

SUBCRITICAL SYSTEMS · JOB OPPORTUNITY

Head / Director of Manufacturing



Department	Operations	Posted	September 29, 2026
Location	Austin, TX	Employment	Full Time

ABOUT SUBCRITICAL SYSTEMS

Subcritical Systems, Inc. is a venture-backed startup in Austin, Texas building the accelerator driven systems and the only US commercial manufacturer of accelerator cavities. What Space X did for rockets, we plan to do for accelerator cavities and commercialize across applications of power production, medical isotopes, semiconductors and waste transmutation.

We are in the process of building the Energy Amplifier — a novel nuclear fission system in which a particle accelerator drives a subcritical core, making meltdown physically impossible for clean power production. Due to its inherent safety, our system has a more streamlined licensing process. Our founding team includes successful entrepreneurs with a track record of building several multibillion dollar companies in deep-tech, and scientists who were leading U.S. National labs with deep experience in accelerator & nuclear technologies.

We are actively hiring to expand our team as we work toward licensing, regulatory submissions, and construction of our first energy amplifier. More information is available at subcritical.com.

ROLE SUMMARY

The Head (or Director) of Manufacturing will lead the development, scale-up, and operation of Subcritical Systems' superconducting RF (SRF) cavity manufacturing capability. The role will transform prototype and low-volume production into a standardized, process-driven manufacturing operation capable of supporting commercial deployment of accelerator systems.

This individual will establish manufacturing strategy, implement lean and automation-first processes, including the deployment of ATLAS, Subcritical's AI-assisted platform for carrying validated engineering designs into production, and build a high-performing production organization focused on quality, throughput, and continuous improvement. The priority is rapid scale-up of qualified hardware production, with clear accountability for manufacturing readiness, yield, delivery, and cost.

KEY RESPONSIBILITIES

- Develop scalable manufacturing processes for niobium preparation, cavity fabrication, welding, surface treatment, assembly, inspection, and testing.
- Transition manufacturing from prototype development to repeatable, production-ready workflows through controlled design transfer, process qualification, and clear acceptance criteria, with validated designs and specifications integrated into ATLAS.
- Build and lead multidisciplinary manufacturing, process engineering, production, and quality teams.
- Drive manufacturing automation, digital work instructions, Manufacturing Execution System (MES) integration, and data-driven production metrics.
- Establish production planning, scheduling, capacity planning, inventory control, and supply chain coordination.
- Implement Lean Manufacturing, Six Sigma, and continuous improvement methodologies to improve throughput, yield, and cost.
- Ensure compliance with quality, safety, and regulatory standards while maintaining rigorous process documentation and material and product traceability.
- Partner closely with engineering, accelerator physics, procurement, quality, and construction teams to support rapid deployment of manufacturing capability.
- Own manufacturing KPIs including safety, quality, yield, cycle time, on-time delivery, and cost.

QUALIFICATIONS

Required

- BS/MS in Mechanical, Manufacturing, Industrial, Materials, Aerospace, or a related engineering discipline.
- 10+ years leading advanced manufacturing organizations, preferably in precision engineering, aerospace, semiconductor, medical devices, superconducting technologies, or accelerator systems.
- Demonstrated experience scaling manufacturing operations from prototype through commercial production.
- Strong background in precision fabrication, process engineering, automation, quality systems, and production management.
- Experience implementing Lean Manufacturing and continuous improvement initiatives.
- Proven ability to build, mentor, and lead high-performing technical teams.
- Excellent communication and cross-functional leadership skills.

Preferred

- Experience with superconducting RF cavities, accelerator systems, ultra-high vacuum assemblies, precision welding (EBW/TIG), cryogenic hardware, or high-purity materials.
- Familiarity with niobium processing, electropolishing, cleanroom assembly, RF testing, and advanced metrology.
- Experience deploying Manufacturing Execution Systems (MES), digital manufacturing, robotics, or AI-enabled production platforms such as ATLAS.
- Previous experience supporting first-of-a-kind (FOAK) industrial or nuclear technology programs.

BENEFITS

Benefits: We offer health, dental, and vision insurance.

LOCATION & WORK POLICY

This role is fully in person in Austin, Texas. Our facility is located next to Austin Airport.

HOW TO APPLY

Apply on LinkedIn or submit your resume and a brief cover letter to careers@subcritical.com with the subject line "Head/Director of Manufacturing - Application". Applications are reviewed on a rolling basis.