# VIBRO-ACOUSTICS®

## **PROJECT SOLUTIONS**

Project: NASA Clean Room Application: Fan Silencers (Axial)

### Vibro-Acoustics designed and tested six 200 HP fan-silencer packages for NASA clean room.

#### **PROBLEM: Insufficient duct length**

There was limited length of duct to control noise from 153,000 CFM, 200 HP flow fans.

#### **SOLUTION:** Close-coupled rectangular silencers

10' x 10' rectangular silencers were close-coupled to the axial fans. Splitters were designed to be full height and rugged construction to distribute the airflow.

#### **PROBLEM: Excessive energy consumption**

Since the fans were to run continuously, minimum energy consumption was the objective.

#### **SOLUTION: Optimizing design and testing**

Full scale testing and optimization of all the designs were completed before shipment. Performance witness tests were also completed.

#### **PROBLEM: Undivided responsibility**

Undivided responsibility for the supply of fans, silencers, acoustic enclosures, structural steel, vibration bases and electrical work.

#### SOLUTION: Fan / silencer package supply

The six units were tested and supplied as packages, each 10' x 10' x 36' long.



Fan silencer and vibration isolation components.



Fan / silencer package and test duct work.