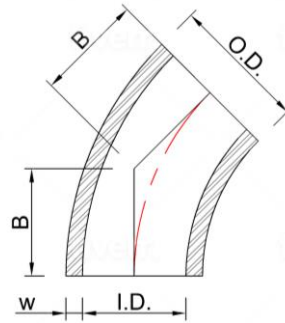


Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

## 45° ELBOW - LONG RADIUS

### ASME B16.9 & ASTM A234 WPB



45° LONG RADIUS ELBOWS

Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (STD)	APPROX WEIGHT
1/2	0.84	0.62	0.622	0.109	40	0.09
3/4	1.05	0.75	0.824	0.113	40	0.10
1	1.32	0.88	1.049	0.133	40	0.22
1 1/4	1.66	1.00	1.380	0.140	40	0.33
1 1/2	1.90	1.12	1.610	0.145	40	0.43
2	2.38	1.38	2.067	0.154	40	0.85
2 1/2	2.88	1.75	2.469	0.203	40	1.70
3	3.50	2.00	3.068	0.216	40	2.50
3 1/2	4.00	2.25	3.548	0.226	40	3.40
4	4.50	2.50	4.026	0.237	40	4.50
5	5.56	3.12	5.047	0.258	40	7.50
6	6.62	3.75	6.065	0.280	40	11.70
8	8.62	5.00	7.981	0.322	40	23.30
10	10.75	6.25	10.020	0.365	40	40.90
12	12.75	7.50	12.000	0.375	-	61.40
14	14.00	8.75	13.250	0.375	30	78.10
16	16.00	10.00	15.250	0.375	30	101.00
18	18.00	11.25	17.250	0.375	-	128.00
20	20.00	12.50	19.250	0.375	20	159.00
24	24.00	15.00	23.250	0.375	20	231.00
30	30.00	18.50	29.250	0.375	-	358.00
36	36.00	22.25	35.250	0.375	-	518.00
42	42.00	26.00	41.250	0.375	-	707.00
48	48.00	29.88	47.250	0.375	-	1000.00

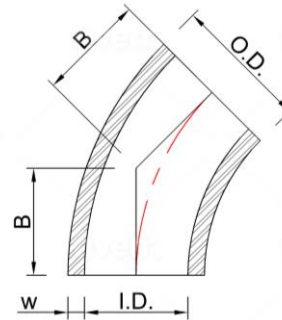
FITTINGS LR45

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## 45° ELBOW - LONG RADIUS

ASME B16.9 & ASTM A234 WPB



45° LONG RADIUS ELBOWS

Source:  Import  Domestic  Approved

### DIMENSIONS

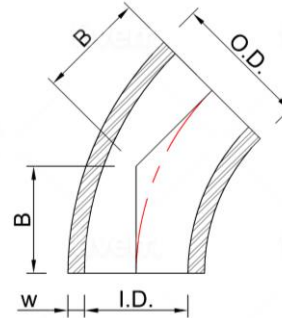
UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XS)	APPROX WEIGHT
1/2	0.84	0.62	0.546	0.147	80	0.15
3/4	1.05	0.75	0.742	0.154	80	0.16
1	1.32	0.88	0.957	0.179	80	0.28
1 1/4	1.66	1.00	0.278	0.191	80	0.45
1 1/2	1.90	1.12	1.500	0.200	80	0.61
2	2.38	1.38	1.939	0.218	80	1.20
2 1/2	2.88	1.75	2.323	0.276	80	2.00
3	3.50	2.00	2.900	0.300	80	3.30
3 1/2	4.00	2.25	3.364	0.318	80	4.50
4	4.50	2.50	3.820	0.337	80	6.20
5	5.56	3.12	4.813	0.375	80	10.50
6	6.62	3.75	5.761	0.432	80	17.00
8	8.62	5.00	7.625	0.500	80	34.30
10	10.75	6.25	9.750	0.500	60	53.50
12	12.75	7.50	11.750	0.500	-	77.60
14	14.00	8.75	13.000	0.500	-	100.00
16	16.00	10.00	15.000	0.500	40	134.00
18	18.00	11.25	17.000	0.500	-	170.00
20	20.00	12.50	19.000	0.500	30	209.00
24	24.00	15.00	23.000	0.500	-	302.00
30	30.00	18.50	29.000	0.500	20	475.10
36	36.00	22.25	35.000	0.500	20	686.10
42	42.00	26.00	41.000	0.500	-	936.10
48	48.00	29.88	47.000	0.500	-	1250.00

Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

# 45° ELBOW - LONG RADIUS

ASME B16.9 & ASTM A234 WPB



45° LONG RADIUS ELBOWS

Source:  Import  Domestic  Approved

## DIMENSIONS

UOM: Inches/LBS

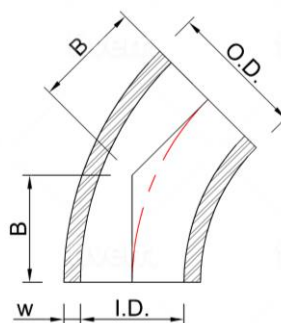
NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (40)	APPROX WEIGHT
1/2	0.84	0.62	0.622	0.109	40	0.09
3/4	1.05	0.75	0.824	0.113	40	0.10
1	1.32	0.88	1.054	0.133	40	0.22
1 1/4	1.66	1.00	1.380	0.140	40	0.33
1 1/2	1.90	1.12	1.610	0.145	40	0.43
2	2.38	1.38	2.072	0.154	40	0.85
2 1/2	2.88	1.75	2.474	0.203	40	1.70
3	3.50	2.00	3.068	0.216	40	2.50
3 1/2	4.00	2.25	3.548	0.226	40	3.40
4	4.50	2.50	4.026	0.237	40	4.50
5	5.56	3.12	5.044	0.258	40	7.50
6	6.62	3.75	6.060	0.280	40	11.70
8	8.62	5.00	7.976	0.322	40	23.30
10	10.75	6.25	10.020	0.365	40	40.90
12	12.75	7.50	11.938	0.406	40	65.00
14	14.00	8.75	13.124	0.438	40	80.00
16	16.00	10.00	15.000	0.500	40	105.00
18	18.00	11.25	16.786	0.562	40	130.00
20	20.00	12.50	18.812	0.594	40	165.00
24	24.00	15.00	22.624	0.688	40	235.00

FITTINGS LR45

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## 45° ELBOW - LONG RADIUS

**ASME B16.9 & ASTM A234 WPB**

45° LONG RADIUS ELBOWS

Source:  Import  Domestic  Approved

### DIMENSIONS

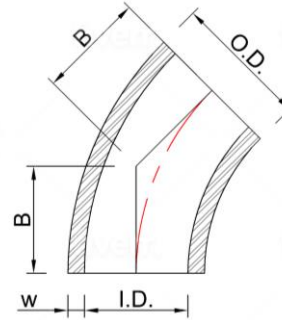
UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (80)	APPROX WEIGHT
1/2	0.84	0.62	0.546	0.147	80	0.15
3/4	1.05	0.75	0.742	0.154	80	0.16
1	1.32	0.88	0.962	0.179	80	0.28
1 1/4	1.66	1.00	1.278	0.191	80	0.45
1 1/2	1.90	1.12	1.500	0.200	80	0.61
2	2.38	1.38	1.944	0.218	80	1.20
2 1/2	2.88	1.75	2.328	0.276	80	2.00
3	3.50	2.00	2.900	0.300	80	3.30
3 1/2	4.00	2.25	3.364	0.318	80	4.50
4	4.50	2.50	3.826	0.337	80	6.20
5	5.56	3.12	4.810	0.375	80	10.50
6	6.62	3.75	5.756	0.432	80	17.00
8	8.62	5.00	7.620	0.500	80	34.30
10	10.75	6.25	9.562	0.594	80	55.00
12	12.75	7.50	11.374	0.688	80	80.00
14	14.00	8.75	12.500	0.750	80	100.00
16	16.00	10.00	14.312	0.844	80	135.00
18	18.00	11.25	16.124	0.938	80	175.00
20	20.00	12.50	17.938	1.031	80	210.00
24	24.00	15.00	21.562	1.219	80	305.00

Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

## 45° ELBOW - LONG RADIUS

ASME B16.9 & ASTM A234 WPB



45° LONG RADIUS ELBOWS

Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (160)	APPROX WEIGHT
1/2	0.84	0.62	0.464	0.188	160	1.80
3/4	1.05	0.75	0.612	0.219	160	2.00
1	1.32	0.88	0.820	0.250	160	3.00
1 1/4	1.66	1.00	1.160	0.250	160	3.50
1 1/2	1.90	1.12	1.338	0.281	160	3.70
2	2.38	1.38	1.692	0.344	160	5.00
2 1/2	2.88	1.75	2.130	0.375	160	3.70
3	3.50	2.00	2.624	0.438	160	5.60
4	4.50	2.50	3.438	0.531	160	5.60
5	5.56	3.12	4.310	0.625	160	15.00
6	6.62	3.75	5.182	0.719	160	28.00
8	8.62	5.00	6.808	0.906	160	48.00
10	10.75	6.25	8.500	1.125	160	72.00
12	12.75	7.50	10.126	1.312	160	98.00
14	14.00	8.75	11.188	1.406	160	130.00
16	16.00	10.00	12.812	1.594	160	180.00
18	18.00	11.25	14.438	1.781	160	260.00
20	20.00	12.50	16.062	1.969	160	390.00
24	24.00	15.00	19.312	2.344	160	560.00

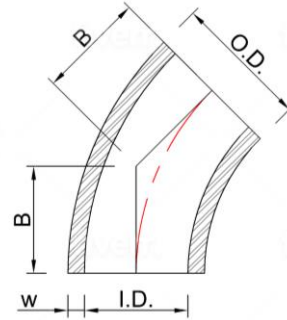
Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## 45° ELBOW - LONG RADIUS

ASME B16.9 & ASTM A234 WPB

FITTINGS LR45



45° LONG RADIUS ELBOWS

Source:  Import  Domestic  Approved

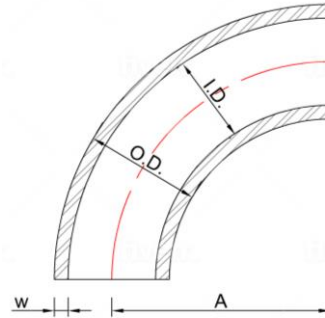
### DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
1/2	0.84	0.62	0.252	0.294	-	1.80
3/4	1.05	0.75	0.434	0.308	-	2.00
1	1.32	0.88	0.604	0.358	-	3.00
1 1/4	1.66	1.00	0.896	0.382	-	3.50
1 1/2	1.90	1.12	1.100	0.400	-	3.70
2	2.38	1.38	1.508	0.436	-	5.00
2 1/2	2.88	1.75	1.776	0.552	-	3.70
3	3.50	2.00	2.300	0.600	-	6.00
4	4.50	2.50	3.152	0.674	-	10.40
5	5.56	3.12	4.060	0.750	-	19.20
6	6.62	3.75	4.892	0.864	-	30.00
8	8.62	5.00	6.870	0.875	-	50.00
10	10.75	6.25	8.750	1.000	140	75.00
12	12.75	7.50	10.750	1.000	120	95.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**90° ELBOW - LONG RADIUS****ASME B16.9 & ASTM A234 WPB**

90° LONG RADIUS ELBOWS

Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (STD)	APPROX WEIGHT
1/2	0.84	1.50	0.622	0.109	40	0.16
3/4	1.05	1.50	0.824	0.113	40	0.17
1	1.32	1.50	1.049	0.133	40	0.40
1 1/4	1.66	1.88	1.380	0.140	40	0.55
1 1/2	1.90	2.25	1.610	0.145	40	0.80
2	2.38	3.00	2.067	0.154	40	1.60
2 1/2	2.88	3.75	2.469	0.203	40	3.20
3	3.50	4.50	3.068	0.216	40	4.80
3 1/2	4.00	5.25	3.548	0.226	40	6.60
4	4.50	6.00	4.026	0.237	40	8.90
5	5.56	7.50	5.047	0.258	40	15.10
6	6.62	9.00	6.065	0.280	40	24.00
8	8.62	12.00	7.981	0.322	40	47.80
10	10.75	15.00	10.020	0.365	40	83.40
12	12.75	18.00	12.000	0.375	-	123.00
14	14.00	21.00	13.250	0.375	30	155.00
16	16.00	24.00	15.250	0.375	30	206.00
18	18.00	27.00	17.250	0.375	-	262.00
20	20.00	30.00	19.250	0.375	20	324.00
24	24.00	36.00	23.250	0.375	20	466.00
30	30.00	45.00	29.250	0.375	-	720.00
36	36.00	54.00	35.250	0.375	-	1039.00
42	42.00	63.00	41.250	0.375	-	1420.00
48	48.00	72.00	47.250	0.375	-	2000.00

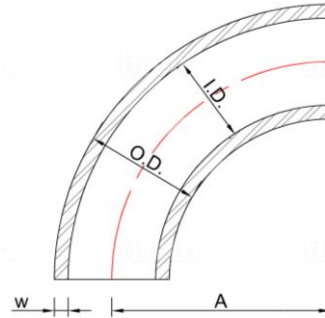
Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## 90° ELBOW - LONG RADIUS

ASME B16.9 & ASTM A234 WPB

FITTINGS LR90



90° LONG RADIUS ELBOWS

Source:  Import  Domestic  Approved

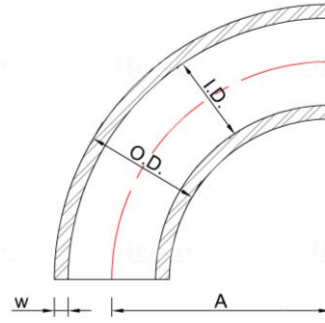
### DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XS)	APPROX WEIGHT
1/2	0.84	1.50	0.546	0.147	80	0.26
3/4	1.05	1.50	0.742	0.154	80	0.29
1	1.32	1.50	0.957	0.179	80	0.48
1 1/4	1.66	1.88	0.278	0.191	80	0.79
1 1/2	1.90	2.25	1.500	0.200	80	1.20
2	2.38	3.00	1.939	0.218	80	2.10
2 1/2	2.88	3.75	2.323	0.276	80	3.80
3	3.50	4.50	2.900	0.300	80	6.30
3 1/2	4.00	5.25	3.364	0.318	80	8.60
4	4.50	6.00	3.820	0.337	80	12.50
5	5.56	7.50	4.813	0.375	80	21.20
6	6.62	9.00	5.761	0.432	80	34.40
8	8.62	12.00	7.625	0.500	80	71.30
10	10.75	15.00	9.750	0.500	60	111.00
12	12.75	18.00	11.750	0.500	-	158.00
14	14.00	21.00	13.000	0.500	-	201.00
16	16.00	24.00	15.000	0.500	40	270.00
18	18.00	27.00	17.000	0.500	-	348.00
20	20.00	30.00	19.000	0.500	30	422.00
24	24.00	36.00	23.000	0.500	-	604.00
30	30.00	45.00	29.000	0.500	20	997.00
36	36.00	54.00	35.000	0.500	20	1380.00
42	42.00	63.00	41.000	0.500	-	1880.00
48	48.00	72.00	47.000	0.500	-	2502.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**90° ELBOW - LONG RADIUS****ASME B16.9 & ASTM A234 WPB**

90° LONG RADIUS ELBOWS

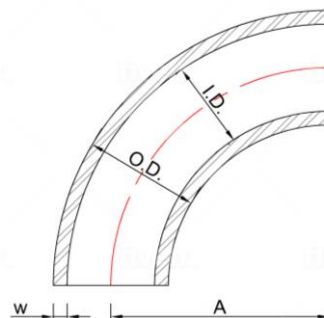
Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (40)	APPROX WEIGHT
1/2	0.84	1.50	0.622	0.109	40	0.16
3/4	1.05	1.50	0.824	0.113	40	0.17
1	1.32	1.50	1.054	0.133	40	0.40
1 1/4	1.66	1.88	1.380	0.140	40	0.55
1 1/2	1.90	2.25	1.610	0.145	40	0.80
2	2.38	3.00	2.072	0.154	40	1.60
2 1/2	2.88	3.75	2.474	0.203	40	3.20
3	3.50	4.50	3.068	0.216	40	4.80
3 1/2	4.00	5.25	3.548	0.226	40	6.60
4	4.50	6.00	4.026	0.237	40	8.90
5	5.56	7.50	5.044	0.258	40	15.10
6	6.62	9.00	6.060	0.280	40	24.00
8	8.62	12.00	7.976	0.322	40	47.80
10	10.75	15.00	10.020	0.365	40	83.40
12	12.75	18.00	11.938	0.406	40	123.00
14	14.00	21.00	13.124	0.438	40	155.00
16	16.00	24.00	15.000	0.500	40	206.00
18	18.00	27.00	16.786	0.562	40	262.00
20	20.00	30.00	18.812	0.594	40	324.00
24	24.00	36.00	22.624	0.688	40	466.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**90° ELBOW - LONG RADIUS****ASME B16.9 & ASTM A234 WPB**

90° LONG RADIUS ELBOWS

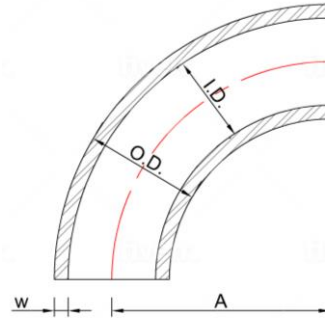
Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (80)	APPROX WEIGHT
1/2	0.84	1.50	0.546	0.147	80	0.26
3/4	1.05	1.50	0.742	0.154	80	0.29
1	1.32	1.50	0.962	0.179	80	0.48
1 1/4	1.66	1.88	1.278	0.191	80	0.79
1 1/2	1.90	2.25	1.500	0.200	80	1.20
2	2.38	3.00	1.944	0.218	80	2.10
2 1/2	2.88	3.75	2.328	0.276	80	3.80
3	3.50	4.50	2.900	0.300	80	6.30
3 1/2	4.00	5.25	3.364	0.318	80	8.60
4	4.50	6.00	3.826	0.337	80	12.50
5	5.56	7.50	4.810	0.375	80	21.20
6	6.62	9.00	5.756	0.432	80	34.40
8	8.62	12.00	7.620	0.500	80	71.30
10	10.75	15.00	9.562	0.594	80	111.00
12	12.75	18.00	11.374	0.688	80	158.00
14	14.00	21.00	12.500	0.750	80	201.00
16	16.00	24.00	14.312	0.844	80	270.00
18	18.00	27.00	16.124	0.938	80	348.00
20	20.00	30.00	17.938	1.031	80	422.00
24	24.00	36.00	21.562	1.219	80	604.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**90° ELBOW - LONG RADIUS****ASME B16.9 & ASTM A234 WPB**

90° LONG RADIUS ELBOWS

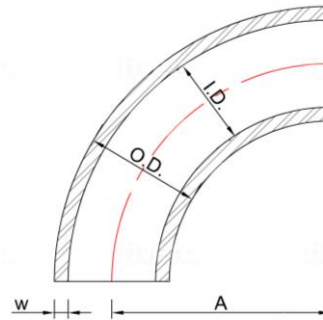
Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (160)	APPROX WEIGHT
1/2	0.84	1.50	0.464	0.188	160	0.60
3/4	1.05	1.50	0.612	0.219	160	0.60
1	1.32	1.50	0.820	0.250	160	0.60
1 1/4	1.66	1.88	1.160	0.250	160	1.00
1 1/2	1.90	2.25	1.338	0.281	160	1.80
2	2.38	3.00	1.692	0.344	160	3.20
2 1/2	2.88	3.75	2.130	0.375	160	6.00
3	3.50	4.50	2.624	0.438	160	10.00
4	4.50	6.00	3.438	0.531	160	22.00
5	5.56	7.50	4.310	0.625	160	33.00
6	6.62	9.00	5.182	0.719	160	62.00
8	8.62	12.00	6.808	0.906	160	122.00
10	10.75	15.00	8.500	1.125	160	270.00
12	12.75	18.00	10.126	1.312	160	460.00
14	14.00	21.00	11.188	1.406	160	563.00
16	16.00	24.00	12.812	1.594	160	825.00
18	18.00	27.00	14.438	1.781	160	1240.00
20	20.00	30.00	16.062	1.969	160	1510.00
24	24.00	36.00	19.312	2.344	160	1760.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**90° ELBOW - LONG RADIUS****ASME B16.9 & ASTM A234 WPB**

90° LONG RADIUS ELBOWS

Source:  Import  Domestic  Approved**DIMENSIONS**

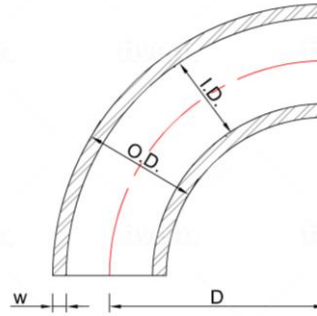
UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
1/2	0.84	1.50	0.252	0.294	-	0.30
3/4	1.05	1.50	0.434	0.308	-	0.30
1	1.32	1.50	0.604	0.358	-	0.80
1 1/4	1.66	1.88	0.896	0.382	-	1.40
1 1/2	1.90	2.25	1.100	0.400	-	2.00
2	2.38	3.00	1.508	0.436	-	3.90
2 1/2	2.88	3.75	1.776	0.552	-	6.80
3	3.50	4.50	2.300	0.600	-	11.30
4	4.50	6.00	3.152	0.674	-	23.00
5	5.56	7.50	4.060	0.750	-	38.00
6	6.62	9.00	4.892	0.864	-	69.00
8	8.62	12.00	6.870	0.875	-	120.00
10	10.75	15.00	8.750	1.000	140	232.00
12	12.75	18.00	10.750	1.000	120	315.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## 90° ELBOW - SHORT RADIUS

**ASME B16.9 & ASTM A234 WPB**

90° SHORT RADIUS ELBOWS

Source:  Import  Domestic  Approved

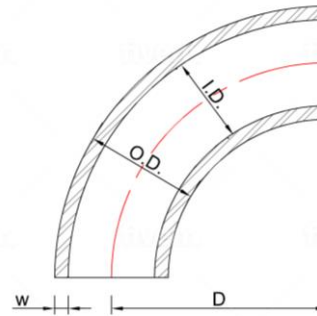
### DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (STD)	APPROX WEIGHT
1	1.32	1.00	1.049	0.133	40	0.30
1 1/4	1.66	1.25	1.380	0.140	40	0.40
1 1/2	1.90	1.50	1.610	0.145	40	0.50
2	2.38	2.00	2.067	0.154	40	1.00
2 1/2	2.88	2.50	2.469	0.203	40	2.00
3	3.50	3.00	3.068	0.216	40	3.00
3 1/2	4.00	3.50	3.548	0.226	40	4.30
4	4.50	4.00	4.026	0.237	40	6.10
5	5.56	5.00	5.047	0.258	40	9.70
6	6.62	6.00	6.065	0.280	40	16.70
8	8.62	8.00	7.981	0.322	40	32.40
10	10.75	10.00	10.020	0.365	40	56.30
12	12.75	12.00	12.000	0.375	-	79.40
14	14.00	14.00	13.250	0.375	30	104.00
16	16.00	16.00	15.250	0.375	30	129.00
18	18.00	18.00	17.250	0.375	-	163.00
20	20.00	20.00	19.250	0.375	20	210.00
24	24.00	24.00	23.250	0.375	20	297.00
30	30.00	30.00	29.250	0.375	-	470.00
36	36.00	36.00	35.250	0.375	-	692.00
42	42.00	42.00	41.250	0.375	-	967.00
48	48.00	48.00	47.250	0.375	-	1340.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**90° ELBOW - SHORT RADIUS****ASME B16.9 & ASTM A234 WPB**

90° SHORT RADIUS ELBOWS

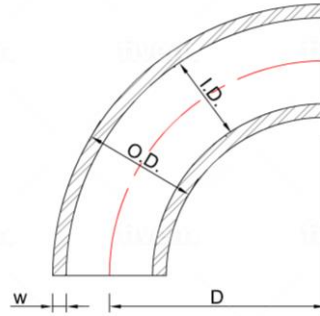
Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XS)	APPROX WEIGHT
1	1.32	1.00	1.049	0.179	80	0.30
1 1/4	1.66	1.25	1.380	0.191	80	0.60
1 1/2	1.90	1.50	1.610	0.200	80	0.80
2	2.38	2.00	2.067	0.218	80	1.50
2 1/2	2.88	2.50	2.469	0.276	80	2.60
3	3.50	3.00	3.068	0.300	80	3.80
3 1/2	4.00	3.50	3.548	0.318	80	5.40
4	4.50	4.00	4.026	0.337	80	7.60
5	5.56	5.00	5.047	0.375	80	13.80
6	6.62	6.00	6.065	0.432	80	22.80
8	8.62	8.00	7.981	0.500	80	47.30
10	10.75	10.00	10.020	0.500	60	71.00
12	12.75	12.00	12.000	0.500	-	104.00
14	14.00	14.00	13.250	0.500	-	137.00
16	16.00	16.00	15.250	0.500	40	171.00
18	18.00	18.00	17.250	0.500	-	214.00
20	20.00	20.00	19.250	0.500	30	277.00
24	24.00	24.00	23.250	0.500	-	390.00
30	30.00	30.00	29.250	0.500	20	632.70
36	36.00	36.00	35.250	0.500	20	913.00
42	42.00	42.00	41.250	0.500	-	1300.00
48	48.00	48.00	47.250	0.500	-	1675.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**90° ELBOW - SHORT RADIUS****ASME B16.9 & ASTM A234 WPB**

90° SHORT RADIUS ELBOWS

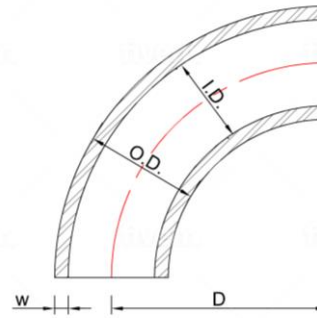
Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (40)	APPROX WEIGHT
1	1.32	1.00	1.054	0.133	40	0.30
1 1/4	1.66	1.25	1.380	0.140	40	0.40
1 1/2	1.90	1.50	1.610	0.145	40	0.50
2	2.38	2.00	2.072	0.154	40	1.00
2 1/2	2.88	2.50	2.474	0.203	40	2.00
3	3.50	3.00	3.068	0.216	40	3.00
3 1/2	4.00	3.50	3.548	0.226	40	4.30
4	4.50	4.00	4.026	0.237	40	6.10
5	5.56	5.00	5.044	0.258	40	9.70
6	6.62	6.00	6.060	0.280	40	16.70
8	8.62	8.00	7.976	0.322	40	32.40
10	10.75	10.00	10.020	0.365	40	56.30
12	12.75	12.00	11.938	0.406	40	80.00
14	14.00	14.00	13.124	0.438	40	105.00
16	16.00	16.00	15.000	0.500	40	130.00
18	18.00	18.00	16.876	0.562	40	165.00
20	20.00	20.00	18.812	0.594	40	215.00
24	24.00	24.00	22.624	0.688	40	300.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**90° ELBOW - SHORT RADIUS****ASME B16.9 & ASTM A234 WPB**

90° SHORT RADIUS ELBOWS

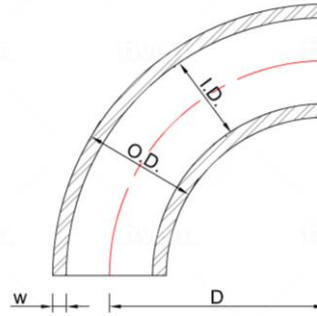
Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (80)	APPROX WEIGHT
1	1.32	1.00	0.962	0.179	80	0.30
1 1/4	1.66	1.25	1.278	0.191	80	0.40
1 1/2	1.90	1.50	1.500	0.200	80	0.50
2	2.38	2.00	1.944	0.218	80	1.00
2 1/2	2.88	2.50	2.328	0.276	80	2.00
3	3.50	3.00	2.900	0.300	80	3.00
3 1/2	4.00	3.50	3.364	0.318	80	4.30
4	4.50	4.00	3.826	0.337	80	6.10
5	5.56	5.00	4.810	0.375	80	9.70
6	6.62	6.00	5.756	0.432	80	16.70
8	8.62	8.00	7.620	0.500	80	32.40
10	10.75	10.00	9.562	0.594	80	56.30
12	12.75	12.00	11.374	0.688	80	80.00
14	14.00	14.00	12.500	0.750	80	105.00
16	16.00	16.00	14.312	0.844	80	130.00
18	18.00	18.00	16.124	0.938	80	165.00
20	20.00	20.00	17.938	1.031	80	215.00
24	24.00	24.00	21.562	1.219	80	300.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**90° ELBOW - SHORT RADIUS****ASME B16.9 & ASTM A234 WPB**

90° SHORT RADIUS ELBOWS

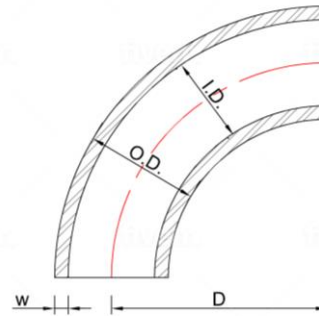
Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (160)	APPROX WEIGHT
1	1.32	1.00	0.820	0.250	160	0.50
1 1/4	1.66	1.25	1.160	0.250	160	0.90
1 1/2	1.90	1.50	1.338	0.281	160	1.50
2	2.38	2.00	1.692	0.344	160	2.90
2 1/2	2.88	2.50	2.130	0.375	160	5.50
3	3.50	3.00	2.624	0.438	160	9.80
4	4.50	4.00	3.438	0.531	160	20.00
5	5.56	5.00	4.310	0.625	160	30.00
6	6.62	6.00	5.182	0.719	160	60.00
8	8.62	8.00	6.808	0.906	160	125.00
10	10.75	10.00	8.500	1.125	160	258.00
12	12.75	12.00	10.126	1.312	160	455.00
14	14.00	14.00	11.188	1.406	160	550.00
16	16.00	16.00	12.812	1.594	160	800.00
18	18.00	18.00	14.438	1.781	160	1025.00
20	20.00	20.00	16.062	1.969	160	1295.00
24	24.00	24.00	19.312	2.344	160	1450.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**90° ELBOW - SHORT RADIUS****ASME B16.9 & ASTM A234 WPB**

90° SHORT RADIUS ELBOWS

Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
1	1.32	1.00	0.604	0.358	-	0.65
1 1/4	1.66	1.25	0.896	0.382	-	1.30
1 1/2	1.90	1.50	1.100	0.400	-	1.70
2	2.38	2.00	1.508	0.436	-	3.20
2 1/2	2.88	2.50	1.776	0.552	-	6.10
3	3.50	3.00	2.300	0.600	-	11.00
4	4.50	4.00	3.152	0.674	-	22.00
5	5.56	5.00	4.060	0.750	-	35.00
6	6.62	6.00	4.892	0.864	-	60.00
8	8.62	8.00	6.870	0.875	-	123.00
10	10.75	10.00	8.750	1.000	140	225.00
12	12.75	12.00	10.750	1.000	120	365.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**180° RETURN BENDS - LONG RADIUS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (STD)	APPROX WEIGHT
1/2	0.84	3.00	1.88	0.622	0.109	40	0.32
3/4	1.05	3.00	2.00	0.824	0.113	40	0.34
1	1.32	3.00	2.19	1.049	0.133	40	0.74
1 1/4	1.66	3.75	2.75	1.380	0.140	40	1.10
1 1/2	1.90	4.50	3.25	1.610	0.145	40	1.60
2	2.38	6.00	4.19	2.067	0.154	40	3.20
2 1/2	2.88	7.50	5.19	2.469	0.203	40	6.10
3	3.50	9.00	6.25	3.068	0.216	40	9.40
3 1/2	4.00	10.50	7.25	3.548	0.226	40	12.80
4	4.50	12.00	8.25	4.026	0.237	40	17.50
5	5.56	15.00	10.31	5.047	0.258	40	29.30
6	6.62	18.00	12.31	6.065	0.280	40	47.00
8	8.62	24.00	16.31	7.981	0.322	40	87.00
10	10.75	30.00	20.38	10.020	0.365	40	164.00
12	12.75	36.00	24.38	12.000	0.375	-	237.00
14	14.00	42.00	28.00	13.250	0.375	30	311.00
16	16.00	48.00	32.00	15.250	0.375	30	408.00
18	18.00	54.00	36.00	17.250	0.375	-	514.00
20	20.00	60.00	40.00	19.250	0.375	20	636.00
24	24.00	72.00	48.00	23.250	0.375	20	908.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**180° RETURN BENDS - LONG RADIUS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XS)	APPROX WEIGHT
1/2	0.84	3.00	1.88	0.546	0.147	80	0.45
3/4	1.05	3.00	2.00	0.742	0.154	80	0.52
1	1.32	3.00	2.19	0.957	0.179	80	0.97
1 1/4	1.66	3.75	2.75	1.278	0.191	80	1.60
1 1/2	1.90	4.50	3.25	1.500	0.200	80	2.20
2	2.38	6.00	4.19	1.939	0.218	80	4.10
2 1/2	2.88	7.50	5.19	2.323	0.276	80	7.70
3	3.50	9.00	6.25	2.900	0.300	80	12.40
3 1/2	4.00	10.50	7.25	3.364	0.318	80	17.10
4	4.50	12.00	8.25	3.820	0.337	80	24.10
5	5.56	15.00	10.31	4.813	0.375	80	41.70
6	6.62	18.00	12.31	5.761	0.432	80	68.20
8	8.62	24.00	16.31	7.625	0.500	80	140.00
10	10.75	30.00	20.38	9.750	0.500	60	217.00
12	12.75	36.00	24.38	11.750	0.500	-	311.00
14	14.00	42.00	28.00	13.000	0.500	-	400.00
16	16.00	48.00	32.00	15.000	0.500	40	540.00
18	18.00	54.00	36.00	17.000	0.500	-	686.00
20	20.00	60.00	40.00	19.000	0.500	30	840.00
24	24.00	72.00	48.00	23.000	0.500	-	1210.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**180° RETURN BENDS - LONG RADIUS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (40)	APPROX WEIGHT
1/2	0.84	3.00	1.88	0.622	0.109	40	0.32
3/4	1.05	3.00	2.00	0.824	0.113	40	0.34
1	1.32	3.00	2.19	1.054	0.133	40	0.74
1 1/4	1.66	3.75	2.75	1.380	0.140	40	1.10
1 1/2	1.90	4.50	3.25	1.610	0.145	40	1.60
2	2.38	6.00	4.19	2.072	0.154	40	3.20
2 1/2	2.88	7.50	5.19	2.474	0.203	40	6.10
3	3.50	9.00	6.25	3.068	0.216	40	9.40
3 1/2	4.00	10.50	7.25	3.548	0.226	40	12.80
4	4.50	12.00	8.25	4.026	0.237	40	17.50
5	5.56	15.00	10.31	5.044	0.258	40	29.30
6	6.62	18.00	12.31	6.060	0.280	40	47.00
8	8.62	24.00	16.31	7.976	0.322	40	87.00
10	10.75	30.00	20.38	10.020	0.365	40	164.00
12	12.75	36.00	24.38	11.938	0.406	40	240.00
14	14.00	42.00	28.00	13.124	0.438	40	315.00
16	16.00	48.00	32.00	15.000	0.500	40	410.00
18	18.00	54.00	36.00	16.876	0.562	40	520.00
20	20.00	60.00	40.00	18.812	0.594	40	640.00
24	24.00	72.00	48.00	22.824	0.688	40	915.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**180° RETURN BENDS - LONG RADIUS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (80)	APPROX WEIGHT
1/2	0.84	3.00	1.88	0.546	0.147	80	0.45
3/4	1.05	3.00	2.00	0.742	0.154	80	0.52
1	1.32	3.00	2.19	0.962	0.179	80	0.97
1 1/4	1.66	3.75	2.75	1.278	0.191	80	1.60
1 1/2	1.90	4.50	3.25	1.500	0.200	80	2.20
2	2.38	6.00	4.19	1.944	0.218	80	4.10
2 1/2	2.88	7.50	5.19	2.328	0.276	80	7.70
3	3.50	9.00	6.25	2.900	0.300	80	12.40
3 1/2	4.00	10.50	7.25	3.364	0.318	80	17.10
4	4.50	12.00	8.25	3.826	0.337	80	24.10
5	5.56	15.00	10.31	4.810	0.375	80	41.70
6	6.62	18.00	12.31	5.756	0.432	80	68.20
8	8.62	24.00	16.31	7.620	0.500	80	140.00
10	10.75	30.00	20.38	9.562	0.594	80	220.00
12	12.75	36.00	24.38	11.374	0.688	80	315.00
14	14.00	42.00	28.00	12.500	0.750	80	410.00
16	16.00	48.00	32.00	14.312	0.844	80	550.00
18	18.00	54.00	36.00	16.124	0.938	80	695.00
20	20.00	60.00	40.00	17.938	1.031	80	850.00
24	24.00	72.00	48.00	21.562	1.219	80	1225.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## 180° RETURN BENDS - LONG RADIUS

**ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (160)	APPROX WEIGHT
1/2	0.84	3.00	1.88	0.464	0.188	160	0.40
3/4	1.05	3.00	2.00	0.612	0.219	160	0.43
1	1.32	3.00	2.19	0.820	0.250	160	0.93
1 1/4	1.66	3.75	2.75	1.160	0.250	160	1.38
1 1/2	1.90	4.50	3.25	1.338	0.281	160	2.00
2	2.38	6.00	4.19	1.692	0.344	160	4.00
2 1/2	2.88	7.50	5.19	2.130	0.375	160	7.63
3	3.50	9.00	6.25	2.624	0.438	160	11.75
4	4.50	12.00	8.25	3.438	0.531	160	21.88
5	5.56	15.00	10.31	4.310	0.625	160	36.63
6	6.62	18.00	12.31	5.182	0.719	160	58.75
8	8.62	24.00	16.31	6.808	0.906	160	108.75
10	10.75	30.00	20.38	8.500	1.125	160	205.00
12	12.75	36.00	24.38	10.126	1.312	160	296.25
14	14.00	42.00	28.00	11.188	1.406	160	388.75
16	16.00	48.00	32.00	12.812	1.594	160	510.00
18	18.00	54.00	36.00	14.438	1.781	160	642.50
20	20.00	60.00	40.00	16.062	1.969	160	795.00
24	24.00	72.00	48.00	19.312	2.344	160	1135.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**180° RETURN BENDS - LONG RADIUS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
1/2	0.84	3.00	1.88	0.252	0.294	-	0.44
3/4	1.05	3.00	2.00	0.434	0.308	-	0.47
1	1.32	3.00	2.19	0.604	0.358	-	1.02
1 1/4	1.66	3.75	2.75	0.896	0.382	-	1.51
1 1/2	1.90	4.50	3.25	1.100	0.400	-	2.20
2	2.38	6.00	4.19	1.508	0.436	-	4.40
2 1/2	2.88	7.50	5.19	1.776	0.552	-	8.39
3	3.50	9.00	6.25	2.300	0.600	-	12.93
4	4.50	12.00	8.25	3.152	0.674	-	24.06
5	5.56	15.00	10.31	4.060	0.750	-	40.29
6	6.62	18.00	12.31	4.892	0.864	-	64.63
8	8.62	24.00	16.31	6.870	0.875	-	119.63
10	10.75	30.00	20.38	8.750	1.000	140	225.50
12	12.75	36.00	24.38	10.750	1.000	120	325.88

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**180° RETURN BENDS - SHORT RADIUS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (STD)	APPROX WEIGHT
1	1.32	2.00	1.62	1.049	0.133	40	0.50
1 1/4	1.66	2.50	2.06	1.380	0.140	40	0.80
1 1/2	1.90	3.00	2.44	1.610	0.145	40	1.10
2	2.38	4.00	3.19	2.067	0.154	40	1.90
2 1/2	2.88	5.00	3.94	2.469	0.203	40	4.00
3	3.50	6.00	4.75	3.068	0.216	40	6.00
3 1/2	4.00	7.00	5.50	3.548	0.226	40	8.70
4	4.50	8.00	6.25	4.026	0.237	40	12.20
5	5.56	10.00	7.75	5.047	0.258	40	19.20
6	6.62	12.00	9.31	6.065	0.280	40	32.90
8	8.62	16.00	12.31	7.981	0.322	40	64.90
10	10.75	20.00	15.38	10.020	0.365	40	112.00
12	12.75	24.00	18.38	12.000	0.375	-	157.00
14	14.00	28.00	21.00	13.250	0.375	30	208.00
16	16.00	32.00	24.00	15.250	0.375	30	257.00
18	18.00	36.00	27.00	17.250	0.375	-	325.00
20	20.00	40.00	30.00	19.250	0.375	20	416.00
24	24.00	48.00	36.00	23.250	0.375	20	592.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**180° RETURN BENDS - SHORT RADIUS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XS)	APPROX WEIGHT
1	1.32	2.00	1.62	0.962	0.179	40	0.70
1 1/4	1.66	2.50	2.06	1.278	0.191	40	1.00
1 1/2	1.90	3.00	2.44	1.500	0.200	40	1.50
2	2.38	4.00	3.19	1.939	0.218	40	2.90
2 1/2	2.88	5.00	3.94	2.323	0.276	40	5.20
3	3.50	6.00	4.75	2.900	0.300	40	8.20
3 1/2	4.00	7.00	5.50	3.364	0.318	40	11.70
4	4.50	8.00	6.25	3.826	0.337	40	16.40
5	5.56	10.00	7.75	4.813	0.375	40	27.70
6	6.62	12.00	9.31	5.761	0.432	40	45.70
8	8.62	16.00	12.31	7.625	0.500	40	96.30
10	10.75	20.00	15.38	9.750	0.500	40	143.00
12	12.75	24.00	18.38	11.750	0.500	-	212.00
14	14.00	28.00	21.00	13.000	0.500	30	271.00
16	16.00	32.00	24.00	15.000	0.500	30	339.00
18	18.00	36.00	27.00	17.000	0.500	-	425.00
20	20.00	40.00	30.00	19.000	0.500	20	555.00
24	24.00	48.00	36.00	23.000	0.500	20	778.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## 180° RETURN BENDS - SHORT RADIUS

### ASME B16.9 & ASTM A234 WPB

Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (40)	APPROX WEIGHT
1	1.32	2.00	1.62	1.054	0.133	40	0.50
1 1/4	1.66	2.50	2.06	1.380	0.140	40	0.80
1 1/2	1.90	3.00	2.44	1.610	0.145	40	1.10
2	2.38	4.00	3.19	2.072	0.154	40	1.90
2 1/2	2.88	5.00	3.94	2.474	0.203	40	4.00
3	3.50	6.00	4.75	3.068	0.216	40	6.00
3 1/2	4.00	7.00	5.50	3.548	0.226	40	8.70
4	4.50	8.00	6.25	4.026	0.237	40	12.20
5	5.56	10.00	7.75	5.044	0.258	40	19.20
6	6.62	12.00	9.31	6.060	0.280	40	32.90
8	8.62	16.00	12.31	7.976	0.322	40	64.90
10	10.75	20.00	15.38	10.020	0.365	40	112.00
12	12.75	24.00	18.38	11.938	0.406	40	165.00
14	14.00	28.00	21.00	13.124	0.438	40	215.00
16	16.00	32.00	24.00	15.000	0.500	40	265.00
18	18.00	36.00	27.00	16.876	0.562	40	335.00
20	20.00	40.00	30.00	18.812	0.594	40	425.00
24	24.00	48.00	36.00	22.624	0.688	40	605.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## 180° RETURN BENDS - SHORT RADIUS

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (80)	APPROX WEIGHT
1	1.32	2.00	1.62	0.962	0.179	80	0.70
1 1/4	1.66	2.50	2.06	1.278	0.191	80	1.00
1 1/2	1.90	3.00	2.44	1.500	0.200	80	1.50
2	2.38	4.00	3.19	1.939	0.218	80	2.90
2 1/2	2.88	5.00	3.94	2.323	0.276	80	5.20
3	3.50	6.00	4.75	2.900	0.300	80	8.20
3 1/2	4.00	7.00	5.50	3.364	0.318	80	11.70
4	4.50	8.00	6.25	3.826	0.337	80	16.40
5	5.56	10.00	7.75	4.810	0.375	80	27.70
6	6.62	12.00	9.31	5.756	0.432	80	45.70
8	8.62	16.00	12.31	7.620	0.500	80	96.30
10	10.75	20.00	15.38	9.562	0.594	80	160.00
12	12.75	24.00	18.38	11.374	0.688	80	225.00
14	14.00	28.00	21.00	12.500	0.750	80	280.00
16	16.00	32.00	24.00	14.312	0.844	80	350.00
18	18.00	36.00	27.00	16.124	0.938	80	435.00
20	20.00	40.00	30.00	17.938	1.031	80	570.00
24	24.00	48.00	36.00	21.562	1.219	80	790.00

FITTINGS SR180

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## 180° RETURN BENDS - SHORT RADIUS

**ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (160)	APPROX WEIGHT
1	1.32	2.00	1.62	0.820	0.250	160	0.85
1 1/4	1.66	2.50	2.06	1.160	0.250	160	1.21
1 1/2	1.90	3.00	2.44	1.338	0.281	160	1.82
2	2.38	4.00	3.19	1.692	0.344	160	3.51
2 1/2	2.88	5.00	3.94	2.130	0.375	160	6.29
3	3.50	6.00	4.75	2.624	0.438	160	9.92
4	4.50	8.00	6.25	3.438	0.531	160	19.84
5	5.56	10.00	7.75	4.310	0.625	160	33.52
6	6.62	12.00	9.31	5.182	0.719	160	55.30
8	8.62	16.00	12.31	6.808	0.906	160	116.52
10	10.75	20.00	15.38	8.500	1.125	160	173.03
12	12.75	24.00	18.38	10.126	1.312	160	256.52
14	14.00	28.00	21.00	11.188	1.406	160	327.91
16	16.00	32.00	24.00	12.812	1.594	160	410.19
18	18.00	36.00	27.00	14.438	1.781	160	514.25
20	20.00	40.00	30.00	16.062	1.969	160	671.55
24	24.00	48.00	36.00	19.312	2.344	160	941.38

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

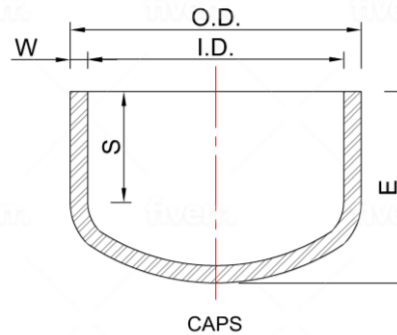
**180° RETURN BENDS - SHORT RADIUS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO END (A)	BACK TO FACE (T)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
1	1.32	2.00	1.62	0.604	0.358	-	0.93
1 1/4	1.66	2.50	2.06	0.896	0.382	-	1.33
1 1/2	1.90	3.00	2.44	1.100	0.400	-	2.00
2	2.38	4.00	3.19	1.508	0.436	-	3.90
2 1/2	2.88	5.00	3.94	1.776	0.552	-	6.92
3	3.50	6.00	4.75	2.300	0.600	-	10.91
4	4.50	8.00	6.25	3.152	0.674	-	21.83
5	5.56	10.00	7.75	4.060	0.750	-	36.87
6	6.62	12.00	9.31	4.892	0.864	-	60.83
8	8.62	16.00	12.31	6.870	0.875	-	128.18
10	10.75	20.00	15.38	8.750	1.000	140	190.33
12	12.75	24.00	18.38	10.750	1.000	120	282.17

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**CAPS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

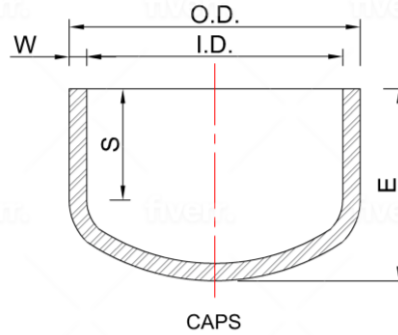
UOM: Inches/LBS

PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	HEIGHT (E)	PIPE SCHEDULE (STD)	APPROX WEIGHT
1/2	0.84	0.622	0.109	1.00	40	0.08
3/4	1.05	0.824	0.113	1.00	40	0.14
1	1.32	1.049	0.133	1.50	40	0.21
1 1/4	1.66	1.380	0.140	1.50	40	0.33
1 1/2	1.90	1.610	0.145	1.50	40	0.54
2	2.38	2.067	0.154	1.50	40	0.80
2 1/2	2.88	2.469	0.203	1.50	40	1.00
3	3.50	3.068	0.216	2.00	40	1.70
3 1/2	4.00	3.548	0.226	2.50	40	2.30
4	4.50	4.026	0.237	2.50	40	2.80
5	5.56	5.047	0.258	3.00	40	4.60
6	6.62	6.065	0.280	3.50	40	6.90
8	8.62	7.981	0.322	4.00	40	11.80
10	10.75	10.020	0.365	5.00	40	20.80
12	12.75	12.000	0.375	6.00	-	30.30
14	14.00	13.250	0.375	6.50	30	36.50
16	16.00	15.250	0.375	7.00	30	43.50
18	18.00	17.250	0.375	8.00	-	57.00
20	20.00	19.250	0.375	9.00	20	75.70
24	24.00	23.250	0.375	10.50	20	101.00
30	30.00	29.250	0.375	10.50	-	137.00
36	36.00	35.250	0.375	10.50	-	175.00
42	42.00	41.250	0.375	12.00	-	229.00
48	48.00	47.250	0.375	13.50	-	350.00

Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

## CAPS

### ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

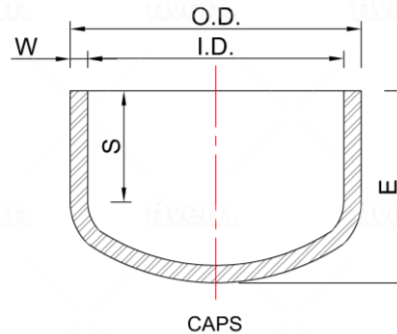
## DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	HEIGHT (E)	PIPE SCHEDULE (XS)	APPROX WEIGHT
1/2	0.84	0.546	0.147	1.00	80	0.10
3/4	1.05	0.742	0.154	1.00	80	0.16
1	1.32	0.957	0.179	1.50	80	0.28
1 1/4	1.66	1.278	0.191	1.50	80	0.48
1 1/2	1.90	1.500	0.200	1.50	80	0.67
2	2.38	1.939	0.218	1.50	80	0.92
2 1/2	2.88	2.323	0.276	1.50	80	1.30
3	3.50	2.900	0.300	2.00	80	2.10
3 1/2	4.00	3.364	0.318	2.50	80	3.00
4	4.50	3.826	0.337	2.50	80	3.50
5	5.56	4.813	0.375	3.00	80	5.80
6	6.62	5.761	0.432	3.50	80	9.30
8	8.62	7.625	0.500	4.00	80	16.00
10	10.75	9.750	0.500	5.00	60	26.00
12	12.75	11.750	0.500	6.00	-	38.00
14	14.00	13.000	0.500	6.50	-	47.00
16	16.00	15.000	0.500	7.00	40	57.00
18	18.00	17.000	0.500	8.00	-	78.00
20	20.00	19.000	0.500	9.00	30	100.00
24	24.00	23.000	0.500	10.50	-	145.00
30	30.00	29.000	0.500	10.50	20	634.00
36	36.00	35.000	0.500	10.50	20	913.00
42	42.00	41.000	0.500	12.00	-	1300.00
48	48.00	47.000	0.500	13.50	-	1675.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

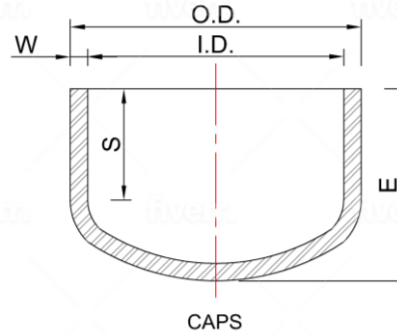
**CAPS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	HEIGHT (E)	PIPE SCHEDULE (40)	APPROX WEIGHT
1/2	0.84	0.622	0.109	1.00	40	0.08
3/4	1.05	0.824	0.113	1.00	40	0.14
1	1.32	1.054	0.133	1.50	40	0.21
1 1/4	1.66	1.380	0.140	1.50	40	0.33
1 1/2	1.90	1.610	0.145	1.50	40	0.54
2	2.38	2.072	0.154	1.50	40	0.80
2 1/2	2.88	2.474	0.203	1.50	40	1.00
3	3.50	3.068	0.216	2.00	40	1.70
3 1/2	4.00	3.548	0.226	2.50	40	2.30
4	4.50	4.026	0.237	2.50	40	2.80
5	5.56	5.044	0.258	3.00	40	4.60
6	6.62	6.060	0.280	3.50	40	6.90
8	8.62	7.976	0.322	4.00	40	11.80
10	10.75	10.020	0.365	5.00	40	20.80
12	12.75	11.938	0.406	6.00	40	30.30
14	14.00	13.124	0.438	6.50	40	36.50
16	16.00	15.000	0.500	7.00	40	43.50
18	18.00	16.876	0.562	8.00	40	57.00
20	20.00	18.812	0.594	9.00	40	75.70
24	24.00	22.624	0.688	10.50	40	101.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

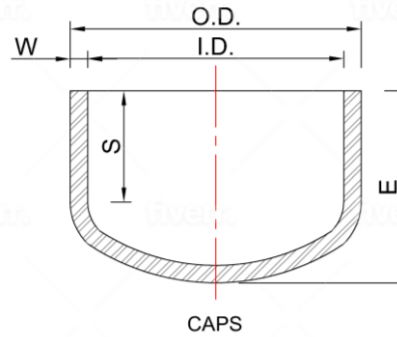
**CAPS****ASME B16.9 & ASTM A234 WPB**
 Source:  Import  Domestic  Approved
**DIMENSIONS**

UOM: Inches/LBS

PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	HEIGHT (E)	PIPE SCHEDULE (80)	APPROX WEIGHT
1/2	0.84	0.546	0.147	1.00	80	0.10
3/4	1.05	0.742	0.154	1.00	80	0.16
1	1.32	0.962	0.179	1.50	80	0.28
1 1/4	1.66	1.278	0.191	1.50	80	0.48
1 1/2	1.90	1.500	0.200	1.50	80	0.67
2	2.38	1.944	0.218	1.50	80	0.92
2 1/2	2.88	2.328	0.276	1.50	80	1.30
3	3.50	2.900	0.300	2.00	80	2.10
3 1/2	4.00	3.364	0.318	2.50	80	3.00
4	4.50	3.826	0.337	2.50	80	3.50
5	5.56	4.810	0.375	3.00	80	5.80
6	6.62	7.756	0.432	3.50	80	9.30
8	8.62	7.620	0.500	4.00	80	16.00
10	10.75	9.562	0.594	6.00	80	26.00
12	12.75	11.374	0.688	7.00	80	38.00
14	14.00	12.500	0.750	7.50	80	47.00
16	16.00	14.312	0.844	8.00	80	57.00
18	18.00	16.124	0.938	9.00	80	78.00
20	20.00	17.938	1.031	10.00	80	100.00
24	24.00	21.562	1.219	12.00	80	145.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

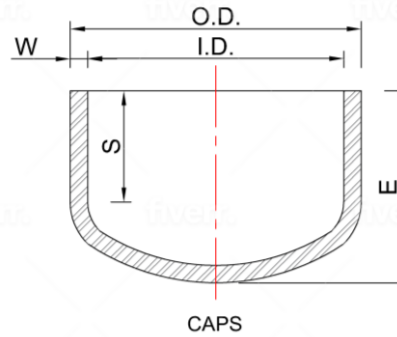
**CAPS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	HEIGHT (E)	PIPE SCHEDULE (160)	APPROX WEIGHT
1/2	0.84	0.464	0.188	1.00	160	0.30
3/4	1.05	0.612	0.219	1.00	160	0.30
1	1.32	0.820	0.250	1.50	160	0.40
1 1/4	1.66	1.160	0.250	1.50	160	0.50
1 1/2	1.90	1.338	0.281	1.50	160	0.60
2	2.38	1.692	0.344	1.75	160	1.30
2 1/2	2.88	2.130	0.375	2.00	160	1.80
3	3.50	2.624	0.438	2.50	160	2.90
4	4.50	3.438	0.531	3.00	160	5.90
5	5.56	4.310	0.625	3.50	160	10.00
6	6.62	5.182	0.719	4.00	160	15.00
8	8.62	6.808	0.906	5.00	160	31.00
10	10.75	8.500	1.125	6.00	160	57.00
12	12.75	10.126	1.312	7.00	160	95.00
14	14.00	11.188	1.406	7.50	160	200.00
16	16.00	12.812	1.594	8.00	160	297.00
18	18.00	14.438	1.781	9.00	160	360.00
20	20.00	16.062	1.969	10.00	160	420.00
24	24.00	19.312	2.344	12.00	160	535.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**CAPS****ASME B16.9 & ASTM A234 WPB**
 Source:  Import  Domestic  Approved
**DIMENSIONS**

UOM: Inches/LBS

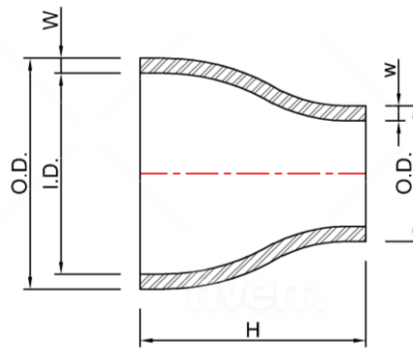
PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	HEIGHT (E)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
1/2	0.84	0.252	0.294	1.00	-	0.50
3/4	1.05	0.434	0.308	1.00	-	0.75
1	1.32	0.604	0.358	1.50	-	1.00
1 1/4	1.66	0.896	0.382	1.50	-	1.50
1 1/2	1.90	1.100	0.400	1.50	-	2.50
2	2.38	1.508	0.436	1.50	-	3.00
2 1/2	2.88	1.776	0.552	1.50	-	4.00
3	3.50	2.300	0.600	2.00	-	6.00
4	4.50	3.152	0.674	2.50	-	9.00
5	5.56	4.060	0.750	3.00	-	13.50
6	6.62	4.892	0.864	3.50	-	18.00
8	8.62	6.870	0.875	4.00	-	26.00
10	10.75	8.750	1.000	6.00	140	46.00
12	12.75	10.750	1.000	7.00	120	68.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## CONCENTRIC REDUCERS

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (STD)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
¾ x ½	1.05	0.824	0.113	0.84	0.622	0.109	1.50	40	0.21
1 x ¾	1.32	1.049	0.133	1.05	0.824	0.113	2.00	40	0.36
1 x ½	1.32	1.049	0.133	0.84	0.622	0.109	2.00	40	0.36
1 ¼ x 1	1.66	1.380	0.140	1.32	1.054	0.133	2.00	40	0.48
1 ¼ x ¾	1.66	1.380	0.140	1.05	0.824	0.113	2.00	40	0.42
1 ¼ x ½	1.66	1.380	0.140	0.84	0.622	0.109	2.00	40	0.42
1 ½ x 1 ¼	1.90	1.610	0.145	1.66	1.380	0.140	2.50	40	0.65
1 ½ x 1	1.90	1.610	0.145	1.32	1.054	0.133	2.50	40	0.57
1 ½ x ¾	1.90	1.610	0.145	1.05	0.824	0.113	2.50	40	0.56
1 ½ x ½	1.90	1.610	0.145	0.84	0.622	0.109	2.50	40	0.56
2 x 1 ½	2.38	2.067	0.154	1.90	1.610	0.145	3.00	40	0.94
2 x 1 ¼	2.38	2.067	0.154	1.66	1.380	0.140	3.00	40	0.88
2 x 1	2.38	2.067	0.154	1.32	1.054	0.133	3.00	40	0.81
2 x ¾	2.38	2.067	0.154	1.05	0.824	0.113	3.00	40	0.74
2 ½ x 2	2.88	2.469	0.203	2.38	2.072	0.154	3.50	40	1.60
2 ½ x 1 ½	2.88	2.469	0.203	1.90	1.610	0.145	3.50	40	1.50
2 ½ x 1 ¼	2.88	2.469	0.203	1.66	1.380	0.140	3.50	40	1.40
2 ½ x 1	2.88	2.469	0.203	1.32	1.054	0.133	3.50	40	1.30
3 x 2 ½	3.50	3.068	0.216	2.88	2.474	0.203	3.50	40	2.20
3 x 2	3.50	3.068	0.216	2.38	2.072	0.154	3.50	40	2.00
3 x 1 ½	3.50	3.068	0.216	1.90	1.610	0.145	3.50	40	1.90
3 x 1 ¼	3.50	3.068	0.216	1.66	1.380	0.140	3.50	40	1.80
3 x 1	3.50	3.068	0.216	1.32	1.054	0.133	3.50	40	1.70

FITTINGS CONCENTRIC RED.

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (STD)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
3 ½ x 3	4.00	3.548	0.226	3.50	3.068	0.216	4.00	40	2.80
3 ½ x 2 ½	4.00	3.548	0.226	2.88	2.474	0.203	4.00	40	2.70
3 ½ x 2	4.00	3.548	0.226	2.38	2.072	0.154	4.00	40	2.60
3 ½ x 1 ½	4.00	3.548	0.226	1.90	1.610	0.145	4.00	40	2.60
3 ½ x 1 ¼	4.00	3.548	0.226	1.66	1.380	0.140	4.00	40	2.50
4 x 3 ½	4.50	4.026	0.237	4.00	3.548	0.226	4.00	40	3.50
4 x 3	4.50	4.026	0.237	3.50	3.068	0.216	4.00	40	3.30
4 x 2 ½	4.50	4.026	0.237	2.88	2.474	0.203	4.00	40	3.20
4 x 2	4.50	4.026	0.237	2.38	2.072	0.154	4.00	40	3.10
4 x 1 ½	4.50	4.026	0.237	1.90	1.610	0.145	4.00	40	3.00
4 x 1 ¼	4.50	4.026	0.237	1.66	1.380	0.140	4.00	40	3.00
4 x 1	4.50	4.026	0.237	1.32	1.054	0.133	4.00	40	2.80
5 x 4	5.56	5.047	0.258	4.50	4.026	0.237	5.00	40	5.50
5 x 3 ½	5.56	5.047	0.258	4.00	3.548	0.226	5.00	40	5.30
5 x 3	5.56	5.047	0.258	3.50	3.068	0.216	5.00	40	5.10
5 x 2 ½	5.56	5.047	0.258	2.88	2.474	0.203	5.00	40	4.80
5 x 2	5.56	5.047	0.258	2.38	2.072	0.154	5.00	40	4.70
6 x 5	6.62	6.065	0.280	5.56	5.044	0.258	5.50	40	7.60
6 x 4	6.62	6.065	0.280	4.50	4.026	0.237	5.50	40	7.40
6 x 3 ½	6.62	6.065	0.280	4.00	3.548	0.226	5.50	40	7.10
6 x 3	6.62	6.065	0.280	3.50	3.068	0.216	5.50	40	6.90
6 x 2 ½	6.62	6.065	0.280	2.88	2.474	0.203	5.50	40	6.60
6 x 2	6.62	6.065	0.280	2.38	2.072	0.154	5.50	40	6.50
8 x 6	8.62	7.981	0.322	6.62	6.060	0.280	6.00	40	12.30
8 x 5	8.62	7.981	0.322	5.56	5.044	0.258	6.00	40	11.50
8 x 4	8.62	7.981	0.322	4.50	4.026	0.237	6.00	40	10.80
8 x 3 ½	8.62	7.981	0.322	4.00	3.548	0.226	6.00	40	10.60
8 x 3	8.62	7.981	0.322	3.50	3.068	0.216	6.00	40	9.80
10 x 8	10.75	10.020	0.365	8.62	7.976	0.322	7.00	40	22.10
10 x 6	10.75	10.020	0.365	6.62	6.060	0.280	7.00	40	20.70
10 x 5	10.75	10.020	0.365	5.56	5.044	0.258	7.00	40	19.50
10 x 4	10.75	10.020	0.365	4.50	4.026	0.237	7.00	40	18.40
12 x 10	12.75	12.000	0.375	10.75	10.020	0.365	8.00	-	32.40
12 x 8	12.75	12.000	0.375	8.62	7.976	0.322	8.00	-	30.50
12 x 6	12.75	12.000	0.375	6.62	6.060	0.280	8.00	-	29.50
12 x 5	12.75	12.000	0.375	5.56	5.044	0.258	8.00	-	27.80
12 x 4	12.75	12.000	0.375	4.50	4.026	0.237	8.00	-	26.20
14 x 12	14.00	13.250	0.375	12.75	12.000	0.375	13.00	-	63.10
14 x 10	14.00	13.250	0.375	10.75	10.020	0.365	13.00	-	61.40
14 x 8	14.00	13.250	0.375	8.62	7.976	0.322	13.00	-	60.00
14 x 6	14.00	13.250	0.375	6.62	6.060	0.280	13.00	-	59.20
16 x 14	16.00	15.250	0.375	16.00	15.250	0.375	14.00	-	75.40
16 x 12	16.00	15.250	0.375	14.00	13.250	0.375	14.00	-	72.70
16 x 10	16.00	15.250	0.375	12.75	12.000	0.364	14.00	-	71.10
16 x 8	16.00	15.250	0.375	10.75	10.020	0.322	14.00	-	69.40
16 x 6	16.00	15.250	0.375	8.62	7.976	0.280	14.00	-	67.40

FITTINGS CONCENTRIC RED.



Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

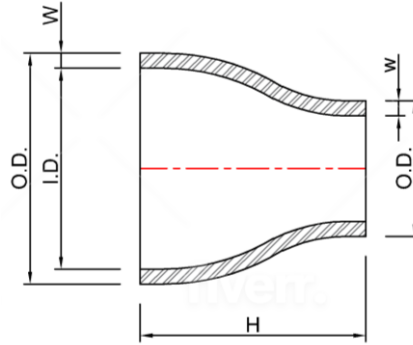
FITTINGS CONCENTRIC RED.

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (STD)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
18 x 16	18.00	17.250	0.375	16.00	15.250	0.375	15.00	-	87.30
18 x 14	18.00	17.250	0.375	14.00	13.250	0.375	15.00	-	86.00
18 x 12	18.00	17.250	0.375	12.75	12.000	0.375	15.00	-	84.80
18 x 10	18.00	17.250	0.375	10.75	10.020	0.365	15.00	-	83.70
18 x 8	18.00	17.250	0.375	8.62	7.976	0.322	15.00	-	81.75
20 x 18	20.00	19.250	0.375	18.00	17.250	0.375	20.00	-	123.00
20 x 16	20.00	19.250	0.375	16.00	15.250	0.375	20.00	-	121.00
20 x 14	20.00	19.250	0.375	14.00	13.250	0.375	20.00	-	119.00
20 x 12	20.00	19.250	0.375	12.75	12.000	0.375	20.00	-	118.00
20 x 10	20.00	19.250	0.375	10.75	10.020	0.365	20.00	-	117.00
24 x 20	24.00	23.250	0.375	20.00	19.250	0.375	20.00	-	156.00
24 x 18	24.00	23.250	0.375	18.00	17.250	0.375	20.00	-	153.00
24 x 16	24.00	23.250	0.375	16.00	15.250	0.375	20.00	-	150.00
24 x 14	24.00	23.250	0.375	14.00	13.250	0.375	20.00	-	147.00
24 x 12	24.00	23.250	0.375	12.75	12.000	0.375	20.00	-	144.00
24 x 10	24.00	23.250	0.375	10.75	10.020	0.365	20.00	-	141.00
30 x 24	30.00	29.250	0.375	24.00	23.250	0.375	24.00	-	315.00
30 x 20	30.00	29.250	0.375	20.00	19.250	0.375	24.00	-	315.00
30 x 18	30.00	29.250	0.375	18.00	17.250	0.375	24.00	-	315.00
36 x 30	36.00	35.250	0.375	30.00	29.250	0.375	24.00	-	379.00
36 x 24	36.00	35.250	0.375	24.00	23.250	0.375	24.00	-	379.00
36 x 20	36.00	35.250	0.375	20.00	19.250	0.375	24.00	-	379.00
42 x 36	42.00	41.250	0.375	36.00	35.250	0.375	24.00	-	443.00
42 x 30	42.00	41.250	0.375	30.00	29.250	0.375	24.00	-	443.00
42 x 24	42.00	41.250	0.375	24.00	23.250	0.375	24.00	-	443.00
48 x 42	48.00	47.250	0.375	42.00	41.250	0.375	28.00	-	525.00
48 x 36	48.00	47.250	0.375	36.00	35.250	0.375	28.00	-	525.00
48 x 30	48.00	47.250	0.375	30.00	29.250	0.375	28.00	-	525.00
48 x 24	48.00	47.250	0.375	24.00	23.250	0.375	28.00	-	525.00



Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

## CONCENTRIC REDUCERS ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
¾ x ½	1.05	0.742	0.154	0.84	0.546	0.147	1.50	80	0.25
1 x ¾	1.32	0.957	0.179	1.05	0.742	0.154	2.00	80	0.43
1 x ½	1.32	0.957	0.179	0.84	0.546	0.147	2.00	80	0.42
1 ¼ x 1	1.66	1.278	0.191	1.32	0.957	0.179	2.00	80	0.57
1 ¼ x ¾	1.66	1.278	0.191	1.05	0.742	0.154	2.00	80	0.53
1 ¼ x ½	1.66	1.278	0.191	0.84	0.546	0.147	2.00	80	0.50
1 ½ x 1 ¼	1.90	1.500	0.200	1.66	1.278	0.191	2.50	80	0.78
1 ½ x 1	1.90	1.500	0.200	1.32	0.957	0.179	2.50	80	0.72
1 ½ x ¾	1.90	1.500	0.200	1.05	0.742	0.154	2.50	80	0.65
1 ½ x ½	1.90	1.500	0.200	0.84	0.546	0.147	2.50	80	0.65
2 x 1 ½	2.38	1.944	0.218	1.90	1.500	0.200	3.00	80	1.20
2 x 1 ¼	2.38	1.944	0.218	1.66	1.278	0.191	3.00	80	1.10
2 x 1	2.38	1.944	0.218	1.32	0.957	0.179	3.00	80	1.00
2 x ¾	2.38	1.944	0.218	1.05	0.742	0.154	3.00	80	0.94
2 ½ x 2	2.88	2.323	0.276	2.38	1.944	0.218	3.50	80	2.10
2 ½ x 1 ½	2.88	2.323	0.276	1.90	1.500	0.200	3.50	80	1.90
2 ½ x 1 ¼	2.88	2.323	0.276	1.66	1.278	0.191	3.50	80	1.70
2 ½ x 1	2.88	2.323	0.276	1.32	0.957	0.179	3.50	80	1.50
3 x 2 ½	3.50	2.900	0.300	2.88	2.323	0.276	3.50	80	2.80
3 x 2	3.50	2.900	0.300	2.38	1.939	0.218	3.50	80	2.60
3 x 1 ½	3.50	2.900	0.300	1.90	1.500	0.200	3.50	80	2.40
3 x 1 ¼	3.50	2.900	0.300	1.66	1.278	0.191	3.50	80	2.30
3 x 1	3.50	2.900	0.300	1.32	0.957	0.179	3.50	80	2.20

FITTINGS CONCENTRIC RED.

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
3 ½ x 3	4.00	3.364	0.318	3.50	2.900	0.300	4.00	80	3.70
3 ½ x 2 ½	4.00	3.364	0.318	2.88	2.328	0.276	4.00	80	3.50
3 ½ x 2	4.00	3.364	0.318	2.38	1.944	0.218	4.00	80	3.30
3 ½ x 1 ½	4.00	3.364	0.318	1.90	1.500	0.200	4.00	80	3.20
3 ½ x 1 ¼	4.00	3.364	0.318	1.66	1.278	0.191	4.00	80	3.20
4 x 3 ½	4.50	3.826	0.337	4.00	3.364	0.318	4.00	80	4.90
4 x 3	4.50	3.826	0.337	3.50	2.900	0.300	4.00	80	4.70
4 x 2 ½	4.50	3.826	0.337	2.88	2.328	0.276	4.00	80	4.60
4 x 2	4.50	3.826	0.337	2.38	1.944	0.218	4.00	80	4.30
4 x 1 ½	4.50	3.826	0.337	1.90	1.500	0.200	4.00	80	4.20
4 x 1 ¼	4.50	3.826	0.337	1.66	1.278	0.191	4.00	80	4.10
4 x 1	4.50	3.826	0.337	1.32	0.962	0.179	4.00	80	4.00
5 x 4	5.56	4.810	0.375	4.50	3.826	0.337	5.00	80	7.50
5 x 3 ½	5.56	4.810	0.375	4.00	3.364	0.318	5.00	80	6.90
5 x 3	5.56	4.810	0.375	3.50	2.900	0.300	5.00	80	6.30
5 x 2 ½	5.56	4.810	0.375	2.88	2.328	0.276	5.00	80	6.10
5 x 2	5.56	4.810	0.375	2.38	1.944	0.218	5.00	80	6.00
6 x 5	6.62	5.756	0.432	5.56	4.810	0.375	5.50	80	11.50
6 x 4	6.62	5.756	0.432	4.50	3.826	0.337	5.50	80	10.70
6 x 3 ½	6.62	5.756	0.432	4.00	3.364	0.318	5.50	80	10.00
6 x 3	6.62	5.756	0.432	3.50	2.900	0.300	5.50	80	9.70
6 x 2 ½	6.62	5.756	0.432	2.88	2.328	0.276	5.50	80	9.10
6 x 2	6.62	5.756	0.432	2.38	1.944	0.218	5.50	80	8.60
8 x 6	8.62	7.620	0.500	6.62	5.756	0.432	6.00	80	18.80
8 x 5	8.62	7.620	0.500	5.56	4.810	0.375	6.00	80	17.60
8 x 4	8.62	7.620	0.500	4.50	3.826	0.337	6.00	80	17.00
8 x 3 ½	8.62	7.620	0.500	4.00	3.364	0.318	6.00	80	15.90
8 x 3	8.62	7.620	0.500	3.50	2.900	0.300	6.00	80	15.00
10 x 8	10.75	9.750	0.500	8.62	7.620	0.500	7.00	-	29.40
10 x 6	10.75	9.750	0.500	6.62	5.756	0.432	7.00	-	28.30
10 x 5	10.75	9.750	0.500	5.56	4.810	0.375	7.00	-	26.90
10 x 4	10.75	9.750	0.500	4.50	3.826	0.337	7.00	-	24.20
12 x 10	12.75	11.750	0.500	10.75	9.750	0.500	8.00	-	41.50
12 x 8	12.75	11.750	0.500	8.62	7.620	0.500	8.00	-	38.60
12 x 6	12.75	11.750	0.500	6.62	5.756	0.432	8.00	-	37.40
12 x 5	12.75	11.750	0.500	5.56	4.810	0.375	8.00	-	36.30
12 x 4	12.75	11.750	0.500	4.50	3.826	0.337	8.00	-	34.70
14 x 12	14.00	13.000	0.500	12.75	11.750	0.500	13.00	-	81.00
14 x 10	14.00	13.000	0.500	10.75	9.750	0.500	13.00	-	76.70
14 x 8	14.00	13.000	0.500	8.62	7.620	0.500	13.00	-	74.60
14 x 6	14.00	13.000	0.500	6.62	5.756	0.432	13.00	-	72.30
16 x 14	16.00	15.000	0.500	14.00	13.000	0.500	14.00	-	98.00
16 x 12	16.00	15.000	0.500	12.75	11.750	0.500	14.00	-	95.80
16 x 10	16.00	15.000	0.500	10.75	9.750	0.500	14.00	-	93.30
16 x 8	16.00	15.000	0.500	8.62	7.620	0.500	14.00	-	91.10
16 x 6	16.00	15.000	0.500	6.62	5.756	0.432	14.00	-	89.80

FITTINGS CONCENTRIC RED.

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
18 x 16	18.00	17.000	0.500	16.00	15.000	0.500	15.00	-	118.00
18 x 14	18.00	17.000	0.500	14.00	13.000	0.500	15.00	-	117.00
18 x 12	18.00	17.000	0.500	12.75	11.750	0.500	15.00	-	115.00
18 x 10	18.00	17.000	0.500	10.75	9.750	0.500	15.00	-	113.00
18 x 8	18.00	17.000	0.500	8.62	7.620	0.500	15.00	-	100.00
20 x 18	20.00	19.000	0.500	18.00	17.000	0.500	20.00	-	162.00
20 x 16	20.00	19.000	0.500	16.00	15.000	0.500	20.00	-	159.00
20 x 14	20.00	19.000	0.500	14.00	13.000	0.500	20.00	-	157.00
20 x 12	20.00	19.000	0.500	12.75	11.750	0.500	20.00	-	155.00
20 x 10	20.00	19.000	0.500	10.75	9.750	0.500	20.00	-	152.00
24 x 20	24.00	23.000	0.500	20.00	19.000	0.500	20.00	-	201.00
24 x 18	24.00	23.000	0.500	18.00	17.000	0.500	20.00	-	197.00
24 x 16	24.00	23.000	0.500	16.00	15.000	0.500	20.00	-	194.00
24 x 14	24.00	23.000	0.500	14.00	13.000	0.500	20.00	-	190.00
24 x 12	24.00	23.000	0.500	12.75	11.750	0.500	20.00	-	188.00
24 x 10	24.00	23.000	0.500	10.75	9.750	0.500	20.00	-	186.00
30 x 24	30.00	29.000	0.500	24.00	23.000	0.500	24.00	-	315.00
30 x 20	30.00	29.000	0.500	20.00	19.000	0.500	24.00	-	315.00
30 x 18	30.00	29.000	0.500	18.00	17.000	0.500	24.00	-	315.00
36 x 30	36.00	35.000	0.500	30.00	29.000	0.500	24.00	-	379.00
36 x 24	36.00	35.000	0.500	24.00	23.000	0.500	24.00	-	379.00
36 x 20	36.00	35.000	0.500	20.00	19.000	0.500	24.00	-	379.00
42 x 36	42.00	41.000	0.500	36.00	35.000	0.500	24.00	-	443.00
42 x 30	42.00	41.000	0.500	30.00	29.000	0.500	24.00	-	443.00
42 x 24	42.00	41.000	0.500	24.00	23.000	0.500	24.00	-	443.00
48 x 42	48.00	47.000	0.500	42.00	41.000	0.500	28.00	-	525.00
48 x 36	48.00	47.000	0.500	36.00	35.000	0.500	28.00	-	525.00
48 x 30	48.00	47.000	0.500	30.00	29.000	0.500	28.00	-	525.00
48 x 24	48.00	47.000	0.500	24.00	23.000	0.500	28.00	-	525.00

FITTINGS CONCENTRIC RED.

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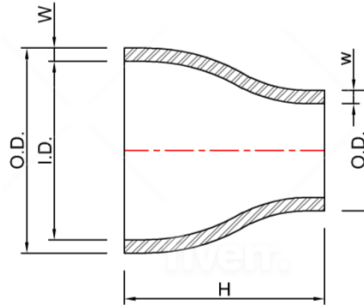


Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## CONCENTRIC REDUCERS

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (40)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
<b>FOR DIMENSION SPECIFICATIONS ½" THROUGH 10", REFER TO SCHEDULE STD</b>									
12 x 10	12.75	11.938	0.406	10.75	10.020	0.365	8.00	40	35.80
12 x 8	12.75	11.938	0.406	8.62	7.976	0.322	8.00	40	35.80
12 x 6	12.75	11.938	0.406	6.62	6.060	0.280	8.00	40	35.80
12 x 5	12.75	11.938	0.406	5.56	5.044	0.258	8.00	40	35.80
12 x 4	12.75	11.938	0.406	4.50	4.026	0.237	8.00	40	35.80
14 x 12	14.00	13.124	0.438	12.75	11.938	0.406	13.00	40	68.60
14 x 10	14.00	13.124	0.438	10.75	10.020	0.365	13.00	40	68.60
14 x 8	14.00	13.124	0.438	8.62	7.976	0.322	13.00	40	68.60
14 x 6	14.00	13.124	0.438	6.62	6.060	0.280	13.00	40	68.60
16 x 14	16.00	15.000	0.500	14.00	13.124	0.438	14.00	40	96.50
16 x 12	16.00	15.000	0.500	12.75	11.938	0.406	14.00	40	96.50
16 x 10	16.00	15.000	0.500	10.75	10.020	0.365	14.00	40	96.50
16 x 8	16.00	15.000	0.500	8.62	7.976	0.322	14.00	40	96.50
16 x 6	16.00	15.000	0.500	6.62	6.060	0.280	14.00	40	96.50
18 x 16	18.00	16.876	0.562	16.00	15.000	0.500	15.00	40	131.00
18 x 14	18.00	16.876	0.562	14.00	13.124	0.438	15.00	40	131.00
18 x 12	18.00	16.876	0.562	12.75	11.938	0.406	15.00	40	131.00
18 x 10	18.00	16.876	0.562	10.75	10.020	0.365	15.00	40	131.00
18 x 8	18.00	16.876	0.562	8.62	7.976	0.322	15.00	40	131.00
20 x 18	20.00	18.812	0.594	18.00	16.876	0.562	20.00	40	205.00
20 x 16	20.00	18.812	0.594	16.00	15.000	0.500	20.00	40	205.00
20 x 14	20.00	18.812	0.594	14.00	13.124	0.438	20.00	40	205.00
20 x 12	20.00	18.812	0.594	12.75	11.938	0.406	20.00	40	205.00
20 x 10	20.00	18.812	0.594	10.75	10.020	0.365	20.00	40	205.00
20 x 8	20.00	18.812	0.594	8.62	7.976	0.322	20.00	40	205.00
24 x 20	24.00	22.624	0.688	20.00	18.812	0.594	20.00	40	285.00
24 x 18	24.00	22.624	0.688	18.00	16.876	0.562	20.00	40	285.00
24 x 16	24.00	22.624	0.688	16.00	15.000	0.500	20.00	40	285.00
24 x 14	24.00	22.624	0.688	14.00	13.124	0.438	20.00	40	285.00
24 x 12	24.00	22.624	0.688	12.75	11.938	0.406	20.00	40	285.00
24 x 10	24.00	22.624	0.688	10.75	10.020	0.365	20.00	40	285.00

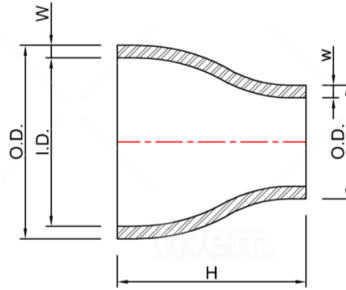
**FITTINGS CONCENTRIC RED.**

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## CONCENTRIC REDUCERS

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (80)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
FOR DIMENSION SPECIFICATIONS ½" THROUGH 8", REFER TO SCHEDULE XS									
10 x 8	10.75	9.562	0.594	8.62	7.620	0.500	7.00	80	37.50
10 x 6	10.75	9.562	0.594	6.62	5.756	0.432	7.00	80	37.50
10 x 5	10.75	9.562	0.594	5.56	4.810	0.375	7.00	80	37.50
10 x 4	10.75	9.562	0.594	4.50	3.826	0.337	7.00	80	37.50
12 x 10	12.75	11.374	0.688	10.75	9.562	0.594	8.00	80	59.00
12 x 8	12.75	11.374	0.688	8.62	7.620	0.500	8.00	80	59.00
12 x 6	12.75	11.374	0.688	6.62	5.756	0.432	8.00	80	59.00
12 x 5	12.75	11.374	0.688	5.56	4.810	0.375	8.00	80	59.00
12 x 4	12.75	11.374	0.688	4.50	3.826	0.337	8.00	80	59.00
14 x 12	14.00	12.500	0.750	12.75	11.374	0.688	13.00	80	115.00
14 x 10	14.00	12.500	0.750	10.75	9.562	0.594	13.00	80	115.00
14 x 8	14.00	12.500	0.750	8.62	7.620	0.500	13.00	80	115.00
14 x 6	14.00	12.500	0.750	6.62	5.756	0.432	13.00	80	115.00
16 x 14	16.00	14.312	0.844	14.00	12.500	0.750	14.00	80	159.00
16 x 12	16.00	14.312	0.844	12.75	11.374	0.688	14.00	80	159.00
16 x 10	16.00	14.312	0.844	10.75	9.562	0.594	14.00	80	159.00
16 x 8	16.00	14.312	0.844	8.62	7.620	0.500	14.00	80	159.00
16 x 6	16.00	14.312	0.844	6.62	5.756	0.432	14.00	80	159.00
18 x 16	18.00	16.124	0.938	16.00	14.312	0.844	15.00	80	213.00
18 x 14	18.00	16.124	0.938	14.00	12.500	0.750	15.00	80	213.00
18 x 12	18.00	16.124	0.938	12.75	11.374	0.688	15.00	80	213.00
18 x 10	18.00	16.124	0.938	10.75	9.562	0.594	15.00	80	213.00
18 x 8	18.00	16.124	0.938	8.62	7.620	0.500	15.00	80	213.00
20 x 18	20.00	17.938	1.031	18.00	16.124	0.938	20.00	80.00	348.00
20 x 16	20.00	17.938	1.031	16.00	14.312	0.844	20.00	80.00	348.00
20 x 14	20.00	17.938	1.031	14.00	12.500	0.750	20.00	80.00	348.00
20 x 12	20.00	17.938	1.031	12.75	11.374	0.688	20.00	80.00	348.00
20 x 10	20.00	17.938	1.031	10.75	9.562	0.594	20.00	80.00	348.00
20 x 8	20.00	17.938	1.031	8.62	7.620	0.500	20.00	80.00	348.00
24 x 20	24.00	21.562	1.219	20.00	17.938	1.031	20.00	80.00	494.00
24 x 18	24.00	21.562	1.219	18.00	16.124	0.938	20.00	80.00	494.00
24 x 16	24.00	21.562	1.219	16.00	14.312	0.844	20.00	80.00	494.00
24 x 14	24.00	21.562	1.219	14.00	12.500	0.750	20.00	80.00	494.00
24 x 12	24.00	21.562	1.219	12.75	11.374	0.688	20.00	80.00	494.00
24 x 10	24.00	21.562	1.219	10.75	9.562	0.594	20.00	80.00	494.00

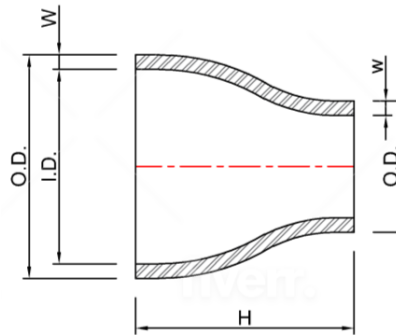
**FITTINGS CONCENTRIC RED.**

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## CONCENTRIC REDUCERS

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (160)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
¾ x ½	1.05	0.612	0.219	0.84	0.464	0.188	1.50	160	0.37
1 x ¾	1.32	0.820	0.250	1.05	0.612	0.219	2.00	160	0.45
1 x ½	1.32	0.820	0.250	0.84	0.464	0.188	2.00	160	0.45
1 ¼ x 1	1.66	1.160	0.250	1.32	0.820	0.250	2.00	160	0.70
1 ¼ x ¾	1.66	1.160	0.250	1.05	0.612	0.219	2.00	160	0.70
1 ¼ x ½	1.66	1.160	0.250	0.84	0.464	0.188	2.00	160	0.70
1 ½ x 1 ¼	1.90	1.338	0.281	1.66	1.160	0.250	2.50	160	0.90
1 ½ x 1	1.90	1.338	0.281	1.32	0.820	0.250	2.50	160	0.90
1 ½ x ¾	1.90	1.338	0.281	1.05	0.612	0.219	2.50	160	0.90
1 ½ x ½	1.90	1.338	0.281	0.84	0.464	0.188	2.50	160	0.90
2 x 1 ½	2.38	1.692	0.344	1.90	1.338	0.281	3.00	160	1.85
2 x 1 ¼	2.38	1.692	0.344	1.66	1.160	0.250	3.00	160	1.85
2 x 1	2.38	1.692	0.344	1.32	0.820	0.250	3.00	160	1.85
2 x ¾	2.38	1.692	0.344	1.05	0.612	0.219	3.00	160	1.50
2 ½ x 2	2.88	2.130	0.375	2.38	1.692	0.344	3.50	160	3.00
2 ½ x 1 ½	2.88	2.130	0.375	1.90	1.338	0.281	3.50	160	3.00
2 ½ x 1 ¼	2.88	2.130	0.375	1.66	1.160	0.250	3.50	160	2.80
2 ½ x 1	2.88	2.130	0.375	1.32	0.820	0.250	3.50	160	2.80
3 x 2 ½	3.50	2.624	0.438	2.88	2.130	0.375	3.50	160	4.00
3 x 2	3.50	2.624	0.438	2.38	1.692	0.344	3.50	160	4.00
3 x 1 ½	3.50	2.624	0.438	1.90	1.338	0.281	3.50	160	4.00
3 x 1 ¼	3.50	2.624	0.438	1.66	1.160	0.250	3.50	160	3.50
3 x 1	3.50	2.624	0.438	1.32	0.820	0.250	3.50	160	3.50

FITTINGS CONCENTRIC RED.

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
4 x 3	4.50	3.438	0.531	3.50	2.624	0.438	4.00	160	6.00
4 x 2 ½	4.50	3.438	0.531	2.88	2.130	0.375	4.00	160	6.00
4 x 2	4.50	3.438	0.531	2.38	1.692	0.344	4.00	160	5.00
4 x 1 ½	4.50	3.438	0.531	1.90	1.338	0.281	4.00	160	5.00
4 x 1 ¼	4.50	3.438	0.531	1.66	1.160	0.250	4.00	160	5.00
4 x 1	4.50	3.438	0.531	1.32	0.820	0.250	4.00	160	5.00
5 x 4	5.56	4.310	0.625	4.50	3.438	0.531	5.00	160	14.00
5 x 3	5.56	4.310	0.625	3.50	2.624	0.438	5.00	160	14.00
5 x 2 ½	5.56	4.310	0.625	2.88	2.130	0.375	5.00	160	14.00
5 x 2	5.56	4.310	0.625	2.38	1.692	0.344	5.00	160	14.00
6 x 5	6.62	5.182	0.719	5.56	4.310	0.625	5.50	160	18.00
6 x 4	6.62	5.182	0.719	4.50	3.438	0.531	5.50	160	18.00
6 x 3	6.62	5.182	0.719	3.50	2.624	0.438	5.50	160	15.50
6 x 2 ½	6.62	5.182	0.719	2.88	2.130	0.375	5.50	160	15.50
6 x 2	6.62	5.182	0.719	2.38	1.692	0.344	5.50	160	15.00
8 x 6	8.62	6.808	0.906	6.62	5.182	0.719	6.00	160	31.50
8 x 5	8.62	6.808	0.906	5.56	4.310	0.625	6.00	160	28.00
8 x 4	8.62	6.808	0.906	4.50	3.438	0.531	6.00	160	28.00
8 x 3	8.62	6.808	0.906	3.50	2.624	0.438	6.00	160	30.00
10 x 8	10.75	8.500	1.125	8.62	6.808	0.906	7.00	160	58.00
10 x 6	10.75	8.500	1.125	6.62	5.182	0.719	7.00	160	58.00
10 x 5	10.75	8.500	1.125	5.56	4.310	0.625	7.00	160	54.00
10 x 4	10.75	8.500	1.125	4.50	3.438	0.531	7.00	160	52.00
12 x 10	12.75	10.126	1.312	10.75	8.500	1.125	8.00	160	95.00
12 x 8	12.75	10.126	1.312	8.62	6.808	0.906	8.00	160	85.00
12 x 6	12.75	10.126	1.312	6.62	5.182	0.719	8.00	160	80.00
12 x 5	12.75	10.126	1.312	5.56	4.310	0.625	8.00	160	80.00
12 x 4	12.75	10.126	1.312	4.50	3.438	0.531	8.00	160	80.00
14 x 12	14.00	11.188	1.406	12.75	10.126	1.312	13.00	160	115.00
14 x 10	14.00	11.188	1.406	10.75	8.500	1.125	13.00	160	115.00
14 x 8	14.00	11.188	1.406	8.62	6.808	0.906	13.00	160	159.00
14 x 6	14.00	11.188	1.406	6.62	5.182	0.719	13.00	160	159.00
16 x 14	16.00	12.812	1.594	14.00	11.188	1.406	14.00	160	159.00
16 x 12	16.00	12.812	1.594	12.75	10.126	1.312	14.00	160	159.00
16 x 10	16.00	12.812	1.594	10.75	8.500	1.125	14.00	160	159.00
16 x 8	16.00	12.812	1.594	8.62	6.808	0.906	14.00	160	213.00
16 x 6	16.00	12.812	1.594	6.62	5.182	0.719	14.00	160	213.00

FITTINGS CONCENTRIC RED.

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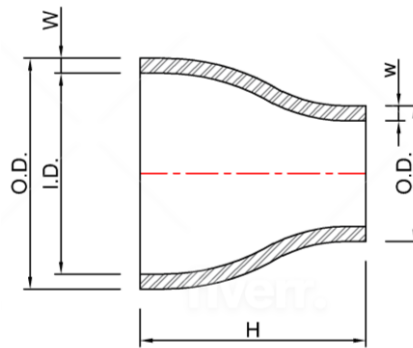


Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## CONCENTRIC REDUCERS

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
¾ x ½	1.05	0.434	0.308	0.84	0.252	0.294	1.50	-	0.39
1 x ¾	1.32	0.604	0.358	1.05	0.434	0.308	2.00	-	0.50
1 x ½	1.32	0.604	0.358	0.84	0.252	0.294	2.00	-	0.50
1 ¼ x 1	1.66	0.896	0.382	1.32	0.604	0.358	2.00	-	0.75
1 ¼ x ¾	1.66	0.896	0.382	1.05	0.434	0.308	2.00	-	0.75
1 ¼ x ½	1.66	0.896	0.382	0.84	0.252	0.294	2.00	-	0.75
1 ½ x 1 ¼	1.90	1.100	0.400	1.66	0.896	0.382	2.50	-	1.00
1 ½ x 1	1.90	1.100	0.400	1.32	0.604	0.358	2.50	-	1.00
1 ½ x ¾	1.90	1.100	0.400	1.05	0.434	0.308	2.50	-	1.00
1 ½ x ½	1.90	1.100	0.400	0.84	0.252	0.294	2.50	-	1.00
2 x 1 ½	2.38	1.508	0.436	1.90	1.100	0.400	3.00	-	2.00
2 x 1 ¼	2.38	1.508	0.436	1.66	0.896	0.382	3.00	-	2.00
2 x 1	2.38	1.508	0.436	1.32	0.604	0.358	3.00	-	2.00
2 x ¾	2.38	1.508	0.436	1.05	0.434	0.308	3.00	-	1.75
2 ½ x 2	2.88	1.776	0.552	2.38	1.508	0.436	3.50	-	4.00
2 ½ x 1 ½	2.88	1.776	0.552	1.90	1.100	0.400	3.50	-	4.00
2 ½ x 1 ¼	2.88	1.776	0.552	1.66	0.896	0.382	3.50	-	3.50
2 ½ x 1	2.88	1.776	0.552	1.32	0.604	0.358	3.50	-	3.50
3 x 2 ½	3.50	2.300	0.600	2.88	1.776	0.552	3.50	-	5.00
3 x 2	3.50	2.300	0.600	2.38	1.508	0.436	3.50	-	5.00
3 x 1 ½	3.50	2.300	0.600	1.90	1.100	0.400	3.50	-	5.00
3 x 1 ¼	3.50	2.300	0.600	1.66	0.896	0.382	3.50	-	4.50
3 x 1	3.50	2.300	0.600	1.32	0.604	0.358	3.50	-	4.50

FITTINGS CONCENTRIC RED.

Project Name: \_\_\_\_\_

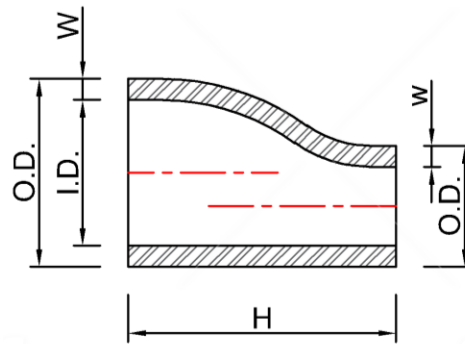
Job #: \_\_\_\_\_

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
4 x 3	4.50	3.152	0.674	3.50	2.300	0.600	4.00	-	8.00
4 x 2 ½	4.50	3.152	0.674	2.88	1.776	0.552	4.00	-	8.00
4 x 2	4.50	3.152	0.674	2.38	1.508	0.436	4.00	-	7.50
4 x 1 ½	4.50	3.152	0.674	1.90	1.100	0.400	4.00	-	7.50
4 x 1 ¼	4.50	3.152	0.674	1.66	0.896	0.382	4.00	-	7.50
4 x 1	4.50	3.152	0.674	1.32	0.604	0.358	4.00	-	7.50
5 x 4	5.56	4.060	0.750	4.50	3.152	0.674	5.00	-	16.00
5 x 3	5.56	4.060	0.750	3.50	2.300	0.600	5.00	-	16.00
5 x 2 ½	5.56	4.060	0.750	2.88	1.776	0.552	5.00	-	16.00
5 x 2	5.56	4.060	0.750	2.38	1.508	0.436	5.00	-	16.00
6 x 5	6.62	4.892	0.864	5.56	4.060	0.750	5.50	-	23.00
6 x 4	6.62	4.892	0.864	4.50	3.152	0.674	5.50	-	23.00
6 x 3	6.62	4.892	0.864	3.50	2.300	0.600	5.50	-	20.00
6 x 2 ½	6.62	4.892	0.864	2.88	1.776	0.552	5.50	-	20.00
6 x 2	6.62	4.892	0.864	2.38	1.508	0.436	5.50	-	19.00
8 x 6	8.62	6.870	0.875	6.62	4.892	0.864	6.00	-	36.00
8 x 5	8.62	6.870	0.875	5.56	4.060	0.750	6.00	-	33.00
8 x 4	8.62	6.870	0.875	4.50	3.152	0.674	6.00	-	33.00
8 x 3	8.62	6.870	0.875	3.50	2.300	0.600	6.00	-	33.00
10 x 8	10.75	8.750	1.000	8.62	6.870	0.875	7.00	-	48.00
10 x 6	10.75	8.750	1.000	6.62	4.892	0.864	7.00	-	58.00
10 x 5	10.75	8.750	1.000	5.56	4.060	0.750	7.00	-	54.00
10 x 4	10.75	8.750	1.000	4.50	3.152	0.674	7.00	-	52.00
12 x 10	12.75	10.750	1.000	10.75	8.750	1.000	8.00	-	95.00
12 x 8	12.75	10.750	1.000	8.62	6.870	0.875	8.00	-	85.00
12 x 6	12.75	10.750	1.000	6.62	4.892	0.864	8.00	-	80.00
12 x 5	12.75	10.750	1.000	5.56	4.060	0.750	8.00	-	80.00
12 x 4	12.75	10.750	1.000	4.50	3.512	0.674	8.00	-	80.00

FITTINGS CONCENTRIC RED.

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**ECCENTRIC REDUCERS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (STD)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
¾ x ½	1.05	0.824	0.113	0.84	0.622	0.109	1.50	40	0.21
1 x ¾	1.32	1.049	0.133	1.05	0.824	0.113	2.00	40	0.36
1 x ½	1.32	1.049	0.133	0.84	0.622	0.109	2.00	40	0.36
1 ¼ x 1	1.66	1.380	0.140	1.32	1.054	0.133	2.00	40	0.48
1 ¼ x ¾	1.66	1.380	0.140	1.05	0.824	0.113	2.00	40	0.42
1 ¼ x ½	1.66	1.380	0.140	0.84	0.622	0.109	2.00	40	0.42
1 ½ x 1 ¼	1.90	1.610	0.145	1.66	1.380	0.140	2.50	40	0.65
1 ½ x 1	1.90	1.610	0.145	1.32	1.054	0.133	2.50	40	0.57
1 ½ x ¾	1.90	1.610	0.145	1.05	0.824	0.113	2.50	40	0.56
1 ½ x ½	1.90	1.610	0.145	0.84	0.622	0.109	2.50	40	0.56
2 x 1 ½	2.38	2.067	0.154	1.90	1.610	0.145	3.00	40	0.94
2 x 1 ¼	2.38	2.067	0.154	1.66	1.380	0.140	3.00	40	0.88
2 x 1	2.38	2.067	0.154	1.32	1.054	0.133	3.00	40	0.81
2 x ¾	2.38	2.067	0.154	1.05	0.824	0.113	3.00	40	0.74
2 ½ x 2	2.88	2.469	0.203	2.38	2.072	0.154	3.50	40	1.60
2 ½ x 1 ½	2.88	2.469	0.203	1.90	1.610	0.145	3.50	40	1.50
2 ½ x 1 ¼	2.88	2.469	0.203	1.66	1.380	0.140	3.50	40	1.40
2 ½ x 1	2.88	2.469	0.203	1.32	1.054	0.133	3.50	40	1.30
3 x 2 ½	3.50	3.068	0.216	2.88	2.474	0.203	3.50	40	2.20
3 x 2	3.50	3.068	0.216	2.38	2.072	0.154	3.50	40	2.00
3 x 1 ½	3.50	3.068	0.216	1.90	1.610	0.145	3.50	40	1.90
3 x 1 ¼	3.50	3.068	0.216	1.66	1.380	0.140	3.50	40	1.80
3 x 1	3.50	3.068	0.216	1.32	1.054	0.133	3.50	40	1.70

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (STD)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
3 ½ x 3	4.00	3.548	0.226	3.50	3.068	0.216	4.00	40	2.80
3 ½ x 2 ½	4.00	3.548	0.226	2.88	2.474	0.203	4.00	40	2.70
3 ½ x 2	4.00	3.548	0.226	2.38	2.072	0.154	4.00	40	2.60
3 ½ x 1 ½	4.00	3.548	0.226	1.90	1.610	0.145	4.00	40	2.60
3 ½ x 1 ¼	4.00	3.548	0.226	1.66	1.380	0.140	4.00	40	2.50
4 x 3 ½	4.50	4.026	0.237	4.00	3.548	0.226	4.00	40	3.50
4 x 3	4.50	4.026	0.237	3.50	3.068	0.216	4.00	40	3.30
4 x 2 ½	4.50	4.026	0.237	2.88	2.474	0.203	4.00	40	3.20
4 x 2	4.50	4.026	0.237	2.38	2.072	0.154	4.00	40	3.10
4 x 1 ½	4.50	4.026	0.237	1.90	1.610	0.145	4.00	40	3.00
4 x 1 ¼	4.50	4.026	0.237	1.66	1.380	0.140	4.00	40	3.00
4 x 1	4.50	4.026	0.237	1.32	1.054	0.133	4.00	40	2.80
5 x 4	5.56	5.047	0.258	4.50	4.026	0.237	5.00	40	5.50
5 x 3 ½	5.56	5.047	0.258	4.00	3.548	0.226	5.00	40	5.30
5 x 3	5.56	5.047	0.258	3.50	3.068	0.216	5.00	40	5.10
5 x 2 ½	5.56	5.047	0.258	2.88	2.474	0.203	5.00	40	4.80
5 x 2	5.56	5.047	0.258	2.38	2.072	0.154	5.00	40	4.70
6 x 5	6.62	6.065	0.280	5.56	5.044	0.258	5.50	40	7.60
6 x 4	6.62	6.065	0.280	4.50	4.026	0.237	5.50	40	7.40
6 x 3 ½	6.62	6.065	0.280	4.00	3.548	0.226	5.50	40	7.10
6 x 3	6.62	6.065	0.280	3.50	3.068	0.216	5.50	40	6.90
6 x 2 ½	6.62	6.065	0.280	2.88	2.474	0.203	5.50	40	6.60
6 x 2	6.62	6.065	0.280	2.38	2.072	0.154	5.50	40	6.50
8 x 6	8.62	7.981	0.322	6.62	6.060	0.280	6.00	40	12.30
8 x 5	8.62	7.981	0.322	5.56	5.044	0.258	6.00	40	11.50
8 x 4	8.62	7.981	0.322	4.50	4.026	0.237	6.00	40	10.80
8 x 3 ½	8.62	7.981	0.322	4.00	3.548	0.226	6.00	40	10.60
8 x 3	8.62	7.981	0.322	3.50	3.068	0.216	6.00	40	9.80
10 x 8	10.75	10.020	0.365	8.62	7.976	0.322	7.00	40	22.10
10 x 6	10.75	10.020	0.365	6.62	6.060	0.280	7.00	40	20.70
10 x 5	10.75	10.020	0.365	5.56	5.044	0.258	7.00	40	19.50
10 x 4	10.75	10.020	0.365	4.50	4.026	0.237	7.00	40	18.40
12 x 10	12.75	12.000	0.375	10.75	10.020	0.365	8.00	-	32.40
12 x 8	12.75	12.000	0.375	8.62	7.976	0.322	8.00	-	30.50
12 x 6	12.75	12.000	0.375	6.62	6.060	0.280	8.00	-	29.50
12 x 5	12.75	12.000	0.375	5.56	5.044	0.258	8.00	-	27.80
12 x 4	12.75	12.000	0.375	4.50	4.026	0.237	8.00	-	26.20
14 x 12	14.00	13.250	0.375	12.75	12.000	0.375	13.00	-	63.10
14 x 10	14.00	13.250	0.375	10.75	10.020	0.365	13.00	-	61.40
14 x 8	14.00	13.250	0.375	8.62	7.976	0.322	13.00	-	60.00
14 x 6	14.00	13.250	0.375	6.62	6.060	0.280	13.00	-	59.20
16 x 14	16.00	15.250	0.375	16.00	15.250	0.375	14.00	-	75.40
16 x 12	16.00	15.250	0.375	14.00	13.250	0.375	14.00	-	72.70
16 x 10	16.00	15.250	0.375	12.75	12.000	0.364	14.00	-	71.10
16 x 8	16.00	15.250	0.375	10.75	10.020	0.322	14.00	-	69.40
16 x 6	16.00	15.250	0.375	8.62	7.976	0.280	14.00	-	67.40

FITTINGS ECCENTRIC RED.



Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

FITTINGS ECCENTRIC RED.

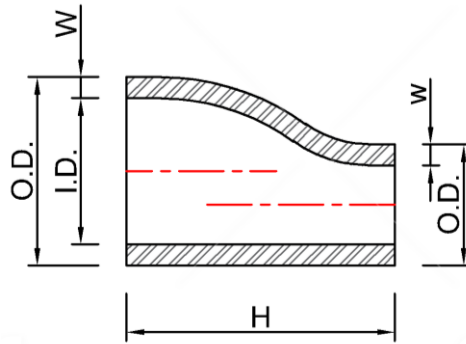
PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (STD)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
18 x 16	18.00	17.250	0.375	16.00	15.250	0.375	15.00	-	87.30
18 x 14	18.00	17.250	0.375	14.00	13.250	0.375	15.00	-	86.00
18 x 12	18.00	17.250	0.375	12.75	12.000	0.375	15.00	-	84.80
18 x 10	18.00	17.250	0.375	10.75	10.020	0.365	15.00	-	83.70
18 x 8	18.00	17.250	0.375	8.62	7.976	0.322	15.00	-	81.75
20 x 18	20.00	19.250	0.375	18.00	17.250	0.375	20.00	-	123.00
20 x 16	20.00	19.250	0.375	16.00	15.250	0.375	20.00	-	121.00
20 x 14	20.00	19.250	0.375	14.00	13.250	0.375	20.00	-	119.00
20 x 12	20.00	19.250	0.375	12.75	12.000	0.375	20.00	-	118.00
20 x 10	20.00	19.250	0.375	10.75	10.020	0.365	20.00	-	117.00
24 x 20	24.00	23.250	0.375	20.00	19.250	0.375	20.00	-	156.00
24 x 18	24.00	23.250	0.375	18.00	17.250	0.375	20.00	-	153.00
24 x 16	24.00	23.250	0.375	16.00	15.250	0.375	20.00	-	150.00
24 x 14	24.00	23.250	0.375	14.00	13.250	0.375	20.00	-	147.00
24 x 12	24.00	23.250	0.375	12.75	12.000	0.375	20.00	-	144.00
24 x 10	24.00	23.250	0.375	10.75	10.020	0.365	20.00	-	141.00
30 x 24	30.00	29.250	0.375	24.00	23.250	0.375	24.00	-	315.00
30 x 20	30.00	29.250	0.375	20.00	19.250	0.375	24.00	-	315.00
30 x 18	30.00	29.250	0.375	18.00	17.250	0.375	24.00	-	315.00
36 x 30	36.00	35.250	0.375	30.00	29.250	0.375	24.00	-	379.00
36 x 24	36.00	35.250	0.375	24.00	23.250	0.375	24.00	-	379.00
36 x 20	36.00	35.250	0.375	20.00	19.250	0.375	24.00	-	379.00
42 x 36	42.00	41.250	0.375	36.00	35.250	0.375	24.00	-	443.00
42 x 30	42.00	41.250	0.375	30.00	29.250	0.375	24.00	-	443.00
42 x 24	42.00	41.250	0.375	24.00	23.250	0.375	24.00	-	443.00
48 x 42	48.00	47.250	0.375	42.00	41.250	0.375	28.00	-	525.00
48 x 36	48.00	47.250	0.375	36.00	35.250	0.375	28.00	-	525.00
48 x 30	48.00	47.250	0.375	30.00	29.250	0.375	28.00	-	525.00
48 x 24	48.00	47.250	0.375	24.00	23.250	0.375	28.00	-	525.00



Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

## ECCENTRIC REDUCERS

### ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
3/4 x 1/2	1.05	0.742	0.154	0.84	0.546	0.147	1.50	80	0.25
1 x 3/4	1.32	0.957	0.179	1.05	0.742	0.154	2.00	80	0.43
1 x 1/2	1.32	0.957	0.179	0.84	0.546	0.147	2.00	80	0.42
1 1/4 x 1	1.66	1.278	0.191	1.32	0.957	0.179	2.00	80	0.57
1 1/4 x 3/4	1.66	1.278	0.191	1.05	0.742	0.154	2.00	80	0.53
1 1/4 x 1/2	1.66	1.278	0.191	0.84	0.546	0.147	2.00	80	0.50
1 1/2 x 1 1/4	1.90	1.500	0.200	1.66	1.278	0.191	2.50	80	0.78
1 1/2 x 1	1.90	1.500	0.200	1.32	0.957	0.179	2.50	80	0.72
1 1/2 x 3/4	1.90	1.500	0.200	1.05	0.742	0.154	2.50	80	0.65
1 1/2 x 1/2	1.90	1.500	0.200	0.84	0.546	0.147	2.50	80	0.65
2 x 1 1/2	2.38	1.944	0.218	1.90	1.500	0.200	3.00	80	1.20
2 x 1 1/4	2.38	1.944	0.218	1.66	1.278	0.191	3.00	80	1.10
2 x 1	2.38	1.944	0.218	1.32	0.957	0.179	3.00	80	1.00
2 x 3/4	2.38	1.944	0.218	1.05	0.742	0.154	3.00	80	0.94
2 1/2 x 2	2.88	2.323	0.276	2.38	1.944	0.218	3.50	80	2.10
2 1/2 x 1 1/2	2.88	2.323	0.276	1.90	1.500	0.200	3.50	80	1.90
2 1/2 x 1 1/4	2.88	2.323	0.276	1.66	1.278	0.191	3.50	80	1.70
2 1/2 x 1	2.88	2.323	0.276	1.32	0.957	0.179	3.50	80	1.50
3 x 2 1/2	3.50	2.900	0.300	2.88	2.323	0.276	3.50	80	2.80
3 x 2	3.50	2.900	0.300	2.38	1.939	0.218	3.50	80	2.60
3 x 1 1/2	3.50	2.900	0.300	1.90	1.500	0.200	3.50	80	2.40
3 x 1 1/4	3.50	2.900	0.300	1.66	1.278	0.191	3.50	80	2.30
3 x 1	3.50	2.900	0.300	1.32	0.957	0.179	3.50	80	2.20

**FITTINGS ECCENTRIC RED.**

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
3 ½ x 3	4.00	3.364	0.318	3.50	2.900	0.300	4.00	80	3.70
3 ½ x 2 ½	4.00	3.364	0.318	2.88	2.328	0.276	4.00	80	3.50
3 ½ x 2	4.00	3.364	0.318	2.38	1.944	0.218	4.00	80	3.30
3 ½ x 1 ½	4.00	3.364	0.318	1.90	1.500	0.200	4.00	80	3.20
3 ½ x 1 ¼	4.00	3.364	0.318	1.66	1.278	0.191	4.00	80	3.20
4 x 3 ½	4.50	3.826	0.337	4.00	3.364	0.318	4.00	80	4.90
4 x 3	4.50	3.826	0.337	3.50	2.900	0.300	4.00	80	4.70
4 x 2 ½	4.50	3.826	0.337	2.88	2.328	0.276	4.00	80	4.60
4 x 2	4.50	3.826	0.337	2.38	1.944	0.218	4.00	80	4.30
4 x 1 ½	4.50	3.826	0.337	1.90	1.500	0.200	4.00	80	4.20
4 x 1 ¼	4.50	3.826	0.337	1.66	1.278	0.191	4.00	80	4.10
4 x 1	4.50	3.826	0.337	1.32	0.962	0.179	4.00	80	4.00
5 x 4	5.56	4.810	0.375	4.50	3.826	0.337	5.00	80	7.50
5 x 3 ½	5.56	4.810	0.375	4.00	3.364	0.318	5.00	80	6.90
5 x 3	5.56	4.810	0.375	3.50	2.900	0.300	5.00	80	6.30
5 x 2 ½	5.56	4.810	0.375	2.88	2.328	0.276	5.00	80	6.10
5 x 2	5.56	4.810	0.375	2.38	1.944	0.218	5.00	80	6.00
6 x 5	6.62	5.756	0.432	5.56	4.810	0.375	5.50	80	11.50
6 x 4	6.62	5.756	0.432	4.50	3.826	0.337	5.50	80	10.70
6 x 3 ½	6.62	5.756	0.432	4.00	3.364	0.318	5.50	80	10.00
6 x 3	6.62	5.756	0.432	3.50	2.900	0.300	5.50	80	9.70
6 x 2 ½	6.62	5.756	0.432	2.88	2.328	0.276	5.50	80	9.10
6 x 2	6.62	5.756	0.432	2.38	1.944	0.218	5.50	80	8.60
8 x 6	8.62	7.620	0.500	6.62	5.756	0.432	6.00	80	18.80
8 x 5	8.62	7.620	0.500	5.56	4.810	0.375	6.00	80	17.60
8 x 4	8.62	7.620	0.500	4.50	3.826	0.337	6.00	80	17.00
8 x 3 ½	8.62	7.620	0.500	4.00	3.364	0.318	6.00	80	15.90
8 x 3	8.62	7.620	0.500	3.50	2.900	0.300	6.00	80	15.00
10 x 8	10.75	9.750	0.500	8.62	7.620	0.500	7.00	-	29.40
10 x 6	10.75	9.750	0.500	6.62	5.756	0.432	7.00	-	28.30
10 x 5	10.75	9.750	0.500	5.56	4.810	0.375	7.00	-	26.90
10 x 4	10.75	9.750	0.500	4.50	3.826	0.337	7.00	-	24.20
12 x 10	12.75	11.750	0.500	10.75	9.750	0.500	8.00	-	41.50
12 x 8	12.75	11.750	0.500	8.62	7.620	0.500	8.00	-	38.60
12 x 6	12.75	11.750	0.500	6.62	5.756	0.432	8.00	-	37.40
12 x 5	12.75	11.750	0.500	5.56	4.810	0.375	8.00	-	36.30
12 x 4	12.75	11.750	0.500	4.50	3.826	0.337	8.00	-	34.70
14 x 12	14.00	13.000	0.500	12.75	11.750	0.500	13.00	-	81.00
14 x 10	14.00	13.000	0.500	10.75	9.750	0.500	13.00	-	76.70
14 x 8	14.00	13.000	0.500	8.62	7.620	0.500	13.00	-	74.60
14 x 6	14.00	13.000	0.500	6.62	5.756	0.432	13.00	-	72.30
16 x 14	16.00	15.000	0.500	14.00	13.000	0.500	14.00	-	98.00
16 x 12	16.00	15.000	0.500	12.75	11.750	0.500	14.00	-	95.80
16 x 10	16.00	15.000	0.500	10.75	9.750	0.500	14.00	-	93.30
16 x 8	16.00	15.000	0.500	8.62	7.620	0.500	14.00	-	91.10
16 x 6	16.00	15.000	0.500	6.62	5.756	0.432	14.00	-	89.80

FITTINGS ECCENTRIC RED.

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
18 x 16	18.00	17.000	0.500	16.00	15.000	0.500	15.00	-	118.00
18 x 14	18.00	17.000	0.500	14.00	13.000	0.500	15.00	-	117.00
18 x 12	18.00	17.000	0.500	12.75	11.750	0.500	15.00	-	115.00
18 x 10	18.00	17.000	0.500	10.75	9.750	0.500	15.00	-	113.00
18 x 8	18.00	17.000	0.500	8.62	7.620	0.500	15.00	-	100.00
20 x 18	20.00	19.000	0.500	18.00	17.000	0.500	20.00	-	162.00
20 x 16	20.00	19.000	0.500	16.00	15.000	0.500	20.00	-	159.00
20 x 14	20.00	19.000	0.500	14.00	13.000	0.500	20.00	-	157.00
20 x 12	20.00	19.000	0.500	12.75	11.750	0.500	20.00	-	155.00
20 x 10	20.00	19.000	0.500	10.75	9.750	0.500	20.00	-	152.00
24 x 20	24.00	23.000	0.500	20.00	19.000	0.500	20.00	-	201.00
24 x 18	24.00	23.000	0.500	18.00	17.000	0.500	20.00	-	197.00
24 x 16	24.00	23.000	0.500	16.00	15.000	0.500	20.00	-	194.00
24 x 14	24.00	23.000	0.500	14.00	13.000	0.500	20.00	-	190.00
24 x 12	24.00	23.000	0.500	12.75	11.750	0.500	20.00	-	188.00
24 x 10	24.00	23.000	0.500	10.75	9.750	0.500	20.00	-	186.00
30 x 24	30.00	29.000	0.500	24.00	23.000	0.500	24.00	-	315.00
30 x 20	30.00	29.000	0.500	20.00	19.000	0.500	24.00	-	315.00
30 x 18	30.00	29.000	0.500	18.00	17.000	0.500	24.00	-	315.00
36 x 30	36.00	35.000	0.500	30.00	29.000	0.500	24.00	-	379.00
36 x 24	36.00	35.000	0.500	24.00	23.000	0.500	24.00	-	379.00
36 x 20	36.00	35.000	0.500	20.00	19.000	0.500	24.00	-	379.00
42 x 36	42.00	41.000	0.500	36.00	35.000	0.500	24.00	-	443.00
42 x 30	42.00	41.000	0.500	30.00	29.000	0.500	24.00	-	443.00
42 x 24	42.00	41.000	0.500	24.00	23.000	0.500	24.00	-	443.00
48 x 42	48.00	47.000	0.500	42.00	41.000	0.500	28.00	-	525.00
48 x 36	48.00	47.000	0.500	36.00	35.000	0.500	28.00	-	525.00
48 x 30	48.00	47.000	0.500	30.00	29.000	0.500	28.00	-	525.00
48 x 24	48.00	47.000	0.500	24.00	23.000	0.500	28.00	-	525.00

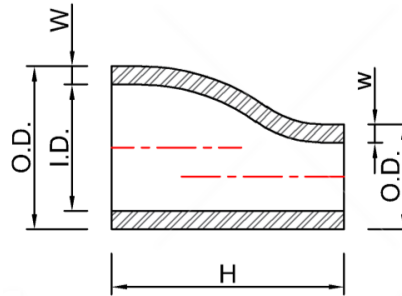
FITTINGS ECCENTRIC RED.

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## ECCENTRIC REDUCERS

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

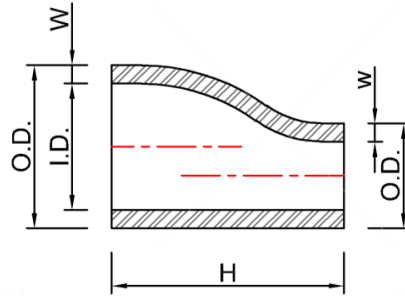
UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (40)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
FOR DIMENSION SPECIFICATIONS ½" THROUGH 10", REFER TO SCHEDULE STD									
12 x 10	12.75	11.938	0.406	10.75	10.020	0.365	8.00	40	35.80
12 x 8	12.75	11.938	0.406	8.62	7.976	0.322	8.00	40	35.80
12 x 6	12.75	11.938	0.406	6.62	6.060	0.280	8.00	40	35.80
12 x 5	12.75	11.938	0.406	5.56	5.044	0.258	8.00	40	35.80
12 x 4	12.75	11.938	0.406	4.50	4.026	0.237	8.00	40	35.80
14 x 12	14.00	13.124	0.438	12.75	11.938	0.406	13.00	40	68.60
14 x 10	14.00	13.124	0.438	10.75	10.020	0.365	13.00	40	68.60
14 x 8	14.00	13.124	0.438	8.62	7.976	0.322	13.00	40	68.60
14 x 6	14.00	13.124	0.438	6.62	6.060	0.280	13.00	40	68.60
16 x 14	16.00	15.000	0.500	14.00	13.124	0.438	14.00	40	96.50
16 x 12	16.00	15.000	0.500	12.75	11.938	0.406	14.00	40	96.50
16 x 10	16.00	15.000	0.500	10.75	10.020	0.365	14.00	40	96.50
16 x 8	16.00	15.000	0.500	8.62	7.976	0.322	14.00	40	96.50
16 x 6	16.00	15.000	0.500	6.62	6.060	0.280	14.00	40	96.50
18 x 16	18.00	16.876	0.562	16.00	15.000	0.500	15.00	40	131.00
18 x 14	18.00	16.876	0.562	14.00	13.124	0.438	15.00	40	131.00
18 x 12	18.00	16.876	0.562	12.75	11.938	0.406	15.00	40	131.00
18 x 10	18.00	16.876	0.562	10.75	10.020	0.365	15.00	40	131.00
18 x 8	18.00	16.876	0.562	8.62	7.976	0.322	15.00	40	131.00
20 x 18	20.00	18.812	0.594	18.00	16.876	0.562	20.00	40	205.00
20 x 16	20.00	18.812	0.594	16.00	15.000	0.500	20.00	40	205.00
20 x 14	20.00	18.812	0.594	14.00	13.124	0.438	20.00	40	205.00
20 x 12	20.00	18.812	0.594	12.75	11.938	0.406	20.00	40	205.00
20 x 10	20.00	18.812	0.594	10.75	10.020	0.365	20.00	40	205.00
20 x 8	20.00	18.812	0.594	8.62	7.976	0.322	20.00	40	205.00
24 x 20	24.00	22.624	0.688	20.00	18.812	0.594	20.00	40	285.00
24 x 18	24.00	22.624	0.688	18.00	16.876	0.562	20.00	40	285.00
24 x 16	24.00	22.624	0.688	16.00	15.000	0.500	20.00	40	285.00
24 x 14	24.00	22.624	0.688	14.00	13.124	0.438	20.00	40	285.00
24 x 12	24.00	22.624	0.688	12.75	11.938	0.406	20.00	40	285.00
24 x 10	24.00	22.624	0.688	10.75	10.020	0.365	20.00	40	285.00

**FITTINGS ECCENTRIC RED.**

Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

**ECCENTRIC REDUCERS**  
 ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

**DIMENSIONS**

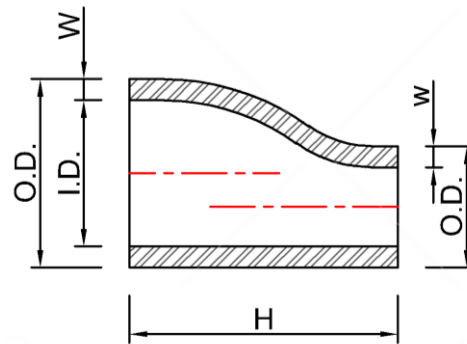
UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (80)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
FOR DIMENSION SPECIFICATIONS ½" THROUGH 8", REFER TO SCHEDULE XS									
10 x 8	10.75	9.562	0.594	8.62	7.620	0.500	7.00	80	37.50
10 x 6	10.75	9.562	0.594	6.62	5.756	0.432	7.00	80	37.50
10 x 5	10.75	9.562	0.594	5.56	4.810	0.375	7.00	80	37.50
10 x 4	10.75	9.562	0.594	4.50	3.826	0.337	7.00	80	37.50
12 x 10	12.75	11.374	0.688	10.75	9.562	0.594	8.00	80	59.00
12 x 8	12.75	11.374	0.688	8.62	7.620	0.500	8.00	80	59.00
12 x 6	12.75	11.374	0.688	6.62	5.756	0.432	8.00	80	59.00
12 x 5	12.75	11.374	0.688	5.56	4.810	0.375	8.00	80	59.00
12 x 4	12.75	11.374	0.688	4.50	3.826	0.337	8.00	80	59.00
14 x 12	14.00	12.500	0.750	12.75	11.374	0.688	13.00	80	115.00
14 x 10	14.00	12.500	0.750	10.75	9.562	0.594	13.00	80	115.00
14 x 8	14.00	12.500	0.750	8.62	7.620	0.500	13.00	80	115.00
14 x 6	14.00	12.500	0.750	6.62	5.756	0.432	13.00	80	115.00
16 x 14	16.00	14.312	0.844	14.00	12.500	0.750	14.00	80	159.00
16 x 12	16.00	14.312	0.844	12.75	11.374	0.688	14.00	80	159.00
16 x 10	16.00	14.312	0.844	10.75	9.562	0.594	14.00	80	159.00
16 x 8	16.00	14.312	0.844	8.62	7.620	0.500	14.00	80	159.00
16 x 6	16.00	14.312	0.844	6.62	5.756	0.432	14.00	80	159.00
18 x 16	18.00	16.124	0.938	16.00	14.312	0.844	15.00	80	213.00
18 x 14	18.00	16.124	0.938	14.00	12.500	0.750	15.00	80	213.00
18 x 12	18.00	16.124	0.938	12.75	11.374	0.688	15.00	80	213.00
18 x 10	18.00	16.124	0.938	10.75	9.562	0.594	15.00	80	213.00
18 x 8	18.00	16.124	0.938	8.62	7.620	0.500	15.00	80	213.00
20 x 18	20.00	17.938	1.031	18.00	16.124	0.938	20.00	80.00	348.00
20 x 16	20.00	17.938	1.031	16.00	14.312	0.844	20.00	80.00	348.00
20 x 14	20.00	17.938	1.031	14.00	12.500	0.750	20.00	80.00	348.00
20 x 12	20.00	17.938	1.031	12.75	11.374	0.688	20.00	80.00	348.00
20 x 10	20.00	17.938	1.031	10.75	9.562	0.594	20.00	80.00	348.00
20 x 8	20.00	17.938	1.031	8.62	7.620	0.500	20.00	80.00	348.00
24 x 20	24.00	21.562	1.219	20.00	17.938	1.031	20.00	80.00	494.00
24 x 18	24.00	21.562	1.219	18.00	16.124	0.938	20.00	80.00	494.00
24 x 16	24.00	21.562	1.219	16.00	14.312	0.844	20.00	80.00	494.00
24 x 14	24.00	21.562	1.219	14.00	12.500	0.750	20.00	80.00	494.00
24 x 12	24.00	21.562	1.219	12.75	11.374	0.688	20.00	80.00	494.00
24 x 10	24.00	21.562	1.219	10.75	9.562	0.594	20.00	80.00	494.00

FITTINGS ECCENTRIC RED.

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**ECCENTRIC REDUCERS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (160)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
¾ x ½	1.05	0.612	0.219	0.84	0.464	0.188	1.50	160	0.37
1 x ¾	1.32	0.820	0.250	1.05	0.612	0.219	2.00	160	0.45
1 x ½	1.32	0.820	0.250	0.84	0.464	0.188	2.00	160	0.45
1 ¼ x 1	1.66	1.160	0.250	1.32	0.820	0.250	2.00	160	0.70
1 ¼ x ¾	1.66	1.160	0.250	1.05	0.612	0.219	2.00	160	0.70
1 ¼ x ½	1.66	1.160	0.250	0.84	0.464	0.188	2.00	160	0.70
1 ½ x 1 ¼	1.90	1.338	0.281	1.66	1.160	0.250	2.50	160	0.90
1 ½ x 1	1.90	1.338	0.281	1.32	0.820	0.250	2.50	160	0.90
1 ½ x ¾	1.90	1.338	0.281	1.05	0.612	0.219	2.50	160	0.90
1 ½ x ½	1.90	1.338	0.281	0.84	0.464	0.188	2.50	160	0.90
2 x 1 ½	2.38	1.692	0.344	1.90	1.338	0.281	3.00	160	1.85
2 x 1 ¼	2.38	1.692	0.344	1.66	1.160	0.250	3.00	160	1.85
2 x 1	2.38	1.692	0.344	1.32	0.820	0.250	3.00	160	1.85
2 x ¾	2.38	1.692	0.344	1.05	0.612	0.219	3.00	160	1.50
2 ½ x 2	2.88	2.130	0.375	2.38	1.692	0.344	3.50	160	3.00
2 ½ x 1 ½	2.88	2.130	0.375	1.90	1.338	0.281	3.50	160	3.00
2 ½ x 1 ¼	2.88	2.130	0.375	1.66	1.160	0.250	3.50	160	2.80
2 ½ x 1	2.88	2.130	0.375	1.32	0.820	0.250	3.50	160	2.80
3 x 2 ½	3.50	2.624	0.438	2.88	2.130	0.375	3.50	160	4.00
3 x 2	3.50	2.624	0.438	2.38	1.692	0.344	3.50	160	4.00
3 x 1 ½	3.50	2.624	0.438	1.90	1.338	0.281	3.50	160	4.00
3 x 1 ¼	3.50	2.624	0.438	1.66	1.160	0.250	3.50	160	3.50
3 x 1	3.50	2.624	0.438	1.32	0.820	0.250	3.50	160	3.50

Project Name: \_\_\_\_\_

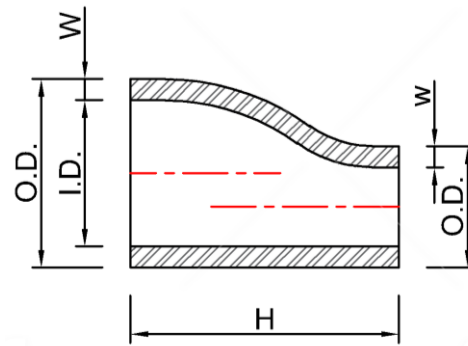
Job #: \_\_\_\_\_

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
4 x 3	4.50	3.438	0.531	3.50	2.624	0.438	4.00	160	6.00
4 x 2 ½	4.50	3.438	0.531	2.88	2.130	0.375	4.00	160	6.00
4 x 2	4.50	3.438	0.531	2.38	1.692	0.344	4.00	160	5.00
4 x 1 ½	4.50	3.438	0.531	1.90	1.338	0.281	4.00	160	5.00
4 x 1 ¼	4.50	3.438	0.531	1.66	1.160	0.250	4.00	160	5.00
4 x 1	4.50	3.438	0.531	1.32	0.820	0.250	4.00	160	5.00
5 x 4	5.56	4.310	0.625	4.50	3.438	0.531	5.00	160	14.00
5 x 3	5.56	4.310	0.625	3.50	2.624	0.438	5.00	160	14.00
5 x 2 ½	5.56	4.310	0.625	2.88	2.130	0.375	5.00	160	14.00
5 x 2	5.56	4.310	0.625	2.38	1.692	0.344	5.00	160	14.00
6 x 5	6.62	5.182	0.719	5.56	4.310	0.625	5.50	160	18.00
6 x 4	6.62	5.182	0.719	4.50	3.438	0.531	5.50	160	18.00
6 x 3	6.62	5.182	0.719	3.50	2.624	0.438	5.50	160	15.50
6 x 2 ½	6.62	5.182	0.719	2.88	2.130	0.375	5.50	160	15.50
6 x 2	6.62	5.182	0.719	2.38	1.692	0.344	5.50	160	15.00
8 x 6	8.62	6.808	0.906	6.62	5.182	0.719	6.00	160	31.50
8 x 5	8.62	6.808	0.906	5.56	4.310	0.625	6.00	160	28.00
8 x 4	8.62	6.808	0.906	4.50	3.438	0.531	6.00	160	28.00
8 x 3	8.62	6.808	0.906	3.50	2.624	0.438	6.00	160	30.00
10 x 8	10.75	8.500	1.125	8.62	6.808	0.906	7.00	160	58.00
10 x 6	10.75	8.500	1.125	6.62	5.182	0.719	7.00	160	58.00
10 x 5	10.75	8.500	1.125	5.56	4.310	0.625	7.00	160	54.00
10 x 4	10.75	8.500	1.125	4.50	3.438	0.531	7.00	160	52.00
12 x 10	12.75	10.126	1.312	10.75	8.500	1.125	8.00	160	95.00
12 x 8	12.75	10.126	1.312	8.62	6.808	0.906	8.00	160	85.00
12 x 6	12.75	10.126	1.312	6.62	5.182	0.719	8.00	160	80.00
12 x 5	12.75	10.126	1.312	5.56	4.310	0.625	8.00	160	80.00
12 x 4	12.75	10.126	1.312	4.50	3.438	0.531	8.00	160	80.00
14 x 12	14.00	11.188	1.406	12.75	10.126	1.312	13.00	160	115.00
14 x 10	14.00	11.188	1.406	10.75	8.500	1.125	13.00	160	115.00
14 x 8	14.00	11.188	1.406	8.62	6.808	0.906	13.00	160	159.00
14 x 6	14.00	11.188	1.406	6.62	5.182	0.719	13.00	160	159.00
16 x 14	16.00	12.812	1.594	14.00	11.188	1.406	14.00	160	159.00
16 x 12	16.00	12.812	1.594	12.75	10.126	1.312	14.00	160	159.00
16 x 10	16.00	12.812	1.594	10.75	8.500	1.125	14.00	160	159.00
16 x 8	16.00	12.812	1.594	8.62	6.808	0.906	14.00	160	213.00
16 x 6	16.00	12.812	1.594	6.62	5.182	0.719	14.00	160	213.00

FITTINGS ECCENTRIC RED.

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**ECCENTRIC REDUCERS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
¾ x ½	1.05	0.434	0.308	0.84	0.252	0.294	1.50	-	0.39
1 x ¾	1.32	0.604	0.358	1.05	0.434	0.308	2.00	-	0.50
1 x ½	1.32	0.604	0.358	0.84	0.252	0.294	2.00	-	0.50
1 ¼ x 1	1.66	0.896	0.382	1.32	0.604	0.358	2.00	-	0.75
1 ¼ x ¾	1.66	0.896	0.382	1.05	0.434	0.308	2.00	-	0.75
1 ¼ x ½	1.66	0.896	0.382	0.84	0.252	0.294	2.00	-	0.75
1 ½ x 1 ¼	1.90	1.100	0.400	1.66	0.896	0.382	2.50	-	1.00
1 ½ x 1	1.90	1.100	0.400	1.32	0.604	0.358	2.50	-	1.00
1 ½ x ¾	1.90	1.100	0.400	1.05	0.434	0.308	2.50	-	1.00
1 ½ x ½	1.90	1.100	0.400	0.84	0.252	0.294	2.50	-	1.00
2 x 1 ½	2.38	1.508	0.436	1.90	1.100	0.400	3.00	-	2.00
2 x 1 ¼	2.38	1.508	0.436	1.66	0.896	0.382	3.00	-	2.00
2 x 1	2.38	1.508	0.436	1.32	0.604	0.358	3.00	-	2.00
2 x ¾	2.38	1.508	0.436	1.05	0.434	0.308	3.00	-	1.75
2 ½ x 2	2.88	1.776	0.552	2.38	1.508	0.436	3.50	-	4.00
2 ½ x 1 ½	2.88	1.776	0.552	1.90	1.100	0.400	3.50	-	4.00
2 ½ x 1 ¼	2.88	1.776	0.552	1.66	0.896	0.382	3.50	-	3.50
2 ½ x 1	2.88	1.776	0.552	1.32	0.604	0.358	3.50	-	3.50
3 x 2 ½	3.50	2.300	0.600	2.88	1.776	0.552	3.50	-	5.00
3 x 2	3.50	2.300	0.600	2.38	1.508	0.436	3.50	-	5.00
3 x 1 ½	3.50	2.300	0.600	1.90	1.100	0.400	3.50	-	5.00
3 x 1 ¼	3.50	2.300	0.600	1.66	0.896	0.382	3.50	-	4.50
3 x 1	3.50	2.300	0.600	1.32	0.604	0.358	3.50	-	4.50

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	LARGE DIAMETER			SMALL DIAMETER			LENGTH (H)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)			
4 x 3	4.50	3.152	0.674	3.50	2.300	0.600	4.00	-	8.00
4 x 2 ½	4.50	3.152	0.674	2.88	1.776	0.552	4.00	-	8.00
4 x 2	4.50	3.152	0.674	2.38	1.508	0.436	4.00	-	7.50
4 x 1 ½	4.50	3.152	0.674	1.90	1.100	0.400	4.00	-	7.50
4 x 1 ¼	4.50	3.152	0.674	1.66	0.896	0.382	4.00	-	7.50
4 x 1	4.50	3.152	0.674	1.32	0.604	0.358	4.00	-	7.50
5 x 4	5.56	4.060	0.750	4.50	3.152	0.674	5.00	-	16.00
5 x 3	5.56	4.060	0.750	3.50	2.300	0.600	5.00	-	16.00
5 x 2 ½	5.56	4.060	0.750	2.88	1.776	0.552	5.00	-	16.00
5 x 2	5.56	4.060	0.750	2.38	1.508	0.436	5.00	-	16.00
6 x 5	6.62	4.892	0.864	5.56	4.060	0.750	5.50	-	23.00
6 x 4	6.62	4.892	0.864	4.50	3.152	0.674	5.50	-	23.00
6 x 3	6.62	4.892	0.864	3.50	2.300	0.600	5.50	-	20.00
6 x 2 ½	6.62	4.892	0.864	2.88	1.776	0.552	5.50	-	20.00
6 x 2	6.62	4.892	0.864	2.38	1.508	0.436	5.50	-	19.00
8 x 6	8.62	6.870	0.875	6.62	4.892	0.864	6.00	-	36.00
8 x 5	8.62	6.870	0.875	5.56	4.060	0.750	6.00	-	33.00
8 x 4	8.62	6.870	0.875	4.50	3.152	0.674	6.00	-	33.00
8 x 3	8.62	6.870	0.875	3.50	2.300	0.600	6.00	-	33.00
10 x 8	10.75	8.750	1.000	8.62	6.870	0.875	7.00	-	48.00
10 x 6	10.75	8.750	1.000	6.62	4.892	0.864	7.00	-	58.00
10 x 5	10.75	8.750	1.000	5.56	4.060	0.750	7.00	-	54.00
10 x 4	10.75	8.750	1.000	4.50	3.152	0.674	7.00	-	52.00
12 x 10	12.75	10.750	1.000	10.75	8.750	1.000	8.00	-	95.00
12 x 8	12.75	10.750	1.000	8.62	6.870	0.875	8.00	-	85.00
12 x 6	12.75	10.750	1.000	6.62	4.892	0.864	8.00	-	80.00
12 x 5	12.75	10.750	1.000	5.56	4.060	0.750	8.00	-	80.00
12 x 4	12.75	10.750	1.000	4.50	3.512	0.674	8.00	-	80.00

FITTINGS ECCENTRIC RED.

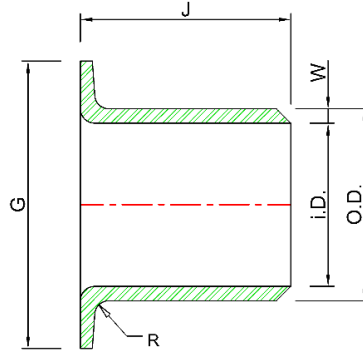
acecarbonsteel.com

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## LAP JOINT STUB ENDS

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

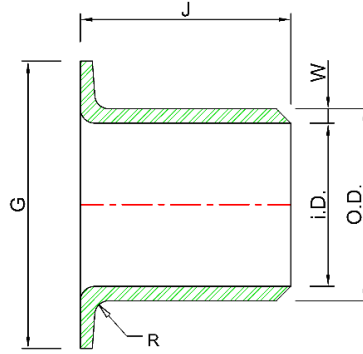
PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL AND LAP THICKNESS (W)	LAP DIAMETER (G)	FILLET RADIUS (R)	OVERALL LENGTH (J)	PIPE SCHEDULE (STD)	APPROX WEIGHT
1/2	0.896	0.809	0.109	1.38	0.12	3.00	40	0.30
3/4	1.106	1.019	0.113	1.69	0.12	3.00	40	0.40
1	1.376	1.284	0.133	2.00	0.12	4.00	40	0.75
1 1/4	1.716	1.629	0.140	2.50	0.19	4.00	40	1.10
1 1/2	1.965	1.869	0.145	2.88	0.25	4.00	40	1.25
2	2.456	2.344	0.154	3.62	0.31	6.00	40	2.25
2 1/2	2.966	2.844	0.203	4.12	0.31	6.00	40	3.50
3	3.596	3.469	0.216	5.00	0.38	6.00	40	4.75
3 1/2	4.096	3.969	0.226	5.50	0.38	6.00	40	6.00
4	4.593	4.469	0.237	6.19	0.44	6.00	40	7.25
5	5.683	5.532	0.258	7.31	0.44	8.00	40	12.00
6	6.743	6.594	0.280	8.50	0.50	8.00	40	16.00
8	8.743	8.594	0.322	10.62	0.50	8.00	40	23.00
10	10.913	10.719	0.365	12.75	0.50	10.00	40	36.00
12	12.913	12.719	0.375	15.00	0.50	10.00	-	47.00
14	14.170	13.969	0.375	16.25	0.50	12.00	30	35.40
16	16.180	15.969	0.375	18.50	0.50	12.00	30	44.80
18	18.190	17.969	0.375	21.00	0.50	12.00	-	57.20
20	20.240	19.969	0.375	23.00	0.50	12.00	20	71.00
24	24.240	23.969	0.375	27.25	0.50	12.00	20	102.00

FITTINGS STUB END

Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

## LAP JOINT STUB ENDS

### ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

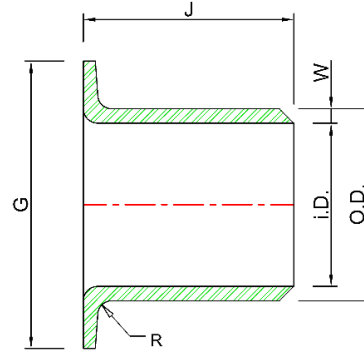
UOM: Inches/LBS

PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL AND LAP THICKNESS (W)	LAP DIAMETER (G)	FILLET RADIUS (R)	OVERALL LENGTH (J)	PIPE SCHEDULE (XS)	APPROX WEIGHT
1/2	0.896	0.809	0.147	1.38	0.12	3.00	80	0.38
3/4	1.106	1.019	0.154	1.69	0.12	3.00	80	0.51
1	1.376	1.284	0.179	2.00	0.12	4.00	80	1.00
1 1/4	1.716	1.629	0.191	2.50	0.19	4.00	80	1.25
1 1/2	1.965	1.869	0.200	2.88	0.25	4.00	80	1.75
2	2.456	2.344	0.218	3.62	0.31	6.00	80	3.00
2 1/2	2.966	2.844	0.276	4.12	0.31	6.00	80	4.50
3	3.596	3.469	0.300	5.00	0.38	6.00	80	6.50
3 1/2	4.096	3.969	0.318	5.50	0.38	6.00	80	7.75
4	4.593	4.469	0.337	6.19	0.44	6.00	80	9.50
5	5.683	5.532	0.375	7.31	0.44	8.00	80	17.00
6	6.743	6.594	0.432	8.50	0.50	8.00	80	23.00
8	8.743	8.594	0.500	10.62	0.50	8.00	80	32.00
10	10.913	10.719	0.500	12.75	0.50	10.00	60	53.00
12	12.913	12.719	0.500	15.00	0.50	10.00	-	62.00
14	14.170	13.969	0.500	16.25	0.50	12.00	-	89.00
16	16.180	15.969	0.500	18.50	0.50	12.00	40	96.00
18	18.190	17.969	0.500	21.00	0.50	12.00	-	112.00
20	20.240	19.969	0.500	23.00	0.50	12.00	30	125.00
24	24.240	23.969	0.500	27.25	0.50	12.00	-	151.00

**FITTINGS STUB END**

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**LAP JOINT STUB ENDS****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

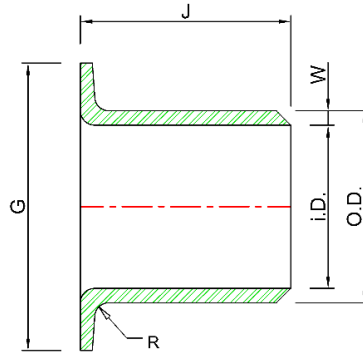
UOM: Inches/LBS

PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL AND LAP THICKNESS (W)	LAP DIAMETER (G)	FILLET RADIUS (R)	OVERALL LENGTH (J)	PIPE SCHEDULE (40)	APPROX WEIGHT
1/2	0.896	0.809	0.109	1.38	0.12	3.00	40	0.30
3/4	1.106	1.019	0.113	1.69	0.12	3.00	40	0.40
1	1.376	1.284	0.133	2.00	0.12	4.00	40	0.75
1 1/4	1.716	1.629	0.140	2.50	0.19	4.00	40	1.10
1 1/2	1.965	1.869	0.145	2.88	0.25	4.00	40	1.25
2	2.456	2.344	0.154	3.62	0.31	6.00	40	2.25
2 1/2	2.966	2.844	0.203	4.12	0.31	6.00	40	3.50
3	3.596	3.469	0.216	5.00	0.38	6.00	40	4.75
3 1/2	4.096	3.969	0.226	5.50	0.38	6.00	40	6.00
4	4.593	4.469	0.237	6.19	0.44	6.00	40	7.25
5	5.683	5.532	0.258	7.31	0.44	8.00	40	12.00
6	6.743	6.594	0.280	8.50	0.50	8.00	40	16.00
8	8.743	8.594	0.322	10.62	0.50	8.00	40	23.00
10	10.913	10.719	0.365	12.75	0.50	10.00	40	36.00
12	12.913	12.719	0.406	15.00	0.50	10.00	40	52.00
14	14.170	13.969	0.438	16.25	0.50	12.00	40	73.00
16	16.180	15.969	0.500	18.50	0.50	12.00	40	97.00
18	18.190	17.969	0.562	21.00	0.50	12.00	40	126.00
20	20.240	19.969	0.594	23.00	0.50	12.00	40	147.00
24	24.240	23.969	0.688	27.25	0.50	12.00	40	205.00

Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

## LAP JOINT STUB ENDS

### ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL AND LAP THICKNESS (W)	LAP DIAMETER (G)	FILLET RADIUS (R)	OVERALL LENGTH (J)	PIPE SCHEDULE (80)	APPROX WEIGHT
1/2	0.896	0.809	0.147	1.38	0.12	3.00	80	0.38
3/4	1.106	1.019	0.154	1.69	0.12	3.00	80	0.51
1	1.376	1.284	0.179	2.00	0.12	4.00	80	1.00
1 1/4	1.716	1.629	0.191	2.50	0.19	4.00	80	1.25
1 1/2	1.965	1.869	0.200	2.88	0.25	4.00	80	1.75
2	2.456	2.344	0.218	3.62	0.31	6.00	80	3.00
2 1/2	2.966	2.844	0.276	4.12	0.31	6.00	80	4.50
3	3.596	3.469	0.300	5.00	0.38	6.00	80	6.50
3 1/2	4.096	3.969	0.318	5.50	0.38	6.00	80	7.75
4	4.593	4.469	0.337	6.19	0.44	6.00	80	9.50
5	5.683	5.532	0.375	7.31	0.44	8.00	80	17.00
6	6.743	6.594	0.432	8.50	0.50	8.00	80	23.00
8	8.743	8.594	0.500	10.62	0.50	8.00	80	32.00
10	10.913	10.719	0.594	12.75	0.50	10.00	80	63.00
12	12.913	12.719	0.688	15.00	0.50	10.00	80	87.00
14	14.170	13.969	0.750	16.25	0.50	12.00	80	123.00
16	16.180	15.969	0.844	18.50	0.50	12.00	80	161.00
18	18.190	17.969	0.938	21.00	0.50	12.00	80	205.00
20	20.240	19.969	1.031	23.00	0.50	12.00	80	251.00
24	24.240	23.969	1.219	27.25	0.50	12.00	80	359.00

**FITTINGS STUB END**

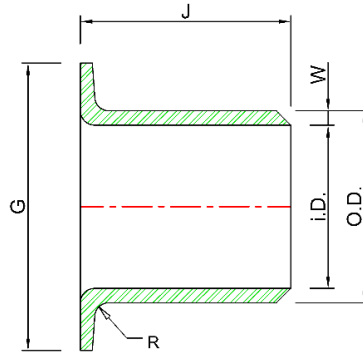


Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## LAP JOINT STUB ENDS

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

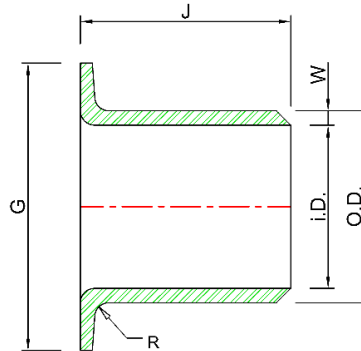
PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL AND LAP THICKNESS (W)	LAP DIAMETER (G)	FILLET RADIUS (R)	OVERALL LENGTH (J)	PIPE SCHEDULE (160)	APPROX WEIGHT
1/2	0.896	0.809	0.188	1.38	0.12	3.00	160	0.75
3/4	1.106	1.019	0.219	1.69	0.12	3.00	160	0.95
1	1.376	1.284	0.250	2.00	0.12	4.00	160	1.13
1 1/4	1.716	1.629	0.250	2.50	0.19	4.00	160	1.51
1 1/2	1.965	1.869	0.281	2.88	0.25	4.00	160	2.02
2	2.456	2.344	0.344	3.62	0.31	6.00	160	4.51
2 1/2	2.966	2.844	0.375	4.12	0.31	6.00	160	6.02
3	3.596	3.469	0.438	5.00	0.38	6.00	160	8.80
4	4.593	4.469	0.531	6.19	0.44	6.00	160	14.10
5	5.683	5.532	0.625	7.31	0.44	8.00	160	26.40
6	6.743	6.594	0.719	8.50	0.50	8.00	160	36.40
8	8.743	8.594	0.906	10.62	0.50	8.00	160	60.00
10	10.913	10.719	1.125	12.75	0.50	10.00	160	113.00
12	12.913	12.719	1.312	15.00	0.50	10.00	160	160.00
14	14.170	13.969	1.406	16.25	0.50	12.00	160	190.00
16	16.180	15.969	1.594	18.50	0.50	12.00	160	245.00
18	18.190	17.969	1.781	21.00	0.50	12.00	160	309.00
20	20.240	19.969	1.969	23.00	0.50	12.00	160	379.00
24	24.240	23.969	2.344	27.25	0.50	12.00	160	542.00

FITTINGS STUB END

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## LAP JOINT STUB ENDS

**ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved

### DIMENSIONS

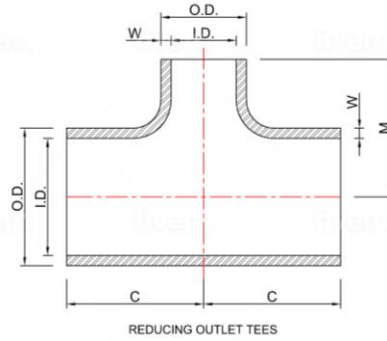
UOM: Inches/LBS

PIPE SIZE	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL AND LAP THICKNESS (W)	LAP DIAMETER (G)	FILLET RADIUS (R)	OVERALL LENGTH (J)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
1/2	0.896	0.809	0.294	1.38	0.12	3.00	-	1.75
3/4	1.106	1.019	0.308	1.69	0.12	3.00	-	2.50
1	1.376	1.284	0.358	2.00	0.12	4.00	-	4.00
1 1/4	1.716	1.629	0.382	2.50	0.19	4.00	-	6.25
1 1/2	1.965	1.869	0.400	2.88	0.25	4.00	-	6.50
2	2.456	2.344	0.436	3.62	0.31	6.00	-	9.00
2 1/2	2.966	2.844	0.552	4.12	0.31	6.00	-	14.00
3	3.596	3.469	0.600	5.00	0.38	6.00	-	18.50
4	4.593	4.469	0.674	6.19	0.44	6.00	-	27.50
5	5.683	5.532	0.750	7.31	0.44	8.00	-	39.00
6	6.743	6.594	0.864	8.50	0.50	8.00	-	54.00
8	8.743	8.594	0.875	10.62	0.50	8.00	-	73.00
10	10.913	10.719	1.000	12.75	0.50	10.00	140	116.00
12	12.913	12.719	1.000	15.00	0.50	10.00	120	167.00

Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

## REDUCING TEES

### ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

## DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (STD)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
¾ x ½	1.05	0.824	0.113	1.12	0.84	0.622	0.109	1.12	40	0.41
1 x ¾	1.32	1.049	0.133	1.50	1.05	0.824	0.113	1.50	40	0.81
1 x ½	1.32	1.049	0.133	1.50	0.84	0.622	0.109	1.50	40	0.78
1 ¼ x 1	1.66	1.380	0.140	1.88	1.32	1.049	0.133	1.88	40	1.30
1 ¼ x ¾	1.66	1.380	0.140	1.88	1.05	0.824	0.113	1.88	40	1.30
1 ¼ x ½	1.66	1.380	0.140	1.88	0.84	0.622	0.109	1.88	40	1.30
1 ½ x 1 ¼	1.90	1.610	0.145	2.25	1.66	1.380	0.140	2.25	40	2.00
1 ½ x 1	1.90	1.610	0.145	2.25	1.32	1.049	0.133	2.25	40	1.90
1 ½ x ¾	1.90	1.610	0.145	2.25	1.05	0.824	0.113	2.25	40	1.80
1 ½ x ½	1.90	1.610	0.145	2.25	0.84	0.622	0.109	2.25	40	1.80
2 x 1 ½	2.38	2.067	0.154	2.50	1.90	1.610	0.145	2.38	40	3.10
2 x 1 ¼	2.38	2.067	0.154	2.50	1.66	1.380	0.140	2.25	40	3.00
2 x 1	2.38	2.067	0.154	2.50	1.32	1.049	0.133	2.00	40	2.80
2 x ¾	2.38	2.067	0.154	2.50	1.05	0.824	0.113	1.75	40	2.50
2 ½ x 2	2.88	2.469	0.203	3.00	2.38	2.067	0.154	2.75	40	5.40
2 ½ x 1 ½	2.88	2.469	0.203	3.00	1.90	1.610	0.145	2.62	40	5.10
2 ½ x 1 ¼	2.88	2.469	0.203	3.00	1.66	1.380	0.140	2.50	40	4.80
2 ½ x 1	2.88	2.469	0.203	3.00	1.32	1.049	0.133	2.25	40	4.60
3 x 2 ½	3.50	3.068	0.216	3.38	2.88	2.469	0.203	3.25	40	7.20
3 x 2	3.50	3.068	0.216	3.38	2.38	2.067	0.154	3.00	40	7.00
3 x 1 ½	3.50	3.068	0.216	3.38	1.90	1.610	0.145	2.88	40	6.80
3 x 1 ¼	3.50	3.068	0.216	3.38	1.66	1.380	0.140	2.75	40	6.60
3 x 1	3.50	3.068	0.216	3.38	1.32	1.049	0.133	2.62	40	6.50

FITTINGS T RED

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

FITTINGS T RED

PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (STD)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
3 ½ x 3	4.00	3.548	0.226	3.75	3.50	3.068	0.216	3.62	40	9.80
3 ½ x 2 ½	4.00	3.548	0.226	3.75	2.88	2.474	0.203	3.50	40	9.40
3 ½ x 2	4.00	3.548	0.226	3.75	2.38	2.072	0.154	3.25	40	9.20
3 ½ x 1 ½	4.00	3.548	0.226	3.75	1.90	1.610	0.145	3.12	40	8.90
4 x 3 ½	4.50	4.026	0.237	4.12	4.00	3.548	0.226	4.00	40	11.90
4 x 3	4.50	4.026	0.237	4.12	3.50	3.068	0.216	3.88	40	11.60
4 x 2 ½	4.50	4.026	0.237	4.12	2.88	2.469	0.203	3.75	40	11.40
4 x 2	4.50	4.026	0.237	4.12	2.38	2.067	0.154	3.50	40	11.20
4 x 1 ½	4.50	4.026	0.237	4.12	1.90	1.610	0.145	3.38	40	11.20
5 x 4	5.56	5.047	0.258	4.88	4.50	4.026	0.237	4.62	40	20.50
5 x 3 ½	5.56	5.047	0.258	4.88	4.00	3.548	0.226	4.50	40	20.00
5 x 3	5.56	5.047	0.258	4.88	3.50	3.068	0.216	4.38	40	19.40
5 x 2 ½	5.56	5.047	0.258	4.88	2.88	2.469	0.203	4.25	40	19.00
5 x 2	5.56	5.047	0.258	4.88	2.38	2.067	0.154	4.12	40	18.80
6 x 5	6.62	6.065	0.280	5.62	5.56	5.047	0.258	5.38	40	32.00
6 x 4	6.62	6.065	0.280	5.62	4.50	4.026	0.237	5.12	40	30.50
6 x 3 ½	6.62	6.065	0.280	5.62	4.00	3.548	0.226	5.00	40	30.00
6 x 3	6.62	6.065	0.280	5.62	3.50	3.068	0.216	4.88	40	30.00
6 x 2 ½	6.62	6.065	0.280	5.62	2.88	2.469	0.203	4.75	40	29.70
6 x 2	6.62	6.065	0.280	5.62	2.38	2.067	0.154	4.75	40	29.00
8 x 6	8.62	7.981	0.322	7.00	6.62	6.065	0.280	6.62	40	56.50
8 x 5	8.62	7.981	0.322	7.00	5.56	5.047	0.258	6.38	40	54.00
8 x 4	8.62	7.981	0.322	7.00	4.50	4.026	0.237	6.12	40	53.20
8 x 3 ½	8.62	7.981	0.322	7.00	4.00	3.548	0.226	6.00	40	53.00
8 x 3	8.62	7.981	0.322	7.00	3.50	3.068	0.216	6.00	40	52.00
10 x 8	10.75	10.020	0.365	8.50	8.62	7.981	0.322	8.00	40	86.50
10 x 6	10.75	10.020	0.365	8.50	6.62	6.060	0.280	7.62	40	85.90
10 x 5	10.75	10.020	0.365	8.50	5.56	5.047	0.258	7.50	40	82.50
10 x 4	10.75	10.020	0.365	8.50	4.50	4.026	0.237	7.25	40	82.00
10 x 3	10.75	10.020	0.365	8.50	3.50	3.068	0.216	7.25	40	79.00
12 x 10	12.75	12.000	0.375	10.00	10.75	10.020	0.365	9.50	-	123.00
12 x 8	12.75	12.000	0.375	10.00	8.62	7.981	0.322	9.00	-	120.00
12 x 6	12.75	12.000	0.375	10.00	6.62	6.060	0.280	8.62	-	118.00
12 x 5	12.75	12.000	0.375	10.00	5.56	5.047	0.258	8.50	-	117.00
12 x 4	12.75	12.000	0.375	10.00	4.50	4.026	0.237	8.50	-	112.00
14 x 12	14.00	13.250	0.375	11.00	12.75	12.000	0.375	10.62	-	151.00
14 x 10	14.00	13.250	0.375	11.00	10.75	10.020	0.365	10.12	-	148.00
14 x 8	14.00	13.250	0.375	11.00	8.62	7.981	0.322	9.75	-	146.00
14 x 6	14.00	13.250	0.375	11.00	6.62	6.065	0.280	9.38	-	145.00
16 x 14	16.00	15.250	0.375	12.00	14.00	13.250	0.375	12.00	-	221.00
16 x 12	16.00	15.250	0.375	12.00	12.75	12.000	0.375	11.62	-	213.00
16 x 10	16.00	15.250	0.375	12.00	10.75	10.020	0.364	11.12	-	197.00
16 x 8	16.00	15.250	0.375	12.00	8.62	7.981	0.322	10.75	-	190.00
16 x 6	16.00	15.250	0.375	12.00	6.62	6.060	0.280	10.38	-	180.00



Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (STD)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
18 x 16	18.00	17.250	0.375	13.50	16.00	15.250	0.375	13.00	-	262.00
18 x 14	18.00	17.250	0.375	13.50	14.00	13.250	0.375	13.00	-	248.00
18 x 12	18.00	17.250	0.375	13.50	12.75	12.000	0.375	12.62	-	241.00
18 x 10	18.00	17.250	0.375	13.50	10.75	10.020	0.365	12.12	-	229.00
18 x 8	18.00	17.250	0.375	13.50	8.62	7.981	0.322	11.75	-	216.00
20 x 18	20.00	19.250	0.375	15.00	18.00	17.250	0.375	14.50	-	352.00
20 x 16	20.00	19.250	0.375	15.00	16.00	15.250	0.375	14.00	-	339.00
20 x 14	20.00	19.250	0.375	15.00	14.00	13.250	0.375	14.00	-	327.00
20 x 12	20.00	19.250	0.375	15.00	12.75	12.000	0.375	13.62	-	315.00
20 x 10	20.00	19.250	0.375	15.00	10.75	10.020	0.365	13.12	-	305.00
20 x 8	20.00	19.250	0.375	15.00	8.62	7.976	0.322	12.75	-	293.00
24 x 20	24.00	23.250	0.375	17.00	20.00	19.250	0.375	17.00	-	500.00
24 x 18	24.00	23.250	0.375	17.00	18.00	17.250	0.375	16.50	-	487.00
24 x 16	24.00	23.250	0.375	17.00	16.00	15.250	0.375	16.00	-	475.00
24 x 14	24.00	23.250	0.375	17.00	14.00	13.250	0.375	16.00	-	465.00
24 x 12	24.00	23.250	0.375	17.00	12.75	12.000	0.375	15.62	-	450.00
24 x 10	24.00	23.250	0.375	17.00	10.75	10.020	0.365	15.12	-	447.00
30 x 24	30.00	29.250	0.375	22.00	24.00	23.250	0.375	21.00	-	795.00
30 x 20	30.00	29.250	0.375	22.00	20.00	19.250	0.375	20.00	-	749.00
30 x 18	30.00	29.250	0.375	22.00	18.00	17.250	0.375	19.50	-	727.00
30 x 16	30.00	29.250	0.375	22.00	16.00	15.250	0.375	19.00	-	715.00
36 x 30	36.00	35.250	0.375	26.50	30.00	29.250	0.375	25.00	-	1207.00
36 x 24	36.00	35.250	0.375	26.50	24.00	23.250	0.375	24.00	-	1129.00
36 x 20	36.00	35.250	0.375	26.50	20.00	19.250	0.375	23.00	-	1072.00
36 x 18	36.00	35.250	0.375	26.50	18.00	17.250	0.375	22.50	-	1136.00
42 x 36	42.00	41.250	0.375	30.00	36.00	35.250	0.375	28.00	-	1415.00
42 x 30	42.00	41.250	0.375	30.00	30.00	29.250	0.375	28.00	-	1327.00
42 x 24	42.00	41.250	0.375	30.00	24.00	23.250	0.375	26.00	-	1248.00
42 x 20	42.00	41.250	0.375	30.00	20.00	19.250	0.375	26.00	-	1200.00
48 x 42	48.00	47.250	0.375	35.00	42.00	41.250	0.375	32.00	-	2207.00
48 x 36	48.00	47.250	0.375	35.00	36.00	35.250	0.375	31.00	-	2127.00
48 x 30	48.00	47.250	0.375	35.00	30.00	29.250	0.375	30.00	-	2048.00
48 x 24	48.00	47.250	0.375	35.00	24.00	23.250	0.375	29.00	-	1900.00

FITTINGS T RED

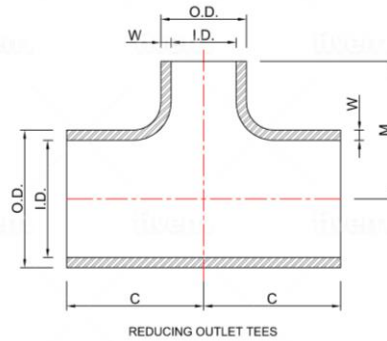
acecarbonsteel.com

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## REDUCING TEES

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (XS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
¾ x ½	1.05	0.742	0.154	1.12	0.84	0.546	0.147	1.12	80	0.47
1 x ¾	1.32	0.957	0.179	1.50	1.05	0.742	0.154	1.50	80	0.98
1 x ½	1.32	0.957	0.179	1.50	0.84	0.546	0.147	1.50	80	0.92
1 ¼ x 1	1.66	1.278	0.191	1.88	1.32	0.957	0.179	1.88	80	1.60
1 ¼ x ¾	1.66	1.278	0.191	1.88	1.05	0.742	0.154	1.88	80	1.60
1 ¼ x ½	1.66	1.278	0.191	1.88	0.84	0.546	0.147	1.88	80	1.60
1 ½ x 1 ¼	1.90	1.500	0.200	2.25	1.66	1.278	0.191	2.25	80	2.40
1 ½ x 1	1.90	1.500	0.200	2.25	1.32	0.957	0.179	2.25	80	2.30
1 ½ x ¾	1.90	1.500	0.200	2.25	1.05	0.742	0.154	2.25	80	2.20
1 ½ x ½	1.90	1.500	0.200	2.25	0.84	0.546	0.147	2.25	80	2.20
2 x 1 ½	2.38	1.944	0.218	2.50	1.90	1.500	0.200	2.38	80	3.80
2 x 1 ¼	2.38	1.944	0.218	2.50	1.66	1.278	0.191	2.25	80	3.70
2 x 1	2.38	1.944	0.218	2.50	1.32	0.957	0.179	2.00	80	3.50
2 x ¾	2.38	1.944	0.218	2.50	1.05	0.742	0.154	1.75	80	3.50
2 ½ x 2	2.88	2.323	0.276	3.00	2.38	1.944	0.218	2.75	80	6.30
2 ½ x 1 ½	2.88	2.323	0.276	3.00	1.90	1.500	0.200	2.62	80	6.20
2 ½ x 1 ¼	2.88	2.323	0.276	3.00	1.66	1.278	0.191	2.50	80	6.00
2 ½ x 1	2.88	2.323	0.276	3.00	1.32	0.957	0.179	2.25	80	5.80
3 x 2 ½	3.50	2.900	0.300	3.38	2.88	2.323	0.276	3.25	80	8.80
3 x 2	3.50	2.900	0.300	3.38	2.38	1.939	0.218	3.00	80	8.60
3 x 1 ½	3.50	2.900	0.300	3.38	1.90	1.500	0.200	2.88	80	8.10
3 x 1 ¼	3.50	2.900	0.300	3.38	1.66	1.278	0.191	2.75	80	8.00
3 x 1	3.50	2.900	0.300	3.38	1.32	0.957	0.179	2.62	80	7.80

FITTINGS T RED

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (XS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
3 ½ x 3	4.00	3.364	0318	3.75	3.50	2.900	0.300	3.62	80	12.60
3 ½ x 2 ½	4.00	3.364	0318	3.75	2.88	2.323	0.276	3.50	80	12.10
3 ½ x 2	4.00	3.364	0318	3.75	2.38	1.939	0.218	3.25	80	11.70
3 ½ x 1 ½	4.00	3.364	0318	3.75	1.90	1.500	0.200	3.12	80	11.60
4 x 3 ½	4.50	3.826	0.337	4.12	4.00	3.364	0.318	4.00	80	15.70
4 x 3	4.50	3.826	0.337	4.12	3.50	2.900	0.300	3.88	80	15.40
4 x 2 ½	4.50	3.826	0.337	4.12	2.88	2.323	0.276	3.75	80	15.10
4 x 2	4.50	3.826	0.337	4.12	2.38	1.939	0.218	3.50	80	15.10
4 x 1 ½	4.50	3.826	0.337	4.12	1.90	1.500	0.200	3.38	80	15.00
5 x 4	5.56	4.813	0.375	4.88	4.50	3.826	0.337	4.62	80	25.40
5 x 3 ½	5.56	4.813	0.375	4.88	4.00	3.364	0.318	4.50	80	24.80
5 x 3	5.56	4.813	0.375	4.88	3.50	2.900	0.300	4.38	80	24.20
5 x 2 ½	5.56	4.813	0.375	4.88	2.88	2.323	0.276	4.25	80	23.90
5 x 2	5.56	4.813	0.375	4.88	2.38	1.939	0.218	4.12	80	23.60
6 x 5	6.62	5.761	0.432	5.62	5.56	4.813	0.375	5.38	80	39.50
6 x 4	6.62	5.761	0.432	5.62	4.50	3.826	0.337	5.12	80	39.30
6 x 3 ½	6.62	5.761	0.432	5.62	4.00	3.364	0.318	5.00	80	38.80
6 x 3	6.62	5.761	0.432	5.62	3.50	2.900	0.300	4.88	80	38.60
6 x 2 ½	6.62	5.761	0.432	5.62	2.88	2.323	0.276	4.75	80	38.20
6 x 2	6.62	5.761	0.432	5.62	2.38	1.939	0.218	4.75	80	37.40
8 x 6	8.62	7.625	0.500	7.00	6.62	5.761	0.432	6.62	80	70.20
8 x 5	8.62	7.625	0.500	7.00	5.56	4.813	0.375	6.38	80	69.40
8 x 4	8.62	7.625	0.500	7.00	4.50	3.826	0.337	6.12	80	69.20
8 x 3 ½	8.62	7.625	0.500	7.00	4.00	3.364	0.318	6.00	80	68.60
8 x 3	8.62	7.625	0.500	7.00	3.50	2.900	0.300	6.00	80	68.30
10 x 8	10.75	9.750	0.500	8.50	8.62	7.620	0.500	8.00	-	107.00
10 x 6	10.75	9.750	0.500	8.50	6.62	5.761	0.432	7.62	-	104.00
10 x 5	10.75	9.750	0.500	8.50	5.56	4.813	0.375	7.50	-	103.00
10 x 4	10.75	9.750	0.500	8.50	4.50	3.826	0.337	7.25	-	101.00
10 x 3	10.75	9.750	0.500	8.50	3.50	2.900	0.300	7.25	-	99.00
12 x 10	12.75	11.750	0.500	10.00	10.75	9.750	0.500	9.50	-	165.00
12 x 8	12.75	11.750	0.500	10.00	8.62	7.625	0.500	9.00	-	156.00
12 x 6	12.75	11.750	0.500	10.00	6.62	5.761	0.432	8.62	-	151.00
12 x 5	12.75	11.750	0.500	10.00	5.56	4.813	0.375	8.50	-	149.00
12 x 4	12.75	11.750	0.500	10.00	4.50	3.826	0.337	8.50	-	148.00
14 x 12	14.00	13.000	0.500	11.00	12.75	11.750	0.500	10.62	-	210.00
14 x 10	14.00	13.000	0.500	11.00	10.75	9.750	0.500	10.12	-	203.00
14 x 8	14.00	13.000	0.500	11.00	8.62	7.625	0.500	9.75	-	200.00
14 x 6	14.00	13.000	0.500	11.00	6.62	5.761	0.432	9.38	-	196.00
16 x 14	16.00	15.000	0.500	12.00	14.00	13.000	0.500	12.00	-	268.00
16 x 12	16.00	15.000	0.500	12.00	12.75	11.750	0.500	11.62	-	261.00
16 x 10	16.00	15.000	0.500	12.00	10.75	9.750	0.500	11.12	-	250.00
16 x 8	16.00	15.000	0.500	12.00	8.62	7.625	0.500	10.75	-	240.00
16 x 6	16.00	15.000	0.500	12.00	6.62	5.761	0.432	10.38	-	235.00

FITTINGS T RED

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

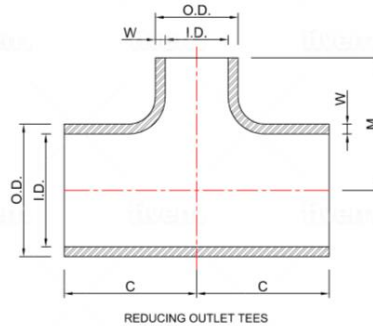
PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (XS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
18 x 16	18.00	17.000	0.500	13.50	16.00	15.000	0.500	13.00	-	348.00
18 x 14	18.00	17.000	0.500	13.50	14.00	13.000	0.500	13.00	-	335.00
18 x 12	18.00	17.000	0.500	13.50	12.75	11.750	0.500	12.62	-	328.00
18 x 10	18.00	17.000	0.500	13.50	10.75	9.750	0.500	12.12	-	308.00
18 x 8	18.00	17.000	0.500	13.50	8.62	7.625	0.500	11.75	-	300.00
20 x 18	20.00	19.000	0.500	15.00	18.00	17.000	0.500	14.50	-	445.00
20 x 16	20.00	19.000	0.500	15.00	16.00	15.000	0.500	14.00	-	427.00
20 x 14	20.00	19.000	0.500	15.00	14.00	13.000	0.500	14.00	-	412.00
20 x 12	20.00	19.000	0.500	15.00	12.75	11.750	0.500	13.62	-	397.00
20 x 10	20.00	19.000	0.500	15.00	10.75	9.750	0.500	13.12	-	384.00
20 x 8	20.00	19.000	0.500	15.00	8.62	7.625	0.500	12.75	-	375.00
24 x 20	24.00	23.000	0.500	17.00	20.00	19.000	0.500	17.00	-	610.00
24 x 18	24.00	23.000	0.500	17.00	18.00	17.000	0.500	16.50	-	588.00
24 x 16	24.00	23.000	0.500	17.00	16.00	15.000	0.500	16.00	-	578.00
24 x 14	24.00	23.000	0.500	17.00	14.00	13.000	0.500	16.00	-	565.00
24 x 12	24.00	23.000	0.500	17.00	12.75	11.750	0.500	15.62	-	558.00
24 x 10	24.00	23.000	0.500	17.00	10.75	9.750	0.500	15.12	-	550.00
30 x 24	30.00	29.000	0.500	22.00	24.00	23.000	0.500	21.00	-	994.00
30 x 20	30.00	29.000	0.500	22.00	20.00	19.000	0.500	20.00	-	945.00
30 x 18	30.00	29.000	0.500	22.00	18.00	17.000	0.500	19.50	-	920.00
30 x 16	30.00	29.000	0.500	22.00	16.00	15.000	0.500	19.00	-	900.00
36 x 30	36.00	35.000	0.500	26.50	30.00	29.000	0.500	25.00	-	1510.00
36 x 24	36.00	35.000	0.500	26.50	24.00	23.000	0.500	24.00	-	1415.00
36 x 20	36.00	35.000	0.500	26.50	20.00	19.000	0.500	23.00	-	1345.00
36 x 18	36.00	35.000	0.500	26.50	18.00	17.000	0.500	22.50	-	1321.00
42 x 36	42.00	41.000	0.500	30.00	36.00	35.000	0.500	28.00	-	1709.00
42 x 30	42.00	41.000	0.500	30.00	30.00	29.000	0.500	28.00	-	1629.00
42 x 24	42.00	41.000	0.500	30.00	24.00	23.000	0.500	26.00	-	1550.00
42 x 20	42.00	41.000	0.500	30.00	20.00	19.000	0.500	26.00	-	1500.00
48 x 42	48.00	47.000	0.500	35.00	42.00	41.000	0.500	32.00	-	2207.00
48 x 36	48.00	47.000	0.500	35.00	36.00	35.000	0.500	31.00	-	2127.00
48 x 30	48.00	47.000	0.500	35.00	30.00	29.000	0.500	30.00	-	2048.00
48 x 24	48.00	47.000	0.500	35.00	24.00	23.000	0.500	29.00	-	1980.00

FITTINGS T RED

Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

## REDUCING TEES

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (40)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
FOR DIMENSION SPECIFICATIONS ½" THROUGH 10", REFER TO SCHEDULE STD										
12 x 10	12.75	11.938	0.406	10.00	10.75	10.020	0.365	9.50	40	153.75
12 x 8	12.75	11.938	0.406	10.00	8.62	7.976	0.322	9.00	40	150.00
12 x 6	12.75	11.938	0.406	10.00	6.62	6.060	0.280	8.62	40	147.50
12 x 5	12.75	11.938	0.406	10.00	5.56	5.044	0.258	8.50	40	146.25
12 x 4	12.75	11.938	0.406	10.00	4.50	4.026	0.237	8.50	40	140.00
14 x 12	14.00	13.124	0.438	11.00	12.75	11.938	0.406	10.62	40	188.75
14 x 10	14.00	13.124	0.438	11.00	10.75	10.020	0.365	10.12	40	185.00
14 x 8	14.00	13.124	0.438	11.00	8.62	7.976	0.322	9.75	40	182.50
14 x 6	14.00	13.124	0.438	11.00	6.62	6.060	0.280	9.38	40	181.25
16 x 14	16.00	15.000	0.500	12.00	14.00	13.124	0.438	12.00	40	276.25
16 x 12	16.00	15.000	0.500	12.00	12.75	11.938	0.406	11.62	40	266.25
16 x 10	16.00	15.000	0.500	12.00	10.75	10.020	0.365	11.12	40	246.25
16 x 8	16.00	15.000	0.500	12.00	8.62	7.976	0.322	10.75	40	237.50
16 x 6	16.00	15.000	0.500	12.00	6.62	6.060	0.280	10.38	40	225.00
18 x 16	18.00	16.876	0.562	13.50	16.00	15.000	0.500	13.00	40	327.50
18 x 14	18.00	16.876	0.562	13.50	14.00	13.124	0.438	13.00	40	310.00
18 x 12	18.00	16.876	0.562	13.50	12.75	11.938	0.406	12.62	40	301.25
18 x 10	18.00	16.876	0.562	13.50	10.75	10.020	0.365	12.12	40	286.25
18 x 8	18.00	16.876	0.562	13.50	8.62	7.976	0.322	11.75	40	270.00
20 x 18	20.00	18.812	0.594	15.00	18.00	16.876	0.562	14.50	40	440.00
20 x 16	20.00	18.812	0.594	15.00	16.00	15.000	0.500	14.00	40	423.75
20 x 14	20.00	18.812	0.594	15.00	14.00	13.124	0.438	14.00	40	408.75
20 x 12	20.00	18.812	0.594	15.00	12.75	11.938	0.406	13.62	40	393.75
20 x 10	20.00	18.812	0.594	15.00	10.75	10.020	0.365	13.12	40	381.25
20 x 8	20.00	18.812	0.594	15.00	8.62	7.976	0.322	12.75	40	366.25
24 x 20	24.00	22.624	0.688	17.00	20.00	18.812	0.594	17.00	40	625.00
24 x 18	24.00	22.624	0.688	17.00	18.00	16.876	0.562	16.50	40	608.75
24 x 16	24.00	22.624	0.688	17.00	16.00	15.000	0.500	16.00	40	593.75
24 x 14	24.00	22.624	0.688	17.00	14.00	13.124	0.438	16.00	40	581.25
24 x 12	24.00	22.624	0.688	17.00	12.75	11.938	0.406	15.62	40	562.50
24 x 10	24.00	22.624	0.688	17.00	10.75	10.020	0.365	15.12	40	558.75

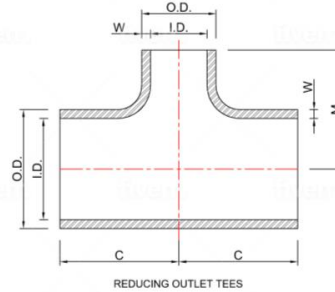
**FITTINGS T RED**

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## REDUCING TEES

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

### DIMENSIONS

UOM: Inches/LBS

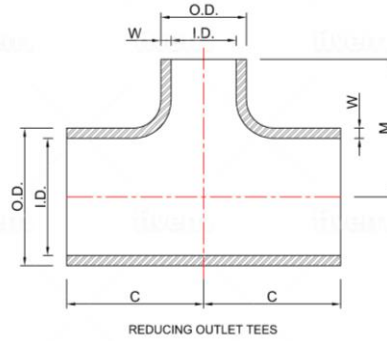
PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (80)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
FOR DIMENSION SPECIFICATIONS ½" THROUGH 8", REFER TO SCHEDULE XS										
10 x 8	10.75	9.562	0.594	8.50	8.62	7.620	0.500	8.00	80	151.38
10 x 6	10.75	9.562	0.594	8.50	6.62	5.756	0.432	7.62	80	150.33
10 x 5	10.75	9.562	0.594	8.50	5.56	4.810	0.375	7.50	80	144.38
10 x 4	10.75	9.562	0.594	8.50	4.50	3.826	0.337	7.25	80	143.50
10 x 3	10.75	9.562	0.594	8.50	3.50	2.900	0.300	7.25	80	142.00
12 x 10	12.75	11.374	0.688	10.00	10.75	9.562	0.594	9.50	80	215.25
12 x 8	12.75	11.374	0.688	10.00	8.62	7.620	0.500	9.00	80	210.00
12 x 6	12.75	11.374	0.688	10.00	6.62	5.756	0.432	8.62	80	206.50
12 x 5	12.75	11.374	0.688	10.00	5.56	4.810	0.375	8.50	80	204.75
12 x 4	12.75	11.374	0.688	10.00	4.50	3.826	0.337	8.50	80	196.00
14 x 12	14.00	12.500	0.750	11.00	12.75	11.374	0.688	10.62	80	264.25
14 x 10	14.00	12.500	0.750	11.00	10.75	9.562	0.594	10.12	80	259.00
14 x 8	14.00	12.500	0.750	11.00	8.62	7.620	0.500	9.75	80	255.50
14 x 6	14.00	12.500	0.750	11.00	6.62	5.756	0.432	9.38	80	253.75
16 x 14	16.00	14.312	0.844	12.00	14.00	12.500	0.750	12.00	80	386.75
16 x 12	16.00	14.312	0.844	12.00	12.75	11.374	0.688	11.62	80	372.75
16 x 10	16.00	14.312	0.844	12.00	10.75	9.562	0.594	11.12	80	344.75
16 x 8	16.00	14.312	0.844	12.00	8.62	7.620	0.500	10.75	80	332.50
16 x 6	16.00	14.312	0.844	12.00	6.62	5.756	0.432	10.38	80	315.00
18 x 16	18.00	16.124	0.938	13.50	16.00	14.312	0.844	13.00	80	458.50
18 x 14	18.00	16.124	0.938	13.50	14.00	12.500	0.750	13.00	80	434.00
18 x 12	18.00	16.124	0.938	13.50	12.75	11.374	0.688	12.62	80	421.75
18 x 10	18.00	16.124	0.938	13.50	10.75	9.562	0.594	12.12	80	400.75
18 x 8	18.00	16.124	0.938	13.50	8.62	7.620	0.500	11.75	80	378.00
20 x 18	20.00	17.938	1.031	15.00	18.00	16.124	0.938	14.50	80	616.00
20 x 16	20.00	17.938	1.031	15.00	16.00	14.312	0.844	14.00	80	593.25
20 x 14	20.00	17.938	1.031	15.00	14.00	12.500	0.750	14.00	80	572.25
20 x 12	20.00	17.938	1.031	15.00	12.75	11.374	0.688	13.62	80	551.25
20 x 10	20.00	17.938	1.031	15.00	10.75	9.562	0.594	13.12	80	533.75
20 x 8	20.00	17.938	1.031	15.00	8.62	7.620	0.500	12.75	80	512.75
24 x 20	24.00	21.562	1.219	17.00	20.00	17.938	1.031	17.00	80	875.00
24 x 18	24.00	21.562	1.219	17.00	18.00	16.124	0.938	16.50	80	852.25
24 x 16	24.00	21.562	1.219	17.00	16.00	14.312	0.844	16.00	80	831.25
24 x 14	24.00	21.562	1.219	17.00	14.00	12.500	0.750	16.00	80	813.75
24 x 12	24.00	21.562	1.219	17.00	12.75	11.374	0.688	15.62	80	787.50
24 x 10	24.00	21.562	1.219	17.00	10.75	9.562	0.594	15.12	80	782.25

FITTINGS T RED

Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

## REDUCING TEES

### ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

## DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (160)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
¾ x ½	1.05	0.612	0.219	1.12	0.84	0.464	0.188	1.12	160	0.66
1 x ¾	1.32	0.820	0.250	1.50	1.05	0.612	0.219	1.50	160	1.37
1 x ½	1.32	0.820	0.250	1.50	0.84	0.464	0.188	1.50	160	1.29
1 ¼ x 1	1.66	1.160	0.250	1.88	1.32	0.820	0.250	1.88	160	2.24
1 ¼ x ¾	1.66	1.160	0.250	1.88	1.05	0.612	0.219	1.88	160	2.24
1 ¼ x ½	1.66	1.160	0.250	1.88	0.84	0.464	0.188	1.88	160	2.24
1 ½ x 1 ¼	1.90	1.338	0.281	2.25	1.66	1.160	0.250	2.25	160	3.36
1 ½ x 1	1.90	1.338	0.281	2.25	1.32	0.820	0.250	2.25	160	3.22
1 ½ x ¾	1.90	1.338	0.281	2.25	1.05	0.612	0.219	2.25	160	3.08
1 ½ x ½	1.90	1.338	0.281	2.25	0.84	0.464	0.188	2.25	160	3.08
2 x 1 ½	2.38	1.692	0.344	2.50	1.90	1.338	0.281	2.38	160	5.32
2 x 1 ¼	2.38	1.692	0.344	2.50	1.66	1.160	0.250	2.25	160	5.18
2 x 1	2.38	1.692	0.344	2.50	1.32	0.820	0.250	2.00	160	4.90
2 x ¾	2.38	1.692	0.344	2.50	1.05	0.612	0.219	1.75	160	4.90
2 ½ x 2	2.88	2.130	0.375	3.00	2.38	1.692	0.344	2.75	160	8.82
2 ½ x 1 ½	2.88	2.130	0.375	3.00	1.90	1.338	0.281	2.62	160	8.68
2 ½ x 1 ¼	2.88	2.130	0.375	3.00	1.66	1.160	0.250	2.50	160	8.40
2 ½ x 1	2.88	2.130	0.375	3.00	1.32	0.820	0.250	2.25	160	8.12
3 x 2 ½	3.50	2.624	0.438	3.38	2.88	2.130	0.375	3.25	160	12.32
3 x 2	3.50	2.624	0.438	3.38	2.38	1.692	0.344	3.00	160	12.04
3 x 1 ½	3.50	2.624	0.438	3.38	1.90	1.338	0.281	2.88	160	11.34
3 x 1 ¼	3.50	2.624	0.438	3.38	1.66	1.160	0.250	2.75	160	11.20
3 x 1	3.50	2.624	0.438	3.38	1.32	0.820	0.250	2.62	160	11.20

**FITTINGS T RED**

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

FITTINGS T RED

PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (160)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
4 x 3	4.50	3.438	0.531	4.12	3.50	2.624	0.438	3.88	160	21.56
4 x 2 ½	4.50	3.438	0.531	4.12	2.88	2.130	0.375	3.75	160	21.14
4 x 2	4.50	3.438	0.531	4.12	2.38	1.692	0.344	3.50	160	21.14
4 x 1 ½	4.50	3.438	0.531	4.12	1.90	1.338	0.281	3.38	160	21.00
5 x 4	5.56	4.310	0.625	4.88	4.50	3.438	0.531	4.62	160	35.56
5 x 3	5.56	4.310	0.625	4.88	3.50	2.624	0.438	4.38	160	33.88
5 x 2 ½	5.56	4.310	0.625	4.88	2.88	2.130	0.375	4.25	160	33.46
5 x 2	5.56	4.310	0.625	4.88	2.38	1.692	0.344	4.12	160	33.04
6 x 5	6.62	5.182	0.719	5.62	5.56	4.310	0.625	5.38	160	55.30
6 x 4	6.62	5.182	0.719	5.62	4.50	3.438	0.531	5.12	160	55.02
6 x 3	6.62	5.182	0.719	5.62	3.50	2.624	0.438	4.88	160	54.04
6 x 2 ½	6.62	5.182	0.719	5.62	2.88	2.130	0.375	4.75	160	53.48
6 x 2	6.62	5.182	0.719	5.62	2.38	1.692	0.344	4.75	160	52.36
8 x 6	8.62	6.808	0.906	7.00	6.62	5.182	0.719	6.62	160	98.28
8 x 5	8.62	6.808	0.906	7.00	5.56	4.310	0.625	6.38	160	97.16
8 x 4	8.62	6.808	0.906	7.00	4.50	3.438	0.531	6.12	160	96.88
8 x 3	8.62	6.808	0.906	7.00	3.50	2.624	0.438	6.00	160	95.62
10 x 8	10.75	8.500	1.125	8.50	8.62	6.808	0.906	8.00	160	149.80
10 x 6	10.75	8.500	1.125	8.50	6.62	5.182	0.719	7.62	160	145.60
10 x 5	10.75	8.500	1.125	8.50	5.56	4.310	0.625	7.50	160	144.20
10 x 4	10.75	8.500	1.125	8.50	4.50	3.438	0.531	7.25	160	141.40
10 x 3	10.75	8.500	1.125	8.50	3.50	2.624	0.438	7.25	160	140.00
12 x 10	12.75	10.126	1.312	10.00	10.75	8.500	1.125	9.50	160	231.00
12 x 8	12.75	10.126	1.312	10.00	8.62	6.808	0.906	9.00	160	218.40
12 x 6	12.75	10.126	1.312	10.00	6.62	5.182	0.719	8.62	160	211.40
12 x 5	12.75	10.126	1.312	10.00	5.56	4.310	0.625	8.50	160	208.60
12 x 4	12.75	10.126	1.312	10.00	4.50	3.438	0.531	8.50	160	207.20
14 x 12	14.00	11.188	1.406	11.00	12.75	10.126	1.312	10.62	160	294.00
14 x 10	14.00	11.188	1.406	11.00	10.75	8.500	1.125	10.12	160	284.20
14 x 8	14.00	11.188	1.406	11.00	8.62	6.808	0.906	9.75	160	280.00
14 x 6	14.00	11.188	1.406	11.00	6.62	5.182	0.719	9.38	160	274.40
16 x 14	16.00	12.812	1.594	12.00	14.00	11.188	1.406	12.00	160	375.20
16 x 12	16.00	12.812	1.594	12.00	12.75	10.126	1.312	11.62	160	365.40
16 x 10	16.00	12.812	1.594	12.00	10.75	8.500	1.125	11.12	160	350.00
16 x 8	16.00	12.812	1.594	12.00	8.62	6.808	0.906	10.75	160	336.00
16 x 6	16.00	12.812	1.594	12.00	6.62	5.182	0.719	10.38	160	329.00
18 x 16	18.00	14.438	1.781	13.50	16.00	12.812	1.594	13.00	160	487.20
18 x 14	18.00	14.438	1.781	13.50	14.00	11.188	1.406	13.00	160	469.00
18 x 12	18.00	14.438	1.781	13.50	12.75	10.126	1.312	12.62	160	459.20
18 x 10	18.00	14.438	1.781	13.50	10.75	8.500	1.125	12.12	160	431.20
18 x 8	18.00	14.438	1.781	13.50	8.62	6.808	0.906	11.75	160	420.00



Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (160)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
20 x 18	20.00	16.062	1.969	15.00	18.00	14.438	1.781	14.50	160	623.00
20 x 16	20.00	16.062	1.969	15.00	16.00	12.812	1.594	14.00	160	597.80
20 x 14	20.00	16.062	1.969	15.00	14.00	11.188	1.406	14.00	160	576.80
20 x 12	20.00	16.062	1.969	15.00	12.75	10.126	1.312	13.62	160	555.80
20 x 10	20.00	16.062	1.969	15.00	10.75	8.500	1.125	13.12	160	537.60
20 x 8	20.00	16.062	1.969	15.00	8.62	6.808	0.906	12.75	160	525.00
24 x 20	24.00	19.312	2.344	17.00	20.00	16.062	1.969	17.00	160	854.00
24 x 18	24.00	19.312	2.344	17.00	18.00	14.438	1.781	16.50	160	823.20
24 x 16	24.00	19.312	2.344	17.00	16.00	12.812	1.594	16.00	160	809.20
24 x 14	24.00	19.312	2.344	17.00	14.00	11.188	1.406	16.00	160	791.00
24 x 12	24.00	19.312	2.344	17.00	12.75	10.126	1.312	15.62	160	781.20
24 x 10	24.00	19.312	2.344	17.00	10.75	8.500	1.125	15.12	160	770.00

FITTINGS T RED

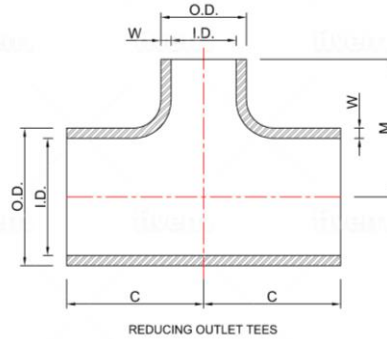
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Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## REDUCING TEES

### ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

## DIMENSIONS

UOM: Inches/LBS

PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (XXS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
¾ x ½	1.05	0.434	0.308	1.12	0.84	0.252	0.294	1.12	-	0.74
1 x ¾	1.32	0.604	0.358	1.50	1.05	0.434	0.308	1.50	-	1.54
1 x ½	1.32	0.604	0.358	1.50	0.84	0.252	0.294	1.50	-	1.45
1 ¼ x 1	1.66	0.896	0.382	1.88	1.32	0.604	0.358	1.88	-	2.52
1 ¼ x ¾	1.66	0.896	0.382	1.88	1.05	0.434	0.308	1.88	-	2.52
1 ¼ x ½	1.66	0.896	0.382	1.88	0.84	0.252	0.294	1.88	-	2.52
1 ½ x 1 ¼	1.90	1.100	0.400	2.25	1.66	0.896	0.382	2.25	-	3.78
1 ½ x 1	1.90	1.100	0.400	2.25	1.32	0.604	0.358	2.25	-	3.62
1 ½ x ¾	1.90	1.100	0.400	2.25	1.05	0.434	0.308	2.25	-	3.47
1 ½ x ½	1.90	1.100	0.400	2.25	0.84	0.252	0.294	2.25	-	3.47
2 x 1 ½	2.38	1.508	0.436	2.50	1.90	1.100	0.400	2.38	-	5.99
2 x 1 ¼	2.38	1.508	0.436	2.50	1.66	0.896	0.382	2.25	-	5.83
2 x 1	2.38	1.508	0.436	2.50	1.32	0.604	0.358	2.00	-	5.51
2 x ¾	2.38	1.508	0.436	2.50	1.05	0.434	0.552	1.75	-	5.51
2 ½ x 2	2.88	1.776	0.552	3.00	2.38	1.508	0.436	2.75	-	9.92
2 ½ x 1 ½	2.88	1.776	0.552	3.00	1.90	1.100	0.400	2.62	-	9.77
2 ½ x 1 ¼	2.88	1.776	0.552	3.00	1.66	0.896	0.382	2.50	-	9.45
2 ½ x 1	2.88	1.776	0.552	3.00	1.32	0.604	0.358	2.25	-	9.14
3 x 2 ½	3.50	2.300	0.600	3.38	2.88	1.776	0.600	3.25	-	13.86
3 x 2	3.50	2.300	0.600	3.38	2.38	1.508	0.552	3.00	-	13.55
3 x 1 ½	3.50	2.300	0.600	3.38	1.90	1.100	0.436	2.88	-	12.76
3 x 1 ¼	3.50	2.300	0.600	3.38	1.66	0.896	0.400	2.75	-	12.60
3 x 1	3.50	2.300	0.600	3.38	1.32	0.604	0.674	2.62	-	12.60

FITTINGS T RED



Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

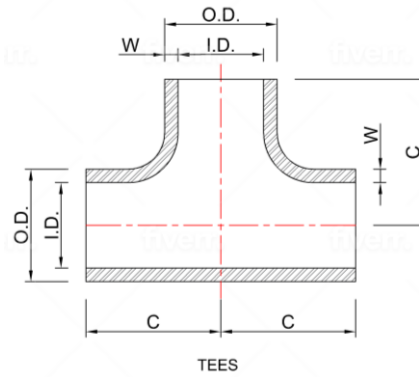
PIPE SIZE	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				PIPE SCHEDULE (XXS)	APPROX WEIGHT
	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)	OUTSIDE DIAMETER (O.D.)	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	CENTER TO END (C)		
4 x 3	4.50	3.152	0.674	4.12	3.50	2.300	0.600	3.88	-	24.26
4 x 2 ½	4.50	3.152	0.674	4.12	2.88	1.776	0.552	3.75	-	23.78
4 x 2	4.50	3.152	0.674	4.12	2.38	1.508	0.436	3.50	-	23.78
4 x 1 ½	4.50	3.152	0.674	4.12	1.90	1.100	0.400	3.38	-	23.63
5 x 4	5.56	4.060	0.750	4.88	4.50	3.152	0.674	4.62	-	40.01
5 x 3	5.56	4.060	0.750	4.88	3.50	2.300	0.600	4.38	-	38.21
5 x 2 ½	5.56	4.060	0.750	4.88	2.88	1.776	0.552	4.25	-	37.64
5 x 2	5.56	4.060	0.750	4.88	2.38	1.508	0.436	4.12	-	37.17
6 x 5	6.62	4.892	0.864	5.62	5.56	4.060	0.750	5.38	-	62.21
6 x 4	6.62	4.892	0.864	5.62	4.50	3.152	0.674	5.12	-	61.90
6 x 3	6.62	4.892	0.864	5.62	3.50	2.300	0.600	4.88	-	60.80
6 x 2 ½	6.62	4.892	0.864	5.62	2.88	1.776	0.552	4.75	-	60.17
6 x 2	6.62	4.892	0.864	5.62	2.38	1.508	0.436	4.75	-	58.91
8 x 6	8.62	6.870	0.875	7.00	6.62	4.892	0.864	6.62	-	110.57
8 x 5	8.62	6.870	0.875	7.00	5.56	4.060	0.750	6.38	-	109.31
8 x 4	8.62	6.870	0.875	7.00	4.50	3.152	0.674	6.12	-	108.99
8 x 3	8.62	6.870	0.875	7.00	3.50	2.300	0.600	6.00	-	107.57
10 x 8	10.75	8.750	1.000	8.50	8.62	6.870	0.875	8.00	-	168.53
10 x 6	10.75	8.750	1.000	8.50	6.62	4.892	0.864	7.62	-	163.80
10 x 5	10.75	8.750	1.000	8.50	5.56	4.060	0.750	7.50	-	162.23
10 x 4	10.75	8.750	1.000	8.50	4.50	3.152	0.674	7.25	-	159.80
10 x 3	10.75	8.750	1.000	8.50	3.50	2.300	0.600	7.25	-	158.00
12 x 10	12.75	10.750	1.000	10.00	10.75	8.750	1.000	9.50	-	259.88
12 x 8	12.75	10.750	1.000	10.00	8.62	6.870	0.875	9.00	-	254.70
12 x 6	12.75	10.750	1.000	10.00	6.62	4.892	0.864	8.62	-	237.83
12 x 5	12.75	10.750	1.000	10.00	5.56	4.060	0.750	8.50	-	234.68
12 x 4	12.75	10.750	1.000	10.00	4.50	3.152	0.674	8.50	-	233.10

FITTINGS T RED

Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

# TEES

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

## DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO CENTER	CENTER TO END	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (STD)	APPROX WEIGHT
1/2	0.84	1.00	1.00	0.622	0.109	40	0.35
3/4	1.05	1.12	1.12	0.824	0.113	40	0.50
1	1.32	1.50	1.50	1.049	0.133	40	0.75
1 1/4	1.66	1.88	1.88	1.380	0.140	40	1.30
1 1/2	1.90	2.25	2.25	1.610	0.145	40	1.90
2	2.38	2.50	2.50	2.067	0.154	40	3.20
2 1/2	2.88	3.00	3.00	2.469	0.203	40	5.80
3	3.50	3.38	3.38	3.068	0.216	40	7.20
3 1/2	4.00	3.75	3.75	3.548	0.226	40	9.50
4	4.50	4.12	4.12	4.026	0.237	40	12.70
5	5.56	4.88	4.88	5.047	0.258	40	20.80
6	6.62	5.62	5.62	6.065	0.280	40	33.10
8	8.62	7.00	7.00	7.981	0.322	40	56.50
10	10.75	8.50	8.50	10.020	0.365	40	90.90
12	12.75	10.00	10.00	12.000	0.375	-	136.00
14	14.00	11.00	11.00	13.250	0.375	30	162.00
16	16.00	12.00	12.00	15.250	0.375	30	206.00
18	18.00	13.50	13.50	17.250	0.375	-	272.00
20	20.00	15.00	15.00	19.250	0.375	20	350.00
24	24.00	17.00	17.00	23.250	0.375	20	508.00
30	30.00	22.00	22.00	29.250	0.375	-	835.00
36	36.00	26.50	26.50	35.250	0.375	-	1294.00
42	42.00	30.00	30.00	41.250	0.375	-	1495.00
48	48.00	35.00	35.00	47.250	0.375	-	2300.00

FITTINGS THE

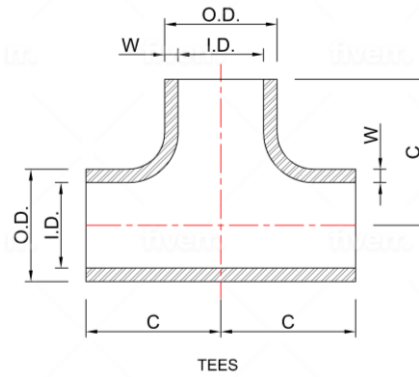


Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

## TEES

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

## DIMENSIONS

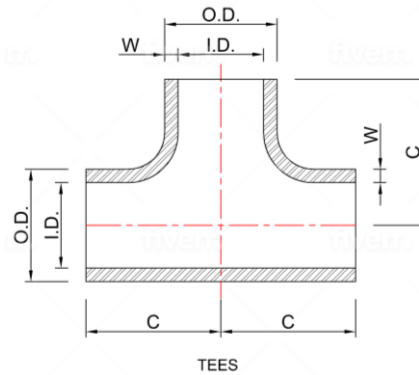
UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO CENTER	CENTER TO END	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XS)	APPROX WEIGHT
1/2	0.84	1.00	1.00	0.546	0.147	80	0.37
3/4	1.05	1.12	1.12	0.742	0.154	80	0.58
1	1.32	1.50	1.50	0.957	0.179	80	0.87
1 1/4	1.66	1.88	1.88	1.278	0.191	80	1.60
1 1/2	1.90	2.25	2.25	1.500	0.200	80	2.30
2	2.38	2.50	2.50	1.939	0.218	80	3.90
2 1/2	2.88	3.00	3.00	2.323	0.276	80	6.50
3	3.50	3.38	3.38	2.900	0.300	80	9.00
3 1/2	4.00	3.75	3.75	3.364	0.318	80	12.20
4	4.50	4.12	4.12	3.826	0.337	80	16.20
5	5.56	4.88	4.88	4.813	0.375	80	26.60
6	6.62	5.62	5.62	5.761	0.432	80	41.80
8	8.62	7.00	7.00	7.625	0.500	80	76.20
10	10.75	8.50	8.50	9.750	0.500	60	115.00
12	12.75	10.00	10.00	11.750	0.500	-	169.00
14	14.00	11.00	11.00	13.000	0.500	-	237.00
16	16.00	12.00	12.00	15.000	0.500	40	284.00
18	18.00	13.50	13.50	17.000	0.500	-	353.00
20	20.00	15.00	15.00	19.000	0.500	30	442.00
24	24.00	17.00	17.00	23.000	0.500	-	625.00
30	30.00	22.00	22.00	29.000	0.500	20	1065.00
36	36.00	26.50	26.50	35.000	0.500	20	1610.00
42	42.00	30.00	30.00	41.000	0.500	-	1788.00
48	48.00	35.00	35.00	47.000	0.500	-	2300.00

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Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**TEES****ASME B16.9 & ASTM A234 WPB**Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

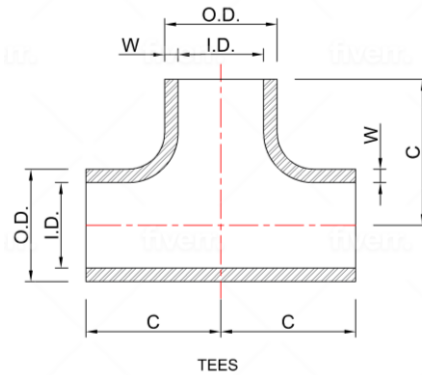
NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO CENTER	CENTER TO END	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (40)	APPROX WEIGHT
1/2	0.84	1.00	1.00	0.622	0.109	40	0.35
3/4	1.05	1.12	1.12	0.824	0.113	40	0.50
1	1.32	1.50	1.50	1.054	0.133	40	0.75
1 1/4	1.66	1.88	1.88	1.380	0.140	40	1.30
1 1/2	1.90	2.25	2.25	1.610	0.145	40	1.90
2	2.38	2.50	2.50	2.072	0.154	40	3.20
2 1/2	2.88	3.00	3.00	2.474	0.203	40	5.80
3	3.50	3.38	3.38	3.068	0.216	40	7.20
3 1/2	4.00	3.75	3.75	3.548	0.226	40	8.50
4	4.50	4.12	4.12	4.026	0.237	40	9.50
5	5.56	4.88	4.88	5.044	0.258	40	12.70
6	6.62	5.62	5.62	6.060	0.280	40	20.80
8	8.62	7.00	7.00	7.976	0.322	40	33.10
10	10.75	8.50	8.50	10.020	0.365	40	56.50
12	12.75	10.00	10.00	11.938	0.406	40	90.90
14	14.00	11.00	11.00	13.124	0.438	40	165.00
16	16.00	12.00	12.00	15.000	0.500	40	210.00
18	18.00	13.50	13.50	16.876	0.562	40	275.00
20	20.00	15.00	15.00	18.812	0.594	40	355.00
24	24.00	17.00	17.00	22.624	0.688	40	510.00

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

# TEES

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

## DIMENSIONS

UOM: Inches/LBS

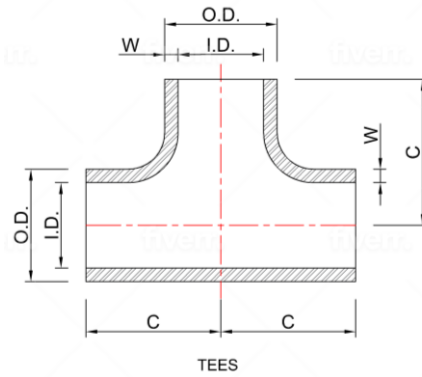
NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO CENTER	CENTER TO END	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (80)	APPROX WEIGHT
1/2	0.84	1.00	1.00	0.546	0.147	80	0.37
3/4	1.05	1.12	1.12	0.742	0.154	80	0.58
1	1.32	1.50	1.50	0.957	0.179	80	0.87
1 1/4	1.66	1.88	1.88	1.278	0.191	80	1.60
1 1/2	1.90	2.25	2.25	1.500	0.200	80	2.30
2	2.38	2.50	2.50	1.939	0.218	80	3.90
2 1/2	2.88	3.00	3.00	2.323	0.276	80	6.50
3	3.50	3.38	3.38	2.900	0.300	80	9.00
3 1/2	4.00	3.75	3.75	3.364	0.318	80	12.20
4	4.50	4.12	4.12	3.826	0.337	80	16.20
5	5.56	4.88	4.88	4.810	0.375	80	26.60
6	6.62	5.62	5.62	5.756	0.432	80	41.80
8	8.62	7.00	7.00	7.620	0.500	80	76.20
10	10.75	8.50	8.50	9.562	0.594	80	120.00
12	12.75	10.00	10.00	11.374	0.688	80	175.00
14	14.00	11.00	11.00	12.500	0.750	80	240.00
16	16.00	12.00	12.00	14.312	0.844	80	290.00
18	18.00	13.50	13.50	16.124	0.938	80	360.00
20	20.00	15.00	15.00	17.938	1.031	80	450.00
24	24.00	17.00	17.00	21.562	1.219	80	630.00

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Project Name: \_\_\_\_\_  
 Job #: \_\_\_\_\_

# TEES

ASME B16.9 & ASTM A234 WPB



Source:  Import  Domestic  Approved

## DIMENSIONS

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO CENTER	CENTER TO END	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (160)	APPROX WEIGHT
1/2	0.84	1.00	1.00	0.464	0.188	160	0.46
3/4	1.05	1.12	1.12	0.612	0.219	160	0.73
1	1.32	1.50	1.50	0.820	0.250	160	1.09
1 1/4	1.66	1.88	1.88	1.160	0.250	160	2.00
1 1/2	1.90	2.25	2.25	1.338	0.281	160	2.88
2	2.38	2.50	2.50	1.692	0.344	160	4.88
2 1/2	2.88	3.00	3.00	2.130	0.375	160	8.13
3	3.50	3.38	3.38	2.624	0.438	160	11.25
4	4.50	4.12	4.12	3.438	0.531	160	20.25
5	5.56	4.88	4.88	4.310	0.625	160	33.25
6	6.62	5.62	5.62	5.182	0.719	160	52.25
8	8.62	7.00	7.00	6.808	0.906	160	95.25
10	10.75	8.50	8.50	8.500	1.125	160	143.75
12	12.75	10.00	10.00	10.126	1.312	160	211.25
14	14.00	11.00	11.00	11.188	1.406	160	296.25
16	16.00	12.00	12.00	12.812	1.594	160	355.00
18	18.00	13.50	13.50	14.438	1.781	160	441.25
20	20.00	15.00	15.00	16.062	1.969	160	552.50
24	24.00	17.00	17.00	19.312	2.344	160	781.25

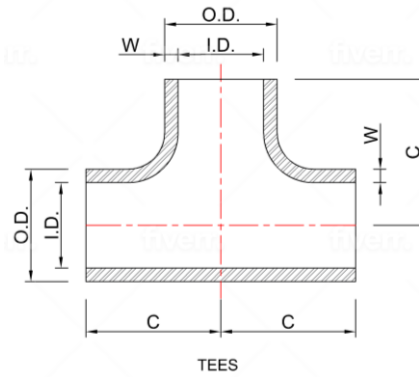
FITTINGS THE

Project Name: \_\_\_\_\_

Job #: \_\_\_\_\_

**TEES**

ASME B16.9 &amp; ASTM A234 WPB

Source:  Import  Domestic  Approved**DIMENSIONS**

UOM: Inches/LBS

NOMINAL PIPE SIZE	OUTSIDE DIAMETER (O.D.)	CENTER TO CENTER	CENTER TO END	INSIDE DIAMETER (I.D.)	WALL THICKNESS (W)	PIPE SCHEDULE (XXS)	APPROX WEIGHT
1/2	0.84	1.00	1.00	0.252	0.294	-	0.51
3/4	1.05	1.12	1.12	0.434	0.308	-	0.80
1	1.32	1.50	1.50	0.604	0.358	-	1.20
1 1/4	1.66	1.88	1.88	0.896	0.382	-	2.20
1 1/2	1.90	2.25	2.25	1.100	0.400	-	3.16
2	2.38	2.50	2.50	1.508	0.436	-	5.36
2 1/2	2.88	3.00	3.00	1.776	0.552	-	8.94
3	3.50	3.38	3.38	2.300	0.600	-	12.38
4	4.50	4.12	4.12	3.152	0.674	-	22.28
5	5.56	4.88	4.88	4.060	0.750	-	36.58
6	6.62	5.62	5.62	4.892	0.864	-	57.48
8	8.62	7.00	7.00	6.870	0.875	-	104.78
10	10.75	8.50	8.50	8.750	1.000	140	158.13
12	12.75	10.00	10.00	10.750	1.000	120	232.38