



Manz Services

From The Idea Through Prototype Development to Implementation of Customized Production Solution and After-Sales Support

Manz AG – Your Reliable Partner and Innovation Pioneer

Manz AG has been setting standards with its efficient machines and systems for years in growth markets. The claim "engineering tomorrow's production" underscores our aspirations as an innovation driver in numerous industries and technologies.

Our promise

In a challenging and highly dynamic market environment, it is essential to stay one step ahead. That's why we are constantly evolving as a company and supporting our customers in successfully opening new areas of growth.

With our pioneering ideas, we help key technologies achieve breakthroughs and pave the way for innovative products in fast-growing markets of the future

Our brand promise "engineering tomorrow's production" sums up our strengths: As a high-tech machine manufactuirer, we are designing tomorrow's production solutions together with our customers today. In this way the basis for a future worth living.

Innovative, reliable, and future-oriented

How do our customers' groundbreaking ideas become successful products? A perfect prototype and an idea with great potential do not guarantee success. Therefore, you can benefit from our distinct pioneering spirit, our many years of experience and our enormous process know-how for efficient production.

We see ourselves as a development and sparring partner for our customers. In addition to our core business – the development of innovative processes and production solutions - we offer our customers numerous services.



Manz AG

- Established in 1987
- Headquarters in Reutlingen, Germany
- Other branches in Slovakia, Hungary, Italy, China, Taiwan, the US and India
- Approx. 1,500 employees worldwide, including around 500 engineers

Key technologies

- Automation
- Laser processing
- Inspection systems
- Wet chemistry
- Digital printing

Industries

- Automotive & e-mobility
- Battery production
- Electronics
- Energy
- Medical technology

Manz: Innovative Concepts, Customized Solutions, and Comprehensive Services

Manz AG supports its customers right from the initial development and design steps, through prototype and process development, to numerous after-sales services.



- Total Fab Solutions: Planning, simulation, and realization of fully automated manufacturing processes
- Development: Process and prototype development including process data evaluation and product development process
- Digital Services: Production data recording and evaluating of all production process steps
- After-Sales Services: Hotline & remote services, trainings, and maintenance services

Our services and support

Manz's service doesn't just begin with the delivery of the equipment or its operation in production. We support our customers from the very beginning – in the planning and design of processes and entire production systems – and provide them with numerous services throughout the entire production process, including classic after-sales services such as maintenance and a hotline for all customer concerns.

We optimize, support and think digitally

Whether our customers need a new solution approach, want to develop a manufacturing process or optimize an existing one: We support our customers in operating efficient and fully integrated production lines. Our many years of implementation experience have shown us one thing:

The basis for an efficient production line is always a holistic perspective.

That is why we have developed Total Fab Solutions, a complete range for the planning and construction of automated production lines from a single source.

Digitalization plays an important role so that these production lines run transparently and at a high level of quality standard.

With our smartPRODUCTIONKIT (sPK), production data can be recorded and analyzed across all production process steps. This allows you to monitor your production perfectly and always optimally.

For Manz Service, the customer relationship does not end with the delivery of the machine. We accompany our customers throughout the entire product life cycle. Together we ensure that the customer's machine works efficiently and reliably.

Competent advice and expert support

Everyone in the Manz service organization has service DNA and customer value in their blood. Customer requirements are the basis for all the services provided by our global service organization.

Within our service portfolio, you can choose from a range of customized service packages and modules.

Hotline & remote support service package

The Manz Service Competence Center (SCC) combines the advantages of a competent hotline with the extended functions of remote service diagnosis:

- Fast response times ensure comprehensive incident analysis and timely resolution
- System availability is maintained at a high level by reducing downtime
- Targeted support by Manz experts from various departments
- Time and cost savings due to reduced on-site visits
- Our remote maintenance solution the Manz Remote Box – uses a highly efficient security architecture (ISO 27001 certified) and multi-layer encrypted data traffic. You decide when you grant us access via the Manz Remote Box.
- Remote support during regular business hours is included in the warranty period



Wear and Spare Parts and Consumables Are More Than Important to Your Production

The **Basic**, **Standard** and **Premium** service packages, as well as the Wear Parts and Consumables service package, can be flexibly combined. They provide optimum production security and are customized to the customer's needs and requirements.

» Email: spareparts@manz.com

We are available from Monday to Friday in the usual national working hours

Your benefits:

- High availability of spare parts thanks to global network spare parts management via local service branches close to the customer
- Advice on parts identification and recommendation of suitable spare parts packages
- Availability of spare parts for parts that are no longer available through used and refurbished spare parts
- → Worldwide repair and refurbishment service (local Manz repair centers in Europe, USA, and Asia)

Our spare parts packages are put together by our team of experts according to your individual needs. By stocking Manz original spare parts, we minimize downtimes and ensure the best possible availability of your production systems.

Our service packages:

- Basic*: "Good value for money"
 This spare parts package includes a minimum stock of parts. Top priority parts are included.
- Standard*: "Optimized coverage"
 In addition to the basic package, spare parts are included, which further reduce the risk.
- Premium*: "All-round Carefree package"
 Extensive availability of spare parts ensures a wide range of response options in the event of an incident.
- Wear parts and consumables: "A Must-have"
 Based on the type, number, and the required
 maintenance intervals, as well as the planned
 system operating time, we will put together a
 package of wear parts and consumables
 specifically for you.

If a spare part or assembly needs to be repaired, please contact us. We have a standardized process for this: Simple complete the repair registration form online. We'll get back to you promptly with a solution.



^{*} Wear parts and consumables are not included in the spare part packages.

Highly qualified specialists, equipped with the latest diagnostic and measuring devices, are the best prerequisites for getting machines or systems back into operation professionally and promptly bring production readiness.



» The benefit of the quick availability of an expert on-site support service is limited when, in the event of a repair, the required spare or wear parts are not available.«

We are ready: on-site service from Manz

When an incident report is received by our Manz Service Competence Center (SCC), a decision is made as to whether a service visit is required after expert analysis of the facts and in consultation directly with our customer

In this case, the next available field service, trained on the customer or its application is activated.

Maintenance and servicing

To minimize the technical wear and tear and the existing wear potential, we offer our service packages tailored to your needs with regard to maintenance and servicing.

· Field service package

An employee trained in your application is dispatched for service assignment. We are on hand if you need support in the event of a repair or incident. Within Europe and Germany, we can usually ensure that we can start work on site at short notice on working days.

· Maintenance package

This offer serves to minimize technical wear and reduces the existing wear potential. This greatly reduces the risk of unplanned plant downtime. The more intensively the machine or system is used, the higher the risk of failure. Accordingly, regular machine care and maintenance is essential.

Maximum Flexibility and Security: Manz Support and Individual Service Contracts

Based on a service contract, you can secure individual services and benefit from maximum support from Manz.

Maximum system availability and support for your operating personnel through competent Manz service support on site. The arguments speak for themselves:

- Rapid response capability enables fast error analysis and correction in the event of an incident
- Time-saving training of your operating and maintenance personnel through training on the machines
- Expert guidance to help your staff perform recurring maintenance and inspections
- · Small repairs
- Identification and correction of optimization potential through analysis of the current production process
- Use of supporting media such as smart glasses for augmented reality and remote applications

Our performance and services – your contract

Various performance packages and services can be bundled into customized service packages and secured via service contracts. These are your benefits:

- You have access to an expert contact who will also provide you with valuable assistance outside of normal business hours
- You can be assured that your process will be processed within a response time that is customized to your needs
- You can combine a wide variety of services to ensure maximum security for your production. You can support your budget planning by underpin reliable cost planning



Lifecycle management for your production

- Modifications and customizations for new products
- → Upgrades / updates
- → Refurbishment / tetrofit
- → Overhauls for a second machine / line life

Manz Academy: Technical Training Conducted by Manz Specialists

The qualification of your employees on Manz plants and production systems is one of the core competencies of our after-sales portfolio at Manz AG. Because the better the staff is trained, the more efficiently your production runs.

Main topics of the Manz Academy

- Installation, maintenance and servicing of machines and systems
- Practical training in machine operation
- Process technology such
 as image processing, Automatic
 Object Identification (AOI), laser
 process technology and processrelated training for machine setter
- Specific machine and product training such as on our LightAssembly platform or on the smartPRODUCTIONKIT (sPK)
- Training regarding control/ automation technology such as e.g. Siemens and Beckhoff as well as robotics training

We offer you a comprehensive training program individually customized to your needs.

Due to our international positioning, we can offer the training in many languages, if possible, in the language of your choice. You can use our training rooms, or we can come to you and train directly on the system on site

You can also choose from a variety of online/offline formats. We offer customized solutions for different user level: from machine operators to maintenance to process engineering. For both machines as well as for integrated production lines.

Furthermore, we are happy to coordinate training courses with external suppliers and service providers on behalf of our customers.

For more information, a complete catalog of topics or other inquiries, please contact us directly at academy@manz.com.



Identify Optimization Opportunities: We Provide 100% Transparency for Your Production

High process stability, safe and reliable integration into the manufacturing process via the standardized OPC UA interface, even from third-party suppliers by use of the smartPRODUCTIONKIT (sPK) for new and existing systems.

Greater transparency and quality trough digitalization

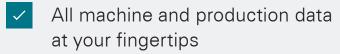
With the smartPRODUCTIONKIT (sPK) you can monitor and analyze your production in a transparent and targeted manner. Use the variety of data to optimize the efficiency of your systems in a targeted manner and to identify disturbing influences. This helps you achieve high system availability and production quality.

Similar machines or lines can be compared with a detailed focus on individual process steps to identify constraints and performance differences and to specify optimization tasks in detail.

Complete traceability

Based on the smartPRODUCTIONKIT (sPK) and the add-on sPK smartTRACE, material flow and traceability can be realized even in complex production processes. Detailed module, process, and quality data as well as the position data of the parts on the workpiece carrier can be recorded and archived.

Benefits for you



Capture and provide real-time machine and process data

Recognize optimization potential

Capture of production batches and merging of flow data and quality characteristics

Process stability at a high level

High process stability, safe and reliable integration into the manufacturing process via the standardized OPC UA interface, even from third-party suppliers

Reliable partners

By use of the smartPRODUCTIONKIT (sPK) for new and existing systems, we provide 100% transparency for your production

The smartPRODUCTIONKIT (sPK) is an essential digital component of our services. It collects, analyzes and evaluates machine and line data.

sPK Standard Packages

Our sPK standard packages Frame, Basic and Pro ensure increased productivity in all production steps.

sPK FRAME: Provision of the infrastructure for data acquisition (collect and monitor)

- General production overview and the status of the machine(s)
- Monitor your line output (part counter)

sPK BASIC: Machine concept for collecting, monitoring, analyzing and visualizing data

- Machine status functions
- Quick and easy access to a wide range of machine and performance data

sPK PRO: Complete line concept for collecting, monitoring, analyzing and visualizing data

- Monitor line-related KPIs
- Analyze and compare specific production processes and identify untapped optimization potentials

sPK Add-on Packages

Component tracking with sPK smartTRACE:

- Unique ID number parts are given a unique ID wherever possible and are continuously enriched with relevant process data in subsequent production steps
- Always know where the parts are or have been in the production process, including attributes such as the position of the work piece carrier
- Make your track and trace data visible and traceable throughout your entire production process with live visualization of your ongoing production as well as your completed batches





sPK smartIMAGEVIEWER: Consolidation of image and production data in one place, QA monitoring of your manufactured parts.

sPK smartMAINTANANCE: Manage, monitor, control and document the maintenance of your machines and plants (based on operating hours and defined cycles)

- Central access to all maintenance activities
- Tracking and documentation

Our smartIPCMANAGER

Basis for backing up your machine software*, installation, linking of the IPCs and setup of the IPCs for the following add-ons:

smartBACKUP: We have developed a backup solution for you that does not cause any downtime. In addition, there are three additional data backups per week, which do not cause any downtime.

Restoring the software is possible at any time. The backup plan does not only save the system software, but also desired files and folders of the system. The initial commissioning of the system as well as the commissioning at our customers are permanently stored on a system drive.

smartDEPLOY: The module is created for IPC updates. Windows updates/upgrades and IPC software can be installed centrally during production.

^{*} Installation on a Manz PC/rack or in your data cente

Our Locations

ENGINEERING TOMORROW'S PRODUCTION



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