



New!

Now with SMAW Training Capability



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.

Advanced motion-tracking technology provides the critical feedback required for improvement of baseline welding skills. With an easy-to-use touch

screen interface, users can guide themselves through assignment selection and pre-weld feedback 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 the detailed performance history of each operator. LiveArc is a powerful teaching tool that allows instructors to better manage their time, reduces the cost of teaching materials and accelerates 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 set-up and simulation modes as well as live arc training mode.

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

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 SmartGun's OLED display provides initial visual feedback to guide proper gun positioning. Pushbuttons provide a convenient alternative to the touchscreen for navigation.



Angles CTWD Aim



New! SmartStinger extends training capabilities to the SMAW process. The LiveArc monitor guides pre-weld positioning with visual feedback.



Work angle and travel angle

Motion-tracking cameras provide feedback on gun parameters and accommodate flexible coupon placement.

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

Includes multi-pass groove and fillet assignments designed by Miller and the capability to develop customized assignments based on user applications.

LiveArc PC software is available for free installation on a separate PC. Data can be transferred to and from PC for reviewing student progress and managing assignments/users.

English and Spanish translations are available on all LiveArc systems.

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.



LiveArc
GMAW/FCAW/SMAW
907714001 shown.



The welding positioning arm allows for training in out-of-position GMAW, FCAW and SMAW applications.

Specifications (Subject to change without notice.)

Processes	Positions	Multi-Pass	Input Power	Rated Output	Electrode Diameter	Computer	Monitor	Dimensions	Net Weight
GMAW	2F	Groove and fillet up to 1 in. (25 mm) plate	120 V, 60 Hz Note: Compatible with Miller power sources	SmartGun: 400 A at 60% duty cycle (mixed gases)	SmartGun: Up to 5/64 in. (2.0 mm)	Intel core i7, 128 GB SSD, fanless cooling, HDMI port supports most secondary monitors (not included)	21.5 HD LCD touch screen display	H: 77.5 in. (1,969 mm) W: 46 x (1,168 mm) D: 31 in. (787 mm)	GMAW/FCAW System: 480 lb. (218 kg) GMAW/FCAW/SMAW System: 527 lb. (239 kg)
GMAW-S	3F								
GMAW-P	4F								
FCAW-G	1G								
SMAW	2G	Limited groove applications		SmartStinger: 250 A at 60% duty cycle	SmartStinger: Up to 1/8 in. (3.2 mm)				
	3G								
	4G								

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	BASE METAL / THICKNESS	HISTORY
18T-2F(D)-GMAW-S	GMAW-S	T	Fillet	Horizontal	1/8 in.	Attempts 1, High Score 97, Last Test 6/14/2016
18T-2F(P)-GMAW-S	GMAW-S	T	Fillet	Horizontal	1/8 in.	Attempts 1, High Score 97, Last Test 6/14/2016
18Lap-2F(D)-GMAW-S	GMAW-S	Lap	Fillet	Horizontal	1/8 in.	Attempts 1, High Score 97, Last Test 6/14/2016
18Lap-2F(P)-GMAW-S	GMAW-S	Lap	Fillet	Horizontal	1/8 in.	Attempts 3, High Score 73, Last Test 6/14/2016
18Butt-1G(P)-GMAW-S	GMAW-S	Butt	Square Groove	Flat	1/8 in.	Attempts 1, High Score 93, Last Test 6/14/2016
318T-2F(D)-GMAW-S	GMAW-S	T	Fillet	Horizontal	3/16 in.	Attempts 1, High Score 97, Last Test 6/14/2016

Assignment selection screen

- Guides the user through a range of targeted exercises.
- Includes a library of assignments designed by Miller 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

1/8T-2ST-GS-035(PUSH)

Joint Design Used: T, Root Opening: 0.0000 in.

Electrical Characteristics: Transfer Mode: Short Circuit, Current: DCEP, Technique: Single.

Welding Procedure Parameters: Work Angle: 45°, Travel Angle: 25°, CTWD: 0.41 in., Travel Speed: 8.8 in/min, Aim: -0.02 in.

90 Target Score

Completion Criteria: Required: 3 to Complete, Min. Test Length: 4.8 in.

Welding procedure specifications (WPS) screen

- Guides the user through proper selection and preparation of materials.
- Provides correct power source and wire feeder settings.
- For GMAW/FCAW, screen provides target values and limits for work angle, travel angle, travel speed, contact-tip-to-work distance (CTWD) and aim.
- For SMAW, screen provides target values and limits for work angle, travel angle, arc length and travel speed.
- 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

Performance Metrics:

- WORK ANGLE: 44° (Score: 100)
- TRAVEL ANGLE: 16° (Score: 96)
- CTWD: 0.41 in. (Score: 97)
- TRAVEL SPEED: 8.8 in/min (Score: 82)
- AIM: -0.02 in. (Score: 100)

95 Total Score (Target: 80 | High: 97)

Assignment Status: Successful

TEST HISTORY: Total Score, Work Angle, Travel Angle, CTWD, Travel Speed, Aim.

Post-weld feedback screen

- Data is provided following tests in both simulation and live arc modes.
- For GMAW/FCAW, performance feedback on work angle, travel angle, travel speed, CTWD and aim is provided.
- For SMAW, performance feedback on work angle, travel angle, arc length and travel speed 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.



Visit MillerWelds.com/safety for more information on welding safety and health equipment.

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

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

LiveArc equipment ordering information

LiveArc GMAW/FCAW with Welding Positioning Arm 907714

- Comes complete with:
- SmartGun with 15 ft. (4.6 m) cable (270698)
 - Calibration tool (266768)
 - (2) Table clamps (257285)
 - Arm assembly (270727)
 - C-clamp assembly (270725)
 - Removable arm extension for right- and left-hand applications (270728)

- 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 GMAW/FCAW/SMAW with Welding Positioning Arm 907714001

- Includes above plus:
- SmartStinger with 15 ft. (4.6 m) cable (275089)
 - Router box (275484)
 - Software update for SMAW applications

LiveArc SMAW Module 301391

LiveArc Marketing Crate 301412

Heavy-duty steel-framed wood crate with doors for easy access and storage of the LiveArc base and upper computer/monitor/camera fixture

MillerWelds.com

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