

# At BAC sound is more than just the sum of the fans



Fan manufacturers can only provide sound data limited to the noise levels originating directly from the fan itself. However, as a responsible manufacturer utilizing these fans, **we believe it is our duty to encompass the full noise spectrum, including secondary sources.** This covers factors such as the noise generated by the airflow through the unit, interactions with various components, the turbulence created when air passes over these components, and any changes in airflow direction.

**Throughout the design phase of our units,** we diligently strive to minimize these additional noise sources. Nevertheless, as illustrated in this report, there are significant differences between the two noise sources – the fan alone, and the fan in combination with the broader acoustic environment of the equipment.

We remain committed to transparency and ensuring that our customers have a comprehensive understanding of the acoustic characteristics of our products. Consequently, **we consistently include the complete spectrum of sound in the datasheets that we furnish to consultants and contractors.**

Our dedication to reducing secondary noise sources during the design process not only benefits our customers but also underlines our commitment to responsible manufacturing practices. This approach not only enhances our products but also provides trustworthy equipment data.



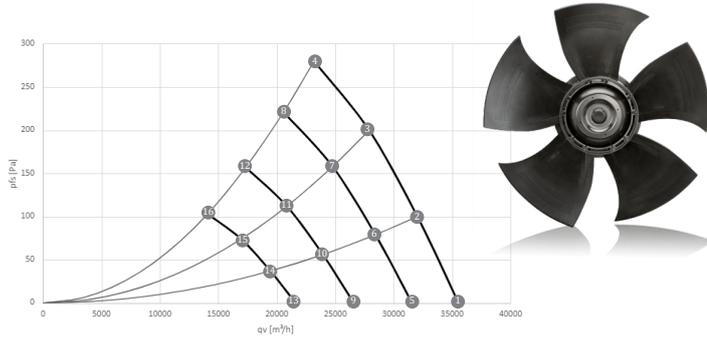
Listen to our  
Sound Expert



**BALTIMORE  
AIRCOIL COMPANY**

## THEORETICAL METHOD

# SOUND DATA BASED ON A SUM OF THEORETICAL DATA



*Example:* Fan manufacturer indicates 85dB(A) sound power level for the fan in our operating point.



The values given are valid under the specified measuring conditions and may vary due to conditions of installations.

## REAL WORLD METHOD BY BAC

# SOUND DATA BASED ON MEASUREMENTS OF A COMPLETE UNIT



*Example:* Unit with 4 fans with 85 dB(A) in operation.

BAC sound data reflect the complete spectrum, including not only the fans but also considering all additional sound sources (control units, humidification system, air noise over pads and fins, etc.)



**95**  
dB(A)

*Full spectrum sound power level*



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