

# Vibratory Feeder VFD 100



This compact, functional unit enables the precise weighing and dosing of powders, granulates and other bulk materials. The modular system is designed for straightforward integration into process engineering plants and combination with vacuum conveying systems.

# Volkmann Vibratory Feeder VFD 100

The vibratory feeder is a compact, functional unit designed for the weighing, dosing and feeding of powders, granulates and other bulk materials into a downstream station or container. The system can achieve an accuracy of a few grams.

The system is designed for flexible integration into process engineering plants. For instance, powder or bulk materials can be fed into the buffer container from another container or a vacuum conveyor. The vibratory feeder then continuously extracts material from the container and transfers it to a downstream station, such as a mixer.



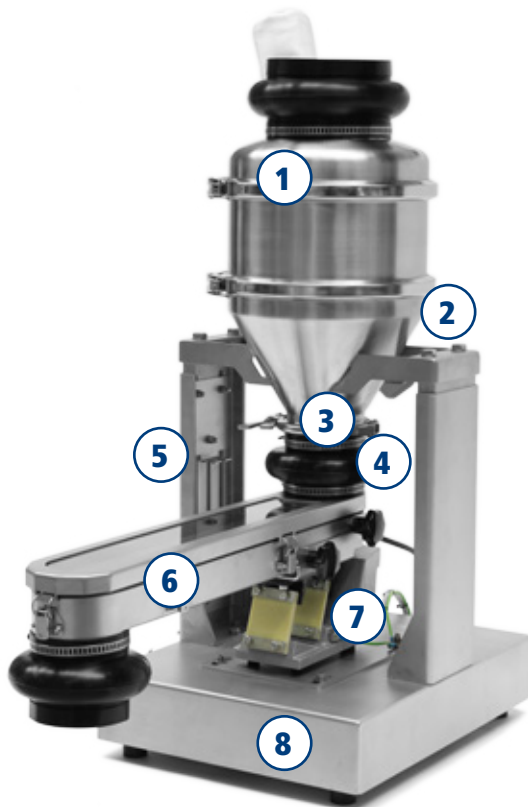
The vibratory feeder is suitable for all free-flowing powders, granules and bulk materials. The entire system is easy to dismantle and assemble for cleaning purposes. Using the vibratory conveyor ensures gentle material handling. The vibratory feeder can also be used in explosive areas with ATEX applications. It is typically used in the chemical, pharmaceutical, food and cosmetics industries.



*Vacuum conveyor and vibratory feeder*

The system's integrated load cell continuously determines the net weight of material in the buffer container and vibratory feeder. This measured value is then used to adjust the dosage according to the loss-in-weight (LIW) concept, bringing it closer to the target value.

The system can also weigh and dose large volumes. To achieve this, the dosing process is briefly paused while the buffer container is refilled, after which dosing continues. The total weight of the dose is calculated by adding together the weights of the individual cycles.



- (1) Buffer container
- (2) Piston vibrator
- (3) Disc valve (optional)
- (4) Pipe from the buffer container to the vibratory chute. Continuously adjustable gap height via the frame of the buffer container. Sealed by a flexible compensator.
- (5) Frame with height adjustment for setting the feeding tube gap
- (6) Vibration chute or dosing chute (various versions and lengths available)
- (7) Drive for the vibration conveyor
- (8) Platform scale

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The vibrating conveyor is electrically driven. The conveying capacity can be adjusted continuously. It is also suitable for start-stop operation with no stopping lag. The quiet drive is energy efficient.

The conveyor chute or conveyor pipe is available in various lengths and designs and is manufactured from either AISI 304 or AISI 316 stainless steel. Clamp connections are used for the connections. The elastic compensators at the inlet and outlet are FDA approved.

A programmable logic controller (PLC) is available to control the vibratory feeder, processing the signals from the load cell and adjusting the dosage to the target weight. However, if the vibratory feeder is integrated into a system, its PLC can also take over this function.



*System at a food producer: Conveying and dosing five components of a recipe into a mixer.*