Wind Walls – Wind Shield Cladding

MTE

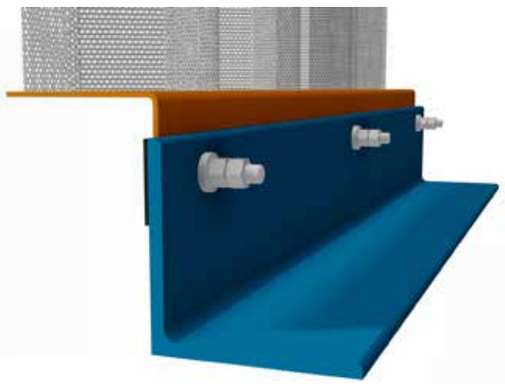
Mech-Tool Engineering Ltd

Wind Walls - Shield Cladding

Designed for maximum adaptability, the system is available in a variety of open-area and solid configurations, allowing each installation to be tailored to specific project requirements and environmental loads. MTE wind shields can achieve an immediate reduction in incident wind velocity in excess of 75%, with the system's energy-dissipating design further improving the reduction to around 86% just 0.5 m behind the panel—significantly improving comfort and safety in high-wind zones.

Panels can be supplied as framed units or as unframed systems, in which the panels are fixed directly to support posts using self-fastening screws. A single mechanical through-bolt ensures that no panel becomes detached during extreme storm events, providing a simple, robust and secure installation method suitable for offshore and harsh-weather applications.

MTE Wind Wall and Wind Shield cladding systems are engineered to protect personnel and equipment from extreme weather conditions, including high wind speeds, severe chill factors, driving rain, snow and arctic environments. Developed to act as durable environmental screens, MTE wind walls provide reliable protection for exposed walkways, perimeter walls, stair towers, shelters, and other areas requiring controlled wind environments.



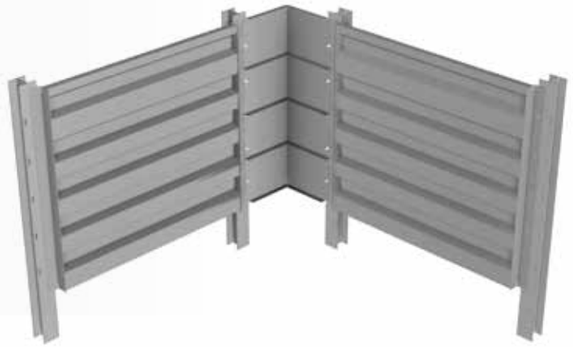
MTE wind wall and wind shield cladding is supplied as standard in 1.5 mm 316L stainless steel, providing a robust, corrosion-resistant solution for offshore, marine and exposed industrial environments. Alternative material specifications can be considered where required to suit project-specific conditions.

Wind wall panels are supplied as solid, unperforated profiled sheets, while wind shield panels use perforated profiled sheets to provide controlled ventilation and wind reduction. Both panel types can be supplied with welded end angles for bolting to the supporting steelwork, or as profiled panels fixed directly to the support structure, allowing the installation method to be tailored to the project arrangement.

MTE wind wall and wind shield systems are available in two principal configurations, allowing the solution to be matched to the available structure, project layout and required method of installation.

Fixed wind walls and wind shields are used where suitable existing structures are available. Support rails can be fitted to the structure and the panels mechanically secured using bolts or self-tapping screws. Depending on the project arrangement, the wall system can be designed to span either vertically or horizontally.

Free-standing wind walls and wind shields are specified where no suitable supporting structure is present. In these applications, MTE can design and supply vertical structural posts that are welded or bolted to the platform deck, with the wind wall or wind shield panels typically spanning horizontally between posts.



MTE wind shield cladding is engineered to maximise ventilation, minimise panel weight and reduce reaction forces transferred into the supporting structure, while maintaining practical and manageable panel spans. As standard, the system is supplied in 1.5 mm thick 316L perforated stainless steel with a 40% open area, providing an effective balance of airflow, structural performance and environmental protection.

Wind wall and wind shield panels are pressed into trapezoidal profiles with longitudinal edge returns to provide added strength and rigidity. The panels are typically arranged to run horizontally to a height of 3m between structural posts, which are designed to cantilever from the deck. Post centres can be configured to suit client and project requirements, up to a maximum spacing of 3m.

Independent Testing and Validation

MTE wind wall and wind shield systems have been independently tested at the Building Research Establishment (BRE), with testing witnessed by Lloyd's Register to provide third-party validation of system performance.

The test programme focused on wind-speed reduction and noise generation. Results confirmed that introducing the cladding panels to the support frame caused no measurable increase in noise within the limits of experimental error.

Panels were exposed to wind speeds of up to 25 m/s at a range of angles to the test subject, demonstrating performance under demanding and variable wind conditions.

Why Choose MTE Wind Protection?

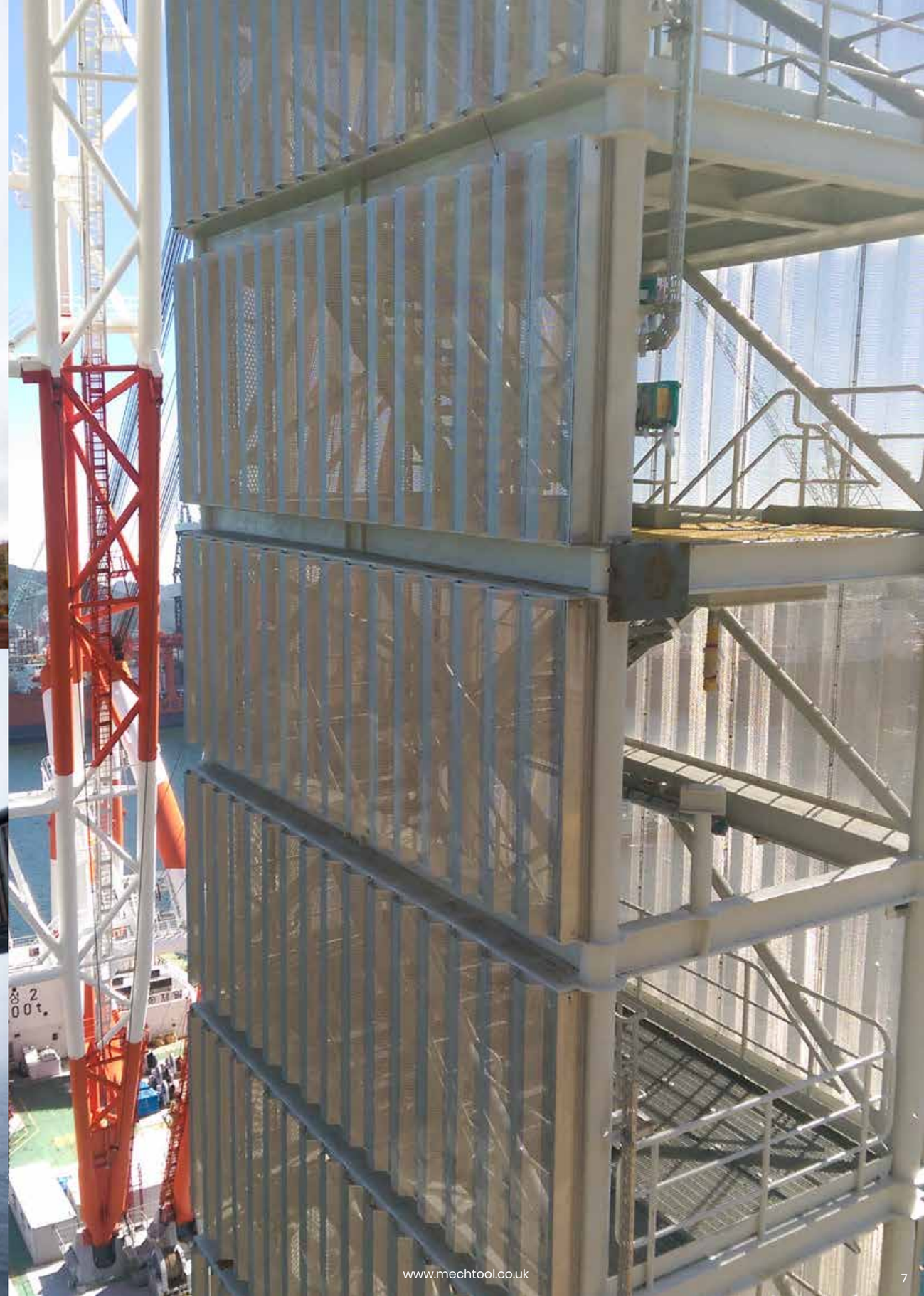
- Engineered environmental protection for personnel, equipment, walkways, stair towers, shelters and exposed perimeter areas.
- Available as solid wind wall or perforated wind shield cladding to suit project-specific wind, ventilation and protection requirements.
- Supplied as standard in 1.5 mm 316L stainless steel for durable corrosion resistance in offshore, marine and exposed industrial environments.
- Designed for fixed or free-standing installations, with panel spans and post centres configured to suit the supporting structure.
- Independently tested at BRE, with Lloyd's Register witness testing confirming validated wind-speed and noise performance.

MTE Projects

Top:
Gaz de France Cygnus Project

Below:
BP Valhall Project

Opposite:
Martin Linge Project



The MTE Advantage

- ✓ **Proven Performance – Designed to meet your enviromental 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**

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