



**EMAG PRODUCTION**

**LOCATIONS ZERBST AND HEUBACH**



Your partner with comprehensive manufacturing expertise

**PRODUCTION**

# EMAG Production – Your production partner for the highest technical requirements

EMAG Production is a leading production partner in the manufacturing industry. With our wide range of manufacturing services, we implement our solutions using state-of-the-art technology and qualified specialist staff.

Our **high level** of vertical integration enables us to implement projects efficiently and with maximum precision. In our modern production facilities in Zerbst and Heubach, we combine a wide range of manufacturing technologies under one roof.

From **mechanical machining** and **sheet metal production** to **switch cabinet construction** and the **assembly of complex assemblies**, we master the entire spectrum of industrial manufacturing.

Our design department supports you right from the development phase with innovative solutions and comprehensive technical expertise.

**EMAG Production's strength** lies in the combination of technological expertise and many years of experience. We see ourselves as your partner, accompanying you from the initial idea to the completion of your projects. Our certified quality management system guarantees the highest quality standards throughout.

## Our range of services includes:

- + Mechanical machining with maximum precision
- + Advanced sheet metal production
- + Professional switch cabinet construction
- + Specialized assembly services
- + Innovative automation components
- + High-quality polymer concrete base bodies
- + Comprehensive design services
- + Certified quality assurance







### Location Zerbst

The **Zerbst location** is characterized by its comprehensive manufacturing capabilities in mechanical machining, sheet metal production, polymer concrete production and assembly. With state-of-the-art machinery and a specialized team, we offer manufacturing solutions for a wide range of industries. We specialize in the manufacture of large-format components, high-precision components and sophisticated assemblies.

A central feature is our own polymer concrete foundry, which enables the production of vibration-damping machine bases and components. In conjunction with quality assurance and the modern measuring room, even the highest quality requirements are met.



### Location Heubach

Our **Heubach facility** specializes in manufacturing small precision components and assembling complex subassemblies, with a strong focus on flexibly meeting customer requirements—from single-part production to small series.

With a large number of state-of-the-art machining centers, turning machines and 5-axis milling machines, we offer a wide range of manufacturing technologies that ensure maximum efficiency and quality.

# Mechanical manufacturing

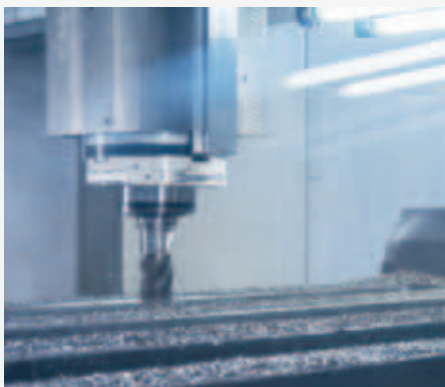
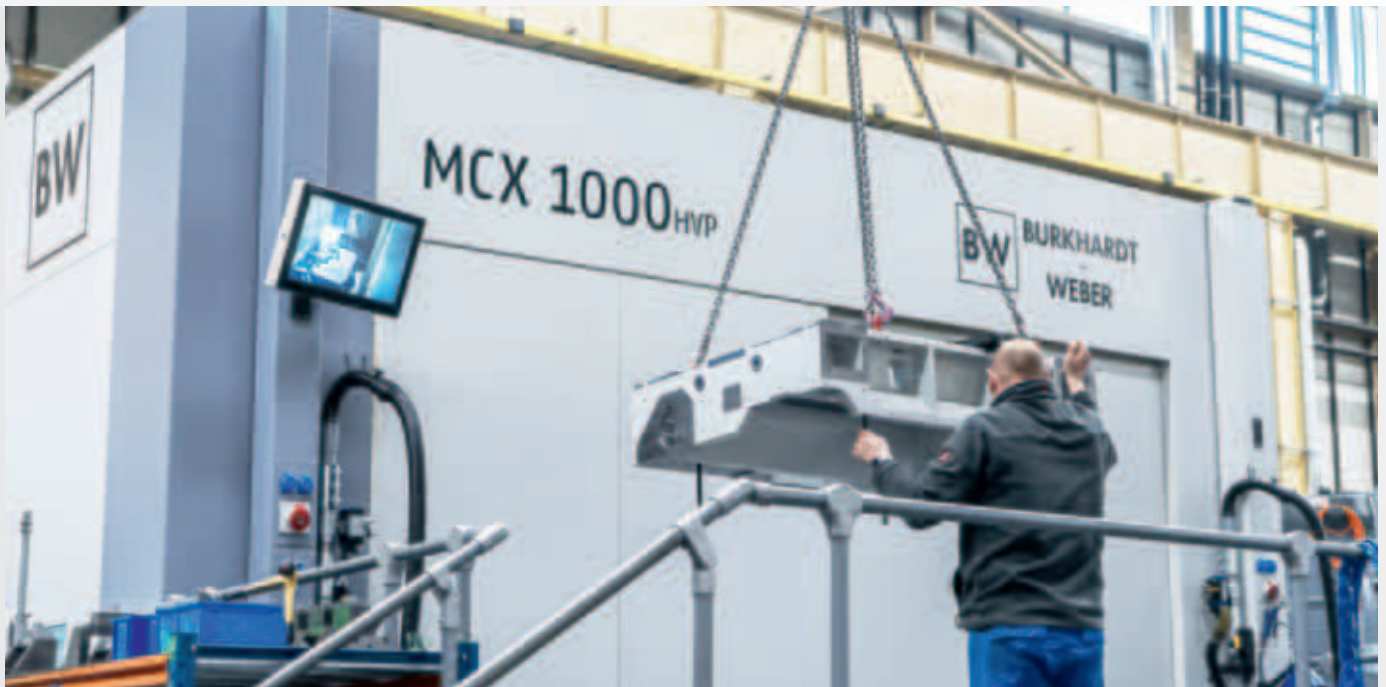
Mechanical manufacturing is at the heart of EMAG Production. With state-of-the-art machinery and a specialized team, we implement demanding projects with the highest precision. Our comprehensive manufacturing spectrum ranges from the machining of complex components to the finishing of large-format workpieces. Manufacturing takes place at our two locations in Zerst and Heubach, with each location offering specific expertise in mechanical machining.

## Technological equipment

EMAG Production has a wide range of manufacturing technologies that meet the highest technical requirements:

### Turning and milling centers

- » Machining of simple to highly complex components
- » Combination of turning, milling, and drilling in a single setup for maximum precision
- » **5-axis machining systems** for complex geometries and high flexibility
- » **High-precision turning and milling centers** with HSK-A100 and HSK-A63 for demanding workpieces







### Vertical integration and customization

One key advantage of EMAG Production is its exceptional vertical integration. From prototypes to batch production, we offer our customers tailor-made solutions for a wide range of applications:

#### Turning and milling centers

- » **Machining of large machine**  
bases made of polymer concrete or steel
- » **Production of delicate precision components**  
with minimal tolerances
- » **Integration of customer-specific requirements**  
into the components, e.g., guideways, threads, and special bores



### Modern measurement technology

Our state-of-the-art measuring rooms in Zerbst and Heubach are central components of our quality assurance system. Here, all manufactured parts are checked for dimensional accuracy and functionality. This ensures that tight tolerances are adhered to and that quality remains consistently high.

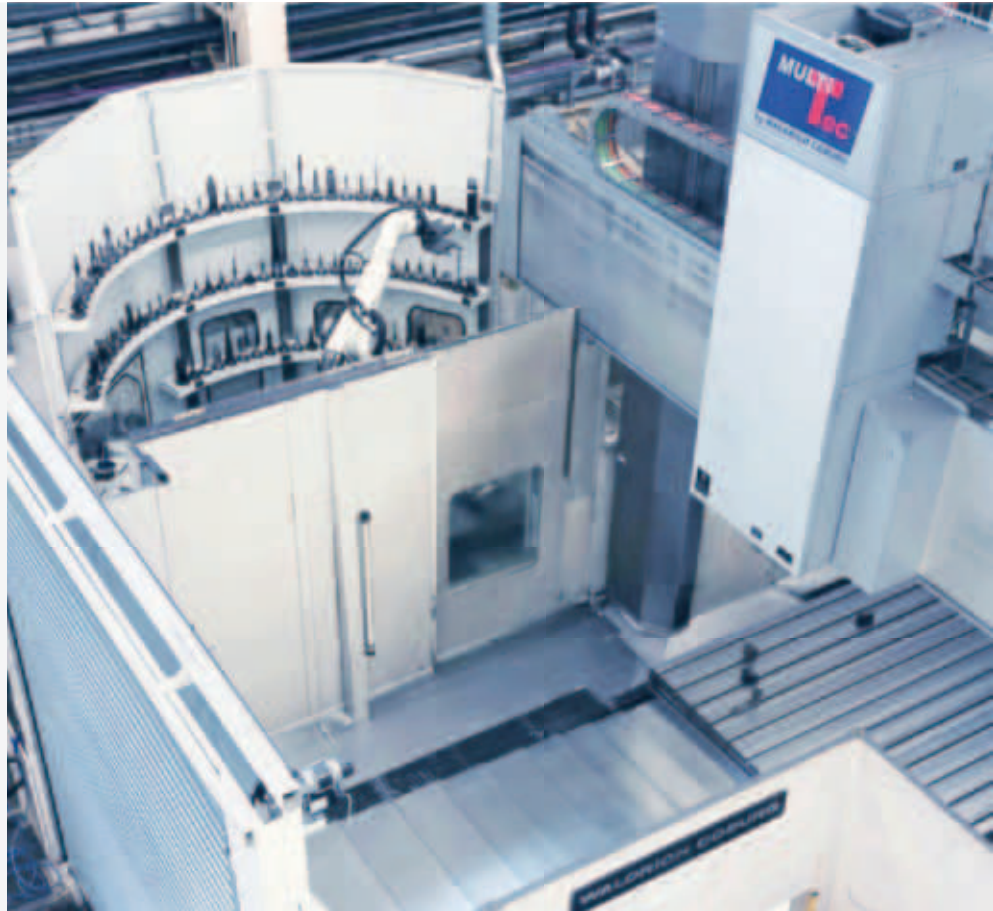


# Mechanical manufacturing

1

## Portal milling machines

- » Machining of heavy-duty components with travel distances of up to 10,000 mm
- » High load capacities of up to 20 tons enable the machining of heavy components
- » Optimal dimensional accuracy and surface finish



2

## Plasma nitriding plant

- » For surface hardening and increasing the wear resistance of mechanical components
- » Improving component service life and corrosion resistance

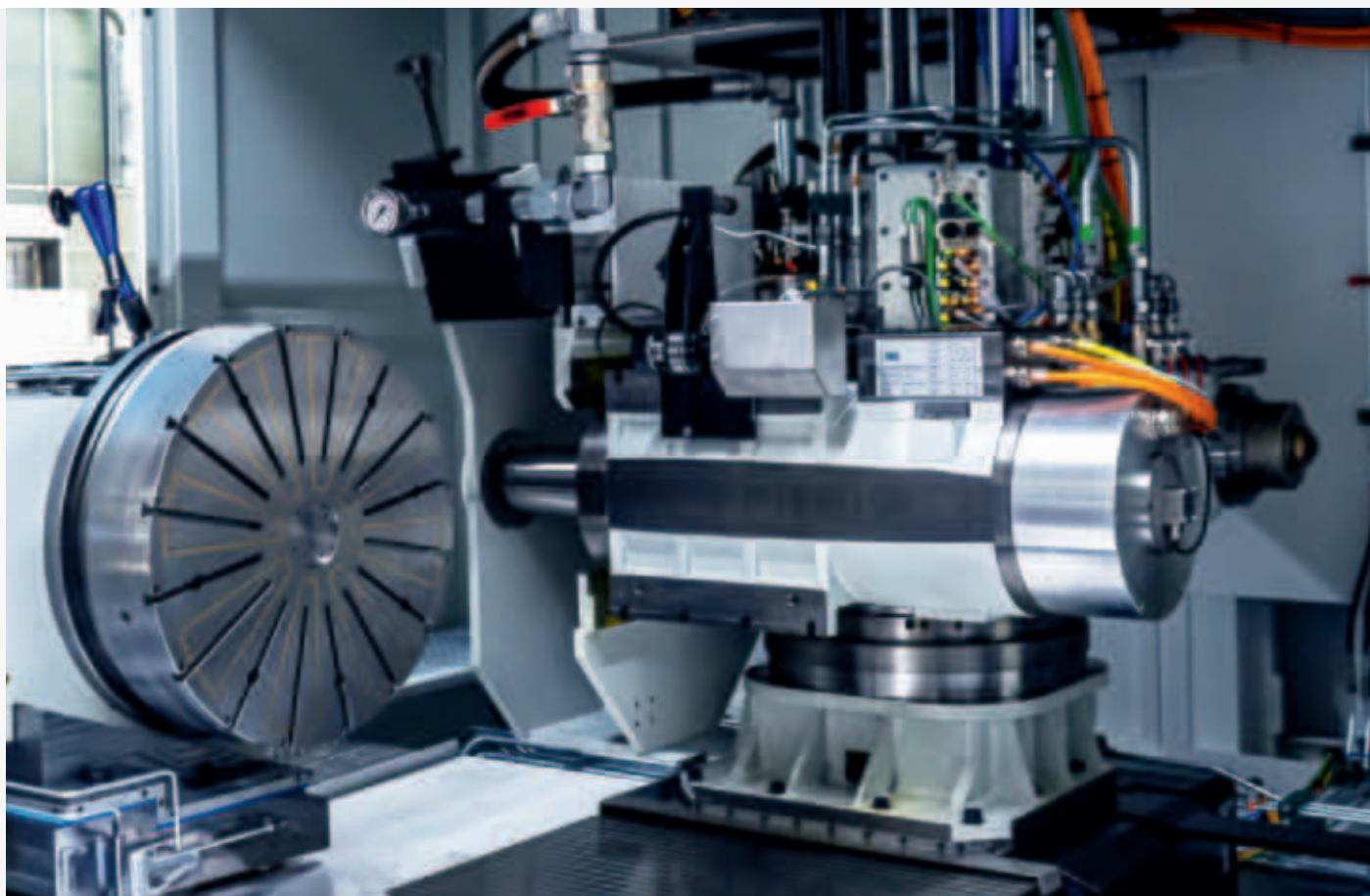
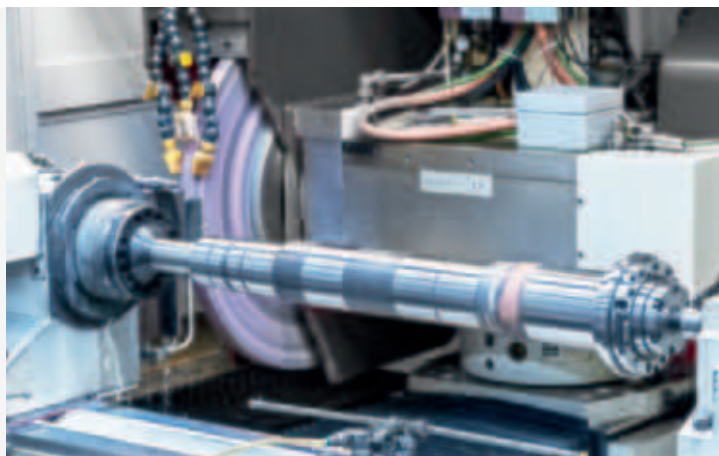




## 3

**Grinding machines**

- » Cylindrical and surface grinding machines for high-precision finishing
- » Grinding lengths up to 2,000 mm and center distances up to 3,000 mm
- » Perfect surface quality and dimensional accuracy





# Assembly

Our experienced specialist staff and modern assembly facilities guarantee the reliable manufacture of complex assemblies and complete machines according to individual customer specifications. From single pieces to series production, we offer tailor-made solutions that can be perfectly integrated into the respective production environment.

## Wide range of services

Our assembly area covers the precision assembly of mechanical, hydraulic, pneumatic and electrical components. This enables the complete and quality-assured final assembly of complete machines and systems.

### Our services at a glance:

- » **Mechanical assembly** of individual parts, subassemblies, and complete machines
- » **Integration of hydraulic and pneumatic systems**
- » **Electrical wiring and control installation**
- » **Final assembly and commissioning** prior to delivery

Whether simple mini assemblies or highly complex systems consisting of several hundred individual parts, EMAG Production offers you the highest level of expertise and quality.



## Assembly of components

Our assembly services include the manufacture of complex modules that are customized to meet specific customer requirements. These assemblies undergo comprehensive testing to ensure reliable functionality.





## Special areas of assembly

### Spindle construction

Spindle construction is a particular focus of our assembly work. We manufacture around 300 spindles every year, which are used both for new production and for repairs, such as new bearings. Thanks to strict quality standards and precision manufacturing, we guarantee high functional reliability and durability.



### Revolver construction

In the turret division, we manufacture tool turrets that play a decisive role in increasing the flexibility and efficiency of machining processes. Pre-assembly takes place in a state-of-the-art environment, where advanced measuring techniques and NC programs ensure maximum precision.



# Sheet metal fabrication and cladding construction

With state-of-the-art CNC-controlled machines and an experienced team, we offer tailor-made solutions for the manufacture of complex components and assemblies. Our manufacturing capabilities cover a wide range – from prototypes to series production.

## Extensive manufacturing capabilities

Our range of services covers all essential sheet metal working processes:

1

### CNC laser cutting

Laser cutting enables precision machining of a wide variety of sheet metal types and thicknesses. We use our CNC-controlled systems to produce precise contours and complex components quickly and economically.



2

### Folding and bending

We use state-of-the-art bending machines to achieve sophisticated shapes and precise radii with precision. Whether it's individual parts or short-run production, tight tolerances are standard for us.



3

### Welding technology

With 35 welding workstations and comprehensive expertise in manual and automated welding processes, we offer flexible manufacturing options for both simple and complex assemblies.



4

### Surface finishing

Our powder coating plant ensures a robust and durable surface finish. This reliably protects the components from corrosion and increases their mechanical resistance.





## Versatility in materials and applications

We process a wide range of materials, including steel, stainless steel and aluminum. This enables us to implement solutions for a wide variety of industries and applications.

### Examples of components and assemblies:

- » Machine enclosures
- » Switch cabinet housings
- » Support frames and racks for machines
- » Components for conveyor and automation systems

» Customized machine enclosures and assemblies – from prototypes to series production, manufactured precisely to customer specifications.



## Boring machine for machining mounting plates and compact or large switch cabinets

We use a state-of-the-art boring mill for the precision machining of mounting plates as well as compact and large control cabinets. This technology enables the precision machining of large surfaces with high dimensional accuracy and repeatability. Thanks to the flexible adjustment options, both individual pieces and series products can be manufactured efficiently. Tight tolerances and perfect surface quality are crucial, especially when machining large-format electrical cabinets. The boring machine offers maximum stability and enables milling, drilling and thread cutting in a single setup – a clear advantage for process reliability and reduced machining times.



# Control cabinet construction

## Complete solutions from planning to final assembly

EMAG Production covers the entire process chain in switch cabinet construction to meet individual customer requirements:

### Mechanical machining of switch cabinet housings

- » Precise adjustments and integration of openings, cable bushings, and mounting elements

### Electrical equipment and cabling

- » Installation of control devices, hydraulic and pneumatic components

### Final assembly and functional testing

- » Comprehensive tests to ensure proper functionality and compliance with all standards

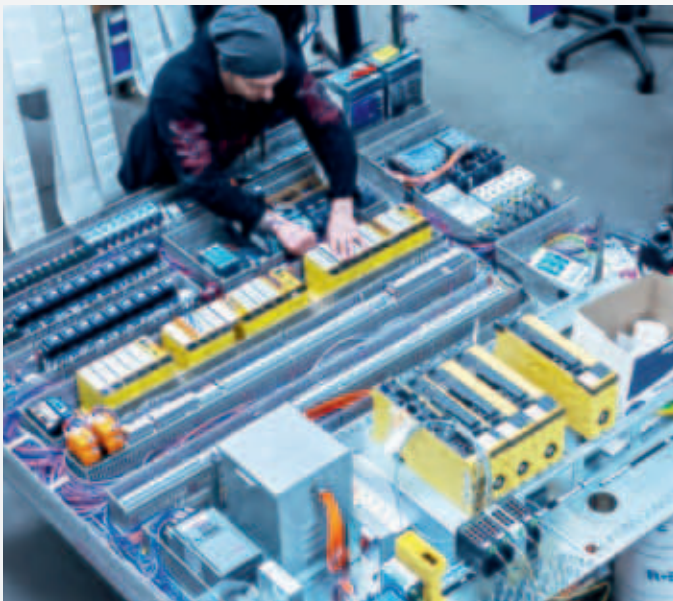


## Customization and flexibility

Our production department specializes in manufacturing electrical cabinets in various sizes and designs. The portfolio ranges from small compact control boxes to large-scale power distribution systems.

### Advantages of our manufacturing:

- + Flexible adaptation to customer requirements
- + Adherence to delivery dates and short production times
- + Compatibility with international norms and standards
- + High vertical range of manufacture for maximum quality assurance





# Polymer concrete foundry

The manufacture of machine components from **polymer concrete** is a central part of EMAG Production. This high-performance material is characterized by excellent vibration damping effects, high thermal stability and minimal manufacturing tolerances. With our modern foundry at our **Zerbst location**, we offer you customized solutions for machine bases and base frames that are specially tailored to the requirements of your production.

## Technological manufacturing expertise

Our foundry in Zerbst offers a complete process chain for the manufacture of high-quality polymer concrete components:

### Mold making and tempering process

- » Precision casting molds based on customer drawings or our own designs
- » **Computer-controlled casting** for consistently high quality
- » After casting, each component undergoes a **tempering process** that further improves the material properties.



## Mechanical machining

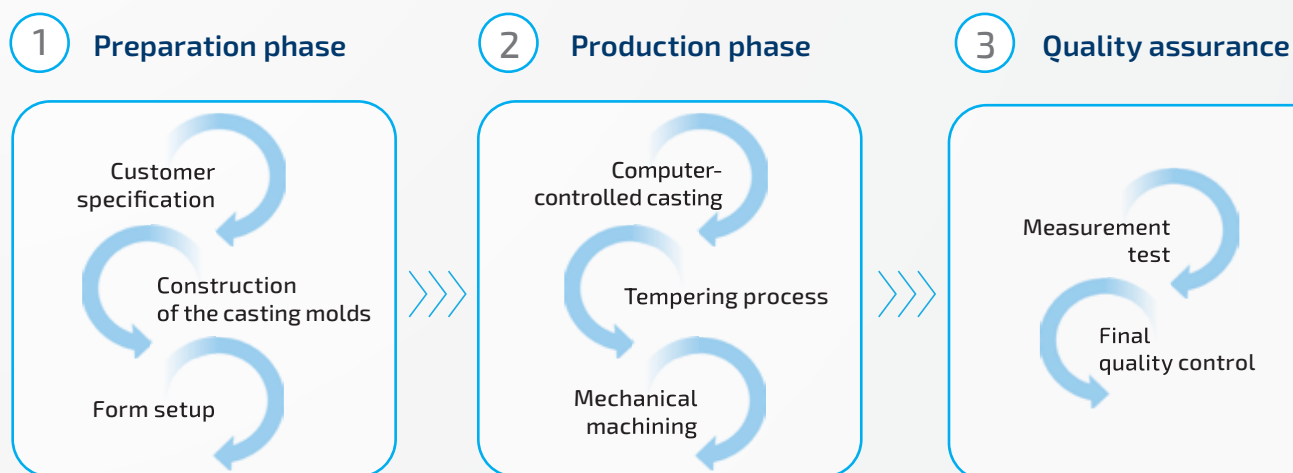
After the tempering process, the components undergo **precision machining**:

- » Integration of **guideways**, threads, and fastening points
- » Finishing with modern milling and grinding machines for precise tolerances

## Surface finishing and coating

Finally, we offer various surface finishes:

- » **Painting** according to customer specifications
- » **Protective coating** to increase corrosion and abrasion resistance



# Automation components

In the field of automation components, we develop and manufacture highly specialized systems that optimize and automate your production processes. Our solutions are characterized by maximum precision and reliability.

## 1 Linear portals

Our linear gantries are the ideal solution for automated handling tasks. The 3-axis systems enable precision movements in all directions and are optimized for a wide range of pick-and-place applications.



## 2 Bin picking cells

Our bin picking solutions combine state-of-the-art image processing with precision robot technology. The systems are capable of detecting disordered workpieces in containers and picking them out selectively.

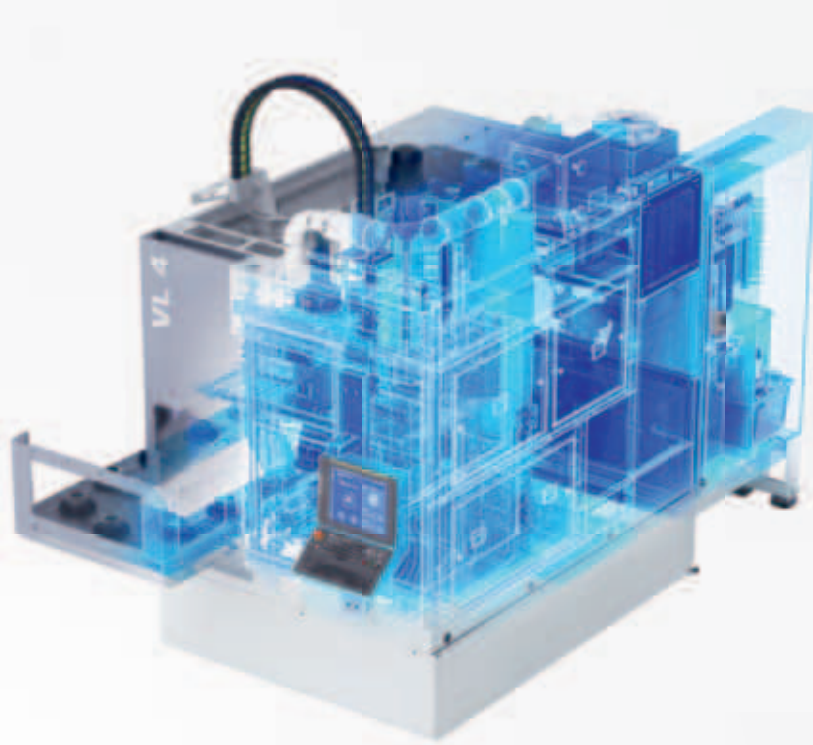


## 3 Robotic solutions and rail robots

Our robot systems are designed and manufactured specifically for your application. The integration of industrial robots on linear axes enables flexible motion sequences over long distances.



# Construction



The design department at EMAG Production is your expert partner for the design and development of technically sophisticated solutions. With state-of-the-art CAD software and experienced engineers, we implement your projects from the initial concept to production approval.

## Application-specific development

We develop customized solutions for various industries:

- » Special machine construction and automation technology
- » Hydraulic and pneumatic systems
- » Electrical cabinet and housing construction
- » Polymer concrete constructions with integrated components
- » Tool and fixture construction

## CAD-supported design and development

Our designers work with leading 3D CAD systems:

- » Complete 3D modeling of all components
- » FEM analyses for critical components
- » Collision checks in complex assemblies
- » Automatic parts list generation
- » Drawing derivation according to international standards



**Production is our passion.**



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