

Lesson 6 - Welding a Qualification Test

Fact Sheet

Steps to Preparing to Perform the Weld

- The welder is set
- The test plates are ready
- Practice welds are complete, and you are ready to weld

Heat Control

- Clamp your weld plates so that they will stay flat while welding
- The heat from the weld will cause the weld plates to distort
- Clamping the plates will minimize distortion
- Keep the weld plates clamped until the weld is cool

Preheat Temperature

- If preheating is required, the preheat temperature will be indicated on the WPS
- Preheat your test plates to the required preheat temperature
- Check the temperature of the metal by using a temperature indicating crayon, or other means to measure temperature

Interpass Temperature

- An interpass temperature will be indicated on the WPS
- Check the temperature between every weld pass
- Ensure that the temperature of the base metal does not exceed the interpass temperature
- If the base metal temperature is higher than the interpass temperature on the WPS, then wait and allow the metal to cool below the interpass temperature before making the next pass
- Never quench or attempt to accelerate cooling during a welding test

Between Passes

- Chip slag, if necessary
- Wire brush weld passes
- Check the temperature of the base metal
- Inspect your weld for discontinuities or defects and make sure your weld is completely clean before making the next pass
- Depending on the test and test conductor, you may or may not be allowed to use power tools, such as grinders, during the test
- If qualifying with a flux process (SMAW, FCAW), be especially vigilant when inspecting for slag inclusions, and remove all slag before the next pass



Performing the Weld – Upon Completion

- When the weld is completed, let it cool slowly on its own
- Never quench or accelerate cooling of a weld test at any point
- Once the weld is completely cooled, remove the clamps

