

Bespoke to Any Size

Tested Blast Resistance

Laminated Blast Glazing

Steel Blast Frame

Fixed or Openable

PRODUCT SPECIFICATION

Blast Windows

Bespoke Blast-Resistant Glazing — Fixed & Openable Vision Panels



Key Features

■ Bespoke Design

Engineered to order for any aperture — integrated into new or existing steel, concrete or masonry structures

■ Blast Tested

Independently tested glazing systems — configurations proven to peak reflected pressures up to 250 kPa

■ Laminated Blast Glazing

Multi-ply heat-strengthened and annealed glass bonded with PVB interlayers and a sealed cavity

■ Steel Blast Frame

S275/S355 box-section matrix with welded steel skins and folded rebound angles retaining the pane

■ Fixed or Openable

Supplied as fixed vision panels or hinged openable hatches with multi-point latching and lever handle

■ Marine-Grade Paint

Jotun 2-pack epoxy: Jotamastic 87 primer + Hardtop XP topcoat over steel blast-cleaned to SA 2.5

■ Heavy-Duty Anchoring

Hilti HIT chemical anchor studs or Lindapter Holo-Bolt fixings into the structural substrate

■ Engineered & Certified

Designed to NSSS and Eurocode steel standards, underpinned by independent blast calculations

CONSTRUCTION

S275 / S355
Steel Matrix

GLAZING

Laminated
PVB Interlayer

FRAME

Box Section
Welded Skins

PAINT

Jotun 2-Pack
SA 2.5

BLAST

250 kPa
850 kPa.ms

FIXINGS

Hilti HIT
Holo-Bolt

MM Engineering

Unit 4B Sirius Drive, Baglan Energy Park, Port Talbot SA12 7BR

Technical Specification

MM Engineering blast windows are individually designed, fabricated and tested at our facility in Port Talbot. Each window is engineered to a unique specification underpinned by independent blast design calculations, pairing a heavy steel blast frame with multi-laminate glazing so the assembly remains intact — and, where specified, fully operable — under blast loading.

ITEM	SPECIFICATION
Construction	Steel blast frame — box-section internal matrix with welded steel skins
Frame Section	S355 box section 100x60x5 internal matrix
Frame Skins	S275 steel, 6mm thick, all welds to procedure
Vision Panel	Fixed glazed unit or hinged operable leaf, to suit application
Blast Glazing	Multi-laminate heat-strengthened & annealed glass with PVB interlayers and sealed cavity
Typical Make-up	5.56 HS / 1.52 PVB / 5.56 HS / 14mm cavity / 3.79 + 1.52 PVB x3 annealed (850x850 unit)
Glazing Retention	Folded steel rebound angles with bolted bead frame
Glass Standard	Fully tempered / heat-strengthened laminated to ASTM C 1048
Seals	Closed-cell expanded neoprene 'P' seal, continuous perimeter
Locking (operable)	Surelock McGill multi-point latching with external lever handle
Hinges (operable)	Heavy-duty steel hinge assembly with EN8 pins
Blast Rating	Peak reflected pressure 250 kPa; peak reflected impulse 850 kPa-ms (configuration dependent)
Paint System	Jotamastic 87 primer (min 100µm) + Hardtop XP topcoat (min 50µm), 2-pack epoxy
Surface Prep	All steel blast-cleaned to SA 2.5 prior to coating
Steel Standards	Plates EN 10025 S275JR; RHS EN 10219 S355JRH; fabrication to NSSS 4th Edition
Welding	Weld procedures to BS EN ISO 15614-1; macro & hardness examination
Fixings	Hilti HIT-V chemical anchor studs / Lindapter Hollo-Bolt M12 to substrate
Installation	Resin-anchored to structural opening; supplied installed and, where required, on-site tested

Certification & Quality

Every blast window is engineered to a project-specific design, underpinned by independent blast calculations and detailed to recognised steel design and fabrication standards. Glazing make-ups are selected to suit the defined blast threat and validated by testing.

Full documentation pack provided: design calculations, material certificates, weld procedure records, paint inspection records, glazing data sheets and O&M manual.

Built Bespoke to Your Requirements

Fixed or operable, any size, integrated into new or existing structures. We design, fabricate, paint, test and install — a complete single-source solution.

[Contact us for a same-day quote](#)