



NOVARC

# Spool Welding Robot (SWR™) TIPTIG

The Most Versatile **Autonomous Pipe Welding Robot** using a GTAW process.

Response time within

**2** business  
hours

for support tickets\*.

\*With the purchase of NovCare Gold

Up to

**4** lbs/  
hour

deposition rates.

Up to

**60%**

cost savings.

\$0 payments for up to

**6** months

at highly competitive rates.



Scan to explore technology that's  
changing how welding gets done.

For Business Owners

## **Win More Projects**

and get ahead in an increasingly competitive market.

## **Boost Profit Margins**

on existing projects.

## **Shorten Project Timeframes**

while increasing shop throughput.

## **See Quick Returns**

The SWR™-TIPTIG typically has a payback period of 6-12 months.

For Operations Managers

## **Achieve up to 4 lbs/hr**

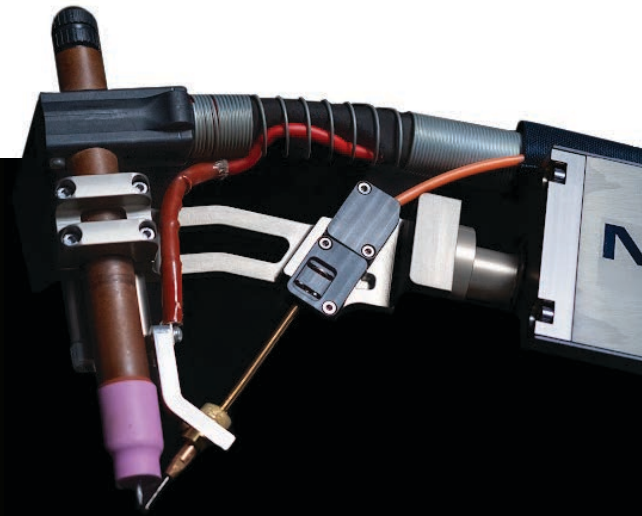
in deposition rates.

## **Achieve Up to 60%**

cost savings.

## **Reduce dependency on scarce**

highly-skilled pipe welders.



**Weld a 6" Carbon Steel or Stainless Steel SCH 40 Joint  
using GTAW in under 18 minutes root to cap!\***

\*Arc-on time only, excluding interpass cooling time

# For Quality Managers

## **Meet the requirements**

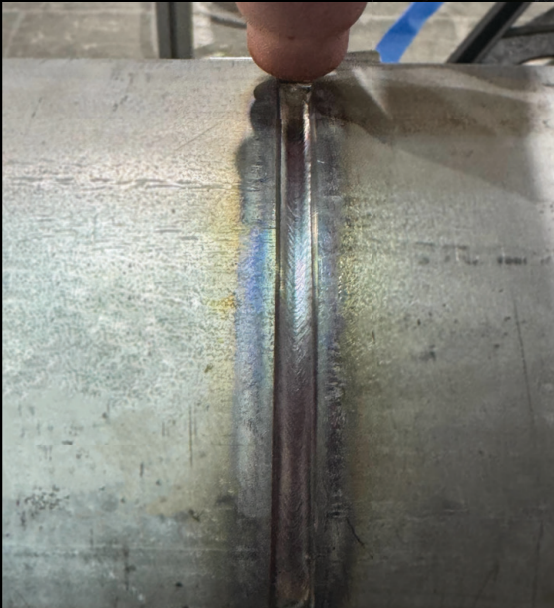
of ASME B31.1, B31.3, Section XI,  
and BPVC Section VIII.

## **Meet key quality test requirements**

such as X-ray tests, hardness tests,  
and corrosion testing.

## **Provide accountability**

and traceability through NovSync™  
and NovData™.





## NovEye™ Autonomy

Continuously evolving through AI

Industry First: Zero Operator Intervention, X-Ray Quality Welds. Just set up the Spool Welding Robot (SWR™), hit start, and move to set up another weld.

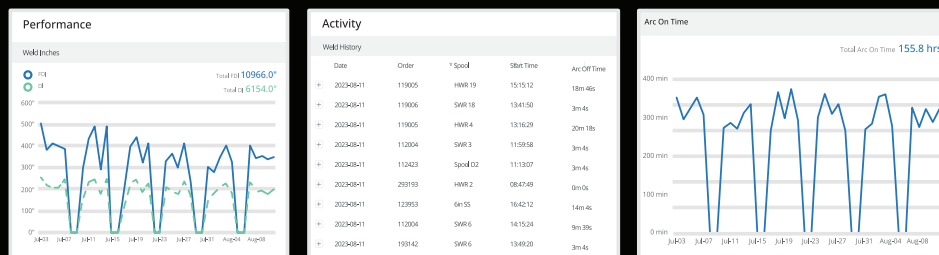


## Tack Fusion, Root Save, Repeat Pass

Technology to ensure 100% joint penetration without blow through at tack locations and pipe with poor fit-up, and Hi-Lo.

## NovEye™ Assist, NovData™, NovSync™

Providing you with all the data and videos you need to seamlessly manage your welding operations, enhance productivity, and minimize disruptions, all with the assurance of dependable support and reliability at every step.



Production insights

## Technical Specifications

### Applications

Pipe and pressure vessels from 2"- 30" (50mm - 750mm)\*

### Materials

Carbon and low alloy steels  
Stainless and nickel alloys\*

\*Contact us for other sizes and materials

### Wire Diameter

0.035 in. (0.9mm)

### Reach

15 ft (4.5m)

### SWR™ Footprint

4'x4' (1.2m x 1.2m)

### Power Requirements

#### SWR™ Requirements

North America - 3-Phase, 208Y/120V, 60Hz, 23A, 5 Wires (V, U, W, Neutral and Ground)  
EU and AUS 3 Phase 400/208/120VAC 60A 50/60 Hz

#### Lincoln Electric Power Source Requirements

North America - 3-Phase AC Voltage/Current:  
208V/60A, 230V/54A, 400V/31A, 460V/27A, 575V/21A, 4 Wires (V, U, W and Ground)  
EU and AUS - distributed from SWR™ electrical cabinet

# Features

## Compact Footprint

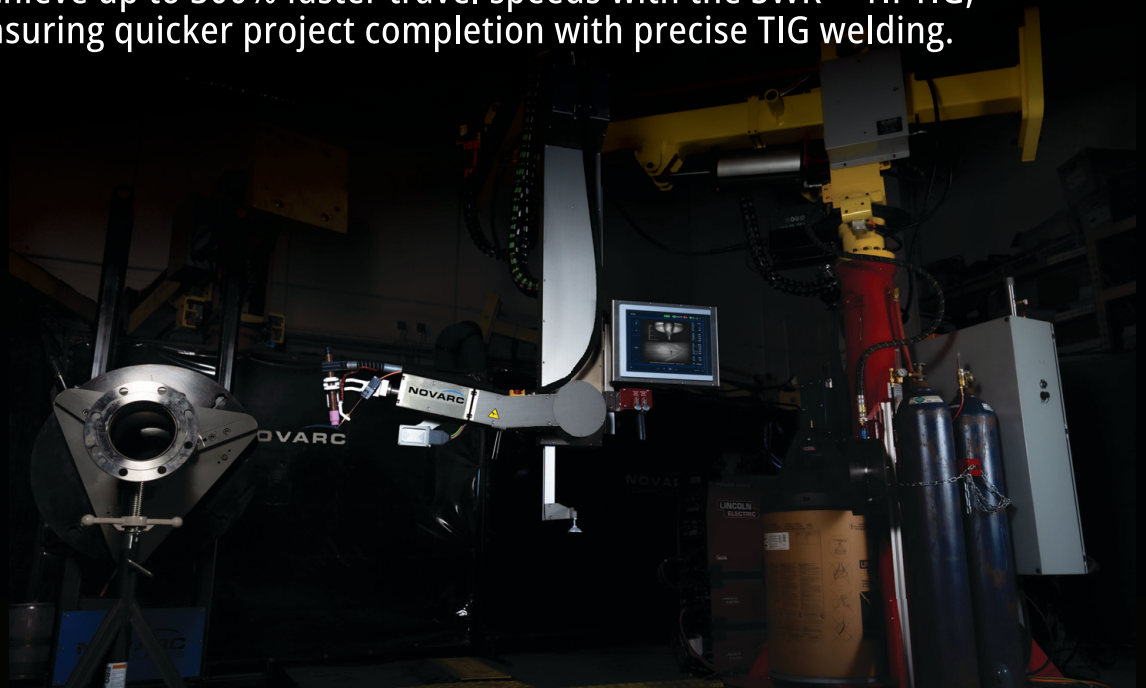
The SWR™-TIPTIG boasts the smallest footprint in the industry at just 4' x 4' (1.2m x 1.2m), allowing you to maximize shop space and productivity. It can operate with up to four positioners, giving you a competitive edge.

## Collaborative TIG Welding

Designed for pipe, pressure vessel, slip-on flange, and roll welding using TIG, the SWR™-TIPTIG enhances both speed and precision. Its advanced TIPTIG system pushes TIG welding to new levels, boosting productivity and setting you apart in the market.

## 300% Faster Welding

Achieve up to 300% faster travel speeds with the SWR™-TIPTIG, ensuring quicker project completion with precise TIG welding.



# Features

## Advanced Weld Imaging

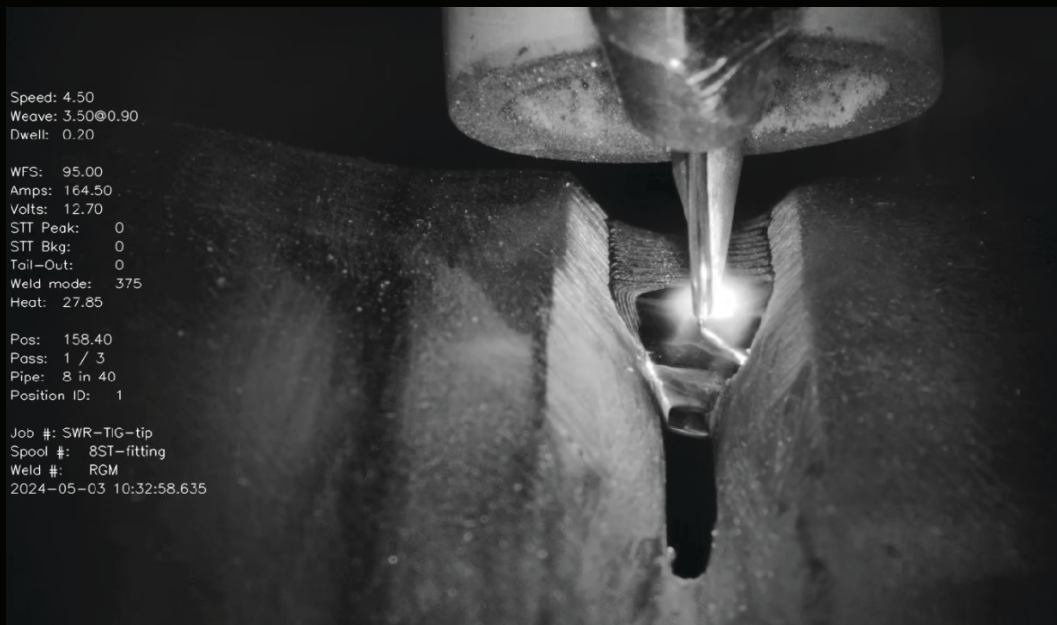
Experience real-time weld monitoring with our cutting-edge imaging system, offering unmatched precision and accuracy in every weld.

## Hot Filler Wire Technology

Our system features hot filler wire with 80 amps, significantly improving deposition rates and travel speeds for optimized welding.

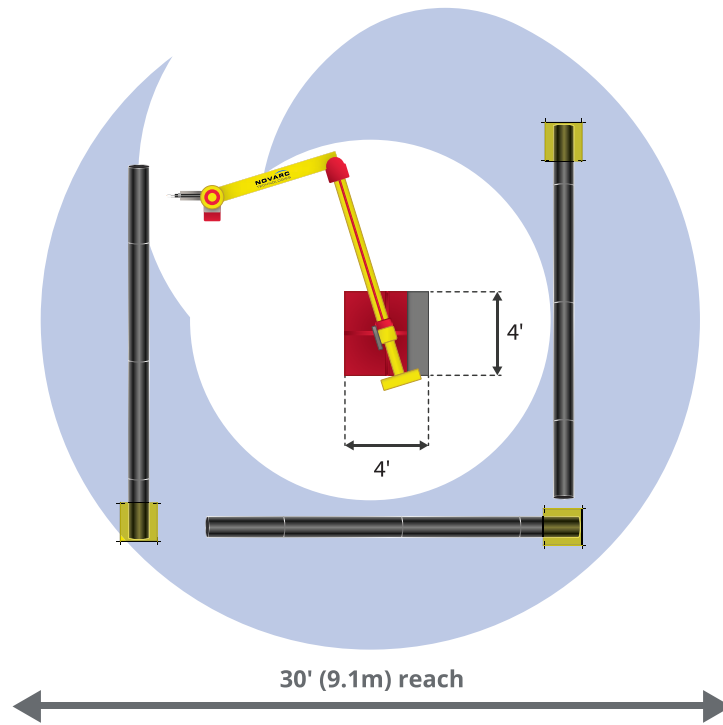
## Patented TIP TIG Feeding system

The patented TIP TIG feeding system uses a unique backward/forward motion to break the surface tension, improving weld quality and solidification.

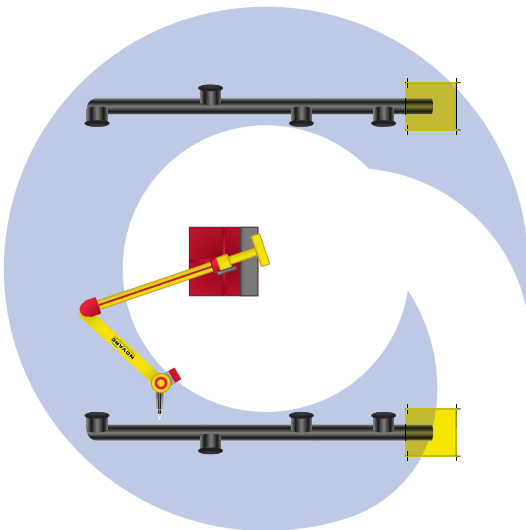


# Sample Layouts

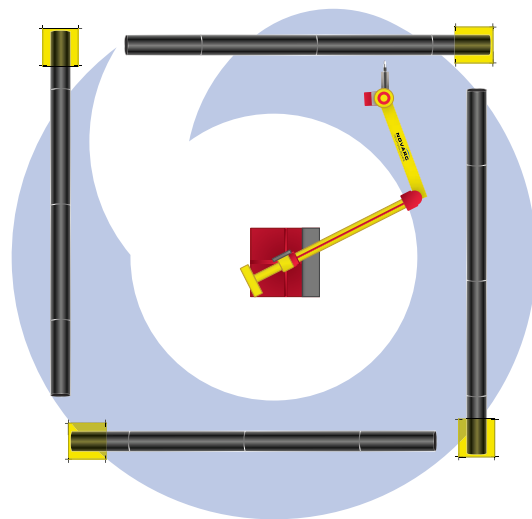
Flexibility to integrate with multiple positioners for maximum productivity and arc-on time.



The Spool Welding Robot working with **three** positioners



The Spool Welding Robot working with **two** positioners



The Spool Welding Robot working with **four** positioners

# Options

## Traveling Base

Designed to maximize pipe spool welding productivity by enabling the SWR™ to move along a track, allowing for the welding of longer spools with precision, stability, and efficiency.

This innovative system is built for maximum flexibility, ensuring that fabricators can take on larger projects, reduce downtime, and enhance overall throughput.



## BIM Software Integration

The integration allows users to plan their complex construction projects from 3D models, define the properties of pipes and welds in spool assemblies, and track the completion of all fabrication procedures.

### Traveling Base Technical Specifications

#### Speed

Up to 350 IPM (150 mm/s)

#### Customizable Length

Up to 120 feet (36 meters)

#### Control Options

Standard wired pendant control; optional wireless pendant available (for NA units)

#### Electrical Compliance

Standard electrical includes UL/Cu-labeled electrical panel

#### CE Certification

Available for compliance with European directives

#### Positioners

Supports up to four

#### Interlocked with SWR™

Prevents motion during welding for enhanced safety

#### Shipping Weight

approx 6,600 lbs (2,993 kg) for 40' length

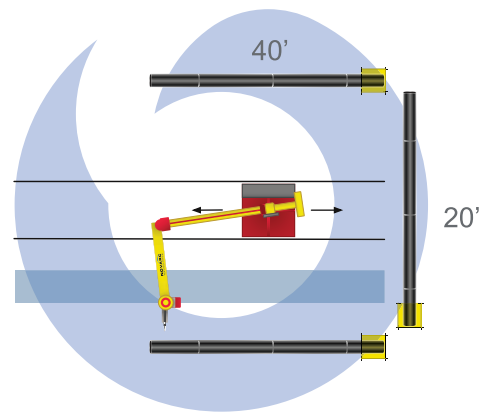
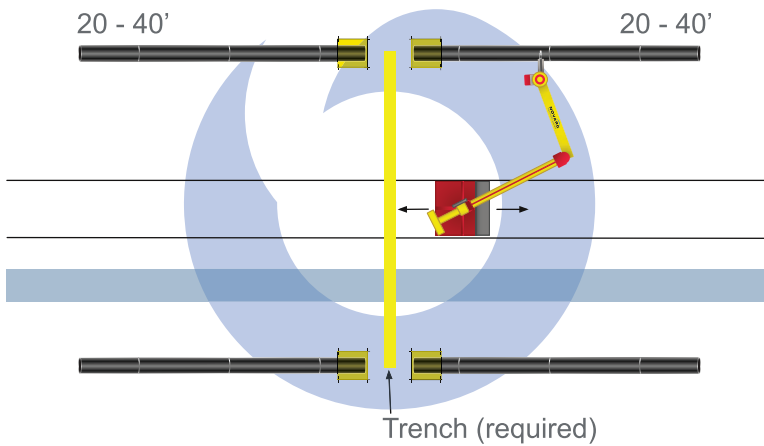
#### Base Size

7' x 8' (2.1 x 2.4m)

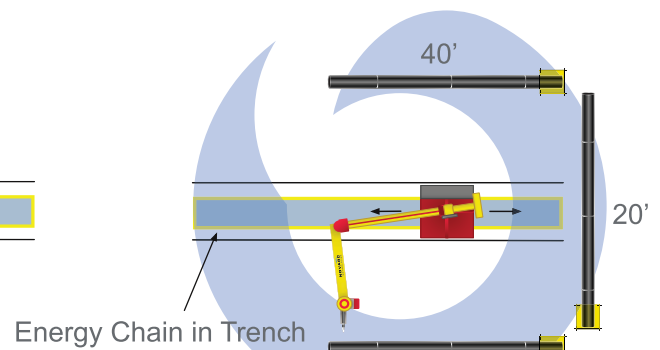
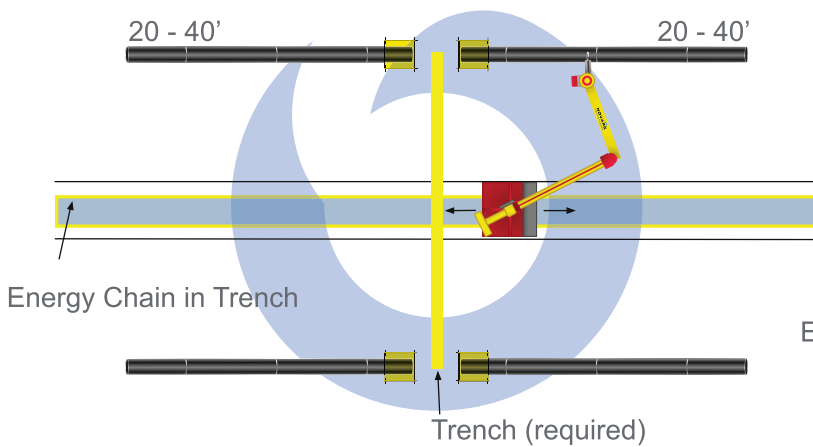


# Traveling Base Configurations

## Standard 3 and 4 Positioner Configurations E-Chain outside (no trench required)



## Standard 3 and 4 Positioner Configurations E-Chain centered (requires lengthwise trench)





**Currently in four continents and expanding**



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## **CERTIFICATION**



Complies with applicable European Community Directives including European Directives for Safety of machinery (EN60204-1), electro-magnetic compatibility (EN61000-6) and safety of collaborative robots (ISO 15066-2016).

## **About Novarc Technologies**

Novarc Technologies is a full-stack robotics company specializing in the design and manufacturing of cobots and AI-based machine vision solutions for autonomous welding. Novarc's Spool Welding Robot (SWR™) is the world's first of its kind in pipe welding applications. As a proven pioneer in the field, Novarc's team is dedicated to solving challenging welding automation problems that improve customers' bottom line.

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