



### **AWS D1.1 Interpretation**

**Subject:** Bend Specimen Requirements for Pipe Welder Qualification  
**Code Edition:** D1.1-90  
**Code Provision:** Table 5.6  
**AWS Log:** ID1-90-036-03

**Inquiry:** Table 5.6 of D1.1-90, under the heading “Job Size Pipe or Tubing” requires four side bends for material >4 in. in diameter, with a wall thickness >3/8 in. Figure 5.30 requires two side bends and two face bends for pipe with a wall thickness <3/8 in. When qualifying a welder for a groove weld in the 6G position using 5-in. pipe, 3/8 in. wall thickness, which is required-four side bends, or two face and two not bends?

**Response:** According to AWS D1.1-90, the material size and thickness would require four side bends (per Table 5.6). Figure 5.30 is to be used for location of the bend samples only.

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AWS D1.1, Structural Welding Code—Steel, is prepared by the AWS Structural Welding Committee. Because the Code is written in the form of a specification, it cannot present background material or discuss the committee’s intent.

Since the publication of the first edition of the Code, the nature of inquiries directed to the American Welding Society and the Structural Welding Committee has indicated that there are some requirements in the Code that are either difficult to understand or not sufficiently specific, and other that appear to be overly conservative.

It should be recognized that the fundamental premise of the Code is to provide general stipulations applicable to any situation and to leave sufficient latitude for the exercise of engineering judgment. Another point to be recognized is that the Code represents the collective experience of the committee; and, while some provisions may seem overly conservative, they have been based on sound engineering practice.