

Mech-Tool Korea



*The global name in protecting people and equipment
from fire, blast and radiant heat hazards.*

Mech-Tool Korea Inc [MTK] is a wholly owned subsidiary of Mech-Tool Engineering Ltd [MTE], an Engineering-Manufacturing company with a global reputation for the protection of people and equipment from fire, blast and radiant heat hazards.

The Complete Solution

- Professional end-to-end project managed service
- Design, fabrication, delivery and installation
- Carbon, stainless steel 316L and Duplex
- Fire certification from A0 to H120 fire ratings
- Jet fire ratings up to J120
- Type approved by Lloyds Register and DNV-GL
- Quality Accreditation to ISO 9001: 2015
- Health and Safety Accreditation to ISO 45001:2018

MTK operates across the world’s most demanding onshore and offshore environments, supporting the oil & gas, chemical, petrochemical and wider energy sectors. Our engineered systems safeguard people and infrastructure where reliability and performance are essential.

As part of the Mech-Tool Engineering Group — established in 1969 — MTK delivers decades of fire, blast and thermal protection expertise, combined with local production capability for the Korean market. Since 2013, Mech-Tool Korea Inc. has provided high-quality, fully certified solutions to leading shipyards and global operators.

Working from our bespoke facility in Busan (South Korea), MTK combines a highly skilled local workforce with specialist engineers and project managers. This ensures precise execution, strict quality control and fully coordinated project delivery from concept through manufacture to installation.

People, Engineering & Technical Assurance

MTK’s reputation is built on the expertise of its people. Our teams apply deep engineering knowledge, advanced design tools and strict quality processes to deliver safe, compliant and dependable solutions. With integrated design, engineering, sales and project management functions, MTK ensures accurate, efficient and fully coordinated delivery across high-hazard applications.



Design & Consultancy

- Blast report reviews & interpretations
- Stressed-skin blast & fire design
- Blast relief studies
- Basis of design & specification development
- Structural, thermal, fire & seismic optimisation
- Weight & space reduction studies

Fire & Blast Solutions

- A0–H120 & J120 fire walls
- Blast walls up to 7 bar
- Blast relief systems
- Heat & solar radiation shields
- Wind shields
- Louvred panels
- Lightweight blast-rated ducts
- Escape route protection

Thermal Defence

High-performance microporous insulation systems engineered for naval, defence and specialist high-temperature applications. Our non-metallic solutions deliver exceptional thermal efficiency in environments where reduced weight, space optimisation and reliability are mission-critical.

Applications:

- Large & small naval vessels
- Small & large bore pipework
- Compact or complex engineered components
- Lightweight insulation for defence-specific systems
- Applicable to aerospace & nuclear-linked defence projects

Nuclear & SMR Thermal Solutions

Engineered microporous insulation systems designed for Small Modular Reactors (SMRs), Advanced Modular Reactors (AMRs) and wider nuclear and high-temperature industrial applications. Our systems offer ultra-low conductivity, high durability and stable thermal performance in safety-critical, space-restricted environments.

Applications:

Nuclear Energy

- SMR, AMR & traditional reactor insulation
- Thermal containment for compact/complex geometries

Industrial & Energy Infrastructure

- High-temperature processing equipment
- Hydrogen production systems
- Concentrated Solar Power (CSP) systems
- Carbon Capture & Storage (CCS) thermal conditioning

Engineering, Testing & Validation

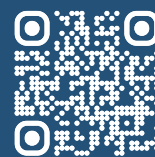
- 3D design & modelling (Autodesk Inventor)
- Thermal calculations to minimise surface temp & heat loss
- Structural & dynamic analysis (Nastran)
- CNC-integrated precision manufacturing
- Qualification support for nuclear & advanced energy programmes





Above: MTK brings together a skilled local workforce and highly experienced Project Engineers and Project Managers to ensure fully integrated project execution and delivery.

***Tested, certified and trusted –
complete confidence in every
MTE solution***



UK and Europe

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