

Leading steel producer
reduces complexity and
optimises production
planning, supply, and
productivity

CUSTOMER
**Mukand Sumi Special Steel Limited
(MSSSL)**

LOCATION
India

INDUSTRY
Manufacturing



Challenge

- Manual production planning processes were slow and error-prone
- Offline production planning with additional dissemination/ communication around the organisation meant no real-time shopfloor information
- No inventory identification for each bundle/coil and heat number hampered stock movement and tracking
- Sales order status for in-house production and sub-contracting units was challenging to track or obtain



Solution

- SAP S/4 HANA offers a single source of truth across steel production with optimised demand management, inventory accuracy, order tracking and fulfilment
- DXC's consulting-led implementation services leveraged in-depth steel sector best practice approaches from past DXC engagements combined with SAP's best practices



Results

- 150+ users from production planning, sales, accounting, procurement, and quality have complete visibility into production with increased efficiency at a reduced cost
- Accurate production quantities and demand requirements aligned with manufacturing capacity with order fulfilment increased by 20%
- Physical inventory accuracy increased up to 99%
- Planning and execution productivity improved by 30%



Leading steel producer reduces complexity and optimises production planning, supply, and productivity

Mukand Sumi Special Steel Limited (MSSSL) is one of India's leading manufacturers of specialty steel products. With over 400 grades and specifications, the company offers a vast range of steel products in various sizes and supply conditions.

With a steel-making and rolling capacity of 500,000 metric tonnes per year set to grow and production planning and strategy inputs contributed from across the group, it became imperative for MSSSL to transform its production processes to remain competitive.

Products are primarily used in the automotive and engineering industries to manufacture transmission parts, engine components, steering components, bearings, high-tensile fasteners, fuel injection systems, braking systems, and suspension parts.

Business challenge

With a steel-making and rolling capacity of 500,000 metric tonnes per year set to grow and production planning and strategy inputs contributed from across the group, it became imperative for MSSSL to transform its production processes to remain competitive.

Significant production challenges facing the company included:

- Manual production planning processes, which were slow and error-prone
- An offline production plan with additional dissemination and

communication resulting in no real-time shopfloor information

- Lack of proper inventory identification of each bundle/coil and heat number, which hampered stock movement and tracking
- Inability to track sales order status for both in-house production and sub-contracting units
- With the frequently changing raw material prices, no visibility of actual order profitability to negotiate price revisions with customers

It was essential that MSSSL fulfil demand better, adjust and enhance production to maximise supply and margins, understand and optimise energy consumption, and identify the best operational strategies to improve productivity.

In addition, communication between the plant team and sales and marketing personnel directly connecting with customers was poor.



“With MSSSL’s remote plant located 350km from Bangalore and 150km from the closest airport, it was a challenge, but DXC was able to bring together an expert team that was close by and able to travel to work onsite.”

— **Abubakkar,**
Senior Manager IT, Mukand Sumi Special Steel Limited

Sales teams needed access to better information to provide correct forecasts and ensure accurate quoting, communication, and order fulfilment for optimum customer experience and ongoing customer satisfaction and success.

Improving production processes was seen as critical since the business also planned a greenfield expansion to double steel-making capacity.

Solution

With MSSSL’s parent company, the Mukand Group, already using and recommending SAP S/4 HANA, it was the obvious choice. MSSSL chose DXC Technology to implement SAP S/4 HANA following a recommendation from one of Mukand Group’s other subsidiaries. After an initial evaluation, DXC was selected based on its comprehensive SAP experience and unique understanding of the steel industry.

DXC recommended a scalable architecture that was flexible to cater to future business needs and addressed the following key objectives:

- Eliminate manual processes as a key to creating a future technology roadmap
- Improve planning efficiency, inventory and product identification for better planning across various units, right down to the steel grade
- Improve dispatch efficiency, which had become critical due to continuous inputs from different own-manufacturing and sub-contracted units

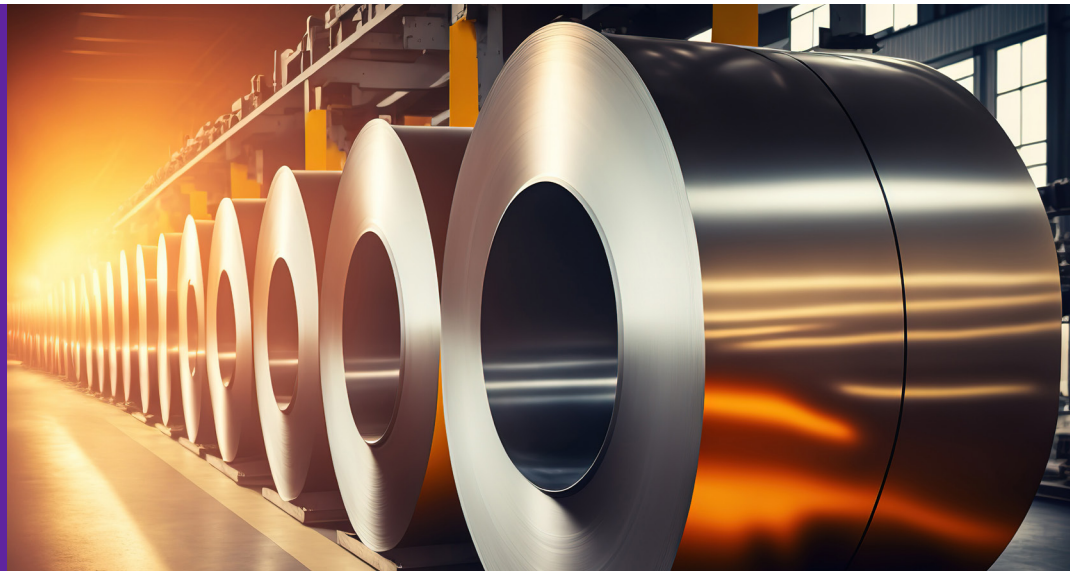
- Improve productivity with a highly engaged and educated workforce that makes better use of technology to optimise the business

Implementation

During a consulting-led engagement, DXC leveraged its expertise and best practice approaches from similar past engagements in the steel sector and SAP’s best practice success in S4/HANA to build a custom solution that addressed MSSSL’s business challenges.

Several S4/HANA modules were implemented with DXC team members’ Basis and ABAP skills ensuring integration with previously deployed solutions for Sales and Distribution, Finance and Materials Management. The functionality provided covers:

- **Production planning** to plan and schedule production with a real-time eye on capacity constraints, improved spotting and predicting of bottlenecks, and the ability to fine-tune plans and pivot quickly.
- **Quality management** with end-to-end visibility across all manufacturing operations - including external/ sub-contracted suppliers, and the power to quickly identify and act on concerns and risks.
- **Plant maintenance** with key activities covering inspection, notifications, corrective and preventive maintenance, repairs, and other measures to maintain an ideal technical system.
- **Cost controlling and CO-PA** (profitability analysis) to establish planned (budgeted) cost of goods



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manufactured, record actual costs, and cost of goods sold to analyse variances. CO-PA enables further profitability analysis allowing the evaluation of market segments, which can be classified according to products, customers, orders, or strategic business units, such as customer, product grade, and product size for margin.

- **Sales and distribution** to improve customer- and product-related data management for improved sales ordering, shipping, billing, and invoicing.

Abubakkar, Senior Manager IT, MSSSL said, "With MSSSL's remote plant located 350km from Bangalore and 150km from the closest airport, it was a challenge, but DXC was able to bring together an expert team that was close by and able to travel to work onsite."

Results and benefits

Following a successful go-live, MSSSL now has a single source of truth across the entire steel production process with optimised demand management and

improved inventory accuracy, order tracking and fulfilment. 150+ users from production planning, sales, accounting, procurement, and quality use the automated system with complete visibility into production and significantly increased efficiency at a reduced cost. Specific results include:

- 20% increase in order fulfilment
- 99% physical inventory accuracy
- 30% increase in planning and execution productivity

The end-to-end planning, execution and dispatch process is now managed in SAP S/4 HANA with accurate production quantities and demand requirements aligned with manufacturing capacity. Features of the new solution include:

- **Product classifications** using the complete product attribute set. This has eliminated redundant codes, with the decision matrix defining when to create new codes.
- **The ability to combine demand** from multiple sales orders, optimally flagging and allocating available raw materials amongst multiple demands.



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- **Integration with the Rolling Mill MES system** to capture real-time production data in SAP, avoiding incorrect identification of heat of rolled piece and calculating accurate production time for calculation of actual cost.
- **Provision of Unique Identification (UNID)** via a Handling Unit (HU) solution across multiple stages of production to identify each bundle or coil uniquely for correct customer dispatch. In addition, an RF tag linked to the HU is proposed to track the movement of each unique stock identity to avoid mishandling and enable faster searching of specific customer pieces in the stockyard.
- **Single customer sales orders** for visibility across multiple manufacturing facilities and sales depots, linking production planning and stock transfer planning between plant to plant, plant to depot, and dispatch planning. The cockpit optimises planning and scheduling with a graphical/visual view that users easily understand.

Whereas it was challenging previously to locate the right stock to dispatch, that's no longer the case with the unique identification of each finished product. Automating inventory traceability of every finished product will also have a positive long-term impact on customer service.

With MSSSL aiming to double its steel-making capacity in the short term, this crucial technological transformation will help align business strategy and support new production goals.

Mr O P Singh, COO, Projects and Operations for MSSSL said, "DXC Technology is a true technology partner for MSSSL in our business growth journey with their customer-focused inputs. The team is prompt in resolving issues and has directly helped our users improve their business productivity. We value DXC as a partner, offering high-quality technology services, and we look forward to working with the team to optimise our business further."



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COO, Projects and
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The future

While DXC hadn't previously worked with MSSSL, it has become its trusted technology advisor. Following the successful go-live of this project, another contract was awarded for DXC to provide system support for three years for the entire Mukand Group and prepare a roadmap for broader digital transformation. This includes advanced

production planning and detailed scheduling, RPA, and analytics, which will drive the next level of optimisation and growth.

MSSSL also plans to offer improved customer self-service through a portal, further enhancing customer experience and satisfaction.

Learn more at
dxc.com/manufacturing

Get the insights that matter.
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About DXC Technology

DXC Technology (NYSE: DXC) helps global companies run their mission-critical systems and operations while modernizing IT, optimizing data architectures, and ensuring security and scalability across public, private and hybrid clouds. The world's largest companies and public sector organizations trust DXC to deploy services to drive new levels of performance, competitiveness, and customer experience across their IT estates. Learn more about how we deliver excellence for our customers and colleagues at [DXC.com](https://dxc.com).