

Collaborative Production Management A new level of operational excellence with ABB's Manufacturing Execution Solution

A new level of operational excellence

Achieving competitive advantages

As a key component of a Collaborative Production Management (CPM) strategy, a Manufacturing Execution System (MES) provides the key elements to obtain competitive advantage in any manufacturing business today. It enables higher plant efficiency and productivity as well as greater flexibility throughout the production processes.

Key benefits include:

- Greater visibility and control of activities, materials and resources
- Reduced lead time and manufacturing costs
- Increased production throughput and product quality
- Improved labor utilization, reduced inventory levels, higher quality and increased gross margins concurrently
- Reduced efforts involved in regulatory compliance
- Improved agility and speed for new product introduction and responsiveness for changes in customer or market demand.
- Provide environmental efficiencies by lowering energy utilization through process improvements.
- Lower manufacturing costs and improve efficiencies by optimizing the manufacturing process.

Evolution of manufacturing systems

Manufacturing systems started with the development of independent software solutions and point to point connections designed to solve specific problems. Linking the business system and the automation and production layer was often treated as an afterthought. By the early 2000's the need for cost effective ways to interconnect the manufacturing and business environments led to the emergence and acceptance of standards like ISA-95/IEC/ISO 62264. Today ABB is leading the way with its collaborative production management suite, enabling seamless interoperability between manufacturing and enterprise systems.

Collaborative Production Management

ABB's Collaborative Production Management (CPM) solutions integrate all manufacturing systems, providing the real-time visibility, dispatching, execution, tracking, reporting, and optimizing of manufacturing processes.

This results in decreased costs through improved production scheduling, execution and management, and increased revenues through improved customer service and product quality, improving profitability and shareholder value.

Functionality addressing the needs of your industry

ABB's manufacturing execution solution offers a wide range of sophisticated functionality that addresses the needs of your industry:

- Seamless integration between your business and production systems.
- Effective, flexible and reliable production order management and execution improving throughput while minimizing inventories..
- Quality management functionality reducing defects and inefficiencies.
- Electronic work instructions bringing consistency to manual operations.
- Downtime management, improving plant performance and productivity.
- Material management enabling full transparency and track and trace capabilities.
- Warehouse management improving inventory turns.
- Production performance reporting enabling real time operations visibility and plant performance analysis.





Integration and collaboration at its best

Interoperability

The application of collaborative manufacturing principles to the management of manufacturing processes requires the capability to integrate multiple systems and applications. The interoperability and seamless integration within the business and manufacturing environment, making any information from any system available anywhere, represents a key benefit of ABB's manufacturing systems.

Scalability

ABB recognizes that every customer has different needs and requirements. To cater for this, a flexible, extensible and productized solution is required to minimize lifecycle costs and total cost of ownership.

Whether you are looking for a very lean MES system with only basic functionality at low incremental costs or a large multi site full manufacturing solution, ABB has the solution and expertise to support you.

Technology

By continuously developing innovative technologies and evolving existing ones, ABB provides our customers with products and services that help make them more competitive while minimizing environmental impact.

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ABB's manufacturing execution solution is a highly scalable and modular solution that encompasses key MES functionality. It provides out-of-the-box, easy to configure modules to address specific standard industry related topics.

ABB also understands the need to model and adapt the solution to your specific business needs in order to achieve real competitive advantages for your company – now and in the future.

ROI and TCO

MES is a key investment that plays an important role in any major manufacturing initiative. As with any investment, it must be justified by a business case and ROI calculation.

ABB understands the importance of delivering solutions with effective ROI (Return On Investment) and low TCO (Total Cost of Ownership). We are dedicated to supporting your journey to achieving or improving operational excellence.

Expertise

ABB has a long history in manufacturing operations management and takes a structured and efficient approach to rolling-out systems in single or multi site locations.

As a leading automation and manufacturing supplier we have extensive domain knowledge in process, discrete and hybrid industries.

Our experienced project managers are trained to manage complex projects, understand customer needs and requirements and ensure on-time, on-budget deliveries. Highly skilled technical lead engineers are responsible for the functional requirements, deployment, start up, training and documentation of your solution. ABB's extensive maintenance and life-cycle support secure that your investment is protected.







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