

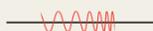


ibg can supply transport belt sorting systems for huge cast or forged parts

ibg can supply simple--yet very flexible--handling systems for the testing for hardness and/or material mix of huge cast or forged parts.

These systems are based on belts, for example, which transport the test parts through a test coil. Each part is tested with **ibg's** reliable Preventive Multi-Frequency Technology.

Photo shows an example of an ibg-designed belt system.



New representatives added around the world

New partners of **ibg** have been added in Asia: Taiwan and Vietnam are welcomed. In Europe, **ibg** is now active in Hungary.

ibg has offices in all of the major automobile manufacturing and tier supplier countries. With this coverage, we are set up to support you worldwide regarding questions of test applications, sales, installation and service.



TEST Patterns

This issue features:
EDDYVISOR

Number 17

Technical Seminars have been scheduled

The latest technology for eddy current components testing will be presented in two seminars this Spring:

Tuesday, April 22 at Mississauga, Ontario (Canada) • Thursday, April 24 at Ann Arbor, Michigan

Discussion topics will cover testing for: Material Structure, Proper Alloy, Proper Heat Treatment (including hardness, case depth and case depth pattern), Surface Cracks and Flaws, Multi Filter Testing (including new crack test Technology) and Turnkey Solutions.

Presentations begin at 8:45 each morning to provide answers such as What can go wrong in heat testing; How eddy current testing has changed—including single-frequency vs. multi-frequency material property testing, and single-filter vs. multi-filter crack testing; Applications for material testing—actual solutions...automatic 100% testing...audit tests; Applications for crack detection—actual solutions...and automatic 100% testing; New applications; New systems for 100% crack detection and/or material test on automotive/bearing components; Costs and justifications; plus Discussions and hands-on instrument activity. The seminar closes at 4:00 p.m.

There is no charge for the seminar, and details will be sent upon receipt of a reservation. Coffee breaks and lunch will be provided.



The basic eddyvisor@SC instrument, in the desktop version, for the testing of material parameters and surface defects.

New-generation eddyvisor®SC offers crack detection and structure test in one instrument

The new-generation *eddyvisor®SC* combines crack detection and structure testing in only one instrument. (For your information, S = structure, C = crack.)

The basic version of the *eddyvisor®SC* has two channels, for crack testing and structure testing. However, these instruments can be equipped with up to 16 channels for structure testing and up to eight channels for crack detection.

There are many advantages to using this instrument. One example

is that, when used in a test system, crack testing and structure testing can be combined at one or several stations. Second, the system requires less PLC programming effort. In many cases, the cycle time may be reduced and the layout of the test system simplified. And, the investment cost for a combined instrument also is lower than the sum cost of single instruments.

Even further, the *eddyvisor®SC* offers numerous options for the documentation of data, which—these days—is becoming more and more important.

NDT Talk



by Bill Buschur - General Manager

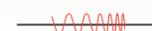
Another eventful year for **ibg** has been completed. After an extremely successful introduction of the *eddyvisor®S* structure test instrument in 2005, we presented the new *eddyvisor®C* crack test instrument in 2007.

During an **ibg** Workshop in April of last year, our German customers had an opportunity to critique the new *eddyvisor®C* instrument. Meanwhile, these instruments were sold in the Far East and here in the U.S. The rapid acceptance of these new **ibg** developments in the marketplace is testimony to the importance of high quality to our customers around the world.

In April, two seminars have been planned: in Mississauga, Ontario, and Ann Arbor, Michigan. I hope you will be able to attend one of these.

If you are interested in a presentation of our new generation of *eddyvisor®* Instruments, either for crack detection or structure testing or both, we would be pleased to respond to you as soon as possible.

Bill Buschur



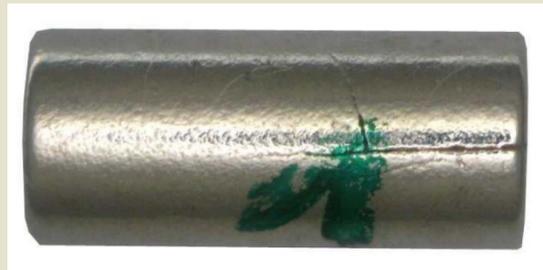
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Crack detection probes available for all types of applications



This photo shows a variety of crack test probes.

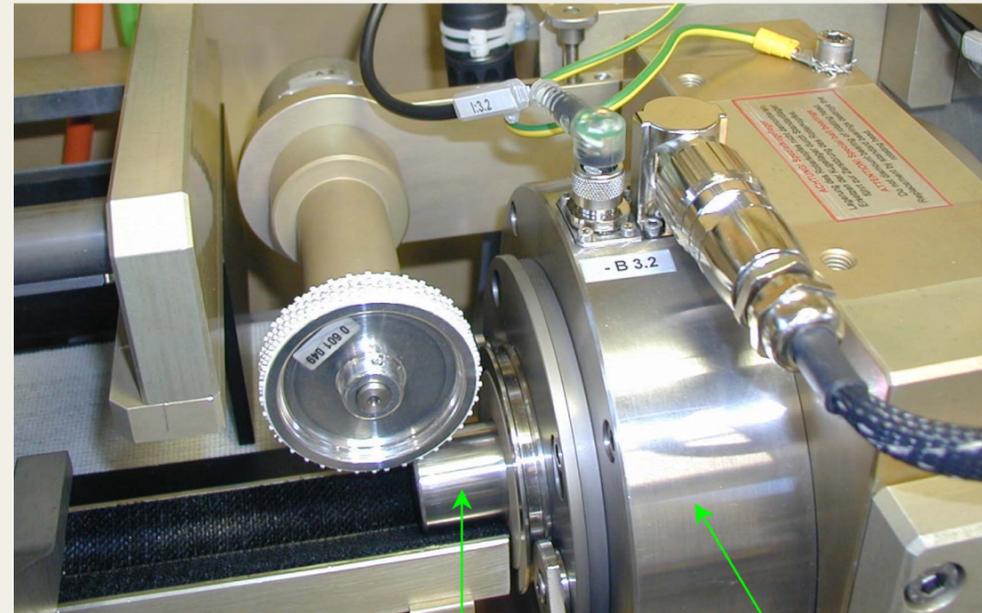
The manufacturing of coils and probes is a science in itself, requiring both theoretical knowledge and many years of experience. **ibg** benefits from almost three decades of practical experience in this field. A specific team at **ibg** deals with the design, layout and testing of probes for crack and structure testing, assuring the right sensor for your specific application.



These components show natural defects.

The manufacturing of crack detection probes is very complex. Microscopic components must be installed and mounted with high precision. Where possible, we recommend the use of standard probes to lower costs and assure availability. A wide range of probe types are stocked by **ibg**.

There are almost no limits to the design of probes for special cases. We take into consideration electromechanical optimization, as well as ease of installation and supreme mechanical precision.



This photo shows a cylindrical roller (noted with arrow) entering the rotating head (right hand arrow) of an eddy current instrument, where it is scanned without contact. Such a crack test system also may be equipped with other stations for heat treatment verification or marking.

Eddy current crack detection is more effective than conventional systems and blends well with automation

It must be acknowledged that eddy current crack detection technology is superior to conventional crack test methods, such as visual or magnetic particle inspection. Even better, the eddy current method is easy to automate, with the test result being reliably indicated by the instrument. With us, the unsafe "human factor" has no influence.

Further, with eddy current detection, no consumable items are required. Although the investment cost for an eddy current system may be higher at the onset (compared to a magnetic particle system, for example), the payback period is short, and eddy current systems are less wage-intensive, while current expenses are lower. As a general rule, the investment cost for an eddy current system is recovered within a few years—and, in some cases, within a few months.

Modern automation concepts, such as the usage of CNC probe movement, enable the scanning of complex geometries for surface defects without interruption.

