SS4 Solid State Spark Source Upgrade

- ❑ Are you spending $1000 or more on consumables for your current source?
- ❑ Does your source use obsolete vacuum tube technology?
- ❑ Do you have to wait for your source to stabilize in the morning?
- ❑ Does your source use hard to find high voltage components?
- ❑ Does your source require cooling with a noisy fan?
- ❑ Does your source drift significantly during the day?
- ❑ Does your source contain “pcb” oil-filled transformers and capacitors?

If you answered **yes** to any one the above questions, you should consider upgrading to the *SS4 Solid State Spark Source* which has the following benefits:

- ✓ The SS4 has no internal consumables. Routine maintenance is simply cleaning the electrodes twice a year.
- ✓ The SS4 is completely solid state. It is ready to use within one second of turning on the power!
- ✓ The SS4 operates at 550V not 15-20kV so replacement parts are readily available at most electronics supply houses.
- ✓ The SS4 is equipped with an efficient “whisper” fan which quietly and efficiently cools the source to prevent thermal drift and reduce standardization frequency.
- ✓ All components within the SS4 are environmentally safe.
- ✓ The SS4 is truly uni-directional reducing wear on the arc stand electrode and producing a more powerful discharge which can reduce the analysis time for many matrices.

Typical Long Term Precision for Low Alloy Steel with SS4 Source

Element	Stated°	Start*	Hour 1*	Hour 2*	Hour 3*	Hour 4*	Average^
C	0.042 *0.010*	0.043 *0.001*	0.045 *0.002*	0.044 *0.002*	0.043 *0.004*	0.046 *0.003*	0.044 *0.001*
Mn	0.32 *0.01*	0.314 *0.004*	0.312 *0.002*	0.314 *0.004*	0.315 *0.006*	0.312 *0.004*	0.313 *0.001*
P	0.003 *0.001*	0.0031 *0.0004*	0.0028 *0.0001*	0.0036 *0.0004*	0.0036 *0.0004*	0.0029 *0.0005*	0.0032 *0.0004*
S	0.014 *0.002*	0.0134 *0.0004*	0.0135 *0.0005*	0.0137 *0.0002*	0.0141 *0.0004*	0.0138 *0.0005*	0.0137 *0.0003*
Si	0.010 *0.001*	0.010 *0.001*	0.010 *0.001*	0.012 *0.001*	0.010 *0.003*	0.011 *0.002*	0.011 *0.001*
Cu	0.018 *0.001*	0.016 *0.004*	0.015 *0.003*	0.016 *0.004*	0.018 *0.004*	0.019 *0.005*	0.017 *0.002*
Ni	0.017 *0.001*	0.016 *0.001*	0.016 *0.000*	0.017 *0.001*	0.017 *0.001*	0.016 *0.001*	0.016 *0.001*
Cr	0.014 *0.001*	0.014 *0.001*	0.014 *0.000*	0.015 *0.001*	0.015 *0.001*	0.015 *0.001*	0.015 *0.001*
Al	0.069 *0.002*	0.067 *0.002*	0.066 *0.001*	0.068 *0.001*	0.069 *0.001*	0.068 *0.001*	0.068 *0.001*

° Values shown as certified value and *standard error of estimate* of chemistry.
* Values shown as average of eight readings and *standard deviation*.
^ Values shown as average of each hourly reading and *standard deviation*.

The SS4 source is supplied in a 19" rack mount cabinet with extension cables to connect to your current arc stand. It is preset for a single power level for the routine analysis of either hard metals such as iron, nickel, cobalt, aluminum, zinc and copper or soft metals like lead, tin, solder and indium. The SS4+ model is a dual power level source with manual power control to allow both hard and soft metals to be analyzed. The SS4++ source is a computer-controlled version of the SS4+ designed to operate with the *WICS-MDA* electronic upgrade and software control system.

All sources come with a full one year warranty of parts and are supplied with a complete instruction and installation manuals including schematics and a troubleshooting guide conveniently supplied on a CD Rom.

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