



## **SENIOR PRODUCT AND PROCESS ENGINEER Job Description**

**Job Type:** Full Time  
**Rate of pay:** Compensation is based on relevant experience and qualifications.

We are actively seeking an experienced Senior Engineer to lead new aftermarket aircraft brakes and other friction and non-friction high temperature material processing and production.

### **Company Description**

BAM, Inc. is in Knoxville, TN, situated in the foothills of the Smoky Mountains by the Department of Energy's Oak Ridge National Lab and the University of Tennessee. BAM was founded in the 1980s as American Furnace and later became North American Advanced Materials. In 1995, the company was acquired and became Bethlehem Advanced Materials, which was eventually shortened to BAM. Today, BAM is owned by the Loar Group, a talented publicly traded operating company owning multiple business units in the aviation industry.

BAM is a leading provider of advanced materials for high-temperature applications. BAM provides carbonization, graphitization, pyrolysis, chemical vapor infiltration, and other high-temperature processing services for customers who are manufacturers of carbon and graphite structures, composites, powders, and fibers, as well as manufacturers of non-oxide ceramics such as silicon carbide, silicon nitride, boron nitride, boron carbide, or other advanced ceramic materials. We also produce brakes for aircraft and high-end automotive applications. Our proprietary technology and state-of-the-art high-temperature furnace systems enable us to deliver the highest quality and most reliable solutions for our customers. At BAM, we take pride in our commitment to material science, innovation, quality, and customer satisfaction. Our primary markets are Aircraft, Defense & Space, Automotive, Semiconductor, and Energy.

BAM has a seasoned engineering and operations team. BAM utilizes 100,000 square feet of facilities in a 24/7/365 environment. Our team understands the operational safety issues and methods necessary to operate at ultra-high temperatures, including the effective treatment and destruction of various exhaust species. We are proud of our ISO 9001:2015 and AS9100 Rev D certifications. We are always on the look-out for potential candidates who share our passion for advanced materials and how we can help you achieve your professional goals.

### **Purpose of the Job:**

BAM is developing carbon/carbon brakes to serve the aircraft aftermarket. This candidate will be responsible for brake development, engineering, qualification, and testing. The candidate will be responsible for understanding and ensuring processes and products comply to customer, environmental, quality, and safety standards and codes as well as company policy and procedures. The candidate will also be involved and may lead processing of products for Space, Automotive, Industrial or Military applications based on experience and opportunity.

### **Essential Job Skills:**

- Design and development experience with Carbon-Carbon material to produce friction materials; Aircraft Brake manufacturing experience preferred.
- Knowledge and expertise testing composite materials.
- Ability to convert customer specifications into material requirements and product properties.



- Troubleshooting and failure analysis for composites.
- Support improvement and optimization of manufacturing processes. Practical knowledge of pyrolysis, carbonization, graphitization, heat treatment, Carbon Vaporization Infiltration (CVI), and other related processes.
- Provide meaningful recommendations on equipment and process effects on cost, quality, and yield.
- Analyze and compile results from data.
- Ability to work with cross-functional Quality, Commercial, Engineering and Operation Teams to achieve success.

### **Qualifications**

- Bachelor's degree in Material Science, Mechanical Engineering, Chemical Engineering, or a related discipline is required. An advanced degree is preferred given the depth of technical knowledge essential for success in this position.
- Experience working at a Brake OEM or Carbon-Composite Manufacturer.
- Experience with an AS9100, ISO 9001 or similar quality system.
- Must be a U.S. citizen or Permanent Resident.

### **Physical Requirements**

- May occasionally lift 10 to 20 pounds.
- Frequently stand and walk, as necessary, to perform analysis within the plant.
- Occasionally required to climb ladders to equipment platforms.
- Frequently, stoop, kneel, or crouch to collect equipment information.
- Awareness of production equipment hazards and the proper procedures to work safely within a thermal processing facility.

### **Benefits (full-time employees only)**

Eligible 1<sup>st</sup> of the month following hire date.

- Health insurance
- Dental insurance
- Vision insurance
- Life, STD, LTD
- 401k plan with company match
- Paid time off
- Parental leave

Drug screening and background check required.

Work Location – 10536 Lexington Drive, Knoxville, TN 37932

*EOE AA M/F/Vet/Disability  
TN Drug Free Workplace*

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