

PROJECT SOLUTIONS

Project: Wyeth-Lederle Vaccines
Application: Fan Silencers (Axial)

Retrofit fan/silencing package is fitted into an existing attic space to serve labs below.

PROBLEM: Very small equipment room

The attic space, used for storage, was to be converted to a mechanical room for the supply and exhaust systems. There were to be no extensive structural changes and components had to be sized to pass through a relatively small opening in the building wall. The design was to achieve NC-40 to NC-45 in the labs on the floor below.

SOLUTION: Horizontal axial fan / silencer package supply

Vibro-Acoustics supplied the complete factory designed field-built air handling unit. Fan silencers were special because of the tight space conditions. Inlet and discharge plenums were shipped as panels for field assembly. Cooling coils completed the package.

PROBLEM: Environmental conditions

The original design used the attic walls for the intake plenum. This necessitated frequent cleaning and painting the walls.

SOLUTION: Vibro-Acoustics plenum

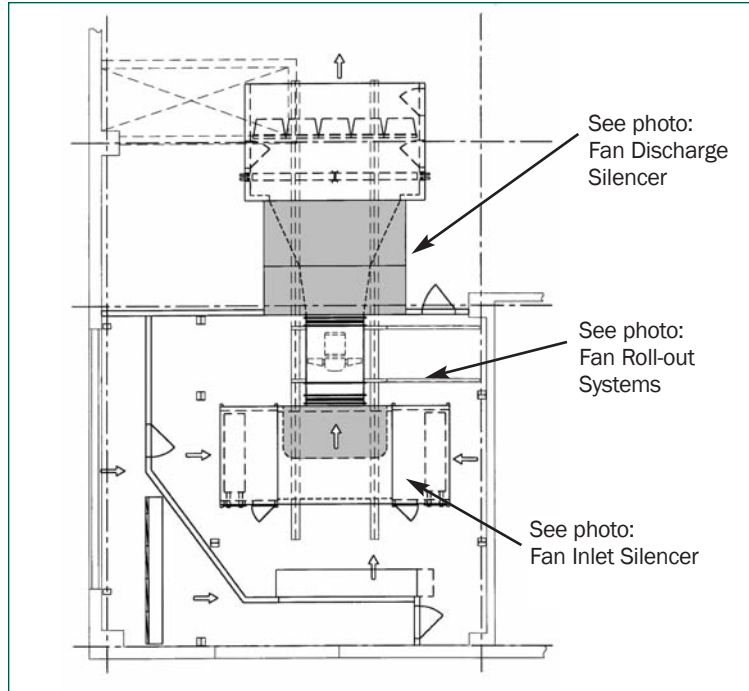
The Vibro-Acoustics intake plenum was enlarged to cover the walls and eliminate cleaning and painting. This resulted in an overall cost saving and better cleaning surfaces.

PROBLEM: Unreliable performance

The design was customized to fit the space and resulted from calculation, not test data.

SOLUTION: Vibro-Acoustics plenum

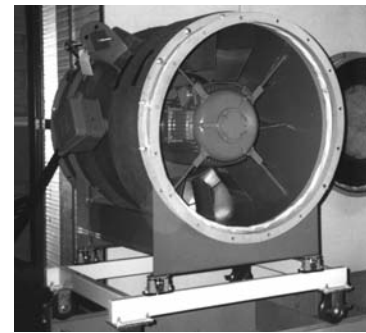
Witness test of the production unit. The full scale test results matched the estimated and approved noise, horsepower and airflow.



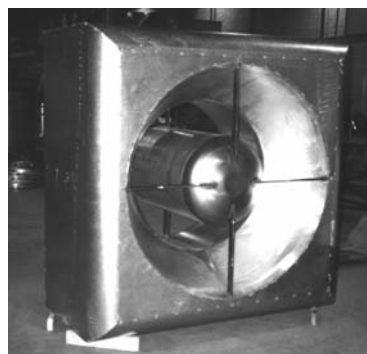
Plan view of "space-saving" retrofit air handling system supplied by Vibro-Acoustics.



Fan discharge silencer with acoustical splitters for distributing air to filters.



Fan roll-out system for fan repair.



Fan inlet silencer with streamlining for greater than 90° air entry.