

Photograph: Jan Arne Wold / Woldcam / Equinor

Blast Protection Solutions

Blast Resistant Ducts

MTE Blast Resistant Ducts.

Mech-Tool Engineering Ltd [MTE] designs, manufactures and installs world class personnel and equipment protection systems tailored to specific project requirements in the most cost-effective way.



Blast-Resistant Fire-Rated Ducting Systems

Mech-Tool Engineering Ltd (MTE) designs and manufactures high-performance fire-rated, stainless-steel, blast-resistant ducting systems engineered to deliver exceptional protection in the most demanding offshore and onshore environments. These systems provide enhanced structural resilience against fire, blast, and high-pressure ventilation conditions, ensuring critical life-safety performance where it is needed most.

Engineered for Extreme Conditions

Every MTE ducting system is fully designed, engineered, fabricated, and supported in-house, including complete structural integration and tie-in details. This ensures seamless installation and full compliance with:

- Project-specific mechanical and structural requirements
- Harsh offshore environmental loads
- Third-party certification and approval standards

The ducting is specifically developed to withstand the intense operational conditions associated with offshore platforms, industrial ventilation systems, and life-safety air supply pathways.



Performance & Safety

MTE blast-rated ducts create a significantly safer operating environment in applications requiring:

- Enhanced blast resistance
- Increased structural stability
- High air velocity and static pressure performance

Typical use cases include Living Quarter (LQ) fresh air intakes, equipment room ventilation, and other safety-critical areas where reliable fire and blast protection is mandatory.

The system has undergone independent blast testing, successfully withstanding 2 bar overpressure—a level of life-safety performance unmatched by alternative ducting solutions.



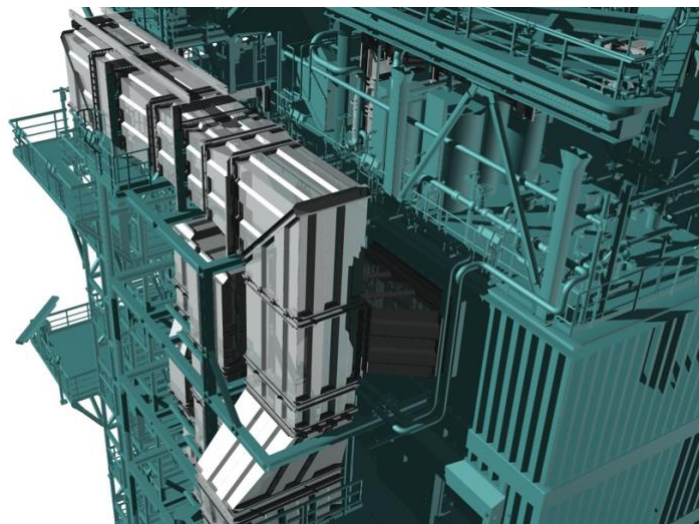
Trial Assembly of Roof Level Ducting
Turning vanes in compliance with DW/144 HVCA 'Specification for Sheet Metal Ductwork'

Lightweight, Fully Rated Design

Comparative studies show that MTE's blast-resistant ducting is the lightest fully rated system available, allowing operators to realise weight savings from concept through to final installation. This aligns with MTE's long-established platform weight-reduction philosophy, delivering improved structural efficiency and reduced lifecycle costs across offshore assets.

Typical Applications

- Blast-resistant life-safety ventilation systems
- Living Quarter (LQ) fresh air ducting
- Equipment room ventilation ducting
- Fire-rated high-pressure / high-velocity air systems
- High-integrity module ventilation



3D Model created for client by MTE.

The MTE Advantage

- ✓ **Proven Performance** – Designed to meet your environmental requirements
- ✓ **Custom-Built Solutions** – Tailored to your project needs
- ✓ **Trusted Globally** – Installed in major energy and industrial facilities worldwide
- ✓ **Efficient Installation** – No specialist tools required

Your Safety. Our Priority.

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