

Case | Hilton Frankfurt City Hotel

Energy optimisation at Hilton Frankfurt

Energy-saving pump replacements identified by Grundfos Energy Check

The Hilton Frankfurt City Hotel turned to Grundfos to optimise energy use in its heating and cooling system. We conducted an Energy Check report identifying cost and energy saving opportunities, and delivered a turnkey replacement pump project without compromising guest comfort.

GRUNDFOS 

Possibility in every drop

“Optimising energy use is one of the most effective ways we can work together with the hospitality sector towards a greener future. Our collaboration in Frankfurt proves energy efficiency comes at no compromise to the comfort guests expect at Hilton hotels.”

Stefan Kauer, Senior Aftermarket Sales Engineer
Grundfos

The situation

The Hilton Frankfurt City Centre has been welcoming visitors to Germany’s financial capital for around three decades. With its original infrastructure still in place, the cost and energy inefficiencies of the hotel’s heating and cooling systems were becoming more and more apparent to its owners.

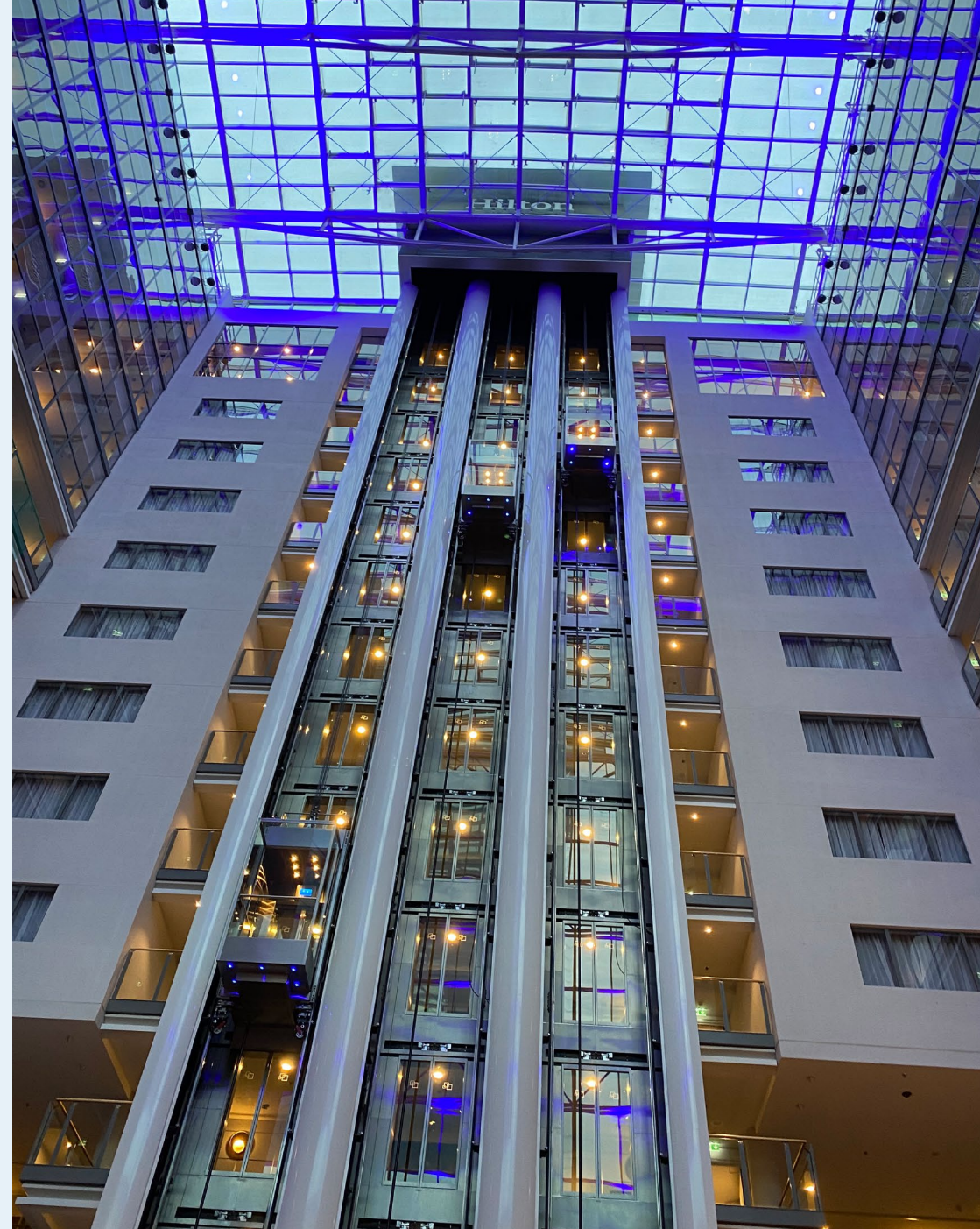
The hotel was keen to refurbish the entire system while maintaining the comfort of its guests. Familiar with Grundfos’ global collaboration with Hilton over many years, they discussed options with the local Grundfos representative, who offered to carry out an [Energy Check](#) report.

The solution

The aim of a Grundfos Energy Check is to identify more precisely the possibilities for in-

creased efficiency in an HVAC system. Hilton Frankfurt’s chief engineer commissioned the report, which Grundfos conducted in 2022. The Energy Check’s findings presented the areas of the system where there was most potential for optimisation, identifying the pump replacement opportunities that would bring about the most efficiency and greatest cost and energy savings, all within a payback time of three to five years.

Working together with the local Grundfos team as trusted advisers, the hotel was able to use the Energy Check to plan a systematic upgrade of their heating and cooling system that could be implemented in stages according to budgetary requirements.





“The Grundfos Energy Check made it easy to prioritise the pumps to replace, and we’re already seeing significant energy savings as a result. It’s been a pleasure working with Grundfos, who have been trusted advisers to Hilton for many years.”

Marko Stanic, Chief Engineer
Hilton Frankfurt City Centre

The outcome

Grundfos delivered a turnkey solution for the initial phase, managing the replacement of five in-line pumps and the installation and commissioning of high-efficiency TPE3 pumps for the hotel’s guest room and general heating system. The intelligent pumps include an integrated frequency converter and differential pressure sensor for increased efficiency. Throughout, guests’ comfort remained the priority and the system was able to run as normal throughout the disruption-free installation process.

The new system is already beginning to provide the energy savings and reduced running costs identified by the Energy Check report for the hotel, and the proposed payback time is on course to be met. The next stage of the project will be the cooling system where Grundfos pumps will again be provided as high-efficiency replacements.

Grundfos supplied

- 5 x [TPE3](#) single-stage, close-coupled in-line centrifugal pumps
 - 1 x TPE3 D 65-120 S-A-F-A-BQQE-FDB
 - 1 x TPE3 D 50-150 S-A-F-A-BQQE-FDB Heating of guest rooms in the building’s northern and southern sections
 - 3 x TPE3 80-150 S-A-F-A-BQQE-HDB Supply of the hotel’s heating system
- Grundfos pumps for the cooling system to be supplied in the next phase

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