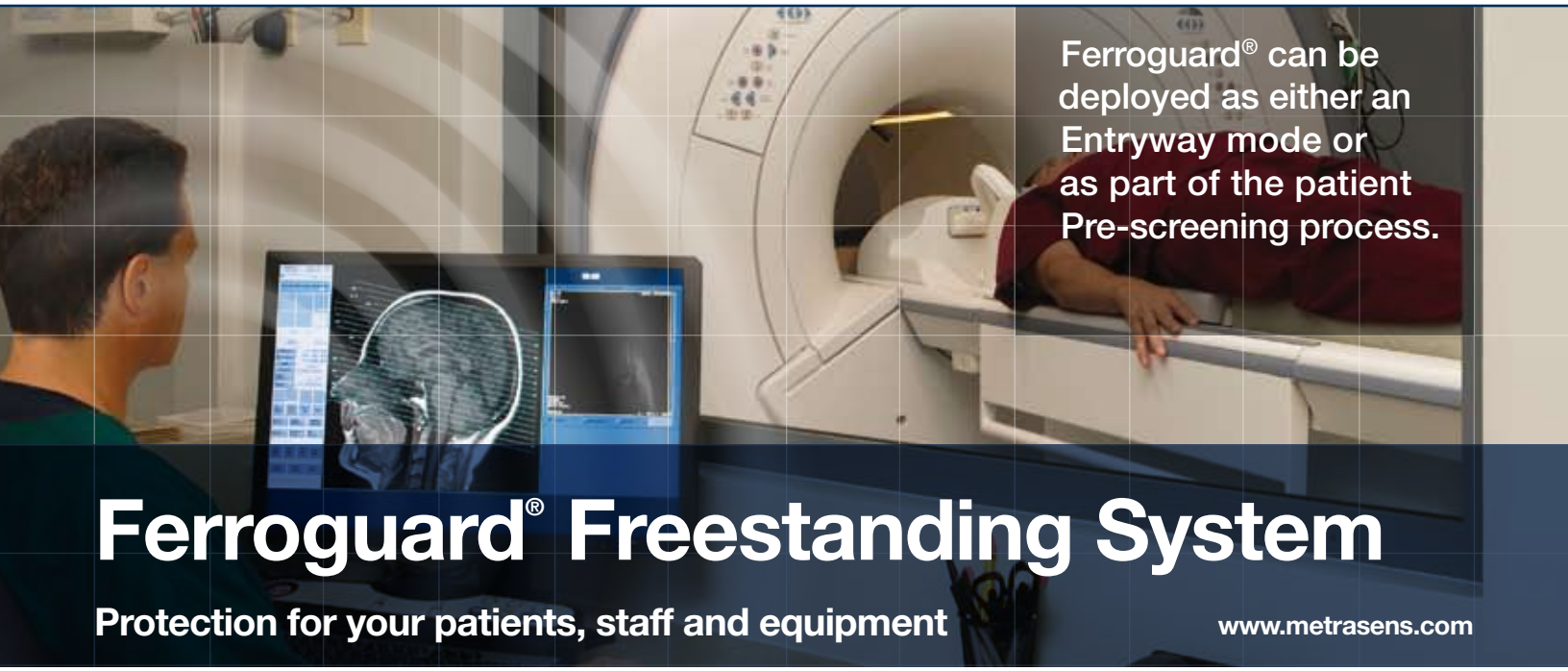

Ferroguard® can be deployed as either an Entryway mode or as part of the patient Pre-screening process.

Ferroguard® Freestanding System

Protection for your patients, staff and equipment

www.metrasens.com

High magnetic fields generated by MRI equipment create constant dangers that require diligent attention and refined safety procedures. Ferroguard® is a patented screening system designed to prevent patient injury and equipment damage that can occur when ferromagnetic objects are brought into the magnetic field of an MRI unit.

Key Features

Ferroguard® Freestanding System has been designed to aesthetically compliment and enhance the safety of your MRI environment allowing for precise siting without the need for major installation considerations. The system is easy to operate and performance can be optimized by the user.

- Can be deployed flexibly in an Entryway mode located in close proximity to the MR Door, or as part of the patient Pre-screening process for detection of small ferrous items
- Ferroguard® provides continuous monitoring of the local ferromagnetic environment, through its unique and intuitive Beacon Display System
- Sensitivity can be varied to suit prevailing conditions and preferred mode of operation
- Freestanding units are less confrontational and far less restrictive than archway FMD's
- Unlike handheld technologies, Ferroguard® is not reliant upon user consistency or operation, scanning a subject more efficiently from head to toe as the subject steps through the portal
- Units can be deployed in a matter of minutes and can provide an immediate solution to facilities recovering from an incident, or as a temporary measure where short term additional risks are present, e.g. during instructional periods, or facility/magnet maintenance
- Where space is a premium, the freestanding poles can also be wall mounted to make optimal use of the available floor area
- Innovative and unobtrusive design with real-time visual display at eye level
- Audible alarm system with variable volume control
- Fully integrated battery back up
- Directional optical sensors ensure proper pole alignment and activation of the secondary audible alarm only when the threshold is crossed under alert conditions
- Battery low alarm

Modes of Operation

The flexibility of Ferroguard® allows users to select their preferred mode of operation based around their perceived risk levels. With variable sensitivity, units can be set to detect both large and small ferrous objects which may be inadvertently brought into the MRI room. All Ferroguard® Freestanding units are ideally suited to offer:

Ferroguard® Environment Monitoring

simultaneously with either

Ferroguard® Pre-screening mode

or

Ferroguard® Entryway mode

ferroguard® from metrasens

The future of MRI safety

Ferroguard® Environment Monitoring

Ferroguard® is the only ferromagnetic detection system available that provides continuous, active monitoring of the ferromagnetic environment. Through its intuitive Beacon display, Ferroguard® provides staff with real-time visual feedback as to the presence of moving ferromagnetic objects in the vicinity of the MRI unit.

Ferroguard® can also be used to periodically test equipment ensuring only those items that are MRI Safe are brought into the MR room itself. Ferroguard® is a passive system, completely safe to use in the clinical environment, and will not adversely affect other equipment located in the MRI facility.

Ferroguard® Pre-screening mode

Ferroguard® Freestanding System operating in a Pre-screen mode offers variable sensitivity that can be set to an extremely high level in order to detect small ferromagnetic objects e.g. coins, keys, hairpins etc…

The system would typically be deployed in the interview or changing room area and forms an integral part of the final screening process prior to entering the MRI room. Scanning requires patients to simply pass between the two poles in order to complete the screening process.

Ferroguard® Entryway mode

Ferroguard® Freestanding System operating in an Entryway mode is located at or near to the entrance to the MRI suite.

The system is placed near the doorway with the poles separated the width of the door apart so as to avoid obstruction. The sensitivity is set at an appropriate level to reduce the chances of a major projectile incident involving larger ferrous objects e.g. tools, cleaning equipment, cylinders etc…

The Beacon display gives staff early warning of the presence of large ferromagnetic objects well in advance of them reaching the portal threshold. If ignored then the secondary audible alarm is triggered once the portal threshold is crossed.

Ferroguard® Benefits Summary

- Provides continuous monitoring of the local ferromagnetic environment.
- Gives advance visual warning of the presence of dangerous ferromagnetic objects
- Secondary audible alarm should the threshold be crossed during alert conditions
- Reduced chance of the “projectile effect”
- Increased staff awareness of projectile hazards with intuitive Beacon display system
- Reduced chance of patient injury.
- Visual feedback can be used to test MRI Safe equipment
- Reduced chance of equipment damage or need to quench
- Reduced chance of system downtime.
- Reduce chance of the need to repeat a scan
- Reduced costs to hospital facility.
- Lifetime cost effective with payback after the prevention of single incident

Safety Guidance

Ferromagnetic detectors are recommended by the 2007 ACR Guidance document for MR safe Practices

“Ferromagnetic detection systems have been demonstrated to be highly effective as a quality assurance tool, verifying the successful screening and identifying ferromagnetic objects which were not discovered by conventional screening methods”

The Joint Commission Sentinel Alert #38 on MRI Accidents recommends the ACR Guidance Document and in particular the need for double check screening procedures, including as an example, the use of Ferromagnetic Detection Systems.

MHRA Safety Guidelines for MRI have been updated to include the availability of Ferromagnetic detection systems. (DB 2007 (03)).

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