



REPRINT – ADVERTORIAL

OUTSOURCING - TRUST IN COMPETENT PARTNERS

How the Glatt Group implements contract manufacturing with expertise and innovative solutions



There are many reasons for outsourcing production - minimizing one's own risks or a lack of expertise in alternative technologies are just two of them. But what to look for when looking for a contract manufacturing partner? Experience and special expertise in various industries form the basis, while a spirit of innovation and a wealth of ideas are factors for sustainable success. This is precisely the combination that customers find at Glatt Group. Contract manufacturing must meet very different requirements. There are companies that permanently outsource their production and permanently call off large quantities. Others need flexible production slots to compensate for highly fluctuating volume requirements. And often a mature product idea exists, but the innovators do not have the appropriate technology. A wide variety of tasks are the order of the day for manufacturing and refining solid product formulations, from nano disperse powders for high-tech applications to matrix-encapsulated feed and food additives in pellet form to pharmaceutical dosage forms with modified release.

With a wide range of process engineering options, Glatt supports its customers at various locations with complex tasks. These benefit from the bundled expertise in particle design - from the initial feasibility trial through scale-up to validation of the production process. Glatt offers suitable solutions for every variant and, if required, also implements customer-specific processes. One example is a system installed in Weimar, Germany, which is based on a technology developed by the customer. No comparable plant was available on the market, but Glatt rose to the challenge: „We are not afraid to explore new and innovative paths together with our customers. This is simply in our DNA,“ says Dr. Michael Jacob, Head of Process Engineering at Glatt Ingenieurtechnik in Weimar. „And of course, this requires a certain amount of courage.“ Accordingly, the fluid bed pioneer competently accompanies companies looking for an innovative partner from the initial idea to large-scale production. The comprehensive expertise and knowledge transfer within the family business are especially useful here.

Meeting customer requirements collectively

The different requirements of the markets have historically led to a differentiation of plant technology. In the long term, the specific know-how will also benefit other areas. Fluid bed agglomeration and film coating have their origins in the pharmaceutical industry. Today, both are much-used process options for functional products in the food and feed industry or fine chemicals. Continuous spray granulation was developed primarily for applications in the chemical industry and is particularly suitable here for large-volume products. The pharmaceutical industry uses this technology under the name MicroPx for special pellet formulations. Accordingly, batch and continuous technologies are used by all service providers in the Glatt

Firmenprofil

Contract manufacturing expertise at Glatt:

- Process and formulation development
- Scale-up
- Contract manufacturing, make-to-order manufacturing, active finishing
- Quality control and analytics (internal/external)

Glatt Ingenieurtechnik GmbH

specialized in:

- Continuous fluid bed, spouted bed and high temperature processes
- Processing of products containing solvents
- Liquid processing with high pressure homogenization
- Focus on processes around particle design and engineering for the development, optimization, functionalization and production of powders, granules, pellets
- Various physical analysis methods, SEM, elemental analysis.
- Industries: Food additives, dietary supplements, feed additives, fine chemicals.

→ CONTACT

Nordstraße 12, 99427 Weimar

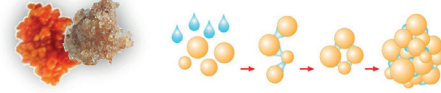
Tel: +49 3643 47-0, info.we@glatt.com

IPC Process-Center GmbH & Co. KG

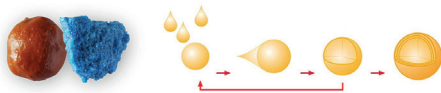
specialized in:

- Contract manufacturing and development
Granules and pellets for many industries
- Agglomeration, Layering, Coating, Extrusion/Spheronization
- From 1 kg test batch to 1000 t per year.
- Certificates: ISO 9001, FSSC 22000, GMP, FAMI-QS, kosher, HALAL, Bio

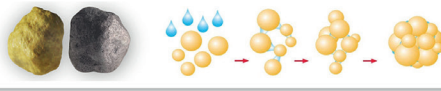
Spray agglomeration Granules from powder



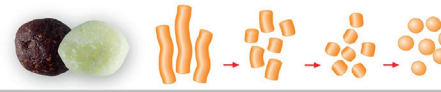
Spray granulation granules and pellets from liquids



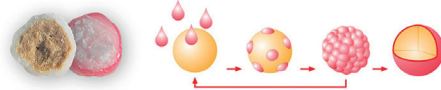
Wet granulation of powders



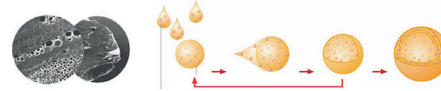
Spheronizing of granules and extrudates



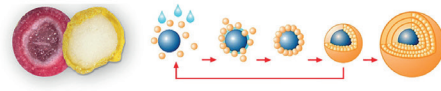
Spray coating macro-encapsulation of particles with liquids



(Micro)-spray encapsulation of liquids



Powder layering encapsulation of particles with powder



Group - IPC Process-Center (IPC), Glatt Ingenieurtechnik (GIT) and Glatt Pharmaceutical Services in Binzen, Germany and in Ramsey, USA (GPS).

At the same time, there are special features. „For us, the focus is on product development and process optimization for the pharmaceutical industry,“ explains Philippe Tschopp, Head of Business Development at GPS. „We often realize products for clinical trials or also special products. Here, our goal is to establish a stable and robust process for the respective dosage form.“ This is done with perfectly coordinated mid-size plants specialized in pharma setting. IPC processes up to several hundred tons on large-scale equipment in commercial manufacturing campaigns. Antje Weigt, Project Coordinator at IPC, notes, „We usually work with our customers on a very long-term basis and aim for long-term contract production. To achieve this, we rely on the combined knowledge of the Glatt Group in the initiation and development phase and offer the highest quality standards and certifications in implementation.“

The range extends from fine chemical products to animal feed additives, nutritional supplements, hospital food, medical products and pharmaceutical excipients and active ingredients. At GIT, cooperation often covers the period between development, investment decision and commissioning of an in-house plant. Customers use contract manufacturing to evaluate product potential on the market. „This gives our customers enormous security,“ is how Gudrun Ding, Business Development at GIT, sums it up. „After a successful product launch, plant size, throughput and investment volume can be quantified more precisely.“ More efficient, faster, safer

Contract manufacturing is always preceded by product and process development. As a pioneer of fluid bed technology, Glatt has gained extensive experience and built-up expertise in all the aforementioned areas. And it is precisely this expertise from which every customer can benefit across all sites. The process experts know the strengths and weaknesses of the fluid bed very well and therefore

precisely match the formulation and process. This shortens development times. The intermediate step of contract manufacturing deepens the understanding of the manufacturing process and the product requirements and creates additional security for the plant design. In addition to technical expertise, extensive analytical capabilities for determining product quality or knowledge of legal requirements are also important.

Innovative spirit par excellence

The aim of the Glatt Group is to permanently develop manufacturing processes for a wide variety of applications. In doing so, the process expert realizes innovations time and again. These include the vacuum fluid bed for processes with organic solvents, high-temperature fluid bed processes for thermal activation of substances, and spouted bed technology for drying and particle formation of particularly fine materials that are difficult to fluidize. Powder synthesis in a pulsating gas stream for the production and coating of nano- and microparticles is also included here. Glatt also provides innovative approaches in the form of new systems developed individually for customers, which are not available on the market and which are not being implemented by any other system manufacturer. Glatt is at home in all branches of industry, and its involvement in many innovation clusters provides further exciting approaches and ideas.

In cooperation with their customers, the companies of the Glatt Group provide comprehensive resources and, above all, valuable know-how. At the same time, contract manufacturing with „third-party“ processes is also part of everyday life. „Our special feature is that all Glatt units work together to find the best solution for the customer,“ states Dr. Michael Jacob. „We give our customers access to technologies they wouldn't otherwise have, we're not afraid to think outside the box, and we're very proud of the fact that in this way we can provide a suitable offer for every contract manufacturing need.“

→ CONTACT

Grunaer Weg 26
01277 Dresden
Tel: +49 351 25 84-0
ipc@ipc-dresden.de

Glatt Pharmaceutical Services GmbH & Co. KG

specializes in:

- Solid dosage forms, especially multiparticulate systems such as (micro)pellets and granules.
- Customized solutions for controlled release, improved solubility, masking, stabilization
- Production of clinical samples
- GMP approvals FDA

→ CONTACT

Werner-Glatt-Straße 1
79589 Binzen
Tel +49 7621 664-0
pharmaceuticalservices@glatt.com

Glatt Air Techniques

specializes in:

- Solid dosage forms with focus on multiparticulate systems such as (micro)pellets and granules.
- Customized solutions for controlled release, improved solubility, masking, stabilization
- Production of clinical samples
- GMP approvals FDA

→ CONTACT

20, Spear Road
Ramsey, NJ 07446 USA
Tel: +1 -201 825-8700
info.gat@glatt.com

For more info: www.glatt.com