

ROUSH®

NOISE & VIBRATION ENGINEERING

Roush Noise and Vibration Engineering has been providing consulting and testing services to a wide range of industries for nearly 50 years. We are adept at leveraging multiple test methods, ranging from structural analysis to sound quality evaluation. This means that no matter the challenge, Roush is capable of working with you to solve it. We can ensure that our solutions – and your products – are quieter, smoother, and more appealing to your customers. From automotive and aerospace technologies to consumer products and theme park rides, we continue to provide our customers innovative and effective noise and vibration control products, services, and solutions.

www.roush.com

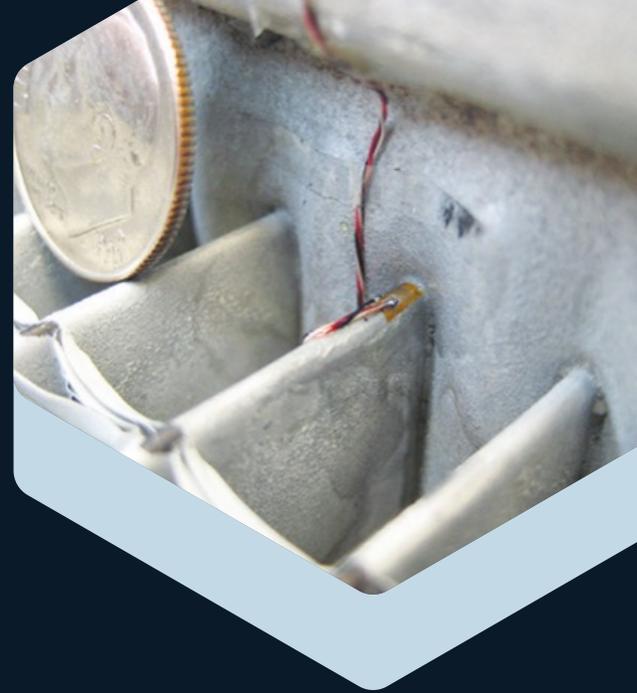
We're focused, we're efficient, and we're at our best when we're challenged to think outside the box — critical traits when our customers' success depends on how quickly we can take their visions from the sketchpad to the marketplace.

For more information, please [click here](#).



INDUSTRIES SERVED:

- Automotive
- Aircraft/aerospace
- Heavy truck/commercial vehicle
- Computer/disk drive
- Consumer products
- Government/defense
- Oil and gas



NVH SOLUTION DEVELOPMENT:

- Driveline issue resolution
- Powertrain
- Sound package
- Acoustic absorption and barriers
- Acoustic testing
- Targeted vibration reduction
- Vehicle ride
- Road noise
- System identification
- Brake issues
- Sound quality and psychoacoustics
- Environmental noise
- Test stand development
- Structural analysis

ENGINEERING & TEST SERVICES:

- Solution development
- Design
- Analysis
- Process development
- Material testing
- Material testing
- Product testing
- Manufacturing support and quality control

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NVH SOLUTION DEVELOPMENT CAPABILITIES

- **Driveline issue resolution** – cars and trucks (2, 4, and AWD), commercial vehicles, RVs, off road, train, submarines
- **Powertrain** – gas, diesel, electric, hybrid, transmission, transient analysis
- **Sound package** – analytical and test-based design and development
- **Acoustic absorption and barriers** – design, testing, BEA/SEA analysis
- **Acoustic testing** – noise reduction, transmission loss, alpha cabin, impedance tube
- **Targeted Vibration Reduction** – tuned mass dampers, constrained layer dampers, particle dampers
- **Vehicle ride** – subjective evaluation, target setting, problem resolution
- **Road noise** – assessment, issue identification, solution development
- **System identification** – modal testing, operating deflection, transfer path analysis
- **Brake issues** – squeal, chatter, moans, judder
- **Sound quality and psychoacoustics** – metric development
- **Environmental noise** – unattended noise monitoring, environmental noise modeling
- **Test stand development** – design, build, test
- **Structural analysis** – strength, durability, strain gauge, wheel force transducers

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