



Constant Current & Automatic Voltage Control



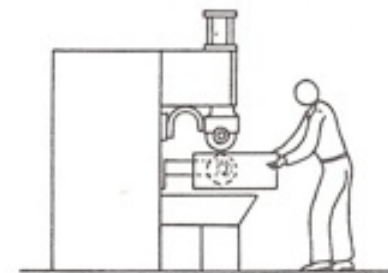
Functionality: The purpose of Constant Current is to compensate for the change in impedance induced in a spot welder as steel is pushed into the throat of the welding machine.

With many weld controls, this feature also will allow an operator to program a weld Current (amperage) into an individual weld schedule, instead of programming “percent heat”. On older or more simple weld controls, there is only control over the percent of the capability of the machine (0%-99%).

Fundamentally, spot welding is only a function of three simple variables: Current (a.k.a. “heat”), Time, and Force. On a traditional spot welder that is only programmed in “percent heat”, an operator can only know the percent of the capacity of their own machine, and can never compare that with other equipment. All specifications provided by the American Welding Society (AWS), all projects that require machinery calibration, and all available technical support is going to discuss weld Current (and not “percent heat”), as it is a common entity between all machines.

The Constant Current function “reads” the current, though either a primary or secondary coil, and uses an algorithm to compensate for variations in that current as it’s welding.

Another byproduct of this feature is that it will compensate for fluctuations in the incoming primary voltage supply to the machine (Automatic Voltage Control). Voltage in a plant can vary greatly throughout the day and many elusive welding anomalies can be attributed to these variations.



Primary Coil



Secondary Coils:

5"
8"

