



# LiveArc™ Welding Performance Management System

*A reality-based recruiting, screening and training solution.*

The Miller® LiveArc™ Welding Performance Management System is a new and innovative reality-based training system that utilizes a live welding arc, unlike other virtual training solutions. It's designed to recruit, screen, train, re-qualify and manage the performance of weld operators — **better, faster and more cost-effectively than traditional methods.**

Unique motion-tracking technology provides the critical feedback required for improvement of baseline welding skills. With an easy-to-use touchscreen interface, users can guide

themselves through assignment selection and simulated welding runs to acquire desired techniques before moving to actual live arc training experiences.

The system also gives welding instructors the ability to configure assignments and technique parameters. It stores weld operators' performance histories. LiveArc is a powerful teaching tool that allows instructors to better manage their time, reduces the cost of teaching materials and speeds student progress.

# Industrial-quality construction for a real-world welding experience

The LiveArc™ system is built to deliver a real-world, arc-on welding experience. Advanced motion-tracking cameras provide feedback on technique parameters during initial simulation (practice) mode as well as live arc training mode.



The optional **welding positioning arm** is available for training in out-of-position welding applications.

A **powerful industrial computer** at the heart of the system features solid-state technology and filterless fanless cooling. Compatible with Miller® wire feed power sources.

**Motion-tracking cameras** provide feedback on gun parameters.

The **SmartGun** is an industry-exclusive 400-amp MIG gun featuring built-in LEDs that are tracked by the system's cameras. The ergonomic soft-grip handle provides **tactile vibration feedback** that helps guide real-time performance adjustments, reinforcing optimal position and movement.

The **touchscreen monitor** works with a gloved hand and features a 21.5-inch widescreen HD display. A **protective cover** disables welding when opened.



The gun's **OLED display** provides initial visual feedback to guide proper gun positioning. Pushbuttons provide an alternative to the touchscreen for navigation.



Angles CTWD Aim



The **calibration tool** is easy to use and enables flexible coupon placement by making the system aware of the exact joint location.



The rugged **ArcStation™ base** features a 1/2-inch reversible steel table top and ships complete with drawers, gun holder, quick-release clamps and heavy-duty casters for mobility.

## Specifications (Subject to change without notice.)

Processes	Joint Types	Positions	Multi-Pass	Input Power	Rated Output	Duty Cycle	Weight	Dimensions (H x W x D)	Computer	Monitor
GMAW		2F	Fillet only	120 VAC			#301 233	Table and Monitor	Intel core i7,	21.5 HD
GMAW-S	Butt	3F		60 Hz	400 A	100%	366 lb. (166 kg)	77.5 x 41.5 x 31 in.	128 GB SSD,	LCD Touch
GMAW-P	Lap	4F		Compatible			#301 233 001	(1969 x 1054 x 787 mm)	fanless cooling,	Screen
FCAW-G	Tee	1G		with Miller			480 lb. (218 kg)	Width is 46 in. (1168 mm)	HDMI port supports	Display
		2G		wire feed			#301 234 (Arm)	with Welding Positioning Arm	secondary monitor	
		3G		power			72 lb. (33 kg)		(not included)	
		4G		sources.						



# Intuitive user interface that guides and engages

Guided by an easy-to-understand interface with graphical icons and instructional pop-ups, users will find navigation intuitive with a quick learning curve. Scoring and performance feedback engage and foster independent self-improvement through repetition.

**Assignment Selection Screen**

NAME	PROCESS	JOINT TYPE	WELD TYPE	POSITION	HISTORY
18TF-23T-GS-436(DRAG)	GMAW-G	T	Fillet	Horizontal	0.1250 in
18TF-23T-GS-436(PUSH)	GMAW-S	T	Fillet	Horizontal	0.1250 in
18LF-23T-GS-436(DRAG)	GMAW-S	Lap	Fillet	Horizontal	0.1250 in
18LF-23T-GS-436(PUSH)	GMAW-G	Lap	Fillet	Horizontal	0.1250 in
18BS-18T-GS-436(PUSH)	GMAW-S	Butt	Square Groove	Flat	0.1250 in
218TF-23T-GS-436(DRAG)	GMAW-G	T	Fillet	Horizontal	0.1875 in

## Assignment selection screen

- Guides the user through a range of targeted exercises.
- Includes a library of Miller-designed assignments for immediate use, while also allowing instructors the flexibility to configure customized assignments.
- Offers assignment completion status, history summary and easy access to detailed performance history data.

**Welding Procedure Specifications (WPS) screen**

Joint Type: T, Weld Type: Fillet, Position: N/A

Base Metal A: Plate, Thickness: 0.1250 in, Metal Type: Steel, Material Spec: A1008, Type/Grade: SS Grade 30

Base Metal B: Plate, Thickness: 0.1250 in, Metal Type: Steel, Material Spec: A1008, Type/Grade: SS Grade 30

Filler Metals: ER70S-6, Hobart Quantum Arc 6

Shielding Gas: 75% AR / 25% CO<sub>2</sub>, Flow Rate: 35 SCFH

Welding Procedure: 90 Target Score

## Welding Procedure Specifications (WPS) screen

- Clearly guides users through proper selection and preparation of materials.
- Provides correct power source and wire feeder settings.
- Provides target values and limits for work angle, travel angle, travel speed, contact-tip-to-work distance (CTWD) and aim.
- Assignment parameters can be configured to suit the skill level (and scoring potential) of the user.
- Displays instructor-determined target score and assignment completion criteria.

**Post-weld feedback screen**

WELD MODE

Work Angle: 44°, Score: 100

Travel Angle: 10°, Score: 96

CTWD: 0.41 in, Score: 97

Travel Speed: 8.8 in/min, Score: 82

Aim: 0.02 in, Score: 100

TEST HISTORY

Total Score: 95 (Target 90, High 97)

Assignment Status: Successful

## Post-weld feedback screen

- Data is provided following tests in both simulation and live arc modes.
- Performance feedback on work angle, travel angle, travel speed, CTWD and aim is provided.
- Data captured allows for monitoring and evaluation. All test performance history is stored and can be retrieved and reviewed at any time to monitor ongoing development.

# LiveArc™ Welding Performance Management System



The LiveArc™ System is warranted for one year, parts and labor.

*The solution for industrial, manufacturing and educational markets for developing better welding skills, faster and more cost-effectively than ever before.*



### Better training

- Utilizes live arc
- Intuitive system promotes user independence
- Provides objective, quantitative feedback on key performance parameters
- Miller-designed assignments included with ability to customize
- Flexible for recruiting, screening, training and performance management



### Faster results

- Independent usage accelerates personal development
- Accelerated training times put trainees in production lines faster
- Shorter educational periods allow trainees to focus on additional learning opportunities



### More cost effective

- Pre-weld simulation saves money on coupons, wire and gas
- Reduces poor-quality welding and defects, rework and downtime
- Trainers and educators have more time to focus on other tasks



Visit [MillerWelds.com](http://MillerWelds.com) for more information on FILTAIR® fume extraction equipment and Arc Armor® welding protection.

## LiveArc equipment ordering information

### LiveArc Workstation #301 233

- Comes complete with:
- SmartGun with 15-ft. (4.6 m) cable (#270 698)
  - Calibration tool (#266 768)
  - (2) Table clamps (#257 285)

Plus extra Tregaskiss consumables:

- (5) .035-in. contact tips (#403-20-35-05)
- (5) .045-in. contact tips (#403-20-45-05)
- (5) .052-in. contact tips (#403-20-52-05)
- (1) Heavy-duty 5/8-bore 1/8-stickout nozzle (#401-87-62-02)
- (1) Heavy-duty 5/8-bore 1/8-recess nozzle (#401-6-62-02)
- (1) Heavy-duty 5/8-bore flush nozzle (#401-48-62)

### LiveArc Workstation with Welding Positioning Arm #301 233-001

- Includes above plus:
- Arm assembly (#270 727)
  - C-clamp assembly (#270 725)
  - Removable arm extension for right- and left-hand applications (#270 728)
  - Software

### Welding Positioning Arm (includes software) #301 234