**According to the German Hospital Federation, a hospital bed consumes as much energy each year as three single-family homes. Saving energy therefore also means cutting costs. The St. Franziskus-Stiftung in Münster has recognized this potential and is retrofitting the ventilation systems in five of its clinics with highly efficient EC fans from ebm-papst to ensure optimum ventilation, a reliable operation environment and lower costs.**

Some of the 18 air handling units (AHUs) in five hospitals were more than 20 years old and needed to be replaced. In planning and implementing the modernization, the Foundation turned to its subsidiary FACT GmbH, which provides technical services to the healthcare sector. A total of 70 EC fans from the ebm-papst RadiPac and RadiFit product ranges were used in the retrofit.

**Quick installation thanks to plug & play**

In hospitals, the availability and reliability of AHUs are essential. This means that the timeframe for retrofitting operating rooms in particular is restricted to one to two days. Thanks to their plug & play capability, the EC fans supplied by ebm-papst can be installed and commissioned very quickly. FACT has also developed special shaped connectors for its own purposes, which make it even easier to install the fans.

**Demand-based control with sensors**

During the retrofit, sensors were installed to measure the temperature, humidity and CO2 content of the ambient air. Room occupancy and other parameters are also recorded and monitored in FACT’s building management system. Combined with energy-saving EC fans from ebm-papst, these sensors enable precise, demand-based control. The EC fans can be regulated precisely across their entire speed range and operate more efficiently, even in the partial load range.

**Significant cost savings**

These measures have enabled the St. Franziskus-Stiftung to reduce its energy consumption by a substantial 920,676 kWh each year. Assuming an electricity price of €0.30/kWh, this represents annual cost savings of over €275,000. Shutting down the systems in operating rooms at night additionally increases energy savings by around 30 percent.

The modernized AHUs not only contribute to considerable energy savings but, thanks to sensors and monitoring systems, also improve the ambient climate for patients and staff. The St. Franziskus-Stiftung has been impressed by the results and is now planning to convert its other facilities to EC fans as well.

Ein Bild, das draußen, Himmel, Wolke, Gebäude enthält.

Automatisch generierte Beschreibung

Fig. 1: The St. Franziskus-Stiftung in Münster is one of Germany’s largest denominational hospital groups with 14 hospitals, ten facilities for the disabled and elderly and two hospices.

Fig. 2: The old belt-driven fans used too much electricity and the air performance was not sufficient for newer hospital extensions.

Ein Bild, das Person, Kleidung, Mann, Maschine enthält.

Automatisch generierte BeschreibungFig. 3: The new RadiFit and RadiPac fans are much more economical thanks to their EC motors and were quick and easy to replace because they are plug & play.

Images ebm-papst (photographer: Frank Peterschroeder/ Fotogloria)

Characters approx. 2,500

Tags retrofit, AHU systems, hospital, RadiPac, RadiFit, hospital, energy savings, operating room

Link [mag.ebmpapst.com/retrofit-franziskusstiftung](https://mag.ebmpapst.com/retrofit-franziskusstiftung)

[www.ebmpapst.com/retrofit](http://www.ebmpapst.com/retrofit)

**About ebm-papst**

The ebm-papst Group, a family-run company headquartered in Mulfingen, Germany, is the world’s leading manufacturer of fans and motors. Since it was founded in 1963, the technological leader has set international industry standards with its core competencies in motor technology, electronics, digitalization, and aerodynamics. ebm-papst offers sustainable, intelligent, and tailor-made solutions for virtually every requirement in ventilation and heating technology.

In the 2023/24 financial year, the Group generated turnover of EUR 2.408 billion. It employs just under 14,000 people at 30 production sites (including in Germany, China, and the U.S.) and in 50 sales offices worldwide. ebm-papst sets the benchmark in almost all sectors, such as ventilation, air conditioning and refrigeration technology, heating technology, information technology, mechanical engineering, intralogistics, and medical technology.