



System: CJCR

Kinetics Noise Control Solutions

Generator Room Ventilation Silencers

Client

A leading global financial services firm

Issues

- The client's new technology financial center required installation of six (6), emergency, diesel driven, generators within their central utilities plant.
- The firm had experienced considerable growth and needed to expand its credit card transaction processing capabilities. The new Technology Center was designed to process up to approximately one million credit transactions every minute.
- This considerable volume of critical banking transactions required a facility designed to operate uninterrupted in the event of a power failure. Behind the facility are two (2) 15,000 gallon capacity diesel storage tanks enabling the facility to operate without municipal electric service for up to two (2) weeks.

- The facility is located in close proximity to a residential area. Due to the potential of long term operation and the frequent systems operation tests, sound attenuation was required for both the inlet and discharge air openings of the building.

Solutions

- The project specification included Kinetics Noise Control, Inc. (KNC) for equipment vibration isolation. The representative discussed this project with the mechanical engineering firm and acoustical consultant. Because of their long time experience with KNC's HVAC equipment vibration and architectural noise separation products and services both the mechanical firm and acoustical consultant also preferred KNC's ventilation silencers for the project.



United States: Dublin, Ohio • *Phone:* (614) 889-0480 • *Fax:* (614) 889-0540
Canada: Mississauga, Ontario • *Phone:* (905) 670-4922 • *Fax:* (905) 670-1698
Asia: Hong Kong, China • *Phone:* (852) 21912488 • *Fax:* (852) 21912477
www.kineticsnoise.com • sales@kineticsnoise.com



Advantages of Proposed Solution

- KNC silencer performance is backed by independent tests in accordance with a NVLAP accredited laboratory, per ASTM E477 test standard and AMCA 1011 recognized test standard for testing the performance of duct and ventilation silencers.
- KNC is unlimited in silencer sizing scheme and make fit-the-duct or opening sizes to meet any project need.
- KNC has streamlined, high capacity manufacturing that meets any delivery schedule.

Project Goals

- Need for long-term silencing of both intake and discharge ventilation systems
- Need for quick design, fabrication and installation of silencers
- Need to stage product delivery consisting of nine full, dedicated, flat-bed trailer shipments as to allow storage indoors at the limited space construction site
- Qty = (2), 342,000 cfm, identical outside air intake silencer banks and qty = (6), 107,600, identical exhaust air discharge silencer banks

NOISEBLOCK™ Applied Products

KNC model VRS, straight, rectangular silencers were supplied. They were constructed of 18 gage solid outer skin and 22 gage perforated inner baffle skin all material was galvanized steel, Type G90. The acoustic grade fill was encapsulated in a Tedlar® erosion barrier including an acoustic spacer.

The project consisted of two (2), intake silencer banks each 12'-0" H x 68'-0" W x 9'-0" L and each bank constructed of sixty (60) 40.5" W x 47.5" H x 108" L smaller silencers and six (6), discharge silencers each 14'-0" H x 12'-0" W x 7'-0" L and each bank constructed of thirty-six (36) 47.25" W x 41.625" H x 84" L smaller silencers.

After installing all discharge and intake silencer modules, the contractor used field applied angle flanges to band and connect the silencer banks to the building structure.

Resolution

KNC's manufacturing team and the representative worked closely with the mechanical contractor to fabricate and deliver product to coincide with the contractor's installation schedule. The time-line was met. The architect and acoustical consultant praised the work and highly recommend KNC for future projects.