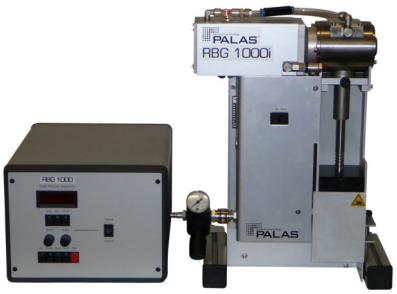
Print View

RBG 1000 ISD



Separate dispersion and control unit, pressure resistant at over-pressure values up to 3 bar, optional low pressure operation from 300 mbar (absolute pressure), nitrogen as dispersion gas as well.

Description

This device disperses particles at positive pressure values of up to 3 bar and can also use nitrogen, in addition to air, as the dispersing gas. Optional operation with low pressure from 300 mbar absolute is possible (please see accessories). **Please note**: 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. 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 SD under atmospheric conditions.
Table 1: Mass flows of RBG system (compacted density 1 g/cm^3)
Table 2: Dispersion covers
Table 3: Different versions of the RBG system I = version for inhalation= pressure-resistant= low feed rate= easily removable and weighable dosing unit= nitrogen version

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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

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Datasheet

Parameter	*Description*
Volume flow	0.5 – 5.0 $m^{3/h}$
Power supply	115/230 V, 50 – 60 Hz
Dimensions	430 • 300 • 180 mm (L • W • H, dispersion unit)
Weight	approx. 19 kg
Particle material	Non-cohesive powders and bulks
Dosing time	Several hours nonstop
Maximum particle number concentration	ca. 10^7 particles/cm^3
Mass flow (particles)	0.04 – 430 g/h (with an assumed compacted density of 1 g/cm^3)
Particle size range	0.1 – 100 µm
Carrier/dispersion gas	Air, nitrogen
Pre-pressure	4 – 8 bar
Feed rate	5 – 700 mm/h
Reservoir diameter	7, 10, 14, 20 mm
Maximum counter pressure	200 $mbar_g$
Reservoir length	70 mm
dispersion cover	Type A, type B, type C, type D
Compressed air connection	Quick coupling
Aerosol outlet connection	Dispersion cover type A: $Ø_{inside}$= 5 mm, $Ø_{outside}$ = 8 mm; Dispersion cover type B: $Ø_{inside}$= 3.6 mm, $Ø_{outside}$ = 6 mm; Dispersion cover type: $Ø_{inside}$= 2.5 mm, $Ø_{outside}$ = 6 mm
Filling quantity	2.7 g (reservoir Ø = 7 mm), 5.5 g (reservoir Ø = 10 mm), 10.8 g (reservoir Ø = 14 mm), 22 g (reservoir Ø = 20 mm), 43 g (reservoir Ø = 28 mm)

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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

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