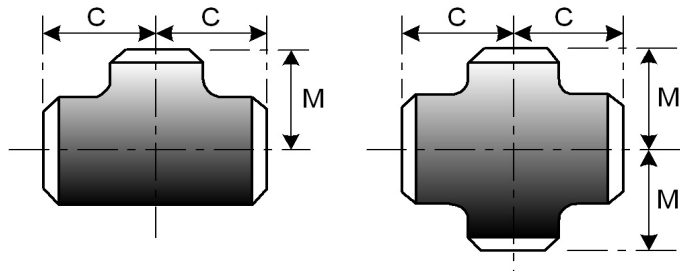


## Dimensions of Reducing Tees and Crosses to ASME B16.9



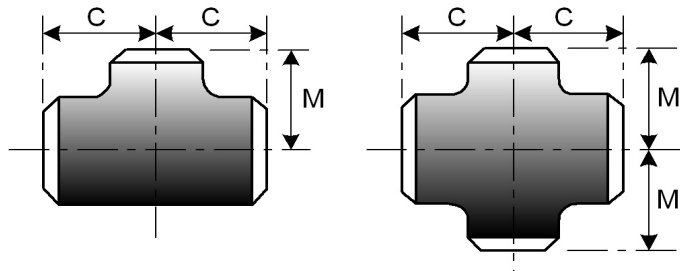
Nominal Pipe Size NPS	O.D. at Bevel		Centre-to-End	
	Run	Outlet	Run C	Outlet M <sup>(1)</sup>
1/2 x 1/2 x 3/8	0.84	0.68	1.00	1.00
1/2 x 1/2 x 1/4	0.84	0.54	1.00	1.00
3/4 x 3/4 x 1/2	1.05	0.84	1.12	1.12
3/4 x 3/4 x 3/8	1.05	0.68	1.12	1.12
1 x 1 x 3/4	1.32	1.05	1.50	1.50
1 x 1 x 1/2	1.32	0.84	1.50	1.50
1 1/4 x 1 1/4 x 1	1.66	1.32	1.88	1.88
1 1/4 x 1 1/4 x 3/4	1.66	1.05	1.88	1.88
1 1/4 x 1 1/4 x 1/2	1.66	0.84	1.88	1.88
1 1/2 x 1 1/2 x 1 1/4	1.90	1.66	2.25	2.25
1 1/2 x 1 1/2 x 1	1.90	1.32	2.25	2.25
1 1/2 x 1 1/2 x 3/4	1.90	1.05	2.25	2.25
1 1/2 x 1 1/2 x 1/2	1.90	0.84	2.25	2.25
2 x 2 x 1 1/2	2.38	1.90	2.50	2.38
2 x 2 x 1 1/4	2.38	1.66	2.50	2.25
2 x 2 x 1	2.38	1.32	2.50	2.00
2 x 2 x 3/4	2.38	1.05	2.50	1.75
2 1/2 x 2 1/2 x 2	2.88	2.38	3.00	2.75
2 1/2 x 2 1/2 x 1 1/2	2.88	1.90	3.00	2.62
2 1/2 x 2 1/2 x 1 1/4	2.88	1.66	3.00	2.50
2 1/2 x 2 1/2 x 1	2.88	1.32	3.00	2.25
3 x 3 x 2 1/2	3.50	2.88	3.38	3.25
3 x 3 x 2	3.50	2.38	3.38	3.00
3 x 3 x 1 1/2	3.50	1.90	3.38	2.88
3 x 3 x 1 1/4	3.50	1.66	3.38	2.75
3 1/2 x 3 1/2 x 3	4.00	3.50	3.75	3.62
3 1/2 x 3 1/2 x 2 1/2	4.00	2.88	3.75	3.50
3 1/2 x 3 1/2 x 2	4.00	2.38	3.75	3.25
3 1/2 x 3 1/2 x 1 1/2	4.00	1.90	3.75	3.12
4 x 4 x 3 1/2	4.50	4.00	4.12	4.00
4 x 4 x 3	4.50	3.50	4.12	3.88
4 x 4 x 2 1/2	4.50	2.88	4.12	3.75
4 x 4 x 2	4.50	2.38	4.12	3.50
4 x 4 x 1 1/2	4.50	1.90	4.12	3.38

All dimensions are given in inches.

Note:

(1) Outlet dimension M for run sizes NPS 14 and larger is recommended but not required.

## Dimensions of Reducing Tees and Crosses to ASME B16.9



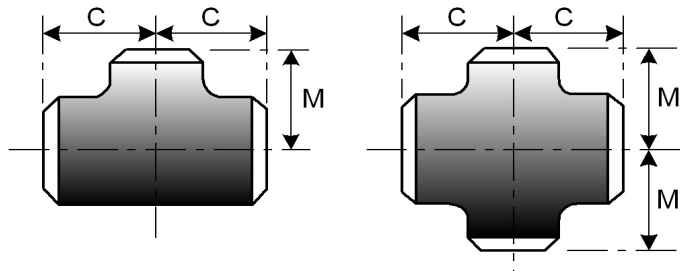
Nominal Pipe Size NPS	O.D. at Bevel		Centre-to-End	
	Run	Outlet	Run C	Outlet M <sup>(1)</sup>
5 x 5 x 4	5.56	4.50	4.88	4.62
5 x 5 x 3 1/2	5.56	4.00	4.88	4.50
5 x 5 x 3	5.56	3.50	4.88	4.38
5 x 5 x 2 1/2	5.56	2.88	4.88	4.25
5 x 5 x 2	5.56	2.38	4.88	4.12
6 x 6 x 5	6.62	5.56	5.62	5.38
6 x 6 x 4	6.62	4.50	5.62	5.12
6 x 6 x 3 1/2	6.62	4.00	5.62	5.00
6 x 6 x 3	6.62	3.50	5.62	4.88
6 x 6 x 2 1/2	6.62	2.88	5.62	4.75
8 x 8 x 6	8.62	6.62	7.00	6.62
8 x 8 x 5	8.62	5.56	7.00	6.38
8 x 8 x 4	8.62	4.50	7.00	6.12
8 x 8 x 3 1/2	8.62	4.00	7.00	6.00
10 x 10 x 8	10.75	8.62	8.50	8.00
10 x 10 x 6	10.75	6.62	8.50	7.62
10 x 10 x 5	10.75	5.56	8.50	7.50
10 x 10 x 4	10.75	4.50	8.50	7.25
12 x 12 x 10	12.75	10.75	10.00	9.50
12 x 12 x 8	12.75	8.62	10.00	9.00
12 x 12 x 6	12.75	6.62	10.00	8.62
12 x 12 x 5	12.75	5.56	10.00	8.50
14 x 14 x 12	14.00	12.75	11.00	10.62
14 x 14 x 10	14.00	10.75	11.00	10.12
14 x 14 x 8	14.00	8.62	11.00	9.75
14 x 14 x 6	14.00	6.62	11.00	9.38
16 x 16 x 14	16.00	14.00	12.00	12.00
16 x 16 x 12	16.00	12.75	12.00	11.62
16 x 16 x 10	16.00	10.75	12.00	11.12
16 x 16 x 8	16.00	8.62	12.00	10.75
16 x 16 x 6	16.00	6.62	12.00	10.38
18 x 18 x 16	18.00	16.00	13.50	13.00
18 x 18 x 14	18.00	14.00	13.50	13.00
18 x 18 x 12	18.00	12.75	13.50	12.62
18 x 18 x 10	18.00	10.75	13.50	12.12
18 x 18 x 8	18.00	8.62	13.50	11.75

All dimensions are given in inches.

Note:

(1) Outlet dimension M for run sizes NPS 14 and larger is recommended but not required.

## Dimensions of Reducing Tees and Crosses to ASME B16.9



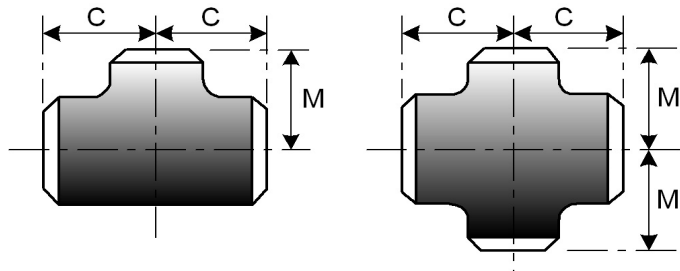
Nominal Pipe Size NPS	O.D. at Bevel		Centre-to-End	
	Run	Outlet	Run C	Outlet M <sup>(1)</sup>
20 x 20 x 18	20.00	18.00	15.00	14.50
20 x 20 x 16	20.00	16.00	15.00	14.00
20 x 20 x 14	20.00	14.00	15.00	14.00
20 x 20 x 12	20.00	12.75	15.00	13.62
20 x 20 x 10	20.00	10.75	15.00	13.12
20 x 20 x 8	20.00	8.62	15.00	12.75
22 x 22 x 20	22.00	20.00	16.50	16.00
22 x 22 x 18	22.00	18.00	16.50	15.50
22 x 22 x 16	22.00	16.00	16.50	15.00
22 x 22 x 14	22.00	14.00	16.50	15.00
22 x 22 x 12	22.00	12.75	16.50	14.62
22 x 22 x 10	22.00	10.75	16.50	14.12
24 x 24 x 22	24.00	22.00	17.00	17.00
24 x 24 x 20	24.00	20.00	17.00	17.00
24 x 24 x 18	24.00	18.00	17.00	16.50
24 x 24 x 16	24.00	16.00	17.00	16.00
24 x 24 x 14	24.00	14.00	17.00	16.00
24 x 24 x 12	24.00	12.75	17.00	15.62
24 x 24 x 10	24.00	10.75	17.00	15.12
26 x 26 x 24	26.00	24.00	19.50	19.00
26 x 26 x 22	26.00	22.00	19.50	18.50
26 x 26 x 20	26.00	20.00	19.50	18.00
26 x 26 x 18	26.00	18.00	19.50	17.50
26 x 26 x 16	26.00	16.00	19.50	17.00
26 x 26 x 14	26.00	14.00	19.50	17.00
26 x 26 x 12	26.00	12.75	19.50	16.62
28 x 28 x 26	28.00	26.00	20.50	20.50
28 x 28 x 24	28.00	24.00	20.50	20.00
28 x 28 x 22	28.00	22.00	20.50	19.50
28 x 28 x 20	28.00	20.00	20.50	19.00
28 x 28 x 18	28.00	18.00	20.50	18.50
28 x 28 x 16	28.00	16.00	20.50	18.00
28 x 28 x 14	28.00	14.00	20.50	18.00
28 x 28 x 12	28.00	12.75	20.50	17.62

All dimensions are given in inches.

Note:

- (1) Outlet dimension M for run sizes NPS 14 and larger is recommended but not required.

## Dimensions of Reducing Tees and Crosses to ASME B16.9



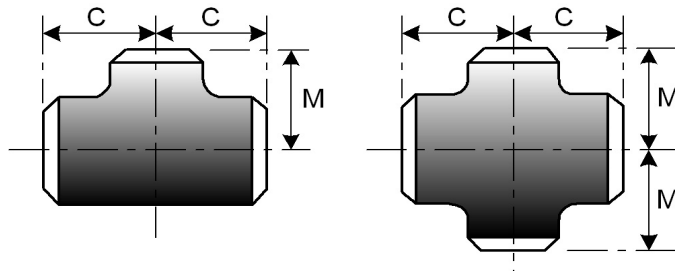
Nominal Pipe Size NPS	O.D. at Bevel		Centre-to-End	
	Run	Outlet	Run C	Outlet M <sup>(1)</sup>
30 x 30 x 28	30.00	28.00	22.00	21.50
30 x 30 x 26	30.00	26.00	22.00	21.50
30 x 30 x 24	30.00	24.00	22.00	21.00
30 x 30 x 22	30.00	22.00	22.00	20.50
30 x 30 x 20	30.00	20.00	22.00	20.00
30 x 30 x 18	30.00	18.00	22.00	19.50
30 x 30 x 16	30.00	16.00	22.00	19.00
30 x 30 x 14	30.00	14.00	22.00	19.00
30 x 30 x 12	30.00	12.75	22.00	18.62
30 x 30 x 10	30.00	10.75	22.00	18.12
32 x 32 x 30	32.00	30.00	23.50	23.00
32 x 32 x 28	32.00	28.00	23.50	22.50
32 x 32 x 26	32.00	26.00	23.50	22.50
32 x 32 x 24	32.00	24.00	23.50	22.00
32 x 32 x 22	32.00	22.00	23.50	21.50
32 x 32 x 20	32.00	20.00	23.50	21.00
32 x 32 x 18	32.00	18.00	23.50	20.50
32 x 32 x 16	32.00	16.00	23.50	20.00
32 x 32 x 14	32.00	14.00	23.50	20.00
34 x 34 x 32	34.00	32.00	25.00	24.50
34 x 34 x 30	34.00	30.00	25.00	24.00
34 x 34 x 28	34.00	28.00	25.00	23.50
34 x 34 x 26	34.00	26.00	25.00	23.50
34 x 34 x 24	34.00	24.00	25.00	23.00
34 x 34 x 22	34.00	22.00	25.00	22.50
34 x 34 x 20	34.00	20.00	25.00	22.00
34 x 34 x 18	34.00	18.00	25.00	21.50
34 x 34 x 16	34.00	16.00	25.00	21.00

All dimensions are given in inches.

Note:

(1) Outlet dimension M for run sizes NPS 14 and larger is recommended but not required.

## Dimensions of Reducing Tees and Crosses to ASME B16.9



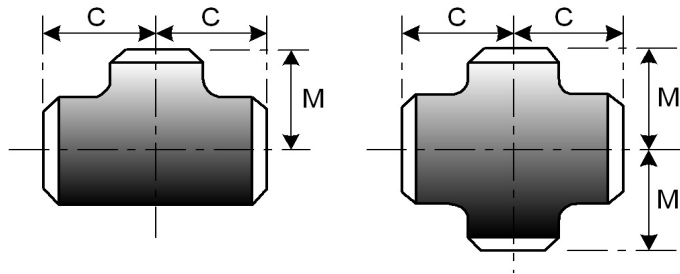
Nominal Pipe Size NPS	O.D. at Bevel		Centre-to-End	
	Run	Outlet	Run C	Outlet M <sup>(1)</sup>
36 x 36 x 34	36.00	34.00	26.50	26.00
36 x 36 x 32	36.00	32.00	26.50	25.50
36 x 36 x 30	36.00	30.00	26.50	25.00
36 x 36 x 28	36.00	28.00	26.50	24.50
36 x 36 x 26	36.00	26.00	26.50	24.50
36 x 36 x 24	36.00	24.00	26.50	24.00
36 x 36 x 22	36.00	22.00	26.50	23.50
36 x 36 x 20	36.00	20.00	26.50	23.00
36 x 36 x 18	36.00	18.00	26.50	22.50
36 x 36 x 16	36.00	16.00	26.50	22.00
38 x 38 x 36	38.00	36.00	28.00	28.00
38 x 38 x 34	38.00	34.00	28.00	27.50
38 x 38 x 32	38.00	32.00	28.00	27.00
38 x 38 x 30	38.00	30.00	28.00	26.50
38 x 38 x 28	38.00	28.00	28.00	25.50
38 x 38 x 26	38.00	26.00	28.00	25.50
38 x 38 x 24	38.00	24.00	28.00	25.00
38 x 38 x 22	38.00	22.00	28.00	24.50
38 x 38 x 20	38.00	20.00	28.00	24.00
38 x 38 x 18	38.00	18.00	28.00	23.50
40 x 40 x 38	40.00	38.00	29.50	29.50
40 x 40 x 36	40.00	36.00	29.50	29.00
40 x 40 x 34	40.00	34.00	29.50	28.50
40 x 40 x 32	40.00	32.00	29.50	28.00
40 x 40 x 30	40.00	30.00	29.50	27.50
40 x 40 x 28	40.00	28.00	29.50	26.50
40 x 40 x 26	40.00	26.00	29.50	26.50
40 x 40 x 24	40.00	24.00	29.50	26.00
40 x 40 x 22	40.00	22.00	29.50	25.50
40 x 40 x 20	40.00	20.00	29.50	25.00
40 x 40 x 18	40.00	18.00	29.50	24.50

All dimensions are given in inches.

Note:

(1) Outlet dimension M for run sizes NPS 14 and larger is recommended but not required.

## Dimensions of Reducing Tees and Crosses to ASME B16.9



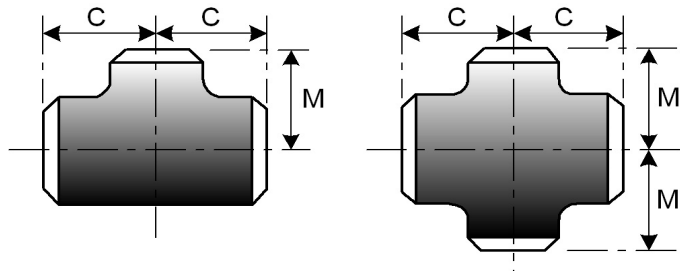
Nominal Pipe Size NPS	O.D. at Bevel		Centre-to-End	
	Run	Outlet	Run C	Outlet M <sup>(1)</sup>
42 x 42 x 40	42.00	40.00	30.00	28.00
42 x 42 x 38	42.00	38.00	30.00	28.00
42 x 42 x 36	42.00	36.00	30.00	28.00
42 x 42 x 34	42.00	34.00	30.00	28.00
42 x 42 x 32	42.00	32.00	30.00	28.00
42 x 42 x 30	42.00	30.00	30.00	28.00
42 x 42 x 28	42.00	28.00	30.00	27.50
42 x 42 x 26	42.00	26.00	30.00	27.50
42 x 42 x 24	42.00	24.00	30.00	26.00
42 x 42 x 22	42.00	22.00	30.00	26.00
42 x 42 x 20	42.00	20.00	30.00	26.00
42 x 42 x 18	42.00	18.00	30.00	25.50
42 x 42 x 16	42.00	16.00	30.00	25.00
44 x 44 x 42	44.00	42.00	32.00	30.00
44 x 44 x 40	44.00	40.00	32.00	29.50
44 x 44 x 38	44.00	38.00	32.00	29.00
44 x 44 x 36	44.00	36.00	32.00	28.50
44 x 44 x 34	44.00	34.00	32.00	28.50
44 x 44 x 32	44.00	32.00	32.00	28.00
44 x 44 x 30	44.00	30.00	32.00	28.00
44 x 44 x 28	44.00	28.00	32.00	27.50
44 x 44 x 26	44.00	26.00	32.00	27.50
44 x 44 x 24	44.00	24.00	32.00	27.50
44 x 44 x 22	44.00	22.00	32.00	27.00
44 x 44 x 20	44.00	20.00	32.00	27.00

All dimensions are given in inches.

Note:

(1) Outlet dimension M for run sizes NPS 14 and larger is recommended but not required.

## Dimensions of Reducing Tees and Crosses to ASME B16.9



Nominal Pipe Size NPS	O.D. at Bevel		Centre-to-End	
	Run	Outlet	Run C	Outlet M <sup>(1)</sup>
46 x 46 x 44	46.00	44.00	33.50	31.50
46 x 46 x 42	46.00	42.00	33.50	31.00
46 x 46 x 40	46.00	40.00	33.50	30.50
46 x 46 x 38	46.00	38.00	33.50	30.00
46 x 46 x 36	46.00	36.00	33.50	30.00
46 x 46 x 34	46.00	34.00	33.50	29.50
46 x 46 x 32	46.00	32.00	33.50	29.50
46 x 46 x 30	46.00	30.00	33.50	29.00
46 x 46 x 28	46.00	28.00	33.50	29.00
46 x 46 x 26	46.00	26.00	33.50	29.00
46 x 46 x 24	46.00	24.00	33.50	28.50
46 x 46 x 22	46.00	22.00	33.50	28.50
48 x 48 x 46	48.00	46.00	35.00	33.00
48 x 48 x 44	48.00	44.00	35.00	33.00
48 x 48 x 42	48.00	42.00	35.00	32.00
48 x 48 x 40	48.00	40.00	35.00	32.00
48 x 48 x 38	48.00	38.00	35.00	32.00
48 x 48 x 36	48.00	36.00	35.00	31.00
48 x 48 x 34	48.00	34.00	35.00	31.00
48 x 48 x 32	48.00	32.00	35.00	31.00
48 x 48 x 30	48.00	30.00	35.00	30.00
48 x 48 x 28	48.00	28.00	35.00	30.00
48 x 48 x 26	48.00	26.00	35.00	30.00
48 x 48 x 24	48.00	24.00	35.00	29.00
48 x 48 x 22	48.00	22.00	35.00	29.00

All dimensions are given in inches.

Note:

(1) Outlet dimension M for run sizes NPS 14 and larger is recommended but not required.