

# WELDING TRAINING & CERTIFICATION / HANDS-ON SKILLS DEVELOPMENT



Course Name	Maximum Acceptable Ratio	Equipment Requirement	Student PreRequisites <small>Before Registering for this class, technicians are required to complete the following PreRequisites</small>	Student PPE Requirements	Other? (WELDING WIRE, EXTRA TIPS, ETC.)
Training & Certification: Steel GMA Welding	3 Students / Welder	MIG Welder able to produce 140+ Amps (Max Output)	Steel GMA Welding Theory (ST020E01)	<ul style="list-style-type: none"> <li>Welding Helmet (Shade 9 or Greater)</li> <li>Welding Jacket and Gloves</li> <li>Safety Glasses and Hearing Protection</li> <li>Welding respirator (NIOSH Approved)</li> </ul>	<ul style="list-style-type: none"> <li>Extra ER70S-6 Electrode Wire (.023" or .030")</li> <li>Extra Contact Tips</li> <li>Extra 75% Argon / 25% Co2 Shielding Gas</li> <li>Bench Vise</li> </ul>
Recertification: Steel GMA Welding	3 Students / Welder	MIG Welder able to produce 140+ Amps (Max Output)	Current Certification: Steel GMA Welding (ST025L01)	<ul style="list-style-type: none"> <li>Welding Helmet (Shade 9 or Greater)</li> <li>Welding Jacket and Gloves</li> <li>Safety Glasses and Hearing Protection</li> <li>Welding respirator (NIOSH Approved)</li> </ul>	<ul style="list-style-type: none"> <li>Extra ER70S-6 Electrode Wire (.023" or .030")</li> <li>Extra Contact Tips</li> <li>Extra 75% Argon / 25% Co2 Shielding Gas</li> <li>Bench Vise</li> </ul>
Training & Certification: Steel Sectioning	3 Students / Welder	MIG Welder able to produce 140+ Amps (Max Output)	Sectioning Overview (ST090E01) and Training & Certification: Steel GMA Welding (ST025L01)	<ul style="list-style-type: none"> <li>Welding Helmet (Shade 9 or Greater)</li> <li>Welding Jacket and Gloves</li> <li>Safety Glasses and Hearing Protection</li> <li>Welding respirator (NIOSH Approved)</li> </ul>	<ul style="list-style-type: none"> <li>Extra ER70S-6 Electrode Wire (.023" or .030")</li> <li>Extra Contact Tips</li> <li>Extra 75% Argon / 25% Co2 Shielding Gas</li> <li>Bench Vise and Metric tape measure</li> </ul>
Recertification: Steel Sectioning	3 Students / Welder	MIG Welder able to produce 140+ Amps (Max Output)	Current Certification: Steel Sectioning (ST105L01)	<ul style="list-style-type: none"> <li>Welding Helmet (Shade 9 or Greater)</li> <li>Welding Jacket and Gloves</li> <li>Safety Glasses and Hearing Protection</li> <li>Welding respirator (NIOSH Approved)</li> </ul>	<ul style="list-style-type: none"> <li>Extra ER70S-6 Electrode Wire (.023" or .030")</li> <li>Extra Contact Tips</li> <li>Extra 75% Argon / 25% Co2 Shielding Gas</li> <li>Bench Vise and Metric tape measure</li> </ul>
Training & Certification: Aluminum GMA (MIG) Welding	3 Students / Welder	Pulse-Synergic MIG Welder, capable of using 1.0mm and 1.2mm 5000 series electrode wire	Aluminum GMA (MIG) Welding Theory (ST040E01)	<ul style="list-style-type: none"> <li>Welding Helmet (Shade 11 or Greater)</li> <li>Welding Jacket and Gloves</li> <li>Safety Glasses and Hearing Protection</li> <li>Welding respirator (NIOSH Approved)</li> </ul>	<ul style="list-style-type: none"> <li>Extra ER5554 or ER5356 Electrode Wire (1.0mm or 1.2mm)</li> <li>Extra Contact Tips</li> <li>100% Argon Shielding Gas</li> <li>Bench Vise</li> </ul>
Recertification: Aluminum GMA (MIG) Welding	3 Students / Welder	Pulse-Synergic MIG Welder, capable of using 1.0mm and 1.2mm 5000 series electrode wire	Current Certification: Aluminum GMA (MIG) Welding (ST045L01)	<ul style="list-style-type: none"> <li>Welding Helmet (Shade 11 or Greater)</li> <li>Welding Jacket and Gloves</li> <li>Safety Glasses and Hearing Protection</li> <li>Welding respirator (NIOSH Approved)</li> </ul>	<ul style="list-style-type: none"> <li>Extra ER5554 or ER5356 Electrode Wire (1.0mm or 1.2mm)</li> <li>Extra Contact Tips</li> <li>Extra 100% Argon Shielding Gas</li> <li>Bench Vise</li> </ul>
MIG Brazing Hands-On Skills Development	3 Students / Welder	Pulse-Synergic MIG Welder, capable of using 0.8 mm to 1 mm CuSiA or CuSi3 electrode wire	Introduction to MIG Brazing (ST030E01)	<ul style="list-style-type: none"> <li>Welding Helmet (Shade 9 or Greater)</li> <li>Welding Jacket and Gloves</li> <li>Safety Glasses and Hearing Protection</li> <li>Welding respirator (NIOSH Approved)</li> </ul>	<ul style="list-style-type: none"> <li>Extra CuSi3 or CusiA Electrode Wire (.8mm to 1mm)</li> <li>Extra Contact Tips</li> <li>Extra 100% Argon Shielding Gas</li> <li>Bench Vise</li> </ul>

# REQUIREMENTS

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<a href="#">Squeeze-Type Resistance Spot Welding Hands-On Skills Development</a>	6 Students / Welder	Spot Welder able to produce 10,000+ Amps (Max Output) and at least 790 lbs. of clamping force	Introduction to Squeeze-Type Resistance Spot Welding (ST010E01)	<ul style="list-style-type: none"> <li>• Full-Face Shield</li> <li>• Welding Jacket and Gloves</li> <li>• Safety Glasses and Hearing Protection</li> <li>• Vapor respirator (NIOSH Approved)</li> </ul>	<ul style="list-style-type: none"> <li>• Shunt Clamp</li> <li>• Extra Spot Welder Tips</li> <li>• 2-part Panel Bonding adhesive with dispensing gun</li> <li>• Bench Vise</li> </ul>
<a href="#">Rivet Bonding Hands-On Skills Development</a>	6 Students / Rivet Gun	Electric or Pneumatic Self-Piercing Rivet Gun	Introduction to Rivet Bonding (ST001E01)	<ul style="list-style-type: none"> <li>• Full-Face Shield</li> <li>• Chemical Resistant Gloves</li> <li>• Safety Glasses and Hearing Protection</li> <li>• Vapor respirator (NIOSH Approved)</li> </ul>	<ul style="list-style-type: none"> <li>• 2-part Panel Bonding adhesive with dispensing gun</li> <li>• 6.5mm and 8mm Drill Bits</li> <li>• Bench Vise</li> <li>• Extra Die Set (Specific to SPR Gun)</li> </ul>
<a href="#">Solid and Blind Rivet Bonding Hands-On Skills Development</a>	6 Students / Rivet Gun	Electric or Pneumatic Blind Rivet Gun	Introduction to Rivet Bonding (ST001E01)	<ul style="list-style-type: none"> <li>• Full-Face Shield</li> <li>• Chemical Resistant Gloves</li> <li>• Safety Glasses and Hearing Protection</li> <li>• Vapor respirator (NIOSH Approved)</li> </ul>	<ul style="list-style-type: none"> <li>• 2-part Panel Bonding adhesive with dispensing gun</li> <li>• 6.5mm and 8mm Drill Bits</li> <li>• Bench Vise</li> </ul>
<a href="#">Aluminum Panel Dent Removal Hands-On Skills Development</a>	6 Students / Stud Gun	Aluminum Dent Stud Welder	Aluminum Panel Repair (NS125E01)	<ul style="list-style-type: none"> <li>• Full-Face Shield</li> <li>• Safety Gloves (i.e., Leather)</li> <li>• Safety Glasses and Hearing Protection</li> <li>• Particle respirator</li> </ul>	<ul style="list-style-type: none"> <li>• Aluminum Stud welder pulling attachments and consumables</li> <li>• Heat Gun</li> <li>• Glue Pull Tab Tools and consumables</li> <li>• Temperature Monitoring (Strips, gun or equivalent tool)</li> </ul>