

ENTRY LEVEL MULTI PROCESS WELDER- PROGRAM OUTLINE

Practical Skills Development: In Class

270 hours

Shielded Metal Arc Welding - (SMAW)

90 hours *

Students will develop knowledge and skills in Shielded Metal Arc Welding process (also known as Stick welding). This process is the basis of all other forms of arc welding. It is relatively slow compared to other processes and requires a high degree of skill to perform.

Fundamental procedures and principles are introduced, practiced and refined. Techniques are developed for fillet and groove welds. Proficiency in flat and horizontal positions will be developed. Vertical/ Overhead positions can also be learned depending upon student capabilities. In house testing is performed to CWB / TSSA / ASME codes and specifications. On completion of the course students will test for CWB certification in SMAW Flat**.

Gas Metal Arc Welding - (GMAW)

90 hours*

This course will develop basic welding skills in Gas Metal Arc Welding process (also known as Mig welding). This process is relatively fast to use and requires moderate operator skill to perform. It is used in situations where cost effective practices and speed are paramount.

Fundamental procedures and principles are introduced, practiced and refined. Techniques are developed for fillet and butt welds. Objective will be proficiency in all positions on plate using small diameter solid wire. On completion of the course students will test for CWB certification in GMAW Flat**.

Flux Cored Arc Welding (FCAW)

60 hours*

In this course students are introduced to the Flux Cored Arc Welding. This process is similar to GMAW but uses a hollow tubular welding wire. It is used in applications where large weld deposits are required.

Skills already developed for GMAW are adapted and refined for FCAW. Fillet and butt welds are practiced.

Objective will be proficiency in all positions on heavy plate sections. On completion of the course students will test for CWB certification in FCAW Flat**.

Gas Tungsten Arc Welding (GTAW)

30 hours*

Students develop knowledge and skills in the Gas Tungsten Arc Welding process (also known as Tig). GTAW welding is a high quality precision process that requires excellent eye/hand coordination.

Fillet and butt welds on light gauge to 1/4" carbon steel plate are perfected. Training is completed in all positions.

Students can apply for CWB certification in GTAW Flat if they request but it is not mandatory. Aluminum GTAW welding can also be learned and tested in if the student requests.

Shop practices

20 hours

Students are introduced to shop equipment and safe operation procedures. Students become competent in use of Oxy-Fuel Cutting Torches (both manual and semi automatic), Plasma Cutters, Band saw and Electric Grinders. Safe material handling practices are also covered.

*Please note: the proportion of training hours devoted to each process depends on the trainee's learning curve.

** Additional CWB testing can be applied for after completion of the mandatory flat ticket.