



MANUFACTURERS

CATALOGUE

ABOUT US

Kumar Metal and Plastics, established 1988, has been a pioneer in the pipes and fittings industry. We initially started out as wholesale dealers of PVC, Casting Iron, Galvanized Iron, Mild Steel, Pipes and fittings and have ever since branched out into various other categories. We have now added Ductile Iron Pipes and fittings, PVC Fabricated 10kg Fittings, MS Spigot Pipes and Fittings. With over 400,000 sq feet of manufacturing and warehouse space, we can cater to our customer needs with timely delivery. Our reputation precedes us and have been told by our clients that "If I can't find anything in the market, I know I'll find it in Kumar Metal".

We have now begun our expansion plans for our company with a new branch opened in August 2022 in Sulur, Coimbatore. With over 12,000 sq feet of display and storage we are getting a step closer to our vision of being able to meet specific customer needs by eradicating the distance barrier. In addition, we have our manufacturing facility, opened in April 2020, with effective cover over 5,000 sq feet.

We have had the opportunity to cater to our loyal clients all over Tamil Nadu and Kerala for the past 35 years and hope to continue to do so.



ABOUT FACTORY

Kumar Metal and Plastics opened its manufacturing facility in 2020 with the vision and mission of Mr. Ramesh Kumar Agarwal to be able to cater to specific customer client needs through the medium of fabrication and personalisation. Our factory hosts several machines and manufacturing capabilities. Firstly, we operate about 3 lathe machines enabling us to thread pipes up to 24" (600mm in dia). In addition, we manufacture Ductile iron double flanged and Puddle pipes up to 1000mm in dia as per customer length requirements.

Our CNC plasma cutting machine and our lathes help us manufacture Mild Steel and Stainless-Steel flanges upto (2000mm in dia), the details of which have been mentioned in this catalogue. Lastly, our rolling machines help us fabricate Mild Steel pipes and fittings with a minimum dia of 350mm up to any size our client requires us to do, with a maximum thickness of 12mm. We are very proud of the advancement in our manufacturing techniques and facilities which we expect to enhance even further with time to come.







MS FABRICATION

DIMENSIONS OF PLAIN FLANGES



B. S 10 : 1962

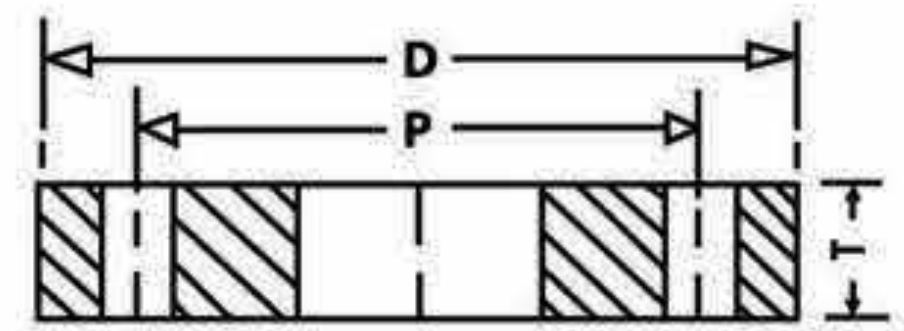


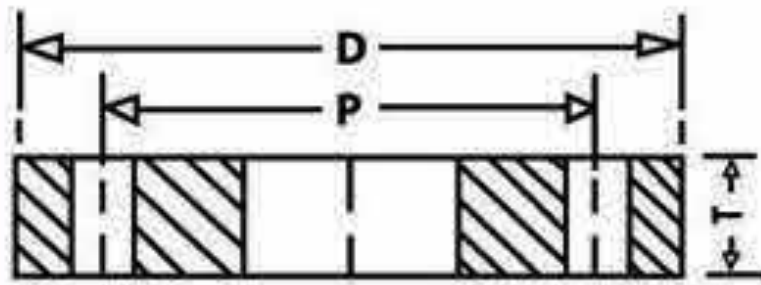
TABLE - D : FOR WORKING STEAM PRESSURE UPTO 50 lbs./sq. inch

Flange Size Designation (Nominal Bore of Pipe)	Approx. Outside Diameter of Steel Pipe H	Diameter of Flange	Bolt Circle Diameter	Number of Bolt Holes	Diameter of Bolts	Thickness
		D	P	N	B*	T
inch	mm	mm	mm	Nos	mm	mm
1/2	21.43	95.25	66.68	4	12.70	4.76
3/4	26.99	101.60	73.03	4	12.70	4.76
1	34.13	114.30	82.55	4	12.70	4.76
1 1/4	42.86	120.65	87.31	4	12.70	6.35
1 1/2	48.42	133.35	98.43	4	12.70	6.35
2	60.33	152.40	114.30	4	15.88	7.94
2 1/2	76.20	165.10	127.00	4	15.88	7.94
3	88.90	184.15	146.05	4	15.88	9.53
3 1/2	101.60	203.20	165.10	4	15.88	9.53
4	114.30	215.90	177.80	4	15.88	9.53
5	139.70	254.00	209.55	8	15.88	12.70
6	165.10	279.40	234.95	8	15.88	12.70
7	168.28	304.80	260.35	8	15.88	12.70
8	193.68	336.55	292.10	8	15.88	12.70
9	219.08	368.30	323.85	8	15.88	15.88
10	244.48	406.40	355.60	8	19.05	15.88
12	273.05	457.20	406.40	12	19.05	19.05
13	323.85	488.95	438.15	12	19.05	19.05
14	-	527.05	469.90	12	22.23	22.23
15	355.60	552.45	495.30	12	22.23	22.23
16	381.00	577.85	520.70	12	22.23	22.23
17	406.40	609.60	552.45	12	22.23	25.40
18	-	641.35	584.20	12	22.23	25.40
19	457.20	673.10	609.60	12	22.23	25.40
20	-	736.60	673.10	16	22.23	28.58
21	508.00	704.85	641.35	16	22.23	28.58
22	-	762.00	698.50	16	25.40	28.58
23	558.80	787.40	723.90	16	25.40	28.58
24	-	825.50	755.65	16	25.40	31.75

NOTE : B*- For 12.70 mm & 15.88 mm Bolts, diameter of holes shall be (1.6 mm) larger than the bolt and for 19.05 mm bolts & sizes above, diameter of hole shall be not more than (3.2mm) larger than the bolts.

DIMENSIONS OF PLAIN FLANGES

B. S 10 : 1962



NOTE : B*- For 12.70 mm & 15.88 mm Bolts, diameter of holes shall be (1.6 mm) larger than the bolt and for 19.05 mm bolts & sizes above, diameter of hole shall be not more than (3.2mm) larger than the bolts.

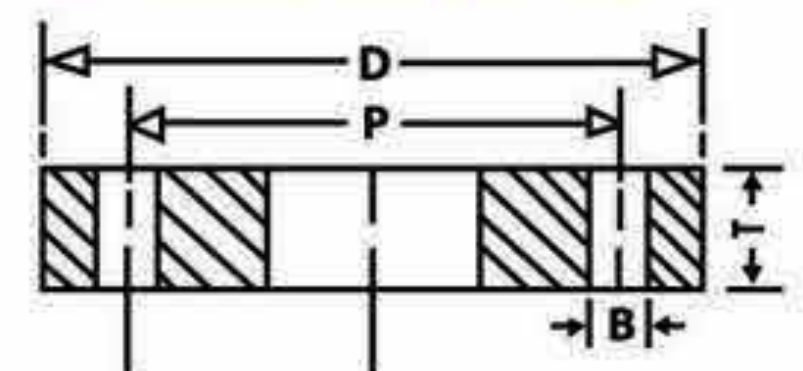
TABLE - E : FOR WORKING STEAM PRESSURE ABOVE 50 & UPTO 100 lbs./sq. inch

Flange Size Designation (Nominal Bore of Pipe)	Approx. Outside Diameter of Steel Pipe H	Diameter of Flange	Bolt Circle Diameter	Number of Bolt Holes	Diameter of Bolts	Thickness
		D	P		B*	
inch	mm	mm	mm	Nos	mm	mm
1/2	21.43	95.25	66.68	4	12.70	6.35
3/4	26.99	101.60	73.03	4	12.70	6.35
1	34.13	114.30	82.55	4	12.70	7.14
1 1/4	42.86	120.65	87.31	4	12.70	7.94
1 1/2	48.42	133.35	98.43	4	12.70	8.73
2	60.33	152.40	114.30	4	15.88	9.53
2 1/2	76.20	165.10	127.00	4	15.88	10.32
3	88.90	184.15	146.05	4	15.88	11.11
3 1/2	101.60	203.20	165.10	8	15.88	11.91
4	114.30	215.90	177.80	8	15.88	12.70
5	139.70	254.00	209.55	8	15.88	14.29
6	165.10	279.40	234.95	8	19.05	17.46
7	193.68	304.80	260.35	8	19.05	19.05
8	219.08	336.55	292.10	8	19.05	19.05
9	244.48	368.30	323.85	12	19.05	20.64
10	273.05	406.40	355.60	12	19.05	22.23
12	323.85	457.20	406.40	12	22.23	25.40
13	-	488.95	438.15	12	22.23	25.40
14	355.60	527.05	469.90	12	22.23	28.58
15	381.00	552.45	495.30	12	22.23	31.75
16	406.40	577.85	520.70	12	22.23	31.75
17	-	609.60	552.45	12	22.23	34.93
18	457.20	641.35	584.20	16	22.23	34.93
19	-	673.10	609.60	16	22.23	38.10
20	508.00	704.85	641.35	16	22.23	38.10
21	-	736.60	673.10	16	25.40	41.28
22	558.80	762.00	698.50	16	25.40	44.45
23	-	787.40	723.90	16	25.40	44.45
24	609.60	825.50	755.65	16	28.58	47.63

Nominal Diameter	Diameter D	Thickness T	Bolt Circle Dia. (P)	Number of Bolt-Holes	Dia of Bolt-Holes (B)
80	200	21	160	4	19
100	220	22	180	8	19
125	250	22.5	210	8	19
150	285	23.0	240	8	23
200	340	24.5	295	8	23
250	395	26	350	12	23
300	445	27.5	400	12	23
350	505	29	460	16	23
400	565	30	515	16	28
450	615	31.5	565	20	28
500	670	33	620	20	28
600	780	36	725	20	31
700	895	38.5	840	24	31
750	960	40	900	24	31
800	1015	41.5	950	24	34
900	1115	44	1050	28	34
1000	1230	47	1160	28	37
1100	1340	50	1270	32	37
1200	1455	53	1380	32	40

IS : 1538

(PART IV) : 1976



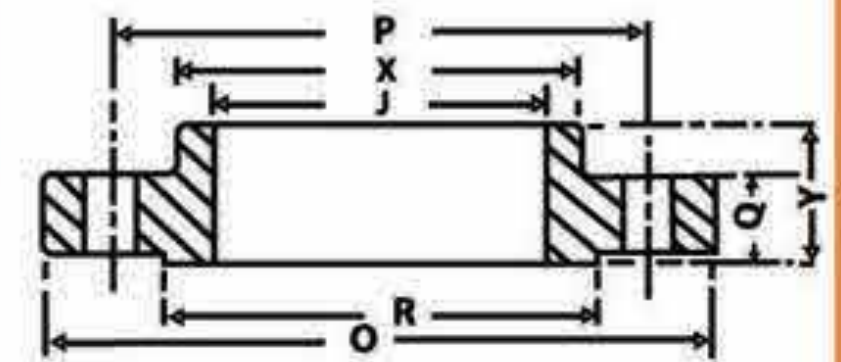
All dimensions in mm

DIMENSIONS OF SLIP ON FLANGES

CLASS 150

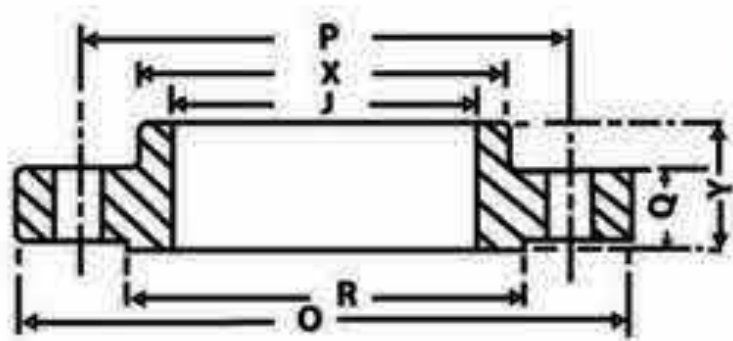
Nominal Pipe size	Outside Diameter of Flange O	Thickness of Flange (min) Q	Diameter of Raised Face R	Diameter of Bore J	Length Through Hub Y	Diameter of Hub at Base X	Number of Bolt Holes	Diameter of Bolt	Diameter of Bolt Circle P
inch	mm	mm	mm	mm	mm	mm	n	mm	mm
1/2	88.9	11.1	34.9	22.40	15.9	30.2	4	12.7	60.3
3/4	98.4	12.7	42.9	27.70	15.9	38.1	4	12.7	69.9
1	108.0	14.3	50.8	34.50	17.5	49.2	4	12.7	79.4
1 1/4	117.5	15.9	63.5	43.20	20.6	58.7	4	12.7	88.9
1 1/2	127.0	17.5	73.0	49.50	22.2	65.1	4	12.7	98.4
2	152.4	19.1	92.1	62.00	25.4	77.8	4	15.9	120.7
2 1/2	177.8	22.2	104.8	74.70	28.6	90.5	4	15.9	139.7
3	190.5	23.8	127.0	90.70	30.2	108.0	4	15.9	152.4
3 1/2	215.9	23.8	139.7	103.40	31.8	122.2	8	15.9	177.8
4	228.6	23.8	157.2	116.10	33.3	134.9	8	15.9	190.5
5	254.0	23.8	185.7	143.80	36.5	163.5	8	19.1	215.9
6	279.4	25.4	215.9	170.70	39.7	192.1	8	19.1	241.3
8	342.9	28.6	269.9	221.50	44.5	246.1	8	19.1	298.5
10	406.4	30.2	323.9	276.40	49.2	304.8	12	22.2	362.0
12	482.6	31.8	381.0	327.20	55.6	365.1	12	22.2	431.8
14	533.4	34.9	412.8	359.20	57.2	400.1	12	25.4	476.3
16	596.9	36.5	469.9	410.50	63.5	457.2	16	25.4	539.8
18	635.0	39.7	533.4	461.80	68.3	504.8	16	28.6	577.9
20	698.5	42.9	584.2	513.10	73.0	558.8	20	28.6	635.0
22	749.3	46.0	641.4	564.40	79.4	609.6	20	31.8	692.2
24	812.8	47.6	692.2	616.00	82.6	663.6	20	31.8	749.3

ANSI B16.5- 1988



NOTE: Dimensions of Thickness Q & of Length through Hub Y include thickness of raised face (1.6 mm) Diameter of bolt-holes shall not be (3.2 mm) greater than the diameter of bolt.

ANSI B16.5-1988



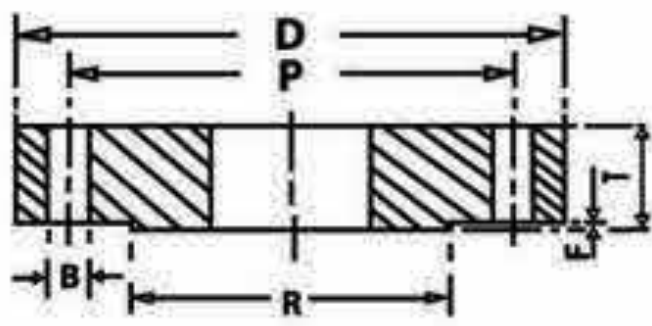
NOTE: Dimensions of Thickness Q & of Length through Hub Y include thickness of raised face (1.6 mm) Diameter of bolt-holes shall not be (3.2 mm) greater than the diameter of bolt.

CLASS 300

Nominal Pipe size	Outside Diameter of Flange O	Thickness of Flange (min) Q	Diameter of Raised Face R	Diameter of Bore J	Length Through Hub Y	Diameter of Hub at Base X	Number of Bolt Holes	Diameter of Bolt	Diameter of Bolt Circle P
inch	mm	mm	mm	mm	mm	mm	n	mm	mm
1/2	95.3	14.3	34.9	22.40	22.2	38.1	4	12.7	66.7
3/4	117.5	15.9	42.9	27.70	25.4	47.6	4	15.9	82.6
1	123.8	17.5	50.8	34.50	27.0	54.0	4	15.9	88.9
1 1/4	133.4	19.1	63.5	43.20	27.0	63.5	4	15.9	98.4
1 1/2	155.6	20.6	73.0	49.50	30.2	69.9	4	19.1	114.3
2	165.1	22.2	92.1	62.00	33.3	84.1	8	15.9	127.0
2 1/2	190.5	25.4	104.8	74.70	38.1	100.0	8	19.1	149.2
3	209.6	28.6	127.0	90.70	42.9	117.5	8	19.1	168.3
3 1/2	228.6	30.2	139.7	103.40	44.5	133.4	8	19.1	184.2
4	254.0	31.8	157.2	116.10	47.6	146.1	8	19.1	200.0
5	279.4	34.9	185.7	143.80	50.8	177.8	8	19.1	235.0
6	317.5	36.5	215.9	170.70	52.4	206.4	12	19.1	269.9
8	381.0	41.3	269.9	221.50	61.9	260.4	12	22.2	330.2
10	444.5	47.6	323.9	276.40	66.7	320.7	16	25.4	387.4
12	520.7	50.8	381.0	327.20	73.0	374.7	16	28.6	450.9
14	584.2	54.0	412.8	359.20	76.2	425.5	20	28.6	514.4
16	647.7	57.2	469.9	410.50	82.6	482.6	20	31.8	571.5
18	711.2	60.3	533.4	461.80	88.9	533.4	24	31.8	628.7
20	774.7	63.5	584.2	513.10	95.3	587.4	24	31.8	685.8
22	838.2	66.7	641.4	564.40	101.6	641.4	24	38.1	743.0
24	914.4	69.9	692.2	616.00	106.4	701.7	24	38.1	812.8

STEEL PLATE FLANGES FOR WELDING

BS-4504 PART 1 : 1969



All dimensions in mm

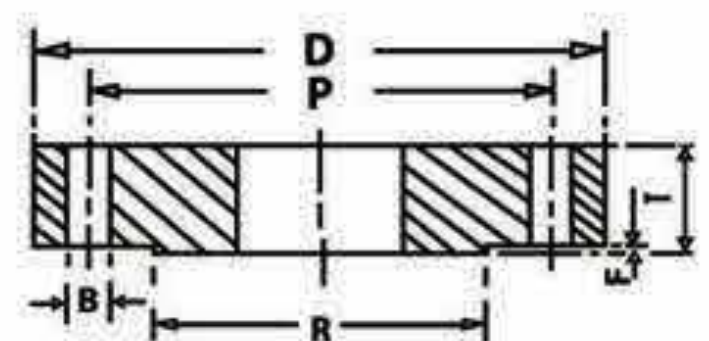
TABLE - 10/3 NOMINAL PRESSURE 10 BAR

Nominal Bore	Dia of Flange D	Thickness T	Raised Face		Bolt Circle Diam. P	Nos. of Holes	Dia of Holes B
			Diam R	Thick F			
10	90	14	40	2	60	4	14
15	95	14	45	2	65	4	14
20	105	16	58	2	75	4	14
25	115	16	68	2	85	4	14
32	140	16	78	2	100	4	18
40	150	16	88	3	110	4	18
50	165	18	102	3	125	4	18
65	185	18	122	3	145	4	18
80	200	20	138	3	160	8	18
100	220	20	158	3	180	8	18
125	250	22	188	3	210	8	18
150	285	22	212	3	240	8	22
175	315	24	242	3	270	8	22
200	340	24	268	3	295	8	22
250	395	26	320	3	350	12	22
300	445	26	370	4	400	12	22
350	505	28	430	4	460	16	22
400	565	32	482	4	515	16	26
450	615	36	532	4	565	20	26
500	670	38	585	4	620	20	26
600	780	42	685	5	725	20	30
700	895	46	800	5	840	24	30
800	1015	52	905	5	950	24	33
900	1115	56	1005	5	1050	28	33
1000	1230	62	1110	5	1160	28	36
1200	1455	74	1330	5	1380	32	39

TABLE - 16/3 NOMINAL PRESSURE 16 BAR

Nominal Bore	Dia of Flange D	Thickness T	Raised Face		Bolt Circle Diam. P	Nos. of Holes	Dia of Holes B
			Diam R	Thick F			
10	90	14	40	2	60	4	14
15	95	14	45	2	65	4	14
20	105	16	58	2	75	4	14
25	115	16	68	2	85	4	14
32	140	16	78	2	100	4	18
40	150	16	88	3	110	4	18
50	165	18	102	3	125	4	18
65	185	18	122	3	145	4	18
80	200	20	138	3	160	8	18
100	220	20	158	3	180	8	18
125	250	22	188	3	210	8	18
150	285	22	212	3	240	8	22
175	315	24	242	3	270	8	22
200	340	24	268	3	295	12	22
250	405	26	320	3	355	12	26
300	460	28	378	4	410	12	26
350	520	32	438	4	470	16	26
400	580	36	490	4	525	16	30
450	640	40	550	4	585	20	30
500	715	44	610	4	650	20	33
600	840	52	725	5	770	20	36
700	910	58	795	5	840	24	36
800	1025	64	900	5	950	24	39
900	1125	72	1000	5	1050	28	39
1000	1255	78	1115	5	1170	28	42
1200	1485	94	1330	5	1390	32	48

BS-4504 PART 1 : 1969



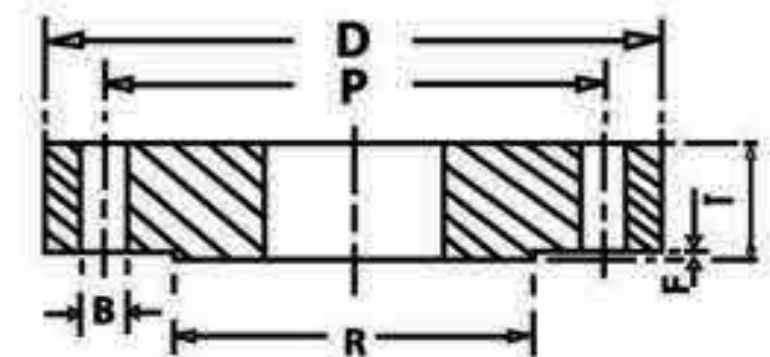
All dimensions in mm

STEEL PLATE FLANGES FOR WELDING

TABLE - 25/3 : NOMINAL PRESSURE 25 BAR

Nominal Bore	Dia of Flange D	Thickness T	Raised Face		Bolt Circle Diam. P	Nos. of Holes	Dia of Holes B
			Diam R	Thick F			
10	90	16	40	2	60	4	14
15	95	16	45	2	65	4	14
20	105	18	58	2	75	4	14
25	115	18	68	2	85	4	14
32	140	18	78	2	100	4	18
40	150	20	88	3	110	4	18
50	165	20	102	3	125	4	18
65	185	22	122	3	145	8	18
80	200	24	138	3	160	8	18
100	235	26	162	3	190	8	22
125	270	28	188	3	220	8	26
150	300	30	218	3	250	8	26
175	330	26	248	3	280	12	26
200	360	28	278	3	310	12	26
250	425	32	335	3	370	12	30
300	485	38	395	4	430	16	30
350	555	42	450	4	490	16	33
400	620	46	505	4	550	16	36
450	670	52	555	4	600	20	36
500	730	58	615	4	660	20	36
600	845	66	720	5	770	20	39

BS-4504 PART 1 : 1969

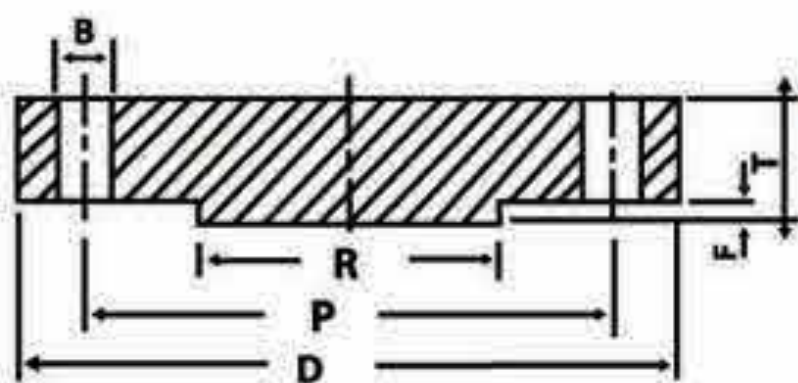


All dimensions in mm

STEEL PLATE FLANGE

ND - 10 PRESSURE 10 kg/ sq.cm. TEMPERATURE 120° C

DIN - 2527

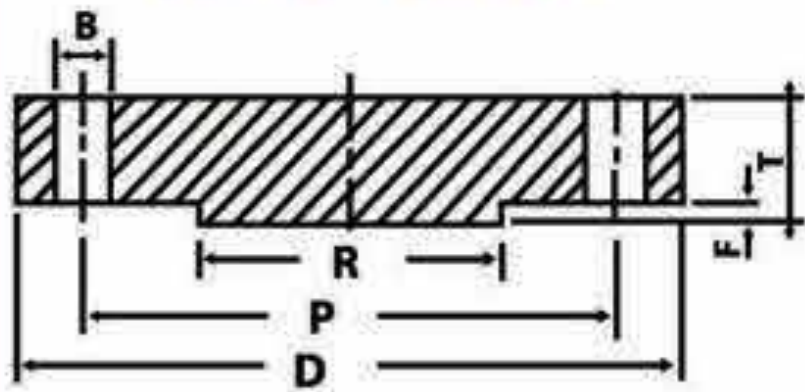


All dimensions in mm

Nominal Bore	Outside Diam. D	Thickness T	Raised Face		Bolt Circle Diam. P	Nos. of Holes	Dia of Holes B
			Diam R	Thick F			
10	90	14	40	2	60	4	14
15	95	14	45	2	65	4	14
20	105	16	58	2	75	4	14
25	115	16	68	2	85	4	14
32	140	16	78	2	100	4	18
40	150	16	88	3	110	4	18
50	165	18	102	3	125	4	18
65	185	18	122	3	145	4	18
80	200	20	138	3	160	4	18
100	220	20	158	3	180	8	18
125	250	22	188	3	210	8	18
150	285	22	212	3	240	8	22
175	315	24	242	3	270	8	22
200	340	24	268	3	295	8	22
250	395	26	320	3	350	12	22
300	445	26	370	4	400	12	22
350	505	26	430	4	460	16	22
400	565	26	482	4	515	16	25
450	615	26	532	4	565	20	25
500	670	28	585	4	620	20	25
600	780	28	685	5	725	20	30
700	895	30	800	5	840	24	30
800	1015	32	905	5	950	24	33
900	1115	34	1005	5	1050	28	33
1000	1230	34	1110	5	1160	28	36

STEEL PLATE FLANGE

DIN - 2527



All dimensions in mm

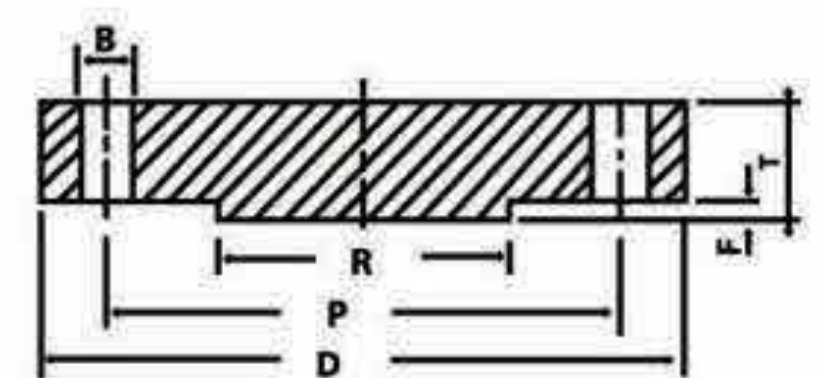
ND - 16 PRESSURE 16 kg / sq.cm. TEMPERATURE 120° C

Nominal Bore	Outside Diam. D	Thickness T	Raised Face		Bolt Circle Diam. P	Nos. of Holes	Dia of Holes B
			Diam R	Thick F			
10	90	14	40	2	60	4	14
15	95	14	45	2	65	4	14
20	105	16	58	2	75	4	14
25	115	16	68	2	85	4	14
32	140	16	78	2	100	4	18
40	150	16	88	3	110	4	18
50	165	18	102	3	125	4	18
65	185	18	122	3	145	4	18
80	200	20	138	3	160	8	18
100	220	20	158	3	180	8	18
125	250	22	188	3	210	8	18
150	285	22	212	3	240	8	22
175	315	24	242	3	270	8	22
200	340	24	268	3	295	12	22
250	405	26	320	3	355	12	25
300	460	28	378	4	410	12	25
350	520	30	438	4	470	16	25
400	580	32	490	4	525	16	30
450	640	32	550	4	585	20	30
500	715	34	610	4	650	20	33
600	840	36	725	5	770	20	36
700	910	36	795	5	840	24	36
800	1025	38	900	5	950	24	39
900	1125	40	1000	5	1050	28	39
1000	1255	42	1115	5	1170	28	42

ND - 40 PRESSURE 40 kg / sq.cm. TEMPERATURE 120° C

Nominal Bore	Outside Diam. D	Thickness T	Raised Face		Bolt Circle Diam. P	Nos. of Holes	Dia of Holes B
			Diam R	Thick F			
10	90	16	40	2	60	4	14
15	95	16	45	2	65	4	14
20	105	18	58	2	75	4	14
25	115	18	68	2	85	4	14
32	140	18	78	2	100	4	18
40	150	18	88	3	110	4	18
50	165	20	102	3	125	4	18
65	185	22	122	3	145	8	18
80	200	24	138	3	160	8	18
100	235	24	162	3	190	8	22
125	270	26	188	3	220	8	25
150	300	28	218	3	250	8	25
175	350	32	260	3	295	12	30
200	375	34	285	3	320	12	30
250	450	38	345	3	385	12	33
300	515	42	410	4	450	16	33
350	580	46	465	4	510	16	36
400	660	50	535	4	585	16	39
450	685	50	560	4	610	20	39
500	755	52	615	4	670	20	42

DIN - 2527



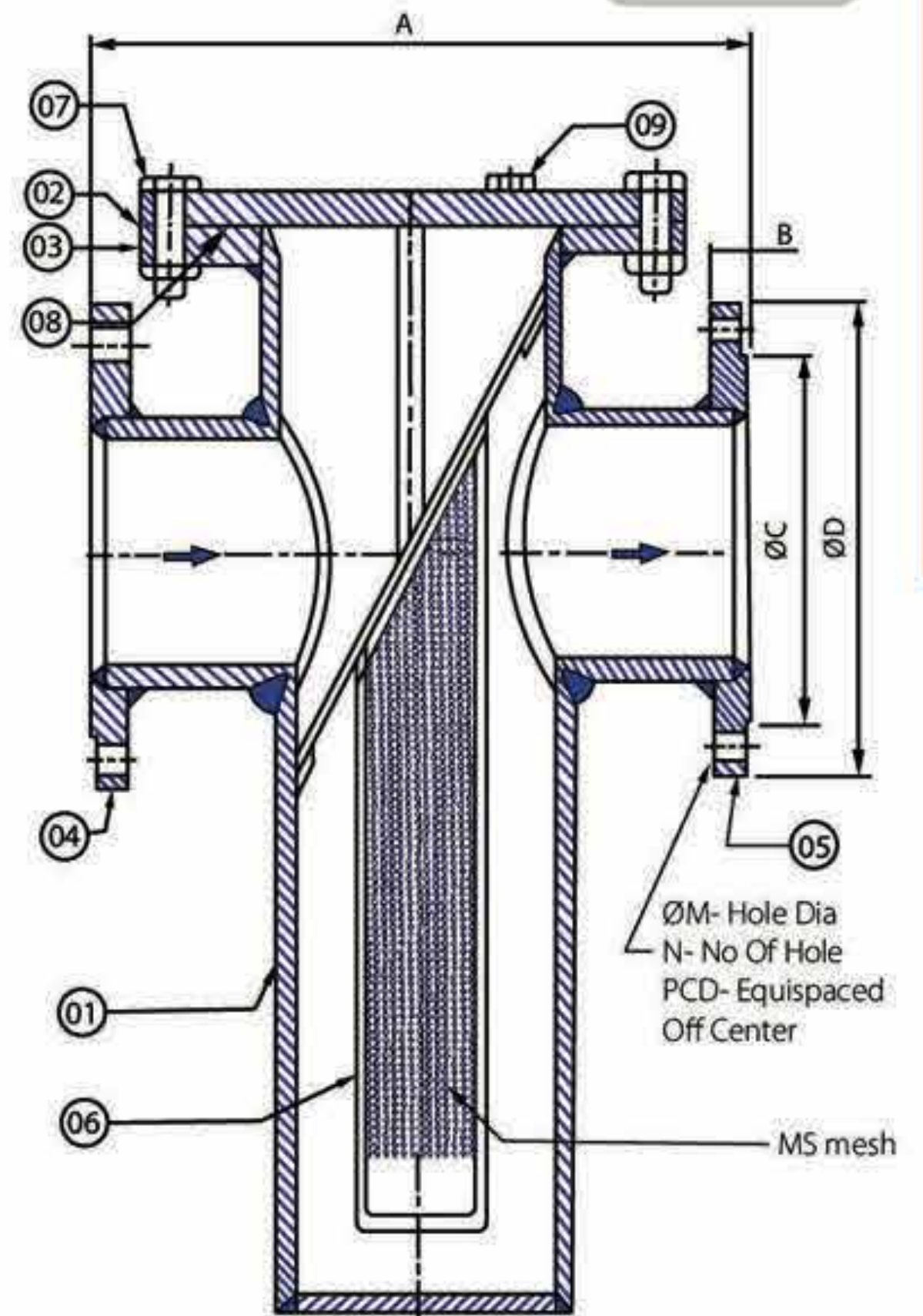
All dimensions in mm

DIMENSIONAL TOLERANCES FOR FLANGES

ANSI B-16.5

THREADED, SLIP-ON, LAP JOINT & BLIND			WELDING NECK		
Outside Diameter	When O.D. is < or = 24" (610 mm.) >24"(610mm.)	$\pm 1/16"$ (1.6mm.) $\pm 1/8"$ (3.2mm.)	Outside Diameter	When O.D. is < or = 24" (610 mm.) >24"(610mm.)	$\pm 1/16"$ (1.6mm.) $\pm 1/8"$ (3.2mm.)
Inside Diameter	Threaded	To Standard Gauge limits	Inside Diameter	NPS < & = 10" (250 mm)	$\pm 1/32"$ (0.8 mm)
	Slip - on and Lap Joint :-			NPS is 12"(300 mm)to 18"(450 mm)	$\pm 1/16"$ (1.6 mm)
	NPS < & = 10" (250 mm.)	+ 1/32"(0.8 mm.) - 0		NPS > & = 20" (500 mm)	$\pm 1/8"$ (3.2 mm)
Diameter of Hub at Base	< & = 12" (300 mm.)	+ 3/32"(2.4 mm.) - 1/16"(1.6 mm.)	Diameter of contact Face	1/16"(1.6 mm.) Raised Face	$\pm 1/32"$ (0.8 mm.)
	> & = 14" (350 mm.)	+ 1/8"(3.2 mm.)		1/4"(6.4 mm.) Raised Face: Tongue & Grooved (Male/Female)	$\pm 1/64"$ (0.4 mm.)
Diameter of contact Face	1/16" (1.6 mm) Raised Face	$\pm 1/32"$ (0.8 mm.)	Diameter of Hub at Base	< & = 24" (610 mm)	$\pm 1/16"$ (1.6 mm)
	1/4" (6.4 mm) Raised Face Tongue & Grooved (Male / Female)	$\pm 1/64"$ (0.4 mm.)		>24"(610 mm)	$\pm 1/8"$ (3.2 mm)
Diameter of counter-bone	NPS < & = 10" (250mm)	+ 1/32"(0.8 mm) - 0	Diameter of Hub at point of welding	NPS < & = 5" (125mm)	$\pm 3/32"$ (2.4 mm) $\pm 1/32"$ (0.8 mm)
	NPS > & = 12" (300mm)	+ 1/16"(1.6 mm) - 0		NPS > & = 6" (150mm)	$\pm 5/32"$ (4 mm) $\pm 1/32"$ (0.8 mm)
Drilling	Bolt Circle Diameter	$\pm 1/16"$ (1.6 mm)	Drilling	Bolt Circle Diameter	$\pm 1/16"$ (1.6 mm)
	Bolt Hole Spacing	$\pm 1/32"$ (0.8 mm)		Bolt Hole Spacing	$\pm 1/32"$ (0.8 mm)
	Eccentricity of Bolt Circle & Facing with respect to Bore :			Eccentricity of Bolt Circle & Facing with respect to Bore :	
Thickness	NPS < & = 18" (450 mm)	+ 1/8"(3.2 mm) - 0	Thickness	NPS < & = 18" (450 mm)	$\pm 1/8"$ (3.2 mm) - 0
	NPS > & = 20" (500 mm)	+ 3/16"(4.8 mm) - 0		NPS > & = 20" (500 mm)	$\pm 3/16"$ (4.8 mm) - 0
Length Through Hub	NPS < & = 10" (250 mm)	$\pm 1/16"$ (1.6 mm)	Length Through Hub	NPS < & = 10" (250 mm)	$\pm 1/16"$ (1.6 mm)
	NPS > & = 12" (300 mm)	$\pm 1/8"$ (3.2 mm)		NPS > & = 12" (300 mm)	$\pm 1/8"$ (3.2 mm)

MS T STRAINER



NOTE : Drawings are for reference only

Sr.No	Size	A	B	ØC	ØD	ØM	N	PCD	Qty.
01	25	200.0	11.0	51	108.0	16	4	79.0	01 No.
02	40	260.0	14.0	73	127.0	16	4	98.5	01 No.
03	50	260.0	16.0	92	152.0	19	4	120.5	01 No.
04	65	260.0	17.5	105	178.0	19	4	140.0	01 No.
05	80	300.0	19.0	127	190.5	19	4	152.4	01 No.
06	100	330.0	24.0	157	229.0	19	8	190.5	01 No.
07	125	400.0	24.0	186	254.0	22	8	215.9	01 No.
08	150	400.0	25.0	216	279.0	22	8	241.0	01 No.
09	200	465.0	28.5	270	343.0	22	8	298.4	01 No.
10	250	515.0	30.0	324	406.0	25	12	362.0	01 No.
11	300	575.0	32.0	381	483.0	25	12	432.0	01 No.
12	350	680.0	35.0	413	533.4	28.6	12	476.2	01 No.
13	400	750.0	36.5	470	597.0	28.6	16	539.7	01 No.
14	450	850.0	40.0	533	635.0	31.7	16	577.8	01 No.
15	500	1000.0	43.0	584	698.5	31.7	20	635.0	01 No.
16	600	1200.0	47.6	692	812.8	34.9	20	749.3	01 No.

Hydraulic Test Pressure

Body	Seat
225 PSIG	150 PSIG

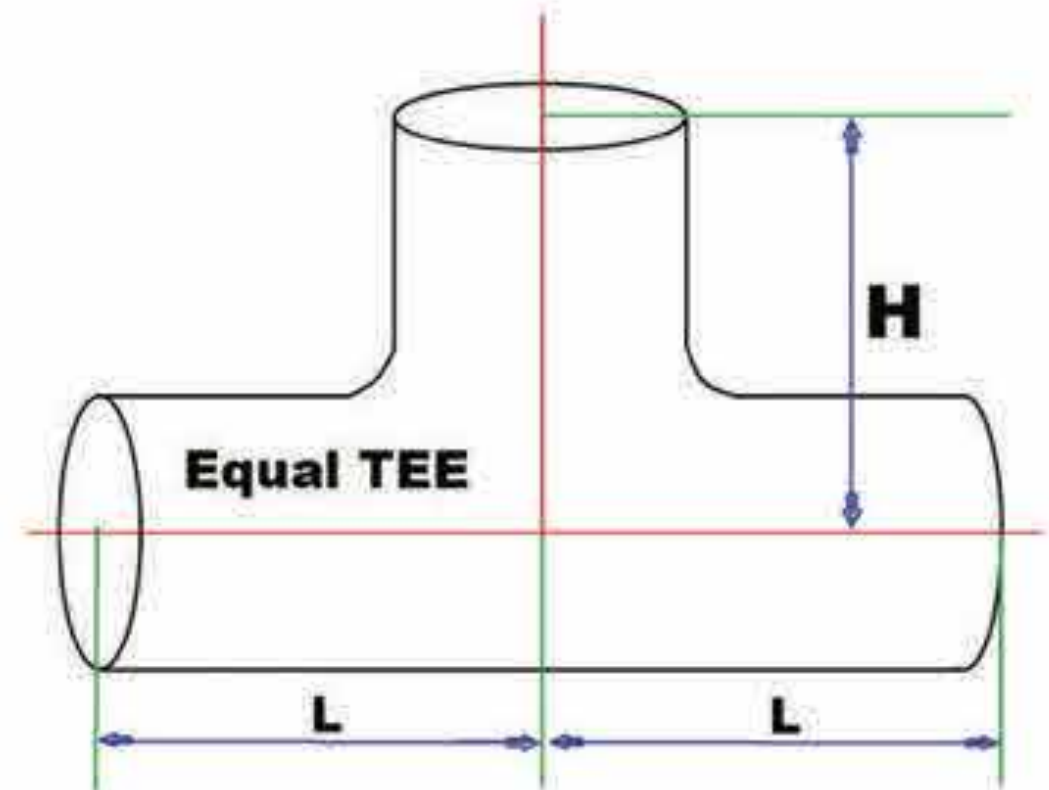
Mfg.Design As per Mfg. Std.

End Connection	F/E Drill as per ANSI B 16.5 150#
Face to Face	As per Mfg. Std.

No.	Description	Material	Qty.
01	Body	M.S.(IS:3589)	1
02	Top Cover	M.S.(IS:2062)	1
03	Body Cover	M.S.(IS:2062)	1
04	Inlet Flange	M.S.(IS:2062)	1
05	Out Let Flange	M.S.(IS:2062)	1
06	Screen	MS Screen	1
07	Cover Bolt & Nut	Mild Steel (MS)	===
08	Gasket	Nitrile	1

Tolerance:- ±3mm

MS TEE



Equal piping tee center dimension
H - Height L - Length

ASME B 16.9 BUTTWELDING PIPE FITTINGS

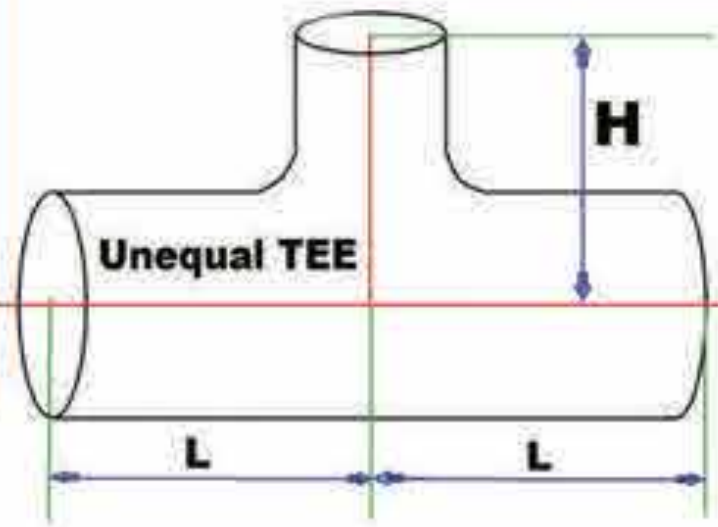
Equal tee dimension in mm

Inch Size	PIPE O D	PIPE C F	TEE L	TEE H	Inch Size	TEE L	TEE H
1/2	21.34	67.0	25.4	25.4	34	635	635
3/4	26.7	83.8	28.4	28.4	36	673.1	673.1
1	33.40	104.9	38.1	38.1	38	711.2	711.2
1.5	48.26	151.6	57.2	57.2	40	749.3	749.3
2	60.32	189.5	63.5	63.5	42	711.2	762
2.5	73.02	229.3	76.2	76.2	44	762	812.8
3	88.90	279.2	85.9	85.9	46	800.1	850.9
4	114.30	359	104.6	104.6	48	838.2	889
5	141.30	443.9	124	124			
6	168.27	528.6	142.7	142.7			
8	219.07	688.2	177.8	177.8			
10	273.05	857.8	215.9	215.9			
12	323.85	1017.4	254	254			
14	355.60	1117.1	279.4	279.4			
16	406.40	1276.7	304.8	304.8			
18	457.20	1436.3	342.9	342.9			
20	508.20	1596.5	381	381			
22	558.80	1755.5	419.1	419.1			
24	609.60	1915.1	431.8	431.8			
26	660.40	2074.7	495.3	495.3			
28	711.20	2234.3	520.7	520.7			
30	762	2393.8	558.8	558.8			
32	812.8	2553.4	596.9	596.9			

ASME B 16.9 BUTTWELDING PIPE FITTINGS TEE

Unequal piping tee dimension in mm

Inch size	TEE L	TEE H	Inch size	TEE L	TEE H	Inch size	TEE L	TEE H	Inch size	TEE L	TEE H
1 x 1/2	38.1	38.1	14 x 6	279.4	238.3	22 x 16	419	381	30 x 10	558.8	460.2
1.1/2 x 1/2	57.2	57.2	14 x 8	279.4	247.6	22 x 18	419	393.7	30 x 12	558.8	472.9
1.1/2 x 1	57.2	57.2	14 x 10	279.4	257	22 x 20	419	406.4	30 x 14	558.8	482.6
2 x 3/4	63.5	44.4	14 x 12	279.4	269.7	24 x 10	431.8	384	30 x 16	558.8	482.6
2 x 1	63.5	50.8	16 x 6	304.8	263.7	24 x 12	431.8	396.7	30 x 18	558.8	495.3
2 x 1.1/2	63.5	60.5	16 x 8	304.8	273	24 x 14	431.8	406.4	30 x 20	558.8	508
2.1/2 x 1	76.2	57.2	16 x 10	304.8	282.4	24 x 16	431.8	406.4	30 x 22	558.8	520.7
2.1/2 x 1.1/2	76.2	66.5	16 x 12	304.8	295.1	24 x 18	431.8	419.1	30 x 24	558.8	533.4
3 x 1.1/2	85.9	73.2	16 x 14	304.8	304.8	24 x 22	431.8	431.8	30 x 26	558.8	546.1
3 x 2	85.9	76.2	18 x 8	330.2	298.4	26 x 12	495.3	422.1	30 x 28	558.8	546.1
4 x 1.1/2	104.6	85.9	18 x 10	330.2	307.8	26 x 14	495.3	431.8	32 x 14	596.9	508
4 x 2	104.6	88.9	18 x 12	330.2	320.5	26 x 16	495.3	431.8	32 x 16	596.9	508
4 x 3	104.6	98.6	18 x 14	330.2	330.2	26 x 18	495.3	444.5	32 x 18	596.9	520.7
6 x 3	142.7	124	18 x 16	330.2	330.2	26 x 20	495.3	457.2	32 x 20	596.9	533.4
6 x 4	142.7	130	20 x 8	381	323.8	26 x 22	495.3	469.9	32 x 22	596.9	546.1
8 x 4	177.8	155.4	20 x 10	381	333.2	26 x 24	495.3	482.6	32 x 24	596.9	558.8
8 x 6	177.4	168.1	20 x 12	381	345.9	28 x 14	520.7	457.2	32 x 26	596.9	571.5
10 x 4	215.9	184.1	20 x 14	381	355.6	28 x 16	520.7	457.2	32 x 28	596.9	571.5
10 x 6	215.9	193.5	20 x 16	381	355.6	28 x 18	520.7	469.9	32 x 30	596.9	584.2
10 x 8	215.9	203.2	20 x 18	381	368.3	28 x 20	520.7	482.6	34 x 16	635	533.4
12 x 6	254	218.9	22 x 10	419	358.6	28 x 22	520.7	495.3	34 x 18	635	546.1
12 x 8	254	228.6	22 x 12	419	371.3	28 x 24	520.7	508	34 x 20	635	558.8
12 x 10	254	241.3	22 x 14	419	381	28 x 26	520.7	520.7	34 x 22	635	571.5

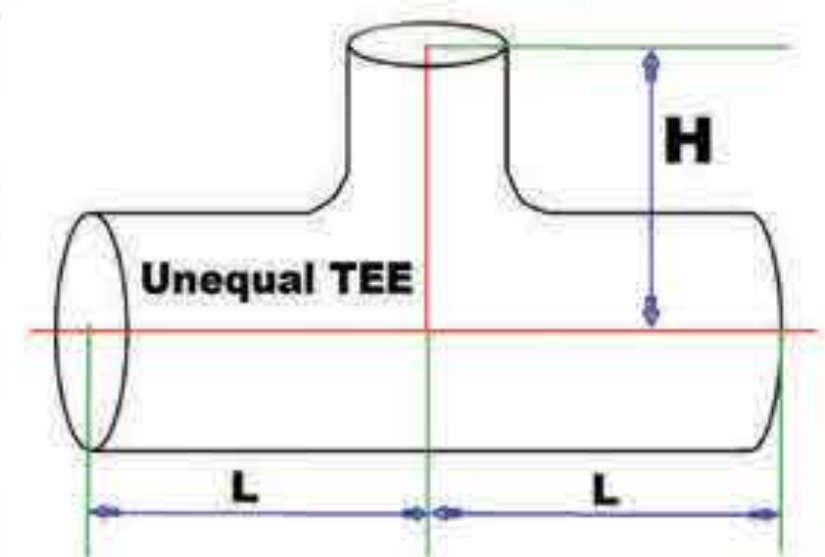


Unequal piping tee center dimension
H - Height L - Length

ASME B 16.9 BUTTWELDING PIPE FITTINGS

Unequal tee dimension in mm

Inch Size	TEE L	TEE H	Inch Size	TEE L	TEE H	Inch Size	TEE L	TEE L
34 x 16	635	533.4	40 x 26	749.3	673.1	48 x 30	889	762
34 x 18	635	546.1	40 x 26	749.3	673.1	48 x 32	889	787.4
34 x 20	635	558.8	40 x 28	749.3	698.5	48 x 34	889	787.4
34 x 22	635	571.5	40 x 30	749.3	698.5	48 x 36	889	787.4
34 x 24	635	584.2	40 x 32	749.3	711.2	48 x 38	889	812.8
34 x 26	635	596.9	40 x 34	749.3	723.9	48 x 40	889	812.8
34 x 28	635	596.9	40 x 36	749.3	736.6	48 x 42	889	812.8
34 x 30	635	609.6	40 x 38	749.3	749.3	48 x 44	889	838.2
34 x 32	635	622.3	42 x 16	762	635	48 x 46	889	838.2
36 x 16	673.1	558.8	42 x 18	762	647.7			
36 x 18	673.1	571.5	42 x 20	762	660.4			
36 x 20	673.1	584.2	42 x 22	762	660.4			
36 x 22	673.1	596.9	42 x 24	762	660.4			
36 x 24	673.1	609.6	42 x 26	762	660.4			
36 x 26	673.1	622.3	42 x 28	762	698.5			
36 x 28	673.1	622.3	42 x 30	762	711.2			
36 x 30	673.1	635	42 x 32	762	711.2			
36 x 32	673.1	647.7	42 x 34	762	711.2			
36 x 34	673.1	660.4	42 x 36	762	711.2			
40 x 18	749.3	622.3	48 x 22	889	736.6			
40 x 20	749.3	635	48 x 24	889	736.6			
40 x 22	749.3	647.7	48 x 26	889	762			
40 x 24	749.3	660.4	48 x 28	889	762			



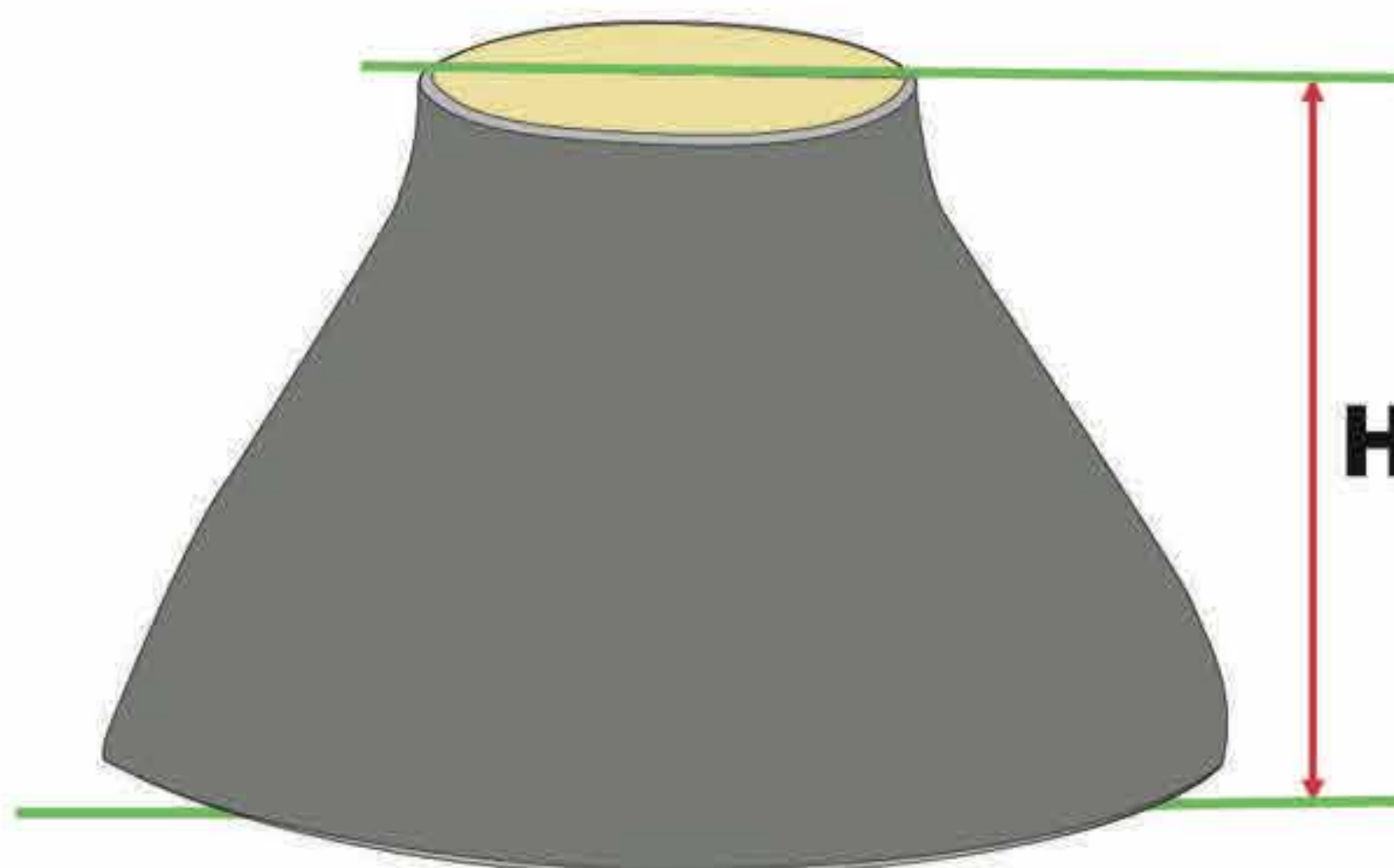
Unequal piping tee center dimension
H - Height L - Length

MS BEND



MS bend is a type of bend or curved structure that is fabricated using Mild Steel (MS), which is a low carbon steel commonly used in the construction and manufacturing industry due to its strength, ductility, and affordability. MS bends can be used for a wide range of applications, including pipelines and can be made through various fabrication processes such as bending, rolling, or welding, depending on the specific requirements. The curvature and angle of the MS bend can be customized to fit particular design needs and they are usually coated or painted to prevent rust and corrosion, which can compromise their structural integrity over time.

MS CONCENTRIC REDUCER



concentric reducer

Schedule SCH40 STD SCH80 XS XXS SCH120 SCH160

Piping Concentric reducer dimension in mm

Inch Size	Con. H	Inch Size	Con. H	Inch Size	Con. H	Inch Size	Con. H
3/4 x 1/2	38.1	14 x 8	330.2	26x18	609.6	38 x 26	609.6
1 x 3/4	50.8	14 x 6	330.2	28x26	609.6	40 x 38	609.6
1 x 1/2	50.8	16 x 14	355.6	28x24	609.6	40 x 36	609.6
1 1/2 x 1	63.5	16 x 12	355.6	28x20	609.6	40 x 34	609.6
1 1/2 x 3/4	63.5	16 x 10	355.6	30x28	609.6	40 x 32	609.6
1 1/2 x 1/2	63.5	16 x 8	355.6	30x26	609.6	40 x 30	609.6
2 x 1 1/2	76.2	18 x 16	381	30x24	609.6	42 x 40	609.6
2 x 1	76.2	18 x 14	381	30x20	609.6	42 x 38	609.6
2 x 3/4	76.2	18 x 12	381	32x30	609.6	42 x 36	609.6
3 x 2	88.9	18 x 10	381	32x28	609.6	42 x 34	609.6
3 x 1 1/2	88.9	20 x 18	508	32x26	609.6	42 x 32	609.6
4 x 3	101.6	20 x 16	508	32x24	609.6	42 x 30	609.6
4 x 2	101.6	20 x 14	508	34x32	609.6	44 x 42	609.6
4 x 1 1/2	101.6	20 x 12	508	34x30	609.6	44 x 40	609.6
6 x 4	139.7	20 x 12	508	34x26	609.6	44 x 38	609.6
6 x 3	139.7	22 x 20	508	34x24	609.6	44 x 36	609.6
8 x 6	152.4	22 x 18	508	36x34	609.6	46 x 44	711.2
8 x 4	152.4	22 x 16	508	36x32	609.6	46 x 42	711.2
10 x 8	177.8	22 x 14	508	36x30	609.6	46 x 40	711.2
10 x 6	177.8	24 x 22	508	36 x 26	609.6	46 x 38	711.2
10 x 4	177.8	24 x 20	508	36x24	609.6	48 x 46	711.2
12 x 10	203.2	24 x 18	508	38x36	609.6	48 x 44	711.2
12 x 8	203.2	24 x 16	508.6	38x34	609.6	48 x 42	711.2
12 x 6	203.2	26 x 24	609.6	38x32	609.6	48 x 40	711.2
14 x 12	330.2	26 x 22	609.6	38x30	609.6		
14 x 10	330.2	26 x 20	609.6	38x28	609.6		

MS SPIGOT & PUDDLE PIPES



MS Spigot: An MS Spigot is a type of joint used in pipelines and other structures that involves one end of a pipe being tapered or reduced in diameter to fit into the larger opening of another pipe. This joint is typically made of Mild Steel (MS) and is commonly used in pipelines for water supply, drainage, sewage, and other fluids.

Puddle Pipes:

Puddle Pipes are drainage pipes made of concrete that feature a solid base with small perforations on the sides to allow water to seep through. These pipes are installed vertically into the ground and help channel water away from an area that needs

to be kept dry. Puddle Pipes are commonly used in civil engineering projects such as roadways, airports, and buildings to prevent flooding and maintain a safe and dry environment. The name "puddle" comes from the process of creating a watertight seal around the base of the pipe using clay during installation.

MS SCAFFOLDING FRAMES

MS scaffolding frames are temporary structures made of mild steel that are commonly used in the construction industry to support workers and materials during building or maintenance work. They come in various sizes and thicknesses, are manufactured to industry standards and are designed to be strong, durable and reliable.

To create a stable and secure scaffolding structure, MS scaffolding frames are typically used in combination with fittings such as couplers, clamps and swivel jacks. Their high strength-to-weight ratio makes them easy to handle and

transport, while also providing a safe and stable platform for workers. They are also resistant to corrosion and harsh weather conditions, which makes them ideal for outdoor construction projects.





DUCTILE IRON FLANGED PIPES





INDIAN STANDARD - IS 8329 (2000)

CLASSIFICATION

Pipes have been classified in this standard as K7, K8, K9 and K10 according to their thickness. K7 pipes have minimum wall thickness where K10 has maximum. The Ductile Iron Spun Pipes having screwed on flanges are sealed at the threaded Joints between the pipes and the flange by a suitable sealing compound. The flanges are never removed after screwing on the barrels of the pipes.

TOLERANCE ON LENGTH

- a. Socket & Spigot and Plain end Pipes = +100 mm
- b. Flanged Pipes = +10mm

COATINGS

- (1) Pipes are normally externally coated with Black Bituminous paint after zinc primer.
- (2) Suitable cement mortar lining is normally done internally.

S/S Pipes = Socket/Spigot Pipes

D/F Pipes = Double Flanged Pipes

TABLE - 2 MINIMUM CLASS FOR DUCTILE IRON FLANGED PIPES

Nominal Bore	Screwed on Flange minimum			
	PN - 10	PN - 16	PN - 25	PN - 40
80-450	K-9	K-9	K-9	K-9
500-600	K-10	K-10	K-10	K-10
700-1000	K-10	K-10	K-10	x

TABLE - 3 HYDROSTATIC WORKS TEST PRESSURES (kgf/cm²)

Nominal Bore	S/S Pipes			D/F Pipes			
				Welded / Screwed Flanged			
	K-7	K-8	K-9, K-10	PN-10	PN-16	PN-25	PN-40
80 - 300	32	40	50	16	25	32	40
350 - 600	25	32	40	16	25	32	40
700 -1000	18	25	32	16	25	32	x

ISO 2531
BS EN 545
BS EN 598

DIMENSIONS OF SOCKET & SPIGOT PIPES, CLASSES K7, K8, K9 & K10

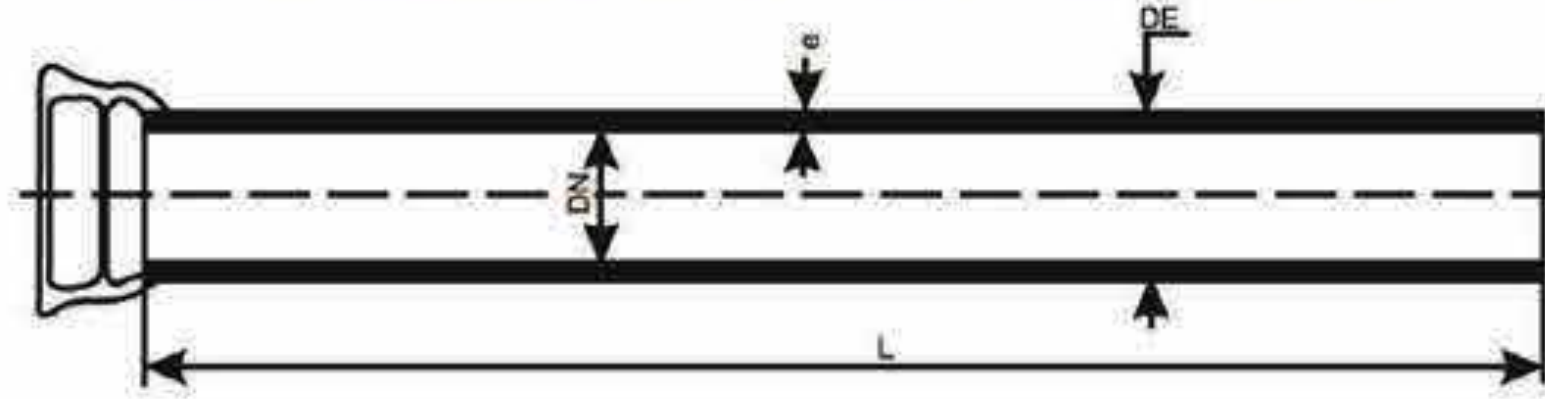


TABLE - 4

Nominal Diameter	External Diameter	Socket Mass	Barrel Wall Thickness 'e'				Approx Mass Per mtr. Including Socket				Approx Mass Per Pc 5.5mtr. Including Socket			
							Tar Coated		Cement Lined		Tar Coated		Cement Lined	
DN	DE		K7	K8	K9	K10	K-7	K-9	K-7	K-9	K-7	K-9	K-7	K-9
80	98	3.4	5	6	6	6	10.91	12.84	12.61	14.54	60	71	69	80
100	118	4.3	5	6	6	6.1	13.29	15.66	15.39	17.76	73	86	85	98
125	144	6.0	5	6	6	6.3	16.43	20.00	20.50	24.27	90	110	113	133
150	170	7.1	5	6	6	6.5	19.55	23.07	22.75	26.27	108	127	125	144
200	222	10.3	5	6	6.3	7	25.89	31.95	30.09	36.15	142	176	165	199
250	274	14.2	5.3	6	6.8	7.5	34.11	42.80	39.31	48.00	188	235	216	264
300	326	18.6	5.6	6.4	7.2	8	43.10	54.19	49.40	60.49	237	298	272	333
350	378	23.8	6	6.8	7.7	8.5	53.72	67.43	66.02	79.73	295	371	363	439
400	429	29.3	6.3	7.2	8.1	9	64.28	80.80	78.28	94.80	354	444	431	521
450	480	36.0	6.6	7.6	8.6	9.5	75.71	95.27	91.41	110.97	416	524	503	610
500	532	42.8	7	8	9	10	89.14	111.98	106.64	129.48	490	616	587	712
600	635	59.3	7.7	8.8	9.9	11	117.71	147.78	138.61	168.63	647	813	762	927
700	738	79.1	8.4	9.6	10.8	12	159.62	188.24	188.92	217.54	878	1035	1039	1196
750	790	90.0	8.7	10	11.3	12.5	184.06	211.30	215.36	242.60	1012	1162	1184	1334
800	842	103	9.1	10.4	11.7	13	210.11	233.70	243.51	267.10	1156	1285	1339	1469
900	945	130	9.8	11.2	12.6	14	255.14	283.69	292.74	321.29	1403	1560	1610	1767
1000	1048	162	10.5	12	13.5	15	304.53	338.49	346.23	380.19	1675	1862	1904	2091
1100	1152	200	11.2	12.8	14.4	16	--	405.00	--	458.0	--	2228	--	2519
1200	1255	238	11.9	13.9	15.3	17	--	460.00	--	520.0	--	2530	--	2860
1400	1462	280	--	--	17.1	--	--	600.00	--	675.0	--	3300	--	3713
1600	1668	380	--	--	18.9	--	--	760.00	--	850.0	--	4180	--	4675
1800	1875	490	--	--	20.7	--	--	930.00	--	1040.0	--	5115	--	5720
2000	2082	626	--	--	22.5	--	--	1120.00	--	1250.0	--	6160	--	6875
2200	2288	784	--	--	24.3	--	--	1350.00	--	1500.0	--	7425	--	8250
2400	2458	966	--	--	26.1	--	--	1610.00	--	1780.0	--	8855	--	9790
2600	2684	1174	--	--	27.9	--	--	1900.00	--	2100.0	--	10450	--	11550

NOTE : No K7 Pipes from 1100 mm Dia onwards is specified.

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DIMENSIONS OF CENTRIFUGALLY CAST DUCTILE IRON PIPES WITH SCREWED / WELDED FLANGES

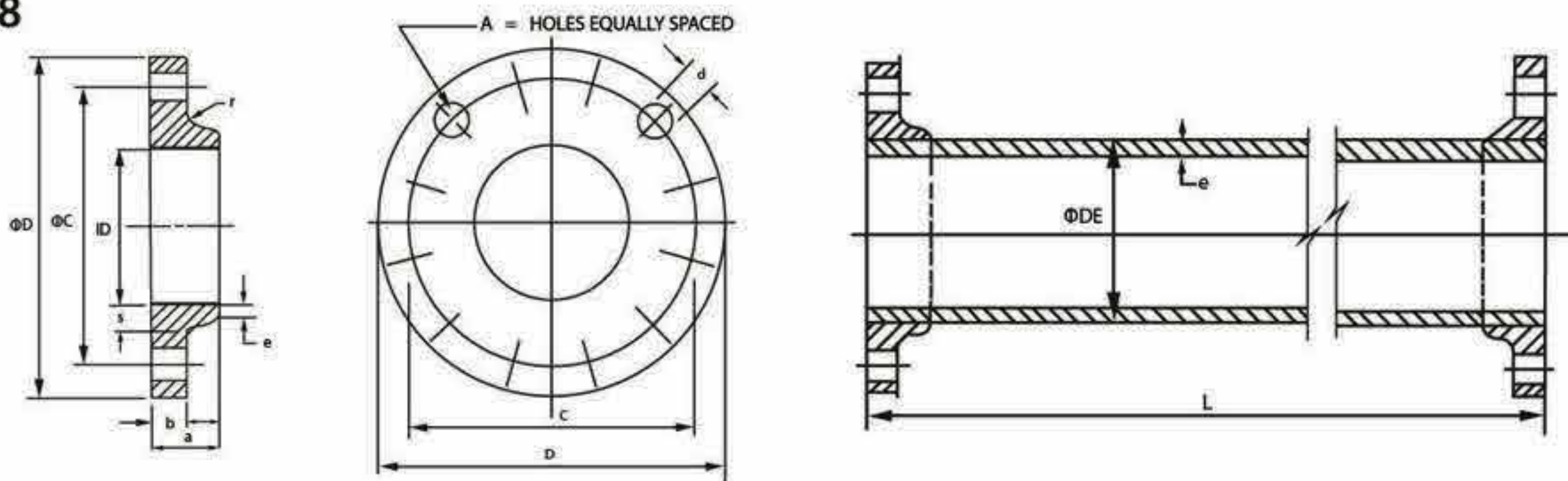


TABLE - 5

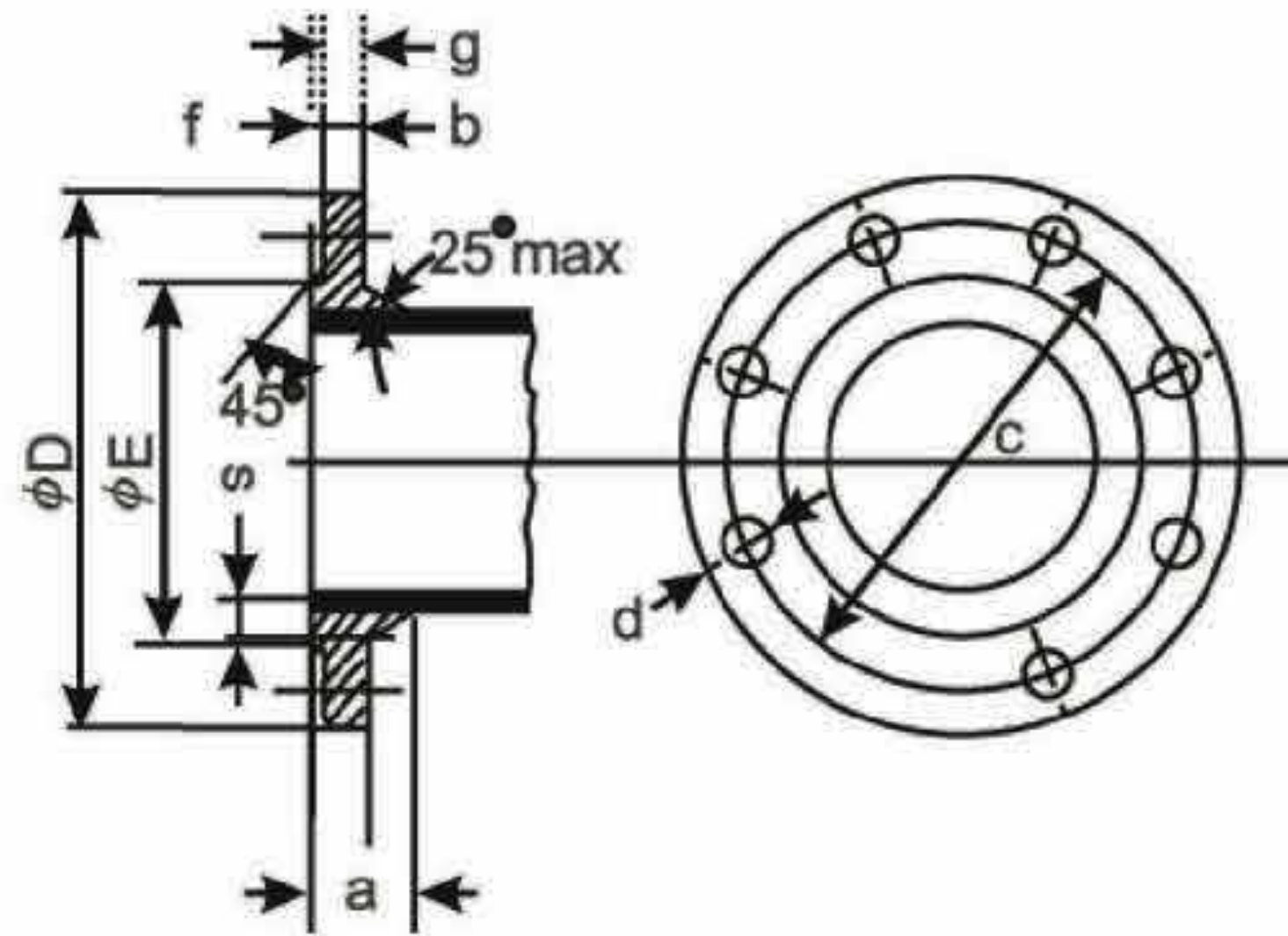
Nominal Diameter	Outside Diameter	Wall Thickness	App. Mass of One Flange		App. Mass of Barrel/mtr.	Approx Mass of One working Length "L" including two flanges					
			PN-10	PN-16		PN - 10			PN - 16		
DN	DE	e	PN-10	PN-16	Non-CML	2.75M	5.0M	5.4M	2.75M	5.0M	5.4M
80	98	6.0	3.5	3.5	12.84	42	71	78	42	71	78
100	118	6.0	3.8	3.8	15.66	51	86	94	51	86	94
125	144	6.0	4.7	4.7	20.00	64	109	119	64	109	119
150	170	6.0	5.8	5.8	23.07	75	127	138	75	127	138
200	222	6.3	8.0	8.0	31.95	104	176	191	104	176	191
250	274	6.8	11.0	12.0	42.80	140	236	256	142	238	258
300	326	7.2	15.0	16.0	54.19	179	301	327	181	303	329
350	378	7.7	18.0	23.0	67.43	221	373	406	231	383	416
400	429	8.1	19.0	26.0	80.80	260	442	480	274	456	494
450	480	8.6	22.0	34.0	95.27	306	520	566	330	544	590
500	532	9.0	28.0	46.0	111.98	364	616	670	400	652	706
600	635	9.9	43.0	73.0	147.78	496	829	900	552	885	956
700	738	10.8	62.0	83.0	188.24	642	1065	1155	684	1107	1196
750	790	11.3	74.0	96.0	211.30	729	1205	1306	773	1249	1350
800	842	11.7	82.0	108.0	233.70	807	1333	1445	859	1385	1495
900	945	12.6	92.0	125.0	283.69	964	1602	1740	1030	1668	1805
1000	1048	13.5	126.0	178.0	338.49	1183	1944	2108	1287	2048	2215
1100	1152	14.4	158.0	210.0	367.80	1327	2155	2332	1431	2259	2435
1200	1255	15.3	190.0	270.0	425.80	1551	2509	2715	1711	2669	2875

NOTE:

1. The method of screwing and the exact form of thread are as per our own discretion as the flanges are never removed after screwing on to the barrel of the pipes.
2. If so required the flanges may be spot welded on the back side after screwing.
3. Alternatively the flanges may be completely welded on to the barrel pipes.
4. Pipes = K9
5. ONLY WELDABLE FLANGES MAY ALSO BE SUPPLIED TO BE WELDED ON TO THE PIPES AS PER SITE REQUIREMENTS
6. PUDDLE flanges (for wall casting) may be welded on pipes as per Customer's requirements.

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DIMENSIONS OF STANDARD FLANGE DRILLING FOR SCREWED FLANGES & WELDED FLANGE (PN 10)



PN-10

TABLE - 6

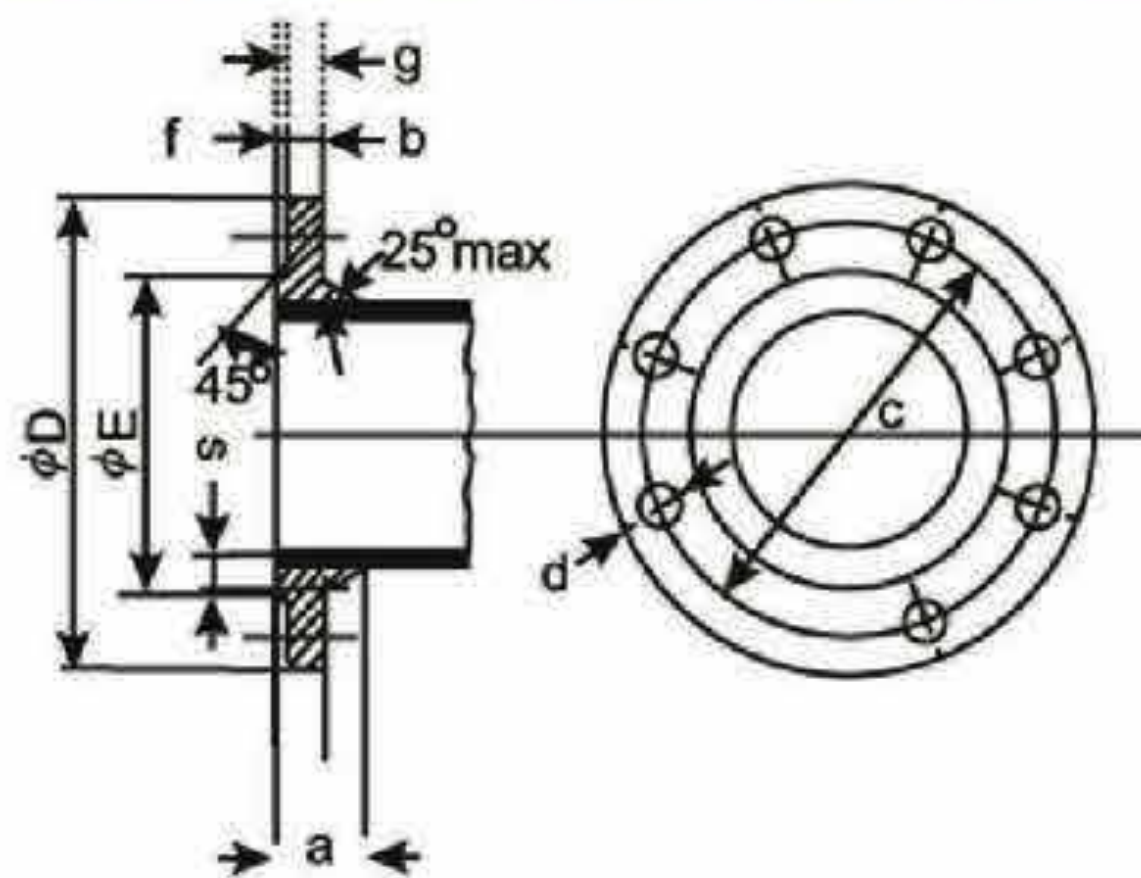
Nominal Diameter	Dimensions								Holes		Bolt Size Metric	Bolt length mm
	DN	D	E	C	b	f	g	a	S	Number		
80	200	132	160	19	3	16	32	15	4	19	M16	80
100	220	156	180	19	3	16	32	15	8	19	M16	70
125	250	184	210	19	3	16	32	15	8	19	M16	80
150	285	211	240	19	3	16	32	15	8	23	M20	80
200	340	266	295	20	3	17	34	15	8	23	M20	80
250	395	319	350	22	3	19	48	16	12	23	M20	90
300	445	370	400	24.5	4	20.5	52	17.5	12	23	M20	90
350	505	429	460	24.5	4	20.5	52	19.5	16	23	M20	100
400	565	480	515	24.5	4	20.5	60	19.5	16	28	M24	100
450	615	530	565	25.5	4	21.5	63	20	20	28	M24	100
500	670	582	620	26.5	4	22.5	68	21	20	28	M24	110
600	780	682	725	30	5	25	75	24	20	31	M27	120
700	895	794	840	32.5	5	27.5	82	24	24	31	M27	120
750	960	857	900	34	5	29	87	24	24	31	M27	130
800	1015	901	950	35	5	30	90	24.5	24	34	M30	130
900	1115	1001	1050	37.5	5	32.5	98	26.5	28	34	M30	150
1000	1230	1112	1160	40	5	35	105	28	28	37	M33	150
1100	1340	1231	1270	43	5	38	114	30	32	37	M33	160
1200	1455	1328	1380	45	5	40	120	31.5	32	40	M36	180

NOTE:

1. The method of screwing and the exact form of thread shall be left to the discretion of the manufacturer as the flanges are never removed after screwing on the barrels of the pipes.
2. If so required the screwed flanges may be spot welded on the back side after screwing.
3. Dimensions 'a' and 'S' are for guidance only.
4. Unless otherwise specified, flanges shall be of ductile iron.

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DIMENSIONS OF STANDARD FLANGE DRILLING FOR SCREWED FLANGES & WELDED FLANGE (PN 16)



PN-16

TABLE - 7

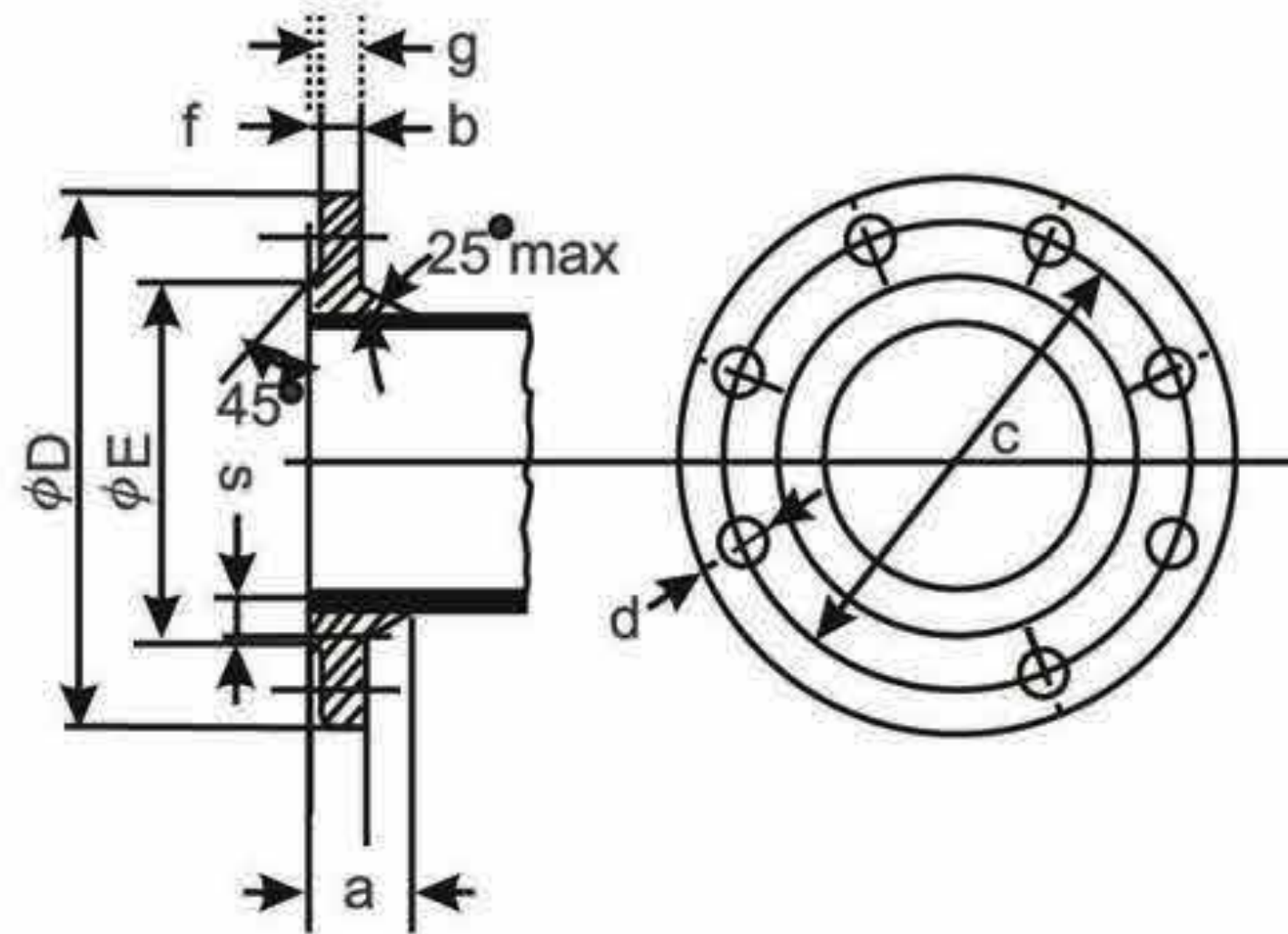
Nominal Diameter	Dimensions									Holes		Bolt Size Metric	Bolt Length mm
	DN	D	E	C	b	f	g	a	S	Number	Dia(d)		
80	200	132	160	19	3	16	32	15	8	19	M16	80	
100	220	156	180	19	3	16	32	15	8	19	M16	80	
125	250	184	210	19	3	16	32	15	8	19	M16	80	
150	285	211	240	19	3	16	32	15	8	23	M20	80	
200	340	266	295	20	3	17	34	16	12	23	M20	80	
250	400	319	355	22	3	19	48	17.5	12	28	M24	90	
300	455	370	410	24.5	4	20.5	52	19.5	12	28	M24	100	
350	520	429	470	26.5	4	22.5	68	21	16	28	M24	100	
400	580	480	525	28	4	24	72	22.5	16	31	M27	110	
450	640	548	585	30	4	26	78	24	20	31	M27	110	
500	715	609	650	31.5	4	27.5	82	25	20	34	M30	120	
600	840	720	770	36	5	31	93	27.5	20	37	M33	130	
700	910	794	840	39.5	5	34.5	103	27.5	24	37	M33	140	
750	970	857	900	41	5	36	108	28	24	37	M33	140	
800	1025	901	950	43	5	38	114	30	24	40	M36	150	
900	1125	1001	1050	46	5	41	124	32.5	28	40	M36	160	
1000	1255	1112	1170	50	5	45	135	35	28	43	M39	170	
1100	1355	1218	1270	53.5	5	48.5	144	37.5	32	43	M39	180	
1200	1485	1328	1390	57	5	52	156	40	32	49	M45	200	

NOTE:

1. The method of screwing and the exact form of thread shall be left to the discretion of the manufacturer as the flanges are never removed after screwing on the barrels of the pipes.
2. If so required the screwed flanges may be spot welded on the back side after screwing.
3. Dimensions 'a' and 'S' are for guidance only.
4. Unless otherwise specified, flanges shall be of ductile iron

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DIMENSIONS OF STANDARD FLANGE DRILLING FOR SCREWED FLANGES & WELDED FLANGE (PN 25)



PN-25

TABLE - 8

Nominal Diameter	Dimensions								Holes		Bolt Size Metric	Bolt length mm
	DN	D	E	C	b	f	g	a	S	Number		
80	200	132	160	19	3	16	32	15	8	19	M16	80
100	235	156	190	19	3	16	33	15	8	23	M20	80
125	270	184	220	19	3	16	37	15	8	28	M24	80
150	300	211	250	20	3	17	40	16	8	28	M24	90
200	360	274	310	22	3	19	44	17.5	12	28	M24	90
250	425	330	370	24.5	3	21.5	49	19.5	12	31	M27	100
300	485	389	430	27.5	4	23.5	56	22	16	31	M27	100
350	555	448	490	30	4	26	57	24	16	34	M30	110
400	620	503	550	32	4	28	64	25.5	16	37	M33	120
450	670	548	600	34.5	4	30.5	69	27.5	20	37	M33	130
500	730	609	660	36.5	4	32.5	73	29	20	37	M33	130
600	845	720	770	42	5	37	83	33.5	20	40	M36	150
700	960	820	875	46.5	5	41.5	84	33.5	24	43	M39	150
750	1020	883	940	50	5	45	100	34	24	43	M39	170
800	1085	928	990	51	5	46	102	35.5	24	49	M45	180
900	1185	1028	1090	55.5	5	50.5	112	39	28	49	M45	190
1000	1320	1140	1210	60	5	55	118	42	28	56	M52	210
1100	1420	1240	1310	65.5	5	60.5	120	45	32	56	M52	210
1200	1530	1350	1420	69	5	64	138	48.5	32	56	M52	220

NOTE:

1. The method of screwing and the exact form of thread shall be left to the discretion of the manufacturer as the flanges are never removed after screwing on the barrels of the pipes.
2. If so required the screwed flanges may be spot welded on the back side after screwing.
3. Dimensions 'a' and 'S' are for guidance only.
4. Unless otherwise specified, flanges shall be of ductile iron.

T

It is recommended that the Tyton Rubber Rings to be used with fittings, of **"T" Type** should be purchased from the manufacturer of fittings for best results.

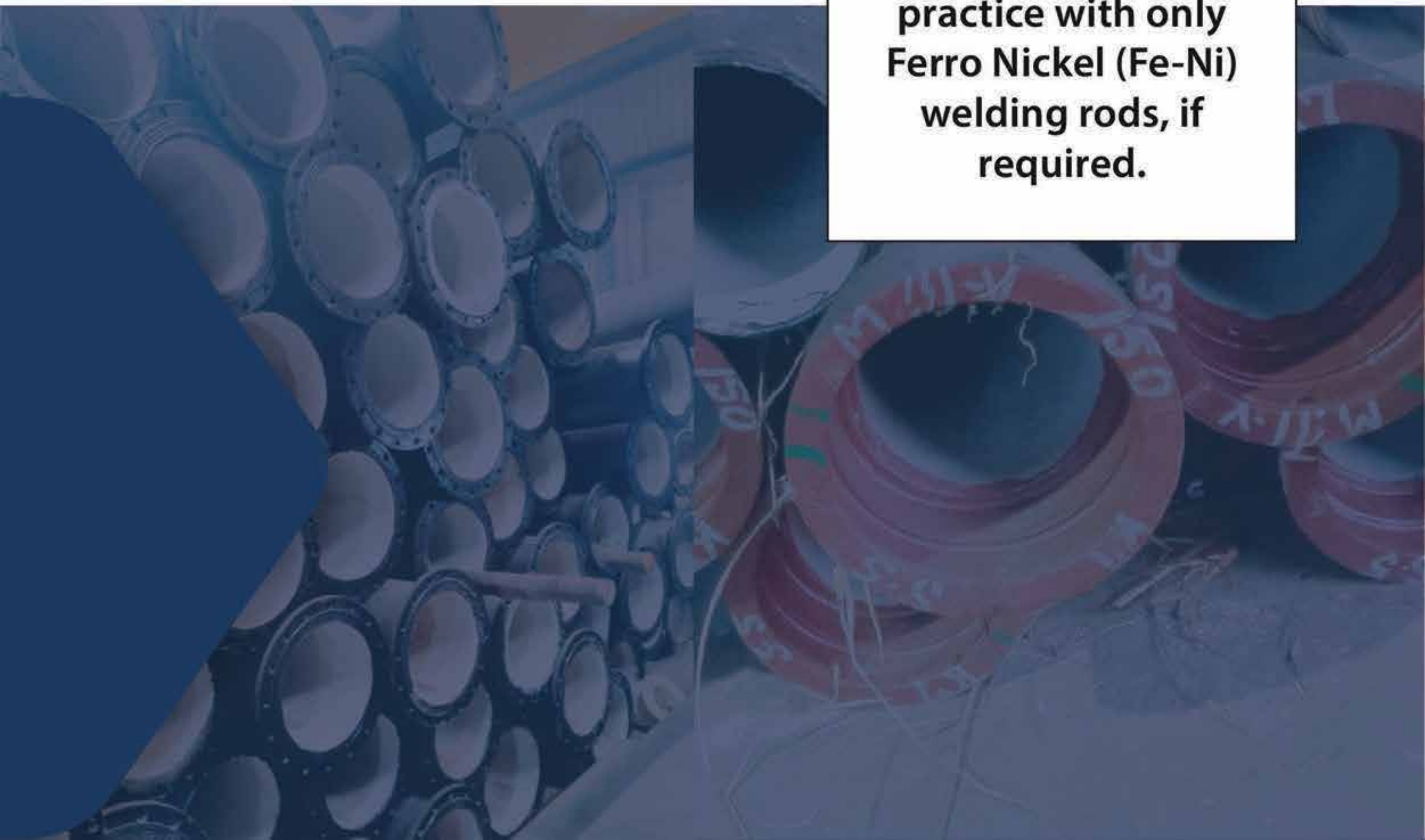
We supply Tyton Rubber Rings in Natural Rubber (NR), Styrene Butadine Rubber (SBR) and Ethylene Propylene Daimene Modified Rubber (EPDM), sourcing it from our approved vendors under our strict Quality Control Supervision.

However for water works purposes SBR Rubber Rings are highly recommended considering compression, micro bio-degradation, resistance to heat, water and ageing.

K

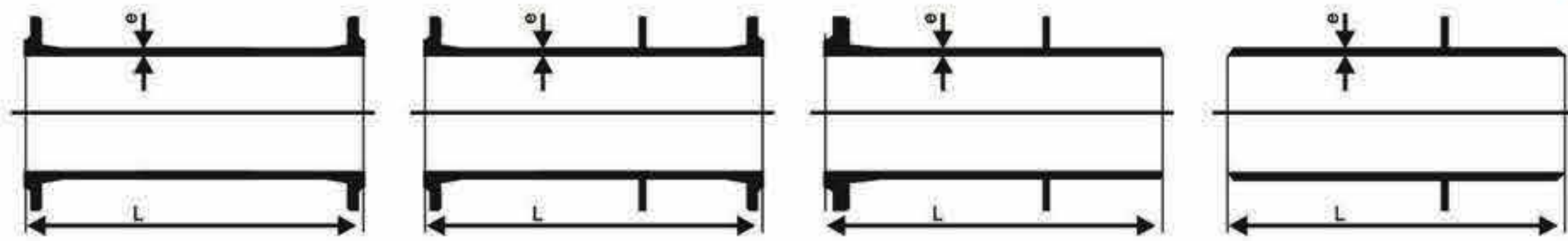
Fittings of **"K" Type** are suitable for Mechanical Jointing and are supplied as complete set with Nut, Bolts & Rubber Rings. Natural Rubber Rings (NR), are generally supplied. Upon specific requirement SBR & EPDM Rubber Rings may also be supplied.

Ductile Iron Pipes & Fittings are weldable and should be welded as per standard welding practice with only Ferro Nickel (Fe-Ni) welding rods, if required.



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INTEGRALLY CASTED DOUBLE FLANGED PIPE, PUDDLE PIPE (K-12)



Double Flanged Pipe

Double Flanged Puddle Pipe

Flanged Spigot Puddle Pipe

Plain End Puddle Pipe

K-12

TABLE - 36

Nominal Size (DN)	Barrel		Integral Flange		App. Mass (kg)			
	e mm	Mass per meter Kg/m	Unit Mass Per Flg		D/F Pipes PN- 10 Flanges		D/F PuddlePipe PN- 10 Flanges	
			PN 10	PN 16	1.0 mtr.	2.0 mtr.	0.5 mtr	1.0 mtr
80	7.0	14.1	3.0	3.0	20	34	16	23
100	7.2	17.7	3.3	3.3	24	42	19	28
125	7.5	22.7	4.0	4.0	31	53	23	35
150	7.8	28.0	5.1	5.1	38	66	29	43
200	8.4	39.7	7.1	7.1	53	93	41	61
250	9.0	52.8	10.0	10.0	72	125	56	83
300	9.6	67.3	13.0	13.0	93	160	73	106
350	10.2	83.1	14.7	17.4	111	194	86	127
400	10.8	100.0	17.7	22.2	133	233	103	153
450	11.4	118.3	20.2	28.0	159	277	120	179
500	12.0	138.2	24.3	38.0	182	320	141	210
600	13.2	181.8	34.0	48.0	243	425	193	284
700	14.4	230.8	46.0	58.0	312	543	253	369
750	15.0	258.0	55.0	68.0	354	612	294	423
800	15.6	285.5	62.0	77.0	395	681	329	472
900	16.8	345.4	73.0	92.0	474	819	392	565
1000	18.0	410.6	93.0	128.0	573	984	484	690
1100	19.2	482.0	113.0	148.0	707	1189	580	821
1200	20.4	558.0	138.0	193.0	800	1357	693	972
1400	22.8	727.0	175.0	232.0	1022	1749	888	1252
1500	24.0	820.0	202.0	290.0	1222	2041	1016	1425
1600	25.2	917.0	242.0	331.0	1330	2247	1184	1643
1800	27.6	1130.0	282.0	394.0	1602	2731	1411	1975
2000	30.4	1880.0	337.0	475.0	2554	4434	1951	2891
2200	32.4	2220.0	426.0	600.0	3072	5292	2388	3498

NOTE:

1. Puddle Flange will be 10mm thick upto 300 mm dia, 15 mm from 350 to 600 mm & 20 mm from 700 to 1800 mm dia, unless otherwise specified
2. Pipes can be supplied with Flanged ends, Plain ends, Flange Spigot ends and with puddles flanges in all combination and in all length with max limit being 2.0 mtrs.



PVC FABRICATED FITTINGS





PVC FABRICATED BEND

- 4 KG ITEM** 63mm (2") - 400mm (16")
- 6 KG ITEM** 40mm (1 1/4") - 400mm (16")
- 10 KG ITEM** 20mm (1/2") - 400mm (16")
- 15 KG ITEM** 20mm (1/2") - 63mm



UPVC FABRICATED BEND

- SCHEDULE-40** 21.3mm (1/2") - 140mm (5")
- SCHEDULE-80** 21.3mm (1/2") - 140mm (5")



CPVC FABRICATED BEND

- SCH - 40** 20mm (1/2") - 150mm (6")
- SCH - 80** 20mm (1/2") - 150mm (6")



PVC FABRICATED S-BEND

- 4 KG ITEM** 63mm (2") - 200mm (8")
- 6 KG ITEM** 40mm (1 1/4") - 200mm (8")
- 10 KG ITEM** 25mm (3/4") - 200mm (8")
- 15 KG ITEM** 25mm (3/4") - 50mm (1 1/2")



PVC FABRICATED HALF BEND

- 4 KG ITEM** 63mm (2") - 315mm (12")
- 6 KG ITEM** 40mm (1 1/4") - 315mm (12")
- 10 KG ITEM** 25mm (3/4") - 315mm (12")
- 15 KG ITEM** 25mm (3/4") - 50mm (1 1/2")



PVC FABRICATED COUPLER

- 4 KG ITEM** 63mm (2") - 400mm
- 6 KG ITEM** 40mm (1 1/4") - 400mm
- 10 KG ITEM** 20mm (1/2") - 400mm
- 15 KG ITEM** 20mm (1/2") - 50mm (1 1/2")



PVC FABRICATED LONG COUPLER

- 4 KG ITEM** 63mm (2") - 200mm (8")
- 6 KG ITEM** 40mm (1 1/4") - 200mm (8")
- 10 KG ITEM** 63mm (2") - 200mm (8")



PVC FABRICATED REPAIR COUPLER

- 10 KG ITEM** 110mm (4") - 355mm (14")



PVC FABRICATED TAIL PIECE

- 6 KG ITEM** 63mm (2") - 400mm (16")
- 10 KG ITEM** 63mm (2") - 400mm (16")



PVC FABRICATED TEE

- 10 KG ITEM** 140mm (5") - 400mm (16")



PVC FABRICATED ELBOW & Y

- 10 KG ITEM** 140mm (5") - 400mm (16")



PVC FABRICATED REDUCER

- 6 KG ITEM** Upto 400mm
- 10 KG ITEM**



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