Noise Levels Reduced with Curtain Enclosure System

Faced by excessive noise levels exceeding OSHA standards? It's a common problem, but one which was solved recently by a prominent electrical motor manufacturer.

Noise levels in the company's stamping operation were measured at 94 dBA. The source of the noise was two automatic notchers which were designed to operate continuously with minimal supervision. The high speed, pneumatically operated machines produced noise levels which were above 85 dBA, excessive in terms of current OSHA regulations.

"It was like working next to a pair of machine guns," testified the plant engineer. He noticed that in addition to the machinery noise being extremely annoying, it was beginning to affect worker morale and productivity.

Kinetics Noise Control's field representative, was contacted. Working in conjunction with Kinetics' engineers and the manufacturer's own production department, a custom-fabricated, three-sided curtain barrier system was recommended.

Supported by a double-track assembly which is suspended from the ceiling, the ten-foot (3 m) high self-folding curtain system enclosed the two notchers, thus containing the noise from the rest of the plant.

Because the operator needed to monitor the machinery from time to time, Kinetics KNC-100C clear vinyl curtain material was used for the front panels, and KNC-100RBQ reinforced mass-loaded vinyl curtain material with 1" quilt one side for the two side and center separator panels. Each curtain panel was furnished with Velcro® nylon strips along the entire length of each panel seam.

Kinetics' curtain enclosure systems can be used to contain noise or to act as a movable barrier to separate noisy and quiet areas. To control machinery noise which was reflected off the enclosure's back walls, Kinetics PA-410GB high-density molded fiberglass absorbers were attached to the wall to provide added absorption, especially at low and mid-range frequencies. The curtain system provided an average decrease in the overall noise level of 20 dBA.

Satisfied, with the results achieved by the Kinetics curtain enclosure system, the manufacturer ordered similar enclosures for other machinery areas within the plant.