

AWS Structural Welder Qualification Test

“AWS QC7” National Certification Program
 Using Welding Procedure Specification (WPS) per
 American Welding Society D1.1 Code

Eastern Maine
 Community College
Great College. Smart Choice.

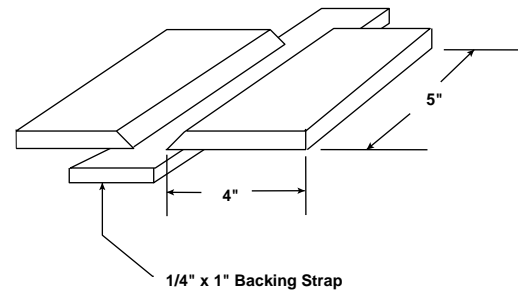
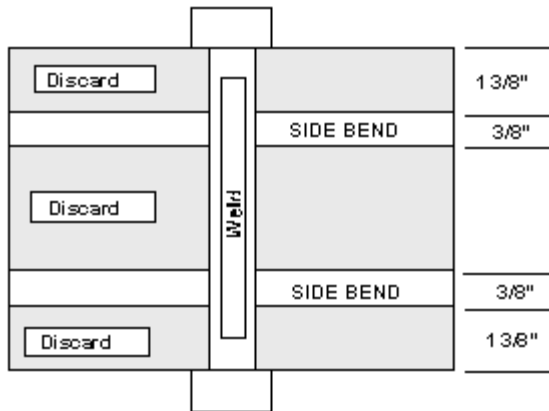
Technical
 Career &
 Transfer Education

Welding Test Center

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Test #: G-D1.1-FCAW-P-A-U *Flux-Cored Arc Welding (FCAW): E71T-1*

1" Unlimited Thickness Test (positions: 3G-vertical & 4G-overhead or 1G flat option)



- Plate material: A36 - 1" x 5" stock cut into 4" lengths with a 22 ½ degree bevel.
- The plates and backing should be ground and cleaned of any mill covering a minimum of 1" front and back and are then gaped 1/4" apart and tacked on the ends where the backing (1/4" minimum x 1" x 9") meets the plate.
- Welder decides which position they want to do first and may begin after an initial inspection. Time limit is 1 ½ hours per position (material prep, fit-up and tack and any warm up practice is not counted in the 1 ½ hours).
- Root, fill and cover passes are welded with E71T-1 wire, 045" diameter with 75% argon / 25% CO² shielding gas.
- Power brushing is allowed, grinding is allowed except on the cover passes which will be visually inspected.

The visual inspection consists of the following:

- ✓ Weld metal on cover passes must be a minimum of flush with plate and no more than 1/8" reinforcement.
- ✓ Bead width should be no more than ½" to 5/8" wide.
- ✓ Undercut shall not exceed 1/32" (if undercut is greater than 1/32" an extra pass is allowed but caution should be taken to avoid repeating the problem on this extra pass).

1" Plate Test Joint details

