



GLATT INGENIEURTECHNIK

YOUR PARTNER FOR PROCESS AND PLANT ENGINEERING

OFFERING TECHNOLOGY FROM A SINGLE SOURCE



PROCESS & PLANT ENGINEERING



We develop optimal, tailored solutions.

Glatt Ingenieurtechnik plans, designs, and implements international projects, from the expansion or modernization of existing production sites to the new construction of an entire plant. In such activities, we combine professional engineering with in-depth technology expertise. We accompany our customers from the initial idea through the consultation stage at the time of process and general planning, all the way to start-up of turn-key production.

The projects focus on both processes involving particle design and particle engineering for the development, optimization, functionalization, and production of bulk materials, such as powders, granulates, and pellets for food, animal feed, and the chemicals and fine chemicals sectors, as well as the pharmaceutical industry and biotechnology.

Depending on requirements, our modular services mean we can function alongside our customers either as planner in specific project phases or as primary planner or general contractor. We integrate customer technologies or pioneering Glatt technologies. Or, we supplement customers' process know-how by the procurement of licenses of international partners.

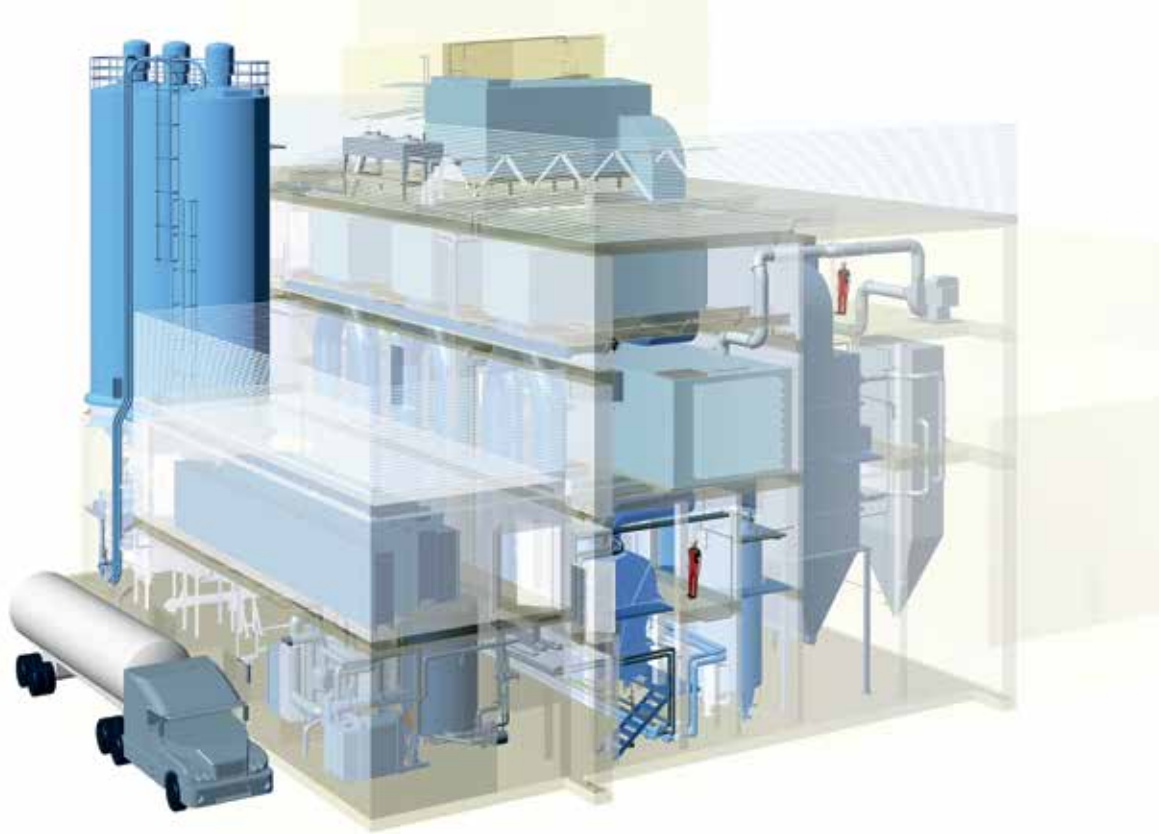
With our expertise in the field of process and plant planning, we develop and optimize processes for the production of:

- » pharmaceutical and biotechnological products such as tablets, pills, capsules, injection and infusion solutions, drops and juices, salves, vaccines, insulin, blood plasma products, biosimilars, active pharmaceutical ingredients (API), amongst others
- » powders, granulates, and pellets for fertilizer, detergents, pesticides, food and animal feed, industrial salts, paints and coatings, ceramics, catalysts, and many more besides

We have project experience at locations across the globe:

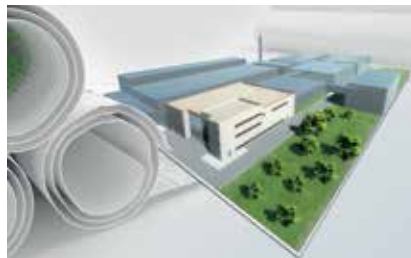
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|--------------|-----------------|----------------|---------------|
| » Algeria | » Germany | » Netherlands | » Sweden |
| » Austria | » Great Britain | » Nigeria | » Switzerland |
| » Bangladesh | » Hungary | » Norway | » Serbia |
| » Belarus | » India | » Oman | » Syria |
| » Canada | » Ireland | » Russia | » Turkey |
| » China | » Italy | » Saudi Arabia | » Ukraine |
| » Denmark | » Kazakhstan | » Singapore | » UAE |
| » Finland | » Latvia | » Slovenia | » USA |
| » France | » Lebanon | » South Africa | » and others |

OUR COMBINED STRENGTHS ARE WHAT MAKE US UNIQUE!



Technology in focus

As a traditional developer of technological plants and an experienced plant manufacturer, we bundle our expertise together in our unique, integrated service concept: Sustainable process and plant planning, adapted to the specific technological requirements of our customers. We provide comprehensive advice and reliable product management. Worldwide!



PROCESS TECHNOLOGY FOOD, FEED & FINE CHEMICALS

Particle design and particle engineering

Today, customized solutions from a single source for the manufacture of functionalized powders and ready-to-use granulates are our specialty.

For the product design, manufacture, and functionalization of powders and granulates, we operate a modern technology center at our Weimar site. As a pioneer in fluidized bed technology and spouted bed technology, we have more than sixty years' experience in path-breaking process solutions.

Thanks to high-temperature processes based on APPtec®, our new Advanced Pulse Powder technology, particularly homogeneous powder materials with huge potential for high-performance applications can be created. The outstanding potential for powder synthesis that this move opens up will make it possible to configure particles with entirely new combinations of properties that were previously inaccessible.

Processes are drawn up on a laboratory scale using small plants. The optimal processing parameters are then determined on pilot systems. This enables reliable scale-ups. Tailored to the specific requirements of our customers, high-performance production plants are designed, delivered, and established. If you do not have your own plant technology in-house, we offer our contract manufacturing service to take care of your products.



Our technologies:

- » APPtec® for continuous powder synthesis
- » Continuous fluidized bed and spouted bed processes:
 - Spray granulation, spray agglomeration, coating, and (micro-)encapsulation

Granulates and pellets are required for a whole host of applications:

- » Instant drinks
- » Instant soups
- » Spices
- » Flavoring substances
- » Sweeteners
- » Preservatives
- » Stabilizers
- » Texture agents
- » Vitamins
- » Enzymes
- » Micro-organisms
- » Essential oils
- » Bleaching agents
- » Ceramic powders
- » Catalytic powders
- » Pigments
- » Polymers
- » Salts
- » Diamonds for tool coatings
- » and many more

OUR ROUTE TO SUCCESS



- » **1981** "Continuous fluidized bed technology" work group
- » **1983** Commissioning of first AGT continuous fluidized bed system (system for continuous granulation drying)
- » **1991** Founding of Glatt Ingenieurtechnik GmbH
- » **1994** Relocation from Coudraystraße in Weimar, Germany, to the new company building on Nordstraße
- » **1996** Development of the GF series (Glatt fluidized bed) based on continuous fluidized bed technology
- » **1996** Opening of a representative office in Shanghai, China
- » **1997** First turn-key project for the construction of a complete production site including the building
- » **2000** Opening of a representative office in Moscow, Russia
- » **2001** Opening of an office in Wiesbaden, Germany
- » **2004** Development of the ProCell series based on continuous spouted bed technology
- » **2006** Founding of a branch in Moscow, Russia
- » **2008** Founding of a branch in New Delhi, India
- » **2009** Commissioning of new buildings with offices and technology center in Weimar, Germany
- » **2015** Expansion of the technology center for powder synthesis with APPtec® and high-temperature fluidized bed technology
- » **2016** Opening of the Dresden office in Germany focusing on biotech projects

Integrated into the international Glatt Group, we provide a global network of around 2,000 employees. A large number of representatives across the globe are ready and waiting to act as points of contact for Glatt's complete range of services.



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