

About IABG

IABG offers integrated, ground-breaking solutions in the sectors Automotive • InfoCom • Mobility, Energy & Environment • Aeronautics • Space • Defence & Security. We provide independent and competent consulting. We implement with future viability and target orientation. We operate reliably and sustainably. Our success is based on an understanding of market trends and requirements, on our staff's technological excellence and a fair relationship with our customers and business partners.

As a development partner we provide quality control services and develop solutions in the areas of functional efficiency, quality, design, and materials. We offer a broad spectrum of products and services, ranging from numerical analysis to experimental testing to the realisation of turnkey, customised test systems that we operate for the customer.

For further information please contact:

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AUTOMOTIVE



INFOCOM



MOBILITY,
ENERGY &
ENVIRONMENT



AERONAUTICS



SPACE



DEFENCE &
SECURITY

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Impact Testing for aerospace applications



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Cover picture: Bird strike on aircraft

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IABG provides various impact test opportunities for any kind of aircraft components and structures

- IABG offers safety-related testing that replicates scenarios such as bird strike or hail impact on aircrafts or helicopters to support the entire development process of our customers' products from design to certification
- The dimensions of test specimen can range from small material samples to complex structures such as leading edges, flaps, empennages or cockpits
- Our impact facilities allow projectile velocities with up to several hundred metres per second
- Standardised and customised projectiles, e.g. birds, gelatin, hail, tyre debris, etc. can be accelerated



Aircraft after Foreign Object Damage (FOD)

Our various impact test facilities support a wide range of applications for customer needs

IABG offers a wide spectrum of measurement diagnostics, such as:

- High speed video cameras with up to 30.000 fps to analyse the structural behaviour
- Digital Image Correlation (DIC) to assess deformation of the impacted structure
- Measurements for e.g. strain gauges, accelerometers, load cells can be acquired with sampling rates up to 1 MHz
- Damage assessment by non-destructive testing methods, e.g. ultrasonic and eddy current, CT, etc. *



Calibration of the impact facility, measurement sensor and equipment

IABG complies a wide range of international standards and a flexible customer-oriented testing procedure

- ASTM F320 & F330
- CS 25.631 *, CS 25.734 *, CS 25.775 *
- CS 29.631 *
- Customer-specific test requirements *
- Each test campaign is documented with a detailed test report with measurement data, photos, videos and a damage assessment
- We offer you the possibility to participate in any test on site or via live broadcast from your office

Why you should rely on us

We are a neutral company, helping our customers meet mandatory impact test regulations. **We provide an overview** of how test objects react in worst case scenarios along with analyses of their potential weaknesses. **According to the test results, we provide test certifications** that enable market entrance and facilitate sales.

IABG is certified according to ISO 9001 and EN 9100
IABG's ballistic, blast and impact tests are accredited according to DIN EN ISO/IEC 17025

* These (testing) services are not accredited according to DIN EN ISO/IEC 17025