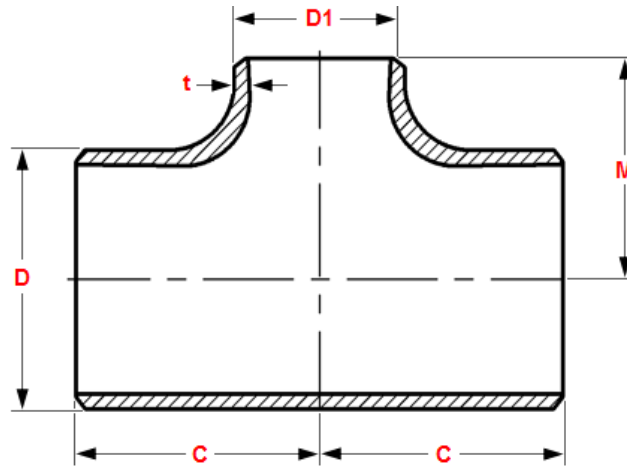


Dimensions of Reducing Tees and Crosses



NPS	OD, D	OD, D1	Center to End	
			Run, C	Outlet, M [Notes(1),(2)]
1/2 x 1/4	21.3	13.7	25	25
1/2 x 3/8	21.3	17.3	25	25
3/4 x 3/8	26.7	17.3	29	29
3/4 x 1/2	26.7	21.3	29	29
1 x 1/2	33.4	21.3	38	38
1 x 3/4	33.4	26.7	38	38
1 1/4 x 1/2	42.2	21.3	48	48
1 1/4 x 3/4	42.2	26.7	48	48
1 1/4 x 1	42.2	33.4	48	48
1 1/2 x 1/2	48.3	21.3	57	57
1 1/2 x 3/4	48.3	26.7	57	57
1 1/2 x 1	48.3	33.4	57	57
1 1/2 x 1 1/4	48.3	42.2	57	57
2 x 3/4	60.3	26.7	64	44
2 x 1	60.3	33.4	64	51
2 x 1 1/4	60.3	42.2	64	57
2 x 1 1/2	60.3	48.3	64	60
2 1/2 x 1	73	33.4	76	57
2 1/2 x 1 1/4	73	42.2	76	64
2 1/2 x 1 1/2	73	48.3	76	67
2 1/2 x 2	73	60.3	76	70
3 x 1 1/4	88.9	42.2	86	70
3 x 1 1/2	88.9	48.3	86	73
3 x 2	88.9	60.3	86	76
3 x 2 1/2	88.9	73	86	83
3 1/2 x 1 1/2	101.6	48.3	95	79
3 1/2 x 2	101.6	60.3	95	83
3 1/2 x 2 1/2	101.6	73	95	89
3 1/2 x 3	101.6	88.9	95	92
4 x 1 1/2	114.3	48.3	105	86
4 x 2	114.3	60.3	105	89
4 x 2 1/2	114.3	73	105	95
4 x 3	114.3	88.9	105	98
4 x 3 1/2	114.3	101.6	105	102
5 x 2	141.3	60.3	124	105
5 x 2 1/2	141.3	73	124	108
5 x 3	141.3	88.9	124	111
5 x 3 1/2	141.3	101.6	124	114
5 x 4	141.3	114.3	124	117
6 x 2 1/2	168.3	73	143	121

6 x 3	168.3	88.9	143	124
6 x 3 ½	168.3	101.6	143	127
6 x 4	168.3	114.3	143	130
6 x 5	168.3	141.3	143	137
8 x 3 ½	219.1	101.6	178	152
8 x 4	219.1	114.3	178	156
8 x 5	219.1	141.3	178	162
8 x 6	219.1	168.3	178	168
10 x 4	273	114.3	216	184
10 x 5	273	141.3	216	191
10 x 6	273	168.3	216	194
10 x 8	273	219.1	216	203
12 x 5	323.8	141.3	254	216
12 x 6	323.8	168.3	254	219
12 x 8	323.8	219.1	254	229
12 x 10	323.8	273	254	241
14 x 6	355.6	168.3	279	238
14 x 8	355.6	219.1	279	248
14 x 10	355.6	273	279	257
14 x 12	355.6	323.8	279	270
16 x 6	406.4	168.3	305	264
16 x 8	406.4	219.1	305	273
16 x 10	406.4	273	305	283
16 x 12	406.4	323.8	305	295
16 x 14	406.4	355.6	305	305
18 x 8	457	219.1	343	298
18 x 10	457	273	343	308
18 x 12	457	323.8	343	321
18 x 14	457	355.6	343	330
18 x 16	457	406.4	343	330
20 x 8	508	219.1	381	324
20 x 10	508	273	381	333
20 x 12	508	323.8	381	346
20 x 14	508	355.6	381	356
20 x 16	508	406.4	381	356
20 x 18	508	457	381	368
22 x 10	559	273	419	359
22 x 12	559	323.8	419	371
22 x 14	559	355.6	419	381
22 x 16	559	406.4	419	381
22 x 18	559	457	419	394
22 x 20	559	508	419	406
24 x 10	610	273	432	384
24 x 12	610	323.8	432	397
24 x 14	610	355.6	432	406
24 x 16	610	406.4	432	406
24 x 18	610	457	432	419
24 x 20	610	508	432	432
24 x 22	610	559	432	432
26 x 12	660	323.8	495	422
26 x 14	660	355.6	495	432
26 x 16	660	406.4	495	432
26 x 18	660	457	495	444
26 x 20	660	508	495	457
26 x 22	660	559	495	470
26 x 24	660	610	495	483
28 x 12	711	323.8	521	448
28 x 14	711	355.6	521	457

28 x 16	711	406.4	521	457
28 x 18	711	457	521	470
28 x 20	711	508	521	483
28 x 22	711	559	521	495
28 x 24	711	610	521	508
28 x 26	711	660	521	521
30 x 10	762	273	559	460
30 x 12	762	323.8	559	473
30 x 14	762	355.6	559	483
30 x 16	762	406.4	559	483
30 x 18	762	457	559	495
30 x 20	762	508	559	508
30 x 22	762	559	559	521
30 x 24	762	610	559	533
30 x 26	762	660	559	546
30 x 28	762	711	559	546
32 x 14	813	355.6	597	508
32 x 16	813	406.4	597	508
32 x 18	813	457	597	521
32 x 20	813	508	597	533
32 x 22	813	559	597	546
32 x 24	813	610	597	559
32 x 26	813	660	597	572
32 x 28	813	711	597	572
32 x 30	813	762	597	584
34 x 16	864	406.4	635	533
34 x 18	864	457	635	546
34 x 20	864	508	635	559
34 x 22	864	559	635	572
34 x 24	864	610	635	584
34 x 26	864	660	635	597
34 x 28	864	711	635	597
34 x 30	864	762	635	610
34 x 32	864	813	635	622
36 x 16	914	406.4	673	559
36 x 18	914	457	673	572
36 x 20	914	508	673	584
36 x 22	914	559	673	597
36 x 24	914	610	673	610
36 x 26	914	660	673	622
36 x 28	914	711	673	622
36 x 30	914	762	673	635
36 x 32	914	813	673	648
36 x 34	914	864	673	660
38 x 18	965	457	711	597
38 x 20	965	508	711	610
38 x 22	965	559	711	622
38 x 24	965	610	711	635
38 x 26	965	660	711	648
38 x 28	965	711	711	648
38 x 30	965	762	711	673
38 x 32	965	813	711	686
38 x 34	965	864	711	698
38 x 36	965	914	711	711
40 x 18	1016	457	749	622
40 x 20	1016	508	749	635
40 x 22	1016	559	749	648
40 x 24	1016	610	749	660

40 x 26	1016	660	749	673
40 x 28	1016	711	749	673
40 x 30	1016	762	749	698
40 x 32	1016	813	749	711
40 x 34	1016	864	749	724
40 x 36	1016	914	749	737
40 x 38	1016	965	749	749
42 x 26	1067	660	762	698
42 x 28	1067	711	762	698
42 x 30	1067	762	762	711
42 x 32	1067	813	762	711
42 x 34	1067	864	762	711
42 x 36	1067	914	762	711
42 x 38	1067	968	762	711
42 x 40	1067	1016	762	711
42 x 16	1067	406.4	762	635
42 x 18	1067	457	762	648
42 x 20	1067	508	762	660
42 x 22	1067	559	762	660
42 x 24	1067	610	762	660
44 x 20	1118	508	813	686
44 x 22	1118	559	813	686
44 x 24	1118	610	813	698
44 x 26	1118	660	813	698
44 x 28	1118	711	813	698
44 x 30	1118	762	813	711
44 x 32	1118	813	813	711
44 x 34	1118	864	813	724
44 x 36	1118	914	813	724
44 x 38	1118	965	813	737
44 x 40	1118	1016	813	749
44 x 42	1118	1067	813	762
46 x 22	1168	559	851	724
46 x 24	1168	610	851	724
46 x 26	1168	660	851	737
46 x 28	1168	711	851	737
46 x 30	1168	762	851	737
46 x 32	1168	813	851	749
46 x 34	1168	864	851	749
46 x 36	1168	914	851	762
46 x 38	1168	965	851	762
46 x 40	1168	1016	851	775
46 x 42	1168	1067	851	787
46 x 44	1168	1118	851	800
48 x 22	1219	559	889	737
48 x 24	1219	610	889	737
48 x 26	1219	660	889	762
48 x 28	1219	711	889	762
48 x 30	1219	762	889	762
48 x 32	1219	813	889	787
48 x 34	1219	864	889	787
48 x 36	1219	914	889	787
48 x 38	1219	965	889	813
48 x 40	1219	1016	889	813
48 x 42	1219	1067	889	813
48 x 44	1219	1118	889	838
48 x 46	1219	1168	889	838

NOTE:Outlet dimension M for run sizes NPS 14 and larger is recommended but not required.