

PROJECT SOLUTIONS

Project: Cape Breton Regional Hospital
Application: Duct Silencers (Centrifugal Fan Systems)

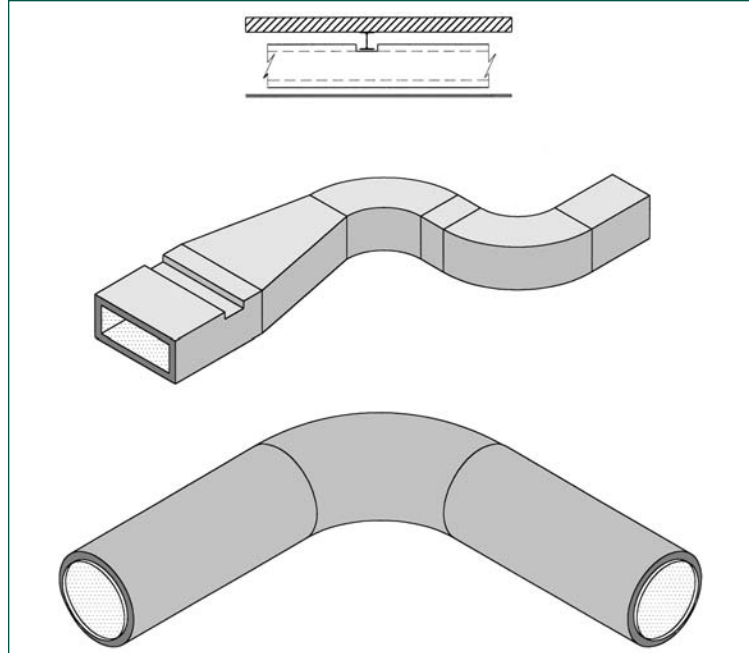
Fan silencing systems for hospital consume minimum energy and have no glass fiber in operating suite silencers.

PROBLEM: Excessive energy consumption

Since most air systems would be operating around the clock, 7 days a week, fan silencing was to add minimum pressure. NC-30 was the specified noise criteria for the patient rooms and operating rooms.

SOLUTION: Silencer systems without center-bodies or splitters (Type RLP and CLP)

Silencers were designed to have internal air passages the same size as the connecting ducts. Outside body dimensions are 8, 12 and 16 inches greater than the connection sizes, depending upon the most critical frequency to be attenuated and the space available. Silencing systems varied in length between 12 and 14 feet including 45 and 90 degree elbow silencers for some systems.



RLP and CLP silencing systems were supplied. By allowing the silencing outside dimensions to exceed the duct cross section, the pressure drop was almost reduced to that of empty ductwork. Note the recessed construction for the I-beam to save space.

PROBLEM: Exposed glass fiber in ducts

No glass fiber was allowed in the ducts servicing the operating suites.

SOLUTION: No-Media silencers

Circular no-media silencers are installed in the supply ducts and rectangular no-media silencers in the return systems.