

OpenBlue Services



Advanced Vibration Evaluation

Leveraging AI and effective maintenance strategies for optimal operating conditions



Optimize efficiencies, mitigate risk and reduce costs with Advanced Vibration Evaluation

Putting control in your hands

Johnson Controls understands the complexity and cost of keeping your essential equipment operating at peak performance. The level of aging and degradation of Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) equipment can lead to unexpected downtime, resulting in lower performance and damaging revenue loss.

The good news: We have the answer that puts progressive, value-added control in your hands – our Advanced Vibration Evaluation diagnostic service.

Powered by OpenBlue, the Johnson Controls suite of smart connected solutions, we pair your distinctive needs with AI ingenuity to devise a tailor-made roadmap to keep you up and running.

Why use our Advanced Vibration Evaluation service?

The Advanced Vibration Evaluation diagnostic service listens to HVAC/R equipment and measures the interaction of moving components to detect the slightest changes. These changes can be advance warnings of developing malfunctions.

By using real-time diagnostic tools, technicians can arrive at solutions quickly. This helps to contain, maintain, and avert unplanned downtime while avoiding unforeseen expenses.

Our service provides the information necessary to ensure uptime, schedule maintenance at the customer's convenience, and plan for capital expenditures by detecting problems such as:

- Imbalances
- Bearing failures
- Mechanical looseness
- Misalignment
- Resonance and natural frequencies
- Electrical motor faults
- Bent shafts
- Gearbox failures
- Empty space or bubbles (cavitation) in pumps
- Critical speed issues

How does it work?



On-site data collection:

A Johnson Controls technician uses a wireless vibration mobile application and sensor to record vibration data on the customer's rotating equipment.



Offline analytics:

Vibration and equipment data is sent to the Johnson Controls service team. Data models are applied, and a report is generated and reviewed for anomalies and recommendations by a Johnson Controls vibration engineer.



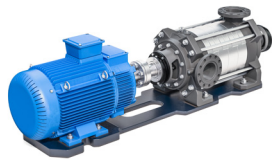
Reporting and maintenance:

The customer receives a detailed report, including the equipment condition, component trends, analysis, faults and recommendations.

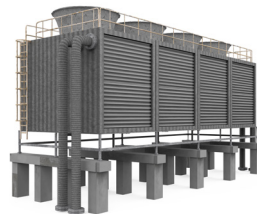
Advanced Vibration Evaluation: Achieve the best results for your HVAC/R equipment



Chillers



Pumps
(chilled-water, fire)



Cooling towers



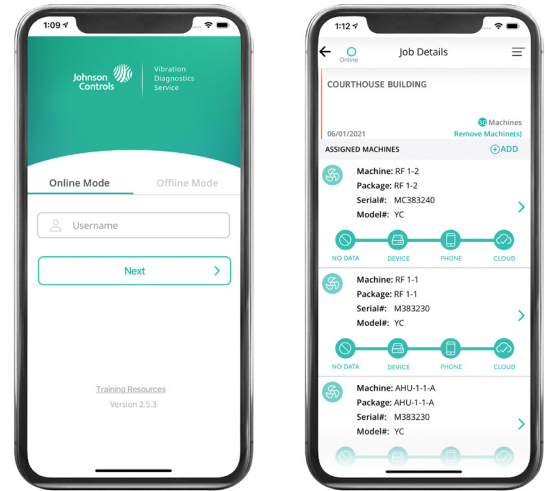
Fans, AHUs

Device details

As the 2020 “Overall IoT Company of the Year” from IoT Breakthrough, Johnson Controls is a leader in digital transformation. And this holds true for our Advanced Vibration Evaluation service as well.

We utilize a unified sensor design that captures vibration and acoustic analytics from mechanical equipment. It then communicates data about performance, potential failures and maintenance recommendations.

Our Advanced Vibration Evaluation device pairs with an app for added capabilities and features. The app can be downloaded from the Google Play Store or Apple App Store.



What are the benefits?

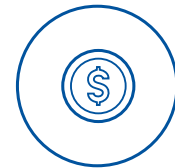
From mitigating unplanned maintenance costs and enhancing uptimes, to keeping equipment free of downtime and preventing critical problems before they happen, the Advanced Vibration Evaluation’s diagnostic insights provide significant benefits that offer optimum continuity and amazing cost savings.



Deep assessments: Capture valuable data and intelligence to help keep your HVAC/R system in optimum condition by tracking performance improvements.



Actionable insights: Maximize your opportunity to detect malfunctions before they become major problems that could result in costly repairs, shutdowns and shorter equipment lifespans.



Budget control: Lower unanticipated downtime and decrease emergencies to prevent unplanned expenditures and additional financing at potentially higher costs.



Asset utilization: Increase uptime and equipment availability to improve the productivity of your operations, thanks to proactive and advanced maintenance practices.



EHS and quality: Ensure your equipment operates at optimum running conditions and performs according to technical specifications (configuration settings) with more reliability.



Capital allocation: Lower your equipment’s capital consumption by implementing the right modernization solutions. This will lengthen the life of your equipment and improve parts management for onsite stock reduction.

When you take exceptional care of mission-critical infrastructure, it will take care of your business in the long term.

Invest and protect

Organizations can go to the next level in their performance trend goals by augmenting human expertise with the continuous innovations of AI and machine learning in the cloud. This provides easy-to-navigate integration and predictable performance.



Our tailored, tiered and flexible Planned Service Agreements for predictive maintenance make this possible – and all backed by our advanced OpenBlue platform.

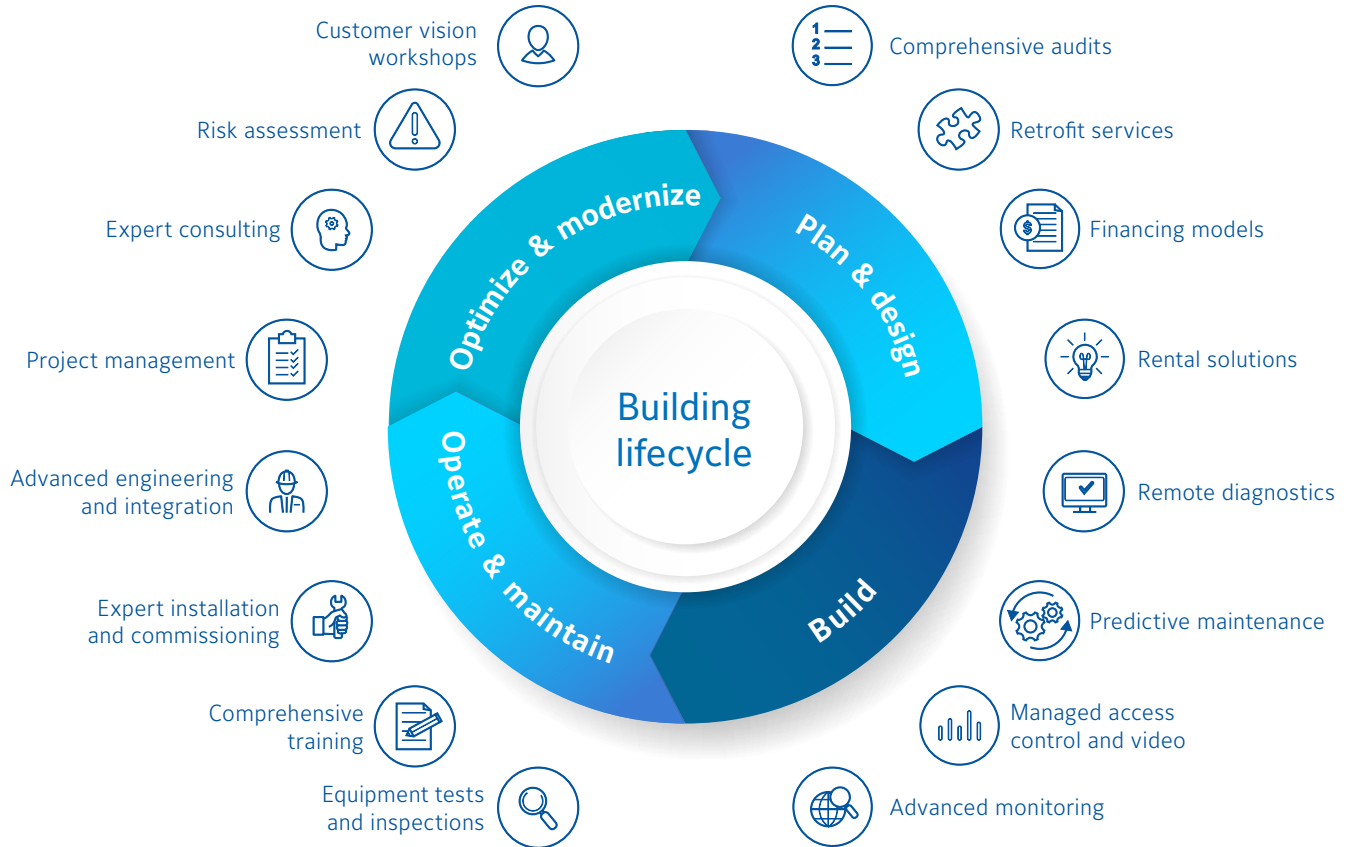


From onsite data collection to offline analytics to reporting and maintenance, Johnson Controls has your most valuable investments – and interests – fully covered.



Talk to us today to learn more about how our Advanced Vibration Evaluation diagnostic service can benefit your business.

Powering innovative and highly tailored service solutions across the full building life cycle



The Johnson Controls difference



Deep subject matter experts
Experienced service specialists available when you need them. Providing best-in-class service is in our DNA.



OpenBlue technology
OpenBlue AI technology empowers you to manage your operations more systematically for greater visibility, enhanced performance, proactive planning, and overall building optimization.



Tailored and flexible offerings
We offer scalable service options across a comprehensive range of HVAC, fire protection, and security services, delivering the services you want, the way you want them.

OpenBlue

OpenBlue is a complete suite of connected solutions that serves industries from workplaces to schools, hospitals to campuses, and beyond. This platform includes tailored, AI-infused service solutions such as remote diagnostics, predictive maintenance, compliance monitoring, advanced risk assessments, and more. A dynamic new space from Johnson Controls, OpenBlue is how buildings come alive.





johnsoncontrols.com

About Johnson Controls

At Johnson Controls, we transform the environments where people live, work, learn and play. From optimising building performance to improving safety and enhancing comfort, we drive the outcomes that matter most. We deliver our promise in industries such as healthcare, education, data centers, and manufacturing. With a global team of over 100,000 experts in more than 150 countries and over 135 years of innovation experience, we are the power behind our customers' mission. Our leading portfolio of building technology and solutions includes some of the most trusted names in the industry, such as Tyco®, YORK®, Metasys®, Ruskin®, Titus®, Frick®, PENN®, Sabroe®, Simplex® and Grinnell®.

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