Miller® Cobot system

Collaborative Welding Systems

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Automation Systems

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), Pulsed MIG

Supported Power source
MigMatic® MP S400iP

MIG Gun Options
Air-cooled and water-cooled

Input Power
See page 5 for MigMatic®
See page 6 for Cobot®

The Miller® cobot solution is designed for intuitive ease of use for various skilled operators that are new to robotic welding. Advanced features are included to tackle more challenging welding applications.

One purchase –
Every feature included

When purchasing the Miller® Cobot solution you will have access to all features for the rest of your life.

No extra charges for software upgrades, the system is ready for every challenge from the start.

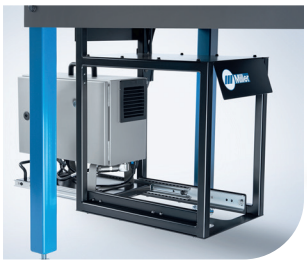




*Table not included

Miller recommends

Elga®

Visit **elgawelding.com** for your filler metal solutions.

Evolve Your Welding™

Miller®

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MillerWelds.com/europe

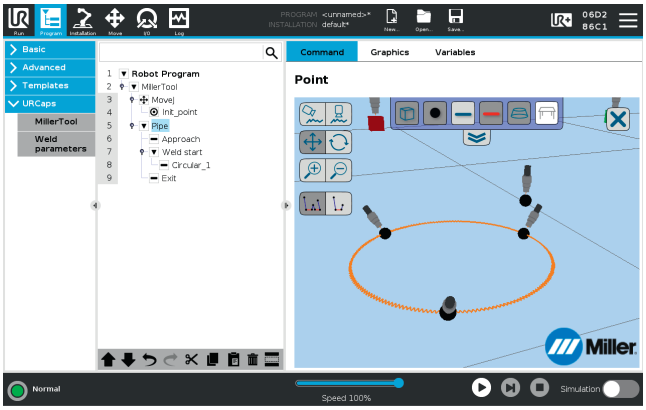
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Features

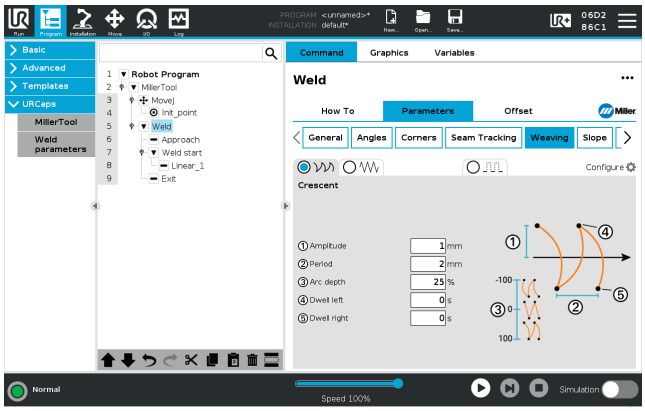
3D visualization

The 3D universe enables the operator to visualize the weld before pressing start. It simplifies the life of the operator especially for complex welding applications like multi pass jobs. It saves time, improves the path accuracy and enables an instant spatial overview.



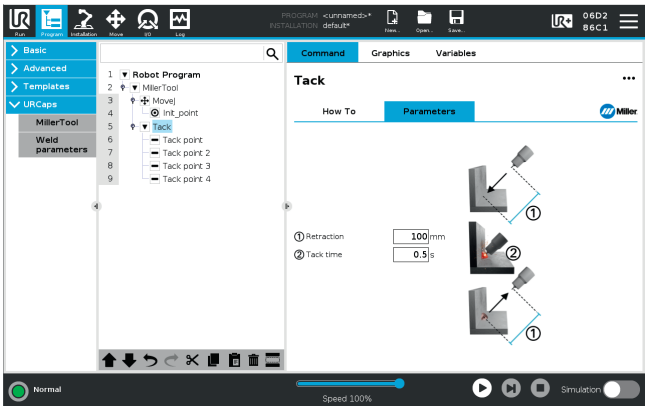
Weaving

Weaving allows to apply a dynamic side to side motion to create stronger, wider and more consistent beads. By just one click the function can be enabled and several options can be chosen depending on the application.



Tacking

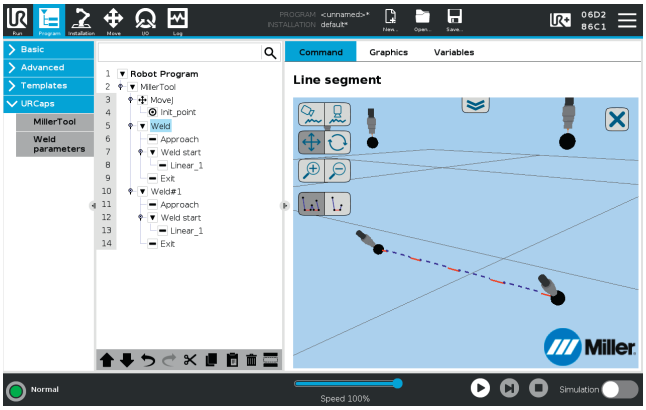
By integrating the tacking function into the software a work, that is normally done manually can be integrated completely into the work process of the cobot. This simpliefies the overall workflow and gurantess a more precise positioning for consistently high weld quality.



Features

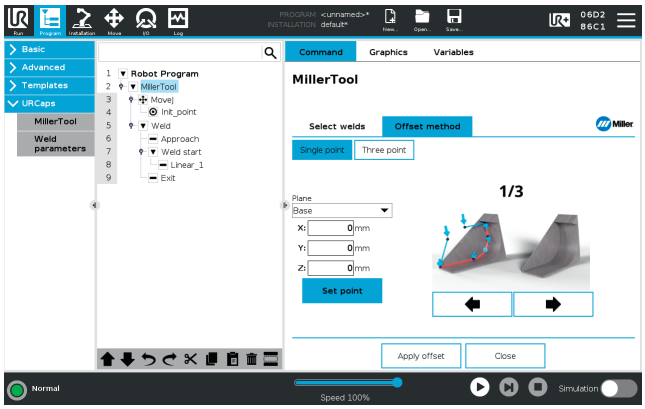
Stitching

Stitch welding, also called intermittent or skip welding, involves making a series of short, spaced-out welds along a joint instead of one continuous bead, creating a “stitched” appearance to minimize heat input, prevent metal distortion (warping), use less filler metal, and save time.



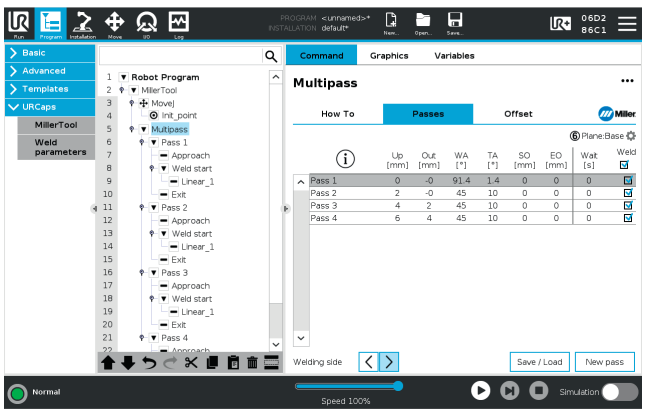
Offset

Offsetting is a software features that allow easy copying, moving, or adjusting of programmed weld paths for identical or similar parts, streamlining production by reducing setup time and manual errors, especially for tasks like multi-pass welding or working with fixtures, making cobots efficient for repeatable tasks without extensive reprogramming.



Multipass

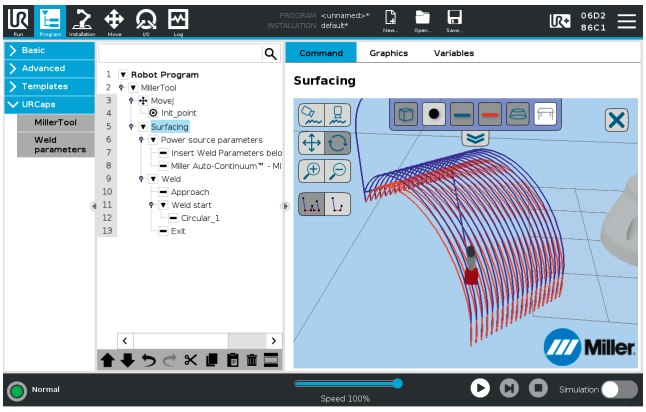
With Multipass it is easy to create complex layered welds. Only one click is needed to generate additional passes besides the base pass. Each weld can be individually adjusted in terms of angles, parameters and timing.



Features

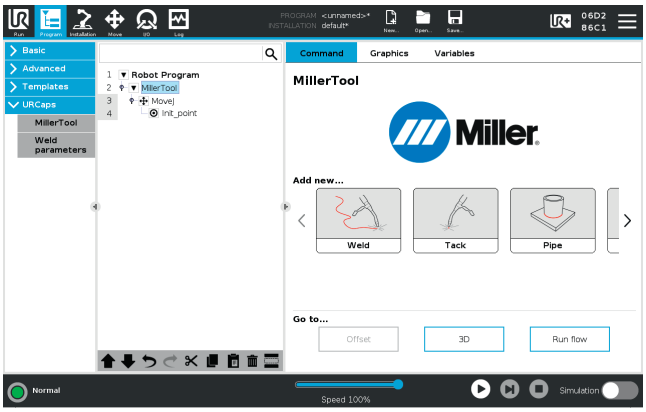
Surfacing

The Surfacing function in SmoothTool automates one of the most strenuous and repetitive welding operations: cladding and hardfacing. Whether the goal is to add a corrosion-resistant coating or restore worn components to prolong their service life, Surfacing enables you to create complex welding patterns easily and directly from the teach pendant.



MillerTool

The MillerTool is the unique Miller software solution to integrate the MigMatic MP S400iP with a Universal Robots cobot. It has been developed specifically for Miller. Well known features from the power sources have been integrated into the teach pendant. All adjustments can be made through the teach pendant.



Welding gun





Designed for high-volume production environments, Tregaskiss CA3 robotic MIG torches are engineered for precision, durability, repeatability, minimal downtime and fast and easy maaccuracyintenance. Fully configurable, TOUGH GUN® CA3 MIG guns are engineered for precision, durability, accuracy, repeatability, minimal downtime and fast and easy maintenance.

Power Source

Miller MigMatic® MP S400iP synergic Pulsed MIG/MAG System offers full flexibility. All modules are bespoken to the system and designed for trouble free, high productivity welding. Never has it been so easy and straight forward to achieve excellent welding performance. With the new automation feeder a seamless communication between the UR cobot and the power source has been established to enable an easy entry into automation.



Power Supply	Input Power	Rated Output	Wire Feed Speed
MigMatic MP S400iP	400 V 3-phase	400 A at 36V 100% duty cycle	1,5 – 20 m/min.

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

Cobot

UR12e

- IP 54
- Payload 12,5 kg
- Reach 1300 mm
- 6 rotating joints
- Power supply voltage: 12/24 V
- Power supply:
  2 A (Dual pin), 1 A (Single pin)

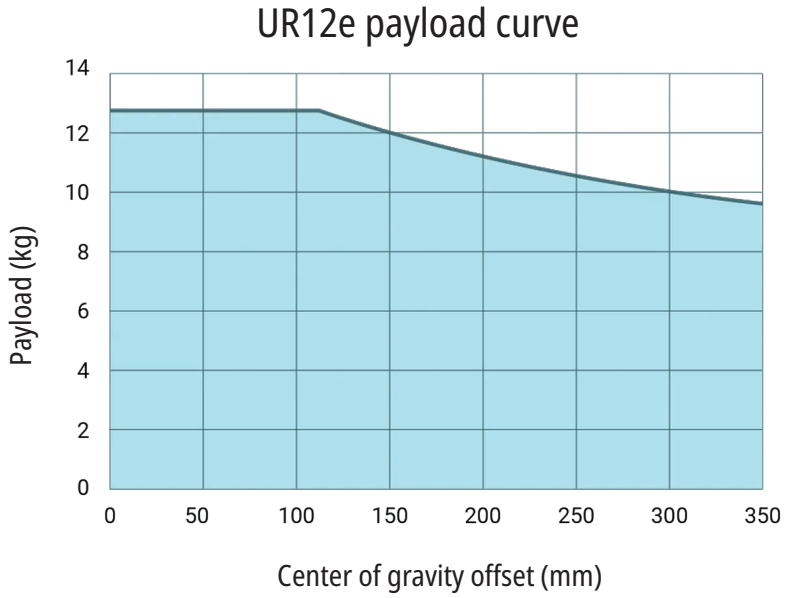


Teach Pendant

- IP54
- Size: 300 mm x 231 mm x 50 mm
- Weight 1,6 kg

Control box

- IP44
- Size: 460 mm x 449 mm x 254 mm
- Weight 12 kg
- Power Source: 100-240 VAC, 47-440 Hz



UR8Long

- IP 65
- Payload 10 kg
- Reach 1750 mm
- 6 rotating joints

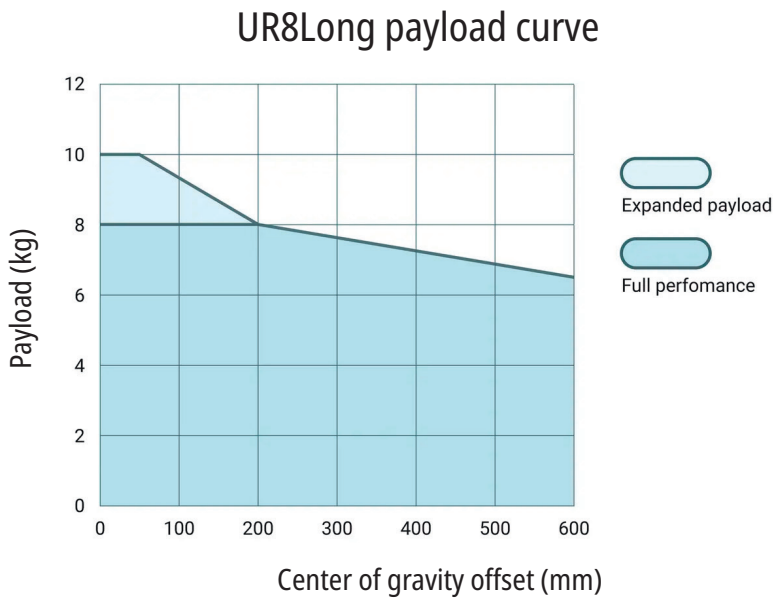


3PE Teach-Pendant

- IP 54
- Size 300 mm x 231 mm x 50 mm
- Weight 1,8 kg

Control box

- IP 44
- Size: 460 mm x 449 mm x 254 mm
- Weight 12 kg



Accessories

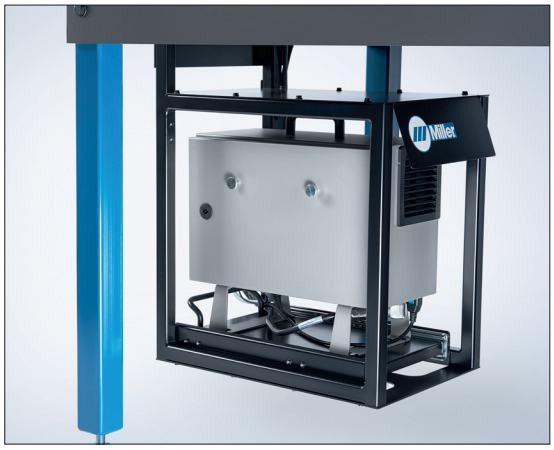
ArcControl box

The ArcControl Box is designed specifically for enhancing cobot welding setups, ensuring optimal safety, control, and efficiency. This add-on includes essential components like a Start Button to initiate welding processes and a Start Button Light to indicate readiness. The Arc Switch enables precise control of the welding arc, while the Emergency Stop (E-stop) ensures immediate shutdown during critical situations. The Arc Control Box includes a 4-meter cable for flexible placement in the workspace.



Accessory Management

This optional accessory allows the operator to attach the welding torch with the matching hose package in such a way that it does not restrict their work. The teach pendant can be attached to the system and the ControlBox can be neatly stowed away under the table using a rail-guided drawer.





Miller recommends Elga® consumables

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