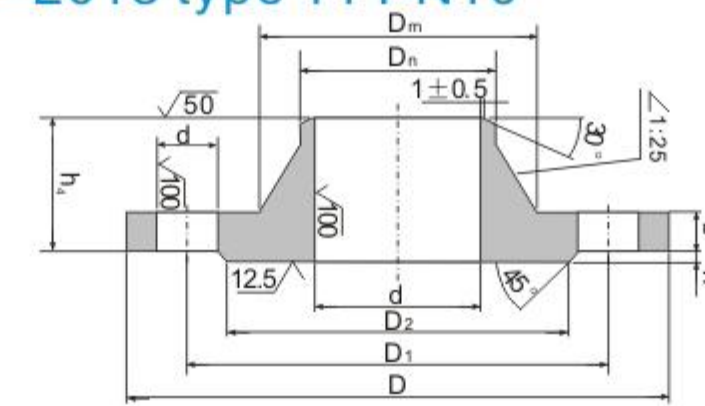


UNIT: mm

Nomenclature	Dimensions,mm											Weight,kg
	D	D ₁	D ₂	h	d ₁	b	h ₄	D _m	D _n	n ₁ Number of holes	d	
P _{nom} =0.6MPa(6kgf/cm ²)												
1-10-6	75	50	35	2	8	10	27	22	15	4	11	0.34
1-15-6	80	55	40	2	12	10	28	28	19	4	11	0.40
1-20-6	90	65	50	2	18	10	30	36	26	4	11	0.53
1-25-6	100	75	60	2	25	12	30	42	33	4	11	0.76
1-32-6	120	90	70	2	31	12	33	50	39	4	14	1.10
1-40-6	130	100	80	3	38	12	35	60	46	4	14	1.36
1-50-6	140	110	90	3	49	12	35	70	58	4	14	1.53
1-65-6	160	130	110	3	66	12	35	88	77	4	14	1.97
1-80-6	185	150	128	3	78	13	37	102	90	4	18	2.76
1-100-6	205	170	148	3	96	13	38	122	110	4	18	3.35
1-125-6	235	200	178	3	121	15	40	148	135	8	18	4.66
1-150-6	260	225	202	3	146	15	43	172	161	8	18	5.37
1-175-6	290	255	232	3	177	17	47	210	196	8	18	7.32
1-200-6	315	280	258	3	202	17	50	235	222	8	18	8.37
1-225-6	340	305	282	3	226	17	50	260	248	8	18	9.45
1-250-6	370	335	312	3	254	18	50	288	278	12	18	10.99
1-300-6	435	395	365	4	303	18	50	340	330	12	22	14.82
1-350-6	485	445	415	4	351	18	50	390	382	12	22	17.69
1-400-6	535	495	465	4	398	15	50	440	432	16	22	20.55
1-450-6	590	550	520	4	450	18	50	494	484	16	22	23.63
1-500-6	640	600	570	4	501	19	50	545	535	16	22	26.63
1-600-6	755	705	670	5	602	19	55	650	636	20	26	35.79
1-700-6	860	810	775	5	692	19	55	740	726	24	26	44.31
1-800-6	975	920	880	5	792	19	60	844	826	24	30	56.17
1-900-6	1075	1020	980	5	892	21	60	944	926	24	30	66.79
1-1000-6	1175	1120	1080	5	992	21	60	1044	1028	28	30	73.51
1-1200-6	1400	1340	1295	5	1192	23	70	1248	1228	32	33	111.43

Flanges GOST 33259-2015 type 11 PN10

STEEL PLAIN WELDED FLANGES

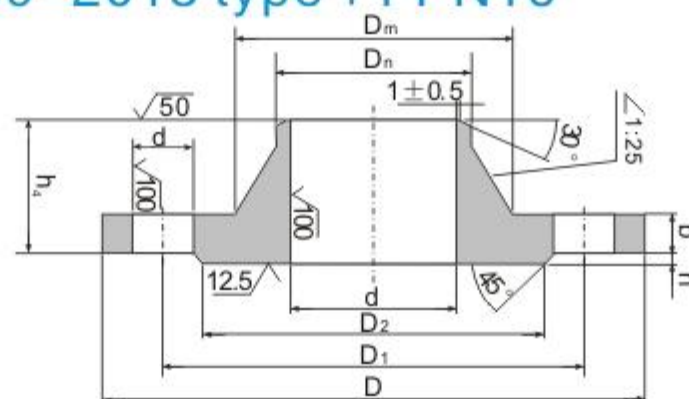


UNIT: mm

Nomenclature	Dimensions,mm											Weight,kg
	D	D ₁	D ₂	h	d ₁	b	h ₄	D _m	D _n	$\frac{n_1}{\text{Number of holes}}$	d	
P _{nom} =1.0MPa(10kgf/cm ²)												
1-10-10	90	60	42	2	8	10	33	25	15	4	14	0.50
1-15-10	95	65	47	2	12	10	33	30	19	4	14	0.58
1-20-10	105	75	58	2	18	12	36	38	26	4	14	0.87
1-25-10	115	85	68	2	25	12	38	45	33	4	14	1.05
1-32-10	135	100	78	2	31	13	40	55	39	4	18	1.54
1-40-10	145	110	88	3	38	13	42	62	46	4	18	1.83
1-50-10	160	125	102	3	49	13	42	76	58	4	18	2.26
1-65-10	180	145	122	3	66	15	45	94	77	4	18	3.17
1-80-10	195	160	133	3	78	15	47	105	90	4	18	3.67
1-100-10	215	180	158	3	96	17	48	128	110	8	18	4.70
1-125-10	245	210	184	3	121	19	57	156	135	8	18	6.71
1-150-10	280	240	212	3	146	19	57	180	161	8	22	8.17
1-175-10	310	270	242	3	177	19	57	210	196	8	22	9.71
1-200-10	335	295	268	3	202	19	58	240	222	8	22	11.35
1-225-10	365	325	295	3	226	19	60	268	248	8	22	13.24
1-250-10	390	350	320	3	254	21	60	290	278	12	22	14.64
1-300-10	440	400	370	4	303	22	60	345	330	12	22	18.66
1-350-10	500	460	430	4	351	22	60	400	382	16	26	24.00
1-400-10	565	515	482	4	398	22	60	445	432	16	26	30.00
1-450-10	615	565	532	4	450	22	65	500	484	20	26	33.33
1-500-10	670	620	585	4	501	24	65	550	535	20	26	39.20
1-600-10	780	725	685	5	602	24	65	650	636	20	30	48.80
1-700-10	895	840	800	5	692	25	65	744	726	24	30	65.26
1-800-10	1010	950	905	5	792	27	75	850	826	24	33	87.24
1-900-10	1110	1050	1005	5	892	29	80	950	926	28	33	103.02
1-1000-10	1220	1160	1110	5	992	29	80	1050	1028	28	33	119.16
1-1200-10	1455	1380	1330	5	1192	33	90	1256	1228	32	39	179.91

Flanges GOST 33259-2015 type 11 PN16

STEEL PLAIN WELDED FLANGES

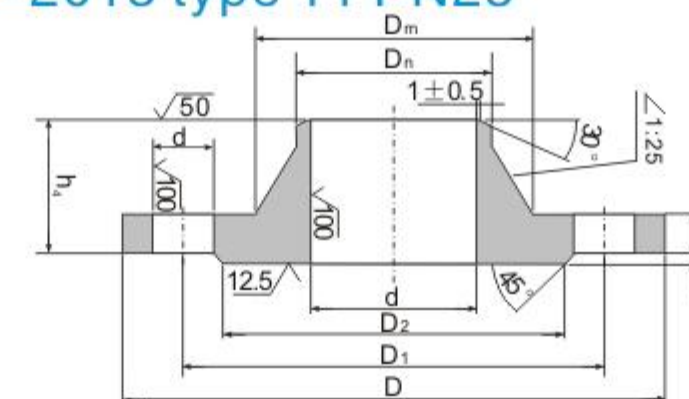


UNIT: mm

Nomenclature	Dimensions,mm											Weight,kg
	D	D ₁	D ₂	h	d ₁	b	h ₄	D _m	D _n	n ₁ Number of holes	d	
P _{nom} =1.6MPa(16kgf/cm ²)												
1-10-16	90	60	42	2	8	12	33	26	15	4	14	0.59
1-15-16	95	65	47	2	12	12	33	30	19	4	14	0.68
1-20-16	105	75	58	2	18	12	36	28	26	4	14	0.87
1-25-16	115	85	68	2	25	12	38	45	33	4	14	1.05
1-32-16	135	100	78	2	31	13	40	55	39	4	18	1.54
1-40-16	145	110	88	3	38	13	42	64	46	4	18	1.85
1-50-16	160	125	102	3	49	13	45	76	58	4	18	2.28
1-65-16	180	145	122	3	66	15	47	94	77	4	18	3.19
1-80-16	195	160	133	3	78	17	50	110	90	4	18	4.21
1-100-16	215	180	158	3	96	17	50	130	110	8	18	4.90
1-125-16	245	210	184	3	121	19	57	156	135	8	18	6.75
1-150-16	280	240	212	3	146	19	57	180	161	8	22	8.30
1-175-16	310	270	242	3	177	21	57	210	196	8	22	10.37
1-200-16	335	295	268	3	202	21	58	240	222	12	22	11.79
1-225-16	365	325	295	3	226	21	65	268	248	12	22	14.12
1-250-16	405	355	320	3	254	23	65	292	278	12	26	17.36
1-300-16	460	410	370	4	303	24	66	346	330	12	26	22.76
1-350-16	520	470	430	4	351	28	70	400	382	16	26	32.04
1-400-16	580	525	482	4	398	32	75	450	432	16	30	43.00
1-450-16	640	585	532	4	450	34	85	506	484	20	30	54.00
1-500-16	710	650	585	4	501	38	90	559	535	20	33	70.97
1-600-16	840	770	685	5	602	41	90	660	636	20	39	99.30
1-700-16	910	840	800	5	692	43	95	750	726	24	39	105.90
1-800-16	1020	950	905	5	792	45	95	850	826	24	39	130.57
1-900-16	1120	1050	1005	5	892	47	110	958	926	28	39	157.83
1-1000-16	1255	1170	1110	5	992	49	110	1060	1028	28	45	203.39
1-1200-16	1485	1390	1330	5	1192	51	125	1268	1228	32	52	284.94

Flanges GOST 33259-2015 type 11 PN25

STEEL PLAIN WELDED FLANGES



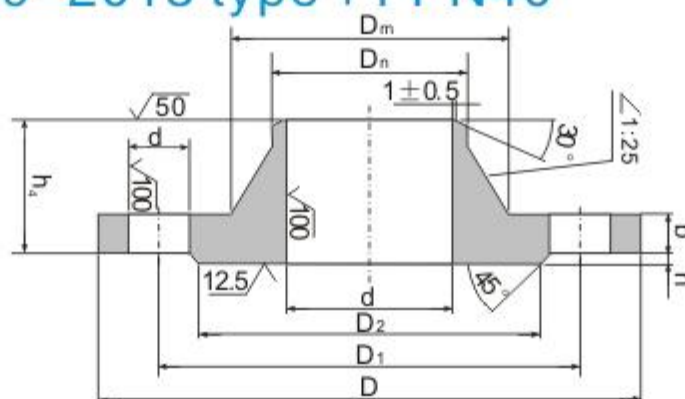
UNIT: mm

Nomenclature	Dimensions,mm											Weight,kg
	D	D ₁	D ₂	h	d ₁	b	h ₄	D _m	D _n	n ₁ Number of holes	d	
P _{nom} =2.5MPa(25kgf/cm ²)												
1-10-25	90	60	42	2	8	14	33	26	15	4	14	0.68
1-15-25	95	65	47	2	12	14	33	30	19	4	14	0.79
1-20-25	105	75	58	2	18	14	34	38	26	4	14	0.97
1-25-25	115	85	68	2	25	14	36	45	33	4	14	1.18
1-32-25	135	100	78	2	31	16	43	56	39	4	18	1.83
1-40-25	145	110	88	3	38	16	45	64	46	4	18	2.19
1-50-25	160	125	102	3	49	17	45	76	58	4	18	2.78
1-65-25	180	145	122	3	66	19	50	96	77	8	18	3.71
1-80-25	195	160	133	3	78	19	52	110	90	8	18	4.44
1-100-25	230	190	158	3	96	21	58	132	110	8	22	6.51
1-125-25	270	220	184	3	121	23	65	160	135	8	26	9.41
1-150-25	300	250	212	3	146	25	68	186	161	8	26	12.52
1-175-25	330	280	242	3	177	25	70	216	196	12	26	13.88
1-200-25	360	310	278	3	202	27	75	245	222	12	26	17.44
1-225-25	395	340	305	3	226	29	75	270	248	16	30	21.56
1-250-25	425	370	335	3	254	29	75	300	278	12	30	24.40
1-300-25	485	430	390	4	303	32	80	352	330	16	30	33.29
1-350-25	550	490	450	4	351	36	85	406	382	16	33	46.57
1-400-25	610	550	505	4	398	40	100	464	432	16	33	64.81
1-450-25	660	600	555	4	450	42	100	515	484	20	33	72.26
1-500-25	730	660	615	4	500	44	100	570	535	20	39	88.91
1-600-25	840	770	720	5	600	49	115	670	636	20	39	123.70
1-700-25	960	875	820	5	690	53	125	766	726	24	45	166.81
1-800-25	1075	990	930	5	790	55	135	874	826	24	45	213.9
1-900-25	1185	1090	1030	5	892	57	145	980	926	28	52	253.0
1-1000-25	1315	1210	1140	5	992	59	150	1084	1028	28	56	312.12
1-1200-25	1525	1420	1350	5	1192	62	160	1288	1228	32	56	387.50

企航广告

Flanges GOST 33259-2015 type 11 PN40

STEEL PLAIN WELDED FLANGES

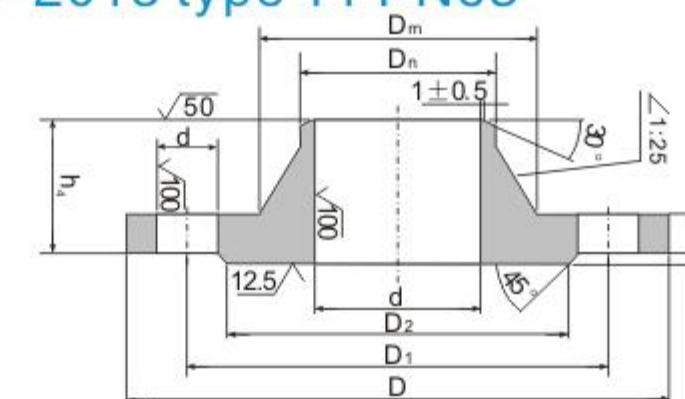


UNIT: mm

Nomenclature	Dimensions,mm											Weight,kg
	D	D ₁	D ₂	h	d ₁	b	h ₄	D _m	D _n	n ₁ Number of holes	d	
P _{nom} =4.0MPa(40kgf/cm ²)												
1-10-40	90	60	42	2	8	14	33	26	15	4	14	0.68
1-15-40	95	65	47	2	12	14	33	30	19	4	14	0.79
1-20-40	105	75	58	2	18	14	34	38	26	4	14	0.97
1-25-40	115	85	68	2	25	14	36	45	33	4	14	1.18
1-32-40	135	100	78	2	31	16	43	56	39	4	18	1.83
1-40-40	145	110	88	3	38	16	45	64	46	4	18	2.19
1-50-40	160	125	102	3	48	17	45	76	58	4	18	2.81
1-65-40	180	145	122	3	66	19	50	96	77	8	18	3.71
1-80-40	195	160	133	3	78	21	55	112	90	8	18	4.8
1-100-40	230	190	158	3	96	23	65	138	110	8	22	7.4
1-125-40	270	220	184	3	120	25	65	160	135	8	26	10.00
1-150-40	300	250	212	3	146	27	68	186	161	8	26	13.03
1-175-40	350	295	242	3	177	33	85	226	196	12	30	20.75
1-200-40	375	320	285	3	200	35	85	250	222	12	30	24.44
1-225-40	415	355	315	3	226	37	95	280	248	12	33	31.33
1-250-40	445	385	345	3	252	39	98	310	278	12	33	37.59
1-300-40	510	450	410	4	301	42	112	368	330	16	33	57.10
1-350-40	570	510	465	4	351	48	116	418	382	16	33	70.34
1-400-40	655	585	535	4	398	54	135	480	432	16	39	106.76
1-450-40	680	610	560	4	448	56	135	530	484	20	39	107.00
1-500-40	755	670	615	4	495	58	140	580	535	20	45	132.33
1-600-40	890	795	735	5	595	58	140	686	636	20	52	180.95
1-700-40	995	900	810	5	695	63	160	790	726	24	52	228.25
1-800-40	1135	1030	960	5	795	71	190	908	826	24	56	343.69
1-900-40	1250	1140	1070	5	895	74	215	1024	926	28	56	436.54
1-1000-40	1360	1250	1180	5	995	77	235	1140	1028	28	56	540.75
1-1200-40	1575	1460	1380	5	1195	80	250	1350	1228	32	62	690.59

Flanges GOST 33259-2015 type 11 PN63

STEEL PLAIN WELDED FLANGES

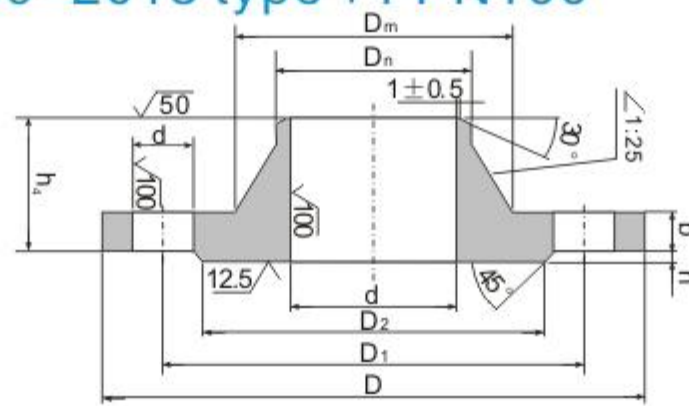


UNIT: mm

Nomenclature	Dimensions,mm											Weight,kg
	D	D ₁	D ₂	h	d ₁	b	h ₄	D _m	D _n	n ₁ Number of holes	d	
P _{nom} =6.3MPa(63kgf/cm ²)												
1-10-63	100	70	42	2	8	16	46	34	15	4	14	1.03
1-15-63	105	75	47	2	12	16	46	38	19	4	14	1.15
1-20-63	125	90	58	2	18	18	54	48	26	4	18	1.80
1-25-63	135	100	68	2	25	20	56	52	33	4	18	2.30
1-32-63	150	110	78	2	31	21	60	64	39	4	22	2.94
1-40-63	165	125	88	3	37	21	65	74	46	4	22	3.75
1-50-63	175	135	102	3	47	23	67	86	58	4	22	4.63
1-65-63	200	160	122	3	64	25	72	106	77	8	22	6.29
1-80-63	210	170	133	3	77	27	72	120	90	8	22	7.22
1-100-63	250	200	158	3	94	29	77	140	110	8	26	10.71
1-125-63	295	240	184	3	118	33	95	172	135	8	30	17.13
1-150-63	340	280	212	3	142	35	105	206	161	8	33	24.60
1-175-63	370	310	212	3	174	39	105	232	196	12	33	28.61
1-200-63	405	345	285	3	198	41	110	264	222	12	33	36.60
1-225-63	430	370	315	3	222	43	115	290	248	16	33	42.54
1-250-63	470	400	345	3	246	45	115	316	278	12	39	50.89
1-300-63	530	460	410	4	294	50	120	370	330	16	39	68.15
1-350-63	595	525	465	4	342	56	140	430	382	16	39	98.68
1-400-63	670	585	535	4	386	62	155	484	432	16	45	135.80
1-500-63	800	705	615	4	485	66	165	594	535	20	52	192.74
1-600-63	925	820	735	5	585	71	180	704	636	20	56	269.27
1-700-63	1045	935	840	5	685	76	225	820	726	24	56	300.86
1-800-63	1165	1050	960	5	785	85	225	920	826	24	62	463.87
1-900-63	1285	1170	1070	5	885	88	265	1050	926	28	62	954.41
1-1000-63	1415	1290	1180	5	985	92	280	1160	1028	28	70	980.60
1-1200-63	1665	1530	1380	5	1185	95	315	1386	1228	32	78	1263.72

Flanges GOST 33259-2015 type 11 PN100

STEEL PLAIN WELDED FLANGES

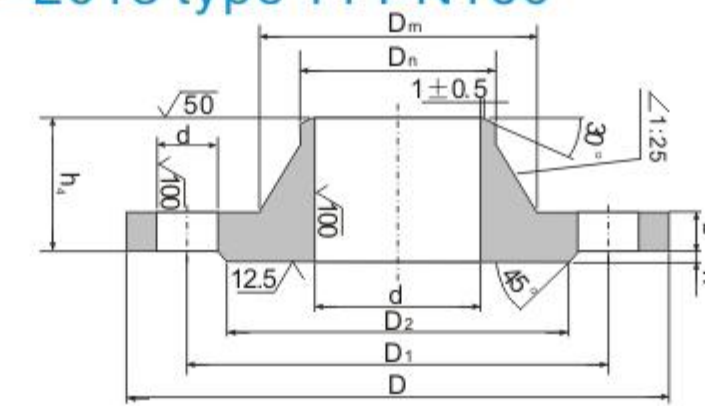


UNIT: mm

Nomenclature	Dimensions,mm											Weight,kg
	D	D ₁	D ₂	h	d ₁	b	h ₄	D _m	D _n	n ₁ Number of holes	d	
P _{nom} =10MPa(100kgf/cm ²)												
1-10-100	100	70	42	2	8	16	43	34	15	4	14	1.02
1-15-100	105	75	47	2	12	18	46	38	19	4	14	1.26
1-20-100	125	90	58	2	18	20	51	48	26	4	18	1.98
1-25-100	135	100	68	2	25	22	56	52	33	4	18	2.48
1-32-100	150	110	78	2	31	22	60	64	39	4	22	3.05
1-40-100	165	125	88	3	37	23	67	76	46	4	22	4.06
1-50-100	195	145	102	3	45	25	68	86	58	4	26	6.03
1-65-100	220	170	122	3	62	29	80	110	77	8	26	8.52
1-80-100	230	180	133	3	75	31	87	124	90	8	26	9.91
1-100-100	265	210	158	3	92	35	97	146	110	8	30	14.65
1-125-100	310	250	184	3	112	39	112	180	135	8	33	23.32
1-150-100	350	290	212	3	136	43	125	214	161	12	33	32.87
1-175-100	380	320	242	3	166	45	125	246	196	12	33	39.00
1-200-100	430	360	285	3	190	51	140	276	222	12	39	54.24
1-225-100	470	400	315	3	212	53	155	312	248	12	39	71.19
1-250-100	500	430	345	3	236	57	160	340	278	12	39	85.24
1-300-100	585	500	410	4	284	66	180	400	330	16	45	127.78
1-350-100	655	560	465	4	332	72	195	460	382	16	52	170.94
1-400-100	715	620	535	4	376	76	200	510	432	16	52	216.44

Flanges GOST 33259-2015 type 11 PN160

STEEL PLAIN WELDED FLANGES



UNIT: mm

Nomenclature	Dimensions,mm											Weight,kg
	D	D ₁	D ₂	h	d ₁	b	h ₄	D _m	D _n	n ₁ Number of holes	d	
P _{nom} =16MPa(160kgf/cm ²)												
1-15-160	105	75	47	2	12	18	50	38	19	4	14	1.27
1-20-160	125	90	58	2	18	20	56	48	26	4	18	1.98
1-25-160	135	100	68	2	25	22	56	52	33	4	18	2.48
1-32-160	150	110	78	2	31	22	65	64	39	4	22	3.07
1-40-160	165	125	88	3	37	25	72	76	46	4	22	4.01
1-50-160	195	145	102	3	45	27	75	86	58	4	26	6.43
1-65-160	220	170	122	3	62	31	85	110	77	8	26	9.38
1-80-160	230	180	133	3	75	33	90	124	90	8	26	10.40
1-100-160	265	210	158	3	92	37	100	146	110	8	30	15.40
1-125-160	310	250	184	3	112	41	115	180	135	8	33	24.87
1-150-160	350	290	212	3	136	47	130	214	161	12	33	35.04
1-175-160	380	320	242	3	166	51	135	246	196	12	33	43.10
1-200-160	430	360	285	3	190	57	145	276	222	12	39	60.10
1-225-160	470	400	315	3	212	60	160	312	248	12	39	78.80
1-250-160	500	430	345	3	236	65	165	340	278	12	39	94.40
1-300-160	585	500	410	4	284	74	185	400	330	16	45	141.00