Protective solutions

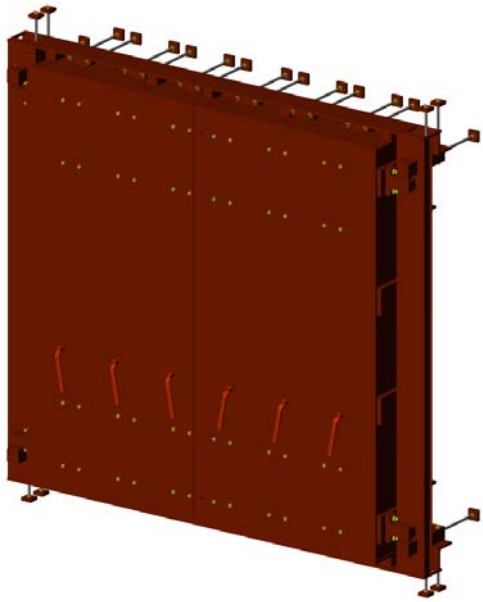
Applications

The SO-6 double wing 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-6 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 doors 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-6 blast doors is Temet, Helsinki Finland.

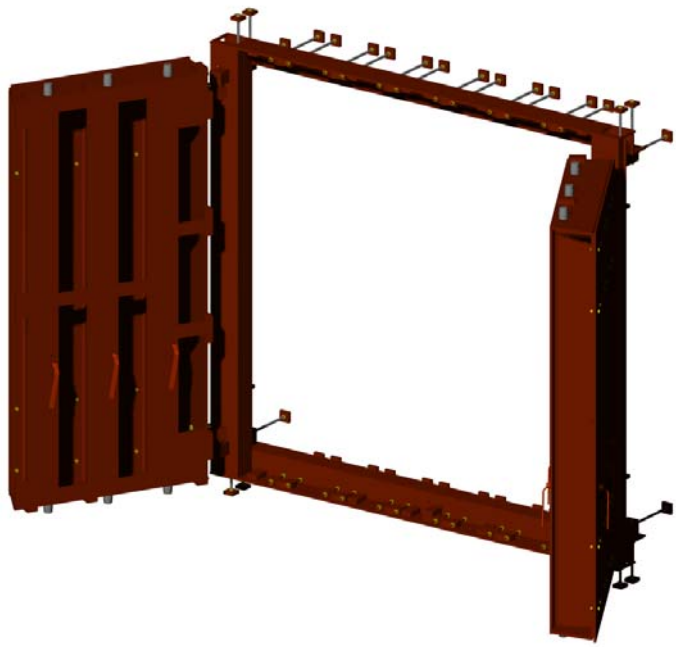
The SO-6 double wing blast doors are fabricated from structural steel with a door plate of solid homogenous steel plate stiffened by I-beams spanning between the door sill and head. The door frame is designed for easy installation in the reinforced concrete wall, and the door plate / frame assembly has an optimized pattern for transfer of the blast forces into surrounding wall.



Temet SO-6 Blast Door

Design Criteria

The SO-6 blast doors are made in accordance with specific provisions issued by the Finnish Ministry of Interior. The SO-6 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 Ministry of Interior.



SO-6 Door Protection Capability

The SO-6 doors provide the highest level of protection against blast effects. Their resistance against multiple long duration blast load ranges from 9.0 bar up to 18 bar peak reflected overpressure. The SO-6 doors are designed to function within the elastic range of the materials used. The resistance of the doors for rebound load is dependent on the basic natural period of the door plate and varies between 0.1 and 0.5 times the maximum positive blast load. The door frame design enables uniform distribution of the positive blast load into the surrounding wall. Rebound load is received by the latching system.

The SO-6 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.

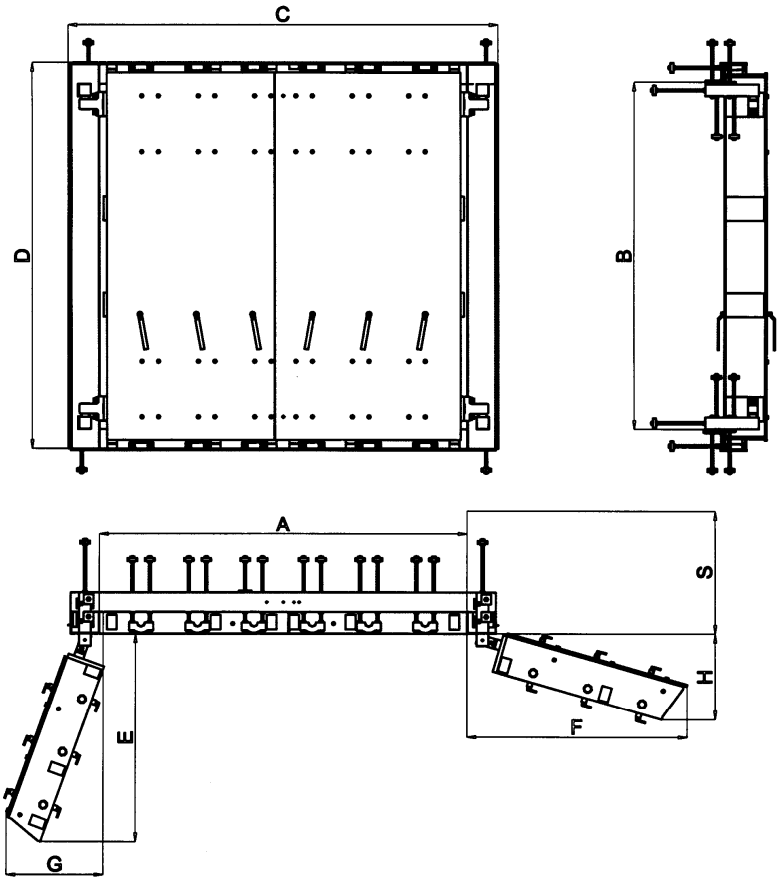
The SO-6 doors are designed to function within the operating temperature range of -20 … +80 ºC.

Other documents related to SO-6 double wing blast door:

Installation Instructions
Operation & Maintenance Instructions

TEMET DOUBLE WING BLAST DOOR SO-6

Standard SO-6 Double Blast Resistant Door



Door hinges

Hinges are provided with maintenance free slide bearings or optionally with roller bearings.

SO-6 Blast Door gas tightness

Temet SO-6 blast doors can be provided with optional chloroprene gasket for tightness against entry of gases in such a way that the allowable leakage through the door does not exceed 0.3 dm^3/s (1.08 m^3/h) per 1000 mm of door free opening width at a positive pressure difference of 150 Pa acting from the outside.

Surface treatment

Temet SO-6 doors are normally surface treated with durable shop primer resisting corrosion during transportation and storage. The door can be also surface treated according to the customer's specification.

Optional accessories for SO-6 Doors

Wide range of accessories such as position indicator switches, mechanical or electrical locks and power assist device are available.

SO-6 Door sizes available

Double wing door sizes with main dimensions in mm:

A	B	C	D	E	F	G	H	Min. S	Weight (kg)
2400	**3000**	3400	3500	2000	2350	800	1300	600	9,500
2600	**3000**	3600	3500	2100	2350	800	1350	600	10,000
2800	**3000**	3800	3500	2200	2350	800	1400	600	11,000
3000	**3000**	4000	3500	2300	2350	800	1500	600	12,000
3200	**3000**	4200	3500	2400	2350	1000	1550	600	12,500
3000	**3500**	4000	4000	2300	2600	1000	1500	600	14,000
3400	**3500**	4400	4000	2500	2750	1000	1600	600	16,000
3600	**3500**	4600	4000	2600	2850	1000	1600	600	18,000
3900	**3500**	4900	4000	2750	3000	1000	1650	600	20,000

Design - Production – Installation – Maintenance - Consultation

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