

Lasting Connections

CO-BRO®
DISCOVER YOUR FULL POTENTIAL

voestalpine Böhler Welding
www.voestalpine.com/welding

VRS GROUP

voestalpine
ONE STEP AHEAD.

böhler
welding by voestalpine

WORK SMARTER. WELD FASTER.

Meet CO-BRO® – your fastest way into automated welding.

Discover collaborative robotic welding. Your welders' Bro for enhancing your team's strength and flexibility. So they can focus on what they do best. Combined with our consumables, CO-BRO® ensures perfect results for virtually any welding application.

Designed to support, not replace, CO-BRO® brings people and automation together in a new way. It transforms complex robotic welding into an intuitive, accessible solution that empowers your team from day one.



No complicated programming.

Fast setup, simple operation, and reliable, repeatable weld quality.

OUR CO-BRO® SOLUTIONS

Designed for flexibility



Whether you are producing small batches or managing fluctuating workloads, CO-BRO® adapts to your needs, giving you the flexibility to stay competitive while increasing productivity and reducing costs.



CO-BRO®

The foundation of collaborative welding. Your first step into collaborative robotic welding.

Combining advanced welding processes with an intuitive interface and flexible working environment for GTAW and GMAW.



CO-BRO® FLEX

Your plug-and-play solution for immediate productivity, combining performance, safety, and ease of use in one fully integrated system.



CO-BRO® FLEX PLUS

More space. More capacity. More axes. More possibilities.

Designed for larger components, higher workloads, and maximum flexibility in small series production.



CO-BRO® GUARD

Maximum protection with full separation.

The fully enclosed solution for highest HSE standards and controlled welding environments.

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MAXIMUM PRODUCTIVITY

Automated MIG-MAG and cold wire TIG welding

BE MORE EFFICIENT

Any of our CO-BRO® solutions support you in your daily tasks. Your welders are not replaced, but BRO makes them more efficient.

PROGRAMMING MADE EASY

No need for additional robotic welding skills – CO-BRO® can be programmed by any welder or operator.

ENJOY MAXIMUM FLEXIBILITY

CO-BRO® FLEX and CO-BRO® FLEX PLUS are accessible from all sides and allow easy positioning of bulky parts with complex shapes.

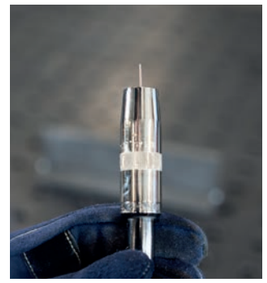
Position your workpiece and weld simultaneously thanks to the removable table divider.

The large table (CO-BRO® FLEX measuring 2 x 1 m, CO-BRO® FLEX PLUS measuring 4 x 1 m) and raised arm position provide ample space for welders.

The CO-BRO® FLEX PLUS additional axis for translation allows the robot to reach any position on the long table for efficient and productive welding.









READY TO WELD – PLUG & PLAY

Simply connect the power and supply lines such as shielding gas and optionally compressed air and your welding machine is ready for use. It can be easily moved with a conventional forklift.

HIGH CAPACITY HIGHEST PRODUCTIVITY

Suitable for large dimensions and weights of up to 1,000 kg for CO-BRO® FLEX and CO-BRO® GUARD, 2,500 kg for CO-BRO® FLEX PLUS.

EASY AND INTUITIVE USER PANEL

Wi-Fi button pad and touchscreen are extremely easy to use. Any welder or operator can manage the programming.

- Welding program settings
- Real-time display of all parameters
- Pre-installed procedures for the most common welding jobs
- Fault diagnosis

Scan and watch CO-BRO® FLEX PLUS in action

SIMPLY ADJUSTABLE, VERSATILE IN USE





1 Robotic MIG Torch for welding up to 600 A.



2 Simple programming interface



3 Integrated table divider for FLEX, FLEX PLUS and GUARD



4 Table divider, to divide the workbench in two spaces: operations and welding.



5 Wireless Control buttons:
(available for CO-BRO® FLEX, FLEX PLUS and GUARD)
Green – add points along the welding path
Red – welding on and off mode
White – active robot-free drive mode
Yellow – linear movements



6 Practical carry all drawers.



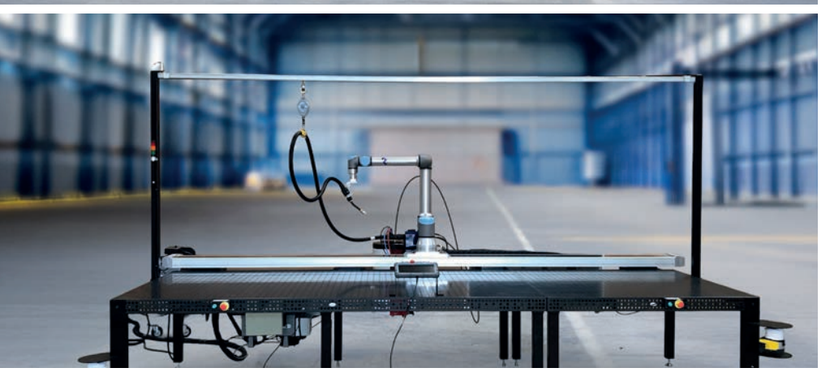
7 Simply move the robotic arm to the work piece and start teaching.

CO-BRO®

Your entry into collaborative robotic welding.

CO-BRO® is the ideal starting point to experience robot-supported welding at its best. Designed as a perfectly coordinated unit of robot arm, welding system, and intuitive operating panel, it transforms complex automation into a simple, accessible solution for everyday welding tasks. The benefit: CO-BRO® can be integrated with various welding equipment from Böhler Welding for all MIG/MAG, TIG AC/DC, and TIG Cold Wire processes and constumized to local needs. CO-BRO® supports multiple cobot arm platforms and sizes, enabling flexible integration into diverse welding automation environments.





ADDITIONAL ACCESSORIES

WeldRail

Extended reach.
Maximum precision.

WeldRail expands the robot's working range for precise welding over large components and long distances.

Available from 2,005 mm to 4,005 mm, it ensures stable, repeatable performance for complex weld tasks.

CO-BRO® Rotator

For consistent pipe and rotating component welding with movement synchronization and pre-programmed patterns.

CO-BRO® FLEX

Work smarter. Weld Faster. With More Flexibility.







Protected weld environment with peripheral enclosure: CO-BRO® FLEX is equipped with a modular peripheral enclosure that provides a protected welding environment. The easy-to-assemble safety barrier supports efficient and safe operation in demanding production environments.

360° accessibility: The workstation can be accessed from all sides, allowing easy handling of bulky or complex workpieces and maximum flexibility when integrating the system into existing workshop layouts.

Integrated table divider for more productivity: the system features an integrated table divider, creating two separate work zones. While the robot welds in one area, the operator can simultaneously prepare or load the next component in the other, reducing downtime and maximizing throughput.

CO-BRO® FLEX is a modular collaborative welding workstation designed to make automation simple, flexible, and productive.

CO-BRO® FLEX PLUS

More space. More flexibility. Higher performance.

CO-BRO® FLEX PLUS is a modular collaborative robotic welding solution designed for MIG-MAG and cold-wire TIG welding in one fully integrated system. It consists of 2 CO-BRO® FLEX stations with an additional robotic rail system, combining a high-precision collaborative robot with the URANOS NX power source and an intuitive software platform.

CO-BRO® FLEX PLUS offers extended workspace designed for larger components and multi-part welding, high load capacity, and maximum accessibility. The flexible layout, including an integrated table divider, allows simultaneous positioning and welding, significantly increasing productivity and efficiency.



CO-BRO® GUARD

Maximum safety protection. Advanced performance.

CO-BRO® GUARD is a fully enclosed collaborative robotic welding cell, combining high welding performance with maximum HSE protection. The integrated system of robot, URANOS NX power source, and intuitive interface enables easy programming, consistent quality, and reliable operation.

The GUARD enclosure ensures complete separation of the welding process, while maintaining full accessibility and flexibility. Plug-and-play installation, integrated fume extraction, and forklift mobility make it a safe and efficient solution for modern production environments.



Your advantages

- Maximum HSE protection: fully enclosed GUARD design ensures safe separation of the welding process from the workshop environment.
- Mobility and adaptability: movable system design allows easy relocation with a standard forklift.
- Advanced fume extraction: ready for external low-vacuum systems or equipped with optional integrated high-vacuum extraction.

MORE REACH, HIGHER PAYLOAD

Take your welding operations to the next level with CO-BRO®, featuring the advanced UR12e Cobot.

CO-BRO® WITH UR12e COBOT OFFERS:

- Extended reach: cover more area and tackle larger projects.
- Higher payload: lift heavier components for improved efficiency.
- Precision: achieve precise, even welds with a repeatability of ±0.05 mm.
- Versatility: ideal for diverse welding tasks in different industries.
- Increase your welding productivity with the UR12e – more flexibility, less downtime.



Reach
1,300 mm / 51.2 in

Footprint
Ø 190 mm

Payload
12.5 kg / 27.55 lbs

Weight
33.5 kg / 73.9 lbs

WIRELESS CONTROL BUTTONS

With CO-BRO® FLEX, FLEX PLUS and GUARD, you may detach the teaching controls and operate from any position, no matter where you are.







OPERATE FROM ANY POSITION NO MATTER WHERE YOU ARE.

- The YELLOW button controls linear movements towards and away from the workpiece. The last position before the welding arc is ignited is set as the starting point for the weld. Press and hold the WHITE button to activate the robot's free-drive mode.
- The RED button is used to ignite and extinguish the welding arc, automatically switching between ON and OFF modes.
- The GREEN button is used to add points along the welding path. It only works in the "MIG MAG Welding machine: on" node and is disabled after the "MIG MAG welding machine: off" node.

Scan and watch
CO-BRO® FLEX with
TIG Cold Wire

COMPREHENSIVE SOFTWARE

For MIG/MAG and TIG

- Comprehensive software with a wide range of synergic welding programs, whether you're welding unalloyed, stainless streels, high-strength steels or aluminum. Fully integrated Böhler Arc library.
- The Böhler Welding Wire Feeder ensures smooth wire feeding, perfect for robotic applications and high-speed welding.
- Key MIG/MAG functions include welding speed, arc dynamics, crater filler, spot welding, and MIG Bi-level for enhanced control and quality.
- Exclusive MIG/MAG welding processes from Böhler Welding for the maximum welding quality and efficiency: ArcDrive, RapiDeep, PulseDrive, QuickPulse, CladPulse.
- Highest precision Cold Wire TIG welding with our CO-BRO® solutions: combining Cold Wire TIG welding with collaborative welding brings together the exceptional weld quality of the TIG process with the flexibility and ease of automation. Benefit from superior weld quality, higher productivity, reduced heat input and increased repeatability.

YOUR ADVANTAGES

- High-performance welding for demanding, heavy-duty cycles.
- Hassle-free setup with pre-installed synergic lines tailored for various filler materials, eliminating the need for complex parameter adjustments.





PROTECT YOUR TEAM FROM WELDING FUMES

READY EQUIPPED – EQUIPMENT FOR HIGH DUTY CYCLES

The CO-BRO® FLEX, GUARD, and PLUS are equipped with a Böhler Welding URANOS NX 5000 GSM (in case of AC/DC welding, the Uranos NX 5000 AC/DC) power source supporting several welding processes, including MIG/MAG, Pulsed MIG/MAG, TIG AC and TIG DC.

In combination with the WFR NX 1000 wire feeder or WFR NX 2000 CW feeder for TIG Cold Wire, this configuration offers unrivaled precision and performance.





UPGRADE YOUR CO-BRO® FLEX WITH A HIGH VACUUM FUME EXTRACTION TORCH AND UNIT

Ensure the Highest Health & Safety Standards for your Team

- Protect your team with a high vacuum fume extraction torch and unit.
- The torch connects to a compact welding fume extraction system that efficiently captures and filters welding fumes, providing over 99% filtration efficiency.
- The contaminated air is purified in a single-stage filtration process and can be safely redirected outside using an optional hose or duct system if desired.

DELIVERING THE PERFECT WELD SEAM

The Böhler ARC concept, proprietary high-productivity welding processes and the premium Böhler welding consumables complete the picture bringing the Böhler Welding technical expertise to your workshop.



BÖHLER ARC

Böhler ARC is a library of synergic lines based on the Böhler Welding wires (solid and FCW). The operator simply selects the appropriate synergic line when programming and everything is all set. The welding process is immediately perfect, guaranteeing repeatability and consistent quality.

RAPIDEEP

Increase your welding speed by up to 50% with RAPIDEEP. This innovative short and spray-arc MIG/MAG process features a unique wave shape to improve penetration, maximize productivity and significantly increase welding speed.

QUICKPULSE

Experience up to 50% faster welding speeds with our advanced pulsed MIG/MAG process. Designed with a special wave shape, this innovative process improves penetration, maximizes productivity and outperforms standard pulsed MIG/MAG processes.

CLADPULSE

Pulsed MIG/MAG process specifically for industrial cladding that ensures high-deposition rate welding arc, minimal penetration and an extremely low percentage of dilution.

FASTPULSE

- TIG process with high frequency pulsation from 20 to 2500 Hz
- Maximum arc focusing, welding speed increases: +65% to 90%
- The high stability arc produces a tight and regular weld bead
- Thermal strain is reduced to the minimum

DCPULSE

- Digitally controlled arc TIG process
- Arc pulse from a high and a low level
- The welding arc is “focused” by reducing the effect of “voltage loss”
- The enhanced arc control produces an excellent weld bead
- Reduction of thermal strain

EASYARC

- TIG process with high frequency pulsation from 20 to 2500 Hz
- Maximum arc focusing, welding speed increases: +65% to 90%
- The high stability arc produces a tight and regular weld bead
- Thermal strain is reduced to the minimum



Curious about our process performance? Join us on youtube

EXPERIENCE THE EXCELLENCE SERVICE & ADD-ONS

Our Technical Service Team is always ready to assist you and your team with any challenges you may face. Whether it's special welding training, support with the CO-BRO® or optimizing processes to enhance productivity – we are your dedicated partner every step of the way.

CUSTOMIZED TRAINING

» Installation and repair.

» Support for set up and programming.

» Tailored efficiency improvements in the welding process to meet your growing demands.

DIGITIZE YOUR WELDING PROCESS

Elevate your welding process to the next level with weldNet® Process Manager – enhancing efficiency and precision like never before.

» Connect the process manager to your welding equipment and gain real-time oversight and progress tracking of live welding activities, along with task management, remote adjustments, and monitoring.

» Enjoy automated maintenance reminders, task prioritization.

» Benefit from comprehensive cost controlling for full transparency across your workflow including personnel, materials and energy.

» Enjoy full control of your data without the need to depend on a cloud system.

HARDWARE & SOFTWARE

CO-BRO® is a complete program where you will find all the components, hardware and software you need: control programs, control devices with start and stop buttons, torches for MIG and TIG welding, torch support, safety galvanic isolations, robot interfaces and much more. All included.

A SAFE, CERTIFIED SYSTEM

The CO-BRO® is CE certified. Moreover, connecting the CO-BRO® weldNet® Process Manager establishes an advanced welding system with digitized welding processes

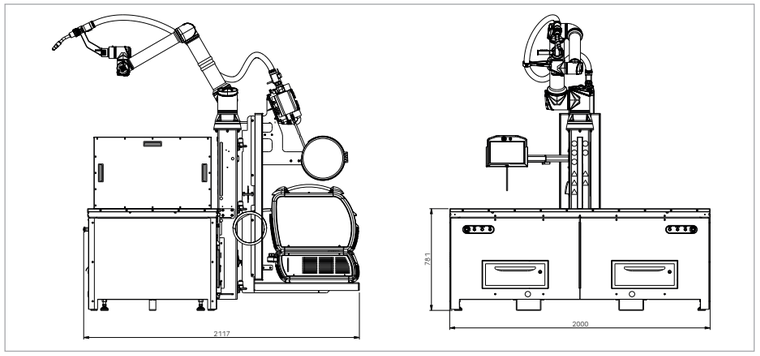
Reach out to us for assistance

weldTECH
Application Services |
voestalpine Böhler
Welding

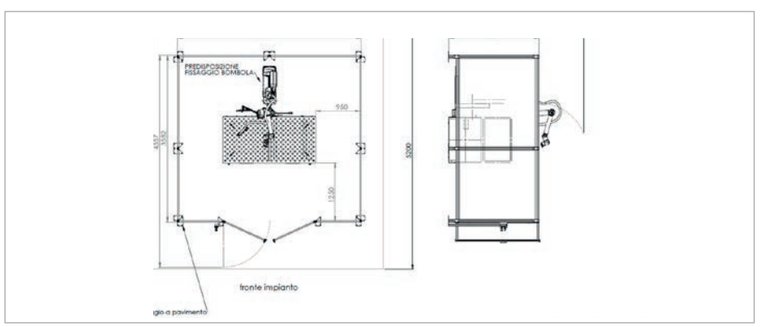


TECHNICAL DATA

Technical Data CO-BRO® Flex	
Working area LxWxH [mm]	2,000 x 1,000 x 1,200 or 2 x 1,000 x 1,200 (with divider)
Maximum permitted weight [kg]	1,000
Welding equipment	URANOS NX 5000 GME
Collaborative Robot	Universal Robot UR12e 6-axis collaborative robot, accuracy +/- 0.1 mm, with usable load in accordance with ISO 9283 (1,300 mm arm)
Fume extraction systems	Integrated high vacuum (torch extraction) system (optional) ready for low vacuum (external suction)
Electrical utilities	230V AC-50 Hz-1,000 W-collaborative robot 230 V AC 50 Hz-200 W-controls 3 x 400/230 V ±15% 50 Hz 23.6/24.5 kVA welding system
Other utilities	Provision for compressed air Additional screen for weldNet® management system
Dimension [mm]	As per diagram
Weight [kg]	1,000

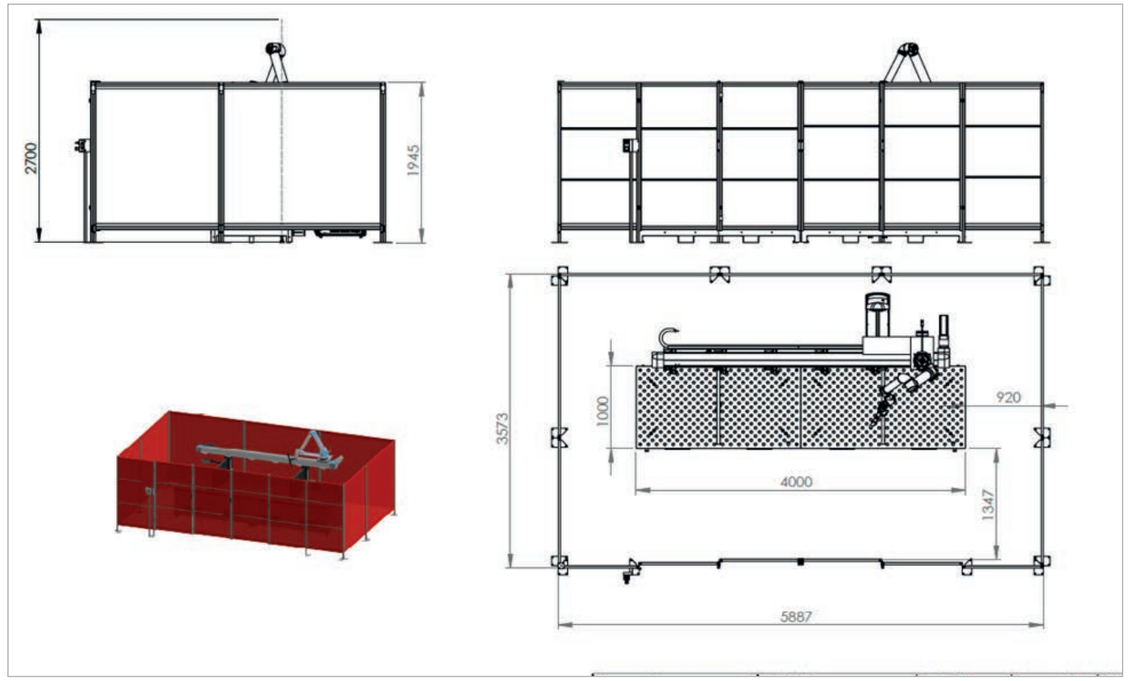


Overall dimension of CO-BRO® FLEX workbench



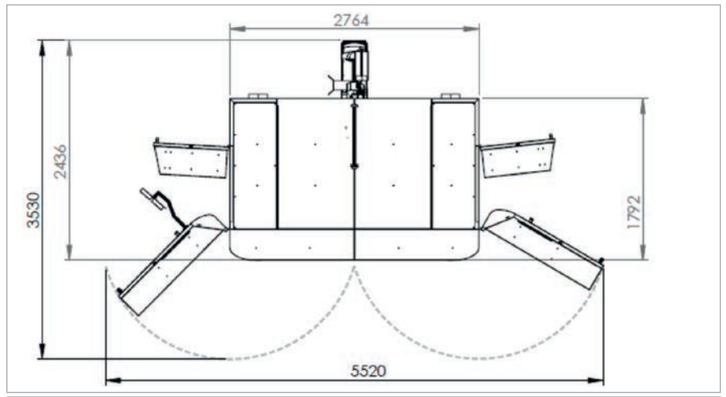
Overall dimension of CO-BRO® FLEX including peripheral protection

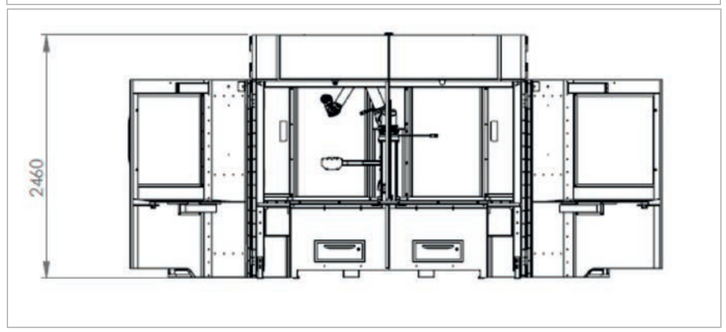
Technical Data CO-BRO® Flex Plus	
Working area LxWxH [mm]	4,000 x 1,000 x 1,200 (LxWxH) or 2 x 2,000 x 1,000 x 1,000 or 1.000 x 1.000 x 1.200 + 3,000 x 1,000 x 1,200 (with table divider)
Maximum permitted weight [kg]	2,500
Welding equipment	URANOS NX 5000 GSM
Collaborative Robot	Universal Robot UR12e 6-axis collaborative robot, accuracy +/-0.1 mm, with usable load in acc. with ISO 9283 (1,300 mm arm)
Fume extraction systems	Integrated high vacuum (torch extraction) system (optional), ready for low vacuum (external suction)
Electrical utilities	230V AC - 50Hz - 1.000W - collaborative robot 230V AC - 50Hz - 200W - controls 3x400/230V±15% Hz 23.6/24.5 kVA Welding System
Other utilities	Provision for compressed air Additional screen for weldNet® management system
Dimension [mm]	As per diagram
Weight [kg]	1,500



TECHNICAL DATA

Technical Data CO-BRO® Guard	
Working area LxWxH [mm]	2,000 x 1,000 x 1,400 or 2 x 2 x 1,000 x 1,000 x 1,400 (with table divider)
Maximum permitted weight [kg]	2,000
Welding equipment	Uranos NX 5000 GSM
Collaborative Robot	Universal Robot UR10e
Fume extraction systems	High-vacuum (extracting torch) system integrated (optional) Low-vacuum ready
Electrical utilities	220V AC – 50 Hz - 1000W – collaborative robot 220V AC 50Hz – 200W – controls 3x400/230V±15% 50Hz 23.6/24.5 kVA welding EQ
Other utilities	Provision for compressed air Additional screen for weldNet® management system
Dimension LxWxH (mm) closed	2,764 x 1,792 (2,436) x 2,460
Dimension LxWxH (mm) open	5,520 x 3,530 x 2,460







LASTING CONNECTIONS

Productivity boost for your Perfect Weld Seam

Perfect alignment of welding machines, consumables and technologies combined with our renowned application and process know-how provide the best result for your requirements:
A true and proven connection between people, products and technologies.

The result is what we promise:
The Perfect Weld Seam for
Lasting Connections.

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