

**Standard Welding Procedure
Specification (SWPS) for**

**Argon Plus 25% Carbon
Dioxide Shielded Gas Metal
Arc Welding (Short Circuiting
Transfer Mode) followed by
Argon Plus 2% Oxygen
Shielded Gas Metal Arc
Welding (Spray Transfer
Mode) of Carbon Steel
(M-1/P-1/S-1, Groups 1 and 2),
1/8 through 1-1/2 inch Thick,
ER70S-3, As-Welded or
PWHT Condition, Primarily
Pipe Applications**

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AWS B2.1-1-233:2006
An American National Standard

Approved by the
American National Standards Institute
May 3, 2006

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Welding (Short Circuiting Transfer Mode) followed by
Argon Plus 2% Oxygen Shielded Gas Metal Arc Welding
(Spray Transfer Mode) of Carbon Steel (M-1/P-1/S-1,
Groups 1 and 2), 1/8 through 1-1/2 inch Thick,
ER70S-3, As-Welded or PWHT Condition,
Primarily Pipe Applications**

Prepared by the
American Welding Society (AWS) B2 Committee on Welding Procedure and Performance Qualification

Under the Direction of the
AWS Technical Activities Committee

Approved by the
AWS Board of Directors

Abstract

This standard contains the essential welding variables for carbon steel in the thickness range of 1/8 through 1-1/2 inch, using Argon plus 25% Carbon Dioxide shielded gas metal arc welding (short circuiting transfer mode) for the root followed by Argon plus 2% Oxygen shielded gas metal arc welding (spray transfer mode) for the balance. It cites the base metals and operating conditions necessary to make the weldment, the filler metal specifications, and the allowable joint designs for groove welds. This WPS was developed primarily for pipe applications.



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