

# VIBRA SCHULTHEIS



## Agglomeration, Granulation, Coating

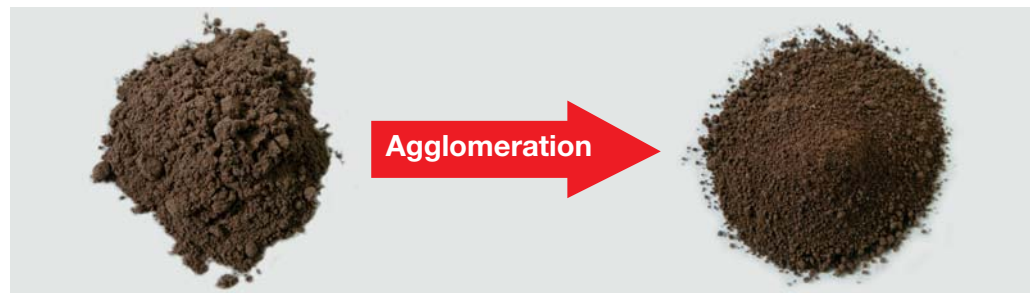


# Agglomeration, Granulation, Coating

Agglomeration, granulation, and coating in vibrating fluid bed machines can significantly improve the application-related properties of powdery products in the chemical, pharmaceutical, and food industries.

## Principle

The solid layer that is fluidized in the fluid bed is selectively wetted with liquids using special atomization nozzles and then solidified during the drying process. During spray granulation the layer starts to build up directly from the liquid phase.



## Properties and benefits

- Increased resistance to attrition
- Improved flowability
- Less clumping
- Instantization of food products and others
- Protection against chemical reactions, e.g. oxygen, light or moisture
- Efficient masking of taste and / or smell
- Ability to influence surface properties, e.g. colour, gloss, selectively
- Retarded release of active ingredients

## Design

The design is based on each customer's individual requirements and verified by means of tests on our pilot plant. Either batch or continuous equipment can be supplied, depending on the application. Planning, turnkey delivery and commissioning are taken care of by an experienced team of highly qualified project engineers and trained specialists at our production facility.



## Pilot plant

Our pilot plant for agglomeration, granulation and coating comprises a vibrating fluid bed machine with a fluidizing plate area of 0.5 m<sup>2</sup>, the associated air handling equipment and air heater, the liquid metering and air supply components for the spraying process and all measuring instruments necessary to operate the machine and evaluate the test results. Owing to the wide range of variable adjustments, together with the complete air handling equipment and high-performance energy supply systems, tests can be carried out on a semi-industrial scale with a throughput of 30 to 150 kg/h. The plant is suitable for either top or bottom spray mode or a combination of the two.



## Trial Centre

Our trial centre also features numerous other experimental units covering all relevant aspects of thermal and mechanical processes. Vibrating trough and tube conveyors, batching and metering equipment, conveying troughs and spiral conveyors with or without heat exchanger decks, vibrating screening machines, and fluid bed dryers and coolers with all essential measuring instruments and peripheral apparatus such as fans, compressors, heating coils, heat exchangers and filters are available and ready for use on more than 1000 m<sup>2</sup> of floor space. Several of these units can also be loaned for experiments on our customers' premises.

The tests carried out here provide a starting point for efficient planning of the customer's machinery and plant.



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