

# AWS Structural Welder Qualification Test

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

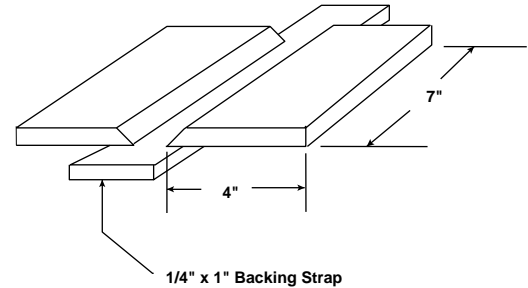
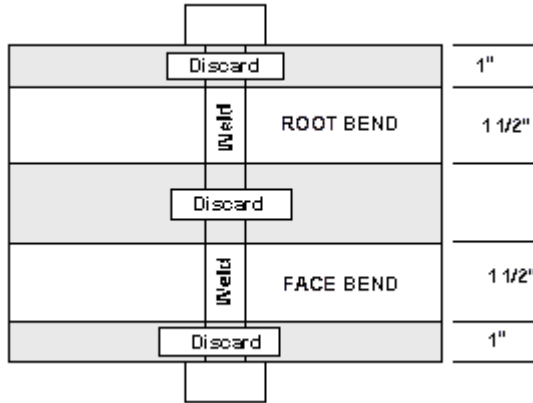
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## Welding Test Center

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<http://www.weldingtestcenter.org>

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

**3/8" Limited Thickness Test** (positions: 3G-vertical & 4G-overhead or 1G flat option)

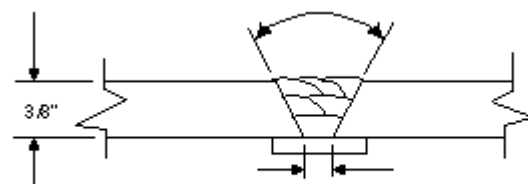
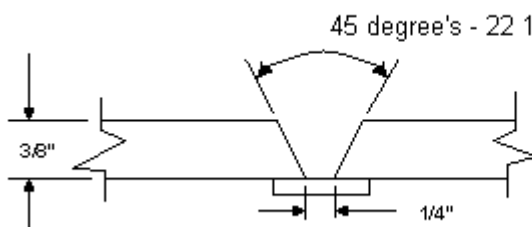


- Plate material: A36 – 3/8" x 7" stock cut into 4" lengths with a 22 1/2 degree bevel.
- The plates and backing should be ground and cleaned of any mill covering a minimum of 1" front and back and are then gaped 1/4" apart and tacked on the ends where the backing (1/4" minimum x 1" x 9") meets the plate.
- The welder decides which position they want to do first and may begin after an initial inspection. Time limit is 45 minutes per position (material prep, fit-up and tack and any warm up practice is not counted in the 45 minutes).
- Root, fill and cover passes are welded with E71T-1 wire, 045" diameter with 75% argon / 25% CO<sub>2</sub> 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 1/2" 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).

### 3/8" Plate Test Joint Details



Bead placement is an approximation