



# Heavy-Duty Robotic Welding System



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# About The Company

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Here is Nexus Technica®, the passion of professionals.

At Nexus Technica, we prioritize customer satisfaction and strive to build long-lasting relationships with our clients. Trust us to be your partner in success and let us help you take your business to new heights.

Our commitment goes beyond products. You will find a team that is dedicated to delivering innovative solutions that increase productivity, drive efficiency and provide tailored answers to your specific needs.



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# Robotic Pipe Welding

**Heavy Type Welding Automation machines are**

- PLC controlled,
- From 8' to 60' diameter,
  
- Pipe to Pipe
- Pipe to Flange
- Pipe to Elbow
- Pipe to T connection

It carries out both gas welding and submerged arc welding of connectors, for example.



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PETROLIUM



ENERGY



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HAPPY CUSTOMERS

# Potencial Markets

## High performance in production

We are not just a machine manufacturer; we are the architects of flawless production processes to fulfil customer needs.

- ✓ Engineering & Design
- ✓ Special Production
- ✓ Machine Production
- ✓ Spare Part Production
- ✓ Supply Management
- ✓ R & D and Technology

OIL & GAS



MARINE & SHIP



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# Technical Specifications



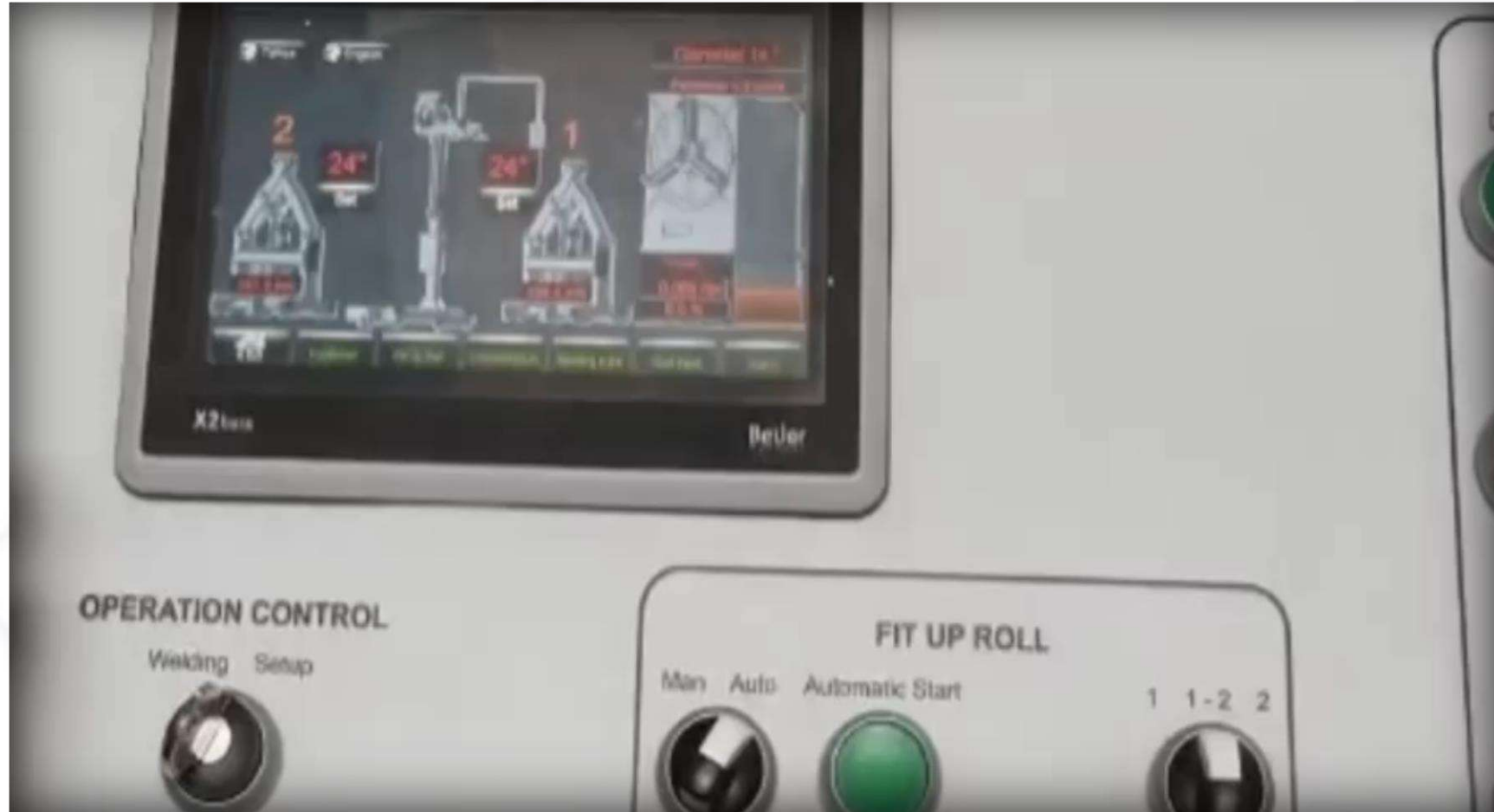
- The total weight of Heavy Type Pipe Welding Automation system is approximately 15 tonnes.
- Torch Tower Rail length is 16200 mm, pipe holder arm's rails length is 13300 mm.

# Technical Specifications



- The chuck has a turning capacity of 30,000 N/m.
- The positioner has a movable plate that compensates for the ovality in the pipes.

# Technical Specifications



- The gap of between the pipe holders can be adjusted automatically according to the pipe diameter selected on the PLC screen. Optionally, it can be adjusted manually with the help of the controls on the sides.

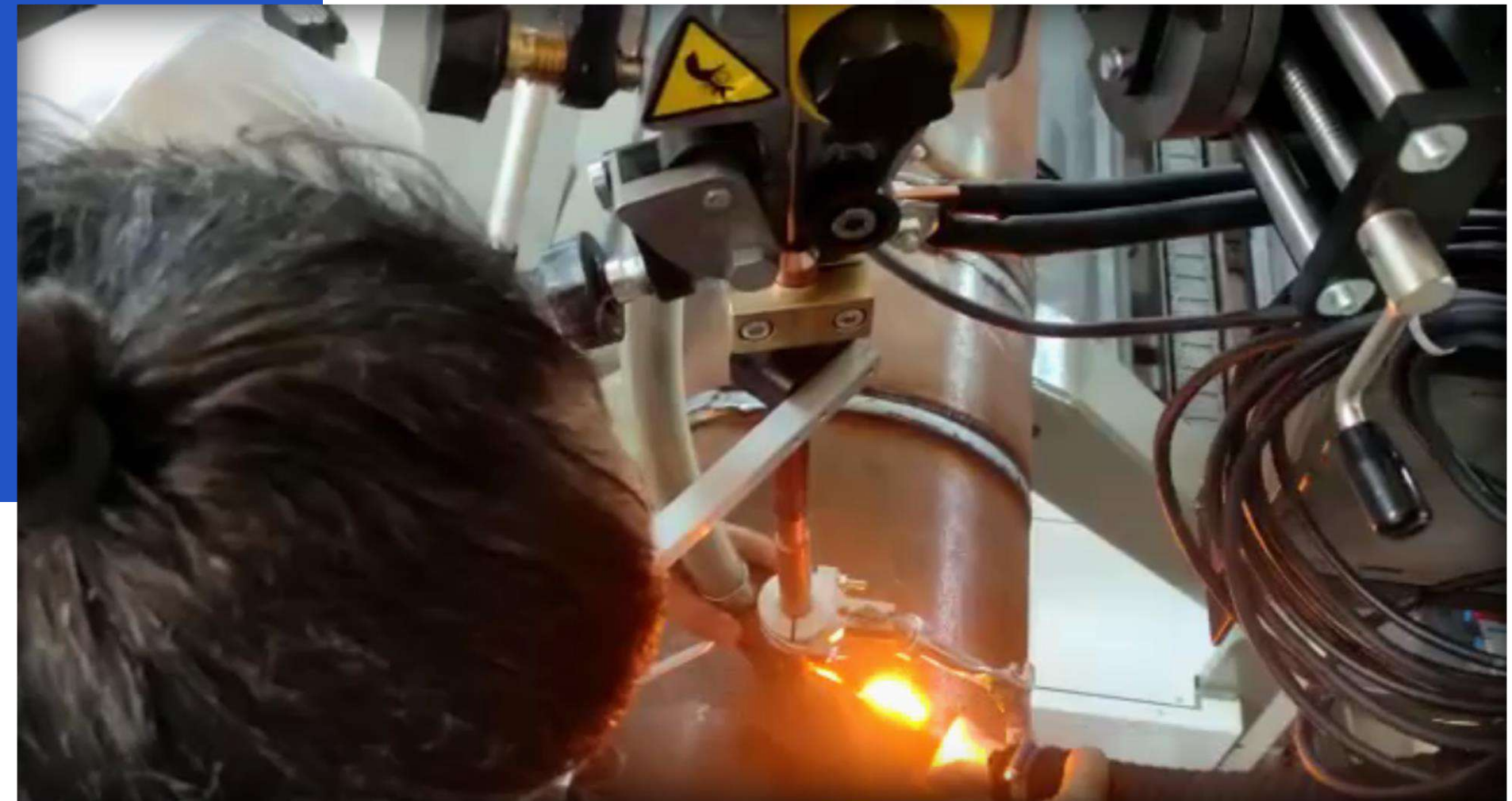
- Pipe holders are equipped with sensors to prevent possible occupational accidents.

# Technical Specifications



- The load carrying capacity of the pipe holders is 10 tonnes each. Total capacity is 20 tonnes.
- The Torch Tower can be moved left, right, up and down to the desired position from the control panel. It is equipped with sensors to prevent possible occupational accidents.

# Technical Specifications



- Both gas welding and submerged arc welding can be performed on the same torch tower. During gas and arc welding, instantaneous heat input can be monitored on the PLC screen.

- The heat input formula is embedded in the automation system and ensures that the operator remains at the desired heat input. Thus, welding errors and returns are prevented.

# Technical Specifications



- With the BUG-O on the torch tower, the welding torch is provided with a rigid welding with oscillating movement.
- The heat input formula is embedded in the automation system and ensures that the operator remains at the desired heat input. Thus, welding errors and returns are prevented.

# Market Opportunity

## cycle time reduced

To weld a 100 dia-inch pipe with a wall thickness of 7-14 mm in 1 day, one worker is sufficient with the Welding Automation machine, while 5 workers are required for manual welding.

## welding defects near zero

You will not encounter any welding defects when using the Robotic welding and you will see cycle time improvements.

## operator safety increased

Robotic welding system is very safe for operators. There are systems that prioritise employee health in terms of occupational safety.



# Welding Repair Rates

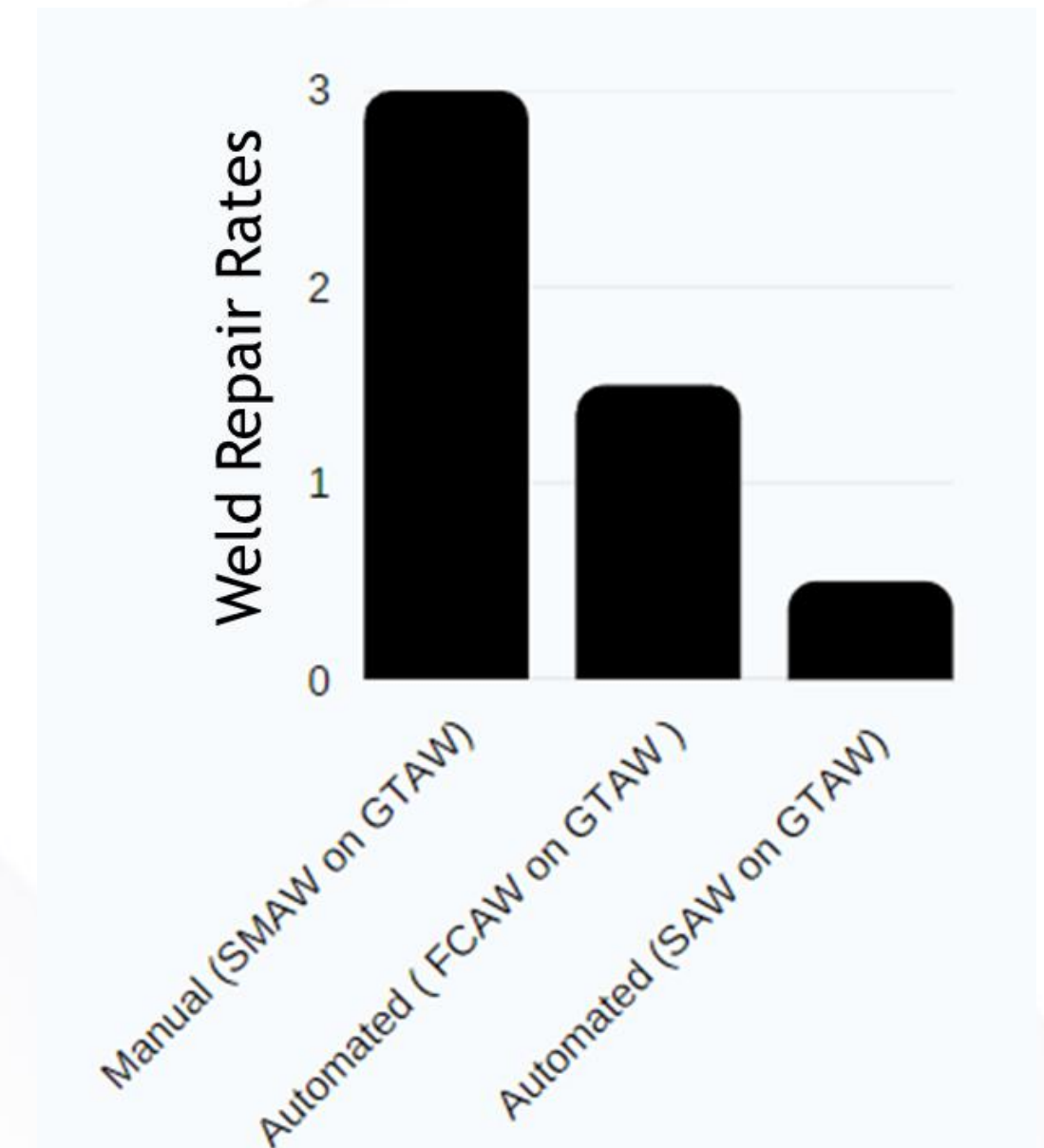
Repair rate of welding done manually by a worker is 3%, while repair rate of gas welding done with Heavy Type Welding automation machine is 1.5% and repair rate of submerged arc welding is 0.5%.

	Weld Repair Rates	Rework Total WDI <sup>(1)</sup>	Repair Cost <sup>(2)</sup>	Annual Repair Cost Saving <sup>(3)</sup>
Manual (SMAW on GTAW)	3.0%	2,700	162,000	-
Automated (FCAW on GTAW)	1.5%	1,350	81,000	<b>\$81,000</b>
Automated (SAW on GTAW)	0.5%	450	27,000	<b>\$135,000</b>

<sup>(1)</sup> Total rework WDI out of NDT-checked 90,000 WDI

<sup>(2)</sup> Rework WDI x (4.0 mh/WDI) x (15.00 USD/mh)

<sup>(3)</sup> Annual cost saving compared to previous option





# Our Team



With a team of experienced engineers and technicians, we offer top-notch engineering and service solutions to meet your business needs.

Our expertise lies in providing high-quality machines, custom solutions, and reliable service to ensure optimal performance and efficiency for your operations. We are committed to delivering innovative and cost-effective solutions to help you stay competitive in the market.

At Nexus Technica, we prioritize customer satisfaction and strive to build long-lasting relationships with our clients. Trust us to be your partner in success and let us help you take your business to new heights.

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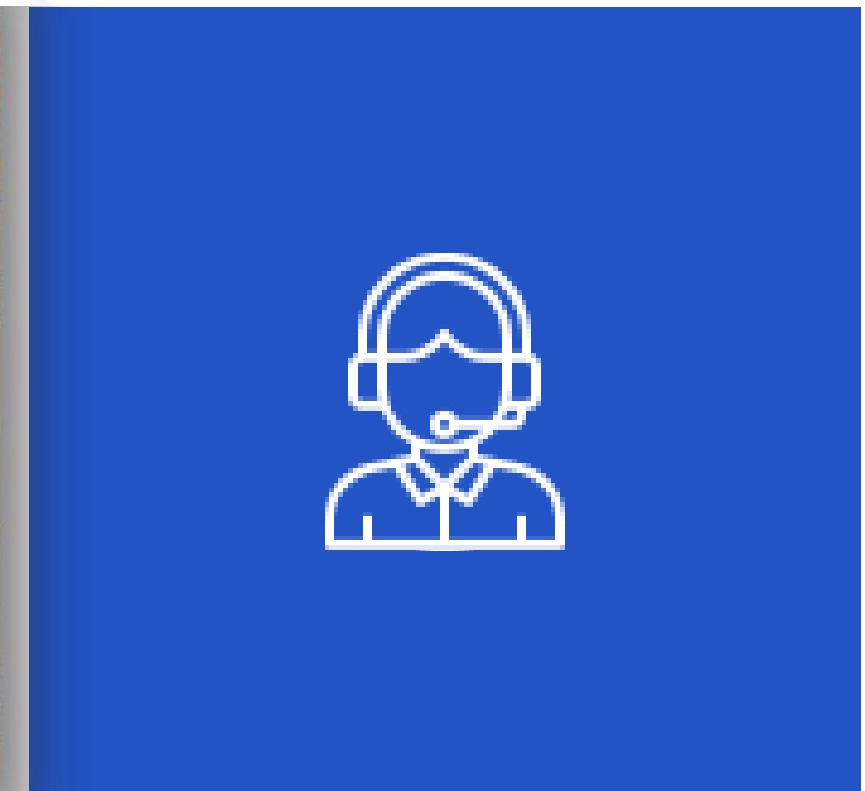
# Product and Services



Our machines are designed to streamline your production process and deliver high-quality results.

With a focus on precision engineering and top-notch service, Nexus Technica is your trusted partner in the industry. Our team of experts is here to help you find the perfect machine for your specific requirements.

Browse through our selection of machines and discover how Nexus Technica can take your business to the next level. Contact us today to learn more about our products and services.



# Thank You.



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