

# AGF 10.0



AGF 10.0 是一款用于雾化液体及乳胶悬浮液的气溶胶发生器，可产生恒定的颗粒速率及确定的粒径谱。

## MODEL VARIATIONS



**AGF 10.0 D**  
Pressure-resistant version of the AGF 10.0 series

## 工作原理

### 带二元喷嘴及旋风分离器的液体雾化器

AGF 10.0 系统由一个可调节质量流量的可调二元喷嘴和一个切割粒径为10  $\mu\text{m}$  的旋风分离器组成。

图1: 气溶胶发生器示意图

将待分散的液体注入储液罐中，并将AGF 10 连接至压缩空气接口。通过调节喷嘴上的初级压力，可利用压力计连续调节液体的质量流量。喷嘴产生的液滴雾流切向进入旋风分离器。大颗粒在离心力作用下被分离，并回流滴入储液罐中。剩余的液滴通过所谓的“浸没管”离开旋风分离器。这些液滴的粒径谱一方面取决于喷嘴产生的初级液滴谱，另一方面尤其取决于旋风分离器的分离特性。

分离粒径可按如下方式计算： $d_{aerodyn,max} = 10 \mu\text{m}$ ，即无论待雾化的液体为何，最大颗粒粒径为 $d_{aerodyn} \approx 10 \mu\text{m}$ 。

尺寸  
宽x高x深mm 重量  
Kg 体积  
l/m  $m_{max}^*$  g/h  $dp_{mean}^{***}$   $\mu\text{m}$   $d_{max}$   $\mu\text{m}$  115/230 V  
50/60 Hz 耐压高达10 bar 压缩空气供给

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AGF 2.0	300 x 325 x 175	Ca. 9	6 - 17	4	0,25	2	x
AGF 2.0 iP	300 x 325 x 175	Ca. 15	12 - 14	2	0,25	2	x
AGF 10.0	Ø240 x 385	Ca. 4	14 - 35	20	0,5	10	x
AGF 2.0 D	Ø200 x 260	Ca. 8	12 - 45	4	0,25	2	x x
AGF 10.0 D	Ø200 x 300	Ca. 8	14 - 35	20	0,5	10	x x
UGF 2000	270 x 200 x 175	Ca. 4	Ca. 1 - 13	1,5	0,2	1,5	x

AGF

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	xx mm	Kg	l/m	m <sub>max</sub> * g/h	dp <sub>mean</sub> *** μm	d <sub>max</sub> μm	115/230 V 50/60 Hz	10 bar	
AGF 2.0	300 x 325 x 175	Ca. 9	6 - 17	4	0,25	2			x
AGF 2.0 iP	300 x 325 x 175	Ca. 15	12 - 14	2	0,25	2	x		
AGF 10.0	Ø240 x 385	Ca. 4	14 - 35	20	0,5	10			x
AGF 2.0 D	Ø200 x 260	Ca. 8	12 - 45	4	0,25	2		x	x
AGF 10.0 D	Ø200 x 300	Ca. 8	14 - 35	20	0,5	10		x	x
UGF 2000	270 x 200 x 175	Ca. 4	Ca. 1 - 13	1,5	0,2	1,5			x

Table 2: AGF

\* DEHS \*\*\*\*\*

1AGF UGF

- Generation of high mass flows of up to approx. 25 g/h
- Exact adjustment of the operating parameters
- Number concentration ( $C_N$ ) can be varied by the factor 10
- Particle size distribution remains virtually constant, if  $C_N$  is modified
- Number distribution maximum is within the MPPS range
- Virtually no power losses
- Optimal concentration, no coagulation losses
- Resistant to numerous acids, bases, and solvents
- Robust design, stainless steel housing
- Easy to operate
- Long dosing time

VDI 3491-6

Mass flow (particles)	14 – 35 l/min < 25 g/h (DEHS)
Filling quantity	300 ml
Particle material	DEHS, DOP, Emery 3004, paraffin oil, other non-resinous oils
Dosing time	> 24 h
Compressed air connection	Quick coupling
Aerosol outlet connection	$\varnothing_{\text{inside}} = 20 \text{ mm}$ , $\varnothing_{\text{outside}} = 30 \text{ mm}$
Mean particle diameter (number)	0.5 $\mu\text{m}$
Particle diameter (maximum)	10 $\mu\text{m}$
Dimensions	240 • 385 mm ( $\varnothing$ • L) Approx. 4 kg

- - ISO 14644 VDI 2083
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- - 
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  - HEPA/ULPA
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- - 10 bar AGF 10.0 D
  - 
  - LDV
- - < 5  $\mu\text{m}$
- 



Mehr Informationen:  
<https://www.palas.de/zh/product/agf10>