

MANAGEMENT OF THE PROCESS



Integration of multiclاد systems with equipments supplied by the customer

In general these are economic solutions that use the second hand equipments owned by the customer working combined with Multiclاد welding machines, in order to upgrade their system achieving the most updated cladding solutions with hot wire or powder filler material.

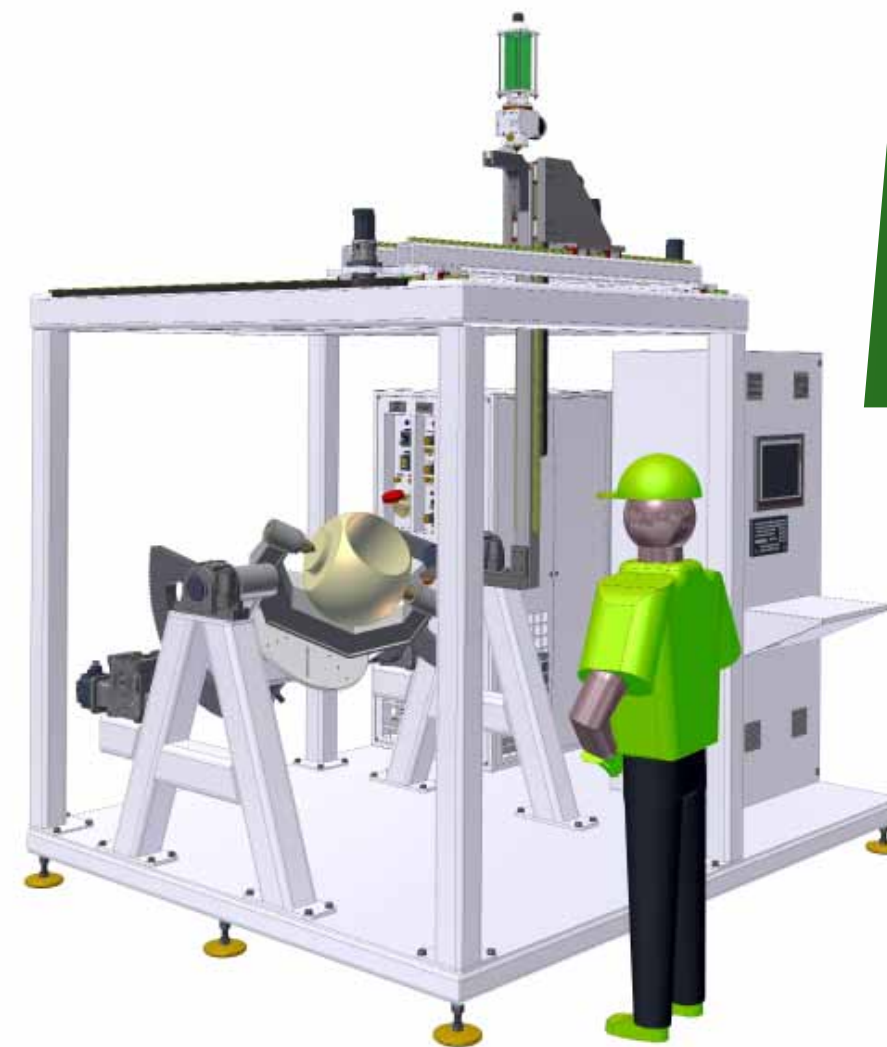
COMMERSALD IMPIANTI

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PTAW MULTICLAD



Customized Moving Systems

Flexibility

Our solutions start from a basic configuration with a possibility of upgrade with several devices according to the needs; in this case the investment is minimized to obtain the best compromise between costs and performances.

Customization

One of the most difficult challenges for a small/medium Company is always been the automation of small lots in cost-effective way. Generally these Companies produce by themselves their automated solutions or demand this job to big producing Companies, finding out only solutions designed for big series and consequently oversized and expensive.

Harmonious combination

Multiclad 600 welding machine is designed with the same philosophy; you can simply start with the PTAW powder and hot wire version then you can upgrade the equipment with GMAW (Tig) hot wire or with Tandem for high productivity.

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PLC

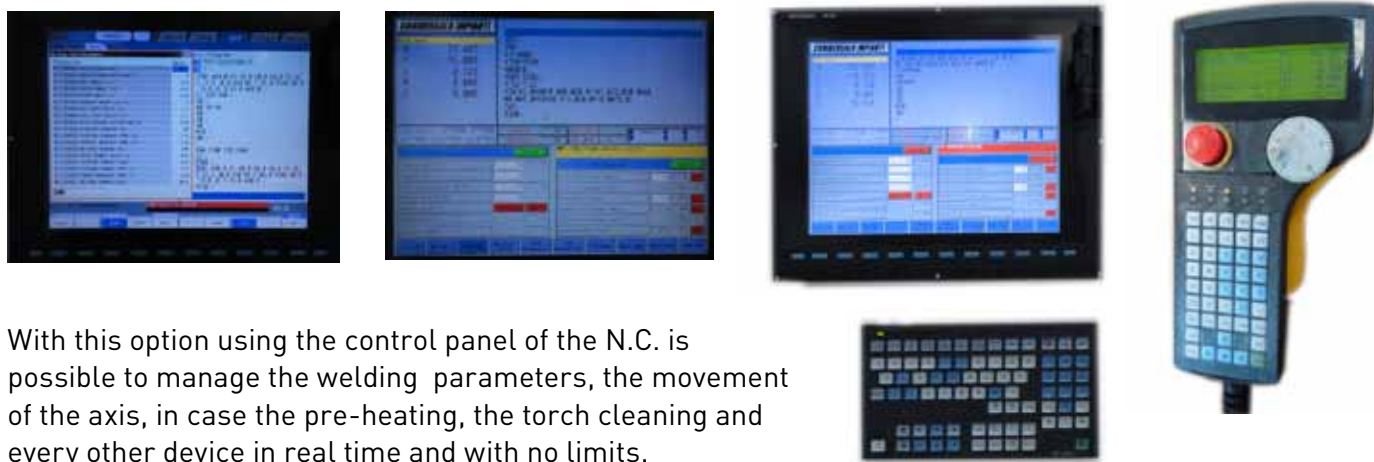
Configuration for a simple automation of the process

Remote control panel for welding and movement programming in a PLC version is present on the welding machine.



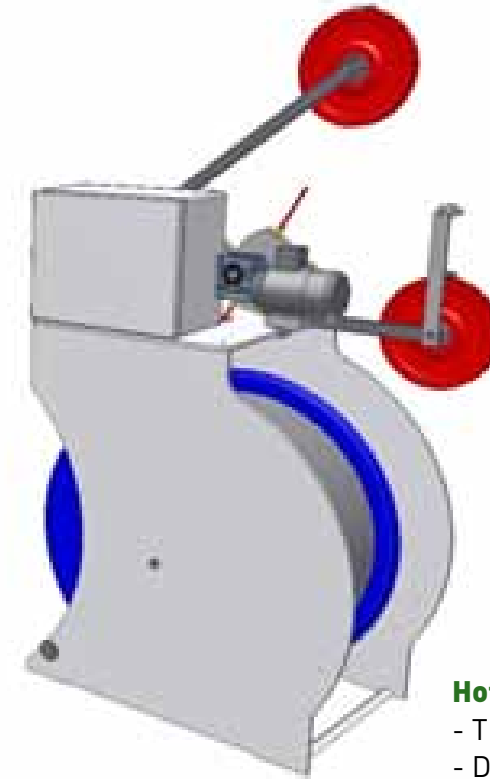
Numeric Control

Programming and management of the process by a ISO language N.C. It allows to manipulate complex automatism with a simple user interface



With this option using the control panel of the N.C. is possible to manage the welding parameters, the movement of the axis, in case the pre-heating, the torch cleaning and every other device in real time and with no limits.

OPTIONALS AND ACCESSORIES

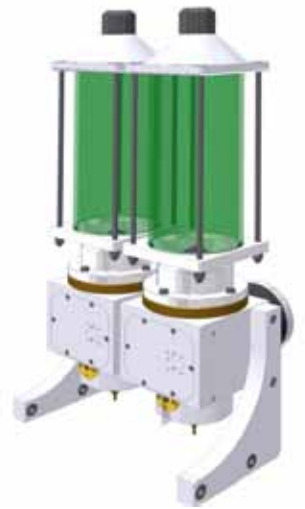


Hot wire feeder:

- TRT feeder for wire coils (optional)
- Drive unit 4 rolls with wire straightener 5 rolls
- Cooled terminal for hot wire output with gas protection

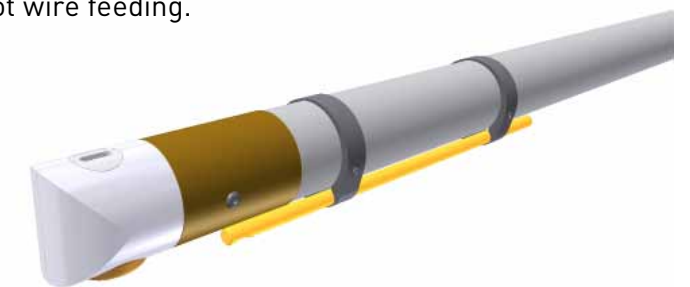
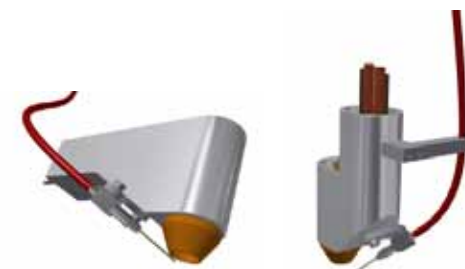


Double powder feeder with balanced pressure and adjustable flow for maximum precision and reliability



Special continuous rotating joint for current, water and gas cables protection during the welding execution

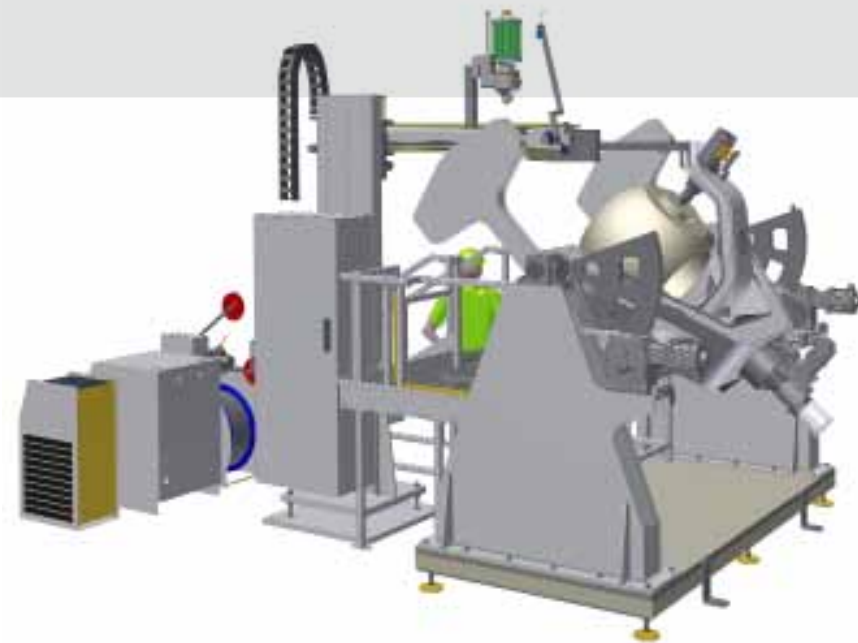
Combined PTAW welding torches for powder and hot wire feeding.





Robosfera

Complex Cartesian system managed by N.C. for ball valves cladding weight until 1.320 kg (equivalent 26" Class 600) with 5 controlled axes of which 3 are dedicated to move the valve and 2 + oscillator for the movement of the welding torch.
System programmed and managed by N.C. to make the complete external and internal cladding without disassembling the valve from the equipment until the cladding is finished.



Automatic stick-out that can operate on the whole welding path.
Programmed maintenance with determined stops for the cleaning of the welding torch during the cycle.
Emergency stops with 2 levels program (interruption and immediate stoppage).
Touch-device for dimensional check before, during and after welding with report of quotes.
Temperature check during execution.
External video camera for the remote check of the welding process, with possibility to record the whole welding cycle to link to the report in case of traceability.

Possibility to use PLASMIG and PLASMATWIN systems with double powder feeder and double independent torch.



Base 500

Equipment managed by PLC and assembled on a frame : The moving system is managed by control panel up to max 4 axis and oscillation through a remote touch screen.
Two axis can be positioned close or far to rotating table and the welding torch has a further vertical excursion to perform welding on long pieces.
Base 500 doesn't need a special programming and the managing is simple.

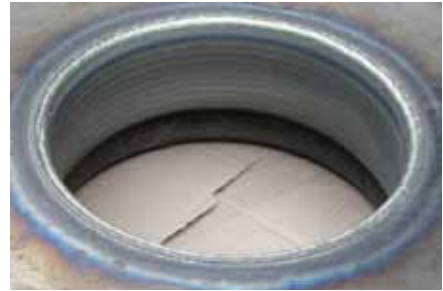
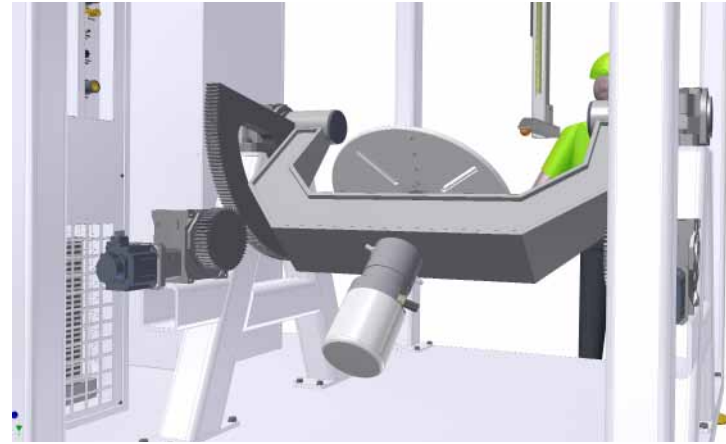
Useful for the cladding of simple shapes like rings and valve seats and more in general external cladding or internal on cylinders. Is possible to make some manual repairs in case with GTAW hot wire. The PLC software allows to connect together a sequence of programs to obtain different automatic applications including the angle cladding on ball valves seats.

Welding machine power	A 300 (at 100%)
Max weight of pieces	Kg 500
Max diameter of pieces	Kg 600/900
Max height of pieces	mm 800



Gantry

Portal moving system assembled on a 6 axis frame managed by N.C. for internal and external cladding on cylinders in Oil & Gas sector , combined with Multiclad 600 and Multiclad 900 welding machines.



Gantry is designed for implementation of a further axis on the plate of the rotating table, becoming with this solution tri-dimensional, with possibility of internal and external cladding of ball valves from 2" to 16".



Big

Modular welding equipment for big sized pieces managed by N.C. and composed by Cartesian axes for the torch handling and unlimited extensible beam fixed on the ground; this structure shall be combined with a Rotating/Tilting table with multiple-sized support according to the need up to 20 tons max.

A interred Hydraulic rotating table can also be combined to make particular welding operations and eventually a headstock with support in case of long pieces.

The N.C. allows to manage in real time the welding machine, the other devices and accessories to combine a fluid and automatic control of the cladding process in every condition.



Robo 70

Hyper tested Cartesian system with N.C. produced by Commersald Impianti designed to combine repetition to precision.

