

Feed System MET L CS

- Feed system for volumetric and gravimetric feeding of bulk solids
- Discharge element with internal agitator
- Feeding and extension hopper made of stainless steel and acid-resistant steel
- Fast, easy disassembly for cleaning and changing bulk solids
- Integrated measurement, control and regulation electronics
- High feeding accuracy and consistency, below $\pm 0.5\%$



Application

The MET feeder is used for continuous volumetric and gravimetric feeding of bulk solids such as powders, granulates, chips, flakes and fibers.

Typical applications can be found across the board in all industries, though principally in the plastics, chemicals, foodstuffs, detergents and pharmaceuticals industries.

Design

The MET type CS consists of the feeder, an internal agitator, the feed hopper, the extension hopper and a support structure.

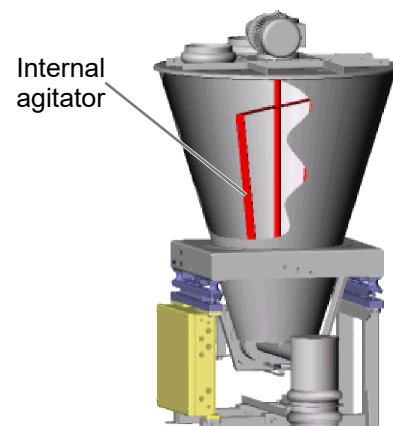
In the case of the gravimetric feeder, two weighing modules complement the feeder to form a loss-in-weight feeder. An internal agitator moves the bulk solids in the hopper and ensures reliable bulk solid product flow into the feed element.

For conveyor elements, feed spirals and screws in single and double-shaft versions are used.

The extension hopper is available in different sizes for customization based on feed rate and application.

The gravimetric feeder weighing modules (loss-in-weight feeder) consist of hermetically sealed precision load cells using resistance strain gauge technology with integrated overload, lifting and skewing protection.

The evaluation and control electronics are integrated into the mechanics. However, it can also be installed separately if required.



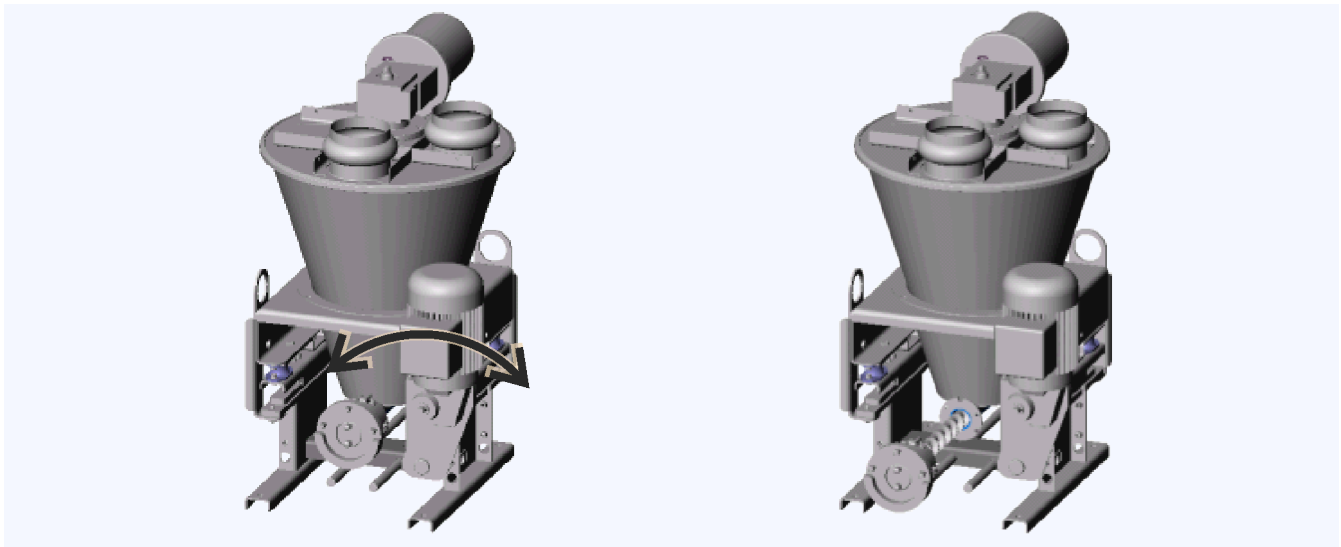
Function

The MET feeder is used as a volumetric feeder or as a gravimetric feeder (loss-in-weight feeder).

In the loss-in-weight feeders, the actual feedrate is determined from the loss in weight per unit of time.

A controller compares the actual feedrate with the feedrate setpoint and regulates the feed element.

The container geometry with steep walls and an internal agitator enables the reliable feeding of even poorly flowing bulk solids with high feeding accuracy and consistency.



Technical Data

Metal parts in contact with bulk material	Stainless steel 1.4404 (316L)
Temperature bulk solids	-30 °C ... +100 °C (higher on request)
Ambient temperature	-10 °C ... +50 °C
Material bulk density	0.1 ... 1.2 kg/dm ³
Design Pressure	-5 ... 95 mbar
Operating pressure	-0.5 ... 20 mbar
Feed rate	5 ... 600 dm ³ /h
Feeding accuracy	±0.5 % (typically)
Feed constancy	±0.5 % (typically)
Drives	AC drives for feed elements and agitator
Single screw/helix	Ø 13 mm, Ø 19 mm, Ø 25 mm and Ø 35 mm
Twin screw/helix	Ø 17 mm, Ø 28 mm and Ø 35 mm
Discharge element	Internal vertical agitator
Extension hopper	Volume 30 dm ³ and 83 dm ³



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