



## From granulated to powdered sugar



Unifine Food & Bake Ingredients offers worldwide an enormous variety of products for various applications in the food industry. Powder mixes, such as cream powder, baking mixes and cream stiffening agent are produced in the Darmstadt factory. "The quality assurance of our high quality products starts with the selection of the finest raw materials," said Production Manager, Stefan Erlewein.

The sugar handling equipment from storage to grinding and the pneumatic conveying for granulated and powdered sugar was supplied by Reimelt.

After transfer of the sugar from the tanker truck into the outdoor silo, the formation of sugar lumps is inhibited by drying of the silo header. The system is equipped with Reimelt components according to ATEX regulations. Also the recrystallization hopper is equipped with explosion protection equipment and prevents the lumping of the fresh powdered sugar by an integrated agitator while conditioned air is simultaneously injected. Thus, storage is possible without adding separator agents.

The agitator hopper installed down-stream serves as a loss-in-weight scale with coarse and fine metering as well as a buffer hopper for continuous operation. From there, the powdered sugar is conveyed pneumatically to the mixers that are equipped with Reimelt filters.

### Production/capacity:

Grinding of granulated sugar	5,000 kg/h
Discharge of powdered sugar to the mixers	6,000 kg/h
Daily production	48,000 kg

### Reimelt's scope of supply

- Storage and conveying of granulated and powdered sugar
- Integration of a peg mill for the grinding process
- Powdered sugar conditioning
- Powdered sugar scaling, metering, conveying
- Electric control system
- Complete installation and start-up

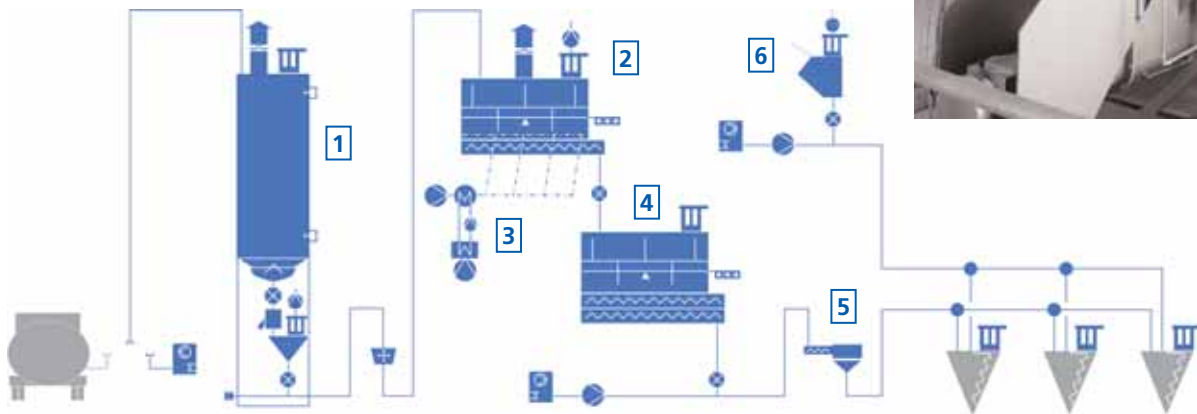
**Picture 1: Agitator and recrystallization hoppers for powdered sugar**



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# REIMELT

# Case History - Sugar handling



**Picture 1:**  
Silo for granulated sugar

**Picture 2:**  
Sugar silo skirt

**Picture 3:**  
Loss-in-weight scaling of the powdered sugar to the conveying line

**Picture 4:**  
Agitator hopper for recrystallization of freshly ground powdered sugar

## System description

- 1** Outdoor storage silo for granulated sugar
- 2** Agitator hopper for recrystallization of freshly ground sugar
- 3** Air conditioning system
- 4** Agitator hopper for powdered sugar designed as a loss-in-weight scale with coarse and fine metering
- 5** Sifter
- 6** Bag dumping station for feeding of the mixers

## Features and advantages

- › Outdoor silo with explosion protection
- › Drying of silo header prevents lumping of the sugar
- › Recrystallization hopper with agitator and injection of conditioned air against agglomeration of the powder
- › Powdered sugar hopper designed as a loss-in-weight scale with 2 metering screws for metering in coarse and dribble flow
- › Pneumatic conveying with conditioned air