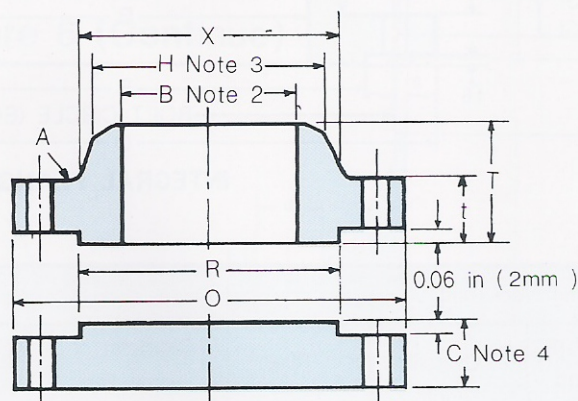
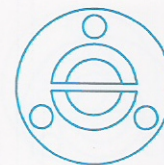


150Lbs MSS SP-44 MSS LARGE DIAMETER FLANGES



Class 150

Unit : millimeters

Pipe Size	Flange Dimensions			Hub Dimensions	Drilling				Fillet Radius (Min)
	OD of Flange	Thick. of Flange (min)	Length Thru Hub	OD Large End Hub	No. of Bolt Holes	Dia. of Bolt Holes	Dia. of Bolt Circle	Raised Face Dia.	
	O	t	T	X				R	A
12	483	32.0	114	365	12	25	432	381	10
14	535	35.0	127	400	12	29	476	413	10
16	595	36.5	127	457	16	29	540	470	10
18	635	39.5	140	505	16	32	578	533	10
20	700	43.0	144	560	20	32	635	584	10
22	750	46.0	149	610	20	35	692	641	10
24	815	47.5	152	665	20	35	749	692	10
26	870	68.5	121	675	24	35	806	749	10
28	925	71.5	125	725	28	35	863	800	11
30	985	74.5	137	780	28	35	914	857	11
32	1060	81.0	144	830	28	41	978	914	11
34	1110	82.5	149	880	32	41	1029	965	13
36	1170	90.5	157	935	32	41	1086	1022	13
38	1240	87.5	157	990	32	41	1150	1073	13
40	1290	90.5	164	1040	36	41	1200	1124	13
42	1345	97.0	171	1090	36	41	1257	1194	13
44	1405	102.0	178	1145	40	41	1314	1245	13
46	1455	103.0	186	1195	40	41	1365	1295	13
48	1510	108.0	192	1250	44	41	1422	1359	13
50	1570	111.0	203	1300	44	48	1480	1410	13
52	1625	116.0	210	1355	44	48	1537	1460	13
54	1685	121.0	216	1405	44	48	1594	1511	13
56	1745	124.0	229	1455	48	48	1651	1575	13
58	1805	129.0	235	1510	48	48	1708	1626	13
60	1855	132.0	240	1560	52	48	1759	1676	13

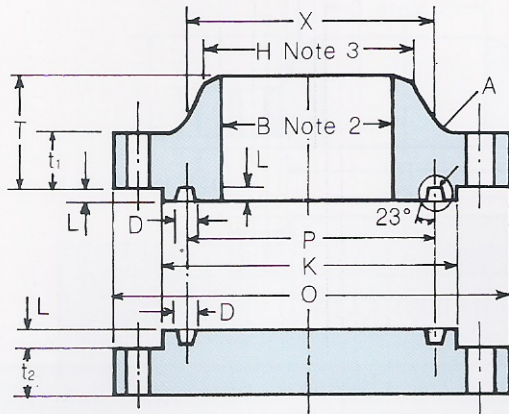
1.For machining tolerances see ANSI Standard B16.5

2.Dimensions to be specified by customer.

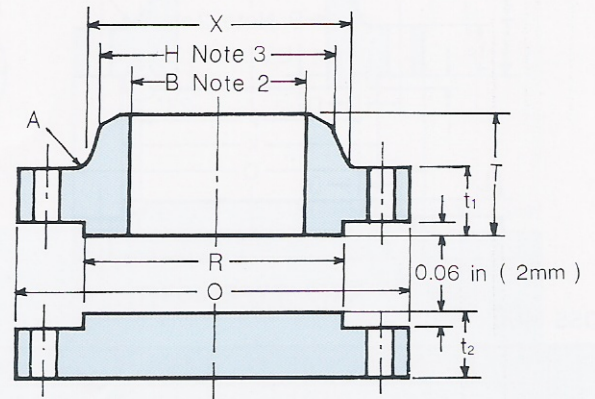
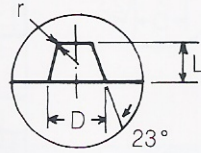
3.Thickness of Blind Flange and ring of Weld Neck Flange are equal.



MSS SP-44 MSS LARGE DIAMETER FLANGES 300Lbs



RING TYPE JOINT



RAISED FACE

Class 300

Unit : millimeters

Pipe Size	Flange Dimensions				HUB DIM	Drilling			Facing Drilling						Fillet Radius (Min)	Groove Fillet Radius
	OD of Flange	Thick of Flange		Length Thru Hub	OD Large End Hub	No. of Bolt Holes	Dia. of Bolt Holes	Dia. of Bolt circle	Raised Face Dia.	RING-TYRE JOINT						
		Weld- Neck	Bld.							Facing Dia.	Depth of Groove	Pitch Dia.	Width of Groove	Ring No.		
	O	t 1	t 2	T	X				R	K	L	P	D		A	r
12	520	51.0	51.0	130	375	16	32	451	381	413	7.95	381.00	11.90	R57	10	1
14	585	54.0	54.0	143	425	20	32	514	413	457	7.95	419.10	11.90	R61	10	1
16	650	57.0	57.0	146	483	20	35	572	470	508	7.95	469.90	11.90	R65	10	1
18	710	60.5	60.5	159	535	24	35	629	533	575	7.95	533.40	11.90	R69	10	1
20	775	63.5	63.5	162	585	24	35	686	584	635	9.52	584.20	13.50	R73	10	2
22	840	66.5	66.5	165	640	24	41	743	641	686	11.10	635.00	15.10	R81	10	2
24	915	70.0	70.0	168	700	24	41	813	692	749	11.10	692.15	16.66	R77	10	2
26	970	79.5	84.0	184	725	28	44	876	749	810	12.70	749.30	19.85	R93	10	2
28	1035	85.5	90.5	197	775	28	44	940	800	860	12.70	800.10	19.85	R94	11	2
30	1090	92.0	90.5	210	825	28	48	997	857	918	12.70	857.25	19.85	R95	11	2
32	1150	98.5	100	222	880	28	51	1054	914	984	14.30	914.40	23.00	R96	11	2
34	1205	102	105	232	935	28	51	1105	965	1035	14.30	965.20	23.00	R97	13	2
36	1270	105	111	241	990	32	54	1168	1022	1092	14.30	1022.35	23.00	R98	13	2
38	1170	108	108	181	995	32	41	1092	1029						13	
40	1240	114	114	194	1050	32	44	1156	1086						13	
42	1290	119	119	200	1100	32	44	1206	1137						13	
44	1355	124	124	206	1150	32	48	1264	1194						13	
46	1415	129	129	216	1205	28	51	1321	1245						13	
48	1465	133	133	224	1255	32	51	1372	1308						13	
50	1530	140	140	232	1305	32	54	1429	1359						13	
52	1580	144	144	238	1355	32	54	1480	1410						13	
54	1660	152	152	252	1410	28	60	1549	1467						13	
56	1710	154	154	260	1465	28	60	1600	1518						13	
58	1760	159	159	267	1515	32	60	1651	1575						13	
60	1810	164	164	273	1565	32	60	1702	1626						13	

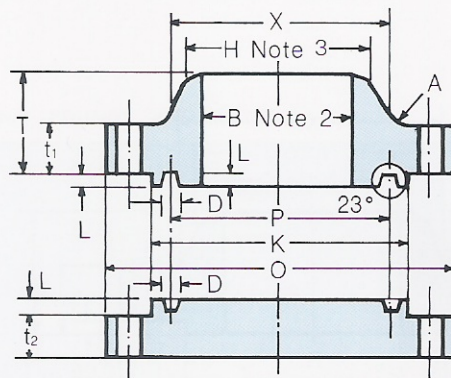
1. For machining tolerances see ANSI Standard B16.5

2. Dimensions to be specified by customer

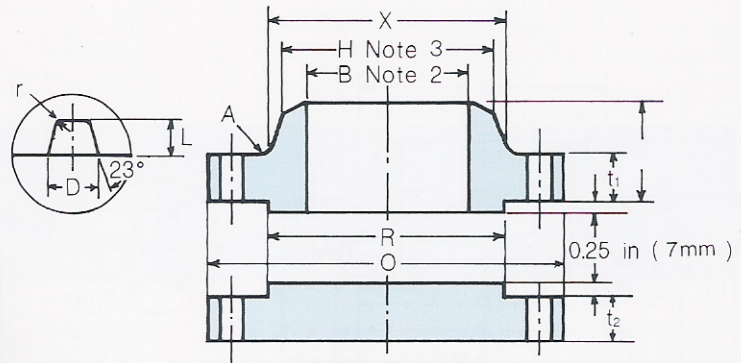
400Lbs, 600Lbs

MSS SP-44

MSS LARGE DIAMETER FLANGES



RING TYPE JOINT



RAISED FACE

Class 400

Unit : millimeters

Pipe Size	FLANGE DIMENSIONS				HUB DIM	DRILLING			FACING DIMENSIONS							Fillet Radius (Min)	Groove Fillet Radius
	OD of Flange	THICK OF FLANGE		Length Thru Hub	OD Large End Hub	No of Bolt Holes	Dia. of Bolt Holes	Dia. of Bolt circle	Raised Face Dia.	RING-TYPE JOINT							
		Weld- Neck	Bld.							Facing Dia.	Depth of Groove	Pitch Dia.	Width of Groove	Ring No.			
O	t 1	t 2	T	X				R	K	L	P	D		A	r		
12	520	57.0	57.0	136	375	16	35	451	381	413	7.95	381.00	11.90	R57	11	1	
14	585	60.5	60.5	149	425	20	35	514	413	457	7.95	419.10	11.90	R61	11	1	
16	650	63.5	63.5	152	483	20	38	572	470	508	7.95	469.90	11.90	R65	11	1	
18	710	66.5	66.5	165	535	24	38	629	533	575	7.95	533.40	11.90	R69	11	1	
20	775	70.0	70.0	168	585	24	41	686	584	635	9.52	584.20	13.50	R73	11	2	
22	840	73.0	73.0	171	640	24	44	743	641	686	11.10	635.00	15.10	R81	11	2	
24	915	76.0	76.0	175	700	24	48	813	692	749	11.10	692.15	16.66	R77	11	2	
26	970	89.0	98.5	194	725	28	48	876	749	810	12.70	749.30	19.85	R93	11	2	
28	1035	95.0	105	206	785	28	51	940	800	860	12.70	800.10	19.85	R94	13	2	
30	1090	102	111	219	835	28	54	997	857	918	12.70	857.25	19.85	R95	13	2	
32	1150	108	116	232	890	28	54	1054	914	984	14.30	914.40	23.00	R96	13	2	
34	1205	111	122	241	945	28	54	1105	965	1035	14.30	965.20	23.00	R97	14	2	
36	1270	114	129	251	1000	32	54	1168	1022	1092	14.30	1022.35	23.00	R98	14	2	
38	1205	124	124	206	1005	32	48	1118	1035						14		
40	1270	130	130	216	1055	32	51	1175	1092						14		
42	1320	133	133	224	1110	32	51	1226	1143						14		
44	1385	140	140	233	1160	32	54	1283	1200						14		
46	1440	146	146	244	1215	36	54	1340	1257						14		
48	1510	152	152	257	1265	28	60	1403	1308						14		
50	1570	157	159	268	1320	32	60	1460	1362						14		
52	1620	162	164	276	1370	32	60	1511	1413						14		
54	1700	170	171	289	1425	28	67	1581	1470						14		
56	1755	175	176	298	1480	32	67	1632	1527						14		
58	1805	178	181	306	1530	32	67	1683	1578						14		
60	1885	186	189	319	1585	32	73	1753	1635						14		

Class 600

Pipe Size	OD of Flange	THICK OF FLANGE	Length Thru Hub	OD Large End Hub	No of Bolt Holes	Dia. of Bolt Holes	Dia. of Bolt circle	Raised Face Dia.	Facing Dia.	Depth of Groove	Pitch Dia.	Width of Groove	Ring No.	Fillet Radius (Min)	Groove Fillet Radius
	O	t1	t2	T	X				R	K	L	P	D	A	r
12	560	66.5	66.5	156	387	20	35	489	381	413	7.95	381.00	11.90	R57	11
14	605	70.0	70.0	165	432	20	38	527	413	457	7.95	419.10	11.90	R61	11
16	685	76.0	76.0	178	495	20	41	603	470	508	7.95	469.90	11.90	R65	11
18	740	82.5	82.5	184	545	20	44	654	533	575	7.95	533.40	11.90	R69	11
20	815	89.0	89.0	190	610	24	44	724	584	635	9.52	584.20	13.50	R73	11
22	870	95.0	95.0	197	665	24	47	778	641	686	11.10	635.00	15.10	R81	11
24	940	102	102	203	720	24	51	838	692	749	11.10	692.15	16.66	R77	11
26	1015	108	125	222	750	28	51	914	749	810	12.70	749.30	19.85	R93	11
28	1075	111	132	235	805	28	54	965	800	860	12.70	800.10	19.85	R94	13
30	1130	114	140	248	860	28	54	1022	857	918	12.70	857.25	19.85	R95	13
32	1195	117	148	260	920	28	60	1080	914	984	14.30	914.40	23.00	R96	13
34	1245	121	154	270	975	28	60	1130	965	1035	14.30	965.20	23.00	R97	14
36	1315	124	162	283	1030	28	67	1194	1022	1092	14.30	1022.35	23.00	R98	14
38	1270	152	156	254	1020	28	60	1162	1054						14
40	1320	159	162	264	1075	32	60	1213	1111						14
42	1405	168	171	279	1125	28	67	1283	1168						14
44	1455	173	178	289	1180	32	67	1334	1226						14
46	1510	179	186	300	1235	32	67	1391	1276						14
48	1595	189	195	316	1290	32	73	1460	1334						14
50	1670	197	203	329	1345	28	79	1524	1384						14
52	1720	203	210	337	1395	32	79	1575	1435						14
54	1780	210	217	349	1450	32	79	1632	1492						14
56	1855	217	225	362	1500	32	86	1695	1543						16
58	1905	222	232	370	1555	32	86	1746	1600						16
60	1995	233	243	389	1610	28	92	1822	1657						17

1. For machining tolerances see ANSI Standard B16.5

2. Dimensions to be specified by customer.