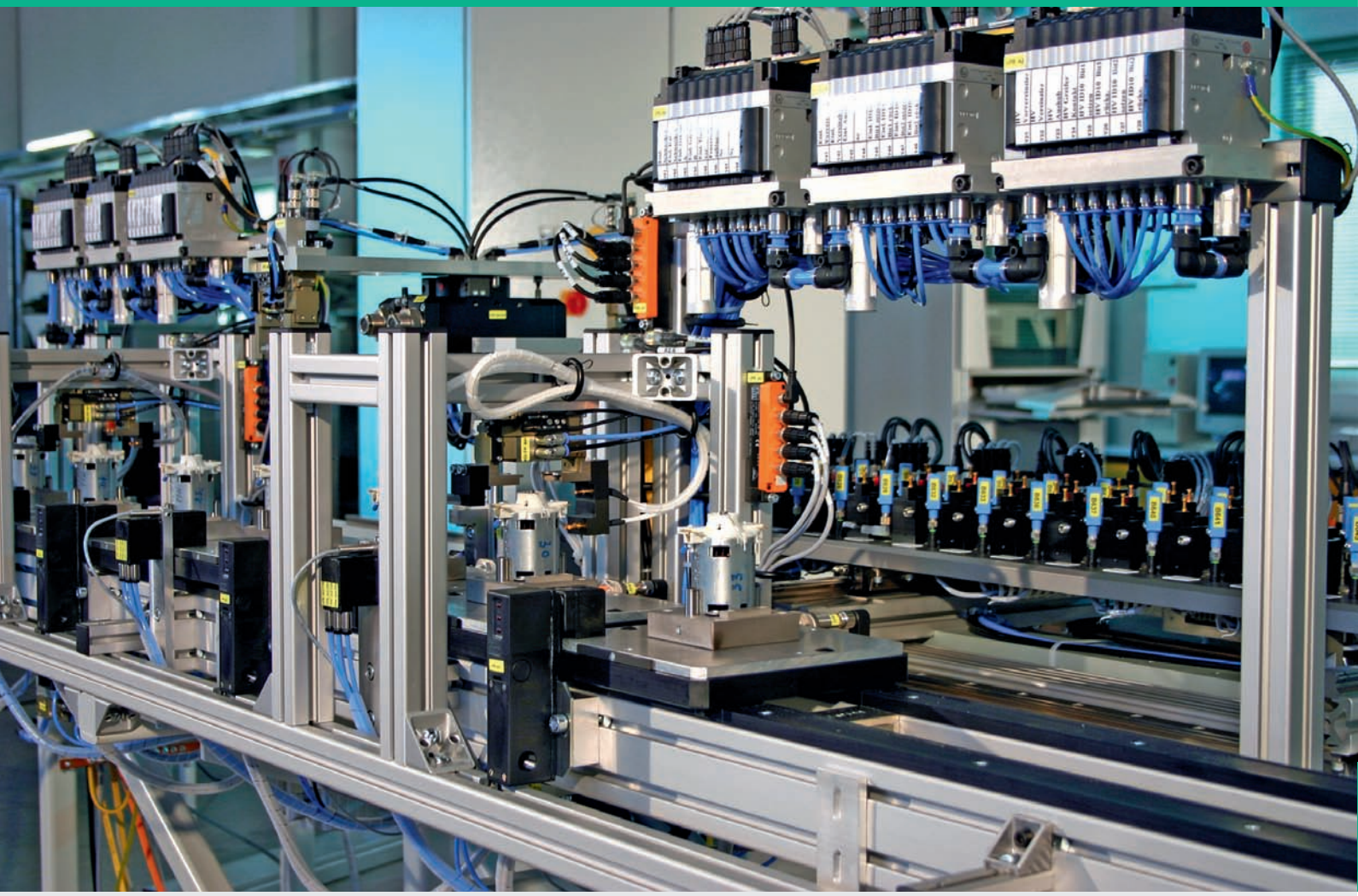
VOGELSANG & BENNING

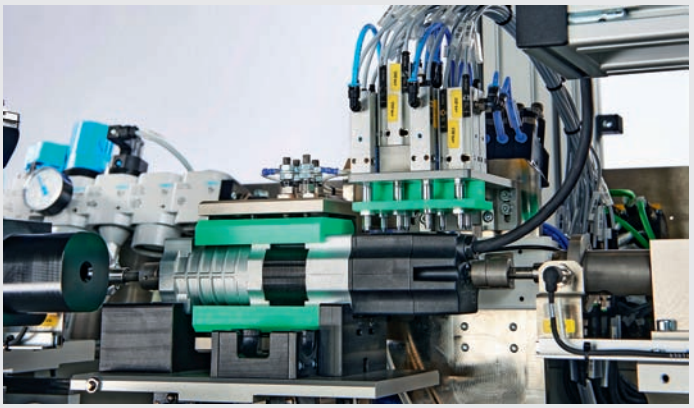
Test Systems
Automation Solutions
Quality Control Systems

Complex test systems for electrical and electro-mechanical components

Holistic thinking for complex solutions



Today, the development, production and repair of modern, technically sophisticated products is no longer conceivable without automated investigation and test systems. The requirements placed on the test equipment are as varied as the components to be tested and the test requirements themselves.



The combination of project-oriented development and the use of proven standard components provides us with the flexibility needed to develop suitable system solutions for our customers.

"To our way of thinking, system solutions includethe resolution of your specific test requirement."

Whether you require a fully automated test procedure or a complete production line, Vogelsang & Benning is the right partner for you.

The company and its services

As a successful company operating in the field of the construction of special purpose machinery, we have been serving the needs of customers across all the sectors of the general plant and machine construction industry, the chemical and automotive industries as well as their suppliers since 1983.

Our multi-faceted manufacturing range includes solutions from the area of test systems, automation solutions, quality assurance systems as well as assembly technology and industrial handling.

As well as creating customer-specific turn-key test systems, our team of experts also undertakes the modernisation of existing plant and equipment.

"Our work is founded on creativity, innovative spirit, reliability and the respectful handling of our customers' wishes!"

Development of functional specification → **Test stand design and mechanical/ electrical layout** → **Engineering and design** → **Assembly and commissioning** → **Support during start-up and run-up phases** → **Service and maintenance**

Investigation and test systems for every application

Vogelsang & Benning supplies fully automated investigation and test systems, for a broad spectrum of industrial products everywhere in the world.

Our core skill is the design and implementation of customer-specific testing and test stand solutions for drive systems and components as well as the pump and automotive industries.

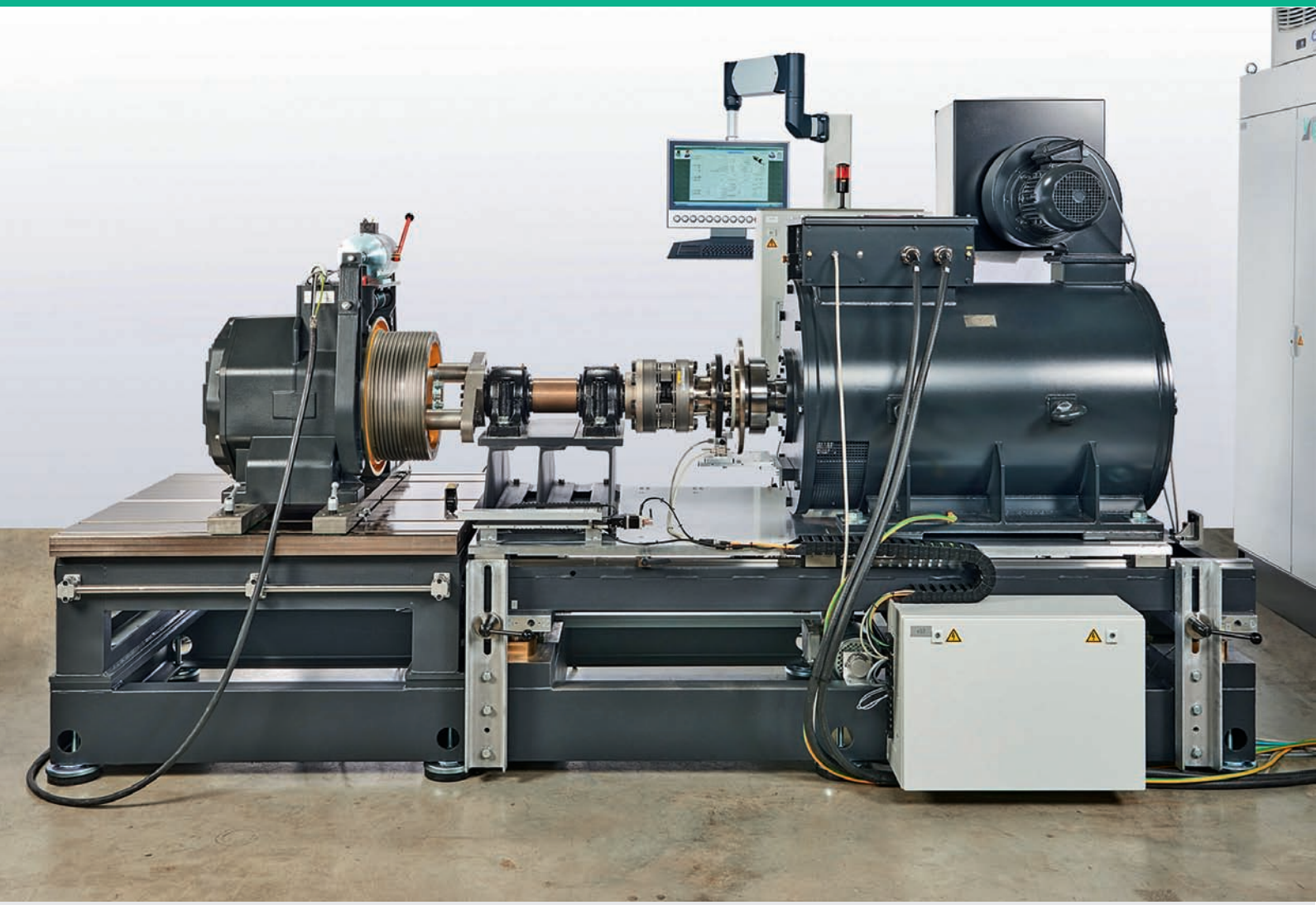
Our experience gained in the many different areas of application create a wealth of in-depth know-how in the fields of examination and testing. We work in project teams, the composition of which depends on the specific customer task. We draw on engineers from all disciplines to build our teams. Our customers value this approach of using a dedicated team.

Drive systems

Pump industry

Automotive industry

Test systems for drive systems and components



Our test systems for drive systems and components vary depending on the functionality of the component to be tested. Our test systems range, on the one hand, from EOL test stands for volume production which focus on the simplest way of handling the products to be tested and the optimal cycle time, and on the other hand to test stands with ultra-precise measuring equipment and flexible software for use in product development or routine testing.

Wherever the equipment falls within the above range, the system solutions are developed for the customer's specific application and systematically aligned to the customer's requirements and objectives. The measuring equipment used in our systems and the software developed by Vogelsang & Benning is suitable for the determination of efficiency according to EN 60034-2-1.

Extensive analyses and records document the tests. The data which is acquired during the testing is available for further analysis and statistical purposes.

- DC motors (separately excited, series, shunt)
- AC motors (single phase, three phase, squirrel cage rotors, slip ring rotors)
- Reluctance motors
- Synchronous motors

"Whatever the type of motor to be tested – we have the right test concept."

Test systems for the pump industry

Pumps and pump systems exist for every application – and each requires a special test stand concept. Thus every test system for pumps is a new and different task to which we apply all our experience.

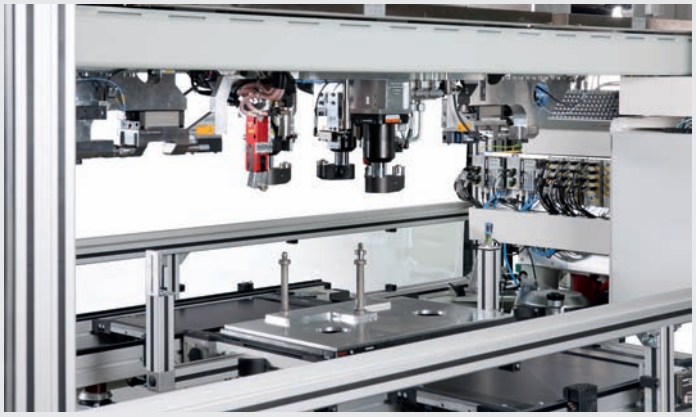
The Vogelsang & Benning portfolio includes:

- Acceptance test facilities for rotary pumps
- Production test stand for hydraulic pumps
- Test system for final inspection of barrel pumps
- Testing station for submersible motor pumps
- Pump testing station with NPSH measurement
- Series test stands for compressors

Existing components will be used when modernising an existing plant. In these cases a high degree of flexibility is achieved by means of a systematic module concept.

Vogelsang & Benning also supply complete pump testing systems, starting with the pipework and then moving on to the actuators, sensors, mechanical components of the test system, supply and switching equipment ready for connection and finally the control system complete with the corresponding measuring equipment. The in-house development of software at Vogelsang & Benning ensures that installation and start-up is trouble-free.

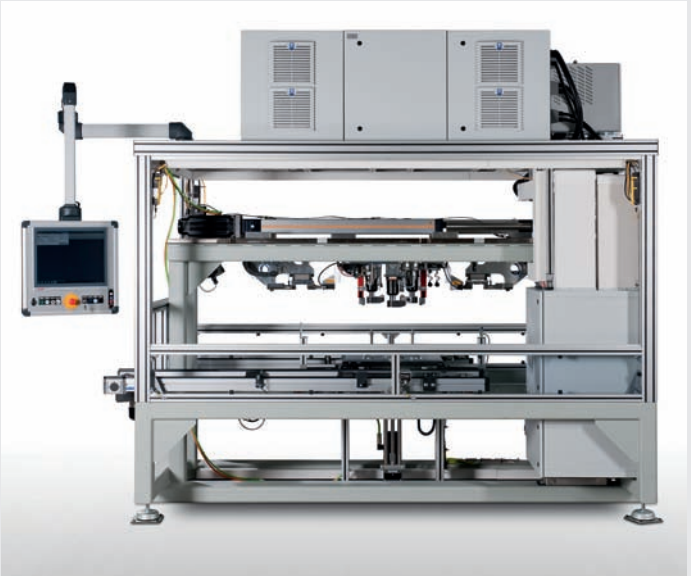
Test systems for the automotive industry



- Series test stands for hybrid drives
- Test centre for PSM power-assisted steering booster motors
- Development test stands for electric motors with/without power electronics
- Universal test stand for 4WD clutches
- Series test stands for accelerator pedal modules
- Test machines for electric rear axle steering
- EOL testing of rotational speed sensors
- Series test stands for belt tightener motors
- Fully automatic EOL test line for servo-electric steering drives

The ever-increasing intelligence and complexity of systems used in automotive engineering require specialised manufacturing and testing technology: these modern test stand concepts for the wide variety of components used in electromobility require an in-depth understanding of drive technology based on lengthy experience in the field of performance and life cycle test stands.

Complex investigation and test systems for specialist electrical and electro-mechanical components – a selection:



Customer service

FMEA (Failure Mode and Effect Analysis)

We adopt FMEA as a planning and design tool throughout the entire project. The tool is used in the design and development of both the hardware and software for the project so that we are in a position to supply a reliable solution to our customers.

MSA (Measurement System Analysis)

After assembling the test stand we use MSA Process 1 to ensure that the equipment we have manufactured records and assesses the quality features of the test objects with the necessary accuracy and repeatability.

Training and induction

Training and instruction can take place on-site or in our factory as required. A targeted training plan customised to suit the target groups (operators, maintenance technicians etc.) will be developed depending on the target group and the number of participants.

Maintenance and calibration

Utilise planned plant downtimes and prevent potential machine failures by regular maintenance. Protect the quality of your measurements and calibrate your equipment every year.

And of course we also offer customised maintenance contracts and calibration services for your specific equipment. We would be happy to send you an offer at your request.

24 hour service availability

We can be reached 7 days per week, 24 hours per day and so we offer you round the clock support with our 24-hour on-call availability.

You can reach us during office hours:
Mondays - Thursdays 7.00 am - 4.00 pm
Fridays 7.00 am - 3.00 pm
Phone +49 (0) 2327 547-0

Outside these times you can reach us on Phone +49 (0) 2327 547-110

SERVICE 24 h

Remote maintenance

During the warranty period, the equipment is fitted with a remote diagnosis system for maintenance, service and support. For this to operate, the control computer must have Internet access. During the guarantee period this service is free of charge for our customers. If a maintenance contract is concluded this service remains free of charge.

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