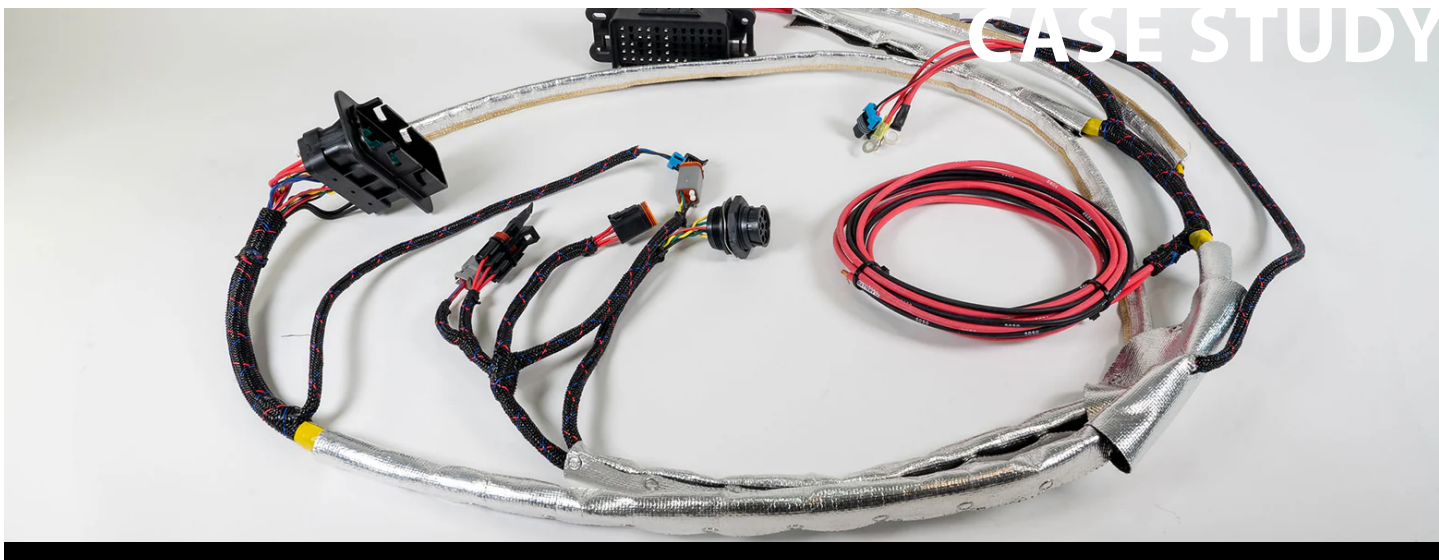




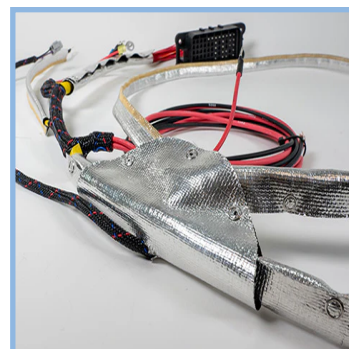
Custom Thermal Protection for Generator Harness

PROBLEM:

A company that manufactures high performance electrical generators was trying to reduce fabrication times, while not sacrificing quality on a complex, multi-headed, harness. Their current process of thermal protection involved installing large sections of heat reflective tape to the cables in certain areas. This process was very time consuming and had large variability depending on which technician was performing the steps.

REQUIREMENTS:

The improvement needed to use similar performing heat reflective materials to not sacrifice performance. The new solution would also need to be as flexible as the existing tape so as not to affect the next installation steps or cable routing. Finally, the improved product(s) would need to be easy and fast to install by any operator.



SOLUTION:

Custom Snap-Grip & ZTT

Zippertubing provided a kit of five separate heat reflective parts that would take the place of all the thermal protective tape that was currently being used. Materials were chosen that exceeded the thermal effectiveness of the tape and had an equivalent flexibility. In two sections, a custom fitted tubular piece of ZTT heat reflect was used to quickly provide a consistent amount of protection instead of tape wrapping. For three other areas of the harness, custom sections of wrap-around snap grip jacketing were used that could be installed on the existing harness without any adjustment to the ends that were already terminated with connectors.

CONCLUSION:

The production engineers with this company did time studies on the Zippertubing solution versus their current method of tape wrapping. The results were a 75% reduction in operator time to install the five pieces of Zippertubing heat reflect instead of wrapping the harness with tape. Additionally, they noted that the finished harnesses came out looking very consistent across all of the operators they had testing the installation.