RF SHIELDED DOORS Single Knife Edge™ Door

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The SKE Door is suitable for modular, welded, and pan-formed RF shielded enclosures, along with anechoic chambers. With its inherent strength, rigidity, and a surface that is flush with the inner chamber wall, the SKE optimizes the application of resistive and ferrite tile absorbers. Its tough construction makes this door an excellent, long-lasting choice for heavy industrial environments and frequent use applications. The door may be installed in new or existing enclosures.

Key Features

- Precision-machined Aluminum Hinges with Thrust Bearings for Sag-free Mounting and Smooth Operation
- Easily Replaceable Beryllium Copper Finger Stock Around the Perimeter of RCM Receiver
- Easy-to-Mount to Modular and Welded Shielded Enclosures
- Heavy-Duty Cam Latch Strikes for Two-Point Latching
- One Year Parts Warranty

Features

Construction

The ETS-Lindgren SKE Door consists of a factory assembled leaf and frame, which maintain electrical contact around the perimeter. The door panel is laminated on both sides with 24 gauge steel. The bronze knife edge extrusion is mounted on the door leaf and the receiver housing is mounted to the frame. The door frame is constructed with a recessed channel into which two rows of beryllium copper finger stock are clipped. The beryllium finger stock is easily maintainable and replaceable with standard tools. The cam-driven locking device features a multi-point latch operable from both sides of the door. On manual rotation of the lever handle, the mechanism draws the knife edge of the door into its final closing, RF-tight position. Reliable contact is achieved by the precise insertion of the bronze steel knife into the RCM receiving channel.

Standard single personnel doors have three precision-machined aluminum hinges, each fitted with adjustable thrust bearings that enable the door leaf to be accurately adjusted within the frame and to compensate for varying load conditions.

Performance

The standard SKE Door, when tested in accordance with the procedures of MIL-STD-285, NSA 65-6/NSA 94-106, MIL-STD-285/IEEE 299 or EN 50147-1, will exhibit shielding attenuation levels of 110 dB at frequencies up to 1 GHz and 100 dB up to 18 GHz.

Operation

Standard doors are latched and unlatched using an easy-to-operate bar handle on either side of the door leaf. This action raises and lowers an external double cam roller assembly, engaging or freeing the knife edge.

Interfaces

The SKE Door can interface with a variety of locks, latches, and security systems. Locking hasps and panic release systems may be incorporated, as well as contact mechanisms for emergency power cut-off and fire detection closure systems. The door can also be equipped with a ramp for heavy equipment transportation into the shielded area.