

# LiveArc™ System

## Welding Performance Management System

### Quick Specs

#### Processes

MIG (GMAW)  
Gas-shielded flux-cored (FCAW-G)  
Stick (SMAW)

#### Welding Positions

2F–4F,  
1G–4G

#### Joints

T-joint  
Butt joint (square groove)  
Lap joint  
Single v-groove  
Single-bevel groove

#### Input Power

120 V, 60 Hz

#### Rated Output

**SmartGun:** 400 A at 60% duty cycle (GMAW)  
**SmartStinger:** 250 A at 60% duty cycle (SMAW)

**The reality-based recruiting, screening, training, and re-qualification solution for industrial, manufacturing and educational markets.**



While utilizing a live arc, the intuitive system promotes user independence and provides objective, quantitative feedback on key performance parameters.



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



Trainers and educators have more time for one-on-one training while pre-weld simulation saves money on coupons and consumables. Also reduces the frequency of poor-quality welding and defects, rework and downtime.



#### LiveArc GMAW/FCAW system comes complete with:

- SmartGun with 15 ft. (4.6 m) cable
- Calibration tool
- Two table clamps
- C-clamp assembly
- Removable arm extension for right- and left-hand applications
- Extra Bernard consumables:
  - Five each of .035, .045 and .052 in. contact tips
  - One each of 5/8-bore 1/8-stickout, 5/8-bore 1/8-recess, and 5/8-bore flush heavy-duty nozzle

#### LiveArc GMAW/FCAW/SMAW system includes above plus:

- SmartStinger with 12 ft. (3.7 m) cable
- 15 ft. (4.6 m) Dinse-style cable
- Router box
- Software update for SMAW applications

LiveArc GMAW/FCAW/SMAW system shown.



Welder is warranted for one year, parts and labor.



**Miller**

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[MillerWelds.com](http://MillerWelds.com)



# LiveArc™ System Features

**Powerful industrial computer** at the heart of the system features solid-state technology and filterless, fanless cooling. Compatible with Miller power sources.

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

**Touch screen monitor** works with a gloved hand and features a 21.5-inch widescreen HD display.



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

**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.



**SmartGun** is a glove-friendly, 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 **OLED display** on the SmartGun provides initial visual feedback to guide proper gun positioning. Pushbuttons provide a convenient alternative to the touchscreen for navigation.

**SmartStinger** extends training capabilities to the SMAW process. LiveArc guides pre-weld positioning for travel and work angles via the LiveArc display.

**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.

**Multi-pass groove and fillet assignments** designed by Miller are included along with the capability to develop customized assignments based on user applications.

**English and Spanish language options** are available on all LiveArc systems.

## Specifications (Subject to change without notice.)

Input Power	Processes	Welding Positions	Multi-Pass	Rated Output	Electrode Diameter	Computer	Monitor	Dimensions	Net Weight
120 V, 60 Hz Compatible with Miller power sources	GMAW, GMAW-S, GMAW-P, FCAW-G,	2F-4F, 1G-4G	Groove and fillet up to 1 in. (25 mm) plate	<b>SmartGun</b> 400 A at 60% duty cycle (mixed gases)	<b>SmartGun</b> 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 in. (1,168 mm) D: 31 in. (787 mm)	<b>GMAW/FCAW system</b> 480 lb. (218 kg) <b>GMAW/FCAW/ SMAW system</b> 527 lb. (239 kg)
	SMAW*	2F-4F, 1G-4G	Limited groove applications	<b>SmartStinger</b> 250 A at 60% duty cycle	<b>SmartStinger</b> Up to 1/8 in. (3.2 mm)				

\*Not compatible with Auto-DIG feature found on some Miller® power sources.

# Intuitive User Interface

**ACTIONS**

- System Admin
- MIG/FC Assignment Mgmt
- User Management
- Dashboard

**Assignment Selection**

WPS Review | Setup | Joint Calibration | Weld Test

Admin Admin E

**Process**: MIG/Flux Cored, Stick

**Joint / Weld Type**: T, Lap, Sqr Groove, Single-V, Single-Bevel

**Position**: 1G, 2F/2G, 3F/3G, 4F/4G, Flat, Horizontal, Vertical, Overhead

Name	Process	Joint Type	Weld Type	Position	Base Metal Thickness	History
Viewing 1-6 of 21						
1/1T-2F(D)-GMAW5-1	GMAW-S	T	Fillet	Horizontal	1/8 in.	
1/1T-2F(P)-GMAW5-1	GMAW-S	T	Fillet	Horizontal	1/8 in.	
1/1Lap-2F(D)-GMAW5-1	GMAW-S	Lap	Fillet	Horizontal	1/8 in.	
1/1Lap-2F(P)-GMAW5-1	GMAW-S	Lap	Fillet	Horizontal	1/8 in.	
1/1Butt-1G(P)-GMAW5-1	GMAW-S	Butt	Square Groove	Flat	1/8 in.	
3/16T-2F(D)-GMAW5-1	GMAW-S	T	Fillet	Horizontal	3/16 in.	

Touch to View More Assignments

View Message

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## Assignment selection screen

- Guides the user through a range of targeted exercises
- Includes a library of assignments designed by Miller and the flexibility to configure customized assignments
- Offers assignment completion status, history summary and easy access to detailed performance history data

**ACTIONS**

- Next
- Back
- Change Assignment

**Assignment Selection**

WPS Review | Setup | Joint Calibration | Weld Test

Admin Admin E

**Joint Design Used**: Position

**Backing**: No

**Base Metal A**: Base Metal B

**Plate/Pipe**: Plate

**Thickness**: 0.1875 in.

**Metal Type**: Steel

**Material Spec.**: ASTM

**Type/Grade**: A1008

**Filter Metals**: AWS Classification: ER70S-3

**Gas Composition**: 75/25 Arg/CO<sub>2</sub>

**Flow Rate**: 35 SCFH

**Shielding**: Gas Cup Size: 0.625 inch

**Weld Size**: 3/16 inch

**Welding Procedure**

Pass or Weld Layer	Process	Filter Metals	Current Type and Polarity	Volt	Wirefeed Speed	Amps	Vert. Prop.	Work Angle	Travel Angle	CTWD	Travel Speed	Aim
1	GMAW-S	ER70S-3	DCEP	16.5	10.2	240	240	150	170	N/A	40	41

When Base Metal is below 32 F [0 C], preheat to a min. of 70 F [20 C]

**General Comments**

**Target Score**: 90

**Assignment Status**: Required: 3 To Pass ✓✓✓ Min. Test Length: 4.0 in.

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## Welding procedure specification (WPS) screen

- Guides the user through proper selection and preparation of materials
- Provides correct power source and wire feeder settings
- Provides target values and limits for various parameters
- 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

**ACTIONS**

- Reset
- Save to USB
- Change Assignment

**Assignment Selection**

WPS Review | Setup | Joint Calibration | Weld Test | WELD MODE

2016/09/14 5:03 PM Bill Becker 34 s

**TEST HISTORY**

Total Score	Work Angle	Travel Angle	CTWD	Travel Speed	Aim
100	44°	70°	0.41 in	8.8 mm	-0.02 in
96	16°	1°	0.40 in	8.7 mm	-0.01 in
97	45°	71°	0.42 in	9.0 mm	-0.03 in
82	45°	71°	0.42 in	9.0 mm	-0.03 in
100	45°	71°	0.42 in	9.0 mm	-0.03 in

**Overall Status**: C

**Total Score**: 95 Total Score Target 90 to High 97

**Assignment Status**: In Progress Required: 5 To Pass ✓✓✓

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## Post-weld feedback screen

- Data is provided following tests in both simulation and live-arc modes
- Performance feedback on various parameters is provided
- All test data is stored and allows for monitoring and evaluation

# Genuine Miller® Accessories

## LiveArc™ Stick Upgrade Module 301391

For systems currently with GMAW/FCAW only.  
Includes SmartStinger with 12 ft. (3.7 m) cable,  
15 ft. (4.6 m) Dinse-style cable, router box  
with mounting bracket, software update for  
SMAW applications, easy-clean dust tray, and  
dual-purpose holster.

## Additional Information

Visit us on YouTube for informative videos on:



What it is  
<https://youtu.be/9mjE9qqynMQ>



Set up  
<https://youtu.be/VvTNOMgeFvA>



ALMACO Testimonial  
<https://youtu.be/y1TQwlrF6B0>

## Ordering Information

Equipment	Stock No.	Description	Qty.	Price
LiveArc™ GMAW/FCAW System	907714	See front page for system components		
LiveArc™ GMAW/FCAW/SMAW System	907714001	See front page for system components		
<b>Accessories</b>				
LiveArc Stick Upgrade Module	301391	For systems currently with GMAW/FCAW only		

Date: Total Quoted Price:

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