

## Case Study | Weight Saving Fire and Blast Wall Options

Mech-Tool Engineering Ltd (MTE) devote a unique wealth of specialist skills and experience to design, build and deliver individual and dependable solutions.

For many years MTE have highlighted the benefits of their prefabricated fire and blast wall system. In addition to the support offered via design, engineering and site installation, the MTE solution offers:

- **Industry-leading weight savings**
- **Blast, fire and thermal design including certification and type approval**
- **UK & Korean fabrication facilities**
- **Off-site manufacture in a controlled environment**
- **Integrated penetration frames, including doors and removable panels**
- **No need for PFP**
- **Minimal OPEX costs**

MTE have selected a range of worldwide projects in harsh environments to act as case studies. The table below clearly highlights the significant weight saving benefits offered by the MTE prefabricated fire and blast wall system compared to the traditional flat plate (FP) system.

The project examples highlighted have either been fully designed and installed or are in the process of being designed and installed. Prefabricated walls in stainless steel require little or no maintenance during the design life of the platform.



Contract	Area (m <sup>2</sup> )	MTE Total Weight (kg)	MTE Average (kg/m <sup>2</sup> )	FP Total Weight (kg)	FP Average (kg/m <sup>2</sup> )	Weight Saving (kg)	Percentage Saving
Hebron	11660	426255	36.6	928272	79.6	502017	54%
Martin Linge	5918	357060	60.3	649785	109.8	292726	45%
Valhall	4984	97068	19.5	295938	59.4	198870	67%
Sakhalin	13393	281264	21	855649	63.9	574384	67%
Mariner	6112	126326	20.7	387023	63.3	260697	67%

MTE Design Consultancy are a team of experienced design engineers, project leaders and draughtspersons with skills in all areas of engineering consultancy, conceptual design, layout and detail engineering.

MTE Design Consultancy has developed its own unique programmes and systems to offer a wide range of highly accurate design and cost projection services. These elite tools are the culmination of in-depth experience and knowledge built up over 50 years. They have been independently validated and tested for their reliability in solving thermal, mechanical and structural problems.

Because of our extensive expertise in blast and fire technology we believe our involvement at the design evaluation stage of a project such as Feasibility Studies, FEED and Design for Manufacture including certification will lead to greater optimisation of the engineering alternatives with subsequent weight and cost saving benefits.

MTE Design Consultancy services include:

- Blast report reviews and interpretations
- Stressed skin blast and fire design
- Blast relief studies
- Basis of design and functional specification compilation
- Blast and fire wall design optimisation
  - weight / space reductions
- HVAC / electrical / modularisation optimisation studies
- Thermal / fire / PFP design optimisation

To enquire about MTE Design Consultancy services or to discuss your specific requirements, please contact the sales department:

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For more information about other MTE services, please visit:

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