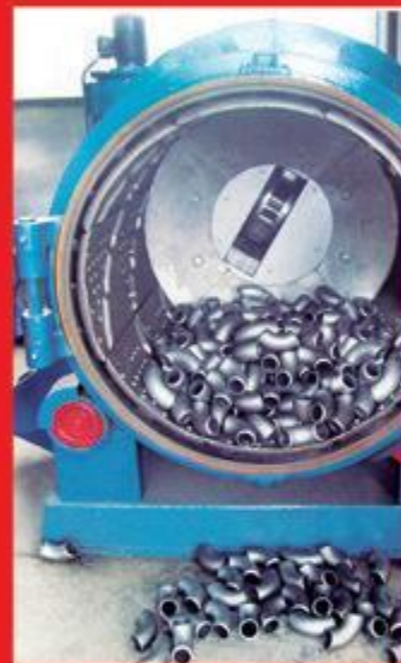




中频推制机 IF extruding machine



小口径管件抛丸清理机
Small-bore blasting machine



大口径管件抛丸清理机
Big caliber blasting machine



大型钻床
Large drilling machine

先进的生产设备
PRODUCTION EQUIPMENT



大型立车 Large vertical lathe



三通冷挤压成型设备
Cold extrusion machine for Tee





三通热成型设备 Heat forming machine for Tee



法兰锻制 Flange forging



坡口机
Beveling machine



先进的生产设备
PRODUCTION EQUIPMENT



检测设备 DETECTING EQUIPMENT



X光探伤机
X-Ray Testing Machine



直读光谱仪 Direct Reading Spectrometer



液压万能试验机 Hydraulic Universal Testing Machine



实验室 Laboratory

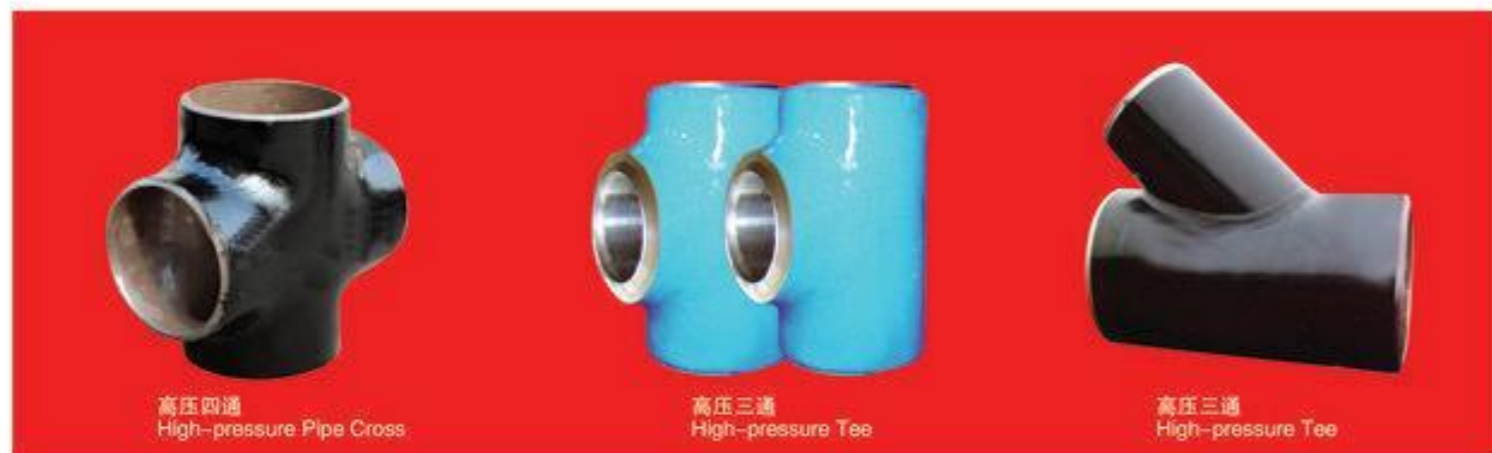


碳硫分析仪 Carbon sulfur analyzer



冲击试验机 Impact Testing Machine

HIGH-PRESSURE PIPE FITTINGS 高压管件



高压四通
High-pressure Pipe Cross

高压三通
High-pressure Tee

高压三通
High-pressure Tee



高压三通
High-pressure Tee



高压三通
High-pressure Tee



高压三通
High-pressure Tee



高压三通
High-pressure Tee



高压三通
High-pressure Tee



高压三通
High-pressure Tee



高压三通
High-pressure Tee



高压大小头
High-pressure Reducers

高压三通
High-pressure Tee



高压三通
High-pressure Tee

高压三通
High-pressure Tee

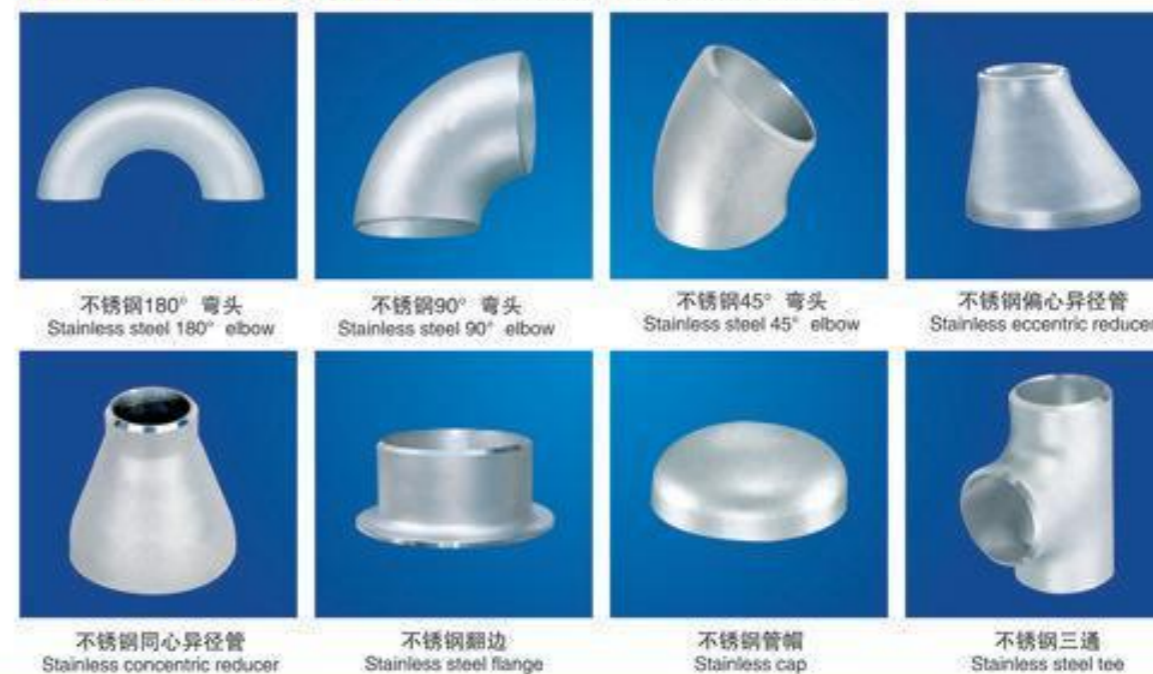
MEDIUM&HIGH PRESSURE PIPEFITTINGS 中高压管件



MEDIUM&LOW PRESSURE PIPEFITTINGS 中低压管件



STAINLESS STEEL PIPE FITTING 不锈钢管件



FLANGE SERIES 法兰系列



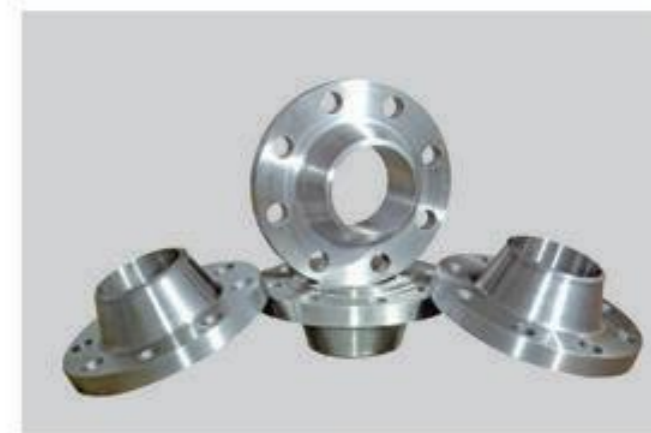
带颈对焊钢制管法兰系列
Welding Neck Flange



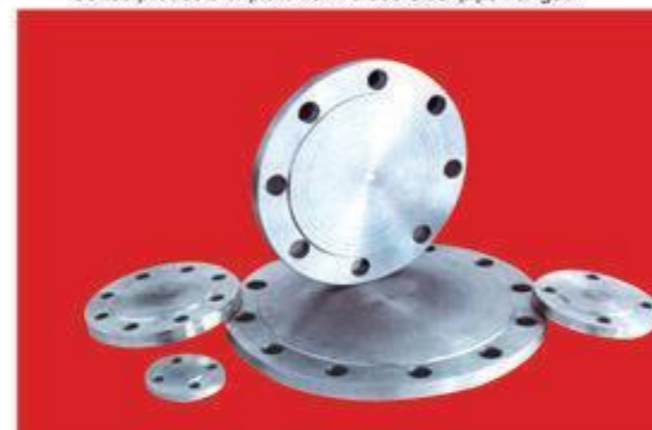
带颈对焊钢制管法兰系列
Welding Neck Flange



板式平焊钢制管法兰系列
Series products of plate flat welded steel pipe flanges



带颈对焊钢制管法兰系列
Series products of neck butt welded steel pipe flanges



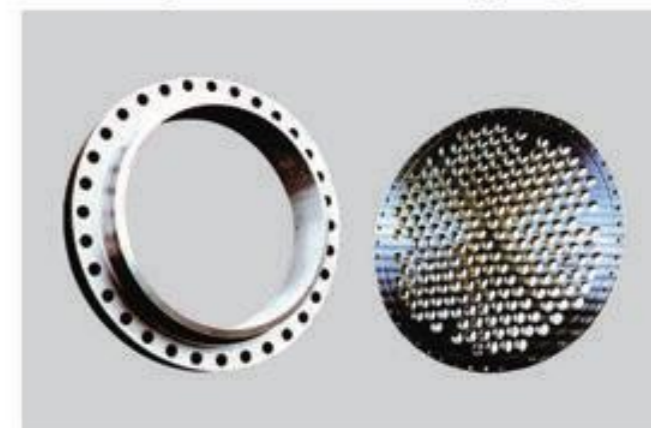
钢制管法兰盖系列
Series products of steel pipe flanges covers



带颈平焊钢制管法兰系列
Series products of neck flat welded steel pipe flanges



突面平焊环松套板式钢制管法兰系列
Series products of convex flat welded ring slip-on plate steel pipe flanges



压力容器配套的法兰管板
Corollary flange pipes and plates for pressure container

STAINLESS STEEL FLANGE SERIES 不锈钢法兰系列



不锈钢对焊法兰系列
Stainless steel butt welding flange series



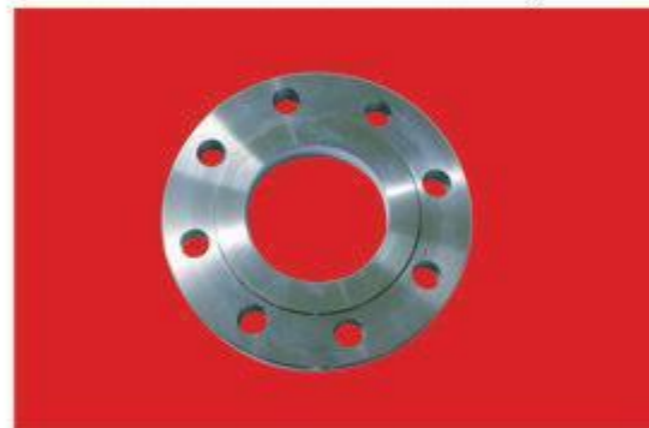
不锈钢松套法兰系列
Stainless Steel loose flanges Series



不锈钢美标对焊法兰系列
Stainless Steel American Standard welded flange series



不锈钢美标对焊法兰系列
Stainless Steel American Standard welded flange series



不锈钢板式对焊法兰系列
Stainless steel plate welded flange series



不锈钢德标对焊法兰系列
Stainless steel German standard welded flange series



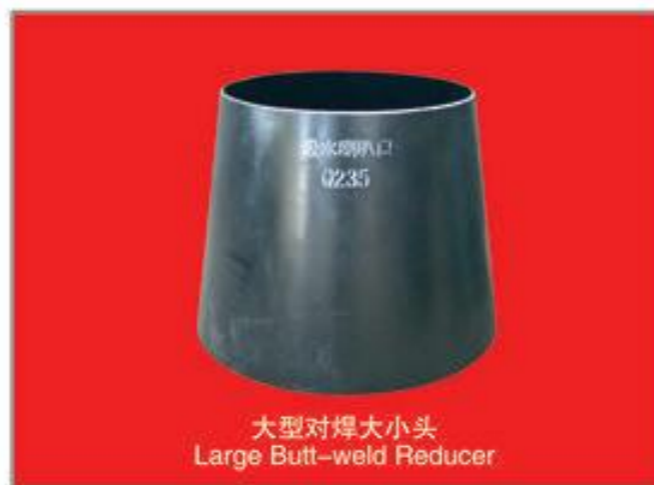
不锈钢带颈平焊法兰系列
Stainless Steel with carotid flat welding flange series



不锈钢法兰盖系列
Stainless steel flange cover series

LARGE PIPE

FITTINGS 大型对焊管件



大型对焊弯头 Large Butt-weld Elbow

BENDS PRODUCTS

弯管产品



法兰连接式弯管 Flange connection type elbow



大型弯管 Large bend

Finished goods

WAREHOUSE 成品仓库



Finished goods

WAREHOUSE 成品仓库



RAW MATERIALS

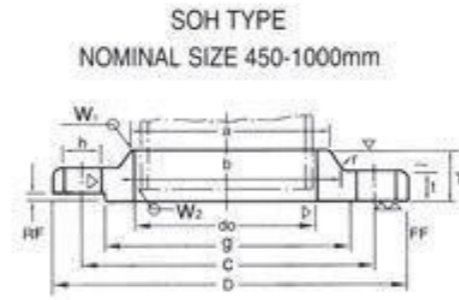
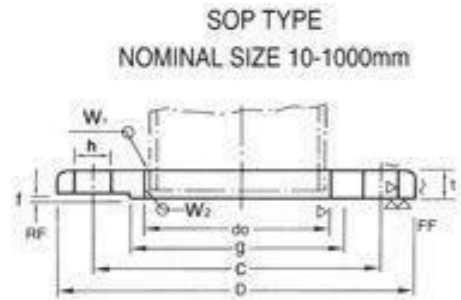
原材料



5Kg/Cm²

JIS B2220-1984(KSB 1503-1985)

5Kg/Cm² SLIP-ON WELDING STEEL PIPE FLANGES



Unit:mm

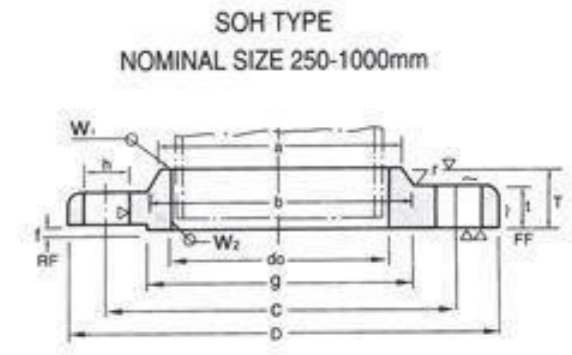
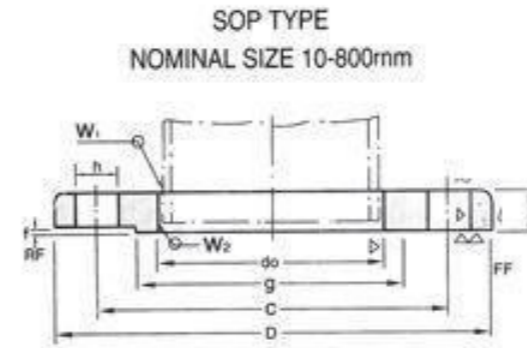
Nominal Bore of Flange	Outside Diam. of Appl. Cable Pipe	Inside Diam. of Flange do	Outside Diam. of Flange D	Sectional Dimensions of Flange							Dia. of Bolt			Weight(kg)			
				t	T	Diam. of Hub		Rad -lus r	Raised face f	Diam. of Raised Face g	Diam. of Bolt Circle C	Number of Bolt Holes	Hole Diam h	Nominal Bolt Size	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	M22	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 B1509(JIS B2202)1984.
3. Nominal diameter over 1000 is manufacturer's standard(*).

10Kg/Cm²

JIS B2220-1984(KSB 1503-1985)

10Kg/Cm² SLIP-ON WELDING STEEL PIPE FLANGES



Unit:mm

NORMAL 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			Weight(kg)			
				t	T	Diam. of Hub		Rad -lus r	Raised face f	Diam. of Raised Face g	Diam. of Bolt Circle C	Number of Bolt Holes	Hole Diam h	Nominal Bolt Size	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	90.0	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	218.0	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	321.0	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	409.0	560	28	44	436	442	6	3	475	510	16	27	M24	23.0	52.5	25.2
450	457.2	460.0	620	30	48	496	502	6	3	530	565	20	27	M24	29.5	68.8	33.0
500	508.0	511.0	675	30	48	548	554	6	3	585	620	20	27	M24	33.5	82.1	37.6
(550)	558.8	562.0	745	32	52	604	610	6	3	640	680	20	33	M30	43.1	105.8	49.7
600	609.6	613.0	795	32	52	656	662	6	3	690	730	24	33	M30	45.7	120.2	52.6
(650)	660.4	664.0	845	34	56	706	712	6	3	740	780	24	33	M30	52.1	145.0	60.6
700	711.2	715.0	905	34	58	762	770	6	3	800	840	24	33	M30	59.5	107.2	70.6
(750)	762.0	766.0	970	36	62	816	824	6	3	855	900	24	33	M30	73.2	204.2	85.8
800	812.8	817.0	1020	36	64	868	876	6	3	905	950	28	33	M30	76.4	225.4	91.2
(850)	863.6	868.0	1070	36	66	920	928	6	3	955	1000	28	33	M30	80.7	248.8	98.6
900	914.4	919.0	1120	38	70	971	979	6	3	1005	1050	28	33	M30	89.4	288.4	109.0
1000	1016.0	1021.0	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	672.2	-
+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 B1509(JIS B2202)1984.
3. Nominal diameter over 1000 is manufacturer's standard(*).

FLANGES WELD ON PIPES

Nominal pressure : 10kgf/cm²-ND10

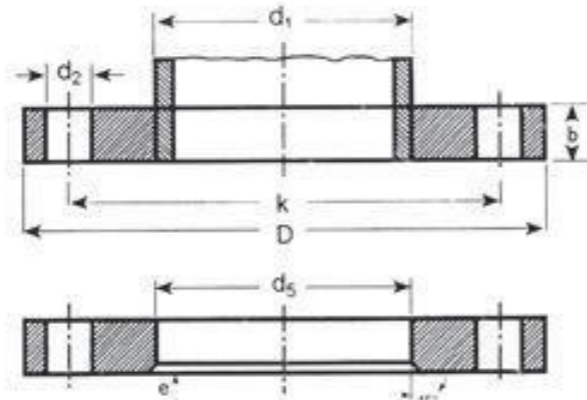
DIN 2576

FLANSLAR

DUZ BORUYA KAYNAK EDILEN

Anma Basinci: 10kgf/cm²-ND6

TS 816/2 (TS ISO 7005-1)

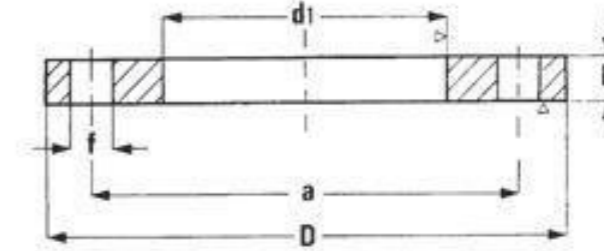


DN	BORU (Pipe)		FLANS (Flange)					CIVATALAR (Bolts)			AGIRLIK (Weight) (7.85 kg/dm ³) kg
	d ₁	d ₂	d ₄	D	b	e	k	Sayisi (Each)	Vida (Screw)	d ₅	
10	14	14.5	90	14	5	60	4	M12	14	0.613	
	17.2	17.7								0.605	
15	20	21	95	14	5	65	4	M12	14	0.675	
	21.3	22								0.669	
20	25	26	105	16	5	75	4	M12	14	0.749	
	26.9	27.6								0.936	
25	30	31	115	16	5	85	4	M12	14	1.14	
	33.7	34.4								1.11	
32	38	39	140	16	5	100	4	M16	18	1.66	
	42.4	43.1								1.62	
40	44.5	45.5	150	16	5	110	4	M16	18	1.89	
	48.3	49								1.86	
50	57	58.1	165	18	6	125	4	M16	18	2.51	
	60.3	61.1								2.47	
65	76.1	77.1	185	18	6	145	4	M16	18	3.00	
80	88.9	90.3	200	20	7	160	8	M16	18	3.79	
100	108	109.6	220	20	7	180	8	M16	18	4.20	
	114.3	115.9								4.03	
125	133	134.8	250	22	7	210	8	M16	18	5.71	
	139.7	141.6								5.46	
150	159	161.1	285	22	7	240	8	M20	22	6.72	
	168.3	170.5								6.57	
(175)	193.7	196.1	315	24	7	270	8	M20	22	8.45	
200	219.1	221.8	340	24	7	295	8	M20	22	9.31	
250	267	270.2	395	26	7	350	12	M20	22	12.5	
	273	276.2								11.9	
300	323.9	327.6	445	26	7	400	12	M20	22	13.8	
350	355.6	359.7	505	28	7	460	16	M20	22	20.6	
	368	372.2								19.0	
400	406.4	411	565	32	7	515	16	M24	26	27.9	
	419	423.7								25.9	
(450)	457	462.5	615	38	7	565	20	M24	26	35.6	
500	508	513.6	670	38	7	620	20	M24	26	41.1	

*Duz boruya kaynakli flanslarin ND 16-ND 25 -ND 40 olarak imalati yapilmaktadir.

UNI 2278-67 PN 16

DIN 2577 ND 16



DN	Ø TUBO		d ₁		a	D	b	f	VITI	N. FORI	Kg.
	DIN	ISO	DIN	ISO							
10	13,5	17,2	14	17,5	60	90	12	14	M12	4	0,520
15	20	21,3	20,5	22	65	95	12	14	M12	4	0,660
20	25	26,9	25,5	27,5	75	105	14	14	M12	4	0,820
25	30	33,7	30,5	34	85	115	14	14	M12	4	1,010
32	38	42,4	38,5	43	100	140	16	18	M16	4	1,630
40	44,5	48,3	45	49	110	150	16	18	M16	4	1,850
50	57	60,3	58	61,5	125	165	18	18	M16	4	2,460
65	76,1		77		145	185	18	18	M16	4	3,000
80	88,9		90		160	200	20	18	M16	8	3,610
100	108	114,3	109	115,5	180	220	22	18	M16	8	4,400
125	133	139,7	134,5	141	210	250	24	18	M16	8	5,920
150	159	168,3	160,5	170	240	285	24	22	M20	8	7,170
200	219,1		221		295	340	26	22	M20	12	9,770
250	267	273	269	275	355	405	32	25	M22	12	16,000
300	323,9		326		410	460	32	25	M22	12	19,300
350	368	355,6	370,5	358	470	520	36	25	M22	16	29,400
400	419	406,4	422	409	525	580	38	30	M27	16	36,500
450	457,2		460,2		585	640	40	30	M27	20	42,000
500	508		511		650	715	42	33	M30	20	59,000
600	609,6		612,6		770	840	44	36	M33	20	70,000
700	711,2		714,2		840	910	46	36	M33	24	88,000
800	812,8		815,8		950	1025	48	39	M36X3	24	115,000
900	914,4		917,4		1050	1125	50	39	M36X3	28	125,000
1000	1016		1019		1170	1255	50	42	M39X3	28	160,000

1100	1120	1124	1270	1355	50	42	M 39	32	
1200	1220	1224	1390	1485	52	48	M 45	32	
1300	1320	1324	1490	1585	52	48	M 45	32	
1400	1420	1424	1590	1685	54	48	M 45	36	
1500	1520	1524	1710	1820	54	56	M 52	36	
1600	1620	1624	1820	1930	56	56	M 52	40	
1800	1820	1824	2020	2130	58	56	M 52	44	
2000	2020	2024	2230	2345	60	62	M 56	52	

SCREWED PIPE FLANGES

Nominal Pressure : 10 and 16kgf/cm²-ND10-ND16

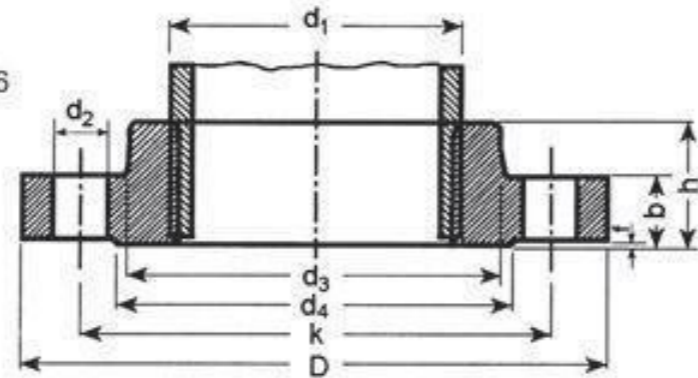
DIN 2566

FLANSLAR

BORULARICIN VIDALI

Anma Basıncı : 10ve 16kgf/cm²-ND10-ND16

TS 813 (TS ISO 7005-1)



BORU (Pipe)	FLANS (Flange)						BOYUN (Neck)	ALIN ÇIKINTISI (Raised face)			CIVATALAR (Bolts)			FLANS AĞIRLIĞI (Flange weight) (7.85 kg/dm ²) kg
	DN	d ₁	Boru Vidası (Whitworth)	D	b	k		h	d ₃	d ₄	f	Sayısı Each	Vida Screw	
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 göre galvanizli olarak imal edilebilir.

BLIND FLANGES

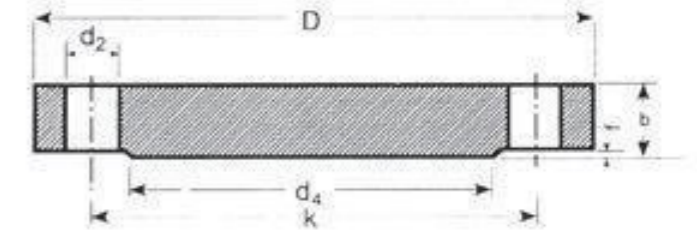
Nominal Pressure : 16kgf/cm²-ND16

DIN 2527

KOR FLANS

Anma Basıncı : 16kgf/cm²-ND16

(TS ISO 7005-1)



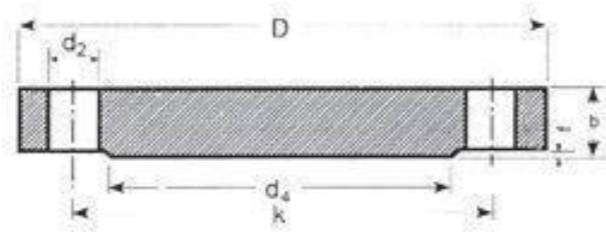
BORU (Pipe)	D	b	k	ALIN ÇIKINTISI (Raised face)		DELİKLER (Drilling)			AĞIRLIK (Weight) kg
				d ₁	f	Sayısı (Each)	Vida (Screw)	d ₂	
10	90	14	60	40	2	4	M12	14	0.63
15	95	14	65	45	2	4	M12	14	0.72
20	105	16	75	58	2	4	M12	14	1.01
25	115	16	85	68	2	4	M12	14	1.23
32	140	16	100	78	2	4	M16	18	1.80
40	150	16	110	88	3	4	M16	18	2.09
50	165	18	125	102	3	4	M16	18	2.88
65	185	18	145	122	3	4	M16	18	3.66
80	200	20	160	138	3	8	M16	18	4.77
100	220	20	180	158	3	8	M16	18	5.65
125	250	22	210	188	3	8	M16	18	8.42
150	285	22	240	212	3	8	M20	22	10.4
(175)	315	24	270	242	3	8	M20	22	14.0
200	340	24	295	268	3	12	M20	22	16.1
250	405	26	255	320	3	12	M24	26	24.9
300	460	28	410	378	4	12	M24	26	35.1
350	520	30	470	438	4	16	M24	26	47.8
400	580	32	525	490	4	16	M27	30	63.5
500	715	34	650	610	4	20	M30	33	102
600	840	36	770	725	5	20	M33	36	149.7
700	910	36	840	795	5	24	M33	36	173.7
800	1025	38	950	900	5	24	M36	39	235.5
900	1125	40	1050	1000	5	28	M36	39	298.8
1000	1255	42	1170	1115	5	28	M39	42	390.7
1200	1485	48	1390	1330	5	32	M45	48	624.8
1400	1685	52	1590	1530	5	36	M45	48	872.6
1600	1930	58	1820	1750	5	40	M52	56	1275.1
1800	2130	62	2020	1950	5	44	M52	56	1661.9
2000	2345	66	2230	2150	5	48	M56	62	2142.1

BLIND FLANGES

Nominal Pressure : 25kgf/cm²-ND25
DIN 2527

KOR FLANS

Anma Basıncı : 25kgf/cm²-ND25
(TS ISO 7005-1)



BORU (Pipe) DN	D	b	k	ALIN ÇIKINTISI (Raised face)		DELİKLER (Drilling)			AGIRLIK (Weight) kg
				d ₁	f	Sayısı (Each)	Vida (Screw)	d ₂	
10 150	Anma basıncı 40 kgf/cm ² olan ölçülerden alınmalıdır.								
(175)	330	28	280	248	3	12	M24	26	17.6
200	360	30	310	278	3	12	M24	26	22.7
250	425	32	370	335	3	12	M27	30	34.5
300	485	34	430	395	4	16	M27	30	47.3
350	555	38	490	450	4	16	M30	33	69.3
400	620	40	550	505	4	16	M33	36	91.5
500	730	45	660	615	4	20	M33	36	141

BLIND FLANGE

Nominal Pressure : 40kgf/cm²-ND40

KOR FLANS

Anma Basıncı : 40kgf/cm²-ND40

(TS ISO 7005-1)

BORU (Pipe) DN	D	b	k	ALIN ÇIKINTISI (Raised face)		DELİKLER (Drilling)			AGIRLIK (Weight) kg
				d ₁	f	Sayısı (Each)	Vida (Screw)	d ₂	
10	90	16	80	40	2	4	M12	14	
15	95	16	85	45	2	4	M12	14	
20	105	18	95	58	2	4	M12	14	
25	115	18	105	68	2	4	M12	14	
32	140	18	130	78	2	4	M16	18	
40	150	18	140	88	3	4	M16	18	
50	165	20	155	102	3	4	M16	18	
65	185	22	175	122	3	8	M16	18	4.33
80	200	24	190	138	3	8	M16	18	5.94
100	235	24	215	162	3	8	M20	22	7.64
125	270	26	250	188	3	8	M24	26	11.0
150	300	28	280	218	3	8	M24	26	14.7
(175)	350	32	320	260	3	12	M27	30	22.4
200	375	34	340	285	3	12	M27	30	27.6
250	450	38	410	345	3	12	M30	33	44.5
300	515	42	470	410	4	16	M30	33	64.3
350	580	46	530	460	4	16	M33	36	90.8
400	660	50	610	535	4	16	M36	39	129
500	755	56	700	615	4	20	M39	42	175

*Kor Flansları ND 64 ve DN100 normlarında imalatı yapılmaktadır.

WELDING NECK FLANGES

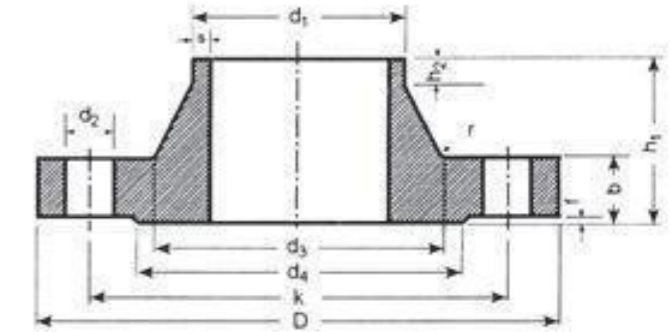
Nominal Pressure : 10kgf/cm²-ND10
DIN 2632

FLANSLAR

BORULAR ICIN, BOYUNLARI KAYNAKLI

Anma Basıncı : 10kgf/cm²-ND10

TS 811/3 (TS ISO 7005-1)



BORU (Pipe) DN	d ₁ ISO/DIN	FLANS (Flange)				BOYUN (Neck)				ALIN ÇIKINTISI (Raised face)		CIVATALAR (Bolts)			FLANS AGIRLIK (Weight) (7.85 kg·dm ³) kg
		D	b	k	h ₁	d ₂	s	r	h ₂	d ₃	f	Sayısı (Each)	Vida (Screw)	d ₄	
10 150	17.2 168.3	TS 811/4 'deki anma basıncı 16kgf/cm ² olan ölçüler alınmalıdır.													
200	216 219.1	340	24	295	62	232 235	5.9	10	16	268	3	8	M20	22	11.3
250	267 273	395	26	350	68	285 292	6.3	12	16	320	3	12	M20	22	14.7
300	318 323.9	445	26	400	68	335 344	7.1	12	16	370	4	12	M20	22	17.4
350	355.6 368	505	26	460	68	385	7.1	12	16	430	4	16	M20	22	21.6
400	406.4 419	565	26	515	72	440	7.1	12	16	482	4	16	M24	26	26.2
500	508 521	670	28	620	75	542	7.1	12	16	585	4	20	M24	26	38.1
600	610 622	780	28	725	80	642	7.1	12	18	685	5	20	M27	30	44.6
700	711 720	895	30	840	80	745	8	12	18	800	5	24	M27	30	62.4
800	812.8 820	1015	32	950	90	850	8	12	18	905	5	24	M30	33	84.1
900	914.4 920	1115	34	1050	95	950	10	12	20	1005	5	28	M30	33	98.5
1000	1016 1020	1230	34	1160	95	1052	10	16	20	1110	5	28	M33	36	115
1200	1220	1455	38	1380	115	1255	11	16	25	1330	5	32	M36	39	182
1400	1420	1675	42	1590	120	1460	12	16	25	1535	5	36	M39	42	248
1600	1620	1915	46	1820	130	1665	14	16	25	1760	5	40	M45	48	347
1800	1820	2115	50	2020	140	1868	15	16	30	1960	5	44	M45	48	430
2000	2020	2325	54	2230	150	2072	16	16	30	2170	5	48	M45	48	539
2200	2220	2550	58	2440	160	2275	18	18	35	2370	6	52	M52	56	658
2400	2420	2760	62	2650	170	2478	20	18	35	2570	6	56	M52	56	825
2600	2620	2960	66	2850	180	2680	22	18	40	2780	6	60	M52	56	979
2800	2820	3180	70	3070	190	2882	22	18	40	3000	6	64	M52	56	1156
3000	3020	3405	75	3290	200	3085	24	18	45	3210	6	68	M56	62	1420

WELDING NECK FLANGES

Nominal Pressure: 16kgf/cm²-ND16

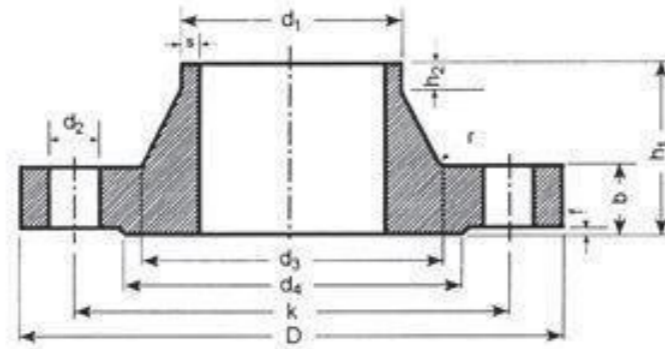
DIN 2633

FLANSLAR

BORULAR ICIN, BOYUNLARI KAYNAKLI

Anma Basinci: 16kgf/cm²-ND16

TS 811/4 (TS ISO 7005-1)



WELDING NECK FLANGES

Nominal Pressure: 25kgf/cm²-ND25

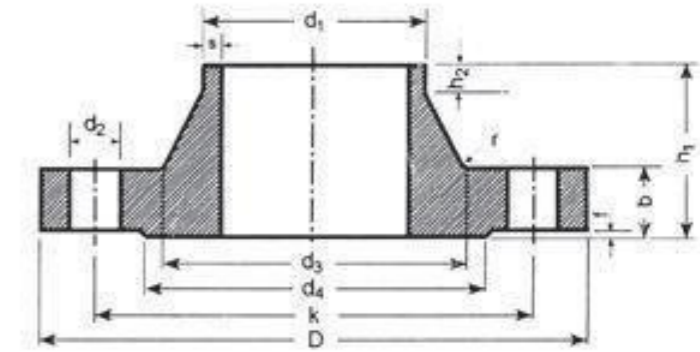
DIN 2634

FLANSLAR

BORULAR ICIN, BOYUNLARI KAYNAKLI

Anma Basinci: 25kgf/cm²-ND25

TS 811/5 (TS ISO 7005-1)



BORU (Pipe)		FLANS (Flange)				BOYUN (Neck)				ALINCIKINTISI (Raised face)		CIVATALAR (Bolts)			FLANS AGIRLIK (Weight) (7.85 kg/dm ³) kg
DN	d ₁ ISO/DIN	D	b	k	h ₁	d ₂	s	r	h ₂	d ₃	f	Sayisi (Each)	Vida (Screw)	d ₄	
10	14	90	14	60	35	25	1.8	4	6	40	2	4	M12	14	0.580
15	20	95	14	65	35	30	2	4	6	45	2	4	M12	14	0.648
20	25	105	16	75	38	38	2.3	4	6	58	2	4	M12	14	0.952
25	30	115	16	85	38	42	2.6	4	6	68	2	4	M12	14	1.14
32	38	140	16	100	40	52	2.6	6	6	78	2	4	M16	18	1.69
40	44.5	150	16	110	42	60	2.6	6	7	88	3	4	M16	18	1.86
50	57	165	18	125	45	72	2.9	6	8	102	3	4	M16	18	2.53
65	76.1	185	18	145	45	90	2.9	6	10	122	3	4	M16	18	3.06
80	88.9	200	20	160	50	105	3.2	8	10	138	3	4/8*	M16	18	3.70
100	108	220	20	180	52	125	3.6	8	12	158	3	8	M16	18	4.62
125	133	250	22	210	55	150	4	8	12	188	3	8	M16	18	6.30
150	159	265	22	240	55	175	4.5	10	12	212	3	8	M20	22	7.75
175	193.7	315	24	270	60	210	5.4	10	12	242	3	8	M20	22	9.85
200	219.1	340	24	295	62	235	5.9	10	16	268	3	12	M20	22	11.0
250	267	405	26	355	70	285	6.3	12	16	320	3	12	M24	26	15.6
300	323.9	460	28	410	78	344	7.1	12	16	378	4	12	M24	26	22.0
350	355.6	520	30	470	82	390	8	12	16	438	4	16	M24	26	28.8
400	406.4	580	32	525	85	445	8	12	16	490	4	16	M27	30	36.3
500	508	715	34	650	90	548	8	12	16	610	4	20	M30	33	61.0
600	610	840	36	770	95	652	8.8	12	18	725	5	20	M33	36	75.4
700	711	910	36	840	100	755	8.8	12	18	795	5	24	M33	36	77.0
800	813	1025	38	950	105	855	10	12	20	900	5	24	M36	39	101
900	914	1125	40	1050	110	955	10	12	20	1000	5	28	M36	39	122
1000	1016	1255	42	1170	120	1058	10	16	22	1115	5	28	M39	42	162
1200	1220	1485	48	1390	130	1282	12.5	16	30	1330	5	32	M45	48	243
1400	1420	1585	52	1590	145	1485	14.2	16	30	1530	5	36	M45	48	323
1600	1620	1930	58	1820	160	1668	16	16	35	1750	5	40	M52	56	479
1800	1820	2130	62	2020	170	1870	17.5	16	35	1950	5	44	M52	56	599
2000	2020	2345	66	2230	180	2072	20	16	40	2150	5	48	M56	62	719

BORU (Pipe)		FLANS (Flange)				BOYUN (Neck)				ALINCIKINTISI (Raised face)		CIVATALAR (Bolts)			FLANS AGIRLIK (Weight) (7.85 kg/dm ³) kg
DN	d ₁ ISO/DIN	D	b	k	h ₁	d ₂	s	r	h ₂	d ₃	f	Sayisi Each	Vida Screw	d ₄	
10	17.2	Degerler DIN 2635 (40 kgf/cm ²)' den alimlidir.													
150	168.3	Degerler DIN 2635 (40 kgf/cm ²)' den alimlidir.													
175	191	330	28	280	75	215	5.6	10	15	248	3	12	M24	26	13.4
	193.7					218									
200	216	360	30	310	80	240	6.3	10	16	278	3	12	M24	26	17.0
	219.1					244									
250	267	425	32	370	88	292	7.1	12	18	335	3	12	M27	30	24.4
	273					298									
300	318	485	34	430	92	345	8	12	18	395	4	16	M27	30	31.2
	323.9					352									
350	355.6	555	38	490	100	398	8	12	20	450	4	16	M30	33	47.2
	368														44.2
400	406.4	620	40	550	110	452	8.8	12	20	505	4	16	M33	36	61.7
	419														57.9
500	580	730	44	660	125	558	10	12	20	615	4	20	M33	36	89.6
	521														
600	610	845	46	770	125	660	11	12	20	720	5	20	M36	39	104
	822														
700	711	960	46	875	125	780	12.5	20	24	820	5	24	M36	42	136
	720														
800	813	1085	50	990	135	865	14.2	22	24	930	5	24	M45	48	166
	820														
900	914	1185	54	1090	145	968	16.0	24	28	1030	5	28	M45	46	235
	920														
1000	1016	1320	58	1210	155	1070	17.5	24	28	1140	5	28	M52	56	307
	1020														

Flange Standard 法兰标准

WELDING NECK FLANGES

Nominal Pressure: 40kgf/cm²-ND40

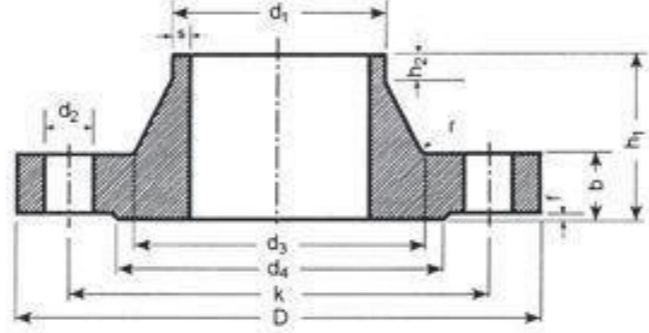
DIN 2635

FLANSLAR

BORULAR ICIN, BOYUNLARI KAYNAKLI

Anma Basıncı: 40kgf/cm²-ND40

TS 811/6 (TS ISO 7005-1)



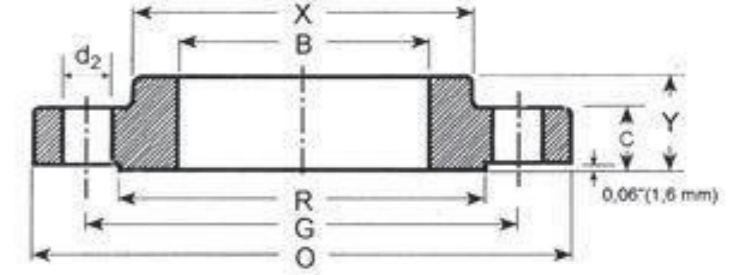
SLIP ON FLANGE

DUZ GECME FLANSLAR

Class 150--ASME B 16.5

Class 150--ASME B 16.47

PN 20

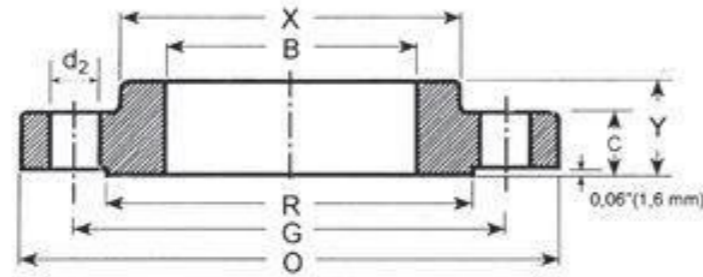


BORU (Pipe)		FLANŞ (Flange)				BOYUN (Neck)				ALIN ÇIKINTISI (Raised face)		CIVATALAR (Bolts)			FLANŞ AĞIRLIĞI (Flange Weight) (7.85 kg/dm ³) kg
DN	d ₁ ISO-DIN	D	b	k	h ₁	d ₂	s	r	h ₂	d ₃	f	Sayı Each	Vida Screw	d ₄	
10	14	90	16	60	35	25	1.8	4	6	40	2	4	M12	14	0.661
	17.5					28									
15	20	95	16	65	38	30	2	4	6	45	2	4	M12	14	0.746
	21.3					32									
20	25	105	18	75	40	38	2.3	4	6	58	8	4	M12	14	1.06
	26.9					40									
25	30	115	18	85	40	42	2.6	4	6	68	2	4	M12	14	1.29
	32.7					46									
32	38	140	18	100	42	52	2.6	6	6	78	2	4	M16	18	1.88
	42.4					56									
40	44.5	150	18	110	45	60	2.6	6	7	88	3	4	M16	18	2.33
	48.3					64									
50	57	168	20	125	48	72	2.9	6	8	102	3	4	M16	18	2.82
	60.3					75									
65	76.1	185	22	145	52	90	2.9	6	10	122	3	8	M16	18	3.74
	88.9					105									
80	88.9	200	24	160	58	105	3.2	8	12	138	3	8	M16	18	4.75
	108					128									
100	108	235	24	190	65	128	3.6	8	12	162	3	8	M20	22	6.52
	114.3					134									
125	133	270	26	220	68	155	4	8	12	188	8	8	M24	26	9.07
	139.7					162									
150	159	300	28	250	75	182	4.5	10	12	218	3	8	M24	26	11.8
	168.3					192									
175	191	350	32	295	82	215	5.6	10	15	260	3	12	M27	30	18.2
	193.7					218									
200	216	375	34	320	88	244	6.3	10	16	285	3	12	M27	30	21.5
	219.1					242									
250	267	450	38	385	105	298	7.1	12	18	345	3	12	M30	33	34.9
	273					306									
300	318	515	42	450	115	352	8	12	18	410	4	16	M30	33	49.7
	323.9					362									
350	355.6	580	46	510	125	408	8.8	12	20	465	4	16	M33	36	68.1
	363					306									
400	406.4	660	50	585	135	462	11	12	20	535	4	16	M36	39	96.5
	419					306									
500	508	755	52	670	140	562	14.2	12	20	615	4	20	M39	42	117
	521					306									

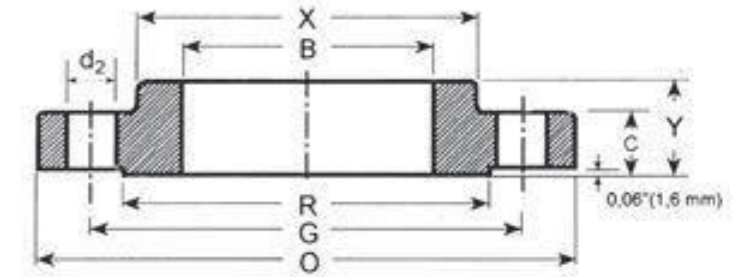
BORU (Pipe)		O	B min	C	Y	X	R	DELİKLER (Drilling)			AĞIRLIK (Weight) kg
DN	NPS							Sayı (Each)	G	d ₂	
15	1/2"	89	22.5	11.5	16	30	35.0	4	60.5	16	0.4
20	3/4"	99	28.0	13.0	16	38	43.0	4	70.0	16	0.7
25	1"	108	34.5	14.0	17	49	51.0	4	79.5	16	0.8
32	1 1/4"	117	43.5	16.0	21	59	63.5	4	89.0	16	1.1
40	1 1/2"	127	49.5	17.5	22	65	73.0	4	98.5	16	1.4
50	2"	152	62.0	19.5	25	78	92.0	4	120.5	20	2.2
65	2 1/2"	178	74.5	22.5	29	90	105.0	4	139.5	20	3.6
80	3"	190	90.5	24.0	30	108	127.0	4	152.5	20	4.1
-	3 1/2"	216	103.5	24.0	32	122	140.0	8	178.0	20	5.2
100	4"	229	116.0	24.0	33	135	157.0	8	190.5	20	5.6
125	5"	254	144.0	24.0	36	164	185.5	8	216.0	22	6.3
150	6"	279	170.5	25.5	40	192	216.0	8	241.5	22	7.5
200	8"	343	221.5	29.0	44	246	270.0	8	298.5	22	12.6
250	10"	406	276.5	30.5	49	305	324.0	12	362.0	26	18.5
300	12"	483	327.0	32.0	56	365	381.0	12	432.0	26	28
350	14"	533	359.0	35.0	57	400	413.0	12	476.0	30	36
400	16"	597	410.5	37.0	64	457	470.0	16	540.0	30	46
450	18"	635	462.0	40.0	68	505	533.5	16	578.0	33	50
500	20"	698	513.0	43.0	73	559	584.0	20	635.0	33	64
600	24"	813	616.0	48.0	83	664	692.0	20	749.5	36	89
650	26"	869.9	666.7	50.8	85.7	723.9	742.9	24	806.4	35	106
700	28"	927.1	717.5	52.4	87.3	781.0	793.7	28	863.6	35	126
750	30"	984.2	768.3	54.0	89.9	831.8	857.2	28	914.4	35	140
800	32"	1060.4	819.1	57.1	92.1	889.0	908.0	28	977.9	41	168
850	34"	111.2	869.9	58.7	93.7	939.8	958.8	32	1028.7	41	179
900	36"	1168.4	920.7	60.3	95.2	996.9	1022.3	32	1085.8	41	205
950	38"	1238.2	971.5	60.3	95.2	1060.4	1073.1	32	1149.3	41	230
1000	40"	1289.0	1022.3	63.5	98.4	1111.2	1123.9	36	1200.1	41	270
1050	42"	1346.2	1073.1	66.7	101.6	1168.4	1193.8	36	1257.3	41	310
1100	44"	1403.3	1123.9	66.7	101.6	1219.2	1244.6	40	1314.4	41	340
1150	46"	1454.1	1174.7	68.3	103.2	1270.0	1295.4	40	1365.2	41	375
1200	48"	1511.3	1225.5	69.8	104.8	1327.1	1358.9	44	1422.4	41	426

* 26" 'den 48" 'e kadar olan flans ölçüleri BS.3293 'e uygundur.

SLIP ON FLANGE
DUZ GECME FLANSLAR
Class 300---ASME B 16.5
Class 300---ASME B 16.47
PN 50



SLIP ON FLANGE
DUZ GECME FLANSLAR
Class 600---ASME B 16.5
Class 600---ASME B 16.47
PN 110



BORU (Pipe)		O	B min	C	Y	X	R	DELIKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS							Sayisi (Each)	G	d ₂	
15	1/2"	95	22.5	14.5	22	38	35.0	4	66.5	16	0.7
20	3/4"	117	28.0	16.0	25	48	43.0	4	82.5	20	1.1
25	1"	124	34.5	17.5	27	54	51.0	4	89.0	20	1.4
32	1 1/4"	133	43.5	19.5	27	64	63.5	4	98.5	20	1.8
40	1 1/2"	156	49.5	21.0	30	70	73.0	4	114.5	22	2.6
50	2"	165	62.0	22.5	33	84	92.0	8	127.0	20	3.4
65	2 1/2"	190	74.5	25.5	38	100	105.0	8	149.0	22	4.4
80	3"	210	90.5	29.0	43	118	127.0	8	168.0	22	6.1
-	3 1/2"	229	103.5	30.5	44	133	140.0	8	184.0	22	7.5
100	4"	254	116.0	32.0	48	146	157.0	8	200.0	22	10.1
125	5"	279	144.0	35.0	51	178	185.5	8	235.0	22	12.5
150	6"	318	170.5	37.0	52	206	216.0	12	270.0	22	14.1
200	8"	381	221.5	41.5	62	260	270.0	12	330.0	26	24.8
250	10"	444	276.5	48.0	67	321	324.0	16	387.5	30	37.1
300	12"	521	327.0	51.0	73	375	381.0	16	451.0	33	50
350	14"	584	359.0	54.0	76	426	413.0	20	514.5	33	70
400	16"	648	410.5	57.5	83	483	470.0	20	571.5	36	97
450	18"	711	462.0	60.5	89	533	533.5	24	626.5	36	123
500	20"	775	513.0	63.5	95	587	584.0	24	686.0	36	133
600	24"	914	616.0	70.0	106	702	692.0	24	813.0	42	208
650	26"	971.5	666.7	79.4	184.1	720.7	749.3	28	876.3	44.4	255
700	28"	1035.0	717.5	85.7	196.8	774.7	800.1	28	939.8	44.4	321
750	30"	1090.2	768.3	92.1	209.5	827.1	857.2	28	996.9	47.6	362
800	32"	1149.3	819.1	98.4	222.2	881.1	914.4	28	1054.1	50.8	398
850	34"	1206.5	869.9	101.6	231.6	936.6	965.2	28	1104.9	50.8	480
900	36"	1270.0	920.7	104.8	241.3	990.6	1022.3	32	1168.4	54.0	540

* 26" 'den 36" 'e kadar olan flans ölçüleri BS.3293 'e uygundur.

BORU (Pipe)		O	B min	C	Y	X	R	DELIKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS							Sayisi (Each)	G	d ₂	
15	1/2"	95	22.5	14.5	22	38	35.0	4	66.5	16	0.8
20	3/4"	117	28.0	16.0	25	48	43.0	4	82.5	20	1.4
25	1"	124	34.5	17.5	27	54	51.0	4	89.0	20	1.6
32	1 1/4"	133	43.5	21.0	29	54	63.5	4	98.5	20	2.1
40	1 1/2"	156	49.5	22.5	32	70	73.0	4	114.5	22	3.1
50	2"	165	62.0	25.5	37	84	92.0	8	127.0	20	3.7
65	2 1/2"	190	74.5	29.0	41	100	105.0	8	149.0	22	5.4
80	3"	210	90.5	32.0	46	118	127.0	8	168.5	22	7.3
-	3 1/2"	229	103.5	35.0	49	133	140.0	8	184.0	26	8.9
100	4"	273	116.0	38.5	54	152	157.0	8	216.0	26	15.8
125	5"	330	144.0	44.5	60	189	185.5	8	267.0	30	24.5
150	6"	356	170.5	48.0	67	222	216.0	12	292.0	30	29.5
200	8"	419	221.5	55.5	76	273	270.0	12	349.0	33	43
250	10"	508	276.5	63.5	86	343	324.0	16	432.0	36	70
300	12"	559	327.0	66.5	92	400	381.0	20	489.0	36	86
350	14"	603	359.0	70.0	94	432	413.0	20	527.0	39	100
400	16"	686	410.5	76.5	106	495	470.3	20	603.0	42	142
450	18"	743	462.0	83.0	117	546	533.5	20	654.0	45	175
500	20"	813	513.0	89.0	127	610	584.0	24	724.0	45	221
600	24"	940	616.0	102.0	140	718	692.0	24	838.0	52	315
650	26"	1016.0	666.7	108.0	222.2	747.7	749.3	28	914.4	50.8	425
700	28"	1073.1	717.5	111.1	234.9	803.3	800.1	28	965.2	54.0	470
750	30"	1130.3	768.3	114.3	247.6	862.0	857.2	28	1022.3	54.0	533
800	32"	1193.8	819.1	117.5	260.3	917.6	914.4	28	1079.5	60.3	624
850	34"	1244.6	869.9	120.7	269.9	973.2	965.2	28	1130.3	60.3	681
900	36"	1314.4	920.7	123.8	282.6	1031.9	1022.3	28	1193.8	66.7	726

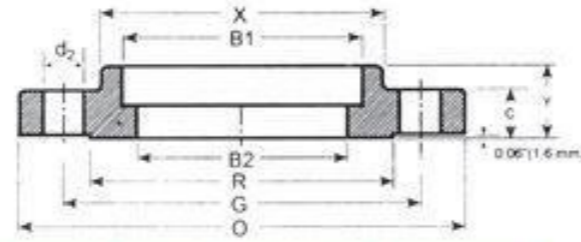
*Duz gecme flansların Class 400 'den Class 2500 'kadar uretime yapilmaktadr.

*ANSI B.16-5 normunda Lapped(Lap-Joint)destekli gevsek flansların da Class 150 'den Class 2500 'e kadar uretimi yapilmaktadir.

*26" 'dan 36" 'e kadar olan flans ölçüleri BS.3293 'e uygundur.

SOCKET WELDING FLANGES
SOCKER VELD FLANSLAR
ASME B 16.5

CLASS 150
PN 20



BORU (Pipe)		O	B1	B2	C	Y	X	R	DELIKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS								Sayısı (Each)	G	d ₂	
15	1/2"	89	22.5	16.0	11.5	16	30	35.0	4	60.5	16	0.4
20	3/4"	99	28.0	21.0	13.0	16	38	43.0	4	70.0	16	0.7
25	1"	108	34.5	26.5	14.5	17	49	51.0	4	79.5	16	0.9
32	1 1/4"	117	43.5	35.0	16.0	21	59	63.5	4	89.0	16	1.2
40	1 1/2"	127	49.5	41.0	17.5	22	65	73.0	4	98.5	16	1.5
50	2"	152	62.0	52.5	19.5	25	78	92.0	4	120.5	20	2.3
65	2 1/2"	178	74.5	62.5	22.5	29	90	105.0	4	139.5	20	3.7
80	3"	190	90.5	78.0	24.0	30	108	127.0	4	152.5	20	4.2

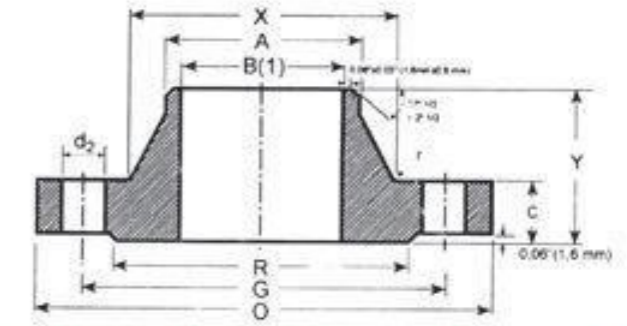
CLASS 300
PN 50

BORU (Pipe)		O	B1	B2	C	Y	X	R	DELIKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS								Sayısı (Each)	G	d ₂	
15	1/2"	95	22.5	16.0	14.5	22	38	35.0	4	66.5	16	0.7
20	3/4"	117	28.0	21.0	16.0	25	48	43.0	4	82.5	20	1.2
25	1"	124	34.5	26.5	17.5	27	54	51.0	4	89.0	20	1.4
32	1 1/4"	131	43.5	35.0	19.5	27	64	63.5	4	98.5	20	1.9
40	1 1/2"	156	49.5	41.0	21.0	30	70	73.0	4	114.5	22	2.8
50	2"	165	62.0	52.5	22.5	33	84	92.0	6	127.0	20	3.3
65	2 1/2"	190	74.5	62.5	25.5	36	100	105.0	8	149.0	22	4.6
80	3"	210	90.5	78.0	29.0	43	118	127.0	8	168.5	22	6.3

CLASS 600
PN 110

BORU (Pipe)		O	B1	B2	C	Y	X	R	DELIKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS								Sayısı (Each)	G	d ₂	
15	1/2"	95	22.5	B2 değeri siparişe göre değişmektedir.	14.5	22	38	35.0	4	66.5	16	0.8
20	3/4"	117	28.0		16.0	25	48	43.0	4	82.5	20	1.4
25	1"	124	34.5		17.5	27	54	51.0	4	89.0	20	1.6
32	1 1/4"	131	43.5		21.0	29	64	63.5	4	98.5	20	2.1
40	1 1/2"	156	49.5		22.5	32	70	73.0	4	114.5	22	3.1
50	2"	165	62.0		25.5	37	84	92.0	6	127.0	20	3.7
65	2 1/2"	190	74.5		29.0	41	100	105.0	8	149.0	22	5.4
80	3"	210	90.5		32.0	46	118	127.0	8	168.5	22	7.3

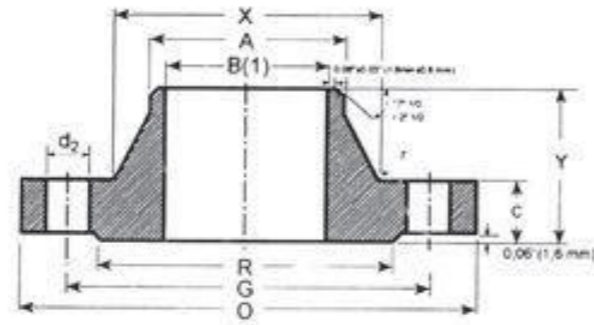
WELDING NECK FLANGES
KAYNAK BOYUNLU FLANS
Class 150--ASME B 16.5
Class 150--ASME B 16.47
PN 20



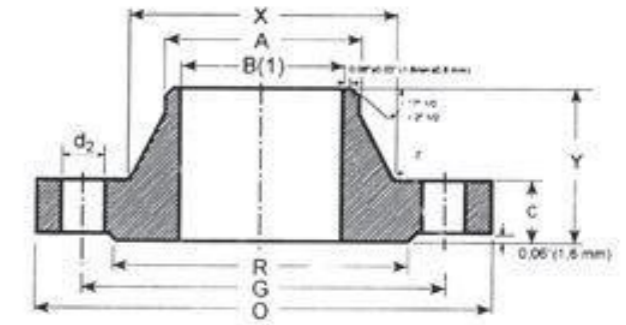
BORU (Pipe)		O	A	C	Y	X	R	DELIKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS							Sayısı (Each)	G	d ₂	
15	1/2"	89	21.3	11.5	48	30	35.0	4	60.5	16	0.5
20	3/4"	99	26.9	13.0	52	38	43.0	4	70.0	16	0.7
25	1"	108	33.7	14.5	56	49	51.0	4	79.5	16	1.1
32	1 1/4"	117	42.4	16.0	57	59	63.5	4	89.0	16	1.5
40	1 1/2"	127	48.3	17.5	62	65	73.0	4	98.5	16	1.8
50	2"	152	60.3	19.5	64	78	92.0	4	120.5	20	2.7
65	2 1/2"	178	73.0	22.5	70	90	105.0	4	139.5	20	4.4
80	3"	190	88.9	24.0	70	108	127.0	4	152.5	20	5.2
-	3 1/2"	216	101.6	24.0	71	122	140.0	8	178.0	20	6.4
100	4"	229	114.3	24.0	76	135	157.0	8	190.5	20	7.5
125	5"	254	141.3	24.0	89	164	185.5	8	216.0	22	9.2
150	6"	279	168.3	25.5	89	192	216.0	8	241.5	22	11
200	8"	343	219.1	29.0	102	246	270.0	8	298.5	22	18.3
250	10"	406	273.0	30.5	102	305	324.0	12	362.0	26	25
300	12"	483	323.9	32.0	114	365	381.0	12	432.0	26	39
350	14"	533	355.6	35.0	127	400	413.0	12	476.0	30	51
400	16"	597	406.4	37.0	127	457	470.0	16	540.0	30	60
450	18"	635	457.0	40.0	140	505	533.5	16	578.0	33	71
500	20"	698	508.0	43.0	145	559	584.0	20	635.0	33	88
600	24"	813	610.0	48.0	152	664	692.0	20	749.5	36	119
650	26"	869.9	660.4	50.8	127.0	723.9	742.9	24	806.4	35	136
700	28"	927.1	711.2	52.4	128.6	781.0	793.7	28	863.6	35	143
750	30"	984.2	762.0	54.0	130.2	831.8	857.0	28	914.4	35	163
800	32"	1060.4	812.8	57.1	133.3	889.0	908.0	28	977.9	41	197
850	34"	1111.2	863.6	58.7	134.9	939.8	958.8	32	1028.7	41	211
900	36"	1168.4	914.4	60.3	136.5	996.9	1022.3	32	1035.8	41	236
950	38"	1238.2	965.2	60.3	136.5	1060.4	1073.1	32	1149.3	41	270
1000	40"	1289.0	1016.0	63.5	139.7	1111.2	1123.9	36	1200.1	41	310
1050	42"	1346.2	1066.8	66.7	142.9	1168.4	1193.8	36	1257.3	41	340
1100	44"	1403.3	1117.4	66.7	142.9	1219.0	1244.6	40	1314.4	41	395
1150	46"	1454.1	1168.4	68.3	144.5	1270.0	1295.4	40	1365.2	41	470
1200	48"	1511.3	1219.2	69.8	146.0	1327.1	1358.9	44	1422.4	41	563

*B(1) ölçüsü sipari ile birlikte müşteri tarafından verilmelidir.
*26" 'den 48" 'e kadar olan flans ölçüleri BS.3293 'e uygundur.
26" 'den 48" 'e kadar olan flanslar MSS-SP 44 'e uygun olarak da imal edilmektedir.

WELDING NECK FLANGES
KAYNAK BOYUNLU FLANS
Class 300--ASME B 16.5
Class 300--ASME B 16.47
PN 50



WELDING NECK FLANGES
KAYNAK BOYUNLU FLANS
Class 600--ASME B 16.5
Class 600--ASME B 16.47
PN 110



BORU (Pipe)		O	A	C	Y	X	R	DELIKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS							Sayısı (Each)	G	d ₂	
15	1/2"	95	21.3	14.5	52	38	35.0	4	66.5	16	0.8
20	3/4"	117	26.9	16.0	57	48	43.0	4	82.5	20	1.3
25	1"	124	33.7	17.5	62	54	51.0	4	89.0	20	1.7
32	1 1/4"	133	42.4	19.5	65	64	63.5	4	98.5	20	2.2
40	1 1/2"	156	48.3	21.0	68	70	73.0	4	114.5	22	3.2
50	2"	165	60.3	22.5	70	84	92.0	8	127.0	20	3.6
65	2 1/2"	190	73.0	25.5	76	100	105.0	8	149.0	22	5.4
80	3"	210	88.9	29.0	79	118	127.0	8	168.0	22	7.4
-	3 1/2"	229	101.6	30.5	81	133	140.0	8	184.0	22	8.9
100	4"	254	114.3	32.0	86	146	157.0	8	200.0	22	11.9
125	5"	279	141.3	35.0	98	178	185.5	8	235.0	22	16
150	6"	318	168.3	37.0	98	206	216.0	12	270.0	22	20
200	8"	380	219.1	41.5	111	260	270.0	12	330.0	26	31
250	10"	444	273.0	48.0	117	321	324.0	16	387.5	30	44
300	12"	521	323.9	51.0	130	375	381.0	16	451.0	33	64
350	14"	584	355.6	54.0	143	426	413.0	20	514.5	33	88
400	16"	643	406.4	57.5	146	483	470.0	20	571.5	36	113
450	18"	711	457.0	60.5	159	533	533.5	24	628.5	36	134
500	20"	775	508.0	63.5	162	587	584.0	24	686.0	36	171
600	24"	914	610.0	70.0	168	702	692.0	24	813.0	42	238
650	26"	971.5	666.7	79.4	184.1	720.7	749.3	28	876.3	44.4	304
700	28"	1035.0	717.5	85.7	196.8	774.7	800.1	28	939.8	44.4	367
750	30"	1092.2	768.3	92.1	209.5	827.1	857.0	28	996.9	47.6	422
800	32"	1149.3	819.1	98.4	222.2	881.1	914.4	28	1054.1	50.8	465
850	34"	1206.5	871.6	101.6	231.8	936.6	965.2	28	1104.9	50.8	545
900	36"	1270.0	922.4	104.8	241.3	990.6	1022.3	32	1168.4	54.0	590

* B(1) ölçüsü sipari ile birlikte müşteri tarafından verilmelidir.
* 26" 'den 36" 'e kadar olan flans ölçüleri BS.3293 'e uygundur.
* 26" 'den 48" 'e kadar olan flanslar MSS-SP 44 'e uygun olarak da imal edilmektedir.

BORU (Pipe)		O	A	C	Y	X	R	DELIKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS							Sayısı (Each)	G	d ₂	
15	1/2"	95	21.3	14.5	52	38	35.0	4	66.5	16	0.9
20	3/4"	117	26.9	16.0	57	48	43.0	4	82.5	20	1.5
25	1"	124	33.7	17.5	62	54	51.0	4	89.0	20	1.9
32	1 1/4"	133	42.4	21.0	67	64	63.5	4	98.5	20	2.6
40	1 1/2"	156	48.3	22.5	70	70	73.0	4	114.5	22	3.3
50	2"	165	60.3	25.5	73	84	92.0	8	127.0	20	4.7
65	2 1/2"	190	73.0	29.0	79	100	105.0	8	149.0	22	6.5
80	3"	210	88.9	32.0	83	118	127.0	8	168.5	22	8.7
-	3 1/2"	229	101.6	35.0	88	133	140.0	8	184.0	26	11.2
100	4"	273	114.3	38.5	102	152	157.0	8	216.0	26	18.1
125	5"	330	141.3	44.5	114	189	185.5	8	267.0	30	30
150	6"	356	168.3	48.0	117	222	216.0	12	292.0	30	36
200	8"	419	219.1	55.5	133	273	270.0	12	349.0	33	50
250	10"	508	273.0	63.5	152	343	324.0	16	432.0	36	90
300	12"	559	323.9	66.5	156	400	381.0	20	489.0	36	110
350	14"	603	355.6	70.0	165	432	413.0	20	527.0	39	150
400	16"	686	406.0	76.5	178	495	470.0	20	603.0	42	190
450	18"	743	457.0	83.0	184	546	533.5	20	654.0	45	240
500	20"	813	508.0	89.0	190	610	584.0	24	724.0	45	295
600	24"	940	610.0	102.0	203	718	692.0	24	838.0	52	365
650	26"	1016.0	671.5	108.0	222.2	747.7	749.3	28	914.4	50.8	404
700	28"	1073.1	723.9	111.1	234.9	803.3	800.1	28	965.2	54.0	480
750	30"	1130.3	774.7	114.3	247.6	862.0	857.2	28	1022.3	54.0	560
800	32"	1193.8	825.5	117.5	260.3	917.6	914.4	28	1079.5	60.3	680
850	34"	1244.6	877.9	120.7	269.9	973.2	965.2	28	1130.3	60.3	750
900	36"	1314.4	928.7	123.8	282.6	1031.9	1022.3	28	1193.8	66.7	795

* B(1) ölçüsü sipari ile birlikte müşteri tarafından verilmelidir.
* 26" 'den 36" 'e kadar olan flans ölçüleri BS.3293 'e uygundur.
* 26" 'den 48" 'e kadar olan flanslar MSS-SP 44 'e uygun olarak da imal edilmektedir.
* Class 900 'den Class 2500 'e kadar da üretim yapılmaktadır.

Flange Standard 法兰标准

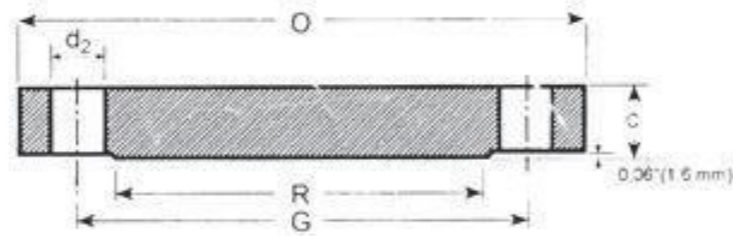
BLIND FLANGES

KOR FLANS

Class 150--ASME B 16.5

Class 150--ASME B 16.47

PN 20



BORU (Pipe)		O	C	R	DELIKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS				Sayısı (Each)	G	d ₂	
15	1/2"	89	11.5	35.0	4	60.5	16	0.4
20	3/4"	99	13.0	43.0	4	70.0	16	0.7
25	1"	108	14.5	51.0	4	79.5	16	0.9
32	1 1/4"	117	16.0	63.5	4	89.0	16	1.3
40	1 1/2"	127	17.5	73.0	4	98.5	16	1.6
50	2"	152	19.5	92.0	4	120.5	20	2.6
65	2 1/2"	178	22.5	105.0	4	139.5	20	4.1
80	3"	190	24.0	127.0	4	152.5	20	5.0
-	3 1/2"	216	24.0	140.0	8	178	20	6.4
100	4"	229	24.0	157.0	8	190.5	20	7.1
125	5"	254	24.0	185.5	8	216	22	9.0
150	6"	279	25.5	216.0	8	241.5	22	12
200	8"	343	29.0	270.0	8	298.5	22	21
250	10"	406	30.5	324.0	12	362	26	30
300	12"	483	32.0	381.0	12	432	26	45
350	14"	533	35.0	413.0	12	476	30	59
400	16"	597	37.0	470.0	16	540	30	79
450	18"	635	40.0	533.5	16	578	33	97
500	20"	698	43.0	584.0	20	635	33	124
600	24"	813	48.0	692.0	20	749.5	36	188
650	26"	870	68.5	794	24	806	35	323
700	28"	925	71.5	800	28	863	35	382
750	30"	985	74.5	857	28	914	35	450
800	32"	1060	81.0	914	28	978	41	560
850	34"	1110	82.5	965	32	1029	41	630
900	36"	1170	90.5	1022	32	1086	41	765
950	38"	1240	87.5	1073	32	1150	41	850
1000	40"	1290	90.5	1124	36	1200	41	955
1050	42"	1345	97.0	1194	36	1257	41	1075
1100	44"	1405	102.0	1245	40	1314	41	1200
1150	46"	1455	103.0	1295	40	1365	41	1380
1200	48"	1510	108.0	1395	44	1422	41	1590

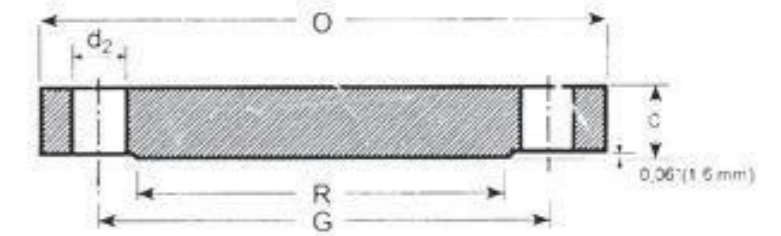
BLIND FLANGES

KOR FLANS

Class 300--ASME B 16.5

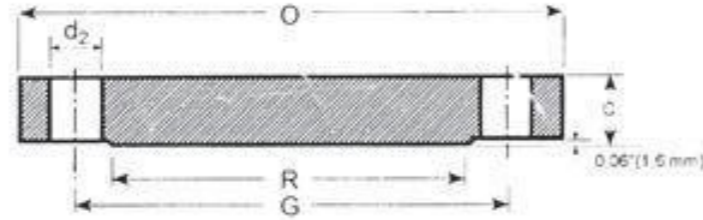
Class 300--ASME B 16.47

PN 50



BORU (Pipe)		O	C	R	DELIKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS				Sayısı (Each)	G	d ₂	
15	1/2"	95	14.5	35.0	4	66.5	16	0.7
20	3/4"	117	16.0	43.0	4	82.5	20	1.2
25	1"	124	17.5	51.0	4	89.0	20	1.5
32	1 1/4"	133	19.5	63.5	4	98.5	20	2
40	1 1/2"	156	21.0	73.0	4	114.5	22	2.9
50	2"	165	22.5	92.0	8	127	20	3.4
65	2 1/2"	190	25.5	105.0	8	149	22	5.1
80	3"	210	29.0	127.0	8	168.5	22	7
-	3 1/2"	229	30.5	140.0	8	184	22	8.9
100	4"	254	32.0	157.0	8	200	22	11.8
125	5"	279	35.0	185.5	8	235	22	15.5
150	6"	318	37.0	216.0	12	270	22	21.3
200	8"	381	41.5	270.0	12	330	26	35.2
250	10"	444	48.0	324.0	16	387.5	30	57
300	12"	521	51.0	381.0	16	451	33	82
350	14"	584	54.0	413.0	20	541.5	33	106
400	16"	648	57.5	470.0	20	571.5	36	140
450	18"	711	60.5	533.5	24	628.5	36	178
500	20"	775	63.5	584.0	24	686	36	223
600	24"	914	70.0	692.0	24	813	42	345
650	26"	970	84.0	749	28	876	44	505
700	28"	1035	90.0	800	28	940	44	615
750	30"	1090	95.0	857	28	997	48	705
800	32"	1150	100	914	28	1054	51	820
850	34"	1205	105	965	28	1105	51	950
900	36"	1270	111	1022	32	1168	54	1085
950	38"	1170	108	1029	32	1092	41	-
1000	40"	1240	114	1086	32	1156	44	-
1050	42"	1290	119	1137	32	1206	44	-
1100	44"	1355	124	1194	32	1264	48	-
1150	46"	1415	129	1245	28	1321	51	-
1200	48"	1465	133	1308	32	1372	51	-

BLIND FLANGES
KOR FLANS
Class 600—ASME B 16.5
Class 600—ASME B 16.47
PN 110



BORU (Pipe)		O	C	R	DELİKLER (Drilling)			AGIRLIK (Weight) kg
DN	NPS				Sayısı (Each)	G	d ₂	
15	1/2"	95	14.5	35.0	4	66.5	16	0.7
20	3/4"	117	16.0	43.0	4	82.5	20	1.2
25	1"	124	17.5	51.0	4	89	20	1.5
32	1 1/4"	133	21.0	63.5	4	98.5	20	2
40	1 1/2"	156	22.5	73.0	4	114.5	22	3.2
50	2"	165	25.5	92.0	8	127	20	4.3
65	2 1/2"	190	29.0	105.0	8	149	22	6
80	3"	210	32.0	127.0	8	166.5	22	8
-	3 1/2"	229	35.0	140.0	8	184	26	10.5
100	4"	273	38.5	157.0	8	216	26	18
125	5"	330	44.5	185.5	8	267	30	29
150	6"	356	48.0	216.0	12	292	30	36
200	8"	419	55.5	270.0	12	349	33	58
250	10"	508	63.5	324.0	16	432	36	98
300	12"	559	66.5	381.0	20	489	36	125
350	14"	603	70.0	413.0	20	527	39	151
400	16"	686	76.5	470.0	20	603	42	215
450	18"	743	83.0	533.5	20	654	45	275
500	20"	813	89.0	584.0	24	724	45	350
600	24"	940	102.0	692.0	24	838	52	532
650	26"	1015	125	749	28	914	51	800
700	28"	1075	132	800	28	965	54	945
750	30"	1130	140	857	28	1022	54	1115
800	32"	1195	148	914	28	1080	60	1315
850	34"	1245	154	965	28	1130	60	1495
900	36"	1315	162	1022	28	1194	60	1750
950	38"	1270	156	1054	28	1162	60	-
1000	40"	1320	162	1111	32	1213	60	-
1050	42"	1405	171	1168	28	1283	67	-
1100	44"	1455	178	1226	32	1334	67	-
1150	46"	1510	186	1276	32	1391	67	-
1200	48"	1595	195	1334	32	1460	73	-

* Kor flansların Class 900 'den Class 2500 'e kadar imalatı yapılmaktadır.
26" 'den 48" 'e kadar olan flanslar MSS-SP 44 'e uygun olarak da imal edilmektedir.

Gewindeflansche ASME B 16.5

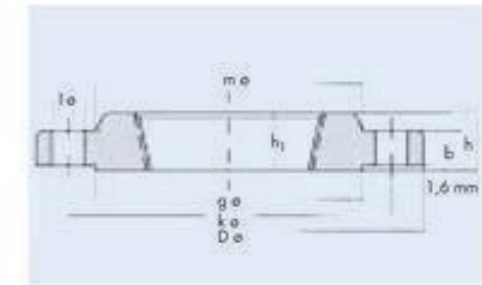
150 lbs

Threaded Flanges ASME B 16.5

150 lbs

Brides a visser a collet ASME B 16.5

150 lbs



150 lbs ASME B 16.5

Rohr-Anschlußmaße Pipe o.d. / Tube d.e.	Flansch Flange / Bride					Ansatz Neck Rebord	Dichtleiste Raised face Face surélevée	Schrauben Screws / Vis			kg / Stück kg / piece kg / pièce
DN	O D mm	D mm	J mm	b mm	h / h ₁ mm	m mm	g mm	Anzahl Quantity Quantité	l mm	k mm	"
1/2"	21,3	88,9		11,2	15,7	30,2	35,1	4	15,7	60,5	0,39
3/4"	26,7	98,6		12,7	15,7	38,1	42,9	4	15,7	69,9	0,56
1"	33,4	108,0		14,2	17,5	49,3	50,8	4	15,7	79,2	0,78
1 1/4"	42,2	117,3		15,7	20,6	58,7	63,5	4	15,7	88,9	1,03
1 1/2"	48,3	127,0		17,5	22,4	65,0	73,2	4	15,7	98,6	1,32
2"	60,3	152,4		19,1	25,4	77,7	91,9	4	19,1	120,7	2,06
2 1/2"	73,0	177,8		22,4	28,4	90,4	104,6	4	19,1	139,7	3,28
3"	88,9	190,5		23,9	30,2	108,0	127,0	4	19,1	152,4	3,85
3 1/2"	101,6	215,9		23,9	31,8	122,2	139,7	8	19,1	177,8	4,81
4"	114,3	228,6		23,9	33,3	134,9	157,2	8	19,1	190,5	5,30
5"	141,3	254,0		23,9	36,6	163,6	185,7	8	22,4	215,9	6,07
6"	168,3	279,4		25,4	39,6	192,0	215,9	8	22,4	241,3	7,45
8"	219,1	342,9		28,4	44,5	246,1	269,7	8	22,4	298,5	12,1
10"	273,0	406,4		30,2	49,3	304,8	323,8	12	25,4	362,0	16,5
12"	323,8	482,6		31,8	55,6	365,3	381,0	12	25,4	431,8	26,2
14"	355,6	533,4		35,1	57,2	400,1	412,8	12	28,4	476,3	34,6
16"	406,4	596,9		36,6	63,5	457,2	469,9	16	28,4	539,8	44,8
18"	457,2	635,0		39,6	68,3	505,0	533,4	16	31,8	577,9	48,9
20"	508,0	698,5		42,9	73,2	558,8	584,2	20	31,8	635,0	61,9
24"	609,6	812,8		47,8	82,6	663,4	692,2	20	35,1	749,3	86,9

Keine Eindröhrung bei Gewindeflanschen 150 lb
No counter bore required on 150 lb Threaded Flanges
Pas de filetage pour les brides à visser à collet 150 lb

Gewindeflansche ASME B 16.5

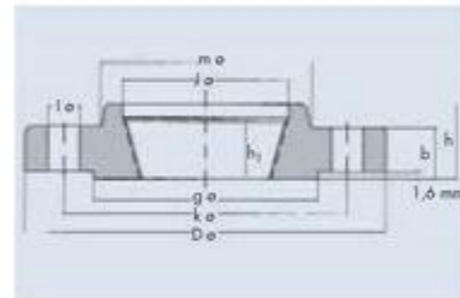
300 lbs

Threaded Flanges ASME B 16.5

300 lbs

Brides a visser a collet ASME B 16.5

300 lbs



300 lbs ASME B 16.5

Rohr-Anschlußmaße Pipe o.d. / Tube d.e.		Flansch Flange / Bride					Ansatz Neck Rebord	Dichtleiste Raised face Face surélevée	Schrauben Screws / Vis			kg / Stück kg / piece kg / pièce
DN	O D mm	D mm	J mm	b mm	h mm	h ₁ mm	m mm	g mm	Anzahl Quantity Quantité	l mm	k mm	=
1/2"	21,3	95,2	23,6	14,2	22,3	15,7	38,1	35,0	4	15,7	66,5	0,64
3/4"	26,7	117,3	29,0	15,7	25,4	15,7	47,8	42,9	4	19,1	82,6	1,12
1"	33,4	124,0	35,8	17,5	26,9	17,5	53,8	50,8	4	19,1	88,9	1,36
1 1/4"	42,2	133,4	44,5	19,1	26,9	20,6	63,5	63,5	4	19,1	98,6	1,68
1 1/2"	48,3	155,4	50,5	20,6	30,2	22,4	69,9	73,2	4	22,4	114,3	2,49
2"	60,3	165,1	63,5	22,4	33,3	28,4	84,1	91,9	8	19,1	127,0	2,87
2 1/2"	73,0	190,5	76,2	25,4	38,1	31,8	100,1	104,6	8	22,4	149,4	4,32
3"	88,9	209,6	92,2	28,4	42,9	31,8	117,3	127,0	8	22,4	168,1	5,85
3 1/2"	101,6	228,6	104,9	30,2	44,5	36,6	133,4	139,7	8	22,4	184,2	7,34
4"	114,3	254,0	117,6	31,8	47,8	36,6	146,1	157,2	8	22,4	200,2	9,61
5"	141,3	279,4	144,5	35,1	50,8	42,9	177,8	185,7	8	22,4	235,0	12,3
6"	168,3	317,5	171,5	36,6	52,3	46,0	206,2	215,9	12	22,4	269,7	15,6
8"	219,1	381,0	222,3	41,1	62	50,8	260,4	269,7	12	25,4	330,2	24,2
10"	273,0	444,5	276,4	47,8	66,5	55,6	320,5	323,8	16	28,4	387,4	34,1
12"	323,8	520,7	328,7	50,8	73,2	60,5	374,7	381,0	16	31,8	450,9	49,8
14"	355,6	584,2	360,4	53,8	76,2	63,5	425,5	412,8	20	31,8	514,4	69,9
16"	406,4	647,7	411,2	57,2	82,6	68,3	482,6	469,9	20	35,1	571,5	88,1
18"	457,2	711,2	462,0	60,5	88,9	69,9	533,4	533,4	24	35,1	628,7	109
20"	508,0	774,7	512,8	63,5	95,3	73,2	587,2	584,2	24	35,1	685,8	134
24"	609,6	914,4	614,4	69,9	106,4	82,6	701,5	692,2	24	41,1	812,8	201

Hinweis: 400 / 600 / 900 / 1500 / 2500 lbs auf Anfrage
 Noticé: 400 / 600 / 900 / 1500 / 2500 lbs on request
 Remarque : 400 / 600 / 900 / 1500 / 2500 lbs sur demande



STEEL BUTT-WELDING FITTING

ANSI

CONTENTS

45°、90°、180° Elbow(Long,Short)

Straight Tee and Cross,Cap

Reducing Tee and Cross

Reducer

Dimensional Tolerances(ANSI B16.9&16.28)

Outside Diameters and Wall Thickness

Butt-Welding Fittings Weight

美标、日标、德标钢管外径与壁厚
STEEL PIPE OUTER DIAMETER AND WALL THICKNESS STANDARDS (ASME, JIS, DIN)

单位:mm

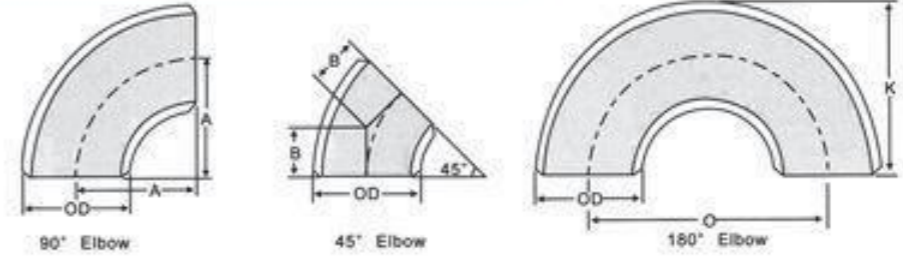
NOMINAL PIPE SIZE		NOMINAL WALL THICKNESS												NOMINAL PIPE SIZE								
A	B	NOMINAL WALL THICKNESS												A	B							
		ASME	JIS	DIN	AS(1)	DIN(2)	SCH10	SCH20	SCH30	STD	SCH40	SCH80	XS			SCH100	SCH120	SCH140	SCH160	XXS		
15	12*	21.3	21.7	21.3	2.8	2.0	2.11	-	2.41	2.77	2.77	-	3.73	3.73	-	-	-	4.78	7.47	15	12*	
20	34*	26.7	27.2	26.9	2.6	2.3	2.11	-	2.41	2.87	-	-	3.91	3.91	-	-	-	5.96	7.82	20	34*	
25	1*	33.4	34.0	33.7	3.2	2.6	2.77	-	2.90	3.38	3.38	-	4.55	4.55	-	-	-	6.35	9.09	25	1*	
32	1.14*	42.2	42.7	42.4	3.5	2.6	2.77	-	2.97	3.56	3.56	-	4.85	4.85	-	-	-	6.35	9.70	32	1.14*	
40	1.12*	48.3	48.6	48.3	3.5	2.6	2.77	-	3.18	3.68	3.68	-	5.08	5.08	-	-	-	7.14	10.15	40	1.12*	
50	2*	60.3	60.5	60.3	3.6	2.9	2.77	-	3.18	3.91	3.91	-	5.54	5.54	-	-	-	8.74	11.07	50	2*	
65	2.12*	73.0	76.3	76.1	4.2	2.9	3.05	-	4.78	5.16	5.16	-	7.01	7.01	-	-	-	9.53	14.02	65	2.12*	
80	3*	88.9	89.1	88.9	4.2	3.2	3.05	-	4.78	5.49	5.49	-	7.62	7.62	-	-	-	11.13	15.24	80	3*	
90	3.12*	101.6	101.6	-	4.2	-	3.05	-	4.78	5.74	5.74	-	8.08	8.08	-	-	-	-	-	90	3.12*	
100	4*	114.3	114.3	114.3	4.5	3.6	3.05	-	4.78	6.02	6.02	-	8.56	8.56	-	-	-	13.49	17.12	100	4*	
125	5*	141.3	139.8	139.7	4.5	4.0	3.40	-	-	6.55	6.55	-	9.53	9.53	-	-	-	15.88	19.05	125	5*	
150	6*	168.3	165.2	168.3	5.0	4.5	3.40	-	-	7.11	7.11	-	10.97	10.97	-	-	-	18.26	21.95	150	6*	
200	8*	219.1	215.3	219.1	5.8	6.3	3.76	6.35	7.04	8.18	8.18	10.31	12.70	12.70	15.09	18.26	20.62	23.01	22.23	200	8*	
250	10*	273.0	267.4	273.0	6.6	6.3	4.19	6.35	7.80	9.27	9.27	12.70	12.70	12.70	15.09	18.26	21.44	25.40	28.58	25.40	250	10*
300	12*	323.8	318.5	323.9	6.9	7.1	4.57	6.35	8.38	9.53	10.31	14.27	12.70	12.70	17.48	21.44	25.40	28.58	33.32	25.40	300	12*
350	14*	355.6	355.6	355.6	7.9	8.0	6.35	7.92	9.53	9.53	11.13	15.09	12.70	12.70	19.05	23.83	27.79	31.75	35.71	-	350	14*
400	16*	406.4	406.4	406.4	7.9	8.8	6.35	7.92	9.53	9.53	12.70	16.66	12.70	12.70	21.44	26.19	30.96	36.53	40.40	-	400	16*
450	18*	457.2	457.2	457.0	7.9	10.0	6.35	7.92	11.13	9.53	14.27	19.05	12.70	12.70	23.83	29.36	34.93	39.67	45.24	-	450	18*
500	20*	508.0	508.0	508.0	7.9	11.0	6.35	9.53	12.70	9.53	15.09	20.62	12.70	12.70	26.19	32.54	38.10	44.45	50.01	-	500	20*
550	22*	558.8	558.8	-	-	-	6.35	9.53	12.70	9.53	-	22.23	12.70	12.70	28.58	34.93	41.28	47.63	53.98	-	550	22*
600	24*	609.6	609.6	610.0	-	-	12.5	6.35	9.53	14.27	9.53	17.48	24.61	12.70	30.96	38.89	46.02	52.37	59.54	-	600	24*
650	26*	660.4	660.4	-	-	-	-	7.92	12.70	-	9.53	-	-	12.70	-	-	-	-	-	-	650	26*
700	28*	711.2	711.2	711.0	-	-	-	12.5	7.92	12.70	-	-	-	12.70	-	-	-	-	-	-	700	28*
750	30*	762.0	762.0	-	-	-	-	-	7.92	12.70	15.88	9.53	-	12.70	-	-	-	-	-	-	750	30*
800	32*	812.8	812.8	813.0	-	-	-	12.5	7.92	12.70	15.88	9.53	17.48	-	12.70	-	-	-	-	-	800	32*
850	34*	863.6	863.6	-	-	-	-	-	7.92	12.70	15.88	9.53	17.48	-	12.70	-	-	-	-	-	850	34*
900	36*	914.4	914.4	914.0	-	-	-	12.5	7.92	12.70	15.88	9.53	19.05	-	12.70	-	-	-	-	-	900	36*
950	38*	965.2	965.2	-	-	-	-	-	-	-	9.53	-	-	12.70	-	-	-	-	-	-	950	38*
1000	40*	1016.0	1016.0	1016.0	-	-	-	12.5	-	-	-	9.53	-	12.70	-	-	-	-	-	-	1000	40*
1050	42*	1066.8	1066.8	-	-	-	-	-	-	-	-	9.53	-	12.70	-	-	-	-	-	-	1050	42*
1100	44*	1117.6	1117.6	-	-	-	-	-	-	-	-	9.53	-	12.70	-	-	-	-	-	-	1100	44*
1150	46*	1168.4	1168.4	-	-	-	-	-	-	-	-	9.53	-	12.70	-	-	-	-	-	-	1150	46*
1200	48*	1219.2	1219.2	1220.0	-	-	-	-	-	-	-	9.53	-	12.70	-	-	-	-	-	-	1200	48*

NOTE: (1) THE WALL THICKNESS SPECIFIED IS GRADE IS GRADE F508 OF JIS B2311:1997
(2) THE WALL THICKNESS SPECIFIED IS FOR SERIES 3 OF DIN 2605 (PART 1):02 91

Pipe technical parameters
管件技术参数

STEEL BUTT-WELDING FITTING

- 90° Elbow(Long,Short)
- 45° Elbow(Long)
- 180° Elbow (Long,Short)



ANSI B16.9, ANSI B16.28

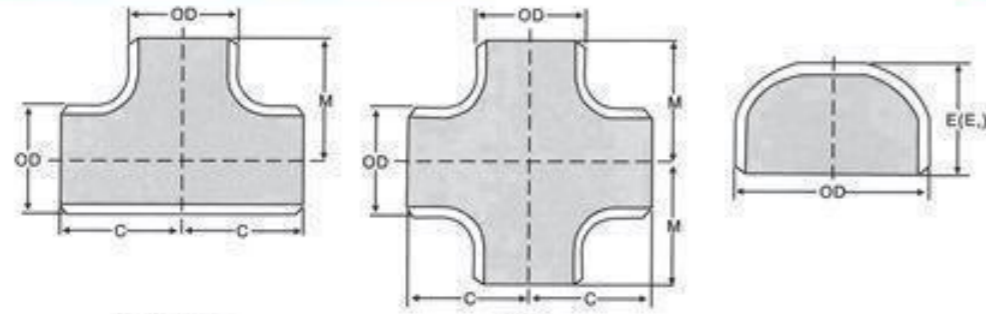
Unit:mm

Nominal Pipe Size	Outside Diameter O.D	90° 45° Center to End			180° Long		180° Short	
		Long		Short	Center to Center	Back to Face	Center to Center	Back to Face
		A	B	A	O	K	O	K
1/2	21.3	38	16	---	76	48	---	---
3/4	26.7	38	19	---	76	51	---	---
1	33.4	38	22	25	76	56	51	41
1.1/4	42.2	48	25	32	95	70	64	52
1.1/2	48.3	57	29	38	114	83	76	62
2	60.3	76	35	51	152	106	102	81
2.1/2	73.0	95	44	64	190	132	127	100
3	88.9	114	51	76	229	159	152	121
3.1/2	101.6	133	57	89	267	184	178	140
4	114.3	152	64	102	305	210	203	159
5	141.3	190	79	127	381	262	254	197
6	168.3	229	95	152	457	313	305	237
8	219.1	305	127	203	610	414	406	313
10	273.0	381	159	254	762	518	508	391
12	323.8	457	190	305	914	619	610	467
14	355.6	533	222	356	1067	711	711	533
16	406.4	610	254	406	1219	813	813	610
18	457.2	686	286	457	1372	914	914	686
20	508.0	762	318	508	1524	1016	1016	762
22	558.8	838	343	559	1676	1118	1118	883
24	609.6	914	381	610	1829	1219	1219	914
26	660.4	991	406	---	---	---	---	---
28	711.2	1067	438	---	---	---	---	---
30	762.0	1143	470	---	---	---	---	---
32	812.8	1219	502	---	---	---	---	---
34	863.6	1295	533	---	---	---	---	---
36	914.4	1372	565	---	---	---	---	---
38	965.2	1448	600	---	---	---	---	---
40	1016.0	1524	632	---	---	---	---	---
42	1066.8	1600	660	---	---	---	---	---
44	1117.6	1676	695	---	---	---	---	---
46	1168.4	1753	727	---	---	---	---	---
48	1219.2	1829	759	---	---	---	---	---

Pipe technical parameters
管件技术参数

■ STEEL BUTT-WELDING FITTING

Straight Tee and Cross



Tee(Straight)

Cross

Cap

Cap

ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter O.D	Center to End	
		Run C	Outlet M
1/2	21.3	25	25
3/4	26.7	29	29
1	33.4	38	38
1 1/4	42.2	48	48
1 1/2	48.3	57	57
2	60.3	64	64
2 1/2	73.0	76	76
3	88.9	86	86
3 1/2	101.6	95	95
4	114.3	105	105
5	141.3	124	124
6	168.3	143	143
8	219.1	178	178
10	273.0	216	216
12	323.8	254	254
14	355.6	279	279
16	406.4	305	305
18	457	343	343
20	508	381	381
22	559	419	419
24	610	432	432
26	660	495	495
28	711	521	521
30	762	559	559
32	813	597	597
34	864	635	635
36	914	673	673
38	965	711	711
40	1016	749	749
42	1067	762	711
44	1118	813	762
46	1168	851	800
48	1219	889	838

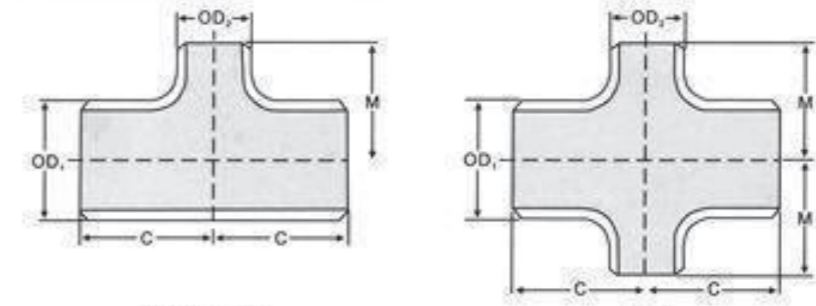
ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter O.D	Length E	Limiting Wall Thickness for length E	Length E1
1/2	21.3	25	4.57	25
3/4	26.7	25	3.81	25
1	33.4	38	4.57	38
1 1/4	42.2	38	4.83	38
1 1/2	48.3	38	5.08	38
2	60.3	38	5.59	44
2 1/2	73.0	38	7.11	51
3	88.9	51	7.62	64
3 1/2	101.6	64	8.13	76
4	114.3	64	8.64	76
5	141.3	76	9.65	89
6	168.3	89	10.92	102
8	219.1	102	12.70	127
10	273.0	127	12.70	152
12	323.8	152	12.70	176
14	355.6	165	12.70	191
16	406.4	178	12.70	203
18	457	203	12.70	229
20	508	229	12.70	254
22	559	254	12.70	254
24	610	267	12.70	305
26	660	267	---	---
28	711	267	---	---
30	762	267	---	---
32	813	267	---	---
34	864	267	---	---
36	914	267	---	---
38	965	305	---	---
40	1016	305	---	---
42	1067	305	---	---
44	1118	343	---	---
46	1168	343	---	---
48	1219	343	---	---

Notes:
(1)Length E applies for thickness not exceeding that given in column "Limiting Wall Thickness for Length E."
(2)Length E1 applies for thickness greater than that given in column "Limiting Wall Thickness" for NPS24 and smaller. For NPS26 and large, length E shall be agreement between the manufacturer and purchaser.

■ STEEL BUTT-WELDING FITTING

Reducing Tee and Cross



Tee(Reducing)

Cross

ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter O.D		Center to End	
	Run OD	Outlet OD	Run	Outlet
			C	M
1/2X1/2X3/8	21.3	17.3	25	25
1/2X1/2X1/4	21.3	13.7	25	25
3/4X3/4X1/2	26.7	21.3	29	29
3/4X3/4X3/8	26.7	17.3	29	29
1X1X3/4	33.4	26.7	38	38
1X1X1/2	33.4	21.3	38	38
1 1/4X1 1/4X1	42.2	33.4	48	48
1 1/4X1 1/4X3/4	42.2	26.7	48	48
1 1/4X1 1/4X1/2	42.2	21.3	48	48
1 1/2X1 1/2X1 1/4	48.3	42.2	57	57
1 1/2X1 1/2X1	48.3	33.4	57	57
1 1/2X1 1/2X3/4	48.3	26.7	57	57
1 1/2X1 1/2X1/2	48.3	21.3	57	57
2X2X1 1/2	60.3	48.3	64	60
2X2X1 1/4	60.3	42.2	64	57
2X2X1	60.3	33.4	64	51
2X2X3/4	60.3	26.7	64	44
2 1/2X2 1/2X2	73.0	60.3	76	70
2 1/2X2 1/2X1 1/2	73.0	48.3	76	67
2 1/2X2 1/2X1 1/4	73.0	42.2	76	64
2 1/2X2 1/2X1	73.0	33.4	76	57
3X3X2 1/2	88.9	73.0	86	83
3X3X2	88.9	60.3	86	76
3X3X1 1/2	88.9	48.3	86	73
3X3X1 1/4	88.9	42.2	86	70
3 1/2X3 1/2X3	101.6	88.9	95	92
3 1/2X3 1/2X2 1/2	101.6	73.0	95	89
3 1/2X3 1/2X2	101.6	60.3	95	83
3 1/2X3 1/2X1 1/2	101.6	48.3	95	79

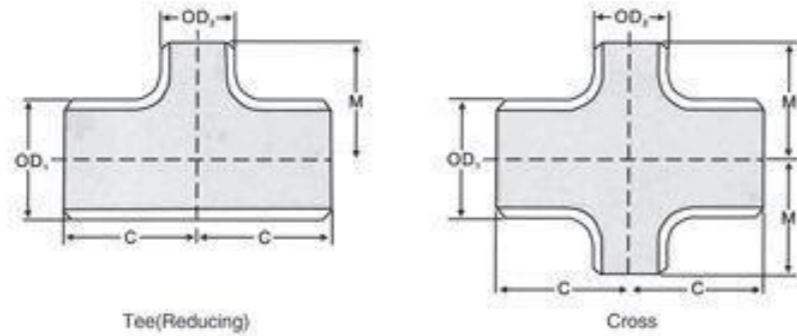
ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter O.D		Center to End	
	Run OD	Outlet OD	Run	Outlet
			C	M
4X4X3 1/2	114.3	101.6	105	102
4X4X3	114.3	88.9	105	98
4X4X2 1/2	114.3	73.0	105	95
4X4X2	114.3	60.3	105	89
4X4X1 1/2	114.3	48.3	105	86
5X5X4	141.3	114.3	124	117
5X5X3 1/2	141.3	101.6	124	114
5X5X3	141.3	88.9	124	111
5X5X2 1/2	141.3	73.0	124	108
5X5X2	141.3	60.3	124	105
6X6X5	168.3	141.3	143	137
6X6X4	168.3	114.3	143	130
6X6X3 1/2	168.3	101.6	143	127
6X6X3	168.3	88.9	143	124
6X6X2 1/2	168.3	73.0	143	121
8X8X6	219.1	168.3	178	168
8X8X5	219.1	141.3	178	162
8X8X4	219.1	114.3	178	156
8X8X3 1/2	219.1	101.6	178	152
10X10X8	273.0	219.1	216	203
10X10X6	273.0	168.3	216	194
10X10X5	273.0	141.3	216	191
10X10X4	273.0	114.3	216	184
12X12X10	323.8	273.0	254	241
12X12X8	323.8	219.1	254	229
12X12X6	323.8	168.3	254	219
12X12X5	323.8	141.3	254	216
14X14X12	355.6	323.8	279	270
14X14X10	355.6	273.0	279	257
14X14X8	355.6	219.1	279	248
14X14X6	355.6	168.3	279	238

Pipe technical parameters
管件技术参数

■ STEEL BUTT-WELDING FITTING

Reducing Tee and Cross



ANSI B 16.9 Unit:mm

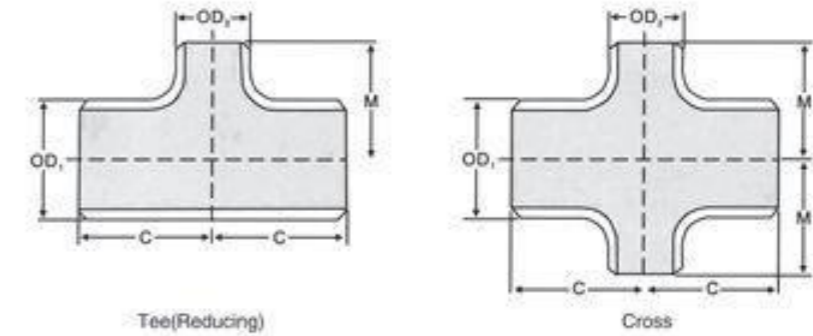
Nominal Pipe Size	Outside Diameter O.D		Center to End	
	Run OD ₁	Outlet OD ₂	Run	Outlet
			C	M
16X16X14	406.4	355.6	305	305
16X16X12	406.4	323.8	305	295
16X16X10	406.4	273.0	305	283
16X16X8	406.4	219.1	305	273
16X16X6	406.4	168.3	305	264
18X18X16	457	406.4	343	330
18X18X14	457	355.6	343	330
18X18X12	457	323.8	343	321
18X18X10	457	273	343	308
18X18X8	457	219.1	343	298
20X20X18	508	457	381	368
20X20X16	508	406.4	381	356
20X20X14	508	355.6	381	356
20X20X12	508	323.8	381	346
20X20X10	508	273	381	333
20X20X8	508	219.1	381	324

ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter O.D		Center to End	
	Run OD ₁	Outlet OD ₂	Run	Outlet
			C	M
22X22X20	559	508	419	406
22X22X18	559	457	419	394
22X22X16	559	406.4	419	381
22X22X14	559	355.6	419	381
22X22X12	559	323.8	419	371
22X22X10	559	273	419	359
24X24X22	610	559	432	432
24X24X20	610	508	432	432
24X24X18	610	457	432	419
24X24X16	610	406.4	432	406
24X24X14	610	355.6	432	406
24X24X12	610	323.8	432	397
24X24X10	610	273	432	384
26X26X24	660	610	495	483
26X26X22	660	559	495	470
26X26X20	660	508	495	457
26X26X18	660	457	495	444
26X26X16	660	406.4	495	432
26X26X14	660	355.6	495	432
26X26X12	660	323.8	495	422

■ STEEL BUTT-WELDING FITTING

Reducing Tee and Cross



ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter O.D		Center to End	
	Run OD ₁	Outlet OD ₂	Run	Outlet
			C	M
28X28X26	711	660	521	521
28X28X24	711	610	521	508
28X28X22	711	559	521	495
28X28X20	711	508	521	483
28X28X18	711	457	521	470
28X28X16	711	406.4	521	457
28X28X14	711	355.6	521	457
28X28X12	711	323.8	521	448
30X30X28	762	711	559	546
30X30X26	762	660	559	546
30X30X24	762	610	559	533
30X30X22	762	559	559	521
30X30X20	762	508	559	508
30X30X18	762	457	559	495
30X30X16	762	406.4	559	483
30X30X14	762	355.6	559	483
30X30X12	762	323.8	559	473
30X30X10	762	273.0	559	460
32X32X30	813	762	597	584
32X32X28	813	711	597	572
32X32X26	813	660	597	572
32X32X24	813	610	597	559
32X32X22	813	559	597	546
32X32X20	813	508	597	533
32X32X18	813	457	597	521
32X32X16	813	406.4	597	508
32X32X14	813	355.6	597	508

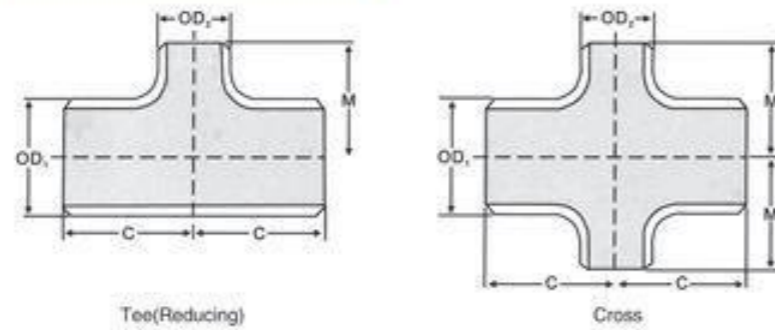
ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter O.D		Center to End	
	Run OD ₁	Outlet OD ₂	Run	Outlet
			C	M
34X34X32	864	813	638	622
34X34X30	864	762	635	610
34X34X28	864	711	635	597
34X34X26	864	660	635	597
34X34X24	864	610	635	584
34X34X22	864	559	635	572
34X34X20	864	508	635	559
34X34X18	864	457	635	546
36X36X34	914	864	673	660
36X36X32	914	813	673	648
36X36X30	914	762	673	635
36X36X28	914	711	673	622
36X36X26	914	660	673	622
36X36X24	914	610	673	610
36X36X22	914	559	673	597
36X36X20	914	508	673	584
36X36X18	914	457	673	572
36X36X16	914	406.4	673	559
38X38X36	965	914	711	711
38X38X34	965	864	711	698
38X38X32	965	813	711	686
38X38X30	965	762	711	673
38X38X28	965	711	711	648
38X38X26	965	660	711	648
38X38X24	965	610	711	635
38X38X22	965	559	711	622
38X38X20	965	508	711	610
38X38X18	965	457	711	597

Pipe technical parameters
管件技术参数

■ STEEL BUTT-WELDING FITTING

Reducing Tee and Cross



ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter O.D		Center to End	
	Run OD ₁	Outlet OD ₂	Run	Outlet
			C	M
40X40X38	1016	965	749	749
40X40X36	1016	914	749	737
40X40X34	1016	864	749	724
40X40X32	1016	813	749	711
40X40X30	1016	762	749	698
40X40X28	1016	711	749	673
40X40X26	1016	660	749	673
40X40X24	1016	610	749	660
40X40X22	1016	559	749	648
40X40X20	1016	508	749	635
40X40X18	1016	457	749	622
42X42X40	1067	1016	762	711
42X42X38	1067	966	762	711
42X42X36	1067	914	762	711
42X42X34	1067	864	762	711
42X42X32	1067	813	762	711
42X42X30	1067	762	762	711
42X42X28	1067	711	762	698
42X42X26	1067	660	762	698
42X42X24	1067	610	762	660
42X42X22	1067	559	762	660
42X42X20	1067	508	762	660
42X42X18	1067	457	762	648
42X42X16	1067	406.4	762	635
44X44X42	1118	1067	813	762
44X44X40	1118	1016	813	749
44X44X38	1118	965	813	737
44X44X36	1118	914	813	724
44X44X34	1118	864	813	724
44X44X32	1118	813	813	711
44X44X30	1118	762	813	711

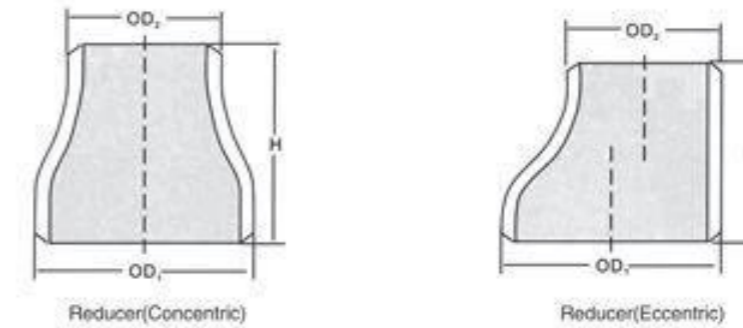
ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter O.D		Center to End	
	Run OD ₁	Outlet OD ₂	Run	Outlet
			C	M
44X44X28	1118	711	813	698
44X44X26	1118	660	813	698
44X44X24	1118	610	813	698
44X44X22	1118	559	813	698
44X44X20	1118	508	813	698
46X46X44	1168	1118	851	800
46X46X42	1168	1067	851	787
46X46X40	1168	1016	851	775
46X46X38	1168	965	851	762
46X46X36	1168	914	851	762
46X46X34	1168	864	851	749
46X46X32	1168	813	851	749
46X46X30	1168	762	851	737
46X46X28	1168	711	851	737
46X46X26	1168	660	851	737
46X46X24	1168	610	851	724
46X46X22	1168	559	851	724
48X48X46	1219	1168	889	838
48X48X44	1219	1118	889	838
48X48X42	1219	1067	889	813
48X48X40	1219	1016	889	813
48X48X38	1219	965	889	813
48X48X36	1219	914	889	787
48X48X34	1219	864	889	787
48X48X32	1219	813	889	787
48X48X30	1219	762	889	762
48X48X28	1219	711	889	762
48X48X26	1219	660	889	762
48X48X24	1219	610	889	737
48X48X22	1219	559	889	737

1.outlet dimension M for run sizes NPS 14 and larger is recommended but not required.

■ STEEL BUTT-WELDING FITTING

Reducer



ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter		End to End
	OD ₁	OD ₂	H
3/4X1/2	26.7	21.3	38
3/4X3/8	26.7	17.3	38
1X3/4	33.4	26.7	51
1X1/2	33.4	21.3	51
1 1/4X1	42.2	33.4	51
1 1/4X3/4	42.2	26.7	51
1 1/4X1/2	42.2	21.3	51
1 1/2X1 1/4	48.3	42.2	64
1 1/2X1	48.3	33.4	64
1 1/2X3/4	48.3	26.7	64
1 1/2X1/2	48.3	21.3	64
2X1 1/2	60.3	48.3	76
2X1 1/4	60.3	42.2	76
2X1	60.3	33.4	76
2X3/4	60.3	26.7	76
2 1/2X2	73.0	60.3	89
2 1/2X1 1/2	73.0	48.3	89
2 1/2X1 1/4	73.0	42.2	89
2 1/2X1	73.0	33.4	89
3X2 1/2	88.9	73.0	89
3X2	88.9	60.3	89
3X1 1/2	88.9	48.3	89
3X1 1/4	88.9	42.2	89

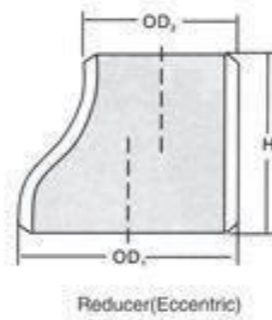
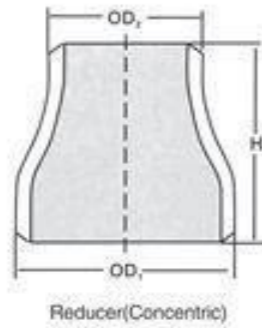
ANSI B 16.9 Unit:mm

Nominal Pipe Size	Outside Diameter		End to End
	OD ₁	OD ₂	H
3 1/2X3	101.6	88.9	102
3 1/2X2 1/2	101.6	73.0	102
3 1/2X2	101.6	60.3	102
3 1/2X1 1/2	101.6	48.3	102
3 1/2X1 1/4	101.6	42.2	102
4X3 1/2	114.3	101.6	102
4X3	114.3	88.9	102
4X2 1/2	114.3	73.0	102
4X2	114.3	60.3	102
4X1 1/2	114.3	48.3	102
5X4	141.3	114.3	127
5X3 1/2	141.3	101.6	127
5X3	141.3	88.9	127
5X2 1/2	141.3	73.0	127
5X2	141.3	60.3	127
6X5	168.3	141.3	140
6X4	168.3	114.3	140
6X3 1/2	168.3	101.6	140
6X3	168.3	88.9	140
6X2 1/2	168.3	73.0	140
8X6	219.1	168.3	152
8X5	219.1	141.3	152
8X4	219.1	114.3	152
8X3 1/2	219.1	101.6	152
10X8	273.0	219.1	178
10X6	273.0	168.3	178
10X5	273.0	141.3	178
10X4	273.0	114.3	178

Pipe technical parameters
管件技术参数

■ STEEL BUTT-WELDING FITTING

Reducer

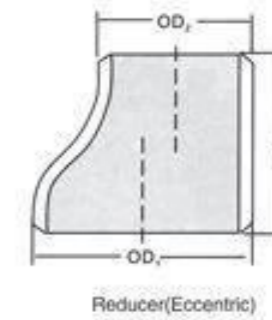
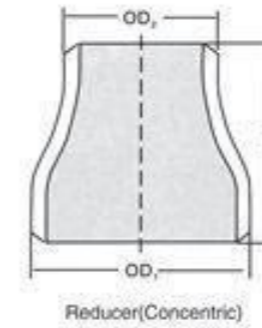


Nominal Pipe Size	Outside Diameter		End to End
	OD ₁	OD ₂	H
	12X10	323.8	273.0
12X8	323.8	219.1	203
12X6	323.8	168.3	203
12X5	323.8	141.3	203
14X12	355.6	323.8	330
14X10	355.6	273.0	330
14X8	355.6	219.1	330
14X6	355.6	168.3	330
16X14	406.4	355.6	356
16X12	406.4	323.8	356
16X10	406.4	273.0	356
16X8	406.4	219.1	356
18X16	457	406.4	381
18X14	457	355.6	381
18X12	457	323.8	381
18X10	457	273.0	381
20X18	508	457	508
20X16	508	406.4	508
20X14	508	355.6	508
20X12	508	323.8	508

Nominal Pipe Size	Outside Diameter		End to End
	OD ₁	OD ₂	H
	22X20	559	508
22X18	559	457	508
22X16	559	406.4	508
22X14	559	355.6	508
24X22	610	559	508
24X20	610	508	508
24X18	610	457	508
24X16	610	406.4	508
26X24	660	610	610
26X22	660	559	610
26X20	660	508	610
26X18	660	457	610
28X26	711	660	610
28X24	711	610	610
28X20	711	508	610
28X18	711	457	610
30X28	762	711	610
30X26	762	660	610
30X24	762	610	610
30X20	762	508	610

■ STEEL BUTT-WELDING FITTING

Reducer



Nominal Pipe Size	Outside Diameter		End to End
	OD ₁	OD ₂	H
	32X30	813	762
32X28	813	711	610
32X26	813	660	610
32X24	813	610	610
34X32	864	813	610
34X30	864	762	610
34X26	864	660	610
34X24	864	610	610
36X32	914	813	610
36X30	914	762	610
36X26	914	660	610
36X24	914	610	610
38X36	965	914	610
38X34	965	864	610
38X32	965	813	610
38X30	965	762	610
38X28	965	711	610
38X26	965	660	610

Nominal Pipe Size	Outside Diameter		End to End
	OD ₁	OD ₂	H
	40X38	1016	965
40X36	1016	914	610
40X34	1016	864	610
40X32	1016	813	610
40X30	1016	762	610
42X40	1067	1016	610
42X38	1067	965	610
42X36	1067	914	610
42X34	1067	864	610
42X32	1067	813	610
42X30	1067	762	610
44X42	1118	1067	610
44X40	1118	1016	610
44X38	1118	965	610
44X36	1118	914	610
46X44	1168	1118	711
46X42	1168	1067	711
46X40	1168	1016	711
46X38	1168	965	711
48X46	1219	1168	711
48X44	1219	1118	711
48X42	1219	1067	711
48X40	1219	1016	711

Note:
While the figure illustrates a bell-shaped reducer, the use of conical reducer is not prohibited.

Pipe technical parameters
管件技术参数

DIMENSIONAL TOLERANCES

ANSI B 16.9&16.28

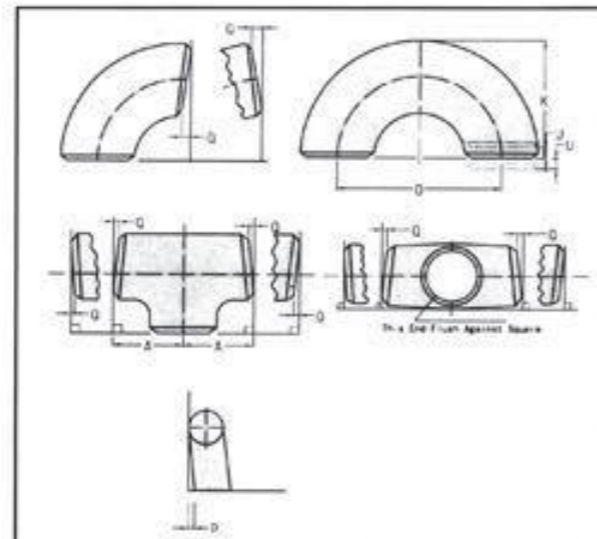
Unit:mm

Nominal Pipe Size	All Fittings			90° and 45° Elbows	Tees	Reducers	Cap	180° Returns		
	Outside Diameter at Bevel OD	Inside Diameter at End ID	Wall Thickness Y	Center-to-End Dimension A,B	Center-to-End Dimension C,M	End to End H	Back to face E	Center-to-Center Dimension O	Back to Face Dimension K	Alignments Of Ends U
1/2 to 2 1/2	1.6 -0.8	± 0.8	Not less than 87.5% of nominal thickness	2	2	2	3	6	6	1
3 to 4	± 1.6	± 1.6					6			
5 to 8	+2.4 -1.6									
10 to 18	4.0 -3.2	± 3.2		10	2					
20 to 24	6.4	± 4.8								
26 to 30	-4.8			3	5	5	10	--	--	--
32 to 48			5	--	--	--				

- Note:
- The inside diameter and the nominal wall thicknesses at ends are to be specified by the purchaser.
 - A minimum wall thickness of 87.5% applies unless the purchaser specifies a different wall thickness tolerance.
 - Out of round is the sum of absolute values of plus and minus tolerances.
 - This tolerance may not apply in localized areas of formed fittings where increased wall thickness is required to meet design requirements of para.2.2(ANSI B 146.9)
 - Unless otherwise specified by the purchaser, these tolerances apply to the nominal inside diameter, which equals the difference between the nominal outside diameter and twice the nominal wall thickness.

Unit:mm

Nominal Pipe Size	Angularity off Angle Q	Tolerance off Plane P
1/2-4	1	2
5-8	2	4
10-12	3	5
14-16		6
18-24	4	10
26-30	5	
32-42		13
44-48		19



OUTSIDE DIAMETERS AND WALL THICKNESSES

ASME B36.10 M & ASME B36.19 M

Nominal Pipe Size NPS	Outside Diameter O.D.	Nominal Wall Thickness						
		SCH 5S	SCH 10S	SCH 10	SCH 20	SCH 30	SCH 40S	STD
1/8	10.3	--	1.24	--	--	--	1.73	1.73
1/4	13.7	--	1.65	--	--	--	2.24	2.24
3/8	17.1	--	1.65	--	--	--	2.31	2.31
1/2	21.3	1.65	2.11	--	--	--	2.77	2.77
3/4	26.7	1.65	2.77	--	--	--	2.87	2.87
1	33.4	1.65	2.77	--	--	--	3.38	3.38
1 1/4	42.2	1.65	2.77	--	--	--	3.56	3.56
1 1/2	48.3	1.65	2.77	--	--	--	3.68	3.68
2	60.3	1.65	2.77	--	--	--	3.91	3.91
2 1/2	73.0	2.11	3.05	--	--	--	5.16	5.16
3	88.9	2.11	3.05	--	--	--	5.49	5.49
3 1/2	101.6	2.11	3.05	--	--	--	5.74	5.74
4	114.3	2.11	3.05	--	--	--	6.02	6.02
5	141.3	2.77	3.40	--	--	--	6.55	6.55
6	168.3	2.77	3.40	--	--	--	7.11	7.11
8	219.1	2.77	3.76	--	6.35	7.04	8.18	8.18
10	273.1	3.40	4.19	--	6.35	7.80	9.27	9.27
12	323.9	3.96	4.57	--	6.35	8.38	9.53	9.53
14	355.6	3.96	4.78	6.35	7.92	9.53	--	9.53
16	406.4	4.19	4.78	6.35	7.92	9.53	--	9.53
18	457.2	4.19	4.78	6.35	7.92	11.13	--	9.53
20	508	4.78	5.54	6.35	9.53	12.70	--	9.53
22	559	4.78	5.54	6.35	9.53	12.70	--	9.53
24	610	5.54	6.35	6.35	9.53	14.27	--	9.53
26	660	--	--	7.92	12.70	--	--	9.53
28	711	--	--	7.92	12.70	15.88	--	9.53
30	762	6.35	7.92	7.92	12.70	15.88	--	9.53
32	813	--	--	7.92	12.70	15.88	--	9.53
34	864	--	--	7.92	12.70	15.88	--	9.53
36	914	--	--	7.92	12.70	15.88	--	9.53
38	965	--	--	--	--	--	--	9.53
40	1016	--	--	--	--	--	--	9.53
42	1067	--	--	--	--	--	--	9.53
44	1118	--	--	--	--	--	--	9.53
46	1168	--	--	--	--	--	--	9.53
48	1219	--	--	--	--	--	--	9.53

- Note:
- The Sch.No.of stainless steel fittings should be added with "S".

Pipe technical parameters
管件技术参数

OUTSIDE DIAMETERS AND WALL THICKNESSES

ASME B36.10 M & ASME B36.19 M

Unit:mm

Nominal Pipe Size NPS	Outside Diameter O.D.	Nominal Wall Thickness									
		SCH 40	SCH 60	SCH 80S	XL	SCH 80	SCH 100	SCH 120	SCH 140	SCH 160	XXS
1/8	10.3	1.73	---	2.41	2.41	2.41	---	---	---	---	---
1/4	13.7	2.24	---	3.02	3.02	3.02	---	---	---	---	---
3/8	17.1	2.31	---	3.20	3.20	3.20	---	---	---	---	---
1/2	21.3	2.77	---	3.73	3.73	3.73	---	---	---	4.78	7.47
3/4	26.7	2.87	---	3.91	3.91	3.91	---	---	---	5.56	7.82
1	33.4	3.38	---	4.55	4.55	4.55	---	---	---	6.35	9.09
1 1/4	42.2	3.56	---	4.85	4.85	4.85	---	---	---	6.35	9.70
1 1/2	48.3	3.68	---	5.08	5.08	5.08	---	---	---	7.14	10.15
2	60.3	3.91	---	5.54	5.54	5.54	---	---	---	8.74	11.07
2 1/2	73.0	5.16	---	7.01	7.01	7.01	---	---	---	9.53	14.02
3	88.9	5.49	---	7.62	7.62	7.62	---	---	---	11.13	15.24
3 1/2	101.6	5.74	---	8.08	8.08	8.08	---	---	---	---	---
4	114.3	6.02	---	8.56	8.56	8.56	---	11.13	---	13.49	17.12
5	141.3	6.55	---	9.53	9.53	9.53	---	12.70	---	15.88	19.05
6	168.3	7.11	---	10.97	10.97	10.97	---	14.27	---	18.26	21.95
8	219.1	8.18	10.31	12.70	12.70	12.70	15.09	18.26	20.62	23.01	22.23
10	273.1	9.27	12.70	12.70	12.70	15.09	18.26	21.44	25.40	28.58	25.40
12	323.9	10.31	14.27	12.70	12.70	17.48	21.44	25.40	28.58	33.32	25.40
14	355.6	11.13	15.09	---	12.70	19.05	23.83	27.79	31.75	35.71	---
16	406.4	12.70	16.66	---	12.70	21.44	26.19	30.96	36.53	40.49	---
18	457.2	14.27	19.05	---	12.70	23.33	29.36	34.93	39.67	45.24	---
20	508	15.09	20.62	---	12.70	26.19	32.54	38.10	44.45	50.01	---
22	559	---	22.23	---	12.70	28.58	34.93	41.28	47.63	53.98	---
24	610	17.48	24.61	---	12.70	30.96	38.89	46.02	52.37	59.54	---
26	660	---	---	---	12.70	---	---	---	---	---	---
28	711	---	---	---	12.70	---	---	---	---	---	---
30	762	---	---	---	12.70	---	---	---	---	---	---
32	813	17.48	---	---	12.70	---	---	---	---	---	---
34	864	17.48	---	---	12.70	---	---	---	---	---	---
36	914	19.05	---	---	12.70	---	---	---	---	---	---
38	965	---	---	---	12.70	---	---	---	---	---	---
40	1016	---	---	---	12.70	---	---	---	---	---	---
42	1067	---	---	---	12.70	---	---	---	---	---	---
44	1118	---	---	---	12.70	---	---	---	---	---	---
46	1168	---	---	---	12.70	---	---	---	---	---	---
48	1219	---	---	---	12.70	---	---	---	---	---	---

BUTT-WELDING FITTINGS WEIGHT

90° ELBOW ANSI B16.9 B16.28

Unit:kg

Nominal Pipe Size	Long							Short							Nominal Pipe Size
	SGP	STD	S40	XS	S80	XXS	S160	SGP	STD	S40	XS	S80	XXS	S160	
1/2	0.08	0.08	0.08	0.10	0.10	0.15	0.12	---	---	---	---	---	---	---	1/2
3/4	0.10	0.11	0.11	0.14	0.14	0.22	0.13	---	---	---	---	---	---	---	3/4
1	0.15	0.16	0.16	0.20	0.20	0.36	0.25	0.10	0.11	0.11	0.14	0.14	0.22	0.17	1
1 1/4	0.26	0.26	0.26	0.35	0.35	0.64	0.42	0.17	0.18	0.18	0.23	0.23	0.39	0.28	1 1/4
1 1/2	0.35	0.37	0.37	0.50	0.50	0.93	0.65	0.24	0.25	0.25	0.33	0.33	0.57	0.43	1 1/2
2	0.64	0.66	0.66	0.90	0.90	1.69	1.33	0.43	0.44	0.44	0.60	0.60	1.13	0.89	2
2 1/2	1.12	1.29	1.29	1.79	1.79	3.43	2.33	0.75	0.91	0.91	1.19	1.19	2.19	1.46	2 1/2
3	1.58	2.04	2.04	2.74	2.74	5.25	3.83	1.05	1.36	1.36	1.83	1.83	3.49	2.53	3
4	2.91	3.84	3.84	5.36	5.36	10.20	8.02	1.94	2.56	2.56	3.58	3.58	6.79	5.35	4
5	4.49	6.48	6.48	9.13	9.13	17.60	14.70	2.99	4.32	4.32	6.09	6.09	11.80	9.79	5
6	7.09	9.94	9.94	15.00	15.00	29.10	24.20	4.73	6.63	6.63	10.00	10.00	19.50	16.20	6
8	14.40	20.10	20.10	30.50	30.50	51.40	53.20	9.61	13.40	13.40	20.30	20.30	34.30	35.50	8
10	25.40	35.4	35.4	47.7	57.0	92.80	103.0	16.9	23.6	23.6	31.8	38.0	61.0	68.6	10
12	38.10	52.0	57.0	68.7	94.0	134.0	171.0	25.4	34.6	38.0	45.8	63.0	89.5	114.0	12
14	56.70	67.9	79.1	89.9	133.0	---	236.0	37.8	45.3	53.0	60.0	89.0	---	158.0	14
16	74.30	89.0	118.0	118.0	195.0	---	350.0	49.5	59.1	79.0	78.3	130.0	---	234.0	16
18	94.20	113.0	168.0	150.0	275.0	---	495.0	62.8	75.3	113.0	99.9	183.0	---	330.0	18
20	116.0	140.0	220.0	186.0	373.0	---	676.0	77.7	93.1	147.0	124.0	249.0	---	451.0	20
22	141.0	169.0	267.0	225.0	493.0	---	886.0	94.1	113.0	178.0	150.0	329.0	---	591.0	22
24	168.0	202.0	366.0	268.0	636.0	---	1160.0	112.0	135.0	244.0	179.0	424.0	---	773.0	24
26	198.0	237.0	430.0	315.0	---	---	---	132.0	158.0	287.0	210.0	---	---	---	26
28	230.0	276.0	500.0	367.0	---	---	---	154.0	184.0	334.0	245.0	---	---	---	28
30	264.0	316.0	575.0	421.0	---	---	---	176.0	211.0	383.0	281.0	---	---	---	30
32	301.0	361.0	654.0	480.0	---	---	---	201.0	241.0	436.0	320.0	---	---	---	32
34	340.0	408.0	739.0	543.0	---	---	---	227.0	272.0	493.0	362.0	---	---	---	34
36	380.0	457.0	904.0	608.0	---	---	---	253.0	304.0	603.0	405.0	---	---	---	36
38	425.0	510.0	---	679.0	---	---	---	283.0	340.0	---	453.0	---	---	---	38
40	471.0	565.0	---	753.0	---	---	---	314.0	377.0	---	502.0	---	---	---	40
42	518.0	622.0	---	828.0	---	---	---	346.0	416.0	---	554.0	---	---	---	42
44	570.0	684.0	---	912.0	---	---	---	380.0	456.0	---	608.0	---	---	---	44
46	623.0	748.0	---	997.0	---	---	---	415.0	499.0	---	665.0	---	---	---	46
48	677.0	814.0	---	1085.0	---	---	---	452.0	543.0	---	724.0	---	---	---	48

Pipe technical parameters
管件技术参数

BUTT-WELDING FITTINGS WEIGHT

45° ELBOW ANSI B16.9

Unit:kg

Nominal Pipe Size	Long						
	SGP	STD	S40	XS	S80	XXS	S160
1/2	0.04	0.04	0.04	0.05	0.05	—	—
3/4	0.05	0.06	0.06	0.07	0.07	—	—
1	0.08	0.08	0.08	0.10	0.10	0.18	0.13
1 1/4	0.13	0.13	0.13	0.18	0.18	0.32	0.21
1 1/2	0.18	0.19	0.19	0.25	0.25	0.47	0.33
2	0.32	0.33	0.33	0.45	0.45	0.85	0.67
2 1/2	0.60	0.69	0.69	0.90	0.90	1.72	1.17
3	0.79	1.02	1.02	1.37	1.37	2.63	1.92
4	1.46	1.92	1.92	2.68	2.68	5.09	4.01
5	2.25	3.24	3.24	4.57	4.57	8.80	7.35
6	3.55	4.97	4.97	7.50	7.50	14.55	12.10
8	7.20	10.10	10.10	15.30	15.30	25.70	26.6
10	12.70	17.70	17.70	23.90	28.50	46.40	51.5
12	19.00	26.00	28.50	34.40	47.00	67.00	85.5
14	28.40	34.00	40.10	45.00	66.50	—	118.0
16	37.2	44.5	59.0	59.00	97.5	—	118.0
18	47.1	56.5	84.5	75.5	138.0	—	118.0
20	58.3	70.0	110.0	93.0	187.0	—	118.0
22	70.5	84.5	—	113.0	257.0	—	118.0
24	84.1	101.0	183.0	134.0	318.0	—	118.0
26	99.0	119.0	—	158.0	—	—	118.0
28	115.0	138.0	—	184.0	—	—	118.0
30	132.0	158.0	—	211.0	—	—	118.0
32	150.0	180.0	327.0	240.0	—	—	118.0
34	170.0	204.0	—	272.0	—	—	118.0
36	190.0	228.0	369.0	304.0	—	—	118.0
38	212.0	255.0	452.0	339.0	—	—	118.0
40	235.0	282.0	—	376.0	—	—	118.0
42	259.0	311.0	—	414.0	—	—	118.0
44	285.0	342.0	—	456.0	—	—	118.0
46	312.0	374.0	—	498.0	—	—	118.0
48	339.0	407.0	—	542.0	—	—	118.0

CAP ANSI B16.9

Unit:kg

Nominal Pipe Size	SGP	STD	S40	XS	S80	XXS	S160
	1/2	0.03	0.04	0.04	0.05	0.05	0.10
3/4	0.04	0.05	0.05	0.07	0.07	0.13	0.09
1	0.08	0.11	0.11	0.15	0.15	0.29	0.20
1 1/4	0.11	0.14	0.14	0.20	0.20	0.39	0.25
1 1/2	0.15	0.17	0.17	0.24	0.24	0.50	0.35
2	0.23	0.24	0.24	0.33	0.33	0.68	0.54
2 1/2	0.34	0.42	0.42	0.57	0.57	1.33	0.77
3	0.51	0.67	0.67	0.92	0.92	2.18	1.40
4	0.88	1.17	1.17	1.68	1.68	3.80	2.67
5	1.29	1.90	1.90	2.73	2.73	6.22	4.85
6	1.99	2.83	2.83	4.38	4.38	9.85	7.81
8	3.61	5.11	5.11	7.91	7.91	16.40	15.20
10	6.33	8.92	8.92	12.20	16.40	28.35	28.90
12	9.43	13.10	13.10	17.40	26.40	39.40	47.70
14	13.20	15.90	18.60	21.20	34.90	—	61.20
16	16.6	20.0	26.7	26.7	49.0	—	92.8
18	21.2	25.5	41.5	34.1	69.0	—	131.0
20	26.4	31.8	54.1	42.5	93.0	—	179.0
22	31.5	38.8	61.4	51.7	116.0	—	219.0
24	36.6	45.1	90.1	60.1	160.0	—	307.0
26	41.0	50.5	92.3	67.3	—	—	—
28	45.5	56.2	103.0	74.9	—	—	—
30	50.3	62.1	114.0	82.8	—	—	—
32	55.4	68.4	126.0	91.2	—	—	—
34	62.3	75.4	138.0	100.0	—	—	—
36	68.0	81.9	164.0	109.0	—	—	—
38	79.0	94.7	—	126.0	—	—	—
40	95.0	102.0	—	137.0	—	—	—
42	98.0	110.0	—	147.0	—	—	—
44	103.0	126.0	—	167.0	—	—	—
46	111.0	134.0	—	179.0	—	—	—
48	118.0	143.0	—	191.0	—	—	—

STAINLESS STEEL FITTINGS ANSI B16.9

Unit:kg

Nominal Pipe Size	90° ELBOW(L)			90° ELBOW(S)			TEE			REDUCER			CAP	
	S5S	S10S	S20S	S5S	S10S	S20S	S5S	S10S	S20S	S5S	S10S	S20S	S5S	S10S
1/2	0.05	0.06	0.07	—	—	—	0.07	0.10	0.11	—	—	—	0.02	0.03
3/4	0.05	0.06	0.09	—	—	—	0.10	0.14	0.15	—	—	—	0.03	0.04
1	0.08	0.13	0.14	0.05	0.08	0.09	0.17	0.28	0.30	0.06	0.09	0.10	0.05	0.09
1 1/4	0.12	0.20	0.22	0.08	0.13	0.15	0.28	0.45	0.50	0.07	0.12	0.13	0.07	0.11
1 1/2	0.17	0.28	0.30	0.11	0.19	0.20	0.41	0.63	0.69	0.11	0.18	2.00	0.08	0.13
2	0.29	0.47	0.59	0.19	0.31	0.39	0.52	0.86	1.08	0.16	0.27	0.34	0.10	0.17
2 1/2	0.55	0.79	0.94	0.37	0.52	0.63	0.97	1.37	1.61	0.30	0.43	5.00	0.16	0.23
3	0.81	1.16	1.51	0.54	0.77	1.00	1.31	1.88	2.43	0.37	0.52	0.69	0.25	0.37
4	1.40	2.00	2.60	93.00	1.33	1.74	2.05	2.93	3.82	0.56	0.80	1.04	0.41	0.59
5	2.83	3.46	4.97	1.89	2.31	3.31	3.89	4.75	6.83	1.09	1.33	1.92	0.81	0.99
6	4.06	496.00	7.09	2.71	3.31	4.73	5.31	6.48	9.31	1.46	1.78	2.55	1.13	1.39
8	7.07	9.55	15.90	471.00	6.37	107.00	8.54	11.49	19.49	2.01	2.72	4.56	1.76	2.38
10	135.00	166.00	25.00	9.01	111.00	16.70	15.68	19.36	29.31	3.66	4.49	6.77	3.35	4.13
12	22.40	25.80	35.70	15.00	172.00	23.90	25.63	29.44	41.16	5.88	6.78	9.40	5.54	6.39
14	28.80	34.60	569.00	19.20	23.10	37.80	30.94	37.21	61.07	108.00	13.00	21.20	6.62	7.99
16	39.80	45.30	74.50	26.50	30.20	495.00	40.53	45.94	75.24	13.90	15.80	25.90	8.82	10.10
18	50.40	57.40	94.50	33.60	38.30	62.80	50.98	58.20	95.41	17.20	19.20	29.80	11.30	12.90
20	71.00	821.00	142.00	473.00	54.70	95.00	71.97	83.15	141.76	28.60	33.10	56.00	16.00	18.50
22	85.90	99.50	170.00	57.30	66.30	114.00	86.96	101.00	172.00	31.70	36.70	62.50	19.50	22.60
24	118.00	136.00	202.00	79.00	904.00	135.00	110.95	127.99	190.00	40.20	46.00	68.60	26.20	30.10

BUTT-WELDING FITTINGS WEIGHT

REDUCER ANSI B16.9

Unit:kg

Nominal Pipe Size	SGP	STD	S40	XS	S80	XXS	S160
	3/4X1/2	0.06	0.06	0.06	0.08	0.08	—
1X3/4	0.11	0.12	0.12	0.15	0.15	0.25	0.19
1X1/2	0.10	0.11	0.11	0.14	0.14	0.22	0.17
1 1/4X1	0.16	0.16	0.16	0.21	0.21	0.35	0.25
1 1/4X3/4	0.15	0.15	0.15	0.19	0.19	0.31	0.23
1 1/2X1/2	0.13	0.14	0.14	0.18	0.18	—	—
1 1/2X1 1/4	0.24	0.25	0.25	0.33	0.33	0.57	0.43
1 1/2X1	0.21	0.22	0.22	0.30	0.30	0.50	0.38
1 1/2X3/4	0.20	0.21	0.21	0.27	0.27	0.45	0.35
1 1/2X1/2	0.18	0.18	0.18	0.24	0.24	0.40	0.32
2X1 1/2	0.37	0.38	0.38	0.51	0.51	0.91	0.75
2X1 1/4	0.35	0.36	0.36	0.48	0.48	0.85	0.70
2X1	0.31	0.33	0.33	0.44	0.44	0.77	0.64
2X3/4	0.29	0.30	0.30	0.40	0.40	0.69	0.58
2 1/2X2	0.60	0.73	0.73	0.95	0.95	1.68	1.20
2 1/2X1 1/2	0.55	0.67	0.67	0.87	0.87	1.51	1.08
2 1/2X1 1/4	0.52	0.64	0.64	0.83	0.83	1.42	1.02
2 1/2X1	0.48	0.56	0.56	0.73	0.73	1.23	0.93
3X2 1/2	0.73	0.94	0.94	1.25	1.25	2.25	1.71
3X2	0.66	0.85	0.85	1.13	1.13	2.01	1.57
3X1 1/2	0.62	0.79	0.79	1.04	1.04	1.83	1.44
3X1 1/4	0.59	0.75	0.75	1.00	1.00	1.74	1.37
4X3	1.10	1.45	1.45	2.02	2.02	3.65	3.00
4X2 1/2	1.04	1.37	1.37	1.90	1.90	3.41	2.76
4X2	0.97	1.27	1.27	1.76	1.76	3.11	2.58
4X1 1/2	0.91	1.19	1.19	1.64	1.64	2.89	2.41
5X4	1.74	2.50	2.50	3.52	3.52	6.47	5.59
5X3	1.58	2.27	2.27	3.18	3.18	5.78	5.30
5X2 1/2	1.50	2.16	2.16	3.02	3.02	5.46	4.70
5X2	1.41	2.03	2.03	2.85	2.85	5.12	4.43
6X5	2.55	3.57	3.57	5.38	5.38	9.89	8.63
6X4	2.36	3.30	3.30	4.96	4.96	8.96	7.88
6X3	2.18	3.04	3.04	4.56	4.56	8.21	7.21
6X2 1/2	2.09	2.94	2.94	4.38	4.38	7.88	6.80
8X6	4.17	5.71	5.71	8.36	8.36	14.30	15.00
8X5	3.87	5.40	5.40	8.14	8.14	13.40	14.00
8X4	3.67	5.10	5.10	7.68	7.68	12.60	13.10
10X8	6.87	9.58	9.58	12.90	15.40	24.30	27.50
10X6	6.32	8.78	8.78	11.80	14.20	22.10	25.10
10X5	6.06	8.42	8.42	11.30	14.50	21.10	23.90
10X4	5.80	8.20	8.20	11.00	14.00	20.50	22.60
12X10	9.97	13.60	14.70	18.00	24.80	35.00	44.60
12X8	9.29	12.70	13.70	16.70	22.70	33.00	41.00
12X6	8.69	11.80	12.80	15.60	21.40	32.00	38.00
12X5	8.39	11.70	12.60	15.30	20.60	31.00	36.40
14X12	21.20	25.40	29.50	33.60	49.80	—	88.50
14X10	19.70	23.60	27.40	31.20	46.10	—	81.60

Pipe technical parameters
管件技术参数

BUTT-WELDING FITTINGS WEIGHT

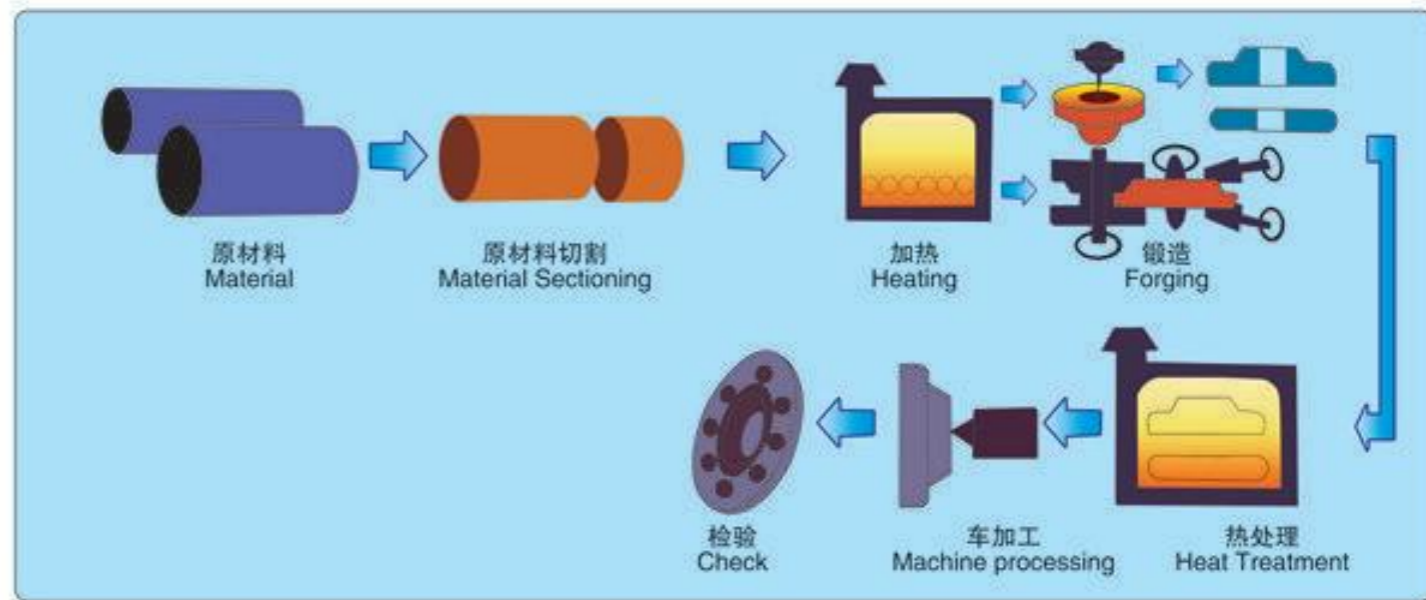
TEE ANSI B16.9

Nominal Pipe Size	Unit:kg						
	SGP	STD	S40	XS	S80	XXS	S160
1/2X1/2	0.12	0.13	0.13	0.15	0.15	0.23	0.17
3/4X3/4	0.18	0.18	0.18	0.23	0.23	0.35	0.29
3/4X1/2	0.17	0.17	0.17	0.22	0.22	0.33	0.26
1X1	0.33	0.34	0.34	0.44	0.44	0.72	0.59
1X3/4	0.32	0.33	0.33	0.40	0.40	0.67	0.51
1X1/2	0.30	0.32	0.32	0.39	0.39	0.64	0.50
1 1/4X1 1/4	0.58	0.59	0.59	0.77	0.77	1.29	0.94
1 1/4X1	0.53	0.55	0.55	0.72	0.72	1.21	0.89
1 1/4X3/4	0.51	0.51	0.51	0.65	0.65	1.14	0.85
1 1/4X1/2	0.49	0.49	0.49	0.64	0.64	1.10	0.80
1 1/2X1 1/2	0.79	0.83	0.83	1.10	1.10	1.91	1.46
1 1/2X1 1/4	0.77	0.80	0.80	1.06	1.06	1.84	1.38
1 1/2X1	0.73	0.77	0.77	1.00	1.00	1.74	1.32
1 1/2X3/4	0.70	0.73	0.73	0.95	0.95	1.65	1.25
1 1/2X1/2	0.67	0.69	0.69	0.91	0.91	1.59	1.23
2X2	1.18	1.20	1.20	1.64	1.64	2.94	2.43
2X1 1/2	1.09	1.12	1.12	1.51	1.51	2.73	2.22
2X1 1/4	1.05	1.08	1.08	1.46	1.46	2.60	2.13
2X1	1.00	1.03	1.03	1.38	1.38	2.47	2.04
2X3/4	0.96	0.97	0.97	1.34	1.34	2.40	1.98
2 1/2X2 1/2	1.94	2.38	2.38	3.10	3.10	5.34	3.90
2 1/2X2	1.79	2.13	2.13	2.81	2.81	4.85	3.60
2 1/2X1 1/2	1.71	2.06	2.06	2.69	2.69	4.63	3.38
2 1/2X1 1/4	1.61	2.02	2.02	2.64	2.64	4.53	3.30
2 1/2X1	2.55	1.86	1.86	2.45	2.45	4.39	3.22
3X3	2.56	3.29	3.29	4.43	4.43	8.04	6.20
3X2 1/2	2.44	3.12	3.12	4.18	4.18	7.54	5.77
3X2	2.29	2.89	2.89	3.89	3.89	7.06	5.48
3X1 1/2	2.21	2.81	2.81	3.78	3.78	6.86	5.27
3X1 1/4	2.18	2.76	2.76	3.73	3.73	6.75	5.18
4X4	4.27	5.62	5.62	7.86	7.86	14.46	11.59
4X3	4.00	5.22	5.22	7.26	7.26	13.30	10.79
4X2 1/2	3.87	5.06	5.06	7.02	7.02	12.60	10.30
4X2	3.71	4.81	4.81	6.73	6.73	12.29	10.00
4X1 1/2	3.63	4.75	4.75	6.58	6.58	12.08	9.85
5X5	6.18	8.92	8.92	12.54	12.54	23.58	20.17
5X4	5.85	8.36	8.36	11.76	11.76	21.94	18.67
5X3	5.56	7.95	7.95	11.16	11.16	20.85	17.72
5X2 1/2	5.45	7.79	7.79	10.92	10.92	20.45	17.45
5X2	5.32	7.61	7.61	10.79	10.79	20.03	17.04
6X6	9.33	13.06	13.06	19.76	19.76	37.07	31.76
6X5	8.79	12.38	12.38	18.53	18.53	34.89	29.85
6X4	8.49	11.82	11.82	17.72	17.72	33.39	28.35
6X3	8.19	11.43	11.43	17.17	17.17	32.30	27.40
6X2 1/2	8.07	11.40	11.40	17.04	17.04	31.76	26.98
8X8	17.45	24.40	24.40	36.93	36.93	62.29	64.33
8X6	16.22	22.63	22.63	34.35	34.35	58.60	59.29
8X5	15.68	21.95	21.95	33.12	33.12	56.43	57.38
8X4	15.40	21.40	21.40	32.30	32.30	55.83	54.93
10X10	29.72	41.44	41.44	55.88	55.88	107.95	119.94
10X8	27.81	38.85	38.85	53.02	53.02	101.95	110.95
10X6	26.58	37.07	37.07	50.43	50.43	97.45	106.99
10X5	26.17	36.53	36.53	49.34	49.34	95.41	104.95
10X4	25.76	36.53	36.53	49.34	49.34	93.91	103.99
12X12	43.62	59.43	59.43	76.65	76.65	154.01	194.90
12X10	41.44	56.70	56.70	75.24	75.24	146.84	184.00
12X8	39.53	54.11	54.11	72.38	72.38	139.03	174.46
12X6	38.30	52.34	52.34	69.79	69.79	136.30	170.38
12X5	37.89	52.75	52.75	69.79	69.79	133.96	169.01
14X14	60.93	72.92	72.92	96.63	96.63	141.75	253.52
14X12	58.20	70.74	70.74	93.77	93.77	136.30	243.98
14X10	56.16	68.02	68.02	90.37	90.37	130.71	237.16
14X8	54.52	65.70	65.70	89.91	89.91	128.62	228.98
14X6	53.16	64.20	64.20	85.32	85.32	124.03	223.53
16X16	75.24	90.10	90.10	118.58	118.58	197.64	354.38
16X14	73.88	88.46	88.46	117.35	117.35	190.82	347.57
16X12	71.83	86.00	86.00	113.95	113.95	185.37	338.02
16X10	69.79	83.55	83.55	110.68	110.68	179.92	328.48
16X8	67.34	81.50	81.50	109.04	109.04	175.83	320.3

Nominal Pipe Size	Unit:kg						
	SGP	STD	S40	XS	S80	XXS	S160
18X18	95.41	114.96	170.38	151.30	278.06	482.23	482.23
18X16	92.55	110.95	164.93	147.21	268.52	479.28	479.28
18X14	91.19	109.32	162.20	144.48	264.43	468.88	468.88
18X12	89.14	106.73	159.47	141.76	257.61	459.33	459.33
18X10	86.42	104.82	155.39	139.03	253.52	448.43	448.43
20X20	118.04	141.76	222.17	188.10	377.56	684.23	684.23
20X18	114.77	137.67	215.36	182.65	365.29	665.15	665.15
20X16	111.91	134.12	209.91	178.56	357.11	647.43	647.43
20X14	110.54	132.49	207.18	175.83	351.66	639.25	639.25
20X12	107.95	130.85	204.45	173.11	346.21	629.71	629.71
20X10	105.77	128.13	200.36	170.38	340.25	616.08	616.08
22X22	144.48	171.14	197.84	227.62	497.50	895.5	895.5
22X20	140.39	167.65	269.88	222.17	485.23	872.32	872.32
22X18	137.67	163.56	263.06	216.72	472.97	850.52	850.52
22X16	134.80	159.47	256.25	212.63	463.42	831.43	831.43
24X24	116.00	139.00	252.00	185.00	---	---	---
24X22	115.00	138.00	249.00	183.00	---	---	---
24X20	114.00	136.00	247.00	181.00	---	---	---
24X18	111.00	133.00	241.00	177.00	---	---	---
26X26	147.00	176.00	319.00	234.00	---	---	---
26X24	144.00	172.00	312.00	229.00	---	---	---
26X22	141.00	169.00	308.00	225.00	---	---	---
26X20	138.00	166.00	302.00	221.00	---	---	---
28X28	165.00	198.00	359.00	264.00	---	---	---
28X26	163.00	197.00	356.00	261.00	---	---	---
28X24	160.00	193.00	350.00	256.00	---	---	---
28X22	157.00	190.00	347.00	252.00	---	---	---
30X30	190.00	228.00	414.00	304.00	---	---	---
30X28	188.00	226.00	406.00	301.00	---	---	---
30X26	185.00	222.00	396.00	296.00	---	---	---
30X24	182.00	218.00	390.00	291.00	---	---	---
32X32	217.00	259.00	474.00	347.00	---	---	---
32X30	213.00	256.00	466.00	341.00	---	---	---
32X28	209.00	252.00	458.00	335.00	---	---	---
32X26	208.00	250.00	455.00	333.00	---	---	---
34X34	246.00	295.00	535.00	390.00	---	---	---
34X32	243.00	292.00	526.00	389.00	---	---	---
34X30	238.00	290.00	518.00	380.00	---	---	---
34X28	236.00	288.00	511.00	377.00	---	---	---
36X36	276.00	331.00	656.00	441.00	---	---	---
36X34	271.00	329.00	645.00	434.00	---	---	---
36X32	269.00	326.00	636.00	431.00	---	---	---
36X30	264.00	323.00	627.00	422.00	---	---	---
38X38	308.00	370.00	---	493.00	---	---	---
38X36	306.00	367.00	---	489.00	---	---	---
38X34	302.00	362.00	---	481.00	---	---	---
38X32	298.00	357.00	---	476.00	---	---	---
40X40	342.00	411.00	---	547.00	---	---	---
40X38	340.00	408.00	---	543.00	---	---	---
40X36	335.00	402.00	---	536.00	---	---	---
40X34	331.00	397.00	---	529.00	---	---	---
42X42	352.00	422.00	---	562.00	---	---	---
42X40	350.00	420.00	---	559.00	---	---	---
42X38	348.00	418.00	---	557.00	---	---	---
42X36	346.00	416.00	---	554.00	---	---	---
44X44	396.00	475.00	---	633.00	---	---	---
44X42	394.00	473.00	---	630.00	---	---	---
44X40	389.00	467.00	---	623.00	---	---	---
44X38	385.00	462.00	---	616.00	---	---	---
46X46	434.00	521.00	---	695.00	---	---	---
46X44	432.00	519.00	---	691.00	---	---	---
46X42	427.00	513.00	---	683.00	---	---	---
46X40	423.00	507.00	---	676.00	---	---	---
48X48	474.00	569.00	---	759.00	---	---	---
48X46	472.00	566.00	---	755.00	---	---	---
48X44	470.00	564.00	---	751.00	---	---	---
48X42	462.00	555.00	---	739.00	---	---	---

Note: > 22inch Tee Weight according steel plate welded pipe fittings

FLANGE PRODUCTION
FLOW CHART 法兰生产流程图



PIPE FITTINGS MANUFACTURING
PROCESS FLOW DIAGRAM 管件生产流程

