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Blast doors from Jewers

Diffusing explosive situations.

Unhappily, today's world is an increasingly dangerous place with safety and security risks posed by volatile industrial processes or explosive devices. Happily, some of those explosive risks can be minimised by blast resistant doors.



Although we have been making blast resistant doors for years, the current range is at the cutting edge of technology. So – no matter what the potential blast pressure or aperture size – we can design, build and install a door to contain the threat.

Choice of single or double leaf side-hinged, sliding, folding or bifolding door configurations offer specifiers a complete design solution.

Size variants range from single person access up to large vehicles or even aeroplanes.

Blast resistance parameters range from as little as 10 kN/m² (1.5 psi) right up to 10,000 kN/m² (1,450 psi).

Blast proof glazing can be incorporated to allow visual inspection of adjacent danger areas.

Our design professionals use either computerised static analysis

techniques or full dynamic analysis, in accordance with the globally recognised TM5-1300 standard – providing absolute confidence in the door's performance.

Wide variety of locking options available – including ultra-high security locking systems, high alloy blast bolts, panic bolts and even power operation – all dependant on specifiers' needs.

■ Fire assessments available for the majority of our Blast doors enabling them to be used in firewall situations.

Typical applications

The market for Blast doors is diverse, reflecting the increased requirement for protection against explosive incidents:

MILITARY

Ordnance storage and handling areas Critical personnel working areas

PHARMACEUTICAL High risk production areas

CHEMICAL/PETROCHEMICAL Personnel and control room protection Oil drilling and production platforms

WATER INDUSTRY Plant and personnel protection MINING Explosives stores

POWER GENERATION Flammable material stores

TERRORIST PROTECTION Intruder prevention undertaken with extreme prejudice



Blast

Key features

- Wide variety of configurations and sizes
- Large range of blast pressures
- Full design and build package
- Fire assessments available
- Integrated high security locking systems
- Blast proof glazing available











- 1 Client: BG Technology, Pipe test facility, Loughborough
- 2 Client: MOD, Aldershot
- 3 Client: MOD, Ashchurch
- 4 Client: Merck Sharp Dohme, Pharmaceutical manufacturing facility, Ireland
- 5 Client: Thames Water, Ashford Common water treatment works, Middlesex



Superior door solutions by design





Jewers is synonymous with superior door design solutions. But the Jewers service is not restricted to product supply. With all our doors, we provide a complete service – spanning design, opening preparation, installation, maintenance and servicing.

Factors to consider when specifying a Side-Hinged Blast Door

Is the door to be designed to cope with a continuous Static Pressure, or a Dynamic Blast situation? Lower Pressure Blast doors are often designed on the basis of a continuous pressure, whilst higher pressure doors are most frequently designed on the basis of the Dynamic Blast expected.

If the door is to be designed to cope with a Dynamic Blast situation, the initial maximum pressure and the shape of the decay curve need to be known. Usually, the pressure is assumed to drop in a linear manner to zero. The maximum pressure is often referred to as 'maximum overpressure'.

In a Dynamic Blast design, can any permanent deformation of the door and its support system be tolerated? If so, how much? It is often specified as the amount of bend in the door leaf, measured in degrees of rotation at the jamb.

Is the door in a situation such that the blast can only hit it from one side? If so, the door will usually be less expensive if it can be fitted so that the blast pushes the door back against its frame and the hinging/latching system only has to deal with rebound that occurs – typically only 20-50% of the main blast pressure. If the blast is from the other direction, then the hinging/latching system has to take the full blast pressure.

If the door is designed for a Dynamic Blast situation, we can work out the rebound pressure. However, if it is designed for a continuous Static Pressure, then it is normal for the Specifier to advise the maximum rebound pressure he requires the door to accept – expressed as a percentage of the maximum positive overpressure. Quite often, it is specified as 100%.



ESAVIAN HANGAR DOORS

PHOENIX RANGE

ACOUSTIC DOORS

BLAST DOORS

SECURITY DOORS

BALLISTIC DOORS

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