JFTS’ capabilities

Unrivalled experience in structural monitoring and specialist testing solutions.
JFTS’ capabilities

James Fisher Testing Services (JFTS) provides a range of inspection, testing and monitoring services, and specialist equipment, that ensures compliance and productivity objectives are met. JFTS is involved throughout the asset life-cycle; from site enabling works through to construction, operations and decommissioning.

Materials testing capabilities

JFTS’ highly skilled team has significant experience in delivering material testing solutions, site testing and assurance services through their UKAS accredited laboratories in the UK and Ireland, on-site UKAS laboratories under their flexible scope of accreditation and ISO17025 quality control system accredited by UKAS.

Some examples of JFTS’ capabilities include:

Soils and aggregates
- Grading
- Optimum moisture content (OMC)
- Constituents
- Shear box
- 6F2 and appendix 5/1 schedules
- Waste acceptance criteria (WAC) testing

Fresh and hardened concrete
- Beam flexural strength
- Compressive strength
- Tensile splitting strength
- Water absorption

In situ testing
- Fresh concrete sampling
- Plate/California bearing ratio (CBR) testing
- Nuclear density gauge (NDG)
- Site and materials sampling
- Dynamic cone penetrometer (DCP) testing

Pavement testing
- Falling weight deflectometer (FWD) and heavy weight deflectometer (HWD)
- Coring
- Dynamic cone penetrometer (DCP)
- Laying records
- Nuclear density gauge (NDG)

Foundations testing
- Integrity testing (TDR)
- Dynamic pile testing (SIMBAT)
- Static load testing (ASLT and BDSLT)
- Sonic logging
- Parallel seismic testing
- Zone testing

Structural inspection and intrusive survey
- Concrete condition surveys of structures
- Post tensioned bridge of structures
- Reinforcement mapping of structures
- Visual condition and delamination surveys
- Half-cell potential surveys (including contour plotting)
- Diamond coring and compressive strength
- Ultrasonic pulse velocity testing
- Pull-off and pull-out testing
- Fire damage assessments
Structural health monitoring and asset management solutions

Fully integrated into the life management of any structural asset, JFTS’ Smart Asset Management System (SAMS™) provides the ultimate solution for convenient and reliable structural health monitoring (SHM) of a wide range of small to large infrastructure assets including bridges, buildings, railways, tunnels and wind turbines.

The system’s software capabilities include real-time data handling with online analytical processing tools from which users can run queries, perform analysis and produce reports, including health indices for risk based maintenance planning.

Designed with a focus on speed to action management, JFTS’ SAMS™ software continuously calculates and streams dynamic information about your asset, in real-time. SAMS™ provides the ultimate solution for the move between raw data and insight driven actions – allowing you to acquire, analyse and act on intelligence, quickly and with confidence.

JFTS’ monitoring services deliver key benefits, including:

- Quality data provides the opportunity to predict failure and plan maintenance, reducing costs and minimising downtime while increasing structural safety
- Allows faster response to operational conditions
- Optimised operations and maintenance strategies
- Translates large data sets into clear, actionable insight in a variety of formats including moving graphics, 3D models, integrated maps, graphs, reports and alerts
- Integration of all data streams into single information platform
- Automated reporting, trigger levels and alarms configured to user requirements

BridgeStrike and overheight warning

There are around 2,000 bridge strikes per year. The JFTS BridgeStrike system automatically alerts bridge owners to make rapid decision making for immediate risk mitigation and enables cost recovery against offending vehicles’ owners. This can be integrated with an overheight warning system to give drivers warning that their vehicle is too high.

Environmental monitoring

The requirement to monitor and report on the environmental impact of site activity is increasingly mandated in permits and local authority regulations (for example Section 61). JFTS offers a full range of environmental monitoring solutions to monitor noise, dust, wind and vibration. JFTS offers a simple, quality, end-to-end service enabling our customers to comply with planning requirements. The system includes bespoke real-time alerts and reporting.

Assurance and compliance testing

JFTS offers a complete testing service for a wide range of products and environments, including: sports stadia, venues, public spaces, commercial and industrial properties. As part of initial construction or regular inspection regime, their testing services provide reassurance that products conform to the appropriate regulatory standards.

Applications include:

- Balustrades
- Car park/vehicle containment barriers
- Crowd control and crush barriers
- Forklift barriers
- Hand rails
- Perimeter walls
- Commercial shelving and display unit testing
- Scaffolding and ladders
- Proof load testing
- Floors and concrete slab load tests
Case studies

Crossrail

JFTS worked across the western section of the Crossrail project to provide materials testing, structural investigation, foundation testing and monitoring.

JFTS successfully worked with a range contractors on multiple sites to play a part in the construction of this prestigious project.

Normandy bridges

JFTS, in partnership with the civil engineering consultants COWI, has designed and installed integrated SHM solutions on three bridges in Normandy; The Pont de Normandie, Pont Tancarville and Viaduc du Grand Canal.

A key element to the updated solution was JFTS’ SAMS™ platform, which produces intelligent insight through ‘data fusion’ in contrast with unintegrated data from multiple sources. The automated reporting feature delivers the client monthly updates with a concise summary, empowering users to make quick, data-based decisions on the structural health of their assets.

Global reach

With a network of laboratories throughout the UK and Ireland and by leveraging the group’s global connections, JFTS is well placed to support your specialist testing needs, whatever the location.

As part of the James Fisher and Sons plc group of companies, JFTS benefits from access to a wide, complimentary service offering for its customers worldwide including: North America, South America, Africa, Europe, Asia and Australasia.
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