

# WS

## AIR-COOLED MICROWELDING

high speed spot welding

**SST**  
MICROWELDING.COM

5100S

7000S

10000

10000S



The ideal solution for  
repairing ferrous alloy  
tools

Mold and tool

Glass industry

Assembly

Cutting - Stamping

[WWW.SSTMICROWELDING.COM](http://WWW.SSTMICROWELDING.COM)

### 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, event to extreme stress (shock, shear, pressure, thermal shock, erosion, etc.)

As they do not deliver high-frequency current, they can be used on production machines (presses, machining centers, etc.).

### Macro test of a welding repair

3144 part  
Repair weld on a 3144 ribbon  
Etch type : Nital  
Magnification : x 18



### Results

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



### TYPICAL APPLICATIONS



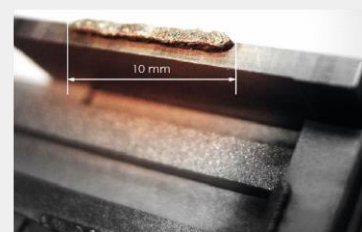
Mold Edges



Metal braiding



Filters



Repairs

## TECHNICAL CHARACTERISTICS

Model	WS 5100 S	WS 7000 S	WS 10000	WS 10000 S
Power supply	1~220V/50Hz/60Hz			
Converter type	5kHz medium frequency			
Maximum welding power	7.3 kW	10 kW	14.4 kW	
Maximum welding current	2000 A	2800 A	4000 A	
Open circuit voltage U20	3.6 V			
Control type	Current regulation			
Spot time	1 à 99 ms			
Minimum welding time / mode	Simple spot – multi spot / Short time spot – long time spot			
Current precision	8 A			
Generator cooling	Forced air			
Generator cooling	Forced air			
Size	L 420 mm x W 240 mm / H 280 mm			
Weight	18 kg		19 kg	
Programming	9 adjustable programs			
Adjustable settings	Welding current in % Weld time in milliseconds Weld cycle : Single point / Multi point Spot shape and duration: Short (Powder application) - Long (Wire application)			
Pulse rate (Hz)	12	16	25	50
Maximum welding capacity (wire)	0.8* / 0.2**	1* / 0.3**	1.2* / 0.4**	

\* welding wire / \*\*ribbon

### ADVANTAGES

- › Simple set-up
- › No overheating
- › No heating or deformation of the material
- › Discreet welds even in visible areas
- › For use on ferrals material
- › **Perfectly uniform and resitants welds**
- › Great for hard access area
- › High precision welding
- › Weld hardness between 36 to 70 hardwell
- › Safe and easy to use- no projection
- › No protection required
- › No arc or smoke
- › Ideal for work on presses ( no high-frequency current emission)
- › Mobile and compact

### RECOMMENDED ACCESSORIES



Stereo binocular microscope with light LEDs



Cooled and uncooled welding torches



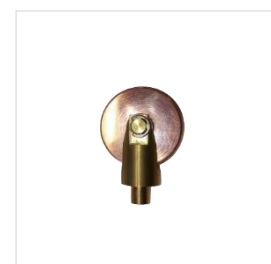
Small uncooled welding torches



Spot welding gun



Manual spot welding pliers



Wheel electrode

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**The complete range of consumables and accessories for WS machines :**  
 Cables, welding materials, work piece holders, optics, electrode grinding machines, etc.)  
**is available on the website : [www.sstmicrowelding.com](http://www.sstmicrowelding.com)**