

Case Study | Connected Enterprise IT

RIGHT TIME, RIGHT DECISION THROUGH REAL-TIME VISIBILITY INTO THE VALUE CHAIN

THE CUSTOMER WORKED WITH TATA TECHNOLOGIES TO CUSTOM BUILD A MANUFACTURING EXECUTION SYSTEMS (MES) APPLICATION TO IMPROVE END-TO-END VISIBILITY FOR REAL-TIME DECISION MAKING.

THE CHALLENGE

The client sought a solution provider to streamline operations at two assembly plants. Project goals were to:

- Develop system-driven LEAN manufacturing processes.
- Tightly integrate MES and enterprise resource planning (ERP) with third party logistics software.
- Reduce time spent in meetings by providing a single source of truth.
- Improve visibility on the production floor.
- Improve quality, process adherence and production planning.
- Record the genealogy of each compressor.
- Synchronize operations across the value chain through a single system.

THE COMPANY

Serving customers in more than 180 countries, the client is a market leader in manufacturing compressors, vacuum solutions, air treatment systems, construction and mining equipment, power tools and assembly systems.



THE SOLUTION

In just nine months, a team of six engineers delivered:

- A custom-built application that serves as an end-to-end MES solution, interfacing and integrating with ERP, a shop floor control system, super market, third party logistics and finished goods yard.
- A fully deployed system across two flexible assembly plants for made-to-order products.
- A solution that interfaces with multiple programmable logic controllers (PLCs), barcode printers and scanners.
- A system with functionality that includes order management, kitting, pick list generation, just-in-time

(JIT)/just in sequence (JIS), electronic kanban, and on system, genealogy, traceability, torque and test data logging, and digital work instructions.

- A solution that utilizes the following technologies: Microsoft® ASP.NET MES platform; Siemens S7-300 + WinCC® SCADA PLCs; shop floor equipment including Dell™ thin clients, operator pendants and barcode scanners; Factory Magix reporting portal; and Microsoft SQL Server® 2012 database.
- A system that provides real-time updates via reports, dashboards and email.

THE RESULT

95%

Reduction in work-in-process inventory (72 hours down to 4)



30% improvement in production planning



10% improvement in productivity



Reduced meeting time and total cost of ownership



100% improvement in visibility

ABOUT US

Tata Technologies is a global engineering and product development IT services company that is focused on fulfilling its mission of helping the world drive, fly, build and farm by enabling manufacturing companies across the automotive, aerospace and industrial heavy machinery verticals realize better products and drive efficiencies in their businesses. There are two components to our value proposition – managing and delivering outsourced engineering services and products for our manufacturing clients, and helping them identify and deploy technologies that are used to conceptualize, design, validate, build, test, benchmark and realize better products. For more information, visit www.tatatechnologies.com.