THE BALLUFF TESTING LABORATORY
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Naturally, all Balluff products are tested to ensure that they conform to the relevant regulations. But we place even greater demands on quality. We call this Balluff Quality: a high standard that exceeds worldwide standards. This is why we invest in our own in-house testing laboratory – so that you always get the best.

- Our products are subjected to different interference factors in various industries which are not covered by standards. Since we are thoroughly familiar with the demands of industries our testing ensures that you are always on the safe side.

- The experts from development take advantage of the wealth of experience from our testing laboratory. Balluff product knowledge is highly comprehensive because this know-how flows back into the company. You too profit from this expertise.

- Time to Market: With our in-house testing laboratory we are independent of scheduling requirements from third-party laboratories. This speeds up the development process. We can respond quickly to market demands and be faster in offering you innovative solutions.

- And last but not least, the testing laboratory is our competency center for all international requirements placed on our components. We know the directives, laws and standards all over the world. And we know when they undergo which revisions.

Range of services for the testing laboratory:
http://assets.balluff.com/WebBinary1/513252.pdf
ACCREDITATION

innovating automation
The Balluff Testing Laboratory is accredited by the German National Accreditation Body DAkkS for the testing of electromagnetic compatibility.*

This confirms our ability to perform testing according to international standards. The results are used for product approval or for verifying CE Conformity.

Adherence to all specifications are verified by an independent agency no less than every two years.

Accreditation is also advantageous for our product tests:
- We are not tied to corporate successes. Rather, Balluff contracts external companies who perform audits for the Balluff business units impartially and independently.
- We are always able to inspect according to the latest specifications. This means we can ensure that all Balluff products are always developed to the latest state of the art.
- Reports from an accredited laboratory for testing product noise immunity are accepted worldwide. You can rely on Balluff products wherever you are.

* Testing per DIN EN ISO/IEC 17025 “General requirements for the competence of testing and calibration laboratories”

Range of services for the testing laboratory: http://assets.balluff.com/WebBinary1/513252.pdf
ALL-ROUND WELL POSITIONED.

Our testing laboratory offers the most modern testing and measurement systems at the highest technological level for:

- Testing electromagnetic compatibility
- Environmental simulations
- X-ray analyses

Range of services for the testing laboratory:
http://assets.balluff.com/WebBinary1/513252.pdf
TESTING NOISE IMMUNITY
In our semi-anechoic chamber we simulate electromagnetic radiation emanating from various sources both in residential areas as well as industrial environments.

These include
- Radio transmitters
- Mobile telephones
- Wi-Fi (WLAN)
- Radar equipment
- RFID systems or devices at close range

With this simulation we determine the resistance of the product to electromagnetic effects so that we can increase its ruggedness.
We test electromagnetic compatibility of our product at the testing stations. Among other things we test noise immunity to conducted interference induced by high-frequency fields.

For this we simulate noise using
- Linear regulators
- Computers
- Printers
- Consumer electronics
- Walkie-Talkies
- Frequency converters

By means of such EMC testing we ensure that these products meet or even exceed the legal requirements and those of the industry.
ENC TESTING FOR COMPLEX APPLICATIONS
MEASURING RF EMISSION
In the GTEM cell (Gigahertz Transverse Electromagnetic Cell) we measure the radiation emitted by products through the housing. This includes

- Mobile telephones
- Radio receivers
- Wi-Fi (WLAN)
- Industrial communication products

This is our basis for being able to reduce the emission values of our products.

Range of services for the testing laboratory:
http://assets.balluff.com/WebBinary1/513252.pdf
At a station in the shielded room, the radiation from product cables is measured. Often these conducted emissions from products are generated by components.

For example from:
- Linear regulators and DC/DC converters which are integrated in power supplies
- Communication components in power line and network products

Measuring these emissions also serves to increase the quality of the tested products.
VIBRATION AND SHOCK TESTS

Using an electrodynamic shaker we generate mechanical vibrations to simulate loads such as those found during transport or when the products are in use.

This test tells us much about the vibration response and mechanical rigidity of the test sample.

Range of services for the testing laboratory: http://assets.balluff.com/WebBinary1/513252.pdf
Our high-resolution realtime X-ray device with 180 kV microfocus tubes makes 2D or 3D analysis possible in product inspection. It allows, for example, to make solder bridges, component cracks or broken leads visible without having to open the specimen.

In this way we inspect the process quality of our production, analyze circuits and ensure that you always receive a flawless product.
HALT, the Highly Accelerated Life Test, is unlike other environmental testing in that it is not intended to qualify products. This test cannot be successfully passed!

With HALT we simulate the accelerated aging of electronic products until they fail. Our goal is to uncover potential weaknesses in our components as early as possible and correct them in the development phase.

The result is reliable, rugged products.

Range of services for the testing laboratory:
http://assets.balluff.com/WebBinary1/513252.pdf
We assist you expertly and personally

SERVICES

innovating automation
Our products are precisely tailored to your needs. Our services are too – for fast commissioning, optimum process flows and the greatest possible planning security and cost effectiveness. Would you like advice on products and services? Tailor-made solutions? Or expert know-how on site? You receive our comprehensive support – expert, uncomplicated and totally according to your specifications.

Your Balluff solutions
- Technical support
- Training
- Support and consultation
- Development and integration
- Product-accompanying services
- Customer-specific solutions

More information and details:
www.balluff.com
Balluff is one of the leading suppliers of high-quality sensor, identification and network solutions and of software for your automation requirements. Family-owned for more than 90 years, around 3600 employees worldwide in 37 wholly-owned subsidiaries for sales, production and development are dedicated to the highest quality.

We give our all to provide top services for innovative solutions that increase your competitive edge. Through years of experience we bring the competence of a manufacturer and high personal engagement.

We follow our motto “Innovating Automation” as pacemakers of automation, refiners and new developers, and technological trailblazers. In open exchange with associations, universities and research institutes as well as in close contact with our customers we create new industrial sector solutions for automation. With innovative Balluff solutions you are well equipped for a successful future.

You can always count on us, our products and our scheduling and delivery reliability – in the spirit of a good partnership.