# Dossier: Continuous Composites Inc.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,899,999.00

**Award Date:** 2024-08-28

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Continuous Composites Inc. is a manufacturer and technology company specializing in composite 3D printing utilizing its patented Continuous Fiber 3D Printing (CF3D®) process. The company aims to revolutionize composite manufacturing by enabling the automated production of complex, high-performance composite structures with unprecedented design freedom, speed, and cost efficiency. They address the limitations of traditional composite manufacturing methods, such as high labor costs, long lead times, and design constraints, by offering a scalable, automated additive manufacturing solution for industries ranging from aerospace and defense to infrastructure and automotive. Their unique value proposition centers on the ability to combine continuous fiber reinforcement with tailored resin systems, allowing for the creation of parts with optimized strength-to-weight ratios and customized material properties, all while reducing waste and enabling on-demand production.

**Technology Focus:**

* Continuous Fiber 3D Printing (CF3D®):\*\* A patented composite 3D printing process that combines continuous fiber reinforcement (e.g., carbon fiber, fiberglass) with thermoset resins. This enables the creation of complex, load-bearing composite structures without the need for molds or tooling.
* Tunable Hybrid Composites:\*\* CF3D allows for selective material placement and anisotropic properties within a single part. Different resins and fiber orientations can be combined to tailor the mechanical properties of the structure for optimal performance.

**Recent Developments & Traction:**

* Advanced Manufacturing Technology (ManTech) Program Award (2022):\*\* Continuous Composites was selected by the U.S. Air Force Research Laboratory (AFRL) to automate structural composite aerostructure manufacturing for increased performance and reduced costs. The specific award amount was not publicly disclosed, but it represents a significant validation of their technology by the DoD.
* Partnership with Siemens (Announced 2020, ongoing development):\*\* Collaboration to integrate CF3D technology with Siemens' automation and digital technologies to accelerate the adoption of composite 3D printing in industrial applications. This partnership focused on process control, simulation, and digital twin development.
* Expansion of facility (2022, announced):\*\* Announced that it was expanding its facility in Coeur d'Alene, Idaho to meet growing demand.

**Leadership & Team:**

* Tyler Alvarado (CEO):\*\* Experienced in entrepreneurship and business development, with a background in engineering and material science.
* John Swallow (CTO):\*\* Previously at Alcoa, specializing in advanced materials.

**Competitive Landscape:**

* Impossible Objects:\*\* Another company focused on composite 3D printing, but using a different technology involving sheet lamination of carbon fiber and polymer powder. Continuous Composites differentiates itself with its continuous fiber approach and focus on tailored resin systems.
* Arevo:\*\* Another competitor in continuous fiber 3D printing, utilizing robotic deposition of carbon fiber filaments. Continuous Composites offers a different process with unique material and design capabilities.

**Sources:**

1. [https://continuouscomposites.com/](https://continuouscomposites.com/)

2. [https://www.afresearchlab.com/](https://www.afresearchlab.com/) (Search Continuous Composites)

3. [https://www.siemens.com/global/en.html](https://www.siemens.com/global/en.html) (Search Continuous Composites)