

## SPW-01 Spot-Welding Equipment (TS900)

### Basic characteristic

- ▲ **SPW-01** is a high-performance, easy-to-use, and universal Spot-Welding and Pin-Welding Equipment for a wide range of applications, including Fiber Optic Sensing.
- ▲ Handgun with 1,5mtr long cable for simple use.
- ▲ The fire button and LED indication are directly on the handgun.



*Product Developed, Assembled, and Sold in Cooperation with Technica under the TS900 product name.*

### Features

- ▲ Easy-to-replace spot welding tips
- ▲ Pressure adjustment on the handgun
- ▲ Guidance spikes for vertical positioning against the surface (for pin-welding)
- ▲ Possible to pin weld pins in a range from M3 and M4 with max. length of 40mm
- ▲ Detachable cables



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### Performance properties

Voltage Rating	220V 50Hz, 3 Amp breaker protection
Weld Energy <sup>1)</sup>	5 to 300 Joules
Charging Time <sup>2)</sup>	@ Maximum Energy Setting < 10 seconds
Indication / Displays <sup>3)</sup>	LED for Charging / Energy Storage Status
Controls <sup>4)</sup>	Output energy adjustment, Two-position switch
Storage Temperature range	-10°C to +50°C
Operating Temperature range	-5°C to +40°C

<sup>1)</sup> For the actual weld energy at the welding gun tip see the cross table with nominal/actual values

<sup>2)</sup> With weld energy set to @250 Joules

<sup>3)</sup> Status indication is displayed by a LED located on the welding gun and an LED located on the front panel

<sup>4)</sup> Maximum achievable weld energy with turbo off: 50J, maximum achievable weld energy with turbo on: 300J.

### Physical properties

Dimensions (without cables) <sup>1)</sup>	285x215x95mm
Power cord length	1,5mtr
Weight (without cables)	5000g
Gun cables weight <sup>2)</sup>	2000g
Gun cables length <sup>3)</sup>	1,5mtr
Material of spot-welding tip	CW103C

<sup>1)</sup> For further dimensions details see the product drawing.

<sup>2)</sup> Gun cable weight includes the spot-welding gun, electrode cable, and ground cable.

<sup>3)</sup> Gun cable length is extendable on request.

### Packaging

Standard - Cardboard box (580x440x240mm),  
Ruggedized transportation case



### Quality statement

100% tested at SYLEX

Manufactured according to ISO 9001:2015 and ISO 14001:2015

### Spare parts (to be ordered additionally)

- ▲ **Spot-welding tip adaptor** – allows the usage of Spot-Welding Tips with 2 different thread dimensions: 1/4-20 UNC and M6x0.5-6H.
- ▲ **Spot-welding tip** – used for spot-welding, equipped with a standard metric thread M6x0.5-6H.

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### Accessories included

Item	QTY [pcs]	Details
Spot-welding tip adaptor	1	Accommodates Spot-welding Tips with 2 different thread dimensions: 1/4-20 UNC and M6x0.5-6H
Spot-welding tip	2	M6x0.5-6H threaded Tips for spot-welding.
Pin-welding adaptors	6	Set contains adaptors for pins M3, M4, M5, M6, M10 and universal
Set of Pin-welding guiding spikes	2	For vertical positioning against the surface. 2 different lengths, each set contains 3 spikes
Grounding Clamp	1	For simple attaching the ground cable to non-magnetic surfaces
Grounding Magnet	1	For simple attaching the ground cable to magnetic surfaces
Set of tools	1	Allen key, pin adaptors fork wrench, 17mm socket (wrench)
Power cord	1	220V, EU socket
Eye Protection Goggles	1	Welding eye shielding (plastic, rimless)
Test plate	2	20x100x0,2mm, SS304 – 1.4301
Instructions Booklet	1	User Manual; this Datasheet



## SPW-01 Spot-Welding Equipment (TS900)

### Basic considerations

- ▲ Nominal and real (welding tip) energy differences are attributable to welding gun connection cables, ambient and surface conditions of the welded materials.
- ▲ Welding tip requires frequent check and sharpening (with sandpaper for example), a general rule of a thumb for a new tip is a slight sharpening every 10 welds.
- ▲ Always test your welding energy using a dummy metal plate of the same thickness and composition as your sensors.
- ▲ Recommended spot-weld tip energy for our SWS-02 or SWA-01 sensors is 200 Joules nominal, see table below or 24 Joules real (average) - measured in laboratory conditions.
- ▲ Before using the device, it is recommended that the user familiarize himself at least with the user manual, where, in addition to basic control, practical tips are also given. Of course, the best option is training from an experienced user.

### Nominal versus real weld energy cross table

Set energy – Nominal on the knob (J)	Real Energy Range (J)		
	Min.	Max.	
NORMAL	35	2,3	5,8
NORMAL	50	3,3	8,3
NORMAL max	55	3,6	9,1
TURBO	85	5,5	14,0
TURBO	120	7,8	19,8
TURBO	300	19,5	49,5
TURBO max	350	22,8	57,8

For more information contact our sales team at [sales@sylex.sk](mailto:sales@sylex.sk)

\* Specifications are subject to change without notice