AugmentedArc™ System
Augmented Reality Welding System

Quick Specs

Processes
MIG (GMAW)
Flux-cored (FCAW)
Stick (SMAW)
TIG (GTAW)

Material Types
Steel
Stainless
Aluminum

Joints
Bead on plate
T-joint
Butt joint
Lap joint
Pipe-to-plate
Butt pipe

Workpiece Positions
Horizontal
Vertical
Flat
Overhead

Input Power
115 V, 15 A, 60 Hz

The industry’s most realistic welding simulation solution for classroom training.

For beginner to advanced-level weld students, the AugmentedArc System simulates multiple welding processes, blending real-world and computer-generated images into a unique, augmented reality environment.

Comes complete with:
- AugmentedArc simulator
- Teacher software
- Black Infinity™ AR helmet with premium headgear
- AugmentedArc router
- MIG gun with AR tip
- SMAW stinger
- TIG torch with AR tip
- Two electrode/filler rods with AR tips
- Work stand for out-of-position applications
- Five coupons: t-joint, butt joint, lap joint, pipe-to-plate and butt pipe

Welder is warranted for one year, parts and labor.
Optimize instructor efficiency by using the Teacher software to create a virtual classroom with customized curriculum, quizzes and weld exercises.

Real-time feedback is provided on users’ technique to help correct errors. Reinforce proper welding practices and accelerate skill advancement prior to actual live arc welding in a lab.

Reduce overall training time compared to traditional methods, with the realistic live arc welding simulation of the AugmentedArc.

Minimize material cost by saving wire, gas and coupons in this simulation environment allowing students to define their welding skills before beginning live arc welding.

Build a larger, more-skilled welding workforce when computer-savvy individuals are drawn to welding education programs that increase their success with live arc welding.

AugmentedArc simulator and helmet both feature augmented-reality displays.

Specially coded coupons provide a wide range of training applications.

Specially designed gun, torch, stinger and filler metal simulators relay user data to the computer for processing.

AugmentedArc work stand allows for training in out-of-position applications.

Augmented Arc System Features

AugmentedArc display
- Helmet’s external optical sensor captures and sends images of coded devices and coupons to AugmentedArc simulator
- Simulator generates three-dimensional images of metal workpieces, augmenting them into a real-world environment
- Display on simulator replicates the view inside helmet to give real-time feedback

Welding simulation screen
- Visual graphical aids guide the user to achieve target parameters
- Adherence to pre-determined or custom welding parameters is monitored, with confirmation when maintained or alerts when exceeded
- Realistic arc sounds from inside helmet speakers accompany the visuals for a truly immersive experience

Post-weld feedback screen
- User’s performance is scored, graphed and recorded for playback
- Performance feedback on various parameters is provided

Specifications (Subject to change without notice.)

<table>
<thead>
<tr>
<th>Input Power</th>
<th>Processes</th>
<th>Welding Positions</th>
<th>Joints</th>
<th>Dimensions</th>
<th>Net Weight</th>
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</thead>
<tbody>
<tr>
<td>115 V, 15 A, 60 Hz</td>
<td>GMAW, FCAW, SMAW, GTAW</td>
<td>1F–4F, 1G–6G</td>
<td>Bead on plate, t-joint, butt joint, lap joint, pipe-to-plate, butt pipe</td>
<td>Simulator</td>
<td>Simulator</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>H: 21 in. (533 mm) W: 9.38 in. (238 mm) D: 17.25 in. (438 mm)</td>
<td>26.3 lb. (12 kg)</td>
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<td></td>
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<td>Welding helmet</td>
<td>2.5 lb. (1.1 kg)</td>
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<td>Voltage/Amperage</td>
<td>Polarity Selection</td>
<td>Shielding Gas Selection</td>
<td>Wire Speed Selection</td>
<td>Base Material Selection</td>
<td>Workpiece Selection</td>
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<td>Selection</td>
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<tr>
<td>GMAW</td>
<td>DCEP, DCEN, AC</td>
<td>CO₂, argon O₂, argon CO₂, and mixtures</td>
<td>GMAW/FCAW 47–787 ipm (1.2–20 m/min.)</td>
<td>Carbon steel, stainless steel, aluminum</td>
<td>1/8 in. (3.2 mm), 1/4 in. (6.4 mm), 3/8 in. (9.5 mm)</td>
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<td>FCAW</td>
<td></td>
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<tr>
<td>10–36 V 25–270 A</td>
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<tr>
<td>12–36 V 25–270 A</td>
<td>DCEP, DCEN, AC</td>
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<td>SMAW</td>
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<tr>
<td>50–240 A 25–270 A</td>
<td>DCEP, DCEN, AC</td>
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<tr>
<td>GTAW</td>
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<tr>
<td>25–270 A</td>
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</table>
Genuine Miller® Accessories

AugmentedArc™ Controller 301395
Provides the capability to link multiple AugmentedArc systems together into a virtual classroom environment.

AugmentedArc™ Router
277397 Stand-alone
278181 Classroom
Select router based on configuration being used. Include Ethernet cable.

Work Stand 277266
Allows for training in out-of-position applications.

MIG Gun Replacement 301401
Note: MIG gun tip sold separately, see below.

Heavy-Duty Transportation Cases 951775
Includes two heavy-duty cases which provide rugged protection for the complete system during transportation or storage. One case holds helmet and AugmentedArc unit, and the second case holds MIG gun, SMAW stinger, TIG torch, coupons and work stand.

SMAW Stinger Replacement 277268
Shown with electrode (sold separately, see below).

TIG Torch Replacement 301400
Shown with tip (sold separately, see below).

Black Infinity™ AR Helmet LED Cover Replacement 277259

Consumables

Butt Joint Coupon 277274

Butt Pipe Coupon 277275

T-Joint Coupon 277270

Lap Joint Coupon 277273

Pipe-to-Plate Coupon 277276

MIG Gun AR Tip 277269

TIG Torch AR Tip 277272

Electrode/Filler Rod with AR Tip 277267

Magnifying Lenses
212238 1.50
212240 2.00
212242 2.50
For use with most Miller® helmets.
### Ordering Information

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<thead>
<tr>
<th>Equipment</th>
<th>Stock No.</th>
<th>Description</th>
<th>Qty.</th>
<th>Price</th>
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<td>115 V, 15 A, 60 Hz. See front page for system components</td>
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<td><strong>Accessories</strong></td>
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<td>AugmentedArc Controller</td>
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<td>For multiple system connectivity</td>
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<td>Heavy-Duty Transportation Cases</td>
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<td>AugmentedArc Router</td>
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<td>Classroom router. With Ethernet cable</td>
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<td>Work Stand</td>
<td>277266</td>
<td>For out-of-position applications</td>
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<td>MIG Gun</td>
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<td>SMAW Stinger</td>
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<td>Electrode NOT included</td>
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<td>TIG Torch</td>
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<td>Tip and filler rod NOT included</td>
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<td>Black Infinity™ AR Helmet LED Cover</td>
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<td><strong>Consumables</strong></td>
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<td>Butt Joint Coupon</td>
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<td>MIG Gun AR Tip</td>
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<td>Electrode/Filler Rod with AR Tip</td>
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**Date:**

**Total Quoted Price:**