



Launch and Processing Infrastructure

Engineering Designed for Success



SPACE COAST ENGINEERING & SCIENCES GROUP

KBR provides full lifecycle engineering services, scientific analysis, mission operations, and information technology services. Uniquely qualified to support the increasing commercialization of space as well as developing hydrogen-based energy infrastructure.

FORWARD-LOOKING CONCEPTS, FABRICATION, TEST AND ANALYSIS TO ENSURE MISSION SUCCESS AT ALL STAGES OF THE DESIGN LIFECYCLE

With more than 30 years of design engineering experience, KBR's team of engineers provide complete design lifecycle services, including requirements development, concept creation, detail designs, computer-aided design (CAD) models and drawings, fabrication, analysis packages, and verification and validation for launch infrastructure needs. Our subject matter experts have extensive knowledge in fluids, thermal, structural and systems engineering as well as aerospace ground system development for both government and commercial launch service providers.

AREAS OF EXPERTISE

Subject Matter Expertise:

- Pressure Vessel Design and Certification
- Cryogenic Technology Specification and Procurement
- Computer Aided Drafting, Design and Modeling
- Piping Design and Analysis
- Finite Element Analysis
- Fluid Process Analysis

Fluids/Thermal Systems Expertise:

- Computational Fluid Dynamics
- Cryogenics (Propellants and Fuel Cells)
- Hydraulic, Pneumatics and Thermal Systems
- Hazardous Gas Detection Systems
- Environmental Control Systems
- Environmental Cooling Launch Support Systems
- Hypergolics

Mechanism & Structures Engineering Expertise:

- Specialized Mechanisms and Tools
- Launch Mast Structures/Transport Erectors
- Aerospace Umbilicals
- Handling and Access Equipment
- Access Stands
- Swing Arms
- Payload Handling
- Electromechanical Devices

Analytic Expertise:

- Structural and Mechanical Systems Analysis (Fatigue, Kinematics, Dynamic, Thermal and Fluids)
- Technical Analysis
- Steady and Transient Analysis
- PVS Analysis and Report Development
- Oxygen Compatibility Assessments (OCA)



HYDROGEN

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Why KBR?

KBR offers innovative design and analysis experience as well as expertise designing, building and delivering critical propellant transfer systems and ground support equipment subsystems for both the space and energy industries. Additionally, KBR engineers develop experimental and numerical simulations of jet and launch duct acoustics, design, testing and development of single and multi-phase flow systems.

KBR implements engineering and analysis services early in the design phase to identify potential failure points to reduce project risks. As part of this process, KBR engineers assist with materials selection, constructability, and maintainability with a focus on minimizing costs while ensuring products meet all code and performance requirements.

KBR is committed to hardware integrity and personal safety. This experience affords KBR's customers an advantage in solutioning and completing engineering tasks on schedule and at a competitive cost.

NEXT STEPS

Let's talk about your engineering design projects and how KBR can help you achieve them.

Contact us to learn more and schedule a consultation with Don Jennings at Donald.jennings@us.kbr.com

ABOUT US

We deliver science, technology and engineering solutions to governments and companies around the world. KBR employs approximately 29,000 people worldwide with customers in more than 80 countries and operations in 40 countries.

KBR is proud to work with its customers across the globe to provide technology, value-added services, and long-term operations and maintenance services to ensure consistent delivery with predictable results. At KBR, We are the *Team Behind the Mission*.