

Blast and Ballistic Partitioning System

Client:

Explosives and pyrotechnics manufacturer.

Aigis Design and produce internal blast and ballistic partitioning systems. These systems are based on floor mounted modular constructions that can be easily tailored to suit client's requirements. These requirements are often threat specific, but the design of the system allows for flexibility in the multi-layered components to suit a vast variety of threats. Practicality and functionality of these partitioning modules can be suited to the client's needs, incorporating hatches, windows, opening and closing transfer hatches etc.

The modular approach to the design allows for greater flexibility whilst maintaining the use of more standardised components to keep costs down. Pre-fabricated modules can be quickly and easily installed with minimal disruption and down time for the client. The structures can be used for permanent installations or more temporary solutions which allows for expansion or new layouts within the production facility.

The final customisable solution enables the client to provide safer working environments for its employees, improved protection of capital equipment and existing structures, all by containing and reducing the threats effects.

Basic Overview:

- Blast and fragment protective factory partitioning system
- A modular blast walling system that can be used to separate a factory floor into several protected work cells, and hence improve productivity with more usable safe space for the workforce
- Quick installation, with a limited footprint
- Fully tested and certified solution to Health and Safety recommendations
- Blast and fragment protection both back and front if required
- Reduce blast overpressure to a maximum 14kPa from one work cell to the adjacent work cell
- Completely customisable with hatches, apertures, windows and transfer hatches
- The system can be added to in the future to allow for factory expansion or a new layout
- Tailored specifically to suit the client's needs, from brief and specification to final install and commissioning
- Low maintenance, with a variety of durable and aesthetic finishes
- Options for attaching cable tracking, machinery components and other utilities
- Fully tested solutions with the flexibility of in house testing for more specific and complex threats, all from one supplier

Method:

- A detailed specification was established with the client, to ensure that all of the required bespoke features were considered in the design
- Concept designs were created and presented to the client for discussion
- Development of specific materials to suit weight, thickness and protection levels
- Trials protocols were constructed and agreed with the client. These included multilayer material trials, full scale prototypes and a multi-shot pre-production proofing trial
- Comprehensive testing results package to enable IPE approvals
- Construction of manufacturing drawing set to client specific dimensions and layout
- Production and manufacturing planning to ensure on time supply and install
- Supply and installation of final system
- System commissioning and client sign off