

SAP Case Study



SAP FOR INDUSTRIAL MACHINERY & COMPONENTS AT RTI INTERNATIONAL METALS, INC.

THE BEST-RUN BUSINESSES RUN SAP



AT A GLANCE

SAP® software enabled RTI to meet its strategic vision of real-time customer support and a lower-cost, more accurate inventory management system.

Key Findings

- Return on investment (ROI) – 131%
- Inventory savings – \$20 million
- Inventory turns improvement at Canton, Ohio, plant – 1.5 to 7
- Finished-goods inventory savings at Houston subsidiary – \$1.3 million

GARTNER CONSULTING FINDS SIGNIFICANT IMPROVEMENT AT U.S. METAL MANUFACTURING GIANT

COMPANY BACKGROUND

RTI International Metals Inc. (RTI) – through its two main business segments subsidiaries – manufactures and distributes titanium and specialty metal products. It also develops engineered systems and provides environmental engineering services for energy-related markets. The company's products and services are found in aerospace, industrial, military, and consumer applications.

In 2002, the company generated more than \$270 million in sales mainly through two business segments: the Titanium Group (anchored by the RMI Titanium Company) and the Fabrication

“We are doing the same thing we have always done, but SAP has enabled us to do so much better!”

**Timothy G. Rupert, President and Chief Executive Officer,
RTI International Metals, Inc.**

& Distribution Group (anchored by RTI Fabrication). These two units employ some 1,100 people at various locations in the United States and Europe.

The Titanium Group is focused on the manufacture of titanium mill products – alloy plate, alloy sheet, and welded pipe and tubing, as well as “commercially pure” titanium strip, coil, and plate. Domestic and international manufacturers of commercial and military aircraft and jet engines are the major users of these products. The Fabrication & Distribution Group focuses on the manufacture of titanium and specialty metals, extruded shapes, and engineered systems, most of which find their way into the aerospace supply chain.

A THOROUGH STUDY

Recently, SAP commissioned Gartner Consulting to conduct an unbiased, third-party assessment of the ROI that resulted from RTI implementing an investment in an SAP® business solution. The objectives were to examine a forward-thinking organization where business units have demonstrated thought leadership and the implementation of an SAP solution has had a positive impact on business processes and financial results.

Results of this study are based on Gartner's Total Value of Opportunity (TVO) methodology. Results were developed independently by Gartner Consulting and RTI. Results were approved by RTI's financial office. Results should not be deemed as an industry average and may vary from published Gartner research.

Gartner's standard TVO methodology includes what it believes to be "best practices" – applied methodologies for each of the value questions. These components of TVO allow for a complete view of an IT-enabled business initiative, from the capability inherent in the solution – based on a technology perspective – to the ability of an organization to convert that capability into true business value. In addition, the TVO components build a "trail of evidence" that links the IT capabilities to the resulting projected financial model, which makes the business metrics visible and resulting business operations involved in unlocking value.

A NEEDED OVERHAUL

RTI has long had a reputation as a progressive company and had an outsourced IT system – an idea that was ahead of its time. However, by 1998, that arrangement had outlasted its usefulness and was no longer adequately supporting the business. Realizing that something had to be done, the company decided to bring the system in-house – but wanted to do so without increasing costs.



Thanks to an excellent pre-implementation process RTI had in place, the company knew that its old systems were not cost-effective or flexible. Two applications were not year 2000 compliant (a great concern at the time), changes were increasingly difficult to make, mainframe support costs were relatively high, and shop floor data collection equipment was obsolete. In addition, it was proving more and more problematic to meet production system and customer service improvement goals with the then-current mainframe applications. Many processes and systems were in need of an upgrade. RTI's goals were:

- Improved delivery performance
- Lower levels of inventory
- Shorter product cycle times
- Clearer product costing
- More integrated use of data throughout the company
- Improved accuracy, availability, and visibility of information

To meet these challenges, RTI selected SAP for Industrial Machinery & Components, a solution portfolio that combines industry-specific functionality with the power of SAP's integrated business suite of applications. These capabilities were put in place using a phased approach, beginning with the core ERP functionality, followed with business-to-business (B2B) procurement capability and Business Information Warehouse (SAP BW).

"We wanted an integrated package with more than 5% market share, and the manufacturing and quality departments selected SAP over the competition," says Troy Cook, RTI's director of business information systems. "We felt that the SAP solution had the credibility and critical mass in the marketplace to maintain the package in the long run, as well as the help to support our strategic goal of manufacturing excellence."

The ERP implementation was completed in 1999, with the B2B procurement capability and SAP BW coming along in 2000 and 2002, respectively. Services for the ERP phase were provided by

"We have saved millions of dollars in operations."

Richard Vandegrift, Vice President, RTI International Metals, Inc.

Solutions Consulting (now a component of Perot Systems), but during this effort, SAP consultants were used as subcontractors. "We were fortunate to have Solutions Consulting as our implementation partner," says Cook. "Their people understood our business and helped us complete the project on schedule and within budget."

Today, RTI is pursuing a high-level strategy to maintain manufacturing excellence and improve its ability to service customers. It's a strategy that focuses on three key areas: inventory control, production planning, and financial close. SAP software is a key enabler in all three.

INVENTORY CONTROL

Prior to the implementation of the new SAP system, neither of RTI's two most important business units – the Titanium Group and the Fabrication & Distributions Group – had much visibility into inventory levels or forecasting. In both of these areas, the SAP implementation has meant significant improvement. Not only that, but the RTI management team has detailed dramatic cost savings in a time when it was badly needed. "We have saved millions of dollars in operations," says Richard Vandegrift, an RTI vice president, "specifically in inventory reduction, better costing of processes and operations supplies, cutting of overages, monthly maintenance costs, stores inventory, and machine parts. We estimate we had a savings of \$20 million in the first two years after the SAP implementation."

The SAP solution has given RTI improved oversight into its entire inventory picture and boosted responsibility and accountability along the way. From having to rely on end-of-month inventory reports, RTI can now get by-line-item views from raw materials to finished goods. Prior to the SAP implementation, the search for a misplaced item could involve checking the entire manufacturing pipeline. Now, managers can follow a chain of ownership, and with great accuracy pinpoint the location of anything that's been misplaced or misrouted.

Accountability is also important in the accounting and work-in-progress documentation departments. Unlike the former situation, the environment now enables employees along the documentation value chain to locate paperwork bottlenecks, and in some cases, to use the SAP system to actually improve the specific business process that caused the problem.

The Titanium Group reports a 30% reduction in inventory in one product line and a reduction in work-in-process (WIP) inventory by 17%. Inventory turnover has increased from 1.5 turns to 7 turns per annum at the group's Canton, Ohio, plant. "SAP has enabled us to strategically manage reduction in inventory," says Steven Giangordano, a senior vice president at RTI.

PRODUCTION PLANNING

RTI has a complex manufacturing process and production planning at the company is also beginning to reap benefits from the SAP implementation. SAP's planning tools have helped manage product flow as well as constraints. It has also increased customer satisfaction, as customers can now view the status of each order

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Michael Wellham, Senior Vice President, Fabrication & Distribution Group, RTI International Metals Inc.

and monitor its progress all along the way. Previously, this was dependent on a manual process that took one full business day to respond to a customer's order status query.

At the Fabrication & Distribution Group, the benefits derived from the SAP implementation have been no less impressive. The group now has better visibility into inventory levels and has improved cross-selling opportunities. And there is now a way to more accurately view when material ordered from the Titanium Group will be shipped – boosting customer satisfaction. In fact, the Titanium Group can respond to an order status request from the Fabrication & Distribution Group in 35 minutes – down from a previous response time of one whole day.

“SAP contributed to a \$5 million savings through reduction in inventory at the Fabrication and Distribution Group in the first year alone,” says Michael Wellham, senior vice president, Fabrication & Distribution Group, “and has reduced WIP inventory at our subsidiary in Houston from \$3.3 million to \$2 million.”

FINANCIAL CLOSE

The existence of a legacy system and having to make manual journal entries contributed to a long financial close – up to eight business days – at RTI. The introduction of the SAP system reduced the closing time at RTI by 13% – one entire day.

RTI also needed to obtain and consolidate financial data from groups across the enterprise to get a clearer picture of its business. While forecasting accuracy has now improved considerably, the next step – to SAP Advanced Planning & Optimization (SAP APO) – will offer complete visibility and enable overall global capacity planning.



RTI's ability to roll up plans and forecasts has improved dramatically. This has increased the time financial analysts can spend on analyzing data rather than merely consolidating it, turning them into strategic contributors to the bottom line.

More importantly, the SAP architecture and functionality provide a greater sense of security that the company is in compliance with the strictures of the Sarbanes-Oxley Act. "You are building controls when you put in SAP – all that needs to be done now is to document them," says Lawrence W. Jacobs, RTI vice president and chief financial officer.

"Transparency has improved with accurate forecasts, and our CEO has real visibility into the business," Cook adds.

RETURN ON INVESTMENT

In its attempt to determine ROI, Gartner isolated the net present value of cost-reducing and revenue-enhancing benefits introduced by the top three business process improvements that were made possible by the implementation of software and services from SAP for Industrial Machinery & Components, then divided that figure by the current value of the total investment. Although additional benefits are certainly being derived from other business processes, the study team could not isolate any of these benefits with the same level of confidence it did the three isolated for this study.

For the purposes of this study, the time frame examined was a 10-year useful life period. Although there are industry discrepancies regarding anticipated useful life periods (due to the nature of enterprise software and the customers' expectations), Gartner determined that 10 years would be the most useful period to calculate ROI.

The investment estimate includes all costs involved in licensing, deploying, and maintaining SAP for Industrial Machinery & Components software and services, although this estimate did not include any indirect, soft, or overhead costs. In most cases, indirect and soft costs are either negligible or difficult to quantify; overhead costs would be consistent regardless of which SAP strategy was implemented.

Overall, the ROI calculations represent extremely positive and realistic numbers. While the consultants made every reasonable effort to discover as many financial benefits associated with the implementation of the SAP solution as possible, to identify each and every one of them was not a realistic goal. Taking that caveat into consideration, the ROI estimate made here should thus be considered conservative.

CONCLUSIONS

The implementation of software and services from SAP for Industrial Machinery & Components enabled RTI to better meet its strategic vision of real-time customer support; it also supported improvement initiatives that management had identified prior to the selection of SAP.

“The decision to implement SAP forced us to rethink many business processes,” says Timothy G. Rupert, RTI president and chief executive officer. “We learned a lot of things we did not know or we disproved things we thought we knew. It brought problem areas to our attention and helped improve visibility and control. The process of going through the improvements increased the discipline and repeatability of what we do in the operating department. Even the naysayers admit that we would not have accomplished what we did without SAP.”

SAP for Industrial Machinery & Components allowed RTI to lower costs by increasing inventory turns and reducing inventory levels. It also helped increase customer satisfaction by giving the customer an accurate view of the status of an order. It also reduced the time for financial close by 13%, thus helping RTI streamline its business processes and reduce operational costs in a very competitive industry.

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