



NOVARC

# Spool Welding Robot (SWR™) TIGMIG

## Dual-Process Power, Maximum Shop Flexibility

The SWR™-TIGMIG is the most versatile spool welding robot ever created, combining TIG and MIG welding into one seamless autonomous solution. Designed for fabricators who demand X-ray-quality TIG roots and want the speed, flexibility, and throughput of MIG, this system eliminates tradeoffs between precision and productivity. Whether you're winning diverse projects or meeting strict customer requirements, the SWR™-TIGMIG delivers exceptional adaptability, faster job turnarounds, and reduced operating costs, all with a single system that can be integrated with up to four positioners to further boost productivity.

## The SWR™-TIGMIG Difference

### One Camera. Zero Hassle

The single-camera system supports both processes with crystal-clear weld visibility, welding carbon, stainless or other alloys. The intuitive Luna UI provides seamless control over MIG and TIG with intelligent, combination recipes and process memory built in.

### Dual-Process in One System

Weld TIG roots, then switch to MIG welding for fill passes - all in under 30 seconds. Save time, reduce material handling, and eliminate downtime between passes.

### Shop-Wide Flexibility

Respond to project demands dynamically. Whether you need to weld TIG all the way out, MIG all the way out, or a combination, the SWR™-TIGMIG adapts, eliminating the need for multiple machines & setups.

### TIG Roots, MIG Fill

MIG and especially FCAW can lay down metal significantly faster than TIG. The root integrity is ensured with TIG, while the strength and reinforcement needed for the final weld are built up with faster methods.

### Staffing Efficiency

Reduce reliance on highly skilled welders. The system ensures consistent root quality and fill performance, making it easier to scale operations while maintaining quality, even in labor-constrained environments.

## Technical Specifications

### Applications

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



### Materials\*

Carbon and low alloy steels  
Stainless Alloys (304, 316, Duplex & Super Duplex)  
Nickel Alloys (CuNi) \*



### Weld Processes

GTAW, GMAW, FCAW, MCAW.



### Wire Diameter

0.035 - 0.062 in. (0.9 - 1.6 mm).



### Working Diameter

30 ft (9.1m).



### Height

15 ft (4.5m).



### SWR™ Footprint

4'x4' (1.2m x 1.2m).



### Reach

15 ft (4.5m).



### Weight

Approximately 3500 lb.



### Power Requirements

#### SWR™ Requirements

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

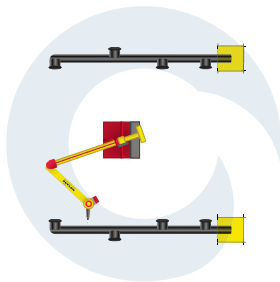
#### Lincoln Electric Power Source Requirements

- North America - 3-Phase AC Voltage/Current: 208V/60A, 230V/54A, 400V/31A, 460V/27A, 575V/21A, 4 Wires (V, U, W and Ground)

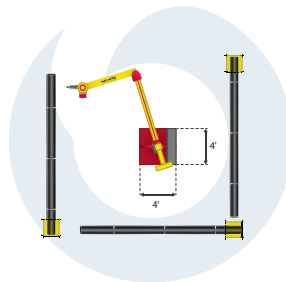
\*Contact us for other sizes and materials.

## Industries benefiting from SWR™-TIGMIG

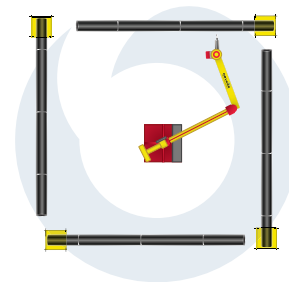
Building Construction. Aerospace. Oil & Gas. Shipbuilding. Nuclear. Food & Dairy.  
District Heating. Cryogenics. Pharma & Biotech. Vessel Manufacturing.



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



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



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

## The Future at Your Fingertips



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

## 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.