



The dispersion unit and the electrical control unit can be set up up to 2 m apart from each other. The return speed for container changeover is optimized on the RBG 1000 I and is faster than on the other RBG variants. It is only approx. 1 minute.

Optional operation with low pressure from 300 mbar absolute is possible.

The feedstock reservoirs with a 7, 10, 14, or 20 mm diameter are pressure-resistant.

For operation with low pressure, special pressure-resistant feedstock reservoirs are needed. Their piston is strongly connected to the feeding unit by a claw. This enables an undisturbed operation with low pressure.

The 28 mm diameter feedstock reservoir is not pressure resistant, but can be used in the RBG 1000 ID when dosing in atmospheric conditions.

In the RBG 1000 D pressure-resistant version, compressed air is used as the disgerger gas. Operation with nitrogen or other inert gases is not permitted.

## OPERATION PRINCIPLE

## BENEFITS

- Pressure resistant up to 3 barg overpressure
- Optional: negative pressure operation from 300 mbar absolute, remote control or computer control
- Highest short-term and long-term dosing consistency
- Disperses practically all non-cohesive dusts
- Easy exchange of different solids containers and dispersion lids
- Easy determination and adjustment of mass flow
- Pulse operation
- Easy cleaning of the unit
- Quick and easy operation
- Reliable function
- Low maintenance
- Reduces your operating costs

## DATASHEET

|                                       |  |
|---------------------------------------|--|
| Particle size range                   | 0.1 – 100 $\mu\text{m}$  |
| Maximum particle number concentration | Ca. $10^7$ particles/cm <sup>3</sup>   |
| Volume flow                           | 0.5 – 5.0 m <sup>3</sup> /h  |
| Mass flow (particles)                 | 0.04 – 430 g/h (with an assumed compacted density of 1 g/cm <sup>3</sup> )   |
| Filling height                        | 70 mm  |
| Filling quantity                      | 2.7 g (reservoir $\varnothing$ = 7 mm), 5.5 g (reservoir $\varnothing$ = 10 mm), 10.8 g (reservoir $\varnothing$ = 14 mm), 22 g (reservoir $\varnothing$ = 20 mm), 43 g (reservoir $\varnothing$ = 28 mm)  |
| 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                | Air  |
| Maximum counter pressure              | 0.2 barg   |
| Compressed air connection             | Quick coupling   |
| Feed rate                             | 5 – 700 mm/h   |
| Reservoir inner diameter              | 7, 10, 14, 20, 28 mm   |
| Aerosol outlet connection             | Dispersion cover type A: $\varnothing_{\text{inside}}$ = 5 mm, $\varnothing_{\text{outside}}$ = 8 mm<br>Dispersion cover type B: $\varnothing_{\text{inside}}$ = 3.6 mm, $\varnothing_{\text{outside}}$ = 6 mm<br>Dispersion cover type C: $\varnothing_{\text{inside}}$ = 2.5 mm, $\varnothing_{\text{outside}}$ = 6 mm |
| Dispersion lid                        | Type A, type B, type C, type D   |
| Dimensions                            | Dispersion unit: 430 • 300 • 180 mm (H • W • D)  |
| Weight                                | Approx. 19 kg  |

## APPLICATIONS

- All applications pressure-resistant up to 3 barg overpressure
- Dispersion of radioactive substances
- Dispersion of pharmaceutical powders
- Filter industry:
  - Determination of fractional separation efficiency
  - Determination of total separation efficiency
  - Long-term dusting
  - Filter media and ready-made filters
  - Dust removal filters
  - Vacuum cleaners and vacuum cleaner filters
  - Car interior filters
  - Engine air filters
- Calibration of particle measurement devices
- Flow visualization
- Inhalation tests
- Tracer particles for LDA, PIV, etc.
- Coating of surfaces



Mehr Informationen:  
<https://www.palas.de/en/product/rbg1000id>