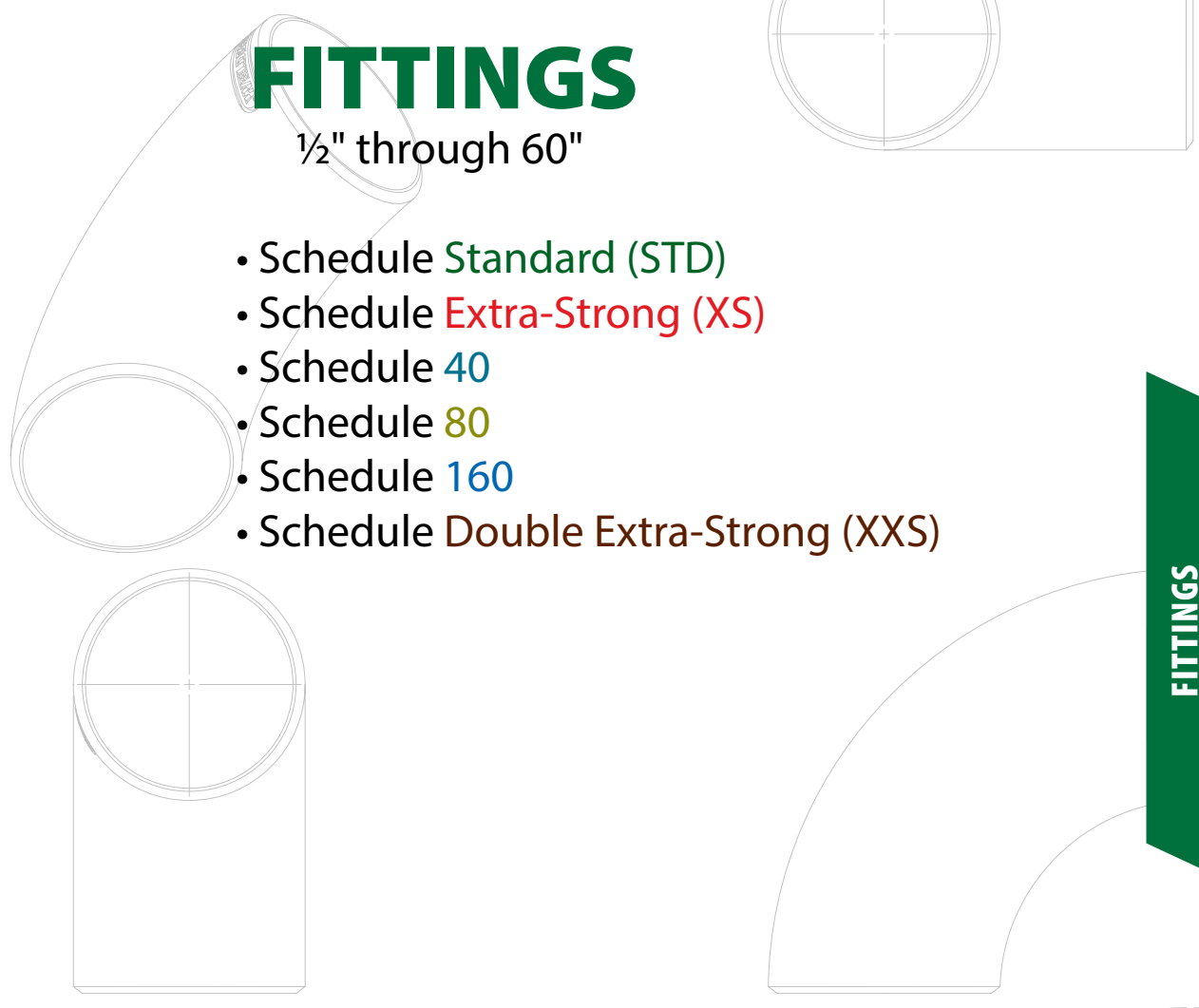




FITTINGS

1/2" through 60"

- Schedule Standard (STD)
- Schedule Extra-Strong (XS)
- Schedule 40
- Schedule 80
- Schedule 160
- Schedule Double Extra-Strong (XXS)

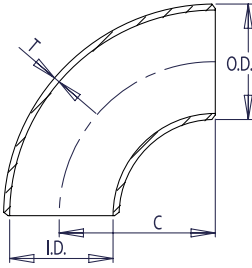


FITTINGS



All Products Backed by the Weldbend Warranty

LONG RADIUS SCHEDULE STD

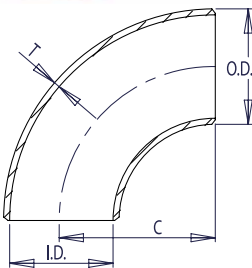


WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
1/2	0.84	0.622	0.109	1.50	40	0.16
3/4	1.05	0.824	0.113	1.50	40	0.17
1	1.32	1.049	0.133	1.50	40	0.40
1 1/4	1.66	1.380	0.140	1.88	40	0.55
1 1/2	1.90	1.610	0.145	2.25	40	0.80
2	2.38	2.067	0.154	3.00	40	1.60
2 1/2	2.88	2.469	0.203	3.75	40	3.20
3	3.50	3.068	0.216	4.50	40	4.80
3 1/2	4.00	3.548	0.226	5.25	40	6.60
4	4.50	4.026	0.237	6.00	40	8.90
5	5.56	5.047	0.258	7.50	40	15.10
6	6.62	6.065	0.280	9.00	40	24.00
8	8.62	7.981	0.322	12.00	40	47.80
10	10.75	10.020	0.365	15.00	40	83.40
12	12.75	12.000	0.375	18.00	*	123.00
14	14.00	13.250	0.375	21.00	30	155.00
16	16.00	15.250	0.375	24.00	30	206.00
18	18.00	17.250	0.375	27.00	*	262.00
20	20.00	19.250	0.375	30.00	20	324.00
24	24.00	23.250	0.375	36.00	20	466.00
30	30.00	29.250	0.375	45.00	*	720.00
36	36.00	35.250	0.375	54.00	*	1039.00
42	42.00	41.250	0.375	63.00	*	1420.00
48	48.00	47.250	0.375	72.00	*	2000.00

LONG RADIUS SCHEDULE XS



WELDBEND NOTES

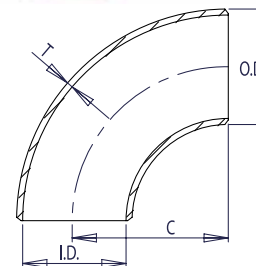
1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
1/2	0.84	0.546	0.147	1.50	80	0.26
3/4	1.05	0.742	0.154	1.50	80	0.29
1	1.32	0.957	0.179	1.50	80	0.48
1 1/4	1.66	1.278	0.191	1.88	80	0.79
1 1/2	1.90	1.500	0.200	2.25	80	1.20
2	2.38	1.939	0.218	3.00	80	2.10
2 1/2	2.88	2.323	0.276	3.75	80	3.80
3	3.50	2.900	0.300	4.50	80	6.30
3 1/2	4.00	3.364	0.318	5.25	80	8.60
4	4.50	3.826	0.337	6.00	80	12.50
5	5.56	4.813	0.375	7.50	80	21.20
6	6.62	5.761	0.432	9.00	80	34.40
8	8.62	7.625	0.500	12.00	80	71.30
10	10.75	9.750	0.500	15.00	60	111.00
12	12.75	11.750	0.500	18.00	*	158.00
14	14.00	13.000	0.500	21.00	*	201.00
16	16.00	15.000	0.500	24.00	40	270.00
18	18.00	17.000	0.500	27.00	*	348.00
20	20.00	19.000	0.500	30.00	30	422.00
24	24.00	23.000	0.500	36.00	*	604.00
30	30.00	29.000	0.500	45.00	20	997.00
36	36.00	35.000	0.500	54.00	20	1380.00
42	42.00	41.000	0.500	63.00	*	1880.00
48	48.00	47.000	0.500	72.00	*	2502.00

90° ELBOWS

LONG RADIUS SCHEDULE 40

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
½	0.84	0.622	0.109	1.50	40	0.16
¾	1.05	0.824	0.113	1.50	40	0.17
1	1.32	1.054	0.133	1.50	40	0.40
1 ¼	1.66	1.380	0.140	1.88	40	0.55
1 ½	1.90	1.610	0.145	2.25	40	0.80
2	2.38	2.072	0.154	3.00	40	1.60
2 ½	2.88	2.474	0.203	3.75	40	3.20
3	3.50	3.068	0.216	4.50	40	4.80
3 ½	4.00	3.548	0.226	5.25	40	6.60
4	4.50	4.026	0.237	6.00	40	8.90
5	5.56	5.044	0.258	7.50	40	15.10
6	6.62	6.060	0.280	9.00	40	24.00
8	8.62	7.976	0.322	12.00	40	47.80
10	10.75	10.020	0.365	15.00	40	83.40
12	12.75	11.938	0.406	18.00	40	123.00
14	14.00	13.124	0.438	21.00	40	155.00
16	16.00	15.000	0.500	24.00	40	206.00
18	18.00	16.876	0.562	27.00	40	262.00
20	20.00	18.812	0.594	30.00	40	324.00
24	24.00	22.624	0.688	36.00	40	466.00



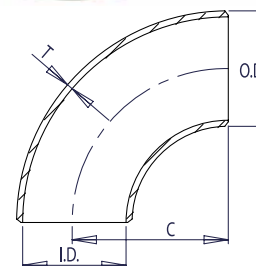
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 24" please call.
6. All weights are in pounds and approximated or estimated.

FITTINGS

LONG RADIUS SCHEDULE 80

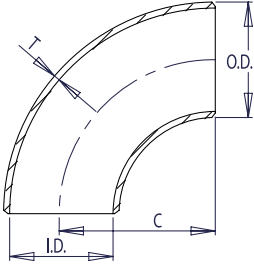
Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
½	0.84	0.546	0.147	1.50	80	0.26
¾	1.05	0.742	0.154	1.50	80	0.29
1	1.32	0.962	0.179	1.50	80	0.48
1 ¼	1.66	1.278	0.191	1.88	80	0.79
1 ½	1.90	1.500	0.200	2.25	80	1.20
2	2.38	1.944	0.218	3.00	80	2.10
2 ½	2.88	2.328	0.276	3.75	80	3.80
3	3.50	2.900	0.300	4.50	80	6.30
3 ½	4.00	3.364	0.318	5.25	80	8.60
4	4.50	3.826	0.337	6.00	80	12.50
5	5.56	4.810	0.375	7.50	80	21.20
6	6.62	5.756	0.432	9.00	80	34.40
8	8.62	7.620	0.500	12.00	80	71.30
10	10.75	9.562	0.594	15.00	80	111.00
12	12.75	11.374	0.688	18.00	80	158.00
14	14.00	12.500	0.750	21.00	80	201.00
16	16.00	14.312	0.844	24.00	80	270.00
18	18.00	16.124	0.938	27.00	80	348.00
20	20.00	17.938	1.031	30.00	80	422.00
24	24.00	21.562	1.219	36.00	80	604.00



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

**LONG RADIUS
SCHEDULE 160**



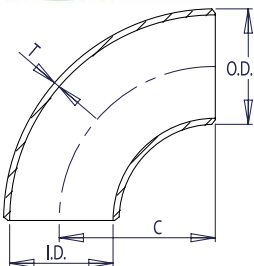
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
1/2	0.84	0.464	0.188	1.50	160	0.60
3/4	1.05	0.612	0.219	1.50	160	0.60
1	1.32	0.820	0.250	1.50	160	0.60
1 1/4	1.66	1.160	0.250	1.88	160	1.00
1 1/2	1.90	1.338	0.281	2.25	160	1.80
2	2.38	1.692	0.344	3.00	160	3.20
2 1/2	2.88	2.130	0.375	3.75	160	6.00
3	3.50	2.624	0.438	4.50	160	10.00
4	4.50	3.438	0.531	6.00	160	22.00
5	5.56	4.310	0.625	7.50	160	33.00
6	6.62	5.182	0.719	9.00	160	62.00
8	8.62	6.808	0.906	12.00	160	122.00
10	10.75	8.500	1.125	15.00	160	270.00
12	12.75	10.126	1.312	18.00	160	460.00
14	14.00	11.188	1.406	21.00	160	563.00
16	16.00	12.812	1.594	24.00	160	825.00
18	18.00	14.438	1.781	27.00	160	1240.00
20	20.00	16.062	1.969	30.00	160	1510.00
24	24.00	19.312	2.344	36.00	160	1760.00

FITTINGS

**LONG RADIUS
SCHEDULE XXS**



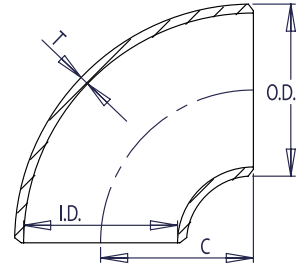
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
1/2	0.84	0.252	0.294	1.50	*	0.30
3/4	1.05	0.434	0.308	1.50	*	0.30
1	1.32	0.604	0.358	1.50	*	0.80
1 1/4	1.66	0.896	0.382	1.88	*	1.40
1 1/2	1.90	1.100	0.400	2.25	*	2.00
2	2.38	1.508	0.436	3.00	*	3.90
2 1/2	2.88	1.776	0.552	3.75	*	6.80
3	3.50	2.300	0.600	4.50	*	11.30
4	4.50	3.152	0.674	6.00	*	23.00
5	5.56	4.060	0.750	7.50	*	38.00
6	6.62	4.892	0.864	9.00	*	69.00
8	8.62	6.870	0.875	12.00	*	120.00
10	10.75	8.750	1.000	15.00	140	232.00
12	12.75	10.750	1.000	18.00	120	315.00

**SHORT RADIUS
 SCHEDULE STD**

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
1	1.32	1.049	0.133	1.00	40	0.30
1 ¼	1.66	1.380	0.140	1.25	40	0.40
1 ½	1.90	1.610	0.145	1.50	40	0.50
2	2.38	2.067	0.154	2.00	40	1.00
2 ½	2.88	2.469	0.203	2.50	40	2.00
3	3.50	3.068	0.216	3.00	40	3.00
3 ½	4.00	3.548	0.226	3.50	40	4.30
4	4.50	4.026	0.237	4.00	40	6.10
5	5.56	5.047	0.258	5.00	40	9.70
6	6.62	6.065	0.280	6.00	40	16.70
8	8.62	7.981	0.322	8.00	40	32.40
10	10.75	10.020	0.365	10.00	40	56.30
12	12.75	12.000	0.375	12.00	*	79.40
14	14.00	13.250	0.375	14.00	30	104.00
16	16.00	15.250	0.375	16.00	30	129.00
18	18.00	17.250	0.375	18.00	*	163.00
20	20.00	19.250	0.375	20.00	20	210.00
24	24.00	23.250	0.375	24.00	20	297.00
❖ 30	30.00	29.250	0.375	30.00	*	470.00
❖ 36	36.00	35.250	0.375	36.00	*	692.00
❖ 42	42.00	41.250	0.375	42.00	*	967.00
❖ 48	48.00	47.250	0.375	48.00	*	1340.00



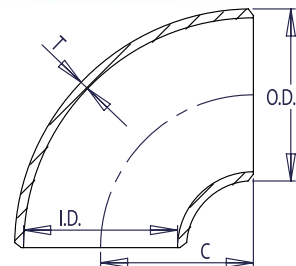
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.
 ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

FITTINGS

**SHORT RADIUS
 SCHEDULE XS**

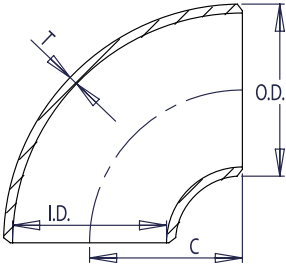
Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
1	1.32	0.962	0.179	1.00	80	0.30
1 ¼	1.66	1.278	0.191	1.25	80	0.60
1 ½	1.90	1.500	0.200	1.50	80	0.80
2	2.38	1.939	0.218	2.00	80	1.50
2 ½	2.88	2.323	0.276	2.50	80	2.60
3	3.50	2.900	0.300	3.00	80	3.80
3 ½	4.00	3.364	0.318	3.50	80	5.40
4	4.50	3.826	0.337	4.00	80	7.60
5	5.56	4.813	0.375	5.00	80	13.80
6	6.62	5.761	0.432	6.00	80	22.80
8	8.62	7.625	0.500	8.00	80	47.30
10	10.75	9.750	0.500	10.00	60	71.00
12	12.75	11.750	0.500	12.00	*	104.00
14	14.00	13.000	0.500	14.00	*	137.00
16	16.00	15.000	0.500	16.00	40	171.00
18	18.00	17.000	0.500	18.00	*	214.00
20	20.00	19.000	0.500	20.00	30	277.00
24	24.00	23.000	0.500	24.00	*	390.00
❖ 30	30.00	29.000	0.500	30.00	20	632.70
❖ 36	36.00	35.000	0.500	36.00	20	913.00
❖ 42	42.00	41.000	0.500	42.00	*	1300.00
❖ 48	48.00	47.000	0.500	48.00	*	1675.00



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.
 ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

**SHORT RADIUS
SCHEDULE 40**



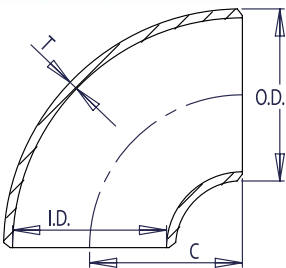
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 24" please call.
6. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
1	1.32	1.054	0.133	1.00	40	0.30
1 ¼	1.66	1.380	0.140	1.25	40	0.40
1 ½	1.90	1.610	0.145	1.50	40	0.50
2	2.38	2.072	0.154	2.00	40	1.00
2 ½	2.88	2.474	0.203	2.50	40	2.00
3	3.50	3.068	0.216	3.00	40	3.00
3 ½	4.00	3.548	0.226	3.50	40	4.30
4	4.50	4.026	0.237	4.00	40	6.10
5	5.56	5.044	0.258	5.00	40	9.70
6	6.62	6.060	0.280	6.00	40	16.70
8	8.62	7.976	0.322	8.00	40	32.40
10	10.75	10.020	0.365	10.00	40	56.30
12	12.75	11.938	0.406	12.00	40	80.00
14	14.00	13.124	0.438	14.00	40	105.00
16	16.00	15.000	0.500	16.00	40	130.00
18	18.00	16.876	0.562	18.00	40	165.00
20	20.00	18.812	0.594	20.00	40	215.00
24	24.00	22.624	0.688	24.00	40	300.00

FITTINGS

**SHORT RADIUS
SCHEDULE 80**



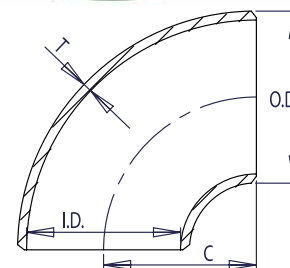
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
1	1.32	0.962	0.179	1.00	80	0.30
1 ¼	1.66	1.278	0.191	1.25	80	0.60
1 ½	1.90	1.500	0.200	1.50	80	0.80
2	2.38	1.944	0.218	2.00	80	1.50
2 ½	2.88	2.328	0.276	2.50	80	2.60
3	3.50	2.900	0.300	3.00	80	3.80
3 ½	4.00	3.364	0.318	3.50	80	5.40
4	4.50	3.826	0.337	4.00	80	7.60
5	5.56	4.810	0.375	5.00	80	13.80
6	6.62	5.756	0.432	6.00	80	22.80
8	8.62	7.620	0.500	8.00	80	47.30
10	10.75	9.562	0.594	10.00	80	75.00
12	12.75	11.374	0.688	12.00	80	105.00
14	14.00	12.500	0.750	14.00	80	140.00
16	16.00	14.312	0.844	16.00	80	175.00
18	18.00	16.124	0.938	18.00	80	215.00
20	20.00	17.938	1.031	20.00	80	280.00
24	24.00	21.562	1.219	24.00	80	400.00

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
1	1.32	0.820	0.250	1.00	160	0.50
1 ¼	1.66	1.160	0.250	1.25	160	0.90
1 ½	1.90	1.338	0.281	1.50	160	1.50
2	2.38	1.692	0.344	2.00	160	2.90
2 ½	2.88	2.130	0.375	2.50	160	5.50
3	3.50	2.624	0.438	3.00	160	9.80
4	4.50	3.438	0.531	4.00	160	20.00
5	5.56	4.310	0.625	5.00	160	30.00
6	6.62	5.182	0.719	6.00	160	60.00
8	8.62	6.808	0.906	8.00	160	125.00
10	10.75	8.500	1.125	10.00	160	258.00
12	12.75	10.126	1.312	12.00	160	455.00
14	14.00	11.188	1.406	14.00	160	550.00
16	16.00	12.812	1.594	16.00	160	800.00
18	18.00	14.438	1.781	18.00	160	1025.00
20	20.00	16.062	1.969	20.00	160	1295.00
24	24.00	19.312	2.344	24.00	160	1450.00

SHORT RADIUS SCHEDULE 160



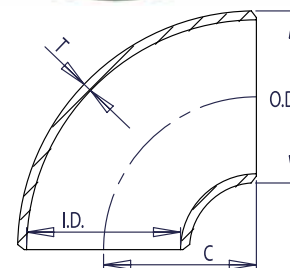
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

FITTINGS

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
1	1.32	0.604	0.358	1.00	*	0.65
1 ¼	1.66	0.896	0.382	1.25	*	1.30
1 ½	1.90	1.100	0.400	1.50	*	1.70
2	2.38	1.508	0.436	2.00	*	3.20
2 ½	2.88	1.776	0.552	2.50	*	6.10
3	3.50	2.300	0.600	3.00	*	11.00
4	4.50	3.152	0.674	4.00	*	22.00
5	5.56	4.060	0.750	5.00	*	35.00
6	6.62	4.892	0.864	6.00	*	60.00
8	8.62	6.870	0.875	8.00	*	123.00
10	10.75	8.750	1.000	10.00	140	225.00
12	12.75	10.750	1.000	12.00	120	365.00

SHORT RADIUS SCHEDULE XXS



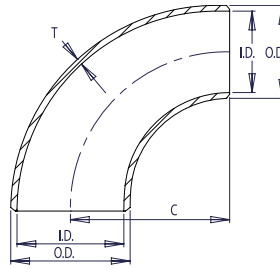
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

90° REDUCING ELBOWS



SCHEDULE STD For reference only



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 12" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

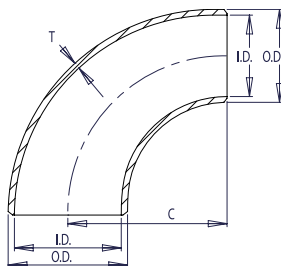
FITTINGS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Center to End C	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
2 x 1 1/2	2.38	2.072	0.154	1.90	1.610	0.145	3.00	40	1.40
2 x 1 1/4	2.38	2.072	0.154	1.66	1.380	0.140	3.00	40	1.30
2 x 1	2.38	2.072	0.154	1.32	1.054	0.133	3.00	40	1.20
2 1/2 x 2	2.88	2.474	0.203	2.38	2.072	0.154	3.75	40	2.80
2 1/2 x 1 1/2	2.88	2.474	0.203	1.90	1.610	0.145	3.75	40	2.60
2 1/2 x 1 1/4	2.88	2.474	0.203	1.66	1.380	0.140	3.75	40	2.50
3 x 2 1/2	3.50	3.068	0.216	2.88	2.474	0.203	4.50	40	4.20
3 x 2	3.50	3.068	0.216	2.38	2.072	0.154	4.50	40	3.60
3 x 1 1/2	3.50	3.068	0.216	1.90	1.610	0.145	4.50	40	3.30
3 1/2 x 3	4.00	3.548	0.226	3.50	3.068	0.216	5.25	40	6.00
3 1/2 x 2 1/2	4.00	3.548	0.226	2.88	2.474	0.203	5.25	40	5.50
3 1/2 x 2	4.00	3.548	0.226	2.38	2.072	0.154	5.25	40	4.50
4 x 3 1/2	4.50	4.026	0.237	4.00	3.548	0.226	6.00	40	8.40
4 x 3	4.50	4.026	0.237	3.50	3.068	0.216	6.00	40	7.70
4 x 2 1/2	4.50	4.026	0.237	2.88	2.474	0.203	6.00	40	6.80
4 x 2	4.50	4.026	0.237	2.38	2.072	0.154	6.00	40	6.00
5 x 4	5.56	5.044	0.258	4.50	4.026	0.237	7.50	40	13.40
5 x 3 1/2	5.56	5.044	0.258	4.00	3.548	0.226	7.50	40	12.60
5 x 3	5.56	5.044	0.258	3.50	3.068	0.216	7.50	40	11.80
5 x 2 1/2	5.56	5.044	0.258	2.88	2.474	0.203	7.50	40	10.70
6 x 5	6.62	6.060	0.280	5.56	5.044	0.258	9.00	40	21.00
6 x 4	6.62	6.060	0.280	4.50	4.026	0.237	9.00	40	18.90
6 x 3 1/2	6.62	6.060	0.280	4.00	3.548	0.226	9.00	40	17.80
6 x 3	6.62	6.060	0.280	3.50	3.068	0.216	9.00	40	16.80
8 x 6	8.62	7.976	0.322	6.62	6.060	0.280	12.00	40	39.70
8 x 5	8.62	7.976	0.322	5.56	5.044	0.258	12.00	40	36.20
8 x 4	8.62	7.976	0.322	4.50	4.026	0.237	12.00	40	33.10
10 x 8	10.75	10.020	0.365	8.62	7.976	0.322	15.00	40	73.00
10 x 6	10.75	10.020	0.365	6.62	6.060	0.280	15.00	40	63.20
10 x 5	10.75	10.020	0.365	5.56	5.044	0.258	15.00	40	58.50
12 x 10	12.75	12.000	0.375	10.75	10.020	0.365	18.00	*	113.00
12 x 8	12.75	12.000	0.375	8.62	7.976	0.322	18.00	*	98.40
12 x 6	12.75	12.000	0.375	6.62	6.060	0.280	18.00	*	86.50

WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 12" please call.
6. All weights are in pounds and approximated or estimated.

* This size and thickness does not correspond to any pipe schedule number.



SCHEDULE XS
 For reference only

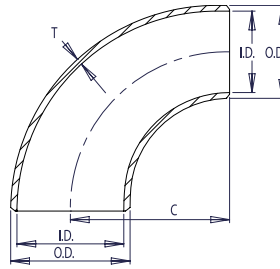
Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T	C		
2 x 1 1/2	2.38	1.944	0.218	1.90	1.500	0.200	3.00	80	1.90
2 x 1 1/4	2.38	1.944	0.218	1.66	1.278	0.191	3.00	80	1.80
2 x 1	2.38	1.944	0.218	1.32	0.962	0.179	3.00	80	1.70
2 1/2 x 2	2.88	2.328	0.276	2.38	1.944	0.218	3.75	80	3.40
2 1/2 x 1 1/2	2.88	2.328	0.276	1.90	1.500	0.200	3.75	80	3.00
2 1/2 x 1 1/4	2.88	2.328	0.276	1.66	1.278	0.191	3.75	80	2.90
3 x 2 1/2	3.50	2.900	0.300	2.88	2.328	0.276	4.50	80	5.70
3 x 2	3.50	2.900	0.300	2.38	1.944	0.218	4.50	80	4.90
3 x 1 1/2	3.50	2.900	0.300	1.90	1.500	0.200	4.50	80	4.50
3 1/2 x 3	4.00	3.364	0.318	3.50	2.900	0.300	5.25	80	8.20
3 1/2 x 2 1/2	4.00	3.364	0.318	2.88	2.328	0.276	5.25	80	7.30
3 1/2 x 2	4.00	3.364	0.318	2.38	1.944	0.218	5.25	80	6.40
4 x 3 1/2	4.50	3.826	0.337	4.00	3.364	0.318	6.00	80	11.40
4 x 3	4.50	3.826	0.337	3.50	2.900	0.300	6.00	80	10.50
4 x 2 1/2	4.50	3.826	0.337	2.88	2.328	0.276	6.00	80	9.40
4 x 2	4.50	3.826	0.337	2.38	1.944	0.218	6.00	80	8.40
5 x 4	5.56	4.810	0.375	4.50	3.826	0.337	7.50	80	18.80
5 x 3 1/2	5.56	4.810	0.375	4.00	3.364	0.318	7.50	80	17.40
5 x 3	5.56	4.810	0.375	3.50	2.900	0.300	7.50	80	16.50
5 x 2 1/2	5.56	4.810	0.375	2.88	2.328	0.276	7.50	80	15.10
6 x 5	6.62	5.756	0.432	5.56	4.810	0.375	9.00	80	31.40
6 x 4	6.62	5.756	0.432	4.50	3.826	0.337	9.00	80	27.90
6 x 3 1/2	6.62	5.756	0.432	4.00	3.364	0.318	9.00	80	26.30
6 x 3	6.62	5.756	0.432	3.50	2.900	0.300	9.00	80	24.90
8 x 6	8.62	7.620	0.500	6.62	5.756	0.432	12.00	80	60.80
8 x 5	8.62	7.620	0.500	5.56	4.810	0.375	12.00	80	54.30
8 x 4	8.62	7.620	0.500	4.50	3.826	0.337	12.00	80	49.50
10 x 8	10.75	9.750	0.500	8.62	7.620	0.500	15.00	*	102.00
10 x 6	10.75	9.750	0.500	6.62	5.756	0.432	15.00	*	86.50
10 x 5	10.75	9.750	0.500	5.56	4.810	0.375	15.00	*	78.50
12 x 10	12.75	11.750	0.500	10.75	9.750	0.500	18.00	*	148.00
12 x 8	12.75	11.750	0.500	8.62	7.620	0.500	18.00	*	132.00
12 x 6	12.75	11.750	0.500	6.62	5.756	0.432	18.00	*	114.00

FITTINGS

90° REDUCING ELBOWS



SCHEDULE 40
For reference only



WELDBEND NOTES

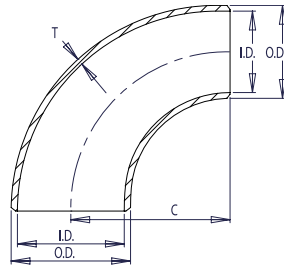
1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 12" please call.
6. All weights are in pounds and approximated or estimated.

FITTINGS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T	C		
2 x 1 1/2	2.38	2.072	0.154	1.90	1.610	0.145	3.00	40	1.40
2 x 1 1/4	2.38	2.072	0.154	1.66	1.380	0.140	3.00	40	1.30
2 x 1	2.38	2.072	0.154	1.32	1.054	0.133	3.00	40	1.20
2 1/2 x 2	2.88	2.474	0.203	2.38	2.072	0.154	3.75	40	2.80
2 1/2 x 1 1/2	2.88	2.474	0.203	1.90	1.610	0.145	3.75	40	2.60
2 1/2 x 1 1/4	2.88	2.474	0.203	1.66	1.380	0.140	3.75	40	2.50
3 x 2 1/2	3.50	3.068	0.216	2.88	2.474	0.203	4.50	40	4.20
3 x 2	3.50	3.068	0.216	2.38	2.072	0.154	4.50	40	3.60
3 x 1 1/2	3.50	3.068	0.216	1.90	1.610	0.145	4.50	40	3.30
3 1/2 x 3	4.00	3.548	0.226	3.50	3.068	0.216	5.25	40	6.00
3 1/2 x 2 1/2	4.00	3.548	0.226	2.88	2.474	0.203	5.25	40	5.50
3 1/2 x 2	4.00	3.548	0.226	2.38	2.072	0.154	5.25	40	4.50
4 x 3 1/2	4.50	4.026	0.237	4.00	3.548	0.226	6.00	40	8.40
4 x 3	4.50	4.026	0.237	3.50	3.068	0.216	6.00	40	7.70
4 x 2 1/2	4.50	4.026	0.237	2.88	2.474	0.203	6.00	40	6.80
4 x 2	4.50	4.026	0.237	2.38	2.072	0.154	6.00	40	6.00
5 x 4	5.56	5.044	0.258	4.50	4.026	0.237	7.50	40	13.40
5 x 3 1/2	5.56	5.044	0.258	4.00	3.548	0.226	7.50	40	12.60
5 x 3	5.56	5.044	0.258	3.50	3.068	0.216	7.50	40	11.80
5 x 2 1/2	5.56	5.044	0.258	2.88	2.474	0.203	7.50	40	10.70
6 x 5	6.62	6.060	0.280	5.56	5.044	0.258	9.00	40	21.00
6 x 4	6.62	6.060	0.280	4.50	4.026	0.237	9.00	40	18.90
6 x 3 1/2	6.62	6.060	0.280	4.00	3.548	0.226	9.00	40	17.80
6 x 3	6.62	6.060	0.280	3.50	3.068	0.216	9.00	40	16.80
8 x 6	8.62	7.976	0.322	6.62	6.060	0.280	12.00	40	39.70
8 x 5	8.62	7.976	0.322	5.56	5.044	0.258	12.00	40	36.20
8 x 4	8.62	7.976	0.322	4.50	4.026	0.237	12.00	40	33.10
10 x 8	10.75	10.020	0.365	8.62	7.976	0.322	15.00	40	73.00
10 x 6	10.75	10.020	0.365	6.62	6.060	0.280	15.00	40	63.20
10 x 5	10.75	10.020	0.365	5.56	5.044	0.258	15.00	40	58.50
12 x 10	12.75	11.938	0.406	10.75	10.020	0.365	18.00	40	115.00
12 x 8	12.75	11.938	0.406	8.62	7.976	0.322	18.00	40	100.00
12 x 6	12.75	11.938	0.406	6.62	6.060	0.280	18.00	40	90.00

WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 12" please call.
6. All weights are in pounds and approximated or estimated.

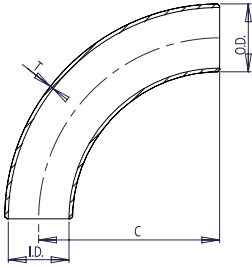


SCHEDULE 80
 For reference only

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T	C		
2 x 1 1/2	2.38	1.944	0.218	1.90	1.500	0.200	3.00	80	1.90
2 x 1 1/4	2.38	1.944	0.218	1.66	1.278	0.191	3.00	80	1.80
2 x 1	2.38	1.944	0.218	1.32	0.962	0.179	3.00	80	1.70
2 1/2 x 2	2.88	2.328	0.276	2.38	1.944	0.218	3.75	80	3.40
2 1/2 x 1 1/2	2.88	2.328	0.276	1.90	1.500	0.200	3.75	80	3.00
2 1/2 x 1 1/4	2.88	2.328	0.276	1.66	1.278	0.191	3.75	80	2.90
3 x 2 1/2	3.50	2.900	0.300	2.88	2.328	0.276	4.50	80	5.70
3 x 2	3.50	2.900	0.300	2.38	1.944	0.218	4.50	80	4.90
3 x 1 1/2	3.50	2.900	0.300	1.90	1.500	0.200	4.50	80	4.50
3 1/2 x 3	4.00	3.364	0.318	3.50	2.900	0.300	5.25	80	8.20
3 1/2 x 2 1/2	4.00	3.364	0.318	2.88	2.328	0.276	5.25	80	7.30
3 1/2 x 2	4.00	3.364	0.318	2.38	1.944	0.218	5.25	80	6.40
4 x 3 1/2	4.50	3.826	0.337	4.00	3.364	0.318	6.00	80	11.40
4 x 3	4.50	3.826	0.337	3.50	2.900	0.300	6.00	80	10.50
4 x 2 1/2	4.50	3.826	0.337	2.88	2.328	0.276	6.00	80	9.40
4 x 2	4.50	3.826	0.337	2.38	1.944	0.218	6.00	80	8.40
5 x 4	5.56	4.810	0.375	4.50	3.826	0.337	7.50	80	18.80
5 x 3 1/2	5.56	4.810	0.375	4.00	3.364	0.318	7.50	80	17.40
5 x 3	5.56	4.810	0.375	3.50	2.900	0.300	7.50	80	16.50
5 x 2 1/2	5.56	4.810	0.375	2.88	2.328	0.276	7.50	80	15.10
6 x 5	6.62	5.756	0.432	5.56	4.810	0.375	9.00	80	31.40
6 x 4	6.62	5.756	0.432	4.50	3.826	0.337	9.00	80	27.90
6 x 3 1/2	6.62	5.756	0.432	4.00	3.364	0.318	9.00	80	26.30
6 x 3	6.62	5.756	0.432	3.50	2.900	0.300	9.00	80	24.90
8 x 6	8.62	7.620	0.500	6.62	5.756	0.432	12.00	80	60.80
8 x 5	8.62	7.620	0.500	5.56	4.810	0.375	12.00	80	54.30
8 x 4	8.62	7.620	0.500	4.50	3.826	0.337	12.00	80	49.50
10 x 8	10.75	9.562	0.594	8.62	7.620	0.500	15.00	80	105.00
10 x 6	10.75	9.562	0.594	6.62	5.756	0.432	15.00	80	90.00
10 x 5	10.75	9.562	0.594	5.56	4.810	0.375	15.00	80	80.00
12 x 10	12.75	11.374	0.688	10.75	9.562	0.594	18.00	80	155.00
12 x 8	12.75	11.374	0.688	8.62	7.620	0.500	18.00	80	135.00
12 x 6	12.75	11.374	0.688	6.62	5.756	0.432	18.00	80	120.00

FITTINGS

**3R
SCHEDULE STD**



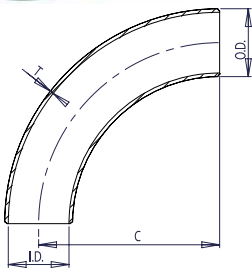
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 24" please call.
 6. All weights are in pounds and approximated or estimated.
- *This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
3/4	1.05	0.824	0.113	2.25	40	0.30
1	1.32	1.054	0.133	3.00	40	0.80
1 1/4	1.66	1.380	0.140	3.75	40	1.10
1 1/2	1.90	1.610	0.145	4.50	40	1.60
2	2.38	2.072	0.154	6.00	40	3.20
2 1/2	2.88	2.474	0.203	7.50	40	6.40
3	3.50	3.068	0.216	9.00	40	9.60
3 1/2	4.00	3.548	0.226	10.50	40	15.00
4	4.50	4.026	0.237	12.00	40	17.80
5	5.56	5.044	0.258	15.00	40	30.00
6	6.62	6.060	0.280	18.00	40	48.00
8	8.62	7.976	0.322	24.00	40	95.00
10	10.75	10.020	0.365	30.00	40	167.00
12	12.75	12.000	0.375	36.00	*	250.00
14	14.00	13.250	0.375	42.00	30	310.00
16	16.00	15.250	0.375	48.00	30	415.00
18	18.00	17.250	0.375	54.00	*	530.00
20	20.00	19.250	0.375	60.00	20	650.00
24	24.00	23.250	0.375	72.00	20	935.00

FITTINGS

**3R
SCHEDULE XS**



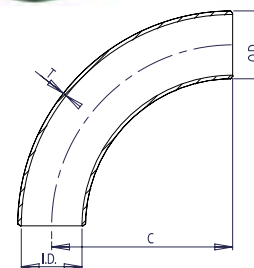
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 24" please call.
 6. All weights are in pounds and approximated or estimated.
- *This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
3/4	1.05	0.742	0.154	2.25	80	0.30
1	1.32	0.962	0.179	3.00	80	1.58
1 1/4	1.66	1.278	0.191	3.75	80	2.40
1 1/2	1.90	1.500	0.200	4.50	80	4.20
2	2.38	1.944	0.218	6.00	80	7.60
2 1/2	2.88	2.328	0.276	7.50	80	12.60
3	3.50	2.900	0.300	9.00	80	17.20
3 1/2	4.00	3.364	0.318	10.50	80	22.00
4	4.50	3.826	0.337	12.00	80	25.00
5	5.56	4.810	0.375	15.00	80	45.00
6	6.62	5.756	0.432	18.00	80	70.00
8	8.62	7.620	0.500	24.00	80	145.00
10	10.75	9.750	0.500	30.00	60	225.00
12	12.75	11.750	0.500	36.00	*	320.00
14	14.00	13.000	0.500	42.00	*	405.00
16	16.00	15.000	0.500	48.00	40	540.00
18	18.00	17.000	0.500	54.00	*	700.00
20	20.00	19.000	0.500	60.00	30	845.00
24	24.00	23.000	0.500	72.00	*	1210.00

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
¾	1.05	0.824	0.113	2.25	40	0.30
1	1.32	1.054	0.133	3.00	40	0.80
1 ¼	1.66	1.380	0.140	3.75	40	1.10
1 ½	1.90	1.610	0.145	4.50	40	1.60
2	2.38	2.072	0.154	6.00	40	3.20
2 ½	2.88	2.474	0.203	7.50	40	6.40
3	3.50	3.068	0.216	9.00	40	9.60
3 ½	4.00	3.548	0.226	10.50	40	15.00
4	4.50	4.026	0.237	12.00	40	17.80
5	5.56	5.044	0.258	15.00	40	30.00
6	6.62	6.060	0.280	18.00	40	48.00
8	8.62	7.976	0.322	24.00	40	95.00
10	10.75	10.020	0.365	30.00	40	167.00
12	12.75	11.938	0.406	36.00	40	205.00
14	14.00	13.124	0.438	42.00	40	305.00
16	16.00	15.000	0.500	48.00	40	540.00
18	18.00	16.876	0.562	54.00	40	740.00
20	20.00	18.812	0.594	60.00	40	950.00
24	24.00	22.624	0.688	72.00	40	1400.00

3R
 SCHEDULE 40



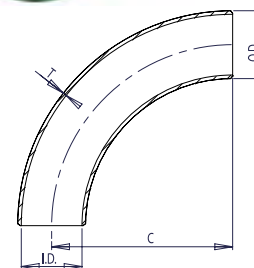
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 24" please call.
6. All weights are in pounds and approximated or estimated.

FITTINGS

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	C		
¾	1.05	0.742	0.154	2.25	80	0.30
1	1.32	0.962	0.179	3.00	80	1.58
1 ¼	1.66	1.278	0.191	3.75	80	2.40
1 ½	1.90	1.500	0.200	4.50	80	4.20
2	2.38	1.944	0.218	6.00	80	7.60
2 ½	2.88	2.328	0.276	7.50	80	12.60
3	3.50	2.900	0.300	9.00	80	17.20
3 ½	4.00	3.364	0.318	10.50	80	22.00
4	4.50	3.826	0.337	12.00	80	25.00
5	5.56	4.810	0.375	15.00	80	45.00
6	6.62	5.756	0.432	18.00	80	70.00
8	8.62	7.620	0.500	24.00	80	145.00
10	10.75	9.562	0.594	30.00	80	200.00
12	12.75	11.374	0.688	36.00	80	320.00
14	14.00	12.500	0.750	42.00	80	600.00
16	16.00	14.312	0.844	48.00	80	810.00
18	18.00	16.124	0.938	54.00	80	1020.00
20	20.00	17.938	1.031	60.00	80	1400.00
24	24.00	21.562	1.219	72.00	80	1800.00

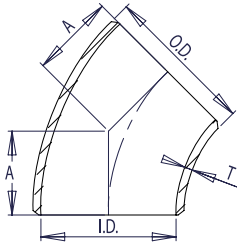
3R
 SCHEDULE 80



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

LONG RADIUS SCHEDULE STD



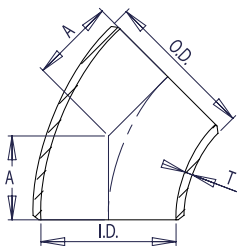
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	A		
1/2	0.84	0.622	0.109	0.62	40	0.09
3/4	1.05	0.824	0.113	0.75	40	0.10
1	1.32	1.049	0.133	0.88	40	0.22
1 1/4	1.66	1.380	0.140	1.00	40	0.33
1 1/2	1.90	1.610	0.145	1.12	40	0.43
2	2.38	2.067	0.154	1.38	40	0.85
2 1/2	2.88	2.469	0.203	1.75	40	1.70
3	3.50	3.068	0.216	2.00	40	2.50
3 1/2	4.00	3.548	0.226	2.25	40	3.40
4	4.50	4.026	0.237	2.50	40	4.50
5	5.56	5.047	0.258	3.12	40	7.50
6	6.62	6.065	0.280	3.75	40	11.70
8	8.62	7.981	0.322	5.00	40	23.30
10	10.75	10.020	0.365	6.25	40	40.90
12	12.75	12.000	0.375	7.50	*	61.40
14	14.00	13.250	0.375	8.75	30	78.10
16	16.00	15.250	0.375	10.00	30	101.00
18	18.00	17.250	0.375	11.25	*	128.00
20	20.00	19.250	0.375	12.50	20	159.00
24	24.00	23.250	0.375	15.00	20	231.00
30	30.00	29.250	0.375	18.50	*	358.00
36	36.00	35.250	0.375	22.25	*	518.00
42	42.00	41.250	0.375	26.00	*	707.00
48	48.00	47.250	0.375	29.88	*	1000.00

FITTINGS

LONG RADIUS SCHEDULE XS



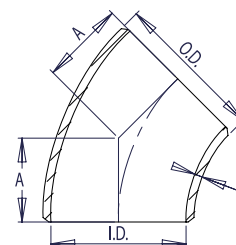
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	A		
1/2	0.84	0.546	0.147	0.62	80	0.15
3/4	1.05	0.742	0.154	0.75	80	0.16
1	1.32	0.957	0.179	0.88	80	0.28
1 1/4	1.66	1.278	0.191	1.00	80	0.45
1 1/2	1.90	1.500	0.200	1.12	80	0.61
2	2.38	1.939	0.218	1.38	80	1.20
2 1/2	2.88	2.323	0.276	1.75	80	2.00
3	3.50	2.900	0.300	2.00	80	3.30
3 1/2	4.00	3.364	0.318	2.25	80	4.50
4	4.50	3.826	0.337	2.50	80	6.20
5	5.56	4.813	0.375	3.12	80	10.50
6	6.62	5.761	0.432	3.75	80	17.00
8	8.62	7.625	0.500	5.00	80	34.30
10	10.75	9.750	0.500	6.25	60	53.50
12	12.75	11.750	0.500	7.50	*	77.60
14	14.00	13.000	0.500	8.75	*	100.00
16	16.00	15.000	0.500	10.00	40	134.00
18	18.00	17.000	0.500	11.25	*	170.00
20	20.00	19.000	0.500	12.50	30	209.00
24	24.00	23.000	0.500	15.00	*	302.00
30	30.00	29.000	0.500	18.50	20	475.10
36	36.00	35.000	0.500	22.25	20	686.10
42	42.00	41.000	0.500	26.00	*	936.10
48	48.00	47.000	0.500	29.88	*	1250.00

LONG RADIUS SCHEDULE 40

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	A		
1/2	0.84	0.622	0.109	0.62	40	0.09
3/4	1.05	0.824	0.113	0.75	40	0.10
1	1.32	1.054	0.133	0.88	40	0.22
1 1/4	1.66	1.380	0.140	1.00	40	0.33
1 1/2	1.90	1.610	0.145	1.12	40	0.43
2	2.38	2.072	0.154	1.38	40	0.85
2 1/2	2.88	2.474	0.203	1.75	40	1.70
3	3.50	3.068	0.216	2.00	40	2.50
3 1/2	4.00	3.548	0.226	2.25	40	3.40
4	4.50	4.026	0.237	2.50	40	4.50
5	5.56	5.044	0.258	3.12	40	7.50
6	6.62	6.060	0.280	3.75	40	11.70
8	8.62	7.976	0.322	5.00	40	23.30
10	10.75	10.020	0.365	6.25	40	40.90
12	12.75	11.938	0.406	7.50	40	65.00
14	14.00	13.124	0.438	8.75	40	80.00
16	16.00	15.000	0.500	10.00	40	105.00
18	18.00	16.876	0.562	11.25	40	130.00
20	20.00	18.812	0.594	12.50	40	165.00
24	24.00	22.624	0.688	15.00	40	235.00



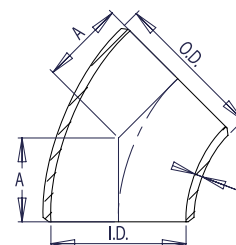
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 24" please call.
6. All weights are in pounds and approximated or estimated.

FITTINGS

LONG RADIUS SCHEDULE 80

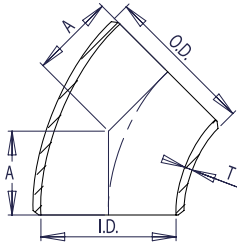
Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	A		
1/2	0.84	0.546	0.147	0.62	80	0.15
3/4	1.05	0.742	0.154	0.75	80	0.16
1	1.32	0.962	0.179	0.88	80	0.28
1 1/4	1.66	1.278	0.191	1.00	80	0.45
1 1/2	1.90	1.500	0.200	1.12	80	0.61
2	2.38	1.944	0.218	1.38	80	1.20
2 1/2	2.88	2.328	0.276	1.75	80	2.00
3	3.50	2.900	0.300	2.00	80	3.30
3 1/2	4.00	3.364	0.318	2.25	80	4.50
4	4.50	3.826	0.337	2.50	80	6.20
5	5.56	4.810	0.375	3.12	80	10.50
6	6.62	5.756	0.432	3.75	80	17.00
8	8.62	7.620	0.500	5.00	80	34.30
10	10.75	9.562	0.594	6.25	80	55.00
12	12.75	11.374	0.688	7.50	80	80.00
14	14.00	12.500	0.750	8.75	80	100.00
16	16.00	14.312	0.844	10.00	80	135.00
18	18.00	16.124	0.938	11.25	80	175.00
20	20.00	17.938	1.031	12.50	80	210.00
24	24.00	21.562	1.219	15.00	80	305.00



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

**LONG RADIUS
SCHEDULE 160**



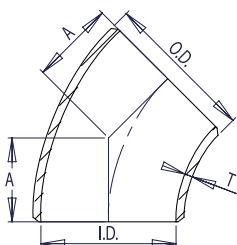
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	A		
1/2	0.84	0.464	0.188	0.62	160	1.80
3/4	1.05	0.612	0.219	0.75	160	2.00
1	1.32	0.820	0.250	0.88	160	3.00
1 1/4	1.66	1.160	0.250	1.00	160	3.50
1 1/2	1.90	1.338	0.281	1.12	160	3.70
2	2.38	1.692	0.344	1.38	160	5.00
2 1/2	2.88	2.130	0.375	1.75	160	3.70
3	3.50	2.624	0.438	2.00	160	5.60
4	4.50	3.438	0.531	2.50	160	5.60
5	5.56	4.310	0.625	3.12	160	15.00
6	6.62	5.182	0.719	3.75	160	28.00
8	8.62	6.808	0.906	5.00	160	48.00
10	10.75	8.500	1.125	6.25	160	72.00
12	12.75	10.126	1.312	7.50	160	98.00
14	14.00	11.188	1.406	8.75	160	130.00
16	16.00	12.812	1.594	10.00	160	180.00
18	18.00	14.438	1.781	11.25	160	260.00
20	20.00	16.062	1.969	12.50	160	390.00
24	24.00	19.312	2.344	15.00	160	560.00

FITTINGS

**LONG RADIUS
SCHEDULE XXS**



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

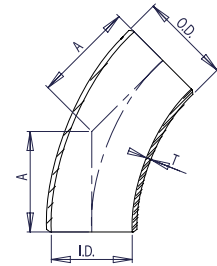
* This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	A		
1/2	0.84	0.252	0.294	0.62	*	1.80
3/4	1.05	0.434	0.308	0.75	*	2.00
1	1.32	0.604	0.358	0.88	*	3.00
1 1/4	1.66	0.896	0.382	1.00	*	3.50
1 1/2	1.90	1.100	0.400	1.12	*	3.70
2	2.38	1.508	0.436	1.38	*	5.00
2 1/2	2.88	1.776	0.552	1.75	*	3.70
3	3.50	2.300	0.600	2.00	*	6.00
4	4.50	3.152	0.674	2.50	*	10.40
5	5.56	4.060	0.750	3.12	*	19.20
6	6.62	4.892	0.864	3.75	*	30.00
8	8.62	6.870	0.875	5.00	*	50.00
10	10.75	8.750	1.000	6.25	140	75.00
12	12.75	10.750	1.000	7.50	120	95.00

45° ELBOWS

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	A		
¾	1.05	0.824	0.113	0.94	40	0.50
1	1.32	1.054	0.133	1.25	40	0.70
1 ¼	1.66	1.380	0.140	1.56	40	1.00
1 ½	1.90	1.610	0.145	1.88	40	1.30
2	2.38	2.072	0.154	2.50	40	1.50
2 ½	2.88	2.474	0.203	3.12	40	1.75
3	3.50	3.068	0.216	3.75	40	3.00
3 ½	4.00	3.548	0.226	4.38	40	5.00
4	4.50	4.026	0.237	5.00	40	9.00
5	5.56	5.044	0.258	6.19	40	16.00
6	6.62	6.060	0.280	7.44	40	22.50
8	8.62	7.976	0.322	9.94	40	45.00
10	10.75	10.020	0.365	12.44	40	80.00
12	12.75	12.000	0.375	14.88	*	120.00
14	14.00	13.250	0.375	17.38	30	150.00
16	16.00	15.250	0.375	19.88	30	193.00
18	18.00	17.250	0.375	22.38	*	248.00
20	20.00	19.250	0.375	24.88	20	308.00
24	24.00	23.250	0.375	29.81	20	440.00

3R SCHEDULE STD

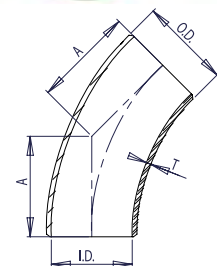


WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 24" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	A		
¾	1.05	0.742	0.154	0.94	80	0.16
1	1.32	0.962	0.179	1.25	80	0.28
1 ¼	1.66	1.278	0.191	1.56	80	0.45
1 ½	1.90	1.500	0.200	1.88	80	0.61
2	2.38	1.944	0.218	2.50	80	1.20
2 ½	2.88	2.328	0.276	3.12	80	2.00
3	3.50	2.900	0.300	3.75	80	3.30
3 ½	4.00	3.364	0.318	4.38	80	4.50
4	4.50	3.826	0.337	5.00	80	6.20
5	5.56	4.810	0.375	6.19	80	10.50
6	6.62	5.756	0.432	7.44	80	17.00
8	8.62	7.620	0.500	9.94	80	34.30
10	10.75	9.750	0.500	12.44	60	53.50
12	12.75	11.750	0.500	14.88	*	77.60
14	14.00	13.000	0.500	17.38	*	100.00
16	16.00	15.000	0.500	19.88	40	134.00
18	18.00	17.000	0.500	22.38	*	170.00
20	20.00	19.000	0.500	24.88	30	209.00
24	24.00	23.000	0.500	29.81	*	302.00

3R SCHEDULE XS

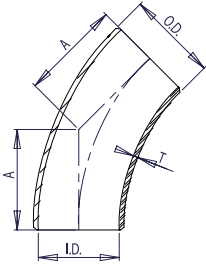


WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 24" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

FITTINGS

**3R
SCHEDULE 40**



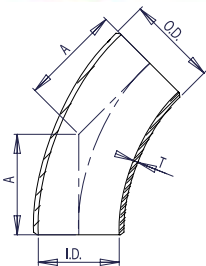
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 24" please call.
6. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	A		
3/4	1.05	0.824	0.113	0.94	40	0.50
1	1.32	1.054	0.133	1.25	40	0.70
1 1/4	1.66	1.380	0.140	1.56	40	1.00
1 1/2	1.90	1.610	0.145	1.88	40	1.30
2	2.38	2.072	0.154	2.50	40	1.50
2 1/2	2.88	2.474	0.203	3.12	40	1.75
3	3.50	3.068	0.216	3.75	40	3.00
3 1/2	4.00	3.548	0.226	4.38	40	5.00
4	4.50	4.026	0.237	5.00	40	9.00
5	5.56	5.044	0.258	6.19	40	16.00
6	6.62	6.060	0.280	7.44	40	22.50
8	8.62	7.976	0.322	9.94	40	45.00
10	10.75	10.020	0.365	12.44	40	80.00
12	12.75	11.938	0.406	14.88	40	160.00
14	14.00	13.124	0.438	17.38	40	270.00
16	16.00	15.000	0.500	19.88	40	360.00
18	18.00	16.876	0.562	22.38	40	490.00
20	20.00	18.812	0.594	24.88	40	615.00
24	24.00	22.624	0.688	29.81	40	775.00

FITTINGS

**3R
SCHEDULE 80**



WELDBEND NOTES

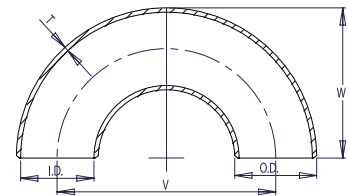
1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	A		
3/4	1.05	0.742	0.154	0.94	80	0.16
1	1.32	0.962	0.179	1.25	80	0.28
1 1/4	1.66	1.278	0.191	1.56	80	0.45
1 1/2	1.90	1.500	0.200	1.88	80	0.61
2	2.38	1.944	0.218	2.50	80	1.20
2 1/2	2.88	2.328	0.276	3.12	80	2.00
3	3.50	2.900	0.300	3.75	80	3.30
3 1/2	4.00	3.364	0.318	4.38	80	4.50
4	4.50	3.826	0.337	5.00	80	6.20
5	5.56	4.810	0.375	6.19	80	10.50
6	6.62	5.756	0.432	7.44	80	17.00
8	8.62	7.620	0.500	9.94	80	34.30
10	10.75	9.562	0.594	12.44	80	150.00
12	12.75	11.374	0.688	14.88	80	200.00
14	14.00	12.500	0.750	17.38	80	337.50
16	16.00	14.312	0.844	19.88	80	450.00
18	18.00	16.124	0.938	22.38	80	612.50
20	20.00	17.938	1.031	24.88	80	768.75
24	24.00	21.562	1.219	29.81	80	968.75

180° RETURN BENDS

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
1/2	0.84	0.622	0.109	3.00	1.88	40	0.32
3/4	1.05	0.824	0.113	3.00	2.00	40	0.34
1	1.32	1.049	0.133	3.00	2.19	40	0.74
1 1/4	1.66	1.380	0.140	3.75	2.75	40	1.10
1 1/2	1.90	1.610	0.145	4.50	3.25	40	1.60
2	2.38	2.067	0.154	6.00	4.19	40	3.20
2 1/2	2.88	2.469	0.203	7.50	5.19	40	6.10
3	3.50	3.068	0.216	9.00	6.25	40	9.40
3 1/2	4.00	3.548	0.226	10.50	7.25	40	12.80
4	4.50	4.026	0.237	12.00	8.25	40	17.50
5	5.56	5.047	0.258	15.00	10.31	40	29.30
6	6.62	6.065	0.280	18.00	12.31	40	47.00
8	8.62	7.981	0.322	24.00	16.31	40	87.00
10	10.75	10.020	0.365	30.00	20.38	40	164.00
12	12.75	12.000	0.375	36.00	24.38	*	237.00
14	14.00	13.250	0.375	42.00	28.00	30	311.00
16	16.00	15.250	0.375	48.00	32.00	30	408.00
18	18.00	17.250	0.375	54.00	36.00	*	514.00
20	20.00	19.250	0.375	60.00	40.00	20	636.00
24	24.00	23.250	0.375	72.00	48.00	20	908.00

LONG RADIUS SCHEDULE STD

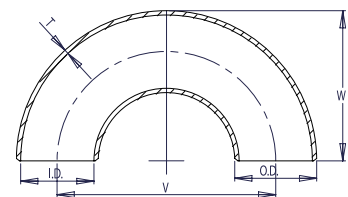


WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 24" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
1/2	0.84	0.546	0.147	3.00	1.88	80	0.45
3/4	1.05	0.742	0.154	3.00	2.00	80	0.52
1	1.32	0.957	0.179	3.00	2.19	80	0.97
1 1/4	1.66	1.278	0.191	3.75	2.75	80	1.60
1 1/2	1.90	1.500	0.200	4.50	3.25	80	2.20
2	2.38	1.939	0.218	6.00	4.19	80	4.10
2 1/2	2.88	2.323	0.276	7.50	5.19	80	7.70
3	3.50	2.900	0.300	9.00	6.25	80	12.40
3 1/2	4.00	3.364	0.318	10.50	7.25	80	17.10
4	4.50	3.826	0.337	12.00	8.25	80	24.10
5	5.56	4.813	0.375	15.00	10.31	80	41.70
6	6.62	5.761	0.432	18.00	12.31	80	68.20
8	8.62	7.625	0.500	24.00	16.31	80	140.00
10	10.75	9.750	0.500	30.00	20.38	60	217.00
12	12.75	11.750	0.500	36.00	24.38	*	311.00
14	14.00	13.000	0.500	42.00	28.00	*	400.00
16	16.00	15.000	0.500	48.00	32.00	40	540.00
18	18.00	17.000	0.500	54.00	36.00	*	686.00
20	20.00	19.000	0.500	60.00	40.00	30	840.00
24	24.00	23.000	0.500	72.00	48.00	*	1210.00

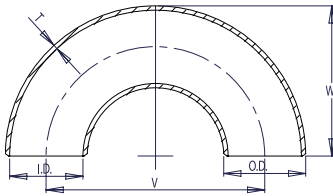
LONG RADIUS SCHEDULE XS



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 24" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

LONG RADIUS SCHEDULE 40



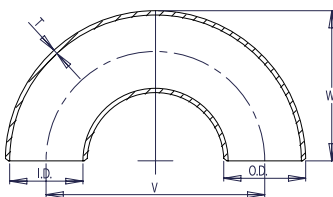
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 24" please call.
6. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
½	0.84	0.622	0.109	3.00	1.88	40	0.32
¾	1.05	0.824	0.113	3.00	2.00	40	0.34
1	1.32	1.054	0.133	3.00	2.19	40	0.74
1 ¼	1.66	1.380	0.140	3.75	2.75	40	1.10
1 ½	1.90	1.610	0.145	4.50	3.25	40	1.60
2	2.38	2.072	0.154	6.00	4.19	40	3.20
2 ½	2.88	2.474	0.203	7.50	5.19	40	6.10
3	3.50	3.068	0.216	9.00	6.25	40	9.40
3 ½	4.00	3.548	0.226	10.50	7.25	40	12.80
4	4.50	4.026	0.237	12.00	8.25	40	17.50
5	5.56	5.044	0.258	15.00	10.31	40	29.30
6	6.62	6.060	0.280	18.00	12.31	40	47.00
8	8.62	7.976	0.322	24.00	16.31	40	87.00
10	10.75	10.020	0.365	30.00	20.38	40	164.00
12	12.75	11.938	0.406	36.00	24.38	40	240.00
14	14.00	13.124	0.438	42.00	28.00	40	315.00
16	16.00	15.000	0.500	48.00	32.00	40	410.00
18	18.00	16.876	0.562	54.00	36.00	40	520.00
20	20.00	18.812	0.594	60.00	40.00	40	640.00
24	24.00	22.624	0.688	72.00	48.00	40	915.00

FITTINGS

LONG RADIUS SCHEDULE 80



WELDBEND NOTES

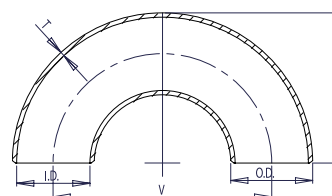
1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
½	0.84	0.546	0.147	3.00	1.88	80	0.45
¾	1.05	0.742	0.154	3.00	2.00	80	0.52
1	1.32	0.962	0.179	3.00	2.19	80	0.97
1 ¼	1.66	1.278	0.191	3.75	2.75	80	1.60
1 ½	1.90	1.500	0.200	4.50	3.25	80	2.20
2	2.38	1.944	0.218	6.00	4.19	80	4.10
2 ½	2.88	2.328	0.276	7.50	5.19	80	7.70
3	3.50	2.900	0.300	9.00	6.25	80	12.40
3 ½	4.00	3.364	0.318	10.50	7.25	80	17.10
4	4.50	3.826	0.337	12.00	8.25	80	24.10
5	5.56	4.810	0.375	15.00	10.31	80	41.70
6	6.62	5.756	0.432	18.00	12.31	80	68.20
8	8.62	7.620	0.500	24.00	16.31	80	140.00
10	10.75	9.562	0.594	30.00	20.38	80	220.00
12	12.75	11.374	0.688	36.00	24.38	80	315.00
14	14.00	12.500	0.750	42.00	28.00	80	410.00
16	16.00	14.312	0.844	48.00	32.00	80	550.00
18	18.00	16.124	0.938	54.00	36.00	80	695.00
20	20.00	17.938	1.031	60.00	40.00	80	850.00
24	24.00	21.562	1.219	72.00	48.00	80	1225.00

180° RETURN BENDS

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
1/2	0.84	0.464	0.188	3.00	1.88	160	0.40
3/4	1.05	0.612	0.219	3.00	2.00	160	0.43
1	1.32	0.820	0.250	3.00	2.19	160	0.93
1 1/4	1.66	1.160	0.250	3.75	2.75	160	1.38
1 1/2	1.90	1.338	0.281	4.50	3.25	160	2.00
2	2.38	1.692	0.344	6.00	4.19	160	4.00
2 1/2	2.88	2.130	0.375	7.50	5.19	160	7.63
3	3.50	2.624	0.438	9.00	6.25	160	11.75
4	4.50	3.438	0.531	12.00	8.25	160	21.88
5	5.56	4.310	0.625	15.00	10.31	160	36.63
6	6.62	5.182	0.719	18.00	12.31	160	58.75
8	8.62	6.808	0.906	24.00	16.31	160	108.75
10	10.75	8.500	1.125	30.00	20.38	160	205.00
12	12.75	10.126	1.312	36.00	24.38	160	296.25
14	14.00	11.188	1.406	42.00	28.00	160	388.75
16	16.00	12.812	1.594	48.00	32.00	160	510.00
18	18.00	14.438	1.781	54.00	36.00	160	642.50
20	20.00	16.062	1.969	60.00	40.00	160	795.00
24	24.00	19.312	2.344	72.00	48.00	160	1135.00

LONG RADIUS SCHEDULE 160

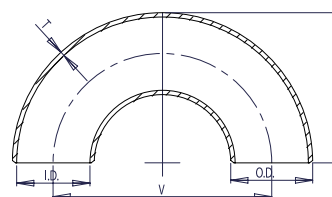


WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
1/2	0.84	0.252	0.294	3.00	1.88	*	0.44
3/4	1.05	0.434	0.308	3.00	2.00	*	0.47
1	1.32	0.604	0.358	3.00	2.19	*	1.02
1 1/4	1.66	0.896	0.382	3.75	2.75	*	1.51
1 1/2	1.90	1.100	0.400	4.50	3.25	*	2.20
2	2.38	1.508	0.436	6.00	4.19	*	4.40
2 1/2	2.88	1.776	0.552	7.50	5.19	*	8.39
3	3.50	2.300	0.600	9.00	6.25	*	12.93
4	4.50	3.152	0.674	12.00	8.25	*	24.06
5	5.56	4.060	0.750	15.00	10.31	*	40.29
6	6.62	4.892	0.864	18.00	12.31	*	64.63
8	8.62	6.870	0.875	24.00	16.31	*	119.63
10	10.75	8.750	1.000	30.00	20.38	140	225.50
12	12.75	10.750	1.000	36.00	24.38	120	325.88

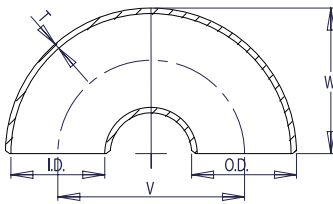
LONG RADIUS SCHEDULE XXS



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

SHORT RADIUS SCHEDULE STD



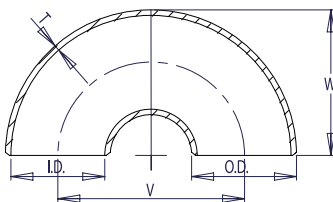
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 24" please call.
 6. All weights are in pounds and approximated or estimated.
- *This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
1	1.32	1.049	0.133	2.00	1.62	40	0.50
1 ¼	1.66	1.380	0.140	2.50	2.06	40	0.80
1 ½	1.90	1.610	0.145	3.00	2.44	40	1.10
2	2.38	2.067	0.154	4.00	3.19	40	1.90
2 ½	2.88	2.469	0.203	5.00	3.94	40	4.00
3	3.50	3.068	0.216	6.00	4.75	40	6.00
3 ½	4.00	3.548	0.226	7.00	5.50	40	8.70
4	4.50	4.026	0.237	8.00	6.25	40	12.20
5	5.56	5.047	0.258	10.00	7.75	40	19.20
6	6.62	6.065	0.280	12.00	9.31	40	32.90
8	8.62	7.981	0.322	16.00	12.31	40	64.90
10	10.75	10.020	0.365	20.00	15.38	40	112.00
12	12.75	12.000	0.375	24.00	18.38	*	157.00
14	14.00	13.250	0.375	28.00	21.00	30	208.00
16	16.00	15.250	0.375	32.00	24.00	30	257.00
18	18.00	17.250	0.375	36.00	27.00	*	325.00
20	20.00	19.250	0.375	40.00	30.00	20	416.00
24	24.00	23.250	0.375	48.00	36.00	20	592.00

FITTINGS

SHORT RADIUS SCHEDULE XS



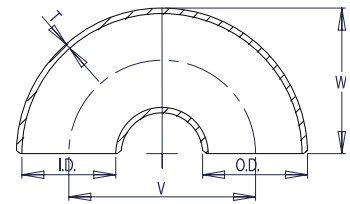
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 24" please call.
 6. All weights are in pounds and approximated or estimated.
- *This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
1	1.32	0.962	0.179	2.00	1.62	80	0.70
1 ¼	1.66	1.278	0.191	2.50	2.06	80	1.00
1 ½	1.90	1.500	0.200	3.00	2.44	80	1.50
2	2.38	1.939	0.218	4.00	3.19	80	2.90
2 ½	2.88	2.323	0.276	5.00	3.94	80	5.20
3	3.50	2.900	0.300	6.00	4.75	80	8.20
3 ½	4.00	3.364	0.318	7.00	5.50	80	11.70
4	4.50	3.826	0.337	8.00	6.25	80	16.40
5	5.56	4.813	0.375	10.00	7.75	80	27.70
6	6.62	5.761	0.432	12.00	9.31	80	45.70
8	8.62	7.625	0.500	16.00	12.31	80	96.30
10	10.75	9.750	0.500	20.00	15.38	60	143.00
12	12.75	11.750	0.500	24.00	18.38	*	212.00
14	14.00	13.000	0.500	28.00	21.00	*	271.00
16	16.00	15.000	0.500	32.00	24.00	40	339.00
18	18.00	17.000	0.500	36.00	27.00	*	425.00
20	20.00	19.000	0.500	40.00	30.00	30	555.00
24	24.00	23.000	0.500	48.00	36.00	*	778.00

**SHORT RADIUS
 SCHEDULE 40**

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
1	1.32	1.054	0.133	2.00	1.62	40	0.50
1 ¼	1.66	1.380	0.140	2.50	2.06	40	0.80
1 ½	1.90	1.610	0.145	3.00	2.44	40	1.10
2	2.38	2.072	0.154	4.00	3.19	40	1.90
2 ½	2.88	2.474	0.203	5.00	3.94	40	4.00
3	3.50	3.068	0.216	6.00	4.75	40	6.00
3 ½	4.00	3.548	0.226	7.00	5.50	40	8.70
4	4.50	4.026	0.237	8.00	6.25	40	12.20
5	5.56	5.044	0.258	10.00	7.75	40	19.20
6	6.62	6.060	0.280	12.00	9.31	40	32.90
8	8.62	7.976	0.322	16.00	12.31	40	64.90
10	10.75	10.020	0.365	20.00	15.38	40	112.00
12	12.75	11.938	0.406	24.00	18.38	40	165.00
14	14.00	13.124	0.438	28.00	21.00	40	215.00
16	16.00	15.000	0.500	32.00	24.00	40	265.00
18	18.00	16.876	0.562	36.00	27.00	40	335.00
20	20.00	18.812	0.594	40.00	30.00	40	425.00
24	24.00	22.624	0.688	48.00	36.00	40	605.00



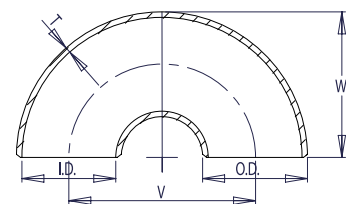
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 24" please call.
6. All weights are in pounds and approximated or estimated.

FITTINGS

**SHORT RADIUS
 SCHEDULE 80**

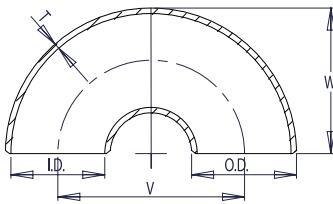
Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
1	1.32	0.962	0.179	2.00	1.62	80	0.70
1 ¼	1.66	1.278	0.191	2.50	2.06	80	1.00
1 ½	1.90	1.500	0.200	3.00	2.44	80	1.50
2	2.38	1.944	0.218	4.00	3.19	80	2.90
2 ½	2.88	2.328	0.276	5.00	3.94	80	5.20
3	3.50	2.900	0.300	6.00	4.75	80	8.20
3 ½	4.00	3.364	0.318	7.00	5.50	80	11.70
4	4.50	3.826	0.337	8.00	6.25	80	16.40
5	5.56	4.810	0.375	10.00	7.75	80	27.70
6	6.62	5.756	0.432	12.00	9.31	80	45.70
8	8.62	7.620	0.500	16.00	12.31	80	96.30
10	10.75	9.562	0.594	20.00	15.38	80	160.00
12	12.75	11.374	0.688	24.00	18.38	80	225.00
14	14.00	12.500	0.750	28.00	21.00	80	280.00
16	16.00	14.312	0.844	32.00	24.00	80	350.00
18	18.00	16.124	0.938	36.00	27.00	80	435.00
20	20.00	17.938	1.031	40.00	30.00	80	570.00
24	24.00	21.562	1.219	48.00	36.00	80	790.00



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

SHORT RADIUS SCHEDULE 160



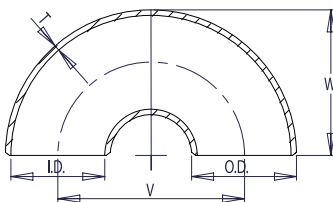
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
1	1.32	0.820	0.250	2.00	1.62	160	0.85
1 ¼	1.66	1.160	0.250	2.50	2.06	160	1.21
1 ½	1.90	1.338	0.281	3.00	2.44	160	1.82
2	2.38	1.692	0.344	4.00	3.19	160	3.51
2 ½	2.88	2.130	0.375	5.00	3.94	160	6.29
3	3.50	2.624	0.438	6.00	4.75	160	9.92
4	4.50	3.438	0.531	8.00	6.25	160	19.84
5	5.56	4.310	0.625	10.00	7.75	160	33.52
6	6.62	5.182	0.719	12.00	9.31	160	55.30
8	8.62	6.808	0.906	16.00	12.31	160	116.52
10	10.75	8.500	1.125	20.00	15.38	160	173.03
12	12.75	10.126	1.312	24.00	18.38	160	256.52
14	14.00	11.188	1.406	28.00	21.00	160	327.91
16	16.00	12.812	1.594	32.00	24.00	160	410.19
18	18.00	14.438	1.781	36.00	27.00	160	514.25
20	20.00	16.062	1.969	40.00	30.00	160	671.55
24	24.00	19.312	2.344	48.00	36.00	160	941.38

FITTINGS

SHORT RADIUS SCHEDULE XXS



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

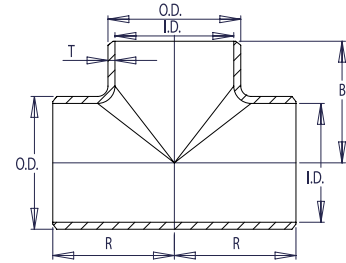
* This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Back to Face	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	V	W		
1	1.32	0.604	0.358	2.00	1.62	*	0.93
1 ¼	1.66	0.896	0.382	2.50	2.06	*	1.33
1 ½	1.90	1.100	0.400	3.00	2.44	*	2.00
2	2.38	1.508	0.436	4.00	3.19	*	3.90
2 ½	2.88	1.776	0.552	5.00	3.94	*	6.92
3	3.50	2.300	0.600	6.00	4.75	*	10.91
4	4.50	3.152	0.674	8.00	6.25	*	21.83
5	5.56	4.060	0.750	10.00	7.75	*	36.87
6	6.62	4.892	0.864	12.00	9.31	*	60.83
8	8.62	6.870	0.875	16.00	12.31	*	128.18
10	10.75	8.750	1.000	20.00	15.38	140	190.33
12	12.75	10.750	1.000	24.00	18.38	120	282.17

STRAIGHT TEES

SCHEDULE STD

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	R	B		
1/2	0.84	0.622	0.109	1.00	1.00	40	0.35
3/4	1.05	0.824	0.113	1.12	1.12	40	0.50
1	1.32	1.049	0.133	1.50	1.50	40	0.75
1 1/4	1.66	1.380	0.140	1.88	1.88	40	1.30
1 1/2	1.90	1.610	0.145	2.25	2.25	40	1.90
2	2.38	2.067	0.154	2.50	2.50	40	3.20
2 1/2	2.88	2.469	0.203	3.00	3.00	40	5.80
3	3.50	3.068	0.216	3.38	3.38	40	7.20
3 1/2	4.00	3.548	0.226	3.75	3.75	40	9.50
4	4.50	4.026	0.237	4.12	4.12	40	12.70
5	5.56	5.047	0.258	4.88	4.88	40	20.80
6	6.62	6.065	0.280	5.62	5.62	40	33.10
8	8.62	7.981	0.322	7.00	7.00	40	56.50
10	10.75	10.020	0.365	8.50	8.50	40	90.90
12	12.75	12.000	0.375	10.00	10.00	*	136.00
14	14.00	13.250	0.375	11.00	11.00	30	162.00
16	16.00	15.250	0.375	12.00	12.00	30	206.00
18	18.00	17.250	0.375	13.50	13.50	*	272.00
20	20.00	19.250	0.375	15.00	15.00	20	350.00
24	24.00	23.250	0.375	17.00	17.00	20	508.00
30	30.00	29.250	0.375	22.00	22.00	*	835.00
36	36.00	35.250	0.375	26.50	26.50	*	1294.00
42	42.00	41.250	0.375	30.00	28.00	*	1495.00
48	48.00	47.250	0.375	35.00	33.00	*	2300.00



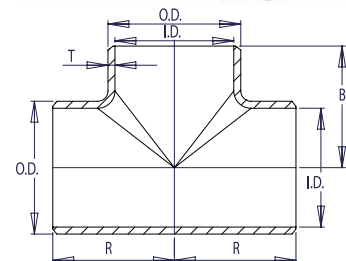
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

FITTINGS

SCHEDULE XS

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	R	B		
1/2	0.84	0.546	0.147	1.00	1.00	80	0.37
3/4	1.05	0.742	0.154	1.12	1.12	80	0.58
1	1.32	0.957	0.179	1.50	1.50	80	0.87
1 1/4	1.66	1.278	0.191	1.88	1.88	80	1.60
1 1/2	1.90	1.500	0.200	2.25	2.25	80	2.30
2	2.38	1.939	0.218	2.50	2.50	80	3.90
2 1/2	2.88	2.323	0.276	3.00	3.00	80	6.50
3	3.50	2.900	0.300	3.38	3.38	80	9.00
3 1/2	4.00	3.364	0.318	3.75	3.75	80	12.20
4	4.50	3.826	0.337	4.12	4.12	80	16.20
5	5.56	4.813	0.375	4.88	4.88	80	26.60
6	6.62	5.761	0.432	5.62	5.62	80	41.80
8	8.62	7.625	0.500	7.00	7.00	80	76.20
10	10.75	9.750	0.500	8.50	8.50	60	115.00
12	12.75	11.750	0.500	10.00	10.00	*	169.00
14	14.00	13.000	0.500	11.00	11.00	*	237.00
16	16.00	15.000	0.500	12.00	12.00	40	284.00
18	18.00	17.000	0.500	13.50	13.50	*	353.00
20	20.00	19.000	0.500	15.00	15.00	30	442.00
24	24.00	23.000	0.500	17.00	17.00	*	625.00
30	30.00	29.000	0.500	22.00	22.00	20	1065.00
36	36.00	35.000	0.500	26.50	26.50	20	1610.00
42	42.00	41.000	0.500	30.00	28.00	*	1788.00
48	48.00	47.000	0.500	35.00	33.00	*	2300.00



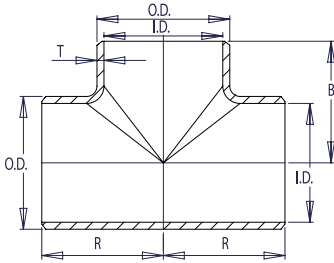
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

STRAIGHT TEES



SCHEDULE 40



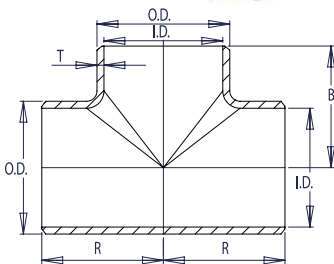
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 24" please call.
6. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	R	B		
1/2	0.84	0.622	0.109	1.00	1.00	40	0.35
3/4	1.05	0.824	0.113	1.12	1.12	40	0.50
1	1.32	1.054	0.133	1.50	1.50	40	0.75
1 1/4	1.66	1.380	0.140	1.88	1.88	40	1.30
1 1/2	1.90	1.610	0.145	2.25	2.25	40	1.90
2	2.38	2.072	0.154	2.50	2.50	40	3.20
2 1/2	2.88	2.474	0.203	3.00	3.00	40	5.80
3	3.50	3.068	0.216	3.38	3.38	40	7.20
3 1/2	4.00	3.548	0.226	3.75	3.75	40	8.50
4	4.50	4.026	0.237	4.12	4.12	40	9.50
5	5.56	5.044	0.258	4.88	4.88	40	12.70
6	6.62	6.060	0.280	5.62	5.62	40	20.80
8	8.62	7.976	0.322	7.00	7.00	40	33.10
10	10.75	10.020	0.365	8.50	8.50	40	56.50
12	12.75	11.938	0.406	10.00	10.00	40	90.90
14	14.00	13.124	0.438	11.00	11.00	40	165.00
16	16.00	15.000	0.500	12.00	12.00	40	210.00
18	18.00	16.876	0.562	13.50	13.50	40	275.00
20	20.00	18.812	0.594	15.00	15.00	40	355.00
24	24.00	22.624	0.688	17.00	17.00	40	510.00

FITTINGS

SCHEDULE 80



WELDBEND NOTES

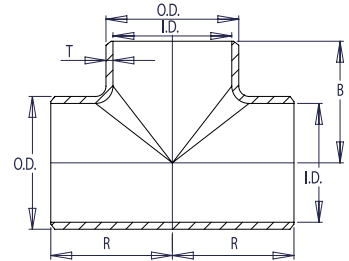
1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	R	B		
1/2	0.84	0.546	0.147	1.00	1.00	80	0.37
3/4	1.05	0.742	0.154	1.12	1.12	80	0.58
1	1.32	0.962	0.179	1.50	1.50	80	0.87
1 1/4	1.66	1.278	0.191	1.88	1.88	80	1.60
1 1/2	1.90	1.500	0.200	2.25	2.25	80	2.30
2	2.38	1.944	0.218	2.50	2.50	80	3.90
2 1/2	2.88	2.328	0.276	3.00	3.00	80	6.50
3	3.50	2.900	0.300	3.38	3.38	80	9.00
3 1/2	4.00	3.364	0.318	3.75	3.75	80	12.20
4	4.50	3.826	0.337	4.12	4.12	80	16.20
5	5.56	4.810	0.375	4.88	4.88	80	26.60
6	6.62	5.756	0.432	5.62	5.62	80	41.80
8	8.62	7.620	0.500	7.00	7.00	80	76.20
10	10.75	9.562	0.594	8.50	8.50	80	120.00
12	12.75	11.374	0.688	10.00	10.00	80	175.00
14	14.00	12.500	0.750	11.00	11.00	80	240.00
16	16.00	14.312	0.844	12.00	12.00	80	290.00
18	18.00	16.124	0.938	13.50	13.50	80	360.00
20	20.00	17.938	1.031	15.00	15.00	80	450.00
24	24.00	21.562	1.219	17.00	17.00	80	630.00

STRAIGHT TEES

SCHEDULE 160

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	R	B		
1/2	0.84	0.464	0.188	1.00	1.00	160	0.46
3/4	1.05	0.612	0.219	1.12	1.12	160	0.73
1	1.32	0.820	0.250	1.50	1.50	160	1.09
1 1/4	1.66	1.160	0.250	1.88	1.88	160	2.00
1 1/2	1.90	1.338	0.281	2.25	2.25	160	2.88
2	2.38	1.692	0.344	2.50	2.50	160	4.88
2 1/2	2.88	2.130	0.375	3.00	3.00	160	8.13
3	3.50	2.624	0.438	3.38	3.38	160	11.25
4	4.50	3.438	0.531	4.12	4.12	160	20.25
5	5.56	4.310	0.625	4.88	4.88	160	33.25
6	6.62	5.182	0.719	5.62	5.62	160	52.25
8	8.62	6.808	0.906	7.00	7.00	160	95.25
10	10.75	8.500	1.125	8.50	8.50	160	143.75
12	12.75	10.126	1.312	10.00	10.00	160	211.25
14	14.00	11.188	1.406	11.00	11.00	160	296.25
16	16.00	12.812	1.594	12.00	12.00	160	355.00
18	18.00	14.438	1.781	13.50	13.50	160	441.25
20	20.00	16.062	1.969	15.00	15.00	160	552.50
24	24.00	19.312	2.344	17.00	17.00	160	781.25

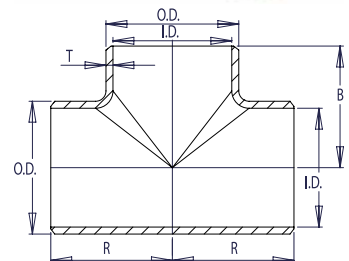


WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

FITTINGS

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Center to Center	Center to End	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	R	B		
1/2	0.84	0.252	0.294	1.00	1.00	*	0.51
3/4	1.05	0.434	0.308	1.12	1.12	*	0.80
1	1.32	0.604	0.358	1.50	1.50	*	1.20
1 1/4	1.66	0.896	0.382	1.88	1.88	*	2.20
1 1/2	1.90	1.100	0.400	2.25	2.25	*	3.16
2	2.38	1.508	0.436	2.50	2.50	*	5.36
2 1/2	2.88	1.776	0.552	3.00	3.00	*	8.94
3	3.50	2.300	0.600	3.38	3.38	*	12.38
4	4.50	3.152	0.674	4.12	4.12	*	22.28
5	5.56	4.060	0.750	4.88	4.88	*	36.58
6	6.62	4.892	0.864	5.62	5.62	*	57.48
8	8.62	6.870	0.875	7.00	7.00	*	104.78
10	10.75	8.750	1.000	8.50	8.50	140	158.13
12	12.75	10.750	1.000	10.00	10.00	120	232.38



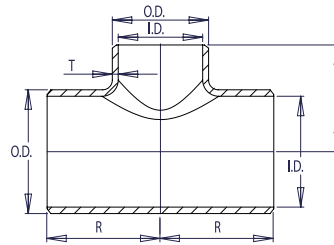
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

REDUCING TEES



SCHEDULE STD



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.
 ♦ In accordance with B16.9. Special Fittings paragraph 4.4.2.

FITTINGS

Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
3/4 x 1/2	1.05	0.824	0.113	1.12	0.84	0.622	0.109	1.12	40	0.41
1 x 3/4	1.32	1.049	0.133	1.50	1.05	0.824	0.113	1.50	40	0.81
1 x 1/2	1.32	1.049	0.133	1.50	0.84	0.622	0.109	1.50	40	0.78
1 1/4 x 1	1.66	1.380	0.140	1.88	1.32	1.049	0.133	1.88	40	1.30
1 1/4 x 3/4	1.66	1.380	0.140	1.88	1.05	0.824	0.113	1.88	40	1.30
1 1/4 x 1/2	1.66	1.380	0.140	1.88	0.84	0.622	0.109	1.88	40	1.30
1 1/2 x 1 1/4	1.90	1.610	0.145	2.25	1.66	1.380	0.140	2.25	40	2.00
1 1/2 x 1	1.90	1.610	0.145	2.25	1.32	1.049	0.133	2.25	40	1.90
1 1/2 x 3/4	1.90	1.610	0.145	2.25	1.05	0.824	0.113	2.25	40	1.80
1 1/2 x 1/2	1.90	1.610	0.145	2.25	0.84	0.622	0.109	2.25	40	1.80
2 x 1 1/2	2.38	2.067	0.154	2.50	1.90	1.610	0.145	2.38	40	3.10
2 x 1 1/4	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 3/4	2.38	2.067	0.154	2.50	1.05	0.824	0.113	1.75	40	2.50
2 1/2 x 2	2.88	2.469	0.203	3.00	2.38	2.067	0.154	2.75	40	5.40
2 1/2 x 1 1/2	2.88	2.469	0.203	3.00	1.90	1.610	0.145	2.62	40	5.10
2 1/2 x 1 1/4	2.88	2.469	0.203	3.00	1.66	1.380	0.140	2.50	40	4.80
2 1/2 x 1	2.88	2.469	0.203	3.00	1.32	1.049	0.133	2.25	40	4.60
3 x 2 1/2	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 1/2	3.50	3.068	0.216	3.38	1.90	1.610	0.145	2.88	40	6.80
3 x 1 1/4	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
3 1/2 x 3	4.00	3.548	0.226	3.75	3.50	3.068	0.216	3.62	40	9.80
3 1/2 x 2 1/2	4.00	3.548	0.226	3.75	2.88	2.474	0.203	3.50	40	9.40
3 1/2 x 2	4.00	3.548	0.226	3.75	2.38	2.072	0.154	3.25	40	9.20
3 1/2 x 1 1/2	4.00	3.548	0.226	3.75	1.90	1.610	0.145	3.12	40	8.90
4 x 3 1/2	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 1/2	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 1/2	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 1/2	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 1/2	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 1/2	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 1/2	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

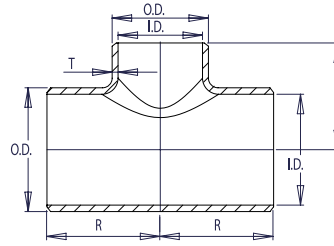
Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
8 x 3 1/2	8.62	7.981	0.322	7.00	4.00	3.548	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	0.365	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
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

REDUCING TEES



SCHEDULE XS



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.
 ♦ In accordance with B16.9. Special Fittings paragraph 4.4.2.

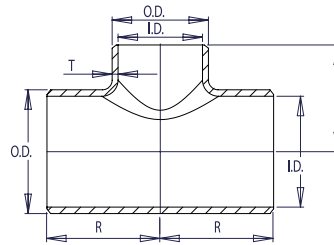
FITTINGS

Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
3/4 x 1/2	1.05	0.742	0.154	1.12	0.84	0.546	0.147	1.12	80	0.47
1 x 3/4	1.32	0.957	0.179	1.50	1.05	0.742	0.154	1.50	80	0.98
1 x 1/2	1.32	0.957	0.179	1.50	0.84	0.546	0.147	1.50	80	0.92
1 1/4 x 1	1.66	1.278	0.191	1.88	1.32	0.957	0.179	1.88	80	1.60
1 1/4 x 3/4	1.66	1.278	0.191	1.88	1.05	0.742	0.154	1.88	80	1.60
1 1/4 x 1/2	1.66	1.278	0.191	1.88	0.84	0.546	0.147	1.88	80	1.60
1 1/2 x 1 1/4	1.90	1.500	0.200	2.25	1.66	1.278	0.191	2.25	80	2.40
1 1/2 x 1	1.90	1.500	0.200	2.25	1.32	0.957	0.179	2.25	80	2.30
1 1/2 x 3/4	1.90	1.500	0.200	2.25	1.05	0.742	0.154	2.25	80	2.20
1 1/2 x 1/2	1.90	1.500	0.200	2.25	0.84	0.546	0.147	2.25	80	2.20
2 x 1 1/2	2.38	1.944	0.218	2.50	1.90	1.500	0.200	2.38	80	3.80
2 x 1 1/4	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 3/4	2.38	1.944	0.218	2.50	1.05	0.742	0.154	1.75	80	3.50
2 1/2 x 2	2.88	2.323	0.276	3.00	2.38	1.944	0.218	2.75	80	6.30
2 1/2 x 1 1/2	2.88	2.323	0.276	3.00	1.90	1.500	0.200	2.62	80	6.20
2 1/2 x 1 1/4	2.88	2.323	0.276	3.00	1.66	1.278	0.191	2.50	80	6.00
2 1/2 x 1	2.88	2.323	0.276	3.00	1.32	0.957	0.179	2.25	80	5.80
3 x 2 1/2	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 1/2	3.50	2.900	0.300	3.38	1.90	1.500	0.200	2.88	80	8.10
3 x 1 1/4	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
3 1/2 x 3	4.00	3.364	0.318	3.75	3.50	2.900	0.300	3.62	80	12.60
3 1/2 x 2 1/2	4.00	3.364	0.318	3.75	2.88	2.323	0.276	3.50	80	12.10
3 1/2 x 2	4.00	3.364	0.318	3.75	2.38	1.939	0.218	3.25	80	11.70
3 1/2 x 1 1/2	4.00	3.364	0.318	3.75	1.90	1.500	0.200	3.12	80	11.60
4 x 3 1/2	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 1/2	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 1/2	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 1/2	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 1/2	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 1/2	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 1/2	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

Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
8 x 3 1/2	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
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

SCHEDULE 40



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 24" please call.
 6. All weights are in pounds and approximated or estimated.
- ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

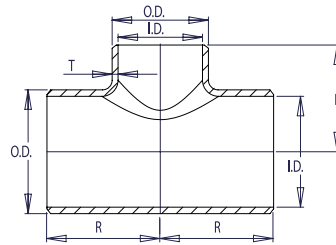
FITTINGS

Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
FOR DIMENSION SPECIFICATIONS 1/2" 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

SCHEDULE 80

WELDBEND NOTES

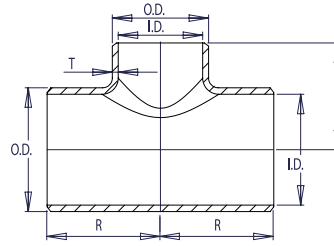
1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- ❖ In accordance with B16.9-2007. Special Fittings paragraph 4.4.2.



Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
FOR DIMENSION SPECIFICATIONS 1/2" 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

SCHEDULE 160



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

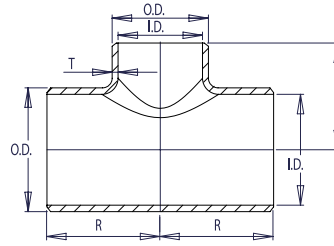
FITTINGS

Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
3/4 x 1/2	1.05	0.612	0.219	1.12	0.84	0.464	0.188	1.12	160	0.66
1 x 3/4	1.32	0.820	0.250	1.50	1.05	0.612	0.219	1.50	160	1.37
1 x 1/2	1.32	0.820	0.250	1.50	0.84	0.464	0.188	1.50	160	1.29
1 1/4 x 1	1.66	1.160	0.250	1.88	1.32	0.820	0.250	1.88	160	2.24
1 1/4 x 3/4	1.66	1.160	0.250	1.88	1.05	0.612	0.219	1.88	160	2.24
1 1/4 x 1/2	1.66	1.160	0.250	1.88	0.84	0.464	0.188	1.88	160	2.24
1 1/2 x 1 1/4	1.90	1.338	0.281	2.25	1.66	1.160	0.250	2.25	160	3.36
1 1/2 x 1	1.90	1.338	0.281	2.25	1.32	0.820	0.250	2.25	160	3.22
1 1/2 x 3/4	1.90	1.338	0.281	2.25	1.05	0.612	0.219	2.25	160	3.08
1 1/2 x 1/2	1.90	1.338	0.281	2.25	0.84	0.464	0.188	2.25	160	3.08
2 x 1 1/2	2.38	1.692	0.344	2.50	1.90	1.338	0.281	2.38	160	5.32
2 x 1 1/4	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 3/4	2.38	1.692	0.344	2.50	1.05	0.612	0.219	1.75	160	4.90
2 1/2 x 2	2.88	2.130	0.375	3.00	2.38	1.692	0.344	2.75	160	8.82
2 1/2 x 1 1/2	2.88	2.130	0.375	3.00	1.90	1.338	0.281	2.62	160	8.68
2 1/2 x 1 1/4	2.88	2.130	0.375	3.00	1.66	1.160	0.250	2.50	160	8.40
2 1/2 x 1	2.88	2.130	0.375	3.00	1.32	0.820	0.250	2.25	160	8.12
3 x 2 1/2	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 1/2	3.50	2.624	0.438	3.38	1.90	1.338	0.281	2.88	160	11.34
3 x 1 1/4	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
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 1/2	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 1/2	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 1/2	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 1/2	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

Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
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
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



SCHEDULE XXS



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.
- ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
3/4 x 1/2	1.05	0.434	0.308	1.12	0.84	0.252	0.294	1.12	*	0.74
1 x 3/4	1.32	0.604	0.358	1.50	1.05	0.434	0.308	1.50	*	1.54
1 x 1/2	1.32	0.604	0.358	1.50	0.84	0.252	0.294	1.50	*	1.45
1 1/4 x 1	1.66	0.896	0.382	1.88	1.32	0.604	0.358	1.88	*	2.52
1 1/4 x 3/4	1.66	0.896	0.382	1.88	1.05	0.434	0.308	1.88	*	2.52
1 1/4 x 1/2	1.66	0.896	0.382	1.88	0.84	0.252	0.294	1.88	*	2.52
1 1/2 x 1 1/4	1.90	1.100	0.400	2.25	1.66	0.896	0.382	2.25	*	3.78
1 1/2 x 1	1.90	1.100	0.400	2.25	1.32	0.604	0.358	2.25	*	3.62
1 1/2 x 3/4	1.90	1.100	0.400	2.25	1.05	0.434	0.308	2.25	*	3.47
1 1/2 x 1/2	1.90	1.100	0.400	2.25	0.84	0.252	0.294	2.25	*	3.47
2 x 1 1/2	2.38	1.508	0.436	2.50	1.90	1.100	0.400	2.38	*	5.99
2 x 1 1/4	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 3/4	2.38	1.508	0.436	2.50	1.05	0.434	0.308	1.75	*	5.51
2 1/2 x 2	2.88	1.776	0.552	3.00	2.38	1.508	0.436	2.75	*	9.92
2 1/2 x 1 1/2	2.88	1.776	0.552	3.00	1.90	1.100	0.400	2.62	*	9.77
2 1/2 x 1 1/4	2.88	1.776	0.552	3.00	1.66	0.896	0.382	2.50	*	9.45
2 1/2 x 1	2.88	1.776	0.552	3.00	1.32	0.604	0.358	2.25	*	9.14
3 x 2 1/2	3.50	2.300	0.600	3.38	2.88	1.776	0.552	3.25	*	13.86
3 x 2	3.50	2.300	0.600	3.38	2.38	1.508	0.436	3.00	*	13.55
3 x 1 1/2	3.50	2.300	0.600	3.38	1.90	1.100	0.400	2.88	*	12.76
3 x 1 1/4	3.50	2.300	0.600	3.38	1.66	0.896	0.382	2.75	*	12.60
❖ 3 x 1	3.50	2.300	0.600	3.38	1.32	0.604	0.358	2.62	*	12.60
4 x 3	4.50	3.152	0.674	4.12	3.50	2.300	0.600	3.88	*	24.26
4 x 2 1/2	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 1/2	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	*	38.12
5 x 2 1/2	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

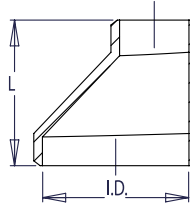
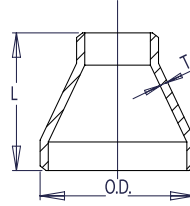
Pipe Size	DIMENSIONS OF RUN				DIMENSIONS OF BRANCH				Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Center to End	Outside Diameter	Inside Diameter	Wall Thickness	Center to End		
	O.D.	I.D.	T	R	O.D.	I.D.	T	B		
6 x 5	6.62	4.892	0.864	5.62	5.56	4.060	0.750	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	*	159.08
❖ 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	*	245.70
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



CONCENTRIC AND ECCENTRIC REDUCERS



SCHEDULE STD



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.
 ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

FITTINGS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length L	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
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	1.054	0.133	1.05	0.824	0.113	2.00	40	0.36
1 x ½	1.32	1.054	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	2.072	0.154	1.90	1.610	0.145	3.00	40	0.94
2 x 1 ¼	2.38	2.072	0.154	1.66	1.380	0.140	3.00	40	0.88
2 x 1	2.38	2.072	0.154	1.32	1.054	0.133	3.00	40	0.81
2 x ¾	2.38	2.072	0.154	1.05	0.824	0.113	3.00	40	0.74
2 ½ x 2	2.88	2.474	0.203	2.38	2.072	0.154	3.50	40	1.60
2 ½ x 1 ½	2.88	2.474	0.203	1.90	1.610	0.145	3.50	40	1.50
2 ½ x 1 ¼	2.88	2.474	0.203	1.66	1.380	0.140	3.50	40	1.40
2 ½ x 1	2.88	2.474	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
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

CONCENTRIC AND ECCENTRIC REDUCERS

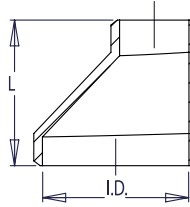
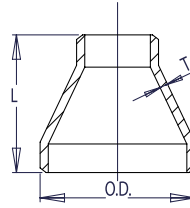
Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T	L		
❖ 4 x 1 1/4	4.50	4.026	0.237	1.66	1.380	0.140	4.00	40	3.00
❖ 4 x 1	4.50	4.026	0.237	1.32	1.054	0.133	4.00	40	2.80
5 x 4	5.56	5.044	0.258	4.50	4.026	0.237	5.00	40	5.50
5 x 3 1/2	5.56	5.044	0.258	4.00	3.548	0.226	5.00	40	5.30
5 x 3	5.56	5.044	0.258	3.50	3.068	0.216	5.00	40	5.10
5 x 2 1/2	5.56	5.044	0.258	2.88	2.474	0.203	5.00	40	4.80
5 x 2	5.56	5.044	0.258	2.38	2.072	0.154	5.00	40	4.70
6 x 5	6.62	6.060	0.280	5.56	5.044	0.258	5.50	40	7.60
6 x 4	6.62	6.060	0.280	4.50	4.026	0.237	5.50	40	7.40
6 x 3 1/2	6.62	6.060	0.280	4.00	3.548	0.226	5.50	40	7.10
6 x 3	6.62	6.060	0.280	3.50	3.068	0.216	5.50	40	6.90
6 x 2 1/2	6.62	6.060	0.280	2.88	2.474	0.203	5.50	40	6.60
❖ 6 x 2	6.62	6.060	0.280	2.38	2.072	0.154	5.50	40	6.50
8 x 6	8.62	7.976	0.322	6.62	6.060	0.280	6.00	40	12.30
8 x 5	8.62	7.976	0.322	5.56	5.044	0.258	6.00	40	11.50
8 x 4	8.62	7.976	0.322	4.50	4.026	0.237	6.00	40	10.80
8 x 3 1/2	8.62	7.976	0.322	4.00	3.548	0.226	6.00	40	10.60
❖ 8 x 3	8.62	7.976	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	14.00	13.250	0.375	14.00	*	75.40
16 x 12	16.00	15.250	0.375	12.75	12.000	0.375	14.00	*	72.70
16 x 10	16.00	15.250	0.375	10.75	10.020	0.365	14.00	*	71.10
16 x 8	16.00	15.250	0.375	8.62	7.976	0.322	14.00	*	69.40
❖ 16 x 6	16.00	15.250	0.375	6.62	6.060	0.280	14.00	*	67.40
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

FITTINGS

CONCENTRIC AND ECCENTRIC REDUCERS



SCHEDULE STD



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.
 ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

FITTINGS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length L	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
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

CONCENTRIC AND ECCENTRIC REDUCERS

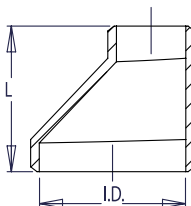
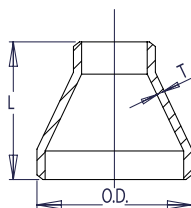
SCHEDULE XS

WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 48" please call.
6. All weights are in pounds and approximated or estimated.

* This size and thickness does not correspond to any pipe schedule number.

❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

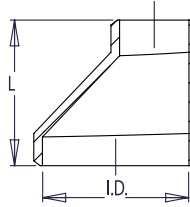
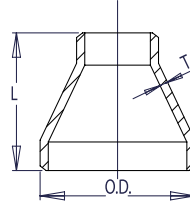


Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
¾ x ½	1.05	0.742	0.154	0.84	0.546	0.147	1.50	80	0.25
1 x ¾	1.32	0.962	0.179	1.05	0.742	0.154	2.00	80	0.43
1 x ½	1.32	0.962	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	0.962	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	0.962	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	0.962	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	2.328	0.276	2.38	1.944	0.218	3.50	80	2.10
2 ½ x 1 ½	2.88	2.328	0.276	1.90	1.500	0.200	3.50	80	1.90
2 ½ x 1 ¼	2.88	2.328	0.276	1.66	1.278	0.191	3.50	80	1.70
2 ½ x 1	2.88	2.328	0.276	1.32	0.962	0.179	3.50	80	1.50
3 x 2 ½	3.50	2.900	0.300	2.88	2.328	0.276	3.50	80	2.80
3 x 2	3.50	2.900	0.300	2.38	1.944	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	0.962	0.179	3.50	80	2.20
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

CONCENTRIC AND ECCENTRIC REDUCERS



SCHEDULE XS



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.
 ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

FITTINGS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length L	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
❖ 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

CONCENTRIC AND ECCENTRIC REDUCERS

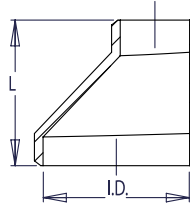
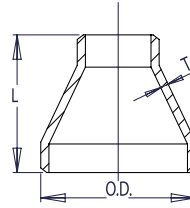
Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T	L		
16 x 12	16.00	15.000	0.500	12.75	11.750	0.500	14.00	*	95.80
16 x 10	16.00	15.000	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
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 AND ECCENTRIC REDUCERS



SCHEDULE 40



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 24" please call.
 6. All weights are in pounds and approximated or estimated.
- ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

FITTINGS

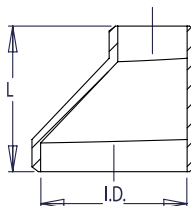
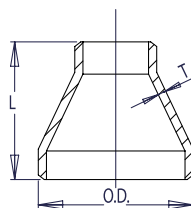
Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length L	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
FOR DIMENSION SPECIFICATIONS 1/2" THROUGH 10" REFER TO SCHEDULE STD									
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

CONCENTRIC AND ECCENTRIC REDUCERS

SCHEDULE 80

WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

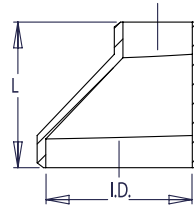
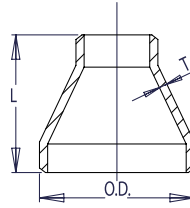


Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length L	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
FOR DIMENSION SPECIFICATIONS 1/2" THROUGH 8" REFER TO SCHEDULE XS									
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

CONCENTRIC AND ECCENTRIC REDUCERS



SCHEDULE 80



WELDBEND NOTES

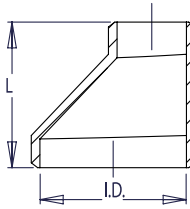
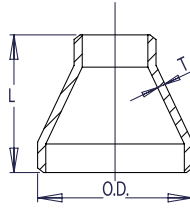
1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

FITTINGS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length L	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
20 x 18	20.00	17.938	1.031	18.00	16.124	0.938	20.00	80	348.00
20 x 16	20.00	17.938	1.031	16.00	14.312	0.844	20.00	80	348.00
20 x 14	20.00	17.938	1.031	14.00	12.500	0.750	20.00	80	348.00
20 x 12	20.00	17.938	1.031	12.75	11.374	0.688	20.00	80	348.00
❖ 20 x 10	20.00	17.938	1.031	10.75	9.562	0.594	20.00	80	348.00
❖ 20 x 8	20.00	17.938	1.031	8.62	7.620	0.500	20.00	80	348.00
24 x 20	24.00	21.562	1.219	20.00	17.938	1.031	20.00	80	494.00
24 x 18	24.00	21.562	1.219	18.00	16.124	0.938	20.00	80	494.00
24 x 16	24.00	21.562	1.219	16.00	14.312	0.844	20.00	80	494.00
❖ 24 x 14	24.00	21.562	1.219	14.00	12.500	0.750	20.00	80	494.00
❖ 24 x 12	24.00	21.562	1.219	12.75	11.374	0.688	20.00	80	494.00
❖ 24 x 10	24.00	21.562	1.219	10.75	9.562	0.594	20.00	80	494.00

WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.



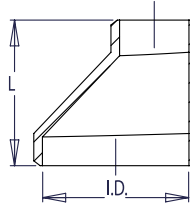
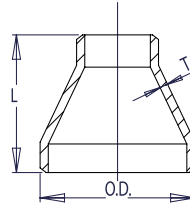
Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length L	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
3/4 x 1/2	1.05	0.612	0.219	0.84	0.464	0.188	1.50	160	0.37
1 x 3/4	1.32	0.820	0.250	1.05	0.612	0.219	2.00	160	0.45
1 x 1/2	1.32	0.820	0.250	0.84	0.464	0.188	2.00	160	0.45
1 1/4 x 1	1.66	1.160	0.250	1.32	0.820	0.250	2.00	160	0.70
1 1/4 x 3/4	1.66	1.160	0.250	1.05	0.612	0.219	2.00	160	0.70
1 1/4 x 1/2	1.66	1.160	0.250	0.84	0.464	0.188	2.00	160	0.70
1 1/2 x 1 1/4	1.90	1.338	0.281	1.66	1.160	0.250	2.50	160	0.90
1 1/2 x 1	1.90	1.338	0.281	1.32	0.820	0.250	2.50	160	0.90
1 1/2 x 3/4	1.90	1.338	0.281	1.05	0.612	0.219	2.50	160	0.90
1 1/2 x 1/2	1.90	1.338	0.281	0.84	0.464	0.188	2.50	160	0.90
2 x 1 1/2	2.38	1.692	0.344	1.90	1.338	0.281	3.00	160	1.85
2 x 1 1/4	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 3/4	2.38	1.692	0.344	1.05	0.612	0.219	3.00	160	1.50
2 1/2 x 2	2.88	2.130	0.375	2.38	1.692	0.344	3.50	160	3.00
2 1/2 x 1 1/2	2.88	2.130	0.375	1.90	1.338	0.281	3.50	160	3.00
2 1/2 x 1 1/4	2.88	2.130	0.375	1.66	1.160	0.250	3.50	160	2.80
2 1/2 x 1	2.88	2.130	0.375	1.32	0.820	0.250	3.50	160	2.80
3 x 2 1/2	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 1/2	3.50	2.624	0.438	1.90	1.338	0.281	3.50	160	4.00
3 x 1 1/4	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
4 x 3	4.50	3.438	0.531	3.50	2.624	0.438	4.00	160	6.00
4 x 2 1/2	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 1/2	4.50	3.438	0.531	1.90	1.338	0.281	4.00	160	5.00
❖ 4 x 1 1/4	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



CONCENTRIC AND ECCENTRIC REDUCERS



SCHEDULE 160



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

FITTINGS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length L	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
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 1/2	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 1/2	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

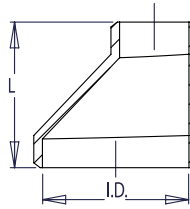
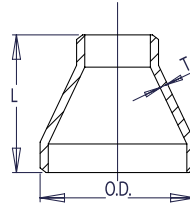
CONCENTRIC AND ECCENTRIC REDUCERS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T	L		
18 x 16	18.00	14.438	1.781	16.00	12.812	1.594	15.00	160	213.00
18 x 14	18.00	14.438	1.781	14.00	11.188	1.406	15.00	160	213.00
18 x 12	18.00	14.438	1.781	12.75	10.126	1.312	15.00	160	213.00
18 x 10	18.00	14.438	1.781	10.75	8.500	1.125	15.00	160	348.00
❖ 18 x 8	18.00	14.438	1.781	8.62	6.808	0.906	15.00	160	327.00
20 x 18	20.00	16.062	1.969	18.00	14.438	1.781	20.00	160	348.00
20 x 16	20.00	16.062	1.969	16.00	12.812	1.594	20.00	160	348.00
20 x 14	20.00	16.062	1.969	14.00	11.188	1.406	20.00	160	494.00
20 x 12	20.00	16.062	1.969	12.75	10.126	1.312	20.00	160	494.00
❖ 20 x 10	20.00	16.062	1.969	10.75	8.500	1.125	20.00	160	494.00
24 x 20	24.00	19.312	2.344	20.00	16.062	1.969	20.00	160	494.00
24 x 18	24.00	19.312	2.344	18.00	14.438	1.781	20.00	160	535.00
24 x 16	24.00	19.312	2.344	16.00	12.812	1.594	20.00	160	535.00
❖ 24 x 14	24.00	19.312	2.344	14.00	11.188	1.406	20.00	160	535.00
❖ 24 x 12	24.00	19.312	2.344	12.75	10.126	1.312	20.00	160	535.00
❖ 24 x 10	24.00	19.312	2.344	10.75	8.500	1.125	20.00	160	535.00

CONCENTRIC AND ECCENTRIC REDUCERS



SCHEDULE XXS



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

* This size and thickness does not correspond to any pipe schedule number.
 ❖ In accordance with B16.9. Special Fittings paragraph 4.4.2.

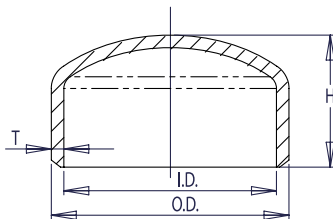
FITTINGS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length L	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T			
3/4 x 1/2	1.05	0.434	0.308	0.84	0.252	0.294	1.50	*	0.39
1 x 3/4	1.32	0.604	0.358	1.05	0.434	0.308	2.00	*	0.50
1 x 1/2	1.32	0.604	0.358	0.84	0.252	0.294	2.00	*	0.50
1 1/4 x 1	1.66	0.896	0.382	1.32	0.604	0.358	2.00	*	0.75
1 1/4 x 3/4	1.66	0.896	0.382	1.05	0.434	0.308	2.00	*	0.75
1 1/4 x 1/2	1.66	0.896	0.382	0.84	0.252	0.294	2.00	*	0.75
1 1/2 x 1 1/4	1.90	1.100	0.400	1.66	0.896	0.382	2.50	*	1.00
1 1/2 x 1	1.90	1.100	0.400	1.32	0.604	0.358	2.50	*	1.00
1 1/2 x 3/4	1.90	1.100	0.400	1.05	0.434	0.308	2.50	*	1.00
1 1/2 x 1/2	1.90	1.100	0.400	0.84	0.252	0.294	2.50	*	1.00
2 x 1 1/2	2.38	1.508	0.436	1.90	1.100	0.400	3.00	*	2.00
2 x 1 1/4	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 3/4	2.38	1.508	0.436	1.05	0.434	0.308	3.00	*	1.75
2 1/2 x 2	2.88	1.776	0.552	2.38	1.508	0.436	3.50	*	4.00
2 1/2 x 1 1/2	2.88	1.776	0.552	1.90	1.100	0.400	3.50	*	4.00
2 1/2 x 1 1/4	2.88	1.776	0.552	1.66	0.896	0.382	3.50	*	3.50
2 1/2 x 1	2.88	1.776	0.552	1.32	0.604	0.358	3.50	*	3.50
3 x 2 1/2	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 1/2	3.50	2.300	0.600	1.90	1.100	0.400	3.50	*	5.00
3 x 1 1/4	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
4 x 3	4.50	3.152	0.674	3.50	2.300	0.600	4.00	*	8.00
4 x 2 1/2	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 1/2	4.50	3.152	0.674	1.90	1.100	0.400	4.00	*	7.50
❖ 4 x 1 1/4	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	*	7.00

CONCENTRIC AND ECCENTRIC REDUCERS

Pipe Size	LARGE DIAMETER			SMALL DIAMETER			Length	Pipe Schedule Number	Approx. Weight in Pounds
	Outside Diameter	Inside Diameter	Wall Thickness	Outside Diameter	Inside Diameter	Wall Thickness			
	O.D.	I.D.	T	O.D.	I.D.	T	L		
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	3.152	0.674	8.00	*	80.00

SCHEDULE STD



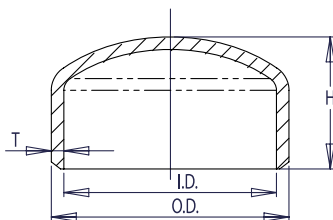
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
 7. The shape of the cap is 2:1 ellipsoidal and conforms to the shape requirements given in the ASME Boiler and Pressure Vessel Code.
- * This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Height	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	H		
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

FITTINGS

SCHEDULE XS



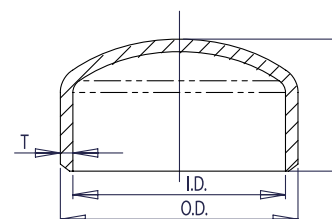
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. For sizes larger than 48" please call.
 6. All weights are in pounds and approximated or estimated.
 7. The shape of the cap is 2:1 ellipsoidal and conforms to the shape requirements given in the ASME Boiler and Pressure Vessel Code.
- * This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Height	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	H		
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

SCHEDULE 40

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Height	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	H		
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	9.00	40	57.00
20	20.00	18.812	0.594	10.00	40	75.70
24	24.00	22.624	0.688	12.00	40	101.00



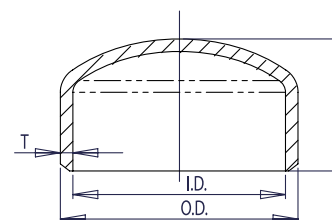
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. For sizes larger than 24" please call.
6. All weights are in pounds and approximated or estimated.
7. The shape of the cap is 2:1 ellipsoidal and conforms to the shape requirements given in the ASME Boiler and Pressure Vessel Code.

FITTINGS

SCHEDULE 80

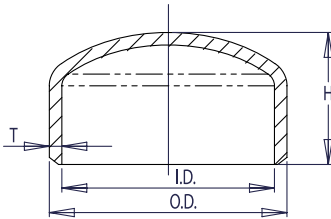
Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Height	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	H		
1/2	0.84	0.546	0.147	1.00	80	0.10
3/4	1.05	0.742	0.154	1.00	80	0.16
1	1.32	0.962	0.179	1.50	80	0.28
1 1/4	1.66	1.278	0.191	1.50	80	0.48
1 1/2	1.90	1.500	0.200	1.50	80	0.67
2	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	5.756	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



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
 6. The shape of the cap is 2:1 ellipsoidal and conforms to the shape requirements given in the ASME Boiler and Pressure Vessel Code.
- * This size and thickness does not correspond to any pipe schedule number.

SCHEDULE 160



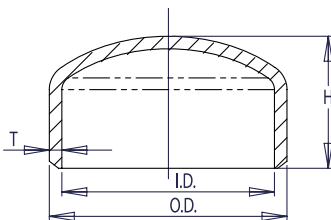
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.
6. The shape of the cap is 2:1 ellipsoidal and conforms to the shape requirements given in the ASME Boiler and Pressure Vessel Code.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Height	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	H		
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

FITTINGS

SCHEDULE XXS



WELDBEND NOTES

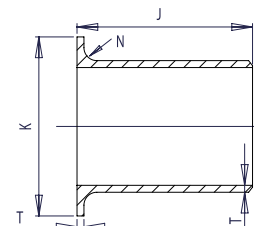
1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
 6. The shape of the cap is 2:1 ellipsoidal and conforms to the shape requirements given in the ASME Boiler and Pressure Vessel Code.
- * This size and thickness does not correspond to any pipe schedule number.

Pipe Size	Outside Diameter	Inside Diameter	Wall Thickness	Height	Pipe Schedule Number	Approx. Weight in Pounds
	O.D.	I.D.	T	H		
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	1.75	*	3.00
2 1/2	2.88	1.776	0.552	2.00	*	4.00
3	3.50	2.300	0.600	2.50	*	6.00
4	4.50	3.152	0.674	3.00	*	9.00
5	5.56	4.060	0.750	3.50	*	13.50
6	6.62	4.892	0.864	4.00	*	18.00
8	8.62	6.870	0.875	5.00	*	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

LAP JOINT STUB ENDS

SCHEDULE STD

Pipe Size	Outside Diameter (Max.)	Outside Diameter (Min.)	Wall and Lap Thickness		Fillet Radius		Overall Length	Pipe Schedule Number	Approx. Weight in Pounds
			T	K	N	J			
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	



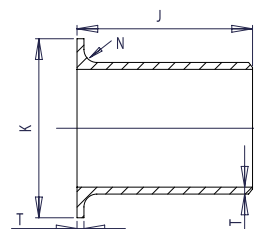
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

FITTINGS

SCHEDULE XS

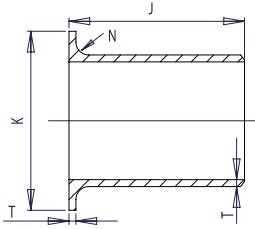
Pipe Size	Outside Diameter (Max.)	Outside Diameter (Min.)	Wall and Lap Thickness		Fillet Radius		Overall Length	Pipe Schedule Number	Approx. Weight in Pounds
			T	K	N	J			
1/2	0.896	0.809	0.147	1.38	0.12	3.00	80	0.38	
3/4	1.106	1.019	0.154	1.69	0.12	3.00	80	0.51	
1	1.376	1.284	0.179	2.00	0.12	4.00	80	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	



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.

SCHEDULE 40



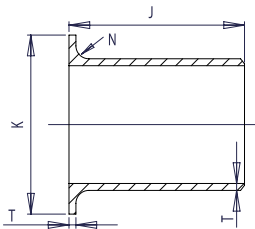
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter (Max.)	Outside Diameter (Min.)	Wall and Lap Thickness		Lap Diameter		Fillet Radius		Overall Length	Pipe Schedule Number	Approx. Weight in Pounds
			T	K	N	J					
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			

FITTINGS

SCHEDULE 80



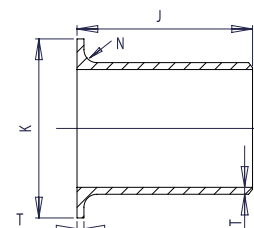
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

Pipe Size	Outside Diameter (Max.)	Outside Diameter (Min.)	Wall and Lap Thickness		Lap Diameter		Fillet Radius		Overall Length	Pipe Schedule Number	Approx. Weight in Pounds
			T	K	N	J					
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			

SCHEDULE 160

Pipe Size	Outside Diameter (Max.)	Outside Diameter (Min.)	Wall and Lap Thickness	Lap Diameter	Fillet Radius	Overall Length	Pipe Schedule Number	Approx. Weight in Pounds
			T	K	N	J		
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



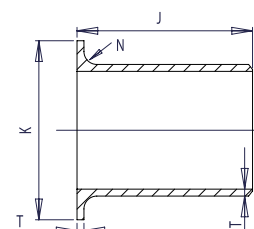
WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
2. All dimensions are in inches.
3. For bevel detail see page 107.
4. For dimensional tolerances see page 108.
5. All weights are in pounds and approximated or estimated.

FITTINGS

SCHEDULE XXS

Pipe Size	Outside Diameter (Max.)	Outside Diameter (Min.)	Wall and Lap Thickness	Lap Diameter	Fillet Radius	Overall Length	Pipe Schedule Number	Approx. Weight in Pounds
			T	K	N	J		
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



WELDBEND NOTES

1. Conforms to ASME B16.9 & ASTM A234 WPB.
 2. All dimensions are in inches.
 3. For bevel detail see page 107.
 4. For dimensional tolerances see page 108.
 5. All weights are in pounds and approximated or estimated.
- * This size and thickness does not correspond to any pipe schedule number.