ThermOmegaTech®
Electronics Division

Project Case Study

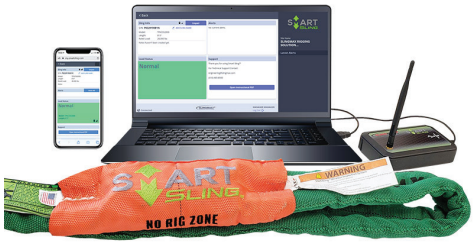
SlingMax® Rigging Solutions' Smart Sling® Technology

Aston, Pennsylvania

Background

Specializing in high-quality and quick-turn electronic manufacturing and PCB assembly, ThermOmegaTech's Electronics Division has been leading the way in electronics contract manufacturing.

With expertise in a broad range of industries including military, aerospace, power, energy conservation, and surgical medical devices, ThermOmegaTech has facilitated dozens of companies' efforts to bring new and innovative products to market.



The Opportunity

Slingmax® Rigging Solutions is a lifting and rigging technology company based just outside of Philadelphia, PA that specializes in the development of innovative products for the lifting industry in construction, power generation, and maritime applications.

Slingmax® came to ThermOmegaTech with a need for PCB assembly for their newest product, Smart Sling® Technology. The Smart Sling®, an overload sensor built into the Twin-Path® sling, the world's first high performance fiber roundsling, is designed to monitor and alert operators to potentially dangerous conditions in which a sling's integrity may be compromised due to an excessive load.

After touring the facility and seeing their state-of-the-art, automated assembly lines, 3D optical inspection systems, and other technology, SlingMax® selected ThermOmegaTech as their local PCB manufacturer for this endeavor.

The Creation

ThermOmegaTech produced two board designs for this project - a specialty board for the Smart Sling® Technology sensors and a board made for a base station, which is used to monitor up to 50 sling sensors simultaneously.

The Creation (cont.)

“Some of the components were very close together because it was a RF [radio frequency] design,” Gregory D’Elia, Director of Engineering at Slingmax® Rigging Solutions commented, citing inherent difficulties associated with producing the board.

“Our experience is in making lifting slings, [...] not in electronics, so we’ve had a lot of questions,” D’Elia continued. “ThermOmegaTech provided PCB assembly, but they’ve also been a resource for learning the electronic manufacturing process.”

The Results

When asked about their overall experience working with ThermOmegaTech, D’Elia responded positively: “it has been a good experience [...] ThermOmegaTech has been easy to work with. I would recommend them to others who are in the market for PCB assembly.”

As of October 2020, our electronics team has produced approximately 1,000 sling sensor boards and 300 base station boards thus far, some of which have already been installed, and Slingmax® plans to deploy the device in lifting applications throughout the United States.