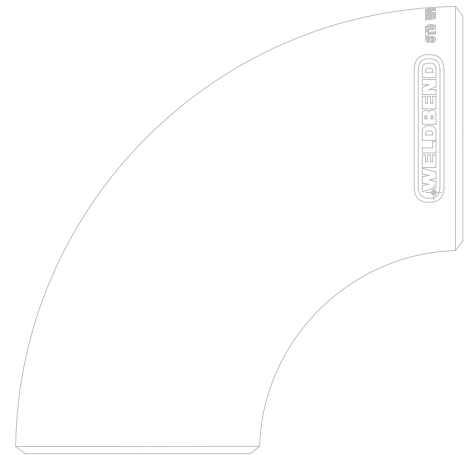
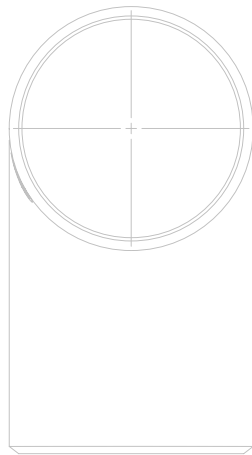
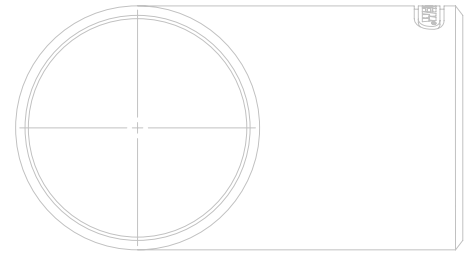
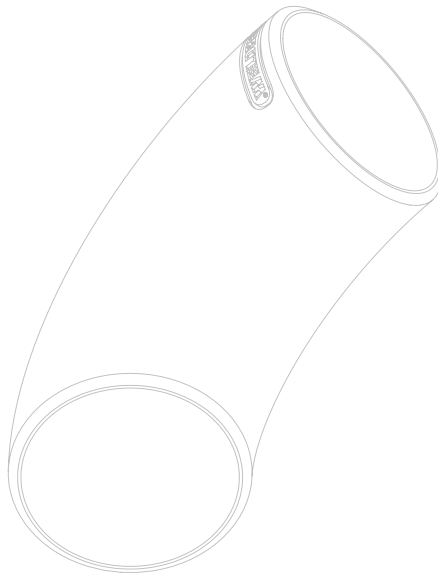




**Carbon Steel Weld Fitting & Weld Flange
Products for Piping Construction**

**SIXTY-THIRD
EDITION**

Printed in U.S.A.



WELDBEND CORPORATION

6600 SOUTH HARLEM AVENUE, ARGO, IL 60501-1930

SALES

TEL: 708/594-1700

FAX: 708/458-0106

GENERAL OFFICE

TEL: 773/582-3500

FAX: 773/582-7621

www.weldbend.com

info@weldbend.com

orders@weldbend.com

quotes@weldbend.com

customer.service@weldbend.com

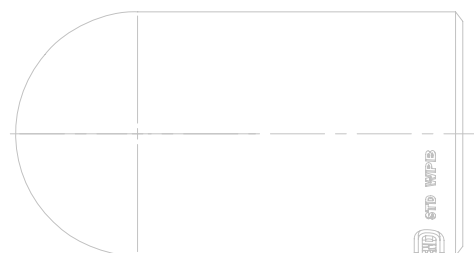
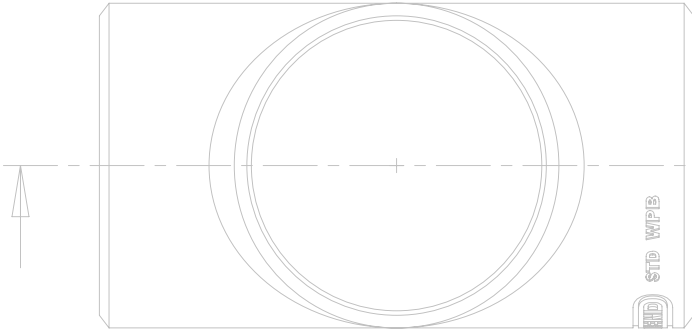
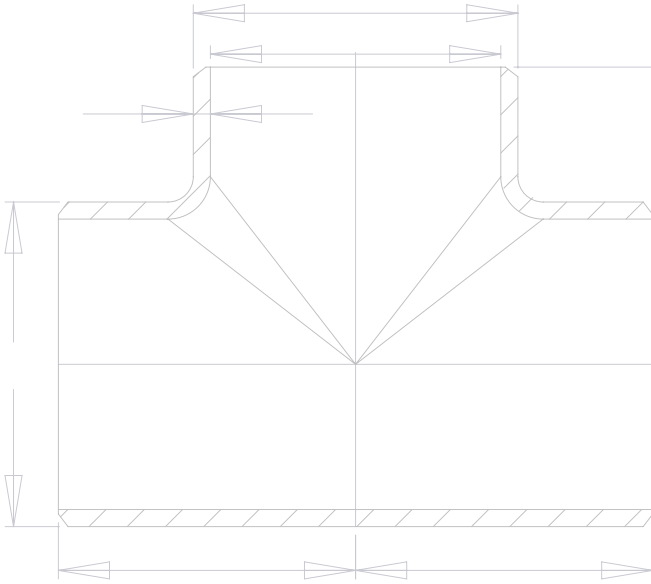
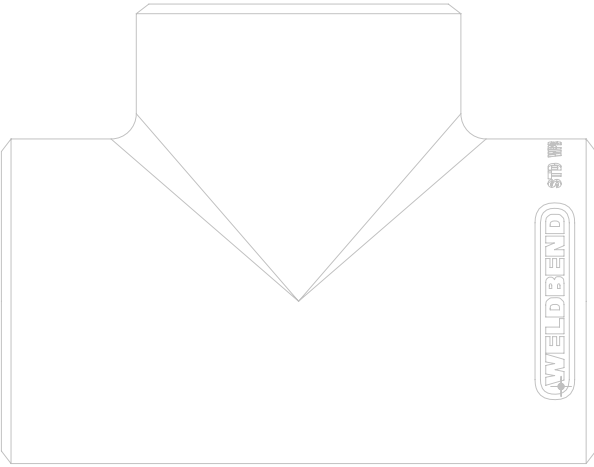
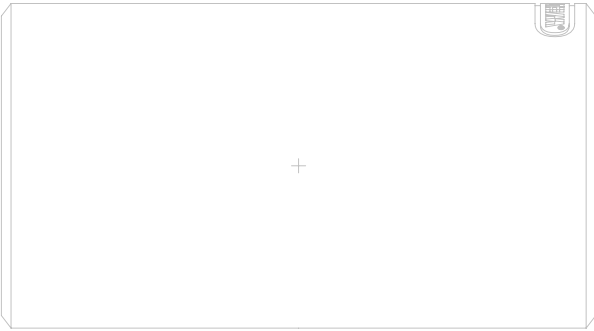
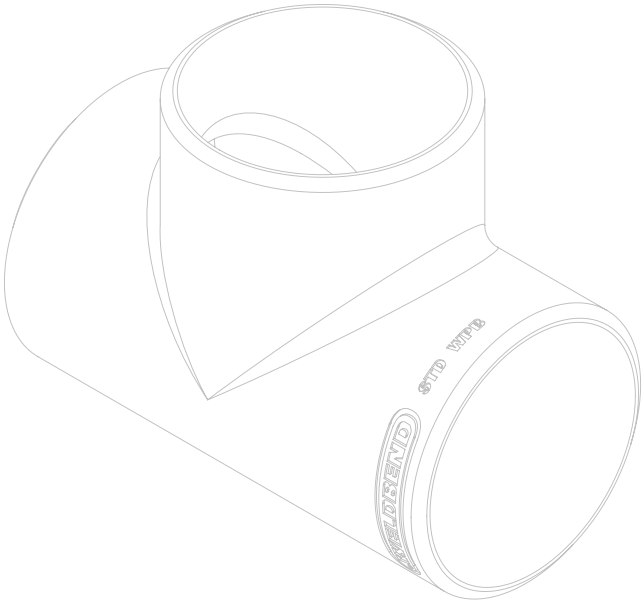
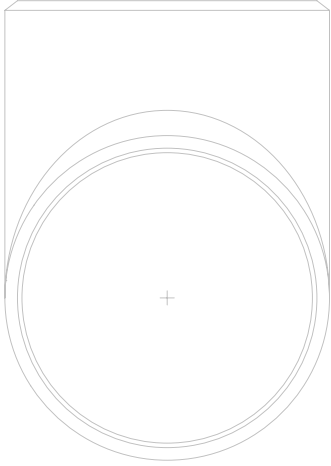
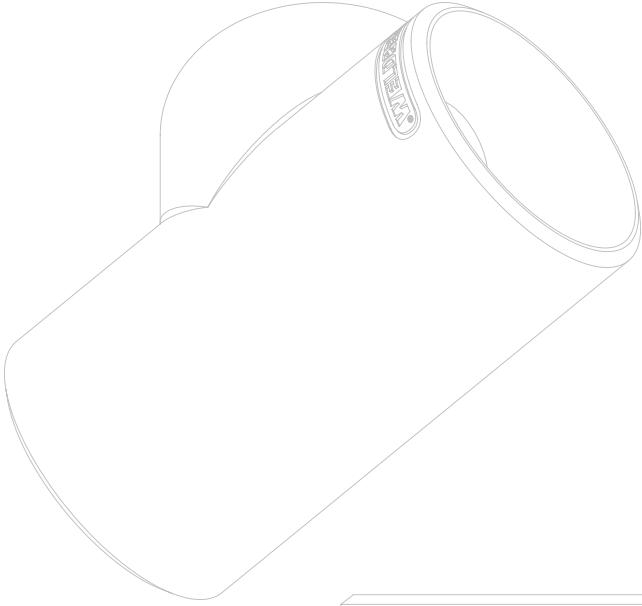
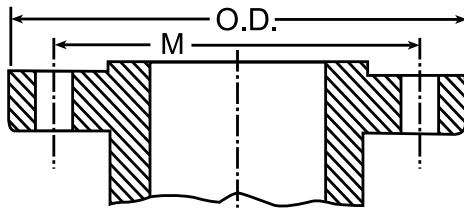


TABLE OF CONTENTS

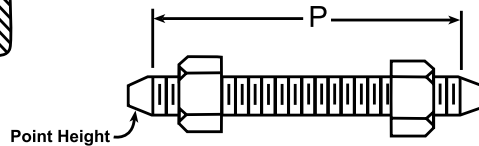
	PAGE
WELDBEND...TODAY.....	6
THE WELDBEND POLICY	21
ORDERING INFORMATION	22
TERMS AND CONDITIONS	23
FITTINGS	25
90° ELBOWS — Long Radius [Schedule: STD, XS, 40, 80, 160, XXS]	26
90° ELBOWS — Short Radius [Schedule: STD, XS, 40, 80, 160, XXS]	29
90° REDUCING ELBOWS — [Schedule: STD, XS, 40, 80]	32
90° ELBOWS — 3R [Schedule: STD, XS, 40, 80]	36
45° ELBOWS — Long Radius [Schedule: STD, XS, 40, 80, 160, XXS]	38
45° ELBOWS — 3R [Schedule: STD, XS, 40, 80]	41
180° RETURN BENDS — Long Radius [Schedule: STD, XS, 40, 80, 160, XXS]	43
180° RETURN BENDS — Short Radius [Schedule: STD, XS, 40, 80, 160, XXS]	46
STRAIGHT TEES — [Schedule: STD, XS, 40, 80, 160, XXS]	49
REDUCING TEES — [Schedule: STD, XS, 40, 80, 160, XXS]	52
CONCENTRIC AND ECCENTRIC REDUCERS — [Schedule: STD, XS, 40, 80, 160, XXS]	62
CAPS — [Schedule: STD, XS, 40, 80, 160, XXS]	76
LAP JOINT STUB ENDS — [Schedule: STD, XS, 40, 80, 160, XXS]	79
BOX QUANTITIES	82
FLANGES	84
CLASS 125	85
CLASS 150	86
CLASS 300	88
CLASS 600	90
CLASS 900	92
CLASS 1500	94
CLASS 2500	96
REDUCING SLIP-ON AND THREADED FLANGES — ALL CLASSES	98
CALCULATED FLANGE WEIGHTS	99
FLANGE PACKAGING	105
TECHNICAL DATA INDEX	106
RING TYPE JOINT FACING DIMENSIONS	148



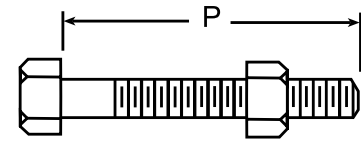
For Ring Type Joint Facing Dimension information see page 149.



Flange



Stud Bolt



Machine Bolt

Bolting Pattern and Bolt Lengths								
Pipe Size	Outside Diameter	Drilling				Length of Bolts		
		Diameter of Bolt Circle	Diameter of Bolt Holes	Number of Bolt Holes	Diameter of Bolts	Stud Bolts Raised Face 0.06 in.	Stud Bolts Ring Joint	Machine Bolts Raised Face 0.06 in.
	O.D.	M				P	P	P

ASME B16.5

1/2	3.75	2.62	5/8	4	1/2	2.50	3.00	2.25
3/4	4.62	3.25	3/4	4	5/8	3.00	3.50	2.50
1	4.88	3.50	3/4	4	5/8	3.00	3.50	2.50
1 1/4	5.25	3.88	3/4	4	5/8	3.25	3.75	2.75
1 1/2	6.12	4.50	7/8	4	3/4	3.50	4.00	3.00
2	6.50	5.00	3/4	8	5/8	3.50	4.00	3.00
2 1/2	7.50	5.88	7/8	8	3/4	4.00	4.50	3.25
3	8.25	6.62	7/8	8	3/4	4.25	4.75	3.50
3 1/2	9.00	7.25	7/8	8	3/4	4.25	5.00	3.75
4	10.00	7.88	7/8	8	3/4	4.50	5.00	3.75
5	11.00	9.25	7/8	8	3/4	4.75	5.25	4.25
6	12.50	10.62	7/8	12	3/4	4.75	5.50	4.25
8	15.00	13.00	1	12	7/8	5.50	6.00	4.75
10	17.50	15.25	1 1/8	16	1	6.25	6.75	5.50
12	20.50	17.75	1 1/4	16	1 1/8	6.75	7.25	5.75
14	23.00	20.25	1 1/4	20	1 1/8	7.00	7.50	6.25
16	25.50	22.50	1 3/8	20	1 1/4	7.50	8.00	6.50
18	28.00	24.75	1 3/8	24	1 1/4	7.75	8.25	6.75
20	30.50	27.00	1 3/8	24	1 1/4	8.00	8.75	7.25
24	36.00	32.00	1 5/8	24	1 1/2	9.00	10.00	8.00

ASME B16.47 Series A

30	43.00	39.25	1 7/8	28	1 3/4	Formula for determining bolt lengths (P) see page 159.
36	50.00	46.00	2 1/8	32	2	
42	50.75	47.50	1 3/4	32	1 5/8	
48	57.75	54.00	2	32	1 7/8	

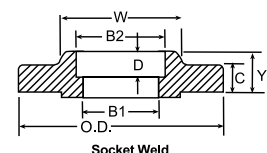
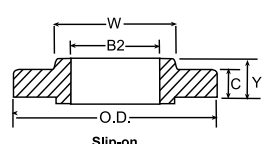
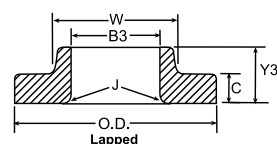
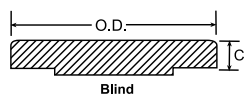
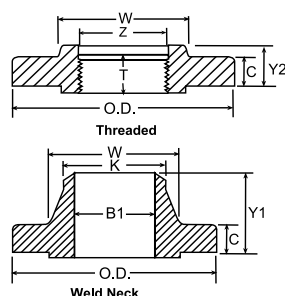
ASME B16.47 Series B

30	39.00	36.25	1 1/2	36	1 3/8	Formula for determining bolt lengths (P) see page 159.
36	46.12	42.88	1 3/4	32	1 5/8	
42	52.50	49.00	1 7/8	36	1 3/4	
48	59.50	55.75	2	40	1 7/8	

WELDBEND NOTES

- Standard flange facings on page 146.
- All dimensions are in inches.
- Calculated flange weights on page 100.
- For dimensional tolerances see page 144.
- All flanges conform to ASTM A105/ASME SA105.
- All flanges 1/2"-24" conform to ASME B16.5.
All flanges 30" and larger conform to ASME B16.47.

For Ring Type Joint Facing Dimension information see page 149.



Pipe Size	Outside Diameter of Flange	Thickness of Flange (Min.)	Thickness of Lap Joint (Min.)	Diameter of Hub*	Diameter of Weld Neck	Length Through Hub			Thread Length (Min.)	Bore			Lap Joint Radius	Min. Counter Bore Threaded Flange	Depth of Socket
						Threaded, Slip-on & Socket Weld	Lap Joint	Weld Neck		Slip-on & Socket Weld (Min.)	Lap Joint (Min.)	Weld Neck & Socket Weld			
	O.D.	C	C	W	K	Y2	Y3	Y1	T	B2	B3	B1 ▲	J	Z	D

ASME B16.5

1/2	3.75	0.50	0.56	1.50	0.84	0.81	0.88	2.00	0.62	0.88	0.90	0.62	0.12	0.93	0.38
3/4	4.62	0.56	0.62	1.88	1.05	0.94	1.00	2.19	0.62	1.09	1.11	0.82	0.12	1.14	0.44
1	4.88	0.62	0.69	2.12	1.32	1.00	1.06	2.38	0.69	1.36	1.38	1.05	0.12	1.41	0.50
1 1/4	5.25	0.69	0.75	2.50	1.66	1.00	1.06	2.50	0.81	1.70	1.72	1.38	0.19	1.75	0.56
1 1/2	6.12	0.75	0.81	2.75	1.90	1.13	1.19	2.63	0.88	1.95	1.97	1.61	0.25	1.98	0.62
2	6.50	0.81	0.88	3.31	2.38	1.25	1.31	2.69	1.12	2.44	2.46	2.07	0.31	2.50	0.69
2 1/2	7.50	0.94	1.00	3.94	2.88	1.44	1.50	2.94	1.25	2.94	2.97	2.47	0.31	3.00	0.75
3	8.25	1.06	1.12	4.62	3.50	1.63	1.69	3.06	1.25	3.57	3.60	3.07	0.38	3.63	0.81
3 1/2	9.00	1.12	1.19	5.25	4.00	1.69	1.75	3.13	1.44	4.07	4.10	3.55	0.38	4.13	
4	10.00	1.19	1.25	5.75	4.50	1.82	1.88	3.32	1.44	4.57	4.60	4.03	0.44	4.63	
5	11.00	1.31	1.38	7.00	5.56	1.94	2.00	3.82	1.69	5.66	5.69	5.05	0.44	5.69	
6	12.50	1.38	1.44	8.12	6.63	2.00	2.06	3.82	1.81	6.72	6.75	6.07	0.50	6.75	
8	15.00	1.56	1.62	10.25	8.63	2.38	2.44	4.32	2.00	8.72	8.75	7.98	0.50	8.75	
10	17.50	1.81	1.88	12.62	10.75	2.56	3.75	4.56	2.19	10.88	10.92	10.02	0.50	10.88	
12	20.50	1.94	2.00	14.75	12.75	2.82	4.00	5.06	2.38	12.88	12.92	12.00	0.50	12.94	
14	23.00	2.06	2.12	16.75	14.00	2.94	4.38	5.56	2.50	14.14	14.18	13.25	0.50	14.19	
16	25.50	2.19	2.25	19.00	16.00	3.19	4.75	5.69	2.69	16.16	16.19	15.25	0.50	16.19	
18	28.00	2.31	2.38	21.00	18.00	3.44	5.12	6.19	2.75	18.18	18.20	17.25	0.50	18.19	
20	30.50	2.44	2.50	23.12	20.00	3.69	5.50	6.32	2.88	20.20	20.25	19.25	0.50	20.19	
24	36.00	2.69	2.75	27.62	24.00	4.13	6.00	6.56	3.25	24.25	24.25	23.25	0.50	24.19	

WN BLD

ASME B16.47 Series A

30	43.00	3.57	3.69		32.56	30.00		8.19	
36	50.00	4.07	4.32		39.00	36.00		9.44	
42	50.75	4.63	4.63		43.25	42.00		7.82	
48	57.75	5.19	5.19		49.38	48.00		8.75	

WN BLD

ASME B16.47 Series B

30	39.00	3.63	3.63		32.00	30.25		6.16	
36	46.12	4.00	4.00		38.00	36.25		7.06	
42	52.50	4.63	4.63		44.00	42.31		8.00	
48	59.50	5.00	5.25		50.31	48.31		8.75	

WELDBEND NOTES

- Standard flange facings on page 146.
- All dimensions are in inches.
- Calculated flange weights on page 100.
- For dimensional tolerances see page 144.
- Weld end preparations on page 154.

- Thread standards on page 156.
- Blind flanges may be produced with or without hubs.
- All flanges conform to ASTM A105/ASME SA105.
- All flanges 1/2"-24" conform to ASME B16.5.
All flanges 30" and larger conform to ASME B16.47.

- * A taper shall not exceed 7 degrees on threaded, slip-on and lapped flanges.
▲ Dimensions listed for socket weld and weld neck flanges are for Standard bore unless specified by purchaser.

CLASS 300					
Pipe Size	Outside Diameter	Threaded & Slip-on	Weld Neck	Blind	Lap Joint
	O.D.				

ASME B16.5

½	3.75	3.00	2.00	2.00	2.00
¾	4.62	3.00	3.00	3.00	3.00
1	4.88	3.00	4.00	4.00	3.00
1 ¼	5.25	4.50	5.00	6.00	4.50
1 ½	6.12	6.50	7.00	7.00	6.50
2	6.50	7.00	9.00	8.00	7.00
2 ½	7.50	10.00	12.00	12.00	10.00
3	8.25	14.00	18.00	16.00	14.00
3 ½	9.00	17.00	20.00	21.00	17.00
4	10.00	24.00	26.50	28.00	24.00
5	11.00	31.00	36.00	37.00	28.00
6	12.50	39.00	45.00	50.00	39.00
8	15.00	58.00	69.00	81.00	58.00
10	17.50	81.00	100.00	124.00	91.00
12	20.50	115.00	142.00	185.00	140.00
14	23.00	165.00	206.00	250.00	190.00
16	25.50	220.00	250.00	315.00	234.00
18	28.00	280.00	320.00	415.00	305.00
20	30.50	325.00	400.00	515.00	375.00
24	36.00	490.00	580.00	800.00	550.00

ASME B16.47 Series A

30	43.00	—	870.00	1543.00	—
36	50.00	—	1275.00	2436.00	—
42	50.75	—	950.00	2688.00	—
48	57.75	—	1380.00	3896.00	—

ASME B16.47 Series B

30	39.00	—	550.00	1249.00	—
36	46.12	—	840.00	1921.00	—
42	52.50	—	1135.00	2876.00	—
48	59.50	—	1575.00	4183.00	—

WELDBEND NOTES

1. All dimensions are in inches.
2. All weights are in pounds and approximated or estimated.