

New Arcam Cad-to-Metal System from Stratasys Produces Larger Parts

Direct Digital Manufacturing System Includes Two Build Chambers, Giving Users Choice of High or Wide Build Chambers

MINNEAPOLIS -- (BUSINESS WIRE) --

(NASDAQ:SSYS) Stratasys today introduced in North America the Arcam A2 direct digital manufacturing and prototyping system, which allows the production of metal parts 75 percent larger than previous models.

The A2 comes with two interchangeable build chambers. Users can choose between either a high or wide build chamber, depending on each part's requirements. The high build chamber measures $200 \times 200 \times 350 \text{ mm}$ (7.87 x 7.87 x 13.78 in.). The wide chamber is cylindrically shaped with a diameter of 300 mm and height of 200 mm (11.81 x 7.87 in.).

Improving electron-beam control, the A2 incorporates an all new high-voltage power supply, as well as an advanced heat model, which improves build speed, precision, and part accuracy. A new software version provides useful features such as automatic calibration, which eliminates potential for human error and results in optimal part accuracy.

"This new generation of additive fabrication technology -- the EBM process -- is gaining acceptance worldwide," says Stratasys CEO Scott Crump. "And it has been catching on particularly well in the market for medical implant manufacturing." EBM systems are employed both for custom implants and for series production of standard implants, enhanced with new features that can be achieved only with direct digital manufacturing.

"Producing solid metal parts ready for end use is changing the game for manufacturers worldwide," says Stratasys EBM channel manager Kirby Quirk. "With the addition of the new A2 to our portfolio of prototyping and direct digital manufacturing systems, we're giving companies the tools they require to stay competitive in an evolving manufacturing landscape."

Materials offered for EBM systems include F-75 Cobalt Chrome; Ti6AI4V Titanium, the most widely used titanium alloy; and Ti6AI4V ELI Titanium, which features improved ductility and fracture resistance at low temperatures.

The Arcam A2 will be available for shipment in May.

Stratasys is the exclusive North American distributor for Arcam EBM (Electron Beam Melting) systems.

EBM technology, patented by Arcam AB, produces solid metal parts through a patented

CAD to Metal(R) process. Parts are built in layers of metal powder, each of which is melted by an electron beam to the geometry defined by the CAD file. Because this process occurs in a high vacuum, parts are completely solid, without imperfections caused by oxidation. The time, cost and challenges of machining or investment casting are eliminated, which makes alloy parts readily available for functional testing or installation. EBM systems manufacture fully dense parts from metal alloys 3-to-5 times faster than other metal additive fabrication systems.

The EBM process is ideal for applications where high strength or high temperatures are required. Medical product manufacturers can benefit from the parts' high flexural strength for bone implants requiring cycle life exceeding 10 million cycles (or movements). Automobile makers can build strong parts for high temperature testing, including under-the-hood applications. The aerospace industry can benefit from the combination of a high strength yet lightweight metal part. And because the EBM process produces a homogenous solid, parts can be flight-certified.

Stratasys Inc., Minneapolis, makes rapid prototyping and direct digital manufacturing systems. Stratasys equipment is used in industries such as aerospace, automotive, defense, medical, and consumer products. In 2005, the company installed 34 percent of all systems sold worldwide, making it the unit market leader for the fourth consecutive year, according to Wohlers Report 2006. Stratasys patented the rapid prototyping process known as fused deposition modeling (FDM(R)). The process creates prototypes or parts for end use directly from any 3D CAD program using plastics, such as ABS, polycarbonate, PPSF or other materials. The company holds 180 granted or pending global prototyping patents. In addition to manufacturing products, Stratasys is the exclusive North American distributor of Arcam EBM systems that manufacture prototypes or parts from metal . On the Web: www.Stratasys.com

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