



**NATIONAL
SHIELDING**

*over 50 years
of combined experience*

National Shielding

Shielding Products and Services

***National Shielding** is a full service shielding company based in Dallas, Texas.*

*National was founded by industry specialists with over 50 years of combined experience in the **MRI** equipment and construction industries.*



Consultation | Project Management | RF Testing

National Shielding's consultative services will assure your project's success.

- **Consultation :** National experts help guide architects, engineers, and construction teams through the MRI facility design/build process.
- **RF Testing and Certification :** National testing engineers provide complete RF testing services for both new and existing MRI facilities.



Contact us

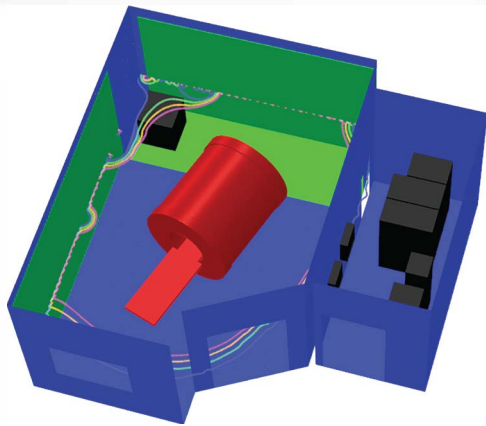
Phone: (888) 400-6674 | Email: info@national-shielding.com | Web: www.national-shielding.com



MAGNETIC SHIELD DESIGN SERVICES

Designing a magnetic shield is a critical part of the process of planning a successful **MRI** installation.

Our company also provides the specialized steel needed when building **MRI** magnetic shielding. In addition, our teams of **MRI** shield installers are ready and able to install your magnetic shield anywhere in the world.



3 Tesla (3T) Magnet Fringe Fields

UNITS

Length	in
Magn Flux Density	T
Magnetic Field	A/m
Magn Scalar Pot	A
Current Density	A/in ²
Power	W
Force	N

MODEL DATA

Ozarks6.op3
Magnetostatic (TOSCA)
Nonlinear materials
Simulation No 1 of 1
197370 elements
58591 nodes
4 conductors
Nodally interpolated fields
Activated in global coordinates

Field Point Local Coordinates

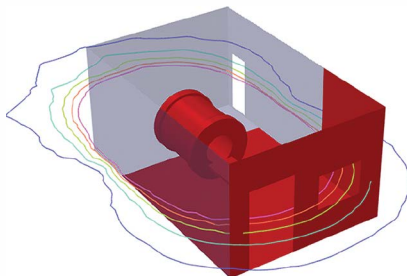
Local = Global

FIELD EVALUATIONS

Cartesi CARTES 200x20 Cartesian (nodal)
x=300. y=40.0 z=300.

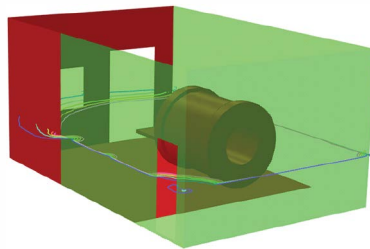
3D Room Modeling

BEFORE MAGNETIC SHIELDING



Model prior to addition of magnetic shielding.

AFTER MAGNETIC SHIELDING



Room model after addition of magnetic shielding to limit 5 Gauss.

National Shielding provides complete magnetic shield design services for all **MRI** systems using the same software program that the OEM uses to design their magnets.

National Shielding manufactures and installs top quality RF shielding enclosures for secure government facilities and other applications such as police evidence rooms and crime labs. Our keen attention to detail, coupled with a strong customer service ethic, puts us in the top tier of RF shielding companies worldwide.





National Shielding is dedicated to providing highly effective shielding solutions that can be used for a variety of situations and facilities.

We design, manufacture, install, and certify RF shielded enclosures.

All our shielding components are fabricated using the highest quality control in order to deliver a secure reliable product.



THE RF SHIELDED DOOR BY NATIONAL SHIELDING

The Windsor II is the latest innovation in RF shielded doors by **National Shielding**. Providing an extremely high electromagnetic interference seal combined with excellent acoustic properties the Windsor II is the result of many years of engineering and research.



Nickel plated copper gaskets provide excellent electrical and RF conductivity while an additional layer of elastomer core RF gasket provide acoustical insulation and an extra layer of protection against RF leakage.



Sturdy stainless steel hardware combining ease of use with a modern appearance and design that adds beauty to any decor.

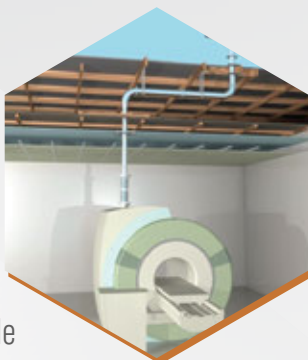
This dual layer of RF and acoustical protection places the Windsor II shielded door by **National** in the top echelons of **RF shielding** enclosures needing high levels of security.



Helium Quench Pipe Systems

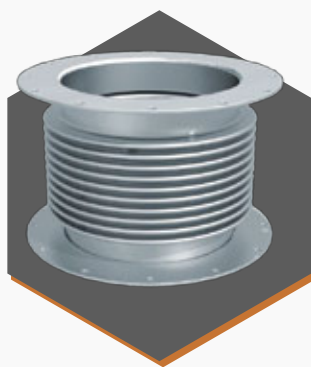
Custom Quench Pipe Systems The quench pipe system is a critical component of an **MRI** facility. In the event of a quench, the magnet will expel gaseous helium from the **MRI** system.

This helium gas must be safely vented outside the building to protect both patients and facility personnel. From design and engineering to fabrication and installation, **National Shielding** offers a turn-key solution for quench pipe systems.



Quench Vent Waveguides The quench vent waveguide is the component that passes through the RF enclosure, and as such, is included with all RF shielded enclosures. These waveguides can be specially designed and fabricated to overcome spatial limitations or other construction concerns.

Quench Vent Bellows The use of bellows may be necessary depending on **MRI** manufacturer specifications, or for design safety and proper installation procedures. **National Shielding** can help determine these specific vent requirements and provide all the parts needed to complete the vent system.



National Shielding

Featured Projects

Baylor Scott & White Medical Center at Waxahachie

Waxahachie, Texas • GE Optima MR450w

Borland Groover Clinic

Jacksonville, Florida • GE MR750w

Central Peninsula Hospital

Soldotna, Alaska • Siemens Skyra

Citrus Valley Health

Covina, California • Siemens Verio

Driscoll Children's Hospital

Corpus Christi, Texas • Philips Ingenia I.5T

Gateway Diagnostics

Fort Worth, Texas • Hitachi AIRIS II

Johnston Medical Center

Clayton, North Carolina • Siemens Espree

Rolling Plains Memorial Hospital

Sweetwater, Texas • GE Signa I.5T

Seton Medical Center

Austin, Texas • Siemens Aera

Summit Medical Center

Edmond, Oklahoma • Toshiba Vantage Titan

SimonMed Paradise Valley

Phoenix, Arizona • GE Signa 3.0T

Veterans Affairs Medical Center

Salt Lake City, Utah • Siemens Skyra

Veterans Health Care System of the Ozarks

Fayetteville, Arkansas • Hitachi OASIS Mark II





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NATIONAL SHIELDING is dedicated to not only the quality of the services we offer, but our relationships and continued excellence in customer care. Contact us, or call directly at our toll free number.

We look forward to servicing all your **Shielding** needs!



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