

Feed System MET H CF

- Feed system for volumetric and gravimetric feeding of bulk solids
- Feed hopper with flexible wall and external discharge aid
- 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 dosing equipment is used for continuous volumetric and gravimetric feeding of bulk solids such as powders, granulates, chips, flakes and fibers.

Typical applications can be found for example in the plastics, chemicals, foodstuffs, detergents, pharmaceuticals, building materials and cement industries.

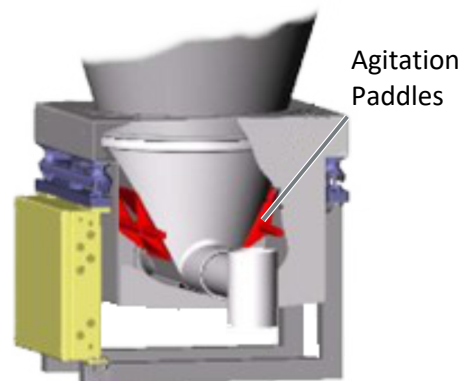
Design

The MET type CF consists of the feed hopper with a flexible wall, an external discharge aid, the feeding element, the extension hopper, and a support structure. In gravimetric operation, the gravimetric feeder includes two weighing modules.

Paddles move the flexible hopper wall, ensuring a reliable bulk material flow from the feed hopper into the feed element. Feed spirals and screws in single and single-shaft versions are used as feed units.

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

The gravimetric feeder weighing modules 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 feeder mechanical system. However, it can also be installed separately if required.



Feeder with external discharge aid

Function

The MET feed system is used as a volumetric feeder with a controlled feed unit or as a gravimetric feeder based on the principle of a differential gravimetric 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 geometry of the flexible feed hopper with an axially symmetrical hopper inlet is functionally designed for the external agitation principle and ensures reliable bulk material flow into the feed element.

The feeder creates bulk solids handling conditions optimized for high dosing quality and is patent-pending.



The MET dosing system offers significant advantages, including the easy and quick disassembly and reassembly of parts in contact with bulk material for material changes and cleaning of the rear, non-process side.

Technical Data

Metal parts in contact with bulk material	Stainless steel 1.4404 (316L), 1.4571
Flexible chute Coni-Flex	Vinyl grey; vinyl white; polyurethane black, electrically conductive; polyurethane toner-resistant
Temperature bulks solids	Vinyl -12 °C ... +80 °C, polyurethane -30 °C ... +90 °C
Ambient temperature	-10 °C ... +50 °C
Material bulk density	0.1 ... 2 kg/dm ³
Design Pressure	-5 ... 95 mbar
Operating pressure	-0.5 ... 20 mbar
Feed rate	36 to 32,000 dm ³ /h
Feeding accuracy	±0.5 %
Feed constancy	±0.5 %
Drives	AC-drives for feed units and paddles

Design Variants

Feed principle	Gravimetric (loss-in-weight feeder), volumetric
Feed units	Feed shafts, feed spirals in single-shaft design, diameter 76 ... 152 mm
Agitation	External paddles
Feed hopper	Flexible wall
Extension hopper	Volume 0, 280, 560 and 1400 dm ³



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