

Production Planning, Control and Transparency

Manufacturing Management Software MMS



35 Years of Intelligent Automation: Perfecting Quality, **Delivery Time and Cost**

"Workdays can be hectic with interruptions and sudden changes that require attention"

This is a daily challenge for production managers all over the world. From missing tools and urgent orders to unexpected machine stops and incorrect NC program revisions, there are always daily variables that detract from productive work, causing problems with quality, delivery times and costs. Customer satisfaction, 8,760 annual productive hours and profitability can drop by as much as a half if these variables are not being managed.

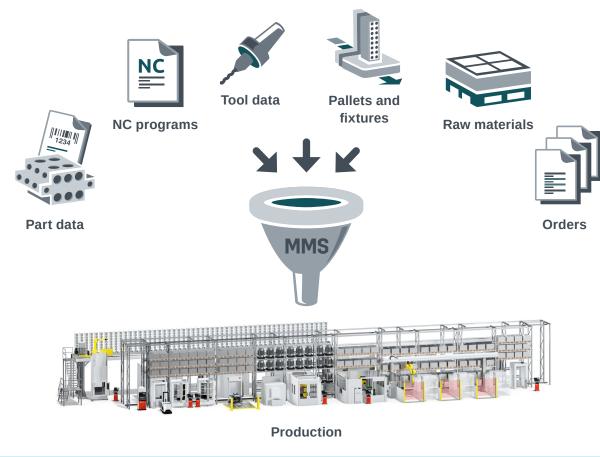
How to readjust production and become competitive

Manufacturing Management Software (MMS) is Fastems' answer to these concerns, enabling manufacturers to readjust their production continuously without wasting time with manual re-adjustments. Furthermore, MMS reduces the manual, repetitive work of inputting production data by controlling production machinery and data systems from a single source. Since its launch in 1982, MMS has continuously been developed for the changing needs of thousands of manufacturers. From small subcontracting companies to large aerospace enterprises, MMS allows manufacturers to lead their markets by perfecting quality, delivery times and costs.

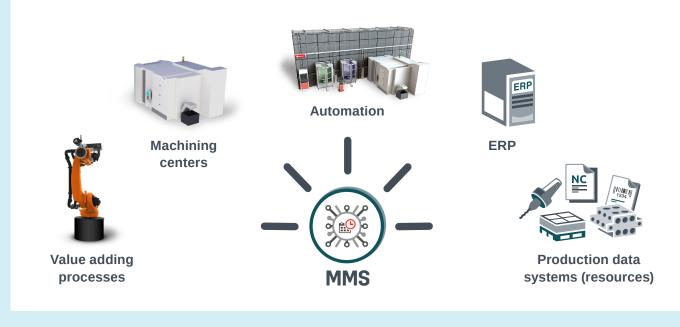


MMS Manages Resources

MMS takes care of all the resources you need for automated manufacturing. Once you input the workpiece, fixture, NC programs, tooling and material information, MMS shares it with your machine tools based on current orders, and maintains all the information in one place.



MMS Integrates Your Production



MMS for Any Type of Production

MMS for Work Cell Operations

- · Scheduling for stand-alone machines and other manufacturing operations such as inspection and quality
- Seamless real-time manufacturing process control and visibility over stand-alone and automated manufacturing operations
- · Batch production and setup change scheduling
- Seamless production flow over automated and non-automated work cells



MMS for Pallet Handling

- · Production control software for palletbased automation solutions (FMS)
- Detailed production scheduling for the entire system
- Adaptive production simulation based on real-time data up to 96 hours ahead
- Seamless real-time manufacturing process control and visibility over the whole production
- Extendable with integrated tool automation



MMS Navigator **Factory-Wide**

Scheduling, Control and Visibility

MMS for Part Handling

- Batch production and setup scheduling for lathes and milling machines
- · Coordinate-based material management with configurable matrices
- Top-of-the-line production control fo advanced part handling solutions
- Ideal control software for high-mix production



What is MMS?

MMS is the industry's most advanced production planning and execution **software.** MMS is always one step ahead by automatically calculating the optimized production workflow and necessary resources based on orders. MMS adapts automatically to changes in the daily production schedule and displays information to maintain the production output.





How MMS Streamlines Your Production

Helping You Succeed

SAVE TIME ON

Manual planning

- Automatic production planning and scheduling
- Automatic orders from ERP to production

Chasing down resources

 Automatic resource checks for raw materials and cutting tools

Repetitive work

- Previously manual operations automated
- Free time for more productive tasks

Unnecessary stops and slowdowns

• Centralized data gathering, processing and action for the whole manufacturing process

DELIGHT CUSTOMERS

Just-in-time production

- Order prioritizing based on your deadlines
- Follow order completion dates 6 months ahead

Adapt to changes automatically

- Automatic re-scheduling of production based on real-time data
- Warnings of missing resources, capacity overloads and other problems

Produce any batch size efficiently

• From a batch of two to a batch of 200, the production is equally efficient

METERS TO THE MAXIMUM

Measuring what is important

- Visibility of your production in real time
- OEE, machine utilization and availability, spindle hours, throughput, lead times – all at a glance

Manufacture 24 hours per day

- Utilize machine capacity also during lunch breaks and at night with unmanned production
- Configurable dashboard*

*Create your own dashboard views to serve your production

MMS downloads the order from your ERP or you can input it manually.

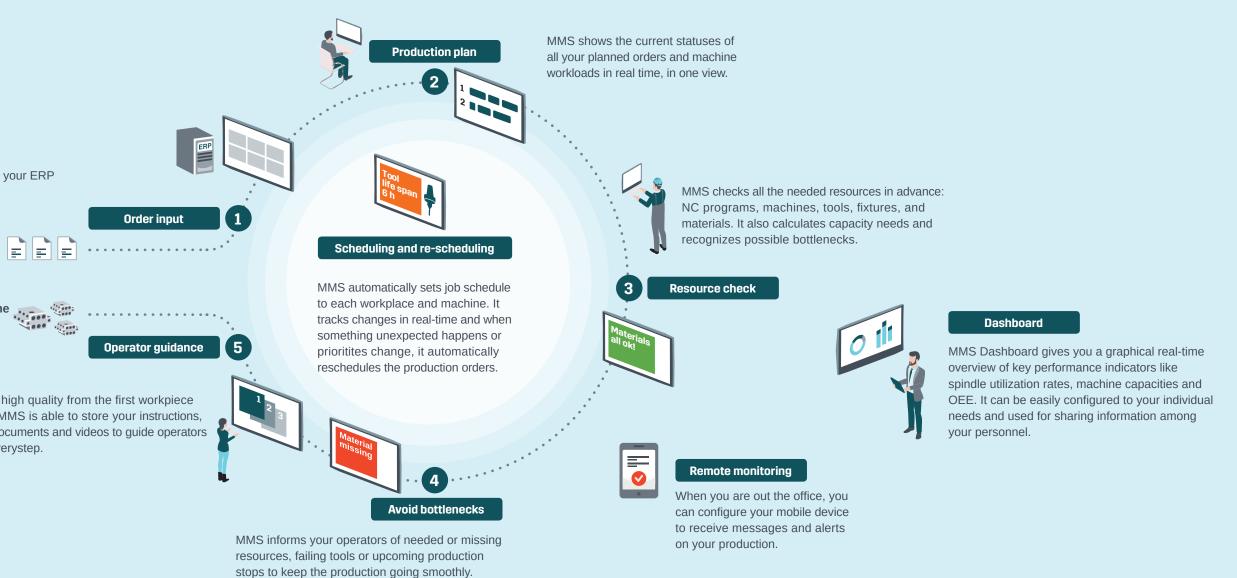


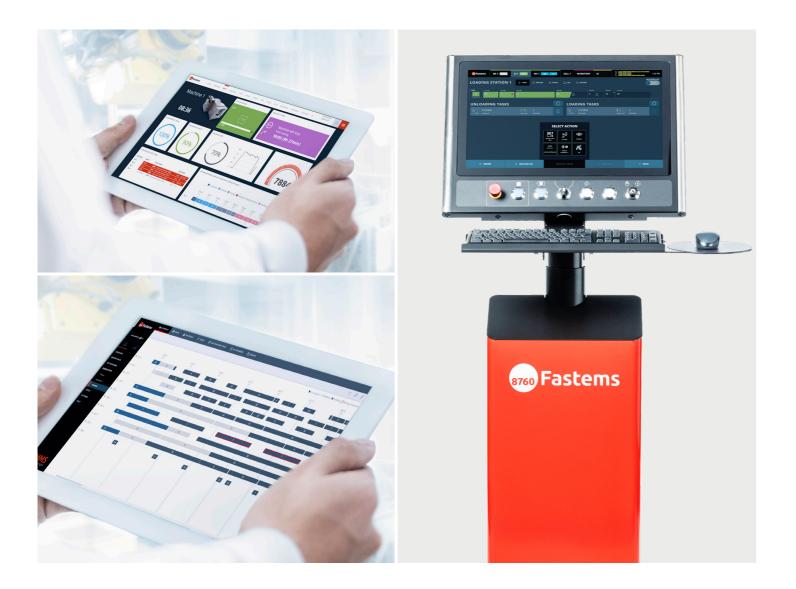
Incoming orders



Just-in-time deliveries

To ensure high quality from the first workpiece onwards, MMS is able to store your instructions, pictures, documents and videos to guide operators through everystep.





Easy to use for everyone

Software this comprehensive must be easy to learn and easy to use. That is why MMS has been designed with three different user interfaces that provide exactly the right information and the best possible user experience for each user group.

Production data transparency from shop floor to top floor: MMS Dashboard

- · Follow the KPIs of your choice at a glance in a fully configurable dashboard view
- Monitor your production and its performance in real time from 3D overview or machine status view
- See current resource shortages and other issues requiring immediate attention

For production managers: MMS Data Manager

- Manage your production master data such as production orders, parts, NC programs, tools and fixtures in one place
- · See and manage your production schedule and order completion dates up to six months ahead
- · See the realized utilization and availability reports for all the connected machines and devices

For production operators: MMS Station Commander

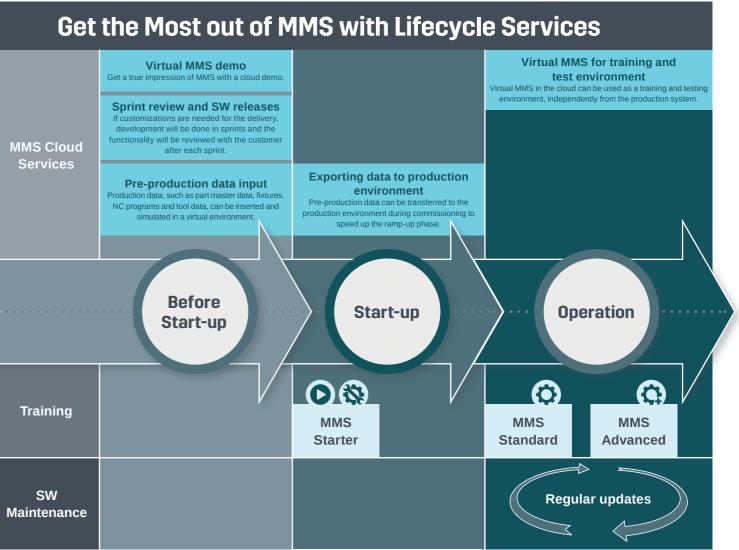
- · User interface for daily manufacturing operations, like loading and unloading tasks
- See the current statuses of the production machinery
- · Easy access to documents and instructions

Keep Your Performance at Maximum Level with **Software Updates**

The continuous development of MMS regularly brings new features, improvements and fixes. Software is an essential part of the modern manufacturing environment and needs to be maintained. When software technology and architecture are up-to-date, changes in the manufacturing IT and environment are easier to implement. With our software maintenance service you can rest assured that your system is maintained and up-to-date. All updates are mutually agreed upon and taken care of by Fastems.

Connectivity and support

Our Technical support team is at your service 24/7 to ensure that every one of the 8,760 hours of the year are as productive as possible. Our track record shows that in over 90% of cases we are able to recover the system and bring it back into operation remotely in less than 3 hours. Fastems' connectivity solution guarantees guick response times for technical support. Moreover, the connectivity solution is equipped with the latest network security technology to ensure the safety of your production system and data. Finally, Fastems' connectivity solution enables online production data gathering from multiple sources, so your performance meters are available anywhere.



We are Fastems. We are here for you.

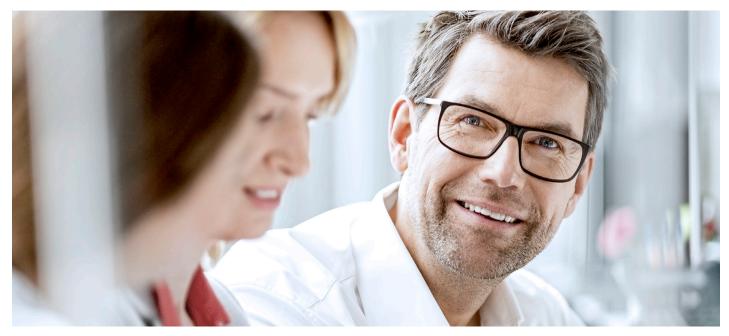
"At Fastems, we believe that building and maintaining a strong manufacturing base is essential for the development of our society and the well-being of the people."

That is why we do everything in our power to increase the competitive advantage of our customers and to make their production facilities as efficient, profitable and forward-thinking as possible – through intelligent digitization and process automation.

- Decades of industry experience and more than 4,000 successfully installed systems worldwide
- Systems that optimize your time cycles, reduce costs and improve the usability of your existing machinery

- Systems that have been developed with the health and safety of your personnel in mind
- 24/7 support to ensure maximum productivity during all 8,760 hours of the year

We look forward to helping you determine the potential of your manufacturing processes and to finding a solution that is right for you!



Subject to technical changes



www.fastems.com/mms