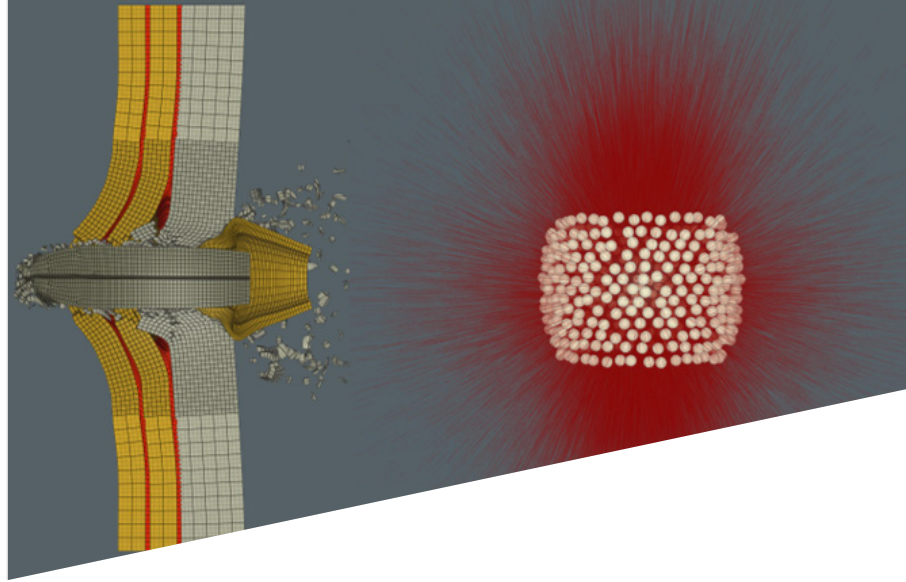


EXPLOSIVES & BALLISTICS

SIMULATION AND DEVELOPMENT OF ARMOURING COMPONENTS



YOUR GLOBAL MOBILITY ENGINEERING EXPERTS

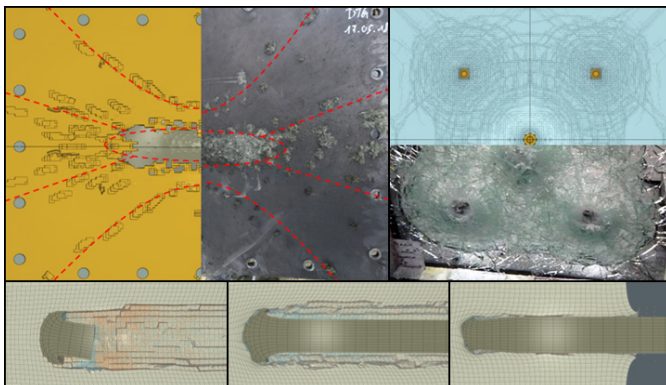
We are your competent partner in the simulation-assisted development of armoured vehicles, protective equipment and all kinds of special protection solutions. With our team of experts in Ingolstadt and the EDAG CAE network, we can offer you a broad portfolio of simulation-based development and validation services.

In the process, we draw on almost 30 years' experience and know-how in the development of high-security vehicles. We have specialised in the use of the IMPETUS Afea Solver to provide all-round simulation support for your development projects.

Taking initial concept studies as our basis, we work with you to develop functional protection solutions specially tailored to your requirements. We see your development process through to the successful certification of the product.

Advantages of virtually assisted development

- Early, substantiated assessment of the performance of the protection concept
- Direct evaluation of design changes in advance
- Optimisation through implementation of efficient parameter variations
- Checking different scenarios without expensive testing measures



Simulation tasks:

- Simulation of blast loads and ballistic effects on structures
- Reconstruction of certification volumes
- Adaptable detailed investigations
- Systematic analysis of weak points
- Impact scenarios in structures and target ballistics
- Simulation reconstruction of attack scenarios
- Concept studies and parameter optimisation
- Simulation of physical tests

Concrete applications:

- Military vehicle protection systems
- High-security civilian vehicles
- Protective equipment and secure rooms
- Individual protective components

Our services:

- Construction of complex FE models from CAD data including material properties, joining technology and separate boundary conditions
- Simulation of diverse certification requirements
- Detailed design of protective systems that function correctly and meet requirements
- Continual, iterative model optimisation and elimination of weak points
- Validation of the results on the basis of experimental data

Further analyses:

- Carrying out concept studies, weak-point and penetration analyses on protection systems
- Potential analyses in overload scenarios
- Firing at labyrinth structures and laminated safety glass

EDAG Engineering GmbH

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