



RF & ELECTROMAGNETIC SHIELDING EXPERTS



TEST & MAINTENANCE SERVICES

EMP/HEMP, RFI/EMI, and GMD shielding test and maintenance services.

1.724.352.8100



gavenindustries.com



ABOUT US

Gaven Industries has been the leader in solving both simple & complex shielding problems for nearly four decades - addressing radio frequency and electromagnetic interference, as well as adversarial threats and geomagnetic disturbances. Gaven offers a wide range of products and comprehensive testing and maintenance services to assist you with determining and improving the effectiveness of your mission-critical equipment.

Gaven specializes in the compliance testing and maintenance of products and environments subject to:



EMP/HEMP

An Electromagnetic Pulse (EMP) is a short burst of electromagnetic energy that can cause extreme damage to electronic equipment, while a High-Altitude Electromagnetic Pulse (HEMP) produces gamma rays that are converted into a much stronger EMP in the mid-stratosphere.



GEOMAGNETIC DISTURBANCE

A geomagnetic storm is a temporary disturbance of the Earth's magnetosphere caused by a solar wind shock wave that interacts with the Earth's magnetic field. These storms can disrupt critical systems and create harmful currents in the power grid and pipelines.



RFI/EMI

Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) are two sides of the phenomena where electronic devices create and are affected by electromagnetic radiation. The disturbance may interrupt, obstruct, degrade or limit the effective performance of the device.

TESTING SERVICES

LIFECYCLE & PERIODIC TESTING

Throughout the lifecycle of shielded enclosures, protection failures or degradation may go unnoticed until critical operations must be performed. Gaven Industries will lead the charge in the identification of all critical items and processes, as well as physically conducting the suggested maintenance practices.

SHIELD EFFECTIVENESS (SE) TESTING

Shielding effectiveness testing assesses the shielded enclosure's ability to block harmful electromagnetic and radio frequency signals. During Gaven's decades of experience, efficiencies have been identified through the development of test methodologies and practices, allowing us to accelerate the testing process without sacrificing quality.

PULSE CURRENT INJECTION (PCI) TESTING

Externally generated threat energies can couple onto lines and may enter HEMP-protected facilities/shields. PCI is a test method intended to measure the performance of an electrical point-of-entry (POE) protective device's ability to suppress energy that couples on conductors during an EMP. Gaven has designed and manufactured pulse generators capable of outputting MIL-STD-188-125-compliant double-exponential waveforms and we routinely test power filters, audio filters, data filters, control/signal filters, as well as RF POEs.

CONTINUOUS-WAVE IMMERSION (CWI) TESTING

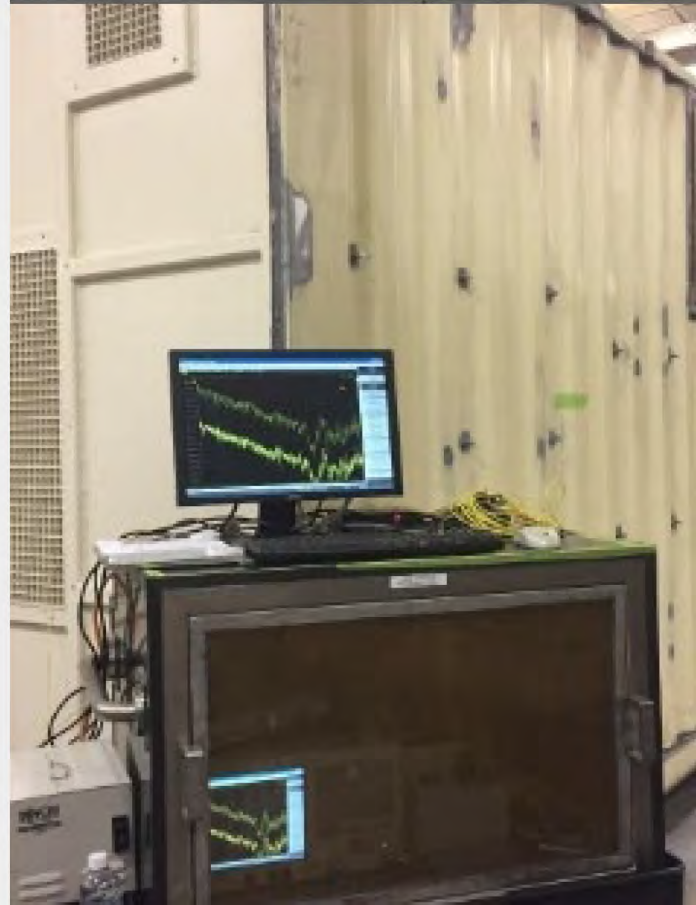
A test method for measuring the electromagnetic responses induced on an electromagnetic barrier and other items of interest (e.g., cables or conduits) illuminated by a CW electric or magnetic field.

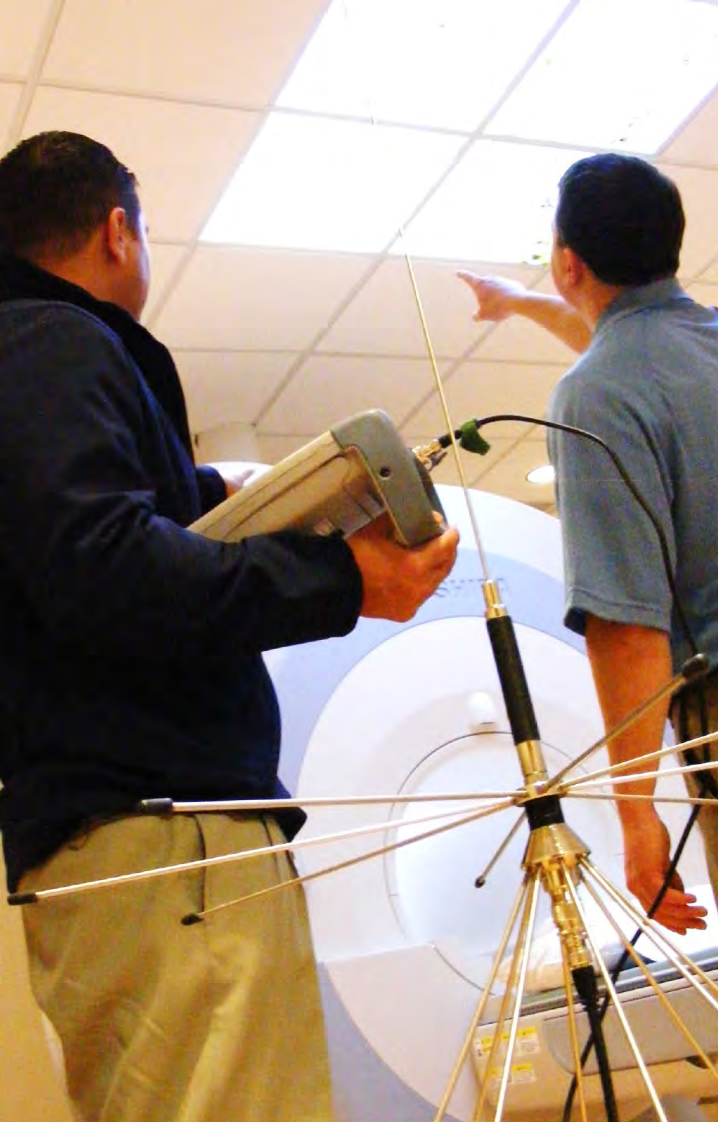
RECERTIFICATION TESTING

Recertification of HEMP-shielded enclosures is necessary to maintain compliance with regulatory standards and to ensure that the enclosure's integrity can withstand an EMP occurrence.

DESIGN VALIDATION / MODELING

Gaven has the capability to evaluate and certify how a shield and its components will perform during the preliminary design process to ensure consistency and quality of the shields. We conduct this through our elite computer modeling and virtual test environments system.





MAINTENANCE SERVICES

PERIODIC TESTING & INSPECTION

Regular evaluation of shielding effectiveness should be inspected and maintained annually. Inspections should include evaluation of the door leaf, frames, parts and components, and RFI/EMI points of entry to maintain optimal performance and safety.

PREVENTATIVE MAINTENANCE

Due to the constant normal usage of the room or facility, shielding effectiveness degrades over time. We recommend preventive maintenance such as cleaning, lubrication, adjustments, and part replacement to help maintain the optimal functionality of your systems.

REPAIR & RESTORATION SERVICES

Our skilled staff has experience repairing and restoring a vast array of shielded products and facilities – ensuring the effectiveness, performance, and compliance of your equipment.

MAINTENANCE SERVICE & HM/HS CONTRACTS

Inspection, preventative maintenance, testing, and repairs will extend the operational life cycle and efficacy of systems and equipment while ensuring sufficient protection of critical infrastructure during time-sensitive operations. Gaven Industries will lead the charge in the identification of all hardness critical items, and hardness critical processes, as well as physically conducting the suggested maintenance practices.



TESTING & INSPECTION

- Door leaf, frames, and seams
- Parts and components
- RFI/EMI points of entry



PREVENTATIVE MAINTENANCE

- Cleaning
- Lubrication
- Adjustments



RECERTIFICATION TESTING

- Welded seams
- Point of entry vulnerability
- Sensitive equipment vulnerability



PRIORITY PARTS & SERVICE

- Reduced site visit fees
- Fast response on-site technician
- Replacement parts

INDUSTRIES WE SERVE



HEALTHCARE

Diagnostic and imaging equipment in healthcare is highly susceptible to both Radio Frequency and Electromagnetic interference. Shielding in facilities such as MRI rooms, radiological centers, surgical suites, and other vulnerable environments takes experience and expertise. Gaven has both of these. Gaven offers a wide range of products and services critical to healthcare providers' success, including doors, room shielding, design and installation services, and testing services.

COMMERCIAL/INDUSTRIAL

Over the past 40 years, Gaven has established itself as the leader and expert in HEMP/EMP protection, offering a wide range of standard structure and shelter solutions as well as enclosure products. Our wide-spanning expertise throughout the critical infrastructure sectors, both public and private entities, has given us the ability to help maintain a strong partnership with energy companies, telecommunication, data centers, and more to ensure a resilient critical infrastructure using our HEMP structures.



GOVERNMENT/MILITARY

Gaven Industries is a trusted supplier of HEMP- and RF-shielded products and services for government and defense agencies around the world. Our expertise in MIL-STD 188-125 is unmatched in the industry with in-house testing and equipment, as well as design, planning, procedure, and testing being conducted by Gaven directly. Additionally, our capabilities allow defense contractors to harden systems and components within their designs for government and defense use.



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CONTACT US

As leaders in the RFI/EMI and EMP/HEMP Shielding Industry, we pride ourselves on our expertise and knowledge. Gaven Industries not only guarantees our work, but also the solutions our experts provide. Let us help with your next project.



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Our
Clients



U.S. Department of Defense



GENERAL DYNAMICS
Mission Systems

