



AWS D1.5 Interpretation

Subject: Maximum Heat Input
Code Edition: D1.5M/D1.5:2002
Code Provision: 5.12.1 and 5.12.3.2
AWS Log: D1.5-02-I09

Inquiry: What is the intent of the wording in 5.12.1 in regards to the “highest heat input” requirement?

Response: Individual weld passes on a PQR test plate should be made at the same specific welding variables (i.e. Volts, Amps, Travel Speed which will produce the maximum heat input) given due consideration for normal process variation. Increased variability can be anticipated for root and cap passes.

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.