

WS

AIR-COOLED MICROWELDING

- HIGH SPEED SPOT WELDING -

POWERFUL - ACCURACY - FAST - SAFE

WS welding stations are revolutionizing the air-cooled repair welding of tooling. Thanks to their unique medium frequency technology, they combine a disconcerting ease of use with excellent quality results and productivity.

With a rate of 50 pulses per second, a very high maximum power, millisecond-long welds and extremely precise current regulation, they enable you to obtain optimal weld quality, very close to laser quality, be it in terms of aspect or resistance, even to extreme stress (shock, shear, pressure, thermal shock, erosion, etc.).

WS micro-welding devices are the perfect solution for fast, simple and long-lasting quality repair welds of the following tooling:

- Rubber injection
- Plastic injection
- Compression
- Aluminum foundry
- Zamak foundry
- Extrusion
- Cutting
- Embossing
- Blowing



WS MODELS

5100S

7000S

10000

10000S

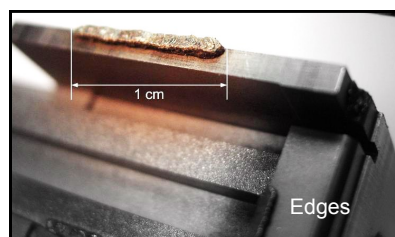
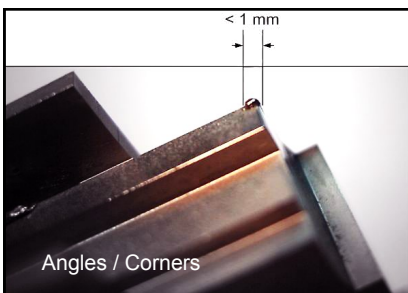
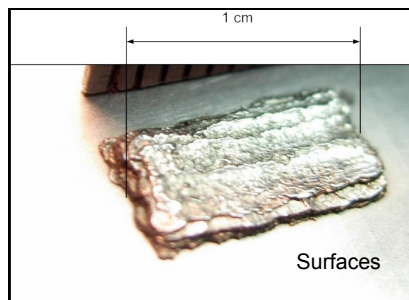
Compact

Adjustable

Fully cooled

User friendly

TYPICAL APPLICATIONS



MACRO-ETCH TEST OF A WELD



RESULTS

- Structural detail in the bonding area:
- Satisfactory penetration of the molten metal
- View of assembly weld on polished metal :
- A few folds can be detected on the surface

TECHNICAL CHARACTERISTICS

MODEL	WS 5100S	WS 7000S	WS 10000	WS 10000S
Power supply	1~220 V / 50 Hz / 60 Hz			
Converter type	5kHz medium frequency			
Maximum welding power (1)	7.3 kW	10 kW	14.4 kW	
Maximum welding current (2)	2000 A	2800 A	4000 A	
Open circuit voltage U20	3.6 V			
Control type	Current regulation			
Maximum weld time	250 ms			
Minimum weld time	1 ms			
Current precision	8 A			
Generator cooling	Forced air			
Cable cooling	Forced air through fast electric connection / compressed air through cone			
Size	L 420 mm x W 240 mm / H 280 mm			
Weight	18 Kg		19 Kg	
Programming	9 adjustable programmes			
Adjustable settings	<ul style="list-style-type: none"> ▪ Welding current in % ▪ Weld time in milliseconds ▪ Weld cycle / shoot mode (Single- or multi-point) ▪ Pulse form (Powder / Wire - Ribbon) 			
Maximum pulse rate	16		25	50
Maximum welding capacity (3)	0.8 / 0.2	1 / 0.3	1.2 / 0.4	
Accessories and options	<ul style="list-style-type: none"> ▪ Rotating welding torch / cooled Ø 70 mm² ▪ Rotating welding torch / cooled Ø 35 mm² ▪ Cooled earthing cable Ø 70 mm² ▪ Mini welding torch Ø 16 mm² / Electrode holder Ø 2 and 5 mm 			

(1) Measured at standard cable ends (2) Measured in short-circuit at machine output (3) Tests carried out with larger accessories

BENEFITS

- Simple set-up
- No overheating
- No deformation, feathers, shrinkage, etc.
- Discreet welds even in visible areas
- For use on all ferrous materials
- Great for hard-to-access areas
- Perfectly homogenous and resistant welds
- Extreme precision
- Weld hardness: 36 to 62 HRC
- Safe and easy to use – no projection
- No protection required
- No arc or smoke
- Deal for on-site operations (no high-frequency current)

ACCESSORIES



Stereo microscopes



Welding torch Ø70mm



Control pedal



Mini Welding torch Ø35mm



Micro welding torch Ø16mm



Filler materials and electrodes

The full range of WS accessories is available online at: www.sstmicrowelding.com