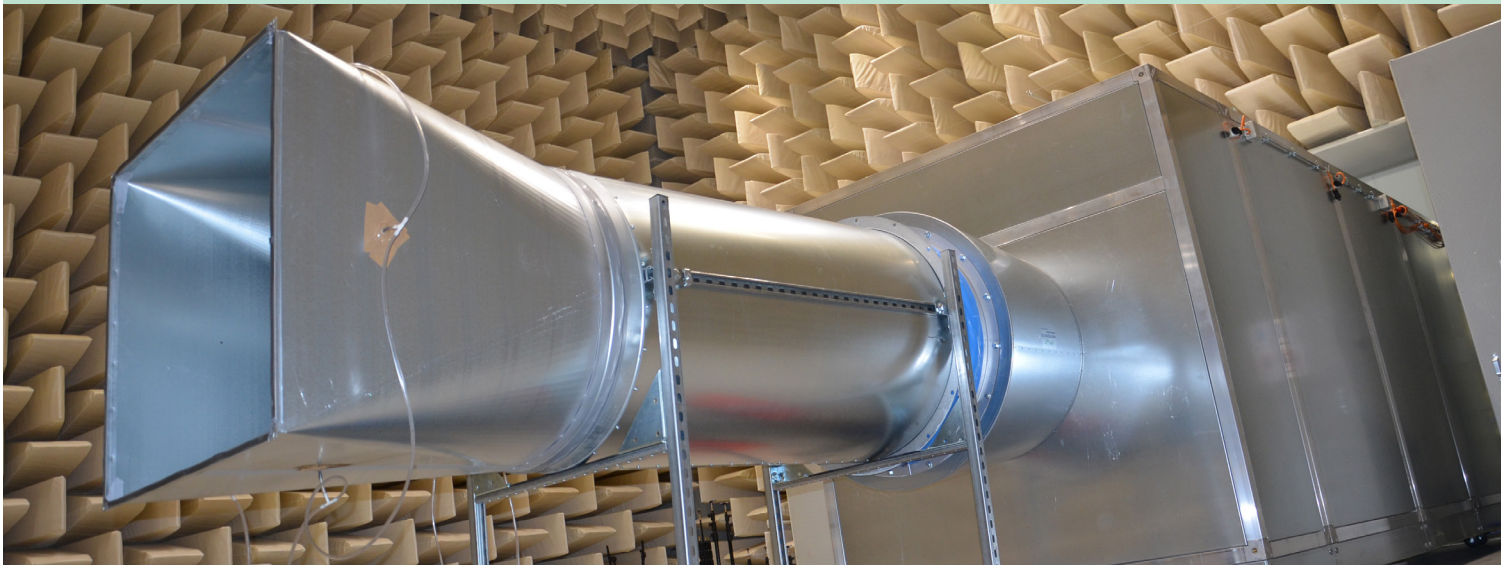


# ZERAX® FANS

## INNOVATE AHU CONCEPTS



### FANS IN FOCUS

On January 1<sup>st</sup> 2018 the next stage of the Ecodesign Regulation 1253/2014 for AHUs comes into force. The focus is on reduction of energy in AHU optimisation. This applies in particular to non-residential systems with large air volumes.

In recent years heat recovery has become very popular in solutions for energy saving. And with tightening of regulations looking to have significant effect, much has been invested in this sector to even further increase the efficiency. The range of fans, which consume up to 60% of the electrical consumption of an AHU system, remains unnoticed though. The strengthening of the Ecodesign Regulation regarding ( $SFP_{limit}$  values) limitation of the power

consumption will definitely change the design of future AHU concepts.

### TWO TESTS, TWO FANS, ONE WINNER

In cooperation with AHU producer Trubel Luft- und Klimatechnik GmbH, NOVENCO Building & Industry has conducted a comparative performance test in the TÜV Süd Test Laboratory. TÜV Süd is recognised as the world's leading company for product certifications and approval tests. The comparative test was a demand from one of Germany's largest manufacturers of vehicles.

Both tests were conducted with identical installation points, measure points, measure units, but with two different fans - a premium plug fan from an unspecified fan manufacturer and the ZerAx® axial flow fan from

NOVENCO Building & Industry. A framework of corresponding test series gave some very convincing results, where the ZerAx® fan was the unquestionable winner.



## ZERAX® FANS INNOVATE AHU CONCEPTS

### ZERAX® PROVES BEST IN TEST

After a long test series the results were clear - energy saving of 20%, 3 dB lower sound levels for the fan section and the complete AHU length more than 30% shorter than the comparative system with the plug fan.

Although the ZerAx® fan technology is a more expensive alternative, the ROI pays back the entire investment in an expected 12 - 18 months. The answer to the comparatively big difference between the two solutions is in the way the ZerAx® fans integrate in the AHU and operate. The ZerAx® fans fit in very compact fan sections that transport the air to the duct with minimum loss. Although the plug fans also create high pressure, they do so after the airflow is slowed considerably. Hence, a lot of energy is lost and more is required to recreate and raise the pressure. The loss in the ZerAx® diffuser is at a minimum, as it delivers a much less turbulent airflow. Add to this the market-leading ZerAx® fan efficiency and the investment is a sound choice for years to come.

**AHU WITH ZERAX® FACTS:**

- ENERGY SAVING OF 20%
- FAN SECTION SOUND LEVELS 3 DB LOWER
- AHU LENGTH MORE THAN 30% SHORTER



TÜV Süd testing laboratory



ZerAx® axial flow fan in AHU section



Test preparations