



The refilling system, with a dosing unit and large storage container (see illustration), ensures continuous dispersion without interruption over several days.

For automatic mass flow control, the metering unit of the BEG 3000 is continuously weighed. The data is constantly recorded and evaluated by a touchscreen PC via a serial interface. Thus, the dispersed dust quantity is known continuously and can be automatically readjusted.

The following inputs can be made for the exact dosing of the aerosol: input of the mass flow in g/h, automatic mass flow control, recording of powder-specific calibration curves, external control via PC or Modbus RTU, network-compatible

MODEL VARIATIONS



BEG 3000 A

Version with weighing unit for low mass flows of approx. 8 g/h – 550 g/h; mass flow monitoring and control with automatic refill unit



BEG 3000 B

Version with weighing unit for low mass flows of approx. 100 g/h – 6 kg/h; mass flow monitoring and control with automatic refill unit



BEG 3000 C

Version with weighing unit for highest mass flows of approx. 350 g/h – 7.3 kg/h; mass flow monitoring and control with the automatic refill unit

OPERATION PRINCIPLE

TEST AEROSOLS WITH AUTOMATIC MASS FLOW CONTROL AND AUTOMATIC REFILL UNIT

The powder to be dispersed is simply poured into the reservoir (see Fig. 1). A stirrer at the bottom of the reservoir ensures uniform loading of the conveyor belt. A rabble arm and various built-in components prevent bridging in the reservoir.

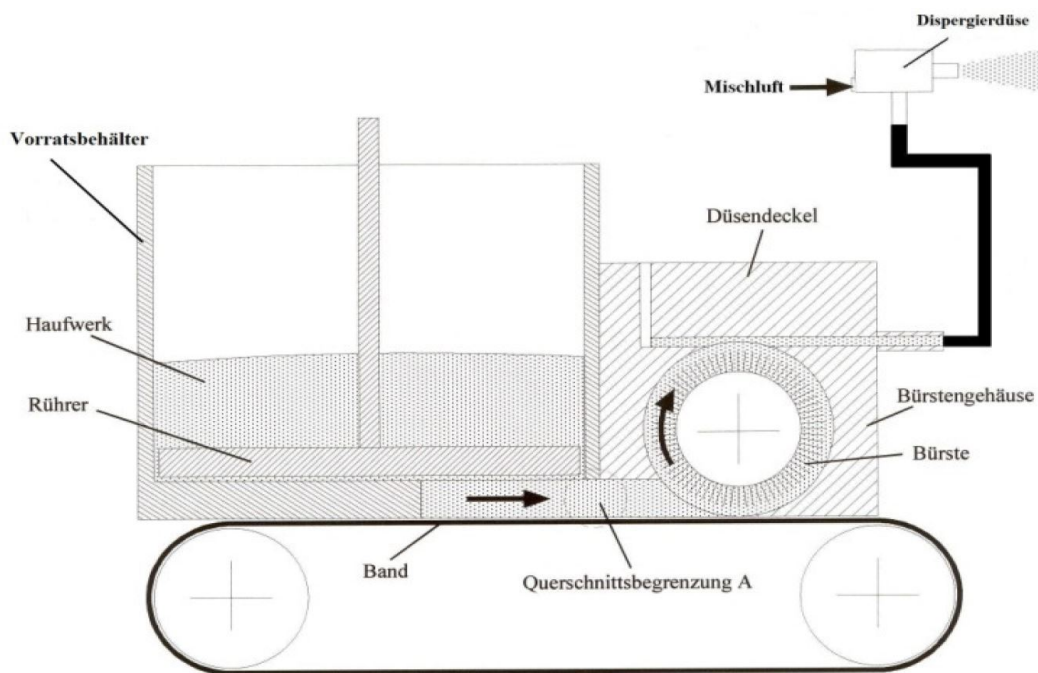


Fig. 1: Principle of operation of the BEG 1000/BEG 2000/BEG 3000

The desired mass flows can be continuously and reproducibly adjusted with a controlled drive on the conveyor belt. The even, smooth conveyor belt, the built-in components in the reservoir, and the precise drive on the conveyor belt ensure excellent dosing constancy.

The system can be operated in "powder"/"no powder" pulse mode with the "Stop" and "Belt" control keys and an electric timer switch in cycles of up to 5 sec, depending on the mass flow.

The ejector nozzles we developed provide excellent dispersion for various volume flows.

BENEFITS

- Excellent short-term and long-term dosing constancy
- Easy to operate
- Quick and easy to clean
- Remote control or computer-controlled
- Pulse mode
- Easy to fill while in operation
- Large reservoir (1,500 cm³)
- Long dosing time over several days with the BEG 3000
- Robust design, proven in industrial applications
- Reliable function
- Reduces your operating expenses
- Low maintenance

DATASHEET

| | |
|---------------------------------------|---|
| Particle size range | 0.1 – 200 μm |
| Maximum particle number concentration | Ca. 10^7 particles/cm ³ |
| Volume flow | 80–165 NI/min |
| Mass flow (particles) | Type A: 8 g–550 g/h (with reference to SAE Fine, A2 dust), Type B: 100–6,000 g/h (with reference to SAE Fine, A2 dust), Type C: 350–7,300 g/h (with reference to SAE Fine, A2 dust) |
| Filling quantity | 15,000 g |
| Power supply | 115 – 230 V, 50/60 Hz |
| Particle material | Non-cohesive powders and bulks |
| Dosing time | Several hours nonstop |
| Pre-pressure | 4 – 8 bar |
| Carrier/dispersion gas | Random (generally air) |
| Compressed air connection | Quick coupling |
| Aerosol outlet connection | Type A: $\varnothing_{\text{inside}} = 6.4 \text{ mm}$, $\varnothing_{\text{outside}} = 10 \text{ mm}$ Type B: $\varnothing_{\text{inside}} = 8 \text{ mm}$, $\varnothing_{\text{outside}} = 12 \text{ mm}$ Type C: $\varnothing_{\text{inside}} = 8 \text{ mm}$, $\varnothing_{\text{outside}} = 12 \text{ mm}$ |
| Reservoir volume | 1,500 cm ³ |

APPLICATIONS

- Loading test of
 - engine filters as per ISO 5011
 - Hot gas filters
 - Bag filters
 - Air filters
 - Cyclones
- Engine crash tests
- Chemical and pharmaceutical industry
- Cement industry



Mehr Informationen:
<https://www.palas.de/en/product/beg3000>