

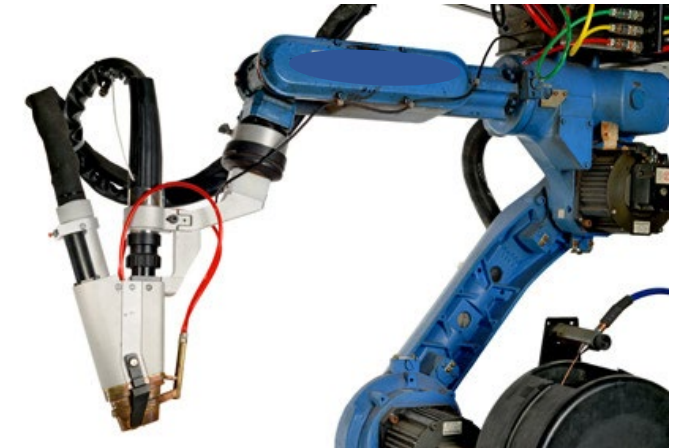
Smart Welding Solutions

AUG 2026



Who we are ?

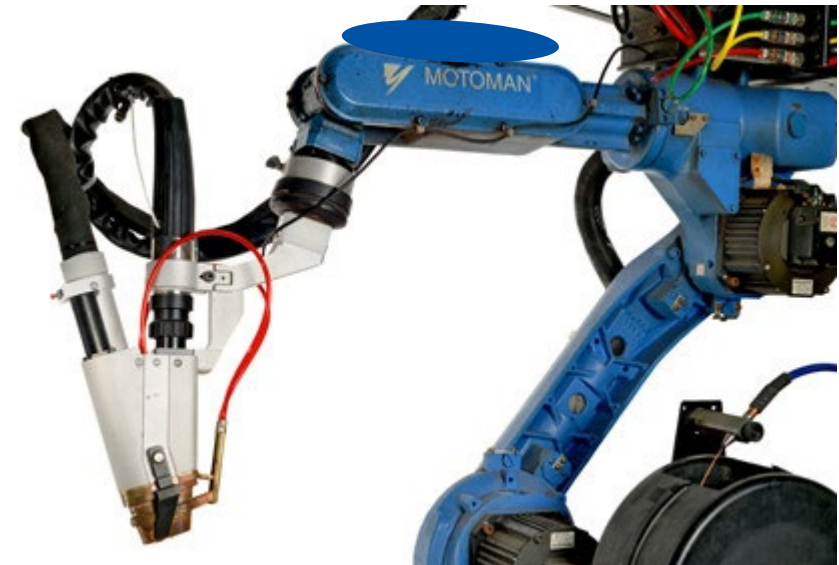
- Weldobot Ltd. is a part of Chemo LTD, a large Infrastructure, Gas Pipeline and Construction company est. 1965. 
- **Weldobot Ltd.** started its present phase **2019** to develop and market innovative advanced Automated pipeline and Industrial Welding Solutions.
- **Weldobot Ltd.** is an **engineering-oriented company** specialized in the fields of Mechanics, Electrical and Electronics, Software and Algorithm development.
- The first commercial product is the **AROW** an orbital welding for Pipelines.
- In 2017, the company introduced the **SuperMIG®** technology – a **Hybrid Plasma & MIG arcs welding system** in one Welding Torch .
- Sales channels are in Europe and the US



The SuperMIG®

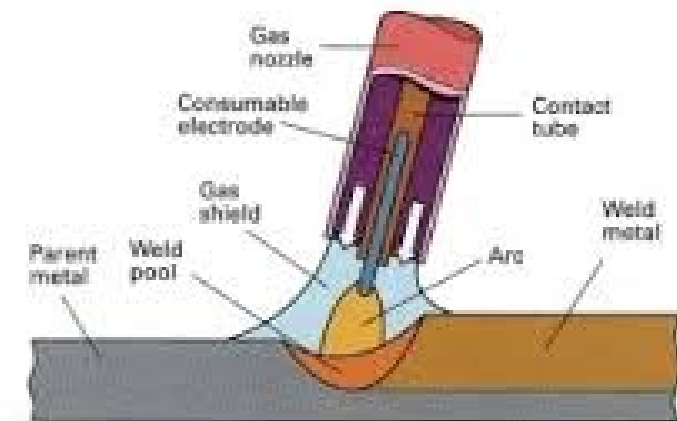
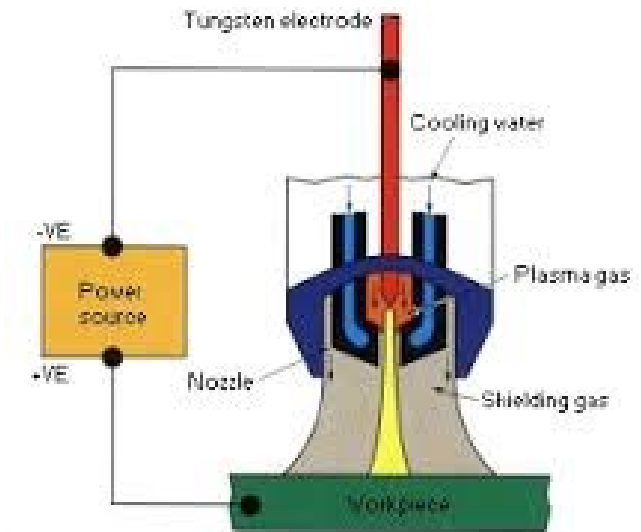
The SuperMIG®

- A proprietary welding system that **combines Plasma and MIG arcs in one Welding Torch** for fast and efficient welding of thick and long steels.
- Used mainly to **weld thick and long welds** of various steels like Mild steel, HSS, Stainless steel, Armored steel. (**Future application includes AL welding**)



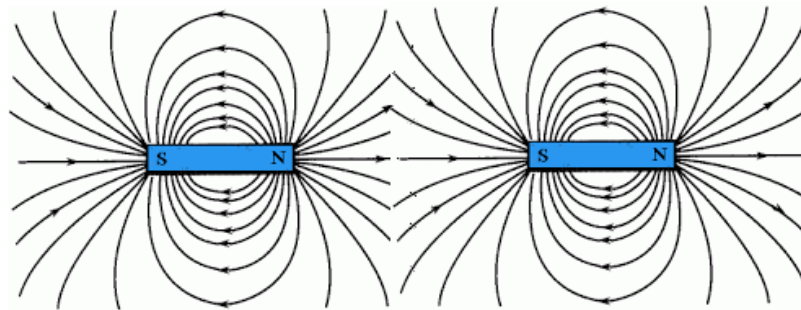
SuperMIG[®] - Welding Technology

- SuperMIG[®] is a hybrid welding technology based on the following two technologies:
 - **PAW** technology - plasma welding delivered by electrical current formed between a tungsten electrode and a base metal using an inert gas,
 - **GMAW** or MIG technology: arc welding created between a consumable metal wire and a base metal in active gas environment.
- Integrating those two technologies gives us ability to increase the efficiency and productivity of the welding process.



SuperMIG[®] - Plasma and MIG working simultaneously

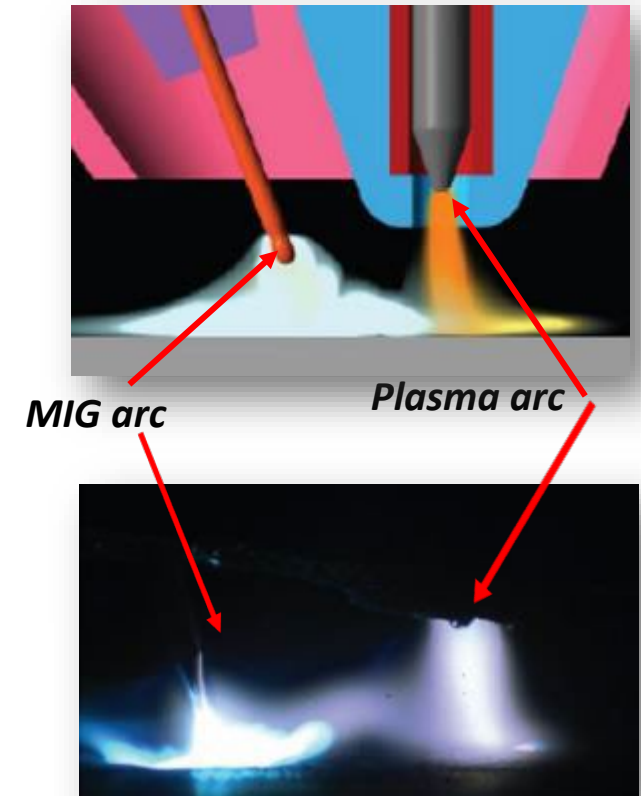
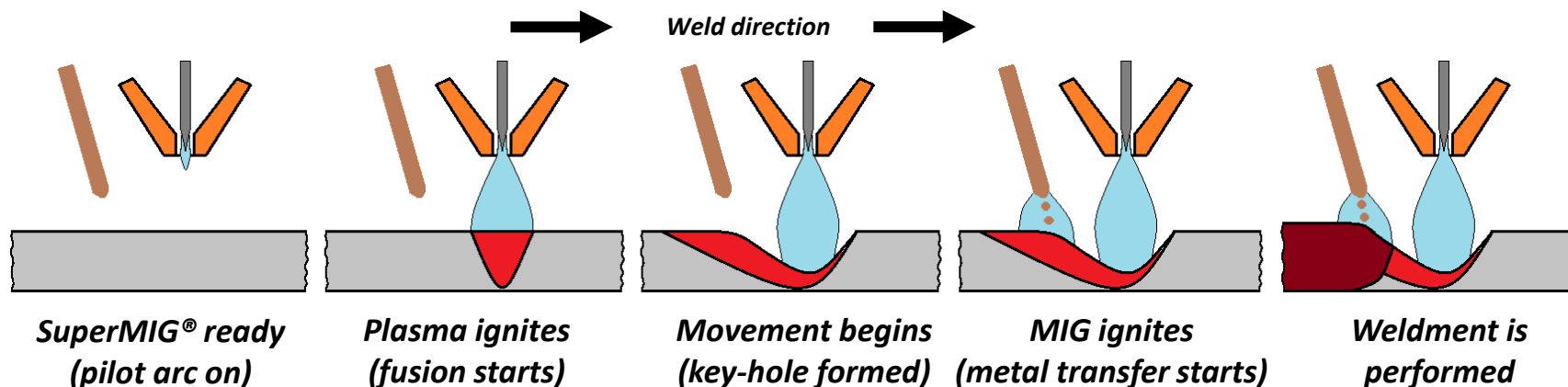
- When working simultaneously, the plasma arc rejects the MIG arc due to MIG electrical field,
- To get the plasma spot as close as possible to the wire (impingement spot), the rejection of the plasma arc must be compensated,
- A magnetic field is built and located aside of the Plasma nozzle to apply the required force to return the plasma to the impingement spot and keep it in place during the welding process,
- Electromagnets creates 2 forces, the direction is based on the interaction of the two magnetic fields, one force keep plasma in center and the other one “returns” the plasma to eliminate MIG force.



SuperMIG[®] - Process Details

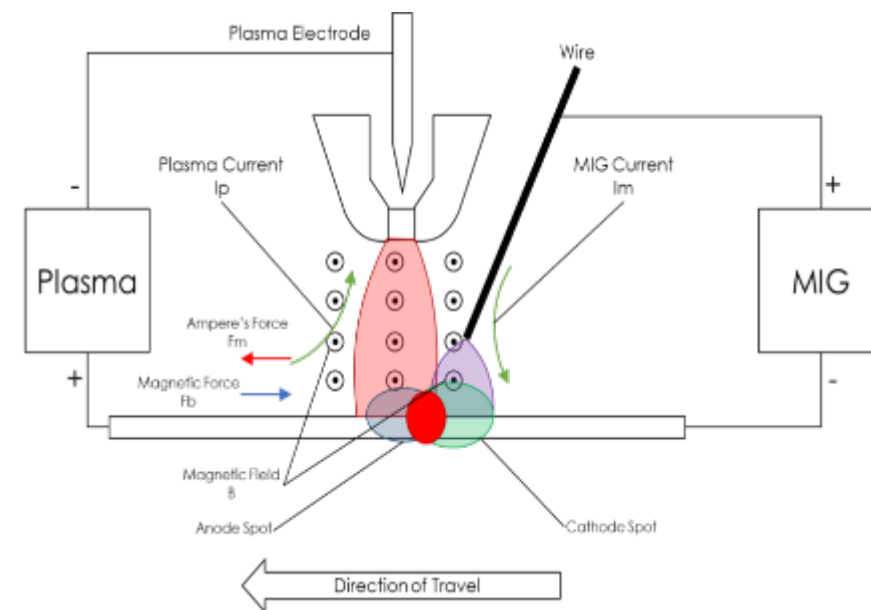
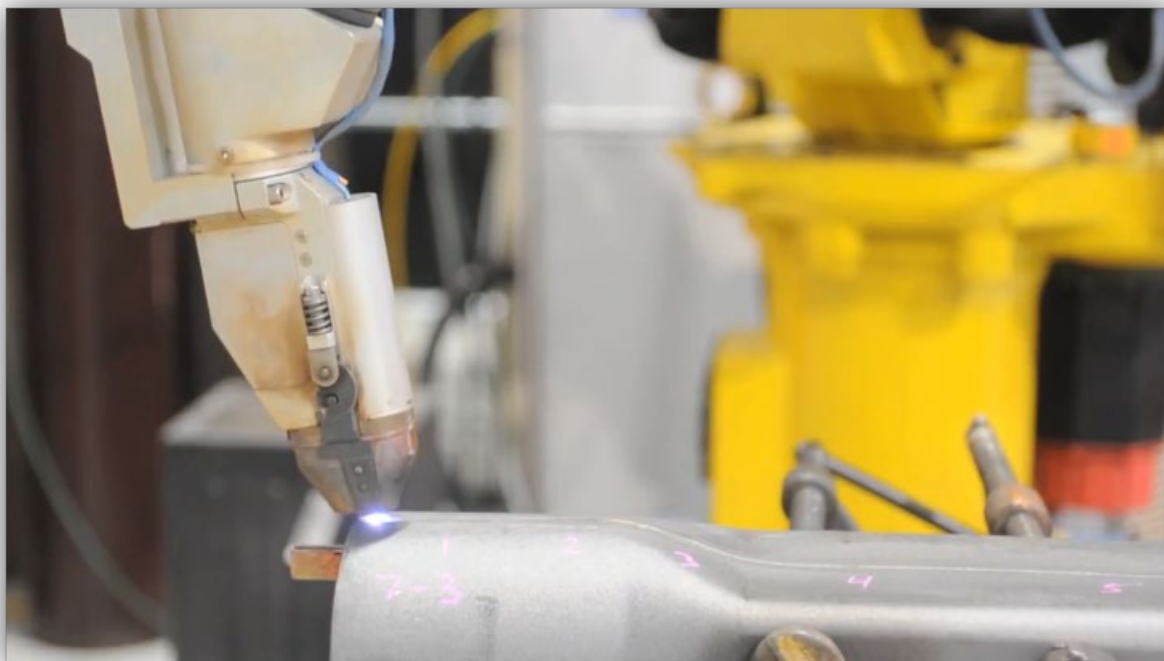
- Energy necessary to penetrate and melt the base material is provided by the Plasma arc
- Filler metal to compose the weld metal is provided by the MIG arc.
- Both arcs working simultaneously in the SuperMIG torch

Process Sequence



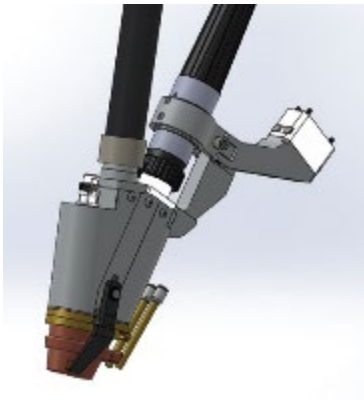
SuperMIG[®] - Process Innovation

A **Magnetic field coupled to the torch nozzle** is used for controlling the distance between the two Electric Arcs:

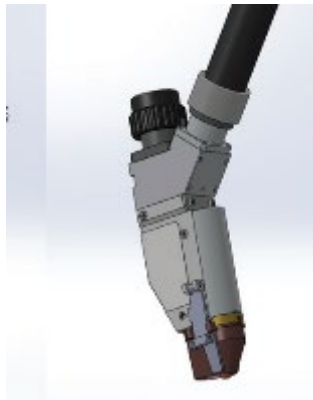


SuperMIG[®]

Torches



HD T (Heavy Duty)



MD (Medium Duty)



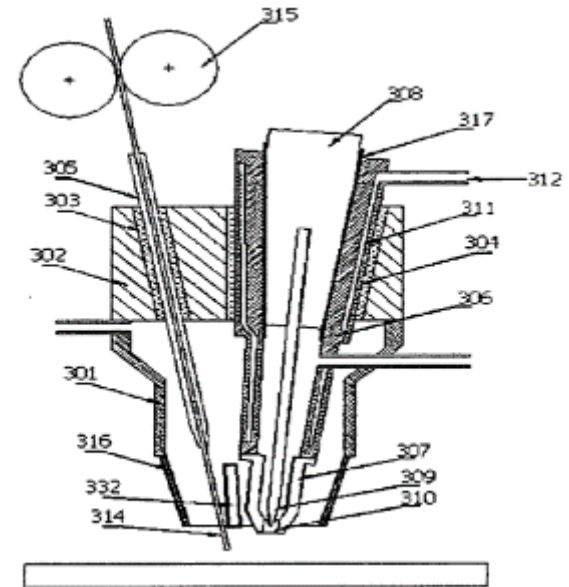
HDS (HD Slim)

WCM – Welding Control Module



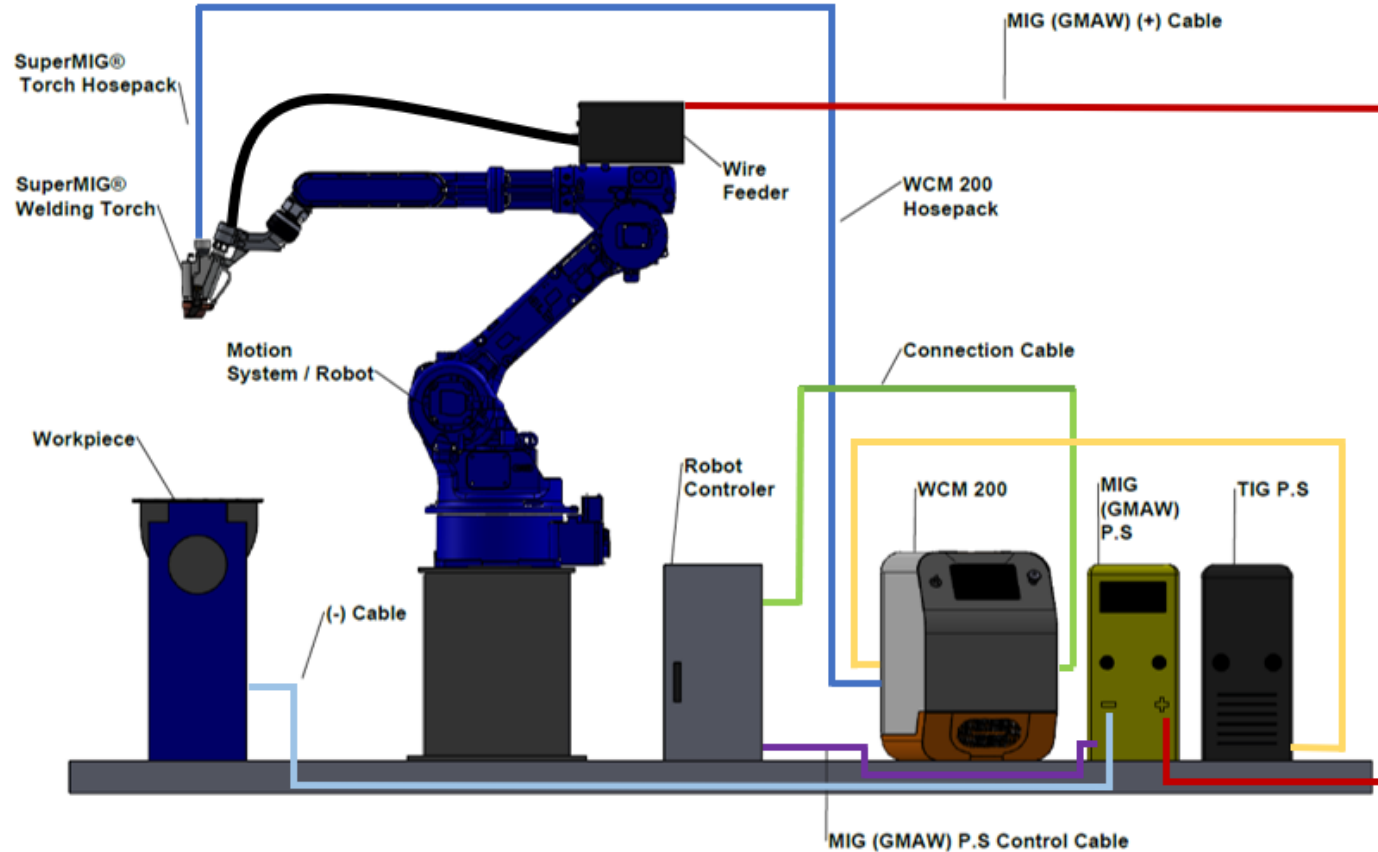
SuperMIG[®] - Process Description & Advantages

- Welding system comprising a combined torch including both processes where arcs intersect at an impingement point,
- The system interfaces (torch and WCM) are designed to be integrated with most common MIG systems and most common industrial robotic or “hard automation” devices.
- **Outcome:**
 - Overall, **much faster welding**
 - **Rapid, single-pass**, one side welding
 - **No** edge-preparation or **beveling** required (up to ½ inch thick)
 - **Save** on **consumables, wire, gas** and **electricity** costs
 - **No slag removal**
 - **Deep** weld **penetration**
 - **Reduced heat input** (narrow HAZ)and spatter
 - Clean and **environment friendly**
 - **Increased productivity & profitability**
 - **Fast ROI**



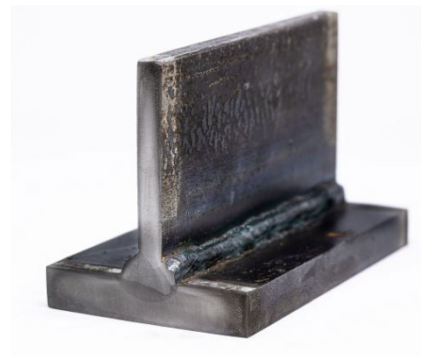
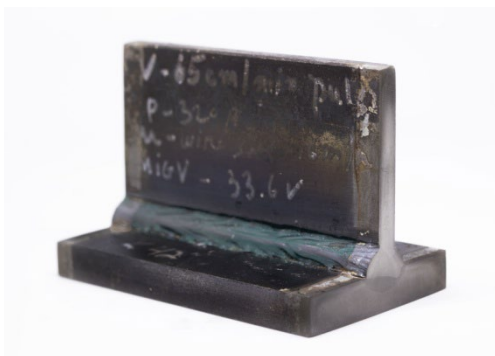
Patent protected

SuperMIG[®] - System Configuration



A complete solution for robotic and hard automation systems

SuperMIG[®] - Welding Samples



All samples welded in one pass and without perpetration (beveling)

SuperMIG® - Return of investment calculator

Butt Welding Carbon Steel 10 mm	Welding Technology			
Activity and cost	Submerged Arc	Dual MIG	MIG	SuperMIG
Length of each parts (meter)	8	8	8	8
Number of parts	1,000	1,000	1,000	1,000
Beveling / Machining required ? (Yes/No)	Yes	No	Yes	No
Additional cost of preparation per part	€ 10	€ 10	€ 10	€ 0
Number of passes per weld	2	1	2	1
Total combined welding length per part (meters)	16	8	16	8
Welding speed (m/min)	0.6	0.8	0.45	1
Total welding time per part (minutes)	27	10	36	8
Labor cost/part (average manpower cost €/h 40)	17.78 €	6.67 €	23.70 €	5.33 €
Cost of material, wire, gas, flux (per part)	€ 6.67	€ 9.60	€ 4.47	€ 2.07
Heat Input (KJ/cm)	17	15	13	10
Additional cost of straightening post welding	High	Medium	Medium	Low
Total cost per part	€ 34.45	€ 26.27	€ 38.17	€ 7.40
Total Cost - 1000 parts	€ 34,448	€ 26,267	€ 38,174	€ 7,403
Cost saving by using the SuperMIG (%)	79%	72%	81%	

SuperMIG[®] - Typical Applications

Applications:

- Mainly welding 5mm thick and above
- Boilers (steel & stainless)
- Heat exchangers
- Construction parts-H/T beams
- Crane Booms Silos & containers
- Shipyards
- Armored steel constructions
- Earth moving machines



SuperMIG[®] - Success stories

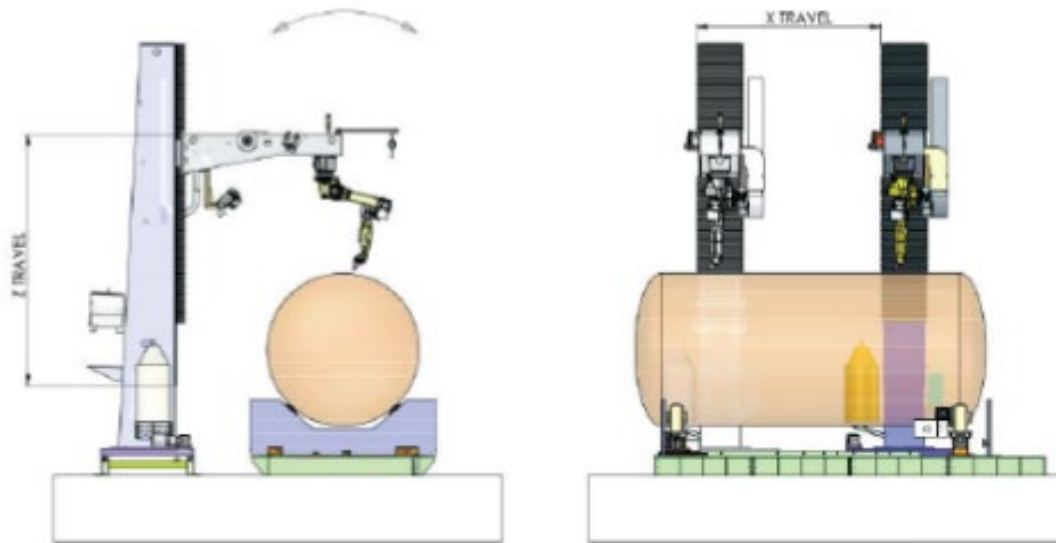
Leading industries use our advance products.

LIEBHERR



SuperMIG[®] - Application note

SuperMig[®] Application Note: Automated Containers / Seamers Welding



General

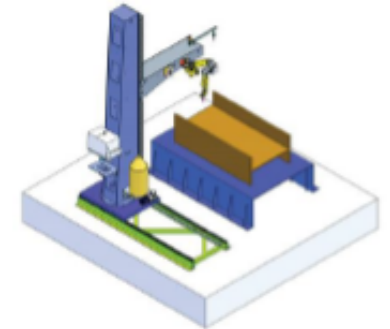
Weldobot offers end-to-end solutions for various manufacturing production scenarios. Leveraging Weldobot's local integrators network, we offer complete robotic welding cells including, tailored design, infrastructure preparation, integration and service for various production lines and manufacturers.

System overview

- Dimensions and travels per customer request.
- Modular building blocks:
 - XYZ mobile platform
 - Articulated welding arm
 - SuperMIG Welding system
 - Turntable & positioners
 - Operating software
 - Seam tracking

Applications for manufacturers

- Boilers
- Seamers
- Autoclaves
- Heat exchangers
- Construction parts – H/T beams
- Silos & containers

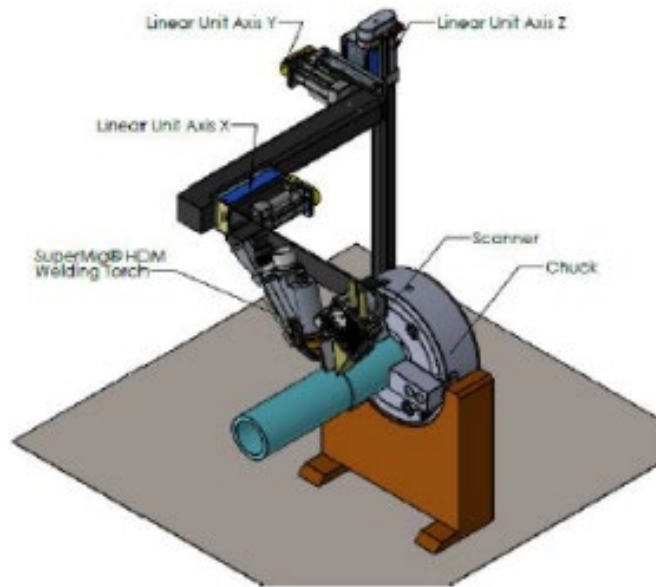


Features and Advantages

- Fully Automated process including seam tracker
- Adjustable size and geometry
- High productivity - 1 pass one side up to 12 mm thick.
- Scalability
- No need to bevel before welding .

SuperMIG[®] - Application note

SuperMig[®] Application Note: Automated Stationary Pipe Welding



General

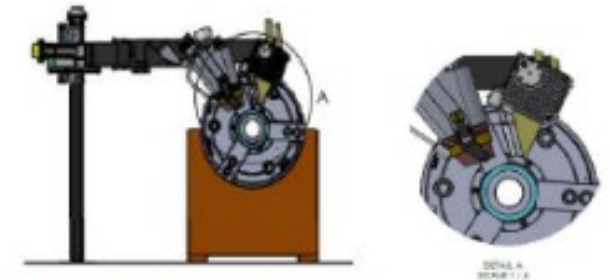
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System overview

- Dimensions and travels per customer needs.
- building blocks:
 - Rotating table with chuck to hold the pipe
 - 3 linear servo controlled axes, XYZ.
 - SuperMIG Welding system
 - Operating software
 - Scanner for seam tracking

Applications for manufacturers

- Automated pipe segments welding

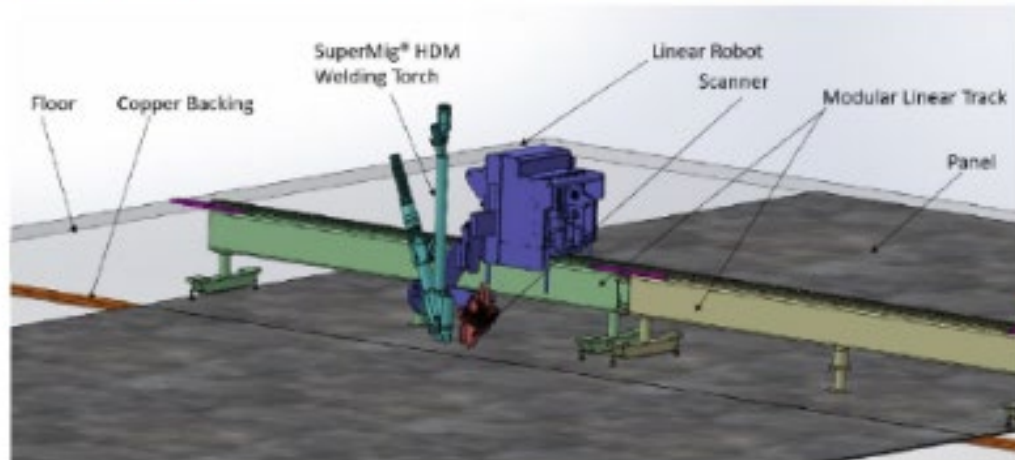


Features and Advantages

- Fully Automated process including seam tracker
- High productivity - Weld with 1 pass up to 12 mm thick.
- No need to bevel the pipes before welding .
- Clean and uniform weld
- Save of welding materials
- Simple installing and operating.

SuperMIG® - Application note

SuperMig® Application Note: Modular & linear robot for long welding



General

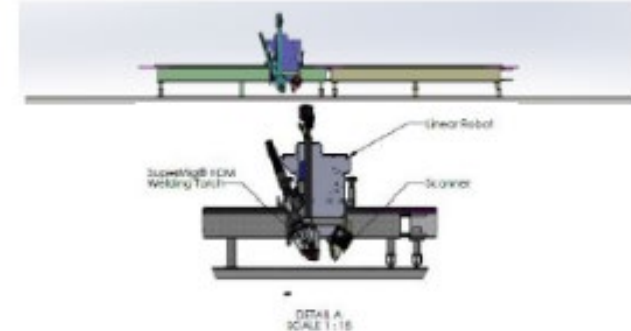
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System overview

- Linear, Laser guided Welding Robot
- Linear and modular segments of 2 m each
- Length and travels per customer needs.
- building blocks:
 - 2 meters modular segments
 - 3 linear servo controlled axes, XYZ.
 - Scanner for seam tracking
 - Integrated wire feeder
 - SuperMIG Welding system
 - Operating software

Applications for manufacturers

- Long panels welding
- Shipyard panels



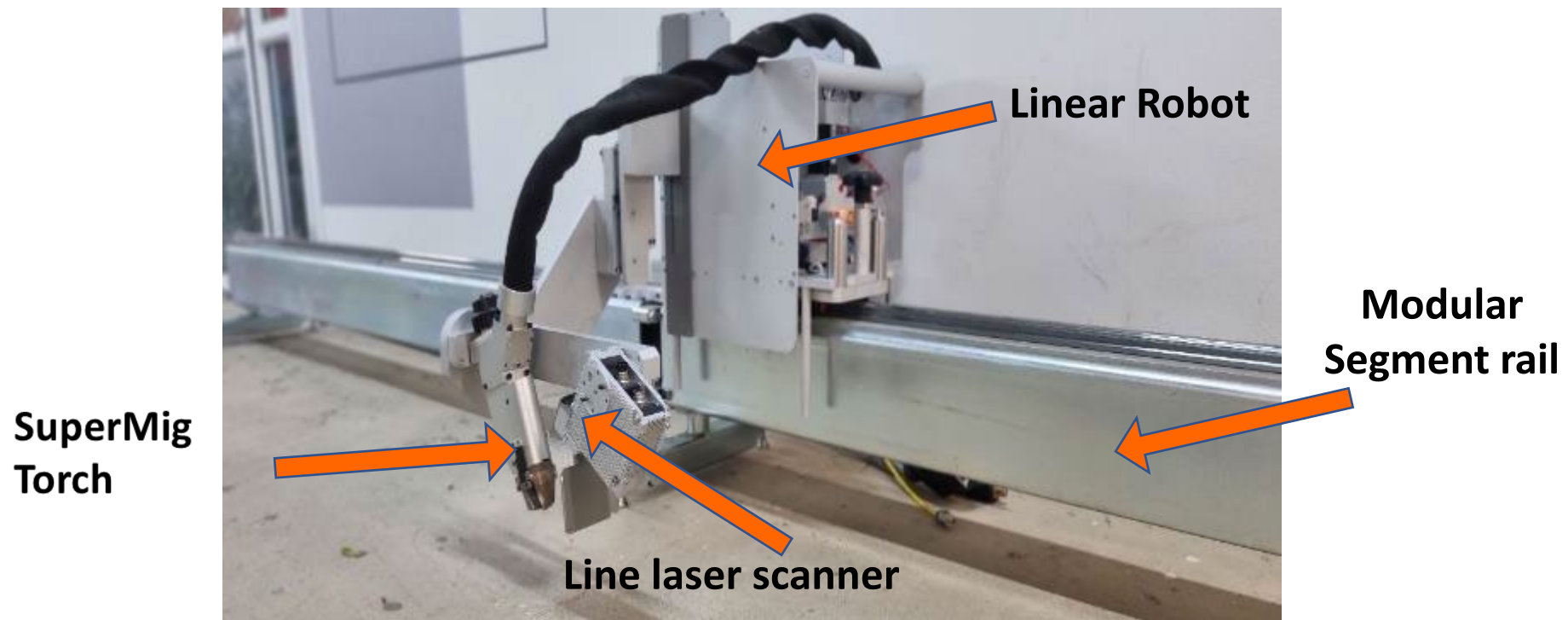
Features and Advantages

- Fully Automated process including seam tracker.
- Modular solution can easily adjust to any length.
- Scalability
- High productivity - Weld with 1 pass up to 12 mm thick.
- No need to bevel before welding.
- Clean and uniform weld
- Save of welding materials
- Simple installing and operating.
- No need to bevel before welding.
- One Pass for welding up to 12 mm thickness.
- Clean and uniform welds

SuperMIG[®] - Complementary products

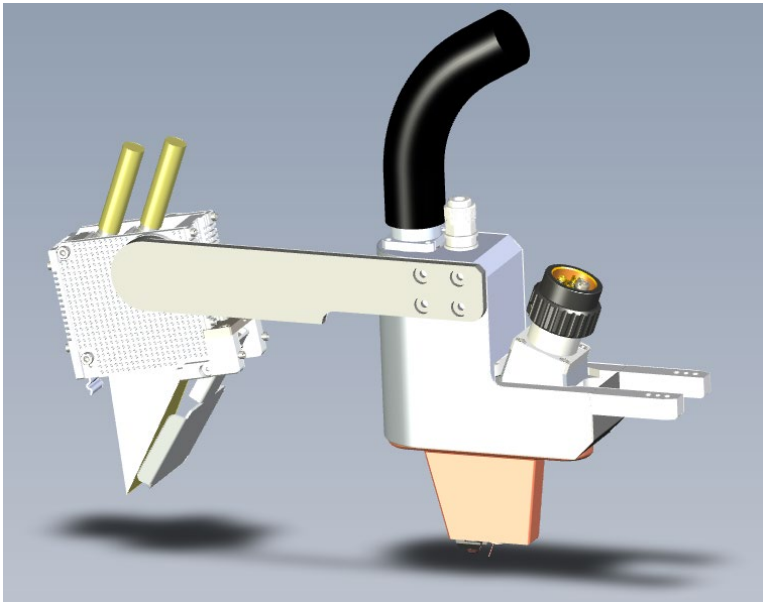
Linear robot for long welding

- **Linear Laser guided Welding Robot** for SuperMig
- Linear and modular segments of 2 meter each for long welds equipped with the SuperMIG[®]

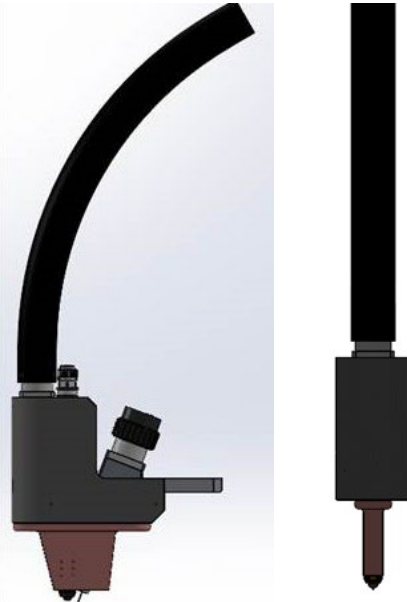


SuperMIG[®] - Complementary products

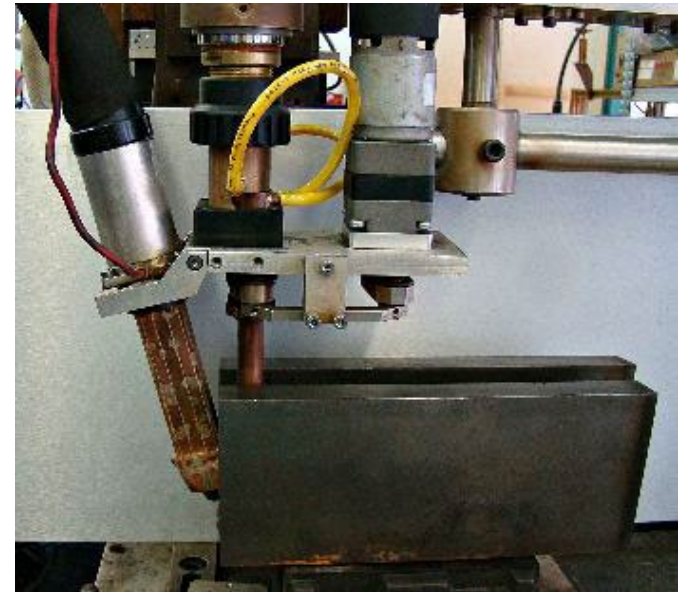
Narrow Gap torch (under development)



with optional Laser Scanner



Industrial Narrow Gap torch design



R&D Prototype

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