

PROJECT SOLUTIONS

Project: Motorola Semiconductor Facility
Application: Fan Silencers (Axial)

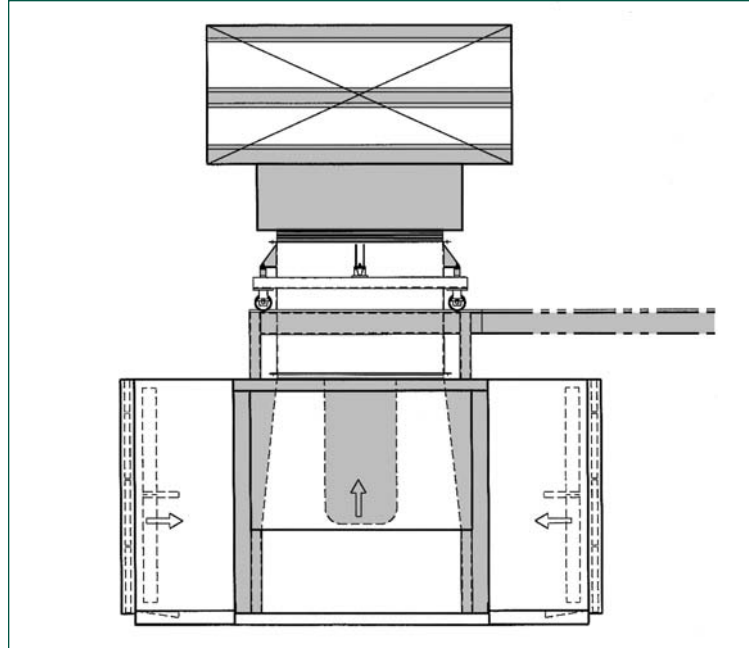
Special silencers for 16 vertical 60" diameter vaneaxial fans control noise to clean room facility.

PROBLEMS: Insufficient straight duct
 Excessive energy consumption

Space for the 16 air handling units was very limited and there was no straight ductwork at the fan connections. Since the 72,000 CFM, 60 HP fans run continuously, energy consumption was an important consideration.

SOLUTION: Special fan silencers

Aerodynamic fan elbow silencers were designed to reduce noise at the source. The discharge silencers are round to rectangular transitional type. The inlet designs consist of cone silencers directly connected to the fan inlets and mounted in acoustic inlet boxes, all supplied by Vibro-Acoustics.



Elevation of unit showing cone inlet silencer, elbow discharge silencer and fan roll out system.

PROBLEM: Exposed glass fiber

Special requirements for the clean room application were specified.

SOLUTION: IAQ Silencers

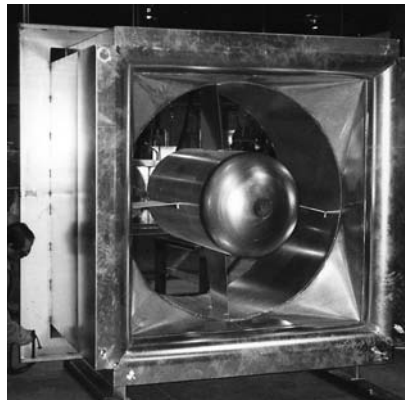
Acoustic grade glass fiber was wrapped in glass fiber cloth. Silencers were cleaned, shrink wrapped and shipped to site with protective crating.

PROBLEMS: Undivided Responsibility
 Fan access

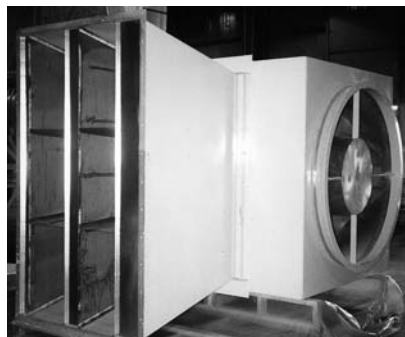
A special design was required for fan mounting and access.

SOLUTIONS: Packaged supply
 Special roll out system

Vibro-Acoustics supplied the fan and silencer systems as complete packages. These included roll out mechanical systems for quick fan access and structural support systems for the fans. The latter are built into the inlet boxes. (Coil/filter boxes connecting directly to the inlet boxes were also supplied).



Bottom view of cone inlet silencer



Fan discharge elbow silencer (on its side for shipment)