

PROCESS & PLANT ENGINEERING + INNOVATIVE PROCESS TECHNOLOGY

FUNCTIONALIZATION OF FOOD ADDITIVES

PRODUCT COMPETENCE



More performance for your food additives.

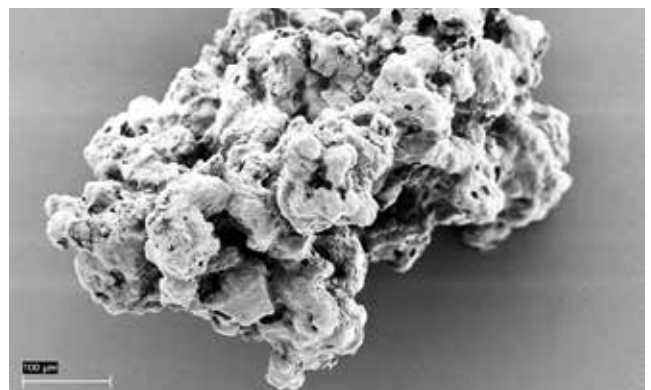
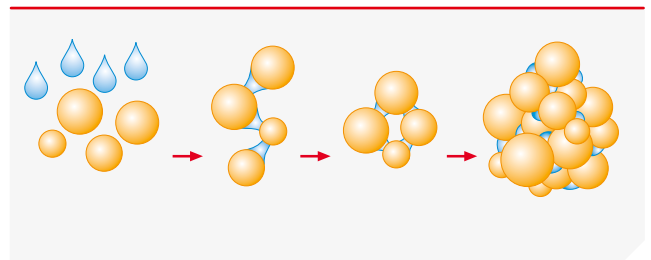
Foods shall taste good, be visually attractive, remain stable in storage and, last but not least, contain suitable constituent substances. Are antioxidants, dyes and flavors, emulsifiers, fibers and stabilizers for improving structure and prolonging shelf life topics of interest for you? Working together with you, we find the optimum solution for providing your food additives with the desired functionalities and for ensuring cost-effectiveness in production.

Dust-free, optimally soluble granules.

Using spray agglomeration as a form of granulation, it is possible to construct your food granules out of powder or to immobilize liquids. Depending on your specific requirements and desired product properties, water, solutions, melts or suspension are sprayed as a bonding fluid onto powder particles that have been presented for that purpose.

Products with Glatt particle design:

- » Cocoa powder
- » Olive extract
- » Milk proteins
- » Instant tea
- » Sweetener
- » Nutrition
- » Spices
- » Stabilizers



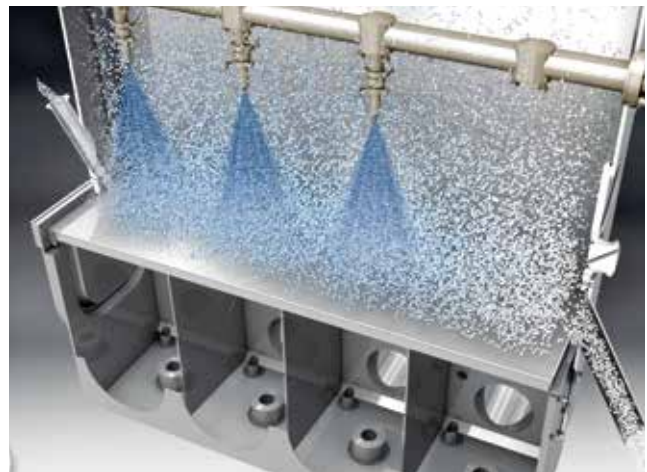
PROCESS COMPETENCE



Effective and continuous - with guarantee.

Glatt spray agglomeration with innovative fluidized bed or spouted bed technology is an optimum process for manufacturing high-quality instant products. The percentage of dust is reduced considerably, the flow behavior is improved and the dispersibility in liquids is increased. Segregation problems in powder mixtures do not arise.

For the operating efficiency of your plant and reproducible product quality Glatt guarantees process parameters such as capacity, solubility and product purity.

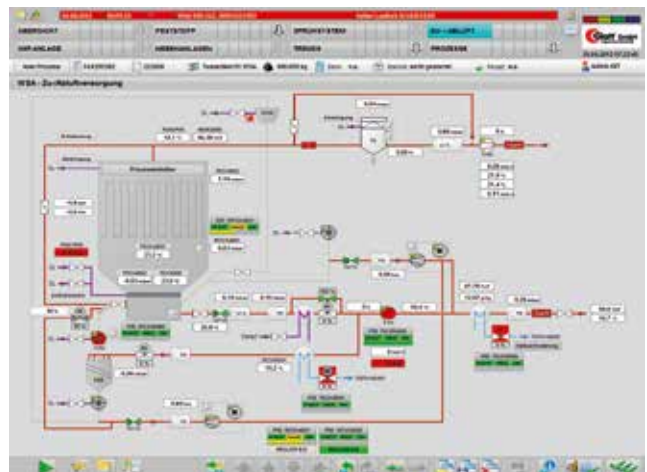


Continuous fluid bed granulators.

Glatt fluid bed granulators are divided into several process chambers. In addition to granulation and drying, the cooling of the granules can also take place in the same system. For all concepts, Glatt ensures reproducible constant capacities and outstanding product qualities.

Product advantages with Glatt agglomeration:

- » Dust-free granulates, low bulk density, porous structure
- » Wide grain size distribution
- » Excellent solubility, good dosing, improved flowability



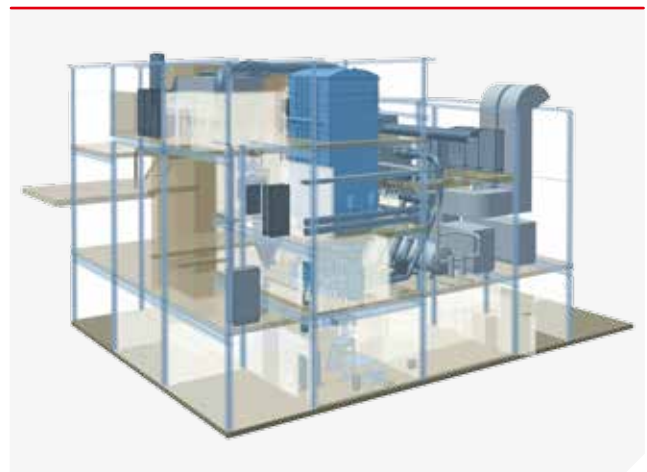
TECHNOLOGY COMPETENCE



Food design with innovation.

Glatt has the entire technical know-how required for the production and handling of your product. We provide you with a finished concept that takes into account not only the requirements for protection against explosions but also hygienic design and cleanability.

We design our granulation multi-talents in accordance with your preferences. In addition, our experienced project management coordinates assembly, commissioning and also training of your operating personnel.



Reference system: instant tea and cocoa powder.

Glatt performances: tailored design and layout, project management, delivery of process technology and peripheral systems, commissioning, training of operating personnel.

After agglomeration to the desired particle size, the granules are after-dried and cooled down in the last chamber.

Information regarding the reference system:

- » Capacity 1,800 kg/h
- » Grain size distribution 250 - 600 μm
- » Bulk density < 600 g/l
- » With process guarantee



PLANT ENGINEERING COMPETENCE



Process and plant engineering.

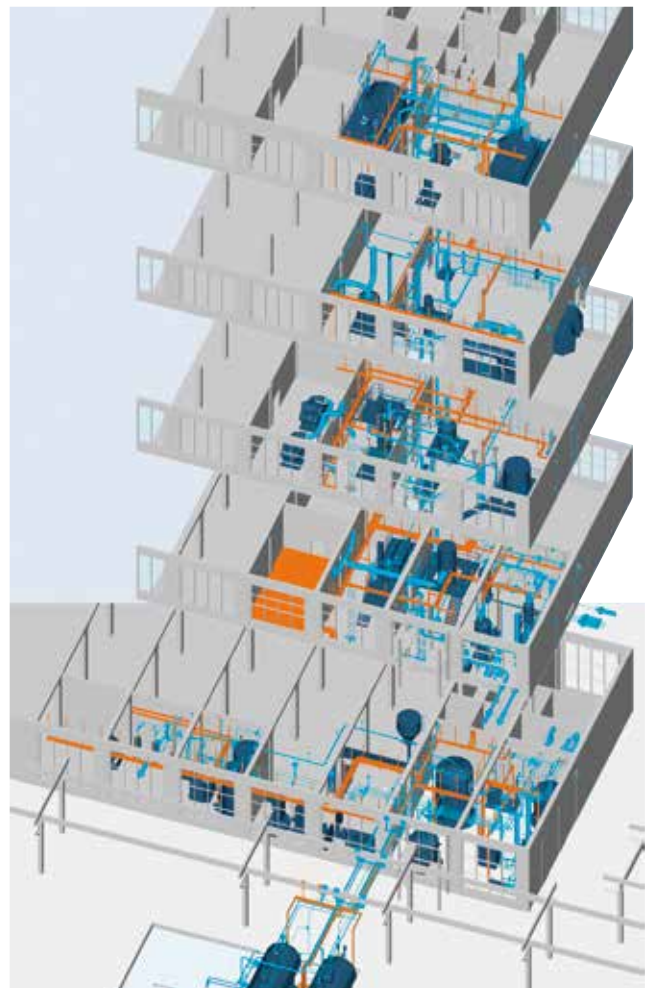
Glatt is your engineering and technology partner with more than 60 years of process expertise. We accompany you from the initial idea through the consulting for process and general planning, all the way to start-up of turn-key production facilities. Whether it be new construction, modernization, expansion or relocation of production site – tailored to your specific tasks, we develop the tailored solution that is optimum for you.

Technologies in focus.

At the center of attention are your products and their manufacturing. We integrate your technologies or pioneering Glatt technologies. Depending on the requirement, we supplement the process know-how through the procurement of licenses of international partners.

Range of engineering services:

- » Consulting and feasibility studies
- » Conception, basic and detailed engineering
- » Project management for planning and execution
- » Authority engineering and financing concepts
- » Planning and supervision for construction, assembly, start-up
- » EPCM projects
- » Support with FAT and SAT





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