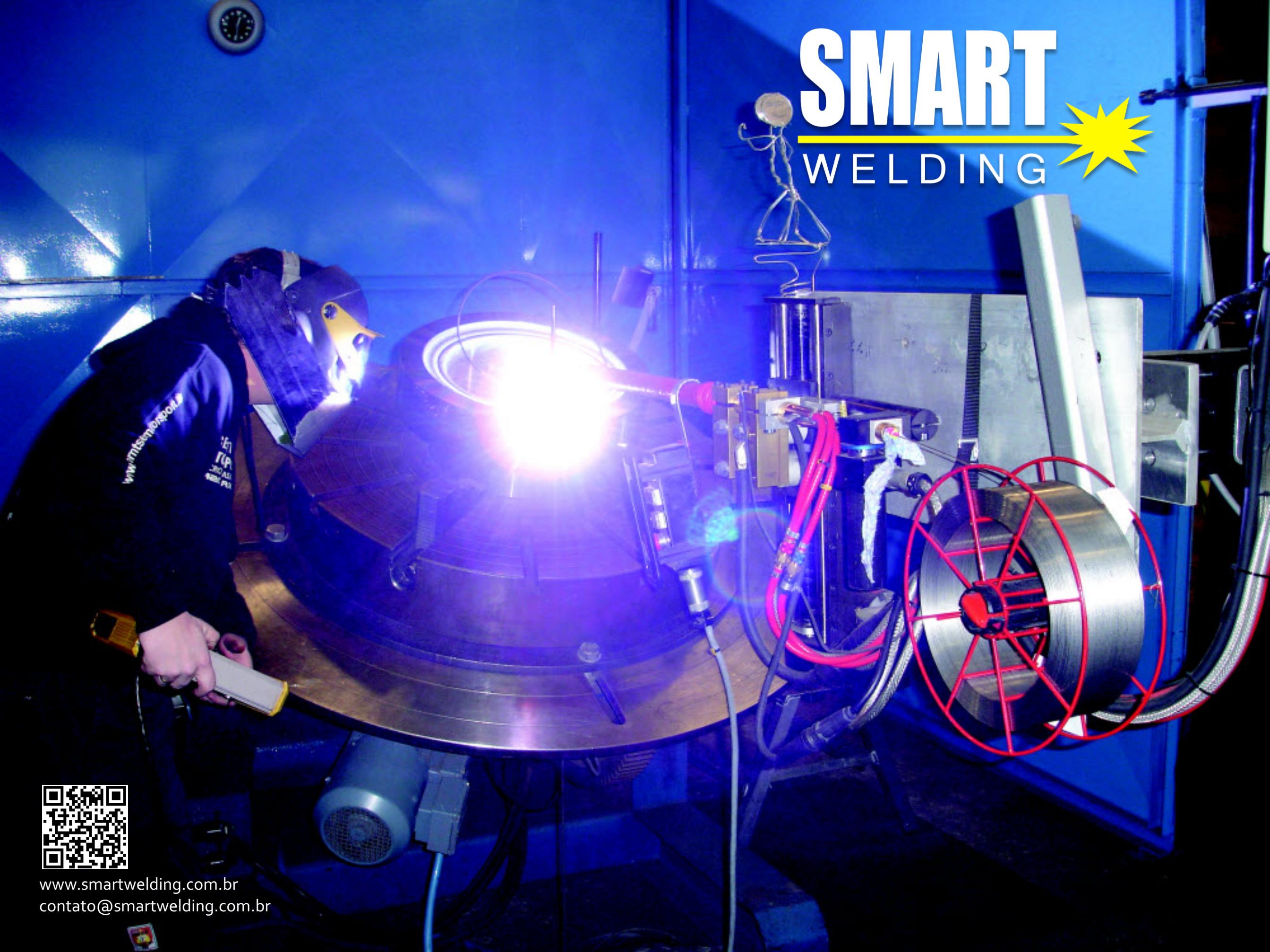


SMART WELDING



www.smartwelding.com.br
contato@smartwelding.com.br

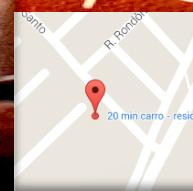
The Company

SMART WELDING

The Smart Welding is located in the city of Macaé - Rio de Janeiro, named the “Brazilian National Petroleum Capital”. We occupy an installation in Parque Lagomar with innovative technology and smart solutions in welding and CNC.

We apply precision and modern technology, seeking to reduce the execution time and ensuring efficient use of funds and the quality of services , making effective results to our customers, reducing lost time and reapproval rates during the workflow.

Our workflow process suits companies from oil and gas, offshore, shipbuilding, energy, pipe mills, power generation, pipelines to simply repair and maintenance services.



Espírito Santo Street, 21 – Parque Lagomar
Macaé/Rio de Janeiro, CEP: 27970-750, Brazil

Services

Automated Welding Process

- Mig/Mag
- Submerged Arc (SAW)
- Plasma Welding
- Tig-Hotwire and Coldwire
- Orbitals (Mig/Mag and Tig)

More information www.smartwelding.com.br

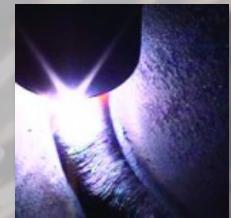
MIG/MAG is a process where a consumable solid wire is fed through a conduit and a torch up to the welding arc, where it melts and is transferred as droplets to form the weld metal. The arc and the molten pool are protected by a shielding gas, usually argon, CO2 or a mixture of these. Choice of gas depends upon the material to be welded.



SUBMERGED ARC is a mechanized process, where one or more wires are fed through a conduit and a contact nozzle up to the welding arc. Solid wires are mainly used, but certain tubular types are also developed for this process. The arc and the molten pool are protected by a mineral flux supplied in front of the wire, this melts and creates a slag which also contributes to a particularly smooth and even weld surface.



PTA (Plasma transferred arc) is a further development of TIG welding, with the arc surrounded by a concentrated stream of gas supplied at pressure through a central nozzle. Thereby the gas, usually argon, is ionized to create a plasma arc column with high energy and temperature.



Hotwire TIG is used where high deposition rates, combined with high quality are needed. The wire is electrically preheated before it enters the weld pool. The system can be used for the surfacing or the joining of ferrous and non ferrous alloys.



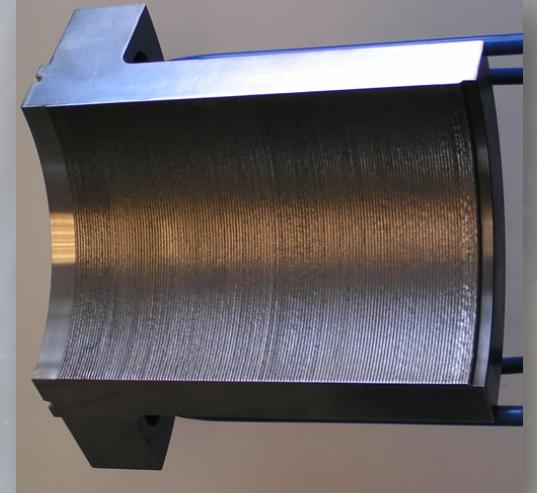
ORBITAL Weld Head for Multi Pass Welding: Suitable for all passes: Rot, Hot, Fill and Cap Precision tool for perfect repeatable welds. The Orbital Technique Welbug system is designed to make pipe-to-pipe and pipe-to-fitting welds. Interchangeable track rings guide the head around the pipe, allowing a broad workpiece size range from 3" up. The Welbug system improves productivity by increasing duty cycle, reducing repair rates to below 0.1% and producing welds of constant quality.



Key Services

- **Cladding** (Inlay/overlay)
- **Stubwelding** (Union Joint)
- **Hardbanding**

CLADDING refers to a process where a metal, corrosion resistant alloy or composite (the cladding material) is bonded electrically, mechanically or through some other high pressure and temperature process onto another dissimilar metal (the substrate) to enhance its durability, strength or appearance or just get the original dimensions and sealing back. Weld cladding is typically between 2 and about 20 mm thick. It can be applied using a variety of welding processes where SMART Welding is able to perform, including gas tungsten arc welding (GTAW), gas metal arc welding (GMAW), submerged arc welding (SAW) and plasma transferred arc welding (PTAW).



STUB-WELDING, after repairs and recuts your costly drilling tools may no longer meet inspection standards or may have become too short rendering them unusable. By following detailed procedures and techniques Stub Welding allows new material to be "stubbed" to the existing tool restoring the tool to its original specification and returning the tool to service.



HARDBANDING, The result of significant savings in machine down time and production costs has meant that this process has been adopted across many industries such as Steel, Cement, Mining, Petrochemical, Power, Sugar cane and Food. Especially in the oil and gas industry are more common to redress stabilizer and riser hard banding, due the need to stabilize BHA during drilling operation or reduce aggressive damages in the tools. Process can be T2A flamespaying or PTA and Brazing process (H300 and cotraite).

