

Fabrication Additive

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A la Une

HOW ONE MANUFACTURER IS REDUCING PRODUCTION TIME AND CUTTING COSTS WITH 3D PRINTING

12/04/2018 - www.engineering.com

) By bringing tooling production in-house with AM, Jabil's Auburn Hill's facility not only reduced its lead time from months to weeks—or even days—but it also gained the ability to produce tooling based on customers' CAD models prior to receiving the actual parts, giving the facility a head start on production. On the whole, the Auburn Hills facility reports upwards of 30 percent reductions in the cost of tooling and an 80 percent decrease in production time for tools and fixtures.

Généralités

NEWS ROUNDUP: BASF'S NEW MATERIALS, ABU DHABI'S 3D PRINTING INITIATIVE, 3DBEAR, 3D CERAM-SINTO, PRODWAYS

09/04/2018 - www.3ders.org

This is another of the U.A.E's long-term 3D printing plans, of which the Dubai 3D Printing Strategy is a major part. A double machine order like this is a sign of Prodways' increasing reputation in the global 3D printing field, with its technology proving particularly valuable in the dental sector. Prodways released the new ProMaker LD-10 3D printer back in 2017 in order to target the growth of the dental market, in particular that section which requires industrial machines for less than 100,000 Euros.

AUTOMATED 3D PRINTING: HOW INDUSTRIAL ADDITIVE MANUFACTURING IS EVOLVING

10/04/2018 - www.engineering.com



The solution is made up of several modules, including Printer Modules for fabricating parts; Removable Print Modules (RPMs) for transporting powder to printers and parts from printers; Powder Management Modules for de-powdering parts on the build platforms before recycling unused powder for future print jobs; and Transport Modules that move RPMs between the printer and powder modules.

CONCEPTION

- LINK3D brings blockchain technology to Additive Manufacturing

TECHNOLOGIES

- Tecnun Upgrade Composite Part Production with Stratasys Tech

MATERIAUX

- EOS Expands Range of Materials by Offering EU Distribution
- Olaf Diegel 3D prints eye-catching BLING3D aluminium bracelets
- Duke's new 3D printed metamaterial can perfectly redirect and reflect soundwaves
- News – Stratasys lance un thermoplastique haute-performance, Antero 800NA
- The detail of Fillamentum's glitter PLA and flawless 3D prints
- Singapore researchers enhance ductility and toughness of metal 3D printed parts with creative SLM approach

MARKET / BUSINESS

- Inside Stratasys Metal 3D Printing Spin-Off Vulcan Labs
- BigRep and Etihad to define aerospace additive manufacturing roadmap
- Interview: Hitch3DPrint founder Alex Liu on becoming the 'Uber' of metal 3D printing

EVENEMENTS / ETUDES

- At the edge of new forms of matter, 4D Printing and Meta Materials
- Latest AMUG 2018 releases PostProcess, BASF, Optomec
- Wi3DP publishes Diversity for Additive Manufacturing #Q1 2018 Report
- HP showcases full-scale MJF 3D printing production solutions at AMUG

REGLEMENTATION / BREVETS

- America Makes and ANSI call for input on final additive manufacturing roadmap

NEWS ROUNDUP: SIEMENS 3D PRINTED TURBINE PARTS, 3MF CONSORTIUM RELEASES 3D LATTICE EXTENSION, RENISHAW, POLYU, PRODWAYS

12/04/2018 - www.3ders.org

Technology giant Siemens has reached a major milestone for the additive manufacturing world, completing the first 3D printed parts for an industrial steam turbine. The 3D printing project was a major collaborative effort, with participation from Siemens engineers in Germany and India, as well as in Sweden, where the company operates its main Additive Manufacturing center of expertise. Following this, a Renishaw AM250 metal 3D printer will be used to fabricate the removable partial dentures (RPDs).

Aérospatial

ORBITAL ATK SUCCESSFULLY TESTS PARTIALLY 3D PRINTED WARHEAD FOR HYPERSONIC WEAPONS

10/04/2018 - www.3ders.org

Global aerospace leader Orbital ATK has recently carried out a successful test on a new warhead for hypersonic weapons, and the warhead was made primarily using 3D printing technology. Pat Nolan, vice president and general manager of Orbital ATK's missile products division, told Defense News : "We're coupling our rocket motor hypersonic experience with our warhead design experience to design a warhead that can survive at high speeds, high temperatures, when you're going that fast."

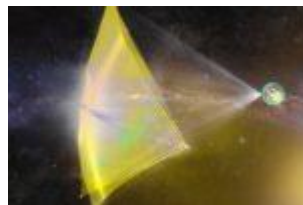
FINNAIR A320 AIRCRAFT UPGRADED BY PASSENGER-FRIENDLY 3D PRINTING

10/04/2018 - 3dprintingindustry.com

In a routine upgrade, the airline has installed the cabin with 3D printed spacer panels. (A 3D printed space panel as used on the Finnair A320. (Painting the 3D printed spacer panels. In September 2017, the Airbus A350 XWB aircraft became the first in-service aircraft to receive a metal 3D printed titanium part. Stay abreast of 3D printing in aerospace by subscribe to the 3D Printing Industry newsletter, follow us on Twitter , and like us on Facebook. Vote now for aerospace application of the year and more in the 2018 3D Printing Industry Awards.

LOW-COST SPACE EXPLORATION ENABLED BY CORNELL UNIVERSITY'S 3D PRINTED SATELLITES

10/04/2018 - 3dprintingindustry.com



Space Systems Design Studio (SSDS), a lab in Cornell University's Sibley School of Mechanical and Aerospace Engineering , is 3D printing small satellites for space exploration as part of NASA's CubeSat Launch Initiative. (The Alpha CubeSat, developed by SSDS. The PAN team has used a combination of 3D printing and commercially available parts to construct the CubeSat body and propulsion. Subscribe to the 3D Printing Industry newsletter , follow us on Twitter and like us on Facebook. Featured image shows a Conceptual render of Alpha CubeSat's light-sail.

RELATIVITY SPACE RAISES \$35 MILLION TO FURTHER FIRST 3D PRINTED ROCKET ON MARS

11/04/2018 - 3dprintingindustry.com

The Stargate from space exploration technology startup Relativity Space is in development to be "the

largest metal 3D printer in the world. "It all goes back to the original business plan thesis, as part of what Relativity said is its difference: designing a rocket from first principle as 3D printed. By using the Stargate metal 3D printer, components in the Aeon engine alone have been consolidated into 100 parts from the 2,700 typically found in engines of this size. (The Stargate 3D printer at Relativity Space HQ.

AIRBUS INSTALLS FIRST VISIBLE 3D PRINTED PART IN FINNAIR A320 PASSENGER CABIN

12/04/2018 - www.3ders.org

This particular 3D printed spacer panel will be used to fill a gap at the end of a row of overhead storage compartments. Some other 3D printing firsts for Airbus from last year include an additively-manufactured titanium bracket and a 3D printed hydraulic component. The company's metal AM subsidiary APWorks has also worked on creating a lighter partition for its aircraft interiors using 3D printing technology and an advanced alloy known as Scalmetal, and this is the world's largest 3D printed metal aircraft part.

ADDITIVE METAL MANUFACTURING MATURING RAPIDLY

10/04/2018 - www.mro-network.com

MRO Americas brought to you by (Boeing Unveils New Analytics, MRO Capabilities.jpg) Boeing Maintenance, Repair & Overhaul Boeing Unveils New Analytics, MRO Capabilities Aircraft manufacturer announces new products and services across its services portfolio. The first is a data-focused capability called Self-Service Analytics by Boeing AnalytX, which allows subscribing customers of Boeing's Airplane Health Management, Flight Planning, Fuel Dashboard and In-Service Data Program to access applications' data through analytics tools from this month.

Conception

LINK3D BRINGS BLOCKCHAIN TECHNOLOGY TO ADDITIVE MANUFACTURING

09/04/2018 - www.metal-am.com

(LINK3D brings blockchain technology to 3D printing) Digital Factory's autopricing feature is one of several elements to benefit from LINK3D's integration of blockchain technology (Courtesy LINK3D). LINK3D, New York City, New York, USA, reports that it has integrated blockchain technology into its Digital Factory software for Additive Manufacturing. Through the ongoing development of Digital Factory, LINK3D stated that it has found that a digital thread is crucial for the mass adoption of Additive Manufacturing.

Technologies

TECNUN UPGRADE COMPOSITE PART PRODUCTION WITH STRATASYS TECH

13/04/2018 - omnexus.specialchem.com

(3D printed mold for intake manifold produced in just five hours with Stratasys____ Fortus 450mc Production 3D Printer, compared to three weeks using conventional aluminum molds) 3D printed mold for intake manifold produced in just five hours with Stratasys' Fortus 450mc Production 3D Printer, compared to three weeks using conventional aluminum molds Complex Part Production Down from Three Weeks to Five Hours Using FDM Sacrificial Tooling Javier Aperribay said: "Using Stratasys FDM sacrificial tooling allows us to make the intake manifold from carbon fiber instead of heavier, less efficient...

Matériaux

EOS EXPANDS RANGE OF MATERIALS BY OFFERING EU DISTRIBUTION

05/04/2018 - omnexus.specialchem.com

ALM HP 11-30: Carbon fiber-reinforced Polyamide 11 Material - ALM HP 11-30's specially integrated carbon fibers give it high strength, impact resistance, and an increased elongation at break for a fiber-reinforced material. ALM PA 640-GSL: Polyamide 12 Material Filled with Hollow Glass Microspheres and Carbon Fibers - ALM PA 640-GSL is a polyamide 12 material filled with lightweight glass microspheres, providing practically the same properties as a normal glass filled polyamide, but with substantially reduced weight (component density: 0.82g/cm³).

OLAF DIEGEL 3D PRINTS EYE-CATCHING BLING3D ALUMINIUM BRACELETS

10/04/2018 - www.3ders.org

A Swedish designer has been gradually building up an impressive range of 3D printed guitars over the last few years, and his latest project sees him branching out a little into the world of 3D printed jewellery. A number of challenges present themselves during the metal 3D printing process. Post-processing was the longest part of the 3D printing process, as Diegel needed to get the bracelets up to a wearable standard for metal jewellery.

DUKE'S NEW 3D PRINTED METAMATERIAL CAN PERFECTLY REDIRECT AND REFLECT SOUNDWAVES

11/04/2018 - www.3ders.org

A group of researchers at Duke University have made use of 3D printing to create a device that can control the redirection of soundwaves with an unprecedented level of efficiency. Alteration of the width of the channels between rows, and the size of the cavities inside each individual column, allowed the researchers to precisely manipulate sound waves.

NEWS – STRATASYS LANCE UN THERMOPLASTIQUE HAUTE-PERFORMANCE, ANTERO 800NA

12/04/2018 - www.a3dm-magazine.fr

L'Antero 800NA devrait pouvoir être utilisé avec l'imprimante 3D Fortus 450mc Production de Stratasys au deuxième trimestre 2018 et disponible pour l'imprimante 3D Fortus 900mc Production au quatrième trimestre de la même année. Les utilisateurs de Fortus 450mc avec le pack de matériaux haute performance pourront utiliser l'Antero 800NA sans frais de licence supplémentaires.

THE DETAIL OF FILLAMENTUM'S GLITTER PLA AND FLAWLESS 3D PRINTS

12/04/2018 - 3dprintingindustry.com

Vertigo Grey, Vertigo Galaxy, Rapunzel Silver, Noble Blue, Pearl Ruby Red, gives an as-printed quality to objects made using FFF/FDM techniques that is otherwise unmatched with standard PLA. In a filament guide of Vertigo Galaxy for 3D Maker Noob (3DMN), Joe comments, "True to form with every Vertigo filament that I have printed with so far, the layers lay down absolutely beautiful."

SINGAPORE RESEARCHERS ENHANCE DUCTILITY AND TOUGHNESS OF METAL 3D PRINTED PARTS WITH CREATIVE SLM APPROACH

12/04/2018 - www.3ders.org

The results of this study were outlined in a paper entitled 'Simultaneously enhanced strength and

ductility for 3D-printed stainless steel 316L by selective laser melting', in the journal NPG Asia Materials. When deformation forces are applied to a SLM 3D printed part, there are two different mechanisms by which the crystallographic texture can deform. Their work points the way forward for SLM 3D printing techniques to be improved, with in-process engineering according to the study's recommendations.

Market / Business

INSIDE STRATASYS METAL 3D PRINTING SPIN-OFF VULCAN LABS

12/04/2018 - www.engineering.com

Recently, 3D printing stalwart Stratasys spun off not one, but two companies. Some of the Vulcan team was brought into Stratasys through the 2014 acquisition of 3D-printing service bureau Harvest Technologies, which was bought alongside service bureau Solid Concepts. Inside Stratasys, Leigh's team continued its work on these PBF technologies until it was decided that it strategically made more sense for the company to spin off Vulcan Labs as its own entity.

BIGREP AND ETIHAD TO DEFINE AEROSPACE ADDITIVE MANUFACTURING ROADMAP

12/04/2018 - 3dprintingindustry.com

Large scale industrial additive manufacturing 3D printer provider BigRep is teaming up with Etihad Airways Engineering to develop an additive manufacturing roadmap for the aerospace industry. Bernhard Randerath, Vice President of Engineering, Design & Innovation at Etihad Airways Engineering, comments, "Etihad Airways Engineering and BigRep share a vision to bring the 3D-printed cabin into production, together with our partners,".

INTERVIEW: HITCH3DPRINT FOUNDER ALEX LIU ON BECOMING THE 'UBER' OF METAL 3D PRINTING

11/04/2018 - www.3ders.org

Alex Liu: Hitch3DPrint is a platform that provides individuals and companies with easy access to the high-tech precision 3D metal printing via a novel concept where users are able to "hitch" any of the metal printers located globally in the same way one would hitch a car ride. 3Ders: Who is Hitch3DPrint aimed at, and why might a customer want to hitch a metal 3D print rather than go through a traditional 3D printing service bureau?

Evènements / études

AT THE EDGE OF NEW FORMS OF MATTER, 4D PRINTING AND META MATERIALS

05/04/2018 - www.4dpmconference.com

A l'occasion de la 5ème édition du Hacking Health Camp (HHC), professionnels de santé et acteurs d'e-santé se sont succédé pour partager leur vision du secteur avec un dénominateur commun: remettre le patient au centre du processus de soin et d'innovation.

LATEST AMUG 2018 RELEASES POSTPROCESS, BASF, OPTOMECH

10/04/2018 - 3dprintingindustry.com

This week, 3D Printing Industry is reporting live from the 2018 Additive Manufacturing Users Group (AMUG) conference in St. Louis, Missouri (appropriately abbreviated as STL). A hybrid system for subtractive (CNC) and LENS-based additive manufacturing technology is highlighted at Optomec's AMUG 2018 stand, alongside 5 axis Aerosol Jet technology for 3D printed electronics. HP's demonstration of full-

scale Multi Jet Fusion 3D printing for series production can be found here.

WI3DP PUBLISHES DIVERSITY FOR ADDITIVE MANUFACTURING #Q1 2018 REPORT

06/04/2018 - 3dprintingindustry.com

It is a well known and well documented fact that the 3D printing industry, and manufacturing in general suffers from an employee skills gap. Set up by 2018 3D Printing Industry Advocate of the Year Nominee Nora Touré, Women in 3D Printing (Wi3DP) seeks to promote, support and inspire one such group that is underrepresented within additive manufacturing. (Advantages of gender balance from a 2015 report on Women in the Tech industry. Decide the technologies and innovations of the year in the 2018 3D Printing Industry Awards here.

HP SHOWCASES FULL-SCALE MJF 3D PRINTING PRODUCTION SOLUTIONS AT AMUG

09/04/2018 - 3dprintingindustry.com

At the 2018 Additive Manufacturing Users Group (AMUG) conference in St. Louis, HP has made a statement about the future of 3D printing and its role in series production. 3D manufacturer Forecast 3D is upgrading its fleet of 12 HP 3D printers with the HP Jet Fusion 3D 4210 model. As a proof of concept, at present 50% of custom plastic parts inside the Jet Fusion 4200 can be 3D printed using Multi Jet Fusion technology.

Réglementation / Brevets

AMERICA MAKES AND ANSI CALL FOR INPUT ON FINAL ADDITIVE MANUFACTURING ROADMAP

09/04/2018 - 3dprintingindustry.com

Above a year after Version 1.0 , America Makes and the American National Standards Institute (ANSI) have released a preliminary final draft of the AMSC Standardization Roadmap for Additive Manufacturing. Preliminary Final Draft Standardization Roadmap for Additive Manufacturing Version 2.0 can be read online here. America Makes – The National Additive Manufacturing Innovation Institute. For more industry insights sign up to the 3D Printing Industry newsletter, follow us on Twitter , and like us on Facebook.

Service Information Numérique - Pôle IES

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