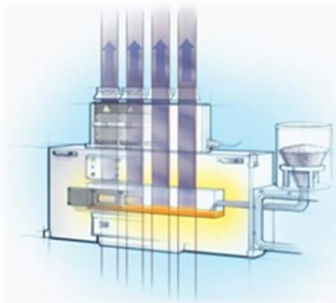


PROCESS and PRODUCT DEVELOPMENT for Mid-Sized Solar Equipment Company



CHALLENGE:

An emerging global provider of silicon equipment for the solar market had an extremely aggressive timetable to populate their production plants with equipment. They needed a reliable product design and manufacturer that could scale production of the highly complex cutting edge machines. The existing equipment design did not accommodate the necessary production speed or volume. To further add to the challenge, this current design and documentation packages were also incomplete. PEKO's diverse engineering group, coupled with our machining and assembly expertise were the perfect combination to attack this challenge head-on.

EXECUTIVE SUMMARY

Industry: ALTERNATIVE ENERGY
Company Type: MID-SIZED
Location: MASSACHUSETTS

Timeframe:

- 6-12 Month Development
- 2-3 Month Builds

Capabilities Utilizes:

- All Engineering Disciplines
- Tool Room & Electricians
- Quality Management System
- Production Manufacturing & Assembly
- Procurement
- Packaging and Logistics

Results:

- Integration of customers core science into product
- Aggressive timeline, requiring all quality at the source
- Develop second generation product

ensure delivery performance. The solar production equipment was successfully built and delivered to the customer within budget and at the promised dated. The positive results accomplishments realized in this project spurred the design of the next generation's units. Once again, the client provided the core science for this new equipment, while PEKO provided complete engineering and manufacturing for the development through pilot-build units to another extremely aggressive timeline. These units incorporated advanced processing features and more than doubled the production of the original machines.

SOLUTION:

While the product's core technical process resided with our customer's scientists, PEKO's engineering strength was the foundation of the project's success. Our team of engineers was assigned and began to determine the design gaps and manufacturing improvements required to meet this aggressive goal. With production requirements of 10 machines per week for this complex system, there was no time for debug or errors to be identified on the line. In addition to strong engineering during the initial project stages, our quality team developed intricate in-process control plans across our fleet of CNCs, and test engineers established validation testing at the source on each subassembly. The fact that all processes such as machining, welding, sheet metal fabrication, quality, and assembly were controlled in-house, with constant engineering support, made this possible. Leveraging PEKO's strong infrastructure across all disciplines of was paramount in meeting the aggressive deadline with this highly complex machinery. This initial challenge's success resulted in a PEKO-led follow-up design and build project for their next production system.

SUCCESS:

PEKO's internal systems and employees, tasked with the tight timeline, were perfectly positioned to

