**Services**

*Immiscion technique – Automated ultrasonic testing*

Services for single and serial part examinations with immersion technique

- Feasibility studies
- Quality control of modern welded, soldered and glued joints
- Testing of casted and forged parts
- Punctual and reliable
- Offline- or inline series attendant

[www.vogt-ultrasonics.de](http://www.vogt-ultrasonics.de)
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Professional and reliable services
In production plants, where single parts or small to medium sized batches are tested with ultrasound, it is suggestive that this testing is carried out by an external service.

For such tasks VOGT Ultrasonics GmbH (in the following named VOGT) is able to provide flexible, excellently skilled level II and III NDT-personnel.

Furthermore, the testing laboratory has been accredited acc. to DIN EN ISO/IEC 17025.
Since 2007 nothing has stood in the way of the advice and implementation of NDT within the aviation and space sector. VOGT holds all current personnel certificates according to EN 473, the certification acc. to EN 9100:2003 as well as personnel with the EN 4179 qualification.

The quality of VOGT’s testing equipment guarantees a full approval by their customers and their technical purchase departments. The mobile ultrasonic scanners as well as the stationary immersion equipment meet the highest requirements.

Cost saving ultrasonic testing can be carried out by various equipment including, ScanMaster ultrasonic systems, testing software incl. visual display and modules flexible to the relevant testing technique.

The expert execution of the testing jobs by VOGT is well adapted to the particular needs of the customer. It offers the highest safety standard as required for the customers products. Testing jobs are invoiced either according to expenditure or to the number of tested parts. If not yet available, testing specification as well as a testing instruction will be defined together with the customer.

Only little personnel expenditure. The fields of application are manifold. Thus are tested parts for the automobile, aviation and aerospace industry, the metal working and plastic industry. In addition to volume testing, surfaces of parts are examined for cracks resp. laser, electrobeam and conventional welding seams.

The rotationally symmetrical parts are tested by means of rotary tables and bar rotator devices. Once set ultrasonic parameters as well as the scan resp. probe positions are memorized in the computer integrated testing system and they are immediately available for repeated testing. So a new and expensive setting of the testing system is not required. Testing of serial part batches at different times can be carried out quickly without any problems and at low cost.

Taking a decision for external services
A producer’s decision to test the parts at or by an external service provider depends on the company’s investment and personnel policy as well as on the rate of utilization of the proper testing system, if available.

In case of employment stop, low rate of utilization of the testing
systems, too high costs for the training of proper testing personnel on the complex testing technique or the expressive demand for external quality testing, customers call on the VOGT services.

Modifications in the production process may require the producer’s decision either to purchase new equipment or to fulfil the testing job otherwise – for instance by appointing a service company. In order to determine the cost-effectiveness ratio, the number of parts to be tested is of importance.

VOGT’s testing engineers assist with a profitability study or can even develop it further by request of the customer.

An advantage of VOGT services is the use of state of the art technology to ensure the best quality in inspection and testing.

Multiple ultrasonic immersion systems for diverse component sizes and weights are available in our testing laboratory as well as a mobile bar- and tubetesting station. Our immersion systems provide the possibility of inspecting components with dimensions up to $1.180 \times 970 \times 970$ mm as well as rotationally symmetrical parts with diameters up to $1.500$ mm.

Through continuous research, innovative development and the use of the latest device technology in combination with our certified and qualified personnel, we ensure the highest operational standards regarding reliable and economic solutions for the testing jobs of our customer.

We are certain that we are the right partner for you!
Technical Data

- Several ultrasonic testing tanks and diverse scan mechanics (e.g. portable 2-axis scanner and rod-/tubeturntable). For rotationally symmetrical parts up to 1500 mm diameter, turn tables are available.

- 2 – 6 axis scanning mechanics for carrying out 2D up to 2.5D-scans via teach-in-points for the testing of simple flat up to complex piece part forms.

- Testing frequencies 0.3 - 50 MHz

- The ultrasonic hardware allows the use of 1 – 8 ultrasonic channels simultaneously for one scan.

- Phased Array and TOFD – testing technologies

- Multizone Testing, C-Scans and Linescans

- During part scanning the ultrasonic signals may be shown online as A- B-, C- and D-scans in accordance with the application and being saved.

- A number of software tools are available for the evaluation of data and analysis of the examination results, such as for example distance- and surface measuring from/to defects, histogram of amplitudes and time-of-flight data, cross sections and projections of C- and D-scans, continuous zoom, modification of the colour/grey graduation and resolution and many more.

- Documentation may be in binary, ASCII code, BMP or pcx-data format. Thus it is ensured that the examination results may be used for standard PC-applications.

VOGT is aware of their responsibility as a service company for quality control and orientate their actions accordingly.