

EMG Automation GmbH

Manufacturing Capabilities



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EMG Automation GmbH

The Company

EMG Automation GmbH, based in Wenden in the Südsauerland region, is conveniently located at the Olpe junction of the A45 and A4 motorways. We employ around 400 staff, almost all of whom are skilled workers in our industrial division.

We are the global market leader in strip guiding and quality assurance systems for the metal industry, as well as in safety components for the international logistics industry.

The production area covers approximately 10,000 m²; our excellent machinery ensures high productivity.

Our manufacturing expertise spans the entire spectrum of mechanical machining and electronics production.

Well-equipped in the field of mechanical engineering, machining and assembly, we carry out even the most challenging orders reliably, meticulously, cost-effectively and on time.

We would therefore like to introduce ourselves to your company as an efficient supplier and partner who, through a trusting working relationship, can offer optimal solutions for your specific tasks and challenges.

The following description of our operations and list of machinery is intended to give you an overview of the technical capabilities and capacities of our company.

We offer a comprehensive standard production range. We are happy to assist with any special requests.

Curious? Then send us your enquiry or arrange an on-site appointment directly to see our extensive production capabilities for yourself.

Certificate

Standard **ISO 9001:2015**
Certificate Registr. No. **01 100 2400053**

Certificate Holder: **elexis AG**
Industriestr. 1
57482 Wenden
Germany
including the locations according to annex

Scope: Development, production, sales and service of quality assurance, thickness measurement and automation solutions in the web processing and strip guiding industry, safety components and explosion-proof assemblies.

Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 are met.

Validity: The certificate is valid from 2024-07-22 until 2027-07-21.
First certification 2024

2025-09-04 
TÜV Rheinland Cert GmbH
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Certificate

Standard **ISO 45001:2018**
Certificate Registr. No. **01 213 2400053**

Certificate Holder: **elexis AG**
Industriestr. 1
57482 Wenden
Germany
including the locations according to annex

Scope: Development, production, sales and service of quality assurance, thickness measurement and automation solutions in the web processing and strip guiding industry, safety components and explosion-proof assemblies.

Proof has been furnished by means of an audit that the requirements of ISO 45001:2018 are met.

Validity: The certificate is valid from 2024-07-22 until 2027-07-21.
First certification 2024

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Certificate

Standard **ISO 50001:2018**
Certificate Registr. No. **01 407 2400053**

Certificate Holder: **elexis AG**
Industriestr. 1
57482 Wenden
Germany
including the locations according to annex

Scope: Development, manufacture, distribution and servicing of system solutions for quality assurance, thickness measurement and automation in the web/strip processing industry, safety components and explosion-proof assemblies

Proof has been furnished by means of an audit that the requirements of ISO 50001:2018 are met.

Validity: The certificate is valid from 2026-03-03 until 2029-03-02.
First certification 2026

2026-03-04 
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EMG Automation GmbH

Production

In our production department, we use state-of-the-art IT tools for order processing, which enable us to achieve complete transparency across our value chains in the shortest possible time.

Simulation tools allow us to assess the various requirements and make the best decisions in our customers' interests.

To continuously optimise our processes, we have been successfully implementing lean management projects since 2008 with two dedicated lean experts, thereby ensuring maximum value creation.

Key areas of focus in this field include, on the one hand, training within our organisation and, on the other, the reduction of throughput, processing and set-up times, as well as the consistent avoidance of any waste.

To ensure the optimal processing of our customer orders, we have organised all departments involved in order fulfilment under the Operations category. In this way, we guarantee a smooth process with the aim of meeting our customers' requirements to their full satisfaction.

In mechanical machining, we specialise in aluminium, steel and cast materials. We also machine stainless steel to meet individually tailored requirements.

Furthermore, the Quality Management (QM) and Quality Assurance (QA) department is a central component of our company and ensures that products and processes meet the specified requirements.

EMG Automation GmbH: State-of-the-art production facilities for the best possible results!



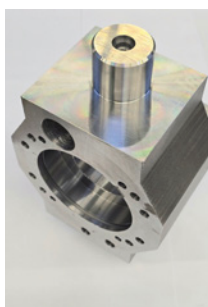
CNC-controlled machine tools and flexible machining centres with automatic parts feeding dominate the scene in modern production halls.

Mechanical Processing

Our machining department comprises around 40 employees who, working in three shifts on 22 CNC machines, process a diverse range of approximately 2,200 different components, clocking up around 50,400 production hours annually to ensure the highest precision and on-time delivery.

We programme all parts ourselves using Top Solid software from Moldtech and produce a total of approximately 300,000 manufactured parts per year.

The production fixtures are designed and assembled by our in-house fixture-making department.



1. Threading

1.1 CNC machines

Name	Max. threading diameter	Max. threading length	Number tools
Bar-feeding machine MAZAK HQR 2	65 mm	400 mm	12 + 12
MAZAK Integrex I200-ST	640 mm	1500 mm	9 + 72
MONFORTS RNC700	670 mm	1500 mm	12
NC GILDEMEISTER CTX420	360 mm	1000 mm	12
SEIGER SLZ 500E	500 mm	1500 mm	1
DMG CTX Gamma 1250 TC	500 mm	1200 mm	12 + 80
DMG CLX 450 V6	400 mm	710 mm	12
DMG CLX 450 V4	400 mm	800 mm	12
	Min. dimensions		
	Length: 4 mm		
	Diameter: 2 mm		

1.2 Conventional threading machines

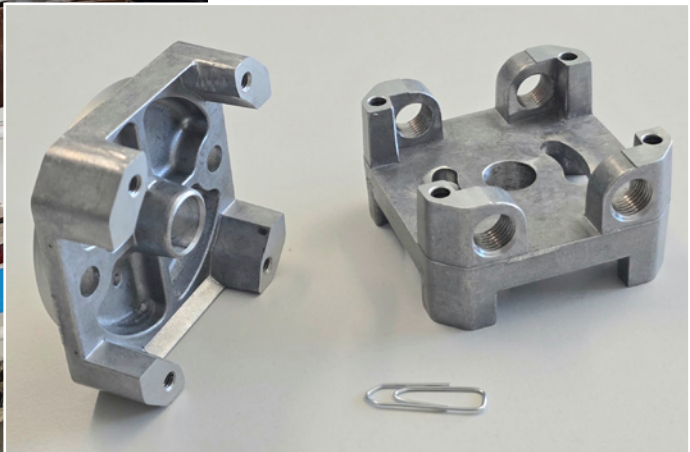
Name	Max. threading diameter	Max. threading length	Weight
GDW LZ 280 VS	330 mm	670 mm	1200 kg
DREHM.V800/H640/W	650 mm	1500 mm	500 kg
	Min. dimensions		
	Length: 4 mm		
	Diameter: 2 mm		

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Mechanical Processing

2. Drilling

Name	Max. drilling diameter	Max. reach / travel	Max. drilling depth
DONAUMERIC 440	40 mm	750 mm / 315°	
Drilling machines Donau	50 mm	1000 x 750 mm	
Thread-cutting machine	M10		
Max. weight			
	500 kg		



Mechanical Processing

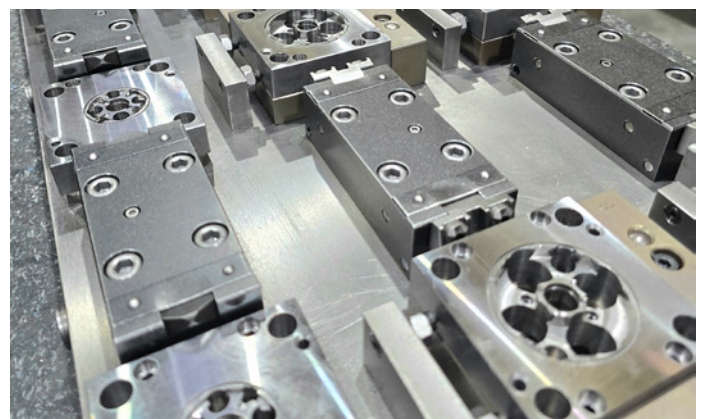
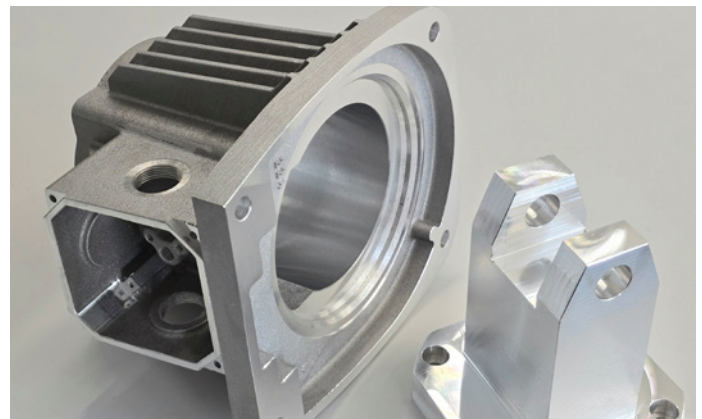
3. Milling

Name	Travel X-Achse	Travel Y-Achse	Travel Z-Achse	Table size (mm)	Number tools
MAZAK VTC820	2000 mm	820 mm	720 mm	2500 x 820	48
MAZAK Nexus 5000 II	730 mm	730 mm	740 mm	500 x 500	80
NC-Hor.drilling part SCHARMANN	1200 mm	1000 mm	1000 mm	1200 x1000	110 mm Durchm. Arbeitsspindel
Deckel Maho DMC63V	630 mm	500 mm	500 mm	800 x 500	24
DMG DMU75 Monoblock	750 mm	650 mm	560 mm	650	60

Fired part L & B: 5 mm

Min. dimensions

Jaw tension	6 mm – with an outer contour to be machined at 5 mm	L: 4 mm D: 2 mm
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Mechanical Processing

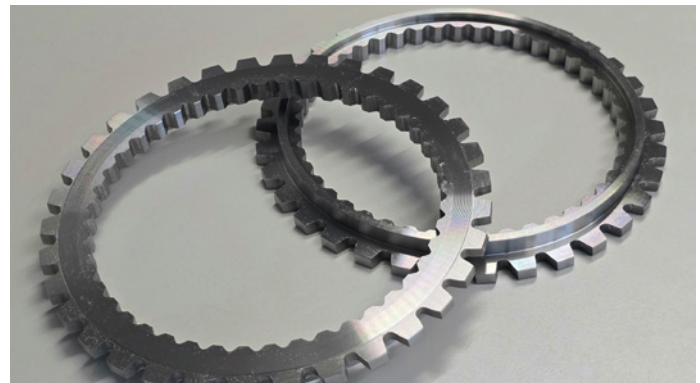
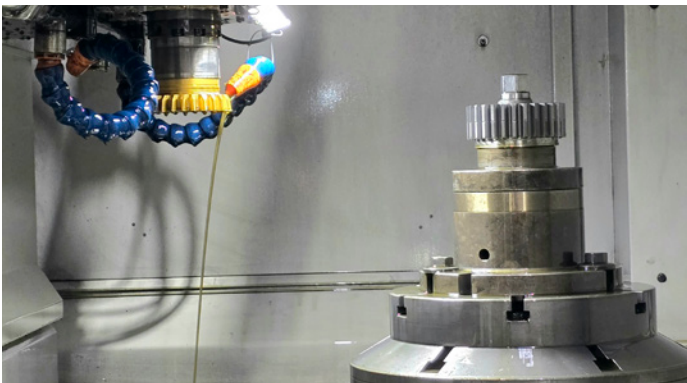
4. Gear manufacturing

In our gear manufacturing facility, we produce precision gears for a variety of applications using state-of-the-art gear hobbing and gear shaping machines.

This enables us to manufacture a wide range of gears cost-effectively and with high precision, ensuring flexible production of gear components ranging from small to large.



Name	Biggest module	Max. wheel diameter	Max. milling width
Hobbing machine LIEBHERR L650	10	650	370
Hobbing machine LIEBHERR L252	6	250	230
Hobbing machine PFAUTER RS00S	2,5	208	160
CNC Hobbing machine LIEBHERR	6	300	110



5. Pushing and clearing

In our pushing and clearing section, we use a machine for the precise internal machining of workpieces.

With its flexible table, cross-slide and longitudinal adjustment, the machine enables the cost-effective and dimen-

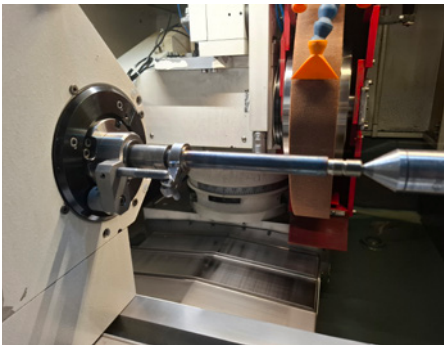
sionally accurate production of keyways, gear teeth and other profiled geometries in a variety of materials.

Name	Min. to max. stroke length	Max. tensile force
Clearing machine KLINK RW20	1750 mm	20 t

Mechanical Processing

6. Grinding

In our grinding department, we use a range of high-precision grinding machines to machine workpieces to tight dimensional tolerances and achieve an excellent surface finish.



Name	Peak height	Grinding length x grinding width	Working height
Universal cylindrical grinding machine KARSTENS K21	180 mm	1000 x	
Several surface grinders	800 mm	x 300	450
	250 mm	x 400	400
CNC External grinding machine Studer Favorit CNC	175 mm	1000 mm	

7. Lapping

Honing is a fine-machining process used to improve dimensional accuracy, geometric accuracy and surface finish, particularly in cylindrical bores in metal components.

It involves using fine-grit abrasive tools to produce a very uniform and high-precision surface, often as a final machining step following drilling or grinding.



Lapping machine SUNNEN MBC 1801G	Max. lapping diameter	Max. lapping length
	50 mm	200 mm

8. Painting

Our painting department handles components with complex geometries. Before painting, the components are thoroughly cleaned to ensure optimal adhesion.

We use the Selemix Direct Pro 2K acrylic topcoat system, which is available in various colours according to RAL, Munsell and NCS and offers corrosion protection up to class C5-M in accordance with ISO 12944-6.

Depending on requirements, the paint is applied using an Airmix or cup gun, ensuring an even and high-quality surface finish.

Geometry	Varnish
Weight up to 500 kg	Clean using a neutral cleaner or degreaser
Dimensions up to 3500 x 800 x 2000 mm (L x B x H)	Manufacturer Selemix Direct Pro 2k Acryl Decklack Colours: RAL, Munsell, NCS
	Corrosion protection class up to C 5 M, ISO 12944-6

Paint application: Airmix or cup gun

Max. length	Max. weight
3.5 m	500 kg per waggon



Mechanical Processing

9. Welding

In our welding department, we process metals, aluminium and tubular structures with a high degree of precision, using both MAG and TIG welding processes.

Materials with a high carbon content are of limited suitability for this application due to their properties.

Max. Dimensions	Weight	Procedure
500 x 500	250 kg	MAG
500 x 500	250 kg	WIG



10. Bending



Max. lenght and weight	Max. thickness	Max. width	Material
2000 mm and 250 kg	4 mm	2000 mm	Alu
2000 mm and 250 kg	5 – 6 mm	1000 mm	Alu
2000 mm and 250 kg	3 mm	2000 mm	Steel
2000 mm and 250 kg	4 – 6 mm	500 mm	Steel

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Mechanical Processing

11. Sawing

In our metal and aluminium bar sawing division, we carry out precision cutting to meet technical and production-specific requirements.

The various materials are stored in our high-bay warehouse.



Max. dimension	Max. length	Min. net length of the bill of materials (excluding saw cuts)
Diameter 250 mm	6000 mm	10 mm

Saw cut	Dimensions for further processing (surface finish)
min. 2 mm	
The larger the diameter / the softer the material, the greater the effect	Minimum allowance for further machining
The larger the diameter / the softer the material, the greater the effect	Minimum allowance for further machining

12. Punching and pressing

Our production facilities utilise both a Röcher hydraulic press and an eccentric press manufactured by Schuler, which are employed for various forming and manufacturing processes; thanks to their high pressing force, precision and process reliability, they enable efficient and cost-effective component production.



Name	Max. capacity
Röcher Hydraulic press	30 t
Eccentric press Schuler PD50-220	55 t

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Mechanical Processing

13. Table shear

In our production facility, we use a table shear manufactured by Stuckmann and Hillen for the precise cutting of sheet metal.

Max. dimensions	Max. length
Sheet width	2000 mm
Sheet thickness ALU	8 mm
Sheet thickness steel	6 mm



14. Toolmaking

Our in-house tool and jig manufacturing department ensures the reliable maintenance, modification and manufacture of new tools and jigs, using both conventional and CNC-controlled milling and grinding machines.



Name	Dimensions
Cover milling machine FP1	300 x 150 mm
Part CNC machine SMX	1800 x 400 mm
CNC cover milling machine Maho	800 x 500 mm
Cover milling machine FP3	500 x 300 mm

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Electrical Processing

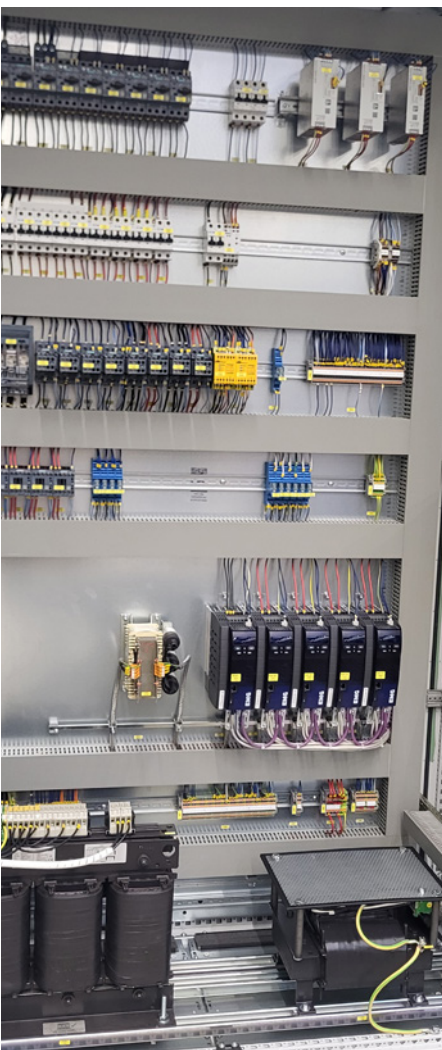
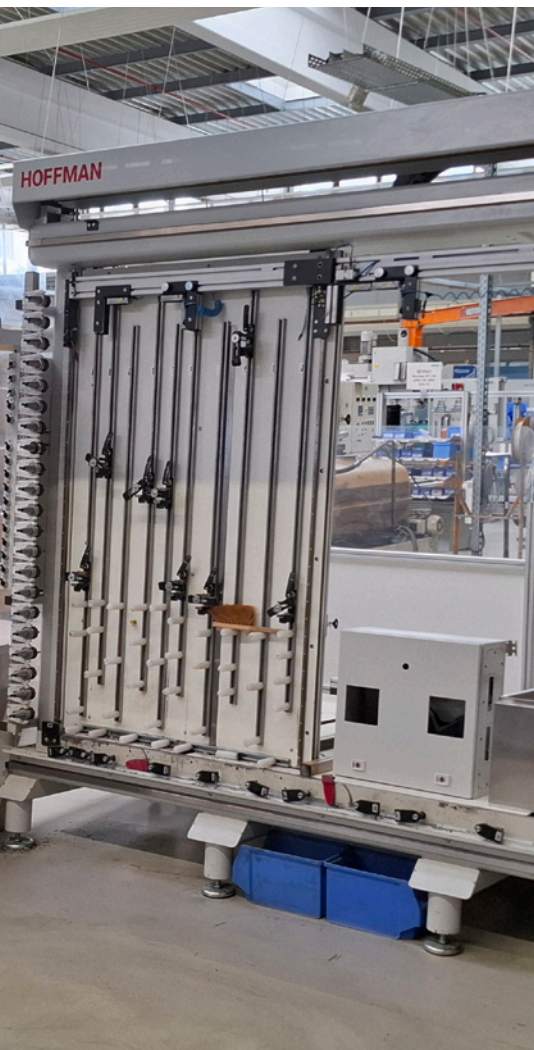
15. Control cabinet construction

EMG Automation GmbH manufactures a total of around 1,700 control cabinets per year in its in-house control cabinet production facility,

Around 700 of those cabinets are standard control cabinets and around 1,000 are custom-built to meet individual customer requirements.

From mechanical machining (drilling of panels and cabinets) through to electrical assembly (wiring and installation) and final testing – at EMG, all this is carried out in-house!

Name	Dimensions
Steinhauer Modcenter 263	All sizes of control cabinets
Wire terminal	0.75 – 6 mm ²

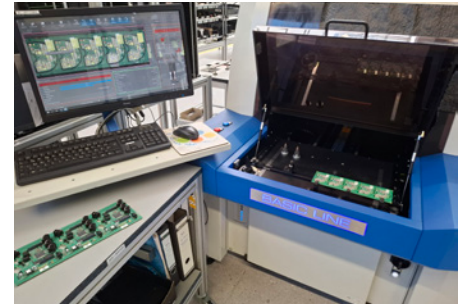


Electrical Processing

16. PCB manufacturing

In our PCB manufacturing facility, we produce around 30,000 PCBs per year, ranging from batch sizes of 1 right through to customised single-unit orders.

From PCB layout and SMD assembly to the selective soldering line and customer-specific final testing of the PCB – all under one roof!



Machines

Automated placement machines

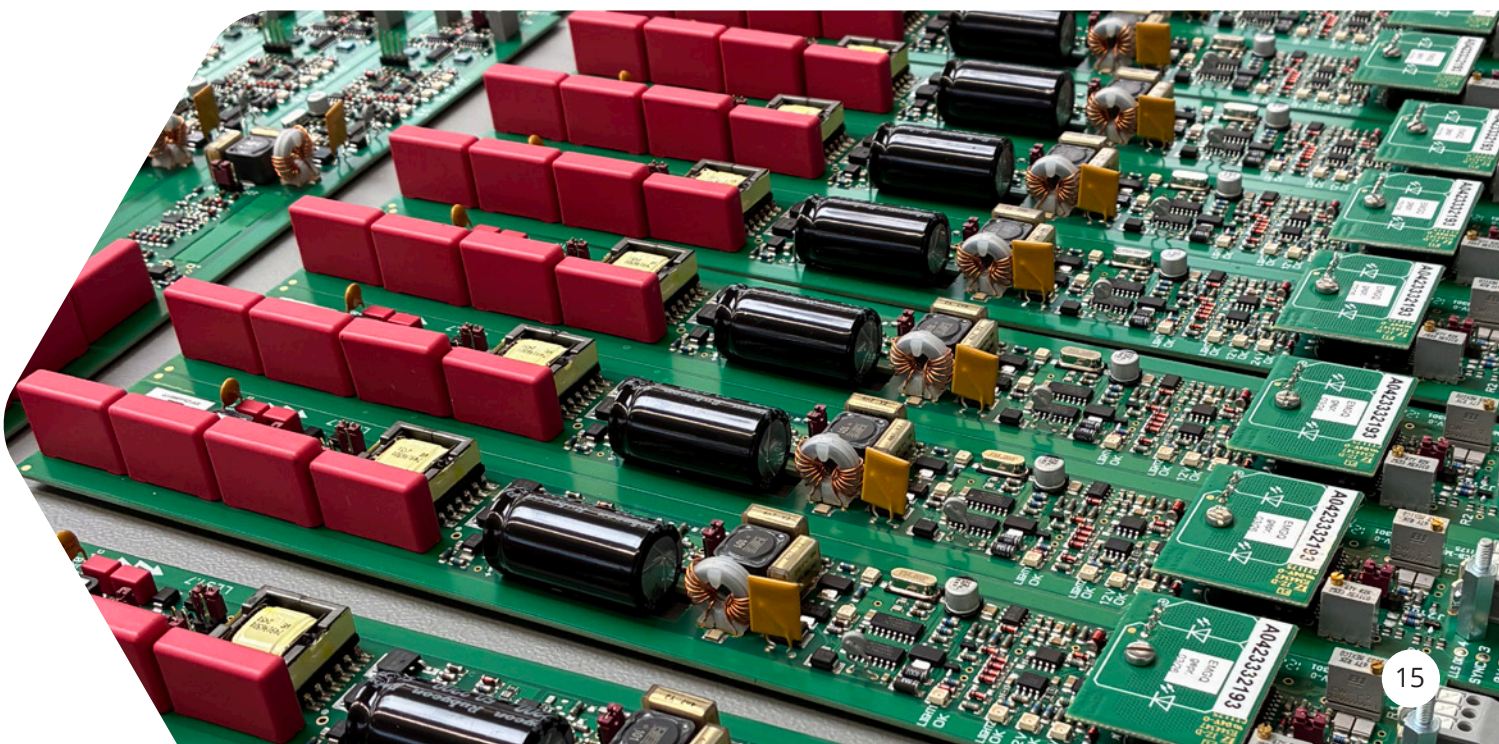
Stencil printer

Selective soldering system

Reflow oven

Vapour-phase soldering machine

AOI tester







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Quality Management & Assurance

Quality management (QM) encompasses all organisational measures designed to plan, control and improve quality. These include, amongst other things, the development of quality guidelines, the optimisation of processes, and the conduct of audits and training sessions.

The aim is to ensure quality in the long term and to improve it continuously.

Quality assurance (QA) is a sub-area of QM and focuses more on operational implementation within the company.

Here, products are inspected, for example through checks, tests and measurements.

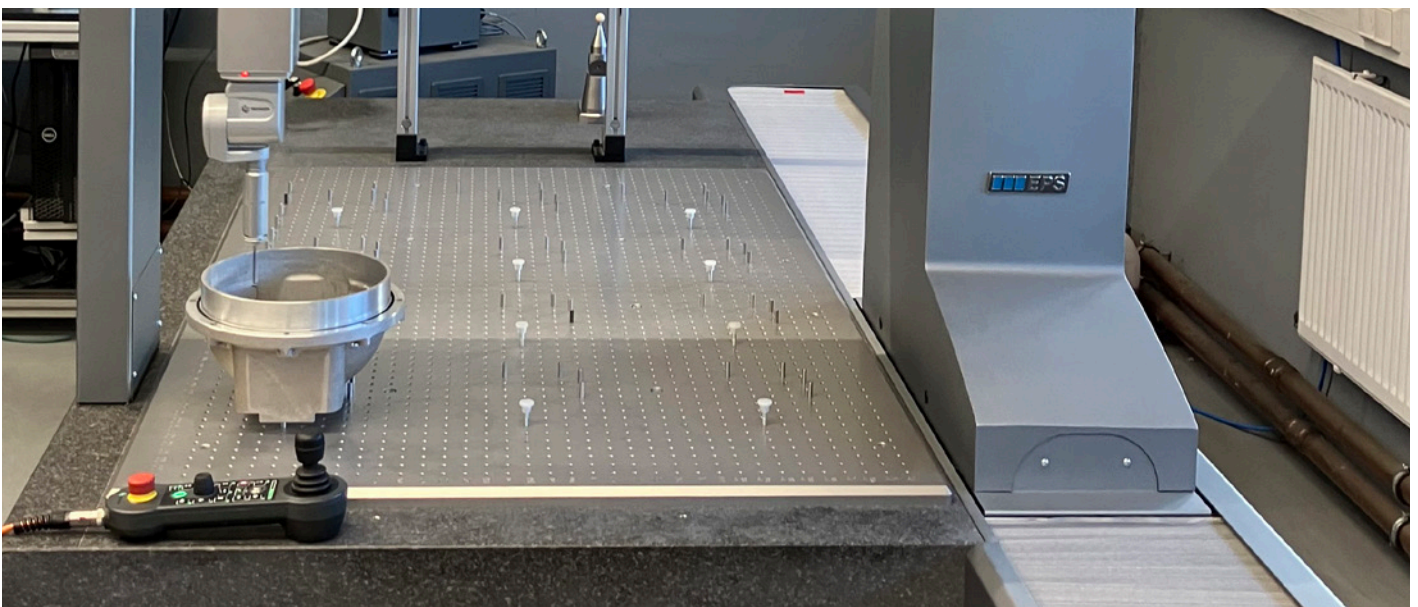
Objective: Defects are to be detected early and avoided in order to ensure consistently high quality.

These checks are primarily carried out during goods receipt, during production, or at goods dispatch.

To ensure this quality, we are supported by a Hexagon Global S Blue measuring machine, which offers a measurement accuracy of 3.5 µm (micrometres) over a measurement length of 500 mm.

This measuring machine delivers precise and reproducible measurement results, detects deviations at an early stage and thus makes a significant contribution to ensuring and maintaining the required quality.

Together, QM and QA ensure customer satisfaction, reduce costs through error prevention and strengthen our company's competitiveness.









EMG

an **elexis** company

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