e-factory
The intelligent MES for injection moulding
Plan production efficiently and check data in real time: with ENGEL e-factory. This modular software package provides you insights into and an overview of your production process. You can, for example, very easily create production plans on the PC at any time or find out about the production status or progress from your desk. Use the system to manage part data sets to optimise set-up times or to fulfill documentation requirements to your customer.

What to expect ...

- transparent production processes
- optimal resource allocation and timeliness
- consistent party quality
- documented quality
- Time- and performance-based maintenance
- Reduction of power costs
- criteria basis at the push of a button

The flexible modules from ENGEL e-factory provide you with an individual Manufacturing Execution System (MES). All data is loaded onto the server by an injection moulding machine* via a data interface and evaluated or processed. You can, for example, take a glance at the running production from time to time from your desk and assess the machine’s capacity, productivity and susceptibility to failure. Transparency that make it possible for you to solve complex tasks very easily in the manufacturing process.

ENGEL e-factory provides ...

- **Monitor** – production status at glance
- **Planner** – intelligent, detailed order planning
- **Data** – start production quickly with appropriate data settings
- **Chart & Quality** – complete documentation of process and quality data
- **Maintenance** – planning and documentation of maintenance
- **Energy** – monitor and control power usage
- **Analyzer & Reports** – key indicators of production and individual analyses

![Diagram showing various components of ENGEL e-factory](attachment:diagram.png)
ENGEL e-factory
dergent modules adapted for your production

ENGEL e-factory Monitor
transparent production

With ENGEL e-factory Monitor, all important operating figures about the running sequence or production shift is available at the click of a button. You therefore always have status information such as production progress, reason for standstill or pending machine alarm in view and can quickly react to deviations from the plan. You can achieve your production and cost targets much more easily with these custom features:

- **Status Recorder** detailed graphic record of the production status or machine condition
- **min/max monitoring** to monitor all process values
- **alert package by email** for min/max monitoring and machine alerts
- **online ENGEL screen display** actual screen page in real time on the PC
- **Production Monitor** production status on a large screen on the production floor

*You will find the IT infrastructure requirements in the current specifications. Please contact us: sales.e-factory@engel.at
ENGEL e-factory Chart
documented quality

ENGEL e-factory Chart makes it possible for you to completely record all process data for statistical evaluation. You can therefore optimize the quality of your manufacturing process and also fulfill the documentation requirements of your customers:

- min/max monitoring of all process values
- alert package by email for min/max monitoring and machine alerts

Based on the integrated inspection plans, e-factory Quality always provides you with on-time information regarding upcoming quality controls. With the recording of inspection results, the completed quality inspections can be verified by certificate at any time.

- component characteristics inspection based on an inspection plan
- individual configuration of inspection types
- interactive inspection guide
- documented inspection results with the press of a button

Touch Terminal
Even better overview and quicker intervention. With this touch application for Windows tablet, touch screen or PC, you can:

- visualise the current status of production machine conditions, key indicators, cycle times and progress monitoring
- quickly and actively control production start, split and finish orders
- track downtimes and scrap quantities for machines without an input option

ENGEL e-factory Planner
intelligent planning

The ENGEL e-factory Planner multi-level planning grid allows you to plan production precisely. You can check all resources, such as machines, moulds and personnel make optimal plans based on the order arrangement, production deadlines and the desired number of items. The respective orders are also either adapted from the first-class ERP system or can, as required, also be entered directly.

- graphic planning board for multi-level order overview
- resource & capacity planning for machines, personnel and moulds
- multiple component order for efficient planning of multiple moulds
- ERP interface for quick implementation of all relevant order and reference data

ENGEL e-factory Data
premium set-up

ENGEL e-factory Data guarantees you better data security, consistent quality and quick set-up. The centrally managed part data sets are transferred online to the machine with this system. The integrated display screen provides you with an overview of and control over the machine settings.

- set value modification log is a complete record of the changes to the machine settings
- partial data sets are a tabular display for simple comparison
- offline ENGEL display screen shows a representation of the part data on the original ENGEL machine screen pages

ENGEL e-factory Maintenance
Control of maintenance intervals

Maintenance makes sure that your machines’ service is always up to date. This contributes significantly to their availability and productivity.

- individual configuration of maintenance tasks
- maintenance plans with various maintenance tasks
- documentation of repairs and maintenance tasks
- Integration of instructional videos and documentation
ENGEL e-factory Energy
Energy-efficient production

Collect your energy KPIs and the power usage of individual machines, groups, or entire production floors, and document these according to ISO 50001. The intelligent prevention of power usage peaks helps you to save costs.

- analysis of power usage data as a basis for EMAS certification – supports CIP according to ISO 50001
- reduction of energy costs through prevention of usage peaks with intelligent energy hall management

ENGEL e-factory Reports & Analyzer
relevant facts & central overview

Always remain up to date and make sound decisions at any given time. The representative collection of reports and statistics can be customised using the report editor.

- optimal overview of KPIs
- time- and shift-based KPIs
- resource-based analyses
- cross-production real-time analysis in the Analyzer web application
- conclusive analyses as a basis for decisions

Mobile

This application allows for the focused and optimised display of all essential information on your mobile devices, for example:

- overview of the current production status
- list of selected production and process data
- Status Recorder with a detailed downtime overview
Your ENGEL e-factory advantages

more transparency
- data always available on the PC or mobile
- perfect planning security
- ideal process control system

optimised production
- assured quality
- increased productivity
- less downtime

flexible modules
- configure programs individually
- for all ENGEL injection moulding machines
- for machines from other manufacturers

The desire of Geberit Produktions GmbH & Co. KG in Lower Austria was quicker set-up, more transparency and an overview of all manufacturing processes. "The central management of ENGEL e-factory part data sets alone has resulted in higher productivity levels within a very short period of time," explains Mr Höchtl, process engineer at Geberit. "We have also increased the machine availability and significantly reduced the risk of rejection."

Michael Höchtl, Geberit