



Hinged and Sliding Blast Rated Doors

Bespoke hinged and sliding steel doors designed to withstand high blast pressures

Rhino blast doors are in-house designed to withstand blast attack, either as discrete constructions, or in conjunction with physical attack delay and/or vehicle ram resistance performance.

There are two distinct design methodologies for the design of Blast Doors and the method selected is dependent upon the design information provided by the Client.

Dynamic Design Blast Load Method:

- dynamic peak blast pressure, impulse and duration defined by the client.
- door response criteria defined by the client, i.e. Class I (elastic) or Classes II, III or IV (elasto-plastic).
- door leaf designed for the dynamic blast load using a single degree of freedom (SDOF) numerical analysis such that the response (leaf deformation) is within the client defined limits.
- door hinges, latches, shoot bolts and their connections designed for the rebound forces determined by the SDOF analysis.

Static Design Blast Load Method:

- static seated and unseated pressure defined by the client. Note; in the majority of cases the unseated (i.e. rebound) pressure is 50% of the static seated pressure.
- door leaf designed to take the seated blast pressure and remain in the elastic range.
- door hinges, latches, shoot bolts and their connections designed to take the unseated blast pressure.

Rhino Blast Rated Doors – available from 0.15bar to over 15bar.



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