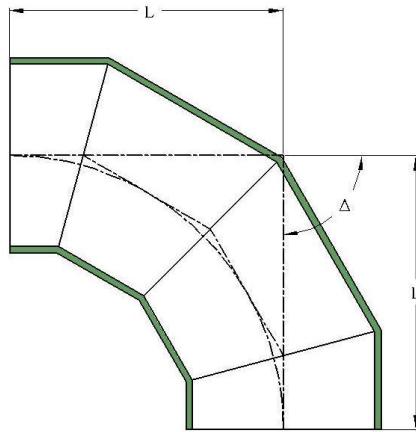


GRP FITTING - STANDARD DIMENSIONS

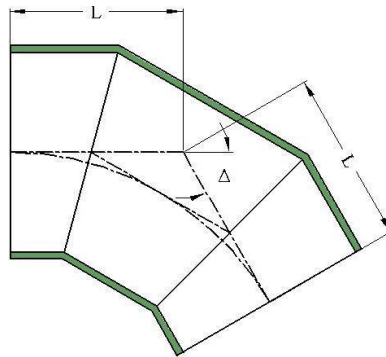
BEND [PLAIN END] DIMENSIONS - STD "L" [Refer Drawing]

All Dimensions are in "mm"

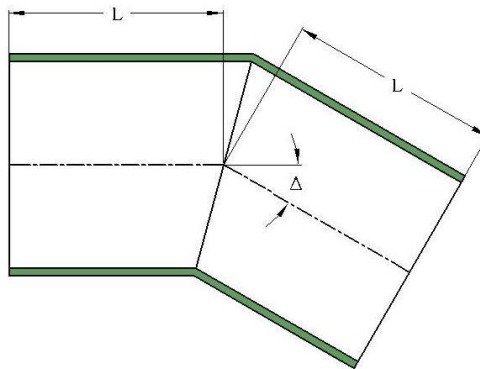
NB	90 BEND [3 MITRE]	60 BEND [2 MITRE]	45 BEND [2 MITRE]	30 BEND [1 MITRE]
25	38			
40	60			
50	75	44	31	
65	98	57	40	
80	120	70	50	
100	150	87	62	40
150	225	130	95	60
200	300	175	125	80
250	375	215	155	100
300	450	260	185	120
350	525	305	215	140
400	600	345	250	160
450	675	390	280	180
500	750	435	310	200
600	900	520	375	240
700	1050	605	435	280
750	1125	650	465	300
800	1200	695	495	320
900	1350	780	560	360
1000	1500	865	620	400
1100	1650	955	685	440
1200	1800	1040	745	480
1300	1950	1125	810	525
1400	2100	1210	870	565
1500	2250	1300	930	605
1600	2400	1385	995	645
1700	2550	1470	1055	685
1800	2700	1560	1120	725
1900	2850	1645	1180	765
2000	3000	1730	1245	805
2100	3150	1820	1305	845
2200	3300	1905	1365	885
2300	3450	1990	1430	925
2400	3600	2080	1490	965
2500	3750	2165	1555	1005
2600	3900	2250	1615	1045
2700	4050	2340	1680	1085
2800	4200	2425	1740	1125
2900	4350	2510	1800	1165
3000	4500	2600	1865	1205
3100	4650	2685	1925	1245
3200	4800	2770	1990	1285
3300	4950	2860	2050	1325
3400	5100	2945	2115	1365
3500	5250	3030	2175	1405
3600	5400	3120	2235	1445
3700	5550	3205	2300	1485
3800	5700	3290	2360	1525
3900	5850	3380	2425	1570
4000	6000	3465	2485	1610



GRP 3 MITRED BEND : 61° - 90°

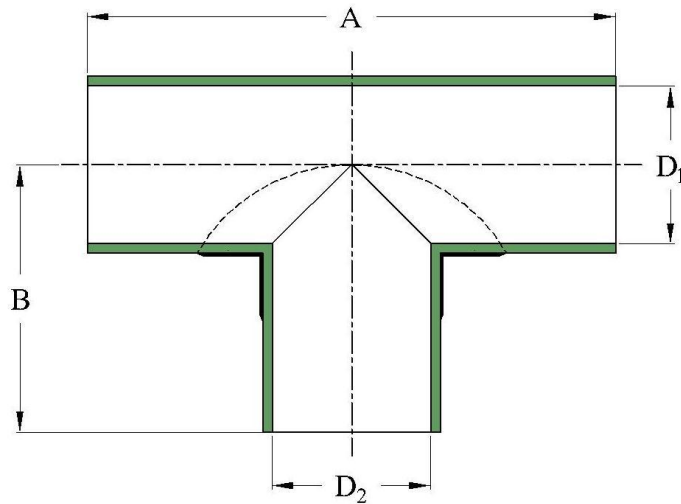


GRP 2 MITRED BEND : 31° - 60°



GRP SINGLE MITRED BEND : UPTO 30°

GRP TEE DIMENSIONS



All Dimensions are in in "mm"

Header Diameter (D ₁)	Branch Diameter (D ₂)	Header Length (A)	Branch Length (B)
25	25	230	115
40	25	265	123
40	40	280	140
50	25	275	128
50	40	290	145
50	50	300	150
65	25	300	136
65	40	315	153
65	50	325	158
65	65	340	170
80	25	305	143
80	40	320	160
80	50	330	165
80	65	345	178
80	80	360	180
100	25	325	153
100	40	340	170
100	50	350	175
100	65	365	188
100	80	380	190
100	100	400	200
150	25	475	178
150	40	490	195

Header Diameter (D ₁)	Branch Diameter (D ₂)	Header Length (A)	Branch Length (B)
150	50	500	200
150	65	515	213
150	80	530	215
150	100	550	225
150	150	600	300
200	25	475	203
200	40	490	220
200	50	500	225
200	65	515	238
200	80	530	240
200	100	550	250
200	150	600	325
200	200	650	325
250	25	475	228
250	40	490	245
250	50	500	250
250	65	515	263
250	80	530	265
250	100	550	275
250	150	600	350
250	200	650	350
250	250	700	350
300	25	525	253
300	40	540	270
300	50	550	275
300	65	565	288
300	80	580	290
300	100	600	300
300	150	650	375
300	200	700	375
300	250	750	375
300	300	800	400
350	100	600	325
350	150	650	400
350	200	700	400
350	250	750	400
350	300	800	425
350	350	850	425
400	100	700	350
400	150	750	425
400	200	800	425
400	250	850	425

Header Diameter (D ₁)	Branch Diameter (D ₂)	Header Length (A)	Branch Length (B)
400	300	900	450
400	350	950	450
400	400	1000	500
450	100	700	375
450	150	750	450
450	200	800	450
450	250	850	450
450	300	900	475
450	350	950	475
450	400	1000	525
450	450	1050	525
500	100	700	400
500	150	750	475
500	200	800	475
500	250	850	475
500	300	900	500
500	350	950	500
500	400	1000	550
500	450	1050	550
500	500	1100	550
600	100	800	450
600	150	850	525
600	200	900	525
600	250	950	525
600	300	1000	550
600	350	1050	550
600	400	1100	600
600	450	1150	600
600	500	1200	600
600	600	1300	650
700	100	800	500
700	150	850	575
700	200	900	575
700	250	950	575
700	300	1000	600
700	350	1050	600
700	400	1100	650
700	450	1150	650
700	500	1200	650
700	600	1300	700
700	700	1400	700
800	100	900	550
800	150	950	625

Header Diameter (D ₁)	Branch Diameter (D ₂)	Header Length (A)	Branch Length (B)
800	200	1000	625
800	250	1050	625
800	300	1100	650
800	350	1150	650
800	400	1200	700
800	450	1250	700
800	500	1300	700
800	600	1400	750
800	700	1500	750
800	800	1600	800
900	300	1100	700
900	350	1150	700
900	400	1200	750
900	450	1250	750
900	500	1300	750
900	600	1400	800
900	700	1500	800
900	800	1600	850
900	900	1700	850
1000	300	1200	750
1000	350	1250	750
1000	400	1300	800
1000	450	1350	800
1000	500	1400	800
1000	600	1500	850
1000	700	1600	850
1000	800	1700	900
1000	900	1800	900
1000	1000	1900	950
1100	300		
1100	350		
1100	400		
1100	450		
1100	500		
1100	600		
1100	700		
1100	800		
1100	900		
1100	1000		
1100	1100	2050	1025
1200	300		
1200	350		
1200	400		

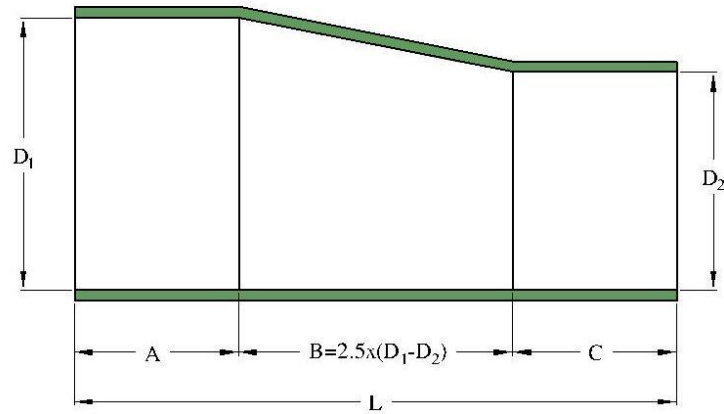
Header Diameter (D ₁)	Branch Diameter (D ₂)	Header Length (A)	Branch Length (B)
1200	450		
1200	500		
1200	600		
1200	700		
1200	800		
1200	900		
1200	1000		
1200	1200	2200	1100
1300	300		
1300	350		
1300	400		
1300	450		
1300	500		
1300	600		
1300	700		
1300	800		
1300	900		
1300	1000		
1300	1200		
1300	1300	2350	1175
1400	300		
1400	350		
1400	400		
1400	450		
1400	500		
1400	600		
1400	700		
1400	800		
1400	900		
1400	1000		
1400	1200		
1400	1400	2500	1250
1500	300		
1500	350		
1500	400		
1500	450		
1500	500		
1500	600		
1500	700		
1500	800		
1500	900		
1500	1000		
1500	1200		

Header Diameter (D ₁)	Branch Diameter (D ₂)	Header Length (A)	Branch Length (B)
1500	1300		
1500	1400		
1500	1500	2650	1325
1600	300		
1600	350		
1600	400		
1600	450		
1600	500		
1600	600		
1600	700		
1600	800		
1600	900		
1600	1000		
1600	1100		
1600	1200		
1600	1300		
1600	1400		
1600	1500		
1600	1600	2800	1400
1700	300		
1700	350		
1700	400		
1700	450		
1700	500		
1700	600		
1700	700		
1700	800		
1700	900		
1700	1000		
1700	1100		
1700	1200		
1700	1300		
1700	1400		
1700	1500		
1700	1600		
1700	1700	2900	1450
1800	300		
1800	350		
1800	400		
1800	450		
1800	500		
1800	600		
1800	700		

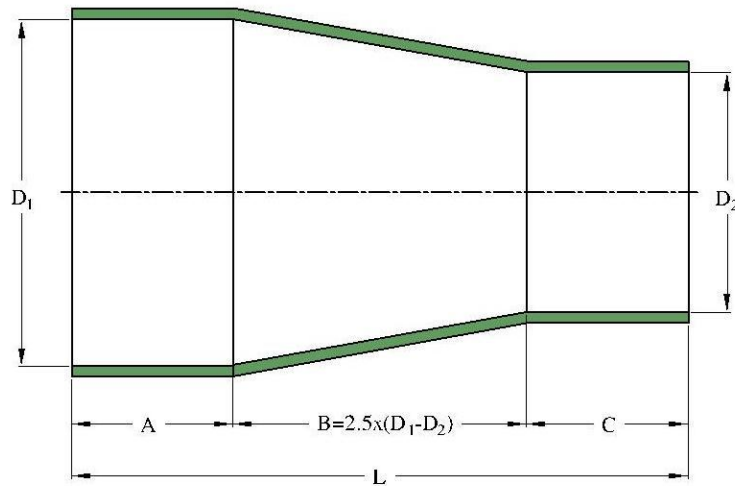
Header Diameter (D ₁)	Branch Diameter (D ₂)	Header Length (A)	Branch Length (B)
1800	800		
1800	900		
1800	1000		
1800	1200		
1800	1400		
1800	1600		
1800	1800	3000	1500
1900	1900	3150	1575
2000	300		
2000	400		
2000	500		
2000	600		
2000	700		
2000	800		
2000	900		
2000	1000		
2000	1200		
2000	1400		
2000	1600		
2000	1800		
2000	2000	3300	1650
2100	2100	3500	1750
2200	2200	3650	1825
2300	2300	3800	1900
2400	300		
2400	400		
2400	500		
2400	600		
2400	700		
2400	800		
2400	900		
2400	1000		
2400	1200		
2400	1400		
2400	1600		
2400	1800		
2400	2000		
2400	2200		
2400	2300		
2400	2400	4000	2000
2500	2500	4150	2075
2600	2600	4300	2150
2700	2700	4500	2250

Header Diameter (D₁)	Branch Diameter (D₂)	Header Length (A)	Branch Length (B)
2800	2800	4650	2325
2900	2900	4800	2400
3000	3000	5000	2500
3100	3100	5150	2575
3200	3200	5300	2650
3300	3300	5500	2750
3400	3400	5650	2825
3500	3500	5800	2900
3600	3600	6000	3000
3700	3700	6150	3075
3800	3800	6300	3150
3900	3900	6500	3250
4000	4000	6650	3325

GRP REDUCER DIMENSIONS



ΓΠΠ ΡΕΔΥΧΕΡ (EXXENTPIX)



ΓΠΠ ΡΕΔΥΧΕΡ (XONXENTPIX)

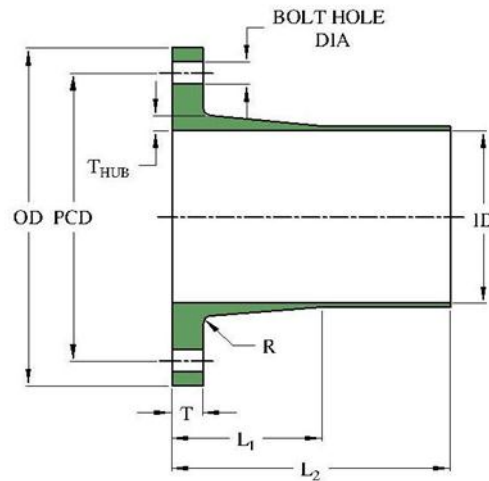
All Dimensions are in in "mm"

Bigger Diameter (D_1)	Smaller Diameter (D_2)	A	Taper Length (B)	C	Total Length (L)
50	40	100	25	100	225
65	50	100	38	100	238
80	50	100	75	100	275
80	65	100	38	100	238
100	50	125	125	100	350
100	65	125	88	100	313

Bigger Diameter (D ₁)	Smaller Diameter (D ₂)	A	Taper Length (B)	C	Total Length (L)
100	80	125	50	100	275
125	65	125	150	100	375
125	80	125	113	100	338
125	100	125	63	125	313
150	80	125	175	100	400
150	100	125	125	125	375
200	100	150	250	125	525
200	125	150	188	125	463
200	150	150	125	125	400
250	100	150	375	125	650
250	150	150	250	125	525
250	200	150	125	150	425
300	100	170	500	125	795
300	125	170	438	125	733
300	150	170	375	125	670
300	200	170	250	150	570
300	250	170	125	150	445
350	150	190	500	125	815
350	200	190	375	150	715
350	250	190	150	250	590
350	300	190	125	170	485
400	150	210	625	125	960
400	200	210	500	150	860
400	250	210	375	150	735
400	300	210	250	170	730
400	350	210	125	190	525
450	200	230	625	150	1005
450	250	230	500	150	880
450	300	230	375	170	775
450	350	230	250	190	670
450	400	230	125	210	565
500	200	250	750	150	1150
500	250	250	625	150	1025
500	300	250	500	170	920
500	350	250	375	190	715
500	400	250	250	210	710
500	450	250	125	230	605
600	300	260	750	170	1180
600	350	260	625	190	1075
600	400	260	500	210	970
600	450	260	375	230	865
600	500	260	250	250	760

Bigger Diameter (D ₁)	Smaller Diameter (D ₂)	A	Taper Length (B)	C	Total Length (L)
700	300	270	1000	170	1440
700	350	270	875	190	1335
700	400	270	750	210	1230
700	450	270	625	230	1125
700	500	270	500	250	1020
700	600	270	250	260	780
800	400	290	1000	210	1500
800	450	290	875	230	1395
800	500	290	750	250	1290
800	600	290	500	260	1050
800	700	290	250	270	810
900	500	300	1000	250	1550
900	600	300	750	260	1310
900	700	300	500	270	1070
900	800	300	250	290	840
1000	500	310	1250	250	1810
1000	600	310	1000	260	1570
1000	700	310	750	270	1330
1000	800	310	500	290	1100
1000	900	310	250	300	860
1100	900				
1100	1000				
1200	1000				
1200	1100				
1300	1100				
1300	1200				
1400	1200				
1400	1300				
1500	1300				
1500	1400				
1600	1400				
1600	1500				
1700	1500				
1700	1600				
1800	1400				
1800	1600				
1900	1700				
1900	1800				
2000	1600				
2000	1800				
2100	1900				
2100	2000				

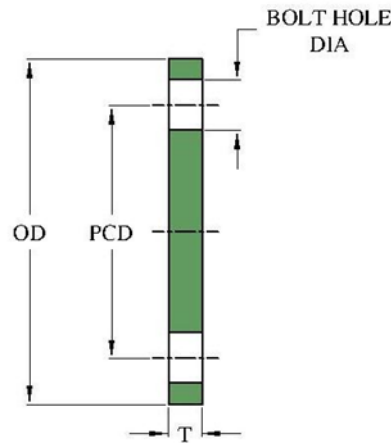
Bigger Diameter (D₁)	Smaller Diameter (D₂)	A	Taper Length (B)	C	Total Length (L)
2200	2000				
2200	2100				
2300	2100				
2300	2200				
2400	2000				
2400	2300				
2500	2300				
2500	2400				
2600	2500				
2700	2600				
2800	2700				
2900	2600				
2900	2700				
2900	2800				
2900	2700				
2900	2800				
3000	2600				
3000	2700				
3000	2800				
3000	2900				

GRP FULL FLANGE DIMENSIONS FOR PRESSURE CLASS - PN10


All Dimensions are in "mm"

NB (Inch)	NB (mm)	OD	PCD	Bolt Hole Dia.	Bolt Dia.	No. of Bolts	Ref. Std
½	15	89	60.5	0.62"(15.8)	½"(12.7)	4	ANSI B16.5
¾	20	98	70.0	0.62"(15.8)	½"(12.7)	4	ANSI B16.5
1	25	108	79.4	0.62"(15.8)	½"(12.7)	4	ANSI B16.5
1 ¼	32	117	89.0	0.62"(15.8)	½"(12.7)	4	ANSI B16.5
1 ½	40	127	98.6	0.62"(15.8)	½"(12.7)	4	ANSI B16.5
2	50	152	120.7	0.75"(19.0)	⅝"(15.9)	4	ANSI B16.5
2 ½	65	178	139.5	0.75"(19.0)	⅝"(15.9)	4	ANSI B16.5
3	80	190	152.4	0.75"(19.0)	⅝"(15.9)	4	ANSI B16.5
4	100	229	190.5	0.75"(19.0)	⅝"(15.9)	8	ANSI B16.5
5	125	254	215.9	0.88"(22.4)	¾"(19.0)	8	ANSI B16.5
6	150	279	241.3	0.88"(22.4)	¾"(19.0)	8	ANSI B16.5
8	200	343	298.4	0.88"(22.4)	¾"(19.0)	8	ANSI B16.5
10	250	406	362.0	1.0" (25.4)	⅞"(22.2)	12	ANSI B16.5
12	300	483	431.8	1.0" (25.4)	⅞"(22.2)	12	ANSI B16.5
14	350	533	476.3	1.12"(28.4)	1"(25.4)	12	ANSI B16.5
16	400	597	539.8	1.12"(28.4)	1"(25.4)	16	ANSI B16.5
18	450	635	577.9	1.25"(31.7)	1⅛" (28.6)	16	ANSI B16.5
20	500	699	635.0	1.25"(31.7)	1⅛" (28.6)	20	ANSI B16.5
22	550	749	692.1	1.38"(35.1)	1¼" (31.7)	20	ANSI B16.5
24	600	813	749.3	1.38"(35.1)	1¼" (31.7)	20	ANSI B16.5
28	700	927	863.6	1.38"(35.1)	1¼" (31.7)	28	ASME B16.47
30	750	984	914.4	1.38"(35.1)	1¼" (31.7)	28	ASME B16.47
32	800	1060	977.9	1.62"(41.1)	1 ½" (38.1)	28	ASME B16.47
36	900	1168	1085.9	1.62"(41.1)	1 ½" (38.1)	32	ASME B16.47
40	1000	1289	1200.2	1.62"(41.1)	1 ½" (38.1)	36	ASME B16.47
44	1100	1403	1314.5	1.62"(41.1)	1 ½" (38.1)	40	ASME B16.47
48	1200	1511	1422.4	1.62"(41.1)	1 ½" (38.1)	44	ASME B16.47
52	1300	1626	1536.7	1.88"(47.8)	1 ¾" (44.5)	44	ASME B16.47
56	1400	1746	1651.0	1.88"(47.8)	1 ¾" (44.5)	48	ASME B16.47
60	1500	1854	1759.0	1.88"(47.8)	1 ¾" (44.5)	52	ASME B16.47
64	1600	1915	1820.0	48.0	45.0	40	DIN EN 1092
68	1700						
72	1800	2197	2095.5	47.5	1.75" (44.5)	60	AWWA C207
76	1900						
80	2000	2325	2230.0	48.0	45.0	48	DIN EN 1092

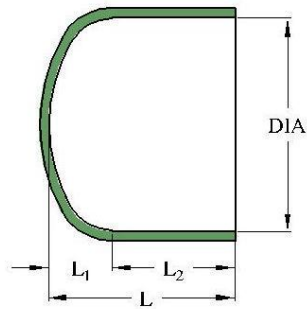
Size (Inch)	ID	OD	PCD	Bolt Hole Dia.	Bolt Dia.	No. of Bolts	Ref. Std
84	2100	2534	2425.7	54.0	2.0" (50.8)	64	AWWA C207
88	2200	2550	2440.0	56.8	52.0	52	DIN EN 1092
92	2300						
96	2400	2877	2755.9	62.0	2.25" (57.2)	68	AWWA C207
100	2500						
104	2600	2960	2850.0	56.8	52.0	60	DIN EN 1092
108	2700	3219	3067.0	68.3	2.5" (63.5)	72	AWWA C207
112	2800	3180	3070.0	56.8	52.0	76	DIN EN 1092
116	2900						
120	3000	3562	3371.8	74.7	2.75" (69.9)	76	AWWA C207
124	3100						
128	3200						
132	3300	3905	3702.0	81.0	3.0" (76.2)	80	AWWA C207
136	3400						
140	3500						
144	3600	4248	4019.5	87.4	3.25" (82.6)	84	AWWA C207

GRP BLIND FLANGE DIMENSIONS FOR PRESSURE CLASS - PN10


All Dimensions are in "mm"

NB	OD	PCD	Bolt Hole Dia	Bolt Dia.	No. of Bolts	Ref. Std.
15	89	60.5	0.62"(15.8)	1/2"(12.7)	4	ANSI B16.5
20	98	70.0	0.62"(15.8)	1/2"(12.7)	4	ANSI B16.5
25	108	79.4	0.62"(15.8)	1/2"(12.7)	4	ANSI B16.5
32	117	89.0	0.62"(15.8)	1/2"(12.7)	4	ANSI B16.5
40	127	98.6	0.62"(15.8)	1/2"(12.7)	4	ANSI B16.5
50	152	120.7	0.75"(19.0)	5/8"(15.9)	4	ANSI B16.5
65	178	139.5	0.75"(19.0)	5/8"(15.9)	4	ANSI B16.5
80	190	152.4	0.75"(19.0)	5/8"(15.9)	4	ANSI B16.5
100	229	190.5	0.75"(19.0)	5/8"(15.9)	8	ANSI B16.5
125	254	215.9	0.88"(22.4)	3/4"(19.0)	8	ANSI B16.5
150	279	241.3	0.88"(22.4)	3/4"(19.0)	8	ANSI B16.5
200	343	298.4	0.88"(22.4)	3/4"(19.0)	8	ANSI B16.5
250	406	362.0	1.0" (25.4)	7/8"(22.2)	12	ANSI B16.5
300	483	431.8	1.0" (25.4)	7/8"(22.2)	12	ANSI B16.5
350	533	476.3	1.12"(28.4)	1"(25.4)	12	ANSI B16.5
400	597	539.8	1.12"(28.4)	1"(25.4)	16	ANSI B16.5
450	635	577.9	1.25"(31.7)	1 1/8" (28.6)	16	ANSI B16.5
500	699	635.0	1.25"(31.7)	1 1/8" (28.6)	20	ANSI B16.5
550	749	692.1	1.38"(35.1)	1 1/4" (31.7)	20	ANSI B16.5
600	813	749.3	1.38"(35.1)	1 1/4" (31.7)	20	ANSI B16.5
700	927	863.6	1.38"(35.1)	1 1/4" (31.7)	28	ASME B16.47
750	984	914.4	1.38"(35.1)	1 1/4" (31.7)	28	ASME B16.47
800	1060	977.9	1.62"(41.1)	1 1/2" (38.1)	28	ASME B16.47
900	1168	1085.9	1.62"(41.1)	1 1/2" (38.1)	32	ASME B16.47
1000	1289	1200.2	1.62"(41.1)	1 1/2" (38.1)	36	ASME B16.47
1100	1403	1314.5	1.62"(41.1)	1 1/2" (38.1)	40	ASME B16.47
1200	1511	1422.4	1.62"(41.1)	1 1/2" (38.1)	44	ASME B16.47
1300	1626	1536.7	1.88" (47.8)	1 3/4" (44.5)	44	ASME B16.47
1400	1746	1651.0	1.88" (47.8)	1 3/4" (44.5)	48	ASME B16.47
1500	1854	1759.0	1.88" (47.8)	1 3/4" (44.5)	52	ASME B16.47
1600	1915	1820.0	48.0	45.0	40	DIN EN 1092
1700						
1800	2197	2095.5	47.5	1.75" (44.5)	60	AWWA C207
1900						
2000	2325	2230.0	48.0	45.0	48	DIN EN 1092

NB	OD	PCD	Bolt Hole Dia	Bolt Dia.	No. of Bolts	Ref. Std.
2100	2534	2425.7	54.0	2.0" (50.8)	64	AWWA C207
2200	2550	2440.0	56.8	52.0	52	DIN EN 1092
2300						
2400	2877	2755.9	62.0	2.25" (57.2)	68	AWWA C207
2500						
2600	2960	2850.0	56.8	52.0	60	DIN EN 1092
2700	3219	3067.0	68.3	2.5" (63.5)	72	AWWA C207
2800	3180	3070.0	56.8	52.0	76	DIN EN 1092
2900						
3000	3562	3371.8	74.7	2.75" (69.9)	76	AWWA C207
3100						
3200						
3300	3905	3702.0	81.0	3.0" (76.2)	80	AWWA C207
3400						
3500						
3600	4248	4019.5	87.4	3.25" (82.6)	84	AWWA C207

GRP END-CAP DIMENSIONS


All Dimensions are in in "mm"

NB	Dome Length (L ₁)	Straight Shank Length (L ₂)	Total Length (L)
250	50	200	250
300	60	200	260
350	70	200	270
400	80	200	280
450	90	200	290
500	100	225	325
600	120	240	360
700	140	300	440
800	160	300	460
900	180	325	505
1000	200	350	550
1100	220	375	595
1200	240	375	615
1300	260	400	660
1400	280	450	730
1500	300	500	800
1600	320	550	870
1700	340	550	890
1800	360	550	910
1900	380	575	955
2000	400	600	1000
2100	420	625	1045
2200	440	625	1065
2300	460	650	1110
2400	480	675	1155
2500	500	700	1200
2600	520	725	1245
2700	540	725	1265
2800	560	725	1285
2900	580	750	1330
3000	600	750	1350