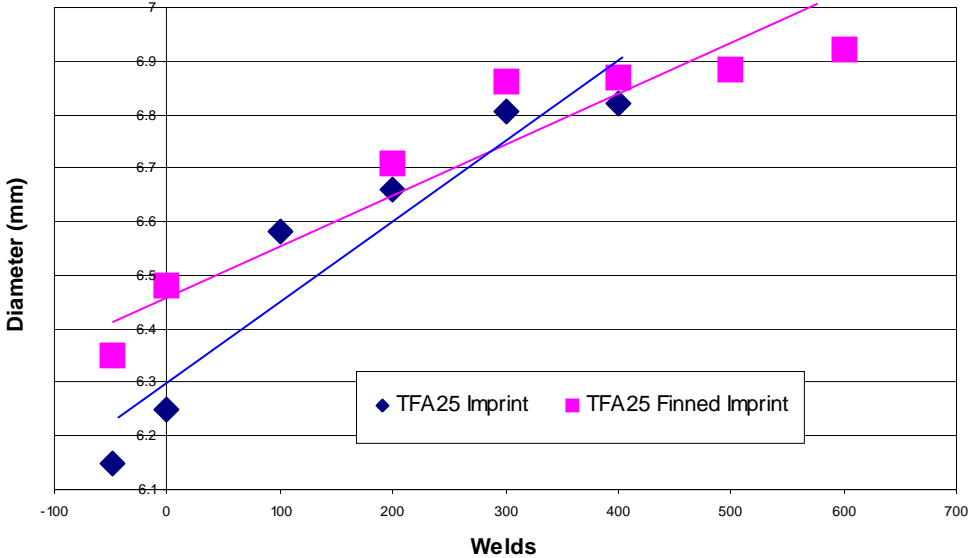




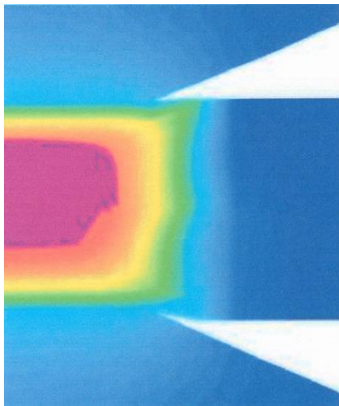
INTERNALLY FINNED ELECTRODES

High rates of welding promote rapid electrode degradation and deformation. Effective cooling is the simplest way to prolong electrode life. Huys has developed a way of increasing cooling by incorporating internal fins or channels within the weld cap that provide an additional surface area to help draw heat away from the weldface. These channels work like radiator fins, reducing the heat of the electrode more quickly and helping to maintain a consistent and predictable rate of wear. Coating the electrode with Huys' patented coatings further protects the electrode face and retards the rate of wear, thereby maximizing electrode life.

An independent third party performed these tests below using American Welding Society welding parameters and a constant current of 11 kA, a force of 445 lbf, a weld time of 11 cycles and a water flow rate of 0.8 Gpm.

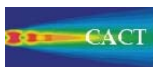


The test results at left show that a Huys finned cap will wear at a **slower** rate and last approximately **30% longer** than a regular Huys cap of the same alloy under the same welding conditions. This is achieved through the **more effective heat extraction** with the Huys channels and fins.



A high flow-rate of water, combined with a cool temperature of the water, will greatly extend the life of all types and geometries of electrodes. The heat map to the left illustrates the welding temperature (purple – molten, 1,500 degrees C) with the electrodes above and below at a cooler (light blue – 500 degrees C) and, to the right, the unheated dark blue of the metal being welded (20 degrees C). The sooner the electrodes can return to ambient temperatures, the longer they will last. **Huys' Finned caps** increase electrode weld life through increased cooling capacity and capability.

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