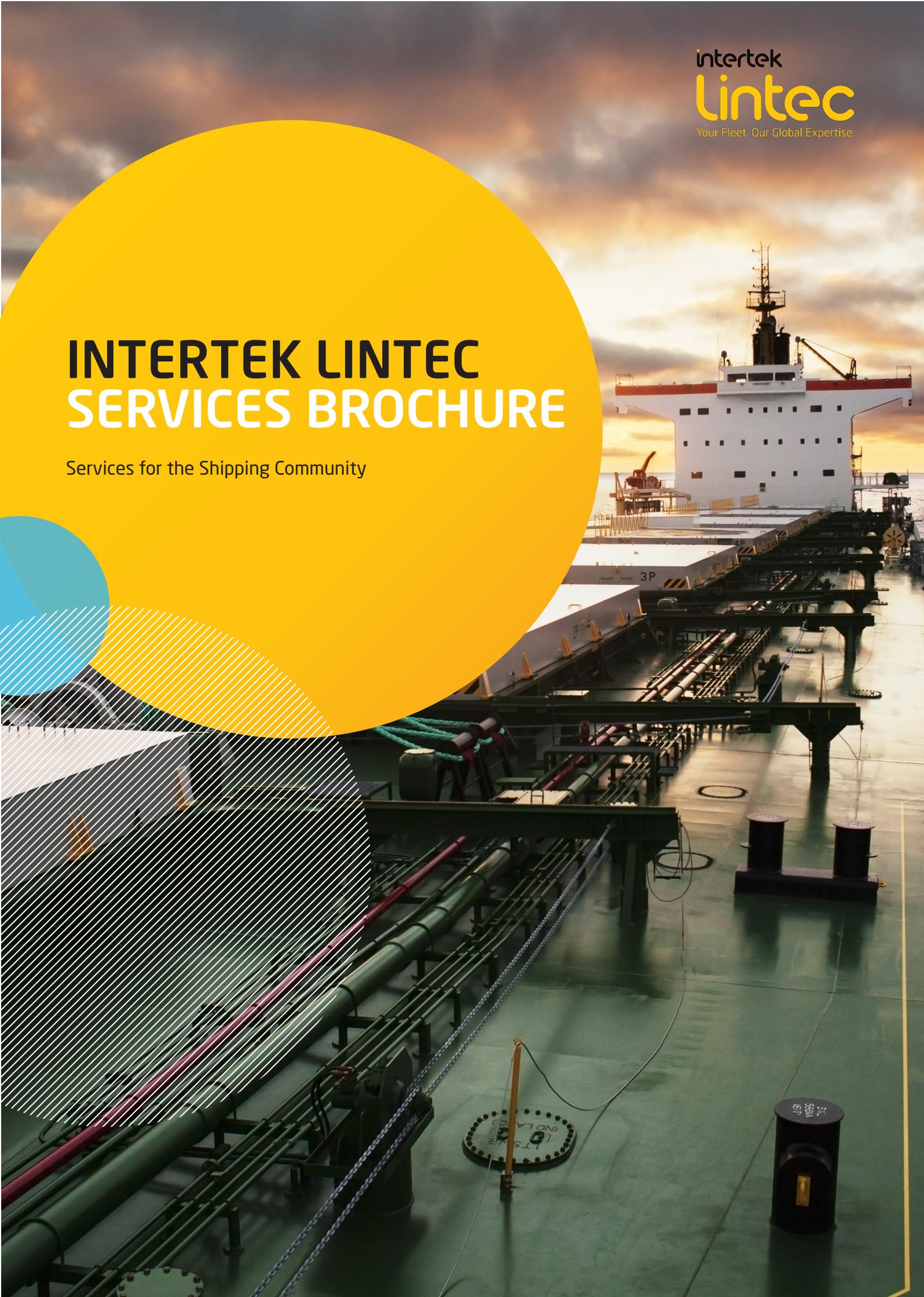


INTERTEK LINTEC SERVICES BROCHURE

Services for the Shipping Community



Intertek Lintec is the shipping community's gateway to Intertek's global network of state-of-the-art laboratory facilities and industry-leading technical **Total Quality Assurance** expertise.

Intertek is an industry leader with more than **44,000** employees in **1,000** locations in over **100** countries.



LABORATORY SERVICES FOR THE SHIPPING COMMUNITY

For more than 130 years, companies around the world have depended on Intertek to help ensure the quality and safety of their products, processes and systems.

Marine Fuel Quality Testing

Bunker fuel analysis is performed to **ISO 8217** specifications, helping clients comply with MARPOL Annex VI, the EU Sulphur directive, Emission Control Area (ECA) requirements and other legal and quality standards.

Intertek Lintec's Priority Advantage Desk (PAD) ensures the rapid expedition of samples to our laboratories, minimising the time taken from bunkering to reporting results of analysis. On receipt of samples in the Lintec laboratories testing and reporting is complete within 24 hours. Detailed reports of analysis, with full engineering comments, inform vessels of the quality of the fuel received and, in the event of any off-specification parameters, give recommendations for corrective treatment and fuel handling.

Intertek Lintec's constant monitoring of marine fuels enables identification of trends in bunker fuel quality, both worldwide and by region. Where and when extreme fuel quality problems are identified we issue Bunker Alerts to our clients.

Marine Fuel Chemical Screening & Forensic Investigation

Routine bunker fuel chemical screening can detect and identify many fuel contaminants and adulterants, protecting vessel machinery and client business interests. High-tech forensic investigation of bunker fuels, utilising techniques such as GCMS, FTIR, RSN and FIA, can uncover the cause of machine and system failures.

Bunker Quantity Surveys (BQS)

Bunker fuel is often the largest contributor to the operational cost of a ship and it's critical the purchaser ensures the correct amount of fuel is received, or has sufficient information to substantiate their claim in the event of any dispute.

As the physical transfer of fuel often takes place thousands of miles away from the contracting offices it is in the fuel buyer's interest to engage a surveyor for Quantity delivery and Quality sampling verification. Intertek Lintec's BQS services help protect buyers from fuel quantity delivery losses by measuring the bunker barge and the receiving vessel tanks before and after delivery. Bunker fuel measurement, sampling and testing, are conducted to accepted industry standards and accreditations, including **ISO 13739, SS600, TR48, ISO 17020, ISO 8217 and ISO 17025.**

Reported BQS results include a quantity delivered calculation based on density & water content testing. Detailed bunker survey and analytical fuel reports are provided, with operational photographs when requested and permitted. Intertek Lintec's network of laboratories and offices, covering close to 250 ports across 100 countries, allows us to offer ship owners and managers a comprehensive, independent global bunker quantity service.

Marine Lubricant Condition Monitoring

Lubricant analysis can help identify mechanical problems before they impact on machinery, thereby helping to avoid costly failures and reduce unplanned downtime and repairs.

Oil Condition Monitoring (OCM) is an important component to a vessel's maintenance programme. Intertek Lintec's OCM programme trends & tracks changes in engine lubricant quality, providing early warnings of impending problems and helping protect expensive equipment from damage. Reports include tribology and engineering interpretation of the lubricant test data and provide our clients with a comprehensive report on the condition of the lubricating oil and the operational health of their machinery.

Water and effluent testing

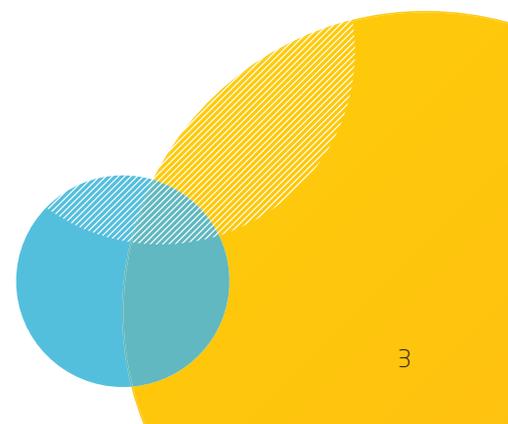
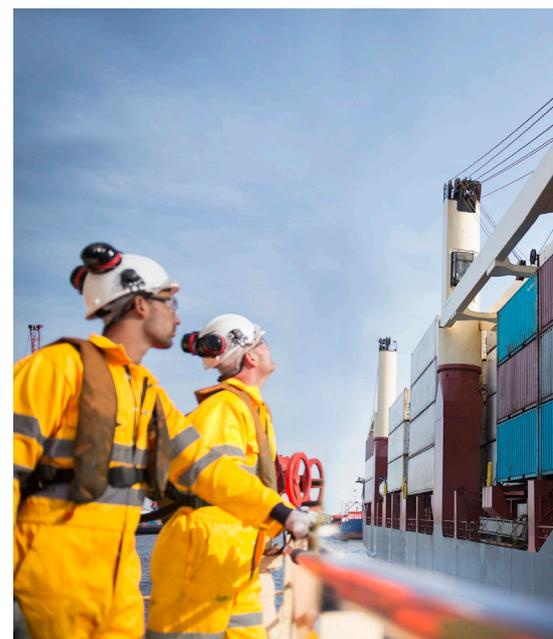
Ship owners, operators and managers are under increasing pressure to check and monitor Ballast Water, Potable Water, Bilge Water and Effluent Discharge etc. Intertek Lintec's water analysis laboratory network is ready to provide water quality, trace analysis and contamination testing to support client water management programmes.

Fire Foam Testing

Most international safety organisations require annual testing of fire foam concentrates. Intertek Lintec provides firefighting foam testing for marine-based low, medium and high expansion foam fire-fighting products.

Other

Intertek provides technical field inspection services and materials and product testing and analysis on a global scale. With expertise in marine, oil & gas, chemicals, and many other industries, Intertek provides effective solutions to help clients meet and overcome a wide range of challenges.





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