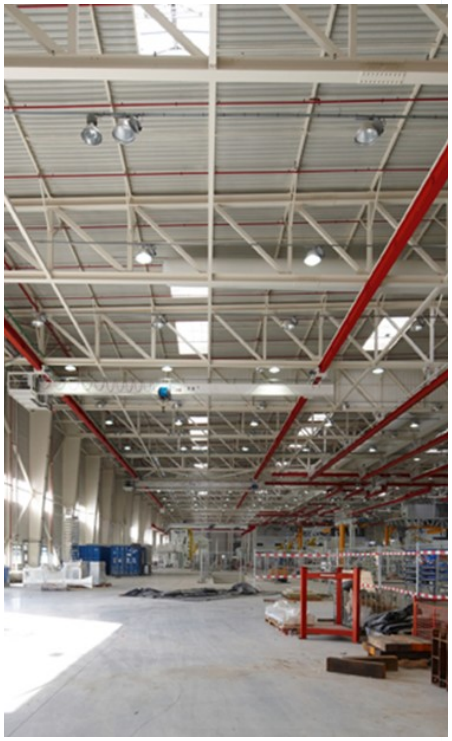


Case Study:

AIRBUS

Sintra Pulsion®
Temperature Control Solution

Background

Airbus is an international pioneer in the aerospace industry, a leader in the design, manufacturing and delivery of aerospace products, services and solutions to customers on a global scale.

The Airbus manufacturing facility in Nantes, France is located on an 88 hectare site and employs over 3,000 Airbus operatives. The Nantes facility is a leader in the manufacture of structural parts in carbon fibre reinforced plastic (CFRP) – a cleanroom process that requires accurate temperature and humidity control.

2 adjacent buildings, identical in size were fitted with conventional diffusion ductwork in one (A), and Sintra Pulsion it the other (B)

Sintra provided the system design, and carried out the onsite Installation with minimum disruption to the production work schedules.

SINTRA

"Providing the perfect climate for your business"

Cross Group

58 Hamiltonsbawn Road Industrial Estate
Armagh, BT60 1HW

Tel: 028 3752 6090
Email: sales.ni@cross-group.org
Web: www.cross-group.org

The Challenge

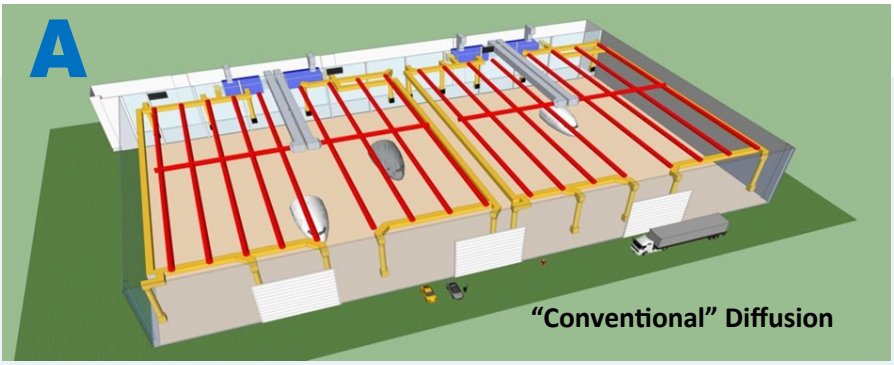
The designated production areas are ISO Class 8 Cleanrooms, demanding stable and stringent temperature and humidity control, combined with operator comfort. Floor space in buildings A and B are identical, each 19,000m2 with a ceiling heights of 16m

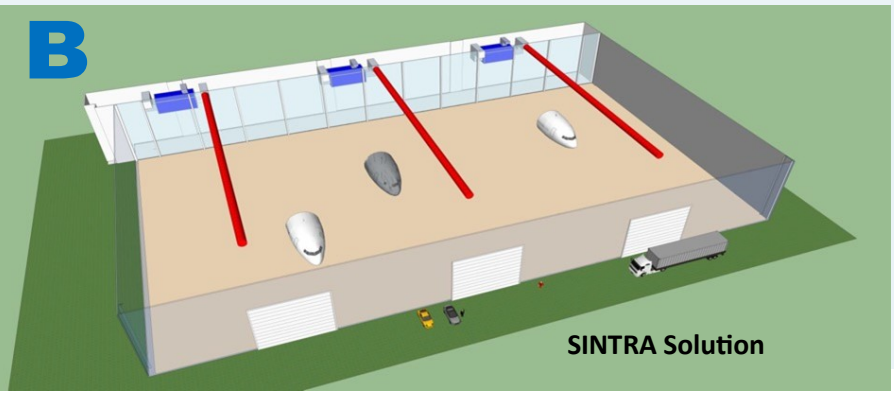
Capital and lifecycle costs along with ease and speed of installation were key drivers for Airbus in their decision for the innovative, customised Sintra Pulsion® solution.

The Solution

Sintra Pulsion® is a unique high-induction solution that delivers tempered air across all the areas, ensuring maximum comfort for the operatives, with no draughts and homogenous temperature stability to +/- 0.8 degrees C.
The Pulsers recall large quantities of ambient air to mix with the input air. This mixture of input and surrounding air approaches design temperature within 1m of the Pulser and sets the total environment air mass in controlled motion.

Heating, cooling and fresh air is provided to the Sintra Pulsers by 3 Air Handling Units, incorporating fresh air, free cooling, and filtration.





Summary

A

- **Air flow = 340.000 m³/h**
- **Fan's electrical power = 300 KW**
- **Maximum stratification: 2 °C**
- **Ducts length: 704 m**
- **Return ducts: 400 m**

B

- **Air flow = 150.000 m³/h**
- **Fan's electrical power = 90 KW**
- **Maximum stratification: 0.8 °C**
- **Ducts length: 159 m**
- **3 air return grilles**
- **Fan power reduced by £50,000 per annum**
- **70% saving on filter consumption**