# Dossier: BIG METAL ADDITIVE LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,699,214.00

**Award Date:** 2023-02-24

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Big Metal Additive (BMA) is a US-based manufacturing company specializing in large-format, metal additive manufacturing (AM) solutions. Their primary business involves providing contract manufacturing services using Wire Arc Additive Manufacturing (WAAM) technology, creating near-net-shape metal parts, and offering specialized AM equipment to other manufacturers. Their core mission is to disrupt traditional manufacturing processes by providing cost-effective, time-efficient, and sustainable solutions for producing large-scale metal components primarily for the aerospace, defense, and energy sectors. BMA's unique value proposition lies in its ability to produce significantly larger metal parts than traditional powder-bed fusion AM technologies, enabling the rapid prototyping and manufacturing of complex geometries with reduced material waste and lead times, and a focus on utilizing a variety of metals, including titanium, aluminum, steel, and nickel-based alloys.

**Technology Focus:**

* Wire Arc Additive Manufacturing (WAAM):\*\* BMA utilizes WAAM, a Directed Energy Deposition (DED) process, to build large-scale metal parts by depositing molten metal wire layer by layer. They specifically use advanced robotic systems and sophisticated process control to ensure precise material deposition and structural integrity.
* Multi-Axis Printing Capabilities:\*\* Their systems offer multi-axis printing allowing for the creation of highly complex geometries and minimizing the need for support structures. They also offer hybrid manufacturing by combining WAAM with subtractive machining using integrated CNC systems.

**Recent Developments & Traction:**

* Partnership with Supersonic Aerospace International (SAI) (Announced Dec 2023):\*\* BMA is working with SAI to manufacture structural titanium components for the Quiet Supersonic Transport (QSST) demonstrator aircraft. This partnership highlights BMA's focus on aerospace applications of its technology.
* Series A Funding (Information Unavailable):\*\* While specific details regarding funding rounds for BIG METAL ADDITIVE LLC could not be found through publicly available information, it is expected that companies in this sector pursue funding to increase manufacturing capacity and R&D efforts. It is reasonable to assume that BMA either has or will seek funding.
* Expansion of Materials Portfolio:\*\* BMA continues to expand the range of materials compatible with its WAAM processes, focusing on alloys commonly used in aerospace and defense applications, such as Inconel and titanium alloys.

**Leadership & Team:**

Specific leadership information beyond general indications of a leadership team is not readily available from public sources. Further investigation into their LinkedIn profiles or industry news would be required to ascertain detailed team information.

**Competitive Landscape:**

* Sciaky, Inc.:\*\* Sciaky is a well-established player in the WAAM space, offering similar large-format metal AM capabilities. BMA differentiates itself through focusing on specific niche applications within the aerospace and defense sector, and emphasizing its cost-effectiveness and rapid prototyping capabilities.

**Sources:**

1. [https://www.supersonicaerospace.com/post/supersonic-aerospace-international-announces-big-metal-additive-as-manufacturing-partner-for-qsst](https://www.supersonicaerospace.com/post/supersonic-aerospace-international-announces-big-metal-additive-as-manufacturing-partner-for-qsst)

2. [https://www.linkedin.com/company/big-metal-additive-llc/](https://www.linkedin.com/company/big-metal-additive-llc/) (Used for general company information, although limited details available)

3. Industry news articles relating to WAAM and metal additive manufacturing in general. (Due to the limited available information specifically on Big Metal Additive, broader industry news was consulted to understand the overall context and potential competitive advantages).