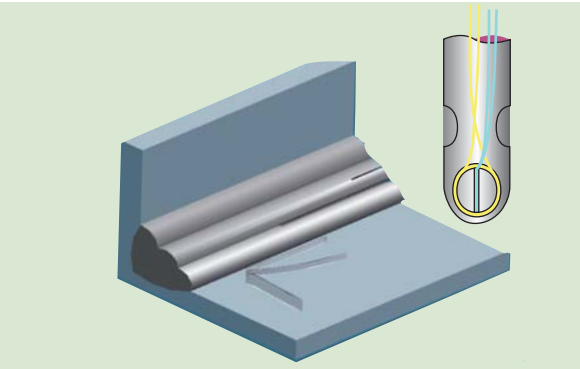
# BTW INSTYTUT GAMMA

## EDDY CURRENT OF WELDS AND COMPONENT TESTING

**BTW Instytut Gamma specializes** in advanced Non-Destructive Testing with their main focus on Eddy Current inspection services and solutions. Our clients are Oil and Gas companies, Power Generation, Pulp and Paper, Chemical, Cranes, Bridges and Aerospace industry.

Eddy current testing of welds is the newest industry sector of activity. ECT for crack inspection can surpass Magnetic Particle Inspection (MPI) and Dye Penetrant Inspection (DPI) sensitivity with no additional clean-up required. Rapid inspection can be easily repeated with ECT over both conductive and nonconductive coating eliminating grinding and repainting efforts, unlike MT and PT method.

Zetec's MIZ-21B battery operated hand-held equipment with weld scan probes is very suitable in field inspections, especially in hard-to-reach or limited visibility locations. Bad weather conditions like rain, high humidity, low or very high temperatures are not a problem for such testing.




Main examples of eddy current testing are:

- Welds also ferromagnetic and non-ferromagnetic materials
- Flaw detection in nuts, bolts, bearings, turbine blades, shafts, etc.
- Austenitic cladding steals on carbon steel in petrochemical reactors
- Padding layer for reclamation and repair purposes
- Seal welds of tubes heat exchangers
- Sorting of metals of dissimilar composition, heat treatment or microstructures
- Measuring thickness of non-conductive coatings on metals
- Measuring thickness of metallic coatings
- Evaluating of heat treatment and the chemical action results on metal components
- Conductivity measurement, hardness

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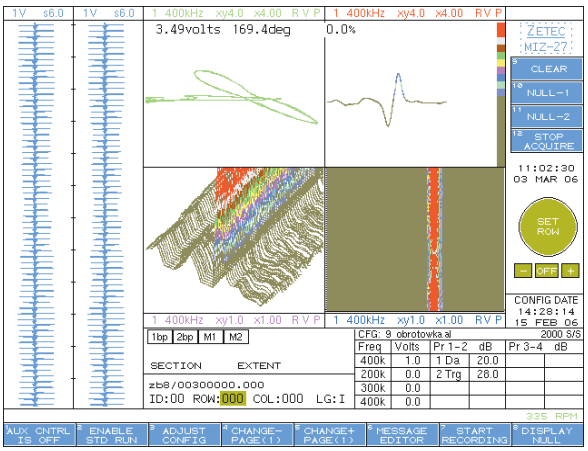
**Instytut Gamma performs eddy current testing services** for the aerospace industry. All engineers are high qualified personnel according to EN-4179 standard and have PCN level II qualifications as a minimum. Our inspection services are available to be performed at the customer site or in our Laboratory facilities.

When it is necessary to inspect components for cracking in surface defects such as fatigue, it is the norm to consider PT or/and MT method. Unfortunately to successfully apply these techniques it is necessary to remove the protective coatings and prepare the surface of the component by grit blasting or needle gunning. This preparation & subsequent reinstatement of the coating system constitutes most of the cost of the inspection.




Instytut Gamma qualified engineers and technicians perform maintenance and inspection services.

- Engineers with competence in maintenance analysis and planning, inspection planning, damage evaluation, material technology and risk based inspection.
- NDT senior inspectors on level 2 and 3 in accordance with EN-473/PCN-BIND certification system an EN-4179 for Aerospace sector.
- Welding inspectors in accordance with European Welding Federation requirements and EN-719 standard.

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