



OMNI-THREAT STRUCTURES

**EMP SHIELDING SYSTEM
EMSS
MULTI-THREAT PROTECTION
FOR CRITICAL INFRASTRUCTURE**

ELECTROMAGNETIC SHIELDING SYSTEM (EMSS)



Omni-Threat Structures' (OTS) proprietary hybrid construction process of shotcrete panels and tilt wall erection sequencing are derived from four years of an ongoing Sponsored Research Agreement with the University of Nebraska-Lincoln and intensive collaboration with world-class experts in the field.

Our system is designed to provide threat configurable, scalable, energy efficient and cost-effective hardened structures for critical infrastructure, power generating companies, the military, financial institutions, and other vulnerable industries.

HEMP - High Altitude Electromagnetic Pulse ■ IEMI - Intentional Electromagnetic Interference
Emanations Eavesdropping (TEMPEST) ■ Ballistic ■ Blast
Event-Driven Missiles ■ Seismic ■ Extreme Weather

EMSS ADVANTAGES

MILITARY IDENTIFIED SIGNIFICANT DEFICIENCIES WITH METAL SHIELDING SYSTEMS

MILITARY COMMISSIONED UNIVERSITY OF NEBRASKA FOR AN ELECTROMAGNETICALLY SHIELDED CONCRETE SOLUTION.

OMNI-THREAT STRUCTURES COMMERCIALIZED AN EMP SHIELDED CONCRETE/SHOTCRETE CONSTRUCTION METHOD.

- Faster Build Time
- Multiple Threat Defense Capability
- More Economical Combined Structure & Shielding System
- Significantly Increased Longevity & Decreased Maintenance
- Increased Fault Tolerance
- Ease of Interior Installation

SUBSTANTIALLY SHORTER CONSTRUCTION INTERVAL

HARDENED BUILDING + SHIELDING INSTALLED IN < 10 MONTHS FROM FOUNDATION TO DRIED IN

- No special attachments required for mechanical, electrical, plumbing and finish work inside of shielded space
- No waiting for building to be completed prior to starting on a welded shielding system
- No waiting for the shielding system to be installed prior to installation of MEP and finishes
- Reduced testing cycles due to shielding envelope being completed prior to MEP installation



MULTI-THREAT PROTECTION IN A SINGLE STRUCTURE

- HEMP – High Altitude Electromagnetic Pulse
- IEMI – Intentional Electromagnetic Interference
- Emanations Eavesdropping (TEMPEST)
- Ballistic – Blast
- Event-Driven Missiles
- Seismic
- Extreme Weather

MORE DURABLE, MORE FAULT TOLERANT CONSTRUCTION MATERIAL

THROUGH INITIAL BUILD & THROUGHOUT THE LIFE CYCLE.

- Degradation of steel system can be seen in less than 6 months.
- Omni-Threat Structures' system is less vulnerable to damage during both construction and MEP/finish construction phase.

SHIELDING ENVELOPE INCLUDING PROPRIETARY POINTS OF ENTRY

- Waveguides
- Filters
- Labyrinths
- Doors

EMC

OMNI-THREAT STRUCTURES' SYSTEM SUPPORTS ELECTROMAGNETIC COMPLIANCE FOR THE NEW AND EVOLVING 5G NETWORK INFRASTRUCTURE.

RIGOROUS TESTING

- ELECTROMAGNETIC SHIELDING
- BALLISTIC
- BLAST RESISTANT DESIGN

EMP BUILD PROCESS



* Representative imagery / Confidential client



MIX DESIGN AGGREGATE PROCESSING, BLENDING & SACKING



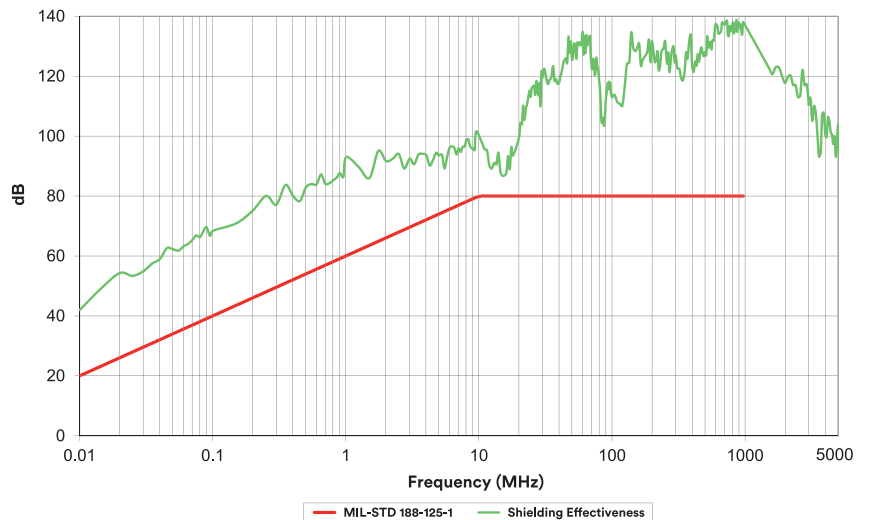
Omni-Threat Structures' aggregate processing, blending and sacking is done at a protected facility in a completely guarded Army base. Access to the facility is only issued through the security team of the Army. The facility is housed in an 80,000 SF building for ample space of finished product storage, including 40,000 SF for stockpile weather shelter. It has a state-of-the-art computer controlled mixing plant capable of blending up to eight different components for high production finished products in bags or supersacks.

OUR PROPRIETARY EMSS (ELECTROMAGNETIC SHIELDING SYSTEM) AND UNIQUE CONSTRUCTION METHODS HAVE BEEN DEVELOPED AND RIGOROUSLY TESTED.



Electromagnetic shielded shotcrete structure and labyrinth at OTS R&D Center in Lakeland, FL

**PATENTED
ELECTROMAGNETIC
SHIELDING
CONCRETE/SHOTCRETE
EXCEEDING
MIL-STD-188-125**



Shielding Effectiveness of Conductive Shotcrete Structures

OUR TEAM HAS BEEN ACTIVELY ENGAGED IN THE DEVELOPMENT OF PATENTED SHIELDING SHOTCRETE FOR A BROAD RANGE OF EM PROTECTION, INCLUDING EMP MIL STD 188-125-1.

R&D / INNOVATIONS

Optimizing all shielding system components

*Labyrinth
(doorless access)*



*Waveguide design
and filter integration
for OTS shielded
structures*



Vertical Electro-Magnetic Pulse Simulator (VEMPS), Patuxent River Naval Air Station

Omni-Threat Structures, an American Business Continuity Group Company, constructs shielding concrete/shotcrete structures for multi-threat protection from High Altitude Electromagnetic Pulse (HEMP), Intentional Electromagnetic Interference (IEMI), compromising emanations, terrorist ballistic/blast attacks and extreme natural disasters. The company completed the world's first building code compliant electromagnetic shielding shotcrete structure at its disaster recovery complex in Lakeland, Florida. The building exceeds shielding requirements of MIL STD 188-125. The group also completed construction on the Vertical Electro-Magnetic Pulse Simulator (VEMPS) at the Naval Air Station in Patuxent River, Maryland.

AMERICAN BUSINESS CONTINUITY GROUP BRINGS:

- Three decades of success as a high integrity industrial General Contractor
- A decade of success with specialized design-build hardened structures
- Experience in the nuclear power industry, building Fukushima Flex/ Beyond Design Basis structures that meet Nuclear Regulatory Commission Regulatory Guide 1.76 standards

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OTS PROUD CORPORATE MEMBER OF:

