

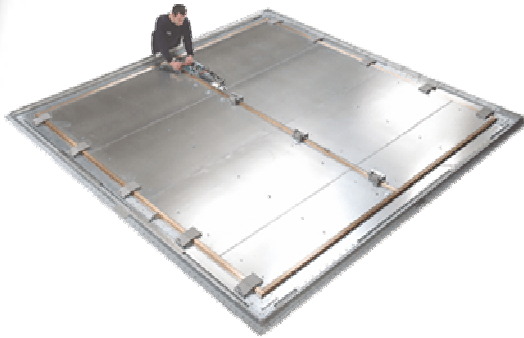
## RF SHIELDED DOOR

SIEPEL has been manufacturing shielded rooms for over 20 years, for various application fields such as sensitive information protection, EMC anechoic chambers, RF and antenna measurements anechoic chambers, compact ranges, TEMPEST shielded rooms, reverberation chambers, etc...

As a worldwide recognized expert company in shielded products manufacturing, SIEPEL does not make any compromise on the performances and quality. Since the shielded doors are one of the key parts of the shielded enclosure, SIEPEL has developed through the years high performances products for long term reliability.



### MAIN FEATURES



- Knife edge technology
- Any type available (single door, double door, sliding door)
- All dimensions available on demand
- Ruggedized construction, suitable for everyday use
- Multi-point latching, for absolute performances and reliability
- Over-dimensioned hinges, for perfect mechanical stability
- High shielding effectiveness performances
- Easy and flexible ferrite tiles and absorbers installation

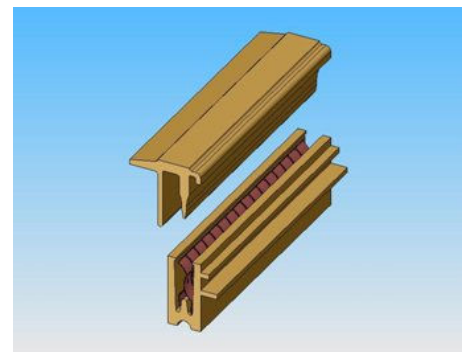
### “KNIFE EDGE” TECHNOLOGY : KEY FEATURES

SIEPEL RF shielded doors are based on this state-of-the-art and most appropriate technology to ensure the best performances and reliability through the years, on both mechanical properties and shielding effectiveness. The aim of the knife edge technology consists in maintaining a perfect electrical contact between the perimeters of both door leaf and frame.

The door leaf (moving part) is a single piece panel consisting of a wooden core structure covered by two Z275 galvanized steel sheets. This panel is surrounded by a continuously welded brass profile, called knife. The knife profile is obtained from the extrusion of a high quality « UZ 42 Pb3 Al » brass, compliant with the EN12167 standard. The **progressive** and **optimized shape** of the knife ensures a progressive compression of two rows of clipped copper-beryllium fingerstock.

The door frame has the same thickness as the SIEPEL modular “sandwich” shielding panels, and is connected to them using OMEGA shaped joining profiles. A brass extruded profile is continuously welded on the internal periphery of the door frame. This brass profile is a “U” shaped channel (SIEPEL patent) and is fitted with two rows of copper - beryllium fingerstock, which are progressively compressed when closing the door. These clipped contacts are self cleaning and easily changeable.

Those features (continuously welded brass profile, progressive shape of the knife, fingerstock holding system) provide **long term reliability** and **high shielding effectiveness performances**. The door leaf and frame are assembled and adjusted in our workshop by specialized skilled technicians, and the door is shipped in the closed position.



### OVER- DIMENSIONED HINGES

The door leaf moves through aluminium hinges, CNC high precision-machined. The hinges are pinched in the door frame for one part. The other part consists of a unique channel way, clamped on the door leaf.

Consequently, it's impossible for the door to twist, even for very wide doors (up to 4 meters and more) when lined with heavy absorbers (such as ferrite panels and hybrid absorbers), on their internal side. This feature ensures **a long term stability** and **performance** of the door.

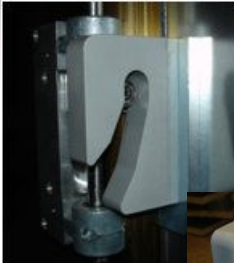
## RF SHIELDED DOOR

### DIMENSIONS

Standard dimensions (mm)	
W	H
900	2100
1200	2100
1500	2100
1200	2400
1500	2400
Any other dimension upon request	



### MULTI-POINT LATCHING SYSTEM



A 1/3 rotating handle installed on both sides of the door actuates a vertical stainless steel axis, fitted with several rollers which slip into ramps installed on the door frame.

This movement of the rollers into the ramps makes the door leaf knife edge going inside or releasing from the U-shape profile fitted with fingerstock.



This system ensures a perfect electrical contact between the door leaf and frame periphery when closing the door. On top of that, all these latching mechanisms are of direct access for an easy service and maintenance.



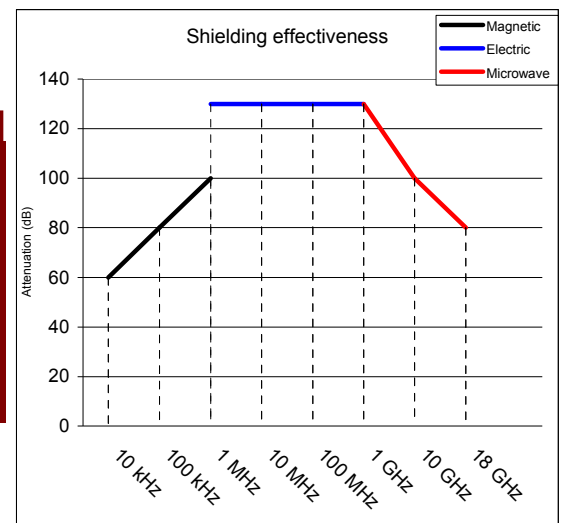
### SHIELDING EFFECTIVENESS PERFORMANCES

Attenuation performances guaranteed for SIEPEL shielded doors are as follows, when measured according to the procedures of EN 50147-1, MIL-STD-285, IEEE299 and NSA65-6:

Frequency	Guaranteed value *	Typical Value **
<b>H-Field</b>		
10 kHz	60 dB	≥ 65 dB
100 kHz	80 dB	≥ 90 dB
1 MHz	100 dB	≥ 120 dB
<b>E-Field</b>		
Up to 1 GHz	130 dB	≥ 140 dB
10 GHz	100 dB	≥ 110 dB
18 GHz	80 dB	≥ 90 dB

\* Minimum guaranteed values according to EN 50147-1

\*\* Typical performances according to EN 50147-1



### OPTIONAL FEATURES

- Non metallic internal handle
- Electric or pneumatic semi-automatic latching systems
- Restricted access or controlled access systems
- Interlock for automatic power cut-off
- Removable access ramp
- Fully automatic access ramp