

World famous acoustical consulting firm specified, and Vibro-Acoustics supplied, noise control products to successfully achieve “The Sound of NC-15”.

PROBLEM: Ultra-critical sound criteria

To achieve first class listening conditions for the symphony hall, acoustical consultants Bolt Beranek and Newman Inc. (BBN) set NC-15 as the sound criteria design goal. The problems they solved to control the noise are described in their paper entitled “The Sound of NC-15”. (Reprints are available from Vibro-Acoustics upon request.)

The following excerpts from this article describe the solutions.

SOLUTION: Acoustical consultant retained for HVAC noise control by the owner

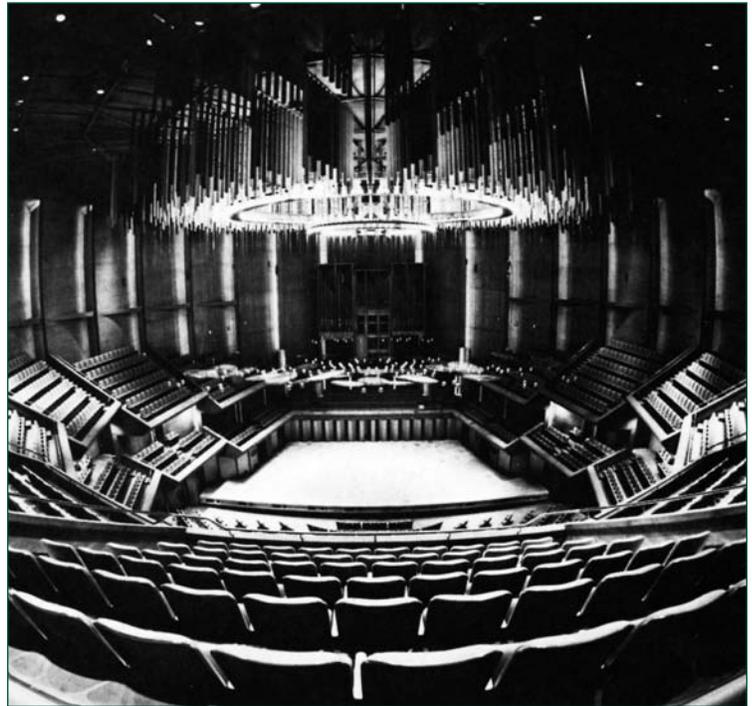
“It really takes a team coordinated effort” led by the acoustical consultants to achieve such a stringent design goal.

SOLUTION: Witness test of elbow silencers

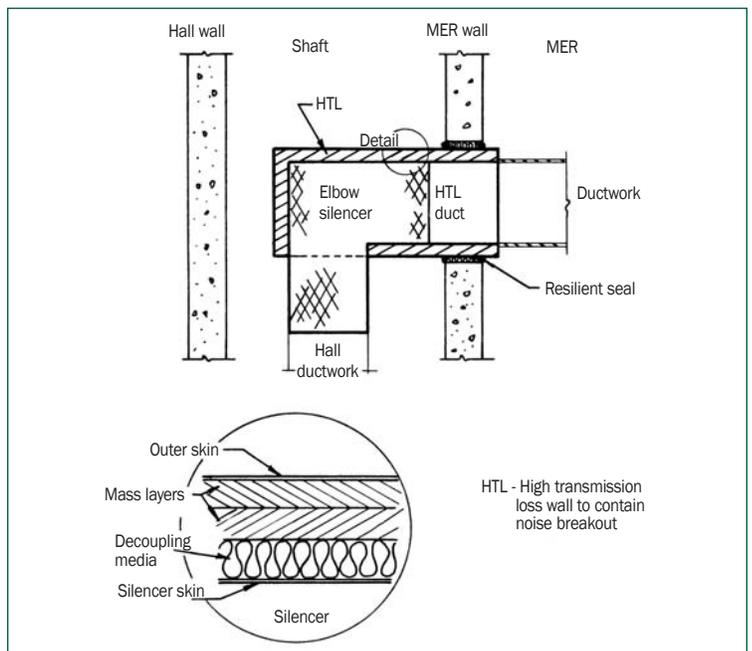
“Vibro-Acoustics offered to set up a test...to allow the acoustical consultant to witness and actually take part in a test to verify acoustical performance of the elbow silencers...they successfully performed to their acoustical rated values. The decision was made to accept and use them and it proved to be a good decision.”

SOLUTION: Vibro-Acoustics supplies all noise and vibration control products

“The entire package of high TL return boxes and silencers was designed and built by the same silencer-noise control manufacturer, so that acoustical performance for the package became the sole responsibility of one agency. These elements performed to the predicted acoustical levels published in the manufacturer’s certified data tables.” The package also included “special custom-made acoustical enclosures for all the fans” and vibration isolation for mechanical equipment, ducting and piping.



Ultra-critical sound criteria for symphony hall required acoustical consultants’ special designs for HVAC noise control.



Elbow silencers with factory-built HTL casings, specified by the acoustical consultants, reduce breakout noise.