PLM Speeds Development to Transform Solar Power Tracker Technology
AB<br>OUT THE COMPANY

NEXTracker, a Flex Company, is one of the fastest-growing cleantech companies in solar today. NEXTracker leads on technology development of next-generation solar power plants with smart solar trackers, energy storage solutions, and TrueCapture™ advanced control software that yields additional energy, optimizes performance, and reduces costs for project and plant owners. NEXTracker is globally recognized for delivering intelligent and connected energy systems for over a thousand solar power plants worldwide. Its breakthrough technologies enable plant owners to harvest the sun more efficiently, at lower costs, and with more flexibility.

BUSINESS CHALLENGES

As the number one solar tracker supplier worldwide, NEXTracker has doubled its global manufacturing capacity to 300 megawatts per week to serve expanding customer demand. Rapid growth, coupled with the need to collaborate with a global team, meant NEXTracker needed to modify its product development practices. The company did not have a single source to track and manage its engineering design and development processes. Product information was tracked manually in workbooks, spreadsheets, and personal file folders, requiring too much reliance on tribal knowledge. With normal employee turnover, process and design information would be lost. “We had to be able to iterate quickly on designs, track changes, and link related product information to scale and speed marketability,” stated Ratana Lee, NPI Archivist for NEXTracker.

THE SOLUTION

NEXTracker was searching for a better way to manage product information with distributed teams, enable automated approvals, and provide better tracking and accountability. In addition, the company needed the ability to integrate to its design and enterprise resource planning (ERP) systems. Arena’s cloud-based product lifecycle management (PLM) solution checked all the boxes. It made internal and external team collaboration simple while providing seamless integration.

Lee was hired to drive adoption of PLM. “Using Arena’s cloud-based PLM system to centralize product information and automate design and development processes has accelerated innovation,” said Lee.
Facing harsh weather conditions and climate change, NEXTracker must rapidly design and develop highly durable products that can perform well over a 30-year life span. Reliability, performance, and uptime (availability) are paramount in the design and development of these products. “Arena PLM enables us to instantly access product documents, part fixes, changes, replacement parts, and product design history anytime. We can respond immediately during development, or after our products reach customers, to deliver and maintain high-quality solar tracker products around the world,” said Lee. “We have daily changes and updates driven by our engineering and quality teams. We continually add new suppliers to improve our ability to source and release high-quality products fast.”

NEXTracker has been able to automatically push the necessary product information to Oracle® NetSuite immediately upon release to support the sales, purchase order (PO), and manufacturing processes. Information flows from their engineering design systems, SOLIDWORKS® and OrCAD®, into Arena to minimize wasted cycle times and improve accuracy of information.

NEXTracker’s contract manufacturing (CM) partners are scattered throughout the U.S. and India. “Our CMs can go into Arena PLM and securely access the exact information they need. Arena enables us to synchronize product information in ERP, so our teams in India can service customers in their region and the U.S. location can service customers in their region,” noted Lee. “We always get positive feedback from our suppliers on the ability to check drawings, revisions, compare against POs or sales orders, and start work without delay.”

With Arena’s PLM platform, NEXTracker is taking advantage of the quality management capabilities to create quality records connected to the underlying product record. By processing first article inspections and form, fit, and function (FFF) information in Arena Quality, NEXTracker’s team can link parts that need to be tested. NEXTracker uses the quality system to create and process nonconforming material reports (NCRs) and corrective action reports (CARs).

NEXTracker developed a mobile app that is connected to Arena to help field service teams that have limited web connectivity and are impacted by harsher conditions. This speeds the collection of field service information and the creation of NCRs—giving the quality team earlier visibility.

**KEY BENEFITS**

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With Arena, NEXTracker realizes these strategic benefits:

- **Accelerated product launches**
  - Real-time access for global partners eliminates time-zone delays, translating to 25% faster launches
  - Centralized product record helps double the number of CM partners to speed production
  - Review and approval times are cut by nearly 60%

- **Improved accuracy**
  - Product and quality information are managed together in a single system
  - Automated passing of information between CAD and ERP eliminates data entry errors
  - Outdated email communication for sharing drawings and product information can be eliminated