



DESCRIPTION

This device disperses particles at positive pressure values of up to 3 bar and is able to use, besides air, nitrogen as dispersion gas.

Please note: The 16-, 20-, and 28-mm solid material reservoirs are pressure-resistant; the 32-mm solid material reservoir is not pressure-resistant. The solid material reservoir with a diameter of 32 mm is able to be used in the RBG 2000 SD exclusively under atmospheric conditions.

Nitrogen cannot be used as the dispersing gas in the pressure-resistant version of the RBG 2000.

RBG 1000				
Reservoir Ø	Fill quantity	Feed rate 1 mm/h	Feed rate 5 mm/h	Feed rate 700 mm/h
7 mm	2.7 g	38 mg/h	190 mg/h	27 g/h
10 mm	5.5 g	79 mg/h	395 mg/h	55 g/h
14 mm	10.8 g	154 mg/h	770 mg/h	107 g/h
20 mm	22 g	314 mg/h	1570 mg/h	219 g/h
28 mm	43 g	616 mg/h	3080 mg/h	430 g/h
RBG 2000				
16 mm	36 g	0.2 g/h	1 g/h	140 g/h
20 mm	56 g	0.3 g/h	1.5 g/h	220 g/h
28 mm	110 g	0.6 g/h	3 g/h	430 g/h
32 mm	144 g	0.8 g/h	4 g/h	562 g/h

Table 1: Mass flows of RBG system (compacted density 1 g/cm³)

	Particle size	Reservoir ∅	Volume flows
Cover A	<0,1–100 µm	7-32 mm	2–5 m ³ /h
Cover B	<0,1–100 µm	7, 10 and 14 mm	1–2.5 m ³ /h
Cover C	<0.1–100 µm	7 mm	0.5–1.2 m ³ /h
Cover D	200–1000 µm	7-32 mm	2–5 m ³ /h

Table 2: Dispersion covers

	Feed rate mm/h	Reservoir ∅ mm	Reservoir length mm
RBG 1000	700	7–28	70
RBG 1000 D	700	7–20	70
RBG 1000 G	300	7–28	70
RBG 1000 GD	300	7–20	70
RBG 1000 L	700	10, 14	70
RBG 1000 SD	700	7-20	70
RBG 1000 SG	300	7-20	70
RBG 1000 I	700	7-28	70
RBG 1000 ID	700	7-20	70
RBG 1000 ISD	700	7-20	70
RBG 2000	700	16 - 32	180
RBG 2000 D	700	16, 20, 28	180
RBG 2000 SD	700	16, 20, 28	180

Table 3: Different versions of the RBG system I = version for inhalation

D = pressure-resistant

G = low feed rate

L = easily removable and weighable dosing unit

S = nitrogen version

BENEFITS

- Optimal short-term and long-term dosing constancy
- Double the dosing time in comparison with the RBG 1000
- Disperses virtually any non-cohesive dusts
- Easy to switch out different solid material reservoirs and dispersion covers
- Easy to determine and adjust the mass flow
- Able to adjust higher mass flows than the RBG 1000
- Pulse mode
- Easy to clean
- Quick and easy to operate
- Reliable function
- Low maintenance
- Reduces your operating expenses

DATASHEET

Volume flow	40 – 80 l/min
Weight	Approx. 40 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)	1 – 560 g/h (with an assumed compacted density of 1 g/cm ³)
Particle size range	0.1 – 100 μm
Carrier/dispersion gas	Random (generally air)
Pre-pressure	4 – 8 bar
Maximum counter pressure	0.2 barg
Feed rate	
	5 – 700 mm/h
Compressed air connection	Quick coupling
Reservoir inner diameter	16, 20, 28, 32 mm
Filling height	180 mm
Dispersion cover	Type A, Type D
Aerosol outlet connection	Dispersion cover type A: $\varnothing_{\text{inside}} = 5$ mm, $\varnothing_{\text{outside}} = 8$ mm; Dispersion cover type D: $\varnothing_{\text{inside}} = 5$ mm, $\varnothing_{\text{outside}} = 8$ mm
Power supply	115 – 230 V, 50/60 Hz
Filling quantity	36 g (reservoir $\varnothing = 16$ mm), 56 g (reservoir $\varnothing = 20$ mm), 110 g (reservoir $\varnothing = 28$ mm), 144 g (reservoir $\varnothing = 32$ mm)
Dimensions	1.160 • 530 • 500 mm (H • B • T)

APPLICATIONS

- Filter industry
 - Determination of fractional separation efficiency
 - Determination of total separation efficiency
 - Long-term dusting
 - Filter media and assembled filters
 - Dust filters
 - Vacuum cleaners and vacuum filters
 - Car interior filters
 - Engine air filters
- Calibrating particle measurement devices
- Flow visualization
- Inhalation experiments
- Tracer particles for LDV, PIV, etc.
- Surface coatings



Mehr Informationen:
<https://www.palas.de/product/rbg2000sd>