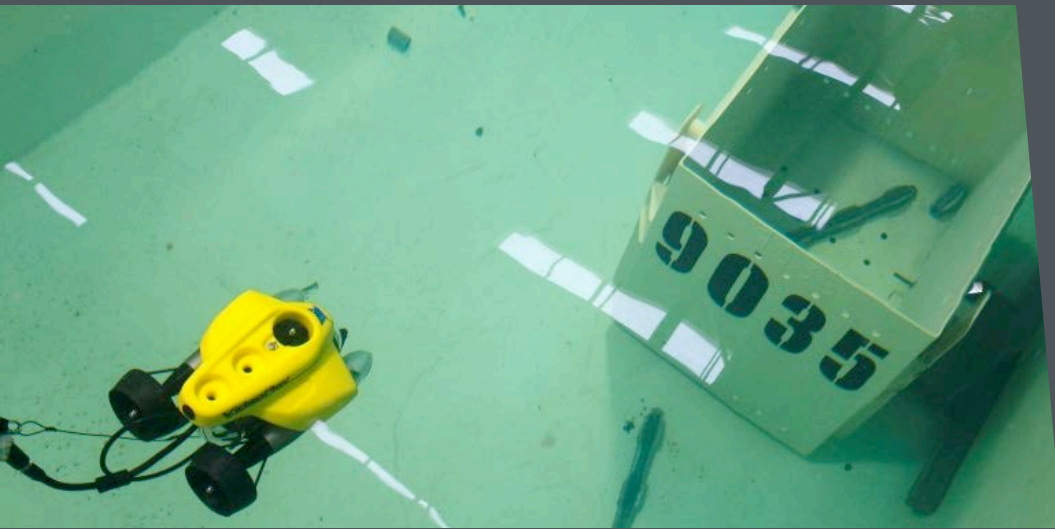


James Fisher
Technologies



Innovative solutions for high integrity & hazardous industries



Who we are

James Fisher Technologies is an established supplier of remote solutions, specialty engineering, manufacturing, and technical services for applications within challenging environments or with high integrity requirements.

James Fisher Technologies (JFT)'s vision is to create a safer tomorrow by enabling customers with valuable and innovative solutions that ensure the safety of their workforce and enable the successful completion of operations and projects in challenging environments.

With headquarters in Colorado, JFT provides a centralized US location to service the North American customer base. As the US distributor of James Fisher Nuclear and James Fisher Prolec, JFT it is able to provide our clients with direct access to a vast network of innovative technologies from the James Fisher group companies.





What we do

James Fisher Technologies provides high quality, innovative equipment and services to help our customers solve some of the world's most difficult tasks.

We serve the following hazardous and high integrity industries:

Nuclear



Defense



Hazardous



Aerospace



Our capabilities



James Fisher offers an extensive range of expertise, products and services to customers demanding the highest standards of quality, reliability and safety for operations in hazardous environments.

Across the nuclear and the other high integrity industries we serve, we tailor our specialty skills and engineering capabilities to the precise needs of our customers, delivering solutions that meet or exceed the regulatory quality and safety standards.

By leveraging our own substantial resources together with those of the James Fisher and Sons group and its high-quality international supply chain, we can deliver projects from concept through to manufacture, installation, commissioning; as well as provide operational support.

The products and services we provide include:

Manipulators & ROVs

Engineering & manufacturing

Modular containerized systems

Characterization & inspection

Remediation and project services

Electrical distribution



Manipulators & ROVs

Hazardous environments demand robust tooling. James Fisher's manipulators and ROVs allow you to successfully perform the task at hand by providing the right tool for the job. Whether we are providing an off the shelf solution or a custom manipulator, we utilize mature technologies and a rigorous design and manufacturing process to deliver a quality remote product to the field.



Moduman 100 – Heavy duty construction • Modular design • Six degrees of freedom • Radiation hardened materials • External, remote valve pack • Simple hydraulic system • Various control system options • Numerous mounting arrangements • Will fit through a 10-5/8" penetration • Hydraulic fluid options • Smooth profile to aid decontamination • Sealed IP68 rated • 220lb payload throughout whole range of movement • Remotely removable/replaceable jaws

Long Reach Manipulators – Carbon fiber construction • Simple design • Standard joint designs • Slim profile • Used for tank cleaning or confined space applications • Various control system options • Hydraulic fluid options • Smooth profile to aid decontamination • Standard design provides 13' reach 110lb payload throughout whole range of movement • Tool change system allows for various tooling options

Remotely Operated Vehicles – Underwater Unmanned Vehicles • Unmanned Ground Vehicles • Integration of manipulator systems • Design of specialized tooling • Deployment of characterization and inspection systems • Fuel pool inspections



Modular containerized systems

When worker safety or environmental protection calls for a contamination barrier or temporary safety function, James Fisher answers with an economical and efficient solution. By utilizing our modularized containment systems, our clients can substantially reduce their capital costs and mobilization schedules by installing one of our modular containment systems.

Breathing Air Systems – Mobile/Modular Construction • Supplies up to four masks simultaneously • Packaged in a "mini-container" to reduce footprint • Certified in accordance to ATEX for zoned applications • Designed and manufactured per NORSOK, DNV standards

Mobile Change Rooms – Change room and access control and monitoring • Two ISO Container Design • Fitted with radiation protection systems • Security rated access

Mobile Ventilation Plant – Mobile/Modular Construction • Safe change filtration stations • Maintenance facilities • Allows for in-line sampling • Optional access and monitoring facilities

Modular Waste Packaging/Processing – Mobile/Modular Construction • Shielded if needed • Variety of containerized waste forms • Receipt/inventory of waste • Waste segregation • Size reduction • Waste packaging • Bulk waste transfer • Final waste package inspection • Liquid waste treatment



Remediation and project services



The most important element of every project is the team, and James Fisher is proud to support our customers' teams with our talented resources. James Fisher helps our customers by providing our remote specialists, engineers, and project professionals. We will always stand behind our products by providing the technical and operational support needed to make the project successful.

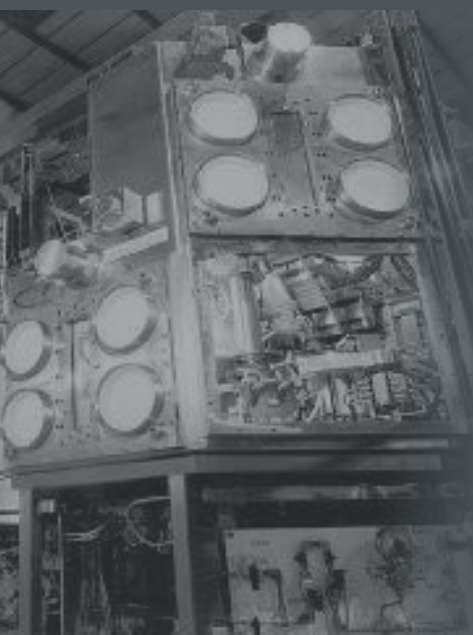
Reactor/Facility Decommissioning – Initial project definition and planning • Specification of remote tooling • Vessel and internals segmentation • Size reduction capabilities • ROV operators • Manipulator technicians • Waste processing and packaging

Tank Cleaning – Deployment of long reach tooling and manipulators • Sludge retrieval • ROV operators • Manipulator technicians • Solid and liquid waste processing and packaging

Waste Packaging – Hot cell services • Waste retrieval • Waste segregation • Waste characterization • Solid and liquid waste processing and packaging

Engineering/Professional Support – Project management support • Project engineering • Safety case and licensing support • Research and development support

High integrity design/build services



Whether the need is a glovebox housing sensitive materials or an advanced material handling system, James Fisher aims to be your supplier of choice. James Fisher is an established supplier of high integrity engineering and manufacturing services with a mature design/build process that has delivered time and again for customers with mission critical component needs.

Engineering Services – Feasibility studies • Concept to detail design • Specification development • PE stamping • Multi-disciplined design teams: mechanical, EC&I, structural, process engineers • Seismic analysis • In depth analysis group: NASTRAN, STAAD, ALGOR, ANSYS, MATLAB, MATHCAD • Inventor, Unigraphics NX, Solidworks, Catia

Manufacturing Capabilities – CNC machining • EFACS planning system • Disciplined AWS welding program • Mechanical assembly • Controls assembly

Testing/Trialing – Full testing capability: bench, technology readiness levels, leak testing, functional testing • Operator training • Full scale testing facilities including 48' under-hook test rig and underwater capabilities

Commercial Grade Dedication Services – NQA-1 oversight of commercial vendors • Disciplined welding program • Seismic design services • Sacrificial component testing • Material analysis





Characterization & inspection

The first step to solving a challenging problem is to understand it. James Fisher provides the tools needed to characterize, inspect, and monitor critical components in hazardous environments. We employ experts in non-destructive testing methods and deploy them to our customers' sites to aid in their most difficult projects.

Non-Destructive Examination – Conventional techniques: ultrasonic, eddy current testing • Specialized methods: Time of Flight Diffraction and high resolution ultrasonic imaging • Tube testing services: remote visual, IRIS ultrasonic & eddy current methods • Technique development • Inspection planning

Laser Scans – 3D scan imported into video or CAD package • Detailed survey from a distance • Complex structures modeled quickly • Simple tripod deployment

Sonar Scans – Used to measure the level and distribution of sediment • Sludge depth pattern mapping in tanks and pools • Profiling to identify buried material • Positioning of embeds for plant structures • Verification of pumping and agitation performance

Visual Inspections – Tank inspections (both exterior and interior) • Pipe and tube inspections • Fuel pool inspections • Hot cell inspections

Electrical distribution equipment

James Fisher recognizes that the nuclear environment spans a wide variety of plants and facilities, from background radiation and minimal contamination to highly active waste handling facilities. For those facilities with high radiation environments, we provide high quality connectors, junction boxes, sensors, and other couplers.

Radiation Tolerant Connectors – For use with manipulators in remote environments • 23mm to 40mm diameter with up to 41 contacts • Stainless steel construction • Waterproof to IP66 • Tolerance of 10^6 MRads • Rectangular connectors

Radiation Tolerant Distribution Equipment and Sensors – For use with manipulators in remote environments • Proximity Sensors • Stainless steel construction • Waterproof to IP66

Junction Boxes and Couplers – For use with manipulators in remote environments • Floor mounted couplers • Stainless steel construction • Waterproof to IP66 • Tolerance of 1000 MRads • Junction Boxes • Non-compliant connectors



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