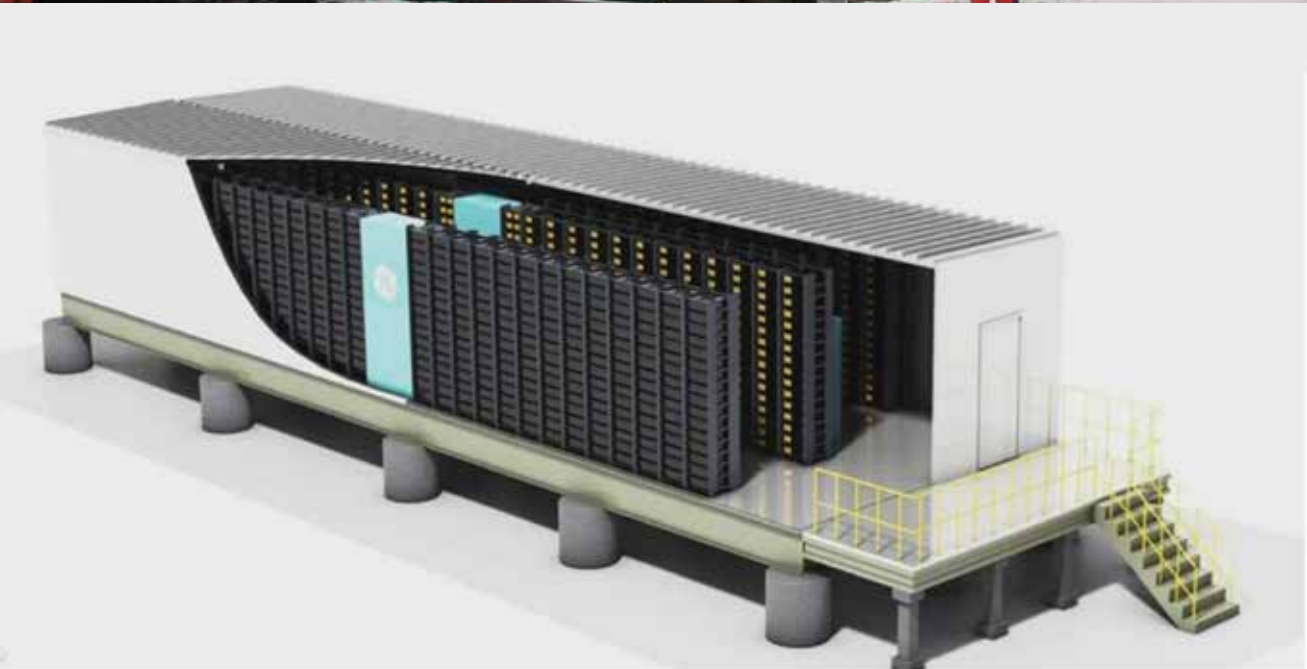


BESS Blast & Fire Protection



BESS Module Blast Relief Panels

Blast & Explosion Relief Systems for BESS and Industrial Applications

Mech Tool Engineering Ltd (MTE) designs, manufactures, and installs world class Blast & Explosion Relief Systems tailored for integration into walls and roofs. Each solution is engineered to meet precise project requirements, delivering the most cost effective and technically robust protection available.

With over 55 years of specialist experience, MTE is recognised globally as a leader in protecting people and critical equipment from fire, jet fire, blast, and radiant heat hazards across the offshore, onshore, nuclear, renewable energy, petrochemical, and industrial sectors. Since its foundation in 1969 supporting North Sea oil and gas platforms, the company has continuously advanced its capabilities through a programme of technical development and innovation.

Industry-leading Expertise Across Evolving Sectors

Building on decades of fire and blast engineering expertise, MTE's dedicated Fire and Blast Solutions team now provides unparalleled capability not only to the Oil & Gas, Renewables, and Nuclear industries, but also to the rapidly expanding Battery Energy Storage System (BESS) sector.

Growing evidence across the industry highlights that, without supplementary safety systems, BESS installations can present significant fire and explosion hazards, particularly during thermal runaway events where energy release can escalate rapidly. MTE's advanced venting systems are engineered specifically to mitigate these risks.



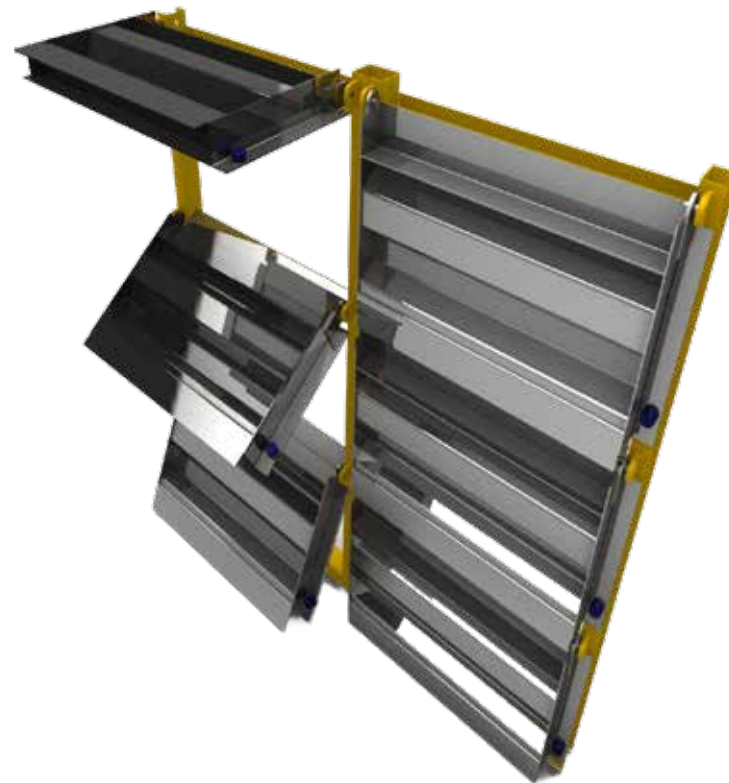
Blast Relief Systems for BESS Applications

MTE's blast relief solutions are designed to vent destructive overpressures safely and directionally, preventing damage to the surrounding containment structure—including doors, panels, equipment, and adjacent infrastructure.

Key features include:

- Panels supplied as individual units or multi panel cassettes
- Panels typically operate in paired "back to back" configurations, dissipating energy as they open
- Non-detaching design — panels remain secured by hinges after activation
- Panel size, quantity, and location are custom engineered to each project, complying with NFPA 68 requirements
- Suitable for new build installations or retrofit into existing BESS structures (walls or roof)

These low inertia, rapid activation systems provide reliable performance even under the most challenging conditions.



Performance & System Reliability

Prior to activation, MTE blast relief panels provide a fully sealed, robust solution capable of withstanding:

- Extreme environmental loading
 - High wind conditions
 - Pressure fluctuations
- without the risk of false activation.

This reliability exceeds that of many lightweight or membrane based alternatives.

Additionally, MTE venting systems can be supplied with internal insulation to match the thermal and acoustic ratings of the surrounding BESS enclosure, ensuring consistent environmental performance.

As a world leader in the supply of Fire Walls, Blast Walls, and Explosion Relief Systems, MTE is uniquely positioned to support the BESS sector as it moves toward more stringent regulatory and safety standards.

Our solutions ensure:

- Reduced consequences of fire and explosion events
- Protection of critical assets and personnel
- Full compliance with emerging industry legislation and standards



Above: Test case Battery Energy Storage System, destroyed by thermal runaway event occurring in lithium ion batteries.





Your Safety. Our Priority.



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