

Copilot™ Builder™ with Blue iQ™

Collaborative Welding System

Automation
Systems

Powered by NovAI™

QUICK SPECS

Industrial Applications

Contract and OEM manufacturing of structural steel, infrastructure, heavy equipment, agricultural equipment, truck and trailer, railroad, and large component manufacturing.

Process

Accu-Pulse® with .045 in. (1.2 mm) ER70S-6 wire (Hobart® Quantum Arc™ 6 recommended) using 90% argon/10% CO₂ shielding gas

Joint Types

T-joint: 1F, 2F, 3F
Lap joint: 1F, 2F
V-groove: 1G, 2G

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

Input Power

Copilot Builder: 110 V (see page 3 for Auto Deltaweld™ requirements)

Water-Cooled MIG Torch

Tregaskiss® CA3 MIG torch with I.C.E.™ technology

Our most advanced configurable cobot from our smallest, most versatile welding system. Delivering the productivity and repeatability of advanced robotic welding, utilizing straightforward software programming, adaptable technology, and collaborative robotics.

Copilot Builder collaborative welding system comes on a pallet, allowing components to be detached and rearranged to suit the challenges of your application. Builder models allow for flat or table, horizontal, and inverted mount options. Great for new-to-automation welding challenges and for experienced robotic welders who need the ability to address high-mix, low-volume operating scenarios in a customizable footprint. The addition of Blue iQ allows for real-time adaptation to changes in joint gaps and location through the use of an added data processing vision system.



Miller recommends



Visit HobartBrothers.com for your filler metal solutions.



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



Evolve Your Welding™



Miller Electric Mfg. LLC

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

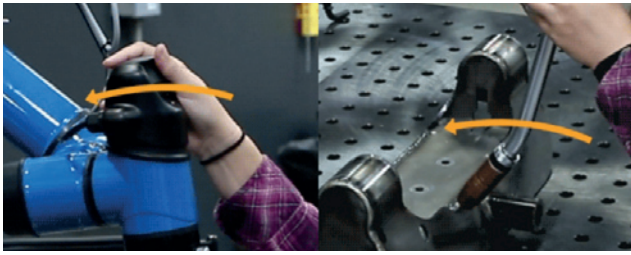
Equipment Sales

Phone: 630-653-6819
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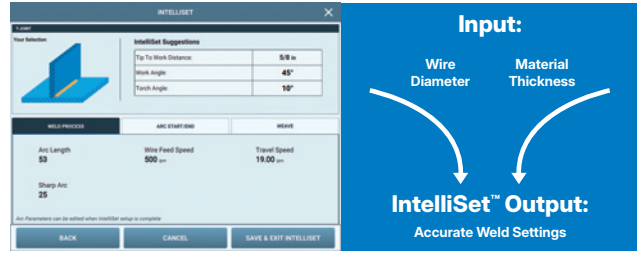
MillerWelds.com



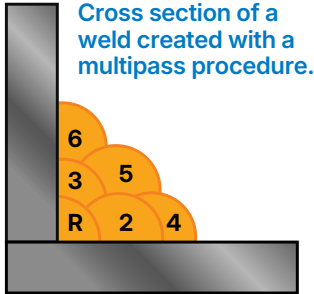
Standard Features



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.



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 “sweeps” to positively locate the workpiece position prior to welding.

Blue iQ™ Features (Powered by NovAI™)

Seam tracking

- Ability to follow the weld joint
- +/- 3 degrees (>5/8-inch variation over 12-inch weld)

Fit-up adaptation

- Real time control of welding condition to account for part variances
- Gaps, bevel angles, mismatch
- Lower requirement for fixturing and fit up

Tack weld adaptation

- Detect tack welds and change parameters to ensure weld quality over tacks
- Important for larger structures with no fixturing

Data collection and storage

- Cloud-based data storage — productivity/quality/analytics
- Model improvement
- Online service support



NovHub™ is a manufacturing intelligence and quality management system specifically built for automated welding operations. It helps manufacturers improve quality, increase productivity, reduce downtime, simplify compliance, and quickly identify the root cause of welding issues.

Problems solved

- Limited visibility into welding performance
- Difficult root-cause investigations when defects occur
- Manual quality documentation
- Lack of weld traceability
- Downtime and productivity losses
- Compliance and warranty documentation challenges
- Disconnected manufacturing systems and data silos

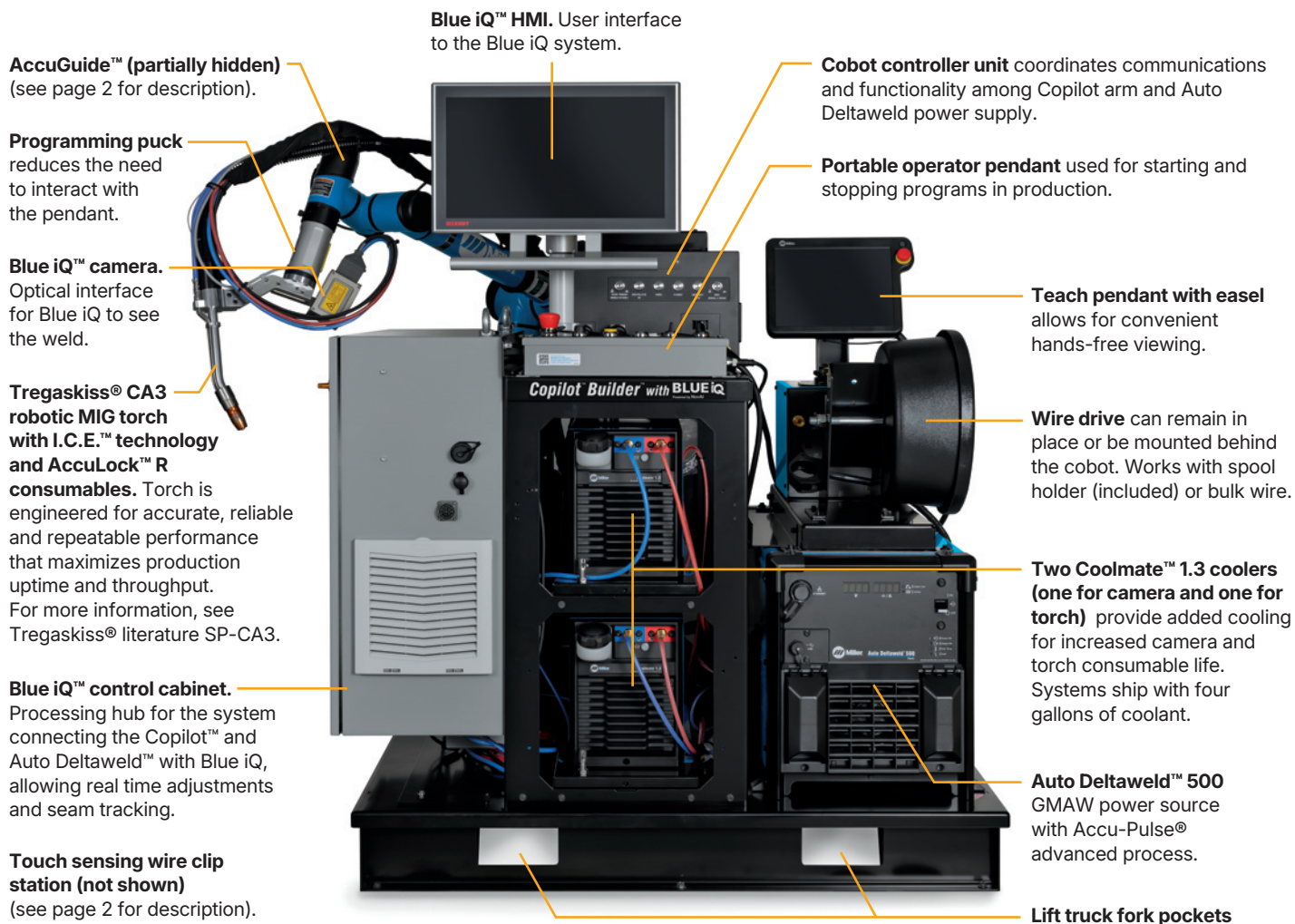
What it does

- Complete track and trace: serial and job numbers, welds, operators, and weld data
- Weld analytic and performance data with process window monitoring
- Quality control integration
- Productivity reporting and robot performance management
- Remote monitoring
- Integrable to: ERP, MES, CMMS, WPS/PQR documentation (through AWS API infrastructure)

User benefits

- Improve quality
- Reduce investigation time
- Increase productivity
- Strengthen traceability
- Enable data-driven decisions

Copilot™ Builder™ with Blue iQ™ System

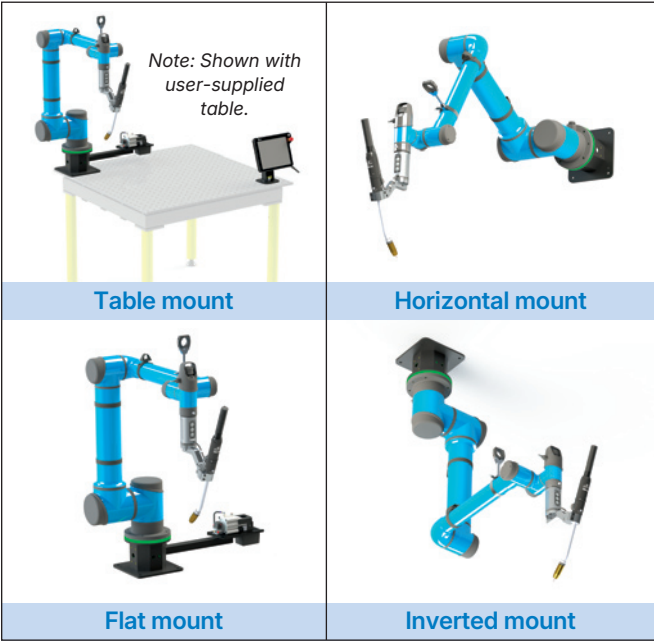


System Specifications (Subject to change without notice.)

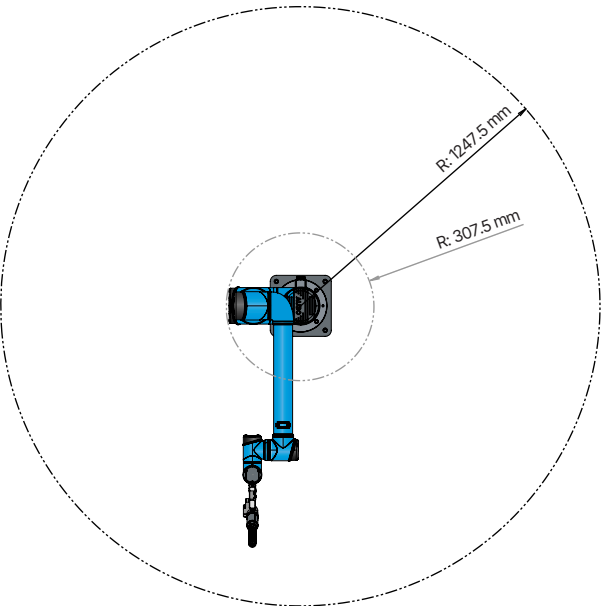
POWER SUPPLY	INPUT POWER	RATED OUTPUT	WIRE FEED SPEED	PALLET DIMENSIONS	APPROXIMATE SHIPPING WEIGHT
Auto Deltaweld 500	208/230/460 V or 575 V*, 3-phase, 60 Hz	500 A at 39 V 100% duty cycle	50–780 ipm (1.3–19.8 m/min.)	48 x 38 in. (1,219 x 965 mm)	1,400 lb. (635 kg)

*575 V model is available in Canada only.

Mounting Options



Work Envelope



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

Accessories and Consumables

Copilot™ Builder™ Extension Cable Bundle 301840 26.2 Ft. (8 m)
Cable bundle includes cobot and wire feeder communication cables, ground cable and work leads for wire feeder and power source.

Magswitch 88002010
Kit, MagBase 10 2.0, Miller, full assembly. For use with flat mounting option. For more information, visit magswitch.com

Copilot™ Builder™ with Blue iQ™ Camera Lens and Filter Kit 403106
Includes Blue iQ camera lens (403107) and Blue iQ control cabinet filter (403108).

- Tregaskiss® CA3 Torch Consumables**
- AccuLock™ R Contact Tips (10 per package) T-A045CH** .045 in. (1.2 mm)
- AccuLock™ R Copper Nozzles**
401-81-62 Slip-On, 5/8 in. ID, 1/8 in. stickout
401-14-62 Thread-On, 5/8 in. ID, 1/8 in. recessed
- AccuLock™ R Diffusers**
D-ATSH Slip-On
D-ATTH Thread-On

- Conventional Liner (15 ft.)**
415-35-15 .035–.045 in. (0.9–1.2 mm)
415-116-15 .045–1/16 in. (1.2–1.6 mm)
- Wire Brake Jump Liner**
495-18-116 .052–1/16 in. (1.4–1.6 mm)
- Wire Brake Kit**
WB-599-045 .045 in. (1.2 mm)
- See Tregaskiss® CA3 literature SP-CA3 for additional consumables and accessories.

Ordering Information

SYSTEM	STOCK NO.	DESCRIPTION	QTY.	PRICE
Copilot™ Builder™ with Blue iQ™	951000268	Includes Auto Deltaweld™ 500, Auto Deltaweld™ fixed wire drive, welding robot, Tregaskiss® CA3 robotic MIG torch with I.C.E.™ technology, two Coolmate™ 1.3 (301617) coolers with four gallons of coolant, water lines, 26.2 ft. (8 m) cables, and cable sleeve and all required interconnecting cables		
Copilot Builder with with Blue iQ™ (575 V) (Available in Canada only)	951000269			

DATE: TOTAL QUOTED PRICE:

Note: See Copilot™ Builder™ literature AU/60.6 for additional models and Copilot™ literature AU/60.0 for our table-based cobot systems.

To order or inquire about accessories, call us toll-free at 1-630-653-6819 or email MWA.Sales@MillerWelds.com.

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