

We Understand Aerospace & Defence Industry Needs

The challenges facing manufacturers today seem insurmountable. Products have to be delivered faster, be safer, be more reliable, sound better, and be more comfortable. All this, while at the same time keeping costs down and complying with strict legislation.

Covering the whole measurement chain, our customer-dedicated test and analysis solutions reduce your noise and vibration problems – improving quality and test efficiency, differentiating your products and helping you comply with the demands of legislation.

Developed with Customers in Mind

Customer feedback is all important to us – so by listening to, and working closely with our customers we develop with their needs foremost in our minds. Whatever the application, whatever the requirements, measurements of great precision and accuracy are paramount.

We have an extensive range of standard COTS (Commercial Off the Shelf) solutions. We can also supply turnkey solutions or the tools you need to solve your individual tasks and develop solutions that are based on state-of-the-art technology, according to the latest standards.

We provide:

- COTS equipment and systems
- Custom system design
- Project management
- Installation
- Commissioning
- On-site training
- Service, calibration and maintenance

PULSE Platform

PULSE™ is Brüel & Kjær's modular and scalable data acquisition and noise and vibration analysis platform – now with close to 10000 systems installed globally. Its flexibility, combined with

industry-specific solutions, has made PULSE Brüel & Kjær's best-selling analyzer platform in a wide range of industries, including aerospace and defence. The reasons for this success are many – key factors include measurement accuracy and reliability, the renowned quality of Brüel & Kjær transducers, measurement hardware and application software, and the innovation behind the platform. Lately, the introduction of Dyn-X and REq-X and their unique technologies has provided users with breakthrough acquisition of accurate and valid data first time.

Suitable for large and small test demands – from one to one thousand dynamic channels – and with an ever-growing spectrum of applications, PULSE's architecture is developed to grow with you as your sound and vibration test requirements change.

State-of-the-Art Transducer Technology

Brüel & Kjær offers the world's most comprehensive off-the-shelf range of transducers within force, vibration, pressure and sound. The technologies span piezoelectric, DeltaTron®, ISOTRON®, variable capacitance, piezoresistive and condenser principles. In addition to standard measurements, this enables Brüel & Kjær to provide sensor instrumentation for practically any application including:

- Structural dynamics requiring miniature triaxial accelerometers with TEDS for fast and easy identification
- Flight test accelerometers with excellent low-temperature stability
- Charge accelerometers operating at temperatures exceeding 650°C
- Surface microphones for use on airplane surfaces during in-flight and wind-tunnel testing
- Acoustic scale model testing up to 70kHz and 8atm
- Full scale fatigue testing
- Extreme high-shock applications



Service and Support

With our after-sales and support services, you are assured accurate results easily, efficiently, and confidently.

With Brüel & Kjær you have one vendor for technical support for software, calibration and hardware maintenance.

A PULSE Software Maintenance and Support Agreement gives you access to software releases and technical support from a global network of specialists – you're always up-to-date and never alone.

Regular accredited calibration provides you with not just the knowledge but also the evidence of how your instrument measures. You are guaranteed reliability – you know your instrument works correctly.

Calibration can be combined with a hardware maintenance agreement so the time your instrument is away for service is minimal.

Noise and Vibration *Solutions*



HEADQUARTERS: DK-2850 Nærum - Denmark - Telephone: +4545800500
Fax: +4545801405 - www.bksv.com - info@bksv.com

Australia (+61)29889-8888 - Austria (+43)18657400 - Brazil (+55)115188-8161
Canada (+1)514695-8225 - China (+86)1068029906 - Czech Republic (+420)267021100
Finland (+358)9 521300 - France (+33)169907100 - Germany (+49)42117870
Hong Kong (+852)25487486 - Hungary (+36)12158305 - Ireland (+353)18074083
Italy (+39)025768061 - Japan (+81)35715 1612 - Republic of Korea (+82)234730605
Netherlands (+31)1318 55 9290 - Norway (+47)66771155 - Poland (+48)226167556
Portugal (+351)214169040 - Singapore (+65)63774512 - Slovak Republic (+421)254430701
Spain (+34)916590820 - Sweden (+46)33225622 - Switzerland (+41)448807035
Taiwan (+886)225027255 - United Kingdom (+44)1438739000 - USA (+1)8003322040

Local representatives and service organisations worldwide

Brüel & Kjær 

Aerospace & Defence

Brüel & Kjær 

Investing in Danish Innovation

With roots and headquarters firmly planted in Denmark, Brüel & Kjær, with over 65 years of experience, continues to be an industry pioneer and leading innovator within the international world of sound and vibration measurement.

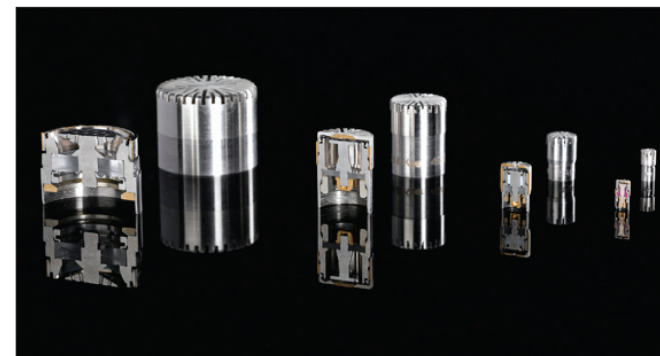
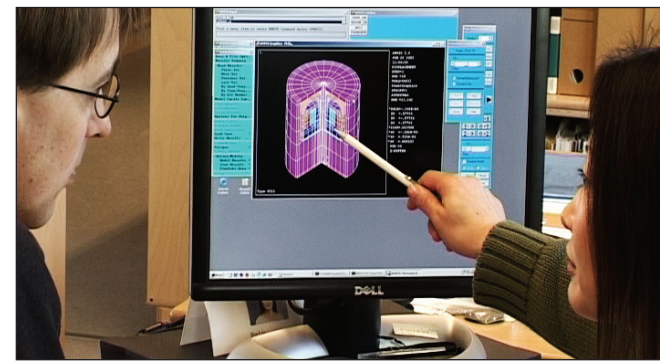
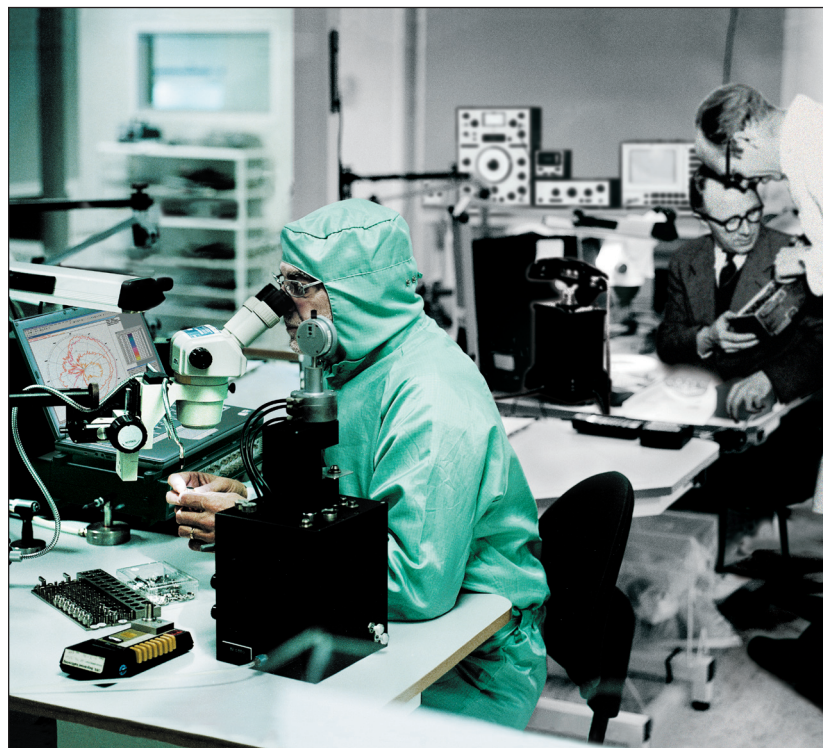
Our tough and uncompromising research and development programme, combined with the valuable knowledge and expertise gained over the years, has given us a reputation for reliability and quality. Our success in keeping the momentum of innovation going is a combination of our R&D teams' successful efforts in keeping abreast of the latest technology, and our working closely with customers and partners in research projects that develop new technologies and models to improve the quality of sound and vibration.

The Industry's Most Comprehensive Product Range

From specialist transducers, multichannel data acquisition, and workflow- and task-oriented application software to final documentation and reporting, we have all you need for your aerospace noise and vibration testing – and all from one supplier.

Global Sales and Support

Brüel & Kjær is a global company. In fact, with more than 90 sales offices in 55 countries supported by a team of application specialists at our Headquarters in Denmark, we have the largest sound and vibration sales network in the world. But it is precisely this globalism that allows us to think and act locally. With eight accredited calibration centres worldwide, and 500 employees working within local sales, service, and support, we provide you with immediate customer support no matter where you are.

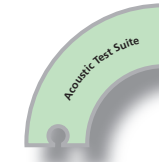


Brüel & Kjær Noise & Vibration Solutions

Acoustic Test Suite

Whether your interest is exterior or interior noise, our acoustic test suite provides data acquisition and assessment solutions for combating your noise problems – optimising noise performance, improving sound quality and ensuring compliance with environmental legislation.

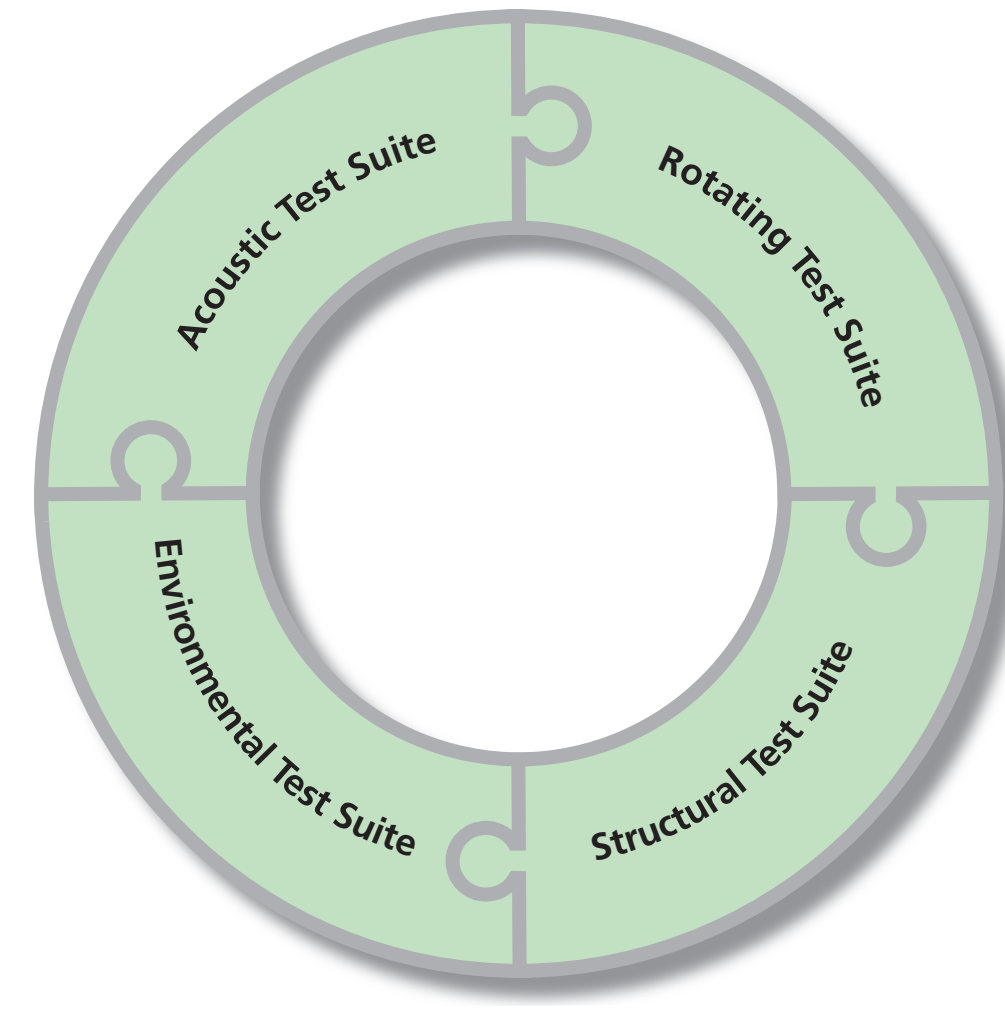
- Noise source mapping and location
- Wind tunnel and flight testing
- Engine and aircraft certification
- Acoustic material testing
- Cabin comfort and occupational health
- Ramp noise and sonic boom
- Underwater acoustics



Environmental Test Suite

Reproducing realistic operational conditions in the laboratory is a must for qualifying the real-life integrity of structures to ensure durability. Whether it be billion dollar satellites, launchers, aircraft, instruments or structures, our comprehensive test suite can provide you with a wealth of environmental test solutions.

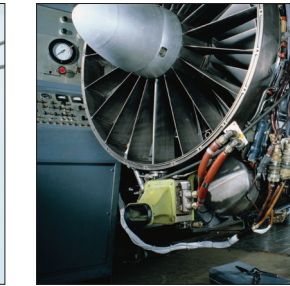
- Sine, random, sine on random, random on random testing
- Classical shock
- Shock response spectrum
- Kurtosion
- Acoustic fatigue
- Field data replication
- Wave recording



Rotating Test Suite

Vibration analysis of rotating machinery provides valuable information on engine health, reliability and performance. Ranging from R&D and production test-cell applications to on-ground maintenance systems, our vibration measurement and analysis solutions can provide you with powerful machine analysis tools.

- Vibration analysis, monitoring and diagnostics
- Vibration data acquisition and analysis in engine test cells
- On-ground vibration check of aircraft engines
- Order analysis and autotracking
- Balancing and trim balancing
- HUMS transducers



Structural Test Suite

Structural dynamics testing is essential to understand and optimise the inherent dynamic properties of structures to ensure reliable and safe operation. Our structural test suite offers complete solutions for controlled excitation test, real-life operational test and test-FEA integration – from the smallest components to the largest assembled structures.

- Operating deflection shapes analysis
- Operational modal analysis
- Classical modal analysis
- Normal mode testing
- Structural dynamics modifications
- Model correlation and updating

