WELDING
WECO
EQUIPMENT

Pioneer 321 Pulse

HSL
HIGH SPEED LINE

English

Pioneer 321 Pulse

MIG-MAG Pulse device

321 Pulse: Applications

Pioneer Pulse 321 is professional **3 Phase** Inverter Power Source (320A 45% at 40°C) MIG-MAG available modes are: **Manual, Synergic, Pulse Synergic** and **Double Pulse Synergic**.
Pulse Synergic and **Double Pulse Synergic** modes guarantee excellent bead appearance without spatters and deformations on aluminum, stainless steel and mild steel welding.

321 Pulse: Remote Controls

- Connector with insulated pins for remote control of welding parameters.
- Torches with potentiometers and up/down switches can be used as well.

Integrated phases control

- Net's phases detector led.

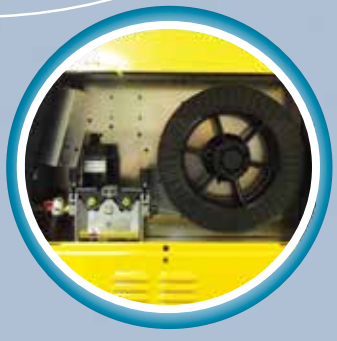
321 Pulse: Ventilation tunnel

- All electronic pcbs are insulated from ventilation flow.

Cooling Unit C.U.07

(optional)

- C.U.07 is robust, powerful and can be easily connected to the power source.
- It's placed in the back of the power source in order to minimize space, volume and to improve movement.



321 Pulse: Wire Feeder

- Solid metallic 4 rolls motor drive-system for any type of wire.
- Wire diameters from 0,6 to 1,2mm.
- Wire speed from 2 to 20 meters per minute.
- Wire spools till 300 mm / 15 kg.

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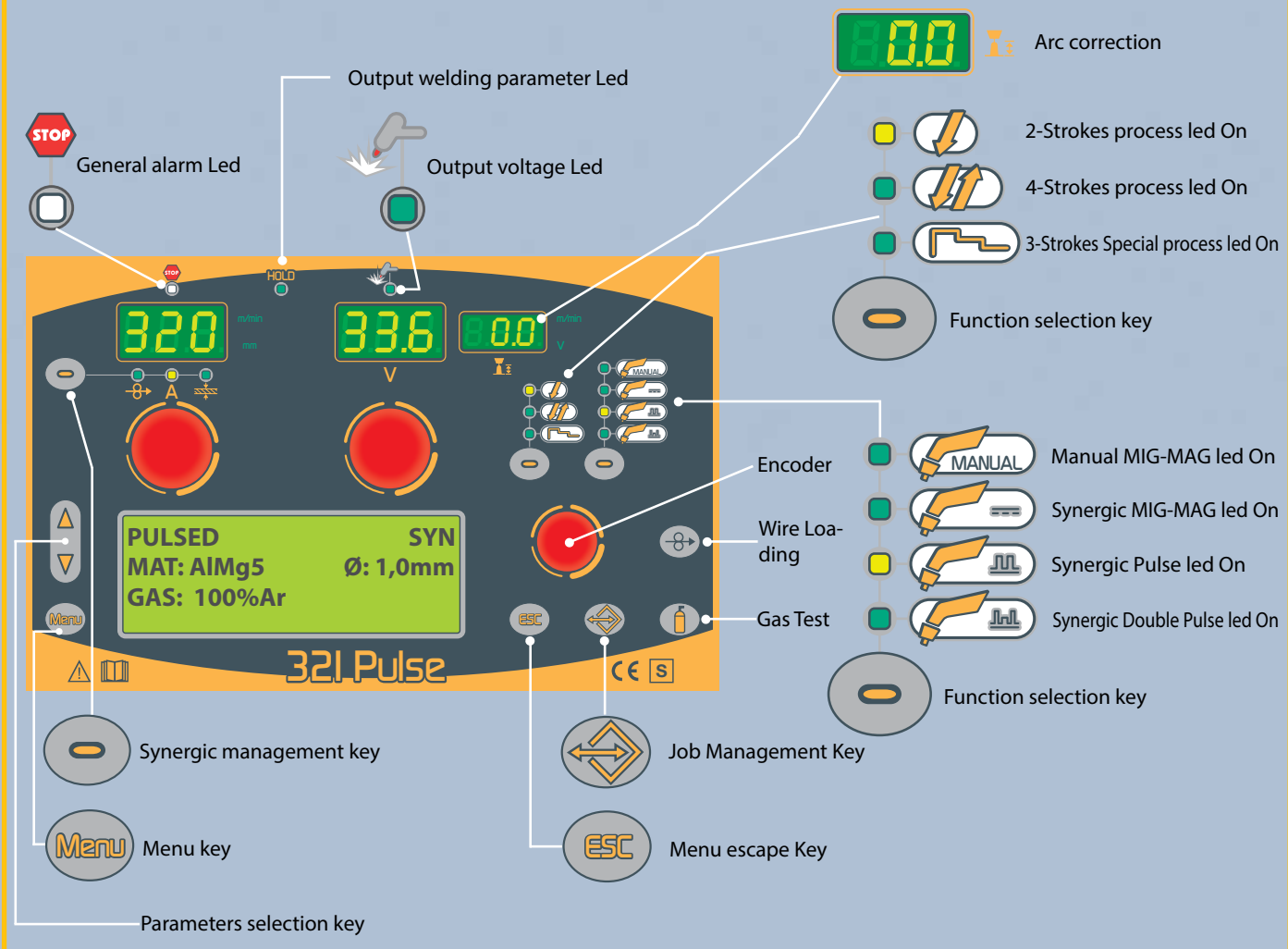
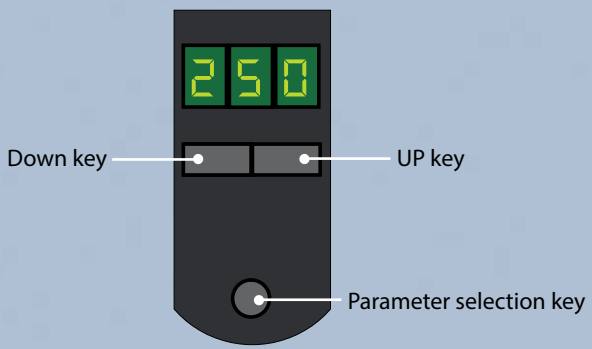
Control Panel

Easy setting of welding parameters



Torch control panel



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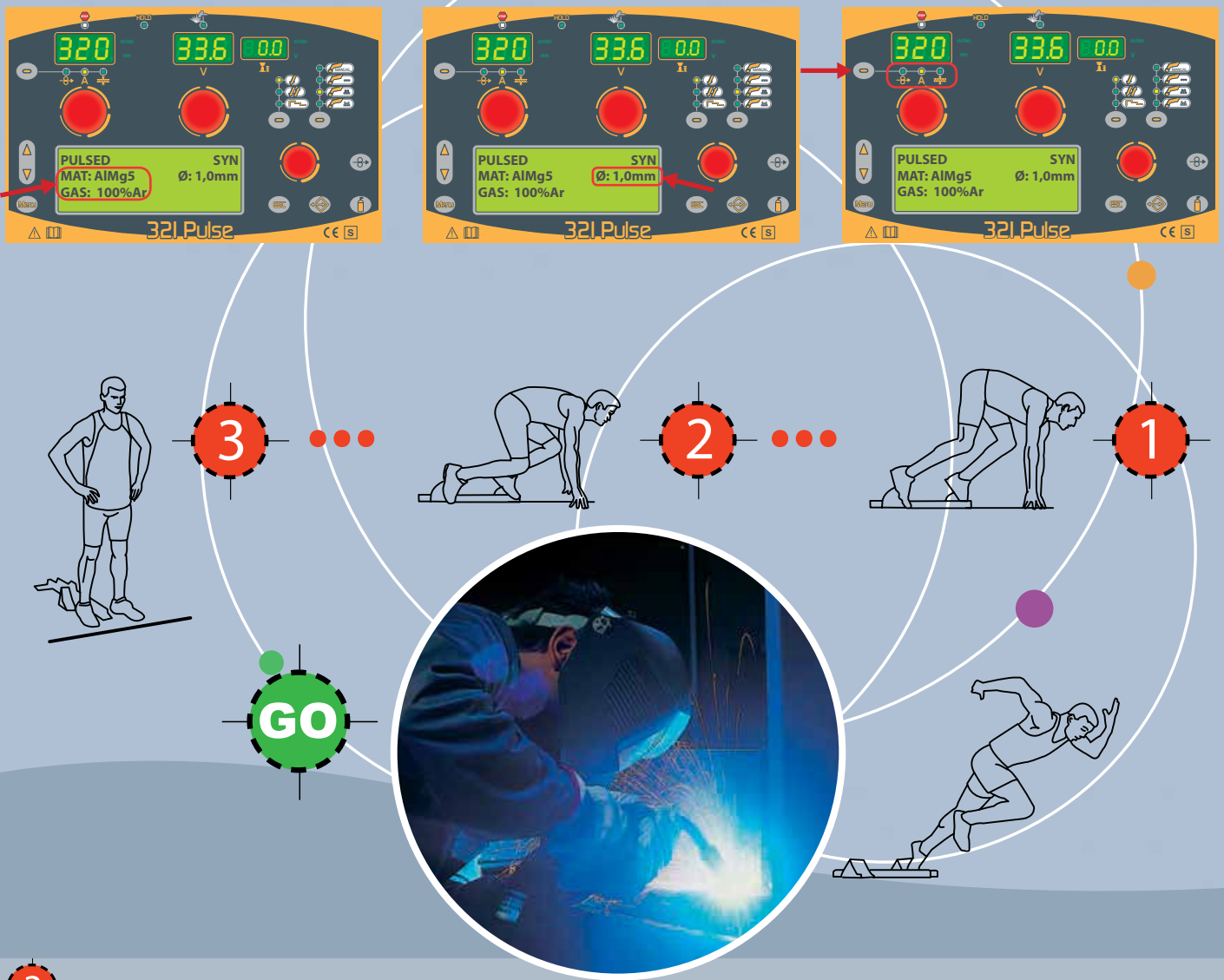
3, 2, 1 ... GO!

The 3 simple operations for setting and adjusting welding parameters ensure the quick setting-up of the machine without the need to read complicated user manuals, which avoids an unnecessary waste of time. The large and clearly visible front panel shows all the set parameters at any given time.



3 Wire and Gas Type Selection

2 Wire Diameter Selection

1 Synergic parameter Selection (m/min. - Ampere - base material thickness)

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HIGH SPEED LINE

The natural productivity increase

Pulse HS stands for:
1 - Higher execution speed
2 - Higher deposition rate
3 - Lower heat input and less plastic deformation
4 - Better mechanical properties
5 - Higher penetration, lower risk of lack of fusion
6 - Lower production costs and faster investment` s return

1 - Higher execution speed

High dynamics applied to the pulsation of HS Pulse arc gives an extremely and focused arc that increases the fluidity and precision of transfer as well as the wettability of joints.
This allows the operator (or automatism) to proceed faster with the torch and a time saving of 35%.

2 - Higher deposition rate

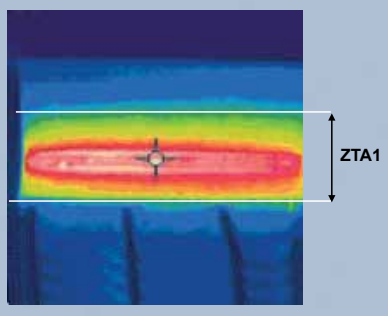
High dynamics applied to the pulse of Pulse HS arc allows to increase wire's speed while keeping same current value when welding in Standard Pulse. The increase of wire quantity in the pool increases consequently the weight of deposit in the unit of time (Kg/h).

3 - Lower heat input and less plastic deformation

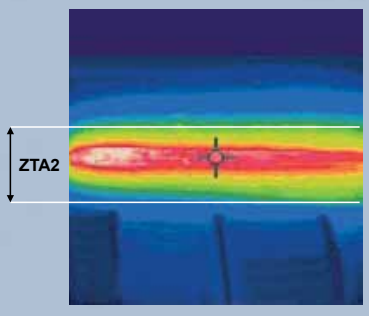
When welding in **HS Pulse**, temperatures are lower and the Heat affected zone (ZTA) is smaller. This means that mechanical and metallic joints' properties are considerably higher compared with **Standard Pulse welding**.

4 - Better mechanical properties

Conversion tables highlight that tensile strengths values in the Pure Deposit and Heat Affected Zone (ZTA) are much higher in **Standard Pulse**. This means that a higher heat input increased considerably tensile strengths. In **HS Pulse**, hardness and tensile strengths are in line with the class of metal the base material belongs to, therefore the heat input is non influential in the welded material.



Fillet welding10,0mm
Standard Pulse



Fillet welding10,0mm
HS Pulse

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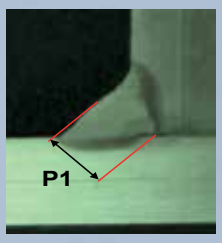
The natural productivity increase

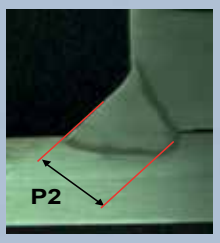
5 - Higher penetration, lower risk of lack of fusion

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



Fillet welding10,0mm
Standard Pulse

Fillet welding10,0mm
Pulsed HS

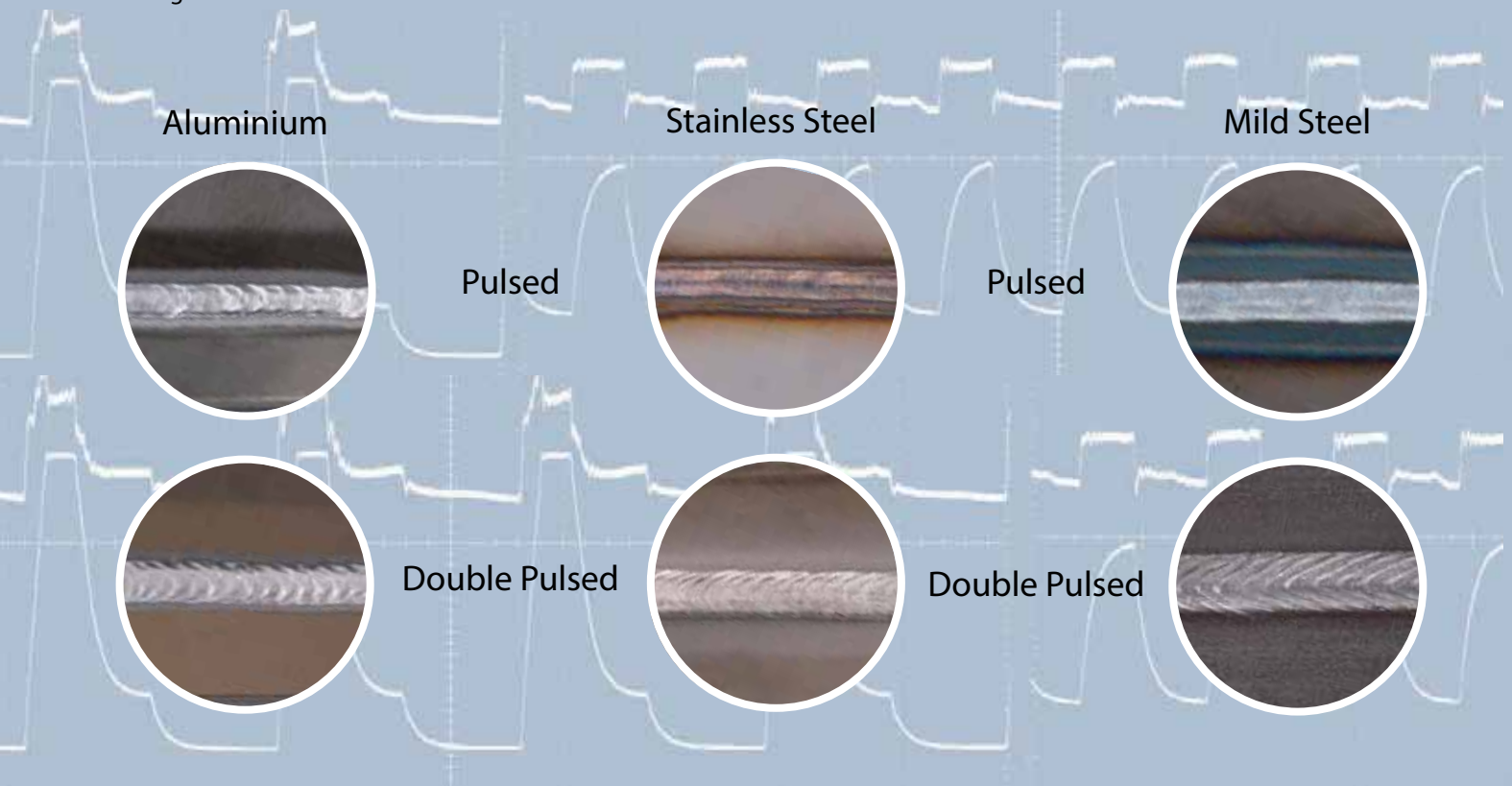


6 - Lower production costs and faster investment` s return

The higher speed of processing, together with higher deposition per hour reduce remarkably both working time and labour costs. Less working mistakes on the base material and less post-welding processing make a faster investment`s return possible.

Excellent result on every type material

When particular materials are to be welded, PULSED and DOUBLE PULSED MIG MAG processes allow, the reduction of the heat input of the part to be welded, excellent aestetic results and welding without spattering. These processes make possible to weld very thin Aluminium and Stainless Steel plates with very limited plastic deformation. Moreover the surface of the welding beads is clear and clean.



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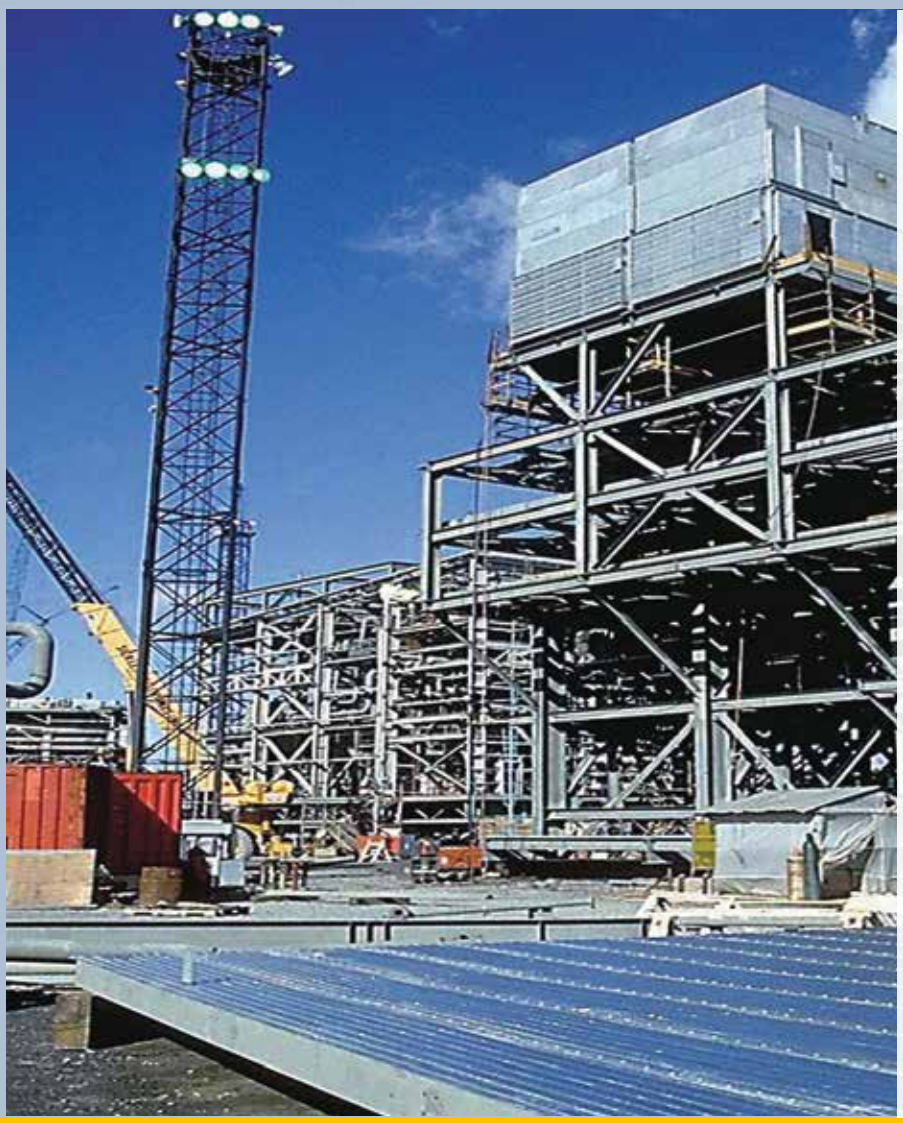
APPLICATION FIELD



- Industrial assembly
- Maintenance and servicing
- Naval shipbuilding industry
- Electro-mechanical assembly
- Agricultural machine servicing
- Air conditioning plants
- Hydraulics
- Pipe welding
- Metal windows and door frames
- Fabrication

Pioneer 321 Pulse	Technical data		
	3x400Vac ± 15% @ 50-60Hz		
	25A		
	MIG/MAG		
$\%_{40\,°C}$	45%	60%	100%
I_2	320A	280A	230A
$\%_{RT}$	----	60%	100%
I_2	----	320A	290A
I_2	20A – 320A		
U_0	71V		
$P_{1\,MAX}$	14,6KVA -10,9KW		
IP	23S		
	1100 x 550 x 805mm		
	77,0Kg		
CU 07	**Technical data**		
	1x230Vac ± 15% @ 50-60Hz		
	1,35A		
$P_{1\,L/MIN}$	1.10kW		
P_{MAX}	0,44MPa		
	3,0l		
IP	23S		
	280 x 142 x 570mm		
	12,0Kg		

CE EN60974-1/10 EN 60974-2 S

WELDING WECO EQUIPMENT

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