



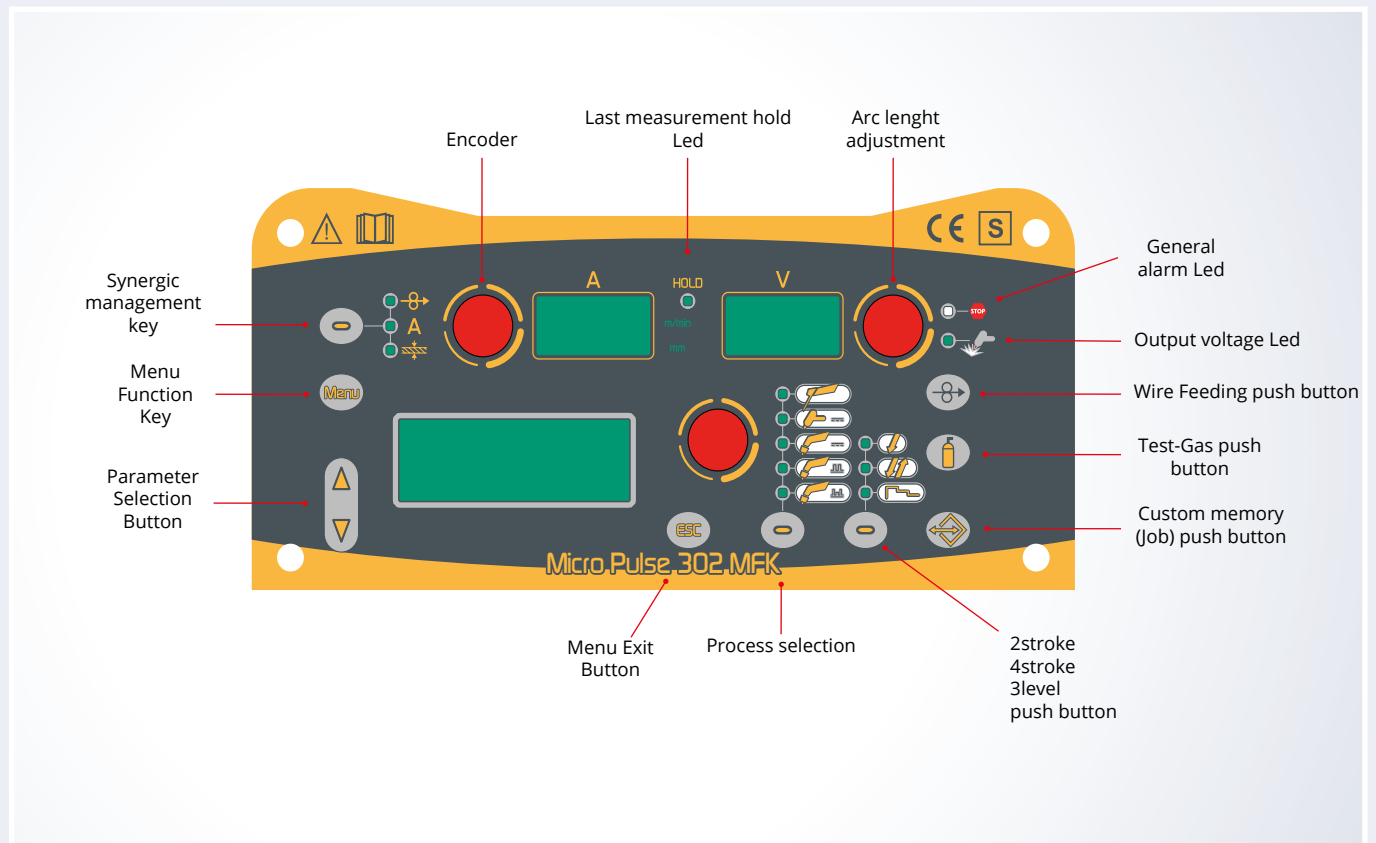
WELD THE WORLD

MicroPulse 302MFK



MicroPulse 302MFK

MIG/MAG Pulse/Double Pulse/Synergic - TIG DC LIFT - MMA



MicroPulse 302MFK

Technical Data



MicroPulse 302MFK is a compact, synergic, 3 Phase and robust designed Inverter for MIG/MAG Synergic, Pulse Synergic and Double Pulse Synergic, MMA and Lift TIG Arc welding. Easy to transport, only 24kg, it is the best option for maintenance and repair on field, shipyard and off-shore operations.

MicroPulse 302 MFK									
	3x400Vac ± 15% @ 50-60Hz								
	16A								
	MIG-MAG			TIG-WIG			MMA		
% _{40°C}	35%	60%	100%	50%	60%	100%	40%	60%	100%
	300A	230A	200A	250A	240A	210A	250A	220A	190A
	20A – 300A			5A – 250A			5A – 250A		
	11/60V								
	10,3KVA – 9,7kW								
	23S								
	560 x 280 x 390mm								
	24,4 Kg								

TECHNOLOGY



PROCESSES



PULSE



MIG MAG



TIG DC LIFT



MMA

SPECIAL FUNCTIONS



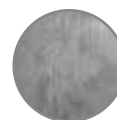
MATERIALS



Aluminium



Mild steel



Stainless steel

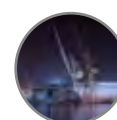
INDUSTRIES



Maintenance



Industry



Shipyard

MicroPulse 302MFK

Special Functions



W.ECO Technology Inside

Lower harmonic current emissions

W.ECO technology according to EN-60974-10, reduces harmonic current emissions.



1 - Higher execution speed

The high dynamics applied to the pulsation of HS Pulse arc gives an extremely and focused arc that increases the fluidity and pression of transfer as well as the wettability of joints.

This allows the operator (or automatism) to proceed much faster with the torch offering up to 35% in time saving.

2 - Higher deposition rate

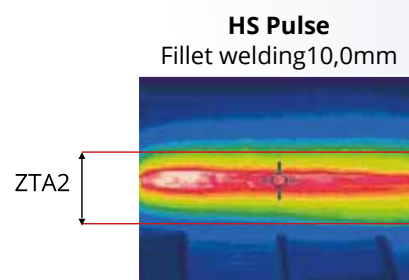
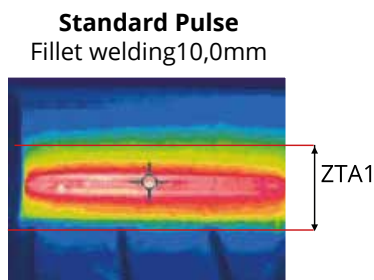
The high dynamics applied to the pulse of Pulse HS arc allows for an increase in wire's speed whilst keeping same current value when welding in Standard Pulse. The increase in the quantity of wire in to the pool increases consequently the weight of deposit in the unit of time (Kg/h).

3 - Lower heat input and less plastic deformation

In Pulse HS mode the heat input is much lower (35%) than with Standard Pulse.

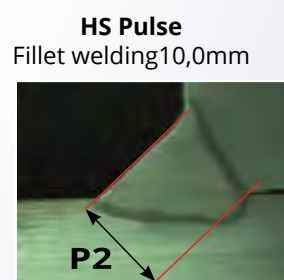
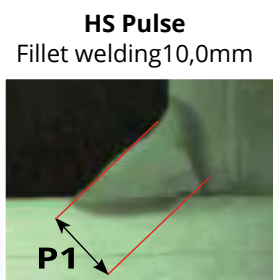
4 - Better mechanical properties

From our tests carried out we established that tensile strengths values in the Pure Deposit and Heat Affected Zone (HAZ) are much higher in Standard Pulse. This means that the higher heat input increased considerably the tensile strengths. In HS Pulse, hardness and tensile strengths are in line with the class which the base metal belongs to, therefore the heat input has no influence in the welded material.



5 - Higher penetration, offers lower risk of lack of fusion

Penetration obtained in HS Pulse (P2) is considerably higher compared to that of Standard Pulse (P1). Moreover the weld face is smoother thanks to the excellent joints' wettability.



6 - Lower production costs and depreciation

The higher execution speed combined with the higher deposition rates reduces remarkably both times and working costs. Less defects on the material and almost no need of reworking allow a always better amortization.

MicroPulse 302MFK

Special Functions



WELD THE WORLD



The **Power Root function** has been developed for improving and simplifying the root pass welding on seams. The Power Root Arc is perfectly suited for the joining of weld seams which have significant gap and irregular preparation. The arc remains highly stable on several different applications and allows optimal control of the welding puddle, especially in the vertical down position.

Power Root results are extremely easy to adjust, therefore making it easy for welders without the a great deal of experience on these types of seams.



Gap bridging

The cold droplet transfer provides process stable welding even with wide gaps.

The modelability is significant improved. The weld puddle is smooth, combined with a high viscosity.



V-groove / pipe welds

The optimized short arc cycle guarantees a high arc pressure – even in constrained positions.

No matter if vertical down or overhaed welding, the root pass quality will be assured. Root pass welding with up to 4 times higher welding speed compared to vertical up.

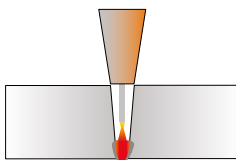


The difference between Standard Mig Mag welding and Power Focus

The difference between Standard Mig Mag welding and Power Focus is to be found on the concentration and precision of the arc.

The concentration on the Power Focus mode allows to focalize the high arc temperature precisely on the middle of the deposition, avoiding overheating on the weld edges.

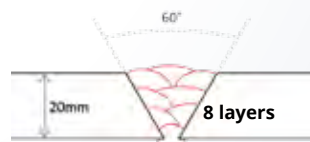
Power Focus Arc Specifications



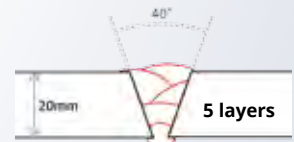
On the butt welding applications the Power Focus Arc stays concentrated in the exact middle of the weld seam, so that full penetration is achieved. In this way, it is possible to work on very narrow weld seams, which demands less mechanical preparation and of course, also less filling passes

Difference joint geometry

Joint Geometry with STANDARD ARC



Joint Geometry with POWER FOCUS



Until 40% less volume to fill!

Power Focus provides a stable arc even with stick-out very long (50mm)

MicroPulse 302MFK

Special Functions



HAC Hybrid Arc Control

WECO unique HAC (Hybrid Arc Control) supplies a soft and very stable MIG-MAG welding arc with excellent weld bead quality and minimal spatter in any working conditions.



BURN BACK:

An optimal wire cutting at the end of welding helps perfect starts.



SPRAY ARC:

HAC allows you to have a short spray arc with better penetration of the root, lower heat input and higher welding speed with no edge cutting and spattering.



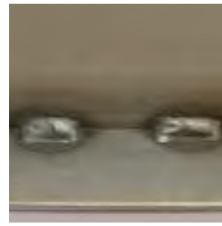
PG POSITION:

HAC allows thin plates welding in vertical down position with gap up to 5mm wide.



THIN PLATES:

HAC gives smooth and controlled short arc at lower parameters too. Low spattering, good edge wetting, low heating and small deformation are achieved in thin plate welding.



SPOT WELDING:

Dedicated controls, low spattering and high execution-speed allow you to get perfect welding spots.



WELDING POSITION:

HAC gives an optimal fusion of the bead's edges in short arc welding and to make overhead and vertical up position welding easier.

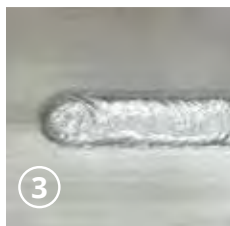


SOFT START:

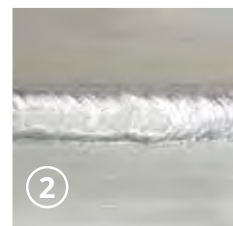
Approaching speed of wire and welding dynamics are totally synergic giving low spattering at start, in any type of material.



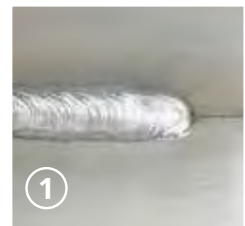
3T SPECIAL: allows you to set and recall 3 different current levels by pushing the trigger switch in order to achieve top quality weld beads: Highly recommended for Aluminum welding.



LEVEL 3: A low current ends the welding optimally by filling the crater on weld beads.



LEVEL 2: The welding current is optimized with the plate thickness and the requested weld.



LEVEL 1: A correct initial current gives optimal penetration from welding start.

MicroPulse 302MFK

Plus and configurations



**MicroPulse 302MFK
+ Cooling Unit C.U.11**



**MicroPulse 302MFK
+ Cooling Unit C.U.11
+ Trolley 03**

ACCESSORIES



KIT PUSH PULL



UPGRADING SOFTWARE



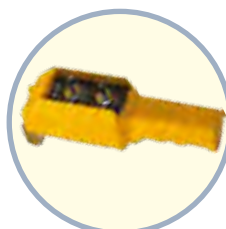
DIGIMANAGER TORCH



UP & DOWN TORCH



**RC04
REMOTE CONTROL**



**RC06
REMOTE CONTROL**



**RC08 DIGIMANAGER
REMOTE CONTROL**

A solid industrial activity, where the production is based on substantial investments for the supporting of research, projection and continuous testing.

Since 1997 Weco has been producing and selling welding machines

Both registered office and production plant are based on the north east of Italy. Our offices, technical/project department, production and warehouse are able to serve both our national and international sales net. A wide range of welding machines together with a huge stock, allow us to encounter and fully satisfy our customers' requests in short time.

A dynamic management supported by solid experience on the main sales' arguments and a deep knowledge on the application issues, allow this company to be ahead in the welding sector.

WECO means better solution for improving the production, optimizing the intervention time, minimizing the processes' costs, with the highest perform-standards granted.



WELD THE WORLD

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