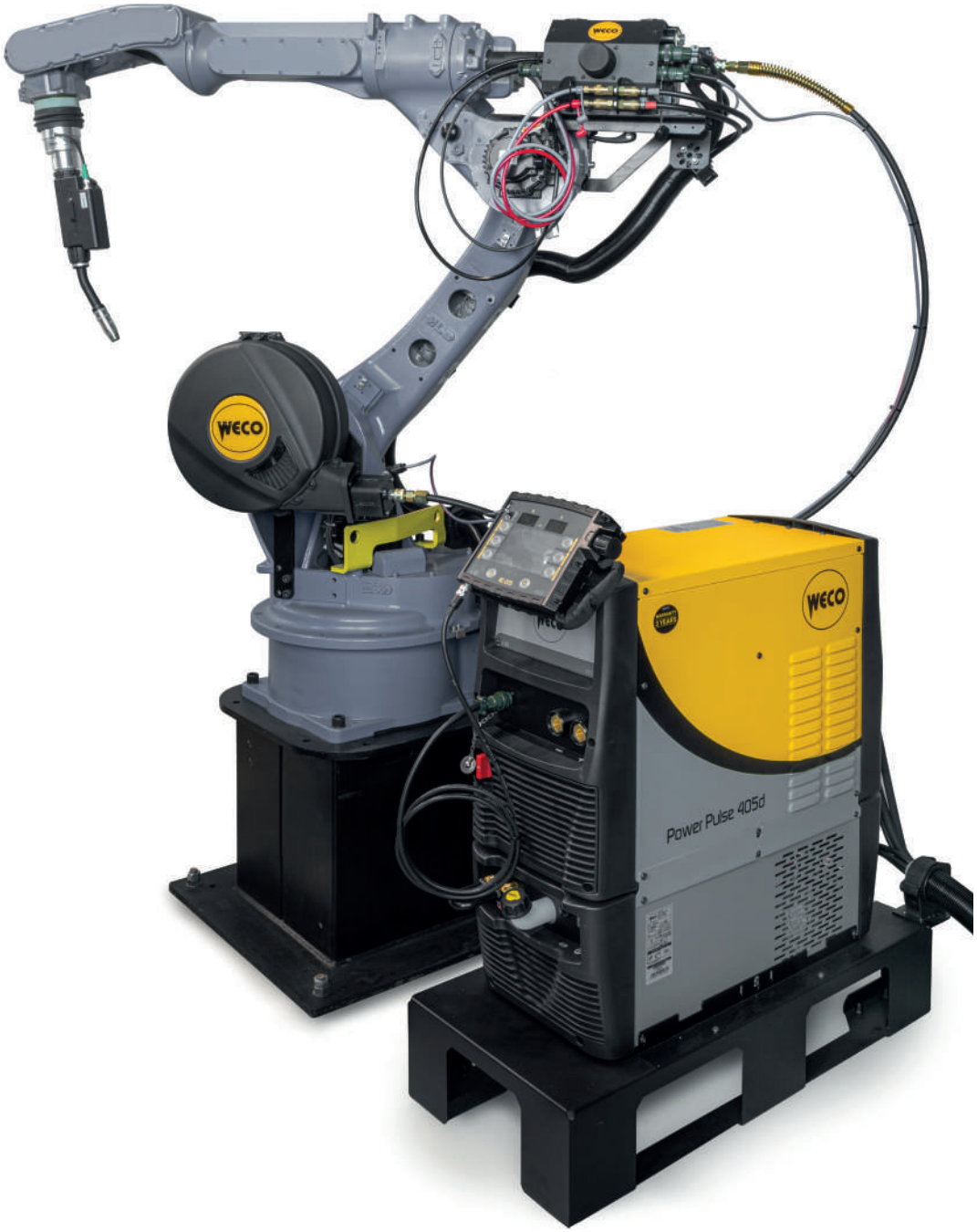
WELD THE WORLD

Power Pulse 405/505d ROBOT



ENG

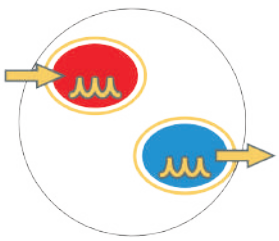
Weco Power Pulse digital ROBOT

Power Pulse 405/505 digital ROBOT is a MIG/MAG Syn and MIG/MAG Pulsed / Double Pulsed welding machine that boasts an outstanding performance in welding common and stainless steels, aluminum and alloys. The special programs created by our labs ensure our customers excellent cosmetic and metallurgical results. The most modern Weco digital Control technology, the Weco Multivoltage PFC and the Quick Setting user interface system guarantees you perfect results in any condition of use. The 400A duty cycle at 100% (40°C) allows you to work continuously, even with applications requiring high working cycles.

INSULATION / SLIDING KIT
The possibility to adjust the position of the Wire Feeder through the sliding kit allows an easy assembly of the WF to the robot arm assuring the fine length-adjustment with the torch and its maintenance.

SPOOL HOLDER SUPPORT KIT
The spool holder ensures an easy integration to the robot

INTEGRATED FIELDBUS INTERFACE MODULE
The Anybus interface module is integrated in the power source. It can be used with any robot, ensuring effective communication between robot and welding machine.
The available communication protocols are:
PROFIBUS
DEVICENET
ETHERNET/IP
PROFINET
CANOPEN
ETHERCAT
MODBUS TCP



USER INTERFACE
A simple and easy-to-approach interface for a quick access to all parameters.
The large 5” high resolution colour screen allows a clear and intuitive display of all parameters.
The possibility to select from the panel any parameter, either through keys or through Encoder or in Touch Screen mode, allows you to quickly adapt to any condition of use.
The settings management can take place via the front panel assembled on the power source (DMS version) or through the RC205 remote control.

POWERFUL COOLING UNIT
The C.U.20 cooling unit has a cooling power of 1650 Watt

WIRE-END SENSOR
The WIRE END sensor guarantees an effective control of the wire presence and avoids, in case of finished wire spool, unwanted welding interruptions and damages to the product.
The sensor can be assembled on the wire feeder, on the spool holder or wire drum.

COMPACT AND HIGH PERFORMANCE WIRE FEEDER
Our wire feeders are compact to reduce overall dimensions and ensure maximum mobility for the robot. The wide choice of available configurations facilitates the integration with any brand of ROBOT on the market.
The GAS sensor, the WIRE END sensor and the anti-collision signals can be integrated into the wire feeder.

TROLLEY T
The practical Trolley T guarantees easy portability with forklift trucks or transpallets. Also avoid direct contact with dust which could be sucked into the cooling unit or power source.

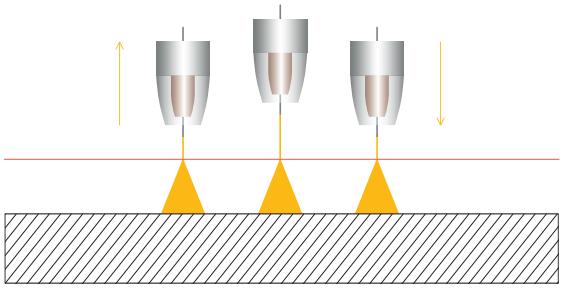
DEDICATED BRACKETS
Dedicated brackets for any type of robot allows an optimal and tidy cables fixing to the robot arm.

Special Processes

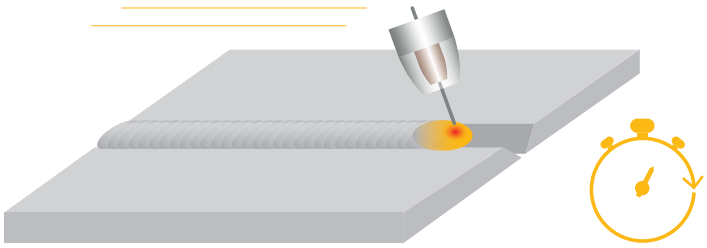
Pulsed High Control (HC)
The new Pulsed HC (High Control) has the characteristic of having a very fast arc control in order to optimize the detachment of the drop with a very reduced energy.

Features:
- More stable welding arc, with almost no spatter or micro-projections
- Very reactive arc to the torch movement
- Reduced energy transmitted to the welded workpiece
- Very linear power transfer with optimal edge wetting at a very high speed of execution.

Very reactive and always balanced arc in relation to the torch movement.

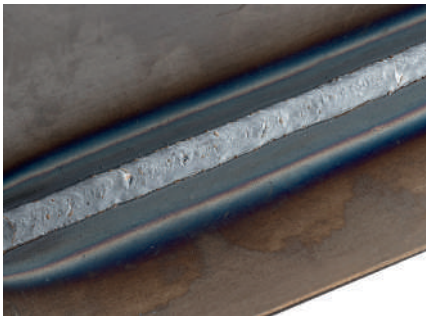


Very linear transfer with an optimal edge wetting at a very high speed of execution.

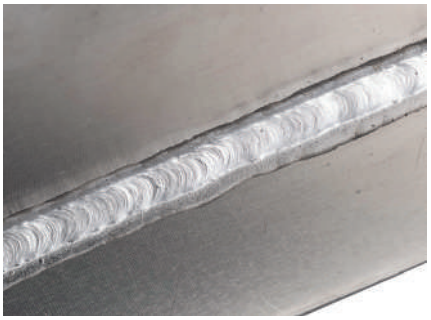


Stainless Steel HC

Carbon Steel HC



Aluminum Mg HC



Stainless Steel Double Pulse HC

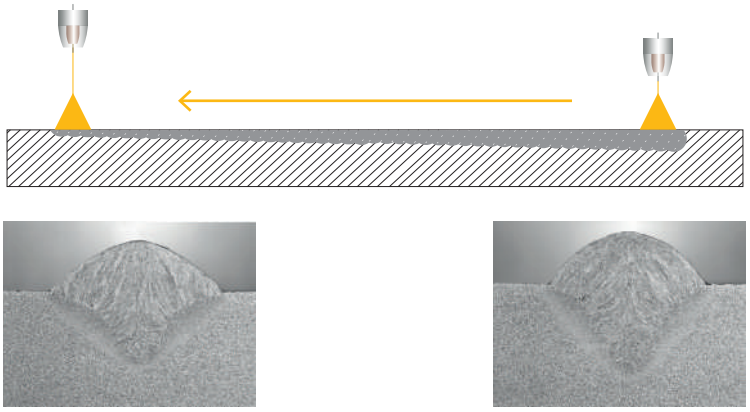
Carbon Steel Double Pulse HC

Aluminum Mg Double Pulse HC

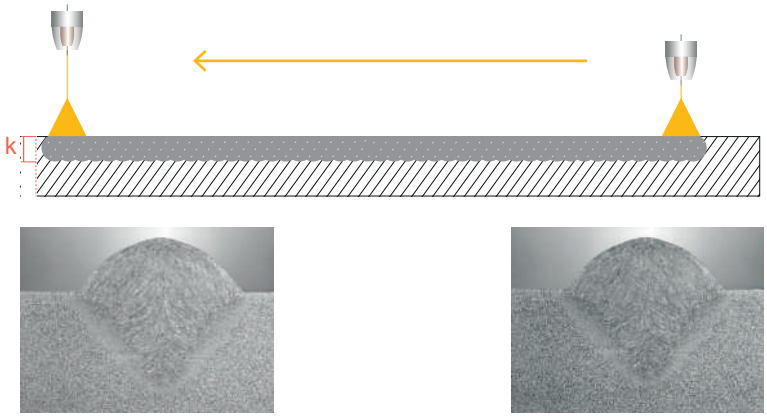
Watch the video

K Deep
The application was created to stabilize penetration during welding, regardless of changes in the stick-out length.

Without K Deep
PA
S355
THK 3 mm
Pulsed welding without K Deep: the result is a substantial decrease in the melting depth as the stick-out changes.



CWith K Deep
PA
S355
THK 3 mm
Pulsed welding with **K Deep** activated: the result is a more stable and linear melting depth as the stick-out changes.



Watch the video

Special Processes

DSI (DIGITAL SENSE IGNITION)
The new DSI function has been developed to reduce the energy during the arc ignition phase in order to minimize as much as possible the number of spatters related to the wire explosion.

Features:
- Up to 60%decrease in projections during the ignition phase on stainless steels
- Up to 30% reduction of projections in the ignition phase on carbon steels
- Optimization of shorted wire arc striking with considerable reduction of spatters and explosions.
- The highest result in quality and efficiency using the integrated functions DSI (arc ignition phase) | Pulsed HC (welding speed, low heat input) | K-DEEP (penetration stabilizer).

Base material: 304 stainless steel Thickness 2.0mm - Filler material: 308L diam. 1.2mm

Serie di inneschi Standard

Serie di inneschi con DSI

Base material: 304 stainless steel Thickness 2.0mm - Filler material: 316L diam. 1.0mm

Weld seam with standard arc ignition

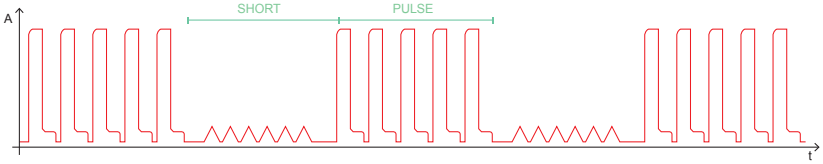
Weld seam with DSI arc ignition

Watch the video

Special Processes

POWER MIX
The Power MIX process has the purpose of reducing the average heat input in order to be able to perform welds in an ascending vertical position, corner seams or external corner seams in all positions with an excellent aesthetic result of the joint and free from defects.

Features:
- Simple and quick to set up thanks to the synergic programs dedicated.
- High execution speed.
- Welding Arc always stable even in speed changes.
- Lower heat inputs with minor plates deformations.
- High aesthetic quality of the joints.
- Regular weld bead geometry
- Low risk of defects.
- Applicable on carbon steel and stainless steel and with different thicknesses
+ 50% of execution speed compared to the TIG process
+ 45% of execution speed compared to the SHORT ARC process
+ 10% of execution speed compared to the DOUBLE PULSED function



The process alternates pulsed arc phases with short-arc phases
- The pulsed arc phase (HC) is necessary to create the welding pool, spread it and ensure good dilution between the base material and the filler material
- The short-arc phase (Power Root) is used to lower the average heat input and combine the pulsed phases.

Carbon steel

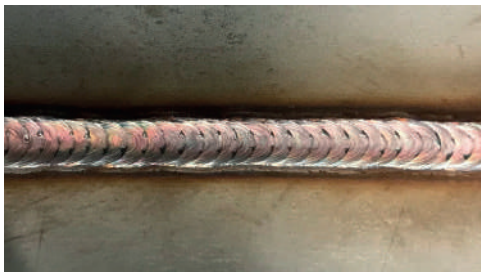
PB welding

PF welding

External edge PF welding

Stainless steel

PB welding



PF welding

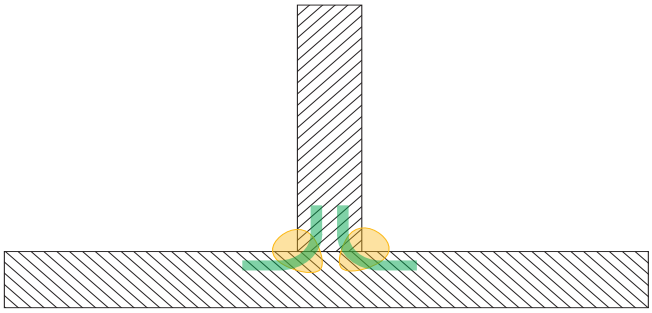
Watch the video

Special Processes

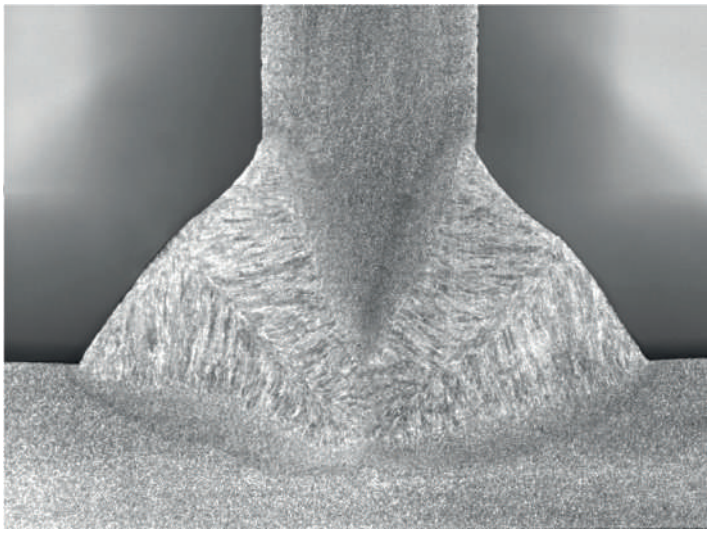
Power Focus
The special function Power Focus has been designed to cut total welding costs, reducing the total number of joints to be welded.

Features:
- Higher penetration and lower risk of sticking
- Increased welding speed
- Higher arc stability even with long stick-outs
- Lower costs of joint preparation
- Reduced volumes of bevels to be filled

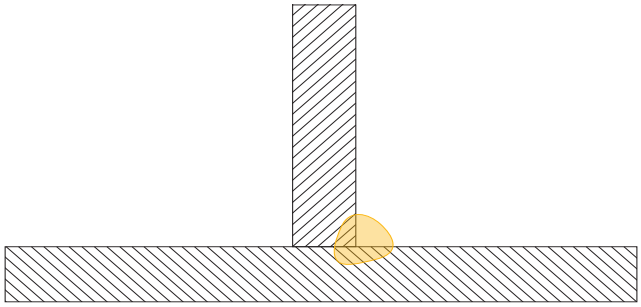
PB - Fillet Weld
S355 - THK 8 mm
Welded from both sides



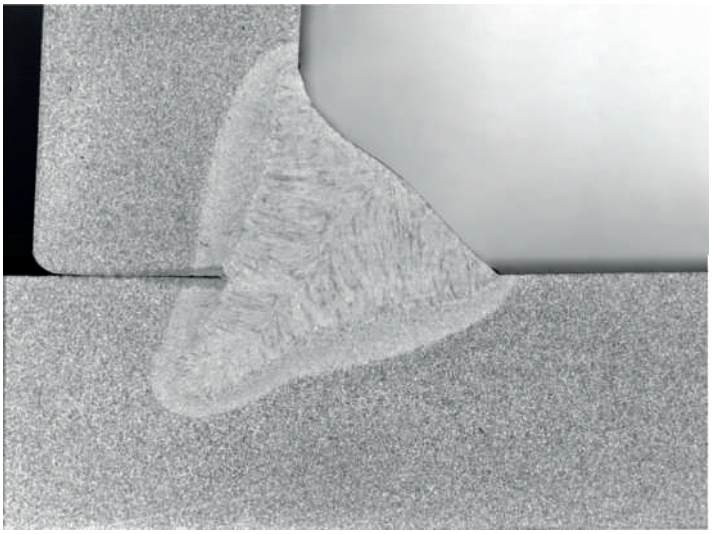
The higher number of field lines increases the resistant section



PB - Fillet Weld
S355 - THK 10 mm



Section of weld bead 8 mm



Watch the video

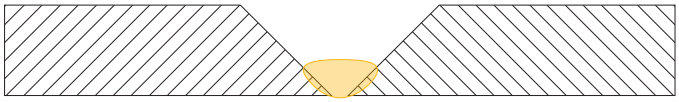
Special Processes

Power Root
The special Power Root function is a short arc transfer, controlled with a cold drop which ensures a very high quality during the root passes.

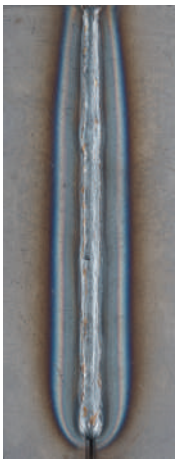
Features:
- Optimal first pass
- Quality of descending vertical welding
- Excellent operability
- Cold transfer of welding drop
- Perfectly jointed thin metal sheets
- Ideal for welding joints with large gaps

PG - Butt Weld
S355 - THK 3 mm - GAP 1.5 mm

PG - Butt Weld
S355 - THK 10 mm thick - GAP 4 mm - angle 30°

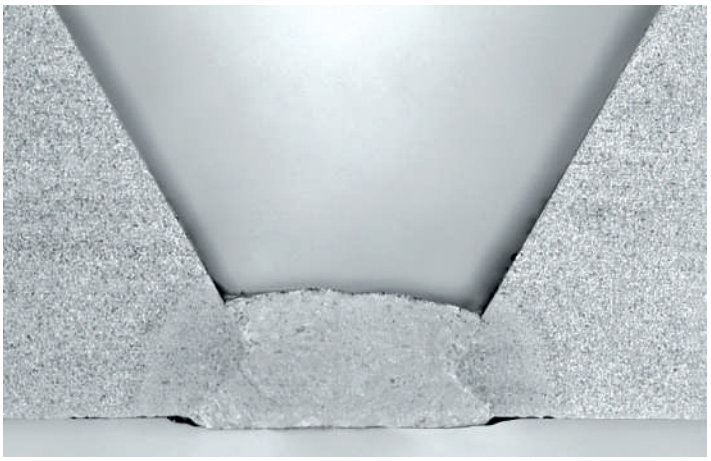


Front



Rear

Macrography of the weldment



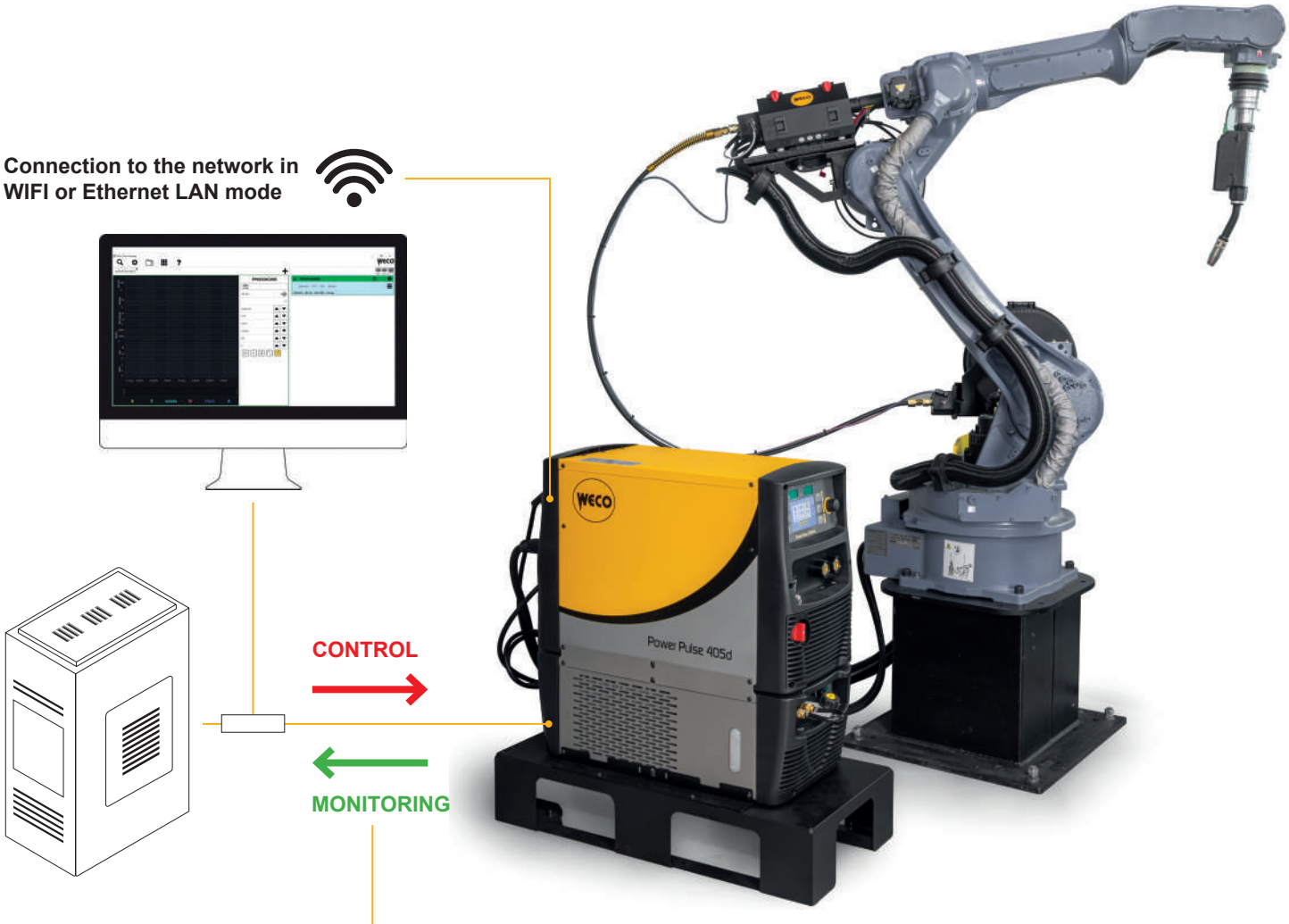
Watch the video

Weco Power Pulse digital ROBOT Weco Data Manager connection

WECO DATA MANAGER
WECO products meet the necessary requirements to face this new industrial revolution and look to the future with a view to «DIGITAL TRANSFORMATION» and «SMART FACTORY».

The exact settings for every piece to be welded: precise, perfect and repeatable. Each machine connected to the network via IP address can be managed from any location, anywhere.

With **WECO DATA MANAGER** it is possible to obtain real-time reports of the processes of all actively connected machines, monitoring all the welding in progress, any errors, consumptions and the costs of the materials used. All can be integrated with the company management system.



COMMUNICATION
The communication is BIDIRECTIONAL, for remote monitoring and control of the welding machine.

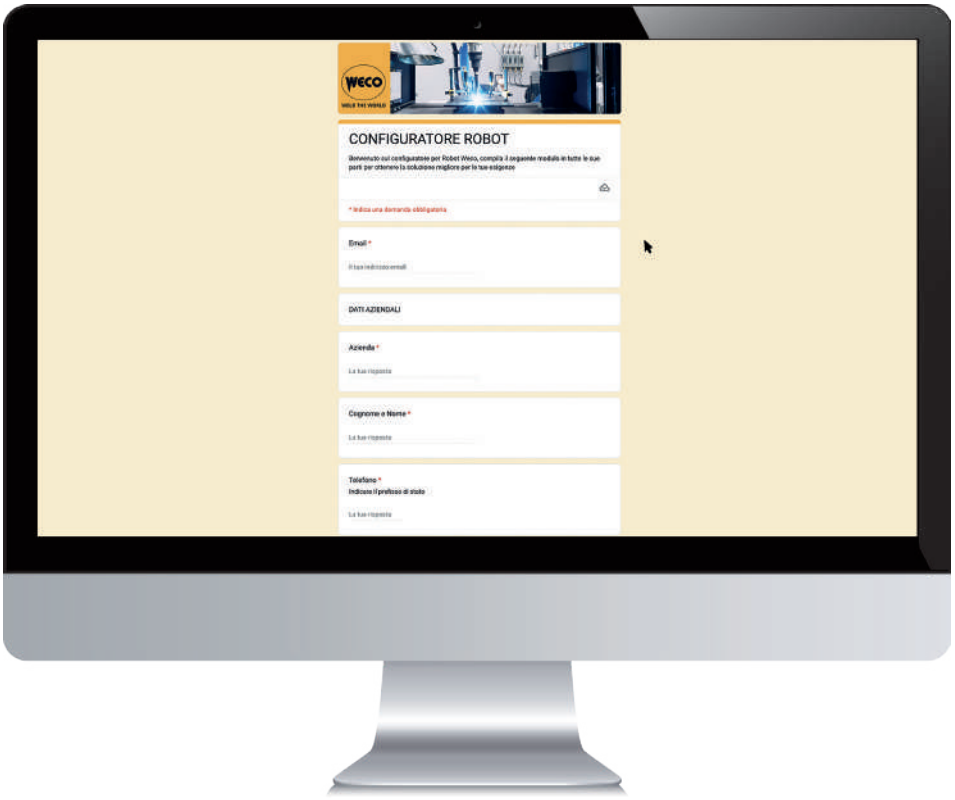
WELD THE WORLD

INDUSTRY 4.0

1. Quality assurance
2. Costs reduction
3. Increased productivity

Robot Configurator

WECO makes the ROBOT configurator available online.
This tool allows you to best configure the WECO package for the robot considered.
Following in the sequential mode of the steps proposed by the configurator, you will obtain the list of components necessary for your integration, complete and precise. For any clarification our service staff will be at your complete disposal to support you.



Go to configurator

Technical data

Power Pulse 405d		
	3x400Vac ± 15% @ 50-60Hz	3x230Vac ± 15% @ 50-60Hz
	25A	30A
	MIG-MAG	MIG-MAG
$\%_{40°C}$	100%	100%
I_2	400A	350A
I_2	10A-400A	10A-350A
U_0/U_r	70V / 19V	
$P_{1\,MAX}$	16,8kVA - 16kW	
IP	23	

Power Pulse 505d				
	3x400Vac ± 15% @ 50-60Hz			3x230Vac ± 15% @ 50-60Hz
	30A			30A
	MIG-MAG			MIG-MAG
$\%_{40°C}$	50%	60%	100%	100%
I_2	500A	450A	400A	350A
I_2	10A-500A			10A-350A
U_0/U_r	70V / 19V			
$P_{1\,MAX}$	23,7kVA - 22,6kW			
IP	23			

WELD THE WORLD

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06/2023

Dealer