

Sports Medicine Evidence Matters

Research Bulletin

Performance Testing of Stryker 90-S Cruise and 90-S Accelerator RF Ablation Probes

Top-Level Summary:

The performance of the SERFAS 90-S Cruise and 90-S Accelerator RF ablation probes with Stryker CrossFire II console were tested to evaluate mass ablation rate, outflow temperature and temperature rise. **The 90-S Cruise RF Ablation Probe was found to have similar ablation rate and outflow temperature as compared to the 90-S Accelerator RF Ablation Probe.**¹

Methods:

The generator was set to maximum power (400 watts). Both the 90-S Cruise RF and the 90-S Accelerator RF ablation probes were tested in an in-vitro study. The following measurements of probe performance were evaluated:

- Mass ablation rate (mass/sec.) – a measure of probe aggressiveness – the rate at which the probe can ablate a synthetic tissue.
- Saline outflow temperature – a measurement of temperature of the saline being extracted from the joint space while the probe is being fired.
- In joint temperature rise – a measure of in joint temperature rise due to heat added to the joint over a two minute period of continuous probe activation.

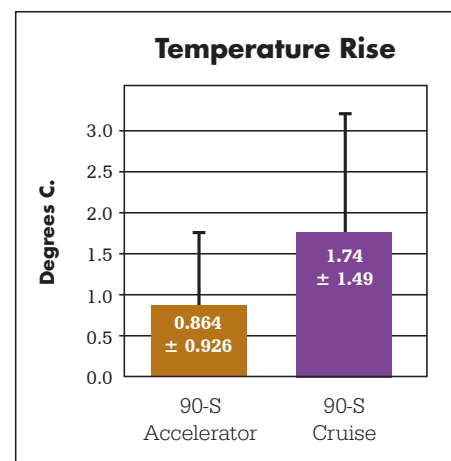
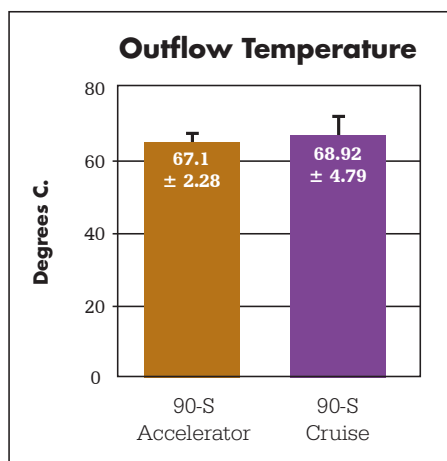
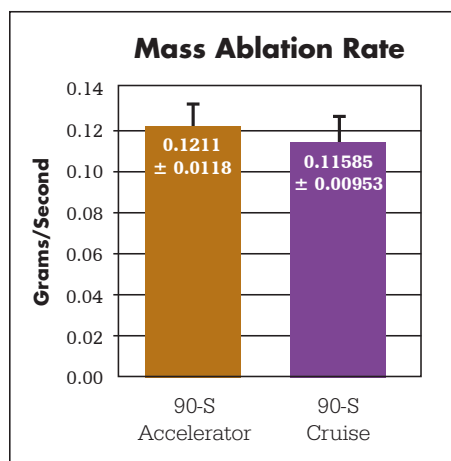


90-S Cruise RF Ablation Probe



90-S Accelerator RF Ablation Probe

Results:



Clinical Relevance:

- Both the 90-S Accelerator probe and the 90-S Cruise probe achieved equivalent levels of performance in terms of Tissue Ablation Rate and Heat Extraction from the joint space.
- The Accelerator RF probe has been shown to generate an average in-joint temperature increase of 0.9°C over 2 minutes of continuous firing. The Cruise RF probe has been shown to generate an average in joint temperature increase of 1.74°C over 2 minutes of continuous firing. This difference is not statistically significant.

References:

1. Stryker DHD13200 Rev A

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