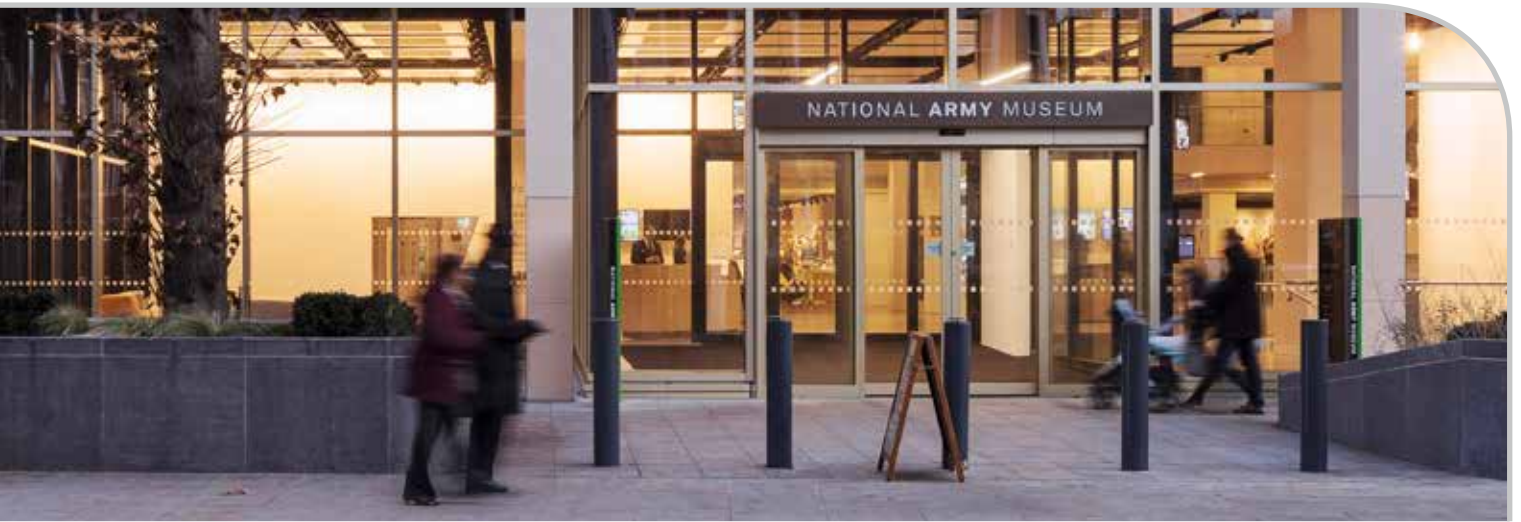


record PROTECT EXV 25 sliding door

Securing Entrances & Protecting Lives



record Bomb Blast Resistant Doors

The record Bomb Blast Resistant Doors are security enhanced single or double doorsets, surface fitted, with or without side panels, which are manufactured to strike a balance between easy public access and the high levels of security required in high risk areas.

Typical applications

All security sensitive locations could benefit from the Bomb Blast Resistant automatic door solution. One of the primary objectives was to develop a solution which maintained the appearance and operating characteristics of the doors so that they would be relatively inconspicuous and therefore be acceptable for wider applications in the public environment.



Bomb Blast Resistant Door at Heathrow Airport

Benefits

- doors can withstand the blast overpressure effects of an explosion
- can protect occupants or passers from high velocity shards of glass and the effects of a door being projected into an occupied area

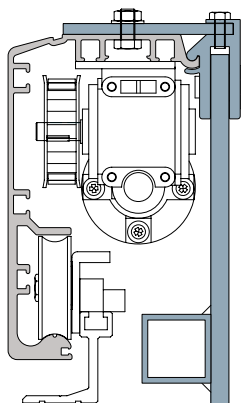


Positive blast pressure is at this point affecting the doors during test

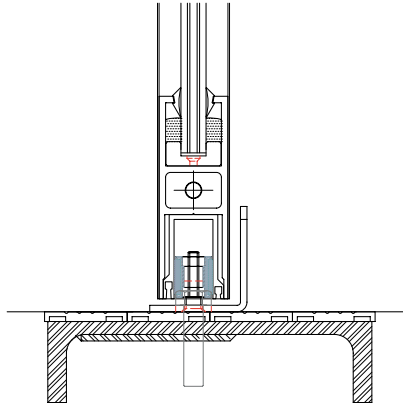
The ability to respond to customer's specific application requirements is something that sets record PROTECT EXV 25 apart from many of our competitors. We are able to develop special solutions to suit special applications. This may be to suit architectural or constructional details for example, or to incorporate a specific access control security system. Development of specific solutions has included a two year development programme in association with Heathrow Airport on Bomb Blast Resistant Doors for Terminal 5.

record PROTECT EXV 25 sliding door

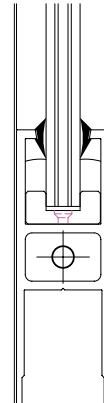
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Reinforced header section



Special threshold adaptation



Structurally bonded glass

Enhancements for Blast Resistance

- Stronger profiles to the supporting head track and running system
- Drives and operating system to suit the heavier door leaves
- Operator fixed to structure with heavy-duty bolts
- Bespoke, heavy-duty door profiles
- Glass structurally bonded into the door
- Multi-laminate glass with anti-shard capability
- Bespoke heavy-duty floor guide

Testing replicates a 100kg TNT explosion at 45m and 25m distance

It is important that specifiers recommend doors for high risk facilities which correspond with quality standards. Specialist testing was carried out in accordance with GSA and ISO criteria which equates to a 100kg TNT bomb at 45m and 25m distance.

The described testing was supervised by specialist blast engineers according to the US General Services Administration (GSA) and the international Organisation for Standardisation

(ISO) standards using a single bomb blast for each test rating. A bi-parting glazed door with a clear opening of 2020mm and 2200mm in height was mounted internally to replicate the weakest location from a bomb blast perspective.

Test 1 was a combined GSA C and ISO EXV 45 - equivalent to a 100kg TNT explosion at 45m distance. The test door achieved a Pass grade with a Hazard Category rating of Very Low Hazard for both test standards.

Test 2 was a ISO EXV 25 test - equivalent to a 100kg TNT explosion at 25m distance. The test door achieved a Pass grade with a Hazard Category rating of Low Hazard. The test door was also subjected to a sledge hammer attack simulating forced entry to determine the retained level of security post explosion.

Due to the market requirement for larger leaves our door construction was enhanced further with concealed bracing. A thorough assessment of engineered specimens was carried out by blast engineers to establish the level of protection they would provide in the event of a 100kg TNT blast at 25m (EXV25). Two sizes were assessed, 1475mm x 2265mm & 1175mm x 3030mm, with both sizes achieving the Hazard Category rating of Low Hazard.

Door dimensions

		Structural Opening (wxh)	Operational Leaf (wxh)
Certified door	Bi-Parting	2040 x 2200 mm	1170 x 2200 mm
	Single	1020 x 2200 mm	1170 x 2200 mm
Evaluated door Maximum width	Bi-Parting	2650 x 2265 mm	1475 x 2265 mm
	Single	1325 x 2265 mm	1475 x 2265 mm
Evaluated door Maximum height	Bi-Parting	2050 x 3030 mm	1175 x 3030 mm
	Single	1025 x 3030 mm	1175 x 3030 mm

Maximum m² and height-width ratios apply - please consult your record sales team



The doors set up for testing