



This device disperses particles at positive pressure values of up to 3 bar. 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.

The RBG 1000 IGD has a higher gear ratio. This means that at very low feed rates ( $< 10$  mm/h), the feed rate can be better adjusted by means of a potentiometer. The maximum feed rate is 300 mm/h.

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

The feedstock reservoir with a diameter of 28 mm is not pressure-resistant but can be used with the RBG 1000 IGD under atmospheric conditions.

In the RBG 1000 IGD 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/ $\text{cm}^3$
Volume flow	0.5 – 5.0 $\text{m}^3/\text{h}$
Mass flow (particles)	0.04 – 185 g/h (with an assumed compacted density of 1 g/ $\text{cm}^3$ )
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	1 – 300 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; Dispersion cover type B: $\varnothing_{\text{inside}} = 3,6$ mm, $\varnothing_{\text{outside}} = 6$ mm; Dispersion cover type: $\varnothing_{\text{inside}} = 2,5$ mm, $\varnothing_{\text{outside}} = 6$ mm
Dispersion cover	Type A, type B, type C, type D
Dimensions	Dispersion unit: 1,800 • 430 • 300 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/product/rbg1000igd>