



AEROSEAL



Case Study

MEZ-AEROSEAL

Technical University Vienna

» Sealing of the visible air ducts so that
the airflow at the leaks no longer causes
noise «

Technical University

Location: Vienna, Austria
Date: October 2020
MEZ-AEROSEAL Partner: Aero seal Austria GmbH
Executing company: Ing. August Lengauer GmbH & Co. KG
Result:

During remodeling work at the Karlsplatz Campus of the Vienna University of Technology, the visibly installed ventilation ducts in some lecture halls had to be changed for architectural reasons. In addition, a maximum sound pressure level of 35 dB(A) had not to be exceeded. Although the construction of the ventilation system and the air duct system was carried out with a great deal of care and precision, noise caused by leakage was heard during the first test operation, which considerably exceeded the limit value. To eliminate the unwanted noise, Aero seal Austria GmbH was contracted to seal the air duct system.

For this purpose, all ventilation grilles were sealed by means of sheet metal plates and the chilled beams were separated from the air duct system with spiro covers. Subsequently, sealing was carried out using the Aero seal method. For this purpose, the sealing unit on the first floor was connected to the air duct system and then the supply and exhaust air lines were sealed up to the central ventilation unit on the roof. Within just six hours, the leakage rate was reduced from 240 l/s to 80 l/s, thus completely eliminating the noise problems.



Smell



Noise



Energy efficiency



Air tightness



Indoor air quality

Description

Under the claim „Technology for People“, research, teaching and learning have been taking place at the TU Vienna for more than 200 years. Divided into four inner-city locations, Campus Karlsplatz, Freihaus, Getreidemarkt and Gußhaus, an Atomic Institute and a Science Center, the TU Vienna offers 12,000 rooms in 30 buildings on a total of 269,000m² of space for science, research, teaching, life, culture and diversity.

Successful sealing

With our successful MEZ-AEROSEAL partner network we achieve great success again and again.

The change in leakages

Before sealing

- 240 l/s

After sealing

- 80 l/s

Reduction

- 66,7 %

Sealed channel surface (total): 705 m²



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