



ADVANCED SERVICES

Single & Multi-Pane Balancing

EMDS offers on site balancing services for most rotating equipment. From simple fans to complex, multi-rotor turbine generators, EMDS has the equipment and experience to efficiently balance all types of rotating equipment.

Advanced Diagnostics

Structural Vibration: Structural vibration can be used to identify the source of unpleasant noises or destructive vibration in office buildings or manufacturing facilities. Site evaluation for coordinate measuring machines and MRI units can also be performed.

Resonance Testing: Structural resonance amplifies normal vibration to destructive levels, whether in machinery components or building elements. Mapping of mode shapes, as in the example below, identifies the frequency and shape of a structural vibration. Using this information, these problems can be quickly and efficiently corrected.

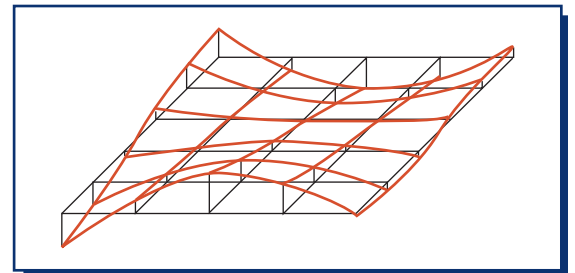
Motor Rotor Testing: AC motors can be damaged through the thermal cycling that results from starting and stopping. By measuring the modulation resulting from cracked or broken rotor bars and end rings, we can accurately determine their condition. SCR controlled DC motors can also be evaluated.

Acoustic Testing: Sound is just vibration traveling through the air. By using a microphone rather than a vibration transducer, vital information is available about machinery condition.

Electrical Line Harmonic Testing: SCRs and other non-linear devices can inject harmonics into power circuits. These harmonics produce heat, but no driving power, in electric motors. They can also damage sensitive electronics. Detection is the first step in correcting this problem.

Operating Deflection Surveys (ODS): The measurement of the structure and equipment to develop a 3D model of how the equipment vibrates.

These are just a few examples of the tremendous power of vibration measurement. Contact our offices for details regarding advanced vibration services.



Resonance Testing: Mapping of Mode Shapes

Electro-Mechanical Diagnostic Services, Inc.

1521 East Washington Street
Indianapolis, IN 46201

Nelson Baxter - nelsonbaxter@att.net
Brad Barton - bradbarton@ccrtblue.com
Mike Seaman - mike.seaman@emds-in.com
Jim Renner - jim.renner@hornerelectric.com

Shawn Covington - shawn.covington@hornerelectric.com
Doug Coffman - doug.coffman@hornerelectric.com
Tim Dugger - tjdugger@gmail.com



www.hornerelectric.com