

# Heatshields & Windwalls

*Fully Tested, Easy to Install Ventilated Cladding System*

Many applications in the petrochemical, oil & gas industries both on and offshore require fully tested and certified heatshield and windwall systems that can be easily fitted without specialist tools.

**Mech-Tool's** ventilated Heatshield and Windwall cladding systems are designed to protect personnel and equipment against the effects of radiant heat and adverse environmental conditions.

**Mech-Tool** has recently completed a programme of test work to the most onerous conditions which proves their ventilated cladding system has the highest performance of any certified product in the global market today.



## Fully Tested, Easy to Install Ventilated Cladding System

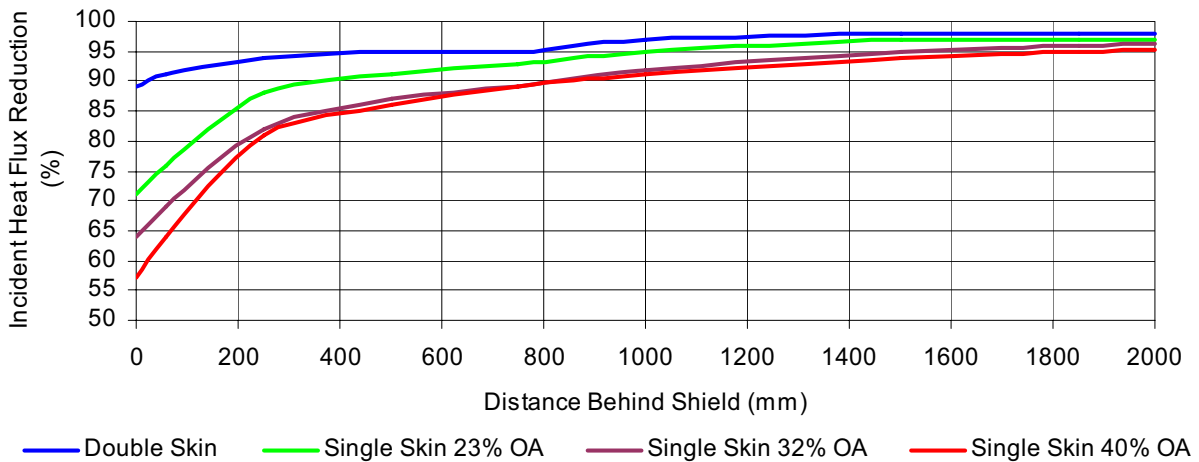
### Ventilated Cladding System Testing & Certification

Mech-Tool's ventilated cladding systems have been subjected to an extensive and onerous Thermal, Aerodynamic and Acoustic testing programme at the Building Research Establishment (BRE) (London, UK) in Spring/Summer 2010, witnessed and approved by Lloyds Register.

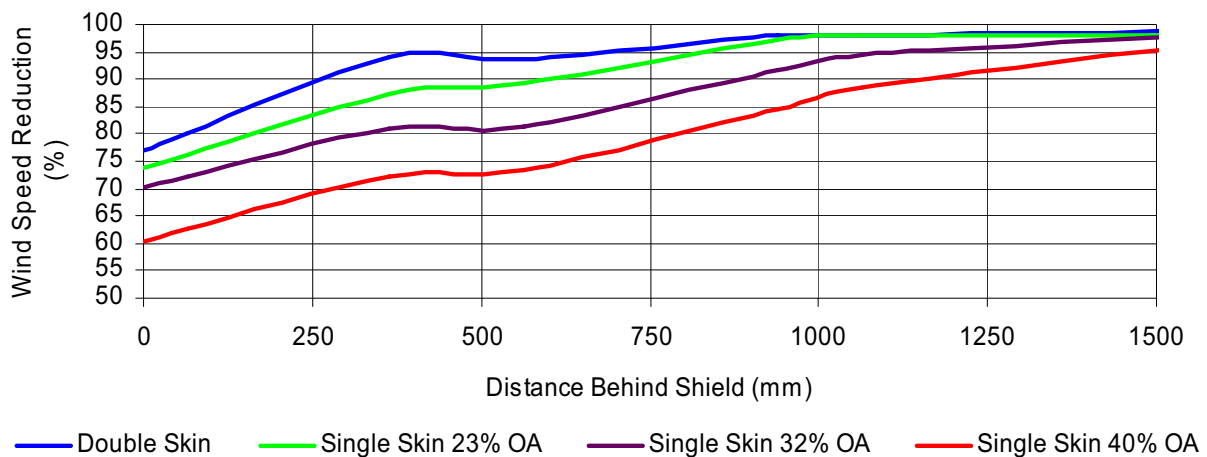
The testing programme concluded the following:

- ventilated cladding systems can achieve an immediate percentage reduction in incident heat flux in excess of 90%.
- ventilated cladding systems can achieve an immediate percentage reduction in incident wind velocity in excess of 75%. The energy dissipating design of the system means that half a metre behind the panel the percentage reduction in wind velocity is increases to 86%
- no direct increase in noise

Incident Heat Flux Reduction (%) With Distance Behind Shield



Average Wind Velocity Reduction (%) With Distance Behind Shield



# Heatshields & Windwalls

## Fully Tested, Easy to Install Ventilated Cladding System

### Heatshields / Windwalls

**Mech-Tool** has a continuous product research and development programme and as such has recently retested its complete range of ventilated cladding systems to meet the most onerous conditions and is now considered to be the most performance certified product in the global market today.

**Mech-Tool's** ventilated cladding system has been developed to provide an effective barrier against the effects of both radiant heat and environmental conditions thus ensuring both equipment and personnel are protected from such hazards.

### Design of cladding system

Panels are available with various single skin perforation patterns or in a double skin arrangement to suit a projects required performance.

The panels corrugated geometry is carefully selected to enhance its spanning capacity without detriment to its performance.

### Bespoke Design, Manufacture and Technical Support

**Mech-Tool** provides a full turnkey package for the ventilated cladding system from survey, design, manufacture, delivery and installation.

### Manufacture

**Mech-Tool's** ventilated cladding systems comprise perforated stainless steel sheets, profiled for increased strength, and welded to supports at each end which facilitate bolting into supporting steelwork. Panels are manufactured in either a single skin or a double skin configuration and typically utilise perforated sheets with differing percentage open area.

To meet the requirements of the client, **Mech-Tool** has recently invested in a 7 metre press which allows the manufacture of large span panels, thus reducing both manufacture and site installation times.

### Maintenance

The **Mech-Tool** system has been designed to be entirely maintenance free, manufactured from stainless steel thereby reducing the likelihood of corrosion within the system.

All permanent fixings are corrosion resistant Stainless Steel.

### Typical Applications

**Ventilated Cladding Systems** provide protection to personnel & equipment against the effects of radiant heat and all adverse environmental conditions.

Typical applications include:

- Heatshield cladding
- Windwalls
- Stair towers
- Bridge links between platforms
- FPSO Turrets
- Drilling Derricks
- Offshore Wind Farm Substations
- Horizontal flare stack shielding
- Life boat muster points
- Winterisation



# Heatshields & Windwalls

## Fully Tested, Easy to Install Ventilated Cladding System

### Installation

**Mech-Tool** has an extensive track record of supplying ventilated cladding systems throughout the world on many offshore and onshore projects.

The ventilated cladding system is easy to install and remove without the need for complex tooling.

Full installation instructions are supplied with each system, detailing how the panels are secured to the existing structure.

All permanent fixings are corrosion resistant Stainless Steel.

The configuration of the cladding system is designed as such that individual panels can be removed and replaced with ease.

### Advantages / Benefits of Mech-Tool's Ventilated Cladding Systems

- Designed for a 40 year lifespan
- Maintenance free stainless steel system
- Allows natural ventilation
- Allows natural light and visibility through the panel
- Light weight and rigidly structured
- Easy to install & remove individual panels
- Manufactured to suit customers requirements
- Spans deck to deck and requires no secondary support steelwork
- Tailor-made to accommodate existing structural steelwork
- Suitable for intermittent and severe thermal cycling conditions
- Penetrations can be incorporated within panels at site unlike that of woven mesh systems
- Full technical support available

### HSE

The **Mech-Tool** ventilated cladding system has an enviable health and safety record. There are no exposed unsafe edges unlike that of a woven wire mesh and expamet system.

### Testing and Certification

- Tested at the Building Research Establishment (BRE) (London, UK) in 2010.
- Performance witnessed and Certified by Lloyd's Register in respect of:
  - Thermal Performance
  - Wind resistance
  - Acoustic Performance

