SHAFTEST®

Improved Reliability for Critical Shafts and Pins

BUSINESS CHALLENGE

In-service failure of critical shafts can lead to significant downtime and asset damage that may pose a risk to the safety of personnel.

Shafts are often assessed for cracking using traditional ultrasonic inspection techniques. However, only a few highly skilled and experienced ultrasonic inspectors can confidently assess the structural integrity of a complex shaft in-situ.

SOLUTION

What Is ShafTest®?

ShafTest is a portable Ultrasonic (UT) flaw detection system designed specifically to improve current UT techniques for monitoring the condition of shafts and pins.

What are the key benefits?

- ShafTest detects cracking early, avoiding unexpected failures and allowing for more efficient maintenance planning.
- ShafTest only requires access to the end (s) of the shafts.
- ShafTest results can be completely analysed away from the test shaft, minimising potential access issues and downtime of equipment.
- ShafTest delivers major cost savings by maximising the service lifetime of shafts and pins and avoiding catastrophic failures.

WHY CHOOSE BUREAU VERITAS?

Recognition Founded in 1828, Bureau Veritas is a world leader specialising in conformity assessment services related to Quality, Health, Safety & Environment (QHSE). Certified to ISO 9001 for all of its activities globally, Bureau Veritas is well known for its ability to adapt to changing client environments and situations and for its commitment to providing leading solutions through quality service.

Knowledge & Expertise Through expert local teams and technical knowledge, Bureau Veritas are able to deliver packaged and targeted solutions and information, to support our clients' unique business requirements.

Network With a network of 900 locations, and over 40,000 employees in more than 140 countries, Bureau Veritas provides solutions to over 370,000 clients throughout the world across a diverse range of industries.

CLIENT **REFERENCES**

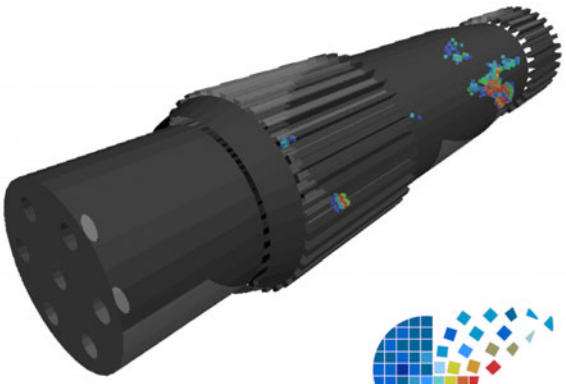
Bureau Veritas has earned the confidence of many leading companies including:

- BHP Billiton Mitsubishi Alliance
- Rio Tinto
- Xstrata
- Anglo Coal
- Newmont
- Newcrest
- RailCorp
- Roche
- Macquarie Generation

OUR APPROACH

ShafTest® collects a 3D ultrasonic signature of a shaft (V-scan). The 3D signature can be stored for later retrieval and analysis.

A cross-sectional view of the shaft can be viewed at any depth to provide a visual representation of any cracks or discontinuities. Importantly, cross-section views taken at different times can be directly compared and trended, allowing the technician to monitor and report on the progression of any cracks.



SHAFTEST®

FAQ – FREQUENTLY ASKED QUESTIONS

How long does a shaft survey typically take?

Survey times vary depending on the size and complexity of the shaft, however, a typical survey would take between 30 minutes and 2 hours.

Does the ShafTest technician need access to the entire shaft?

No. Only access to one end of the shaft is required, although access to both ends of the shaft will greatly improve confidence in the survey results.

Is there any benefit in surveying a new shaft before it goes into service?

Yes. A survey of all new shafts is recommended as this provides a clear baseline signature to compare all future results against.

RELATED **SERVICES**

In addition to ShafTest, Bureau Veritas offers a wide range of related services including:

- Phased Array Ultrasonics
- Dragline RollApath™ Integrity Surveying
- Automated Ultrasonic Systems
- Residual Stress Measurement with Stress Vision
- Time of Flight Diffraction Ultrasonics (TOFD)

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FOR MORE **INFORMATION**

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