Portable Acoustical Enclosure Allows In-Plant Sound Measurements

The Falk Corporation, in order to be certain that their gear reducers meet published sound emission data, tests their products under actual load conditions as a part of their quality assurance program.

Because background sound levels in the plant, as well as drive motor noise, was often higher than the radiated noise from the gear reducers, measurements were not always reliable.

A fixed enclosure was an impractical solution because it was necessary to move it away to make room to set up each reducer to be tested.

The Kinetics representative, Mueller Sales Company of Milwaukee, Wisconsin, provided a portable enclosure, designed to keep unwanted sound out while reducing reverberated noise inside.

The 8 ft x 17 ft x 8 ft (244 cm x 518 cm x 244 cm) enclosure utilizes Kinetics Model KNC-200 BQQ composite and is complete with sliding end panels, viewing windows, lifting lugs, interchangeable panels, lighting, and a rigid roof, all assembled on a unistrut frame.

The entire enclosure can be lifted up and moved with the company’s overhead crane.

Sound readings were taken outside and inside the enclosure and although it was a noisy 80 dBA outside, inside the Kinetics enclosure 58 dBA was measured - a 22 dBA reduction!