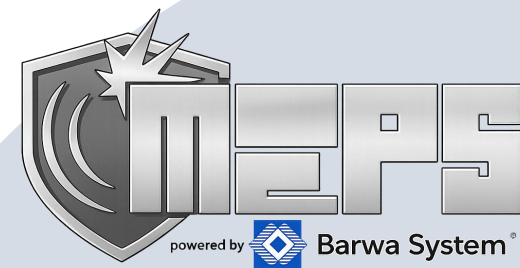




We
create *safe*
space



Market Challenge

Protection of critical infrastructure is no longer keeping pace with real-world threats. High-risk facilities today face three key challenges:

Traditional solutions are too heavy and inflexible:

- concrete and steel require foundations, reinforcements, and long wet works
- high weight = structural and logistical limitations
- difficult or impossible modernization of existing facilities

Result: Many facilities remain without real EXR-level protection.

Time and cost of implementation do not match the scale of threats:

- protection projects take months and are labor- and time-intensive
- costs rise faster than the budgets of investors and public institutions
- any modification means further delays and facility downtime

Result: Decisions are postponed, risk remains.

Lack of solutions combining security with architecture:

- blast protection systems are bulky, temporary, or hidden
- architects and investors reject “bunker-like” aesthetics
- protection conflicts with public function and image of buildings

Result: Security loses to aesthetics.

Market Conclusion:

The market needs a lightweight, modular, and proven protection system that can be:

- installed on existing buildings
- quickly replaced after an incident
- integrated with architecture
- implemented without foundations or heavy equipment



MEPS at a Glance

What is MEPS?

A lightweight, modular panel system designed to protect buildings against blast shockwaves caused by explosive detonations.

What problem does it solve?

The lack of fast, aesthetic, and cost-effective protection for existing buildings without structural interference.

Why it matters:

- protection without shutting down facilities
- rapid modernization of existing buildings
- protection of people and infrastructure while maintaining representative function

MEPS enables the creation of:

- discreet facade shields
- interior security systems
- mobile and temporary solutions

Thanks to its lightweight, modular design, the system:

- can be installed on existing facilities
- requires no foundations or heavy equipment
- allows for quick replacement of components after an incident

MEPS combines real-world protection with modern architecture, offering a solution that increases the safety of people and infrastructure without compromising functionality or image.

MODULAR EXPLOSION PROTECTION SYSTEM IN THE FORM OF CLADDING PANELS

MEPS – Modular Explosion Protection System

Advanced protective panels that absorb the energy of blast shockwaves generated by explosive detonations. The system is designed to protect critical infrastructure, civil buildings, and mobile tactical barriers.

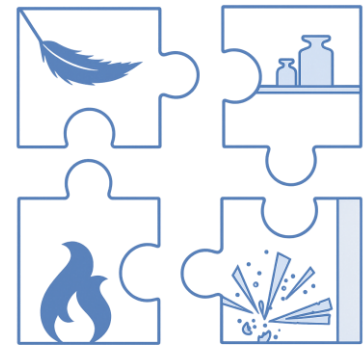
Key Benefits

- EXR2 protection
- Low weight: up to 70% lighter than traditional steel barriers
- Modularity: fast installation, dismantling, and panel replacement; easy Logistics
- Manufactured in Poland: short lead times, high availability, and flexibility
- Maximum protection with minimal structural load
- Installation on existing structures without structural reinforcement
- Architectural adaptability to the building design
- Reduced insurance costs for high-risk facilities

Operating Principle

The blast wave causes controlled deformation of the panel and its core, which absorbs the mechanical impulse, while the structure behind the panels remains intact.

MEPS has been registered as an invention and is protected by patent law.



MEPS System Applications:

Construction and Infrastructure

- Embassies and government buildings
- Critical infrastructure facilities
- Energy and industrial buildings
- External barriers and façade walls in high-risk areas

Military and Strategic Facilities

- Guard posts and command units
- Command containers
- Barracks
- Ammunition and equipment storage facilities
- Hangars and bunkers

Mobile Applications

- Temporary barriers
- Event security and tactical protection
- Protective partitions for vehicles

Public sector and administration:

- MEPS reduces the effects of blast waves and minimizes the risk of secondary failures.
- MEPS is a lightweight, aesthetically pleasing blast barrier for public facilities.
- MEPS provides discreet life and infrastructure protection in high-risk facilities.

Infrastructure and energy sector:

- MEPS protects critical power points from the effects of explosions and deliberate sabotage.
- MEPS secures key DC elements, ensuring service continuity and infrastructure resilience.



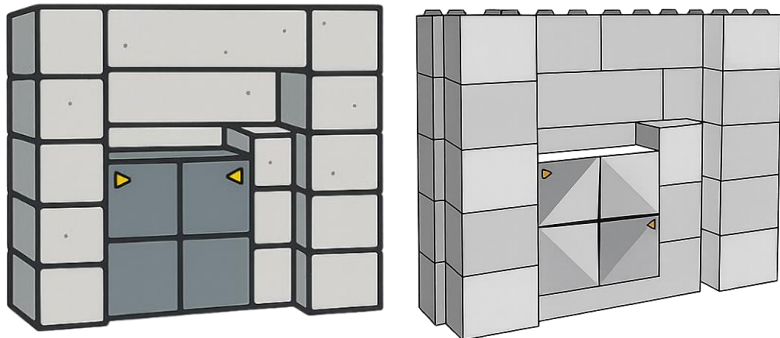
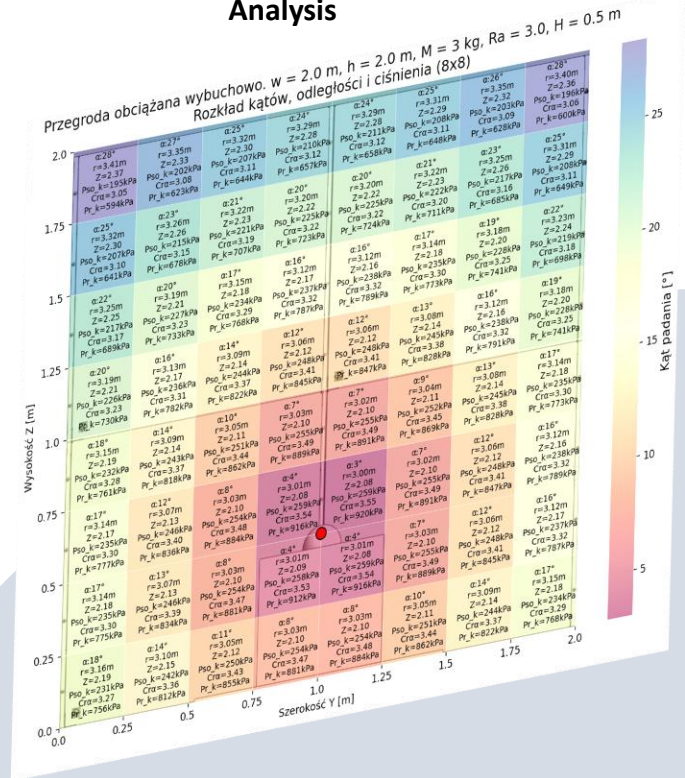
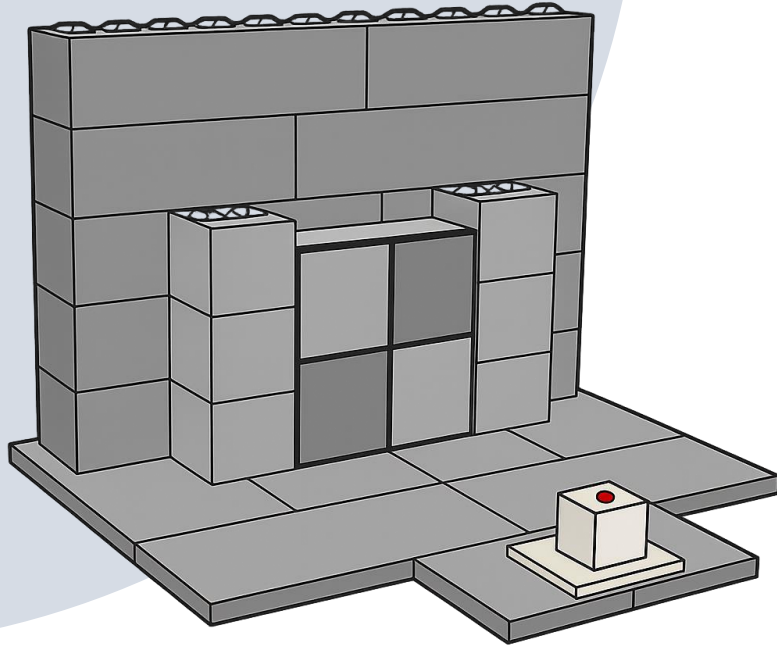
MEPS: Design

Testing

Military Institute of Armament Technology



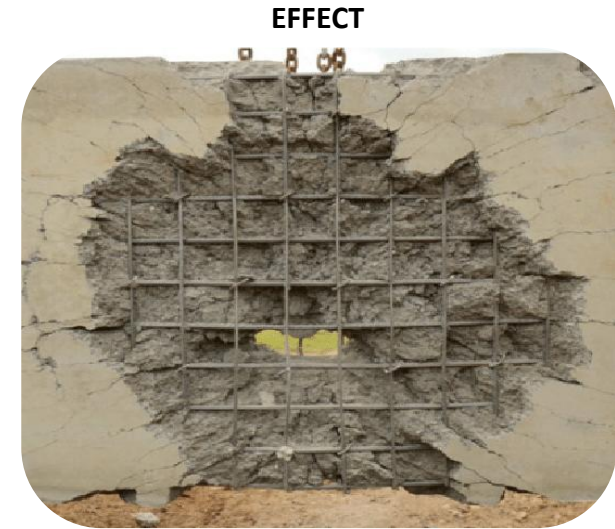
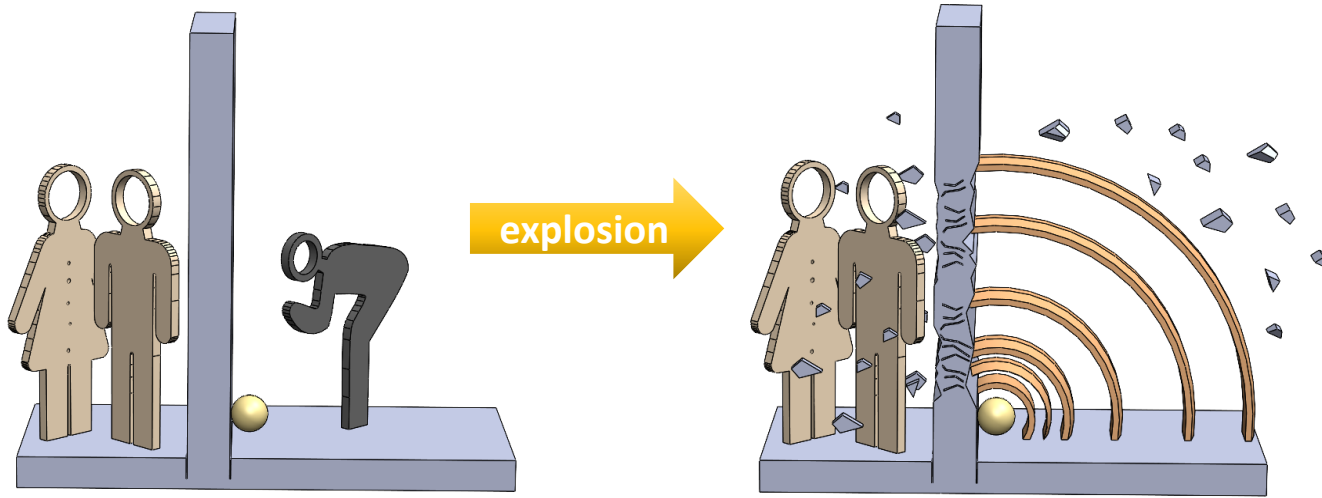
Analysis



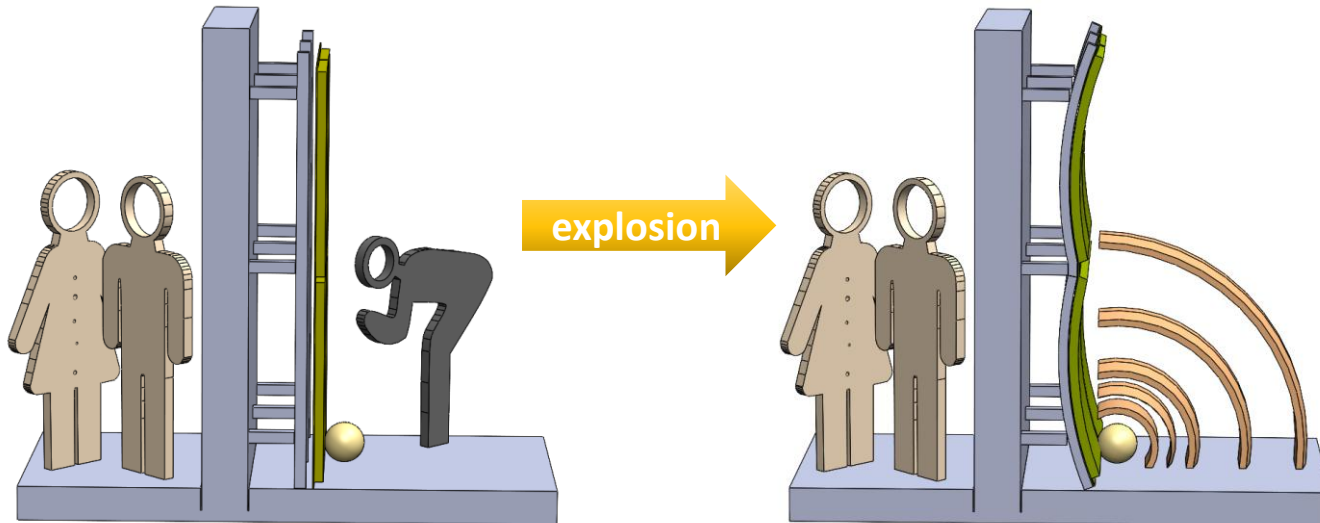
From design to proven effectiveness.

LAST LINE OF DEFENSE - MEPS acts as a physical barrier and distance.

Standard partition – no contact protection.



MEPS – contact barrier, protective distance.

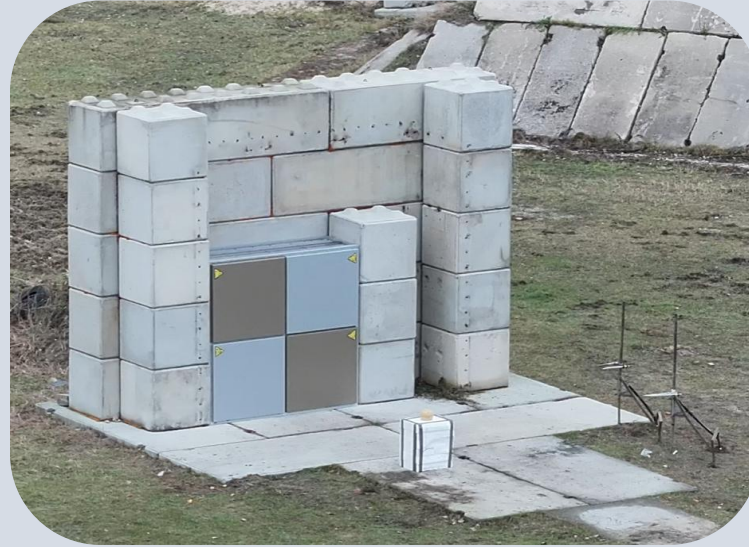


Detonation on direct contact is much more dangerous than a shock wave in the air!

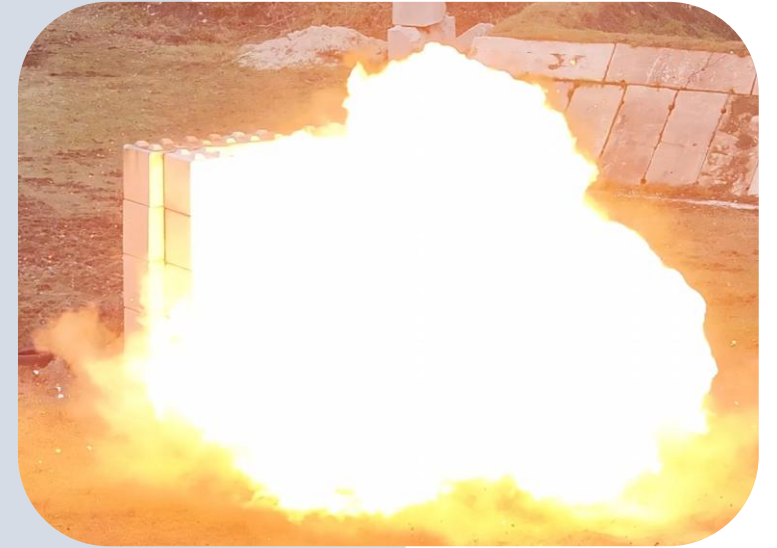
MEPS: Testing



The wall before the explosion



MEPS – cladding, before explosion



Explosive charge explosion



Blast wave



MEPS – lining after explosion of 3 kg TNT at a distance of 3 m

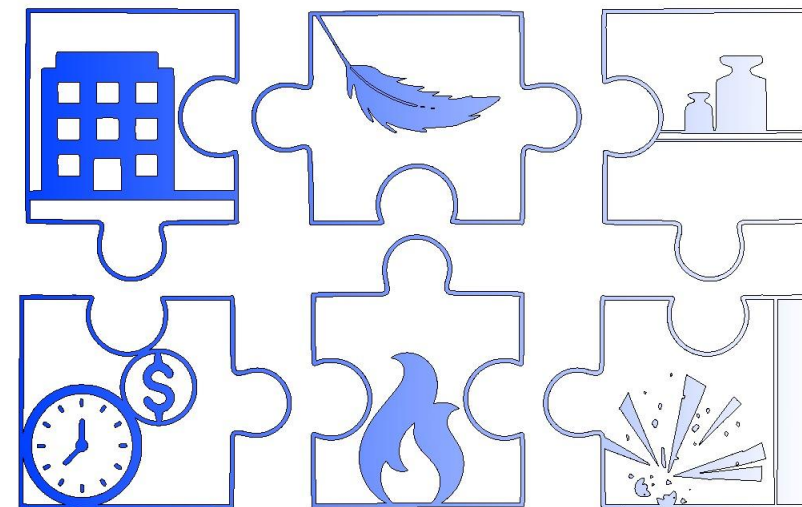


Wall after explosions

MEPS – a new standard for critical infrastructure protection

Why MEPS?

- Confirmed resistance in a field test.
- The lightest EXR2 – class system available in Europe.
- Modular design – quick installation, no foundations, easy panel replacement.
- Protection without secondary damage – no spalling, minimal impact on the structure.
- Integration with architecture – aesthetics unattainable with concrete and steel.



For whom?

Critical Infrastructure · Energy · Public Administration · Military · Data Centers · High-Risk Facilities

What do you gain?

- Shortened implementation time.
- Lower total lifecycle costs.
- Increased safety for people and infrastructure.
- A scalable solution ready for mass deployment.

MEPS is not an alternative to concrete and steel, MEPS is their successor where time, weight and flexibility matter.

BARWA SYSTEM – we design, test and implement next-generation protective solutions.

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