



# inrotech

## INTELLIGENT ROBOTIC WELDING FOR HEAVY STEEL INDUSTRIES

### INROTECH PRODUCT CATALOGUE

Optimize flexibility, competitiveness and welding quality  
in shipbuilding, renewables, offshore & heavy industries





# Meet one of the worlds leading companies in **robotic welding**

Robotic welding is our life. So whether you are looking for a robotic solution for the sake of precision, efficiency, optimization, welding quality or flexibility, we can help you.

But that is far from the only reason why Inrotech is the one of the leading companies in robotic welding. Firstly, instead of large gantries with large robots, which are operating in dedicated production areas where the large components are transported in order to be welded, why not make it the opposite way around? Make small, mobile robot solutions that can be moved to - or even into - the work objects.

Without compromising welding efficiency, this offers several advantages to the traditional gantry-based solutions; lower cost, less transport of large structures, and flexibility to move to different working areas. Secondly, no-programming needed. Besides saving time for programming, it does not require highly qualified robot engineers. The user-interface is intuitive and the welder is the operator.

The trademark of Inrotech is still small and mobile robots, and the portfolio of standard products has now been expanded to include gantry solutions; still based on the no-programming philosophy. Inrotech was born out of the shipbuilding industry, which still represents the main market segment within Inrotech's industries.



Shipbuilding



Renewables



Heavy industry



Oil & Gas

# inrotech



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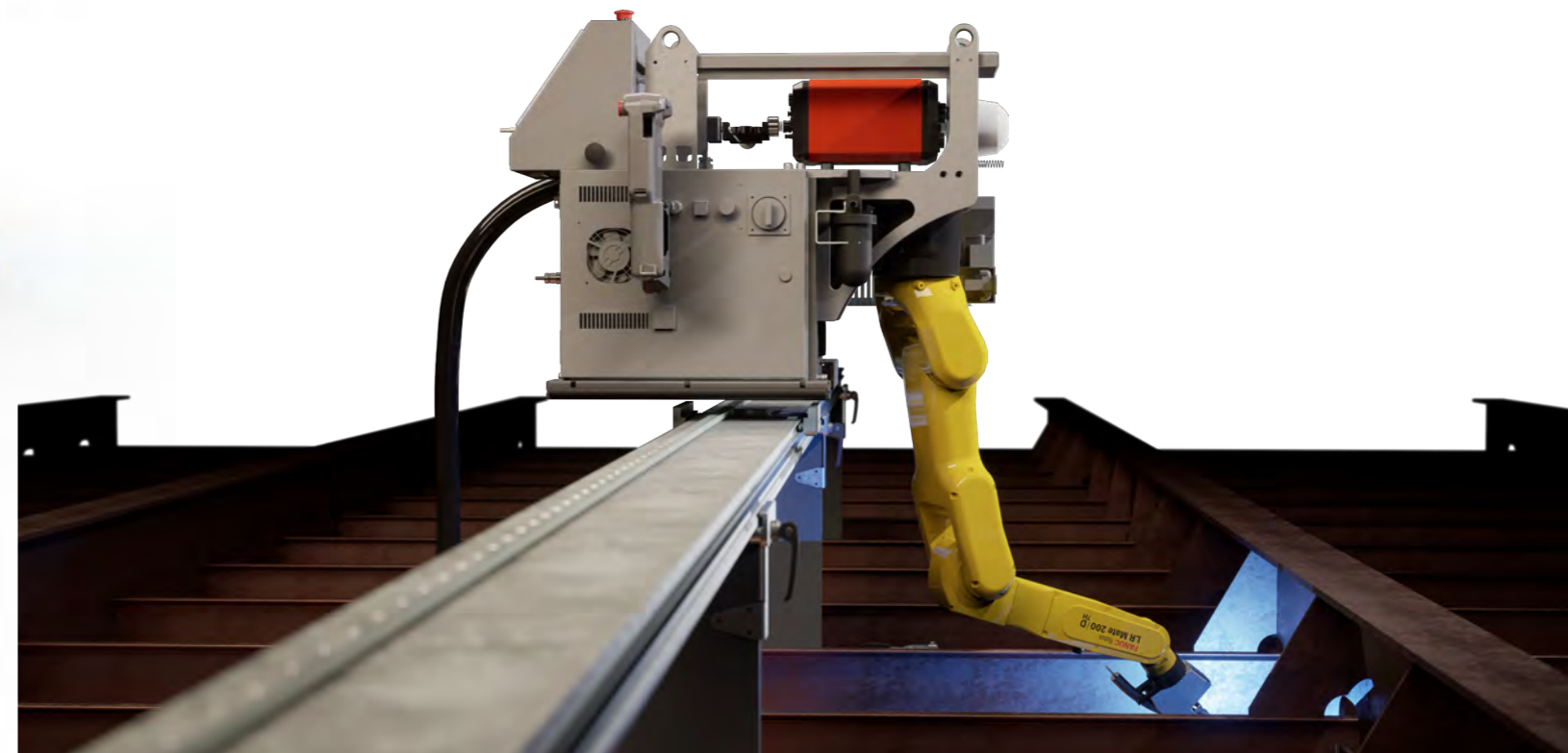
# Inrotech-Classic

The Inrotech-Classic has been in operation in shipyards around the world since 2008. It is designed for the welding of webs and bulkheads in the shipbuilding industry. However, it can also be used for several other applications. The robot is a mobile unit, which can be moved around in any kind of production and thus offer an extremely high degree of flexibility for the customer.

The mobile welding robot system is very flexible and easy to use. There is no need for CAD drawing transfers. No need of any kind of programming, teach-in routines, choosing of macros from pictures or scan or any functions, which require skilled operators.

The pre-programmed "skills" allows the robot to recognise and weld a variety of features without the need of operator input. Depending on the setup and amount of welding in each job, one operator can handle up to 6 robots and the welding intermittence (arc-on time) for the robot is typically between 50-70%.

The Inrotech-Classic is provided with Inrotech remote access for online support.



**SHIPBUILDING INDUSTRY**  
This welding robot is intended for the welding of **webs and bulkheads** in the shipbuilding industry, yet this welding robot can be used for a number of other applications.



**SENSLOGIC TECHNOLOGY**  
The Inrotech-Classic is based on SensLogic Technology. Once the object has been recognized, the **welding process commences automatically**. This continues until the entire panel is welded.



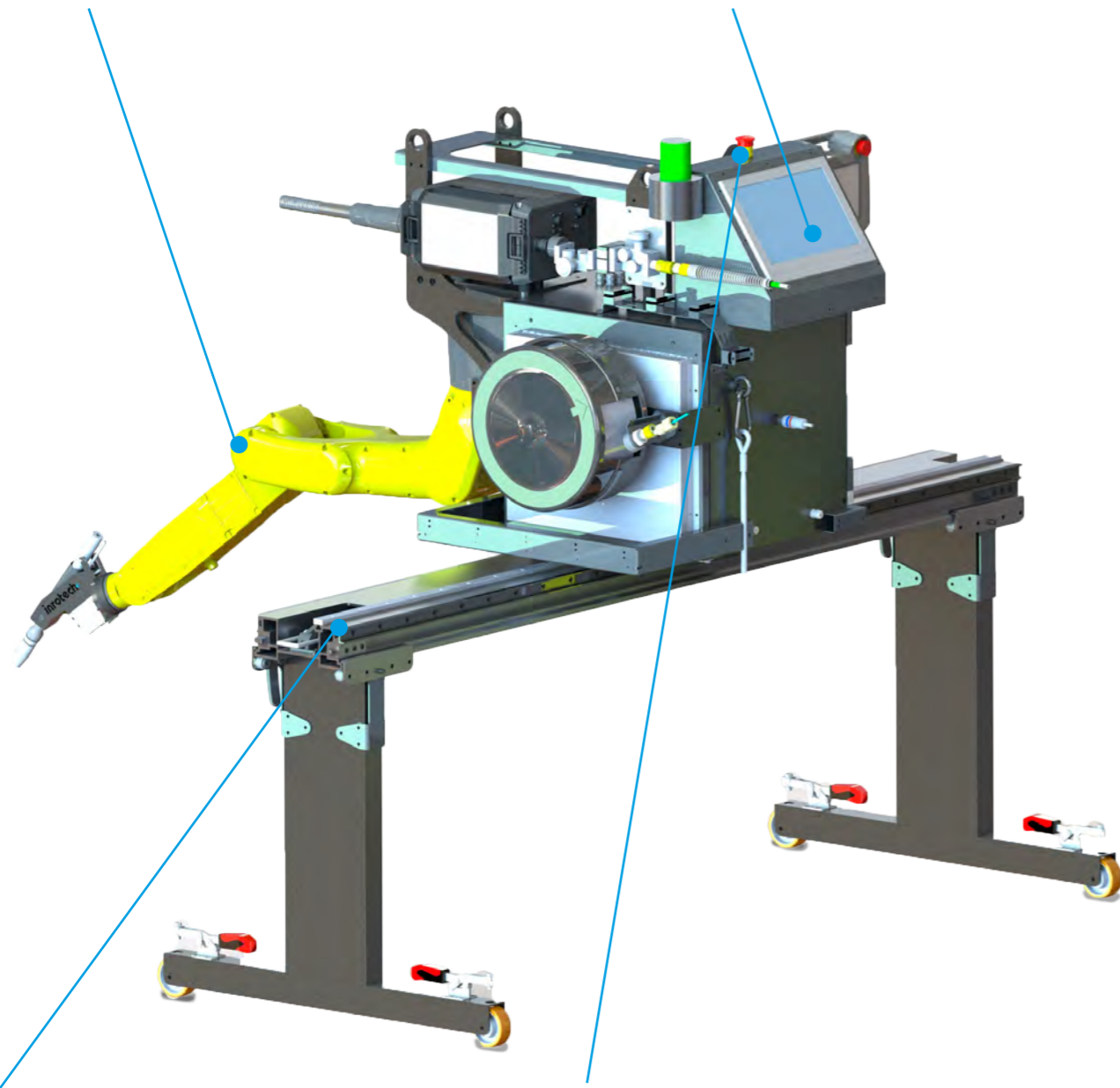
**TWO SIMPLE INSTRUCTIONS**  
One operator is able to **handle six Inrotech-Classic** with Inrotech's intuitive user interface that does not require any robot programmer experience or knowledge.

### Robot Arm

- Fanuc LR Mate 200iD/7L robot arm mounted on the console with the robot controller integrated.
- Special designed Inrotech welding gun including integrated laser sensor for sensing the welding-jobs.

### SensLogic Software

- No CAD drawing or programming needed - pure adaptive intelligence.
- SensLogic enables the Inrotech-Classic to automatically select the correct welding parameters for each weld job.
- Automatic cleaning of the welding gun.



### Rail system

- Modular aluminum rails that can be joined to any length.\*\*
- The robot moves along the rail automatically identifying the weld jobs.

### Safety

- Built in safety system allowing you to work in close proximity to the robot.
- Equipped with two emergency buttons and bumper lists.

### ROBOTICS

Robot	Fanuc LR mate 200iD 7L
Controller	R-30iB Plus controller
External Axis	Servo motor

### WELDING

Power source	Kemppi A7 (450 Amp)*
Wire feeder	Kemppi A7 dualdrive feeder*
Welding torch (aircooled)	Binzel A500 Custom*
Welding torch (watercooled)	Binzel AUT 501D Custom*
Welding wire feed	Roll
Fume extraction	Yes*

### WELDING PROCESS

Welding positions	PB, PF
Welding wire	Flux cored**
Shielding gas	Mixed Gas or CO2**

### TORCH CLEANING

Reamer station	Yes
Wirecutter	Yes

### SENSORS

Distance sensor	Leuze*
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### SAFETY

Emergency stop	Triggered by pressing the emergency stop button
Safety edges	Triggered by contact with human or other obstacle
Fanuc DSC	Limits speeds and position of the robot

### MAIN DIMENSIONS

Robot consol	WxHxD = 730x865x955 mm / 30x34x37 in
Robot consol weight	160 kg / 352 lbs
Trolley	WxHxD = 1,100x1,055x1,000 mm / 43x41x40 in
Trolley weight	244 kg / 538 lbs
Rail length	2-8 m / 7-27 ft**
Cable length	8-20 m / 27-67 ft**

### SUPPLIES

Power	3 Phase 400 V + N + PE, 32 A, 50 Hz**
Gas	The gas specified in weld process; 30 l/min
Compressed air	6-8 bar ISO 8573-1:2010[7:4:4]; 1,700 l/min
Internet connection	LAN, WIFI or SIM-card

### ENVIRONMENT

Ambient temperature range	+5°C to 40°C
Humidity	90% RH or less. No dew, nor frost allowed
Environment	For indoor use only

### COMMUNICATION

Secure access gateway	Secomea SiteManager
Human Machine Interface (HMI)	Color Display with Touch Screen
Support camera	P Camera
Industry 4.0	Inrotech-Cloud

\*Options  
\*\*Can be customized



# Inrotech-MicroTwin



The **Inrotech-MicroTwin** is a lightweight aluminium gantry with twin welding robots. It is designed mainly for the shipbuilding industry and specifically developed for the welding of micro panels, sub-assemblies, T-beams and similar parts. It can be used in a wider range of applications, wherever feasible.

The robot system is delivered as a “plug-and-play” unit and is fully operational once the rails, safety curtain or fencing has been installed and the system has been connected to power, shielding gas and compressed air.

You simply place the items to be welded randomly within the workspace of the MicroTwin and press the start button on the intuitive touch panel. It only takes a few minutes with a scanning speed of 36 sqm per minute. Once the scan is completed, the exact position of each profile is verified by the laser sensor, which is integrated in a housing also holding the welding gun.

The welding of the profiles now commence without any further input from the operators side. This means: place the panels and push the start button...that's it! No transfer of CAD drawings, no off-line programming and no manual selection of objects to be welded. Therefore, no back-end engineers are required.

The **Inrotech-MicroTwin** is provided with Inrotech remote-access for online support.



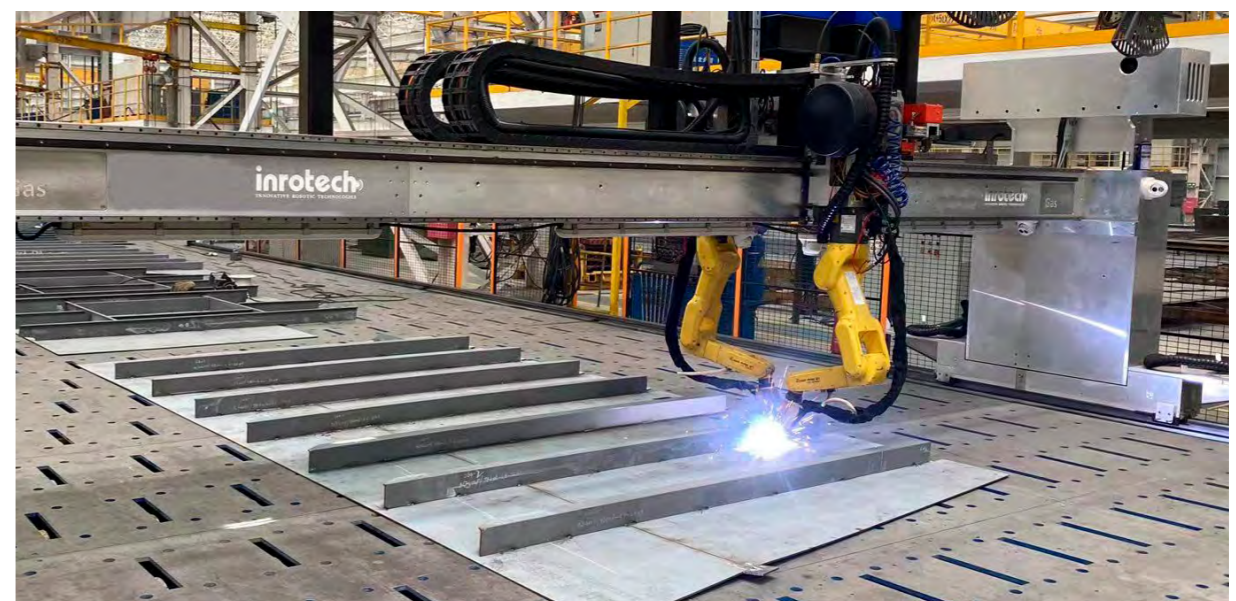
**SHIPBUILDING INDUSTRY**  
Specifically designed for the welding of **micro panels, sub-assemblies and T-profiles** in the shipbuilding industry, however it can be used for a number of other purposes.



**SENSLOGIC TECHNOLOGY**  
Works fully automatic, push the “start” button; after completed scanning the **welding starts automatically**. It only takes a few minutes with a scanning speed of 36 sqm per minute.



**USER-FRIENDLY INTERFACE**  
The user-friendly interface gives you **full control over the robot** from one single touch screen, while providing accurate report from the process.



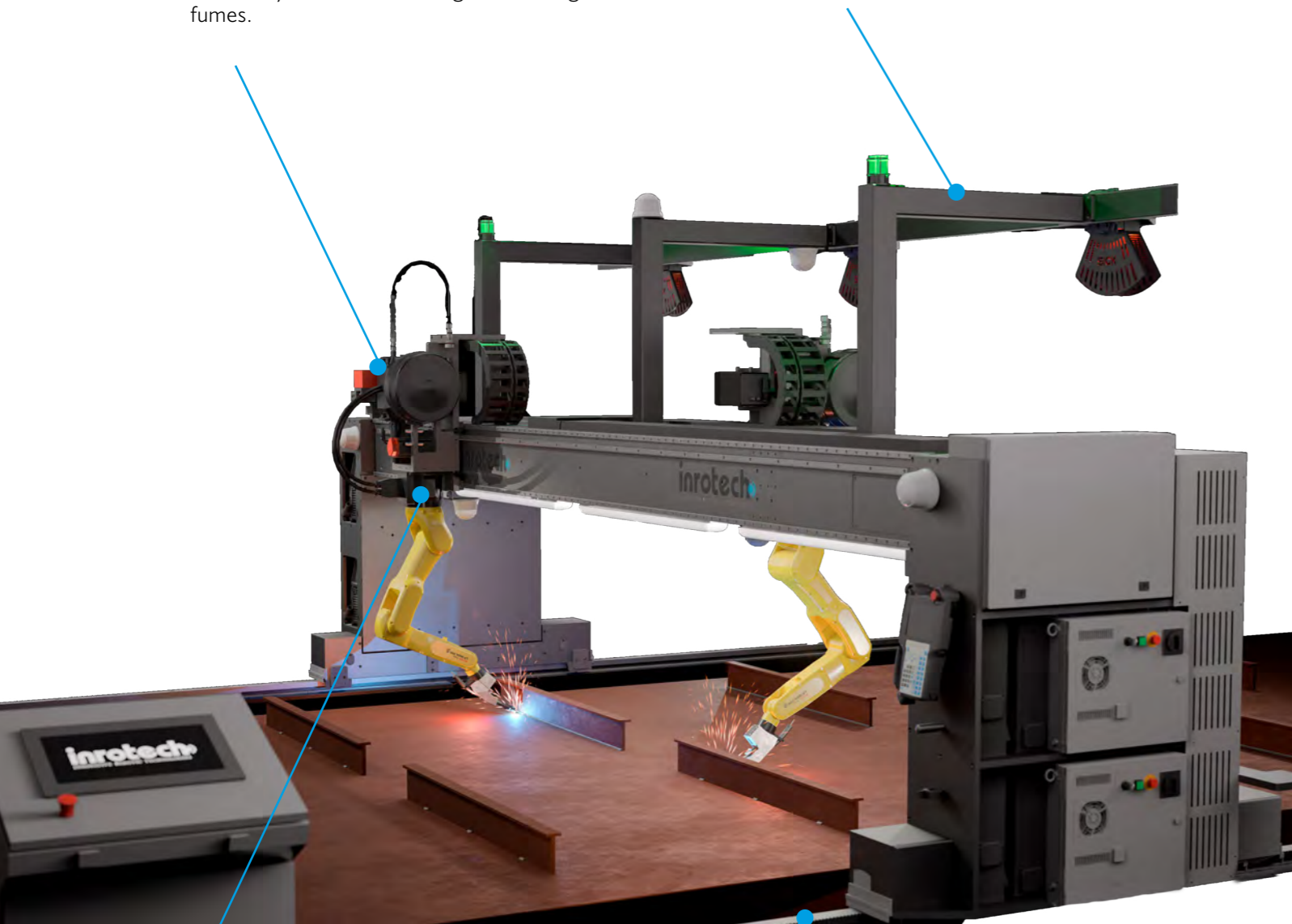


### Main components

- Two Fanuc LR-Mate 200id/7L robots.
- Robot controllers.
- Welding machines and power cabinet.
- 2D laser scanners.
- Online access equipment with modem.
- Large touch panel display with easy user interface.
- Exhaust system for extracting the welding fumes.

### Light Weight Gantry

- The MicroTwin is a light weight gantry built from aluminium.
- The width of the gantry can be tailor-made to meet customers requirement.
- The robot gantry is equipped with a standard torch cleaning system.



### Featuring

- Dual arm setup makes it possible to weld with both robots simultaneously.
- Cleaning station that automatically cuts the wire, cleans the gas cup and sprays it with anti-spatter spray.
- Wire cutter, wire roll / drum.
- Welding torch / laser house.
- Several cameras for online support on each robot.

### Rail System & Safety

- The rail system consist of heavy-duty too-tracks that is used as support for the wheels and movement of the gantry.
- The rails can either be installed on top of a conveyor or directly on the floor.
- The top of the tooth rack is cleaned by scrapers placed in front of the wheels.
- The system can be delivered with a safety light fence or hard fencing.

### ROBOTICS

Robot	Fanuc LR mate 200iD 7L (Dual arm)
Controller	R-30iB Plus controller
External Axis	Servo motor

### WELDING

Power source	Kemppi A7 (450 Amp)*
Wire feeder	Kemppi A7 dualdrive feeder*
Welding torch (aircooled)	Binzel A500 Custom*
Welding torch (watercooled)	Binzel AUT 501D Custom*
Welding wire feed	Roll or Drum*
Fume extraction	Yes*

### WELDING PROCESS

Welding positions	PB, PF
Welding wire	Flux cored**
Shielding gas	Mixed Gas or CO2**

### TORCH CLEANING

Reamer station	Yes
Wirecutter	Yes

### SENSORS

Distance sensor	Leuze*
2D Line Sensor	Sick

### SAFETY

Emergency stop	Triggered by pressing the emergency stop button
Light fence or doorswitches	Yes*
Fanuc DSC	Limits speeds and position of the robot

### MAIN DIMENSIONS

Gantry	WxHxD = (5,730-7,530)x2,440x1,570 mm/ (226-297) x 96x62 in**
Weigth	2,800-3,500 kg / 6,172-7,716 lbs
Gantry width options	4-6 m / 13-20 ft in between legs
Rail length	20-60 m / 66-197 ft
Number of zones	1-4*

### SUPPLIES

Power	3 Phase 400 V + N + PE, 63 A, 50 Hz**
Gas	The gas specified in weld process; 30 l/min
Compressed air	6-8 bar ISO 8573-1:2010[7:4:4]; 1700 l/min
Internet connection	LAN, WIFI or SIM-card

### ENVIRONMENT

Ambient temperature range	+5°C to 40°C
Humidity	90% RH or less. No dew, nor frost allowed
Environment	For indoor use only

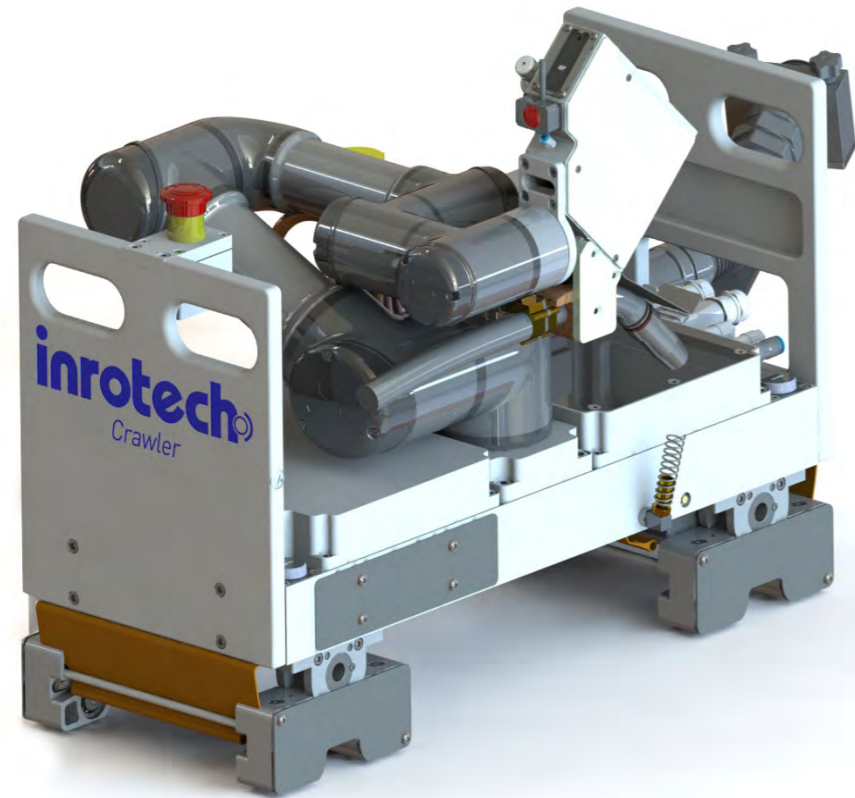
### COMMUNICATION

Secure access gateway	Secomea SiteManager
Human Machine Interface (HMI)	Color Display with Touch Screen
Support camera	IP Camera
Industry 4.0	Inrotech-Cloud

\*Options  
\*\*Can be customized



# Inrotech-Crawler

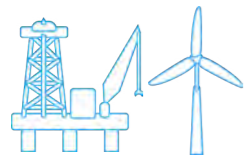
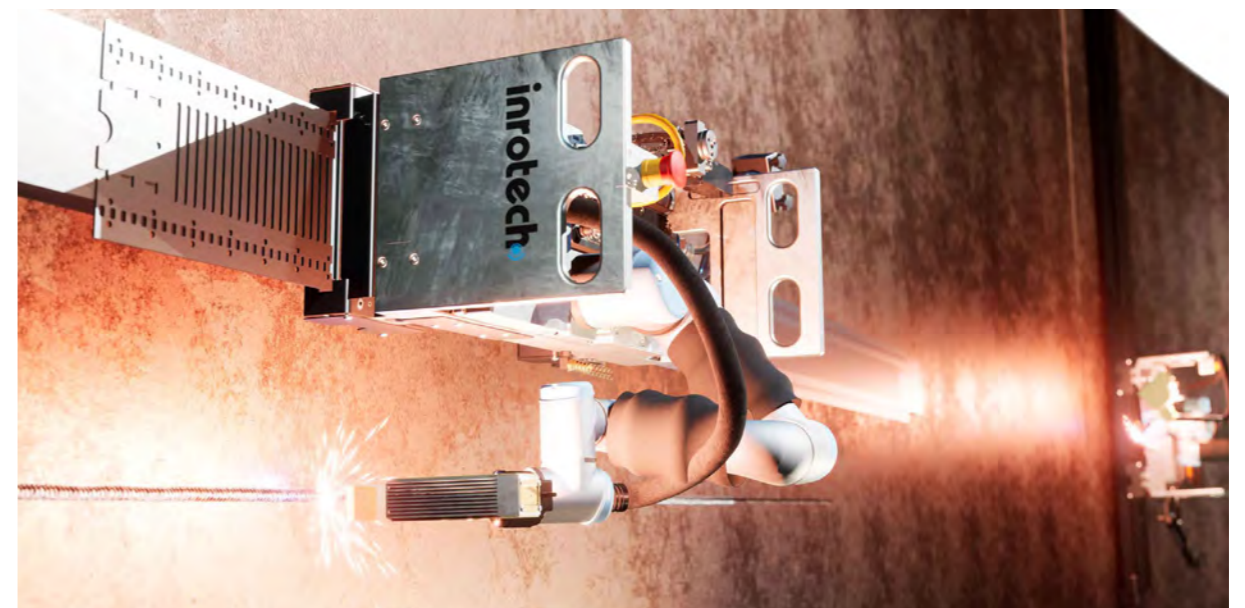


The **Inrotech-Crawler** is designed for heavy industry for welding of high quality multipass welding's on-site in any position needed. The robot can be employed in applications such as: shipbuilding (e.g. submarines), bridges, storage tanks and many more. Due to its light weight and mobility it offers a high degree of flexibility for the customer.

The titanium rail system is installed in such manner, that the robot is within reach of the welding groove. The robot initially performs a full scan of the weld groove. Once the scan is complete, the software automatically calculates the full welding process: Number of welding passes, location of each pass, and selection of welding parameters.

The **Inrotech-Crawler** starts welding after the software analysis. The robot continuously and automatically adjusts the welding parameters according to its changing position (e.g. around a pipe) and automatically compensate for variations in the weld groove geometry (up to 50%). It is an iterative process. Hence, the welding resumes until the groove is filled up uniformly.

The **Inrotech-Crawler** is provided with remote-access for online support.



**HEAVY INDUSTRIES**  
The Inrotech-Crawler has the ability to target a large number of welding jobs. Obvious targets are; large **pipe connections** (in- and outside), **assembly of blocks** in shipbuilding, **storage tanks**, **construction**, **renewables** and many more.



**ADAPTIVE MULTIPASS WELDING**  
The Inrotech-Crawler is equipped with Inrotech's unique **WeldLogic software**, that is developed to perform intelligent and automatic **multipass welding** **without any programming**.



**USER-FRIENDLY INTERFACE**  
The user-friendly interface gives you **full control over the robot** from one single touch screen, while providing accurate report from the process.

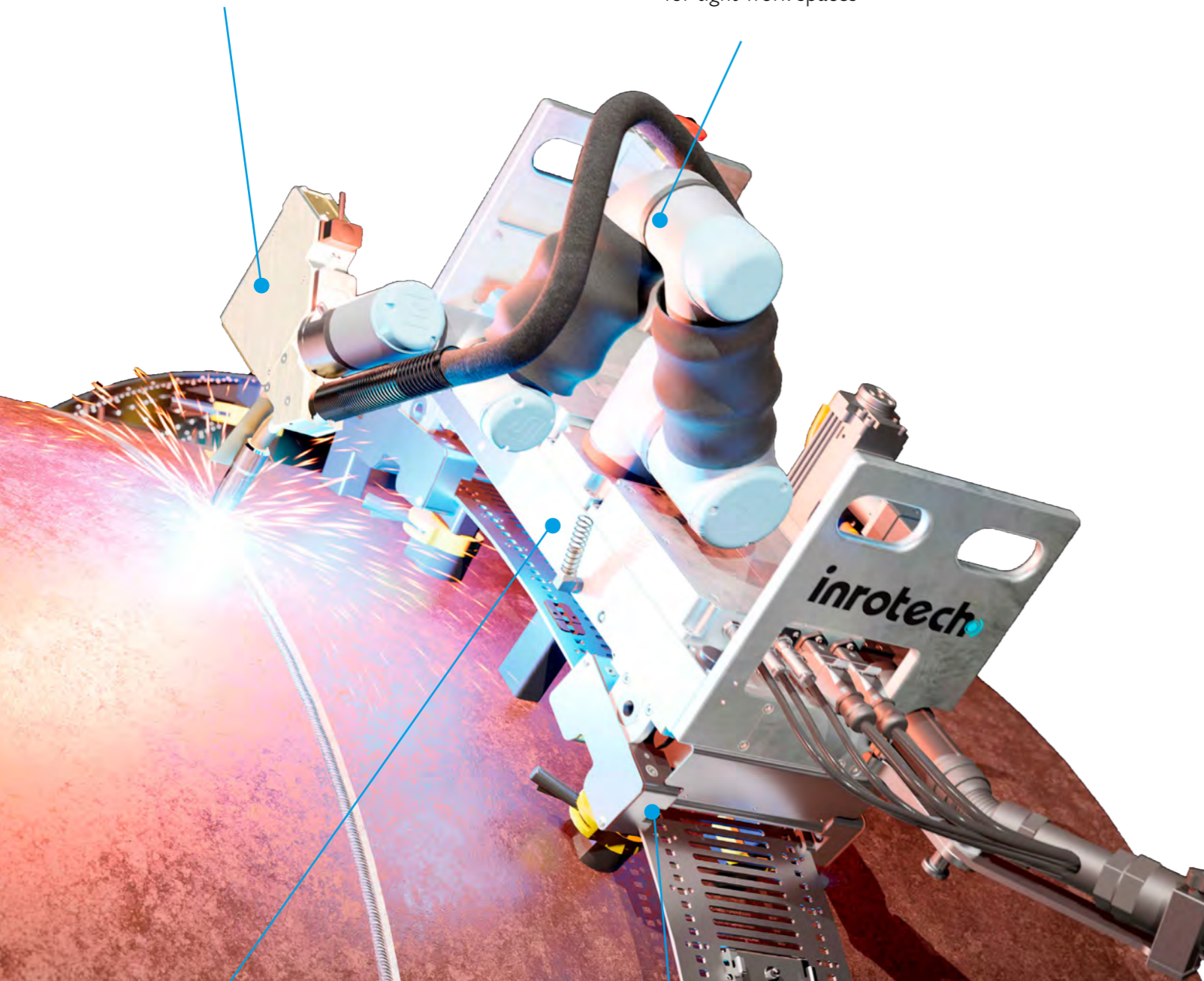


### Scanner & Welding gun

- Scanner house equipped with 2D laser scanner and temperature sensor for measuring the interpass temperature\*
- High performance welding gun made specifically for robotic welding

### Robot Arm

- Light-weight UR3 robot arm from Universal Robot
- Equipped with a handheld tablet with intuitive interface
- Collaborative robot arm with a good fit for tight work spaces



### Featuring

- Wire straightener with wire push & pull system
- Gas cup cleaner
- Camera for online support\*
- Inclination sensor
- I/O modules

### Titanium Rail

- Modular titanium rails that can be joined to any length\*
- High temperature switchable magnets
- Rails can be mounted in practically any position, making the robot mobile and versatile
- The completed setup can easily be moved to other welding jobs

### ROBOTICS

Robot	Robot UR3 CB3
Controller	Controller UR3 CB3
External Axis	Servo motor

### WELDING

Power source	Kemppi A7 (450 Amp)*
Wire feeder	Kemppi A7 dualdrive feeder*
Welding torch (aircooled)	Binzel A500 Custom*
Welding torch (watercooled)	Binzel AUT 501D Custom*
Welding wire feed	Roll or Drum*

### WELDING PROCESS

Welding positions	PA, PB, PC, PE, PF*
Welding wire	Flux-cored, metal-cored or solid wire**
Shielding gas	Mixed Gas or CO2**
Groove types	V-Groove, Half-V-Groove, Tulip*

### TORCH CLEANING

Spring	Dinse
Wire cutter	No

### SENSORS

Temperature sensor	Yes**
2D Line Sensor	Micro Epsilon

### MAIN DIMENSIONS

Robot	WxHxD = 430x300x615 mm / 24x12x17 in
Consol weight	45 kg / 100 lbs
Trolley	WxwHxD = 3,160x1,060x1,010 mm / 124x42x40 in
Trolley weight	645 kg / 1422 lbs
Rail length	3 m / 10 ft; Weight 20.5 kg / 562 lbs
Cable length	20 m / 66 ft
UR TP cable	4 m / 13 ft

### SUPPLIES

Power	3 Phase 400 V + N + PE, 32 A, 50 Hz
Compressed air	The gas specified in weld process; 30 l/min
Internet connection	LAN, WIFI or SIM-card

### ENVIRONMENT

Ambient temperature range	+5°C to 45°C
Humidity	90% RH or less. No dew, nor frost allowed
Environment	For indoor use only

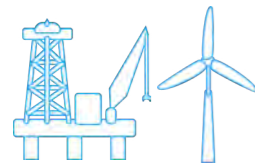
### COMMUNICATION

Secure access gateway	Secomea SiteManager
Human Machine Interface (HMI)	UR TP
Support camera	IP Camera
Industry 4.0	Inrotech-Cloud

\*Options  
\*\*Can be customized



# Inrotech-Vertigo



**HEAVY INDUSTRIES**  
The Inrotech-vertigo is designed to provide a powerful, cutting-edge solution for **offshore manufacturers** and **heavy industries** working with large structures.



**ADAPTIVE MULTIPASS WELDING**  
The Inrotech-Vertigo is equipped with Inrotech's unique **WeldLogic software**, that is developed to perform fully automatic, vertical multipass welding **without any programming**.



**USER-FRIENDLY INTERFACE**  
The user-friendly interface gives you **full control** over the robot from **one single touch screen**, while providing accurate report from the process.

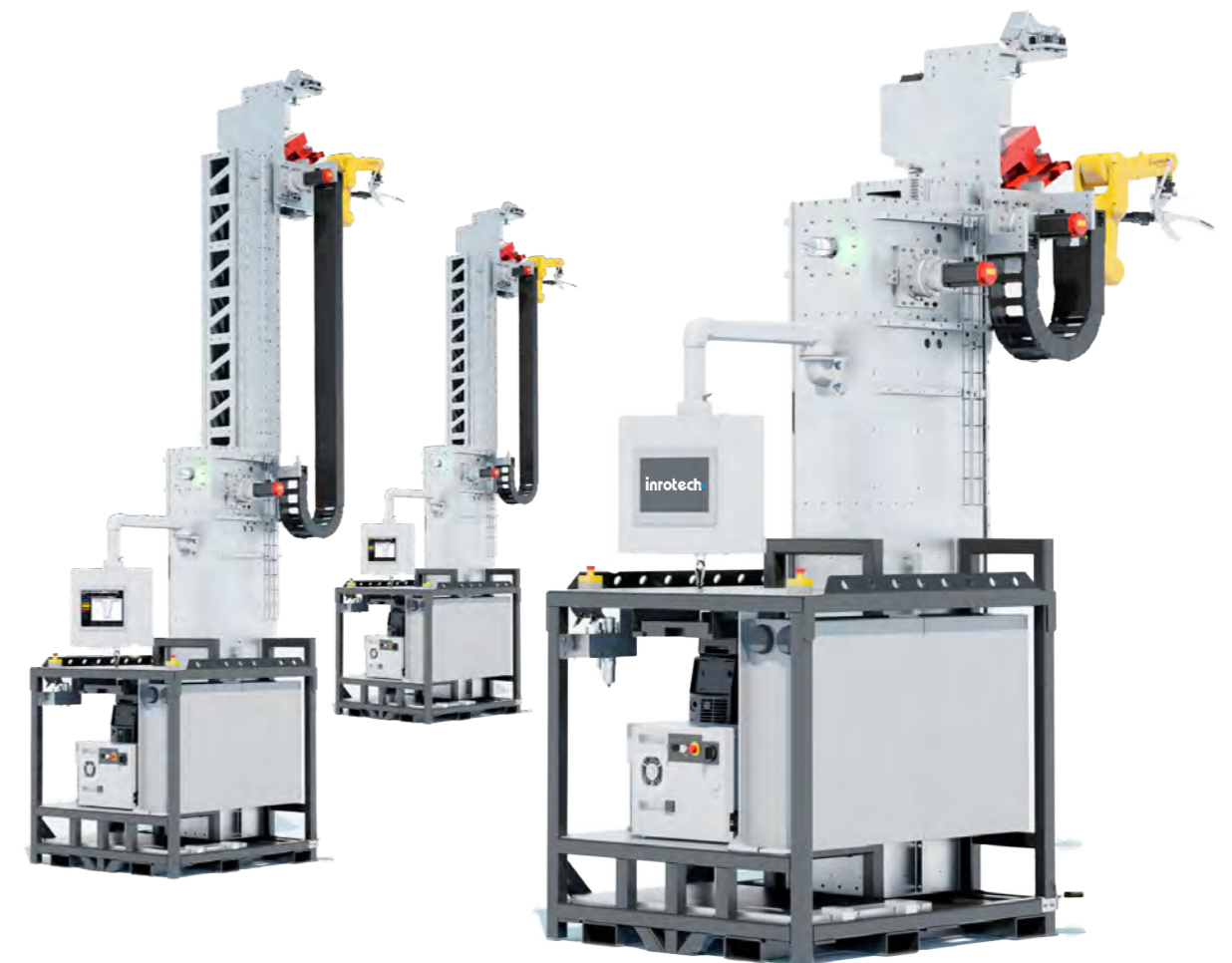
**Inrotech-Vertigo** is an intelligent welding robot system for demanding MIG/MAG multipass vertical welds for offshore wind and heavy industries. The mobile welding robot system is very flexible and easy to use. There is no need for CAD drawing transfers. No need of any kind of programming, teach-in routines, choosing of macros from pictures or scan or functions, which require skilled operators.

The **Inrotech-Vertigo** robot is equipped with Inrotech's unique WeldLogic Technology and runs fully automatically throughout the entire process. The robot initially locates, scans and analyzes the welding groove, thereafter, plans and performs the weld without any interaction required from the operator.

During the welding process the robot automatically cuts the wire, cleans the welding torch and deslags the groove to ensure a perfect weld. Additionally, the robot ensures that the interpass temperature stays within the customer's specifications. The robot is able to operate unmanned throughout a shift, making it a cost efficient solution.

The user-friendly interface gives you full control over the robot from one single touch screen, while providing accurate report from the process, saving all welding data for later analysis.

The **Inrotech-Vertigo** is provided with remote-access for online support. Inrotech-IRS (Inrotech-remote-service).



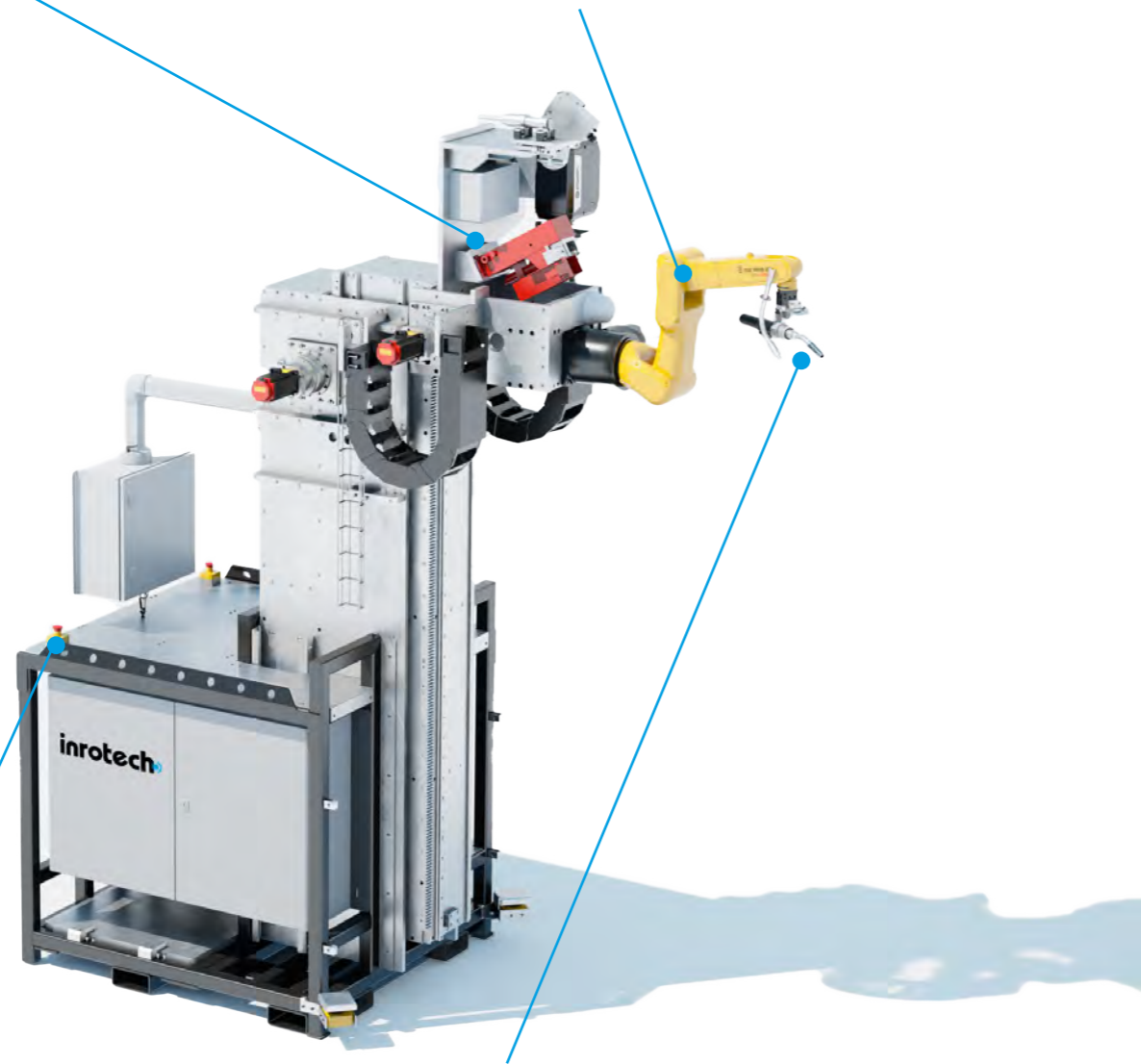


### Platform

- Portable platform with a robot installed on a double vertical axis (telescope).
- Robot reaches up to approx. 4,5m above ground level.

### Robot tools

- Tool changer system for automatic change of tools.
- Scanner house equipped with laser scanner and temperature sensor for measuring the interpass temperature.
- High performance welding gun made specifically for robotic welding.



### Safety

- Built in safety system allowing you to work in close proximity to the robot.
- Equipped with emergency stops and safety scanners.

### Welding features

- Capable of welding PF, V-Grooves.
- Suitable for offshore, renewables and heavy industries.
- Automatic wire cutting and cleaning of the welding torch.
- Automatic deslagging of the groove.

### ROBOTICS

Robot	Fanuc LR mate 200iD 7L
Controller	R-30iB Plus Controller
External Axis	Servo motor

### WELDING

Power source	Kemppi A7 (450 Amp)*
Wire feeder	Kemppi A7 dualdrive feeder*
Welding torch (watercooled)	Binzel ABIROB
Welding wire feed	Drum

### WELDING PROCESS

Welding positions	PF
Welding wire	Flux-cored
Shielding gas	Mixed Gas
Deslagging	Compressed air
Groove types	V-Grooves

### TORCH CLEANING

Reamer station	Yes
Wire cutter	Yes

### SENSORS

Temperature sensor	Yes**
2D Line Sensor	Micro Epsilon

### MAIN DIMENSIONS

Portable platform	WxHxD = 1,3x2,5x5,5 m / 51x216x86 in
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### SUPPLIES

Power	3 Phase 400 V + N + PE, 63 A, 50 Hz
Gas	The gas specified in the weld process; 30 l/min
Compressed air	10 bar ISO 8573-1:2010[7:4:4]; 8,000 l/min
Internet connection	LAN, WIFI or SIM-card

### ENVIRONMENT

Ambient temperature range	+5°C to 40°C
Humidity	80% RH or less. No dew, nor frost allowed.
Environment	For indoor use only

### COMMUNICATION

Secure access gateway	Secomea SiteManager
Human Machine Interface (HMI)	Color Display with Touch Screen
Support camera	IP Camera
Industry 4.0	Inrotech-Cloud

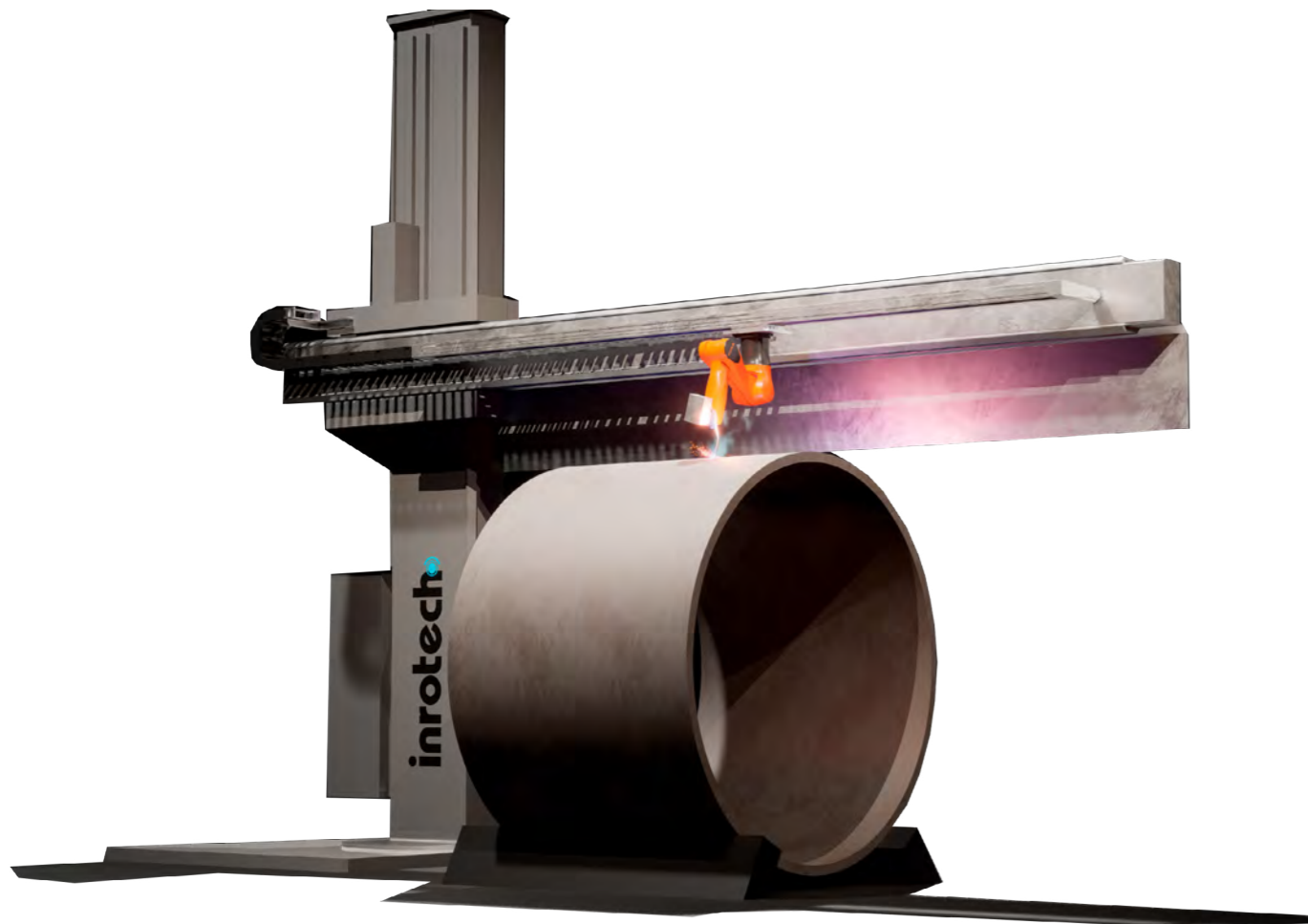
\*Options

\*\*Can be customized

\*\*\*Subject to change



# Inrotech-C&B



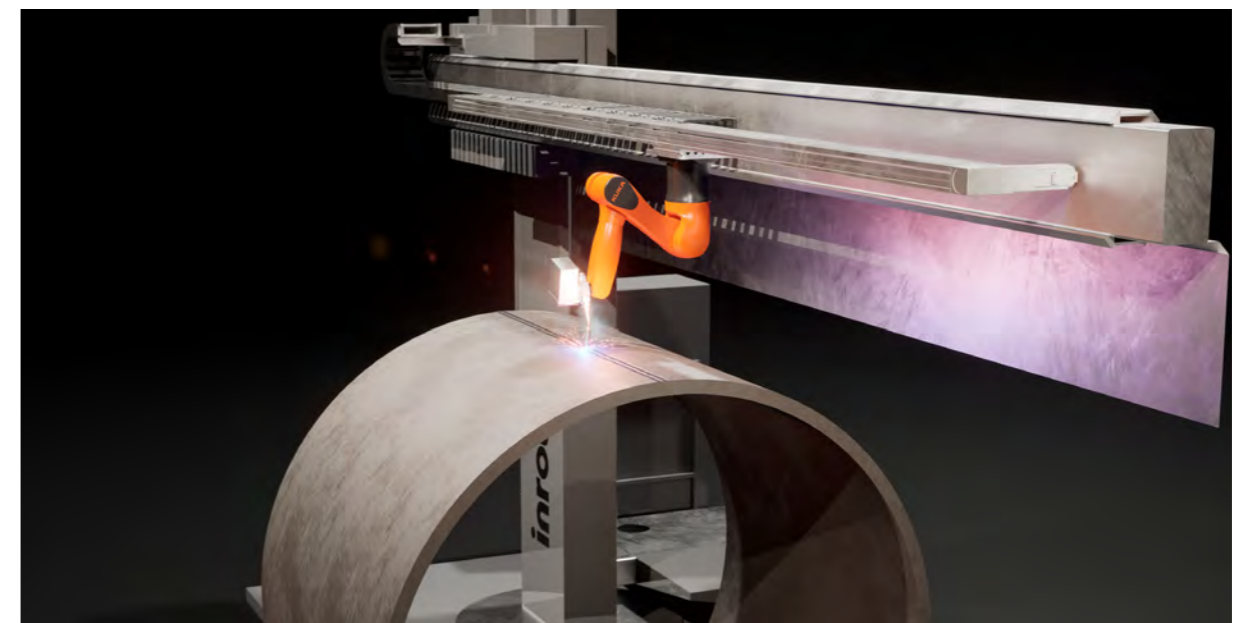
**Inrotech-C&B** (Column & Boom) is an intelligent welding robot system for demanding MIG/MAG welding automation purposes especially intended for offshore wind.

The Inrotech-C&B robot is equipped with Inrotech's unique WeldLogic technology and runs fully automatically throughout the entire process; the robot initially locates, scans and analyzes the welding groove, thereafter, plans and performs the weld without any interaction required from the operator.

During the welding process the robot automatically cuts the wire, cleans the welding torch and deslags the groove to ensure a perfect weld. Additionally, the robot ensures that the interpass temperature stays within the customer's specifications. The robot is able to operate unmanned throughout a shift, making it a cost efficient solution.

The user-friendly interface gives you full control over the robot from one single touch screen, while providing accurate reports from the process, saving all welding data for later analysis. The Inrotech-C&B is ideal for automatic downhand multipass welding of plate joints and longitudinal joints on cans with a plate thickness up to 150 mm, while automatically taking tolerances of the weld groove into consideration.

The Inrotech-C&B is provided with remote-access for online support.



#### OFFSHORE WIND INDUSTRY

Inrotech-C&B is an **intelligent welding robot** system for demanding MIG/MAG welding automation purposes especially intended for **offshore & wind energy**.



#### ADAPTIVE MULTIPASS WELDING

The Inrotech-C&B is ideal for automatic downhand **multipass welding of plate joints** and **longitudinal joints** on cans with a plate thickness up to 150 mm.



#### USER-FRIENDLY INTERFACE

The user-friendly interface gives you **full control over the robot** from one single touch screen, while providing accurate report from the process.

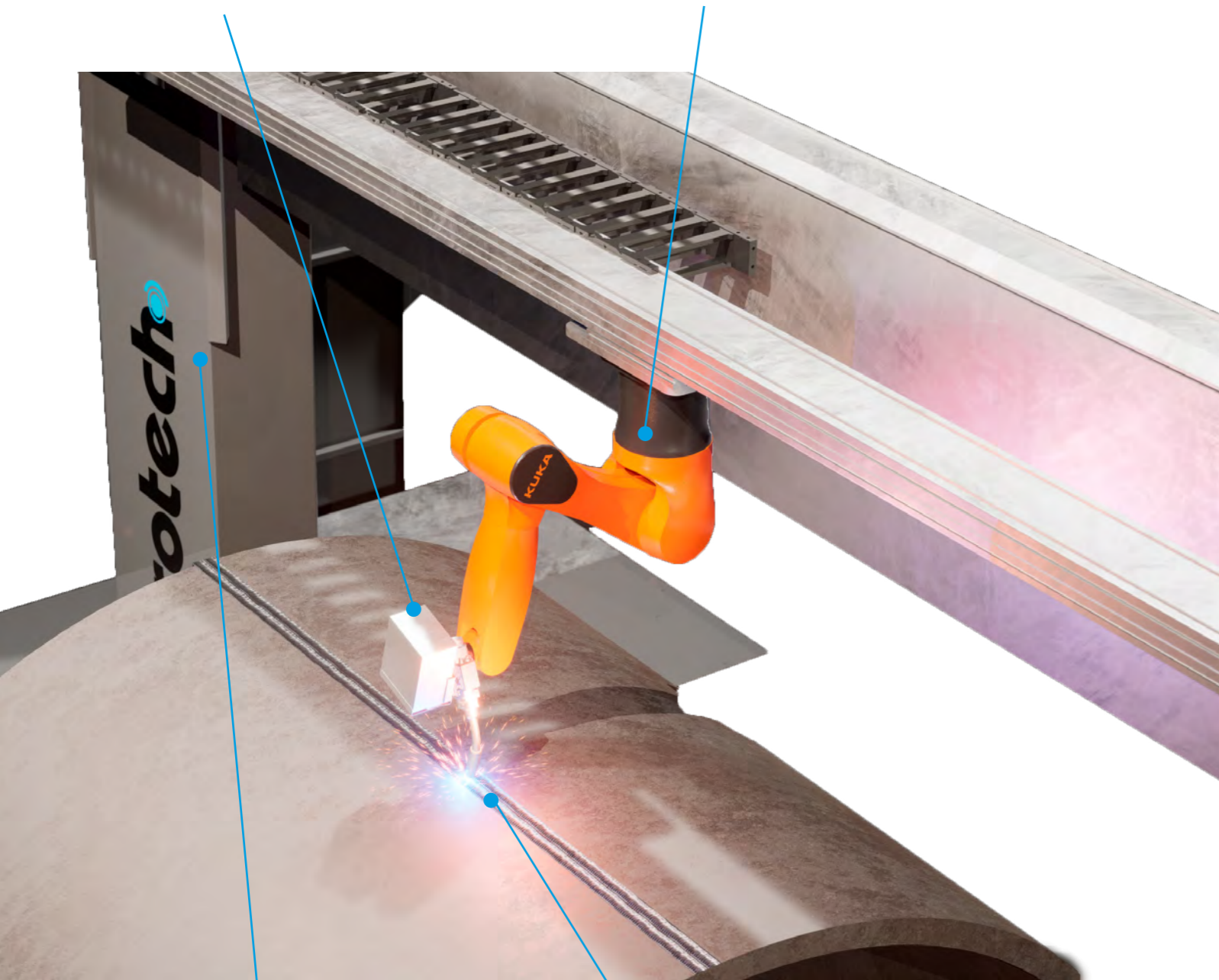


### Scanner & Welding gun

- Scanner house equipped with laser scanner and temperature sensor for measuring the interpass temperature.
- High performance welding gun made specifically for robotic welding.

### Robot Arm

- Durable KR10 robot arm from Kuka.
- Designed particularly for high working speeds.
- Achieves top performance in every production environment.



### Column & Boom

- Adjustable column & boom setup to fit all sizes of cans.
- Automatic detecting of groove position and weld length.

### Welding features

- Both for longitudinal joints in cans and plate joints.
- Automatic change of torch neck for narrow grooves.
- Automatic wire cutting and cleaning of the welding torch.
- Automatic deslagging of the groove using compressed air.

### ROBOTICS

Robot	Kuka KR10 R900 WP
Controller	KR C4 small size
External Axis	Servo Motor

### WELDING

Power source	Lincoln Power Wave S500 CE
Wire feeder	Lincoln Autodrive 4R220
Fume extraction	Extraction hood connected to clients extraction system
Welding wire feed	Drum
Cooling unit	Compressor cooler

### WELDING PROCESS

Welding positions	PA
Welding wire	Metal-cored
Shielding gas	Mixed Gas (M20 or M21)
Deslagging	Compressed air
Groove types	V-Grooves, Narrow Gap

### TORCH CLEANING

Cleaning station	Compressed air cleaning
Wire cutter	Binzel
Torch neck exchange	TES Binzel

### SENSORS

Temperature sensor	Yes**
2D Line Sensor	Micro Epsilon

### MAIN DIMENSIONS

System	WxHxD = 5x5x10 m / 197x197x394 in***
Robot rail length	Up to 6.5 m / 256 in**

### SAFETY

Emergency stop	Triggered by pressing the emergency stop button
Light fence or door switches	Yes*

### SUPPLIES

Power	3 Phase 400 V + N + PE, 80 A, 50 Hz
Gas	The gas specified in the weld process; 30 l/min
Compressed air	10 bar ISO 8573-1:2010[7:4:4]; 8,000 l/min
Internet connection	LAN, WIFI or SIM-card

### ENVIRONMENT

Ambient temperature range	+5°C to 40°C
Humidity	80% RH or less. No dew, nor frost allowed.
Environment	For indoor use only

### COMMUNICATION

Secure access gateway	Secomea SiteManager
Human Machine Interface (HMI)	Color Display with Touch Screen
Support camera	IP Camera

\*Options  
 \*\*Can be customized  
 \*\*\*Subject to change



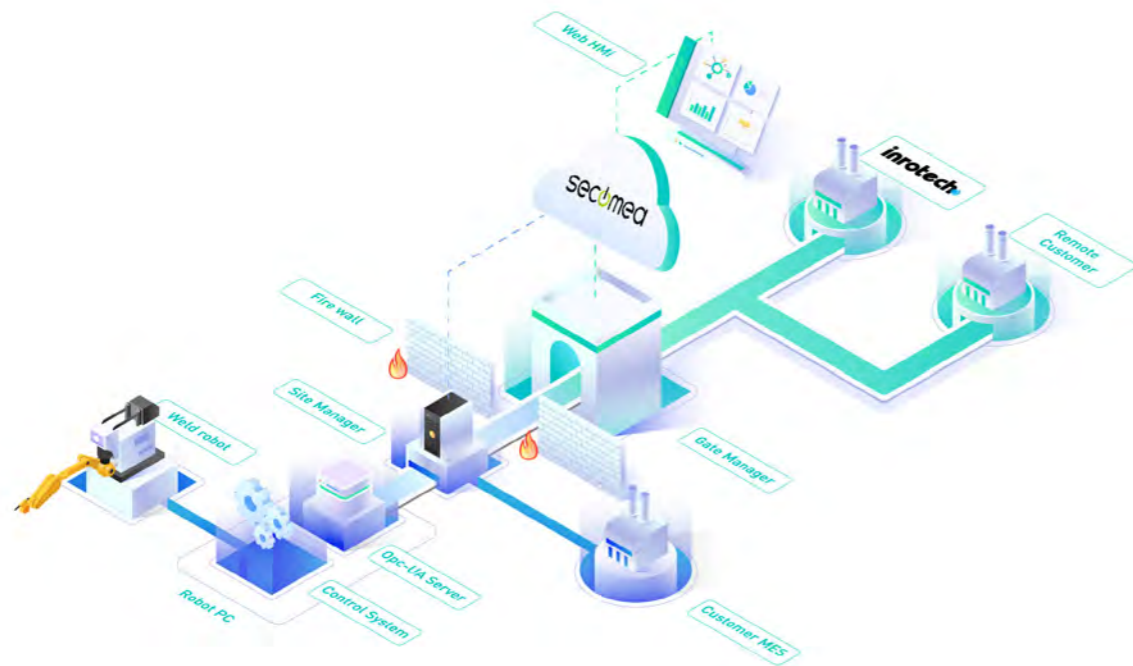
**Inrotech Service**

**Inrotech Remote Service (IRS) is created to serve each level of production and increase overall productivity**

**Facilitate secured online access with IRS**

All Inrotech robot systems are provided with a secure access gateway from Secomea. Secomea's Sitemanager complies with the highest global cybersecurity standards and is fully aligned with Industry 4.0 criterias. It enables both remote access and data collection in one unit. You can easily access and view the robot's motion through various cameras as well as welding machine parameters.

All communication with Inrotech robot is done through the secure access gateway, thus separating the robot system completely from clients network. This allows Inrotech to decide the structure and setup of the elements inside the closed network of the robot system. It also eliminates the need for remote access through clients VPN.



IRS provides significant information in the hands of the client by integrating license for **clients remote access** and even also **cloud storage** with performance and **datalogging** made available with configurable visualisation.



Access the robot's motion, programs and welding machine parameters



IRS is a secure online access for client support designed by Inrotech specialist team.



IRS is designed to serve each level of production and decrease your overall costs.

**Inrotech Spare Parts**

**MAXIMIZE UPTIME WITH WORLD-CLASS SERVICE**

When you choose Inrotech Robots you unlock world-class aftercare.

Made for every shape and size of business, whether you've got one or several welding robots, we'll be here delivering expert advice, remote maintenance, parts, and on-site repairs so you can maximize uptime, every time. Reduce risk and unexpected costs by tailoring a service plan to suit your business. Inrotech Spare Part Service for the best performance of your robot welding system. Our experts are ready to assist you in supplying the correct spareparts for your equipment.

**WHY Inrotech Spare Parts?**



**QUALITY BRANDS**

Inrotech spare parts are always of various quality brands



**SPARE PART LIST**

All our equipments comes with a recommended spare parts list



**12 MONTHS WARRANTY**

All spare parts from quality brands come with a 12 month warranty



**ONLINE SERVICE**

Inrotech Spare Part staff provide you with online service using the Installed Secure Access Gateway

Availability of the correct spareparts is important in order to minimize downtime and maintain longevity of the equipment. All parts are repaired to factory specifications. Our technicians are available to travel to your destination and ready to assist you replacing the spare part. For our customers we recommend spare parts available at your own location, which allows optimal planning of maintenance and repair. We are happy to create a product-specific spare parts list.

**Inrotech Spare Parts Distributor**



**Inrotech Customers**

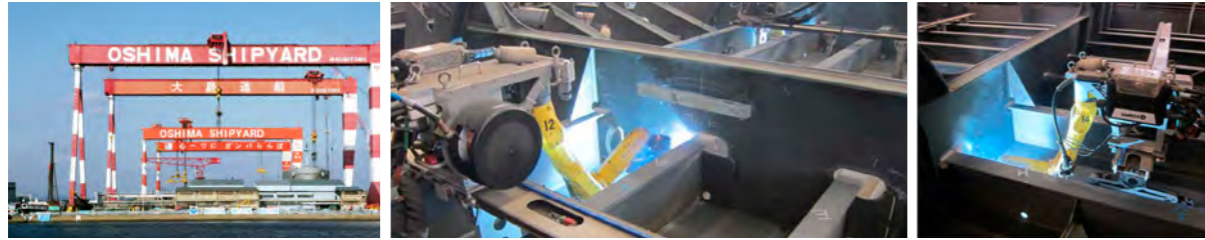
**Inrotech deliver welding automation for a variety of manufacturers**





## CASE - Oshima Shipyard

### At OSHIMA Shipyard one operator is operating six Inrotech-Classics simultaneously



"The technology inside Inrotechs' robots is advanced, yet simple to use. The Inrotech-Classic is light weight and easy to set up on the block by operators and with the SensLogic Technology, we are able to weld any job required in our production line, because it quickly adapts to different types of welding jobs.

One operator uses six robots simultaneously. He only needs to press start, and the robot starts to weld, one after another. Inrotechs' mobile robots are therefore very suitable for automation in the production line of our shipyard. After 11 years of using Inrotechs' mobile robots, we have experienced several advantages, most importantly our productivity has increased dramatically, while we have continued investing in Inrotech welding solutions.

Additionally, we have experienced a constant high welding quality from the robots. Oshima Shipyard is currently rethinking our goals with higher standards of what we can achieve thanks to Inrotechs' welding robots." argues Mr. Masahiro Shiraki, Project Manager, Oshima Shipyard.

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## CASE - Severnav Shipyard

### Inrotech-MicroTwin brings competitiveness and efficiency at shipyard SEVERNAV S.A.



Severnav S.A Shipyard, a modern and proficient shipbuilding company from Romania invested in the first of several solutions from Inrotech in 2018.

The latest investment, Inrotech-MicroTwin, was delivered to Severnav in the end of 2019. The robot welding solution is a compact and light weight gantry with 2 welding robots, welding machines and a scanning system for identifying stiffeners on panels.

A forward-looking mindset of Severnav S.A Shipyard has now modernized and expanded their production-strategy with various automated solutions.

"We will certainly experience an increasing need for robot welding and automated solutions in shipbuilding industries. I'm sure that within a couple of years, there's no way of getting out of implementing such solutions, and we have been satisfied with Inrotech's flexible solutions and real-time support, says Christian Miu, Director, Strategy & Development, former Vice President Field Service Technology.

## CASE - Astilleros De Murueta

### ASTILLEROS DE MURUETA has improved its efficiency and welding quality with the Inrotech-MicroTwin



ASTILLEROS DE MURUETA are building new vessels. Normally the type of vessel depends on the market. During the last years, they have built fishing vessels, cargo vessels, oil tankers, dredgers and tugboats. Since 2018 they have used the Inrotech-MicroTwin in the build of LNG Supply tanker, Factory Trawlers, Tug, Tanker and Fishing vessels for owners such as Qaleralik, JADRAN GROUP, ICE TRAWL Greenland, ALSAKER FJORDBRUK and MURELOIL.

"The results of Inrotech welding solution have been a significant improvement in the performance and consistencies of individual processes within the production flow. We have become leaner, more efficient, and more consistent with the quality of our shipbuilding production.

The operator of the Inrotech-MicroTwin at MURUETA, Ivan, normally places the items to be welded randomly within the workspace of the Inrotech-MicroTwin and presses the start button on the intuitive touch panel. The scanning of the panels now takes place. It only takes a few minutes.

Once the scan is completed, the exact position of each profile is verified by the laser sensor, which is integrated in a housing also holding the welding gun. The welding of the profiles now takes place without any further input from Ivan's side.

Another benefit of the automated welding solutions is that we are not depending on any engineering office and are therefore reducing the engineering hours. We have the option to change the production program immediately if necessary" says Josu Apraiz Anasagasti, Commercial Director.

## CASE - VOITH

### Inrotech-Crawler at heavy industry site has become real for VOITH



The Voith Group is a global technology company. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets of energy, oil & gas, paper, raw materials and transport & automotive.

The company Voith selected Inrotech as the supplier of highly advanced automated robot solutions to support their vision of automating the production of modern and powerful hydropower stations:

"Our concerns about not getting qualified staff quickly vanished into thin air. The vision of using mobile welding robots on heavy industry erection sites has become reality.

Now those, who have been doubting the feasibility of the project, are bringing their ideas and questions to the table regarding how to implement robot welding in their designs". - Gebhard Salcher, Voith Group, Vice President Field Service Technology



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Intelligent Robotic Welding

Read more



C. F. Tietgens Blvd. 26, Odense, DK-5220  
Tel: +45 6616 4100  
Mail: info@inrotech.com

