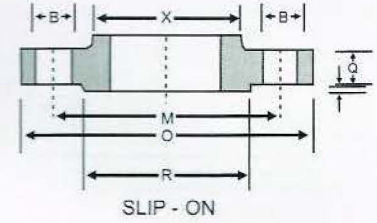
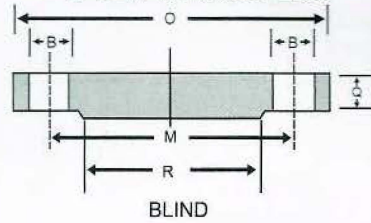
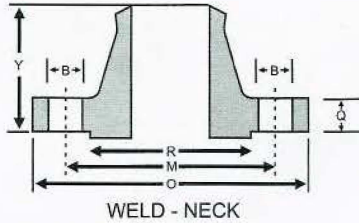




FLANGES



150 LBS

As per ANSI - B - 16.5

Nominal pipe size (in mm)	Outside dia of flange	Minimum thickness of flange	Overall Length			Bolt Circle	No and size of Holes	O D of Raised face	O D of HUB
			Welding neck	Slip-on & socket welding	Lap Joint				
	0	Q	Y			Dia. m	No. B	R	X
15	89	11.2	47.6	15.9	15.9	60.5	4 15	35	30
20	98	12.7	52.4	15.9	15.9	70.0	4 15	43	38
25	108	14.3	55.6	17.5	17.5	79.5	4 15	51	49
32	117	15.9	57.2	20.6	20.6	89.0	4 15	64	59
40	127	17.5	61.9	22.2	22.2	98.5	4 15	73	65
50	152	19.1	63.5	25.4	25.4	120.5	4 19	92	78
65	178	22.3	69.8	28.6	28.6	139.5	4 19	105	90
80	190	23.9	69.8	30.2	30.2	152.5	4 19	127	116
100	229	23.9	76.2	33.3	33.3	190.5	8 19	157	135
125	254	23.9	88.9	36.5	36.5	216.0	8 22	186	164
150	279	25.4	88.9	39.7	39.7	241.5	8 22	216	192
200	343	28.6	101.6	44.4	44.4	298.5	8 22	270	246
250	406	30.2	101.6	49.2	49.2	362.0	12 25	324	305
300	483	31.8	114.3	55.6	55.6	432.0	12 25	381	365
350	533	35.0	127.0	57.2	79.4	476.0	12 29	413	400
400	597	36.6	127.0	63.5	87.3	539.5	16 29	470	457
450	635	39.7	139.7	68.3	96.8	578.0	16 32	533	505
500	698	42.9	144.5	73.0	103.2	635.0	20 32	584	559
600	813	47.7	152.4	82.6	111.1	749.5	20 35	692	663

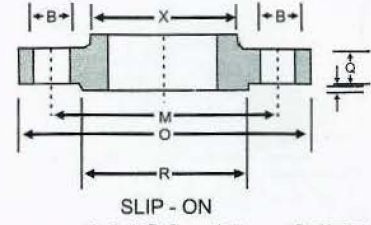
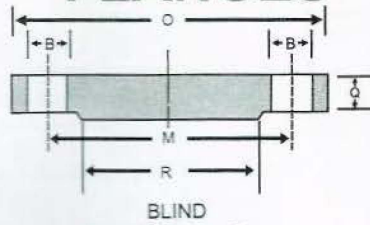
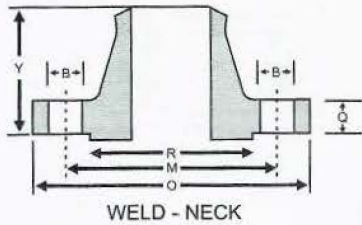
300 LBS

Nominal pipe size (in mm)	Outside dia of flange	Minimum thickness of flange	Overall			Bolt Circle	No and size of Holes	OD of Raised face	OD of HUB
			Welding neck	Slip-on & socket welding	Lap Joint				
	0	Q	Y			Dia. m	No. B	R	X
15	95	14.3	52.4	22.2	22.2	66.5	4 15	35	38
20	117	15.9	57.2	25.4	25.4	82.5	4 19	43	48
25	124	17.5	61.9	27.0	27.0	89.0	4 19	51	54
32	133	19.1	65.1	27.0	27.0	98.5	4 19	64	64
40	156	20.7	68.3	30.2	30.2	114.5	4 22	73	70
50	165	22.3	69.8	33.3	33.3	127.0	8 19	92	84
65	190	25.4	76.2	38.1	38.1	149.0	8 22	105	100
80	210	28.6	79.4	42.9	42.9	168.0	8 22	127	117
100	254	31.8	85.7	47.6	47.6	200.0	8 22	157	146
125	279	35.0	98.4	50.8	50.8	235.0	8 22	186	178
150	318	36.6	98.4	52.4	52.4	270.0	12 22	216	206
200	381	41.3	111.1	61.9	61.9	330.0	12 25	270	260
250	444	47.7	117.5	66.7	95.3	387.5	16 29	324	321
300	521	50.8	130.2	73.0	101.6	451.0	16 32	381	375
350	584	54.0	142.9	76.2	111.1	514.5	20 32	413	425
400	648	57.2	146.0	82.6	120.7	571.5	20 35	470	483
450	711	60.4	158.8	88.9	130.2	628.5	24 35	533	533
500	775	63.5	161.9	95.2	139.7	686.0	24 35	584	587
600	914	69.9	168.3	106.4	152.4	813.0	24 41	692	702

Note : Thickness includes 1.6 mm (1/16") Raised face thick



FLANGES



600 LBS

As per ANSI - B - 16.5

Nominal pipe size (in mm)	Outside dia of flange	Minimum thickness of flange	Overall Length			Bolt Circle	No and size of Holes		O D of Raised face	O D of HUB	
			Welding neck	Slip-on & socket welding	Lap Joint		Dia. m	No.			B
O	Q	Y			Dia. m	No.	B	R	X		
15	95	14.3	52.4	22.2	22.2	66.5	4	15	35	38	
20	117	15.9	57.2	25.4	25.4	82.5	4	19	43	48	
25	124	17.5	61.9	27.0	27.0	89.0	4	19	51	54	
32	133	20.7	66.7	28.6	28.6	98.5	4	19	64	63	
40	156	22.3	69.8	31.8	31.8	114.5	4	22	73	70	
50	165	25.4	73.0	36.5	36.5	127.0	8	19	92	84	
65	190	28.6	79.4	41.3	41.3	149.0	8	22	105	100	
80	210	31.8	82.6	46.0	46.0	168.0	8	22	127	117	
100	273	38.1	101.6	54.0	54.0	216.0	8	25	157	152	
125	330	44.5	114.3	60.3	60.3	266.5	8	29	186	189	
150	356	47.7	117.5	66.7	66.7	292.0	12	29	216	222	
200	419	55.6	133.4	76.2	76.2	349.0	12	32	270	273	
250	508	63.5	152.4	85.7	85.7	432.0	16	35	324	343	
300	559	66.7	155.6	92.1	92.1	489.0	20	35	381	400	
350	603	69.9	165.1	93.7	93.7	527.0	20	38	413	432	
400	686	76.2	177.8	106.4	106.4	603.0	20	41	470	495	
450	743	82.6	184.2	117.6	117.6	654.0	20	45	533	538	
500	813	88.9	190.5	127.0	127.0	724.0	24	45	584	610	
600	940	101.6	203.2	139.7	139.7	838.0	24	51	692	718	

900 LBS

Nominal pipe size (in mm)	Outside dia of flange	Minimum thickness of flange	Overall Length			Bolt Circle	No and size of Holes		O D of Raised face	O D of HUB	
			Welding neck	Slip-on & socket welding	Lap Joint		Dia. m	No.			B
O	Q	Y			Dia. m	No.	B	R	X		
15	121	22.3	60.3	31.8	31.8	82.5	4	22	35	38	
20	130	25.4	69.8	34.9	34.9	89.0	4	22	43	45	
25	149	28.6	73.0	41.3	41.3	101.5	4	25	51	53	
32	159	28.6	73.0	41.3	41.3	111.0	4	25	64	63	
40	178	31.8	82.6	44.4	44.4	124.0	4	29	73	70	
50	216	38.1	101.6	57.2	57.2	165.0	8	25	92	105	
65	244	41.3	104.8	63.5	63.5	190.5	8	29	105	124	
80	241	38.1	101.6	54.0	54.0	190.5	8	25	127	127	
100	292	44.5	114.3	69.8	69.8	235.0	8	32	157	159	
125	349	50.8	127.0	79.4	79.4	279.5	8	35	186	190	
150	381	55.6	139.7	85.7	85.7	317.5	12	32	216	235	
200	470	68.5	161.9	101.8	114.3	393.5	12	38	270	298	
250	546	69.9	184.2	108.0	127.0	470.0	16	38	324	368	
300	610	79.4	200.0	117.5	142.9	533.5	20	38	381	419	
350	641	85.8	212.7	130.2	155.6	559.0	20	41	413	451	
400	705	88.9	215.8	133.4	165.1	616.0	20	45	470	508	
450	787	101.6	228.6	152.4	190.5	686.0	20	51	533	565	
500	857	108.0	247.6	158.8	209.6	749.5	20	54	584	622	
600	1041	139.7	292.1	203.2	266.7	901.5	20	67	692	749	

Note : Thickness excludes of 6 mm (1/4") Raised face thick



FLANGES

DIMENSIONS OF RAISED FLANGES

As per IS : 1538 (Part IV) - 1976

All Dimensions in Millimeters

N.B.	OUT DIA	THICKNESS	RAISED FACE		BOLT CIRCLE DIA PCD	No. of Bolts	DIA OF HOLES
			DIA	THICKNESS			
			R	M			
	D	T			P		H
80	200	21.0	138	3	160	4	19
100	220	22.0	158	3	180	8	19
125	250	22.5	188	3	210	8	19
150	285	23.0	212	3	240	8	23
200	340	24.5	268	3	295	8	23
250	395	26.0	320	3	350	8	23
300	445	27.5	370	4	400	12	23
350	505	29.0	430	4	460	16	23
400	565	30.0	482	4	515	16	28
450	615	31.5	530	4	565	20	28
500	670	33.0	585	4	620	20	28
600	780	36.0	685	5	725	20	31
700	895	38.5	800	5	840	24	31
750	960	40.0	860	5	900	24	31
800	1015	41.5	905	5	950	24	34

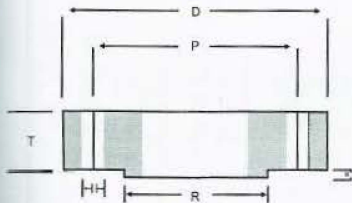


TABLE 5 PLATE FLANGES FOR WELDING

(Clauses 4.1 and 5.1 Nominal Pressure 0.60 N/mm²)

As per IS - 6392

N.B	PIPE O.D.	OUT DIA THICKNESS		RAISED FACE		BOLT CIRCLE DIA PCD	No. of Bolts	DIA OF HOLES
		D	T	DIA	THICKNESS			
		R	M	P	H			
10	17.2	75	12	35	2	50	4	11
15	21.3	80	12	40	2	55	4	11
20	26.9	90	14	50	2	65	4	11
25	33.7	100	14	60	2	75	4	11
32	42.4	120	16	70	2	90	4	14
40	48.3	130	16	80	3	100	4	14
50	60.3	140	16	90	3	110	4	14
65	76.1	160	16	110	3	130	4	14
80	88.9	190	18	120	3	150	4	18
100	114.3	210	18	148	3	170	4	18
125	139.7	240	20	178	3	200	8	18
150	168.3	265	20	202	3	225	8	18
200	219.1	320	22	258	3	280	8	18
250	273.0	375	24	312	3	335	12	18
300	323.9	440	24	365	4	395	12	22
350	355.6	493	26	415	4	445	12	22
400	406.4	540	28	465	4	495	16	22
500	508.0	645	30	570	4	600	20	22
600	609.6	755	32	670	5	705	20	26

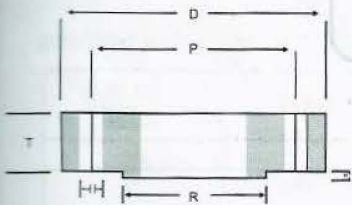
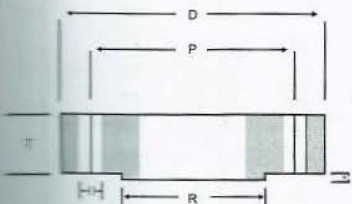


TABLE 11 PLATE FLANGES FOR WELDING

(Clauses 4.1 and 5.1 Nominal Pressure 1 N/mm²)

N.B.	PIPE O.D.	OUT DIA THICKNESS		RAISED FACE		BOLT CIRCLE DIA PCD	No. of Bolts	DIA OF HOLES
		D	T	DIA	THICKNESS			
		R	M	P	H			
200	219.1	340	24	268	3	295	8	22
250	273.0	395	26	320	3	350	12	22
300	323.9	445	26	370	4	400	12	22
350	355.8	505	28	430	4	460	16	22
400	406.4	565	32	482	4	515	16	26
500	508.0	670	38	585	4	620	20	26
600	609.6	780	42	685	5	725	20	30
700	711.2	895	46	800	5	840	24	30
800	812.8	1015	52	905	5	950	24	33
900	914.4	1115	56	1005	5	1050	28	33
1000	1016.0	1230	62	1110	5	1160	28	36
1200	1220.0	1455	74	1330	5	1380	32	39



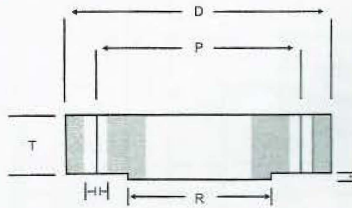


FLANGES

TABLE 17 PLATE FLANGES FOR WELDING

(Clauses 4.1 and 5.1 Nominal Pressure 1.6 N/mm²)

All Dimensions in Millimeters

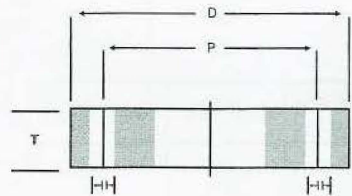


N.B.	PIPE O.D.	Diameter	Thick	RAISED FACE		NO.	DRILLING	
				DIA	THICKNESS		DIA	PCD
				R	M		P	H
		D	T					
10	17.2	90	14	40	2	4	14	60
15	21.3	95	14	45	2	4	14	65
20	26.9	105	16	58	2	4	14	75
25	33.7	115	16	68	2	4	14	85
32	42.4	140	16	78	2	4	18	100
40	48.3	150	16	88	3	4	18	110
50	60.3	165	18	102	3	4	18	125
65	76.1	185	18	122	3	4	18	145
80	88.9	200	20	138	3	8	18	160
100	114.3	220	20	158	3	8	18	180
125	139.7	250	22	188	3	8	18	210
150	168.3	285	22	212	3	8	22	240
175	193.7	315	24	242	3	8	22	270
200	219.1	340	24	268	3	12	22	295
250	273.0	405	26	320	3	12	26	355
300	323.9	460	28	378	4	12	26	410
350	355.6	520	32	438	4	16	26	470
400	406.4	580	36	490	4	16	30	525
500	508.0	715	44	610	4	20	33	650
600	609.6	840	52	725	5	20	36	770

M.S. PLAIN FACE

(Slipon Flanges as per P.N. 10 / DIN - 2576 Working Pressure 10 Kg/cm²)

All Dimensions in Millimeters



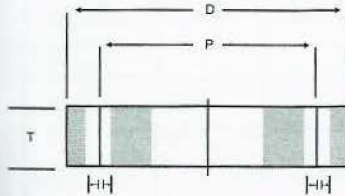
N.B.	DIA OF FLANGES	THICKNESS	PCD	HOLE	DIA OF HOLES
	D	T	P		H
10	90	14	60	4	14
15	95	14	65	4	14
20	105	16	75	4	14
25	115	16	85	4	14
32	140	16	100	4	18
40	150	16	110	4	18
50	165	18	125	4	18
65	185	18	145	4	18
80	200	20	160	4	18
100	220	20	180	8	18
125	250	22	210	8	18
150	285	22	240	8	23
200	340	24	295	8	23
250	395	26	350	12	23
300	445	26	400	12	23
350	505	28	460	16	23
400	565	32	515	16	27
450	615	38	565	20	27
500	670	38	620	20	27
600	780	42	725	20	30
700	895	46	840	24	30
800	1015	52	950	24	33



STEEL FLANGE STANDARD

(Nenndruck 16 Nominal Pressure - 16 kg/cm²)

All Dimensions in Millimeters

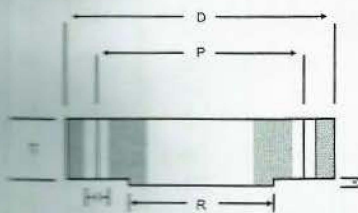


N.B.	OUT DIA	THICKNESS	BOLT CIRCLE DIA	NO. OF BOLT	DIA OF HOLES
	D	T	P		H
10	90	14	60	4	14
15	95	14	65	4	14
20	105	16	75	4	14
25	115	16	85	4	14
32	140	16	100	4	18
40	150	16	110	4	18
50	165	18	125	4	18
65	185	18	145	4	18
80	200	20	160	8	18
100	220	20	180	8	18
125	250	22	210	8	18
150	285	22	240	8	23
175	315	24	270	8	23
200	340	24	295	12	23
250	405	26	355	12	27
300	460	28	410	12	27
350	520	30	470	16	27
400	580	32	525	16	30
500	715	36	650	20	33
600	840	40	770	20	36

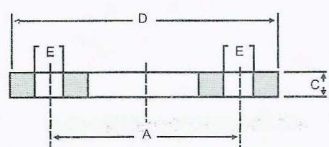
STEEL FLANGE STANDARD

(Nenndruck 40 Nominal Pressure - 40 kg/cm²)

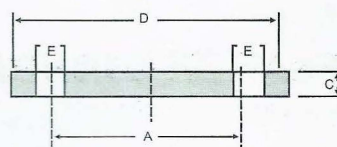
All Dimensions in Millimeters



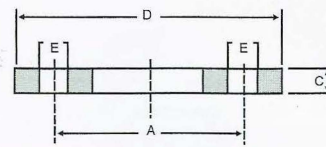
N.B.	OUT DIA	THICKNESS	BOLT CIRCLE DIA	NO. OF BOLT	DIA OF HOLES	RF DIA	THICK
	D	T	P		H	R	M
10	90	16	60	4	14	40	2
15	95	16	65	4	14	45	2
20	105	18	75	4	14	58	2
25	115	18	85	4	14	68	2
32	140	18	100	4	18	78	2
40	150	18	110	4	18	88	3
50	165	20	125	4	18	102	3
65	185	22	145	8	18	122	3
80	200	24	160	8	18	138	3
100	235	24	190	8	23	162	3
125	270	26	220	8	26	188	3
150	300	28	250	8	26	218	3
200	375	34	320	12	30	285	3
250	450	42	385	12	33	345	3
300	515	50	450	16	33	410	4
350	580	56	510	16	36	465	4
400	660	64	585	16	39	535	4
500	755	72	670	20	42	615	4



SLIP-ON



BLIND



SCREWED

TABLE 'D'

As per BS - 10 (1962)

TABLE 'E'

Nominal Pipe size (in mm)	Diameter of Flange	Diameter of Bolt Circle (PCD)	Number of Bolts	Diameter of Bolts	Thickness of Flange	Nominal Pipe size (in mm)	Diameter of Flange	Diameter of Bolt Circle (PCD)	Number of Bolts	Diameter of Bolts	Thickness of Flange
mm	mm	mm		mm	mm	mm	mm	mm		mm	mm
	D	A		E	C		D	A		E	C
15	95	67	4	12	5	15	95	67	4	12	6
20	102	73	4	12	5	20	102	73	4	12	6
25	114	83	4	12	5	25	114	83	4	12	7
32	121	87	4	12	6	32	121	87	4	12	8
40	133	98	4	12	6	40	133	98	4	12	9
50	152	114	4	16	8	50	152	114	4	16	9
65	165	127	4	16	8	65	165	127	4	16	9
80	184	145	4	16	9	80	184	145	4	16	11
100	216	178	4	16	9	100	216	178	8	16	13
125	254	210	8	16	12	125	254	210	8	16	14
150	279	235	8	16	12	150	279	235	8	19	17
200	337	292	8	16	12	200	337	292	8	19	19
250	406	356	8	19	16	250	406	356	12	19	22
300	457	406	12	19	19	300	457	406	12	22	25
350	527	470	12	22	22	350	527	470	12	22	28
400	578	521	12	22	22	400	578	521	12	22	32
450	641	584	12	22	25	450	641	584	16	22	35
500	705	641	16	22	28	500	705	641	16	22	38
600	826	756	16	25	32	600	826	756	16	28	47

TABLE 'F'

TABLE 'H'

Nominal Pipe size (in mm)	Diameter of Flange	Diameter of Bolt Circle (PCD)	Number of Bolts	Diameter of Bolts	Thickness of Flange	Nominal Pipe size (in mm)	Diameter of Flange	Diameter of Bolt Circle (PCD)	Number of Bolts	Diameter of Bolts	Thickness of Flange
mm	mm	mm		mm	mm	mm	mm	mm		mm	mm
	D	A		E	C		D	A		E	C
15	95	67	4	12	9	15	114	83	4	16	12
20	102	73	4	12	9	20	114	83	4	16	12
25	121	87	4	16	9	25	121	87	4	16	14
32	133	98	4	16	12	32	133	98	4	16	17
40	140	105	4	16	12	40	140	105	4	16	17
50	165	127	4	16	16	50	165	127	4	16	19
65	184	145	8	16	16	65	184	145	8	16	19
80	203	165	8	16	16	80	203	165	8	16	22
100	229	191	8	16	19	100	229	191	8	16	25
125	279	235	8	19	22	125	279	235	8	19	28
150	305	260	12	19	22	150	305	260	12	19	28
200	368	324	12	19	25	200	368	324	12	19	32
250	432	381	12	22	28	250	432	381	12	22	35
300	489	438	16	22	32	300	489	438	16	22	41
350	552	495	16	25	35	350	552	495	16	25	47
400	610	552	20	25	41	400	610	552	20	25	54
450	673	610	20	28	45	450	673	610	20	28	60
500	737	673	24	28	51	500	737	673	24	28	67
600	851	781	24	32	57	600	851	781	24	32	76