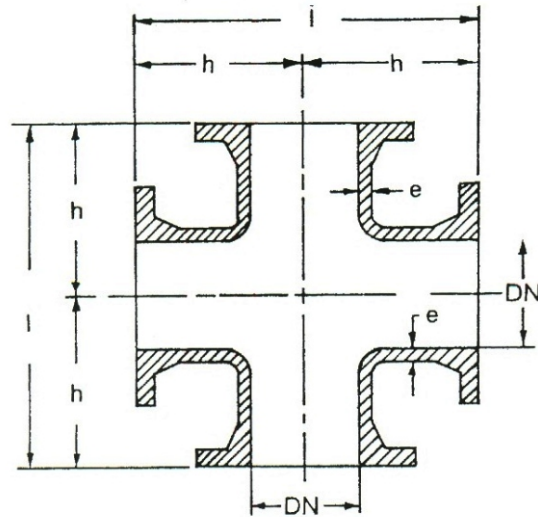
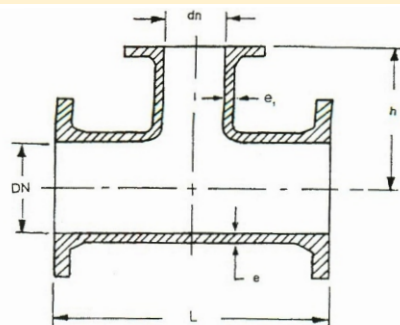




Mass & Dimension Chart

Nominal Diameter DN	e	l	h	Mass
80	10.0	360	180	27
100	10.5	400	200	34
125	11.1	450	225	46
150	11.7	500	250	60
200	12.8	600	300	93
250	14.0	700	350	135
300	15.2	800	400	180



Mass & Dimension Chart

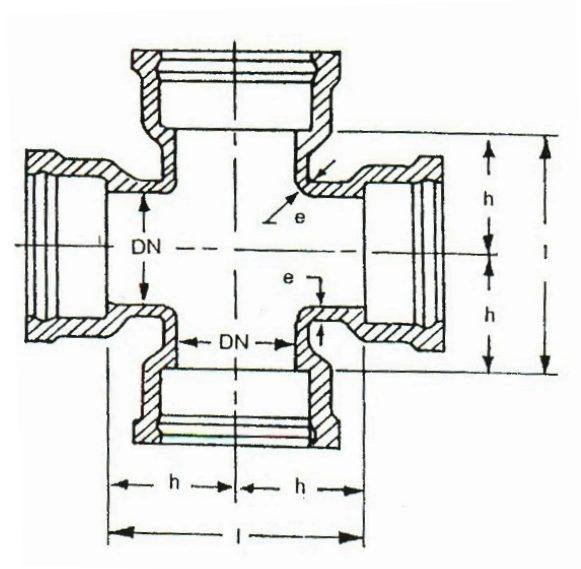
BODY			BRANCH			Mass
Nominal Diameter DN	e	L	Normal Diameter DN	e ₁	H	
80	10.0	360	80	10.0	180.0	21
100	10.5	400	80	10.5	190.0	25
	10.5	400	100	10.5	200.0	26
125	11.1	450	80	11.1	202.5	32
	11.1	450	100	11.1	212.5	34
	11.1	450	125	11.1	225.5	36
150	11.7	500	80	11.7	215.0	41
	11.7	500	100	11.7	225.0	42
	11.7	500	125	11.7	237.5	45
	11.7	500	150	11.7	250.0	47
200	12.8	600	80	12.8	240.0	62
	12.8	600	100	12.8	250.0	63
	12.8	600	125	12.8	262.5	66
	12.8	600	150	12.8	275.0	68
	12.8	600	200	12.8	300.0	74
250	14.0	700	80	13.0	265.0	89
	14.0	700	100	13.5	275.5	90
	14.0	700	125	14.0	287.5	93
	14.0	700	150	14.0	300.0	96
	14.0	700	200	14.0	325.0	102
	14.0	700	250	14.0	350.0	109
300	15.2	800	80	13.0	290.0	122
	15.2	800	100	13.5	300.0	124
	15.2	800	125	14.5	312.5	126
	15.2	800	150	15.0	325.0	129
	15.2	800	200	15.2	350.0	136
	15.2	800	250	15.2	370.0	143
	15.2	800	300	15.2	400.0	151
350	16.3	850	200	16.3	325.0	169
	16.3	850	250	16.3	325.0	173
	16.3	850	300	16.3	425.0	188
	16.3	850	350	16.3	425.0	195

Mass & Dimension Chart

BODY			BRANCH			Mass
Nominal Diameter DN	e	L	Nominal Diameter DN	e ₁	H	
400	17.5	900	200	16.5	350.0	211
	17.5	900	250	17.5	350.0	215
	17.5	900	300	17.5	450.0	232
	17.5	900	350	17.5	450.0	239
	17.5	900	400	17.5	450.0	246
450	18.7	950	250	18.0	375.0	260
	18.7	950	300	18.7	475.0	277
	18.7	950	350	18.7	475.0	284
	18.7	950	400	18.7	475.0	290
	18.7	950	450	18.7	475.0	296
500	19.8	1000	250	18.0	400.0	315
	19.8	1000	300	19.5	500.0	334
	19.8	1000	350	19.8	500.0	342
	19.8	1000	400	19.8	500.0	349
	19.8	1000	450	19.8	500.0	356
	19.8	1000	500	19.8	500.0	363
600	22.2	1100	300	19.5	550.0	466
	22.2	1100	350	21.0	550.0	475
	22.2	1100	400	22.2	550.0	485
	22.2	1100	450	22.2	550.0	492
	22.2	1100	500	22.2	550.0	499
	22.2	1100	600	22.2	550.0	516
700	24.5	1200	350	21.0	600.0	642
	24.5	1200	400	22.5	600.0	651
	24.5	1200	450	24.0	600.0	660
	24.5	1200	500	24.5	600.0	669
	24.5	1200	600	24.5	600.0	686
	24.5	1200	700	24.5	600.0	707
750	25.6	1250	400	22.5	625.0	746
	25.6	1250	450	24.0	625.0	754
	25.6	1250	500	25.6	625.0	766
	25.6	1250	600	25.6	625.0	779
	25.6	1250	700	25.6	625.0	792
	25.6	1250	750	25.6	625.0	805
800	26.8	1300	400	22.5	650.0	858
	26.8	1300	450	24.0	650.0	867
	26.8	1300	500	25.5	650.0	877
	26.8	1300	600	26.8	650.0	897
	26.8	1300	700	26.8	650.0	916
	26.8	1300	750	26.8	650.0	928
	26.8	1300	800	26.8	650.0	941

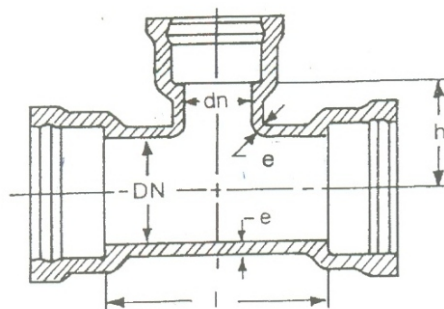
Mass & Dimension Chart

BODY			BRANCH			Mass
Nominal Diameter DN	e	L	Nominal Diameter DN	e ₁	H	
900	29.2	1400	450	24.0	700.0	1091
	29.2	1400	500	25.5	700.0	1106
	29.2	1400	600	28.5	700.0	1128
	29.2	1400	700	29.2	700.0	1149
	29.2	1400	750	29.2	700.0	1161
	29.2	1400	800	29.2	700.0	1173
	29.2	1400	900	29.2	700.0	1190
1000	31.5	1500	500	25.5	750.0	1396
	31.5	1500	600	28.5	750.0	1418
	31.5	1500	700	31.5	750.0	1446
	31.5	1500	750	31.5	750.0	1457
	31.5	1500	800	31.5	750.0	1468
	31.5	1500	900	31.5	750.0	1484
	31.5	1500	1000	31.5	750.0	1513
1050	32.6	1550	600	28.5	775.0	1490
	32.6	1550	750	32.6	775.0	1545
	32.6	1550	900	32.6	775.0	1595
	32.6	1550	1000	32.6	775.0	1630
	32.6	1550	1050	32.6	775.0	1670
1100	33.8	1600	600	28.5	800.0	1722
	33.8	1600	700	31.6	800.0	1747
	33.8	1600	750	33.1	800.0	1762
	33.8	1600	800	33.8	800.0	1774
	33.8	1600	900	33.8	800.0	1778
	33.8	1600	1000	33.8	800.0	1788
	33.8	1600	1100	33.8	820.0	1822
1200	36.2	1700	600	28.5	850.0	2113
	36.2	1700	700	31.6	850.0	2137
	36.2	1700	750	33.1	850.0	2150
	36.2	1700	800	34.7	850.0	2166
	36.2	1700	900	36.2	850.0	2179
	36.2	1700	1000	36.2	850.0	2190
	36.2	1700	1100	36.2	870.0	2207
	36.2	1700	1200	36.2	890.0	2260
1500	43.2	2000	750	33.1	1000.0	3606
	43.2	2000	800	34.7	1000.0	3619
	43.2	2000	900	37.7	1000.0	3635
	43.2	2000	1000	40.7	1000.0	3663
	43.2	2000	1100	43.2	1020.0	3703
	43.2	2000	1200	43.2	1040.0	3737
	43.2	2000	1500	43.2	1100.0	3866



Mass & Dimension Chart

Nominal Diameter DN	e	l	h	Mass
80	10.0	212	106.0	30
100	10.5	240	120.0	39
125	11.1	275	137.5	52
150	11.7	310	155.0	67
200	12.8	380	190.0	102
250	14.0	450	225.0	145
300	15.2	520	260.0	197



Mass & Dimension Chart

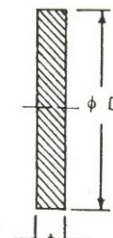
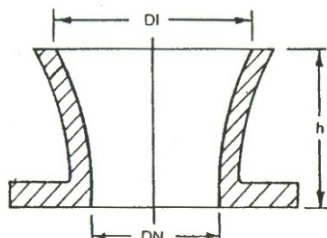
Nominal Diameter			e	e ₁	l	h	Mass
Body	DN	Branch dn					
	80	80	10.0	10.0	212	106.0	23
	100	80	10.5	10.5	240	116.0	28
		100	10.5	10.5	240	120.0	30
	125	80	11.1	11.1	275	128.5	36
		100	11.1	11.1	275	132.5	38
		125	11.1	11.1	275	137.5	41
	150	80	11.7	11.7	310	141.0	45
		100	11.7	11.7	310	145.0	47
		125	11.7	11.7	310	150.0	50
		150	11.7	11.7	310	155.0	53
	200	80	12.8	12.8	380	166.0	67
		100	12.8	12.8	380	170.0	69
		125	12.8	12.8	380	175.0	71
		150	12.8	12.8	380	180.0	74
		200	12.8	12.8	380	190.0	81
	250	80	14.0	13.0	450	191.0	94
		100	14.0	13.5	450	195.0	96
		125	14.0	14.0	450	200.0	99
		150	14.0	14.0	450	205.0	102
		200	14.0	14.0	450	215.0	108
		250	14.0	14.0	450	225.0	116
	300	80	15.2	13.0	520	216.0	128
		100	15.2	13.5	520	220.0	129
		125	15.2	14.5	520	225.0	132
		150	15.2	15.0	520	230.0	134
		200	15.2	15.2	520	240.0	142
		250	15.2	15.2	520	250.0	150
		300	15.2	15.2	520	260.0	159
	350	200	16.3	16.3	590	265.0	182
		250	16.3	16.3	590	275.0	190
		300	16.3	16.3	590	285.0	199
		350	16.3	16.5	590	295.0	209

Mass & Dimension Chart

BODY			BRANCH			Mass
Nominal Diameter DN	e	L	Nominal Diameter DN	e ₁	H	
400	200	17.5	17.5	660	290.0	229
	250	17.5	17.5	660	300.0	237
	300	17.5	17.5	660	310.0	246
	350	17.5	17.5	660	320.0	256
	400	17.5	18.0	660	330.0	268
450	250	18.7	18.7	730	325.0	295
	300	18.7	18.7	730	335.0	304
	350	18.7	18.7	730	345.0	314
	400	18.7	18.7	730	355.0	324
	450	18.7	18.0	730	365.0	337
500	250	19.8	19.5	800	350.0	356
	300	19.8	19.8	800	360.0	365
	350	19.8	19.8	800	370.0	375
	400	19.8	19.8	800	380.0	386
	450	19.8	19.8	800	390.0	398
	500	19.8	19.8	800	400.0	413
600	300	22.2	19.5	940	410.0	521
	350	22.2	21.0	940	420.0	531
	400	22.2	22.2	940	430.0	543
	450	22.2	22.2	940	440.0	556
	500	22.2	22.2	940	450.0	569
	600	22.2	22.2	940	470.0	602
700	350	24.5	21.0	1080	470.0	729
	400	24.5	22.5	1080	480.0	742
	450	24.5	24.0	1080	490.0	756
	500	24.5	24.5	1080	500.0	769
	600	24.5	24.5	1080	520.0	795
	700	24.5	24.5	1080	540.0	832
750	400	25.6	22.5	1150	505.0	855
	450	25.6	24.0	1150	515.0	869
	500	25.6	25.6	1150	525.0	884
	600	25.6	25.6	1150	545.0	911
	700	25.6	25.6	1150	565.0	942
	750	25.6	22.5	1150	575.0	965
800	400	26.8	24.0	1220	530.0	982
	450	26.8	25.5	1220	540.0	996
	500	26.8	26.8	1220	550.0	1010
	600	26.8	26.8	1220	570.0	1040
	700	26.8	26.8	1220	590.0	1072
	750	26.8	26.8	1220	600.0	1089
	800	26.8	26.8	1220	610.0	1114

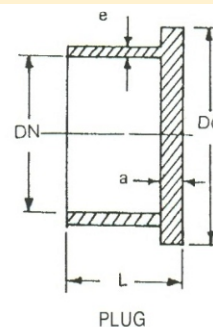
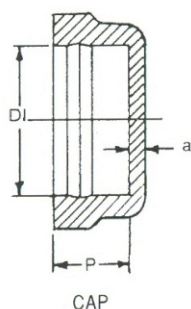
Mass & Dimension Chart

BODY			BRANCH			Mass
Nominal Diameter DN	e	L	Nominal Diameter DN	e ₁	H	
900	450	29.2	24.0	1360	590.0	1288
	500	29.2	25.5	1360	600.0	1302
	600	29.2	28.5	1360	620.0	1337
	700	29.2	29.2	1360	640.0	1371
	750	29.2	29.2	1360	650.0	1388
	800	29.2	29.2	1360	660.0	1405
	900	29.2	29.2	1360	680.0	1453
1000	500	31.5	25.5	1500	650.0	1648
	600	31.5	28.5	1500	670.0	1681
	700	31.5	31.5	1500	690.0	1723
	750	31.5	31.5	1500	700.0	1741
	800	31.5	31.5	1500	710.0	1759
	900	31.5	31.5	1500	730.0	1797
	1000	31.5	31.5	1500	750.0	1852
1050	600	32.6	28.5	1570	700.0	1885
	700	32.6	29.2	1570	720.0	1925
	750	32.6	29.2	1570	725.0	1950
	900	32.6	31.5	1570	755.0	2005
	1050	32.6	28.5	1570	785.0	2084
1100	600	33.8	31.6	1640	720.0	2085
	700	33.8	33.1	1640	740.0	2126
	750	33.8	33.8	1640	750.0	2149
	800	33.8	33.8	1640	760.0	2171
	900	33.8	33.8	1640	780.0	2210
	1000	33.8	33.8	1640	800.0	2253
	1100	33.8	33.8	1640	820.0	2316
1200	600	36.2	28.5	1780	770.0	2559
	700	36.2	31.6	1780	790.0	2597
	750	36.2	33.1	1780	800.0	2620
	800	36.2	34.7	1780	810.0	2645
	900	36.2	36.2	1780	830.0	2693
	1000	36.2	36.2	1780	850.0	2737
	1100	36.2	36.2	1780	870.0	2782
	1200	36.2	36.2	1780	890.0	2854
1500	750	43.2	33.1	2200	950.0	4499
	800	43.2	34.7	2200	960.0	4521
	900	43.2	37.7	2200	980.0	4572
	1000	43.2	40.7	2200	1000.0	4634
	1100	43.2	43.2	2200	1020.0	4702
	1200	43.2	43.2	2200	1040.0	4754
	1500	43.2	43.2	2200	1100.0	4987



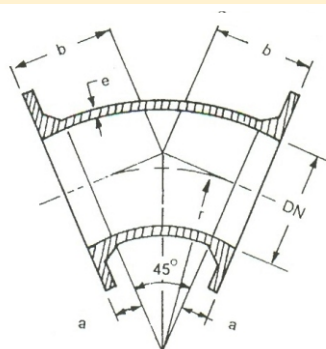
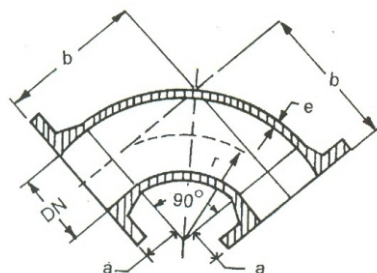
Mass & Dimension Chart

Nominal Diameter DN	BELL MOUTH			BLANK FLANGE		
	Big end Diameter	h	Mass	Flange Outside Diameter	Flange Thickness	Mass
80	125	100	7	200	21.0	5
100	150	150	9	220	22.0	6
125	175	150	12	250	22.5	8
150	200	150	15	285	23.0	11
200	285	200	23	340	24.5	16
250	350	200	31	395	26.0	23
300	450	250	45	445	27.5	32
350	525	250	58	505	29.0	43
400	600	300	80	565	30.0	55
450	650	300	93	615	31.5	67
500	750	350	120	670	33.0	85
600	900	410	201	780	36.0	126
700	1050	470	304	895	38.5	177
800	1200	520	135	1015	41.5	245
900	1350	590	575	1115	44.0	313
1000	1500	650	792	1230	47.0	406
1050	1550	680	880	1258	48.0	455
1100	1650	710	965	1340	50.0	504
1200	1800	770	1243	1455	52.5	624
1500	2,250	950	2092	1800	61.0	1110



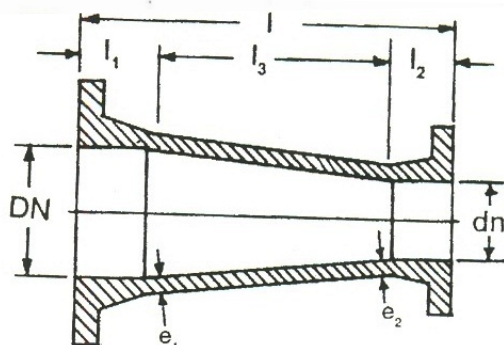
Mass & Dimension Chart

Nominal Diameter DN	a	CAP		PLUG			
		p	Mass	DC	e	L	Mass
80	21.0	84	7	104	10.0	125	3
100	22.0	88	9	124	10.5	130	4
125	22.5	91	12	150	11.1	135	6
150	23.0	94	15	176	11.7	140	9
200	24.5	100	24	228	12.8	150	14
250	26.0	103	34	281	14.0	155	22
300	27.5	105	46	333	15.2	160	30
350	29.0	107	61	385	16.3	165	41
400	30.0	110	77	436	17.5	170	54
450	31.5	112	97	487	18.7	175	69
500	33.0	115	118	539	19.8	180	86
600	36.0	120	171	642	22.2	185	127
700	38.5	122	235	745	24.5	195	180
750	40.0	123	272	798	25.6	200	211
800	41.5	125	314	850	26.8	205	246
900	44.0	128	405	953	29.2	210	321
1000	47.0	130	514	1056	31.5	215	411
1050	48.0	135	576	1132	32.6	220	464
1100	50.0	135	638	1160	33.8	220	518
1200	52.5	140	778	1264	36.2	225	637
1500	61.0	150	1342	1576	43.2	235	1099



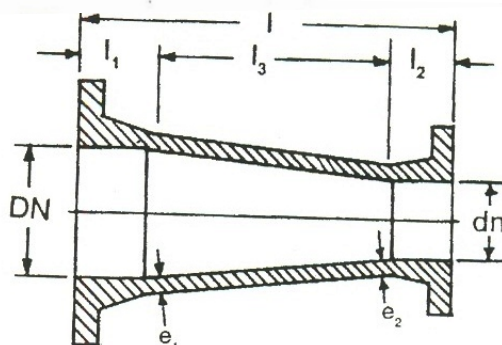
Mass & Dimension Chart

Normal Diameter DN	Wall Thickness e	a	90° Bend			45° Bend		
			r (Radius)	b	Mass	r (Radius)	b	Mass
80	10.0	43.0	137.0	180	13	331	180	14
100	10.5	45.0	155.0	200	17	374	200	18
125	11.1	47.5	177.5	225	23	429	225	25
150	11.7	50.0	200.0	250	31	483	250	34
200	12.8	55.0	245.0	300	49	591	300	54
250	14.0	60.0	290.0	350	72	700	350	80
300	15.2	65.0	335.0	400	100	809	400	112
350	16.3	70.0	380.0	450	137	550	298	115
400	17.5	75.0	425.0	500	181	600	324	149
450	18.7	80.0	470.0	550	226	650	349	185
500	19.8	85.0	515.0	600	290	700	375	231
600	22.2	95.0	605.0	700	442	800	426	342
700	24.5	105.0	695.0	800	639	900	478	485
750	25.6	110.0	740.0	850	755	950	503	572
800	26.8	115.0	785.0	900	890	1000	529	667
900	29.2	125.0	875.0	1000	1179	1100	581	868
1000	31.5	135.0	965.0	1100	1544	1200	682	1125
1050	32.6	140.0	1010.0	1150	1760	1250	658	1275
1100	33.8	145.0	1055.0	1200	1968	1300	683	1421
1200	36.2	155.0	1145.0	1300	2474	1400	735	1771
1500	43.2	185.0	1415.0	1600	3423	1700	889	2460



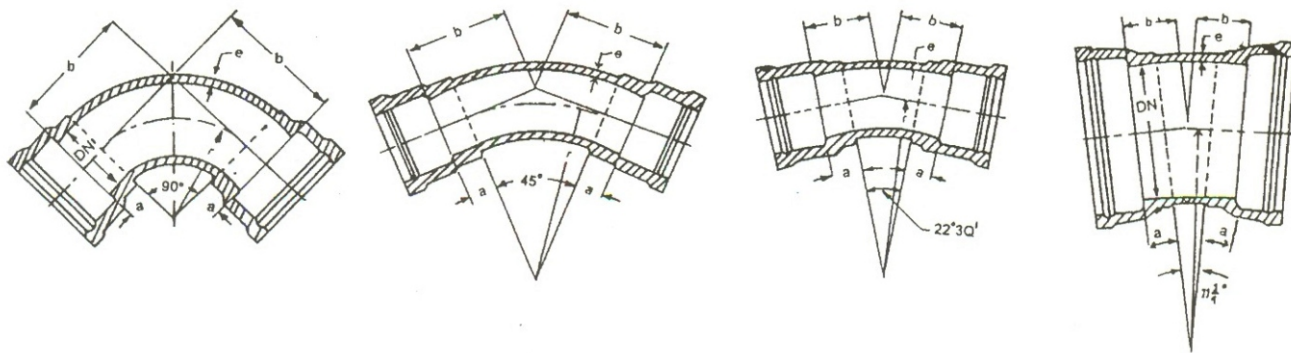
Mass & Dimension Chart

LARGE DIAMETER			SMALL DIAMETER			l ₃	l	Mass
Normal Diameter DN	e ₁	i ₁	Normal Diameter DN	e ₂	l ₂			
100	10.5	45.0	80	10.0	43.0	112.0	200	12
125	11.1	47.5	80	10.0	43.0	309.5	400	20
	11.1	47.5	100	10.5	45.0	307.5	400	22
150	11.7	50.0	80	10.0	43.0	307.0	400	23
	11.7	50.0	100	10.5	45.0	305.0	400	25
	11.7	50.0	125	11.1	47.5	302.5	400	27
200	12.8	55.0	100	10.5	45.0	300.0	400	31
	12.8	55.0	125	11.1	47.5	297.5	400	34
	12.8	55.0	150	11.7	50.0	295.0	400	37
250	14.0	60.0	125	11.1	47.5	292.5	400	41
	14.0	60.0	150	11.7	50.0	290.0	400	44
	14.0	60.0	200	12.8	50.0	285.0	400	50
300	15.2	65.0	150	11.7	50.0	285.0	400	51
	15.2	65.0	200	12.8	55.0	280.0	400	58
	15.2	65.0	250	14.0	60.0	275.0	400	65
350	16.3	70.0	200	12.8	55.0	475.0	600	87
	16.3	70.0	250	14.0	60.0	470.0	600	96
	16.3	70.0	300	15.0	65.0	465.0	600	106
400	17.5	75.0	250	14.0	60.0	465.0	600	109
	17.5	75.0	300	15.2	65.0	460.0	600	120
	17.5	75.0	350	16.3	70.0	455.0	600	132
450	18.7	80.0	300	15.2	65.0	455.0	600	130
	18.7	80.0	350	16.5	70.0	450.0	600	145
	18.7	80.0	400	17.5	75.0	445.0	600	158



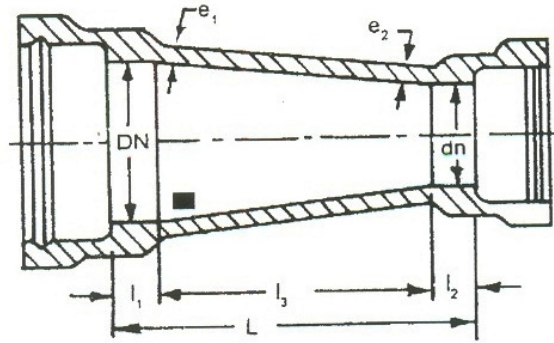
Mass & Dimension Chart

LARGE DIAMETER			SMALL DIAMETER			l ₃	l	Mass
Normal Diameter DN	e ₁	l ₁	Normal Diameter DN	e ₂	l ₂			
500	19.8	85.0	350	16.3	70.0	445.0	600	160
	19.8	85.0	400	17.5	75.0	440.0	600	174
	19.8	85.0	450	18.7	80.0	435.0	600	186
600	22.2	95.0	400	17.5	75.0	430.0	600	210
	22.2	95.0	450	18.7	80.0	425.0	600	222
	22.2	95.0	500	19.8	85.0	420.0	600	239
700	24.5	105.0	500	19.8	85.0	410.0	600	281
	24.5	105.0	600	22.2	95.0	400.0	600	317
750	25.6	110.0	600	22.2	95.0	395.0	600	338
	25.6	110.0	700	24.5	105.0	385.0	600	380
800	26.8	115.0	600	22.2	95.0	390.0	600	268
	26.8	115.0	700	24.5	105.0	380.0	600	410
	26.8	115.0	750	25.6	110.0	375.0	600	428
900	29.2	125.0	700	24.5	105.0	370.0	600	458
	29.2	125.0	750	25.6	110.0	365.0	600	478
	29.2	125.0	800	26.8	115.0	360.0	600	508
1000	31.5	135.0	800	26.8	115.0	350.0	600	570
	31.5	135.0	900	29.2	125.0	340.0	600	617
1050	32.6	140.0	900	29.2	125.0	335.0	600	680
	32.6	140.0	1000	31.5	135.0	325.0	600	750
1100	33.8	145.0	900	29.2	125.0	330.0	600	684
	33.8	145.0	1000	31.5	135.0	320.0	600	74
1200	36.2	155.0	1000	31.5	135.0	310.0	600	820
	36.2	155.0	1100	33.8	145.0	300.0	600	884
1500	43.2	185.0	1100	33.8	145.0	270.0	600	1126
	43.2	185.0	1200	36.2	150.0	260.0	600	1198



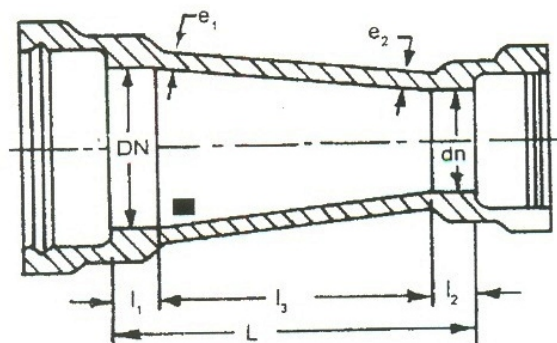
Mass & Dimension Chart

Nominal Diameter DN	e	r		90°		45°		22 1/2°		11 1/2°		a
		90°	45° 22 1/2° 11 1/4°	b	Mass	b	Mass	b	Mass	b	Mass	
80	10.0	137.0	280	180	18	159	18	99	16	71	15	43.0
100	10.5	155.0	300	200	24	169	24	105	21	75	19	45.0
125	11.1	177.5	325	225	33	182	32	112	27	80	25	47.5
150	11.7	200.0	350	250	43	195	41	120	35	84	32	50.0
200	12.8	245.0	400	300	67	221	62	135	53	94	48	55.0
250	14.0	290.0	450	350	98	246	89	150	75	104	67	60.0
300	15.2	335.0	500	400	135	272	121	164	100	114	89	65.0
350	16.3	380.0	550	450	181	293	159	179	130	124	115	70.0
400	17.5	425.0	600	500	234	324	202	194	164	134	144	75.0
450	18.7	470.0	650	50	290	349	248	209	197	144	172	80.0
500	19.8	515.0	700	600	370	375	310	224	246	154	215	85.0
600	22.2	605.0	800	700	546	426	448	254	351	174	302	95.0
700	24.5	695.0	900	800	770	478	619	284	478	194	408	105.0
750	25.6	740.0	950	850	899	503	716	299	551	203	469	110.0
800	26.8	785.0	1000	900	1047	529	827	314	632	213	534	115.0
900	29.2	875.0	1100	1000	1389	581	1077	344	813	233	682	125.0
1000	31.5	965.0	1200	1100	1780	632	1368	374	1024	253	852	135.0
1050	32.6	1010.0	1250	1150	2012	660	1540	386	1145	262	950	140.0
1100	33.8	1055.0	1300	1200	2246	683	1706	404	1267	272	1047	145.0
1200	36.2	1145.0	1400	1300	2792	735	2099	433	1547	292	1270	155.0
1500	43.2	1415.0	1700	1600	4951	889	3639	423	2652	352	2158	185.0



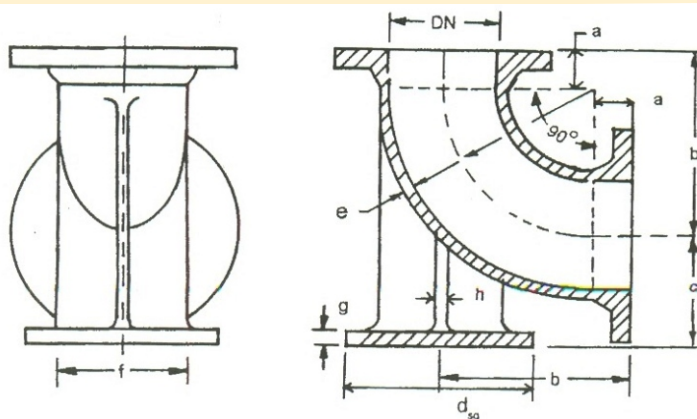
Mass & Dimension Chart

LARGE DIAMETER			SMALL DIAMETER			l ₃	l	Mass
Normal Diameter DN	e ₁	l ₁	Normal Diameter DN	e ₂	l ₂			
100	10.5	45.0	80	10.0	43.0	112.0	200	18
125	11.1	47.5	80	10.0	43.0	309.5	400	27
	11.1	47.5	100	10.5	45.0	307.5	400	30
150	11.7	50.0	80	10.0	43.0	307.0	400	31
	11.7	50.0	100	10.5	45.0	305.0	400	34
	11.7	50.0	125	11.1	47.5	302.5	400	38
200	12.8	55.0	100	10.5	45.0	300.0	400	43
	12.8	55.0	125	11.1	47.5	297.5	400	47
	12.8	55.0	150	11.7	50.0	295.0	400	51
250	14.0	60.0	125	11.1	47.5	292.5	400	58
	14.0	60.0	150	11.7	50.0	290.0	400	62
	14.0	60.0	200	12.8	55.0	285.0	400	72
300	15.2	65.0	150	11.7	50.0	285.0	400	75
	15.2	65.0	200	12.8	55.0	280.0	400	84
	15.2	65.0	250	14.0	60.0	275.0	400	95
350	16.3	70.0	200	12.8	55.0	475.0	600	117
	16.3	70.0	250	14.0	60.0	470.0	600	131
	16.3	70.0	300	15.2	65.0	465.0	600	146
400	17.5	75.0	250	14.0	60.0	465.0	600	149
	17.5	75.0	300	15.2	65.0	460.0	600	164
	17.5	75.0	350	16.3	70.0	455.0	600	181
450	18.7	80.0	350	16.3	70.0	450.0	600	195
	18.7	80.0	400	17.5	75.0	450.0	600	213
500	19.8	85.0	350	16.3	70.0	445.0	600	222
	19.8	85.0	400	17.5	75.0	440.0	600	241
	19.8	85.0	450	18.7	80.0	435.0	600	256



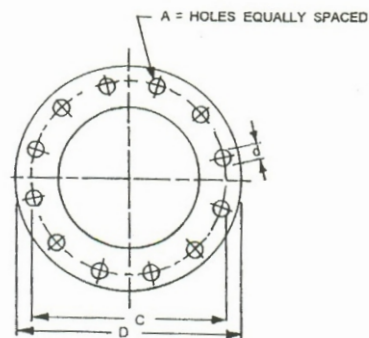
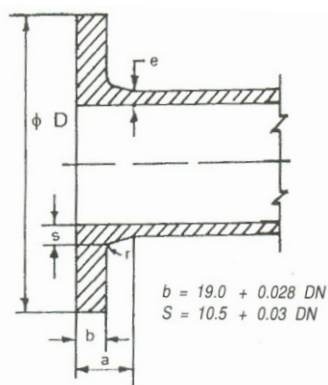
Mass & Dimension Chart

600	22.2	95	400	18.7	80.0	425.0	600	300
	22.2	95	450	18.7	80.0	425.0	600	310
	22.2	95	500	19.8	85.0	420.0	600	332
700	24.5	105	500	19.8	85.0	410.0	600	388
	24.5	105	600	22.2	95.0	400.0	600	437
750	25.7	110	600	22.2	95.0	395.0	600	470
	25.7	110	700	24.5	105.0	395.0	600	522
800	26.8	115	600	22.4	95.0	390.0	600	501
	26.8	115	700	24.5	105.0	380.0	600	557
	26.8	115	750	25.6	110.0	375.0	600	590
900	29.2	125	700	24.5	105.0	370.0	600	629
	29.2	125	750	25.6	110.0	365.0	600	674
	29.2	135	800	26.8	115.0	360.0	600	692
1000	31.5	135	800	26.8	115.0	350.0	600	772
	31.5	140	900	29.2	125.0	340.0	600	843
1050	32.6	140	800	26.8	115.0	345.0	600	860
	32.6	145	1000	31.5	135.0	325.0	600	920
1100	33.8	145	900	29.2	125.0	330.0	600	957
	33.8	155	1000	31.5	135.0	320.0	600	978
1200	36.2	155	900	29.2	125.0	320.0	600	1089
	36.2	155	1000	31.5	135.0	310.0	600	1109
	36.2	155	1100	33.8	145.0	300.0	600	1134
1500	43.2	185	1000	31.5	135.0	280.0	600	1379
	43.2	185	1100	33.8	145.0	270.0	600	1477
	43.2	185	1200	36.2	155.0	260.0	600	1567



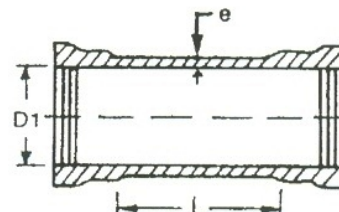
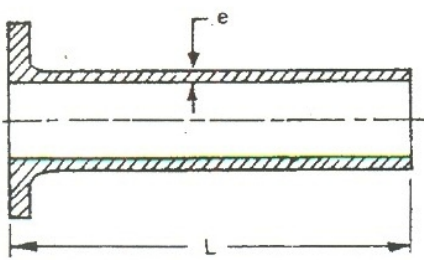
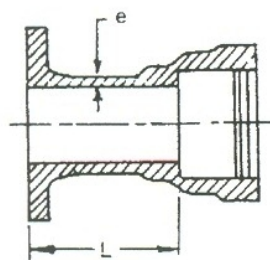
Mass & Dimension Chart

Normal Diameter DN	e	r	a	b	c	d	f	g	h	Mass
80	10.0	137.0	43.0	180	108	180	98	19	15	21
100	10.5	155.0	45.0	200	120	200	118	20	16	26
125	11.1	177.5	47.5	225	135	225	144	22	16	36
150	11.7	200.0	50.0	250	150	250	170	22	17	47
200	12.8	245.0	55.0	300	180	300	222	25	18	74
250	14.0	290.0	60.0	350	210	350	274	26	19	111
300	15.2	335.0	65.0	400	240	400	326	26	20	156
350	16.3	380.0	70.0	450	270	450	400	28	21	214
400	17.5	425.0	75.0	500	300	500	450	30	23	281
450	18.7	470.0	80.0	550	330	550	500	30	24	350
500	19.8	515.0	85.0	600	360	600	550	31	25	446
600	22.2	605.0	95.0	700	420	700	650	35	27	677



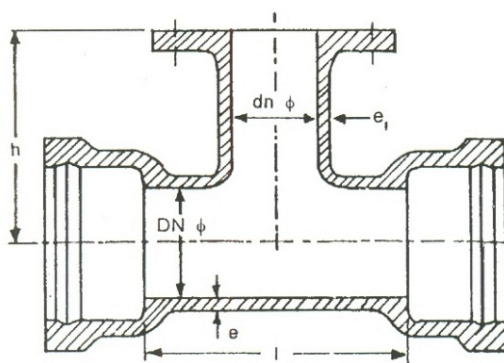
Mass & Dimension Chart

Nominal Diameter DN	Flange Outside Diameter	Pitch Circle Diameter	a	Flange Thickness b	S	r	Holes		Diameter of Bolts	Mass of each Flange
	D	C					No. A	dia d		
80	200	160	40.0	21.0	13.0	6	4	19	16	3.7
100	220	180	42.0	22.0	13.5	6	8	19	16	4.2
125	250	210	44.5	22.5	14.5	6	8	19	16	5.3
150	285	240	47.0	23.0	15.0	6	8	23	20	6.7
200	340	295	52.0	24.5	16.5	8	8	23	20	9.3
250	395	350	57.0	26.0	18.0	8	12	23	20	12.0
300	445	400	61.0	27.5	19.5	8	12	23	20	14.8
350	505	460	66.0	29.0	21.0	8	16	23	20	19.0
400	565	515	71.0	30.0	22.5	10	16	28	24	23.4
450	615	565	76.0	31.5	24.0	10	20	28	24	26.5
500	670	620	81.0	33.0	25.5	10	20	28	24	32.1
600	780	725	90.0	36.0	28.5	10	20	31	27	44.0
700	895	840	100.0	38.5	31.5	10	24	31	27	59.9
750	960	900	105.0	40.0	33.0	12	24	31	27	69.7
800	1015	950	110.0	41.5	34.5	12	24	34	30	80.8
900	1115	1050	120.0	44.0	37.5	12	28	34	30	94.6
1000	1230	1160	130.0	47.0	40.5	12	28	37	33	120.0
1050	1258	1194	135.0	48.0	42.0	12	28	37	33	132.0
1100	1340	1270	140.0	50.0	43.5	15	32	37	33	139.0
1200	1455	1380	150.0	53.0	46.5	15	32	40	36	173.0
1500	1800	1710	180.0	61.0	55.5	18	40	43	39	276.2



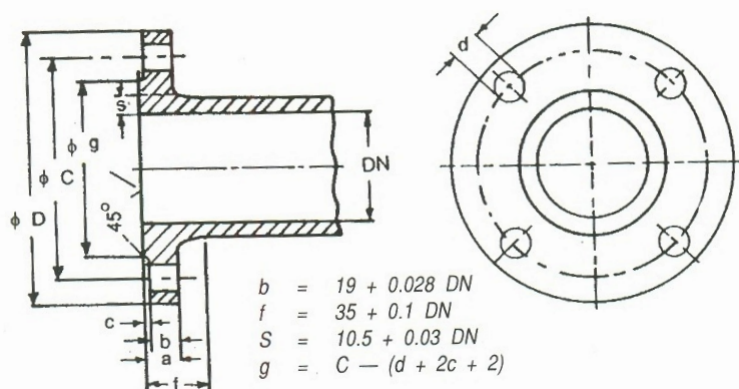
Mass & Dimension Chart

Nominal Diameter DN	Flange Socket Flange Spigot	Collar	FlangeSocket		Flange Spigot		Collar	
	e	e	L	Mass	L	Mass	L	Mass
80	10.0	10.9	150	13	400	12	158	14
100	10.5	11.4	150	16	400	14	160	17
125	11.1	12	150	20	400	19	163	22
150	11.7	12.6	150	26	400	23	165	28
200	12.8	13.8	150	37	500	39	170	40
250	14	15	300	62	500	53	175	55
300	15.2	16.2	300	79	500	68	180	71
350	16.3	17.5	300	100	500	85	185	90
400	17.3	18.6	300	123	500	104	190	110
450	18.7	19.8	300	142	500	123	195	133
500	19.8	21.1	300	173	500	146	200	159
600	22.2	23.5	300	234	600	227	210	216
700	24.5	25.9	300	306	600	295	220	283
750	25.6	27.2	300	347	600	334	225	320
800	26.8	28.4	300	391	600	375	230	360
900	29.2	30.8	300	476	600	455	240	448
1000	31.5	33.2	300	580	600	552	250	547
1050	32.6	35	500	780	800	745	25	601
1100	33.8	35.6	500	865	800	818	260	655
1200	36.2	38	500	1021	800	967	270	779
1500	43.2	45.4	500	1463	800	1456	300	1261



Mass & Dimension Chart

BODY			BRANCH			Mass
Normal Diameter DN	e	I	Normal Diameter DN	e ₁	H	
80	10.0	212	80	10.0	180.0	22
100	10.5	240	80	10.5	200.0	28
125	11.1	275	80	11.1	212.5	36
150	11.7	310	80	11.7	225.0	45
200	12.8	380	80	12.8	250.0	67
250	14.0	450	80	13.0	275.0	94
300	15.2	520	80	13.0	300.0	128
	15.2	520	100	13.5	300.0	129
350	16.3	590	80	13.0	325.0	180
	16.3	590	100	13.5	325.0	198
400	17.5	660	80	13.0	350.0	205
	17.5	660	100	13.5	350.0	220
450	18.7	730	100	13.5	350.0	235
500	19.8	800	150	14.0	400.0	280
600	22.2	940	150	15.0	50.0	505
700	24.5	1090	150	15.0	600.0	650
750	25.6	1150	150	15.0	625.0	705
800	26.8	1220	200	16.5	650.0	880
900	29.2	1360	200	16.0	700.0	920
1000	31.5	1500	200	16.5	750.0	1005
1050	32.6	1570	200	16.5	775.0	1070
1100	33.8	1640	250	18.0	800.0	2030
1200	36.2	1780	250	18.0	850.0	2550
1500	43.2	2200	250	18.0	1000.0	2850



Mass & Dimension Chart

Nominal Diameter DN	D	g	a	b	c	f	s	C	No. of Holes	Dia of Holes	Diameter of Bolts
80	200	133	24.0	21.0	3	43.0	13.0	160	4	19	16
100	220	153	25.0	22.0	3	45.0	13.5	180	8	19	16
125	250	183	25.5	22.2	3	47.5	14.5	210	8	19	16
150	285	209	26.0	23.0	3	50.0	15.0	240	8	23	20
200	340	264	27.5	24.5	3	55.0	16.5	295	8	23	20
250	395	319	29.0	26.0	3	60.0	18.0	350	12	23	20
300	445	367	31.5	27.5	4	65.0	19.5	400	12	23	20
350	505	427	33.0	29.0	4	70.0	21.0	460	16	23	20
400	565	477	34.0	30.0	4	75.0	22.5	515	16	28	24
450	615	527	36.0	32.0	4	80.0	24.0	565	20	28	24
500	670	582	47.0	33.0	4	85.0	25.5	620	20	28	24
600	780	682	41.0	36.0	5	95.0	28.5	725	20	31	27
700	895	797	43.5	38.5	5	105.0	31.5	840	24	31	27
750	960	857	45.0	40.0	5	110.0	33.0	900	24	31	27
800	1015	904	46.5	41.5	5	115.0	34.5	950	24	34	30
900	1115	1004	49.0	44.0	5	125.0	37.5	1050	28	34	30
1000	1230	1111	52.0	47.0	5	135.0	40.5	1160	28	37	33
1050	1258	1145	53.5	48.5	5	140.0	42.0	1194	28	37	33
1100	1340	1221	55.0	50.0	5	145.0	43.5	1270	32	37	33
1200	1455	1328	58.0	53.0	5	155.0	46.5	1380	32	40	36
1500	1800	1745	66.0	61.0	5	185	55.5	1710	40	43	39