



AWS C3.7M/C3.7 Interpretation

Subject: Vacuum Furnace Leak Rate Test Requirements
Code Edition: C3.7M/C3.7:2011
Code Provision: Subclause 5.4.2 (Vacuum Furnaces)
AWS Log: C3.7-11-I01

Inquiry: Does the procedure below meet the vacuum furnace leak rate test requirements in AWS C3.7M/C3.7:2011?

Leak-up Rate measurement shall be started after furnace has been continuously operated or baked well. After exhausting the furnace to less than 0.65 Pa, let HVV (High Vacuum Valve) close condition. 15 minutes later; increasing pressure in the furnace shall be measured. Control range: less than 0.65 Pa/ 15 minutes (2.6 Pa/60 minutes).

Response: Yes

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.