Product Video

Vibration technology in slow motion: Spiral Elevator

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AViTEQ-Spiral conveyor are used wherever bulk solids have to be conveyed in a vertical direction. These robust spiral conveyors are suitable for conveying a host of bulk solids from various production processes. These can be fine to coarse-grained, as well as fragmentary bulk solids. Our spiral conveyors are used in the chemical, pharmaceutical and food industries, and also in the raw material industry. The use of additional fixtures enables products to be treated by thermal (cooling/heating) or technical (drying) processes. The bulk solids can be transported both upwards or downwards.

Advantages & benefits

- energy and space-saving vertical conveying that's gentle on the material
- low-maintenance continuous operation
- easy-to-clean, hygienic design
- natural cooling of the bulk solid during the conveying process thanks to long dwell times
- bulk solids cooled either directly by air or indirectly by water through the use of double bottom or laser-welded Thermplate® bottoms as the spirals
- bulk solids heated/dried either directly by air radiators or indirectly by water or thermal oil through the use of double bottoms or laser-welded Thermplate® bottoms as the spiral

Construction

The main components are:

- Spiral top from standard stainless steel or special purpose steel with single or double bottoms
- The infeed plate and spiral are available as reinforced, plastic-injected versions upon request.
- extremely heat-resistant version (conveyed material temperature up to approx. 900°C) possible upon request
- drive gear with unbalanced motors (the spiral conveyor can be executed with the drives at the top or bottom, depending on requirement)
- stationary or mobile version
- open or closed version (closed version with resonant cover or stationary housing)

Selection

The dimensioning of the spiral conveyor depends on:

- conveyed material
- flow rate
- required delivery height
- process requirements (cooling or drying etc.)
- application conditions
- available space

Key figures

- effective delivery height: up to 8,000 mm
- spiral diameter: up to 1,500 mm
- flow rates: up to approx. 30 m^3/h, depending on conveyed material
- drives: 2 unbalanced motor