

# RBG 1000 D



This device disperses particles at positive pressure values of up to 3 bar. Optional operation with low pressure from 300 mbar absolute is possible.

The feedstock reservoirs with a diameter of 7, 10, 14, or 20 mm 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. Old RBG models can be upgraded with this function by Palas®.

The solid material reservoir with a diameter of 28 mm is not pressure-resistant but can be used with the RBG 1000 D under 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.

## BENEFITS

- Pressure-resistant to 3 bar over pressure
- Optional: Low pressure operation from 300 mbar absolute, remote control or computer-controlled
- Highest short-term and long-term dosing constancy
- Disperses virtually all non-cohesive dusts
- Easy exchange of different solid material reservoirs and dispersing covers
- Easy determination and adjustment of the mass flow
- Pulse mode
- Device easy to clean
- Quick and easy to operate
- Reliable operation
- Little maintenance required
- Reduces your operating expenses

## APPLICATIONS

- All applications pressure resistant up to 3 bar over-pressure
- Testing of compressed air filters
- 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

## 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 – 430 g/h (with an assumed compacted density of 1 $\text{g}/\text{cm}^3$ )
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	5 – 700 mm/h
Reservoir inner diameter	7, 10, 14, 20 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	465 • 320 • 200 mm (H • W • D)
Weight	Approx. 19 kg		