

An IMEDCO White Paper



and tomorrow's

Shielding Solutions for Today's MRI Systems

MR Shielding is not just another construction sub-contract. MR Shielding is an investment that can affect your profitability!

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Vendor analysis before choosing your MR equipment is extensive and expected. Vendor analysis before choosing your MR Shielding to protect that MR equipment is typically minimal, delegated or possibly even overlooked! Why should you be concerned? Because your MR Shielding choice can affect your profitability. One should consider the following:

MR Equipment Performance

RF Attenuation levels must be maintained to assure proper long-term performance. MR Shield Warranties are important (Lifetime vs. 5 years vs. 1 year) and signify design integrity, which can justify use of copper as the preferred shield medium for the vast majority of site conditions. All designs should be rated for a minimum of 3.0T field strengths. IMEDCO packages provide the RF shielding factors that meet the requirements not only on the day of turnover but also throughout the MR equipment's life cycle if serviced and maintained as recommended. This is one major reason why IMEDCO's customer base includes prestigious university, research and centers of excellence hospitals around the world.

Department Environment

Acoustic noise generated by the MR equipment is an known issue. IMEDCO base level designs include a number of patented **SilentSHIELD™** components that provide the highest noise reduction/attenuation levels in the industry. Tailored designs by IMEDCO can also be provided to address critical site conditions such as pediatric and intra-operative where noise containment is an is an even bigger issue. IMEDCO RF Doors, Wall and Ceiling panels have

been designed and independently certified so that acoustic airborne noise disturbances are minimized, resulting in less patient and staff anxiety and stress. When magnetic field containment is required it is important to utilize effective and safe designs and installation protocol. Cost-cutting techniques that might seem economical and attractive could carry potential structural liabilities and should be analyzed with respect to ownership of critical responsibilities.

Equipment Downtime

Addressing RF Shield performance issues after start-up can be costly. Repairs to solve RF leakage and reduce noise disturbances post-installation can create interruptions in MR equipment usage and result in loss revenue to a key profit center in the department. It is important to choose an MR shield vendor that utilizes reliable and proven designs to minimize risk of reducing this critical revenue stream. IMEDCO has provided the technical expertise for critical research and for challenging site conditions. These customers rely critical performance with minimal downtime attributable to their RF shield. Your MR Department should expect no less.

Department Safety and Security

Department Safety cannot be a variable. IMEDCO has teamed up with today's leading ferrous metal detection company, Kopp Development Inc. to incorporate their Halo-II entry product into the IMEDCO RF Door frame to provide the most reliable and space efficient Zone 4 barrier available today dedicated to protect patients and staff entering the Exam Room.

Don't Risk The Profitability Of Your MR

This product has been engineered and field tested to eliminate false positives and specifically identify and locate the ferrous objects still worn or carried by the individual. IMEDCO offers a variety of creative door access controls and fail-safe locking systems for exam room entry and Exam room usage during and after hours.

Rapid Service Response

RF Shielding vendors appear and disappear with alarming regularity. It is important to choose a company that will be there when you need them. IMEDCO has been shielding MR since 1987. That's 25 years and over 6,500 completed installation worldwide. When service is required, you need a company that has gained the confidence and respect of all MR vendors and one that will respond quickly and work cooperatively with all parties to trouble-shoot the problem and get it solved so that you are back up and running as quickly as possible.

Future Upgrades

When you are ready to consider an MR equipment upgrade, you expect your MR shield will be able to continue providing the necessary RF performance to ensure the upgrade will perform as required by the new equipment. If properly maintained, IMEDCO shields can be economically re-certified and modified so your shield can support your new upgrade. That is important because once you make the investment in your shield, you want it to serve your needs as MR technology and your demands evolve. Costs to replace shielding that is under performing can be expensive, so avoiding that unexpected replacement expense by using highly reliable, proven shield packages will lower your upgrade costs. Even if you do not currently own an IMEDCO product, we can test your existing shield and help you evaluate your options. One of the reasons that IMEDCO has been providing solutions for today's and tomorrow's MR systems



since 1987 is because our shielding continues to perform.

Conclusion

Total product cost of the MR Suite is not limited to lifetime MR equipment costs. MR Shielding choices can affect your departmental profitability and can unexpectedly increase these costs. If you acknowledge the potential impact that the above considerations can have on your site, we think you'll agree that shielding should not be treated as just another construction sub-contract.

Contact Mr. Krachon at mikek@imedco.net for additional details and for your MR Shielding questions.