



RF Shielded doors

.....



ROOM 2

REVERBERATION CHAMBER

A reverberation chamber is a specialised EMC test chamber, generating very high field strength using modest amplifier power. The chamber is mainly used for testing electrical immunity of test objects. The shielding is established by constructing the test chamber from a 2 mm pin type galvanised panel system.

FACTS | Space saving proprietary new stirring technology | Large volume allows testing of military, aerospace or automotive equipment under high field strength conditions

The test chamber is constructed in close co operation with Comtest Engineering bv, The Netherlands. Comtest Engineering supplies high performance RF shielded enclosures and anechoic chambers according to IEC/EN/ISO/MIL&CSPP standards.

comtest.eu

.....

COMTEST[®]
ENGINEERING

Controlled Electromagnetic Environments

RF shielded doors 03
RF shielded swing doors 04
RF shielded sliding doors 04
Large RF shielded sliding doors 06



CONTROLLED ELECTROMAGNETIC ENVIRONMENTS

Comtest Engineering supplies high performance RF shielded rooms, reverberation and anechoic chambers. The company is located in The Netherlands and was founded in 1985.

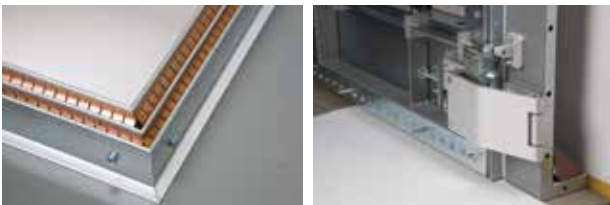
We are a professional organization and recognized for our quality and flexibility. Comtest high performance RF shielded doors, mode-stirrer systems and microwave absorbers have been internationally recognized as state of the art products.

Our skilled and experienced team is dedicated to satisfy your need to control the electromagnetic environment!



RF shielded doors

The Comtest RF shielded doors are designed for high performance shielded enclosures. The shielding characteristics of Comtest RF shielded doors are achieved using a double knife edge, matching quadruple beryllium copper finger contact strip. The RF shielded doors are equipped with a unique parallel closing mechanism and a patented locking and latching system ensuring longer life-time of the door components. All Comtest shielded doors are available in manual, semi- and full automatic operation. The standard range of swing and sliding doors consists of many different models and can be designed with a 50mm low threshold. In EMC applications both ferrites and absorbers can be affixed to the door leaf.



Benefits of a unique design

A parallel closing system is used to ensure a long lifetime of the finger stocks mounted in the door frame. The door mechanics can be reached by removing the cover of the door. Since this is not an essential part of the shielding it facilitates all maintenance work without affecting the shielding performance of the door.

Manual, semi- and full automatic operation

All the RF shielded doors can be delivered in manual, semi- and full automatic operation. Comtest semi- and full automatic RF shielded doors are 100% electrical operated. The benefit of electrical doors is that they are more reliable than pneumatic systems. In case of mains power breakdown, automatic doors can be operated from the internal rechargeable battery system or using a manual handle.

Options:

The following options are available for all shielded door models.

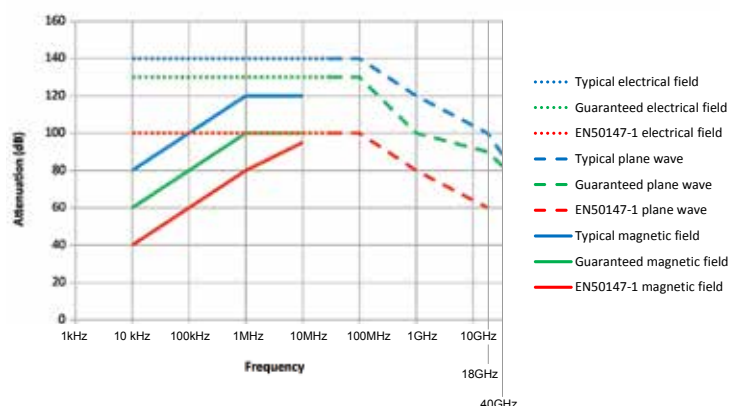
- Manual, semi- and full electrical operation.
- Door status switch (inter lock) to connect test room entrance doors with RF amplifier systems
- Security access system using keycard validation systems
- Non-conductive (internal) door handle for anechoic applications
- For high security applications the doors can be equipped with special anti-burglary mounting materials
- Door frame interface for integration with modular pan-type, sandwich or welded shielded enclosures
- Removable access platform (slope)
- Full automatic up/down platform for flat (threshold less) entrance

Benefits

Comtest RF shielded doors are the most sophisticated doors available in the market today.

The benefits of the available product range are:

- Minimum threshold of 50mm
- User-friendly operation
- Low force manual opening system
- Little maintenance required
- High performance shielding effectiveness up to 40 GHz
- Easy maintenance access from the outside of the shielded enclosure
- Replacement of fingerstocks without soldering



RF shielded swing doors model 1766

These RF shielded swing doors have a unique friction free parallel closing system. This double pivoting hinge 4-point latching system ensures long life time of the double row finger stocks mounted in the door frame. While operating the door no finger stocks are stressed. For service purposes the door mechanics can be reached by removing the outside cover of the door. Since this is not an essential part of the shielding it facilitates all maintenance work without affecting the shielding performance of the facility.

RF shielded swing door standard range

The shielded swing door standard dimensions are:

- 1766-0921: 900*2100mm
- 1766-1021: 1000*2100mm
- 1766-1221: 1200*2100mm
- 1766-1521: 1500*2100mm

RF shielded sliding doors model 1752

These RF shielded sliding doors have a unique friction free parallel closing system. This 4- point latching system ensures long life time of the double row finger stocks mounted in the doorframe. While operating the door no finger stocks are stressed.

For service purposes the door mechanics can be reached by removing the outside cover of the door. Since this is not an essential part of the shielding it facilitates all maintenance work without affecting the shielding performance of the facility.

Safety

All full automatic doors are equipped with a safety system to prevent obstructed motion. A special key switch enables to lock the door in the open position without closing automatically.





RF shielded sliding door standard range

The RF shielded sliding door standard dimensions are:

- 1752-0921: 900*2100mm
- 1752-1021: 1000*2100mm
- 1752-1221: 1200*2100mm
- 1752-1521: 1500*2100mm

In addition to our standardized models all sliding doors are available in customized dimensions to satisfy our customers' individual requirements.





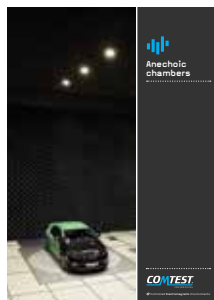
X-Y movement

For large EUT entrance the Comtest sliding door 1755-series can be used as a full automated entrance. Model 1755 doors or shielded gates are designed for mounting absorbers and / or ferrites onto the door leaf. While operating the large RF shielded sliding door will have a typical “X-Y” movement. The X movement travel distance is influenced by the length of the absorbers attached to the door leaf. The Y movement travel distance is influenced by the width of the door leaf.

Features

Large RF sliding doors have the following features:

- Semi and Fully automatic (100% electrical) operation with PLC control
- Friction free parallel closing system for extended lifetime
- Six-, eight- or ten-point latching system
- Electrical operation ensures smooth and stable operation
- Minimum threshold of 50mm



Please also view our other literature or visit our website:

www.comtest.eu

