

Workplace Requirements

- Weld and join: sheet metal, plate, tubes, pipes, rolled sections, hollow sections
- Use drawing instruments to produce basic engineering drawings and sketches. Including the use of welding symbols.
- Lay out and mark off work pieces and positions from drawings, including template work on plate.
- Lay out and mark off work pieces and positions from drawings on rolled sections.
- Lay out and mark off work pieces and positions from drawings on pipes, tubes and hollow sections.
- Weld steel sheet and plate in the following positions:
 - flat : corner joint, square butt
 - horizontal : square butt
 - vertical : square butt, "T" joint
 - horizontal - vertical : "T" joint, corner joint
 - 6 G position
 - including branch connections
- Oxygen - fuel gas welding and brazing.
- Oxygen fuel gas cutting
- Assemble and operate profile and straight line gas cutting machines
- Shielded metal arc welding (manual metal arc welding)
- Gas tungsten arc welding
- Weld steel sheet and plates using gas metal arc welding

Workshop Equipment

- Shielded metal arc welding AC / DC machine
- Gas cutting, Heating and Welding Equipment
- Gas metal arc welding machine
- Gas tungsten arc welding machine
- Straight line gas cutting machine
- Oxygen - fuel gas cutting, welding and brazing equipment
- Fixed and portable drilling machines
- Fixed and portable grinding machines
- Grinding wheel dresser
- Mechanical / Hydraulic Press
- Drill bits
- Lifting equipment and tackle
- Arm / Band power saw
- Bench vice
- Work bench
- G-clamps
- Spirit level
- Flatter
- Anvil

Hand Tools

- | | |
|--------------------------------|----------------------|
| • Tool Box | • Boilermaker square |
| • Chisels | • Chalk line |
| • Punches | • Bevel Gauge |
| • Tommy bar | • Combination square |
| • Chipping hammer | • Radius cutter |
| • Steel brush | • Dividers |
| • Steel tape | • Pliers Vice Grip |
| • Steel ruler | • Hand Files |
| • Hammer | • |
| • Clips | |
| • Callipers (Inside / Outside) | |
| • Hacksaw | |
| • Shifting Spanner | |

