

RBCobot

The most user-friendly welding robot on the market





About RBCobots

RBCobot - The most user friendly welding cobot on the market

RBCobot is an automatic welding solution, which is delivered assembled and ready to use out-of-the-box. The RBCobot will optimize the production and automate the welding production both technically and economically.

RBCobot is based on the UR10e collaborative robot arm from Universal Robots. Universal Robots launched their E-series in 2018, which is an upgraded version of the CB-series, which has been a success since 2008.

With RBCobots you'll get high and uniform quality of welds every time.

Meet your new welding coworker

An RBCobot is a collaborative robot, that works with humans at a common workplace. The RBCobot is both flexible and easy to program, and that makes it one of the smallest and smartest welding robots on the market.

With the RBCobot it's easy to change and increase the production of both small and large welding items, while still ensuring uniform welds and visual quality.



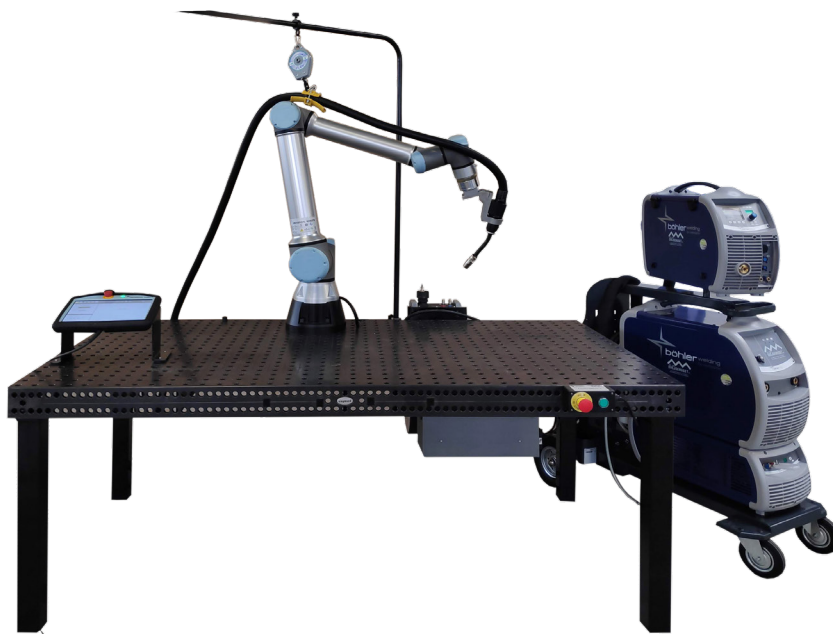
Flexibility

An RBCobot makes it easy to optimize welding processes. An RBCobot makes it easy to optimize your welding setup. The robot allows you to increase your effective arc time, while simultaneously freeing your workers for other tasks. A manual welder has an active arc approximately 15% of the time, whereas RBCobots can average up to 80% of active arc time. Due to this fact, you'll save both time and costs with an RBCobot.

The many axes in the robot arm quickly changes between positions and that ultimately makes the robot complete welding tasks much faster, with an accuracy repeatability of ± 0.05 mm.

Configurations

MIG / MAG - Water cooled



Power Supplies:

MIG / MAG: Böhler water cooled 320A

MIG / MAG: Böhler water cooled 400A

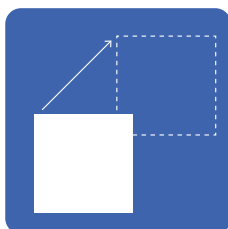
MIG / MAG: Böhler water cooled 500A

Welding features

Loop



Offset



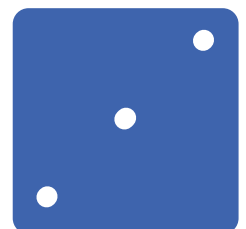
Stitch



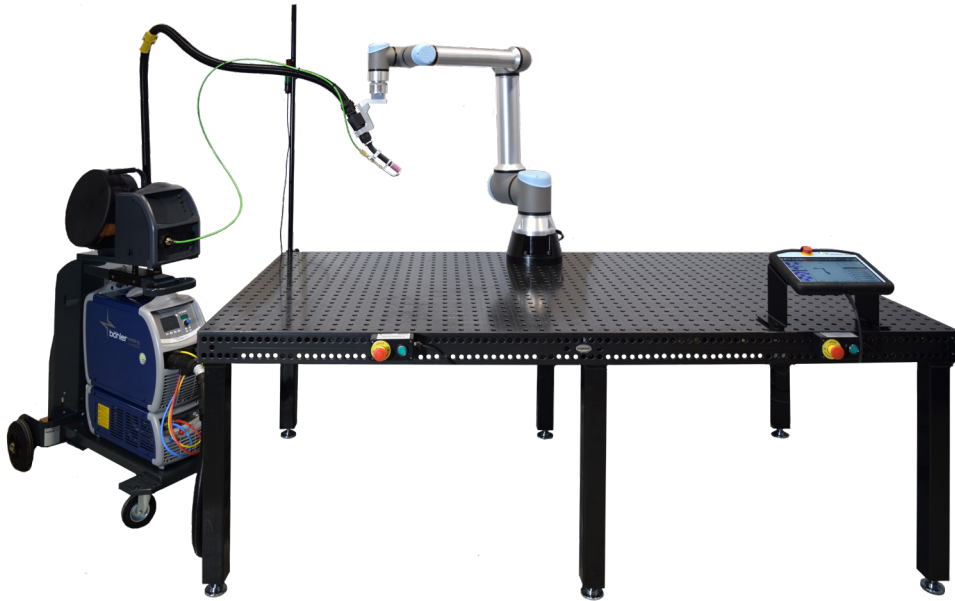
Weave



Tack Weld



TIG - Coldwire



Power Supplies:

TIG: Böhler (cold wire) water cooled: 320A AC/DC

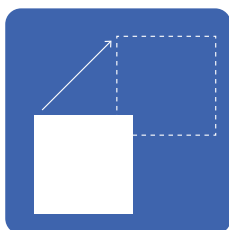
TIG: Böhler (cold wire) water cooled: 400A AC/DC

Welding features

Loop



Offset



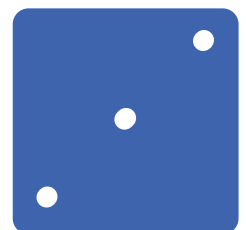
Stitch



Weave



Tack Weld



Power supply features



Weld@Net visualizes and structures the welding parameters with reports and graphics for effective evaluation of performances and quick adjustments if necessary. A precise and reliable tool for measuring and calculation of welding costs.



Weldmonitor gives the user complete and direct control of the welding parameters during welding. Weldmonitor allows adjustments to be made before and under welding, without touching the welding machine.



QuickPulse 2.0 ensures an extremely stable and concentrated arc, which increases the penetration (depending on material)



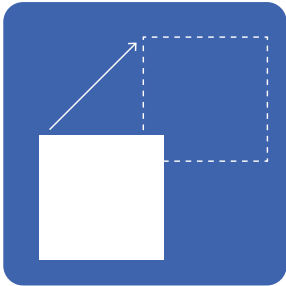
RapiDeep 2.0 adjusts and controls the power supply very efficiently. This reduces the heat-affected zone and produces visually pleasing welding beads.

Welding features



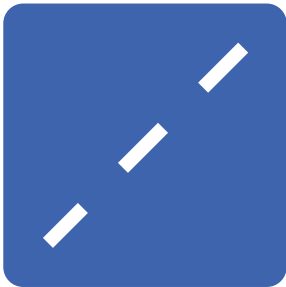
Loop

With this functionality you'll be able to repeat programs when the items are alike. This makes it really easy to replicate weldings in larger productions.



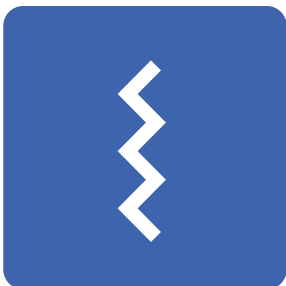
Offset

The offset-function makes it easy to move the weldings process to a new item, which is similar.



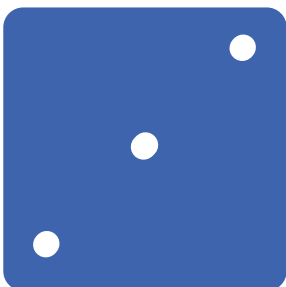
Stitch

With stitch you will be able to stitch weld your items in a nice and uniform way.



Weave

Weave creates a side-to-side motion, which creates a wider weld. All the variables are controlled directly in the software.



Tack Weld

When welding, tack welding can be useful for fixating two objects together temporarily. Tack welding is just as easy to do, as the other programs.

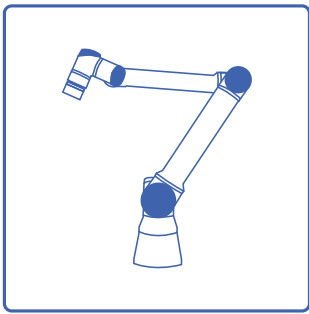
The RBCobot Package

High-quality components that you can count on

RBCobots come with a range of carefully selected components from some of the leading suppliers in the world. Even though we can accommodate most needs, we stand by our default configurations and their quality. This is true for the robot arm from Universal Robots, the high-quality inverters from Böhler and the torches from Dinse, as well as the other components.

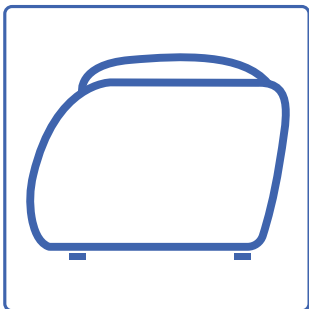
Additionally, it's possible to purchase turntables, a protective cover for the robot arm as well as other products. Please refer to the last pages.

A standard configuration contains the following products:



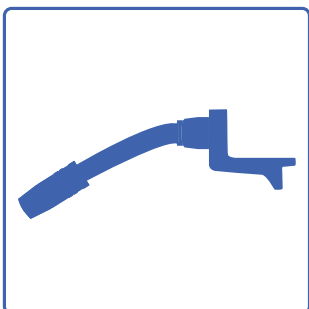
Robot arm

RBCobots are based on the robot arm from Universal Robots. The robot is a so-called collaborative robot, which does not require any safety equipment. Two models are available; the UR10e and the UR5e.



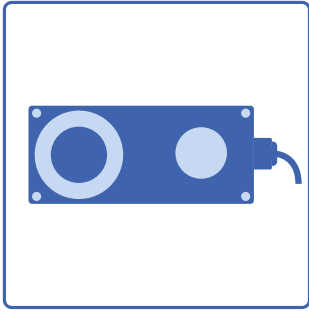
Power Source

The welding robot RBCobot comes with power supplies from Voestalpine Böhler. Please refer to the next pages for more specific information on the machines.



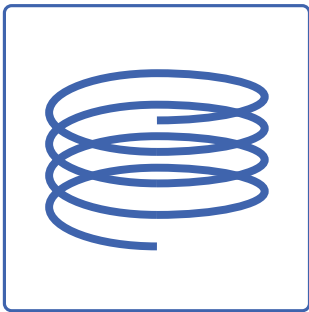
Torch

RBCobot comes with a durable dual-circuit liquid cooling welding torch from Dinse.



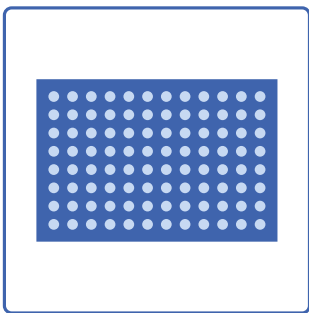
Controlbox

RBCobots can be equipped with up to two controlboxes, which starts and stops processes.



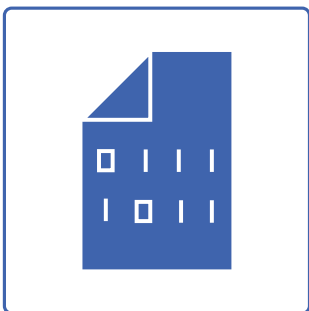
Welding Hose

Water cooled METZ 600 SAZ hose package from Dinse.



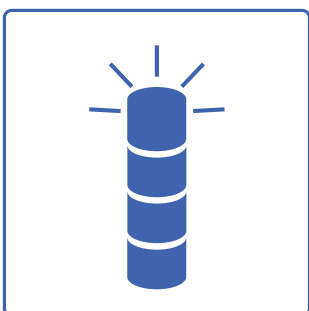
Welding Table

RBCobots come standard with a Siegmund 2000 x 1000mm. System16 welding table. However, this setup can be configured in a variety of sizes.



URCap

The URCap is the brains behind the operation. Its user-friendly interface makes robot welding possible, even for the robot operator without prior experience.



Visual Status Indicator

The visual status indicator makes it easy to see the status of the program. It will also signify to the surroundings, that a program is actively welding.

Specifications of the welding machine

MIG / MAG - Water cooled

	320A	400A	500A
Welding processes	MIG/MAG - PULSED MIG/ MAG - MMA - TIG DC Lift	MIG / MAG - PULSED MIG / MAG - MMA - TIG DC Lift	MIG/MAG - PULS MIG/ MAG - MMA - WIG DC Lift
Materials	Carbon steels - Stainless Steels - Duplex Steels - Aluminium - Copper - Hardfacing	Carbon steels - Stainless Steels - Duplex Steels - Aluminum - Copper - Hardfacing	Carbon steels - Stainless Steels - Duplex Steels - Aluminum - Copper - Hardfacing
Dimensions L x W x H	620 × 240 × 460 mm	690 × 290 × 510 mm	690 × 290 × 510 mm
Weight	27.6 kg	36.2 kg	38.5 kg

Welding	320A	400A	500A
Adjustment range	3 - 320 A	3 - 400 A	3 - 500 A
"Duty cycle MIG / MAG - 40 °C"	50 % - 320 A 60 % - 310 A 100 % - 250 A	60 % - 400 A 100 % - 360 A	50 % - 500 A 60 % - 470 A 100 % - 420 A
"Duty cycle MIG / MAG - 25 °C"	70 % - 320 A 100 % - 270 A	100 % - 400 A	80 % - 500 A 100 % - 470 A
Ø Wire diameter (WF 4000)	1.0 - 1.2 mm (opz .0.6 - 1.6)	1.0 - 1.2 mm (opz .0.6 - 1.6)	1.0 - 1.2 mm (opz 0.6 - 1.6)
Ø Flux cored wire (WF 4000)	1.2 - 2.4 mm	1.2 - 2.4 mm	1.2 - 2.4 mm
Ø Aluminiumwire (WF 4000)	0.8 - 1.6 mm	0.8 - 1.6 mm	0.8 - 1.6 mm
Wire speed (WF 4000)	0.5 - 22 m / min	0.5 - 22.0 m / min	0.5 - 22 m / min
N° rolls (WF 4000)	2 (4 opz)	2 (4 opz)	2 (4 opz)
Wire spool diameter (WF 3000 / WF 4000)	Ø 200 / 300mm	Ø 200 / 300mm	Ø 200 / 300mm
Synergic program	60	60	80
Welding program memo- ry location	64	64	64

	320A	400A	500A
RapiDeep 2.0 compatible	YES	YES	YES
QuickPulse 2.0 compa- tible	YES	YES	YES
EN 1090 compatible	YES	YES	YES
Weld @ Net compatible	YES	YES	YES

TIG - Coldwire

	TIG: 320A AC/DC	TIG: 400A AC/DC
Welding processes	TIG AC - TIG MIX AC / DC - TIG DC HF - TIG DC Lift - MMA	TIG AC - TIG MIX AC/DC - TIG DC HF - TIG DC Lift - MMA
Materials	Carbon steels - Stainless Steels - Aluminum - Nickel - Cast irons - Copper - Titanium	Carbon steels - Stainless Steels - Duplex - Aluminum - Nickel - Cast irons - Copper - Titanium
Dimensions L x W x H	620 × 240 × 460 mm	690 × 290 × 510 mm
Weight	27.5 kg	35.4 kg

Welding	TIG: 320A DC	TIG: 400A AC/DC
Adjustment range	3 - 320 A	3 - 400 A
Duty cycle TIG - 40 °C	40 % - 320 A 60 % - 300 A 100 % - 270 A	40% - 400A 60% - 360A 100% - 330A
Duty cycle TIG - 25 °C	65 % - 320 A 100 % - 290 A	100% - 370A
Welding program memory loca- tion	64	64
Weld @ Net compatible	YES	YES
Standard EasyArc	YES	YES

Focus on user friendliness

RBCobots are controlled by our proprietary URCap, which is developed in close cooperation with our customers and welding specialists. A URCap is in many ways similar to an app on a smart-phone. It is what makes the cobot a welding cobot.

The URCap of RBCobots makes it easy and intuitive to programme the robot. This means, that the welding robot is programmable, even for employees without prior experience with robots. This is why it is easy, to build a catalogue of programs, which makes it possible to easily switch between programs during the day. RBCobots makes it possible to weave, stitch, loop, offset and tack weld.

One press is all it takes

The robot is equipped with two buttons – a freedrive button and the waypoint-button. The freedrive button makes the robot easy to position, while the waypoint-button confirms your positions. These buttons are used to define a welding program with only one press in the user interface. Via points are already configured, when the waypoint-button is used and the user saves numerous button presses on the teach pendant.



CE marked

All machines require CE-marking, which can be an extensive process.

As Uniwelco ApS has specialist knowledge in the industry, we have chosen not to take any risks when it comes to safety and CE-marking. This is why, RBCobots are CE-marked by Danish Safety of Machinery ApS, that goes through all material as well as continuously monitors standards, so that RBCobot always abides applicable regulations.

This ultimately gives us more time to refine RBCobot and provide you with more peace of mind.



UR+ Certified Product

The RBCobots from Uniwelco have become UR+ certified. This means, that end-users will get products that have been evaluated and approved by the robot manufacturer, namely Universal Robots.



A UR+ certification is given to companies, that successfully integrate UR's robots in a stable and proper way with add-ons that benefit the user experience. The welding robots from Uniwelco meet these criteria, as focus has been to make user friendly products from day one. Additionally, the product is constantly evolving and we receive user feedback to improve our products.

With this certification Universal Robots recognizes, that Uniwelco meets the requirements for all the UR+ products in their portfolio. Simultaneously, the certification recommends full utilization of the robot and software integration, in order to get the most out of the investment.

Uniwelco has received IDA's Industry 4.0 Award

It thrills us to see, that an innovative company can simultaneously achieve growth and satisfied customers as well as an award, by daring to explore new areas.

Uniwelco uses a collaborative robot for welding, without any type of safety enclosures. This requires a thorough risk assessment and equivalently well-made user manuals. Safety of Machinery ApS assisted in the approval of the project and wants to congratulate Uniwelco on the award.

The project leader of Safety of Machinery ApS, Erik Grundahl, says about the project: "Uniwelco has come a long way, so when they asked for a review, it was only minor updates that was needed, before we were able to approve the entire project. We've agreed, that we will continuously monitor new regulations and requirements, so that the solution is as up-to-date as possible."

Quote from newsletter issued by Safety of Machinery

MASKINSIKKERHED 

Ready out-of-the-box

As RBCobots are CE-marked, RBCobots can begin welding without any further safety precautions, if the user manual is followed. This means, that RBCobots are ready for production when shipped, and your solution will quickly begin paying for itself.

Additional purchases

Prices upon request



Integrated turntable

- Fully integrated with URCap
- AVC - the robot arm will keep the same distance to the item using arc voltage control
- Ø30 mm. center hole for feed-through of items as well as back purging
- Rotating steel clamp for 180A
- CE-marked



UR e-series Robot suit

Protective coat for the robot arm against welding spatter

Can withstand constant heat radiation of up to 260° C and short bursts of up to 370° C.



Drum upgrade

Upgrade to 250 kg. drums. Contains 5 meters of liner as well as a screw connection for a 250 kg. drum



Wear parts

Contains all the wear parts related to the welding torch and hose, as well as technical documentation of the parts for easy reorder.



UR e-series Bumper

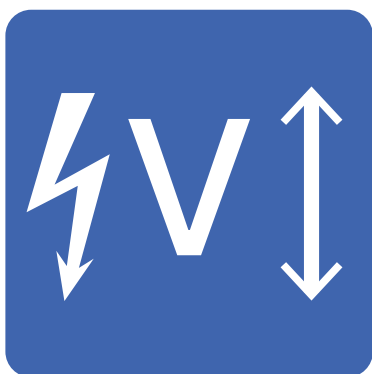
Chock absorbent cover for the teach pendant and UR e-series Screen Protector - 0,2 mm.

Additional warrenty

One additional year of warranty on the robot

One year of service

Service and validation of the welding machine, service of the robot arm and service of the hose package. Excluding transport.



Arc Voltage Control (AVC)

With this you will be able to TIG-weld with arc voltage control.



UNIWELCO™

Want to hear more?

Don't hesitate to reach out to us, if you would like to hear more about our welding cobots. Then we will discuss your specific needs and perhaps demo our robot on your items.



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