

Daher l'Hotellier

“Achieved accuracy allows us to use Flowmaster as a sizing tool with complete confidence early in the design process. It ensures past optimisation of our duct sections and reduces the testing time, of the flow balancing process, by 30%. Furthermore Flowmaster helps us to investigate our ventilation systems in the early design stage.”

*Dr. Rémi Bourlart,
Engineer Daher-
L'Hotellier*

Flowmaster helps Daher Aeronautics and Defence reduce aircraft ventilation system testing by 30%

Like many suppliers in the aerospace and defence sectors, Daher manufacturers of aircraft air conditioning systems, wanted to shorten design cycles of their products.

Part of the design process involves balancing the air flows throughout the system. Traditionally this is done by building a test rig of the ventilation system, which posed a complex and time consuming process for Dahers engineers.

However, Daher also wanted to size the ventilation system earlier in the design process before having to build a test rig.

They decided to model the system in Flowmaster. The majority of the computer model of the system was built using standard Flowmaster components. For complex duct geometries Daher were able to use several Flowmaster components connected together to represent the characteristics of the physical component.

In the development of this computer aided design methodology, the Flowmaster simulations were validated against test data or compared with 3D CFD computations.





Figure 1: Full scale test rig

The development of this design methodology has led to particularly good correlations between Flowmaster simulations and the test data.

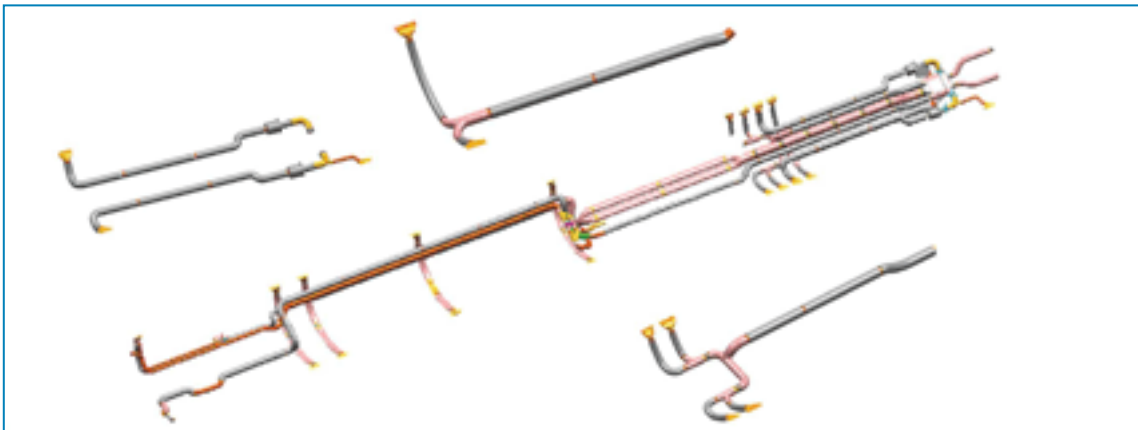


Figure 2: Aircraft ventilation system