References

Vestas headquarters



Uponor involvement

30000

Vestas headquarters

Sustainable office building in Denmark utilises Uponor underfloor heating and radiator heating networks.

Project Facts:

Location
Aarhus, Denmark

Completion
2011

Vrsta objekta
Office building

Product systems
Površinsko grejanje i hlađenje,
Sistem višeslojnih cevi

Address
Hedeager, Skejby

Project Type
New building

Partners

contractor
Phil & Søn
Denmark

architect
Arkitema
Frederiksgade 22 Århus C
Denmark

installer
BJ Stål
Lundvej 38 8800 Viborg
Denmark

Wind turbine manufacturer Vestas' new headquarters in Skejby nearby Aarhus in Denmark is very ambitious in terms of energy. It was the first building in Scandinavia, which could be LEED certified in the best category Platinum. Only about 150 commercial buildings in the world have achieved the American Platinum certification, and according to the Danish definition this is a low energy class 1 building.

From the outside Vestas HQ's structure is like a single house with office environments with shimmering dark and mosaic facades gathered around an open and inviting atrium. The atrium room is a central place in the building; here you arrive, and from here you can go out to the various departments and functions.

Vestas is a dynamic organisation in a constant development, and this requires flexibility concerning numbers and sizes of the offices. Thus, the office sections are designed with walls which can be moved forward and backwards in steps of 3 meters – just as you need. This way you can easily establish varied office environments with 1 to 20 person offices – without any effect on the technical installations of the building. Around 550 employees are working at Vestas' new headquarters in Aarhus, and thanks to the energy-saving technology, it is among the most sustainable office buildings in the country.

Aiming for LEED

To obtain the LEED certification for the project it is essential to have perfect working conditions, also during the construction period. For instance, many workers have to be prequalified to work on the projects. In this process the quality management of the involved companies will be checked out and evaluated. This is only one of many checkpoints. In addition, the construction site has to be built up in a very structured way and have a top security. There is no access for people on the site who have not been through a safety course first. All workers, supervisors etc. know where all the safety equipment is located.

The building must also have a certain degree of sustainability. For instance, when the building in about 100 years has to be demolished, the materials must be of a quality that can be recycled to a certain extent. The Vestas HQ achieved this honour to be even considered for LEED Platinum with Denmark's largest combined geothermal energy system; with 36 km of pipes, the system will supply the building with the required heating and cooling capacity and this in turn will result to about 50 percent less energy than an average office building.

Benefiting from Uponor expertise

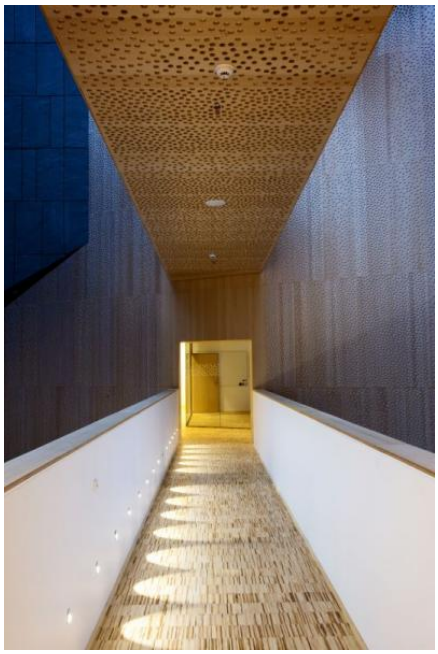
The project was originally provided with cooling pipes in ABS / PE plastic. Neither the engineers nor installers had the strict security requirements in mind when they planned the system with ABS pipe, which of course must be glued together.

When the U.S. supervisors saw what the installer was doing, the work stopped. The management team in Vestas now decided to move the project from ABS for MLC. The requirement was a system that could cover the construction needs for piping of cooling water from 16-110 mm. Uponor was chosen because of its "green image" and because Uponor was the only supplier that could deliver a system with such a large spread in dimensions.

Vestas headquarters







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