

**2k WELDING**

  
standard products

  
robotic application

  
custom application

*Your Solution Partner*

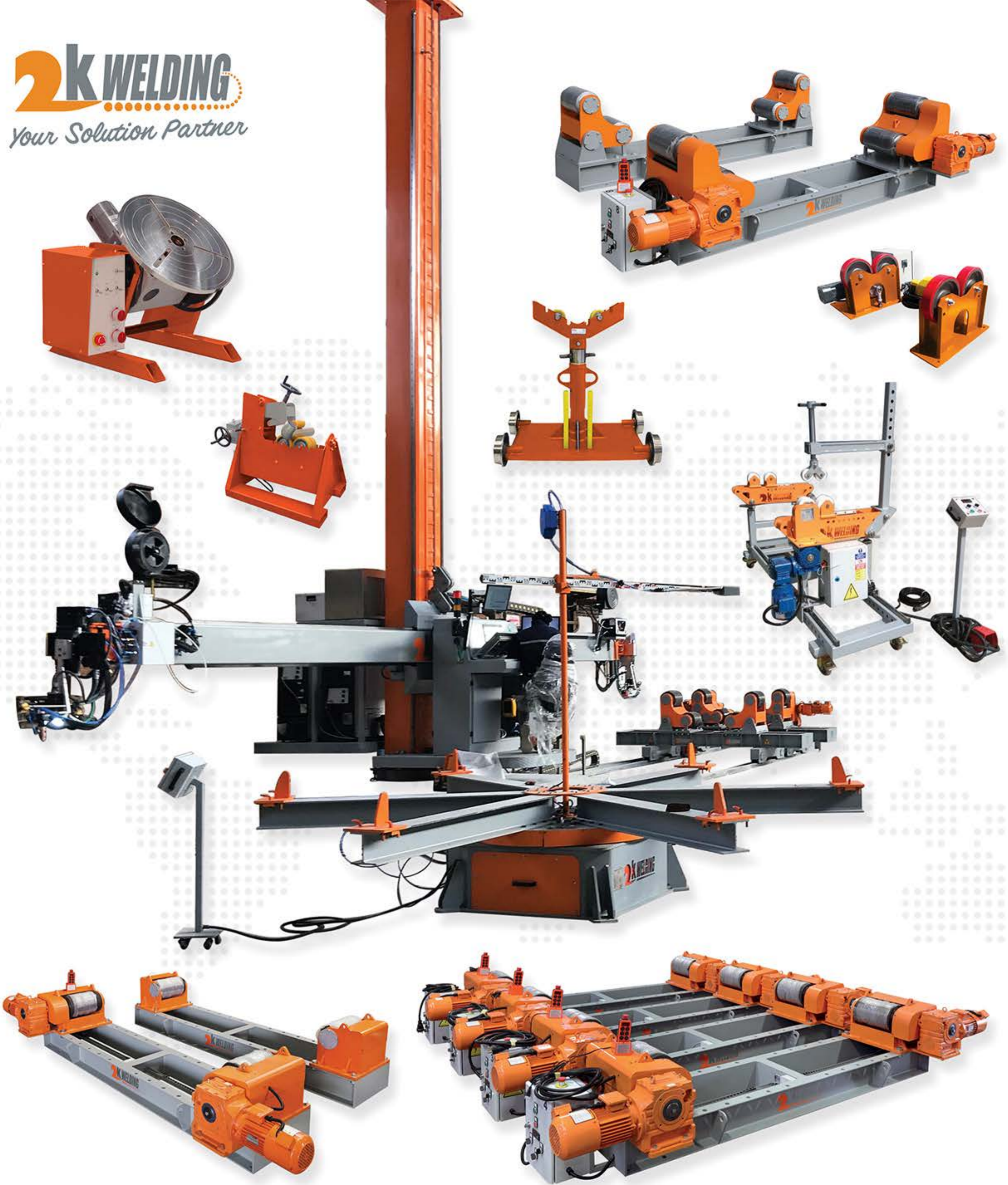
- 2k Welding was established by specialist engineers, come together to provide services in welding technology, welding automation and machine manufacturing in 2004.
- Being active in the sector from the first time it was established, it completed a number of projects in a short time and got a powerful place in the sector.
- By providing services and production in accordance with iso 9001-2008 quality standards, we have delivered customer demands on the desired quality on time.
- Qualified, skilled and experienced welding engineers, mechanical engineers, electrical and electronic engineers and 15 blue-collars serve customers on 7/24 basis.

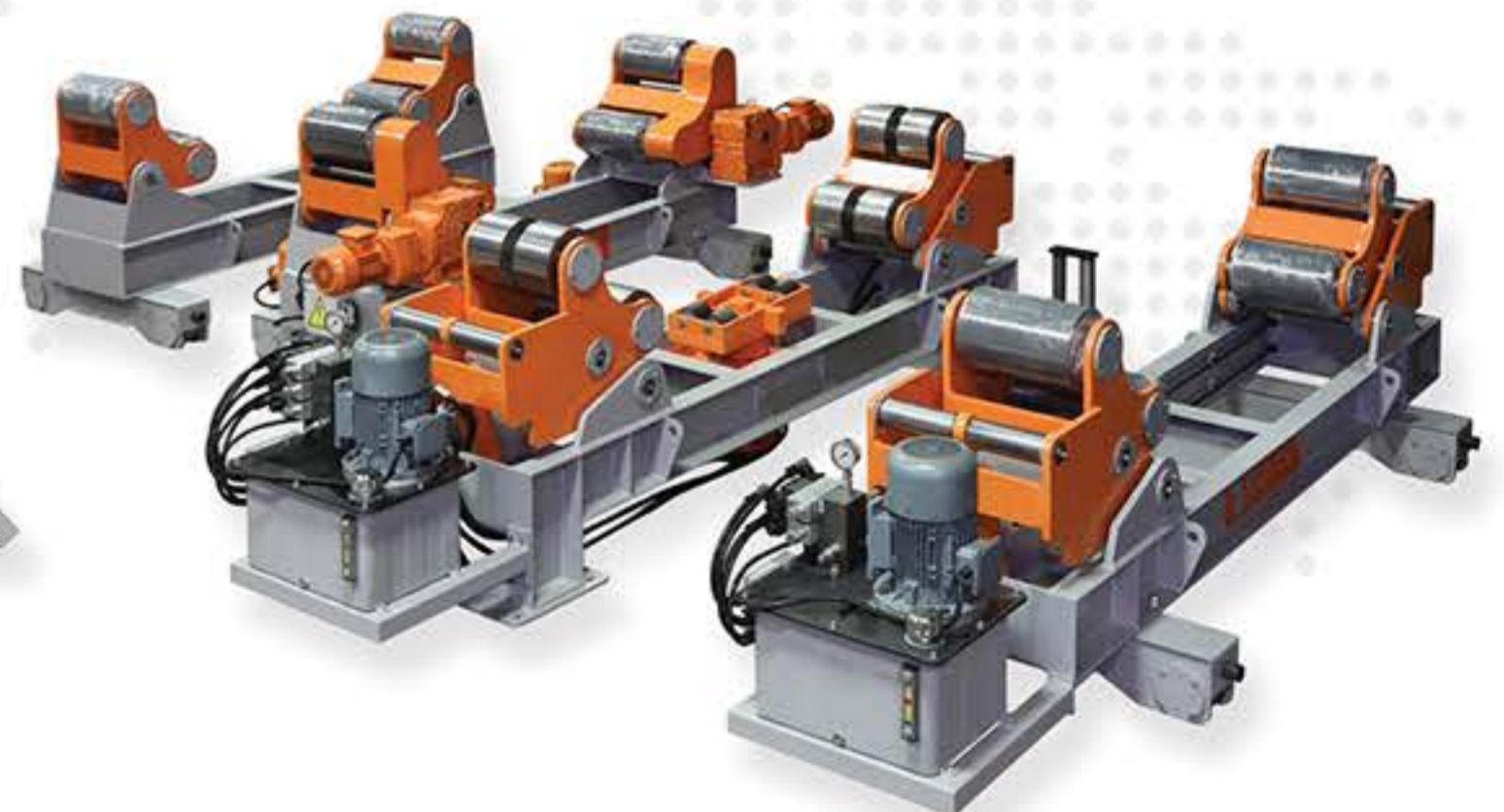
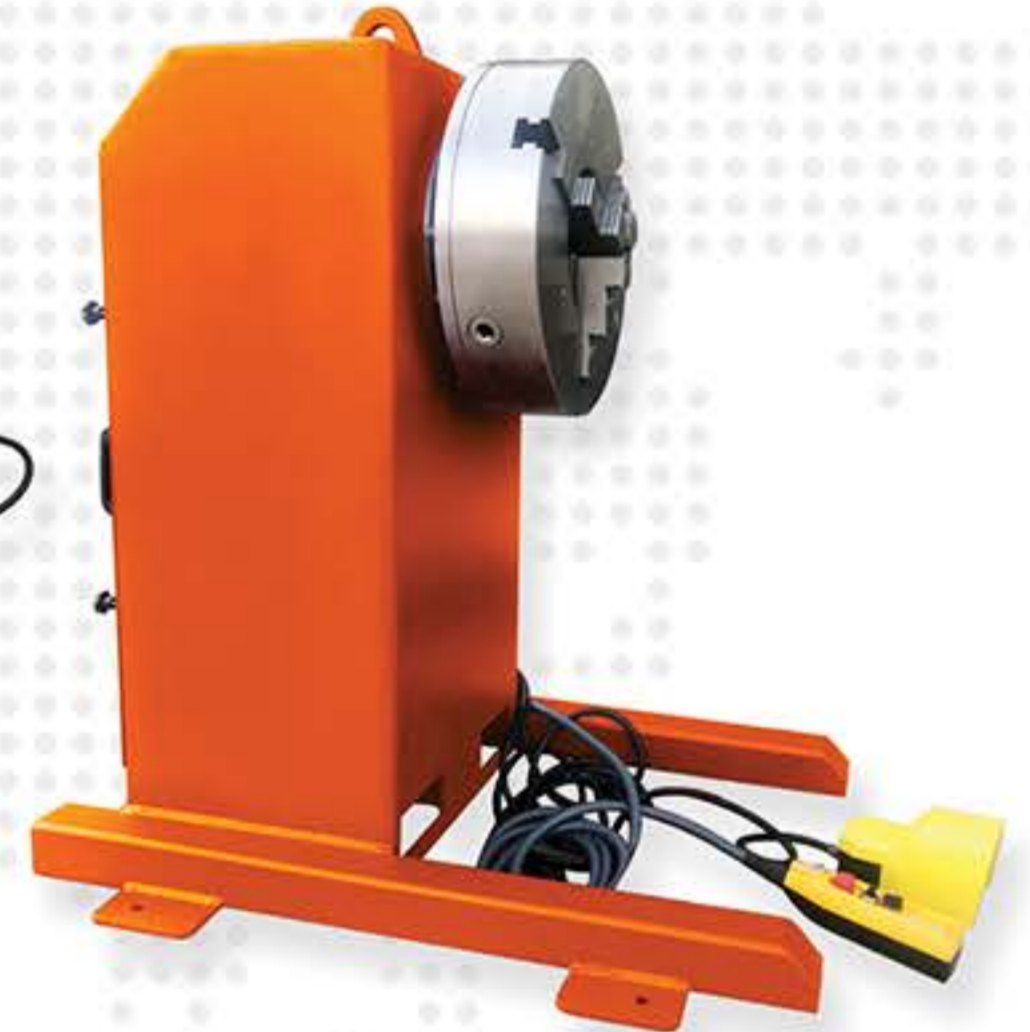


"Welding Automation" is an excellent opportunity for companies looking for continuous Improvement and performances. The ever changing economic conditions of the welding markets, served by our loyal customers, make it necessary for them to be continually looking to improve and innovate their welding activities. As a solution provider, 2K WELDING extensive automation product range offers productivity solutions across all industrial segments allowing companies to adapt to the ever changing needs of the market environments. The range is supported by our dedicated technical sales network, and engineering specialists, who can visit your premises to discuss and propose engineering solutions that range from simple plug and play equipment to full turn-key packages offering tangible cost and quality improvements in your process. This catalog is a concentrate of technology, and you will find I am sure a response to your manufacturing needs, but the easiest for you is still to contact us, so that together we realize your "factory of the future".

**GENERAL MANAGER - OWNER**  
**Kadir BEYENAL**







**WE ARE YOUR SOLUTION PARTNER  
TO REALIZE YOUR DREAMS  
IN WELDING AUTOMATION**



### INNOVATION

We are deeply committed to industrial and social innovation, aware of the powerful effects of innovation on our lives. Without continuous and sustainable innovations and our more sincere curiosity and research spirit it is our main philosophy to take the road with our first day's excitement.

1

### FEASIBILITY

After the comprehensive observations made by our specialist engineers in the field of work and afterwards, engineering evaluations and analytical studies are used to determine the optimum solution configuration and process solution.



2

### THE PROPOSAL

Created which includes the most suitable machines and equipments for the project as a result for the work done.

3



### DESIGN & MANUFACTURING

Our turn key project include; Analysis, mechanical design integration of automation components (electrical, pneumatic, hydraulic) installation, consultancy, training services maintenance and support agreements. Projects that we have presented to our customers with a complete solution under one roof; Mechanics. Robots and automation are carried out by our responsible personnel individually with project management discipline. With our on-side service understanding, we are always with you by completing your projects and making a complete delivery and installation...



4

### INSTALLATION AND COMMISSIONING

The semi-finished products from the production are assembled in our assembly site and passed through quality control and function tests and made ready for shipment. When machines and equipments are shipped to the customer area, our specialist assembly team completes the field assembly activities, electrification and installation works and commissioning is carried out together with the customer team.

5



### TECHNICAL SUPPORT

For post-sale technical support, our teams are available for direct field or remote support.

7



### AFTER SALES

We are at your service 24/7 with user-friendly interfaces and qualified staff.

9



### EDUCATION

Once all processes are completed successfully, with experience and expertise, the training process required for the operations of the client is completed.

6

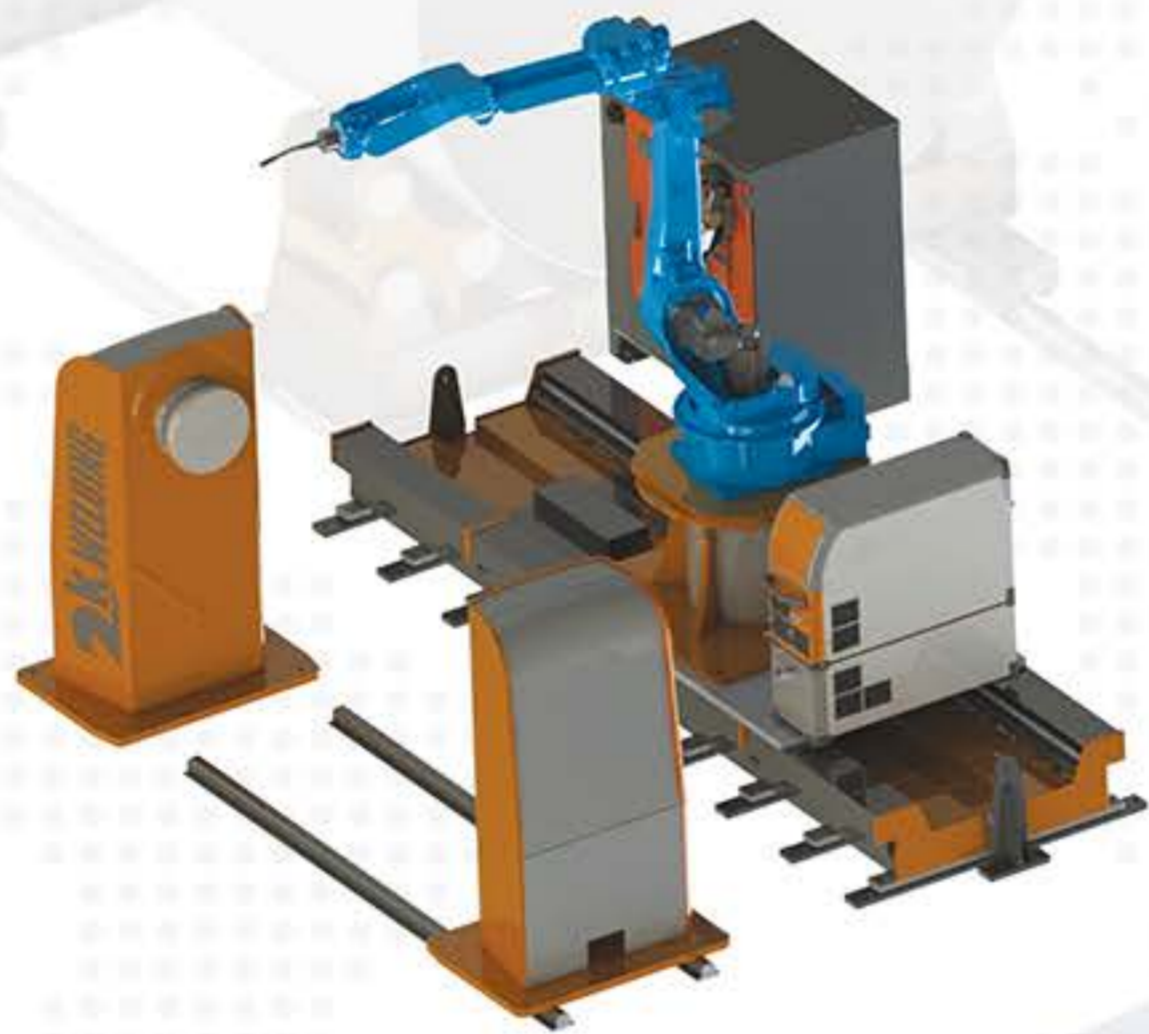


### SPARE PARTS

We give you full support for guaranteed original parts and accessories, technical support and spare parts supply. After reviewing your application for possible damage or malfunctions you are advised to select the most required parts list with the most reasonable prices.

8





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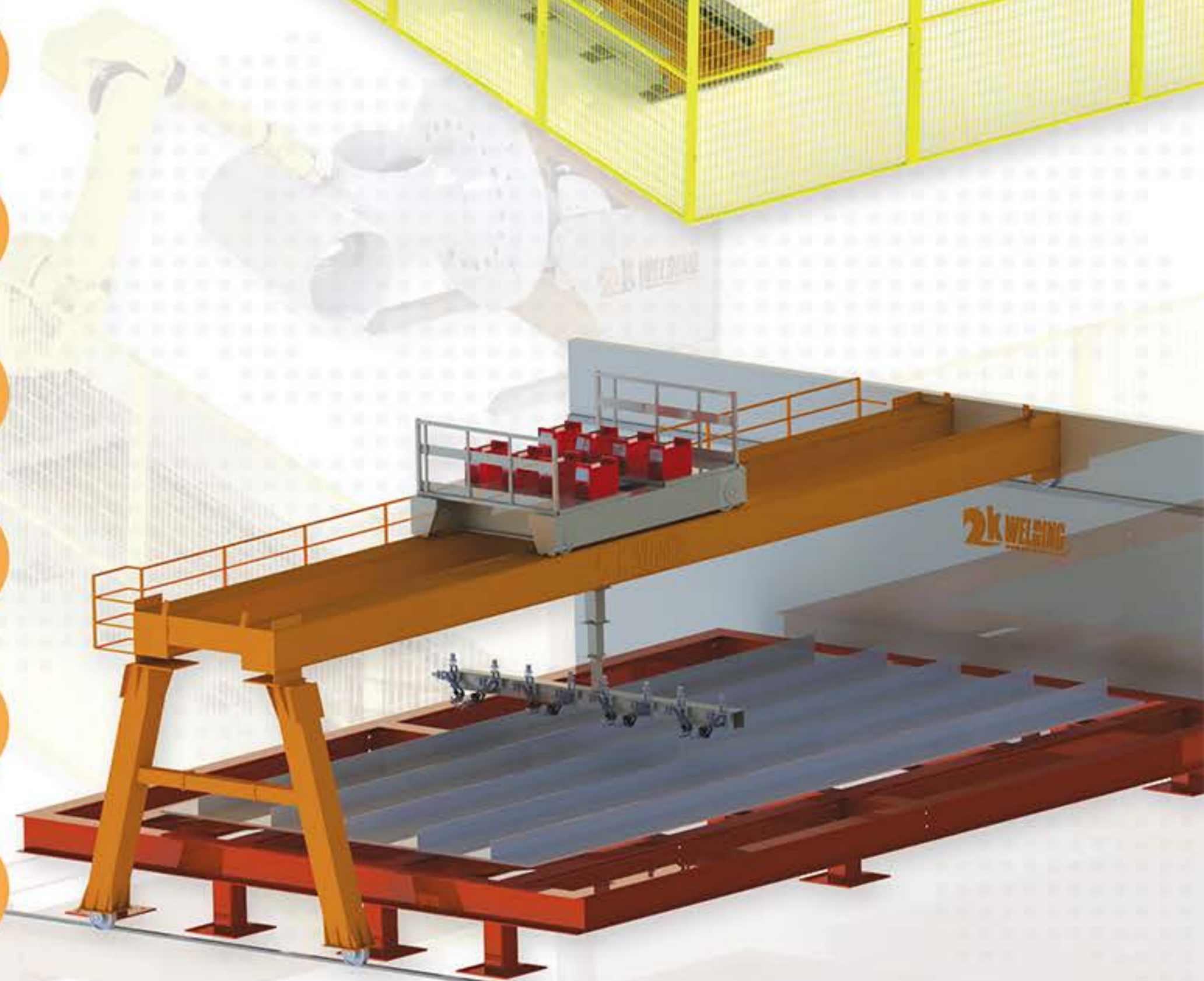
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## Working Country



Turkey - Germany - France - England - Romania - Austria  
Poland - Netherlands - Spain - Russia - Croatia - Dubai

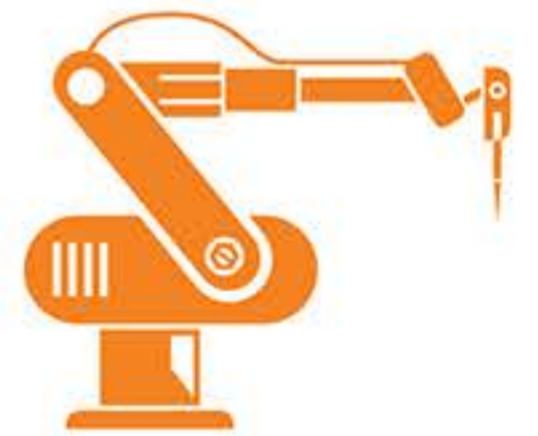
# Products



"All design and engineering calculations are at your service with our standard products developed by 2K WELDING."



"Thanks to the technologies we have developed for welded connections and Know How brought by many projects, we are at your service with robotic technologies."



"Organized in a multi-disciplinary structure, 2K WELDING produces R&D solutions by providing mechatronics based participation in welding automation projects."





360°

Sensetively adjustable rotation velocity

90°-135°

90°-135° Positioning ability



High effetiend power transmission with low spaced gear and reducer



They are designed to turn the workpiece in PA (horizontal on the ground), PB (fillet position) etc. positions in order to obtain quality and fast welding seams. It offers the ability to move in two independent axes, rotation and angular positioning.



## AXIAL POSITIONER

STANDARD CAPACITIES AVAILABLE FROM 100 KG TO 10 TON

Model	2k-MP-01	2k-MP-02	2k-MP-03	2k-MP-06	2k-MP-12	2k-MP-30	2k-MP-50	2k-MP-100
Capacity	100 KG	200 KG	300 KG	600 KG	1200 KG	3000 KG	5000 KG	10000 KG
Rotation Speed	0.1-1.2 RPM	0.1-1.2 RPM	0.1-1.2 RPM	0.09-0.9 RPM	0.09-0.9 RPM	0.1-1 RPM	0.05-0.5 RPM	0.03-0.66 RPM
Rotation Motor	0.25 kW	0.25 kW	0.37 kW	0.37 kW	0.75 kW	1.1 kW	1.5 kW	2.2 kW
Tilt	90°	90°	90°	120°	120°	135°	135°	120°
Tilt Motor	***	***	0.37 kW	0.55 kW	0.75 kW	1.1 kW	1.1 kW	3 kW
Table Diameter	400 mm	450 mm	600 mm	1000 mm	1200 mm	1220 mm	1400 mm	1830 mm
Earthing	300 A	300 A	300 A	300 A	300 A	300 A	300 A	600 A
Control Box Ingress Protection Rating	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65



VP is designed to be positioned at the appropriate welding position for workpieces of different capacities depending on their volumetric sizes. It is a system that reduces the installation time and reduces the need for cranes and operators.



## VERTICAL POSITIONER

STANDARD CAPACITIES AVAILABLE FROM 500 KG TO 5 TON

Model	2k-VP-500	2k-VP-1000	2k-VP-3000	2k-VP-5000
Capacity	500 KG	1000 KG	3000 KG	5000 KG
Center of Gravity	150 mm	150 mm	150 mm	150 mm
Rotation Torque	620 Nm	1450 Nm	2250 Nm	5064 Nm
Rotation Speed	0,1-2,6 rpm	0,15-3,3 rpm	0,2-2,5 rpm	0,12-2,5 rpm
Chuck Size	Ø400 mm	Ø400 mm	Ø500 mm	Ø700 mm
Earthing	300 A	300 A	300 A	300 A



TT positioners are designed for workpieces with cylindrical geometries of different capacities.



## HORIZONTAL POSITIONER

STANDARD CAPACITIES AVAILABLE FROM 1 TON TO 60 TON

Model	2k-TT-01	2k-TT-03	2k-TT-05	2k-TT-10	2k-TT-20	2k-TT-30	2k-TT-60
Capacity	1000	3000	5000	10000	20000	30000	60000
Rotation Speed	0.1-1.2 RPM	0.1-1.2 RPM	0.1-1.2 RPM	0.09-0.9 RPM	0.09-0.9 RPM	0.05-0.5 RPM	0.05-0.5 RPM
Table Diameter	1150	1250	1500	1650	1800	2000	2200
Control	Hand Pendant	Hand Pendant	Hand Pendant	Hand Pendant	Hand Pendant	Hand Pendant	Hand Pendant
Earthing	300 A	300 A	300 A	300 A	300 A	300 A	300 A
Control Box Ingress Protection Rating	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65



It is designed for reaching hard-to-reach welding points and for volumetric workpieces. Thanks to its 3 axes, almost all welding positions also allow work.



## HYDRAULIC POSITIONER

### STANDARD CAPACITIES AVAILABLE FROM 1 TON TO 10 TON

Model	HP-1000	HP-2000	HP-3000	HP-5000	HP-10000
Capacity	1000 KG	2000 KG	3000 KG	5000 KG	10000 KG
Center of Gravity	150 mm	150 mm	150 mm	150 mm	150 mm
Rotation Speed	Min 0,15 - Max 1,5 rpm	Min 0,1 - Max 1 rpm	Min 0,1 - Max 1 rpm	Min 0,08 - Max 0,88 rpm	Min 0,075 - Max 0,75 rpm
Tilting Speed	60 seconds	60 seconds	60 seconds	60 seconds	60 seconds
Tilting About	2X Hydraulic Cylinder	2X Hydraulic Cylinder	2X Hydraulic Cylinder	2X Hydraulic Cylinder	2X Hydraulic Cylinder
Table Diameter	800 mm	900 mm	1100 mm	1350 mm	1350 mm
T-Slots	M16 x 4 T-Slot	M16 x 4 T-Slot	M16 x 4 T-Slot	M18 x 4 T-Slot	M24 x 4 T-Slot
Control	Hand Pendant	Hand Pendant	Hand Pendant	Hand Pendant	Hand Pendant



**Optional Accessories**  
A- Free Standing Control Panel  
It provides effective control thanks to its ergonomic design and digital potentiometer that gives numerical speed value.



**Optional Accessories**  
B- Foot Switch  
It provides control for easy direction changes and quick position changes.

**Optional Accessories**  
C- Degree and Overlap Position Control Panel With Touch Screen  
It provides easy control for fast and quality welded connections in circular welding applications of standard diameter workpieces. In addition, the welding process can be terminated automatically by overlapping the welding at the distance entered at the end point of the rotary table welding. Turntable can be controlled by the number of turns or degree.





**Optional Accessories**  
E- Torch support  
It is designed to obtain fast and high quality welding seams in welded joints of fixed workpieces. Special design can be made according to the positioner type and the diameter of the workpiece.  
\*\*\* Since the table diameters change according to the position type, get information from the sales team before order.

**Optional Accessories**  
D- 3 or 4-Jaws Chuck  
It is used for easy connection of work pieces with circular geometries of different diameters.  
\*\*\* Since the table diameters change according to the position type, get information from the sales team before order.



Rotators (roller bed) have circular geometry and can be used for tanks, pipes, etc. It is designed for turning workpieces and taking suitable positions. In the system, the converters, which are designed according to the weight of the workpiece, one of which is driven and the other can make idle rotation, consist of durable chassis structures and converter units with heavy load capacities.





## TR SERIE CONVENTIONAL ROTATOR

STANDARD CAPACITIES AVAILABLE FROM 1 TON TO 300 TON

Model	Load Carrying Capacity Drive Unit	Load Carrying Capacity Idler Unit	Load Carrying Capacity Set	Rotation Capacity, Drive Roll	Vessel Diameter Capacity	Rotation Speed Range	Wheel Coating Material	Control	Control Box Ingress Protection Rating
TR-01	500 KG	500 KG	1000 KG	1000 KG	20 to 800 mm	80 to 600 mm/min	Rubber	Hand Pendant	IP 65
TR-05	2,5 TON	2,5 TON	5 TON	5 TON	200 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
TR-10	5 TON	5 TON	10 TON	15 TON	200 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
TR-20	10 TON	10 TON	20 TON	30 TON	200 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
TR-30	15 TON	15 TON	30 TON	45 TON	200 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
TR-40	20 TON	20 TON	40 TON	50 TON	200 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
TR-50	25 TON	25 TON	50 TON	75 TON	200 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
TR-60	30 TON	30 TON	60 TON	90 TON	410 to 5000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
TR-100	50 TON	50 TON	100 TON	150 TON	450 to 5000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
TR-150	75 TON	75 TON	150 TON	225 TON	450 to 5000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
TR-200	100 TON	100 TON	200 TON	300 TON	550 to 6000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
TR-300	150 TON	150 TON	300 TON	450 TON	550 to 6000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65





## HR SERIE SELF ALIGNING ROTATOR

STANDARD CAPACITIES AVAILABLE FROM 5 TON TO 300 TON

Model	Load Carrying Capacity Drive Unit	Load Carrying Capacity Idler Unit	Load Carrying Capacity Set	Rotation Capacity, Drive Roll	Vessel Diameter Capacity	Rotation Speed Range	Wheel Coating Material	Control	Control Box Ingress Protection Rating
HR-05	2,5 TON	2,5 TON	5 TON	7,5 TON	200 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
HR-10	5 TON	5 TON	10 TON	15 TON	200 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
HR-20	10 TON	10 TON	20 TON	30 TON	200 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
HR-30	15 TON	15 TON	30 TON	45 TON	200 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
HR-40	20 TON	20 TON	40 TON	60 TON	250 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
HR-50	25 TON	25 TON	50 TON	75 TON	250 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
HR-60	30 TON	30 TON	60 TON	90 TON	250 to 4000 mm	130 to 1300 mm/min	Polyurethane	Hand Pendant	IP 65
HR-100	50 TON	50 TON	100 TON	150 TON	250 to 5200 mm	150 to 1500 mm/min	Polyurethane	Hand Pendant	IP 65
HR-150	75 TON	75 TON	150 TON	225 TON	250 to 5200 mm	150 to 1500 mm/min	Polyurethane	Hand Pendant	IP 65
HR-200	100 TON	100 TON	200 TON	300 TON	250 to 5200 mm	150 to 1500 mm/min	Polyurethane	Hand Pendant	IP 65
HR-300	150 TON	150 TON	300 TON	450 TON	2350 to 6000 mm	150 to 1500 mm/min	Polyurethane	Hand Pendant	IP 65



#### Optional Accessories

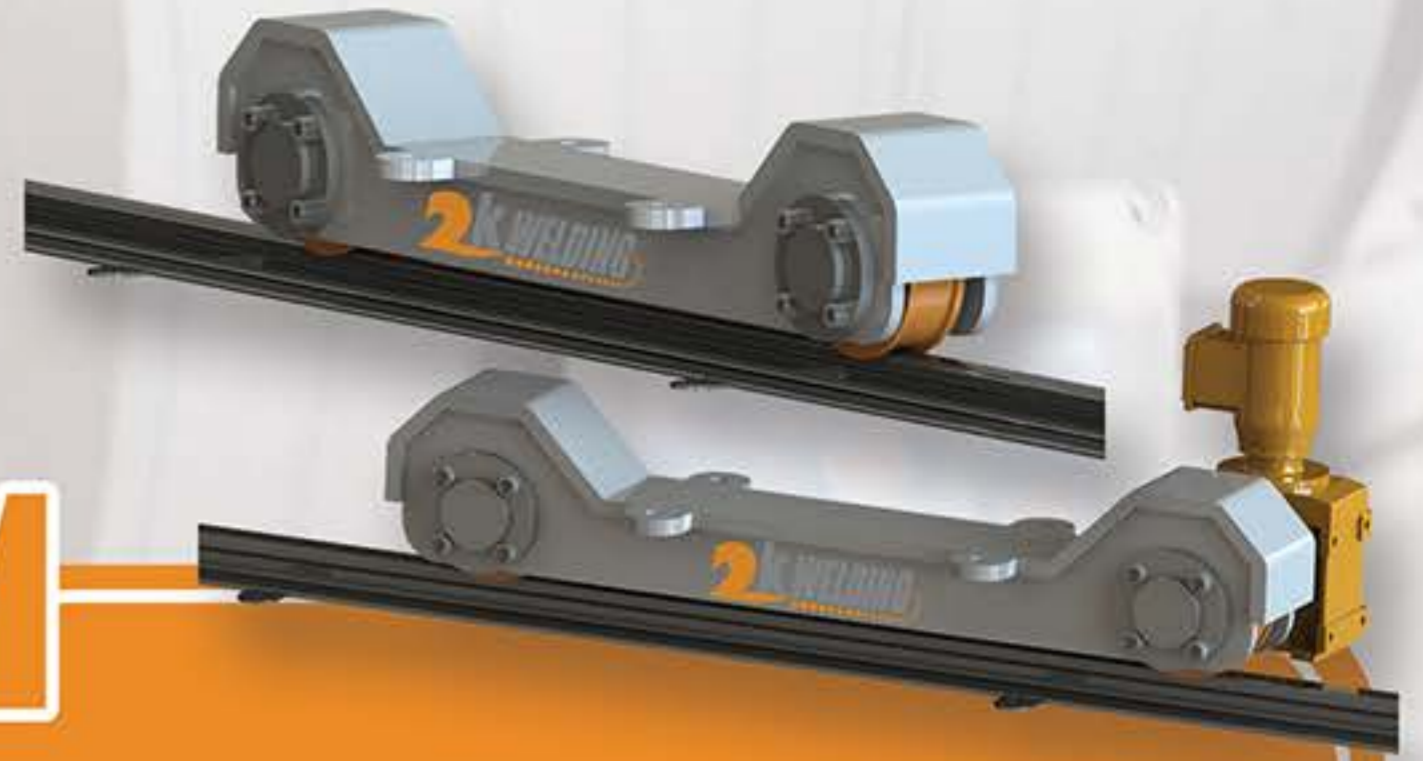
##### A- Degree and Overlap Position Control Panel With Touch Screen

It provides easy control for fast and quality welded connections in circular welding applications of standard diameter workpieces. In addition, the welding process can be terminated automatically by overlapping the welding at the distance entered at the end point of the rotary table welding. Turntable can be controlled by the number of turns or degree. It also has operator password and WPS (welding procedure specification) software.



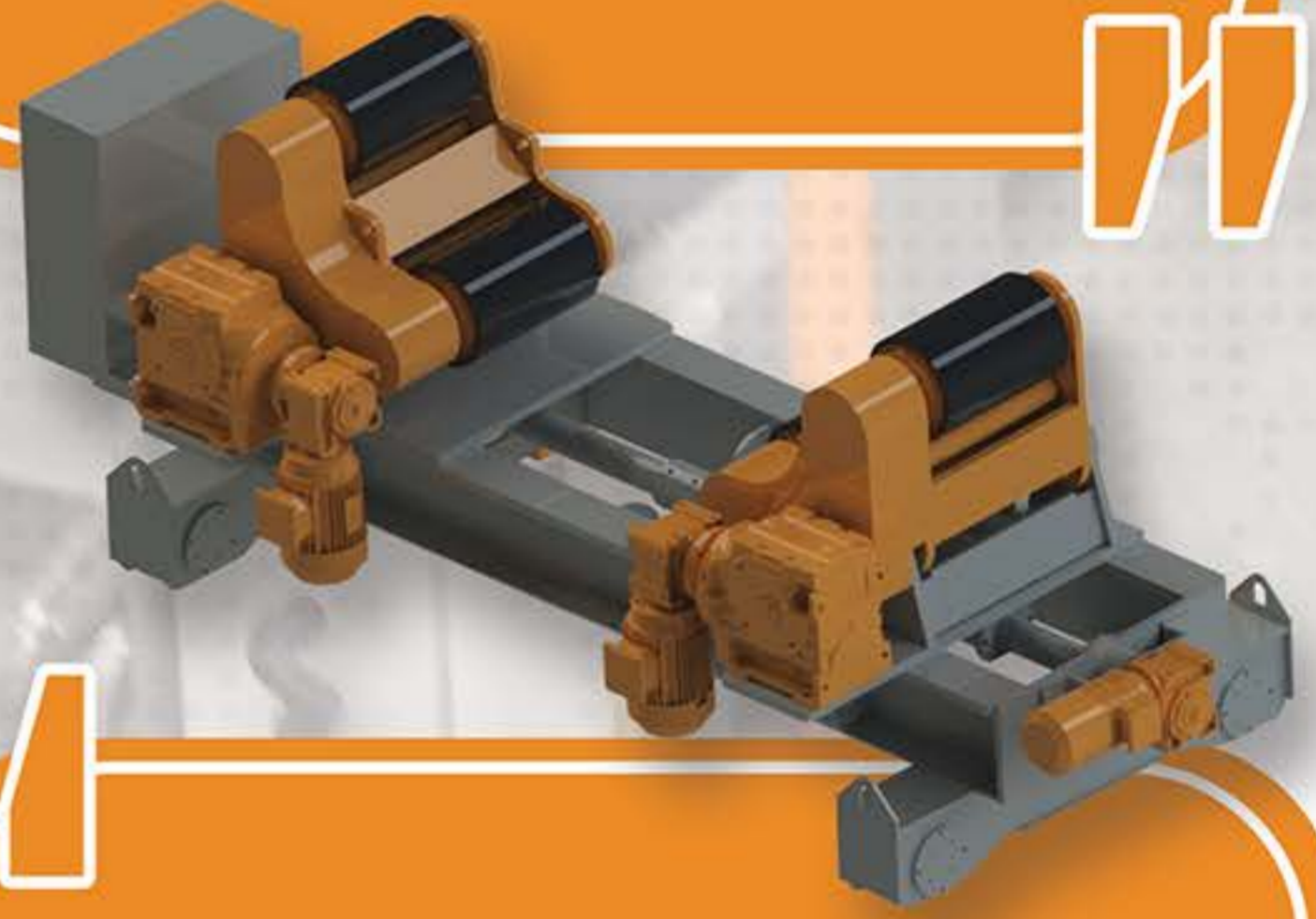
#### Optional Accessories

**B- Remote Control**  
Allows control all over the workpiece for easy direction changes and quick position changes.



#### Optional Accessories

**C- Rail Bogie**  
" It is produced in accordance with different rail profiles (A45 , A55 , A65... etc.) in standard capacities. It can be manufactured in sizes suitable for your existing rail distances with manual bogie and drive bogie control."



#### Optional Accessories

**D- Lead Screw Automatic Diameter Adjustment System**  
Manual and motorized lead screw system for different diameter ranges designed by 2k are produced with two models, under load and bolted.

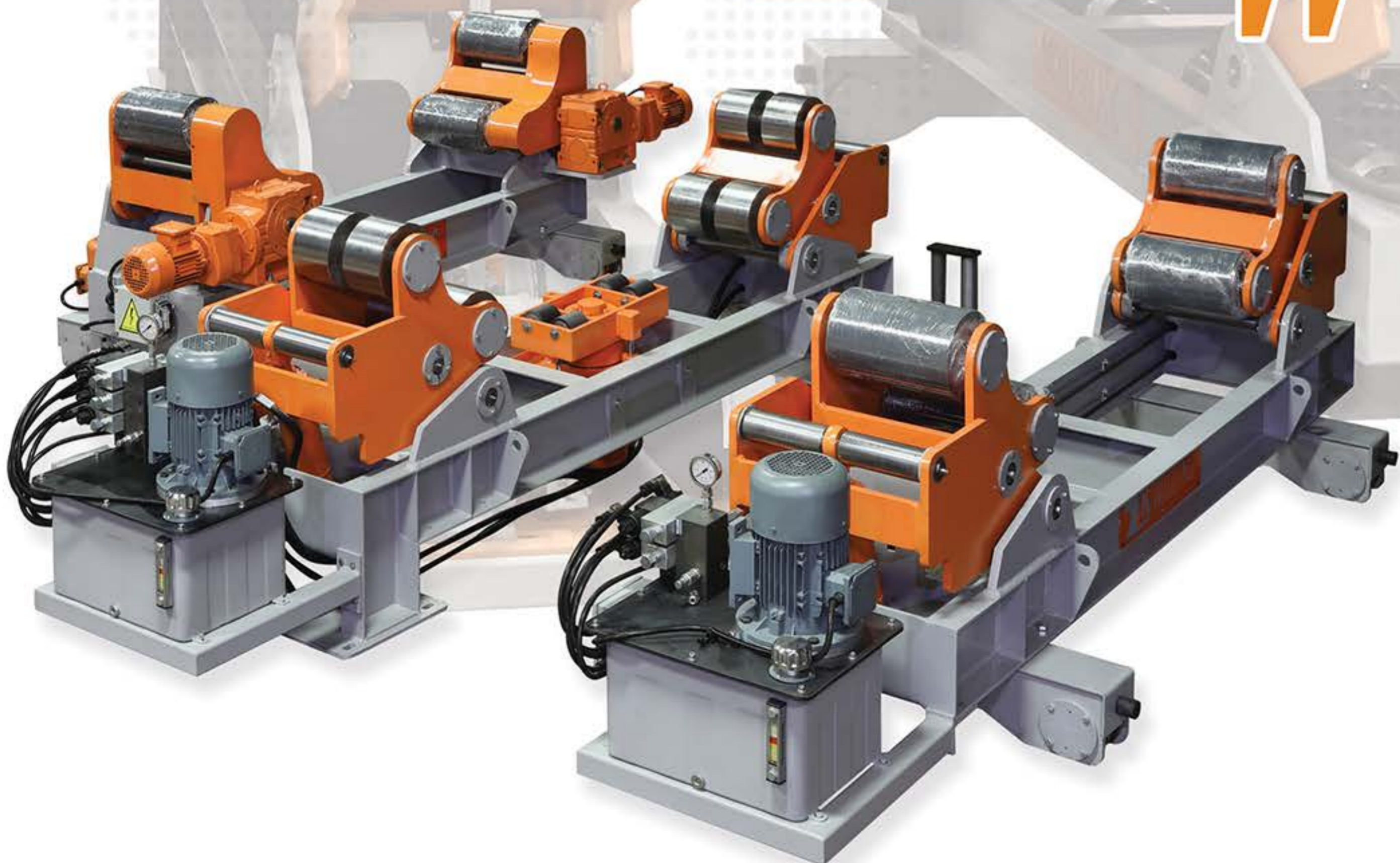


#### Optional Accessories

**E- Foot Switch**  
It provides control for easy direction changes and quick position changes.



HR series FIT\_UP system are systems that can be used in the assembly of 2 sectors. It is a system that reduces the assembly time of workpieces with cylindrical geometry and reduces the need for cranes and operators.



## **“PRODUCTION ACCORDING TO REQUESTED DIMENSION AND WEIGHT”**



HR series GROWING\_LINE system can work like FIT\_UP System or they can be used in the assembly of more than 2 sectors. This system, working synchronously with each other on the rail, is designed for use in the assembly and welding operations of all sectors of the longitudinal workpiece.



## FIT\_UP - GROWING\_LINE SYSTEM

STANDARD CAPACITIES AVAILABLE FROM 20 TON TO 200 TON

	FIT_UP			GROWING_LINE			
Model	FTTR-20	FTTR-40	FTTR-60	GLHR-40	GLHR-60	GLHR-100	GLHR-200
Load Carrying Capacity Set	20	40	60	40	60	100	200
Rotation Capacity, Drive Roll	30	50	70	50	70	120	220
Control Box Ingress Protection Rating	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65	IP 65



*Sensitive*



*Medium Duty*



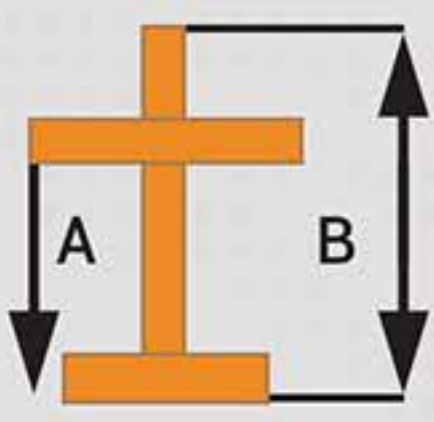
*Heavy Duty*

Column Boom is used for large diameter and tonnage tanks, pipes etc. It is designed for welding workpieces in the most suitable position for welding. Column-Boom systems allow to increase the quality, reduce production time and operator density, increase the precision and the amount of continuous welding that the operator can make. Column-Boom Systems provide solutions for circular and linear welding operations. It provides the possibility of welding at points with high and long distances. Among the welding methods, SAW (SUBMERGED), MIG/MAG (Under Gas), TIG and Plasma welding processes can be used.





**SENSETIVE - MEDIUM DUTY - HEAVY DUTY COLUMN BOOM SYSTEM**

			2X2	3X3	4X4	5X5	6X6	7X7	SPEED		
VERTICAL STROKE (mm)			2200	3200	4200	5200	6200	7200	ARM SPEED	GARRAGE SPEED	LIFTING SPEED
B' HORIZONTAL STROKE (mm)			2350	3350	4350	5350	6350	7350	cm / dk cm / min	cm / dk cm / min	cm / dk cm / min
<b>A' MAXI. LOAD AT THE END OF THE ARM (KG)</b>  	SN-MDS	A	250	250	200	180	150	***	20-200	10-200	200
	SN-MDT	A	175	175	150	130	120	***	20-200	10-200	200
	MDS	A	200	200	200	***	***	***	20-200	10-200	200
	MDT	A	200	200	200	***	***	***	20-200	10-200	200
	HDS	A	***	***	425	425	425	425	20-200	10-200	200
	HDT	A	***	***	425	425	425	425	20-200	10-200	200

**Sensitive Column Boom**

SN-MDS = SN: Sensitive  
MD: Medium Duty  
S: Stationary

SN-MDT = SN: Sensitive  
MD: Medium Duty  
T: Travelling

**Medium Duty Column Boom**

MDS = MD: Medium Duty  
S: Stationary

MDT = MD: Medium Duty  
T: Travelling

**Heavy Duty Column Boom**

HDS = HD: Heavy Duty  
S: Stationary

HDT = HD: Heavy Duty  
T: Travelling

**IMPORTANT NOTE:**

PRODUCTION SUITABLE FOR UNDER-CRANE DIMENSIONS.  
2K WELDING HAS THE RIGHT TO CHANGE THE TABLE INFORMATION.



Welding oscillator

Different platforms for power sources

One point remote

Bom head with directional different welding processes

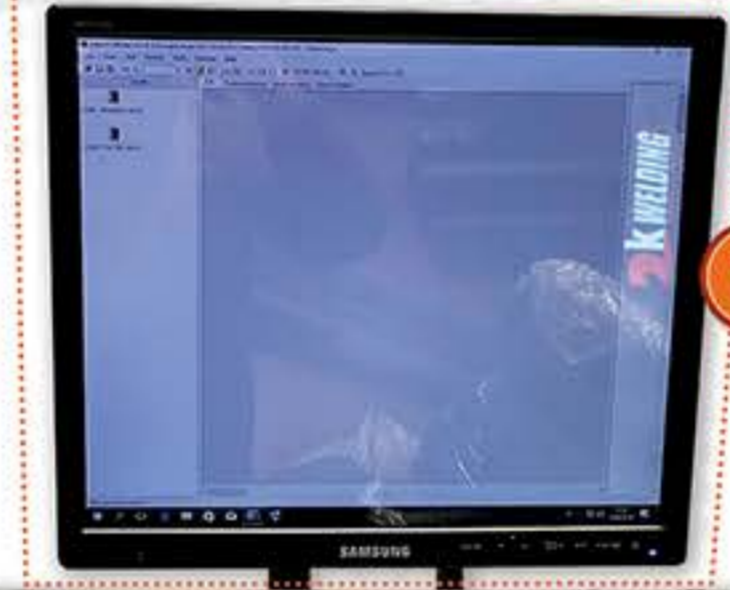
Welding camera



1 OBSERVATION CAMERA

2 WELDING MACHINE SOFTWARE

3 WELDING CAMERA



4 EXTERNAL MACHINE CONTROL



5 COLUMN BOOM MOVEMENTS

7 TOUCH MANAGEMENT PANEL

BEGINNING AND ENDING OF WELDING



## ONE POINT REMOTE CONTROL

- 1) OBSERVATION CAMERA:** It is positioned to provide control of welded joints due to adjustable high resolution (1080p) camera connected to boom end.
- 2) WELDING MACHINE SOFTWARE:** Column Boom is a specially developed software which is connected to welding machines integrated in automation system. The welding parameters can be set by interfering with the software on the computer screen. (Welding current voltage values, wire speed, suitable job etc.)
- 3) WELDING CAMERA:** Special production camera connected to the boom end. it absorbs the high light intensity during the welding process and makes it visible to the human eye. in this way, if the operator has a shift in the welding area in the workpiece, he/ she intervenes with the joystick and checks the accuracy of the welded joint.
- 4) EXTERNAL MACHINE CONTROL:** Column Boom automation system connected to the external machine (rotator, positioner, etc.) manually start, stop, direction and so on. settings.
- 5) COLUMN BOOM MOVEMENTS:** All axis movements (boom up, down, forward, back, etc.) can be given to the Column Boom. With the joystick, the linear axis modules on the boom end can be precisely controlled.
- 6) TOUCH MANAGEMENT PANEL:** All settings and data of the Column Boom system are made via touch panel. Boom speed, car and column speed etc. all operations are carried out via touch panel. All speed controls, synchronous or manual operation settings of external machines (rotator, positioner etc.) can be made. in addition, it has a special software for WPS (source method specification). in this way, welding parameters can be stored.
- 7) BEGINNING AND ENDING OF WELDING:** The welding process has start and end buttons. in addition, MIG/MAG welding cameras can be used to adjust the resolution depending on the current intensity.



## ARC CONTROL

### WHAT IS ARC CONTROL?

The automatic arc length tracking system integrated with One Point Remote system developed by 2K WELDING is called arc control.



### PURPOSES

It's used for circular or elliptical geometry boiler, tank and pressure vessels and wind turbine towers in the process of welding the healthy and desired connections are developed to be made.

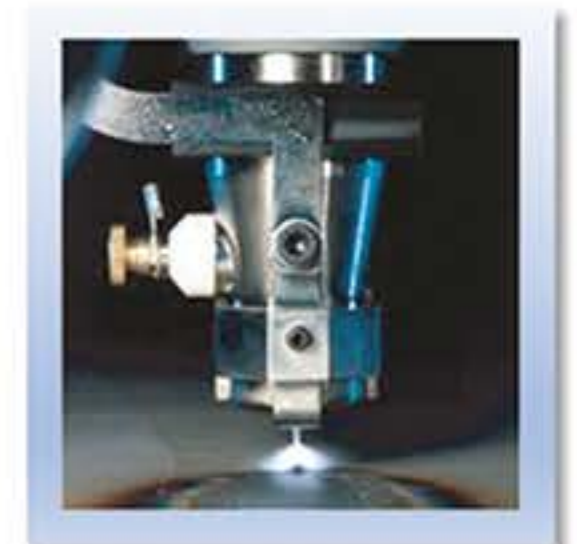
### HOW DOES IT WORK

It is a system that works types of welding like Plasma, Tig, Mig/Mag, Saw. The instantaneous current and voltage information (2 million data per second) obtained from the welding machines that are suitable for automation works in the single point control called system PLC (micro processor). The welding torch connected to the precision linear axis motors located at the boom end allows the welded connection to be made according to the standards by giving soft movements up and / or down in the light of the instant data.



### ADVANTAGES

- Allows to create welded connections by minimizing the errors that may arise from assembly errors.
- The operating efficiency is very high since the operator is not in control.
- Eliminates the problem of penetration in welded joints.
- Allows to make welded connections according to WPS parameters.
- Allows the source image to remain the same throughout the weld seam.
- Improves visual inspection of welded connections.
- Eliminates welding errors due to the constant holding of the arc length during the rotation (rotator rotation) during the rotation of the products in circular geometry.
- The welding net minimizes defects and does not allow for incorrect welded connections.



# Applications



MAIN PAGE			
MP03		BRID	
Operation Mode	<b>MANUAL</b>	Operation Mode	
Auto Rotation	<b>CW</b>	Auto Move	
Pipe Diameter	141 mm	Welding Speed	35 cm
Overlap	5 mm		
Welding Speed	35 cm/min		
OSCILATOR			
Operation Mode	<b>AUTO</b>		
Speed	35 mm/s		
Diameter	10.0 mm		
Delay Time	0.0 s		
		<b>WELDING MACHINE</b>	
		Program Number	3
		Job Number	9
		Error Code	0
		Average Welding Current	
		Average Welding Voltage	



To get more information about our references please contact us.



- Our company is based on robotics, mechatronics and industrial automation technologies and works with an understanding that aims to increase the profitability of its customers by offering industrial solutions to the changing competition conditions.



## TIG WELDING

2k Welding offers welding robots as turnkey solutions for the best TIG welding solution in Robotic TIG welding applications especially in stainless steel, aluminum and other alloy metal and steel groups. Gantry, Gantry-Pillar, positioner and slider equipments, which are used in the 2k Welding systems as standart products and offered to the customers, provide the best quality and system solution to the customers.

The main purpose of using TIG source is; By heating the targeted metal surface with tungsten, it is possible to form the medium at high temperature and to fuse the metals. TIG welding applications improve the quality and appearance of welds requiring precise workmanship with its versatile metalworking capability.

## MIG/MAG WELDING

Thanks to its excellent welding regulation, it is successfully used in very high void filling capacities and higher welding speeds and burr-free welding applications.

This welding is a highly efficient method for thick material and long straight welding jobs.

Increased weld penetration and stitch width with double wire feed and thick selected wire, and more importantly cycle time is shortened.

Selection of appropriate welding equipment for material and process

Choosing the right robot for tandem torch and welding machines

Design and production of positioners and fixtures suitable for sewing areas and welding penetration

Flexible and trouble-free welding with multi-pass and root pass options

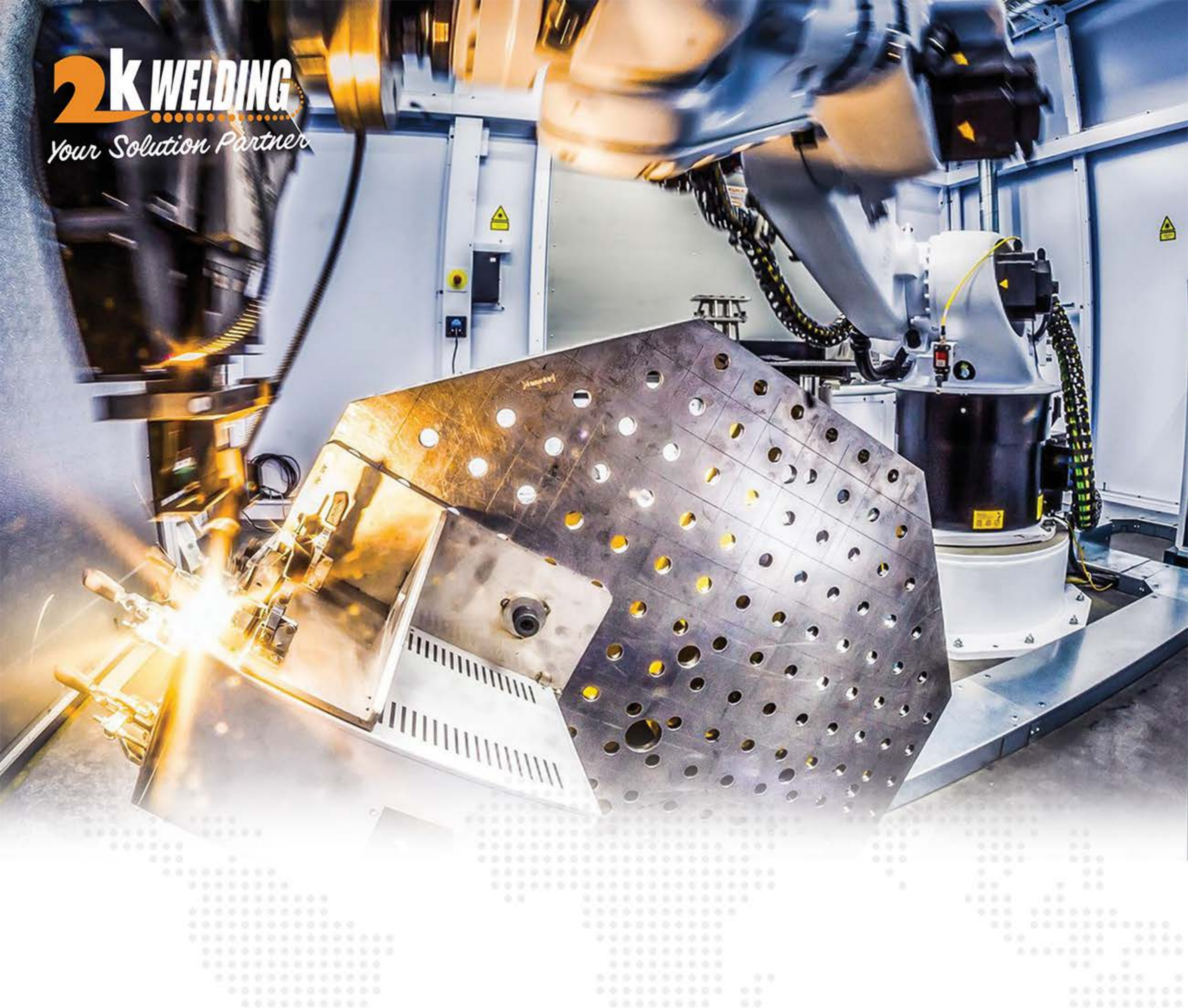
Intelligent and controlled welding with Arc Sense and Touch Sense Technology

### USED EQUIPMENT

- Robot • Robot Controller • Welding machine
- Torch • Wire Feeding Unit • Hose Pack
- Welding Fixtures • Positioner
- Safety Equipment • Slider and Gantry robots

### TECHNOLOGICAL SUPERVISIONS WE PROVIDE

- Appropriate Positioner Design for Production
- Suitable welding Technology Selection
- Welding Fixture Design and Production
- Laser Welding Tracking System
- Torch Calibration Systems
- Torch Cleaning Units
- Synchronous Multi-Motion Software
- Adaptive Teaching
- Robot Carrier Slider
- Gantry Robot Design and Production



## LASER WELDING

Today, laser welding technologies are becoming more and more important in terms of meeting high expectations such as speed, precision, strength, penetration of the weld.

Widely used for repair welding and manual welding of fine materials, the laser welding is now being sought in serial manufacturing conditions as material thicknesses begin to thinner and post-weld decorative expectations increase.

The necessity of precise part preparation for the laser welding and the presence of the experienced welding staff make this method more difficult than other series of welding methods.

2k Welding Robot Technologies offers a feasibility report to you after evaluating the system and fixture designs for the parts you think you are going to produce, after researching the part preliminaries for a standard robotic laser application. If the system is approved, design and prefabrication process is started. The pre-designed robotic laser welding system and fixture structure are tested with your existing parts. The necessary revisions are completed after the tests are made. Ultimately, the system is delivered to you after training for operators.

## How Does Work

### 1. Feasibility

Extensive reviews by expert engineers on the workshop site, afterwards process solution is determined by engineering evaluations and analytical studies.

### 5. Design

After the concept designs and the proposals turned into orders, the designs are completed by the engineering team specializing in 2K WELDING field. Designs are submitted to customer approval and put into production after approval.

### 7. Production

After all the machine parts coming as semi-finished products are assembled in 2K WELDING field, they pass quality control and function tests in accordance with ISO9001 and CE standards. The quality control and function test report is prepared for the equipment that is made operational and tested and shared with the customer. The customer is invited to the 2K WELDING factory site. Delivery is made as a result of technical examinations and controls with the customer.

### 8. Delivery and Training

After the acceptance in the 2K WELDING factory site, the products are shipped to the customer site. The expert assembly team in the field completes the field assembly activity, electrification and installation. Operator and engineer trainings, maintenance and service prediction trainings are completed by completing all processes successfully, with experience and expertise. While all the documentation of the system is delivered, necessary information is provided for routine maintenance guides, error determination guides and other guides and these processes are reported to the customer and project management units.

### 2. Analyses

Operating data of the system, resource requirements and metallurgical data, cycle time etc. are prepared as reports. Afterwards, each process is evaluated with scientific knowledge within the framework of experience.

### 3. Simulation

Rendering work on the project is carried out with 3D Simulation software.

### 4. Bidding

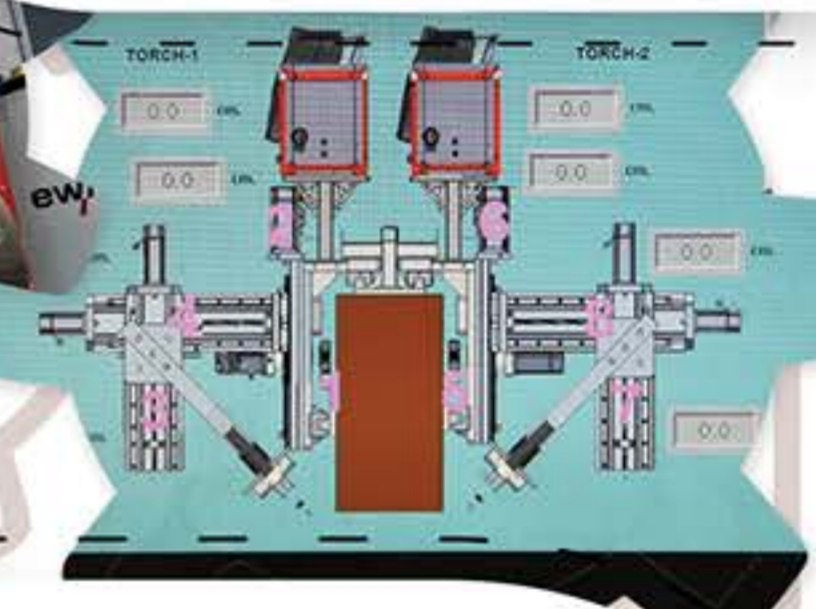
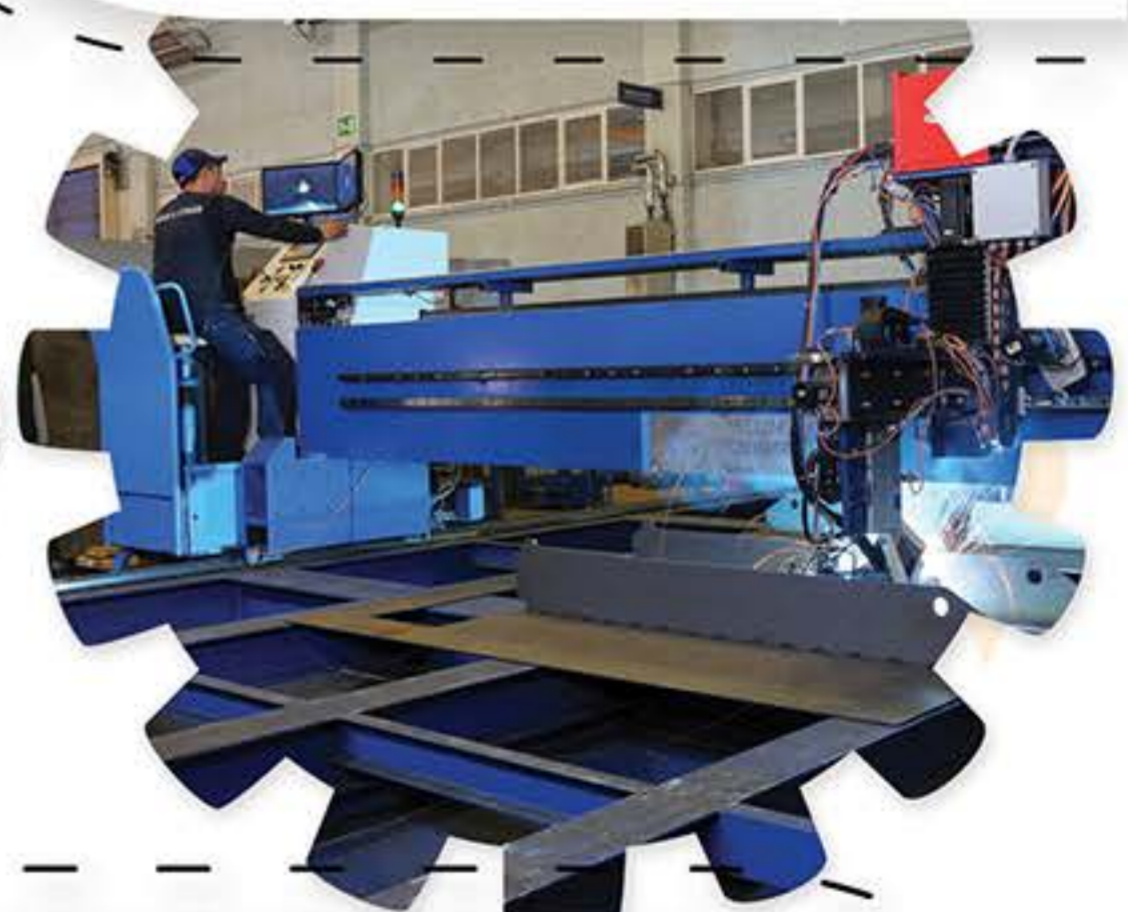
As a result of the studies, technical report and any commercial A project proposal designed with project management discipline is created by considering the direction.

### 6. Production

With the preparation of production pictures, project management units take action to transfer the activity to production units. All productions are provided by internationally reliable standard product suppliers. On the other hand, special productions are manufactured in 2K WELDING production area with the care and quality control approach.

### 9. After Sales Technical Support, Service and Spare Parts

Our teams are available for remote or direct field support for after sales technical support. Thanks to the examinations and diagnostics, surprise costs are prevented while performing operations that extend the life of your machines and systems. The 2K WELDING service team works to establish a sustainable investment for many years.





**OUR DOCUMENTS**





**2kWELDING**  
*Your Solution Partner*

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