BEG 2000



The BEG 2000 is equipped with automatic mass flow control. For this purpose, the dosing unit of the BEG 2000 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 2000 A

Version 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

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



BEG 2000 C

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

OPERATION PRINCIPLE

GENERATION OF TEST AEROSOLS WITH AUTOMATIC MASS FLOW MONITORING

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.

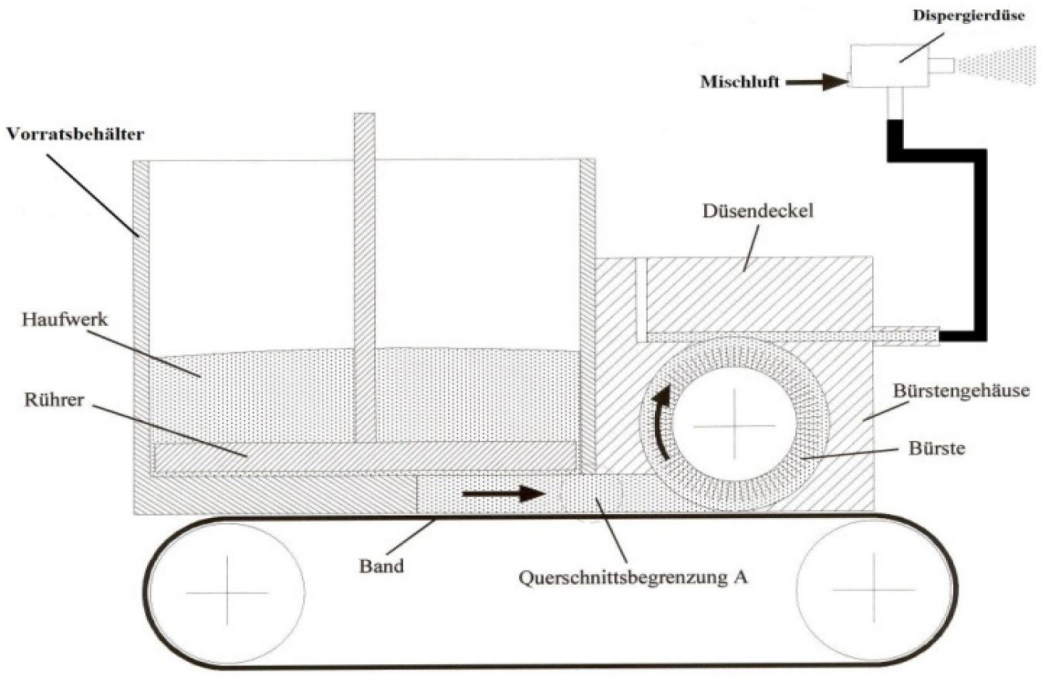


Fig. 1: Principle of operation of the BEG 1000/BEG 2000

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. Automatic readjustment is possible up to approx. 100 g/h.

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 cm^3)
- Automatic mass flow control with the BEG 2000
- Robust design, proven in industrial applications

DATASHEET

Particle size range	0.1 – 200 μm
Maximum particle number concentration	Ca. 10^7 particles/cm^3
Volume flow	80–165 Nl/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	500 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: $Ø_{inside}$ = 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

Applications

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

Mehr Informationen:
https://www.palas.de/en/product/beg2000