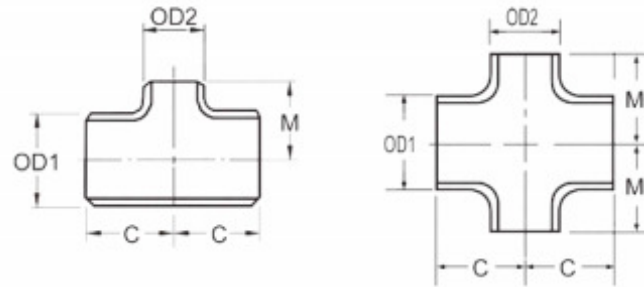


SPECIFICATION

**Reducing Tees and Crosses**

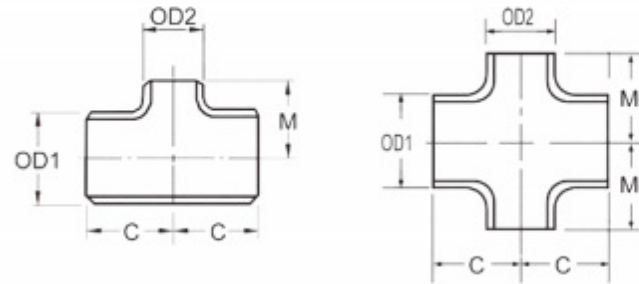


ASME/ANSI B16.9

Nominal Pipe Size		Outside Diameter at Bevel, OD		Center-to-End	
DN	NPS	Run	Outlet	Run, C	Outlet, M
20x15	3/4" x1/2"	26.7	21.3	29	29
25x20	1" x 3/4"	33.4	26.7	38	38
25x15	1" x1/2"	33.4	21.3	38	38
32x25	1-1/4"x1"	42.2	33.4	48	48
32x20	1-1/4"x3/4"	42.2	26.7	48	48
32x15	1-1/4"x1/2"	42.2	21.3	48	48
40x32	1-1/2"x1-1/4"	48.3	42.2	57	57
40x25	1-1/2"x1"	48.3	33.4	57	57
40x20	1-1/2"x3/4"	48.3	26.7	57	57
40x15	1-1/2"x1/2"	48.3	21.3	57	57
50x40	2"x1-1/2"	60.3	48.3	64	60
50x32	2"x1-1/4"	60.3	42.4	64	57
50x25	2"x1"	60.3	33.4	64	51
50x20	2"x3/4"	60.3	26.7	64	44
65x50	2-1/2"x2"	73	60.3	76	70
65x40	2-1/2"x1-1/2"	73	48.3	76	67
65x32	2-1/2"x1-1/4"	73	42.2	76	64
65x25	2-1/2"x1"	73	33.4	76	57
80x65	3" X2-1/2"	88.9	73	86	83
80x50	3"x2"	88.9	60.3	86	76
80x40	3" X1-1/2"	88.9	48.3	86	73
80x32	3"x1-1/4"	88.9	42.2	86	70
90x80	3-1/2"x3"	101.6	88.9	95	92
90x65	3-1/2"x2-1/2"	101.6	73	95	89
90x50	3-1/2"x2"	101.6	60.3	95	83
90x40	3-1/2"x1-1/2"	101.6	48.3	95	79

SPECIFICATION

**Reducing Tees and Crosses**

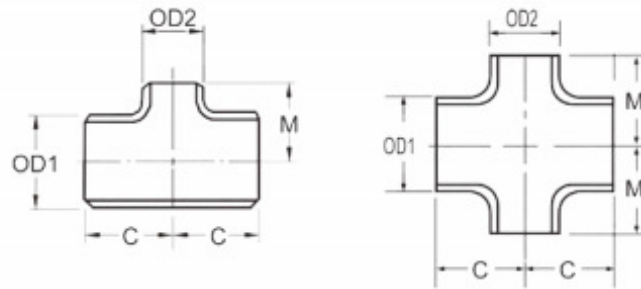


ASME/ANSI B16.9

Nominal Pipe Size		Outside Diameter at Bevel, OD		Center-to-End	
DN	NPS	Run	Outlet	Run, C	Outlet, M
100x90	4"x3-1/2"	114.3	101.6	105	102
100x80	4"x3"	114.3	88.9	105	98
100x65	4"x2-1/2"	114.3	73	105	95
100x50	4"x2"	114.3	60.3	105	89
100x40	4"x1-1/2"	114.3	48.3	105	86
125x100	5"x4"	141.3	114.3	124	117
125x90	5"x3-1/2"	141.3	101.6	124	114
125x80	5"x3"	141.3	88.9	124	111
125x65	5"x2-1/2"	141.3	73	124	108
125x50	5"x2"	141.3	60.3	124	105
150x125	6"x5"	168.3	141.3	143	137
150x100	6"x4"	168.3	114.3	143	130
150x90	6"x3-1/2"	168.3	101.6	143	127
150x80	6"x3"	168.3	88.9	143	124
150x65	6"x2-1/2"	168.3	73	143	121
200x150	8"x6"	219.1	168.3	178	168
200x125	8"x5"	219.1	141.3	178	162
200x100	8"x4"	219.1	114.3	178	156
200x90	8"x3-1/2"	219.1	101.6	178	152
250x200	10"x8"	273	219.1	216	203
250x150	10"x6"	273	168.3	216	194
250x125	10"x5"	273	141.3	216	191

SPECIFICATION

**Reducing Tees and Crosses**

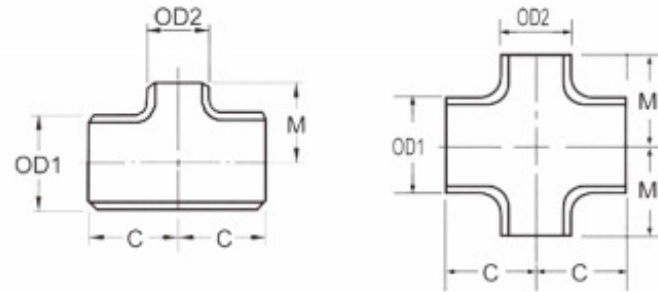


ASME/ANSI B16.9

Nominal Pipe Size		Outside Diameter at Bevel, OD		Center-to-End	
DN	NPS	Run	Outlet	Run, C	Outlet, M
250x100	10"x4"	273	114.3	216	184
300x250	12"x 10"	323.8	273	254	241
300x200	12"x8"	323.8	219.1	254	229
300x150	12"x6"	323.8	168.3	254	219
300x125	12"x5"	323.8	141.3	254	216
350x300	14"x12"	355.6	323.8	279	270
350x250	14"x10"	355.6	273	279	257
350x200	14"x8"	355.6	219.1	279	248
350x150	14"x6"	355.6	168.3	279	238
400x350	16"X14"	406.4	355.6	305	305
400x300	16"x12"	406.4	323.8	305	295
400x250	16"x10"	406.4	273	305	283
400x200	16"x8"	406.4	219.1	305	273
400x150	16"x6"	406.4	168.3	305	264
450x400	18"x16"	457	406.4	343	330
450x350	18"x14"	457	355.6	343	330
450x300	18"x12"	457	323.8	343	321
450x250	18"x10"	457	273	343	308
450x200	18"x8"	457	219.1	343	298
500x450	20"x18"	508	457	381	368

SPECIFICATION

**Reducing Tees and Crosses**

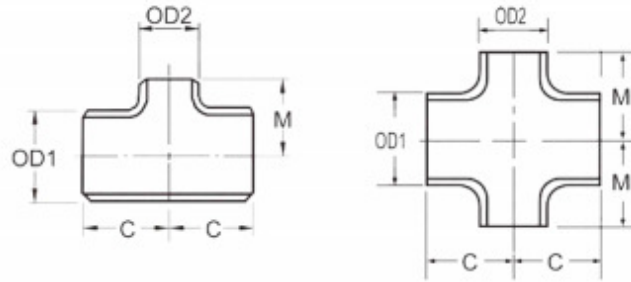


ASME/ANSI B16.9

Nominal Pipe Size		Outside Diameter at Bevel, OD		Center-to-End	
DN	NPS	Run	Outlet	Run, C	Outlet, M
500x400	20"x16"	508	406.4	381	356
500x350	20"x14"	508	355.6	381	356
500x300	20"x12"	508	323.8	381	346
500x250	20"x10"	508	273	381	333
500x200	20"x 8"	508	219.1	381	324
550x500	22"x 20"	559	508	419	406
550x450	22"x 18"	559	457	419	394
550x400	22"x 16"	559	406.4	419	381
550x350	22"x 14"	559	355.6	419	381
550x300	22"x 12"	559	323.8	419	371
550x250	22"x 10"	559	273	419	359
600x550	24"x22"	610	559	432	432
600x500	24"x20"	610	508	432	432
600x450	24"x18"	610	457	432	419
600x400	24"x16"	610	406.4	432	406
600x350	24"x14"	610	355.6	432	406
600x300	24"x12"	610	323.8	432	397
600x250	24"x10"	610	273	432	384
650x600	26"x24"	660	610	495	483
650x550	26"x22"	660	559	495	470
650x500	26"x20"	660	508	495	457
650x450	26"x18"	660	457	495	444

SPECIFICATION

**Reducing Tees and Crosses**

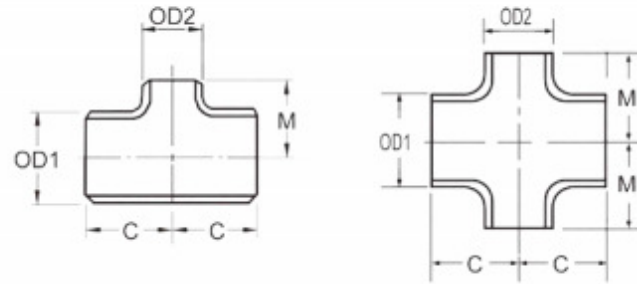


ASME/ANSI B16.9

Nominal Pipe Size		Outside Diameter at Bevel, OD		Center-to-End	
DN	NPS	Run	Outlet	Run, C	Outlet, M
650x400	26"x16"	660	406.4	495	432
650x350	26"x14"	660	355.6	495	432
650x300	26"x12"	660	323.8	495	422
700x650	28"x26"	711	660	521	521
700x600	28"x24"	711	610	521	508
700x550	28"x22"	711	558	521	495
700x500	28"x20"	711	508	521	483
700x450	28"x18"	711	475	521	470
700x400	28"x16"	711	406.4	521	457
700x350	28"x14"	711	355.6	521	457
700x300	28"x12"	711	323.8	521	448
750x700	30"x28"	762	711	559	546
750x650	30"x26"	762	660	559	546
750x600	30"x24"	762	610	559	533
750x550	30"x22"	762	559	559	521
750x500	30"x20"	762	508	559	508
750x450	30"x18"	762	457	559	495
750x400	30"x16"	762	406.4	559	483
750x350	30"x14"	762	355.6	559	483
750x300	30"x12"	762	323.8	559	473
750x250	30"x10"	762	273	559	460
800x750	32"x30"	813	762	597	584
800x700	32"x28"	813	711	597	572

SPECIFICATION

**Reducing Tees and Crosses**

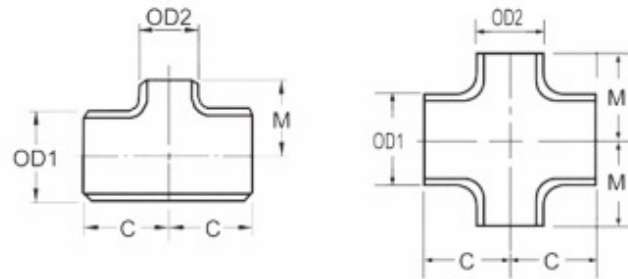


ASME/ANSI B16.9

Nominal Pipe Size		Outside Diameter at Bevel, OD		Center-to-End	
DN	NPS	Run	Outlet	Run, C	Outlet, M
800x650	32"x26"	813	660	597	572
800x600	32"x24"	813	610	597	559
800x550	32"x22"	813	559	597	546
800x500	32"x20"	813	508	597	533
800x450	32"x18"	813	457	597	521
800x400	32"x16"	813	406.4	597	508
800x350	32"x14"	813	355.6	597	508
850x800	34"x32"	864	813	635	622
850x750	34"x30"	864	762	635	610
850x700	34"x28"	864	711	635	597
850x650	34"x26"	864	660	635	597
850x600	34"x24"	864	610	635	584
850x550	34"x22"	864	559	635	572
850x500	34"x20"	864	508	635	559
850x450	34"x18"	864	457	635	546
850x400	34"x16"	864	406.4	635	533
900x850	36"x34"	914	864	673	660
900x800	36"x32"	914	813	673	648
900x750	36"x30"	914	762	673	635
900x700	36"x28"	914	711	673	622
900x650	36"x26"	914	661	673	622
900x600	36"x24"	914	610	673	610
900x550	36"x22"	914	559	673	597

SPECIFICATION

**Reducing Tees and Crosses**

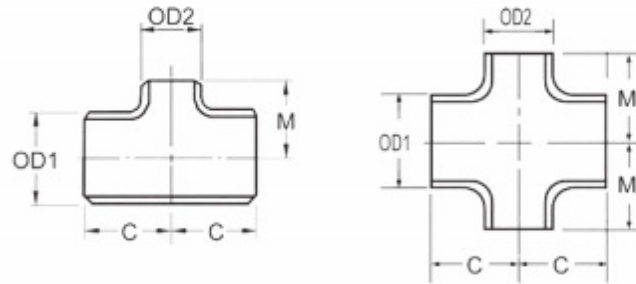


ASME/ANSI B16.9

Nominal Pipe Size		Outside Diameter at Bevel, OD		Center-to-End	
DN	NPS	Run	Outlet	Run, C	Outlet, M
900x500	36"x20"	914	508	673	584
900x450	36"x18"	914	457	673	572
900x400	36"x16"	914	406.4	673	559
950x900	38"x36"	965	914	711	711
950x850	38"x34"	965	864	711	698
950x800	38"x32"	965	813	711	686
950x750	38"x30"	965	762	711	673
950x700	38"x28"	965	711	711	648
950x650	38"x26"	965	661	711	648
950x600	38"x24"	965	610	711	635
950x550	38"x22"	965	559	711	622
950x500	38"x20"	965	508	711	610
950x450	38"x18"	965	457	711	597
1000x950	40"x38"	1016	965	749	749
1000x900	40"x36"	1016	914	749	737
1000x850	40"x34"	1016	864	749	724
1000x800	40"x32"	1016	813	749	711
1000x750	40"x30"	1016	762	749	698
1000x700	40"x28"	1016	711	749	673
1000x650	40"x26"	1016	661	749	673
1000x600	40"x24"	1016	610	749	660
1000x550	40"x22"	1016	559	749	648
1000x500	40"x20"	1016	508	749	635

SPECIFICATION

**Reducing Tees and Crosses**



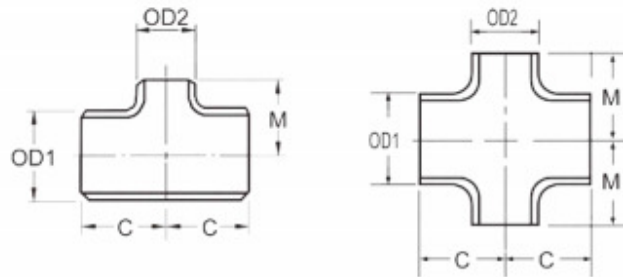
ASME/ANSI B16.9

Nominal Pipe Size		Outside Diameter at Bevel, OD		Center-to-End	
DN	NPS	Run	Outlet	Run, C	Outlet, M
1000x450	40"x18"	1016	457	749	622
1050x1000	42"x40"	1067	1016	762	711
1050x950	42"x38"	1067	965	762	711
1050x900	42"x36"	1067	914	762	711
1050x850	42"x34"	1067	864	762	711
1050x800	42"x32"	1067	813	762	711
1050x750	42"x30"	1067	762	762	711
1050x700	42"x28"	1067	711	762	698
1050x650	42"x26"	1067	661	762	698
1050x600	42"x24"	1067	610	762	660
1050x550	42"x22"	1067	559	762	660
1050x500	42"x20"	1067	508	762	660
1050x450	42"x18"	1067	457	762	648
1050x400	42"x16"	1067	406.4	762	635
1100x1050	44"x42"	1118	1067	813	762
1100x1000	44"x40"	1118	1016	813	749
1100x950	44"x38"	1118	965	813	737
1100x900	44"x36"	1118	914	813	724
1100x850	44"x34"	1118	864	813	724
1100x800	44"x32"	1118	813	813	711
1100x750	44"x30"	1118	762	813	711
1100x700	44"x28"	1118	711	813	698
1100x650	44"x26"	1118	661	813	698



SPECIFICATION

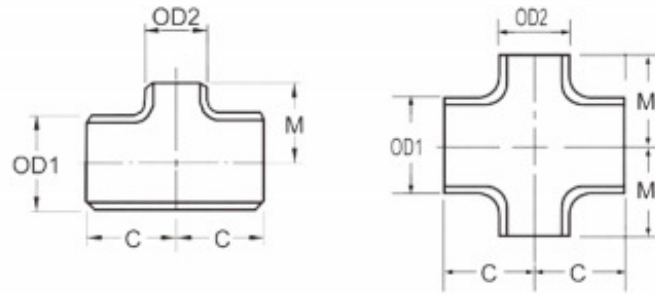
**Reducing Tees and Crosses**



ASME/ANSI B16.9

Nominal Pipe Size		Outside Diameter at Bevel, OD		Center-to-End	
DN	NPS	Run	Outlet	Run, C	Outlet, M
1100x600	44"x24"	1118	610	813	698
1100x550	44"x22"	1118	559	813	686
1100x500	44"x20"	1118	508	813	686
1150x1100	46"x44"	1168	1118	851	800
1150x1050	46"x42"	1168	1067	851	787
1150x1000	46"x40"	1168	1016	851	775
1150x950	46"x38"	1168	965	851	762
1150x900	46"x36"	1168	914	851	762
1150x850	46"x34"	1168	864	851	749
1150x800	46"x32"	1168	813	851	749
1150x750	46"x30"	1168	762	851	737
1150x700	46"x28"	1168	711	851	737
1150x650	46"x26"	1168	661	851	737
1150x600	46' x24"	1168	610	851	724
1150x550	46"x22"	1168	559	851	724
1200x1150	48"x46"	1219	1168	889	838
1200x1100	48"x44"	1219	1118	889	838
1200x1050	48"x42"	1219	1067	889	813
1200x1000	48"x40"	1219	1016	889	813
1200x950	48"x38"	1219	965	889	813
1200x900	48"x36"	1219	914	889	787
1200x850	48"x34"	1219	864	889	787
1200x800	48"x32"	1219	813	889	787

**Reducing Tees and Crosses**



**ASME/ANSI B16.9**

Nominal Pipe Size		Outside Diameter at Bevel, OD		Center-to-End	
DN	NPS	Run	Outlet	Run, C	Outlet, M
1200x750	48"x30"	1219	762	889	762
1200x700	48"x28"	1219	711	889	762
1200x650	48"x26"	1219	661	889	762
1200x600	48"x24"	1219	610	889	737
1200x550	48"x22"	1219	559	889	737

Note:

- All dimensions are in millimeters
- Outlet dimension M for run size NPS 14 and larger is recommended but not required