



Generation of test aerosols from powder, dust, pollen, etc.; mass flow approx. 8 g/h – 7.3 kg/h with automatic mass flow monitoring

Model Variations



BEG 2000 A

Powder disperser with dispersing nozzle and weighing unit for low mass flows of approx. 8 g/h – 550 g/h; automatic mass flow monitoring and control



BEG 2000 B

Powder disperser with weighing unit for high mass flows of approx. 100 g/h – 6 kg/h; mass flow monitoring and control



BEG 2000 C

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

Description

With automatic mass flow control

The dosing unit on the BEG 2000 is continuously weighed for automatic mass flow control. The data from a touchscreen PC are continuously acquired and analyzed via a serial interface. As a result, the dispersed quantity of powder is always known and able to be automatically adjusted.

Dosing output on the BEG 2000 controlled using internal firmware

- 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

Function

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 in the reservoir prevent bridging in the reservoir.

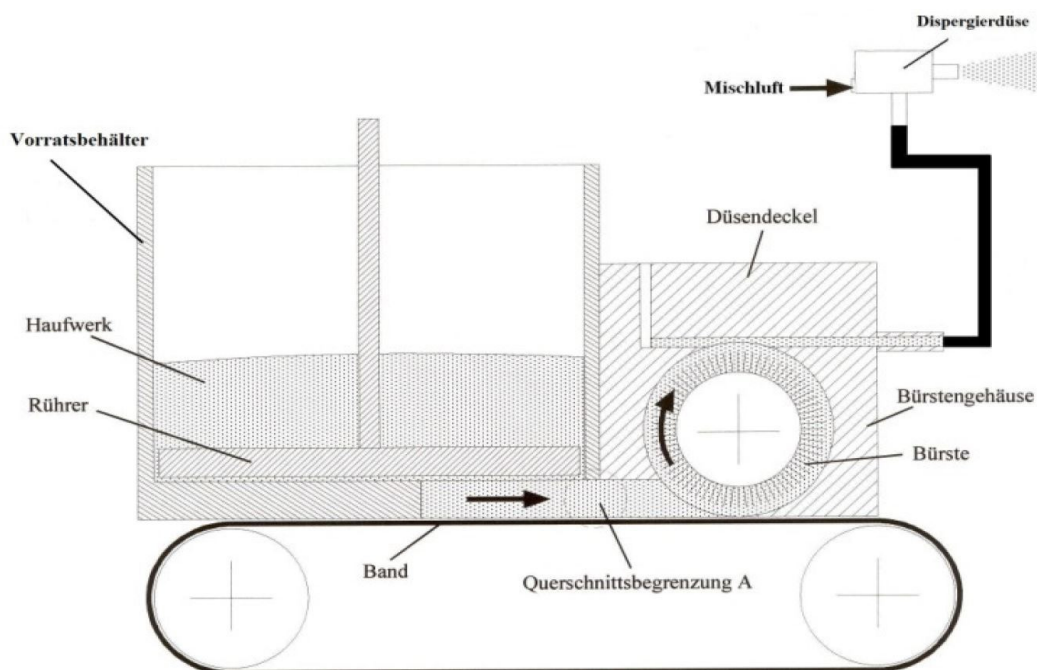


Fig. 1: Principle of operation of the BEG 1000/BEG 2000

Dosing

The desired mass flows are able to 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. Automatic readjustment is possible up to approx. 100 g/h.

Pulsed operation

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.

Dispersing

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 (1500 cm³)
- Automatic mass flow control with the BEG 2000
- Robust design, proven in industrial applications
- Reliable function
- Reduces your operating expenses
- Low maintenance

Datasheet

<i>Parameter</i>	<i>Description</i>
Volume flow	5 – 10 m ³ /h
Power supply	115 – 230 V, 50 – 60 Hz
Particle material	Non-cohesive powders and bulks
Dosing time	Several hours nonstop
Maximum particle number concentration	Ca. 10 ⁷ particles/cm ³
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)
Particle size range	0.1 – 200 μm
Carrier/dispersion gas	Random (generally air)
Pre-pressure	4 – 8 bar
Compressed air connection	Quick coupling
Aerosol outlet connection	Type A: Ø _{inside} = 6.4 mm, Ø _{outside} = 10 mm Type B: Ø _{inside} = 8 mm, Ø _{outside} = 12 mm Type C: Ø _{inside} = 6.2 mm, Ø _{outside} = 10 mm
Reservoir volume	1,500 cm ³
Filling quantity	500 g

Applications

- Filter industry:
 - 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

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