

BLAST ATTENUATION

Bosik Technologies Limited has developed Blast Panels used to attenuate high level blast pressures suitable for buildings, vehicles, and other objects exposed to such threats. The panels are **engineered to attenuate specific threat levels (blast pressure/time) to specific maximum levels** that are acceptable to retain structural integrity. The concept is shown in the Figure below. Input versus attenuated pressure ratios of up to 200, have been achieved. Typically the panels are attached to the exterior surface of walls, ceilings and floors of new or existing building or vehicles.

Blast Panel Features



The Blast Panel has the following features:

- Mitigates blast pressure to predetermined level
- Panels are engineered to suit threat level and to meet maximum allowable mitigation levels
- Customized sizes
- Low cost and light weight
- Painted and pre-drilled
- Wall, ceiling or floor mountable
- Secured fastening or welded nuts to prevent removal
- Steel angle border to prevent leakage
- Outer cladding for aesthetics
 - Attached to existing structures or used in new building or vehicle for improved efficiency in design

Typical Application of Blast Panel

The illustration below demonstrates two examples of a blast vulnerable structures and mounting methods that Bosik can design and fabricate. The Blast Panel can be installed on walls, ceilings, roof, and concrete pillars.



See reverse for more information...



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Blast Panel Mitigation

The Blast Panel response to a blast pressure is shown below. The Blast Panel mitigates the blast pressure to the designed lower level, which is within the allowable integrity of the structure or vehicle. For vehicles, the reduced forces reduce the accelerations on the vehicle and therefore the "g" loading on the occupants.

- Triangular wave form blast pressure time threat
- In the event of a blast, the blast attenuates the blast pressure to a lower level



Blast Pressure versus Time Curve

For more information on the Blast Panel, please contact Anthony J. Bosik, M.Eng., P.Eng., President.

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