



MODULAR SHELTERS

MILITARY STANDARD OF SAFETY



Comprehensive engineering portfolio of protective modular shielding designed for rapid indoor deployment.

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A.1. CIVILIAN INFRASTRUCTURE VULNERABILITIES

DIAGNOSIS: STANDARD PROPERTIES DO NOT SHIELD LIVES

Typical concrete, glass, and industrial frames are fully vulnerable to overpressure blast shockwaves and hypersonic fragmentation debris, transforming walls and windows into secondary fragmentation hazards.

CORE SAFETY GAPS:

- Zero ballistic resistance on facades: Normal curtain walls allow full fragment penetration inside office partitions.
- Critical evacuation delay: Air raid sirens trigger exit pathways. Moving down floors to distant bunkers wastes vital survival minutes.
- Invasive building modifications: Standard structural reinforcement is prohibitively expensive and halts production lines.



Modular units integrate directly within active floors without rebuilding the premises

B.1. MODULAR INDOOR SHELTER CONCEPT



IN-SITU PROTECTION:

The structure forms a high-durability "survival capsule" assembled directly inside office floors or corridors, guaranteeing safety without exiting the building envelope.

OPERATIONAL ADVANTAGES:

- Bolted dry assembly: Erected without welding or dust, using prefabricated modules and high-tensile hardware.
- High elevator compatibility: Modular elements easily pass through common doors and elevators.
- Instant safety response: Positioned adjacent to active desks, reducing evacuation flight times to seconds.

C.1. ENGINEERING & CONSTRUCTION SPECS



Shelter interior showing integrated benches and heavy non-slip floorplate

01. LOAD FRAME

Welded structural profiles with heavy bolted nodes. Resists vertical loads of up to ****30 tonnes**** to secure against ceiling drops.

02. OUTER SHIELD

Reinforced steel plating ****5 mm**** thick (upgradeable to ****6 mm****). Retards impact from debris and direct high-velocity shrapnel.

03. SHOCK INSULATION

Internal fireproof composite layer (****50 mm**** / ****100 mm****). Subdues blast shock wave transmission and acoustic energy.

04. EGRESS HATCHES

Alongside main blast doors, integrated top and side emergency evacuation hatches ensure egress even if the entry is obstructed.

D.1. LIVE DETONATION TESTING

EXPLOSIVE WARHEAD DETONATION: OFZBC-50 (44.28 KG)

The structure underwent military evaluation testing involving proximity detonation of a combat drone warhead (equivalent to a Shahed-136 warhead payload).

OFFICIAL RESULTS & CERTIFICATE:

- Zero penetration: The structural frames and armor plates sustained zero punctures and no internal volume collapse.
- Physiological safety: Measured internal pressure was completely harmless to respiratory and hearing systems.
- Official protocol: Live Test Protocol **No. 10/2025 dated 31 October 2025**.
- Authority: *Central Research and Development Centre for Armament and Military Technology of the Armed Forces of Ukraine*.



TEST DETONACYJNY / LIVE EXPLOSION TEST

OFZBC-50 Warhead Detonation (44.28 kg)

E.1. FACILITY APPLICATION SCENARIOS



Comfortable office setup featuring double-facing safety benches

CORPORATE (B2B)

- Open-space offices and shared areas
- Server rooms and high-value IT nodes

CRITICAL INFRASTRUCTURE

- Hospitals, emergency and trauma zones
- Municipal bodies, court houses, and colleges

INDUSTRIAL FACILITIES

- Production floors near machinery nodes
- Logistic centers and control rooms

RESIDENTIAL SECTOR

- Private villas (basements or garages)
- Apartment hallways and common storage

F.1. STRATEGIC & LEGAL SHIELDING

01. MANAGEMENT LIABILITY REDUCTION

Deploying certified ballistic protective frames inside active high-risk areas mitigates board civil and criminal liabilities regarding workplace hazard protection.

02. OPERATIONS & BUSINESS CONTINUITY

Securing mission-critical personnel (board, core IT, operators) ensures that operations can resume rapidly without devastating operational standstills.

03. HIGH MOBILITY ASSET VALUE

Unlike masonry renovations, modular steel units are relocatable corporate assets. In the event of building relocation, the entire module can be dismantled and rebuilt.



G.1. COOPERATION & DEPLOYMENTS

PILOT IMPLEMENTATIONS:

We support pilot assembly of a single protective module at your chosen site to assess ergonomics and integration prior to committing to a full building rollout.

PARTNER CHANNELS:

We actively collaborate with physical security integrators, industrial safety providers, and building contractors throughout Europe.

CONTACT OUR ENGINEERING DEPARTMENT

Send us your building floorplans to receive a custom modular shelter configuration layout.

CONTACT VIA YOUR LOCAL DISTRIBUTOR