

RBG 1000 ISD



This device disperses particles at positive pressure values of up to 3 bar and can also use nitrogen and air as the dispersing gas. Optional operation with low pressure from 300 mbar absolute is possible. The 7-, 10-, 14- or 20-mm feed stock reservoirs are pressure-resistant. For operation with low pressure special pressure-resistant feed stock reservoirs are needed. Their piston is strongly connected to the feeding unit by a claw. This enables an undisturbed operation with low pressure.

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

BENEFITS

- Pressure-resistant up to 3 barg overpressure
- 2 m distance between dispersing unit and control unit
- Optional: Low pressure operation from 300 mbar absolute
- Nitrogen as dispersing gas
- Optional: Remote control or computer-controlled

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

DATASHEET

Particle size range	0.1 – 100 μm
Maximum particle number concentration	Ca. 10^7 particles/cm ³
Volume flow	0.5 – 5.0 m ³ /h
Mass flow (particles)	0.04 – 430 g/h (with an assumed compacted density of 1 g/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, nitrogen
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 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