

2-Week/112-Hour Advanced Level Manual Pipe/Structural Weld Course

This 2-week manual welding course is designed to introduce welders to the Shielded Metal Arc Welding (SMAW)(GTAW)(GMAW)(FCAW) process of welding structural or pipe to meet the ASME/AWS (vertical up) (overhead)(5G) (6G) welding code/standards needed for the industry. Students will also learn how to pass destructive and non-destructive testing methods (i.e., bend test, X ray, Micro, UT etc.). Students are taken from basic pipe welding methods to advanced pipe welding techniques relating to the welding of the root & hot pass done with the Gas Tungsten Arc Welding (GTAW) process. Fill & cap passes may be done, based on the student's ability, with low hydrogen stick electrode. During advanced instruction, students will be working with schedule 40 and 80, 6-inch pipe and 2-inch schedule 80. Upon completion of this course, students should have developed skills for careers in the pressure vessel piping fields. This course is also intended for Pipe welding using GMAW processes such as short arc or pulse transfer modes. This 2-week class could be offered for structural welding using all various processes and transfer modes. This class can be customized to meet your company's requirements.

To be qualified to take part in this course, students must already have basic welding knowledge with SMAW of 7018 or 6010 or have welded using GTAW welding processes. If those requirements are not met then please visit our Manual Weld course for beginners, if not please see our beginner course.

Course covers safety in welding and cutting, shop safety, fire safety and how to safely store electrical components, as well as how to properly handle tools and equipment.

Pipe course will start with (2G) and (5G) welding of 6in Schedules 40 and 80 pipe using SMAW 6010/7018 then will move on to using GTAW.

In this course we discuss and practice:

- Pipe alignment.
- Proper fit up.
- How to use proper tools for specific jobs.
- How to make lands on pipe.
- How to tack and what weld profiles are required by industry codes and standards.

Safety Equipment Needed for Class:

- Ankle High, Steel-Toed, Safety Shoes
- Safety Glasses w/ Side Shields
- Welding Jacket
- Welding Gloves
- Welding Cap

- *Welding Helmet*
- *Welder Pliers*
- *Channel Locks or Vise Grips*
- *Wire Brush*
- *Chipping Hammer*