



TOP TO BOTTOM



END TO END

## SKH Metals switches to two-hour just-in-time manufacturing with SAP ERP applications and IBM DB2

### Overview

#### ■ The Challenge

*In the intensely competitive auto components marketplace, manufacturer SKH Metals wanted to shift from the old style of supplier relationship towards a just-in-time partnership with the customers it supplies. To do so, SKH Metals needed to gain an end-to-end view of its sales order, manufacturing, stock control and logistics chain. Existing systems were not capable of supporting this strategy, and SKH Metals needed to switch to an integrated ERP solution to allow the company to take the next steps in its business evolution.*

#### ■ The Solution

*Selected SAP ERP applications, including financials, controlling, materials management, sales and distribution, production planning, warehouse management, quality management, materials requirements planning, based on IBM DB2 information management.*

#### ■ The Benefits

*All SKH Metals locations operate as a single enterprise, capturing sales*

*orders automatically, optimizing manufacturing, and meeting just-in-time requirements from customers. Newly available data managed by IBM DB2 will open up future opportunities to implement business intelligence solutions. Finished goods stock position has been reduced from four to two hours, with a tightly integrated manufacturing chain that meets customers' just-in-time schedules. Cash formerly tied up in inventory has been released back to the business for re-investment in new projects. Quality control and process improvements have reduced waste and defects from 200-300 ppm to 100 ppm.*

#### ■ Key Solution Components

*Industry: Automotive  
Applications: SAP ERP including financials, controlling, materials management, sales and distribution, production planning, warehouse management, quality management, materials requirements planning  
Hardware: HP blade servers  
Software: IBM DB2 9.1 for Linux, Unix and Windows*

SKH Metals in New Delhi, India, part of a \$400 million manufacturing group, specializes in metal forming for the auto industry. With sales of INR 6 billion (approximately \$135 million), SKH Metals has found a highly successful niche, and is growing at some 30 percent annually.

The three principal manufacturing locations supply auto-makers throughout India. Holding sufficient stock to ensure 100 percent fulfillment of orders was an expensive operation, requiring very large warehouses, detailed stock management and a complex logistics operation. In addition, inventory ties up capital, which SKH Metals would prefer to use to invest in new business opportunities.

SKH Metals wanted to switch from the old-style of supplying from stock to the modern just-in-time methodology, becoming a true partner with its auto customers. This transformation would release capital for re-investment, and would help to drive down operational costs and wastage by ensuring that all manufacturing would be destined for specific customer orders.

*“We feel that the close integration between SAP applications and DB2 offers easier management, which reduces our administration workload and cost.”*

Sunita Bahadur  
Head of IT  
SKH Metals

Ultimately, SKH Metals wished to capture sales order data automatically, convert this information into optimized manufacturing orders and plan the logistics and delivery to meet just-in-time requirements. With connected systems from customer through to manufacturing, and subsequently back once more through logistics to customer acceptance, SKH Metals would tie itself more closely to its clients, cut operational costs through more efficient working, and optimize its processes with deeper understanding of demand, sales and delivery.

#### **Pressing consolidation issues**

SKH Metals was running a number of separate legacy applications, with little or no integration between, for example, manufacturing and logistics, and no connection between its sites. Without a set of shared master data, the largest single problem was consolidating the inventory position, which in turn meant that SKH Metals struggled to provide a consolidated balance sheet.

The SKH Metals team spoke with both its customers and similar auto component suppliers to identify the leading ERP solutions, and invited the three principal vendors to propose solutions. Working with the Delhi offices of systems integration partner Bristlecone Consulting, SKH Metals selected a comprehensive suite of SAP ERP applications.

Sunita Bahadur, Head of IT at SKH Metals, comments, “SAP ERP applications provide SKH Metals with a complete, integrated solution for the end-to-end manufacturing and logistics supply chain. Looking at the auto industry in India and globally, the SAP applications offered the best fit for SKH Metals, giving us the single view of operations that we wanted.”

SKH Metals replaced its multiple legacy systems with a single central instance of the SAP ERP applications, running on HP blade servers. Some 120 concurrent users access the applications from manufacturing and office locations, connected using virtual private network (VPN) technology over high-bandwidth leased lines. The solution offers sub-second response times between the Pune and three New Delhi sites.

“The entire company now relies on one manufacturing, inventory and logistics solution,” says Sunita Bahadur. “The former difficulties reconciling master data between separate systems have simply disappeared.”

Working with Bristlecone Consulting, SKH Metals has deployed SAP ERP applications including financials, controlling, materials management,



sales and distribution, production planning, materials requirements planning, warehouse management and quality management.

Daily dispatch information and sales orders, formerly entered manually into local systems, are now captured directly from customers' extranet solutions, and imported to the SAP applications as confirmed production requests. The production planning application automatically allocates and schedules manufacturing processes, based on the embedded timing requests from the customer purchase orders. The SAP applications simultaneously examine the stocks of raw materials and finished goods, and generate materials requirements and purchase orders for suppliers.

"The SAP applications enable SKH Metals to move to a just-in-time environment, where we treat the factories as part of the customer premises, pulling freshly manufactured components through to delivery as part of a continuous process," says Sunita Bahadur.

### **Steering towards integrated operations**

When considering the move to an integrated ERP solution, a key decision factor was the ability to manage enterprise data. SKH Metals wanted to migrate existing data sets from legacy systems to a stable and secure central database that would not only serve the SAP applications but also provide business intelligence services.

In particular, SKH wanted to be able to analyze customer order patterns, defect and return rates, and

manufacturing performance through the SAP applications. These activities would place additional workload on the selected solution and at 30 percent annual growth, SKH wanted to select a scalable, reliable and high-performance database.

"SKH Metals selected IBM DB2 for its SAP applications as the best fit with our business needs," says Sunita Bahadur. "We feel that the close integration between SAP applications and DB2 offers easier management, which reduces our administration workload and cost. Further, DB2 offers excellent scalability and reliability, essential features for a fast-growth company like SKH Metals. With all the locations accessing the single central instance, a system outage would have immediate effects, and we rely on the stability and performance of DB2 to deliver reliable service across the enterprise.

"Additionally, the DB2 license fees for SAP applications were considerably lower than the alternative offerings, an important factor in the highly competitive auto components market where there is a relentless drive to reduce costs."

The data that DB2 manages for SKH Metals covers every aspect of the manufacturing process, sale orders, financial information and quality control.

"We now have data visibility across the entire enterprise," comments Sunita Bahadur. "Stock levels are available at the touch of a button, providing instant data that formerly might have taken a couple of weeks to provide. Management can

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### **SOLUTION LANDSCAPE**

**Software:** IBM DB2 version 9.1, SAP ERP components including financials, controlling, materials management, sales and distribution, production planning, warehouse management, quality management, materials requirements planning

**Users:** 120 concurrent SAP users

understand business performance by examining every step in the process, from work in progress through finished goods to customer payment.

“With this clarity, we can see where we are making mistakes, including product faults, wastage and complaint handling, and take action to improve performance.

“We now carry no more than two hours’ stock, so it is essential to ensure that all the processes link up correctly to be able to achieve the necessary delivery schedules. The combination of SAP applications and IBM DB2 enables us to meet and beat all our service level objectives, and they contribute directly to achieving SKH Metals’ business ambitions for continued growth.”

#### **Driving towards the destination**

With the finished stock positions cut to two hours, cash formerly tied up in inventory has been released back to the business for re-investment in new projects. Quality control and process improvements have reduced waste and defects from 200-300 ppm to 100 ppm and order fulfillment rates have increased.

Sunita Bahadur says, “SKH Metals captures sales order data, and completes the optimized manufacture and delivery processes automatically using connected systems that provide higher quality products at lower production costs. The quality of data captured by SAP applications, available in DB2, mean that there is a wealth of potential business intelligence that could be exploited.

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Sunita Bahadur  
Head of IT  
SKH Metals

Based on our successes with SAP and IBM, SKH Metals will invest in additional technology to help accelerate our business process improvement still further, and enable our Indian and international growth strategy.”



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