**For 65 years, Esslingen University of Applied Sciences has educated young engineers in the Building Services, Energy and Environmental Engineering Department. On September 21, the department dedicated its new laboratory building; a means of improving the link between theory and practice. Among other devices, a transparent air handling unit provided by ebm-papst and AL-KO THERM is available to the students in the department.**

Air handling units (AHU) ensure optimal temperatures in many fields. They are an important component of engineering education. Prof. Gerhard Fetzer, Dean of the department, at the dedication ceremony: “We now have a laboratory building in which we can provide general conditions for the practical part of the course that make studying and lab work lots of fun!”

**AHU with sight glasses**

The housing of the AHU was equipped with extra show glasses for the laboratory to allow students to see processes that are normally invisible. With them, it is possible to observe rotors, filters, heaters and coolers while they are functioning, in addition to the unit’s technological highlights – including fans from ebm-papst. Thank to this air handling unit, the students In Esslingen have the opportunity to get ready for their futures careers based on state-of-the-art technology. The future building services engineers must meet the challenges of heating, air conditioning and ventilation technology and sanitary engineering in addition to those of energy and water supply.

**More efficient, latest-generation centrifugal fan**

In AHU, two energy efficient RadiPac centrifugal fans take care of air delivery. One of them is equipped with aluminum airfoil blades. The motor’s position in the impeller achieves a good compromise between overall fan unit compactness and the most aerodynamically beneficial location for the motor. At the impeller exit, the air is guided towards the air conditioner's main current direction, which significantly improves pressure-loss-related flow deflection.

**Membrane humidifier ensures precision humidification**

The unit also contains a pioneering AL-KO HYGRO OPT membrane humidifier that humidifies rooms without droplets, precipitation or aerosols. Membrane humidifiers contain desalinated and de-mineralized water in extremely durable membrane pockets that reliably separate the water flow from the air duct. Gaseous water penetrates the membrane adiabatically, ensuring precise humidification. This prevents the formation of Legionella bacteria in the air duct.

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Fig. 1: Prof. Karl-Josef Albers, Head of the Laboratory for Ventilation and Air Conditioning at Esslingen University of Applied Sciences, is very pleased about the new “transparent” AHU.

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Fig. 2: A RadiPac centrifugal fan with aluminum airfoil blades from ebm-papst is installed in the university’s new AHU.

Illustrations ebm-papst

Characters approx. 2,700, with headings and sub-headings

Keywords EC technology, centrifugal fan

Tags EC fans, energy savings, RadiPac, centrifugal fan

Related links:

[www.ebmpapst.com/radipac](http://www.ebmpapst.com/radipac)

[Link to film about RadiPac](www.ebmpapst.com/de/info-center/media_center/mediacenter.php?mivstoredata=2637d1f741YToyOntzOjc6ImNtZF92aWQiO2k6ODM0OTk5O3M6MTE6ImNtZF9leGVjdXRlIjtpOjE7fQ,,)

**About ebm-papst**

The ebm-papst Group is the world's leading manufacturer of fans and motors. Since it was founded, the technology company has continuously set global industry standards: from interconnected, electronically controlled EC fans and aerodynamic improvements for fan blades to the use of materials that conserve resources.

In fiscal year 2016/17, the company achieved sales of almost €1.9 billion. ebm-papst employs over 14,000 people at 26 production sites (in Germany, China, the US and elsewhere) and in 49 sales offices worldwide. Fans and motors from the world market leader are used in many sectors, including ventilation, air conditioning and refrigeration, household appliances, heating, automotive and drive engineering.

**About AL-KO THERM GmbH**

AL-KO THERM GmbH is a wholly-owned subsidiary of AL-KO SE. Established in 1931, the family-owned company called AL-KO KOBER GROUP today consists of the garden technology, ventilation technology and real estate management and holding company functions. In 2016, AL-KO had an average of 1,339 employees and operates production facilities in several countries.

QUALITY FOR LIFE is the motto of AL-KO KOBER SE. The company with a long tradition stands for customer convenience, safety and pleasure in all of its divisions. AL-KO not only offers its customers a relationship based on partnership, but also engages in corporate social responsibility as a means of improving everyone’s quality of life.