

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.



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AugmentedArc™ System Features

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.

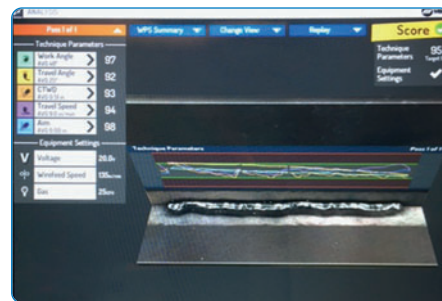
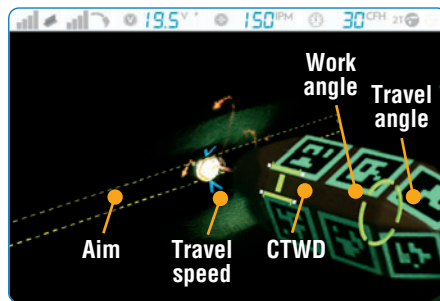
AugmentedArc simulator and helmet both feature augmented-reality displays.

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 Reality Displays



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.)

Input Power	Processes	Welding Positions	Columns	Dimensions	Net Weight		
115 V, 15 A, 60 Hz	GMAW, FCAW, SMAW, GTAW	1F-4F, 1G-6G	Bead on plate, t-joint, butt joint, lap joint, pipe-to-plate, butt pipe	Simulator H: 21 in. (533 mm) W: 9.38 in. (238 mm) D: 17.25 in. (438 mm)	Simulator 26.3 lb. (12 kg) Welding helmet 2.5 lb. (1.1 kg)		
Voltage/Amperage Selection	Polarity Selection	Shielding Gas Selection	Wire Speed Selection	Base Material Selection	Workpiece Selection	Stick Electrode Selection	Diameter Selection
GMAW 10-36 V 25-270 A FCAW 12-36 V 25-270 A SMAW 50-240 A GTAW 25-270 A	DCEP, DCEN, AC	CO ₂ , argon O ₂ , argon CO ₂ , and mixtures	GMAW/FCAW 47-787 ipm (1.2-20 m/min.)	Carbon steel, stainless steel, aluminum	1/8 in. (3.2 mm), 1/4 in. (6.4 mm), 3/8 in. (9.5 mm)	E7018, E6010, E6013	Solid wire .030, .035, .045 in. (0.8, 1.0, 1.2 mm) Stick electrode 1/8, 3/32, 5/32 in. (2.50, 3.25, 4.0 mm) Filler rod 5/64, 3/32 in. (2.0, 2.4 mm)

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.



SMAW Stinger Replacement 277268

*Shown with electrode
(sold separately, see below).*

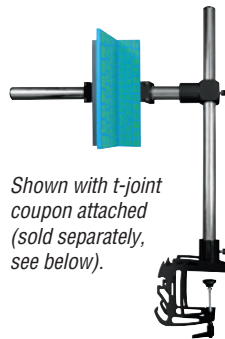


TIG Torch Replacement 301400

*Shown with 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.



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

*Shown with t-joint
coupon attached
(sold separately,
see below).*



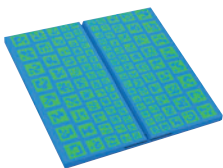
**Black Infinity™ AR
Helmet LED Cover
Replacement 277259**



MIG Gun Replacement 301401

*Note: MIG gun tip sold separately,
see below.*

Consumables



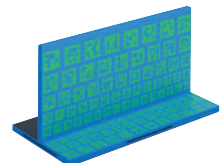
**Butt Joint Coupon
277274**



**Butt Pipe Coupon
277275**



MIG Gun AR Tip 277269



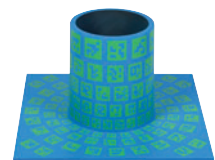
**T-Joint Coupon
277270**



**Lap Joint Coupon
277273**



TIG Torch AR Tip 277272



**Pipe-to-Plate Coupon
277276**

Electrode/Filler Rod with AR Tip 277267

Magnifying Lenses

212238 1.50

212240 2.00

212242 2.50

For use with most Miller® helmets.

Additional Information

Visit us on YouTube for informative videos on:



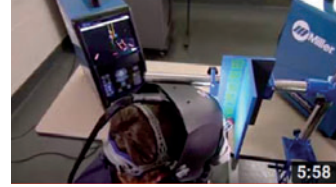
What it is

<https://youtu.be/wYRymhZrFmk>



Set up

<https://youtu.be/AKJfGgRrd2I>



Teacher Software

<https://youtu.be/pXc6fF0SSI4>

Ordering Information

Equipment	Stock No.	Description	Qty.	Price
AugmentedArc™ System	951689	115 V, 15 A, 60 Hz. See front page for system components		
Accessories				
AugmentedArc Controller	301395	For multiple system connectivity		
Heavy-Duty Transportation Cases	951775	Package including two cases that protect the complete system		
Replacement Components				
AugmentedArc Router	277397 278181	Stand-alone router. With Ethernet cable Classroom router. With Ethernet cable		
Work Stand	277266	For out-of-position applications		
MIG Gun	301401	Tip NOT included		
SMAW Stinger	277268	Electrode NOT included		
TIG Torch	301400	Tip and filler rod NOT included		
Black Infinity™ AR Helmet LED Cover	277259			
Consumables				
Butt Joint Coupon	277274			
T-Joint Coupon	277270			
Pipe-to-Plate Coupon	277276			
Butt Pipe Coupon	277275			
Lap Joint Coupon	277273			
MIG Gun AR Tip	277269			
TIG Torch AR Tip	277272			
Electrode/Filler Rod with AR Tip	277267			
Magnifying Lenses	212238 212240 212242	1.50 2.00 2.50		

Date:

Total Quoted Price:

Distributed by:

