

Mitsubishi Electric Press Conference – Opening of new German Branch

Mitsubishi Electric uses its own air conditioning and heating solutions in its new German Branch

- **The technologies used meet the building's entire heating and cooling requirement**
- **VRF-R2 system uses heat recovery to conserve energy**
- **HVRF combines the advantages of two systems**
- **Additional technologies deliver maximum comfort and energy efficiency**

Ratingen, 04 March 2016 – Mitsubishi Electric has equipped its new German Branch in Ratingen with air conditioning and heating solutions from the Living Environment Systems (LES) Division. The technologies used enable the entire heating and cooling energy requirement of the complex office building to be met on the basis of renewable energy sources. "Using our own system solutions underpins our claim that we have a long-term concept, at the same time as representing the embodiment of environmental awareness," explains Holger Thiesen, General Manager of Living Environment Systems at Mitsubishi Electric.

Simultaneous heating and cooling with heat recovery

Mitsubishi Electric reviewed its own proprietary technologies back in the design phase and opted for VRF-R2 technology inter alia for simultaneous heating and cooling. The **VRF-R2 system** is ideal for heating buildings because of its heat recovery function. In this system, the thermal energy removed from a room to be cooled is supplied to another room that has a need for heating. If no heating requirement currently exists, this thermal energy can be used alternatively for hot water production. In conventional air conditioning systems, this heat would otherwise be discharged unused into the environment.

Other technologies from different Mitsubishi Electric product lines are also incorporated in the new building complex, however. For example, the newly developed **HVRF-R2 system** is used to air condition the training rooms. It combines the advantages of a direct evaporation system with those of a water-based system, without sacrificing excellent operational reliability, maximum comfort and energy efficiency. In many applications the use of R2 technology cuts energy consumption by up to 40 % and investment costs by up to 25 % compared with similar chilled water systems.

Worldwide patented, unique technological solutions

Mr Slim air conditioning units also supply the heat exchangers in the central ventilation system with heat or cooling for the fresh air. **Mr Slim outdoor units** with patented Zubadan technology help to ensure absolute operational reliability and optimum output at external temperatures as low as -28 °C. There is also an underfloor heating system installed in the entrance foyer around the information desk, the thermal energy for which is generated by an **Ecodan system**. The Ecodan air-to-water heat pump system obtains its energy from the outside air and adapts its output precisely to the respective heat demand through the use of inverter technology to control the compressor output in the external unit. This allows the entire system to adapt to the actual heat demand and continuously optimise output and power consumption.

Additional energy-saving potential is provided by the full integration of the air conditioning system into the multifunctional **TG-2000A operating software**. Among other things, this control system provides an 'Optimise Starter' function. This is an intelligent timer function which decides, based on the outside temperature, current room temperatures, desired internal temperatures, building structure and of course the desired start-up time, when the system must commence operation to attain the desired room temperatures at the set time, guaranteeing an optimum working environment for employees. The package of equipment is completed by 50 electric Jet Towel hand dryers in the washrooms.

More information is available from Mitsubishi Electric Europe B.V., Mitsubishi-Electric-Platz 1, 40882 Ratingen, Germany Phone: 00 49 (0) 21 02 - 4 86 - 0, E-mail: pr@meg.mee.com, www.mitsubishielectric.de

About Mitsubishi Electric

For over 90 years Mitsubishi Electric Corporation has supplied both corporate clients and general consumers all over the world with high quality products from the information processing and communications, space development and satellite communication, consumer electronics, industrial technology, energy, transportation and building equipment as well as air conditioning and heating technology sectors. With around 129,000 employees, the company recorded consolidated group sales of \$36 billion* in the fiscal year ended 31 March 2015. Sales offices, research and development centres and manufacturing plants are located in over 30 countries. Mitsubishi Electric has been represented in Germany as a subsidiary of Mitsubishi Electric Europe since 1978. Mitsubishi Electric Europe is a wholly owned subsidiary of Mitsubishi Electric Corporation in Tokyo.

* Exchange rate 120 yen = 1 US dollar, dated 31.03.2015 (Source: Tokyo Foreign Exchange Market)

Further information:

<http://global.mitsubishielectric.com>
<http://www.mitsubishielectric.de>

Contact

Mitsubishi Electric Europe B.V.
Barbara Sutter
Mitsubishi-Electric-Platz 1
40882 Ratingen, Germany

Phone: +49-(0)2102-486 5380
Fax: +49-(0)2102-486 1120
E-mail: barbara.sutter@meg.mee.com

Die Agentur - Kommunikations-Management Schellhorn
Martin Schellhorn
Blombrink 1
45721 Haltern am See, Germany

Phone: +49-(0)2364-108199
Mobile: +49-(0)177-3225802
Fax: +49-(0)2364-2877
E-mail: martin.schellhorn@die-agentur.sh



The VRF-R2 system moves otherwise unused heat into a part of the building where there is an actual need for heating or hot water.

Photo: Mitsubishi Electric
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