

JBC
Vilvoorde
Belgium



Impressive comfort and efficiency gains confirmed at JBC fashion store

Swept up in the relentless pace of life in the 21st century, today's shoppers really appreciate the chance to relax, kick back and enjoy a little retail therapy. This quest for wellbeing – and the fact that shoppers who feel comfortable shop for longer and spend more – is something that the ready-to-wear fashion chain JBC has long been aware of. In fact, over the past years, JBC has worked closely with Daikin to provide just the right level of climate control and comfort in all of its stores.

More recently, in its ongoing search to optimise running costs still further, JBC conducted a site trial with Daikin designed to evaluate the potential gains generated by Variable Refrigerant Temperature (VRT) technology. The results of the test were more than conclusive.

"It is very important for us to work closely with specialists like Daikin," explains Gert Laeveren, JBC adjunct technical manager. "It enables us to make properly informed decisions for planned store refurbishments – as well as to ensure that the correct investments are made for the future."

To make sure the test could be conducted in a real, busy retail environment, the JBC store at Vilvoorde to the north of Brussels was selected to trial the VRT technology.

This JBC outlet covers a floor area of 885 m² and is equipped with 80 kW of Daikin equipment, including Daikin roundflow cassettes.

VRT technology put to the test

To obtain an accurate comparison of the running costs and comfort levels of the VRT technology, two identical Sky Air outdoor units were used, each connected to Daikin's unique Round Flow Cassette system. The central area of the shop was chosen, where there is minimal influence from the store's windows and the thermal loads are evenly balanced. One system for the test featured Daikin's VRT technology, which balances the refrigerant temperature to match the actual load in the room, while the other system did not have the VRT function enabled. To ensure identical operating times and settings to provide an accurate comparison, the two units were connected to the same remote control unit, with the same room temperature, fan speed, airflow rate, etc.

Both Sky Air outdoor units were also connected to a kWh meter to measure their actual power consumption precisely. This data was collected for every minute of the day, from June 2017 to May 2018. The ongoing readings were monitored and reported remotely using the Daikin Cloud Service.



“Having a comfortable climate in the shop is crucial for customer satisfaction and retention.”

Gert Laeveren, JBC

Project Requirements

- ☒ Air conditioning
- ☒ Ventilation
- ☒ Control
- ☐ Heating
- ☐ Hot water

Year of Test
2018

Installed Systems

- > Sky Air System
- > Roundflow cassettes

Lower costs, greater comfort

The VRT-enabled unit performed considerably better in terms of energy consumption and comfort, for both visitors to the store and shop staff alike.

From an energy efficiency point of view, the VRT system consumed up to 21% less power in mild conditions, with annual savings recorded at an impressive 14%. Multiply that figure over the total number of JBC stores and you have an idea of just how much JBC can save on its running costs by using VRT technology – quite apart from keeping customers comfortable while they spend money, and also the benefit for the environment.

Shopper and staff comfort at the store was also improved significantly. The readings showed a much more stable operation with the VRT unit, as well as a higher discharge temperature (up to 3°C higher), which ensured there were no unwanted chilly draughts anywhere in the store. “Comfort is key,” says Gert Laeveren. “Around the fitting rooms in particular, temperature is extremely important.”

14% annual energy-savings for the store and enhanced shopping experience for the customers

VRT: a unique approach to steady ambient temperatures

Available on all Daikin Sky air Alpha series, the exclusive VRT technology continuously adapts to actual room conditions and also takes the outside weather conditions into account. As a result, VRT reacts much more quickly to the internal and external environment, maintaining a constant indoor temperature. Keeping a steady temperature also avoids the need for expensive ad hoc bursts of quick cooling, which inevitably leads to higher energy consumption and cold draughts.

To find out more about JBC stores, please visit

<https://www.jbc.be>

Detailed information about the Daikin retail solution is featured at https://www.daikin.eu/en_us/solutions/



Variable Refrigerant Temperature technology from Daikin's Sky Air A-series offers potential gains without compromising on shopper comfort.



Two identical Sky Air outdoor units were used, each connected to Daikin's unique Round Flow Cassette system to optimise running costs.