



info

No. 16

ibg-Talk



The new ibg temperature adaptive testing tool "iTAS" solidifies ibg's leadership in the field of eddy current testing of components.

Producers and users of heat treatment systems will be delighted with this new technology, because it enables them to achieve much higher reliability and efficiency of the production process.

35 years of focused innovation forms the basis for the success and continuous growth of the ibg group. At three locations, over 50 highly qualified and motivated specialists continuously work on development and production of ibg's eddy current systems for testing components for superficial cracks and for material properties/structure parameters.

A worldwide network of 26 sales and service partners offers you access to ibg's know how. We look forward to hearing from you.

*Yours
Herbert Baumgartner*

iTAS

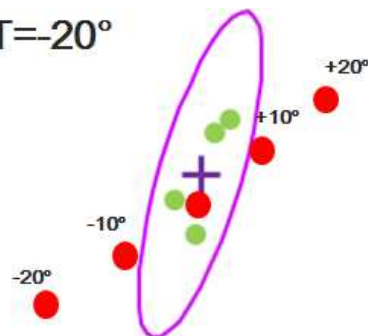
NEW: Temperature Adaptive Structure Testing iTAS

Eddy current tests are based on the electrical conductivity and magnetic permeability of the material of the parts that are being tested. Different materials or a change of micro-structure result in slightly different, but detectable characteristics. However, conductivity and permeability also vary with changing temperatures of the parts. Electrical conductivity changes approx. 4% per 10°C .

ibg already compensates for slow changes (e. g., of room temperature) by applying differential measurement with two coils, compensating the test part with a compensation part in a second coil.



$$\Rightarrow \Delta T = -20^\circ$$



Shift of the measured values in one impedance plane due to a +/- 20 °C temperature change of the test part.

But parts are also typically heated up during industrial processes, and then they can subsequently cool down while in a queue before testing. Therefore, they might reach the test station at significantly different temperatures, causing false rejects (see diagram on page 1).

ibg's new Temperature Adaptive Structure Test (iTAS) takes the influence of the temperature into account. If the user measures the temperature of the test part in a sufficiently precise way by means of a sensor that it is directly connected to the **eddyvisor**®, it is possible to compensate almost completely the influence of the temperature. All tested parts now appear to have the same temperature. Test accuracy is enhanced and false rejects reduced. Visualization of iTAS on the instrument screen also allows comparison of the influence of part temperature changes to changes in other factors that influence the testing. Examples include influences of the batch, dimensional changes, etc.

As usual, the instrument is calibrated with only OK parts. Now, however, OK parts at different temperatures are also included in order to generate a temperature compensation curve.



Screen of the **eddyvisor**® with activated iTAS

New eddyguard® S and eddyguard® C have definitively found their place in the market

eddyguard® S and **eddyguard® C** are being sold since early 2013 and are already firmly established in the market. The concept of these two price worthy instruments is that an external PC or notebook is utilized for setting up test parameters as well as for visualization of testing and test results. As soon as the configuration is finished, the PC or notebook may be disconnected from the **eddyguard®**, which continues to operate in an autonomous mode.

eddyguard® is available for structure tests (= **eddyguard® S**) as well as for crack tests (= **eddyguard® C**) and may be operated together with all existing ibg coils and probes. Both instruments run bg's proven Preventive Multi-Filter or Multi-Frequency Test (PMFT). The main applications for **eddyguard®** are standard tests on automatic test systems with limited part type changes. Our sales department will be glad to provide further information about these new instruments.



eddyguard® S and **eddyguard® C**

Custom Made In House Workshops

The need to test components with eddy current is growing and, therefore, also the interest to know more about our technology and instruments. To inform large groups of people in your organization about our technology, we offer personalized half day or full day in house workshops at your location. These workshops will cover eddy current testing with ibg solutions, targeting specifically your products and needs.

We can organize these workshops on a worldwide basis in collaboration with our local sales partners. We look forward to hearing from you if you are interested!

ibg Technical Meetings – 2014

Technical Meetings in Detroit, Beijing and Stuttgart

This Spring ibg held “Technical Meetings” in Detroit, Stuttgart and Beijing, inviting the sales partners of our worldwide sales network.

The aim of these meetings is continuous training and development of the skills of our sales partners, the presentation of new products and features and the exchange of ideas. This year’s main topic was the presentation of our new temperature adaptive tool iTAS.



ibg Technical Meeting in Stuttgart

CONTROL in Stuttgart

From May 6th to 9th, 2014 ibg exhibited at the Control with an impressive booth. Control is the leading international trade fair in our market segment and has become a mandatory appointment. We were pleased to welcome countless interested visitors to our booth.



ibg - short notice



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