

MAGNETOM Espree 1.5T Site Layout and Planning Guide

The MAGNETOM Espree 1.5T MRI system by Siemens Healthineers is renowned for its patient-friendly design and advanced imaging capabilities. For comprehensive site planning and installation, Siemens provides detailed resources to ensure optimal setup and operation.

Site Planning Resources

Siemens Healthineers offers specific site planning documents for the MAGNETOM Espree 1.5T, including:

- Typical Layouts: PDF, DWG, and DWF formats detailing room configurations.
- 3D Models: For visualizing the MRI system within your facility's space.

These resources can be accessed through Siemens Healthineers' Magnetic Resonance Implementation Site Planning page.

Key Room Specifications

- Minimum Room Size: Approximately 27 m² (290 sq. ft.)
- System Length: 125 cm (cover to cover)
- Magnet Length: 120 cm
- System Weight: Approximately 5.1 tons
- Bore Size: 70 cm Open Bore design

Power & Cooling Requirements

- Electrical Supply:
 - Line Voltage: 400 V $\pm$ 10%
 - Frequency: 50/60 Hz $\pm$ 1 Hz
 - Power Consumption: Up to 91 kVA
- Cooling System:
 - Heat Dissipation to Water: Approximately 60 kW
 - Water Flow Rate: 120 liters/min
 - Water Supply Temperature: 19–22°C
 - Water Quality: De-ionized water with 35–40% ethylene glycol antifreeze

Magnetic Fringe Field Considerations

The magnetic fringe field extends beyond the magnet and must be considered for safety and equipment placement:

- 0.5 mT (5 Gauss) Line:
 - X-axis: 2.6 m
 - Y-axis: 2.6 m
 - Z-axis: 4.6 m
- 0.1 mT (1 Gauss) Line:
 - X-axis: 3.8 m

- Y-axis: 3.8 m
- Z-axis: 6.8 m

Installation & Structural Requirements

- Transport Openings:
 - Ceiling: Minimum 195 cm × 240 cm
 - Wall: Minimum 195 cm × 235 cm
- Floor Loading: The floor must support the system's weight, including the magnet and additional components.

For a comprehensive overview and detailed planning, refer to the MAGNETOM Espree Planning Guide PDF.