

Powder Metallurgy Day

Tuesday, April 10, 2018, 13:00, Forum

Generative production processes for metal and ceramics -technologies and applications

Organizer: Powder Metallurgy Trade Association (FPM), Hagen

The powder of the future

With the top-class symposium, ceramitec and the German Powder Metallurgy Trade Association (FPM) dedicate a complete theme day to the generative production processes. New technical developments and applications make powder metallurgy an interesting key technology which will change entire industry sectors. In our exciting presentation series, you will learn what industries will benefit from the advancements and what applications can be realized already today.

The powder metallurgy's potential in differing industries

The advancements in powder metallurgy sets new standards: powder bed-based procedures increase the productivity, bring huge advantages in the scaling of components sizes, offer a greater variety of materials and facilitate process monitoring. This opens unexpected perspectives in medical and energy engineering as well as in automotive engineering. We invite you to discuss this innovative potential with our experts.

A new raw material. The areas of application in powder metallurgy

New techniques to manufacture powders and to qualify and standardize different powder-based processes make powder an independent raw material. The new qualities of titanium and titanium alloys, nickel-base alloys, high melting point materials and hard metal allow for a wide range of new applications. Many prototypical components demonstrate this technology's potential and how generative manufacturing increasingly find its way into production.

In the spotlight. Chances of powder metallurgy

The symposium will devote special attention to the generative manufacturing of metal and ceramics, the aspects of construction, the material, the processes and to the post-processing.

Program

13:00 Welcome

Gerhard Gerritzen (Messe München, Deputy Managing Director)

13:05 Introduction

Prof. Dr.-Ing. Bernd Kieback (Fraunhofer IFAM Dresden)

Organization

Hans Kolaska (member of the Executive Committee of FPM)

Moderation

Dr.-Ing. Thomas Weissgärber (Fraunhofer IFAM Dresden)

Talks:

13:15 Additive manufacturing - technology overview for metal and ceramics

Prof. Dr.-Ing. Franz-Josef Villmer, Ostwestfalen-Lippe University

13:35 Possibilities in Additive Manufacturing of Ceramic Components

Dr. Tassilo Moritz, Fraunhofer IKTS, Dresden

13:55 Production of complex, large-volume ceramic components by means of powder-bedbased additive manufacturing

Dr. Philipp Gingter, Schunk Ingenieurkeramik GmbH

14:15 Electron beam melting – innovative material solutions and component developments

Dipl.-Ing. Marie Jurisch, Fraunhofer IFAM Dresden

14:35 Design and construction for additive manufacturing

Dr. rer. nat. Burghardt Klöden, Fraunhofer IFAM Dresden

14:55 Final machining of additively manufactured aircraft components made of titanium

Dr. Matthias Lange, Premium Aerotec GmbH

15:15 Additive Manufacturing – Characterization of high-temperature materials for aircraft engines

Dr. Daniel Greitemeier, MTU München

15:35 Production of metallic green bodies by means of Fused Filament Fabrication (FFF)

Dipl.-Ing. Sebastian Riecker, Fraunhofer IFAM Dresden

15:55 Digital Metal@Technology – an overview

Dipl.-Ing. Mats Persson, Digital Metals (Sweden)

16:15 Exentis Mass Customization® 3D Screenprint Technology for Mass Production and free choice of materials

Dr. Srdan Vasic, Exentis Group

16:35 End of the event
