



When making or losing a sale can hinge on having an inverter in stock, KACO wanted to be sure that lack of inventory would not be a barrier for their U.S. distributors. Sanmina gives KACO the U.S. manufacturing footprint, global supply chain and logistical support needed to meet cost and delivery objectives.

CASE STUDY

GERMANY-BASED KACO NEW ENERGY INC. PARTNERS WITH SANMINA TO EXPAND INTO THE U.S. MARKET WITH ITS BLUEPLANET™ INVERTER SERIES

THE CHALLENGE

Provide end-to-end manufacturing services to speed KACO's entry into the U.S. market with competitive costs and reduced delivery times. KACO's blueplanet inverter series is one of the best-selling inverters in Germany and maintaining the brand's reputation was crucial. Consequently, KACO was particularly concerned that manufacturing quality and reliability met their high standards and followed similar or better processes than their own. KACO did its own in-house manufacturing and vertical integration in Germany, using regional suppliers who were unable to meet market needs outside of Europe.

THE SOLUTION

Sanmina's reputation for responsiveness and expertise with complex electronic and mechanical products won KACO's business. Sanmina responded to KACO's challenge by establishing a dedicated core team for New Product Introduction (NPI), setting up a new, dedicated manufacturing line, performing design for assembly (DFA) analysis, designing custom tooling, creating detailed documentation, establishing a new independent global supply chain and providing logistics support in the U.S.

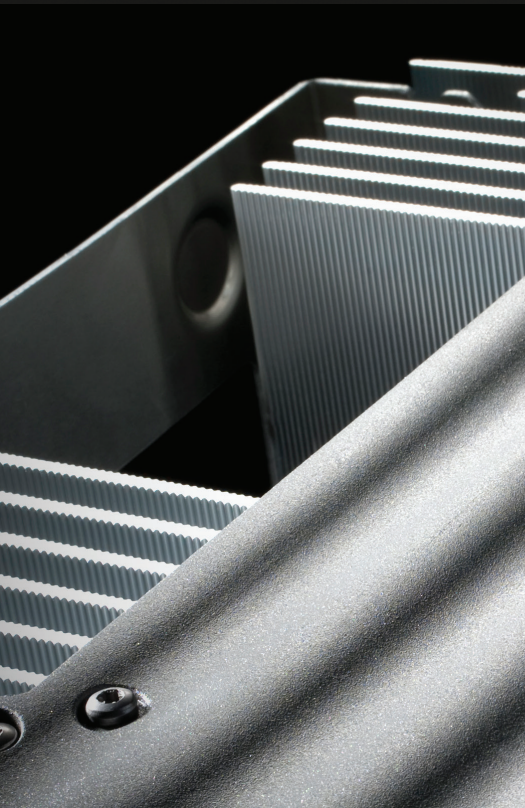
THE RESULTS

KACO's blueplanet inverter successfully entered the U.S. market at a lower total landed cost. Plus, product delivery time was reduced by six weeks.

A HIGH QUALITY FINISHED PRODUCT AT A COMPETITIVE PRICE

The blueplanet inverter program was extremely complex and required intensive, frequent, on-going communication with KACO's offices in the U.S. and Germany. Ultimately, up to seven different models were destined to be manufactured in the U.S. making the focus on the quality of the manufacturing processes, clear documentation, and a reliable, independent supply chain crucial to this program's overall success:

- Designed custom 12" die for extrusion supplier in China
- Performed DFA and produced updated product assembly drawings
- Established alternative suppliers outside of the European supply chain for materials, parts and equipment
- Performed site visits, audits and qualified all new suppliers
- Translated, created and loaded a new English-language Bill of Materials (BOM)
- Established a dedicated manufacturing line, up and running in less than a month
- Implemented custom test equipment into the US production line
- Set up real-time access to test results for KACO



GLOBAL EXPERIENCE MAKES THE CRUCIAL DIFFERENCE

Helping customers such as KACO take an existing, successful product and manufacture it in other countries is what Sanmina does every day. In the solar industry, manufacturing can be complicated due to the market's volatility and unique supply chain requirements. For instance, there are only three suppliers in the United States who extrude metal using 12" dies (there is little worldwide demand for parts this size). Sanmina, with supply chain resources all over the world, qualified a supplier in China and provided it with the 12" die Sanmina custom designed and fabricated for KACO.

VINCE LUCIA, VICE PRESIDENT, OPERATIONS, KACO NEW ENERGY INC.

"Sanmina is a highly focused, organized and expert manufacturing partner. They know how to get the manufacturing process moving and to keep it moving forward so we meet our goals. I knew from day one they were the right choice."

OUR ABILITY TO DELIVER

The blueplanet 02xi series inverter is another example of Sanmina's ability to deliver global, value added solutions to some of the most complex and innovative electronic and mechanical products in the world.

DESIGN AND JDM LEADERSHIP

- Cost reduction engineering
- NPI gateway strategy
- Design collaboration — Contract Design Manufacturing (CDM) and Joint Design Manufacturing (JDM) models for all market sectors

SOLAR PRODUCTS

- Complete electronic and mechanical design
- Design of power systems
- Indoor and outdoor power system enclosure manufacturing
- "Balance of System" mechanical design
- Manufacturing residential, commercial and utility-scaled products
- North American, European and Asian manufacturing footprint

MANUFACTURING LEADERSHIP

- DFx (Design for Manufacturability, Assembly, Reliability) and VAVE (Value Analysis / Value Engineering)
- Complete, global, end-to-end manufacturing solutions from design to logistics
- Advanced global supply chain management
- Post-manufacturing solutions

CUSTOMER KNOWLEDGE

- Technology leadership in the EMS industry
- Focus on dedicated end markets
- Passion for our customers
- Flexible and proactive

ABOUT SANMINA

Sanmina makes some of the most complex and innovative optical, electronic and mechanical products in the world. Recognized as a technology leader, Sanmina provides end-to-end design, manufacturing and logistics solutions, delivering superior quality and support to Original Equipment Manufacturers (OEMs) primarily in the communications networks, computing and storage, medical, defense and aerospace, industrial and semiconductor, multimedia, automotive and clean technology sectors.

More information regarding the company is available at <http://www.sanmina.com>.

