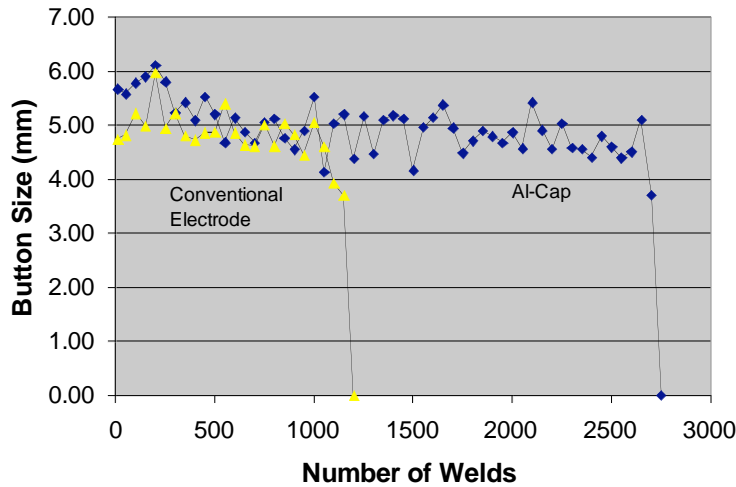




SPOT WELDING ALUMINUM SHEET

Resistance welding of aluminum sheet has presented problems for the automotive industry for some time. The drive to use aluminum to reduce weight and increase fuel efficiency has been strong but issues with poor electrode life and unreliable nugget formation have driven the cost of implementing aluminum into the automobile difficult.



The Huys Al-Cap™ coated electrode for aluminum welding has been proven to increase electrode life and improve nugget stability when used properly with current stepping techniques by three automotive OEM and numerous Tier 1 suppliers. The chart on the left following Alcoa standards shows a typical life test without current stepping of a conventional uncoated electrode compared to a Al-Cap™ electrode. Shown below are images of what the electrodes look like after the test.

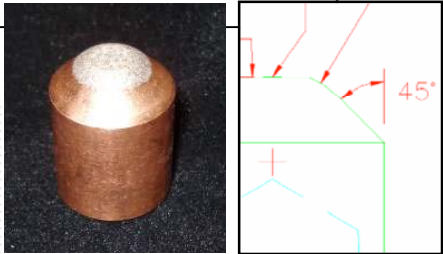
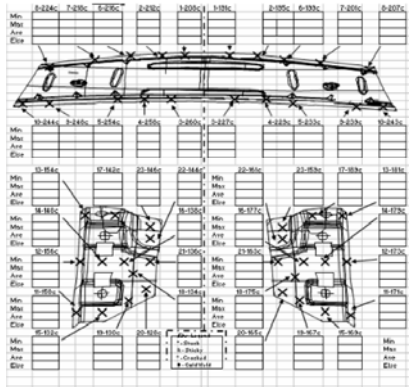
The advanced technology of the Huys Al-Cap is two-pronged: 1) a specially designed electrode geometry to maximize the current application and force distribution needed for welding the softer, more electrically and thermally conductive aluminum 2) the newest development in Huys coating technology is applied to the surface of the electrode giving the cap a hard protective cover that also assists in nugget formation.



Conventional Uncoated Electrode



Huys Al-Cap Electrode



The Al-Cap™ has been used successfully by several North American auto-makers to join hinge brackets to hood and trunk lids for more than 3 years.

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