

Global Application Support



Tested for You. Powered for Performance.

YOU.POWERED.

**We power
achievement.**

**We test to
perfection.**

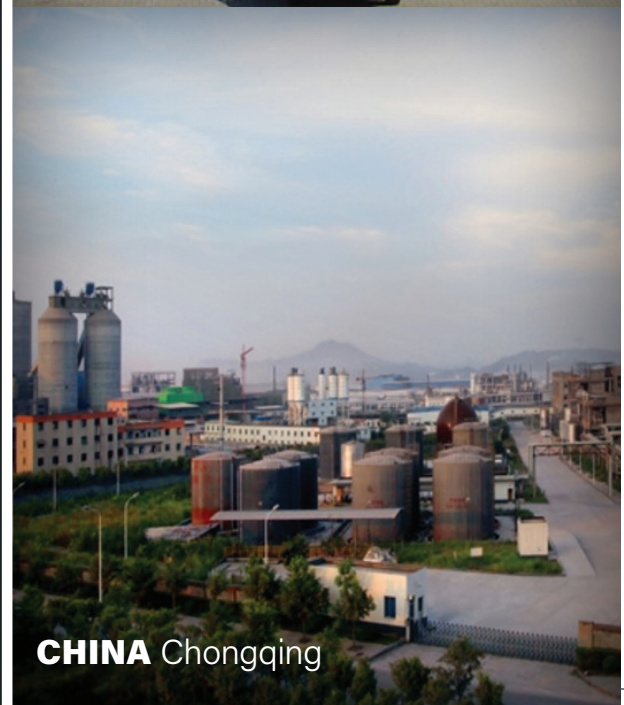
You stand behind your products. Briggs & Stratton stands behind you as the innovative experts in applying power to applications – with more than 108 years of experience manufacturing and selling engines worldwide.

Our Power Application Centers (PACs) located in the USA, Europe and China empower dependable performance where it counts the most - in your customers' overall satisfaction. Our new Noise, Vibration and Harshness (NVH) Lab is a state-of-the-art test facility located in Milwaukee, WI. Our NVH Lab uses automotive-grade technology to assess engines and ensure high performance, durability and productivity.

Our professional, experienced teams:

- Identify and perform the appropriate application tests
- Select and test the power source for application
- Support new product development needs
- Troubleshoot issues that may arise in the field

We restrict all application center areas to guarantee customer confidentiality.





Zero in on your power installation.

Your products demand high performance. The Power Source Installation Review Process analyzes how the power source is applied to a specific piece of equipment. An evaluation is done to determine which of our comprehensive tests are conducted to improve overall performance:

- Extreme Temperature Testing
- Fuel System Testing
- Power Source and Application Evaluation
- Vibration Testing

The objective of the Power Source Installation Review Process offered is to:

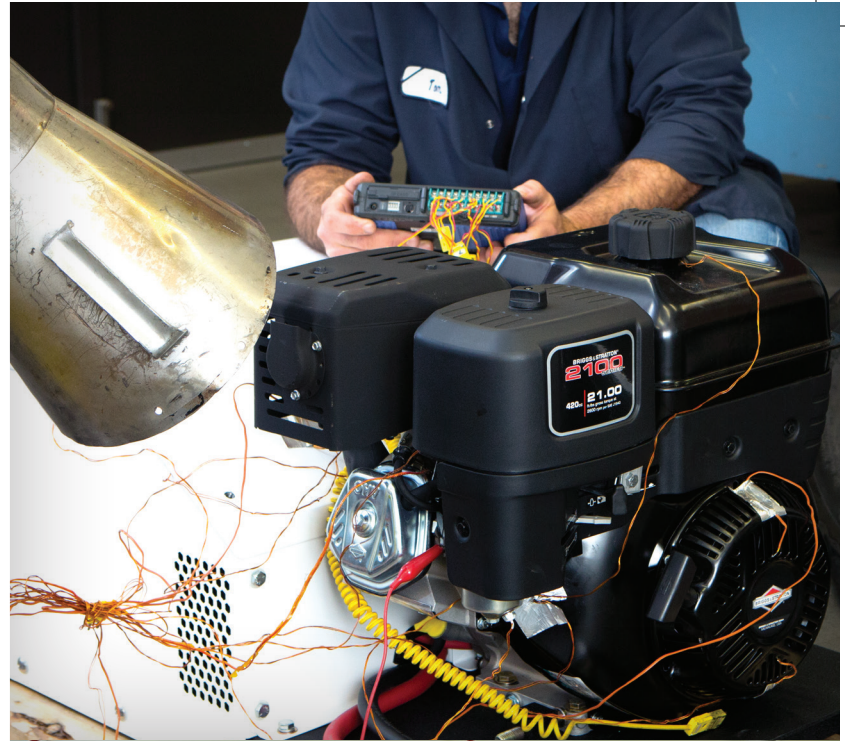
- Increase end-user satisfaction
- Achieve globally-certified quality standards
- Enhance performance
- Reduce warranty costs

Tested to extreme degrees.

Power sources are put under various loads in extreme heat and extreme cold environments to ensure consistent end-product performance and productivity.

Extreme Temperature Testing is comprised of:

- Six heat test cells capable of 120°F (48°C) ambient temperatures
- A cold test chamber capable of -20°F (-29°C) ambient temperatures to perform starting/electrical system tests
- Engine enclosure developments in accordance with engine operating temperature guidelines
- Hot restart testing





Fine tuning fuel systems.

The internal components and fuel delivery systems are analyzed to improve upon fuel efficiency, productivity and easier starting.

Fuel System Testing includes:

- Evaporative fuel system testing and development
- Carburetor and governor performance, regulation and speed setting to ensure maximum performance
- Electronic fuel injection testing and diagnosis to properly map system to equipment characteristics
- Gaseous fuel system review and development to confirm performance and adhere to regulations

Power Application Centers

Power source and application evaluated together.

Power source size and power rating are analyzed for the application to optimize power source life and durability.

Power Source/Evaluation is comprised of:

- Engine load level evaluation
- PTO loading (thrust, radial, inertia, parasitic)
- Belt drive/direct-couple review and development
- Electrical load evaluation (alternator, battery, cables, etc.)



Tested to run smooth and last long.

Vibration testing identifies the power level for equipment to limit vibration while providing comfort and durability.

Vibration Testing is comprised of:

- Engine vibration analysis
- Modal/operational deflection shape vibration analysis
- Operator comfort analysis and development
- Engine isolation system development



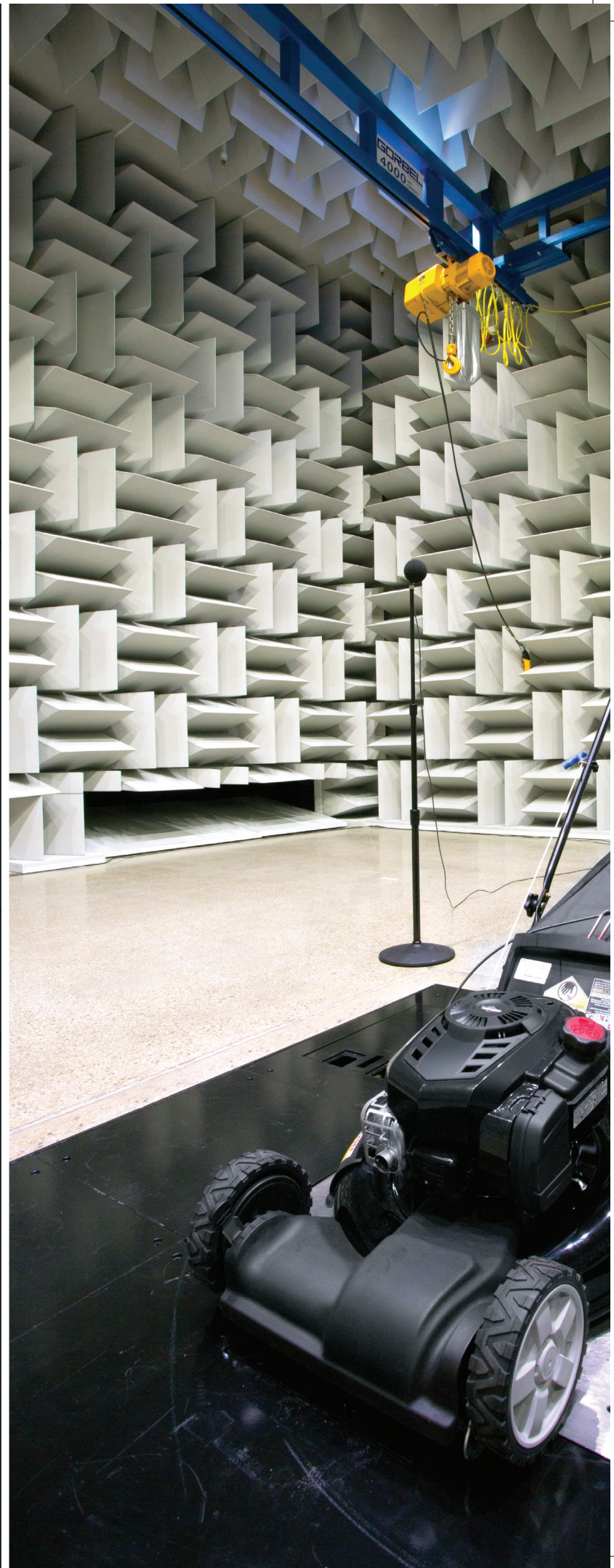
NVH Lab

Introducing the Noise, Vibration and Harshness Lab.

We created our new NVH Lab, a world-class facility on the leading edge of innovation that incorporates automotive-grade technology, to accelerate testing and create highly productive, long-lasting engines. The facility's unrivaled capacity and capabilities in noise and vibration technology help OEMs confidently deliver equipment to the market in less time, backed by the most thorough testing available today.

State-of-the-art equipment:

- Two ISO3745 qualified hemi-anechoic chamber for precision grade acoustics measurements
- Two convertible engines dynamometer for evaluation of our engines at various operating conditions
- Two electro dynamic shakers
- Four fully-functional hydraulic load-testing stands
- Sound quality listening room for jury evaluations



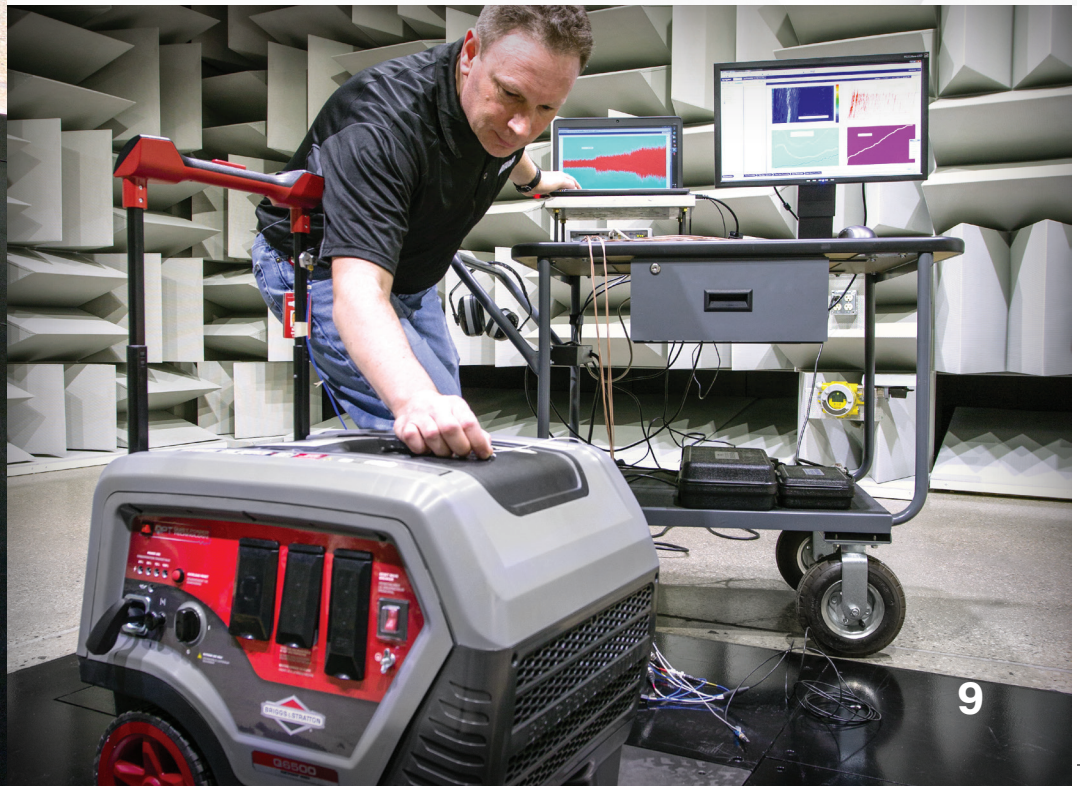


Benchmarking noise and vibration.

The NVH Lab establishes and attains best-in-class noise and vibration targets achieved by thorough NVH measurement and evaluation techniques.

Our state-of-the-art facility and equipment includes:

- Root cause analysis and noise source identification
- Sound and vibration quality analysis to improve operator comfort
- Product noise and vibration certification
- Dynamic balance of rotating components

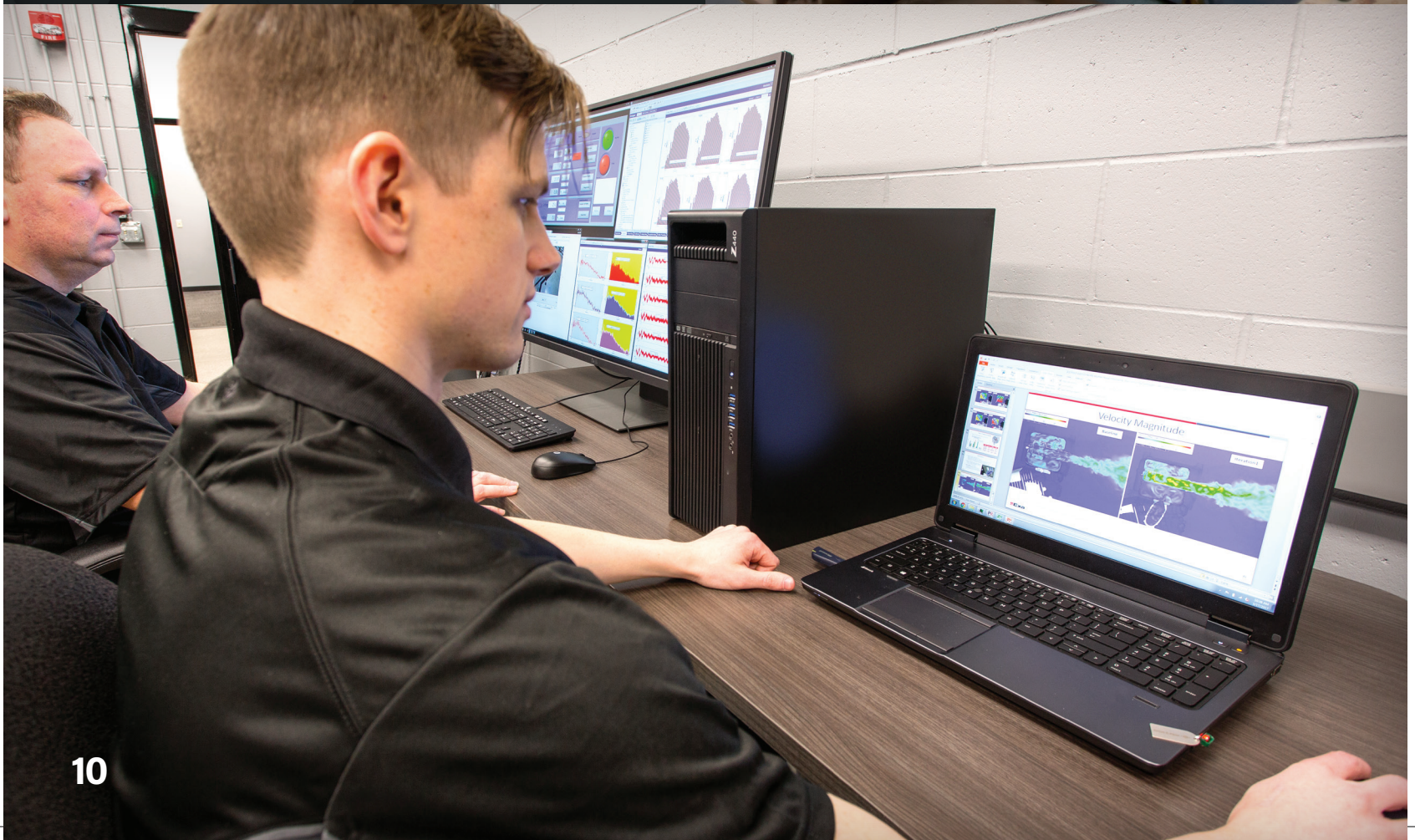


NVH Lab

Advancing NVH analysis.

The NVH Lab utilizes simulation and advanced testing methods to drive noise and vibration improvements earlier in the development process.

- NVH simulation and correlation
- Modal analysis and operating deflection shapes (ODS)
- Transfer path analysis
- Sound and vibration quality analysis
- Transmission loss and absorption coefficient



Accelerating durability testing.

Development time can be reduced as much as 60% over traditional methods, minimizing the reliance on field testing for product qualification and establishing component durability targets to ensure product quality.

- Hydraulic fatigue testing of components (low frequency, high displacement)
- Electro-dynamic shaker testing (higher frequency, low displacement)



Specialized for dynamic testing.

Our Specialty Dynamic Testing improves understanding of complex dynamic systems and improves correlation with simulation models.

- Component stress measurement and analysis
- Dynamic load testing
- Crank angle domain analysis
- High speed video recording
- Airflow measurements



Power Application Guide: we power achievement.

Innovative power, support and performance you can depend on. Our goal is to provide world-class, application-related support to Briggs & Stratton's customers worldwide. The dedicated, technical personnel at the Power Application Centers analyze, evaluate and improve a diverse range of equipment and power applications to ensure the continued success of our customers.



Lawn Mowers



Lawn Tractors



Zero Turn Mowers



Pressure Washers



Generators



Snow Blowers



Wide Area Walk Mowers



Water Pumps



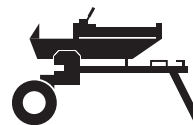
Tillers



Walk Behind String Trimmers



Compactors



Log Splitters



Wood Chippers



Concrete Mixer



Concrete Saws