



AWS D1.1 Interpretation

Subject: Prequalified Flare Bevel Groove Weld Radius

Code Edition: D1.1-90

Code Provision: Figure 2.5 and Table 2.1

AWS Log: IR1-90-009-01/02

Inquiry: Should not the dimension “C” in Figure 2.5(10) of D1.1-90, flare-bevel-groove weld, to stated as a radius to be consistent with Table 2.1?

Response: NO. Figure 2.5(10) is a special case applicable to cold formed tubes. Practical experience has shown that corners of cold formed tubes are not standardized, for all manufacturers do not have symmetrical corners or quadrant corners. The designer cannot reliably know the radius of cold formed tubes; however, he may specify thickness. A reliable average ratio of radius-to-wall thickness is 2, therefore, Table 2.1 and Figure 2.5(10) are essentially equivalent.

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.