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FOR IMMEDIATE RELEASE

Sciaky, Inc. to Deliver World's Largest Metal Electron Beam DED 3D Printer, a Customized EBAM® 300 Series Additive Manufacturing System, to Turkish Aerospace Industries (TAI)

The high-deposition EBAM machine will 3D print titanium aerostructures 6 meters (nearly 20 feet) in length

CHICAGO, IL – [Sciaky, Inc.](#), a subsidiary of [Phillips Service Industries, Inc. \(PSI\)](#) and leading supplier of industrial metal 3D printing solutions, announced today that it will deliver the world's largest electron beam directed energy deposition (DED) 3D printer, a customized 300 Series [Electron Beam Additive Manufacturing \(EBAM®\)](#) System, to [Turkish Aerospace Industries \(TAI\)](#). The contract between TAI and Sciaky also includes collaboration on a series of projects aimed at optimizing TAI's use of the EBAM machine and its technology.

The EBAM machine is going to TAI's Ankara, Turkey plant, where it will 3D print some of the largest titanium aerostructures in the industry. The machine's work envelope stretches beyond 6 meters in length by 2 meters in width by 1.8 meters in height. Deposition rates will exceed 20 kg of metal per hour for many metal alloys. On top of the impressive technical specifications, this unique 3D printer can quickly switch over to an Electron Beam Welder (EBW) for large-scale welding applications. TAI will also have the advantage of combining EB welding and 3D printing functionality for applications that require both technologies.

Launched under the Ministry of Industry and Technology in 1973 to reduce Turkey's foreign dependence in the defense industry, Turkish Aerospace has embraced innovation for nearly five decades. Beginning with the decision to use F-16 aircraft for the Turkish Air Force in 1984, Turkish Aerospace formed TAI, a Turkish-U.S. joint investment company, to carry out the manufacturing of F-16 aircraft, including the integration of on-board systems and flight tests. In 2005, Turkish Aerospace restructured to expand its overall capabilities, becoming Turkey's technology center for the development, modernization, manufacturing, system integration and lifecycle support of its aviation and space programs.

"Sciaky's EBAM systems are the most widely sold, large-scale DED metal 3D printers in the world, having approved parts on land, sea, air, and space applications," said Scott Phillips, President of Sciaky, Inc. "We applaud TAI's vision for innovation and their ambitious plans to 3D print some of the largest titanium aerostructures in the world."

As the most widely scalable metal additive manufacturing solution in the industry (in terms of work envelope), Sciaky's EBAM systems can produce parts ranging from 8 inches (203 mm) to 20 feet (> 6 meters) in length. EBAM is also the fastest deposition process in the metal additive manufacturing market, with gross deposition



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rates ranging from seven to 25 lbs. (3.18 to 11.34 kg) of metal per hour. EBAM brings quality and control together with **IRISS**[®] – the Interlayer Real-time Imaging and Sensing System, which is the only real-time adaptive control system in the metal 3D printing market that can sense and digitally self-adjust metal deposition with precision and repeatability. This innovative closed-loop control is the primary reason that Sciaky's EBAM 3D printing process delivers consistent part geometry, mechanical properties, microstructure, and metal chemistry, from the first part to the last.

Delivery details for this multi-purpose EBAM system are still being finalized.

For more information about Turkish Aerospace Industries (TAI), visit <https://www.tusas.com/en>.

For more information on Sciaky, visit <https://www.sciaky.com>. You can also follow Sciaky on [Twitter](#), [Facebook](#), [YouTube](#) and [LinkedIn](#).

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About Sciaky, Inc.

Sciaky, Inc., a subsidiary of Phillips Service Industries, is a world leader in metal 3D printing technology and EB (electron beam) welding solutions. Our exclusive Electron Beam Additive Manufacturing (EBAM[®]) process is the fastest, most cost-effective 3D printing process in the market for large-scale metal parts, allowing manufacturers to save significant time and money over traditional manufacturing and rapid prototyping processes. Sciaky's industry-leading EB welding systems and job shop services meet rigid military specifications to manufacture items such as airframes, landing gear, jet engines, guided missiles and vehicle parts.

About Phillips Service Industries, Inc.

Established in 1967, Phillips Service Industries, Inc. (PSI) is a privately held global manufacturing and services holding company, which oversees a diverse collection of innovative subsidiaries: PSI Repair Services, Inc., PSI Semicon Services, and Sciaky, Inc. Our companies serve a wide range of high-tech industries like aerospace, defense, automotive, alternative energy, semiconductor and transportation. Together, we push the boundaries of technology, delivering innovative solutions for land, sea, air and space. We're PSI: Always innovating. Everywhere.™