Blast Containment Design

Containment structures are required for explosives processing, testing and demilitarization. Southwest Research Institute® (SwRI®) has the expertise in blast effects, field testing, numerical modeling, fabrication, and environmental monitoring needed to solve unique blast containment problems. The Engineering Dynamics Department staff can handle a containment problem from conceptual design through fabrication, proof testing, and installation.

Capabilities

- Blast-resistant design
- Explosives testing
- High-speed data recording
- High-speed photography
- Design-build capability
- Dynamic finite element analysis (FEA)
- Hydrocode analysis
- Heavy structural fabrication

Experience

- Design, fabrication and testing of portable demilitarization container
- Design, fabrication and testing of 22-lb high explosives (HE) test chamber
- Chamber life extension studies
- Containment design for melt-pour HE production facilities
- Development of TOW missile shields for Bradley fighting vehicle

Los Alamos National Laboratory (LANL) blast chamber

CAD model of portable blast chamber for munitions disposal

FEA grid of LANL spherical test vessel
Southwest Research Institute is a premier independent, nonprofit research and development organization using multidisciplinary services to provide solutions to some of the world’s most challenging scientific and engineering problems. Headquartered in San Antonio, Texas, our client-focused, client-funded organization occupies more than 1,500 acres, providing more than 2.3 million square feet of laboratories, test facilities, workshops, and offices for approximately 3,000 employees who perform contract work for government and industry clients.

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Race/Color/Religion/Sex/Sexual Orientation/Gender Identity/National Origin/Disabled/Veteran
Committed to Diversity in the Workplace

The SwRI Engineering Dynamics Department provides solutions for blast containment problems including blast-resistant design, fabrication, and verification testing. SwRI engineers also address environmental concerns related to explosions such as noise abatement and pollution control.

We welcome your inquiries.
For more information, please contact:

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