

# PS-900-Solar

## Introducing Superior PV Tabbing and Bussing Soldering with lower thermal stresses on Solar Cells

The need to reduce PV manufacturing costs combined with the present shortage of polysilicon feedstock are driving a steady reduction in wafer and cell thicknesses. Soldering of wires (tabs and stringers) without causing damage, or cracks, to the cells is one step that becomes more challenging. Cells can break during the process or later crack in the modules. Process equipment such as soldering irons must adapt in order to maintain high yields with acceptable mechanical and module reliability as the industry shifts the wafer thickness below 200 microns.

The ability to solder at low, controlled temperatures (connection temperatures must be maintained below 300°C) within a short time window, also reduces the stresses on the cells and the likelihood of micro-cracking, while still producing a controlled, high quality solder joint.

OK International introduces the perfect solution: The PS-900-Solar Soldering System offering low cost of ownership, ease of use and unique SmartHeat® Technology.

SmartHeat® supplies power on demand using a calibration-free heater that reacts instantly to changing thermal loads, thus minimizing thermally induced stresses on the surface of the solar cells.

The PS-900-Solar combined with the specially designed STV-DRH440A hoof tip optimizes the power delivered to the work surface (solder joint) thus providing high performance efficiency with increased tip life.







Visit our Solar Zone to view videos and download more info: www.okinternational.com/solarzone



- A. PS-H3 Hand-piece with Cord, NO Coil Assembly
- B. PS-CA3 Coil Assembly
- C. SxV Tip
- D. PS-PW900 Power Supply
- E. WS2-NS Black Workstand
- F. PS-HC3 Hand-piece with cord and Coil Assembly

### **PS-900-Solar System**

Part No. Description

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PS-900-Solar	Incldudes: PS-PW900, PS-HC3, STV-DRH440A, WS2-NS, AC-CP2
Accessories	
PS-PW900	Power Supply, 100 to 240 VAC, 50/60 Hz, 90W Max. Input
PS-HC3	Hand-piece with cord (PS-H3) and Coil Assembly (PS-CA3)
PS-CA3	Coil Assembly, PS-900 System
PS-H3	Hand-piece with Cord, NO Coil Assembly
WS2	Auto-sleep Workstand, Black
WS2G	Auto-sleep Workstand, Green
AC-CP2	Tip Removal Pad

CONOMICAL AND AFFORDABLE SOLDERING TIPS		NEW GEOMETRIES!	
0.04°	SFV-CH10A Chisel Solder Tip 1.0mm (.04")	0.016'	SFV-CN05A Conical Solder Tip 0.4mm (.016")
0.44" 11.3mm 1.5mm	SFV-CH15A Chisel Solder Tip 1.5mm (.06")	0.04 <sup>*</sup>	SFV-CNL10A Conical Long Solder Tip 1.0mm (.04")
0.094"	SFV-CH24A Chisel Solder Tip 2.4mm (.094")	0.137' 3.47mm	SFV-DRH420A Hoof Solder Tip 3.47mm (.137")
0.2"	SFV-CH50A Chisel Solder Tip 5.0mm (.20")	0.187 4.75mm 0.52° 13.2mm	S <b>F</b> V-DRH440A Drag Solder Tip Hoof, 4.75mm (.187")
0.016" .40mm 0.61" 15.5mm	SFV-CNB04A Conical Bent Solder Tip 0.4mm (.0155")	2.4mm.095'	SFV-DRK45A Knife Solder Tip 5.0mm (.20")
DLDERING TIPS for hea	vy duty applications		
0.40 · · · · · · · · · · · · · · · · · · ·	SFV-CH10 Chisel Solder Tip 30° 1.0mm (.04")	0.04 1.0m	SFV-CNL10 Conical Long Solder Tip 1.0mm (.04")
0.06 · · · · · · · · · · · · · · · · · · ·	SFV-CH20 Chisel Solder Tip 2.0mm (.08")	0.59 ·	SFV-CNL14 Conical Long Solder Tip 1.4mm (.056")
Δ1 ·	SFV-CH25 Chisel Solder Tip 2.5mm (.10")	0.8" 14.0mm	SFV-DRH20 Conical Bevel Solder Ti 2.0mm (.08")
0.2 ·	SFV-CH50 Extra Large Chisel Solder Tip 5.0mm (.20")		SFV-DRK50 Knife Solder Tip 5.0mm (.20")
0.06 ·	SFV-CHB15 Chisel Bent 30°Solder Tip 1.5mm (.06")		SFV-CNL04 Conical Long Solder Tip 0.4mm (.016")
0.02 · · · · · · · · · · · · · · · · · · ·	SFV-CN05 Conical Solder Tip 0.5mm (.02")	$\begin{array}{c} \lim_{n \to \infty} &  \mathbf{r} + \mathbf{r}  = 1 \\ \begin{array}{c} \lim_{n \to \infty} &  \mathbf{r} - \mathbf{r}  = 1 \\ \\ \lim_{n \to \infty} &  \mathbf{r} - \mathbf{r}  = 1 \\ \\ \lim_{n \to \infty} &  \mathbf{r} - \mathbf{r}  = 1 \\ \\ \lim_{n \to \infty} &  \mathbf{r} - \mathbf{r}  = 1 \\ \end{array}$	SFV-DRK50S Drag Soldering Tip Knife 5.0mm (.20")
		- 16 cm	

The second digit denotes substrate material (damage tolerance). F= FR4 / Glass Fiber, for most standard applications. Two other series are also available, just replace F with either T or C. T = Temperature Sensitive, C = Ceramic

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Metcal: PS-900-SOLAR