EXPLOSION TESTING SERVICES

The ability to realistically assess hazards from accidental explosions and terrorist events and evaluate protective structures is an important part of safety and security engineering. Recognized for our expertise in conducting blast testing at our state-of-the-art shock tube test facility and high explosive test ranges, ABS Group provides energetic testing services to support industrial design verification and a variety of government research and development (R&D) programs.

ABS Group has been a leader in managing risk to critical infrastructure since our company was founded in 1971. As the trusted provider of blast testing services to clients in the industrial manufacturing, oil, gas and chemical, and public sectors, we combine our knowledge of advanced risk modeling and simulation methods with risk based solutions to help organizations minimize threat to life, damage to property and loss of mission.

Our Advanced Engineering division’s full range of energetic testing capabilities help clients in the industrial and government sectors understand a range of threats and scenarios involving energetic materials to promote safer, more reliable equipment and operations.
**Shock Tube Testing**

Our indoor shock tube test facility in San Antonio, Texas, is capable of testing windows, walls and structural targets up to 12 feet by 16 feet to simulated blast loads from high explosive and vapor cloud sources. Easily adaptable for R&D programs, the facility provides a 20,000 sq ft laboratory for conducting blast testing in a repeatable controlled environment at reduced costs when compared to high explosive field testing. The facility also includes the following areas: shipping and receiving, storage, test article fabrication, test article post-test inspection/demolition, instrumentation room, conference room and break areas.

**Field Tests at High Explosives Ranges**

We also provide high-speed instrumentation, high-definition video, high-speed video production, video image analysis and post-event documentation of test programs on remote explosive ranges. Remote monitoring of data acquisition and high-speed video equipment enable us to monitor data and video systems up to the time of initiation.

**Advanced Engineering Solutions**

ABS Group’s Advanced Engineering division uses the latest technology and simulation tools, including 3D laser scanning equipment, to forensically measure and document energetic test events. Personnel are highly experienced in test planning, designing instrumentation packages and conducting tests in controlled blast environments.

Explore our range of engineering services and capabilities:

**Video Production and Documentation**
- High Definition Video
- High Speed Video
- Video Image Analysis
- 3D Laser Scanning

**Portable Data Acquisition Capabilities**
- High Speed Data Acquisition of Instrumentation
- Redundant Systems
- Independent Triggers

**High-Speed Instrumentation**
- Acoustic, Shock Gauges, Accelerometers, Linear Positions Transducers, Strain Gauges, Load Cells

**Research / Development and Analysis Validation**
- Window Glazing to GSA and ASTM F1642
- Curtain Walls and Storefronts
- Blast Resistant Doors
- Precast Concrete Panels
- Wall Systems
- Retrofit Systems
- Dampers
- Breaching Tactics

**Finite Element Modeling and Simulation of Tests**
- LS-Dyna on Microway Computational Cluster
- Performs Multi-core Simulations