TEMET DOUBLE LEAF BLAST DOOR SO-1

Applications
The SO-1 double leaf blast doors are designed to stop the advance of blast waves through the passage ways into the protected area of blast hardened Civil Defence and military shelters. The SO-1 blast doors are possible to open and close manually from both sides. The latching device tightens the door plate against the frame so that the maximum clearance between the load bearing surfaces of the door plate and the frame is 2.0 mm. Design of the door enables opening by disassembly even if the door plate has undergone permanent deformations. The door plate can be dismounted from either side without any special emergency opening devices.

Specification
Manufacturer of SO-1 double leaf blast doors is Temet, Helsinki Finland.

The SO-1 double leaf blast doors are fabricated from structural steel with a door plate of solid homogenous steel plate stiffened by a structural steel center beam. Minimum thickness of a door plate is 20mm. The door frame is designed for easy installation into the reinforced concrete wall, and the door plate / frame assembly has an optimized pattern for transfer of the blast forces into the surrounding wall.

Design Criteria
The SO-1 blast door is made in accordance with specific provisions issued by the Finnish Ministry of Interior. The SO-1 blast doors are approved for use on the basis of structural calculations approved by the Technical Research Centre of Finland / VTT Building Technology, an Independent Testing Authority mandated to perform type inspection for shelter equipment and systems by the Finnish Ministry of Interior.

SO-1 Door Protection Capability
The SO-1 doors are designed and tested to withstand multiple long duration blast loads having peak reflected overpressure of 2.0 bar (200 kPa) in the elastic range of the materials used. The door frame design enables uniform distribution of the positive blast load into the surrounding wall. Rebound load is received by latching system and hinges.

The SO-1 doors also resist a mechanical shock transmitting through the installation wall with a rapid change in velocity of 1.5 m/s corresponding to acceleration force of 30 g.

The doors are designed to function within the operating temperature range of -30 … +80 °C.
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Standard SO-1 Double Leaf Blast Resistant Door

Door hinges
Hinges are provided with maintenance free slide bearings.

SO-1 Blast Door gas tightness
Temet SO-1 blast doors are provided with a gasket for tightness against entry of gases in such a way that the allowable leakage through the door is not more than $0.2 \text{ dm}^3/\text{s}$ ($0.72 \text{ m}^3/\text{h}$) for each square metre of the opening when the external overpressure is 150Pa.

Surface treatment
Temet SO-1 doors are surface treated with durable shop primer resisting corrosion during transportation and storage.

Other documents related to SO-1 double leaf blast door:
- Installation Instructions
- Operation & Maintenance Instructions

Examples of SO-1 Door sizes available
Double leaf door sizes with main dimensions in mm:

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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<th>G</th>
<th>H</th>
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Contact the manufacturer for the availability of different door sizes. Sizes shown in a table are just examples of our wide selection.

All the information contained in this brochure agrees with the information available at the time of its printing and only serves as advance information. Final dimensions can differ from the table above.