



**SPECTRA TECH LTD**

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**Spectra Tech Ltd has the capability to evaluate vibration in a building's structural elements and floors, wherever there is a need to limit vibration.**

Our **Floor Vibration Analysis Program** was written by a Structural Engineer who co-authored the **AISC/CISC Design Guide #11: Floor Vibration due to Human Activity**. The program uses these criteria to evaluate structural designs and floors.

Floors can be evaluated for:

- Walking in offices, residences, churches, hospitals and shopping malls.
- Footbridges.
- Activities like lively dancing and aerobics together with adjacent occupancies like offices, residences and dining.
- The effects of floor motion on sensitive laboratory equipment, microscopes, and operating room instruments.

The program not only does the calculations, but also provides online expert advice:

- Recommends live loads to use.
- Estimates damping.
- Suggests acceleration limits for activities and occupancies.
- Estimates other parameters needed for evaluation.

Supports US Customary and SI Units.

Databases for steel construction elements:

- Hot-rolled sections
- K-series joists
- Castellated and Cellular (Smart) Beams
- Australian Sections

Calculation procedures for:

- LH- and DLH-Series Joists
- CJ – Composite Joists
- Joist-Girders
- SI Unit Joists
- Walls
- User Defined Sections

Produces a complete design report - all calculations are available for ease in checking.

Automatically generates explanations for a result if it may not be obvious to the user, or suggests modifications that the user may consider. The program also alerts the user to conditions that may require further consideration.

We look forward to utilizing our structural analysis program on your upcoming projects.

Contact our office at (513) 419-9169 to speak with our staff, or email Richard Lemker at [RJLemker@SpectraTechLtd.com](mailto:RJLemker@SpectraTechLtd.com) for additional information and professional vibration mitigation services.