

ISO Certificates

CERTIFICATE OF REGISTRATION

Having been audited in accordance with requirements of
ISO 9001:2008 – ANSI/ISO/ASQ Q9001-2008
 SRI Quality System Registrar, Seven Fields, Pennsylvania, USA
 Steel Related Industries Quality System Registrar, LTD, Alexandra House, Ballsbridge, Dublin 4, Ireland, EU
 hereby grants to:

Weldbend Corporation

Registration of the management system at its location:
 6600 South Harlem Avenue
 Argo, Illinois, USA

The conditions for maintaining this certificate of registration are set forth in the SRI registration agreements R20.3 and R20.4. Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2008 requirements may be obtained by consulting the organization.

Scope of ISO 9001:2008 registration: "Manufacture of carbon steel butt-welding fittings and forged steel flanges."
Exclusions: Design and Development; Service Provision
Initial SRI registration date: September 7, 2004
Current registration period: August 26, 2009 through August 25, 2012

Signed for SRI:
 Christopher H. Lake, President & COO

Certificate Date: August 26, 2009
 Certificate Number: 508300
 Registration Number: 2600-01

CERTIFICATE OF COMPLIANCE

Steel Related Industries Quality System Registrar
 Seven Fields, Pennsylvania, USA
 Alexandra House, Ballsbridge, Dublin 4, Ireland EU

A legal entity within the United States and European Union with competence demonstrated via ANAB and RvA accreditation as an ISO 9001 certification body with a scope of accreditation for the assessment of quality management systems of organizations which include the manufacture of materials and in the technology of the materials concerned, as specified in the scope below

-CERTIFIES-

Weldbend Corporation
 at its location:
 6600 South Harlem Avenue
 Argo, Illinois, USA

has implemented, operates and maintains a Management System in accordance with the requirements of
Pressure Equipment Directive (PED) 97/23/EC 7/2, Annex I, Paragraph 4.3

Scope of PED compliance: "Manufacture of carbon steel butt-welding fittings and forged steel flanges."

Signed for SRI:
 Christopher H. Lake, President & COO

Date: August 26, 2009
 Registration Number: 2600-01

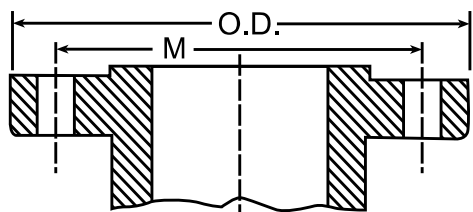
Steel Related Industries Quality System Registrar, LTD is a registered, duly licensed, operating "legal entity" in the European Union, and as such, is fully responsible for Management System Certificates bearing its U.S. and Ireland address for the purpose of satisfying the material manufacture requirements of the European Union Pressure Equipment Directive. This certificate is valid and will remain in effect when accompanied by a valid ISO 9001:2008 registration certificate that lists SRI's Ireland address, as noted above.

- Weldbend is PED Compliant. Weldbend maintains a strict quality control system ensuring it continually meets the most current ISO Certifications.

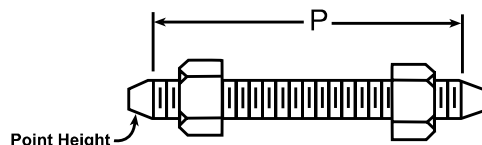
CLASS 1500 STEEL PIPE FLANGES



For Ring Type Joint Facing Dimension information see page 152.



Flange



Stud 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	Raised Face 0.25 in.	Male & Female / Tongue & Groove	Ring Joint
	O.D.	M				P	P	P

ASME B16.5

1/2	4.75	3.25	7/8	4	3/4	4.25	4.00	4.25
3/4	5.12	3.50	7/8	4	3/4	4.50	4.25	4.50
1	5.88	4.00	1	4	7/8	5.00	4.75	5.00
1 1/4	6.25	4.38	1	4	7/8	5.00	4.75	5.00
1 1/2	7.00	4.88	1 1/8	4	1	5.50	5.25	5.50
2	8.50	6.50	1	8	7/8	5.75	5.50	5.75
2 1/2	9.62	7.50	1 1/8	8	1	6.25	6.00	6.25
3	10.50	8.00	1 1/4	8	1 1/8	7.00	6.75	7.00
4	12.25	9.50	1 3/8	8	1 1/4	7.75	7.50	7.75
5	14.75	11.50	1 5/8	8	1 1/2	9.75	9.50	9.75
6	15.50	12.50	1 1/2	12	1 3/8	10.25	10.00	10.50
8	19.00	15.50	1 3/4	12	1 5/8	11.50	11.25	11.75
10	23.00	19.00	2	12	1 7/8	13.25	13.00	13.50
12	26.50	22.50	2 1/8	16	2	14.75	14.50	15.25
14	29.50	25.00	2 3/8	16	2 1/4	16.00	15.75	16.75
16	32.50	27.75	2 5/8	16	2 1/2	17.50	17.25	18.50
18	36.00	30.50	2 7/8	16	2 3/4	19.50	19.25	20.75
20	38.75	32.75	3 1/8	16	3	21.25	21.00	22.25
24	46.00	39.00	3 5/8	16	3 1/2	24.25	24.00	25.50

WELDBEND NOTES

1. Standard flange facings on page 146.
2. All dimensions are in inches.
3. Calculated flange weights on page 103.
4. For dimensional tolerances see page 144.
5. All flanges conform to ASTM A105/ASME SA105.
6. All flanges 1/2"-24" conform to ASME B16.5.

CLASS 1500					
Pipe Size	Outside Diameter	Threaded & Slip-on	Weld Neck	Blind	Lap Joint
	O.D.				

ASME B16.5

½	4.75	6.00	7.00	4.00	6.00
¾	5.12	6.00	7.00	6.00	6.00
1	5.88	8.00	9.00	9.00	8.00
1 ¼	6.25	10.00	10.00	10.00	10.00
1 ½	7.00	14.00	14.00	14.00	14.00
2	8.50	25.00	25.00	25.00	25.00
2 ½	9.62	36.00	36.00	35.00	35.00
3	10.50	48.00	48.00	48.00	47.00
4	12.25	73.00	73.00	73.00	75.00
5	14.75	132.00	132.00	140.00	140.00
6	15.50	165.00	165.00	160.00	170.00
8	19.00	260.00	275.00	302.00	286.00
10	23.00	436.00	455.00	510.00	485.00
12	26.50	667.00	690.00	775.00	749.00
14	29.50	940.00	940.00	975.00	890.00
16	32.50	1250.00	1250.00	1300.00	1250.00
18	36.00	1625.00	1625.00	1750.00	1475.00
20	38.75	2050.00	2050.00	2225.00	1775.00
24	46.00	2825.00	3325.00	3625.00	2825.00

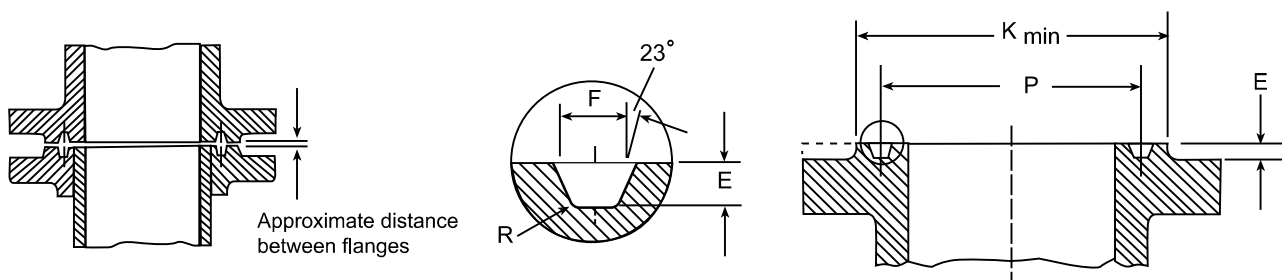
WELDBEND NOTES

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

RING TYPE JOINT FACING DIMENSIONS



CLASS 1500



Nominal		Groove Number	Groove Dimensions				
Pipe Size	Outside Diameter		Pitch Diameter	Depth	Width	Radius at Bottom	Diameter of Gasket
	O.D.						
½	4.75	R12	1.562	0.250	0.344	0.03	2.38
¾	5.12	R14	1.750	0.250	0.344	0.03	2.62
1	5.88	R16	2.000	0.250	0.344	0.03	2.81
1 ¼	6.25	R18	2.375	0.250	0.344	0.03	3.19
1 ½	7.00	R20	2.688	0.250	0.344	0.03	3.62
2	8.50	R24	3.750	0.312	0.469	0.03	4.88
2 ½	9.62	R27	4.250	0.312	0.469	0.03	5.38
3	10.50	R35	5.375	0.312	0.469	0.03	6.62
4	12.25	R39	6.375	0.312	0.469	0.03	7.62
5	14.75	R44	7.625	0.312	0.469	0.03	9.00
6	15.50	R46	8.312	0.375	0.531	0.06	9.75
8	19.00	R50	10.625	0.438	0.656	0.06	12.50
10	23.00	R54	12.750	0.438	0.656	0.06	14.62
12	26.50	R58	15.000	0.562	0.906	0.06	17.25
14	29.50	R63	16.500	0.625	1.062	0.09	19.25
16	32.50	R67	18.500	0.688	1.188	0.09	21.50
18	36.00	R71	21.000	0.688	1.188	0.09	24.12
20	38.75	R75	23.000	0.688	1.312	0.09	26.50
24	46.00	R79	27.250	0.812	1.438	0.09	31.25

WELDBEND NOTES

- All dimensions are in inches.
- Height of raised portion is equal to the depth of groove dimension E, but is not subjected to the tolerances for E. Former full-face contour may be used.
- Tolerances:
 E (depth) + 0.016, - 0.0
 F (width) ± 0.008
 P (pitch diameter) ± 0.005
 R (radius at bottom)
 $R \leq 0.06 + 0.03, - 0.0;$
 $R > 0.06 \pm 0.03$
 23° (angle) = $\frac{1}{2}^\circ$