



AWS D1.5 Interpretation

Subject: Fracture Critical Weld Size and Heat Input
Code Edition: D1.5M/D1.5:2002
Code Provision: Clause 12 and Table 12.3
AWS Log: D1.5-02-I08

Inquiry: The heat input ranges identified in Table 12.3 start at 30 to 50 kJ/inch, does this mean that a minimum weld pass of 30 kJ/inch is all that can be made?

Response: The code does not provide preheats for fracture critical welding using a heat input of less than 30 kJ/inch. Welding outside of the parameters of Table 12.3 would require agreements of required preheat between the Contractor and Engineer.

AWS standards are prepared by AWS technical committees. Because many AWS standards are written in the form of codes or specification, they cannot present background material or discuss the committee's intent.

The nature of inquiries directed to the American Welding Society and their technical committees have indicated that there are some requirements in AWS standards that are either difficult to understand or not sufficiently specific.

It should be recognized that the fundamental premise of AWS standards are 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 AWS standards represent the collective experience of AWS technical committees; and, while some provisions may seem overly conservative, they have been based on sound engineering practice.