

High impact mixer

The Schugi Flexomix is a unique vertical continuous mixer and agglomerator, developed to achieve a highly homogeneous mixture of powders and liquids. It is unlike any other continuous mixer with its vertical cylindrical chamber and vertical rotating shaft. Its high rotational speed and turbulent mixing keep the mixer chamber clean; it provides accurate dosing of both liquid and solid components and is suitable for even the stickiest of media.

The Flexomix mixes powders with powders or powders with liquids excellently and homogeneously, even if the products are sticky. This also makes it highly suitable for wet agglomeration.

Typical applications

The Flexomix is suitable for a wide variety of process applications, including:

- Modification of starch
- Agglomeration of veterinary antibiotics
- Hydration of phosphates
- Agglomeration of detergents
- Finishing of filter cake
- Instantising of drinking chocolate
- Adding crosslinking agents to super absorbent polymers (SAP)
- Humidifying various products before extrusion
- Agglomerating pesticide formulae

Working principle

The Schugi Flexomix uses highly controlled mixing conditions to achieve optimal product characteristics and maximum efficiency. It is unlike any existing equipment and consists of a vertical cylindrical chamber enclosing a vertical rotating shaft. Several pitch adjustable knives are secured to the shaft, which rotate at high speed resulting in highly turbulent air flow.

Any number of powders can be fed into the unit through top inlet(s) whereby agitation causes a spiral flow and high collision rates in the suspension. Liquids of varying viscosity and steam can be added using atomizing nozzles mounted to the upper part of the chamber just above the upper mixing blades.

Power requirements are low as there is only ever a small amount of product in the mixing chamber at any one time, and the unit can be fully disassembled for major cleaning or product changes in just 2 minutes.

Continuous mixing

