

Paras Defence to manufacture critical magnets for India's first indigenous MRI machines

21 April 2025 | News

Paras Defence's first medical tech line starts with a core imaging component



Mumbai-based Paras Defence & Space Technologies, a leading Indian defence engineering company specialising in advanced Optronic Systems for Defence & Space, Defence Electronics, Electro Magnetic Protection Solutions & Heavy Engineering, has announced its pivotal role in developing India's first indigenous Magnetic Resonance Imaging (MRI) machine as part of a consortium spearheaded by the Society for Applied Microwave Electronics Engineering and Research (SAMEER), an autonomous R&D institution under Ministry of Electronics and Information Technology (MEITY).

This initiative marks a major step towards self-reliance in high-end medical technology, with Paras Defence playing a key role in reducing import dependency and making advanced diagnostics more accessible and affordable.

Paras Defence will be responsible for developing and manufacturing the high-performance magnets that form the core of MRI machines, leveraging its extensive expertise in precision engineering, electromagnetics and advanced materials. Paras Defence has co-developed the MRI magnet technology in close consultation with the Inter-University Accelerator Centre (IUAC) and international experts, ensuring alignment with global performance standards.

The magnets are one of the most complex and expensive components in MRI machines. India has traditionally been import-dependent, making Paras Defence's contribution a breakthrough in India's quest for technological sovereignty in medical

imaging. This collaboration would add Paras Defence to a select global group of companies possessing the capability to manufacture MRI-grade magnets.

The manufacturing of these MRI magnets is planned to be done at Ambarnath Facilities of Paras Defence, with production scheduled to begin in the next financial year. Paras Defence will employ advanced electromagnetic, cryogenics and superconducting technologies to ensure that these magnets meet global standards in imaging quality and efficiency.