
Philips Saves 1.9M Liters of Helium 1,111 Helium-Free MRI Installs, Expanding Patient Care



First to provide helium-free operations in 2018, Philips marks milestone during installation in Puerto Rico

[Royal Philips](#), a global leader in health technology, and world leader in proven helium-free ¹ MRI operations, today announced the 1,111th installation of its revolutionary BlueSeal 1.5T magnet, which took place in Puerto Rico's [Vida Imaging & Breast Center](#) (Bayamón, Puerto Rico). Beyond its economic and sustainability benefits², helium-free MRI operations also increase resilience in the face of the tropical storms that hit Puerto Rico every year delivering quality care to patients who may otherwise not have access to advanced MRI scanning.

"The installation of our Philips MR 5300 scanner, with a 70cm bore and equipped with the 1,111th BlueSeal magnet at Vida Imaging & Breast Center in Puerto Rico is a testament to the global adoption of our innovative technology. Since 2018, Philips has been the first to provide helium-free MR operations worldwide, improving access to better care for more patients, and we will continue to drive innovation in this space," said Ruud Zwerink, Business Leader of MR at Philips. "BlueSeal magnet technology has proven to be the system of choice for improved diagnostic capabilities, while providing an answer to [growing concerns about helium supply chain disruptions](#), saving approximately 1.9 million liters of liquid helium to date."

A BlueSeal magnet's ability to be shut down and re-energized in a controlled way, without the loss of its liquid helium coolant, means it can be up and running precisely when it is needed to treat patients. The Vida Imaging & Breast Center, which provides a wide range of medical imaging services, is a vital community asset that helps patients on the remote island of Puerto Rico receive high-quality healthcare.

"Puerto Rico has tropical storms every year. Philips BlueSeal magnet technology allows us to de-energize our MRI system to prepare the MRI department for this situation and restore operations quickly once it is safe, all from the MRI console," said Dr. Mayra Maldonado, Owner/CEO at the Vida Imaging & Breast Center.

In the aftermath of a hurricane or other natural disaster, transport systems are disrupted, and obtaining helium, especially when transporting to remote locations, could take weeks. A conventional MRI scanner requires up to 1700 liters of liquid helium, much of which can be lost if the magnet has to be periodically shut down. A Philips BlueSeal magnet only requires a pre-load of 7 liters during manufacturing and loses none of it, even during a so-called magnet quench – a sudden loss of superconductivity in the magnet coil which rapidly boils the liquid helium. Philips' AI-enabled³ EasySwitch technology always ensures orderly shutdown and re-energizing of the magnet once the danger has passed.

With a magnet that is 900kg lighter than a traditional system⁴, Philips MR systems equipped with BlueSeal magnets can also be installed in places that were previously unthinkable like elevated floors or indoor sites with construction limitations. This technology is even available in [mobile units](#)⁵ that have the potential to expand quality access to MRI exams for patients in a more sustainable ² way.

Source & Image Credits: [Philips](#)

References:

- [1] Systems contain 7 liters of helium, fully sealed, no helium can leave the system.
- [2] Compared to the Ingenia 1.5T ZBO magnet.
- [3] According to the definition of the EU High-Level Expert Group on Artificial Intelligence.
- [4] Compared to Philips earlier (non-BlueSeal) Ingenia 1.5T ZBO magnet.
- [5] BlueSeal MR mobile unit 1.5T is considered a work in progress. It is not CE marked and not available for sale outside of the U.S.

