

SPOT TIG

MICROWELDING

- STEEL - ALUMINUM - COPPER - BRONZE -

QUALITY AND PRECISION OF LASER WELDING

VERSATILITY, SIMPLICITY AND ECONOMY OF TIG WELDING

SPOT TIG microwelding stations perfectly combine the quality and precision of pulsed laser welding with the most advanced TIG technology (DC and AC/DC).

Specially developed for micro-welding, the SPOT TIG SST allows for extraordinary versatility:

- Traditional TIG mode, with unrivalled weld quality and precision for both ferrous and non-ferrous materials, such as copper and bronze but also aluminum.

- Thanks to its specific SPOT mode, you can instantly transform your SPOT TIG device into an ultra-precise pulsed laser welding machine. SPOT mode enables you to carry out micro-pulse welding in just a few milliseconds, with perfect fusion quality and no overheating, for a result almost identical to that of a pulsed YAG laser.

All materials weld-able in TIG mode can be welded in SPOT mode: ferrous materials, copper and copper alloys, bronze and bronze alloys, aluminum.



TYPICAL APPLICATIONS



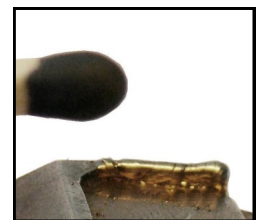
Steel



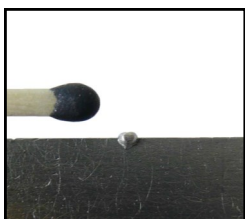
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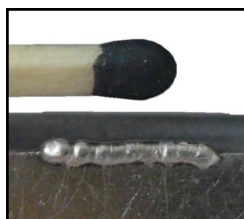
Steel



Steel



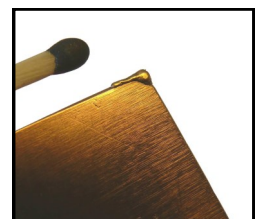
Aluminum



Aluminum



Aluminum



Copper - Bronzes

MODEL		SPOT TIG 220 AC/DC
Processes		TIG- AC- AC/ DC Manual electrode welding
Cos φ		0.99
Welding current range	TIG	5–220 Amp
	SPOT mode	5–220 Amp
Welding current	10 min/ 40°C 35% DC	220 Amp
	10 min/ 40°C 60% DC	180 Amp
	10 min/ 40°C 100% DC	160 Amp
SPOT mode pulse rate (pulses/second)		0.5 –1 –2/5
Open circuit voltage		72 V
Size L x W x H (mm)		460 x 230 x 325
Weight		19 Kg
Protection		IP 23S
Power supply		1 ~230V / 50 Hz / 60 Hz

CONTROL PANEL



BENEFITS AND FEATURES OF “SPOT MODE” WELDING

- **Pulse duration is short** (a few milliseconds) and factory configuration (favouring shorter durations and faster slope-up/down) is **easily adjustable by the user** (duration in ms and slope-up/down).
- Set-up is **very simple**; complex welds are easy and **safe** to carry out.
- Weld pool is very localised and **heat-affected zone is very small**.
- Very little heat is applied to the part and **feathers and shrinkage are negligible** meaning **no deformation risk** when carrying out complex welds or welds on very small parts (pins, edges, thin surfaces, proximity to polished or grained visible areas, etc.).
- **Welds are discreet even on visible areas**.
- **Welds are perfectly homogenous** (on grained or polished visible areas) and **resistant** (on areas under mechanical stress, edges, areas of load and shear, cutting tools, etc.).
- Welds are **safer** in hard-to-access areas.
- **Small-diameter laser welding wires (Ø 0.2 to 0.6mm)** in all grades: titanium, steel, stainless steel, copper, bronze, aluminium, etc.

ACCESSORIES & OPTIONS



Binocular microscope



TIG 9 Welding torch



Auto-darkening helmet



Trolley



Control pedal



Additional cold light (LED)



Positioner table (3 axis)

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