

PROCESS & PLANT ENGINEERING + INNOVATIVE PROCESS TECHNOLOGY

FUNCTIONALIZATION OF INDUSTRIAL SALTS

PRODUCT COMPETENCE



More performance for your industrial salts.

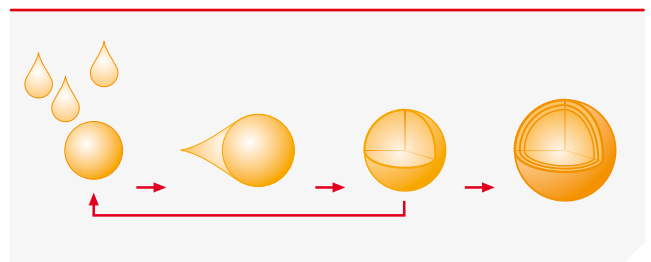
Anhydrous industrial salts can be a versatile raw material for numerous, widely differing applications due to possible hygroscopic properties. As a desiccant, for example, for the drying of gases or of chemical solutions or in building construction. They may also be used as antifreeze, setting accelerators or dust-binding agents. Or are you a food manufacturer and use salts for such things as firming agents, flavor enhancers or stabilizers?

Compact, dust-free, round granules.

Spray granulation is used to produce industrial salts from a highly concentrated solution. Quality feature, in addition to the uniform structure of the granulates, is the high degree of product purity. The round pellets have a dense surface that causes only very little wearing during storage and transport. The narrow grain size distribution is impressive.

Products with Glatt particle design:

- » Calcium chloride
- » Sodium chloride
- » Magnesium chloride
- » Lithium chloride



PROCESS COMPETENCE



Effective and continuous - with guarantee.

Glatt spray granulation with innovative fluidized bed or spouted bed technology is an optimum process for the manufacturing of your salt granulates from liquids. The formation of compact, dust-free granules and the subsequent drying can be carried out in a single process step.

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

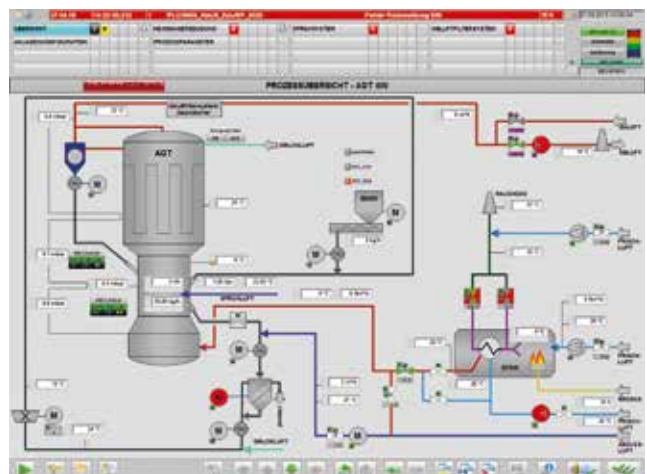
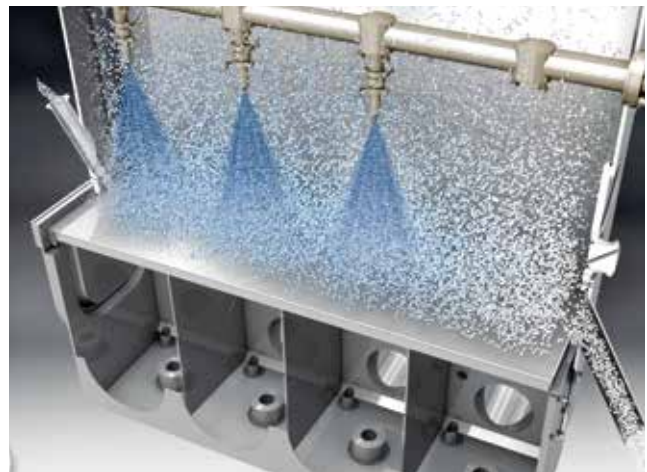
Continuous fluid bed granulators.

In systems with round bottom screen and central discharge the material is continuously mixed. 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 spray granulation:

- » Dust-free granules, high bulk density, compact structure
- » Narrow grain size distribution
- » Improved solubility, dosing, flowability



TECHNOLOGY COMPETENCE



Salt production with innovation.

Glatt has the technical know-how of the entire process chain for spray granulation, from the concentration in the liquid to the finished granulate. Together with our industrial partners, we complement these processes with equipment for the evaporation and separation of contaminations. You receive the individually modified concept which takes into account not only the materials used but also the minimization of emissions.

Reference system: calcium chloride.

Glatt performances: tailored design and layout, project management, delivery of process technology and peripheral systems, commissioning, training of operating personnel. Filters built into the granulator minimize dust emissions and maximize the product yield. The correct selection of material and operating regime has a considerable influence on system availability, even with regular downtimes.

Process guarantees of the reference system:

- » Capacity: 1,600 kg/h finished product output
- » Product purity $\geq 95\%$
- » Grain size 1 - 4 mm



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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