
COBOT WELDING

SUPPORT FOR YOUR DAY-TO-DAY WELDING



XQ

MIG/MAG



COLLABORATIVE WELDING TECHNOLOGY WITH COBOTS.

AN INTELLIGENT PARTNERSHIP FOR A PRODUCTIVE FUTURE – EWM, YOU AND YOUR COBOT.

The future of welding technology is here – and it's full of exciting opportunities. You're part of an exciting development which focuses on collaborative work with cobots and offers you strong support in your day-to-day welding tasks. The current shortage of skilled workers presents a challenge to us all. Instead of replacing you, though, cobots make your work more interesting by relieving you of mindless, repetitive tasks. This enables you to concentrate on creative and more demanding aspects of your welding job and further develop your skills.

WHAT ARE THE ADVANTAGES OF WORKING WITH COBOTS, THOUGH?

Greater efficiency

An increase in precision and a decrease in the error rate result in a reduction in waste and an increase in productivity.

Consistent quality

The cobot ensures consistent, precise and high-quality welding results.

Occupational safety

Cobots have been designed to be able to work closely with you without impairing your safety.

Shorter lead times

The quick and accurate working method used shortens production times and results in shorter delivery times for your customers.

Flexibility

Cobots can easily be adapted to different welding requirements and workpieces, which makes your production more agile and versatile.

Cost savings

Over the long term, use of cobots results in considerable cost savings through increased efficiency, shortened production times and reduced error rates.

Training and operation

User-friendly operation and minimal training time.

The transition to collaborative welding technology with cobots is the key to a successful future in the production industry. You'll find a custom application solution paired with our welding machines and comprehensive accessories. Let our experts advise you about how to optimally integrate a welding machine with a cobot into your existing workflows. Together, we can make your production more efficient, reliable and interesting. Anyone who has to handle recurring welding tasks will benefit from EWM automation solutions with cobots. When automated, joining processes are completed much more quickly while maintaining the same quality standard.

That is precisely what we aim to do: increase your productivity, and therefore your competitiveness.

OUR HOLISTIC SYSTEM.

TOP QUALITY, READY AT A MOMENT'S NOTICE.



+ Cobot integration

Learn about the benefits of integrating our cobots. From the always-ready cobot welding system to flexible versions which allow you to switch between manual and cobot-supported welding. Both systems make your day-to-day work easier with the respective advantages they offer.

+ AnyRobInt XQ

Utilise your resources effectively, and therefore sustainably. With the AnyRobInt XQ, you can connect your existing MIG/MAG XQ welding machine to your new cobot. Use perfectly matched robot technology in the process. As a 2DV system, you can use both systems for maximum flexibility.

+ Welding torches

The gas and water cooled MIG/MAG welding torches are part of our integrated system. They're perfectly matched with the other components from EWM's portfolio and offer you a host of advantages thanks to their long service life, innovative design and conservation of resources. Replaceable neck torch systems enable you to adapt your equipment for any task.

+ SmoothTool

Plug and play with SmoothTool. With this straightforward and fully equipped CAP solution, any welder can have a cobot carry out a wide variety of welding tasks with extreme ease. Operating the user-friendly UI requires next to no programming knowledge and helps you achieve flawless results every time.

+ ewm Xnet

On the path to digitalisation, ewm Xnet supports welding companies of every size and orientation. Our innovative welding management system helps you to achieve measurable added value across the entire value creation chain. One piece of software includes everything you need to maintain a continual, transparent overview of your planning, processes and quality management.

100% COBOT WELDING.

PHOENIX 355 ROB



RC XQ
Expert 2.0 Rob

+

Phoenix
355 Rob

+

RMT cobot
welding torch

THE BENEFITS FOR YOU +

- more economical thanks to the affordable all-in-one package
- EWM PP welding torch system support ensures reliable wire feeding, especially when welding aluminium
- with EWM allin, all welding processes and characteristics are available ex works
- flexible selection of the cobot thanks to a variety of interface versions

SOLUTIONS FOR MIG/MAG AND TIG SYSTEMS.

ALWAYS READY FOR USE WITH COBOT ON DEMAND.



AnyRobInt
XQ set

+

M Drive 4 Rob 5
wire feeder

+

RMT
welding torch with
replaceable neck

+

MIG/MAG XQ
welding machine

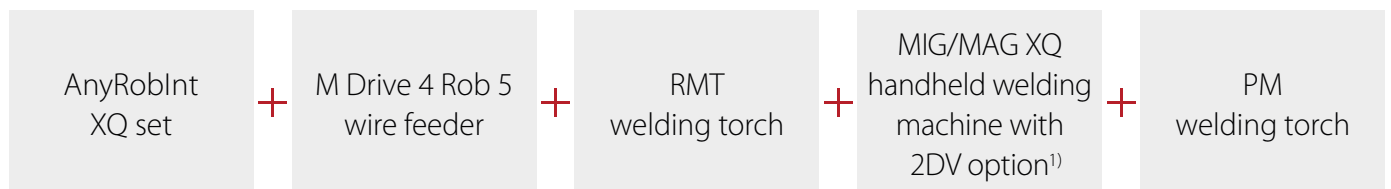
THE BENEFITS FOR YOU +

- reduce investment costs considerably using the existing MIG/MAG XQ welding machine
- easy switching between cobot welding and hand welding
- use welding programs already in the welding machine for cobot welding as well, thereby reducing programming time
- flexible selection of the cobot thanks to a variety of interface versions

FLEXIBILITY WITH COBOT DUAL WELDING.



¹⁾ On the device side, option OW 2 DV 092-003313-00000 is required ex works or the welding machine can be converted later using conversion set OU 2DV 092-003497-00000.



THE BENEFITS FOR YOU +

- Investment costs are much lower if the existing MIG/MAG welding machine can be used
- easy switching between cobot welding and hand welding at the push of a button
- the welding programs already in the welding machine can also be used for cobot welding, making programming unnecessary and saving a significant amount of time
- flexible selection of the cobot thanks to a variety of interface versions

THE PHOENIX 355 ROB.

PERFECT FOR 100% COBOT WELDING.

The compact multiprocess pulse welding machine with integrated wire feeder is flexible in use. Available as a gas-cooled version or, with an optional cooling unit, water-cooled. Available as the RC version without a control with a separate RCX operating panel or with a built-in Expert 2.0 control. Easy, deep integration into the cobot control is possible thanks to our interface versions. We offer the perfect components, fully customised for your automated welding tasks.

Phoenix 355 puls Rob/
Phoenix 355 Expert 2.0 puls
gas/water cooled



RCX Expert 2.0 Rob
(optional)



AMT automated welding torches
gas/water cooled

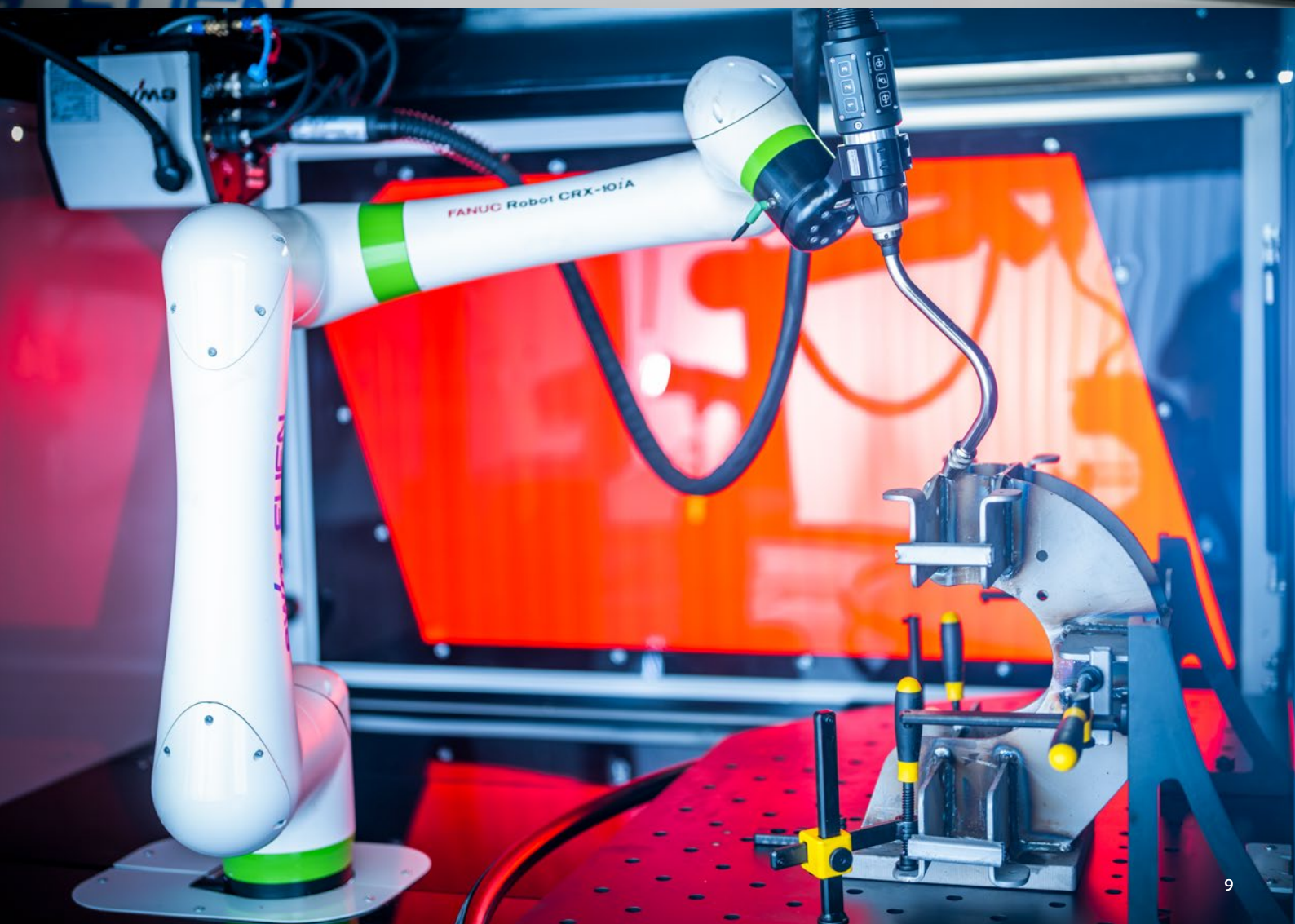
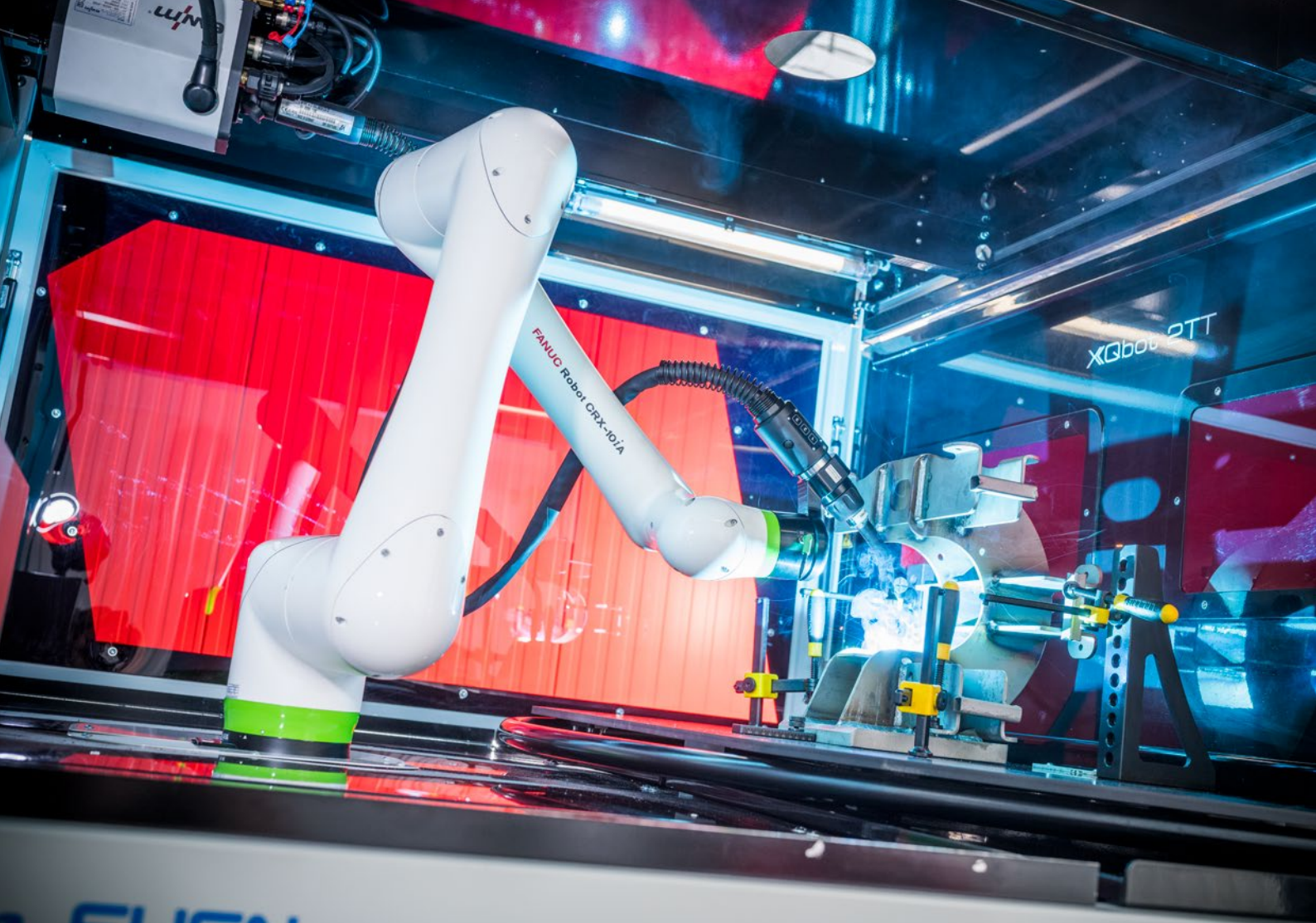


RMT robot welding torch
gas/water cooled



MTR PP robot welding torch
with push/pull drive,
water cooled





ANYROBINT XQ.

COBOT-READY – GET YOUR HANDHELD WELDING MACHINE.

- compact interface for the subsequent integration of manual MIG/MAG XQ welding machines in applications with cobots
- easily adaptable and easy to retrofit
- voltage supply via power source
- integrated software emergency stop
- ready for operation with a power source with two wire feeders as standard
- enables the use of a wire feeder for robots (M Drive 4 Rob 5) with manual power sources, including all functions for robot welding torches
- integrated interface for connection to digital fieldbus systems (fieldbus type is selectable)
- available as a set, including the RCX XQ Expert 2.0 Rob operating panel

COMPATIBILITY

- the AnyRobInt XQ is compatible with all modular, demodular, compact and decompact MIG/MAG XQ welding machines
- only one robot wire feeder (M Drive 4 Rob 5) can be used
- an additional manual wire feeder can be used with demodular, decompact and compact XQ welding machines
- the wire feeder is already integrated into compact welding machines – the welding machines must be prepared for the connection of an external wire feeder ex works
- decompact XQ welding machines are prepared for two wire feeders ex works or retrofitted with a conversion set later on



As the perfect compliment to your existing MIG/MAG XQ welding machine, the AnyRobInt XQ interface is available as a practical set. A 14-pole connection cable and separate RC XQ Expert 2.0 Rob operating panel are included.

Various versions with and without digital gas control (DGC) as well as various interfaces are available:



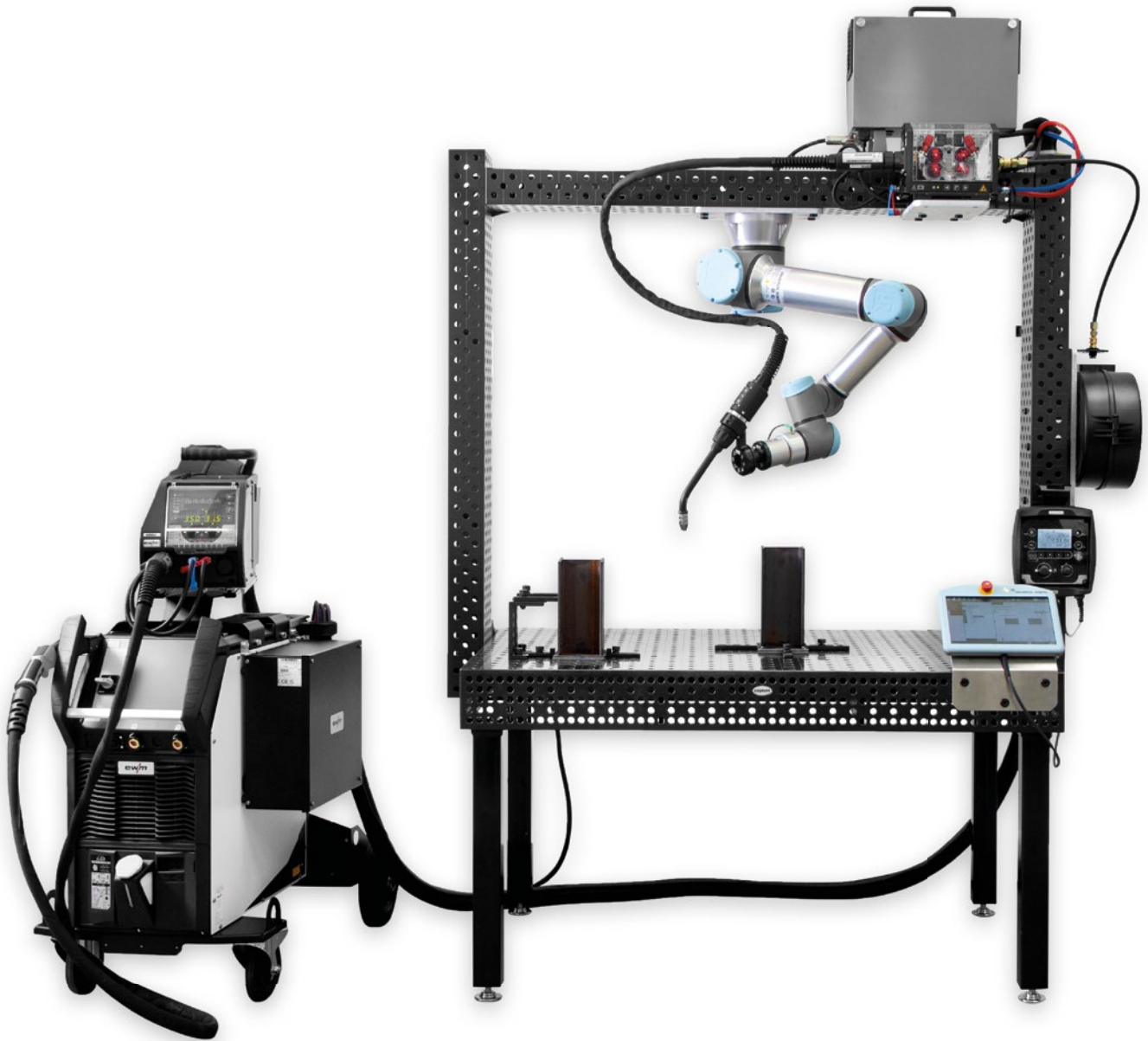
Adapter box



Connection cable



Operating panel



SET-UP WITH THE ANYROBINT XQ.

A HOST OF OPTIONS ARE AVAILABLE.

Is cobot welding possible with a manual welding machine? Our answer is a resounding yes! With our AnyRobInt XQ interface for automated welding, it's smooth sailing. If you already have a manual MIG/MAG welding machine from our XQ series, you can easily combine it with a new cobot. The user-friendly, innovative user interface, which eliminates the need for complex programming, supports you in this. What's special about this is that you can continue using your welding machine for manual welding. Attach the AnyRobInt XQ to your welding machine, plug in the cable and you're ready to go.



Modular XQ welding machines



Mounting set for modular welding machines

Titan XQ
Phoenix XQ
Taurus XQ



Demodular, compact XQ welding machines



Demodular XQ welding machines



Example:
Compatibility with all cobots

COBOT WELDING TORCHES.

AUTOMATICALLY POWERFUL.

Our RMT hose packages, which are equipped with three freely assignable function push-buttons and were specially designed for cobots, offer a host of advantages. Our innovative automated welding torches also ensure perfect welding results thanks to their long service life and optimal cooling. We offer matching components which are tailored to your automated welding tasks.



RMT robot welding torch
gas/water cooled



AMT automated welding torches
gas/water cooled



RMT W C or RMT W CT hose package

RMT CRX torch holder
(depending on the cobot)

- UNIVERSAL ROBOTS UR 5e, 10e, 16e
- FANUC CRX 10iA
- Yaskawa HC10
- Doosan M series
- Hanwha HCR 5, 10

Cobot hose package
with push-buttons for

- wire inching
- wire return
- gas test



Teach cobot hose package
with push-buttons for

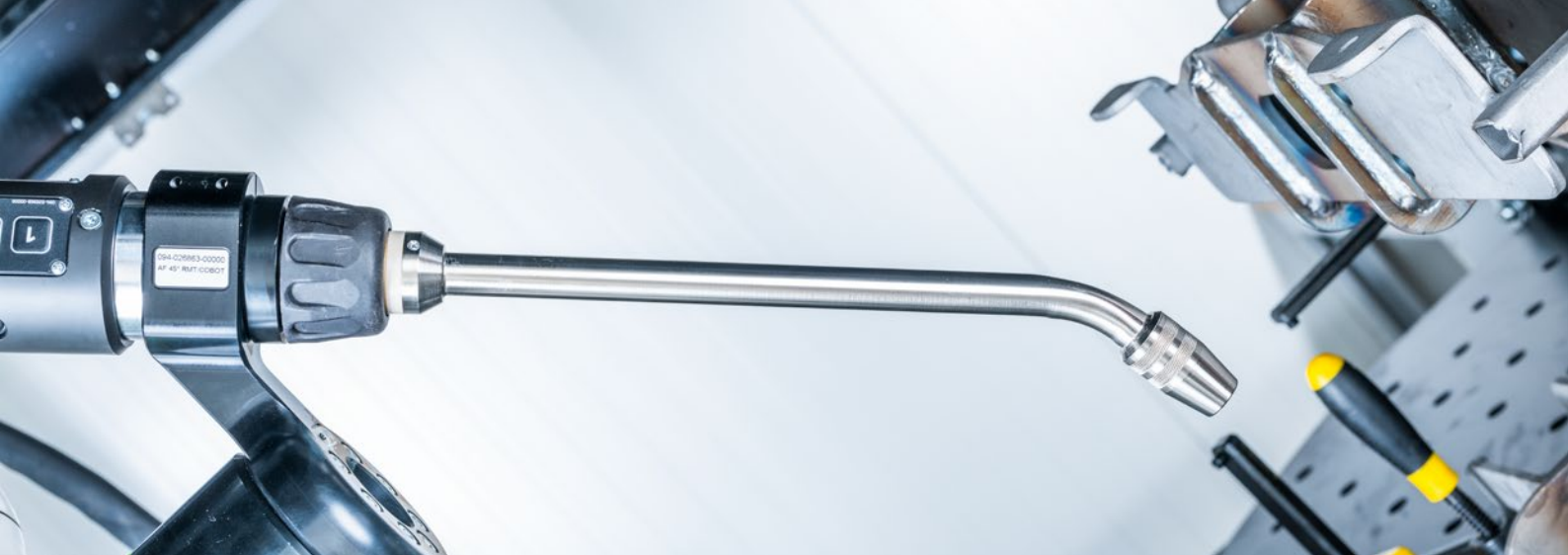
- wire inching
- wire return
- gas test

and three freely assignable
function push-buttons for direct
connection to the cobot, e.g. for

- robot programming
- teach mode
- tack function/welding start



Torch neck type RMT 551 W
0°, 22.5°, 35°, 45°, long neck,
swan neck



EWM SMOOTHTOOL.

MAXIMUM INTEGRATION WITH UR COBOTS.



This is how easy cobot welding can be. SmoothTool is a straightforward and fully equipped CAP solution with which any welder can have a wide variety of different welding tasks carried out by the cobot. Perfectly geared towards EWM and our welding technology, the XQ welding machine can easily be connected to the UR cobot via the SmoothTool flange. That's it – then you're ready to go! SmoothTool helps your welding robot achieve perfect results by learning from you.

User interface

Thanks to the user-friendly operating panel, no programming experience is required.

Stitch welding

You can control your stitch welding process with various parameters.

Teaching flange

This shows the robot precisely what to do, so you can sit back and watch.

3D view

A three-dimensional visualisation of the weld seams and welding programs provides a comprehensive view.

Offset welding

Offset possible in three dimensions and with the desired rotation.

Welding angle

Just determine the desired welding angle, and the robot will take care of the rest.

Multi-layer welding

The cobot can also be used to produce weld seams consisting of multiple layers.

Weaving and oscillation patterns

A variety of different welding patterns are available for welding linear and circular weld seams.



Countless possibilities with just a few components. The SmoothTool package consists of just a teaching flange for connection to the cobot, the software and a licence dongle.



Laborious, complex and time-consuming programming by specialists is a thing of the past. With SmoothTool, any welder can quickly and easily create welding tasks and have the cobot carry them out. The results are flawless – every time. This leaves you time for more important and demanding challenges. Set the welding parameters at your XQ welding machine and show the robot how the welding task should be carried out in Freedrive mode (freehand mode). With SmoothTool from Smooth Robotics, any welder can perform cobot welding automatically.

THE BENEFITS FOR YOU +

- optimal integration of your EWM XQ power source into the UR control
- compatible with the UR series (E-series and CB-series)
- flexible solutions
- integration of a power source
- retrofitting of handheld welding machines
- offline operation
- pricing model for software (monthly subscription and lifetime licences available)
- multiple passes
- 3D visualisation
- expanded angle system
- weaving



XQ

TIG

TIG COBOT.

THE TETRIS 300 PULS ROB.

The compact inverter welding machine with Comfort 2.0 front control is flexible in use. Available as a gas-cooled version or, with an optional cooling unit, water-cooled. Whether it's the DC or AC/DC version, with or without the option to connect filler wire, our interface versions enable straightforward, deep integration into the cobot control. In addition to simple solutions with automated and robot welding torches, our robot welding torches can also be used with an additional drive unit. We offer matching components tailored to your automated welding tasks.

Tetrix 300 puls Rob
DC or AC/DC,
gas/water cooled



TIG-MT automated welding torches
gas/water cooled



TIG Rob robot welding torch,
water cooled



MANUAL COBOT RETROFIT.

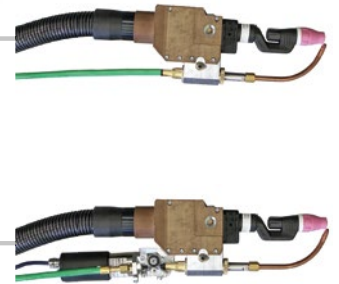
Tetrix 300 puls CW Rob
DC or AC/DC,
water cooled



T drive



Robot welding torch
TIG ROB CW/CW PP,
water cooled





DIGITISATION IN WELDING BUSINESSES WITH EWM Xnet

Making Industry 4.0 a reality is easy with the innovative ewm Xnet welding management system – no matter your company's size or focus. The advantages are plain to see: improved networking of products and people improves efficiency and quality while reducing costs and saving resources. By choosing ewm Xnet, you're adding measurable value throughout your welding company's entire value chain. Thanks to intelligent monitoring and transparency in planning, production, quality management, welding coordination personnel, final costing and administration processes, you can always keep track of everything.



RAISE QUALITY

- Documentation of the welding parameters and the welders of every seam provides long-term, traceable welding quality
- WPS connection to the component, real-time parameter monitoring directly at the welding machine and clear assignment of required welder qualifications all help to avoid errors
- precise specifications from EWM component management and the WPQR manager ensure that the correct parameters are always set



REDUCE COSTS

- consumption values for power, shielding gas, welding consumables and welding time are recorded to recognise potential savings
- minimal downtimes thanks to timely maintenance instructions
- transparent processes ensure constructive controlling with the option of precise final costing



INCREASE PRODUCTIVITY

- longer arc times per layer improve efficiency
- paperless transfer of all relevant data and WPS directly to the workplace reduces unproductive time
- preset welding parameters reduce the number of error corrections
- timely, consumption-oriented maintenance notices, e.g. for consumables, result in fewer unnecessary downtimes

EWM XNET COMPONENT MANAGEMENT.

The modular design of the Welding 4.0 ewm Xnet welding management system can be adapted to meet the special requirements of individual production processes. The three interrelated ewm Xnet modules meet any individual requirements depending on the type and size of the company. The update capability typical of EWM products is also integrated: Additional modules can be retrofitted easily at any time.



STEP 1 +

Work preparation in ewm Xnet

- create the component to be produced in ewm Xnet during work preparation on PC in the office
- create drawing file or import from CAD
- Determine weld seam sequence plan
- Assign WPS
- print barcode, add to the work order or attach directly to the component as a sticker
- send the component data via LAN/WiFi to the gateway connected to the welding machine

STEP 2 +

Scan the barcode on the component

- Welder scans the barcode on the component using a barcode scanner
- the component data is loaded on the control:
 - Job no.
 - Component no.
 - Component group
 - Serial number
 - Lot no.
 - Welding sequence plan (e.g. seam 1, run 1, seam 1, run 2, etc.)
 - WPS (welding data for each run/seam)

STEP 3 +

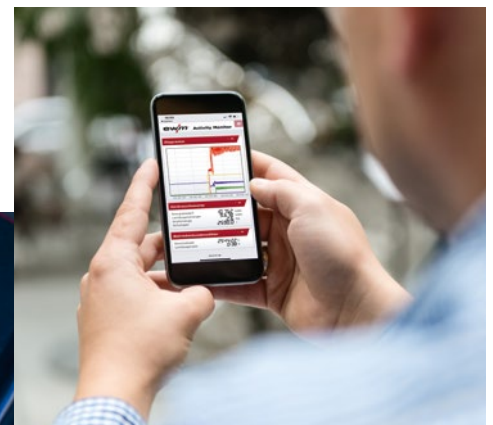
Xbutton

- Welder identifies themselves for welding approval using the Xbutton on the welding machine

STEP 4 +

Use the barcode scanner to scan the parameters of the runs and seams in line with the weld sequence plan

- Welder starts working in line with the welding sequence plan
- all welding parameters are set automatically according to the WPS for every individual run/seam by the machine
- scanning the next run/seam confirms the completion of the current run/seam
- Activity Monitor can be viewed on the go via your smartphone or tablet





WE ARE WELDING

We're happy to help: sales@ewm-group.com

EWM is your partner for the best welding technology. With EWM, you'll weld more efficiently, more reliably and produce higher-quality results. EWM's innovative systems, high-performance welding procedures, digital technologies and services, as well as expert consultation, all support you in achieving perfect results from your welding tasks.



EWM GmbH

Dr. Günter-Henle-Straße 8
56271 Mündersbach
Germany

Tel: +49 2680 181 0
Fax: +49 2680 181 244
E-Mail: info@ewm-group.com



www.ewm-group.com/en/

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