

ROUSH®

BRAKE NOISE & VIBRATION ENGINEERING

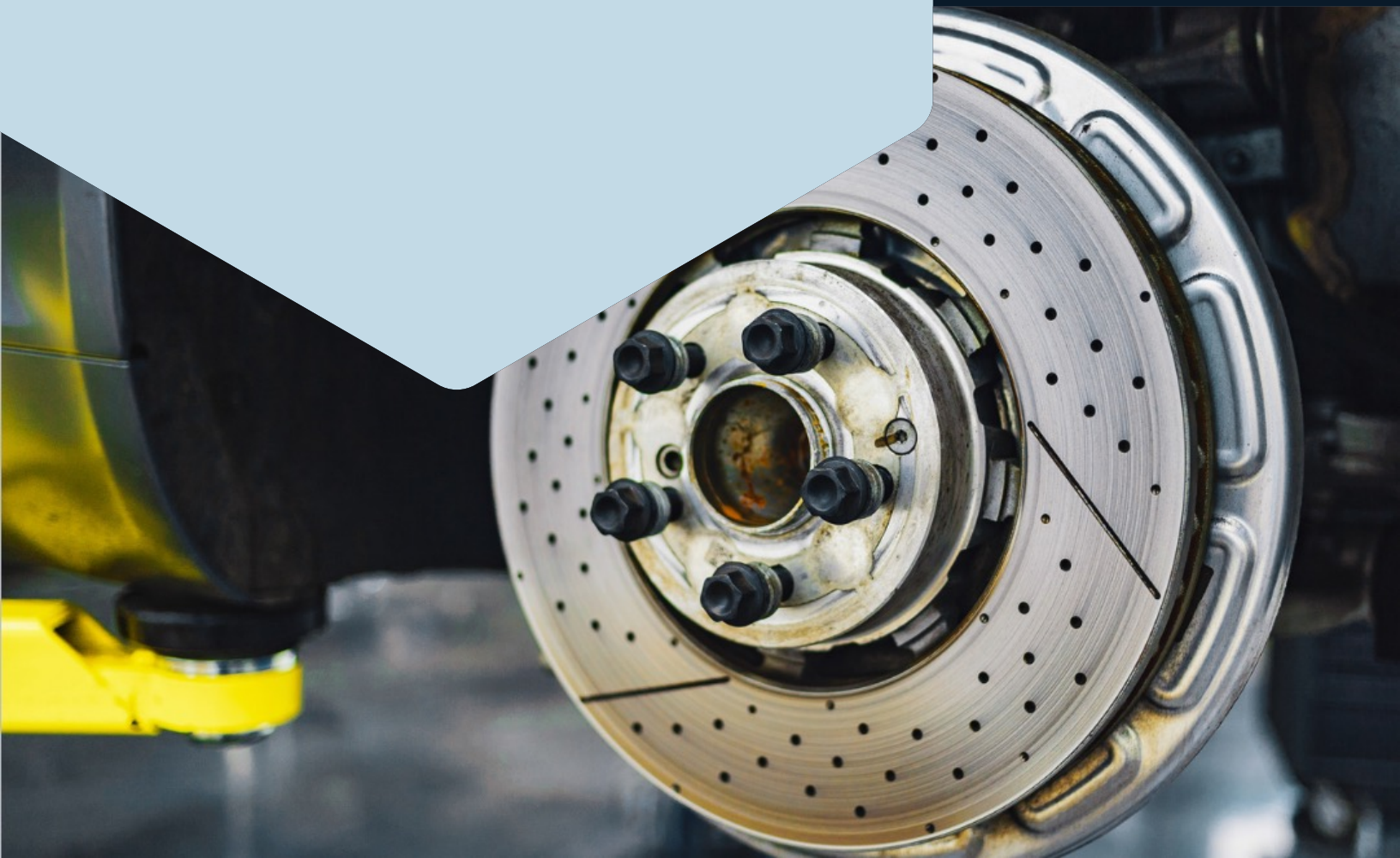
Roush is a leading supplier of noise and vibration (NVH) control engineering services to the transportation industry. Roush engineers work in close collaboration with vehicle OEM, brake system and brake component suppliers to address common issues of brake systems.

Our experienced engineering staff has a diverse background and excellent tools for solving a wide variety of NVH issues. We strive to find solutions that fit within brake performance and manufacturing constraints.

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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](#).



BRAKE NOISE DYNAMOMETER CAPABILITIES

- Disk or drum assemblies
- Complete driven axle assemblies
- Complete vehicle corners
- Suspension parts and the road wheels may be included



BRAKE NOISE DYNAMOMETER SPECIFICATIONS:

Mechanical

- 100 HP drive motor system
- Maximum continuous torque of 2000 ft-lb (2700 N•m)
- Variable speed control 0-500 rpm
- Hydraulic pressure to 725 psi (50 bar)

Environmental

- -37°F (-35°C) to 185°F (85°C)
- Variable air flow
- Humidity control (10% RH to 95% RH)

Control

- Manual or computer-controlled data acquisition and dynamometer operation
- Roush's BrakeDAQ data acquisition system available

DAMPING CAE & DESIGN

- Finite element analysis (FEA)
- Boundary element analysis (BEA)
- Mechanical system kinematics tools (ADAMS)
- Computational fluid dynamics (CFD)
- Damping prediction tools

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DAMPING CAE & DESIGN

Our engineering staff utilizes the most current analysis techniques. Roush also has available the extensive resources of our viscoelastic materials laboratory, which contains a database of information on over 3,000 vibration reducing materials. These tools allow our engineers to optimize insulator and tuned damper performance as needed for brake system noise countermeasure design.

ADDITIONAL BRAKE SERVICES

In addition to our high level brake system engineering services, Roush also supports the brake industry with:

- Los Angeles, Detroit, Minneapolis and Denver city traffic testing
- Death Valley brake drag tests
- Performance, dust, wear and durability testing
- FMVSS 105/135 testing
- Roush BrakeDAQ data acquisition system

The Roush BrakeDAQ system is a hardware/software road measurement tool that has been designed specifically for brake road testing, to output noise and performance data from typical vehicle tests.

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