



Workshop 272

**PARTICLE & PROCESS DESIGN
ACROSS INDUSTRIES
(ENGLISH)**

December 1 – 3, 2026



BACKGROUND

Particle engineering focuses on designing particle properties to achieve targeted product performance.

This workshop introduces key technologies such as spray drying, granulation, coating and particle functionalisation, and explains how they influence particle structure and functionality.

Through expert lectures, case studies and demonstrations at Glatt's pilot facilities in Weimar, participants gain practical insights into selecting the right technology for product development.

WHO SHOULD ATTEND?

This workshop is designed for professionals in product and process development, innovation, engineering and R&D working with particulate products in pharmaceuticals, food, fine chemicals, advanced materials, battery materials and specialty chemicals.

It offers a unique opportunity to compare a broad range of particle engineering technologies within a single workshop.



TUESDAY, 1 DECEMBER 2026

12:00 Snack buffet and registration
in the conference room

Particle engineering fundamentals:

FROM NANOPOWDERS TO FUNCTIONAL GRANULES

12:45 **Welcome and workshop overview**
[Dr. Michael Jacob, Glatt](#)

13:00 **Selecting the right particle engineering technology for your product**
Learn when to apply agglomeration, spray granulation or coating, understand the strengths and limitations of batch and continuous processing, and see how process selection influences final product performance.
[Dr. Michael Jacob, Glatt](#)

13:45 **Powder synthesis and thermal powder processing**
Learn about particle processing at elevated temperatures. The session explains different processing technologies based on particle size, process temperature range and the industrial application of the final product.
[Dr.-Ing. Viktor Drescher, Glatt](#)

14:30 **Coffee break**

15:00 **Agglomeration and spray granulation processing options**
Explanation of growth principles of powder agglomeration and spray granulation. Calculation and simulation methods for both processes. Analysing key aspects such as sticking criteria, agglomeration regime maps and population balance modelling.
[Prof. Dr.-Ing. habil. Stefan Heinrich, Hamburg University of Technology](#)

TUESDAY, 1 DECEMBER 2026

16:00 **Coating and surface engineering of particles**

Learn how coating technologies modify particle functionality and product performance. The session explains the influence of process conditions on coating quality, particle structure and functional properties, supported by industrial examples.

Prof. Dr.-Ing. habil. Evangelos Tsotsas,
Otto von Guericke University Magdeburg

17:00 Transfer to the hotel

19:00 Workshop dinner



WEDNESDAY, 2 DECEMBER 2026

CHARACTERIZATION AND PRACTICAL PARTICLE ENGINEERING

09:00 **Understanding particle properties**

Learn how analytical methods reveal particle size, morphology, composition, density, moisture and crystal structure. Discover how these characteristics influence processing behaviour, product quality and final performance.

Dr. Thomas Jähnert, Glatt

10:00 **Coffee break**

Practical session 1 – Processing options:

EXPERIENCE INDUSTRIAL PARTICLE ENGINEERING TECHNOLOGIES IN THE GLATT PILOT PLANT

Introduction to the pilot plant and the test equipment to be used. Become familiar with the pilot-scale equipment and understand the operating principles, design features and application areas of each technology before the live demonstrations begin.

10:30 **Live demonstration:**

Continuous powder synthesis

Glatt's continuous powder synthesis technology.

11:15 **Live demonstration:**

Spray granulation and agglomeration

ProCell spouted bed system and GFG & AGT fluidized bed systems.

12:00 **Live Demonstration:**

Functional Coating

GFC & GPCG fluidized bed systems.

12:45 **Lunch**

WEDNESDAY, 2 DECEMBER 2026

Practical session 2 – Processing options:

EXPERIENCE INDUSTRIAL PARTICLE ENGINEERING TECHNOLOGIES IN THE GLATT PILOT PLANT

- 14:15 **Live demonstration:**
Continuous powder synthesis
Demonstration of thermal powder synthesis based on liquid raw materials in pilot-scale system (practical demonstration).
- 15:00 **Live demonstration:**
Fluidized bed spray granulation
Batch and continuous fluidized bed spray granulation processes. Studying spray granulation processes in a lab-scale system (practical demonstration). Comparing batch versus continuous processing.
- 15:45 **Coffee break**
- 16:15 **Live demonstration:**
Fluidized Bed Agglomeration
*Batch and continuous fluidized bed agglomeration processes.
Studying agglomeration processes in a lab scale system (practical demonstration).
Comparing batch versus continuous processing.*
- 17:00 Transfer to the hotel
- 18:00 Networking dinner and visit to the historic Weimar Christmas Market

THURSDAY, 3 DECEMBER 2026

**INDUSTRIAL CASE STUDIES AND
TECHNOLOGY TRANSFER**

09:00 **Industrial case study 1:**

Particle engineering

Topic to be announced

09:30 **Industrial case study 2:**

Designing functional particle systems

Topic to be announced

10:00 **Industrial case study 3:**

Technology transfer across industries

Topic to be announced

10:30 **Coffee break**



THURSDAY, 3 DECEMBER 2026

Practical session 3:

LIVE PILOT PLANT DEMONSTRATION

- 10:45 **Live demonstration:**
Hot melt granulation
Discover how melt-based granulation can produce solvent-free granules with tailored particle properties. Learn about process design, equipment configuration and typical industrial applications.
- 11:15 **Live demonstration:**
Functional particle coating
Observe coating processes in fluidized and spouted beds and learn how coating materials influence storage stability, release behaviour and particle functionality. Learn about top-spray and bottom-spray coating, including the Wurster principle.
- 11:45 **Live demonstration:**
Particle characterization
Measure and compare the properties of the particles produced during the workshop using modern analytical techniques.
- 12:15 **Discussion of results**
Compare the products generated during the different demonstrations and discuss how process selection influences particle structure, product quality and industrial performance.
- 12:45 Summary and snack buffet
- 13:15 Transfer to the station or hotel

SPEAKERS

Prof. Dr.-Ing. habil. Stefan Heinrich

Hamburg University of Technology, Germany

Prof. Dr.-Ing. habil. Evangelos Tsotsas

Otto von Guericke University Magdeburg, Germany

Dr. Michael Jacob

Glatt Ingenieurtechnik GmbH, Germany

Dr.-Ing. Viktor Drescher

Glatt Ingenieurtechnik GmbH, Germany

Dr. Thomas Jähnert

Glatt Ingenieurtechnik GmbH, Germany

MODERATOR

Dr. Michael Jacob

Glatt Ingenieurtechnik GmbH, Germany

DETAILS

- >> The early-bird participation fee is €1,950, excluding VAT, until 20 October 2026.
- >> From 21 October 2026, the participation fee is €2,250, excluding VAT.
- >> This fee includes participation, accompanying course notes, daytime catering and dinner. Any other expenses are to be borne by the attendee.
- >> Participation is limited. Registrations will be confirmed in the order of registration.
- >> Courses taking place in Germany are subject to Value Added Tax (VAT).
- >> Each participant will receive a certificate of attendance at the end of the workshop.
- >> **Registration deadline: 20 November 2026**

ORGANIZATION

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LOCATION

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Explore upcoming workshops
and register today.
technology-training-center.com