

THE SPECIALISTS FOR AUTOMATED WELDING.



Products
Service
Financing
Benefits
Solutions



WITH HEIDENBLUTH, YOU CHOOSE A STRONG AND LONG-TERM PARTNER IN WELDING TECHNOLOGY.



Visit us and let us show you the different system variants.

Individual Solutions

We design the ideal solution for your product. From the component size to the welding process, our team considers all parameters for a seamless integration into your production.

Standard Cells

It does not always have to be individual. We offer you the best solution from a wide range of standard cells, cost efficient and quickly available.

Welding Technology Expertise

The material your component is made of and the position in which it is welded are crucial for the final result. With our expertise, we find the best welding solution for your product and its expected quality.



Commissioning, Instruction, and training

With Heidenbluth, you truly have a full-service partner at your side. We support your automation from the first welding test to the commissioning, instruction, and training of your team.

Maintenance and Repair Service

When it comes to service, we leave nothing to chance. Our sales and service partners ensure comprehensive support.

Financing

Leasing and financing help protect your liquidity and pay off after a short time. We show you which options are possible and practical for you, transparent, flexible, and without obligation.

Welding Trials in the Application Center

We carry out welding trials together with you at our application center to determine the best solution for your needs. You can experience the functionality and quality of our products up close.

FIVE REASONS FOR AUTOMATION

Automated systems become attractive for companies when they face the challenge of performing repetitive tasks as often as needed and with consistent quality. This is exactly where welding robots can fully demonstrate their strengths.

Higher Capacity with the Same Time Investment

In series production, the required welding processes are set up once and can then be repeated as often as needed. Automated systems perform the necessary work steps much faster than manual production. As a general rule, the higher the number of units per order, the greater the time and cost savings achieved through automation.

Consistent Quality

One of the greatest advantages of automated welding is its outstanding process reliability. This ensures consistently high and reproducible quality for every workpiece, even when the conditions are not ideal. In times of increasing demands on the performance, strength, and durability of components, unquestionable quality has become an essential part of the customer-supplier relationship.

Fast Return on Investment

The attractive leasing and financing options for welding robots are usually far below the labor costs of skilled workers. Studies show that from a series of around ten pieces, the automated process becomes more cost-effective than manual welding. From an economic point of view, it is a clear decision.

A Relaxed Response to the Shortage of Skilled Workers

Simple welding processes should not tie up qualified personnel. Automated systems offer an effective alternative to maintain the productivity of your production. With ease, a single operator can work at two welding stations simultaneously. Welding robots complement your team and create additional capacity, while also providing extra security against labor market shortages.

Making Full Use of Competitive Advantages

In the end, what remains for you is a genuine competitive edge. In simple terms, automation offers a reduction in your ongoing costs while increasing your production capacity, giving you greater flexibility in both margins and quotations. Absolute and reproducible quality keeps your customer satisfaction at an excellent level, while your employees experience noticeable relief. You benefit not only from the economic advantages but also from knowing that your company is becoming more future-proof and, in critical situations, more independent from the need for skilled labor.

OUR PRODUCT CONFIGURATOR FOR YOUR WELDING CELL

Automation in welding has never been so simple and efficient. With our innovative product configurator, you can create your individual welding robot cell in just a few steps. Whether you need a simple solution for recurring welding tasks or a complex automation setup for demanding production processes, our configurator helps you find the perfect cell for your requirements.

Why Use a Product Configurator

Our user-friendly configurator offers you numerous advantages.

Speed and Simplicity

In just a few minutes, you will get a clear idea of which welding robot cell is ideal for your production. No long research or complicated quotation process, simply click, customize, and you are done.

Tailored Solution

The configurator takes your specific requirements into account, from the type of component and production volume to the available space in your production hall.

Full Transparency

You immediately see which options are available to you and receive a direct cost overview. This way, you maintain full control over your budget and the features of your welding robot cell.

Flexibility

Whether small or large series, simple or complex components, the configurator adapts flexibly to your needs and shows you which automation solution offers the greatest added value.

And if you are not sure which cell is the right one?

No worries. We understand that choosing the perfect welding robot cell can sometimes raise questions. That is why we offer you a special service. Simply send us a photo of your component by email (info@heidenbluth.com), and our team of experts will work with you to analyse the optimal solution. This way, we ensure that you receive exactly the automation system that makes your production more efficient, economical, and future-proof.



Product Configurator

Start your configuration now and experience how simple automation can be. Together, we shape the future of welding technology, quickly, easily, and perfectly tailored to your needs.

OPTIMIZE YOUR PRODUCTION IN JUST A FEW STEPS

Many companies still associate automation projects with high investment costs and long implementation times, which is a misconception. We make it simple for you with our proven Heidenbluth planning process.

1. Component Analysis

No product requirement is the same as another. Therefore, not only do the geometries of individual workpieces differ, but also the expectations regarding function, durability, and design. Our product and material experts work with you to analyse and define all relevant parameters and create initial sketches for production planning based on them. Typical challenges include the use of new materials, distortion, extensive reworking, or difficult component handling.

2. Welding Trials and Process Optimization

Heidenbluth operates one of the largest application centers in Germany, with more than twenty semi and fully automated systems. Based on our many years of experience, we know which of these systems best fits your defined requirements. Qualified application engineers conduct initial welding trials and test different processes, methods, and settings until the optimal result is achieved.

3. Presentation of the Concept

We invite you to our application center, where we present and discuss our concept together, including drawings, a detailed cost-benefit analysis, and of course, a live application demonstration. The fine-tuning then takes place during the final coordination of details and any additional customer requests.

4. Commissioning and Training

Once the solution has been fully designed and built, our application engineers take care of the installation, programming, and commissioning of your system on site. Automation always involves a certain degree of change. If desired, we guide your employees through the process and familiarize them with the new technology through practical training sessions. By this stage, we will have completely convinced you of the advantages of automated welding.

5. Automated / Mechanized Solution

The solution is ready, and full production can begin immediately. As your service partner, we support you especially during this critical phase with any questions that may arise. Of course, as a Heidenbluth customer, you benefit not only right after the purchase but also in the long term from our excellent and comprehensive service offering.

1 Component Analysis

2 Welding Trials &
Process Optimization

3 Presentation of the Concept

4 Commissioning & Training

5 Automated /
Mechanized Solution

ENTRY INTO AUTOMATION WITHOUT RISK, WITH COBOTS

Reduce scrap rates and increase precision in welding with a robot arm from Universal Robots.

In recent years, the so-called cobot has sparked a global shift in industrial automation. Cobots are the simplest and fastest way to enter automation, user-friendly, highly flexible, and cost-effective. Today, more than 27,000 robots from our partner Universal Robots are already in use by customers around the world in a wide range of production environments, increasingly also by small businesses and medium-sized companies.

How Cobots Make Your Company More Future-Oriented

- Easy programming of different components without special training.
- Higher cost efficiency through fast and precise execution of welding tasks.
- Welding without physical strain or monotony.
- Your employees are relieved and have more time for other tasks.
- Future skilled workers expect modern working environments.
- You increase your attractiveness as an employer.

Human and machine complement each other in their strengths

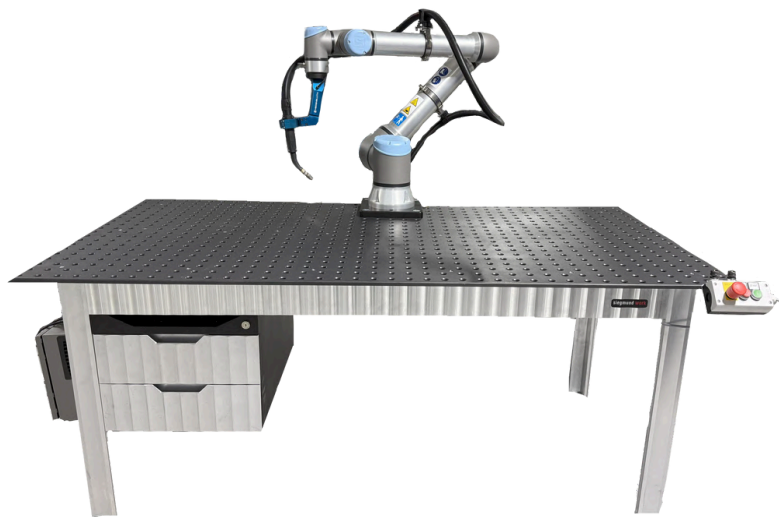
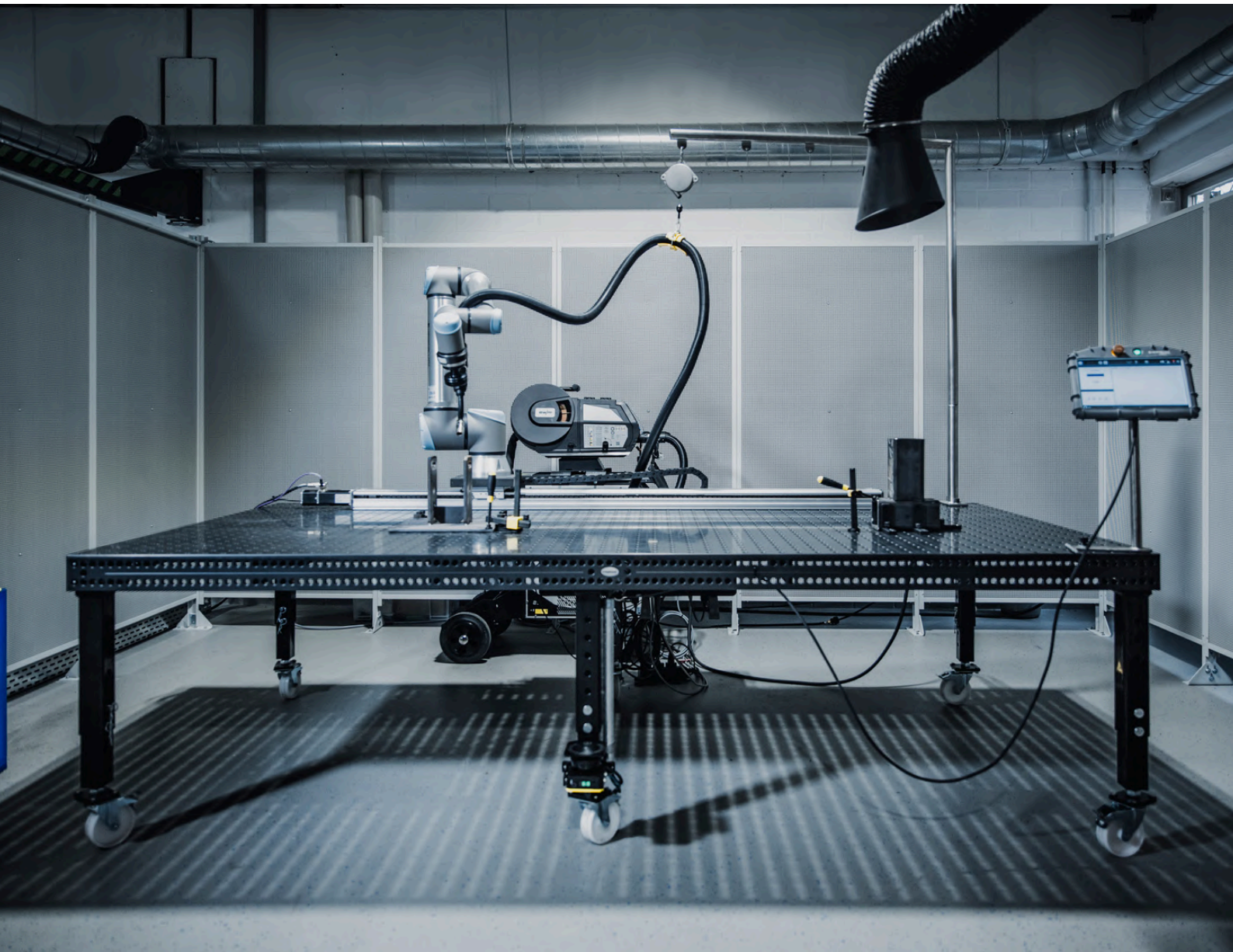
The cobot performs the precise movement of the torch, the welding system ensures the perfect seam, and the human takes on the control function. Cobot stands for "collaborative robot." The reason for the success of cobots lies in their revolutionary, user-friendly operating concept, which combines the strengths of humans and machines in an optimal way.

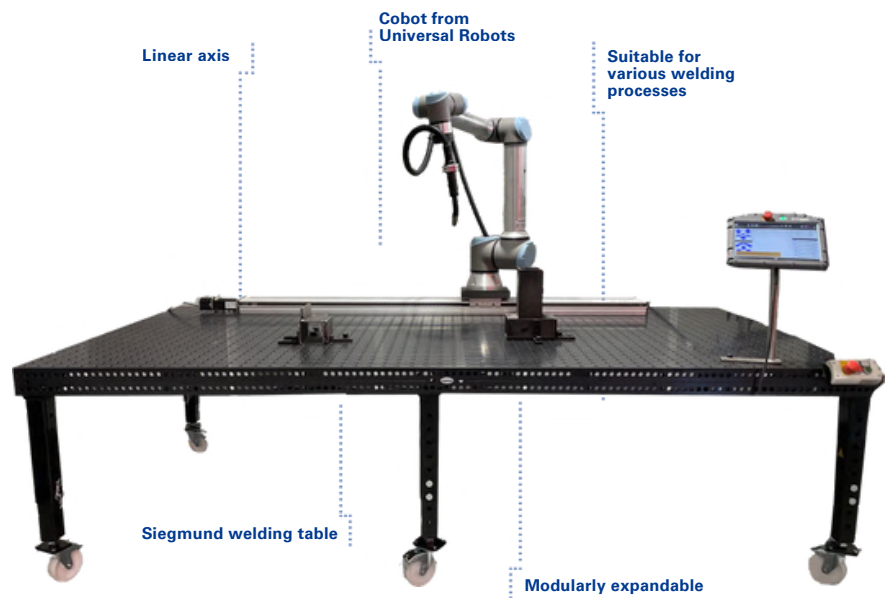
A collaborative robot gives you greater flexibility, efficiency, and new possibilities for your welding processes. Cobots are anything but static. Simply move the robot to the area where you need support in your processes. Once a task is completed, you can redeploy the robot in other areas of your production. Bring your manufacturing to the state of the art with a robot arm from Universal Robots.



Our partner **Universal Robots** was founded in 2005. From the very beginning, the company's goal has been to make robotic technology accessible, especially for small and medium-sized enterprises.

Today, Universal Robots is represented worldwide and continues to follow its philosophy of providing safe, flexible, and easy-to-use collaborative robots as the optimal solution for businesses of all sizes.





Cobot Welding Package

The flexible and freely configurable robotic welding concept.

With the Cobot Welding Package from Heidenbluth, we offer you a flexible and freely configurable robotic welding concept that adapts perfectly to your on-site conditions. With the valid CE declaration for the entire system, you have legal certainty and can specifically optimize your production. Thanks to the convenient access to the welding area, loading the cell and removing finished components is remarkably easy.

Scope of Delivery

- Equipped with a UR5e or UR10e robot
- Certified safety technology such as glare protection and safety door
- EWM or Fronius MIG/MAG pulse welding system
- CE declaration of conformity for the entire system
- Control panel for programming the cobot

Benefits at a Glance

- Convenient access to the welding area without obstructions for loading and unloading
- Enclosure can be self-built according to agreed minimum requirements
- Robot can be mounted on the table or optionally on the rear wall
- Includes safety technology
- Freely configurable cabin with flexible size options
- Siegmund welding tables provide space for all assemblies
- Installation and commissioning by our technicians at a fixed price
- Training by our technicians on site at a fixed price

Options

- Wheels for mobile use in production
- Turn-tilt positioner
- Various CAPs (software packages)
- Siegmund welding table of your choice
- Positioning axis
- MIG/MAG and TIG welding technology



Welding Package Advanced TWIN Table

The advantages of our cobot's easy operation become even more productive with a two-station setup. While the operator removes and reloads the finished component on one side, the cobot welds on the other. The working area can be extended with a linear axis.



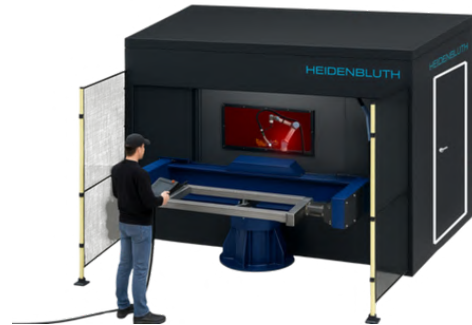
Welding Package Express

These packages are available with the UR5e and UR10e, as well as with different welding power sources. The advantages include a very short delivery time, an attractive price for these series systems, and the option to rent them for three months.



Welding Package Turntable

The system has two stations, allowing the operator to load the outer station while the cobot welds on the inner side. In addition, both sides are equipped with a rotary axis, enabling the component to be rotated for achieving the optimal welding position.



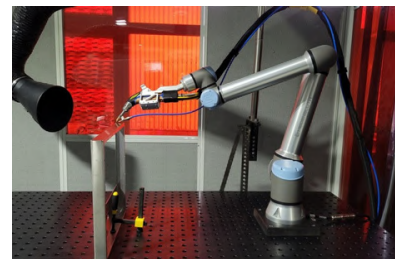
Welding Package LittleArc

This system was developed to provide companies with many people in the surrounding area, such as schools, with an additional enclosure. The enclosure can be operated either as a sliding or a swing door.



Welding Package UR Laser

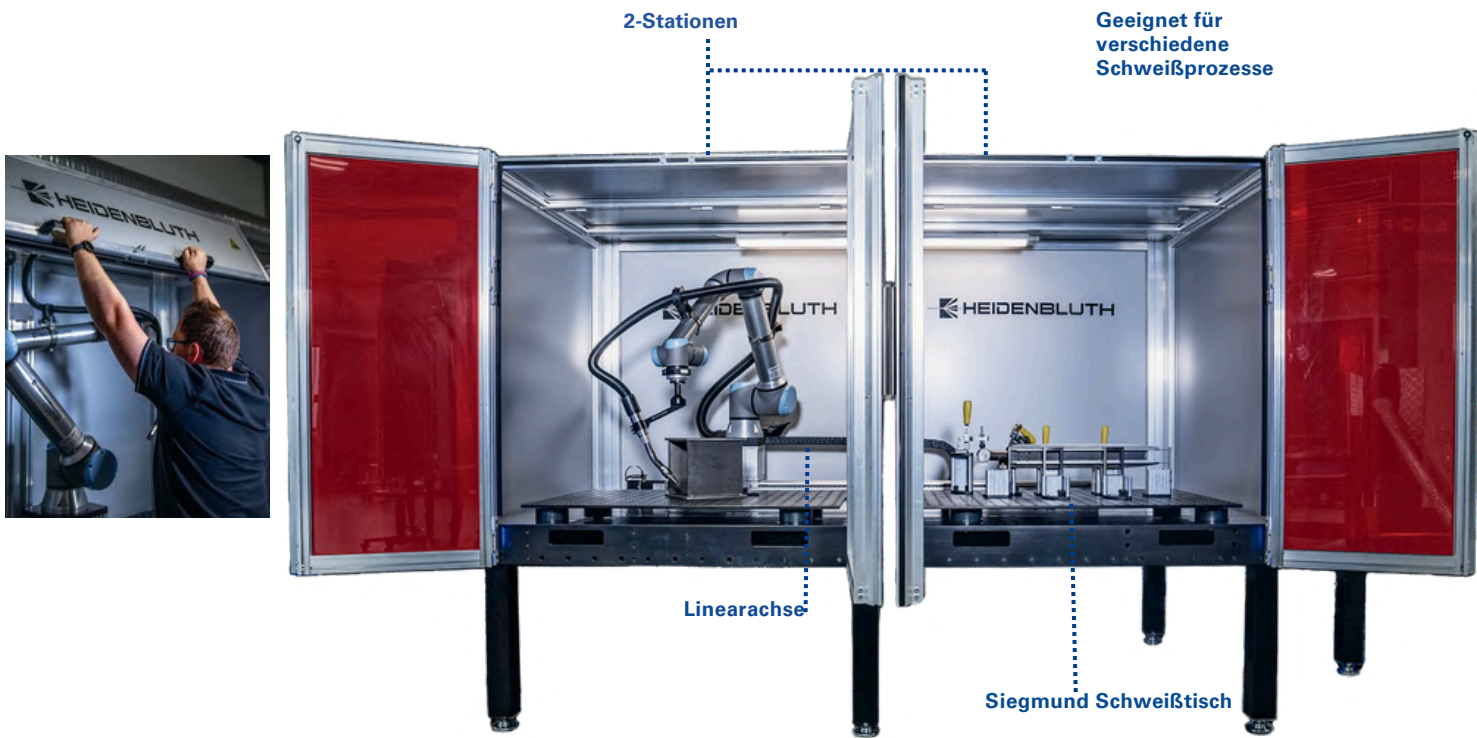
This system enables the integration of laser welding equipment with a separate wire feeder. The enclosure is implemented in accordance with legal requirements, as usual with a full CE declaration provided by Heidenbluth.



Welding Package UR on L-Positioner

To weld complex components, a turn-tilt table is often required. In this concept, the cobot is mounted directly on the positioner to achieve the best possible accessibility to the assembly. The positioning axis can also be equipped as a synchronized axis to simplify reorientation.





TwinArc Cobot Edition

Two-station system for increased productivity

A modern production line depends on its flexibility and output, qualities that are at the core of this advanced two-station system. With the ability to be used flexibly across various production processes, this complete solution offers clear optimization in terms of efficiency and productivity for a wide range of manufacturing operations.

Options

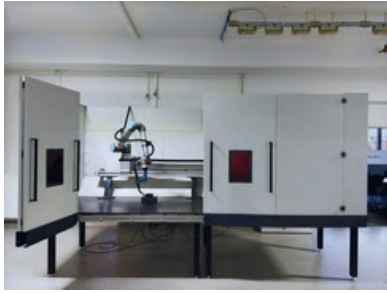
- TIG welding technology from EWM or Fronius
- CAP weaving
- CAP part search
- CAP move and copy
- Remote maintenance module
- Welding data documentation module
- Zero-point clamping system

Scope of Delivery

- Equipped with a UR10e robot and a Siegmund welding table
- Comprehensive safety technology such as glare protection
- EWM or Fronius MIG/MAG pulse welding system
- CE declaration of conformity for the entire system
- Control panel for programming the UR cobot
- Linear axis for the cobot
- Foldable exhaust hood

Benefits at a Glance

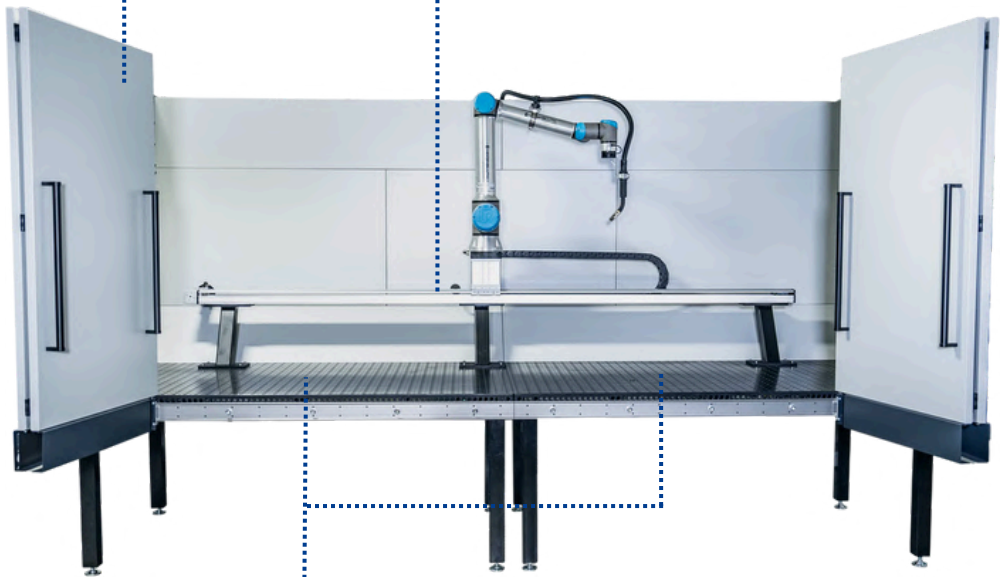
- Easy operation
- Higher output through a two-station solution
- Expandable CAPs for the cobot
- Forklift compatible cell
- CE compliant for maximum protection



Optional: Verschiedene Tür- und Einhausungskonzepte mit zertifizierter Sicherheitstechnik

Optional:

- Linearachse zum Verfahren des Roboters
- Verfahren Station 1 zu 2
- Positionierung zum Bauteil
- Einfaches Kopieren der Programme für beide Stationen



Zwei Schweißstationen mit wenigen Handgriffen umwandelbar zur Einstation-Zelle

BigArc Cobot Edition

Single and two station system for increased productivity

With its two station design, the BigArc significantly increases your productivity. The cell is particularly well suited for small and medium batch sizes. While the robot welds in one station, the operator can load new components into the second station. The CE declaration is included from the start, providing optimal protection for your employees and their working environment.

Options

- TIG welding technology from EWM or Fronius
- CAP weaving
- CAP part search
- CAP move and copy
- Remote maintenance module
- Welding data documentation module
- Zero-point clamping system
- Rear wall with extraction module

Scope of Delivery

- Equipped with a UR10e robot and a Siegmund welding table 4 x 1.2 m
- Comprehensive safety technology such as glare protection and safety door
- EWM or Fronius MIG/MAG pulse welding system
- CE declaration of conformity for the entire system
- Control panel for programming the UR cobot
- Linear axis for the cobot

Benefits at a Glance

- Easy operation
- Higher output through a two-station solution
- Expandable CAPs for the cobot
- Cell can also be loaded by crane
- By removing the middle element, the production of large components is also possible

ACCESSORY COMPONENTS FOR THE UR ROBOT

As flexible as your applications, our accessories for Universal Robots are just as versatile. Whether you want to automate small series, complex components, or changing production scenarios, we offer well-designed components that make your cobots even more powerful. Quality, easy integration, and fast availability are our top priorities. For every challenge, there is a suitable solution.



Turn-Tilt Positioner

To achieve optimal welding positions, turn-tilt tables and L-positioners can be used. The control is managed through a UR-CAP and also allows synchronized movements, reducing the need for robot reorientation.



SimpleHold Torch Holder

Enables particularly intuitive operation of the cobot. Waypoints and welding commands can be added directly on the holder. Coloured LEDs indicate functions, and an additional LED illuminates the working area for precise positioning.



Laser TCP Adjustment

For increased quality and precision. Before each component or at the start of a shift, the TCP can be checked automatically. This reduces rework and scrap while minimising downtime. The robot position is automatically corrected as a result.



Control Extension

Additional functions such as program selection via barcode scanner, recipe selection, or welding data documentation can be integrated through a central control system.



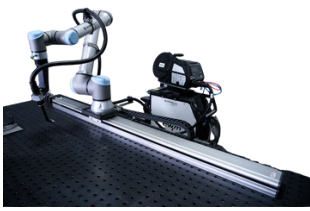
LED Status Indicator (Traffic Light System)

A multi-colour controllable LED light ring displays the operating status of the system. It is mounted at the base of the UR robot and serves as an ideal alternative to the traditional signal light.



Tool Changer

Tool-free switching between different tools such as welding torches or grippers, providing maximum flexibility for changing tasks.



Linear Axes

To extend the working area, linear axes are available in lengths from 2 m to 14 m. They can be synchronised and programmed via a UR-CAP and can also be mounted overhead or on a gantry.



Welding Fume Extraction

In addition to conventional extraction systems, torch hose packages with integrated fume extraction are available to remove emissions directly at the source.



Zero-Point Clamping System

For fast and precise changing of component fixtures. Both manual and pneumatic versions are available, which can be individually equipped.

SimpleSearch

Component tolerances can be compensated by detecting reference edges using the welding wire or gas nozzle, enabling automatic adjustment of the robot program.



SimpleHelp Remote Maintenance Module

In the event of a malfunction, this add-on allows quick access to the robot system to efficiently resolve interruptions and provide remote programming support.



SimpleHold Torch Holder Comfort

The intuitive and particularly fast operation of the cobot is made possible by the user-friendly control on the torch holder. The freedrive function, as well as the insertion of waypoints and welding commands, is carried out directly on the control unit, making programming much easier. Coloured LEDs visualise and confirm inserted waypoints and functions, while an additional LED illuminates the welding torch's working area and supports precise positioning of the cobot.



READY FOR SPECIAL TASKS

Different welding and cutting processes require different approaches and solutions. For special applications, we offer a wide range of welding equipment for custom requirements, either fully assembled or as part of an individually designed system.



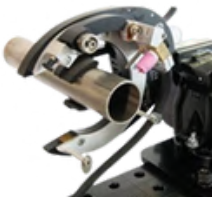
Longitudinal Seam Welding System

Productive and process-reliable longitudinal seam welding machines require innovative and advanced technology. Our clamping benches are suitable for different materials and welding processes, whether plasma, MIG/MAG, or TIG. We would be happy to demonstrate the technology to you live in our application center.



Submerged Arc Welding (SAW)

Heidenbluth offers a wide range of power sources for submerged arc welding and cladding. You can choose from a variety of DC and AC welding power sources that provide unique features for increased productivity and reduced energy consumption. Whether retrofit or new installation, we offer tailored advice based on your product while keeping the entire manufacturing process in view.



TIG Orbital Welding

In TIG orbital welding, many parameters influence the quality of the welds. Unlike manual TIG welding, an orbital welding system can set these parameters for each weld and reproduce them with consistent quality in series production. From cost-effective starter sets to high-end solutions, we offer a wide range of TIG and orbital welding options.



Welding and Cutting Tractors

In our application center, we offer our customers a wide range of welding tractors, welding carriages, and automation solutions. The machines are reliable and particularly robust in this field. In addition to battery-powered products, we also provide dual-torch solutions and special rail systems for tank and apparatus construction.



Circumferential Seam Welding System

In the field of circumferential seam welding machines, we offer a wide variety of different systems in our product range. Precise rotary axes, innovative welding technology, and well-designed component fixtures are the defining features of our systems.



Spot Welding / Resistance Welding

When it comes to precise resistance welding, we get straight to the point. We offer spot welding solutions for the automotive industry, manufacturing, and skilled trades, backed by many years of experience.

HIGHEST QUALITY COMBINED WITH OUTSTANDING PERFORMANCE

Yaskawa stands for both and unleashes the full potential of your production.

Yaskawa robots are the best choice for nearly all demanding welding tasks, from robot based arc, spot, and laser welding to turnkey welding systems. For all welding cells, we stand firmly behind our performance promise.

Let us work together to determine where in your production we can relieve your employees, increase efficiency, and reduce costs.

YASKAWA PREMIUM PARTNER

Synchronicity

- Full synchronicity through the combined control of robot and positioner
- Multi robot technology
- Optimal welding sequence
- Cycle time optimization
- Resistance



Process reliability

- Low susceptibility to malfunctions
- Consistent machining processes
- Low welding distortion

Efficiency

- Maximum travel speed
- Fast product changeover

The technology company **Yaskawa** is one of the largest manufacturers of industrial robots worldwide, with more than 500000 installed units, and has been a premium partner of **Heidenbluth** for more than **15 years**.

Yaskawa robots are used by us whenever welding with cobots reaches its limits. Complex welding tasks with the highest requirements for process reliability and precision are their strength.



Manually operated rotary table



Prepared for connection to an exhaust system



Start panel for emergency stop and reset

Easy repositioning

Jetzt einen Termin vereinbaren und in unserem Anwendungszentrum live erleben!

Welding cell ArcWorld Mini

Flexible, space saving and powerful

The ArcWorld Mini offers a flexible, space saving and cost efficient way to automate your welding processes. When used optimally, it is particularly suitable for supplementing or completely replacing manual welding, for example in pre assembly. A realistic result is double the output in the same amount of time.

Scope of delivery

- Platform and housing with glare protection and extraction hood
- Yaskawa AR900 robot with YRC1000 controller
- MIG MAG pulse welding system
- Start panel
- CE declaration of conformity for the complete system
- Assembly and commissioning
- Torch cleaning station

Benefits at a glance

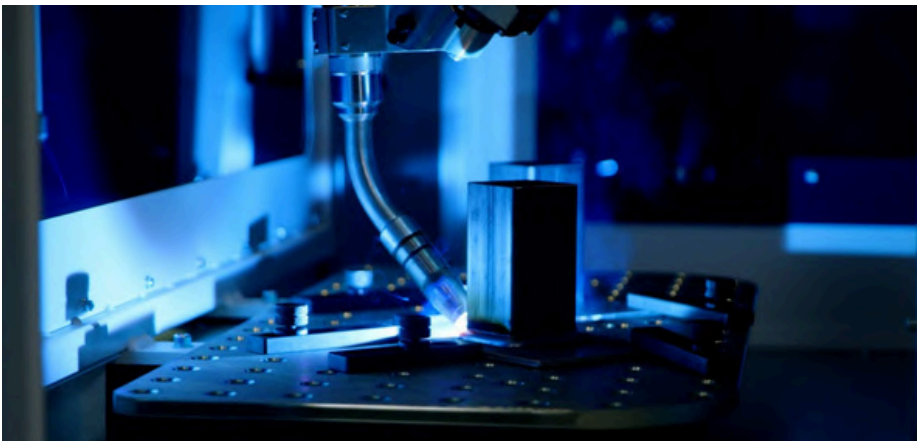
- Easy installation and operation
- Mobile use in production
- Small footprint of only 2.3 square metres
- Maximum installation space for fixtures, 550 x 500 x 1050 mm (WxDxH)

Options

- TIG welding technology



Reference Thüringer Agrartechnik & Maschinenbau GmbH





Welding cell ArcWorld ECO

High productivity at a low price

The ArcWorld Eco is a cost effective system solution with high productivity. The two station table further increases the productivity of the system. While the robot is welding, the operator removes the finished component and loads a new one in parallel.

Scope of delivery

- Yaskawa industrial robot AR1440 with YRC1000 controller
- Two station rotary table for increased productivity
- MIG MAG pulse welding system
- CE declaration of conformity for the complete system
- Compact design, 3200 x 2400 x 2400 mm (LxWxH)
- Start panel
- Assembly and commissioning.

Benefits at a glance

- Fast delivery time
- Cost effective entry into automation
- Two station rotary table for increased productivity
- Possible workpiece fixtures,
-1600 x 1000 x 500 mm LxWxH
-1200 x 1000 x 700 mm LxWxH
- Prepared for offline programming
- CE declaration of conformity for the complete system
- Load capacity of 250 kilograms per side
- Forklift compatible system, which allows easy relocation.

Options

- Enclosure available in other RAL colours
- Commissioning on site
- Training of your employees by our technicians
- TIG and stud welding technology
- Seam finding and seam tracking system
- Zero point clamping system
- Controller expansion
- Barcode scanner



Welding Cell ArcWorld EVO

For complex welding tasks with positioning technology

The ArcWorld Evo is particularly suitable for complex welding tasks. With the integrated positioning technology provided by a turn tilt table, even demanding welding processes can be carried out safely and efficiently. The front of the robot cell is equipped with a roll up door. Inside the cell, a Yaskawa AR2010 industrial robot with six axes is in operation. The system naturally includes a CE declaration of conformity.

Scope of delivery

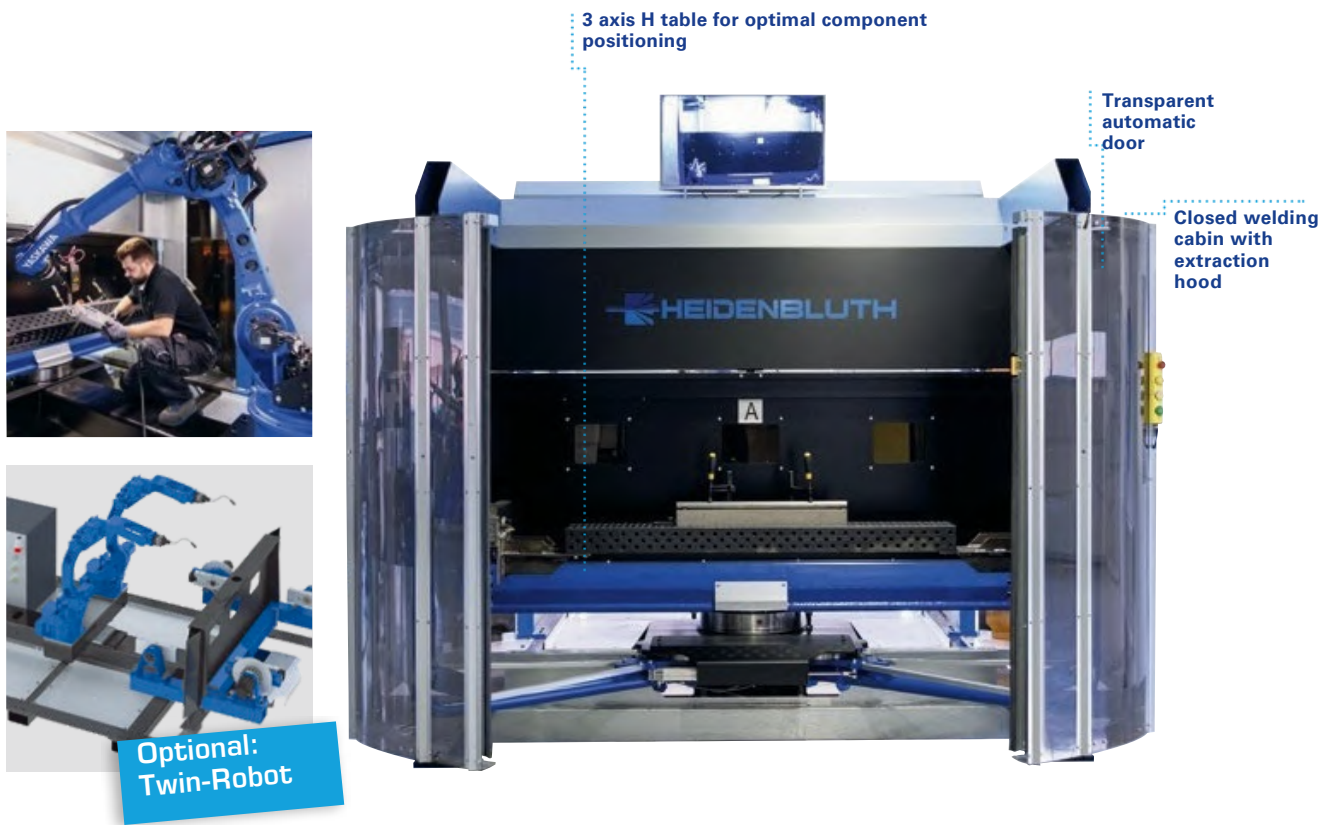
- Yaskawa industrial robot AR2010 with six axes
- Turn tilt table for increased flexibility
- MIG MAG pulse welding system
- Compact design:
-3000 x 3000 x 2600 mm LxWxH
- CE declaration of conformity for the complete system
- Start panel
- Assembly and commissioning.

Benefits at a glance

- Short delivery times
- Turn tilt table allows the welding of complex components
- Easy installation of the system
- Generous loading area
- Prepared for offline programming
- CE declaration of conformity for the complete system.

Options

- Enclosure available in other RAL colours
- Commissioning on site
- Training of your employees by our technicians
- TIG and stud welding technology
- Seam finding and seam tracking system
- Zero point clamping system
- Controller expansion
- Barcode scanner



Welding cell ArcWorld 2

Turnkey robot based shielding gas welding cell

Robot, positioner, controller and power supply are combined on a single platform. Thanks to the specialised design, the entire robot cell can be relocated easily and put back into operation immediately when required. The ArcWorld 2 offers a specially developed working area for both the robot and the operator. The operator has a permanent, ergonomic and well lit workstation where all required materials are always within reach. Two robots can also be used without increasing the footprint.

Scope of delivery

- Platform, metal walls, plexiglass doors and extraction hood with suction nozzle
- Industrial robot AR2010
- Two station positioner
- Start panel
- CE declaration of conformity for the complete system
- Assembly and commissioning

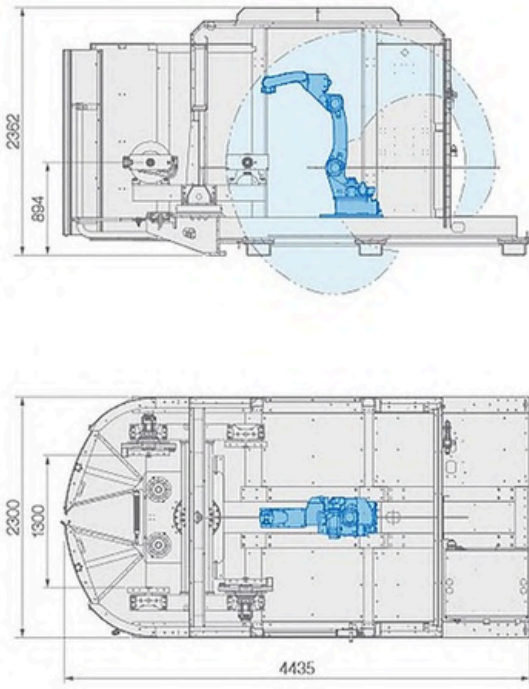
Benefits at a glance

- Easy to operate
- Short delivery times
- Small footprint with maximum space for the robot
- Easy installation and relocation within the hall
- Loading of materials using an overhead crane
- Ergonomic and bright working environment for the operator
- Prepared for offline programming
- 500 kilograms load capacity per station
- Up to 2400 millimetres centre distance between the faceplates

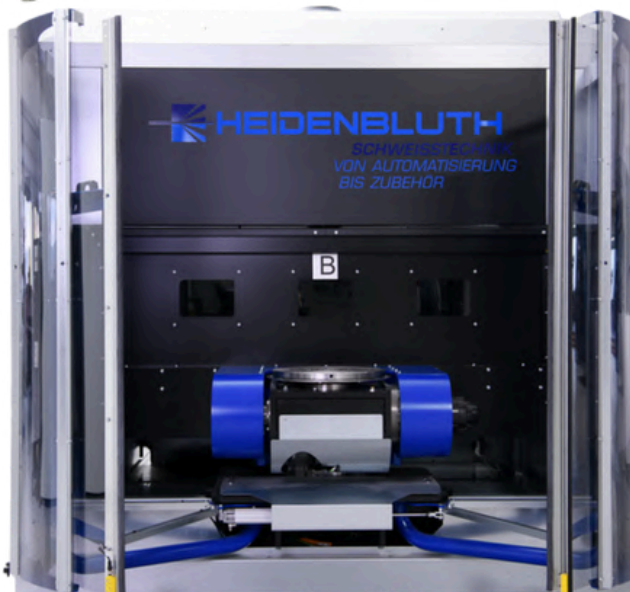
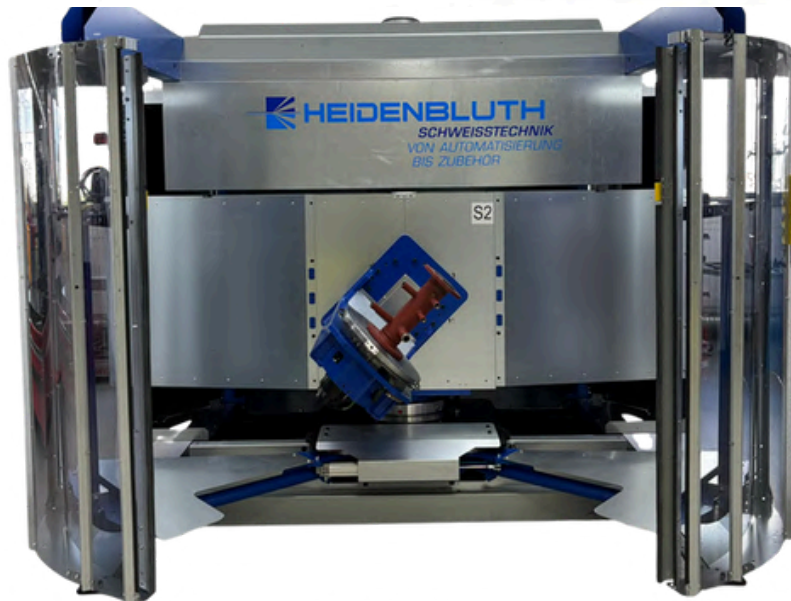
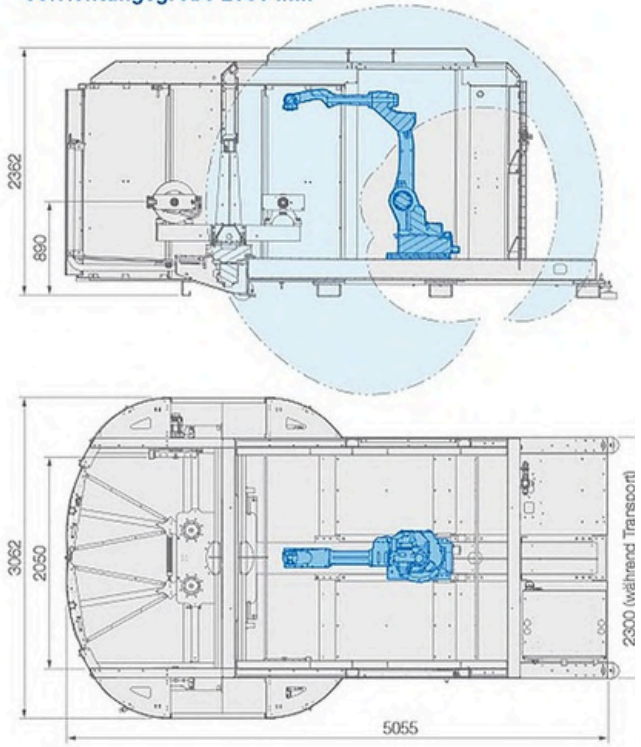
Options

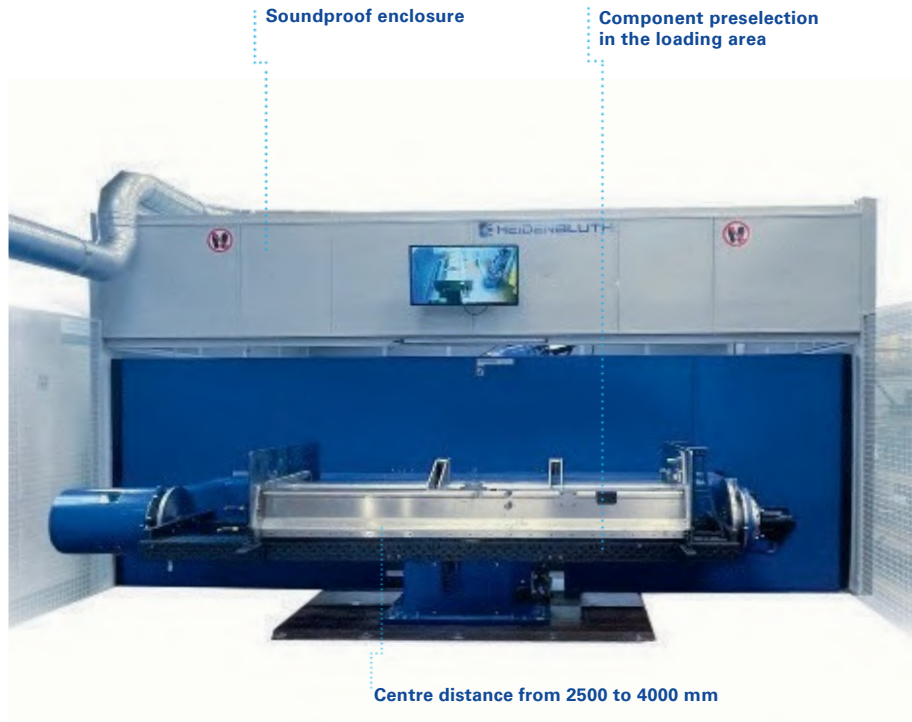
- TIG and stud welding equipment
- Twin robot for shorter welding times
- Media supply lines signal and air lines for the positioner
- Siegmund clamping system
- Operator panel with HMI
- Maintenance door on the opposite left side
- Indicator lamp
- Design available as a **5 axis positioner with turn tilt function and as an L positioner**
- Seam finding and seam tracking system

Vorrichtunggröße 1300 mm



Vorrichtunggröße 2050 mm





ArcWorld XL

Two station system for large components

The ArcWorld XL is the right system for large components. With its two station configuration, the ArcWorld XL significantly increases productivity in manufacturing. The welding cell is particularly well suited for large assemblies. While the robot is welding, the operator can load a new component. The ArcWorld XL is equipped with a Yaskawa welding robot and can optionally be configured with various accessories. With the additional rotational axis on each station, the component can be positioned optimally for welding. This enables uniform weld seams with high welding speed.

Scope of delivery

- Equipped with a Yaskawa robot AR3120
- MIG MAG pulse welding technology
- Comprehensive safety technology
- CE declaration of conformity for the complete system
- Rotational axis for correct component positioning

Benefits at a glance

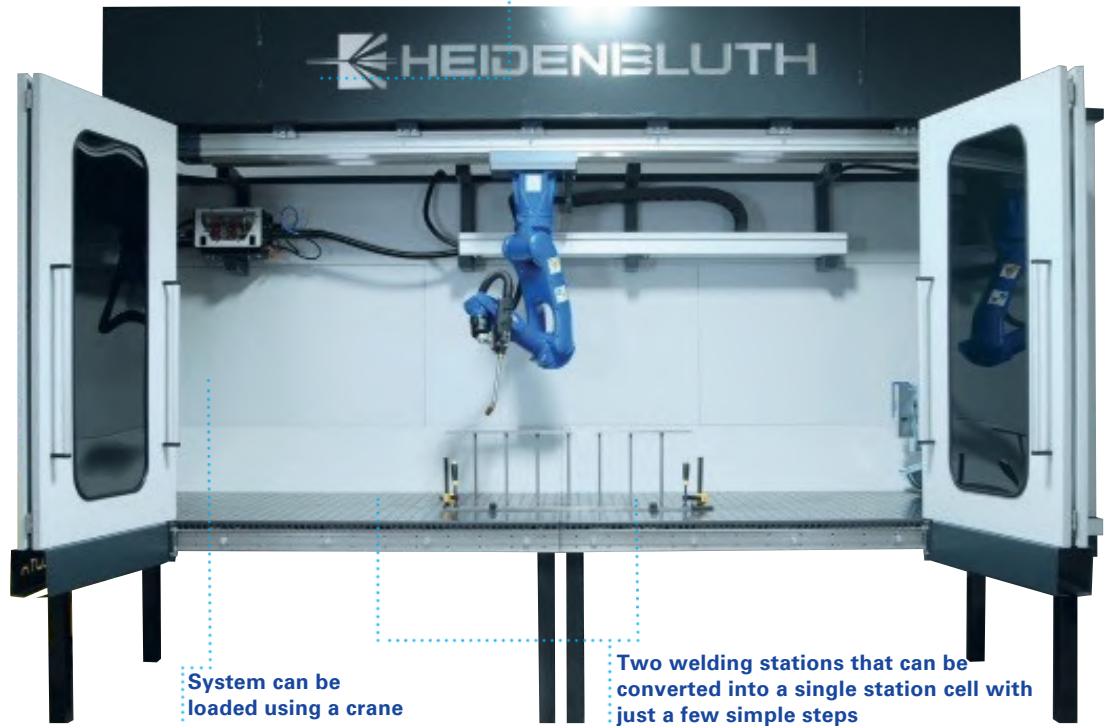
- Suitable for large components
- Easy to operate
- Two station system with high productivity
- CE declaration of conformity for the complete system
- Easy commissioning
- On site training of your employees by our technicians

Options

- MIG MAG and TIG welding technology
- Stud welding technology
- Various accessory packages such as tungsten electrode changer, contact tip changer or laser sensor for seam finding and tracking
- **Optional turn tilt axis**
- Media supply, air and electrical connections for clamp or fixture integration

Optional, various door and enclosure concepts with certified safety technology

Optional,
• Linear axis for moving the robot
• Travel from station 1 to station 2
• Optimal positioning to the component
• Easy copying of jobs for both stations



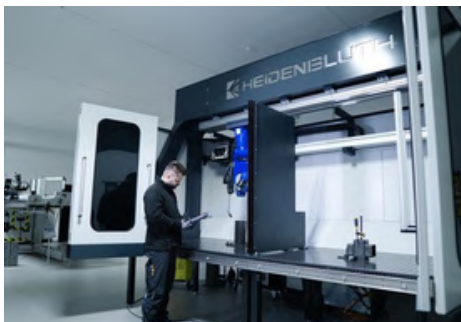
System can be loaded using a crane

Two welding stations that can be converted into a single station cell with just a few simple steps

Welding cell BigArc

One or two station system for flexible production and high productivity

With its two station configuration, the BigArc significantly increases your productivity. The cell is particularly well suited for small and medium batch sizes. While the robot is welding in one station, the operator can already load new components in the second station. With just a few simple steps, the partition wall can be removed, allowing larger components to be welded as well. The CE declaration is included from the start and ensures optimal protection for your employees and the working environment.



Scope of delivery

- Equipped with a Yaskawa robot AR900 with YRC 1000 controller
- Siegmund welding table, 4 x 1.2 m
- Comprehensive safety technology such as glare protection and safety door
- CE declaration of conformity for the complete system

Benefits at a glance

- Easy to operate
- Single station operation for larger components
- Two station system with high productivity
- CE declaration of conformity for the complete system
- Easy commissioning
- Training of your employees by our technicians

Options

- Enclosure available in other RAL colours
- TIG welding technology
- Seam finding and seam tracking system

ACCESSORIES FOR YASKAWA ROBOTS

Just as the requirements for your workpieces and working environments can vary, the accessories for your work vary as well. We understand that high quality and fast availability make the difference. This is why we offer quick and suitable solutions for every challenge you face.



Torch changing system

With an automatic torch changing system, the welding robot can be equipped with different welding systems under program control. It makes no difference whether the system switches between two MAG processes with different filler materials or between MAG, TIG, stud welding or plasma welding in order to complete an assembly.



Tungsten electrode changer

The tungsten electrode changer automatically replaces your worn tungsten electrode with a newly sharpened one. This optimises both cycle times and downtime.



Weld seam finding and tracking systems

Our weld seam sensors support your robots in seam detection and seam tracking. The compact sensors, specially optimised for welding and cutting, are characterised by high speed and accuracy. We are happy to support you in selecting the right sensor system and explain the advantages of seam finding and seam tracking.



Grinding tools for robots

Using different grinding heads combined with the appropriate sensors for correct contact pressure, both weld seams and surfaces can be post processed. The abrasive can be changed fully automatically to ensure consistent quality.



Floor gantry

Floor gantries make it possible to move the welding robot quickly to the desired welding position. A floor gantry is particularly useful for larger components. When mounted on gantries, the robot's reach can be further extended.



Offline programming

A virtual simulation of robot based systems and processes offers decisive advantages not only during planning but also during commissioning and later operation. This makes it possible to eliminate costly errors in advance and to use existing resources efficiently. Components can be programmed without shutting down the system.



Laser welding

Laser welding systems can be used on the robot both with and without wire feed. The enclosure of the system complies with the respective laser safety class. The system is delivered complete with a CE declaration.



Contact tip changer

The contact tip changer enables the robot to change its contact tips independently and fully automatically after a freely definable interval. Integrated gas nozzle cleaners and wire cutters further reduce downtime and prevent potential damage caused by incorrect handling.



Zero point clamping system

For the fast and precise change of workpiece fixtures. Manual and pneumatic variants are available, and both can be equipped individually.



Stud welding

In stud welding, welding studs are fed as bulk material into a sorter that aligns them correctly. The studs are then conveyed pneumatically to the welding gun. The welding head, guided by the robot, places the stud precisely and quickly onto the workpiece using lift ignition. Suitable for stud sizes from M3 to M8, larger sizes available on request.



Torch extraction system

With our torch extraction system, fumes are extracted directly at the point of origin. Reliable, efficient and environmentally friendly.



Positioners and turn tilt tables

We offer a wide range of different positioners and turn tilt tables. Depending on the component, ergonomics, welding position and weight, we select the positioning technology that is best suited for you. With the option of full synchronicity, accessories and robot movements can be perfectly coordinated. Operation is intuitive using the standard programming pendant.



EWM – Premium welding technology

EWM is one of the leading manufacturers of arc welding technology. The MIG MAG and TIG welding solutions are known for their reliability, energy efficiency and high quality. Particularly noteworthy are the innovative control and monitoring functions, which make it possible to automate and reliably reproduce even the most demanding welding tasks.

WELDING PROCESSES

Automation makes welding simple, economical and reliable for you. To ensure that even complex tasks are carried out effortlessly, we rely on state of the art process technology for the optimal interaction of all components and parameters.

ForceArc puls

ForceArc puls is a MIG MAG process with a heat reduced pulsed arc suitable for all material types. It enables controlled welding in the high performance range and achieves up to double the welding speed with more than 50 percent cost savings.

RootArc

RootArc is a formable short arc for easy bridging of gaps and is ideal for thin sheet welding from 1 mm in butt, overlap and corner joints. It offers minimal spatter, good root formation, secure flank detection and stable welding in forced positions for comfortable operation and excellent results.

Positionweld

Positionweld is a combined process variant for welding unalloyed to high alloy steels as well as aluminium alloys in all welding and forced positions. Thanks to the optimally coordinated switching between low and high welding power, welding in vertical uphill and downhill positions and overhead positions is significantly simplified. With Positionweld, the Christmas tree technique can be completely avoided.

ColdArc / coldArc puls

The coldArc process uses a heat minimised, low spatter short arc for distortion free welding and brazing, as well as for root welding with excellent gap bridging.

ForceTig

ForceTig is a TIG welding process with an extremely focused arc for high energy density and maximum welding speed. It is ideal for fully mechanised processes with 100 percent reproducible TCP and, thanks to easy electrode changes, high current capacity, a robust torch and efficient cooling, it is perfectly suited for automated robotic welding.



Fronius – Intelligent arc technology

Fronius offers precise and efficient welding technology for industrial applications. With individually configurable processes such as PMC, LSC or CMT, Fronius is ideally suited for a wide range of materials and automated applications. The systems impress with high arc stability, low spatter formation and easy integration into existing production lines.

WELDING PROCESSES

Precise process control, intelligent arc technology and maximum energy efficiency, the TPS/i welding systems from Fronius offer advanced welding processes for reproducible results in every application, from thin sheet to high performance welding.

LSC – Low Spatter Control

Stable Short Arc with Minimal Spatter Formation.

LSC is an advanced version of the standard short arc and reduces spatter through targeted short circuit resolution at a low current level. The arc remains consistently stable, even with fluctuating tolerances or in constrained positions.

Benefits

- Up to 75 % less spatter
 - Consistent penetration through penetration stabiliser
 - Less rework, shorter training time
 - Ideal for fillet, butt and downhill welds
-

PMC – Pulse Multi Control

Pulsed Arc with Intelligent Self Regulation.

PMC combines advanced control algorithms with arc and penetration stabilisers. Droplets are transferred in a controlled manner at the shortest arc length, which ensures optimal weld quality while increasing productivity.

Benefits

- 15 % higher welding speed
 - 60 % greater penetration depth
 - Spatter free ignition SFI technology
 - High quality weld appearance and reduced heat input
-

CMT – Cold Metal Transfer

Extremely Stable Short Arc with Dynamic Wire Movement.

CMT stands for an extremely stable short arc with dynamic wire movement. This process enables an almost spatter free material transfer and is particularly suitable for demanding materials and thin sheet metal.

Benefits

- Up to 33 percent less heat input
- Almost spatter free material transfer
- Double the welding speed compared to the standard short arc
- Ideal for thin sheet metal, galvanised steels, aluminium and special materials

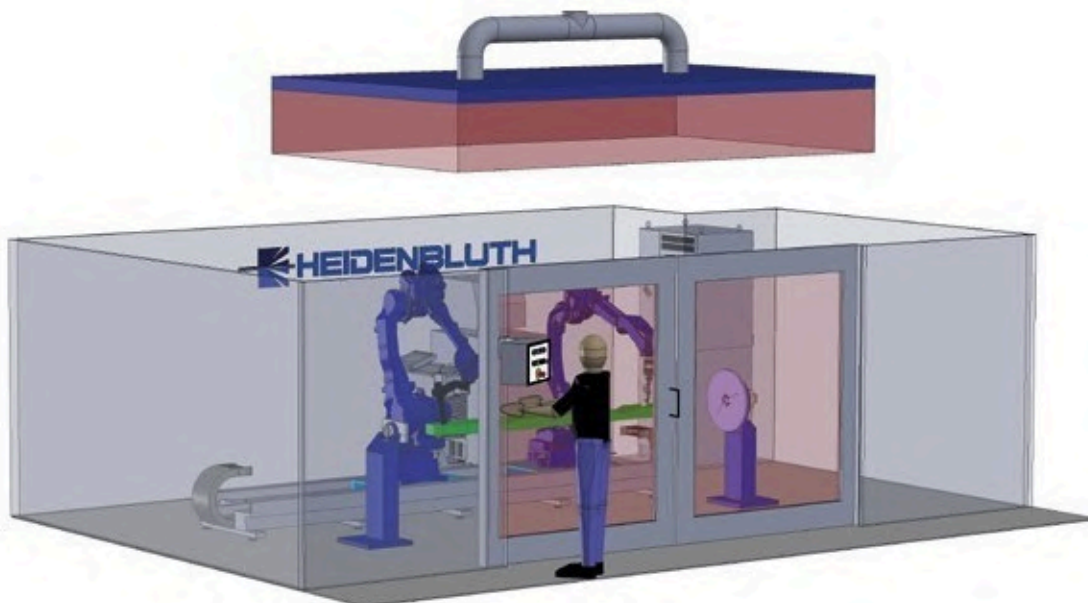
INDIVIDUAL WELDING ROBOT SYSTEMS

Special welding tasks and unique production environments require customised and tailored solutions. Wherever standard cells reach their limits, we work with you to develop solutions for your individual challenges.

The goal we always keep in focus is a significant and measurable improvement in your key performance indicators. We achieve this through high process reliability, quality and a well balanced time cost ratio.

For us, system planning always begins with listening. Step by step, our experts work with you to define the requirements for your system. We determine which functionalities are essential and what is needed to achieve the desired production result. Your production environment is also included in our analysis. This careful and precise planning gives you an early and clear picture of the future functional scope and the potential to increase the performance of your production.

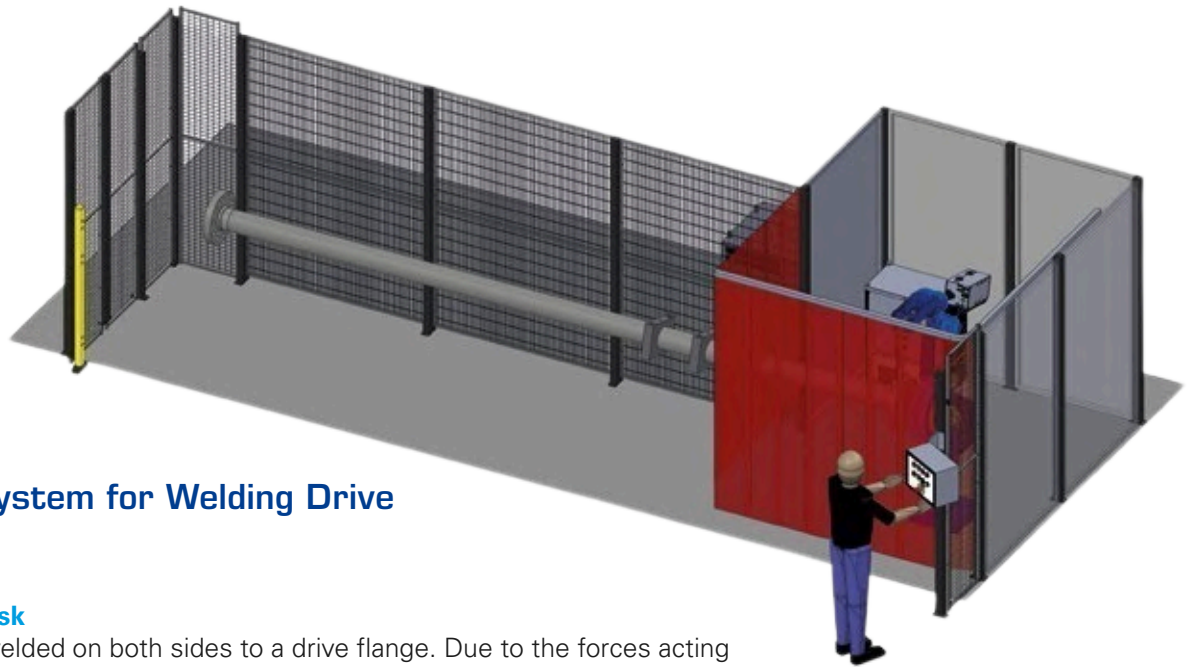
With more than fifty years of experience in welding technology and automation, we support you from the first concept through layout and process planning all the way to production and commissioning of your system and beyond. Absolute precision and a strong commitment to perfection ensure first class results for every project.



Robot System for Welding and Cutting Square Profiles

Welding task

Square profiles are cut using a plasma cutting process, and various attachments, such as brackets, are welded on using MAG.



Robot System for Welding Drive Shafts

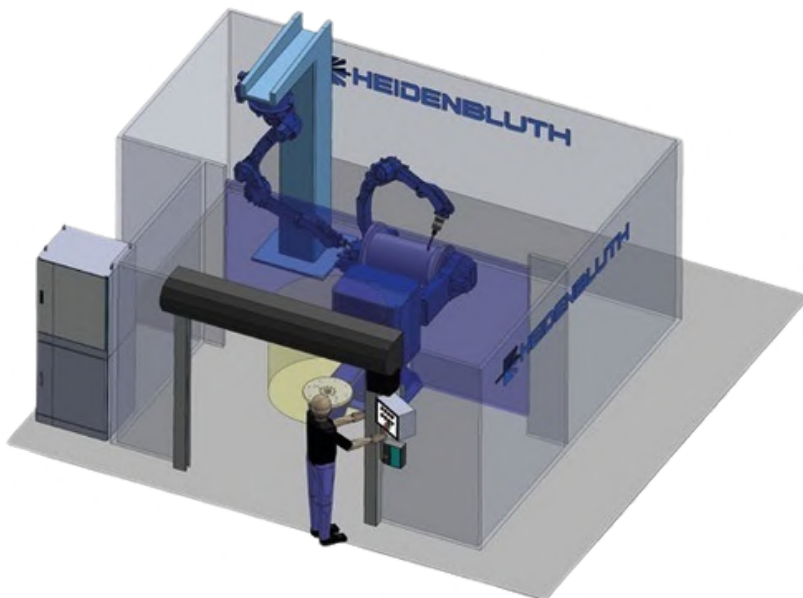
Welding task

A shaft is welded on both sides to a drive flange. Due to the forces acting on the weld seam, the customer required a full penetration weld. The layer build up of the weld seam is monitored with a camera to ensure the correct weld volume.

Robot System for Heat Exchangers

Welding task

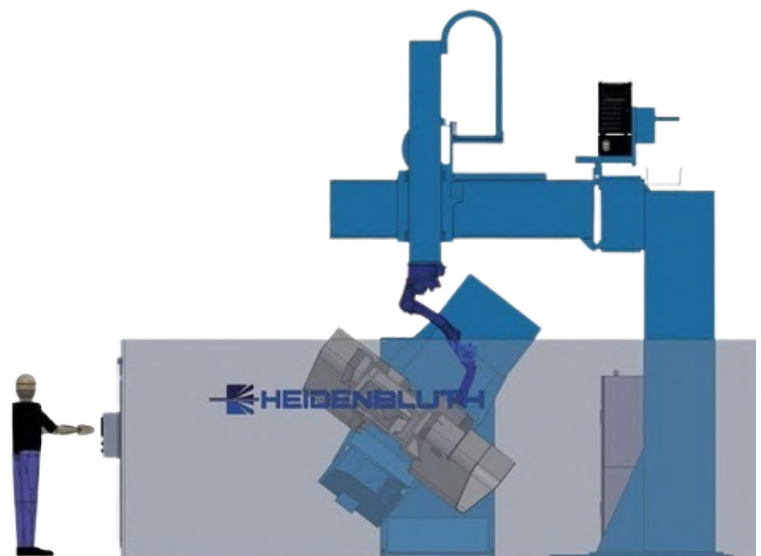
The production of a stainless steel heat exchanger. Both circumferential and longitudinal seams are welded. The root pass is welded from the inside using TIG cold wire, and the final weld is completed from the outside using MAG flux cored wire. The welding equipment is changed fully automatically.



Robot System for a Machine Assembly

Welding task

Various machine components are welded using MAG. The weld seams are positioned at different angles, and the material must be welded with low heat input. With the help of the positioner, the component is placed in the optimal welding position in order to achieve a high welding speed.



WELDER VS ROBOT

Automation means change. The direction is what matters.

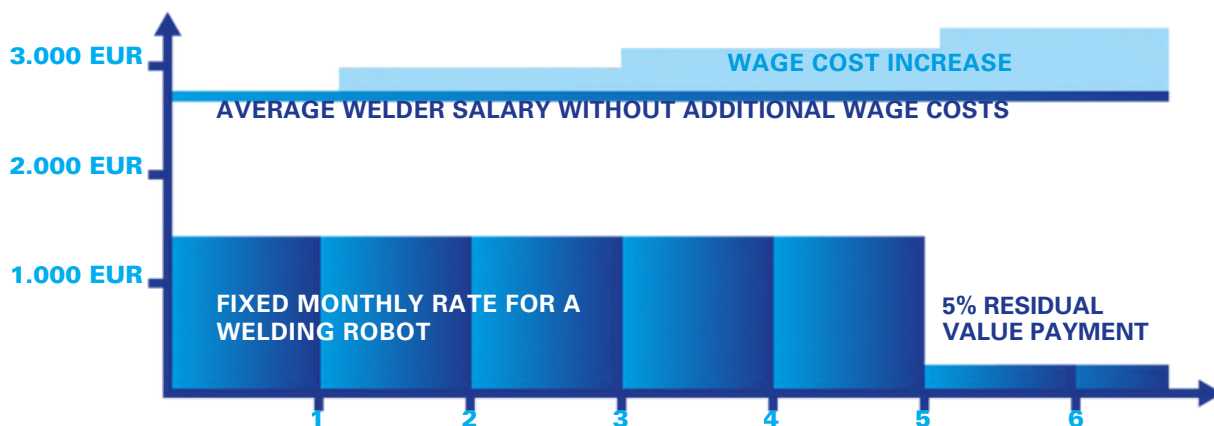
Entire industries today speak of digitalization and automation as the way of the future. What is often forgotten are the employees who are affected by it. What advantages does automation offer for my company? Is it financially worthwhile? How will my trained professionals react when we replace their manual work with robots? Is there even a positive answer to this question that our workforce will support?

From a purely economic perspective, we have illustrated a convincing sample calculation for the life cycle of a cobot in the calculation shown below.

What sets our expertise apart beyond the numbers is our ability to advise and support your workforce as they transition into new processes. We are experienced in communicating that the expertise of your skilled employees is not being replaced but complemented, that their jobs are not being streamlined away but simplified, and that in the future they will no longer carry out routine tasks but gain responsibility and apply their competence to complex and truly important work.

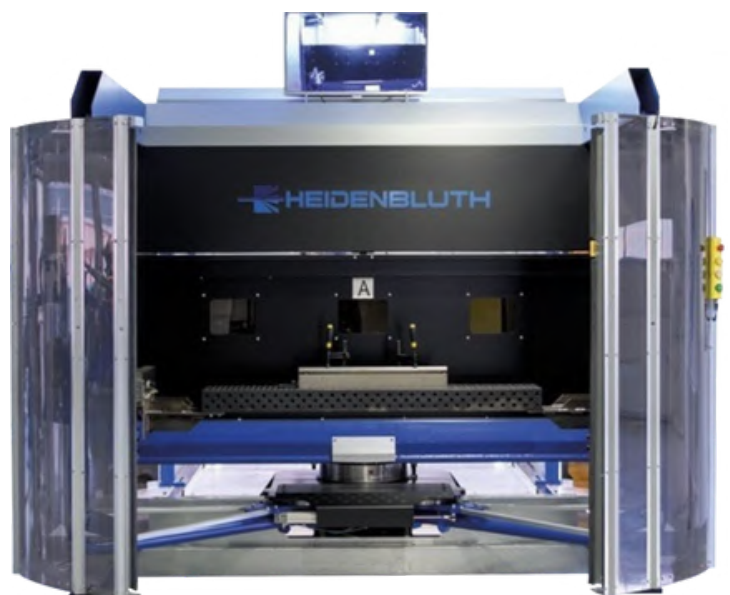
Automation means change. We make sure you play all your cards exactly right.

MONTHLY COSTS



Starter Paket

Financing: 700 EUR per Month
with a term of 72 months



ArcWorld 2

Financing: 1.900 EUR per Month
with a term of 72 months





DIESCHMWEISSERUMI

CUSTOM WELDING ROBOT SYSTEMS

Special welding tasks and unique production environments require individual and tailored solutions. Wherever standard cells reach their limits, we work with you to develop solutions for your specific challenges.

Beginner and Operator Training

When it comes to automating your production, the rule is simple, the better your employees are involved, the greater the potential for your manufacturing. With our specialized beginner and operator training for Universal Robots and Yaskawa robots, we teach the fundamentals for using and applying your automated production in an engaging and interesting way.

Universal Robots

Content

- Introduction to the Polyscope software
- Structure and operating method of the robot system
- Introduction to the teach in practical module
- Programming and welding
- Importance of the TCP and its verification

Training Objective

You will acquire basic knowledge for the UR and learn:

- to switch on and start the system
- to program the robot
- to independently create simple motion programs
- to weld components, provided welding knowledge is available

Yaskawa

Content

- Structure and operating method of the robot system
- Explanation of program structure
- Creation of a simple motion program
- Importance of the TCP and its verification
- Explanation of coordinate systems
- Manual recovery after a robot or torch crash
- Collision resolution

Training Objective

You will acquire basic knowledge of robotics and learn:

- to switch on and start the system
- to move the robot using the programming handset
- to independently create simple motion programs and edit existing programs

Additional Training and Topics:

- Repair welding
- Flame straightening
- TIG orbital welding
- Aluminum, stainless steel, oxyfuel and plasma welding
- Flux cored welding
- Swift Cut and plasma cutting
- Individual training

Exams and Certificates:

- Operator examination according to DVS guideline
- Welder examination according to DIN EN ISO 9606 1
- VT1+2 and PT1+2 visual and penetrant testing according to DIN EN ISO 9712
- MT magnetic particle testing



You can find more information and current training dates here:
<https://www.heidenbluth.com/schulungen-veranstaltungen>



OUR COMMITMENT TO QUALITY

At **Heidenbluth Schweißtechnik**, quality is not just a promise, it is firmly anchored in our company philosophy. From our range of standardized and individually adapted welding cells to custom tailored **welding packages**, every solution is developed with the highest level of precision and optimal integration. With support that spans from the first welding trials in our modern application center through complete system setup, comprehensive training and long term maintenance, we ensure that you always receive the assistance you need to optimize your processes.

We understand that the material and alignment of every single component have a decisive influence on welding quality. This is why our experts carry out thorough analyses and select the best possible welding process to meet the highest performance requirements. Our extensive network of sales and service partners ensures that you receive consistently high quality support at every location.

What particularly sets us apart is our **Product Configurator**, a powerful tool that simplifies automation. Whether you want to expand your production or handle complex series of components, the configurator helps you visualize options, calculate costs and select the ideal solution that fits your available space, batch size and component type. Need help deciding? Simply send us a photo of your component and our team will quickly develop the optimal solution.

Heidenbluth stands for **reliability, efficiency and long term partnership**. From the economic advantages of rapid amortization, often with leasing options that cost significantly less than manual labor, to the high productivity of systems such as ArcWorld and Cobot packages, your investment is not only an investment in technology, it is an investment in performance. With a clear focus on reproducible results, seamless integration and sustainable collaboration, we secure the future capability of your production.

FREQUENTLY ASKED QUESTIONS (FAQ)

Can Heidenbluth automation systems be integrated into existing facilities?

Yes, our systems are designed for flexibility. Whether you are working with older machines or modern production lines, we adapt our solutions so that they integrate seamlessly into your processes. Integration is carried out with minimal downtime, ensuring that your production schedule remains uninterrupted.

Can I receive a demonstration before purchasing?

Yes, we offer demonstrations at your company, at our application center and also as virtual presentations. This allows you to see our systems in operation, ask questions and determine whether they are suitable for your projects.

What support do I receive after installation?

Our service does not end with delivery. We offer continuous technical support, preventive maintenance programs, rapid fault diagnosis and reliable spare parts availability. This ensures that your system remains productive and reliable in the long term.

Can the systems be adapted to individual requirements?

Yes, every company is unique, which is why our solutions are modular and individually adaptable. Together with you, we analyze your goals, production requirements and available space to develop a tailored solution.

How long does it take to set up a welding automation system?

The duration depends on the complexity of the system. A standard welding package can often be ready for use within a few days, while large, custom tailored cells may require several weeks from delivery until full production readiness.

If you have further questions or would like individual advice, our experts are happy to assist you. You can contact us at

Tel: +49 561 95853 0 or **info@heidenbluth.com**.



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Here you can access the
product configurator!



Visit us at our application center!

Experience state of the art welding technology up close.

In our application center, you have the opportunity to see our welding robot cells live in action, receive advice from our experts and discover individual solutions for your production. Schedule an appointment today and get inspired, we look forward to your visit!

Heidenbluth, Fachhandel für Schweißgeräte GmbH

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Visit us at
www.heidenbluth.com

All information without guarantee. Subject to changes, errors and price deviations.