

# Copilot™ Builder™

## Collaborative Welding System

### Quick Specs

#### Industrial Applications

Contract and OEM manufacturing of components for automotive, recreational vehicles, farm and construction machinery, marine, furniture, and more. Confab, jobsite, and field fabrication.

#### Processes

MIG (GMAW), Accu-Pulse®, Versa-Pulse™ and RMD®

#### Product Type

Collaborative welding robot or cobot provides a combined station for:

- A) Welding envelope
- B) Loading and unloading
- C) Programming
- D) Tool installation and change

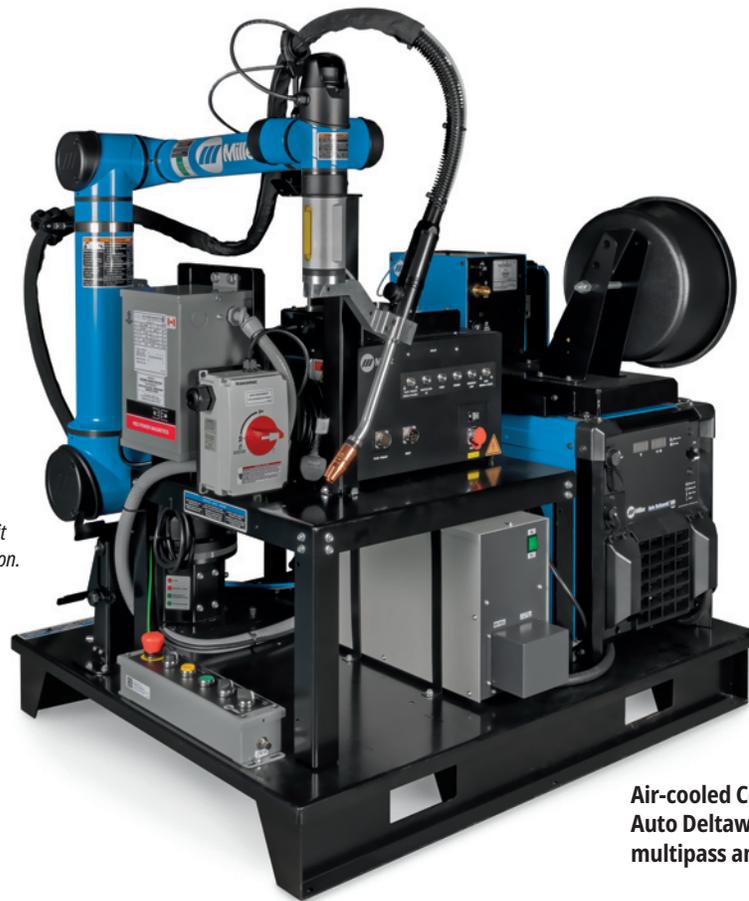
#### MIG Torch Options

Air-cooled and water-cooled

#### Input Power

Copilot: 110 V  
Auto Deltaweld™ 500 CE: 380/460 V

**Copilot Builder is a configurable welding cobot, designed for intuitive ease of use by welders of various abilities. It comes in both air-cooled and water-cooled versions, and includes advanced features designed to manage more challenging welding applications.**



*Models come on a pallet, allowing components to be detached and rearranged to suit the challenges of your application. Further customize your Builder with accessories (cables).*

**Miller recommends**



Visit [HobartBrothers.com](http://HobartBrothers.com) for your filler metal solutions.

**Air-cooled Copilot Builder shown with Auto Deltaweld 500, touch sensing, multipass and through-arc seam tracking.**



Major components except torches, consumables, and power supplies. Refer to specific component warranty for more information.



**Evolve Your Welding™**



#### Miller Welding Automation

An ITW Welding Company  
283 E. Lies Rd.  
Carol Stream, IL 60188 USA

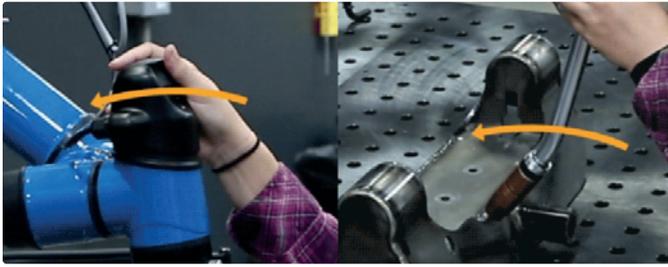
#### Equipment Sales

ITW Welding Singapore  
E-mail: [international@millerwelds.com](mailto:international@millerwelds.com)

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



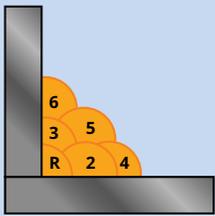
## Features (Standard on all systems)



**AccuGuide™ positioning control** allows the welder to fine-tune the position of the torch during programming versus only using the free-jogging feature of the cobot.



**IntelliSet™ setting management system** reduces the steps required while programming by simplifying the process of choosing or revising settings.



Cross section of a weld created with a multipass procedure.

**Multipass** welding is a technique used in welding processes where a weld joint requires more than one pass to achieve the desired weld size, strength and quality. This method is often employed in applications where the joint thickness is greater than what can be effectively welded in a single pass.



**Touch sensing** provides a means of detecting welding workpiece location by utilizing voltage sensing along with programmed torch “searches” to locate the workpiece position prior to welding.

## Through-Arc Seam Tracking (Available on select systems)

**Through-arc seam tracking** corrects the robot arc path to accommodate subtle variations in the workpiece geometry. Using feedback from the arc, combined with a weave pattern, the robot can compensate for subtle irregularities from the intended weld path to successfully weld the joint with proper bead appearance and penetration.



## Water-Cooling

**Water-cooled Copilot** provides the power for hotter and heavier welding challenges requiring up to 500 amps at 100% duty cycle.

**Tregaskiss® CA3 robotic MIG torch with I.C.E.® technology and AccuLock™ consumables** is engineered for accurate, reliable and repeatable performance that maximizes production uptime and throughput.

**Coolmate™ 1.3** provides added cooling for hotter applications. Water-cooled Copilot systems ship with four 3.78 liter (1 gal.) containers of coolant.



# Copilot™ Builder System

**AccuGuide™**  
(see page 2 for description).

**Programming puck (partially hidden)** reduces the need to interact with the pendant.

**Portable operator pendant** used for starting and stopping programs in production.

**Touch sensing wire clip station (not shown)**  
(see page 2 for description).

**Coolmate™ 1.3** provides added cooling for hotter applications. Water-cooled Copilot systems ship with four 3.78 liter (1 gal.) containers of coolant.

**Through-arc seam tracking** (see page 2 for description).

**Lift truck fork pockets**

**Tregaskiss® CA3 robotic MIG torch with I.C.E.® technology and AccuLock™ R consumables** is engineered for accurate, reliable and repeatable performance that maximizes production uptime and throughput.

**Wire drive** can remain in place or be mounted behind the cobot. Works with spool holder (included) or bulk wire.

**Cobot controller unit** coordinates communications and functionality among Copilot arm and Auto Deltaweld power supply.

**Full complement of capabilities with Auto Deltaweld™.** GMAW power source with Accu-Pulse®, Versa-Pulse™, RMD® and waveform capability.

**Teach pendant with easel** allows for convenient hands-free viewing.

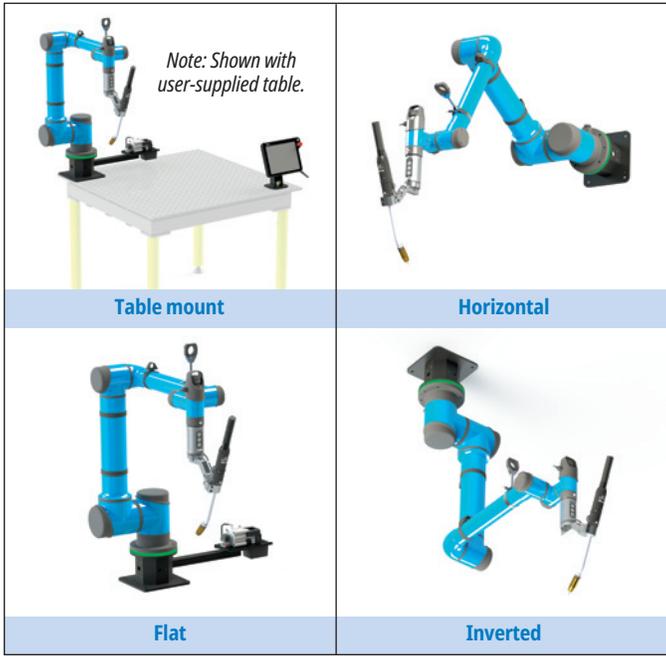
Water-cooled Copilot Builder shown with Auto Deltaweld 500, touch sensing and through-arc seam tracking.

## Copilot™ Builder System Specifications

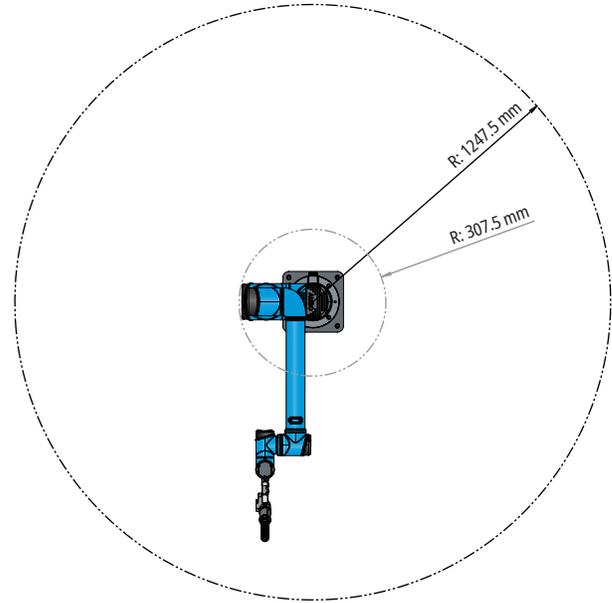
Power Supply	Input Power	Rated Output	Wire Feed Speed	Pallet Dimensions	Approximate Shipping Weight
Auto Deltaweld 500 CE	380/460 V, 3-phase, 33 KVA	500 A at 39 V 100% duty cycle	1.3–19.8 m/min. (50–780 ipm)	1,219 x 965 mm (48 x 38 in.)	318 kg (700 lb.)

*Note: Some filler metal wires with lower column strength may need additional considerations for feeding. Discuss with our team what challenges the Copilot is ready to tackle.*

## Mounting Options



## Work Envelope



Note: Approximate dimensions, contact us if you are building tooling.

## Copilot™ Builder System Ordering Information

Systems	Stock No.	Description	Qty.	Price
<b>Copilot™ with Auto Deltaweld™ 500 CE</b>	<b>907923</b>	Air-cooled system with touch sensing. Includes Auto Deltaweld fixed wire drive, welding robot, and Tregaskiss® CA3 robotic MIG torch		
	<b>907923001</b>	Same as 907923 plus through-arc seam tracking		
	<b>907924</b>	Water-cooled system with cables and touch sensing. Includes Auto Deltaweld fixed wire drive, welding robot, Tregaskiss® CA3 robotic MIG torch with I.C.E.® technology, Coolmate™ 1.3 (301617) with four 3.78 liter (1 gal.) containers of coolant, water lines, and cable sleeve		
	<b>907924001</b>	Same as 907924 plus through-arc seam tracking		
Weld and Communication Cables*	<b>301839</b>	5 m (16.4 ft.)		
	<b>301840</b>	8 m (26.2 ft.)		

Date: Total Quoted Price:

\*One set of weld and communication cables is REQUIRED to complete a Copilot system and includes all interconnecting cables.

To order, email [international@millerwelds.com](mailto:international@millerwelds.com)

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