Diesel Engine Condition & Performance Monitoring

Precision diagnostics, supporting informed decision-making and improved engine performance

Why it matters

Changes in engine condition are not always visible during normal operation. Gradual wear, performance deviations, and combustion irregularities can develop over time, affecting efficiency, fuel consumption, and overall reliability.

Through precise measurements and structured performance analysis, diesel engine condition monitoring provides insight into the engine's actual operating condition. This enables informed maintenance decisions, supports reliable operation, and helps reduce the risk of unplanned downtime while extending component lifetime.

Why partner with BWSC?

With decades of international experience and more than a century of Danish industrial and marine engineering heritage, we deliver practical technical insight backed by proven field experience and structured engineering support.

Our specialists combine advanced diagnostic tools with hands-on operational knowledge to assess engine condition, identify performance deviations, and support informed maintenance planning. Through accurate measurements and detailed analysis, we help customers gain a clearer understanding of their equipment's actual operating condition.

Beyond data collection and analysis, we provide operational training, ongoing technical support, and system updates, helping operators maintain reliable engine performance, improve maintenance planning, and support long-term operational efficiency.

Our solutions

We provide advanced diesel engine condition and performance monitoring solutions based on the Doctor DK-20 Analyser and Doctor V6 analysis software.

Doctor DK-20 analyser

The DK-20 integrates high-resolution sensing technology, enabling precise cylinder pressure acquisition and power calculation.

The system provides detailed insights on:

- Cylinder pressure curves
- Indicated power
- Combustion quality
- Fuel injection behavior
- Timing variations
- Power balance between cylinders
- Early signs of wear in rings, liners, and pumps

Engine parameters are preloaded into the instrument, allowing technicians to connect, move the sensor between cylinders, and initiate measurements efficiently. Results are displayed immediately and transferred directly to the Doctor V6 software for analysis.

Doctor V6 analysis software

Doctor V6 provides a structured and scalable analytical environment for single engines or entire fleets.

Capabilities include:

- Engine-by-engine or fleet-wide trend analysis
- Performance benchmarking
- Deviation detection
- Historical data migration
- Structured analytical workflow

The software is supplied with guidance material, tutorial files, and technical documentation. The software is not restricted to a single workstation, providing flexibility across operational teams.

A demonstration database is included for training purposes, and customized engine library setup is available for immediate deployment.

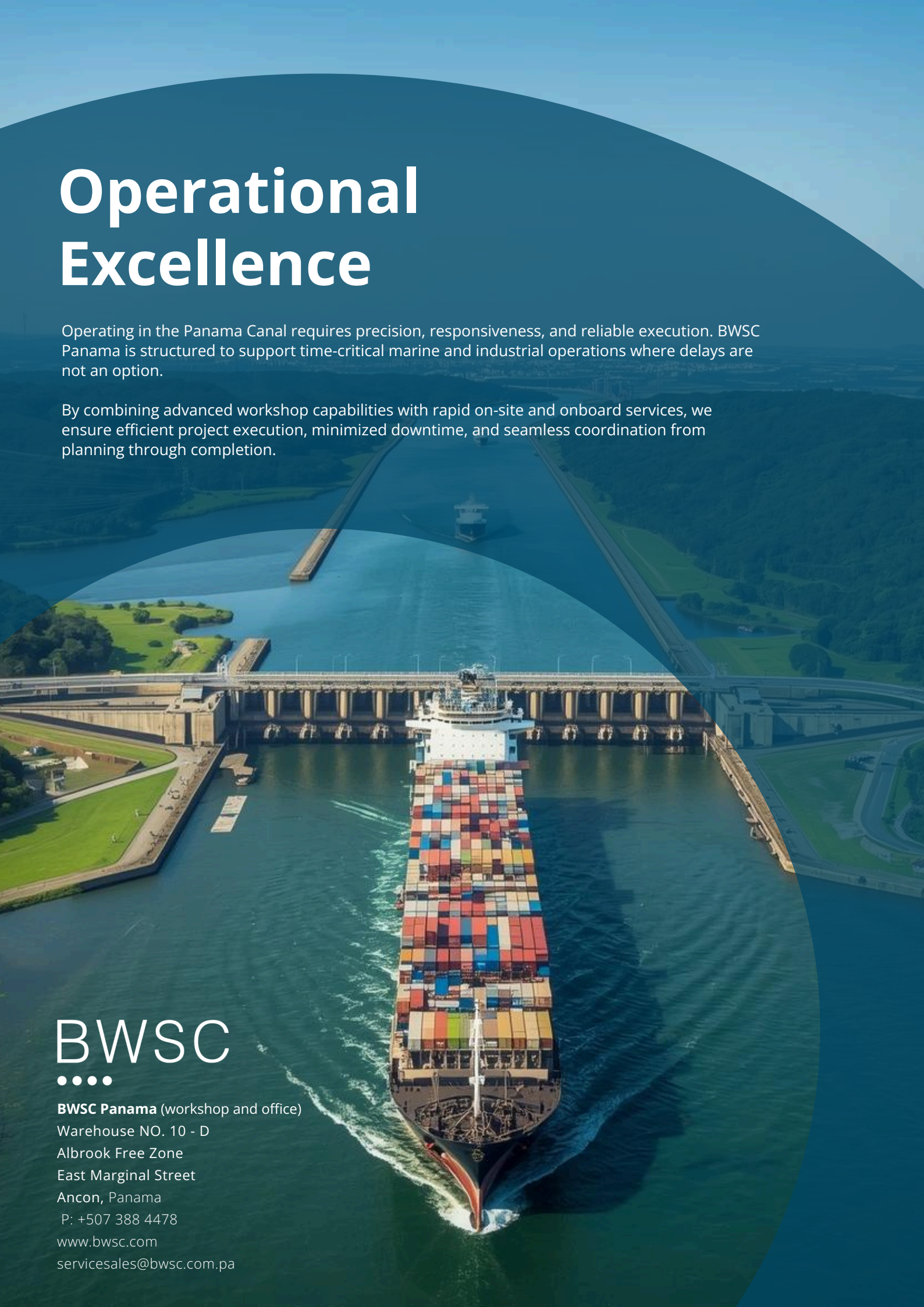
Commitment to high quality

Our certified technicians and engineers ensure precise integration, execution and full technical traceability throughout every stage of the process. Strategically located and backed by decades of technical expertise, BWSC Panama delivers fast, reliable support for demanding marine and industrial operations.

Operational Excellence

Operating in the Panama Canal requires precision, responsiveness, and reliable execution. BWSC Panama is structured to support time-critical marine and industrial operations where delays are not an option.

By combining advanced workshop capabilities with rapid on-site and onboard services, we ensure efficient project execution, minimized downtime, and seamless coordination from planning through completion.



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