

Protective solutions

Temet protective doors

Temet provides a variety of pre-engineered and custom designed special protective doors for industrial, military and Civil Defence applications. Temet protective doors are primarily designed to stop the advance of air blast and fragments, but can also be made air tight to prevent the entry of toxic substances. All doors are designed for simplicity and reliability in operation and are maintenance free. If required, the doors can be provided with automatic operation and various safety and security devices.

Standard pre-engineered Temet blast resistant doors are based on the technical specific provisions issued by the Finnish Ministry of Interior. These doors are available in wide size range single and double doors with level of protection ranging from 1.0 bar to 18 bar peak reflected overpressure. The standard Temet blast resistant doors are featured in details in Temet leaflets nos. 1274 0200 001, 1274 0200 002, 1274 0200 003, 1274 0300 001, 1274 0300 002, 1274 0400 001, 1274 0400 002.

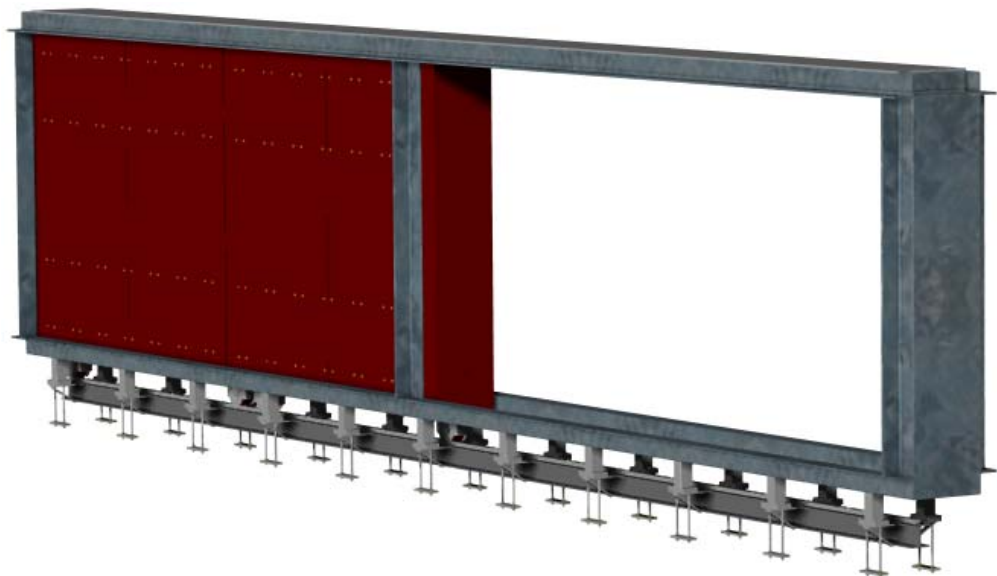
Custom designed protective doors

Temet custom designs protective doors in strict accordance with the client's specification. Typical structural custom requirements are design for short duration impulsive blast load, high resistance for primary fragments and air-tightness at high pressure difference across the doors. Typical functional custom requirements are power operation of the door and latching mechanism as well as electrical door locking and connection to the door system interlocking.

Structural configuration of Temet custom doors may be steel door with homogenous steel plate or I-beam stiffened steel plate structure. Concrete arch doors are recommended for high pressure load for large door openings in applications where the door jambs are capable of receiving the reaction forces from the door arch. Sliding blast resistant and gas tight doors can be provided for applications where space constraints prevent the use of swing doors.

Temet has over 20 years experience in supplying custom doors with extremely demanding requirements. Projects successfully completed incorporate doors with triangular or bilinear impulse load up to 50 bar with 100 percent rebound resistance, combined blast resistant and air-tight doors providing zero leakage up to 2000 Pa pressure difference across the door as well as very large hinged concrete arch doors all having numerous additional functional requirements.

Successful undertaking of a special door project implies that the door manufacturer is capable of working together with the architect and structural designer of the facility from the very beginning. This is imperative in order to reserve sufficient space for the door and its embedded components and to design the wall reinforcement properly to receive the substantial reaction forces transmitted from the door. An important part of Temet's services is the capability to consult with the structural engineers on the issue of door interface with the surrounding concrete structure.



Temet can provide protective doors in any structural configuration. The picture features a large sliding blast resistant door with I-beam stiffened doors plate structure.

Examples of custom designed Temet doors



Blast resistant steel door designed for 783 psi-ms average impulse load that may be exerted on either side of the door. The application was a high-explosive component facility.



Large (12' x 12'6") single blast resistant steel door designed for 514 psi / 2.8 ms pressure-time load. The door is provided with hydraulic opening/closing and latch actuator systems.



Hinged concrete arch door installed in a blast bulkhead of a rock shelter. Careful design, manufacture and installation make possible manual operation of the door without auxiliary carriages or supports.

Design - Production – Installation – Maintenance - Consultation