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| Tweet | **Discreet #climatecontrol systems from @Daikin bring year-round comfort for cemetery chapel visitors.** |
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Daikin systems create a comfortable environment for cemetery visitors

November 7th, 2018

Renovation and expansion of the Schüttorf Cemetery Chapel with new refrigeration and air-conditioning technology from Daikin.

The Schüttorf Cemetery Chapel in Lower Saxony is distinguished by a large glass exterior, which gives its prayer room a bright and friendly outlook. Whilst aesthetically pleasing, the area quickly heats up on sunny days, requiring cooling, while winter days call for substantial heating.

As part of a refurbishment programme, the building technology has been brought up to date. A range of requirements, from cooling performance in the lying-in-repose area to heating and cooling of the prayer room, are now being met with the installation of new refrigeration and cooling technology in the form of Daikin’s Mini-ZEAS and Mini-VRV systems.

The original building was erected in 1965, with the help of a generous donation from local family-owned manufacturer Criegee. The ambitious design by architect, Knut H. Krieger was based on a Finnish model. Fifty years on, not only was renovation of the building necessary, but a need for more space meant an extension was required. During the programme of work, systems throughout the building were renewed and modernised.

Architects Middleberg Venhaus led the renovation project, with specialists Rönne Technik responsible for planning and on-site installation of the technical equipment. This included all aspects from cooling and air-conditioning, to photovoltaic and storage technology.

A clean, comfortable solution

The new extension houses four modern farewell rooms and a further multi-purpose area, the latter allowing the expansion of the prayer room. During the reconstruction, a solution was adopted which now provides a comfortable environment using renewable energy, rather than oil or gas, and which also addressed the problem of the overheating during summer arising from the front glass elevation.

As in most facilities of its kind, the cemetery in Schüttorf is off-grid with no access to an oil or gas supply, while electrical power is freely available or can otherwise be produced by photovoltaic equipment. This makes Daikin technology as a renewable source of energy a natural choice.

Observes Martin Middelberg of Middelberg Venhaus:

*“Energy efficiency is good, despite increased consumption.”*

Controlled cooling for Chapel of Rest

A commercial cooling solution developed for smaller applications, the Mini-ZEAS unit delivers an optional performance of 3-4 PS using the proven scroll compressor technology pioneered by Daikin. CO2 emissions are minimised thanks to the low filling requirements of the refrigerant agent used,   
R-410A.

*S*ays Christian Brauer, master builder for cooling systems at Rönne Technik in Schüttorf.

*“One criterion governing our choice was the excellent safety and quick installation of the Mini-ZEAS unit, thanks to a factory test and the delivery of the unit pre-filled with cooling agent. We have opted for cooling with a model that provides 4 HP with 8.4 kW.”*

Special importance was placed on the setup of different climate zones, while the layout of the anteroom, climatised transfer area and cooling chambers provides a protective barrier against dew generated by the humidity of the outdoor air.

Mini VRV – powerful yet compact

A Mini VRV air-to-air heat pump provides climate control within the 170 m2 large prayer room and adjacent 35 square metre large lobby area. This space-saving solution offers all the benefits of Daikin’s advanced VRV-IV technology, such as the unique VRT (variable refrigerant temperature) control capability, a high-performance heat exchanger and a refrigerant-cooled control panel. Delivering a cooling and heating capacity of 15.5 kW, the Mini-VRV maintains an optimum temperature in the Chapel in summer and winter. Indoor units have been integrated into the window seating, providing a discreet solution.

Quiet, invisible and simple to control

Says Rainer Harmsen, Protestant Reformed Church Schüttorf:

*“Thanks to low sound levels and concealed installation, the Chapel can be perfectly climate-controlled, while allowing the community to say goodbye in a suitable environment.”*

The temperature, and many other functions such as energy savings, changes in requirements, whisper mode operations and kWh display, can now be remotely viewed by Daikin and individually adapted, through the uniquely-designed simple control unit and cable-operated remote control.

Schüttorf Cemetery offers a model example for energy-efficient building technology and a solution that is especially suitable for applications in noise-sensitive surroundings where there is little infrastructure.

Ends

EDITOR NOTES

About Daikin Europe N.V.

Daikin Europe N.V. is a major European producer of air conditioners, heat pumps and refrigeration equipment, with approximately 5,500 employees throughout Europe and 10 major manufacturing facilities based in Belgium, the Czech Republic, Germany, Italy, Turkey and the UK.

Globally, Daikin is renowned for its pioneering approach to product development and the unrivalled quality and versatility of its integrated solutions. With more than 90 years’ experience in the design and manufacture of heating and cooling technologies, Daikin is a market leader in heat pump technology. Daikin VRV and Daikin Altherma are the most sold heat pump systems in Europe, with over 500,000 systems delivered to date.

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FURTHER INFORMATION

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