



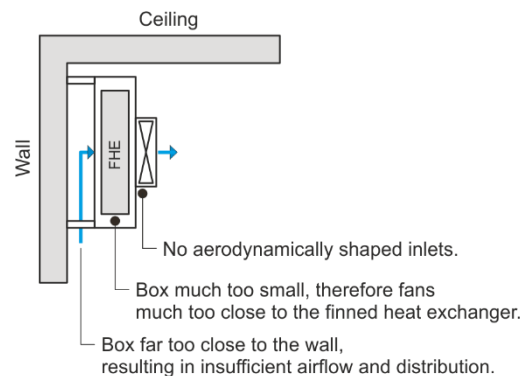
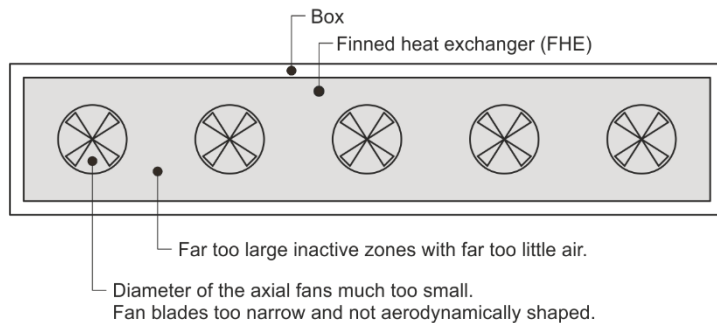
Finned heat exchangers in compact devices

The correctness of our software for the calculation of finned heat exchangers has been confirmed in dozens of measurements over the past 30 years at www.tuvsud.com and www.hslu.ch with regard to performance and pressure drop. The heat exchangers were installed in ducts, which guaranteed that the **entire inflow surface** of the finned heat exchanger was evenly charged with air.

However, if finned heat exchangers are installed in compact devices, there is no guarantee per se that the entire inflow surface of the finned heat exchanger will be evenly exposed to air. Measurements have shown that **performance can be reduced by up to 40%**. What are the main reasons for such high underperformance?

1. The axial fans are arranged **far too close** to the finned heat exchangers because the device design was too compact.
2. For cost reasons, **no correctly shaped inlet nozzles** were provided for the axial fans.
3. Axial fans with **too narrow blades and insufficient aerodynamic shapes** were used.
4. In relation to the width of the finned heat exchangers, the **axial fans are too small**. Larger axial fans must therefore be planned for.

Problematic design of compact devices



Recommended design of compact devices

