**Healthy air in the classroom**

**Karolinen Secondary School in Rosenheim equipped with air handling units from WOLF**

**In the course of the general renovation and expansion of the Karolinen Secondary School Rosenheim, a fresh air concept was developed for the school building based on modern air handling appliances. A healthy room climate is ensured by continuous air exchange adapted to the various room conditions. The systems from WOLF GmbH, located in Mainburg, guarantee that all the air in the rooms is exchanged on average every 17 minutes.**

In times of the coronavirus pandemic, this makes it easier to comply with the hygiene rules, which require regular ventilation for protection against the new virus. While protection against infection is the highest priority in schools, the high air exchange rate offers other advantages as well. In fully occupied classrooms, CO2 concentrations can rise quickly, resulting in fatigue and difficulty concentrating. Filtering of the outdoor air also eliminates pollen, allowing students and teachers with allergies to breathe a sigh of relief.

The air handling units also offer tremendous energy-saving potential to assist with the climate protection goals for 2030. With efficient heat recovery at an efficiency of up to 90 percent, there are major environmental as well as economic benefits compared with window ventilation. This prevents the costly thermal energy from being released into the environment unused.

“In the Karolinen Secondary School project, we studied the various options carefully and finally decided on installation of a modern ventilation system. This will reduce ventilation heat losses and ensure a high air quality for students and teachers,” says Markus Pletschacher, Director of Central Building Management for the city of Rosenheim.

Ventilation units will be installed in both the new addition and the existing building during the planned renovations. Alongside the classrooms and teachers’ offices, they will also supply fresh air to the sanitary facilities. Huber & Co GmbH, located in Rechtmehring, will install a modular air handling unit from WOLF as well as 47 compact ventilation units. The modular system will be centrally installed and connected to the supplied rooms via a duct system. In contrast, the compact units will operate independently from each other in the remaining rooms. A high-efficiency compact ventilation unit (CGL) from WOLF can ensure that an average classroom (about 65 m²) has its entire air replaced up to 3.5 times per hour.

“In most schools, windows cannot always provide adequate ventilation, plus lots of energy is unnecessarily lost. This is why we have outfitted roughly 300 schools around the country with high-quality air handling units in the last twelve months alone. The current example in Rosenheim shows that such installations are possible and effective not only in new buildings but also in existing buildings. But demand remains high since fewer than 10 percent of school buildings across Germany have this technology installed,” says Norbert Gruber, Director Sales Air Handling Systems at WOLF GmbH.

|  |  |
| --- | --- |
| **Project year:** | 2020 |
| **Project:** | Karolinen Secondary School Rosenheim,  1st construction phase (addition) |
| **Appliances:** | 46x CGL units – 1x CKL evo – 1x CFL WRG – 1x KG TOP – 1x CWL Excellent |
| **Planning:** | Bauer Schlosser Wiesner Planungsgesellschaft mbH Rosenheim |
| **Installation:** | Huber & Co GmbH Rechtmehring |
| **Special features:** | The actual air volume is controlled automatically based on the CO2 content in the extract air. Design basis: 30 students at 25 m³/h and one teacher at 30 m³/h, for a total of 780 m³/h. Additional temperature reduction in the summer by means of free night cooling when the outdoor temperature is below the room temperature at night. |

**Company profile:**

The WOLF Group is a leading supplier of heating and air handling systems.Together with its listed parent company, CENTROTEC SE, it is also a leading supplier of comprehensive energy saving solutions to the building services sector. With around 2,100 employees working at the various company locations and 60 sales partners in more than 50 countries, WOLF has a strong international presence and generated sales of around EUR 404 million in 2019. WOLF has positioned itself as “the expert for a healthy indoor environment” and backs up this claim with a clear promise: “WOLF – Perfectly in tune with you.” More information at [www.wolf.eu](http://www.wolf.eu).

**Press contact:**

WOLF GmbH

Industriestr. 1 | D-84048 Mainburg

Melanie Waldmannstetter

Marketing & Press

Tel: +49 (0)8751/74-1963

Melanie.Waldmannstetter@wolf.eu

**Photos**

**Source: WOLF GmbH**

**Karolinen Secondary School in Rosenheim equipped with ventilation system**



**Caption:** The Karolinen Secondary School in Rosenheim is receiving a ventilation system.



**Caption:** Installation of the compact ventilation unit by Huber & Co. GmbH from Rechtmehring.



**Caption:** A fresh air concept based on modern air handling units will ensure a complete change of air in the classrooms every 17 minutes on average.