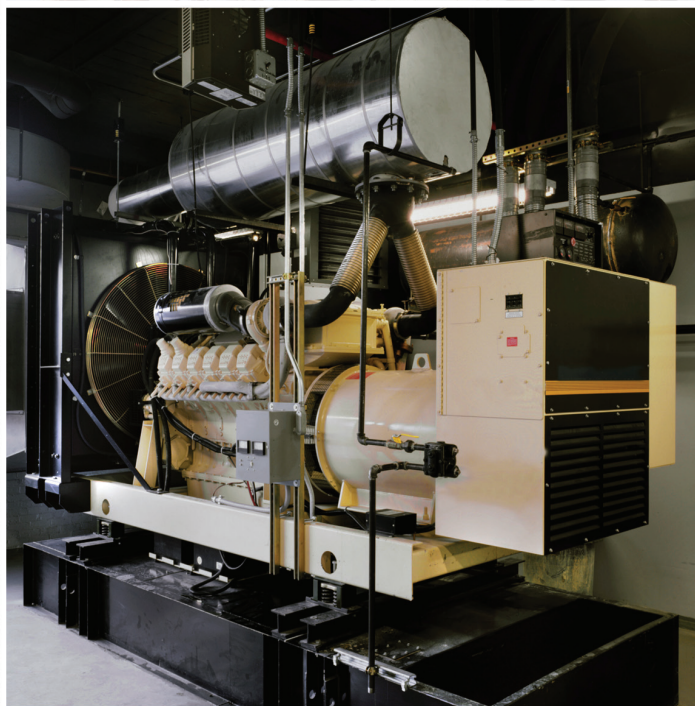


# solutions

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## EMP/HEMP/IEMI



*Enabling Your Success™*

The logo for ETS-LINDGREN, featuring a stylized red and white wave icon to the left of the company name in a bold, blue, sans-serif font.

An ESCO Technologies Company



## Experience and Expertise

ETS-Lindgren has the experience and expertise gained from over 70 years of designing and installing more than 10,000 shield systems worldwide. Our solutions include systems and components to protect against the effects of EMP (Electromagnetic Pulse), HEMP (High-Altitude Electromagnetic Pulse), and IEMI (Intentional Electromagnetic Interference).



### Shielded Rooms

Choose between welded steel construction, construction using modular double layer steel panels, or single layer steel panel-type shielding. Aesthetic requirements can be met with a choice of interior and exterior finishes.



### Shielded Equipment Enclosures

TIPS (TEMPEST Information Processing Systems) provide shield protection for high-value rack-mounted equipment.



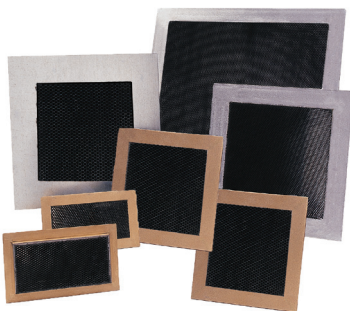
### Shielded Doors

The shield integrity of a shielded room is only as good as its shielded door. Several door options are offered that provide a safety factor of up to 120 dB and continue to provide shield integrity after repeated use.



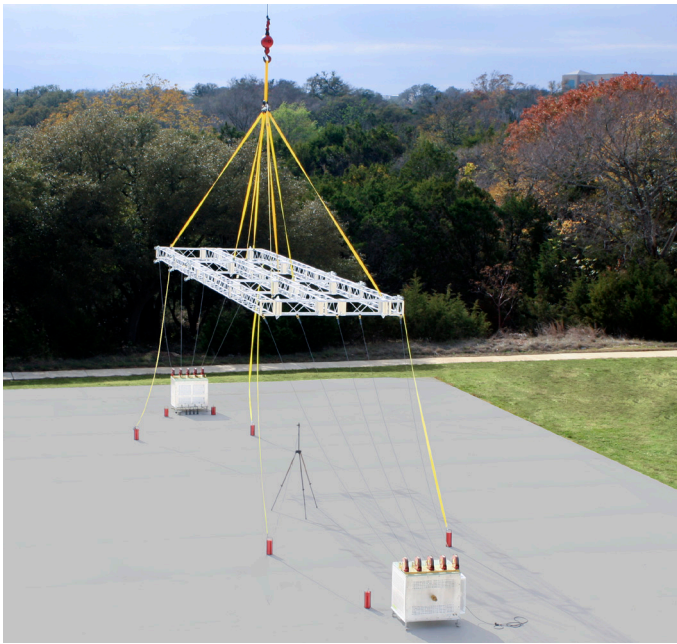
### Points of Entry (POE)

Entry points for fresh air, chilled water, fire suppression, signal or power lines can degrade the shield integrity of a shielded room or chamber. Our specially designed waveguides, pipe penetrations, fiber optic feedthroughs, signal and data filtering prevent the entry or escape of electromagnetic signals into or out of shielded rooms or chambers.



### Filters

ETS-Lindgren EMP/HEMP power line filters offer excellent multi-stage over-voltage and EMI/RFI protection. These single unit filters are available in either two or four individually filtered lines, with ratings of 227/480 VAC, 30 A - 400 A.



## Custom Field Generators

We design and manufacture custom bounded wave field generators for radiated pulsed testing of large test objects. Contact us with your requirements.



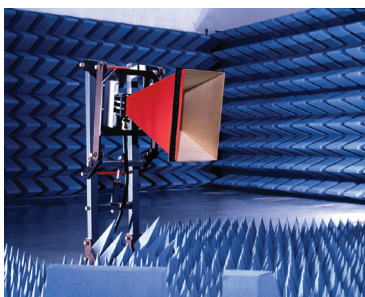
## E-Field Generator, Vertical/Horizontal Polarization

ETS-Lindgren's Model 5502 E-field generator is a two-conductor transmission line system that generates an electric or magnetic field in either vertical or horizontal polarizations.



## E-Field Generator, Vertical Polarization

ETS-Lindgren's Model 5503 E-field generator has a top plate consists of four separate tube conductors connected in parallel at the feed and load ends. Fields are generated in a vertical polarization.



## Antennas

ETS-Lindgren makes several off-the-shelf, high-power E-field generating antennas. Please contact us with your custom requirements.



## Helmholtz Coils

ETS-Lindgren Helmholtz coils are designed for testing the susceptibility of electronic equipment to magnetic fields. We offer them in several sizes and test volumes.



## Reverberation Chambers

ETS-Lindgren's reverberation chambers (also known as mode-stirred chambers) are cavity resonators with the ability to develop very high field strengths with moderate input power.

## GTEM!™ Cells

ETS-Lindgren's GTEM cells (Gigahertz Transverse Electromagnetic) are an extension of a flared 50-ohm coaxial cable which terminates in a resistive network. An optional high-voltage feed is available for pulsed testing.



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