

# PASSION FOR PRECISION.

State-of-the-art test systems  
and components.

**GDOG**  
testsystems





# OUR STANDARDS.

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The GDG test systems for armatures and stators represent state-of-the-art technology that was developed in a highly skilled team. Starting from scratch with the design and planning up to the implementation – anything is possible with creative, motivated and highly qualified professionals who contribute to our success. Their skills combined with years of experience are the basis to fulfill customer requirements. Precision down to  $\mu\text{m}$  in the mechanical world and down to  $\mu\Omega$  in the measurement field are our terrain.

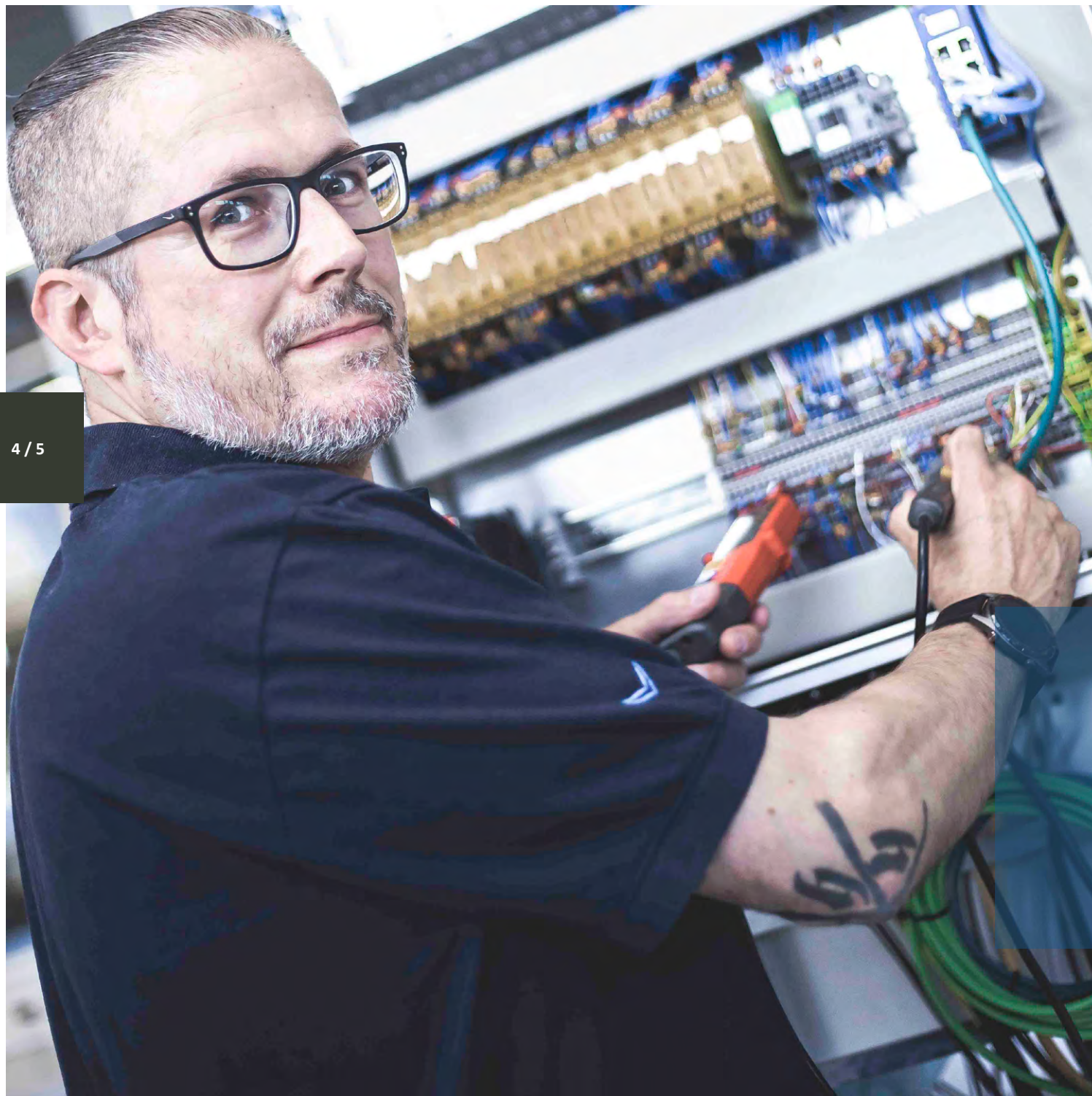
Made in Germany, more precisely located in Sasbach at the edge of the black forest, we design and manufacture electrical test equipment for small DC motors being in operation worldwide. We offer compact desktop style armature and stator test systems up to fully automated machines suitable for integration in production lines with a high level of automatization.



*“Our passion is the development of suitable test evaluations to meet the high requirements of the industrial environment in terms of quality and to spot production failures.”*







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Your benefit is the result of various innovative ideas with which we aim to meet diverse requirements. Take advantage of a worldwide leading company offering expertise in the development and manufacturing of armature- and stator test systems. Customizing is a further challenge we face on a daily basis. All that, since decades on a highest level. Short communication routes and the use of modern planning and production tools allow decision making on the highest standard.

Our strength features the close cooperation between research, mechanical and electrical manufacturing down to the printed circuit board branch. This structure results in a high flexibility of our product range which is considered as reference in various businesses. Benefit from us as your partner, your issues will be our challenges and our experts will only be a phone call away.

*“The motivation lies in the customer requests we receive. We are proud to be able to tackle an issue and come up with an approach to impress our customer who has one less thing to worry about.”*

“

**YOUR REQUIREMENTS.  
OUR INSPIRATION.**



OUR  
PASSION  
IS YOUR  
FUTURE.





# PRODUCTS.

The compact test systems are utilized for checking electrical features of armatures and stators. They are applied in different processes of the production. Process safety and traceability conform industry 4.0 are achieved by using integrated marking systems.

Automotive – Power Tool – Electric mobility – Industrial drives – Pumps – Household / White goods – Medical sector

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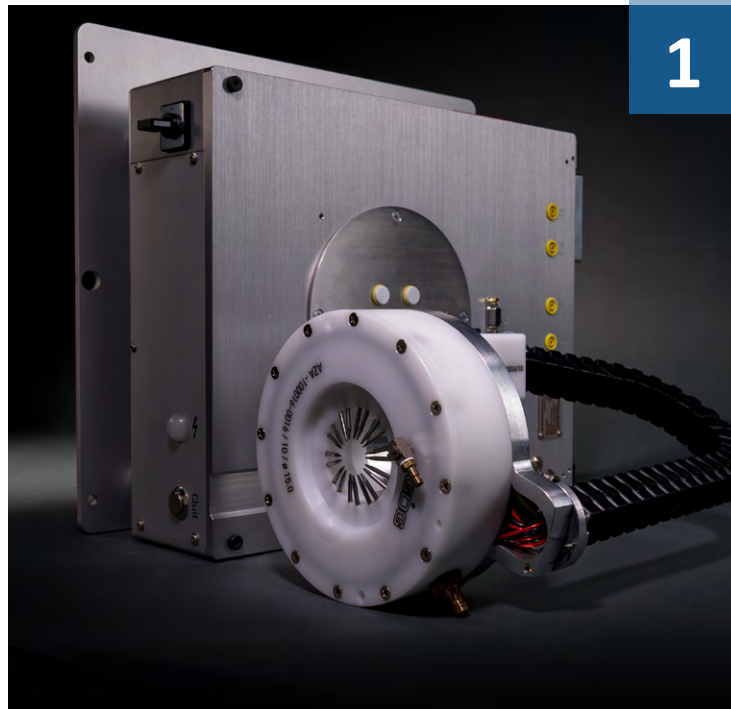
1

Our OEM measurement units can easily be integrated into our customer's automatic environment.

## MEASUREMENT UNITS

The OEM systems are designed for the integration in fully automated production lines and consist of measurement unit, industrial PC and contacting device.

You can easily integrate the OEM measurements without any expert knowledge regarding electrical measurement. The unit is equipped with a well-established interface which ensures smooth insertion. In case of an error the differentiation on whether the issue is related to the electrical measurement or the automation is pretty straightforward.

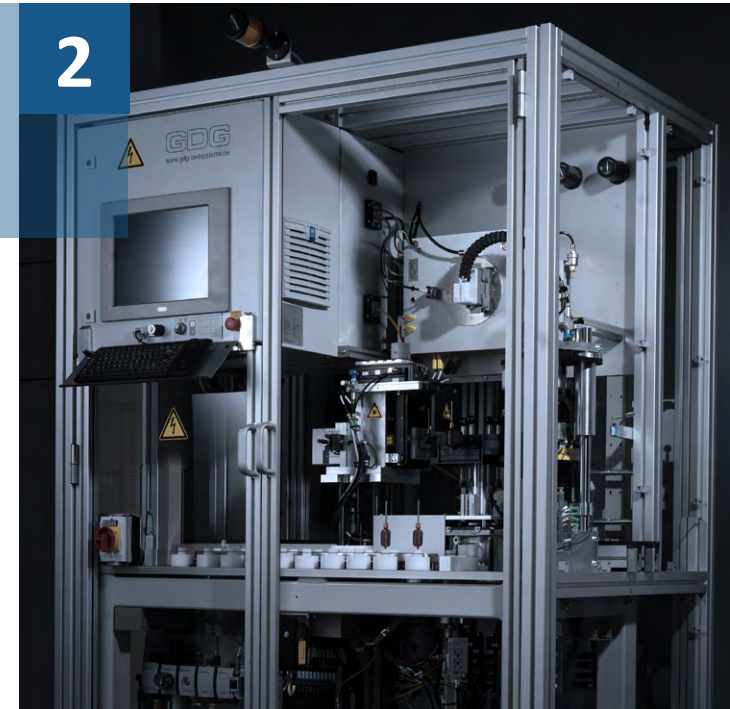


2

Our fully automated test systems are optimized related to cycle time and measurement precision – turnkey solution for the end of line production.

## FULLY AUTOMIZED TEST SYSTEMS FOR ARMATURES AND STATORS

The universal and modular design of the test machines allows the mounting on all typical transport systems. The pre-installation is finalized at the GDG plant to allow the mounting into the production line at customer's site, realized within one working day.



3

Our semi-automatic test systems are extremely versatile using few change parts.

## SEMI AUTOMATIC TEST SYSTEMS FOR ARMATURES AND STATORS

The desktop machines are suitable for mass production, quality control and laboratory applications.

The rugged design allows the application in tough 24/7 production environment – typically in semi-automated production lines with medium cycle time requirements.





Unique in size – the compact GDG marking options with integrated control unit and suction device.

4

## MARKING SYSTEMS TO MEET PROCESS SAFETY AND TRACEABILITY

To fulfill the Industry 4.0 requirements, marking options have been introduced to clearly mark the products after a passed electrical test. The options range from a needle marker up to a laser marking unit. Depending on the system, markings like plain text or the well-established Data-Matrix-Code (DMC) can be applied.



*"We offer highest measurement precision at fast measurement times, typical made in Germany, typical GDG."*



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The huge diversity of the product designs is reflected in the flexibility and versatility of our electrical adaptations.

## ELECTRICAL CONTACTING

The test probes we apply are characterized by their high versatility. Continuously changing product designs and dimensions (mainly stators) must be considered and implemented when designing the probe keeping in mind compatibility. Further the probes are equipped with highly reliable contacting which is the condition for a high-precision electrical measurement. The demand from the quality departments of our customers in terms of reliability and repeatability are obviously also fulfilled. On top of that, the contacting must feature a long lifetime, should be nearly wearless and robust to be able to resist in the harsh industrial environment (dust, dirt, oil, etc.).





# PRODUCTION.

GDG offers a fast and flexible production of the test systems and its components as we have got our own mechanical machinery combined with highly qualified and experienced engineers which are continuously taking part in advanced trainings. Merged with the electronics components we produce, we can reach nearly 100 % vertical range of manufacture at highest precision.

## MECHANICAL DESIGN

The majority of our customer requests we can cover using our standardized and configurable components and assemblies. This allows us to find immediately a first approach to a final solution to avoid starting from scratch.

In case a customized solution is requested we can come up with an idea exactly matching the requirements.

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*“Our vertical range of manufacture allows us to meet the highest demand in terms of quality and delivery time.”*

## RESEARCH

The in-house development of our hardware and software feature an extensive range of functionality.

The software functionalities cover data acquisition, evaluation and administration of electrical features as well as flexible interfaces to external measurement equipment. The integration of equipment of third parties is in some cases required to expand the scope of our standard measurement.

Control technique and automation functionality complement our portfolio. This philosophy allows a fast response to market changes and hence the consideration of customer requests at an early stage.







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**“WE FROM GDG  
DO OUR JOB WITH  
COMMITMENT AND  
PLEASURE – FROM  
A TO Z.”**

### **MECHANICS**

The scope of activities of our mechanical engineers reaches from CNC programming/manufacturing over assembling to the installation with modern machines we mill, turn, drill, grind, erode and engrave.

### **ELEKTRONIKS**

The electronics manufacturing covers the assembling of printed circuit boards of prototypes, assembling and installation of electrical cabinets and testing of functionality of complete systems.



A photograph of two men in an office. The man in the foreground has a beard and is looking towards the camera with a slight smile. The man behind him is wearing glasses and is pointing towards a computer monitor. The background is a window with a bokeh effect of light.

# SERVICE.

# “

*“We value the long-term compatibility of our products. In the event of production breakdown, no time should be lost. Extensive diagnostic options enable us to help you quickly in the event of a problem.”*

All our test systems feature a basic measurement board including software functionality, type specific properties of the product to be tested are transferred to special software or hardware options. That means our aim is to reach a high compatibility level which in case of an error simplifies the solution significantly. Further the storage of spare parts in stock can be reduced to a minimum. As a result, we service or maintain worldwide directly from our GDG headquarter in Sasbach with service calls at customer site only in exceptional cases.

GDG aims to treat customer issues over the complete product cycle and therefore we stand side by side with customer as a partner rather than as a supplier.

- Telephone/e-mail service
- Remote desktop service
- Provision of loan equipment
- Extensive warehousing
- Customer trainings
- Troubleshooting



# REFERENCES.



*"We would prefer to be on site everywhere, but of course that is not possible. But that's not a bad thing either, because our products and solutions are so durable and low-maintenance that even long distances don't matter"*



**"GDG is our strategic partner for rotor and stator test systems. They deliver a performance which fully meets our specific needs."**

Dunkermotoren GmbH

**"GDG has been our partner for rotor and stator test systems for more than 20 years. Starting at the early design stage of our products GDG has evolved as a reliable consultant in terms of electrical testing throughout the continuous improvement and optimization phase."**

BSH Hausgeräte GmbH | A company of the Bosch Group

 aumann

 BMC

 BOSCH

B/S/H/

 Dentsply Sirona

 dunkermotoren

 ebmpapst



**EIBENSTOCK**  
Elektrowerkzeuge

 FEIN

 FESTOOL

 FLEX

 HILTI



 KAG  
excellent drives

 mafell  
creating excellence

 Miele

 MinebeaMitsumi  
Passion to Create Value through Difference

 Nidec  
All for dreams

 NITOKU  
Design the Next

 RHEINMETALL

 SNT Motiv

 TAMAS



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**MADE IN GERMANY.  
FROM SASBACH  
TO THE WHOLE WORLD.**

