



CUSTOMER STORY

Power Generation Company

Inventory Optimization Powers Spare Parts Planning

Challenges

This power company's spare parts service team was faced with an increasingly competitive market and changing business environment. Their order-based production system wasn't meeting their customer service and inventory efficiency needs. Their most pressing issue was to avoid late deliveries to clients in the face of high demand variability and unpredictable emergencies.

Industry

- Industrial - Aftermarket Parts

Solution

- Demand Forecasting & Planning
- Inventory Optimization
- Replenishment

Results

- Dramatically improved service levels to more than 97%
- Reduced direct and indirect costs from late deliveries
- Reduced warehouse costs

Company Overview

This company is a leading international player in the power generation industry with turnkey power plants and power equipment like gas and steam turbines, generators and microturbines. It is active as a full service provider with a broad portfolio of heavy duty gas turbines. It offers complete maintenance solutions on power generation rotating equipment and plants, built both by itself or by other OEMs.

Project & Objectives

The spare parts service team was faced with a changing business environment. In an increasingly competitive market, their order-based production system wasn't meeting their customer service and inventory efficiency needs.

While inventory holding costs were certainly a consideration, their most pressing issue was to avoid late delivery to clients. Relationships with customers were increasingly governed by long-term performance-driven service agreements, even with penalties. And they were faced with high demand variability and unpredictable emergencies.



The company dramatically improved service levels from 72% to more than 97% while maintaining the same amount of total inventory."

The company switched from an order-based spare parts system to an inventory-driven system. The new approach allowed them to offer more complete and timely service to their clients. They could also plan and forecast parts requirements better and anticipate demand trends.

However, transitioning from "supply to order" to "supply from stock" required a new approach to managing spares inventory.

Day to Day

The company implemented ToolsGroup's SO99+ inventory optimization software system for predicting demand and optimizing stock levels. Integrated with its SAP management system, this advanced planning suite automatically calculates the optimized inventory levels required to reach desired service levels while minimizing stock holding costs. It analyzes demand variability and exploits the unique demand characteristics of each SKU to optimize spare parts replenishment. While employing an automated scientific approach, it still allows manual addition of commercial and technical intelligence.

SO99+ integrates cleanly with the SAP platform and complements it by providing optimized inventory levels to achieve segmented service level targets. It extracts historical demand and logistical parameters from SAP, performs a wide variety of analytics, and then returns procurement proposals to SAP. While the process is highly automatic, it is overseen by demand planners and other key users.

The inventory optimization system has also become an integral part of the company's Sales and Operations Planning (S&OP) process.

Results & Benefits

Optimizing inventory generated a broad array of benefits. Increased parts availability dramatically improved service levels from 72% to more than 97%. This significant service improvement was achieved while maintaining approximately the same amount of total inventory.

Other benefits included:

- Reduced direct (e.g., expediting) and indirect costs from late deliveries
- Reduced warehouse costs and improved processes
- Improved capacity to negotiate with clients and suppliers
- Optimized management of long-term service agreements
- Improved competitiveness of the service business unit relative to its competitors, which has helped the company increase market share.