SHIELDING SERIES 71 COPPER SCREEN SHIELDED ENCLOSURES

SERIES 71

- **"Hat & Flat" Clamping System for Shield Integrity**
- **Utilize in Product Development**
- **Perform Product Testing and Troubleshooting**
- **Perform Conducted Emissions and Radiated Emissions Pre-screen Testing**
- **Copper Screen Allows for Easy Visual and Verbal Communications**

ETS-Lindgren's Series 71 Copper Screen Shielded Enclosure is engineered to create a RF shielded environment ideal for electronic product development, troubleshooting, and EMC testing, including both conducted and radiated emissions testing. This RF-shielded enclosure ensures a controlled environment free from external electromagnetic interference, allowing for accurate and reliable testing results.

With 32 standard sizes available, the ETS-Lindgren Series 71 Copper Screen Room is versatile enough to fit into nearly any manufacturing or testing environment. Its design features a double layer of 55.9 cm x 55.9 cm x 0.04 cm (22 in x 22 in x 0.015 in) copper screen, reinforced with steel framing and steel-clad structural panels. This robust construction offers superior attenuation of magnetic fields, electric fields, and plane waves, providing a high-performance shielding solution for a variety of applications.

In addition to its standard configurations, the Series 71 can be customized to meet specific requirements, making it a flexible and scalable solution for both small test labs and large-scale manufacturing operations. Its modular design also allows for easy installation, expansion, or relocation, ensuring long-term value and adaptability to changing operational needs.

Product Features

Materials

The Series 71 Copper Screen Room features a double layer of 55.9 cm x 55.9 cm x 0.04 cm (22 in x 22 in x 0.015 in) copper screen mesh on the upper half of the wall panels, providing excellent RF attenuation. The lower half of the walls, as well as the floors and ceiling panels, are constructed using the standard Series 81 panel design. Copper is the ideal choice for shielded screen rooms due to its superior conductivity and resistance to oxidation. Additionally, the copper mesh allows for visual and audible communication, offering the added benefit of hear-through and see-through functionality.

Performance

The Series 71 Copper Screen Room utilizes the same clamping system as the Series 81 design, ensuring a secure and reliable structure. The double-layer copper screen mesh on the upper wall panels enables easy visual and audible communication, helping reduce the sense of confinement typically associated with solid shielded rooms.

This design is especially well-suited for applications below 3 GHz, making it ideal for wireless product testing, communications devices, and other testing environments where RF shielding is critical. The combination of copper mesh and Series 81 panels ensures robust shielding performance while maintaining a comfortable and functional workspace.

Construction

The Series 71 Screen Room features lower wall sections made from solid galvanized steel structural panels, ensuring long-term durability and robust performance. The panels are connected using an extruded "hat and flat" and cove clamping system, which provides uniform and consistent pressure across the shielded panel mating surfaces. These structural clamping sections are zinc-plated to prevent corrosion and are fastened with self-tapping zinc-plated screws, spaced 10.16 cm (4 inches) apart, ensuring a secure and continuous shield.

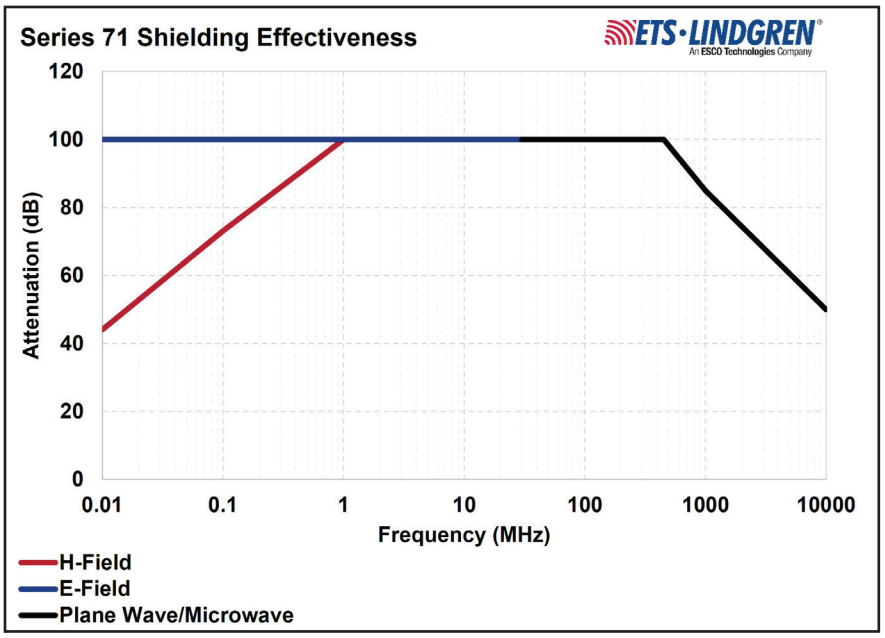
The corners of the shielded room are reinforced with precision-machined trihedral end cap sections for added structural integrity. The upper half of the enclosure incorporates copper screen mesh sections, allowing for easy visual and audible communication while maintaining excellent shielding properties. This unique combination of materials and construction techniques provides both a secure RF shield and an open, comfortable environment for occupants.

Applications

- EMC Product Compliance Testing
- Instrumentation Repair and Calibration
- Production and Quality Product Line Testing
- Product Development
- Cellular and Paging Service Centers
- High Voltage Test Labs
- Secure Computer Rooms
- Wireless Product Testing
- Metrology Labs
- Magnetic Resonance Imaging (MRI)
- Medical Equipment and Instrumentation
- Biomedical Engineering Labs
- Embassies and Consulates
- TEMPEST Security Areas

Technical Specifications

Performance	
Magnetic Field	14 dB @ 10kHz; 100dB @ 1MHz to 30 MHz
Electric Field	100 dB @ 1kHz to 30 MHz
Plane Wave	100 dB @ 30 MHz to 450 MHz
Microwave	85 dB @ 1 GHz; 50dB @ 10 GHz



Physical Specifications

Standard Sizes

Height	Length	Width
2.51 m (8.23 ft)	2.52 m (8.27 ft)	2.50 m (8.20 ft)
2.51 m (8.23 ft)	3.11 m (10.20 ft)	2.52 m (8.27 ft)
2.51 m (8.23 ft)	3.76 m (12.34 ft)	2.50 m (8.20 ft)
2.51 m (8.23 ft)	4.99 m (16.37 ft)	2.50 m (8.20 ft)
2.51 m (8.23 ft)	3.15 m (10.33 ft)	3.11 m (10.20 ft)
2.51 m (8.23 ft)	3.76 m (12.34 ft)	3.11 m (10.20 ft)
2.51 m (8.23 ft)	4.99 m (16.37 ft)	3.11 m (10.20 ft)
2.51 m (8.23 ft)	6.23 m (20.44 ft)	3.11 m (10.20 ft)
2.59 m (8.50 ft)	3.76 m (12.34 ft)	3.74 m (12.27 ft)
2.59 m (8.50 ft)	6.23 m (20.44 ft)	3.76 m (12.34 ft)
2.59 m (8.50 ft)	6.23 m (20.44 ft)	3.74 m (12.27 ft)
2.59 m (8.50 ft)	7.47 m (24.51 ft)	3.74 m (12.27 ft)
2.59 m (8.50 ft)	4.99 m (16.37 ft)	4.96 m (16.27 ft)
2.59 m (8.50 ft)	6.23 m (20.44 ft)	4.96 m (16.27 ft)
2.59 m (8.50 ft)	7.47 m (24.51 ft)	4.96 m (16.27 ft)
2.61 m (8.56 ft)	6.23 m (20.44 ft)	6.18 m (20.28 ft)
2.61 m (8.56 ft)	7.47 m (24.51 ft)	6.18 m (20.28 ft)
2.61 m (8.56 ft)	7.47 m (24.51 ft)	7.42 m (24.31 ft)

*Custom Sizes Available

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