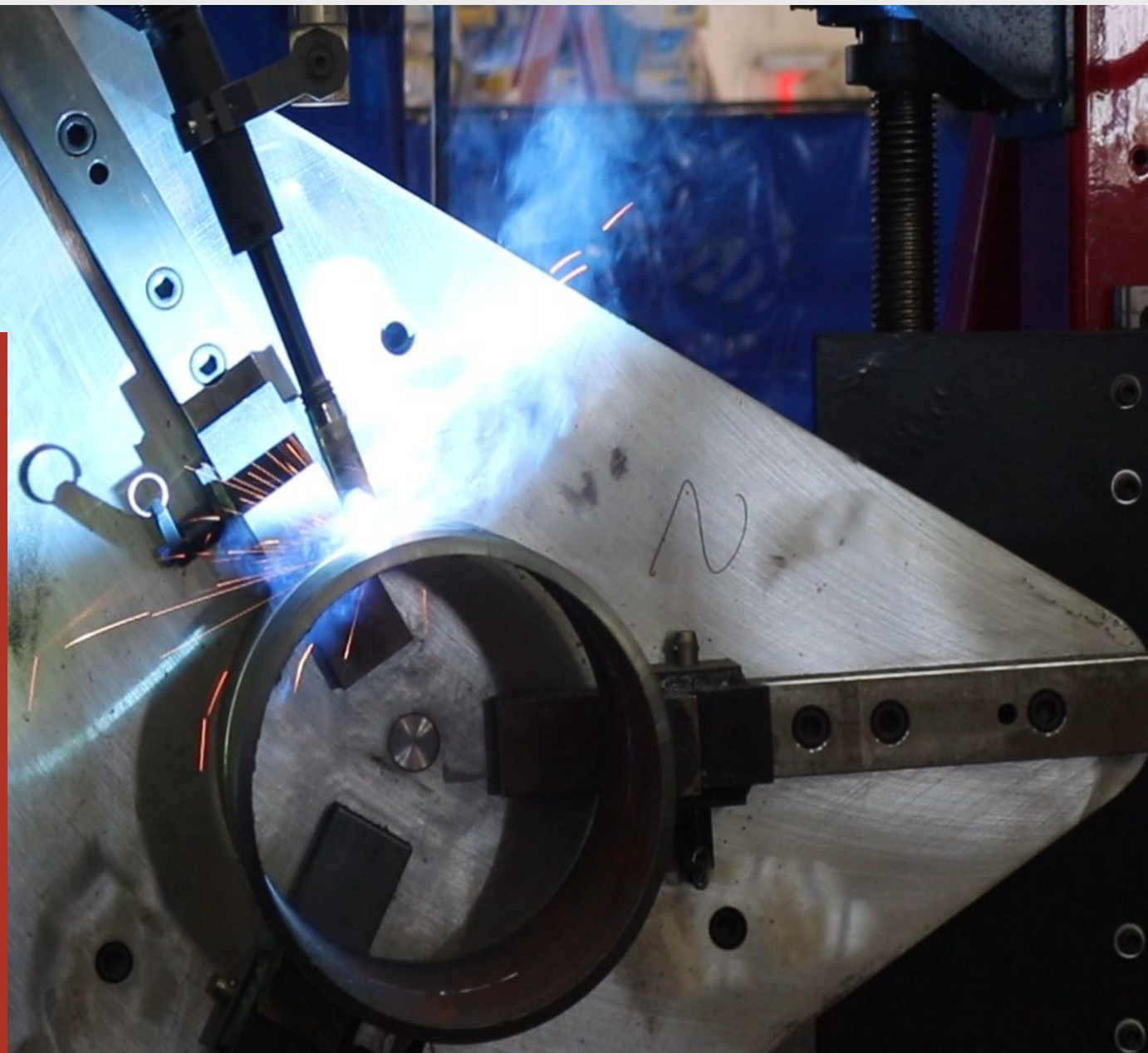




REDI2WELD TECHNICAL BROCHURE

2022



Semi-Automated Welding System for modern fabricators

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Welcome To Redi2Weld

The Redi2Weld line of automated pipe welding systems has been developed to give fabricators the ability to choose the right kind of automation for their specific application. Weld automation can increase deposition rates by keeping the arc on longer with high welding consistency. With the Redi2Weld systems, there are 3 different levels of automation available. Redi2Weld offers adaptability because each shop is different and fabricators should have flexibility when looking at equipment and not be forced into only one type of layout or weld process.



Redi2Weld is designed and manufactured by Industrial Solutions & Innovation in Houston, Texas. ISI has been a leader in providing quality solutions to their clients for two decades.

Why choose Redi2Weld?

Redi2Weld are purpose-built mechanized systems that have been designed with a variety of configurations to best meet your application needs.

INCREASED PRODUCTIVITY

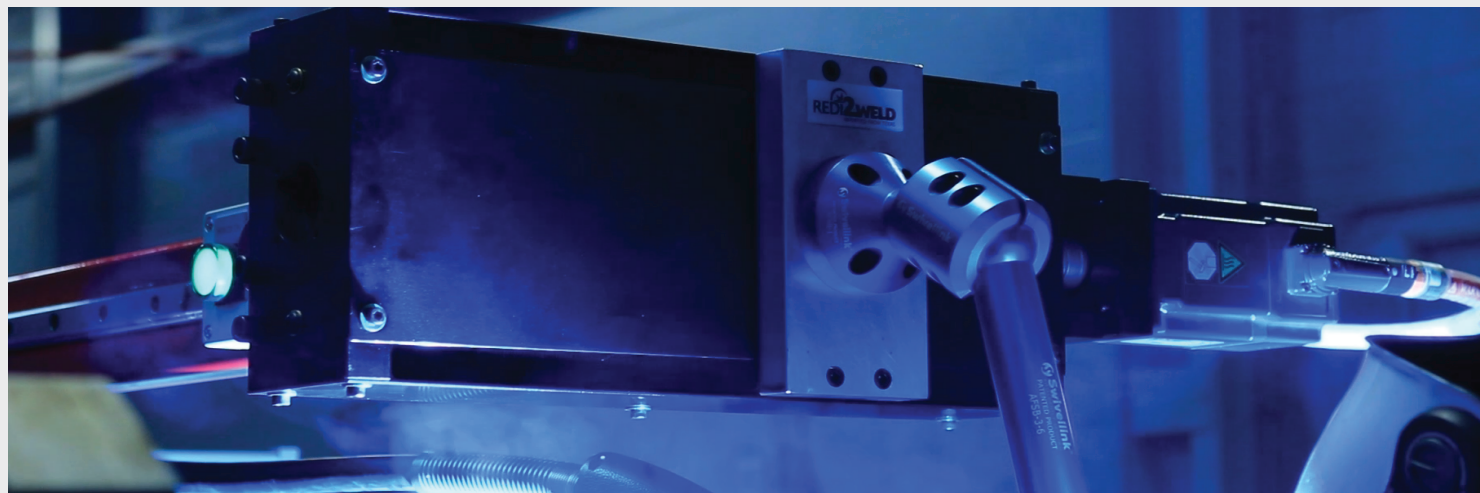
Produce more with an operator that has introductory welding experience.

CONSISTENT QUALITY

We offer an optional data tracking option so you can make sure you are getting quality welds each and every time.

INTEGRATIONS FLEXIBILITY

You can choose from top quality power supply manufacturers eg Lincoln, Miller, EWM.

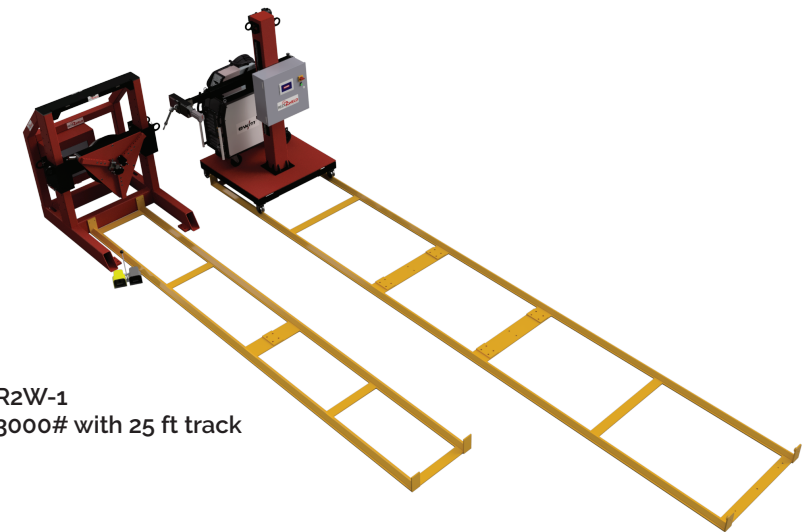


Find a Redi2Weld to fit your needs

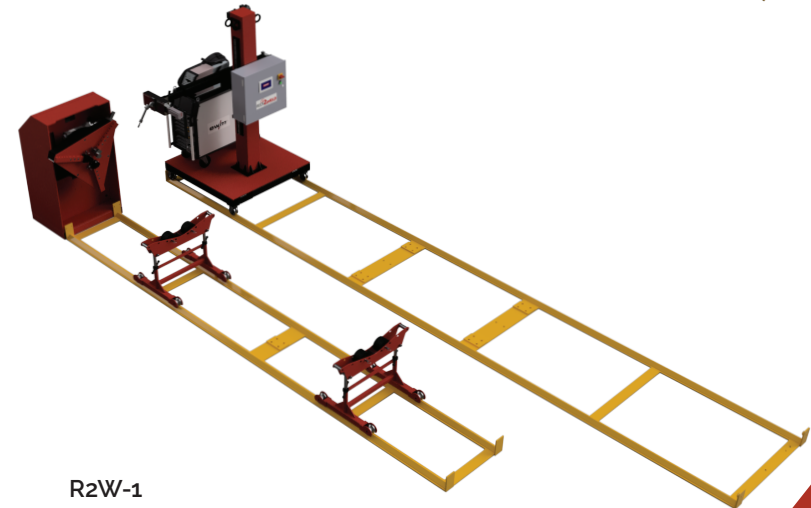
With Redi2Weld systems, you can choose between different weld processes, pipe size ranges, layouts, and several other optional add-ons.

R2W-1

The R2W-1 system is Redi2Weld's base level of automation. It is equipped with horizontal oscillation and a PLC to create weld programs on any size and schedule of pipe. Process parameters such as travel speed and oscillation width, dwell, and frequency can be fine-tuned to maximize repeatability. Our heavy-duty handheld remote pendant also gives the operator the ability to make necessary adjustments while welding.



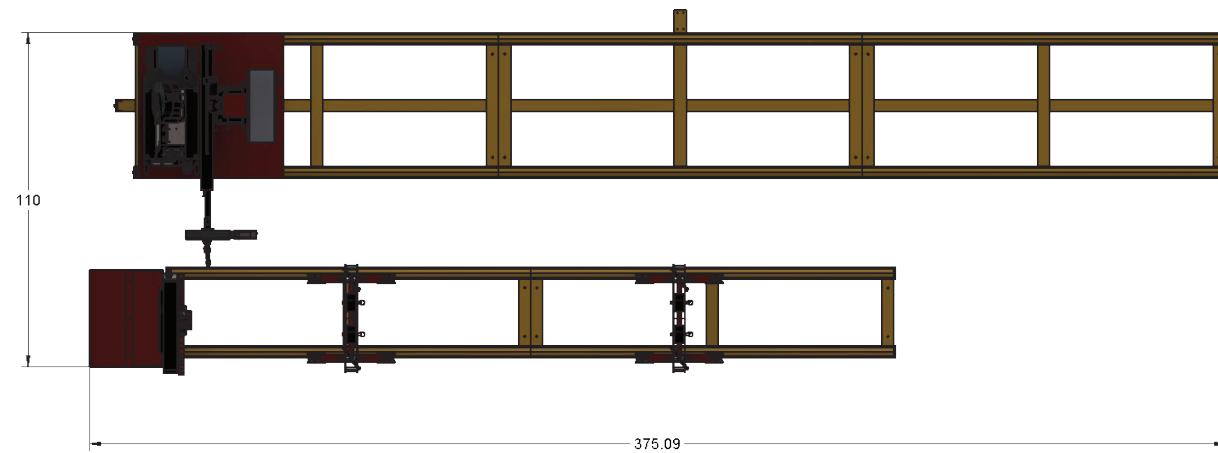
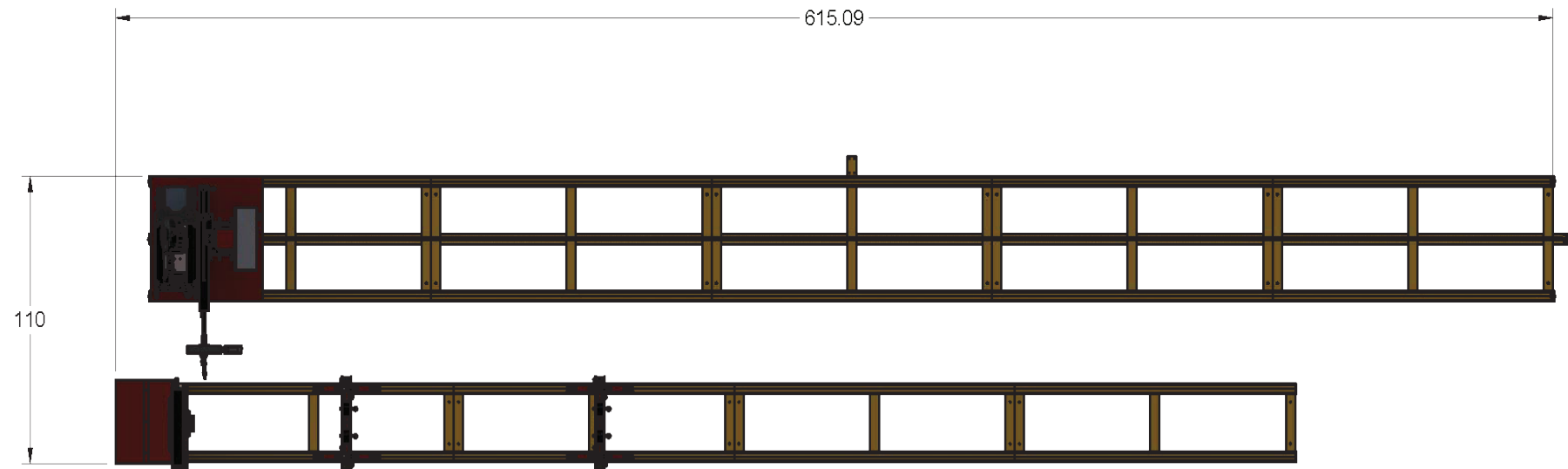
R2W-1
3000# with 25 ft track



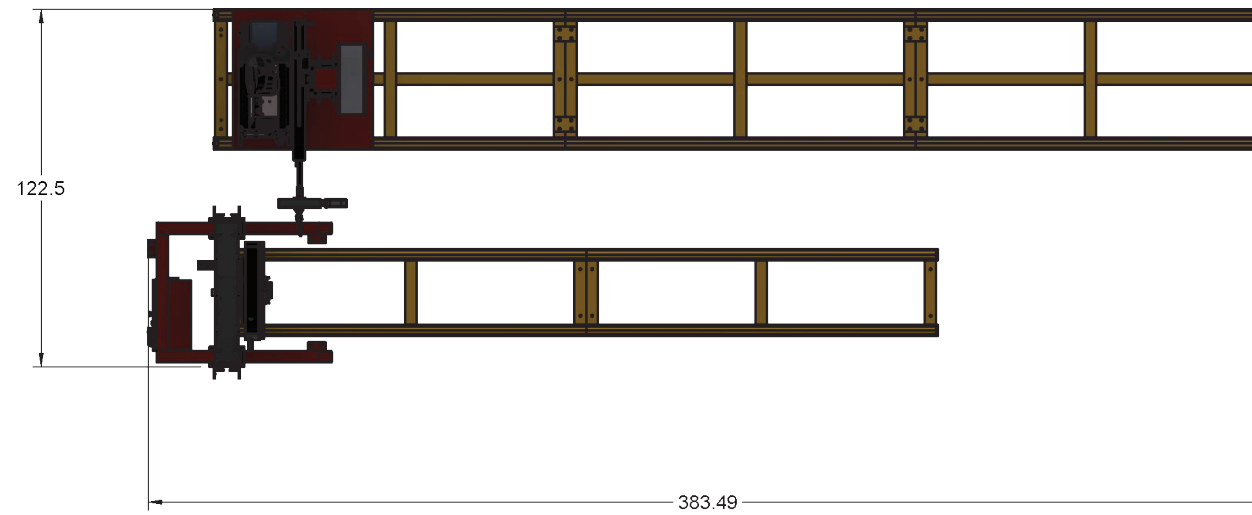
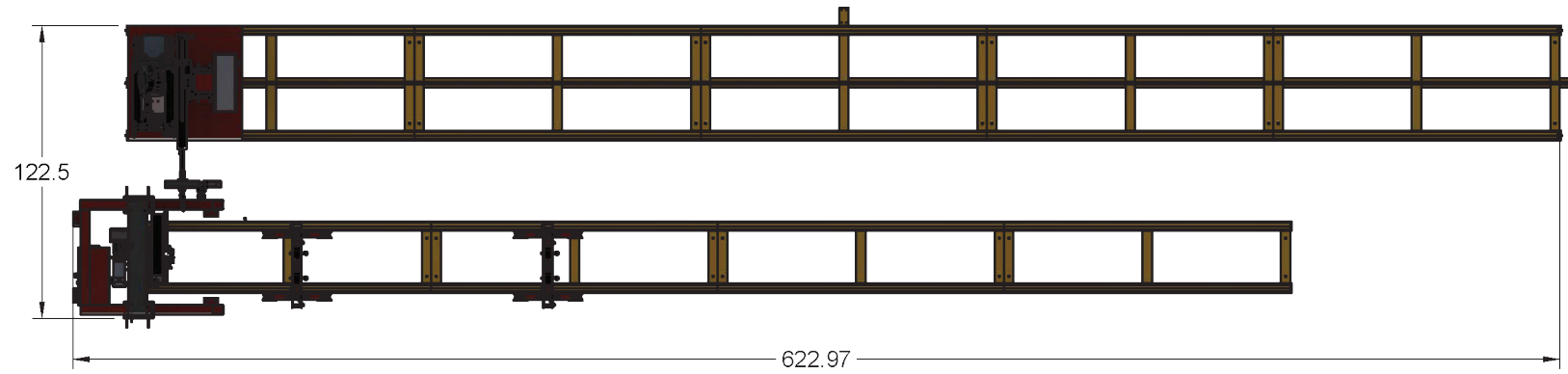
R2W-1
1500# with 25 ft track



R2W-1 1500# shown with 30ft and 50ft track



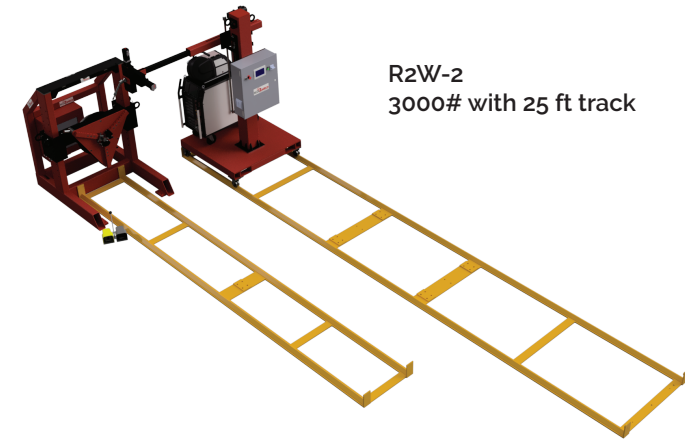
R2W-1 3000# shown with 30ft and 50ft track



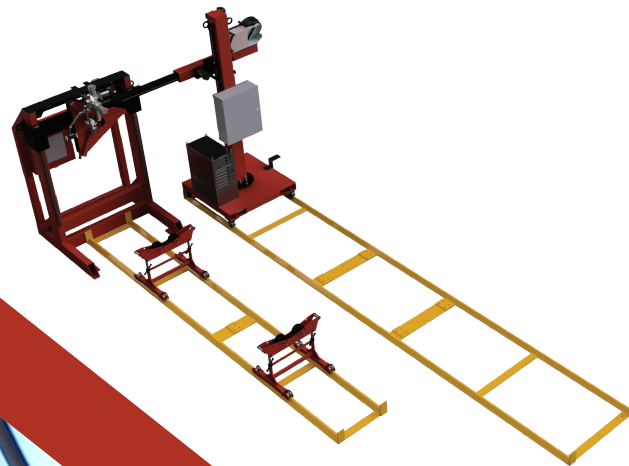
R2W-2

The R2W-2 system is the next step up in level of automation in the Redi2Weld line. The full functionality of the R2W-1 system is enhanced by the addition of arc length monitoring. This enables the R2W-2 to automatically rise and lower with the ovality of the pipe to keep a consistent arc length through every weld pass.

The R2W-2 system comes equipped with the ability to run MIG and TIG processes. R2W is exclusive in offering Hot Wire TIG capability, and is unique in allowing the user to choose between MIG or TIG welding processes.



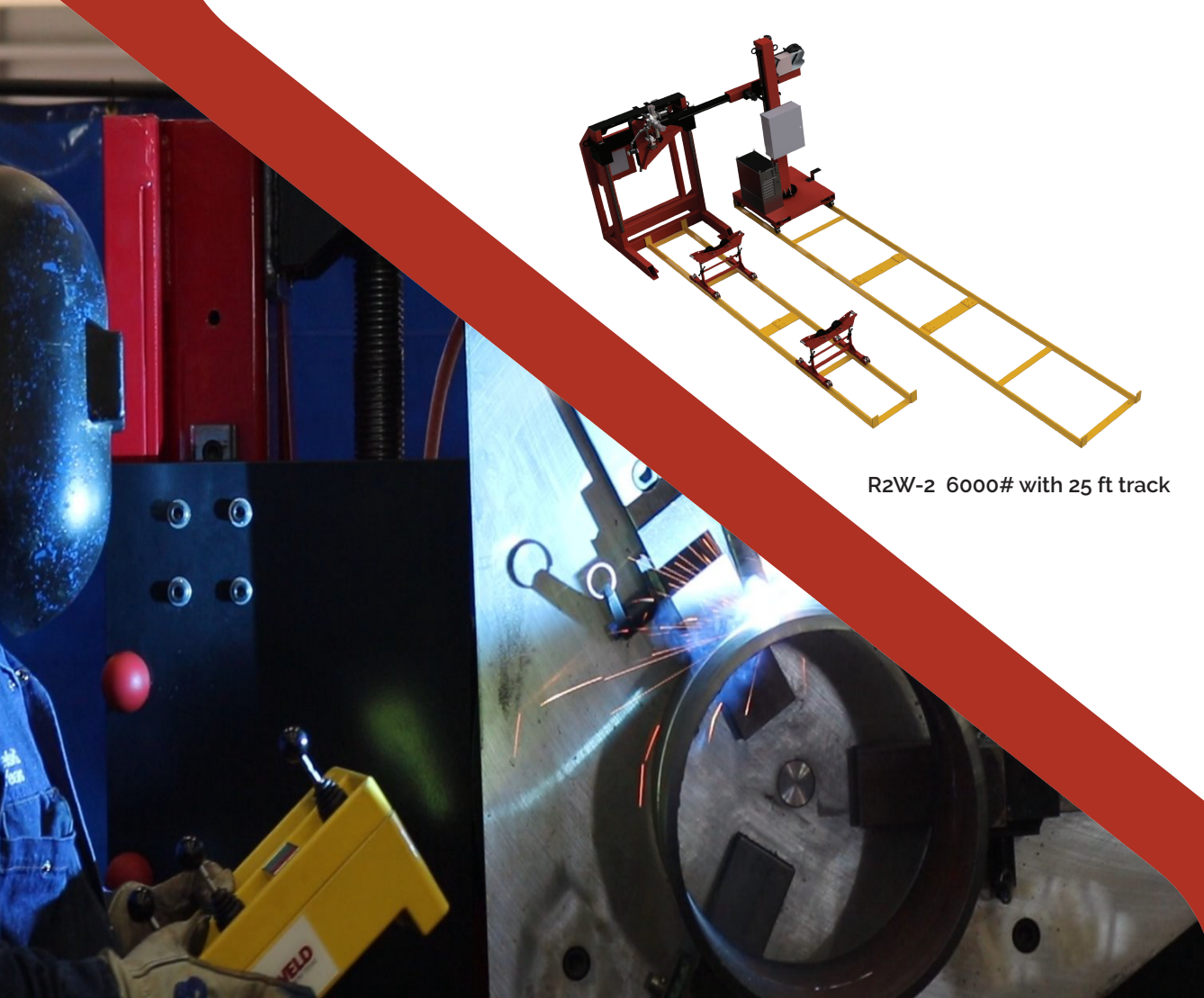
R2W-2
3000# with 25 ft track



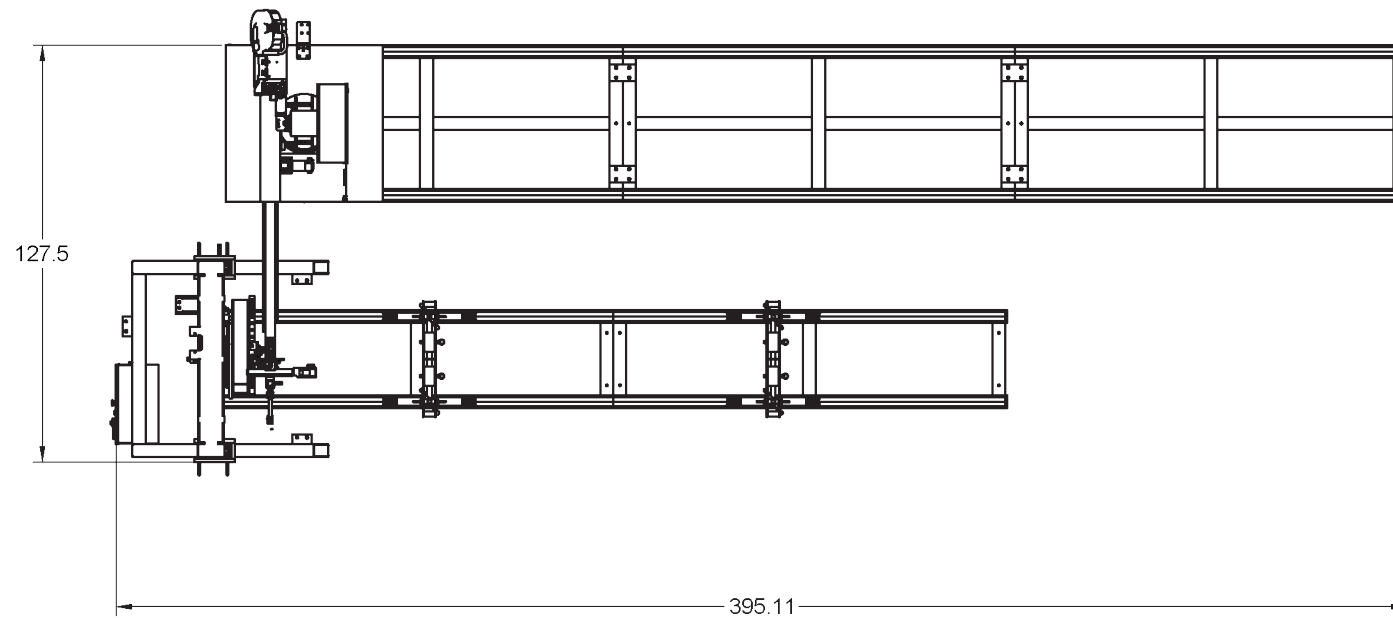
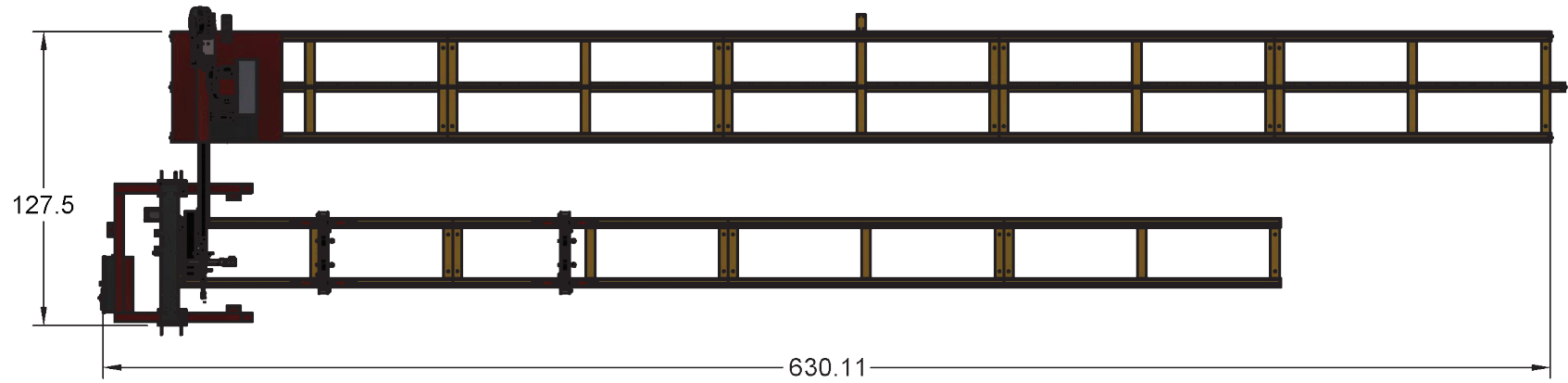
R2W-2 6000# with 25 ft track



R2W-2
1500# with 25 ft track

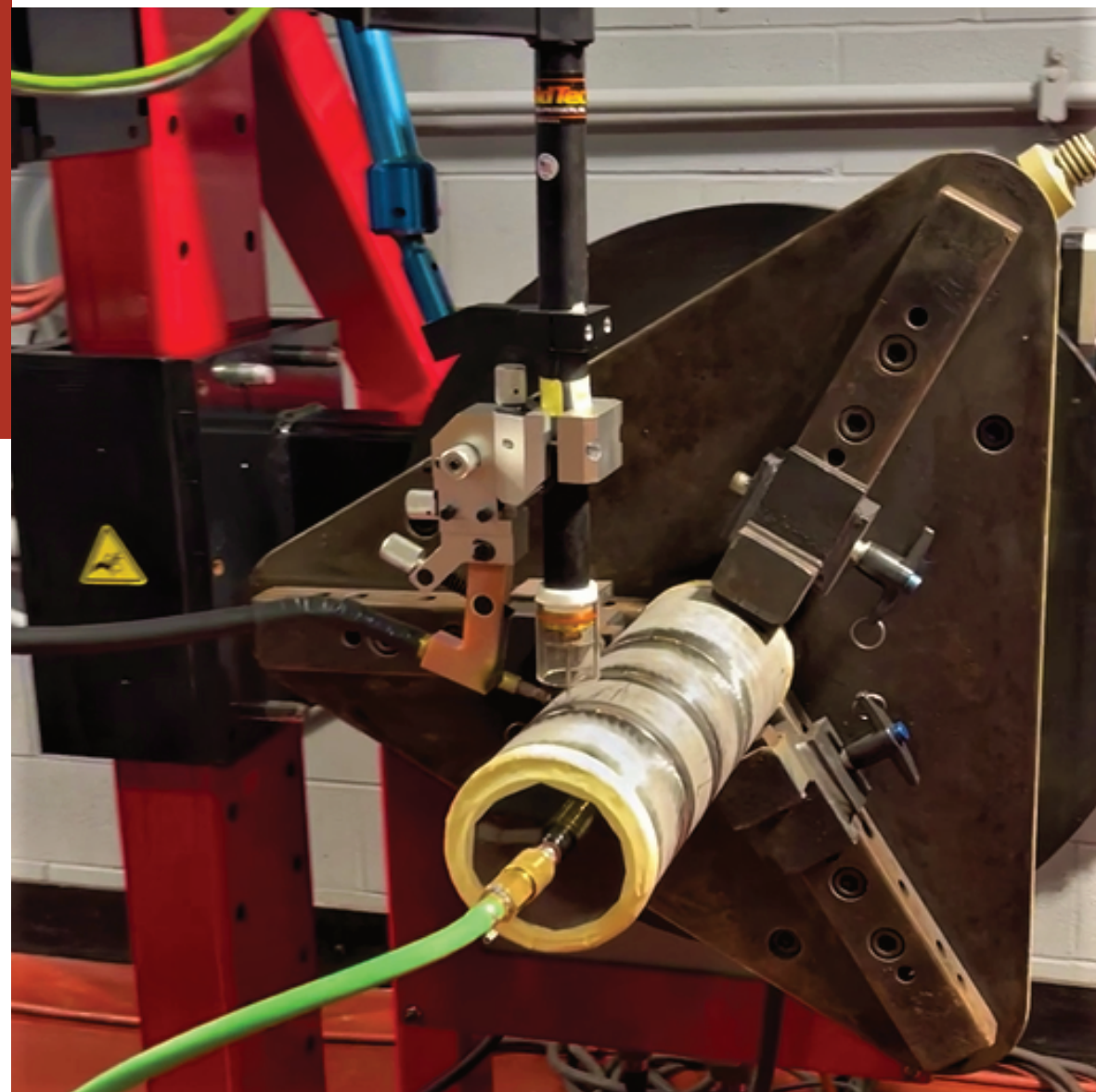


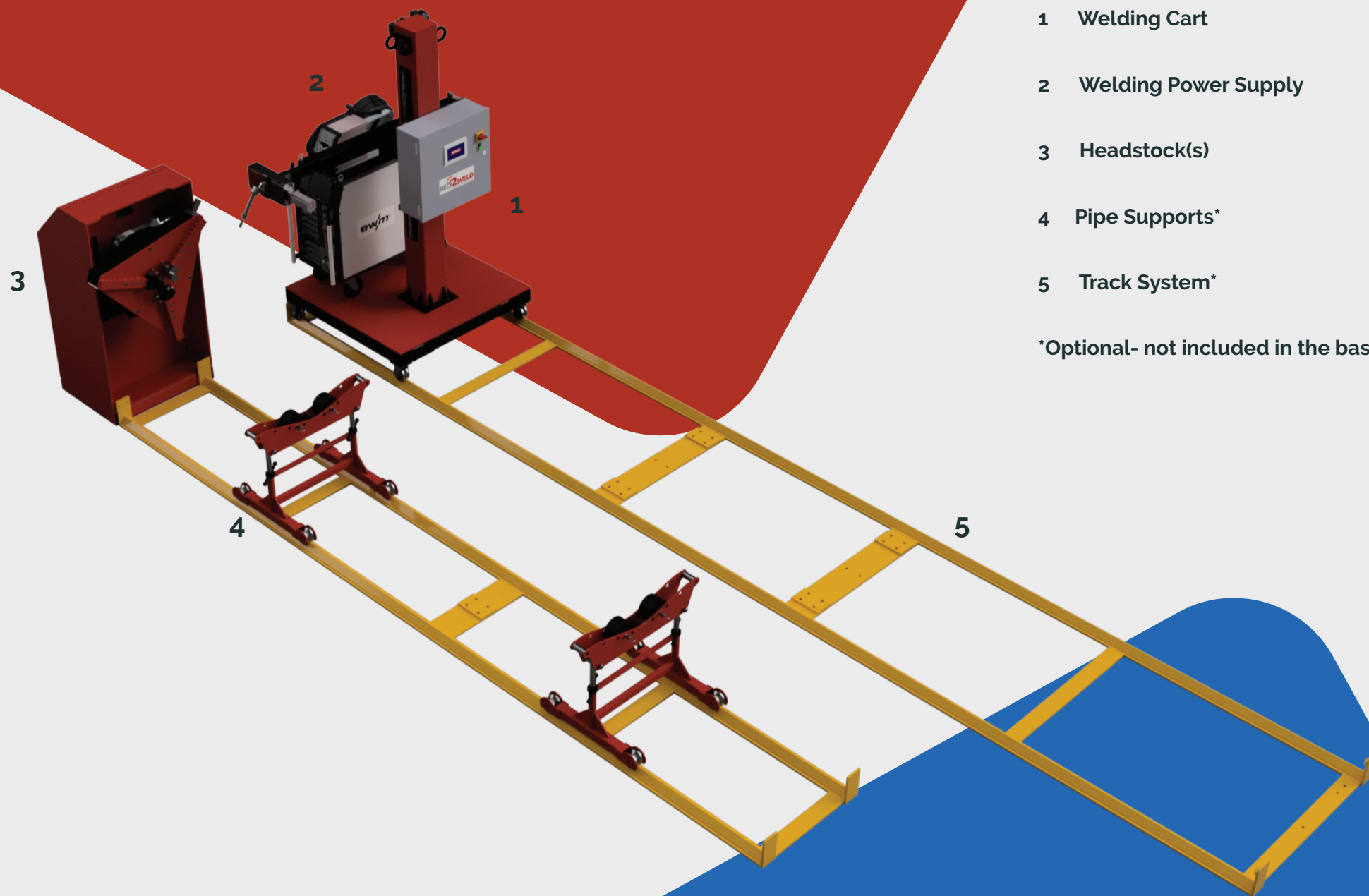
R2W-1 6000# shown with 30ft and 50ft track



Take a look at them side by side to see which system is the best fit for your needs.

Features:	R2W-1	R2W-2
Capacity	1500 #/ 20" Gripper 3000#/30 " Gripper	1500 #/ 20" Gripper 3000#/30 " Gripper 6000 #/ 44" Gripper
Column & Boom	4'x4'	6'x6'
Headstock Manual Height Elevation	24"-48" Standard	24"-48" Standard
PLC Controlled Oscillator 1-12" Stroke	Standard	Standard
PLC Controlled Vertical Slide 1-12" Stroke	Not Available	Standard
MIG/FCAW Power Supply	Power Supply to be specified by end user	Power Supply to be specified by end user
TIG/Hotwire TIG Power Supply	Not Available	EWM only
Multipass Programming	MIG Only	Available
Pipe Supports	Optional	Optional
Weld Data Recording using EWM Xnet	Optional	Optional





1 Welding Cart

2 Welding Power Supply

3 Headstock(s)

4 Pipe Supports*

5 Track System*

*Optional- not included in the base price

Main Components

Redi 2 Weld Systems consist of the following:



Power Supplies

With any Redi2Weld system we recommend the use of the EWM product line for both MIG and TIG processes. We also have the ability to integrate new or customer owned power supplies such as the Miller Pipeworx or Lincoln TTS for MIG applications.

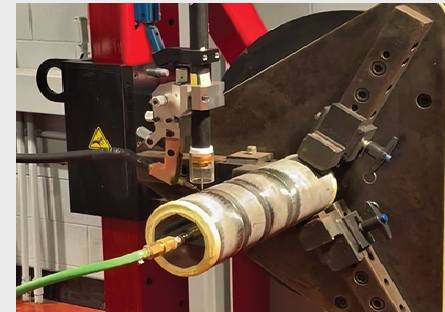
Redi2Weld TIG systems are currently exclusively compatible with EWM TIG power supplies



Welding Cart

The welding cart is the base for the Redi2Weld column and boom, the welding power supply, power cabinet, and the touch screen programmable plc.

Having all these components on one cart allows for a single source power system. The cart is able to travel the track. The power cabinet is attached to the column and is controlled by the touch screen plc. At the end of the boom you will find our oscillator slide and welding torch. The welding power supply and wire feeder are also mounted to the cart. By having all of these major components all on one cart, we decrease our footprint in your shop and make install a much faster process.



Headstock(s)

The headstock controls the rotation to maintain travel speeds accuracy and precision on every weld.

The gearbox and motor assembly are located in the headstock frame. The headstock has height adjustment capabilities and have locking pins located on either side of the face of the headstock for safe operation.

The self-centering chuck (with 3 jaws) features hardened teeth to ensure good grip on the pipe. The chuck size varies depending on the customers needs. The headstock is aligned with the track



Track System

Track is recommended to keep the R2W cart in line with the headstock center line throughout the length of the various pipe spools. The track is anchored to the shop floor to maintain stability.

R2W systems can be used with a multi-directional rolling cart for shops that do not have the space to permanently install track.

Suggested Maintenance

Daily

CLEAN: track cart, torch nozzles

CHECK: (all models) wire spool, shielding gas

CHANGE: torch contact tip

Weekly

CLEAN: jaw insert on the chuck

CHANGE: torch liner

CHECK: torch nozzles (if needed after inspection), test the foot pedals in each direction, check cable for damages

Monthly

CLEAN: wire feeder roller

Quarterly

CHECK: flow meter and gas line for any leaks

Yearly

CLEAN: inside of the welding machines, monitor, and the inside of the electrical cabinet with compressed air

CHECK: Inspection of the gear box in each positioner, the rotating welding ground: make sure that the cable is firmly attached to the ground pin, and welding ground wire of each welding source

Power supply cooler and torch connections for leakage

Check the integrity and wear of the welding torches, gas flow meters for potential leaks, and the cart

Grease bearing of the positioners

Check slides for eventual backlash

CHANGE: torch liner and coolant of the water chiller



Quality Assurance & Final Testing

The system is fully assembled and tested in Texas at Industrial Solutions & Innovation before shipping to the customer's facility.

Client Responsibilities

Prepare the necessary floor space and verify the concrete floor load capacity.

Ensure correct power availability at the location of the Redi2Weld system.

Have over-head crane and-or jib crane available for the installation.

Provide test coupons that follow fit-up recommendations.

Provide ample shielding gas for install, testing, and training.

Technical Support

We offer no-charge support via phone or email and can quote additional on-site training if needed.



Installation & Training

On site installation and training by Industrial Solutions & Innovation varies depending on the system and will be specified in the quote. We will instruct customers on pre-installation duties such as power requirements, shop space needed, etc. We recommend coupons be prepared by the customer for the training process.

“
**EAT
WELD
SLEEP**

Any last things here you want to include?