

SCHLICK 121-123系列喷嘴

SCHLICK Series 121-123

材质

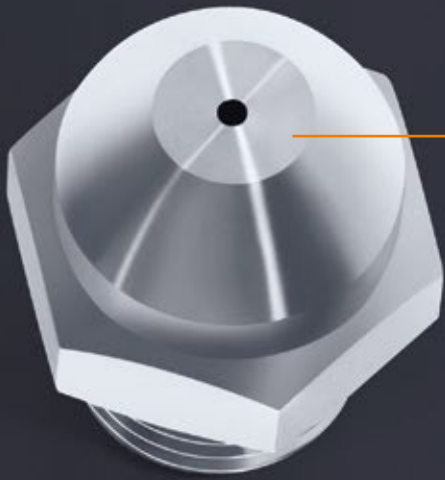
- 耐酸不锈钢
- 耐高温不锈钢
- 黄铜
- 哈氏合金
- 铬镍合金
- 铂铱合金
- 聚丙烯
- 聚四氟乙
- 聚氯乙烯
- 聚偏氟乙烯
- 超高分子量聚乙烯
- 钽
- 钛
- 其他客户指定材料

Materials

- Acid resistant stainless steel
- Heat resistant stainless steel
- Brass
- Hastelloy
- Inconel
- Platinum-Iridium
- PP
- PTFE
- PVC
- PVDF
- RCH 1000
- Tantalum
- Titanium
- Custom materials available on request

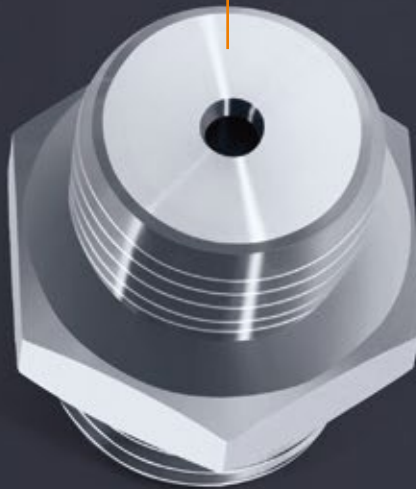


如有技术变更,恕不另行通知。



防堵设计,集成和特殊校准的过滤器
确保雾化性能的同时能实现防堵

*Blockage-resistant design with an
integrated and specially calibrated
filter*



即使在液体压力差很小的
情况下,也能实现非常精细
的雾化

*The SCHLICK design for very
fine atomisation even with
the lowest air flow rate*

采用头螺纹设计,安装简
单、美观

*Design with head screw
threads for perfect and
uncomplicated fitting*

SCHLICK 空心锥喷嘴

为雾化解决方案而生

产品目录
Product Overview

两液体喷嘴
Two-Substance
Nozzles

防滴漏/专业包封技术
ABC/PCA Technique

三/四液体喷嘴
Three-/Four-
Substance Nozzles

多喷头技术
Multispray

喷射杆
Insertion Pipes

喷嘴头
Nozzle Heads

实心锥喷嘴
Full Cone Nozzles

空心锥喷嘴
Hollow Cone Nozzles

硬质合金喷嘴
Carbide Nozzles

扁平喷嘴
Flat Spray Nozzles

喷射喷嘴
Smooth-Jet Nozzles

混合喷嘴
Mixing Nozzles

拉瓦尔喷嘴
Laval Nozzles

清洗喷嘴
Cleaning Nozzles

喷嘴附件
Accessories

测试中心
Test Center

SCHLICK 121-123系列喷嘴

SCHLICK Series 121-123



精准 -即使雾化流量极小

空心锥喷嘴由三部分组成:喷嘴头、涡流装置和螺纹接头。

液体切向流入涡流室,从而开始旋转。
液体压力转化为旋转能或动能。
旋转的液体形成液膜,
以空心锥体的形状喷出。

在喷嘴出口处,旋转的液膜与周围的空气发生碰撞,分解成细小液滴,这些液滴沿轴向和径向远离喷嘴,形成空心锥体。

雾化量和雾化液滴大小由喷嘴孔径、散射锥角度、液体压力、密度、粘度和表面张力决定。

一般雾化角度是由喷嘴孔径的大小决定的

喷嘴直径0.1至0.5 mm,雾化角度大致为60°
喷嘴直径0.6至1.6 mm,雾化角度大致为70°
喷嘴直径1.7至2.5 mm,雾化角度大致为78°

客户定制喷嘴可实现15°、30°、45°、60°、90°和120°雾化角度;如果喷嘴直径0.1-0.25mm,无法定制雾化角度,只有标准雾化角度喷嘴。

Precision – even with the smallest quantities

SCHLICK KreisI-spray nozzles are three-part nozzles consisting of a nozzle head, swirl unit and a screw fitting.

The liquid flows tangentially into a swirl chamber and thereby starts to rotate. The energy in the pressurised liquid is converted into rotational energy or kinetic energy. A rotating film of liquid forms around an air core and emerges through the hole as a hollow cone.

At the exit of the nozzle the liquid film encounters the surrounding air in a reciprocal reaction and breaks-up into fine droplets. These move away from the nozzle in an axial and radial direction and form a hollow cone.





The quality of the atomised spray and the droplet spectrum are related to the diameter of the hole, the pressure, the scatter cone, the density, the viscosity, and the surface tension.

The **normal spray** cone is achieved by bore holes of

0.1 to 0.5 mm diameter approx. 60°
0.6 to 1.6 mm diameter approx. 70°
1.7 to 2.5 mm diameter approx. 78°

Custom spray cone with 15°, 30°, 45°, 60°, 90° and 120° available. With bore holes of 0.1 to 0.25 mm only the normal spray cone is available.

	雾化形状: 空心圆锥体
	雾化角度 Mod. 121: 15°, 30°, 45°, 60°, 78°, 90°, 120° Mod. 123: 30°, 45°, 60°, 78°, 90°, 120°
	处理量 Mod. 121: 0.014 – 3.4 升/分钟(6 bar时) Mod. 123: 0.1 – 4 升/分钟(3bar时)
	常用喷嘴大小 Mod. 121: 0,1 mm – 2,5 mm Mod. 123: 0,5 mm – 3,2 mm

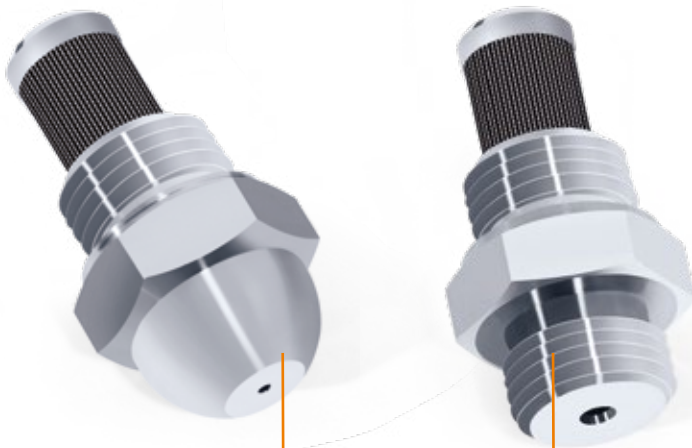
	Spray pattern: circular hollow-cone
	Spray angle: Mod. 121: 15°, 30°, 45°, 60°, 78°, 90°, 120° Mod. 123: 30°, 45°, 60°, 78°, 90°, 120°
	Capacity: Mod. 121: 0.014 – 3.4 l/min at 6 bar Mod. 123: 0.1 – 4 l/min at 3 bar
	Standard orifices: Mod. 121: 0.1 mm – 2.5 mm Mod. 123: 0.5 mm – 3.2 mm

创新性设计确保了完美雾化效果

- 安装拆卸非常简单
- 专为精细雾化的应用场合设计
- 应用范围非常广泛
- 终身售后服务保障
- 免费产品设计和技术支持

Innovative product design for perfect spraying:

- Extremely easy installation/de-installation
- Designed for very fine atomisation
- Very wide range of applications
- Long-term after-sales warranty
- Engineering free of charge



SCHLICK 121系列喷嘴
配备过滤器的121喷嘴

SCHLICK model 121
Standard with filter

SCHLICK 121 K型
配备头螺纹和过滤器

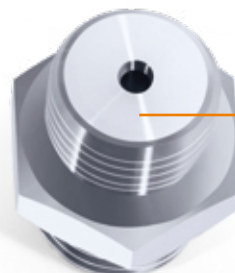
SCHLICK model 121 K
With head screw thread
and filter

121喷嘴雾化图
Spray model 121



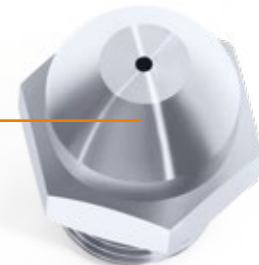
SCHLICK离心喷雾喷嘴特别适用于流量小且要求雾化液滴细小的场合。为避免喷嘴堵塞, 121系列和121 V系列(带头螺纹)喷嘴均配有过滤器。简化版的121 V系列和121 VK(带头螺纹)系列又丰富了空心锥喷嘴产品

SCHLICK centrifugal mist nozzles are especially suited to lower air flow rate and fine atomisation. In order to prevent blockages when using small quantities both standard designs 121 and 121 V (with head screw thread) are fitted with a filter. The reduced designs 121 V and 121 VK (with head screw thread) complement the delicate product range.



SCHLICK 121 VK系列
带喷头螺纹的简化设计

SCHLICK model 121 VK
Reduced design with a head screw thread



SCHLICK 21 V系列
无过滤器的简化设计

SCHLICK model 121 V
Reduced design without filter

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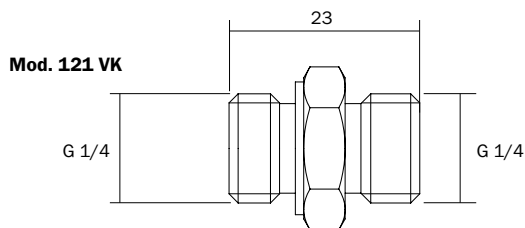
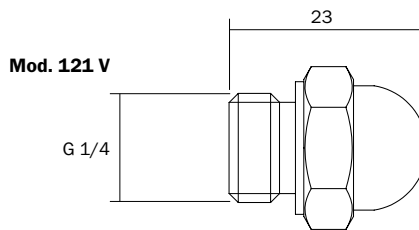
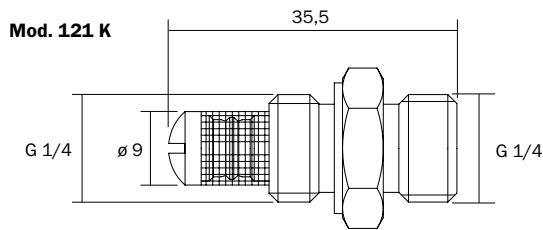
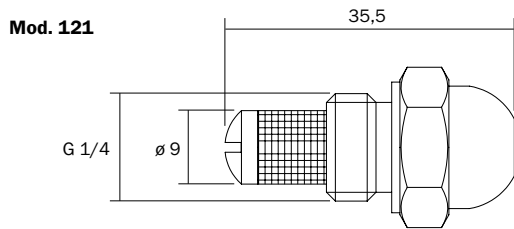
测试中心
Test Center

SCHLICK 121-123系列喷嘴

SCHLICK Series 121-123



基础款喷嘴尺寸
Dimensions of basic models

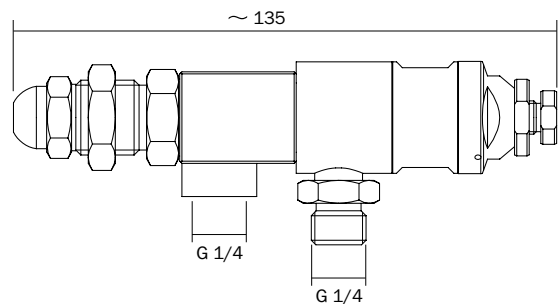


100% 无滴漏
drip-free



SCHLICK 121 V系列喷嘴 (**Form 7-1**), 通过单独的控制阀, 可以在雾化气体突然关闭的情况下, 气动通针顶出, 封闭喷嘴(停止喷液), 尤其适用于蚀刻、标记、循环喷涂等需要避免滴液的应用场合。

SCHLICK model 121 V (Form 7-1) with pneumatic open/close control using control air. The nozzle needle closes the outlet abruptly when the control air is shut off. Especially suitable for etching, marking, cyclic spraying and above all for liquids under pressure where drips are to be avoided.



如有技术变更, 恕不另行通知。

SCHLICK

-专为雾化解决方案而生

神奇的SCHLICK雾化技术
Clever SCHLICK technology

从设备设计规划到实际
 批量生产,
 Schlick都能提供完美
 解决方案

SCHLICK know-how – from planning
 to installation. We would be delighted
 to assist in the optimisation of your
 technical and operational results.



SCHLICK 100系列喷嘴 (Form 8)

电磁阀控制

标准设计: 230 V, 50 Hz, 100%ED.

环境温度: 最高55°C

外壳防护等级IP 65。

循环频率:

仅受转换时间限制。

SCHLICK model 100 (Form 8)

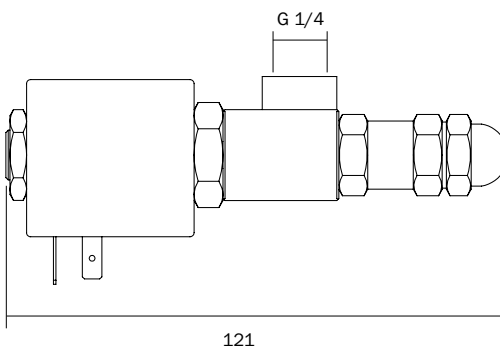
With solenoid valve

Standard design: 230 V, 50 Hz, 100 % ED.

Ambient temperature: max. 55 °C

Enclosure protection IP 65.

Cycling frequency: limited only by the changeover time.



SCHLICK 123系列喷嘴

Size 1: 喷芯直径0.4-2.1 mm, 螺纹G 1/4

Size 2: 喷芯直径1.6-3.5 mm, 螺纹G 3/8

适用于高粘度液体的雾化 (无论压力低还是高);
 不易堵塞。

雾化角度: 30°、45°、60°、78°、90°、120°

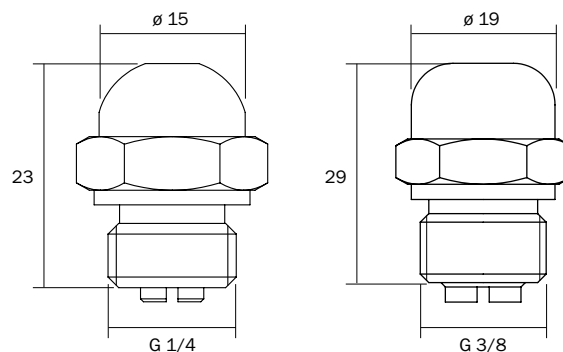
SCHLICK model 123

Size 1: Orifice from 0.4 to 2.1 mm, G 1/4

Size 2: Orifice from 1.6 to 3.5 mm, G 3/8

Suitable for spraying liquids of higher viscosity at lower
 or higher pressures; low clogging factor.

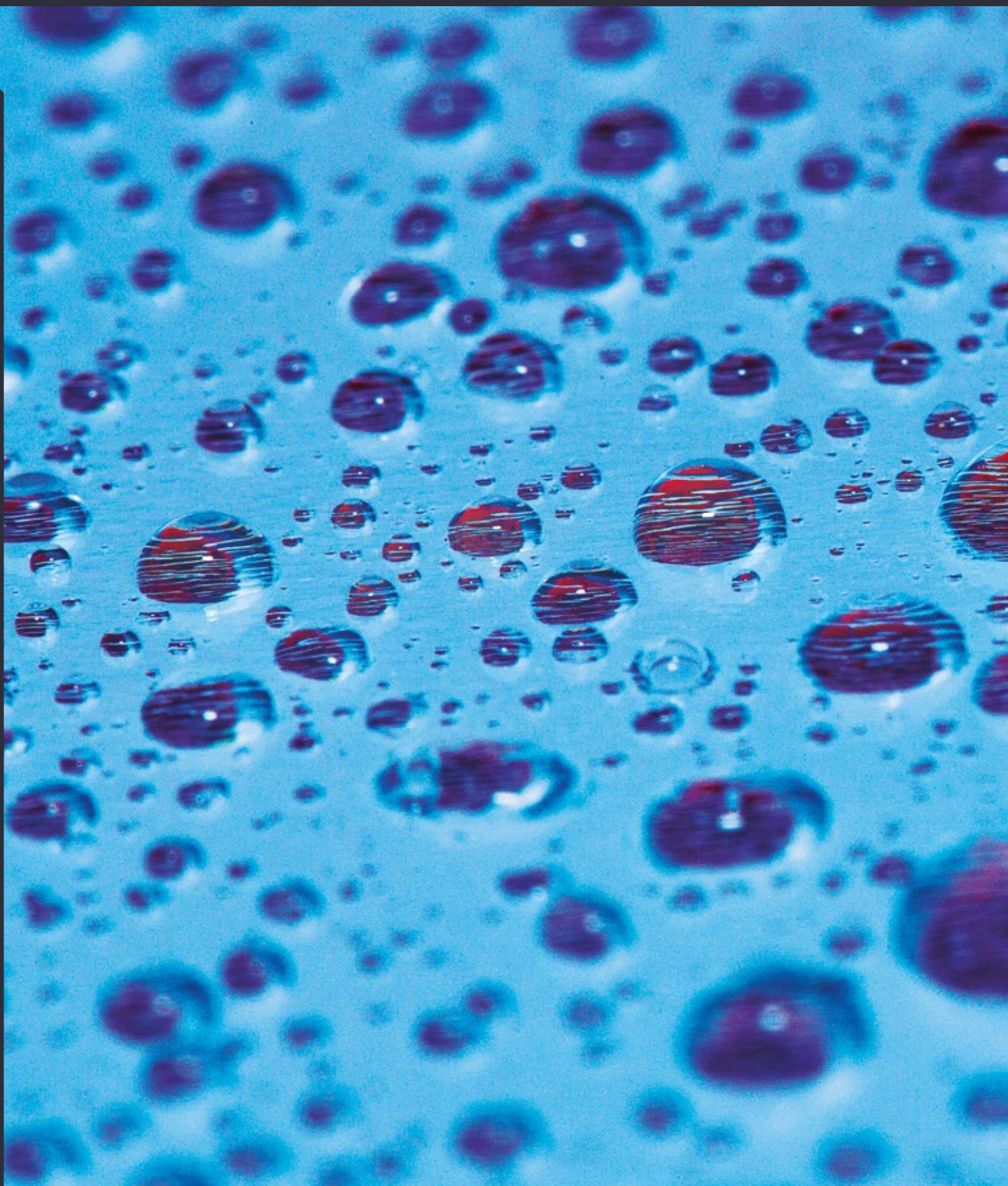
Spray angle: 30°, 45°, 60°, 78°, 90°, and 120°



SCHLICK 121-123系列喷嘴

SCHLICK Series 121-123

Mod. 121-123



压力式喷嘴/空心锥形
Pressure Nozzles / Hollow-Cone / Kreis!

如有技术变更,恕不另行通知。

应用

- 空气调节
- 润滑脂雾化
- 燃烧
- 直接润滑
- 织物保湿
- 气体冷却
- 制粒设备
- 加湿
- 混合
- 工艺工程
- 果肉保湿
- 喷雾干燥
- 过热蒸汽冷却
- 烟叶加湿

Applications

- Air conditioners
- Atomising grease
- Combustion
- Direct lubrication
- Fabric moisturising
- Gas cooling
- Granulating equipment
- Humidifying
- Mixing
- Process engineering
- Pulp moisturising
- Spray drying
- Superheated steam cooling
- Tobacco moisturising

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喷嘴杆
Insertion Pipes

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空心锥喷嘴
Full Cone Nozzles

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硬质合金喷嘴
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喷射喷嘴
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Laval Nozzles

清洗喷嘴
Cleaning Nozzles

喷嘴附件
Accessories

测试中心
Test Center

SCHLICK 121-123系列喷嘴具体技术参数

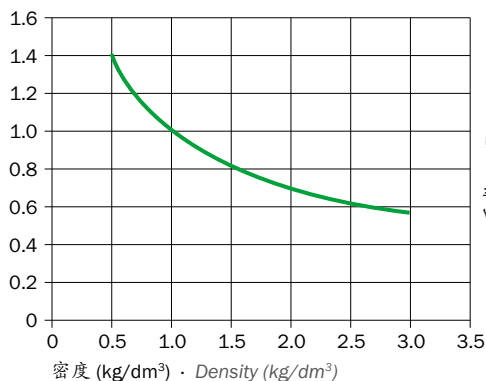
Technical Details SCHLICK Series 121-123



121-123系列喷嘴性能数据

Performance data of model 121-123

孔径 (mm) Borehole in mm	流量 (l/min) Flow rate in l/min at									
	1 bar	2 bar	3 bar	4 bar	6 bar	8 bar	10 bar	15 bar	20 bar	30 bar
0.10					0.014	0.016	0.018	0.022	0.025	0.031
0.15					0.021	0.024	0.027	0.033	0.038	0.047
0.20					0.030	0.034	0.038	0.047	0.055	0.067
0.25					0.042	0.048	0.054	0.066	0.076	0.094
0.30					0.050	0.057	0.064	0.076	0.090	0.111
0.35			0.0478	0.055	0.067	0.078	0.087	0.106	0.123	0.151
0.40			0.0625	0.072	0.088	0.102	0.114	0.139	0.161	0.197
0.45			0.0790	0.091	0.112	0.129	0.144	0.176	0.203	0.249
0.50			0.0976	0.112	0.138	0.159	0.178	0.218	0.252	0.308
0.55		0.096	0.1180	0.136	0.169	0.192	0.215	0.263	0.304	0.373
0.60		0.115	0.141	0.163	0.199	0.230	0.257	0.315	0.364	0.445
0.70		0.156	0.191	0.220	0.270	0.312	0.348	0.427	0.493	0.603
0.80		0.204	0.250	0.288	0.353	0.408	0.456	0.559	0.645	0.790
0.90		0.258	0.316	0.365	0.447	0.516	0.577	0.706	0.815	0.999
1.00	0.226	0.319	0.391	0.451	0.553	0.638	0.713	0.874	1.009	1.236
1.10	0.273	0.386	0.473	0.546	0.668	0.772	0.863	1.057	1.221	1.495
1.20	0.325	0.460	0.563	0.650	0.796	0.919	1.027	1.258	1.453	1.780
1.30	0.381	0.538	0.660	0.762	0.933	1.077	1.205	1.475	1.704	2.087
1.40	0.442	0.652	0.766	0.884	1.083	1.251	1.398	1.712	1.977	2.422
1.50	0.507	0.717	0.879	1.015	1.243	1.435	1.604	1.965	2.269	2.779
1.60	0.577	0.816	1.000	1.154	1.414	1.633	1.825	2.236	2.581	3.162
1.70	0.652	0.922	1.129	1.303	1.596	1.843	2.061	2.524	2.915	3.570
1.80	0.731	1.033	1.266	1.462	1.790	2.067	2.312	2.830	3.268	4.003
1.90	0.814	1.151	1.410	1.628	1.994	2.302	2.574	3.152	3.640	4.458
2.00	0.902	1.276	1.563	1.805	2.210	2.552	2.853	3.494	4.035	4.942
2.10	0.995	1.407	1.723	1.989	2.436	2.831	3.145	3.852	4.448	5.448
2.20	1.091	1.543	1.890	2.182	2.672	3.086	3.450	4.226	4.879	5.976
2.30	1.193	1.687	2.067	2.387	2.923	3.375	3.773	4.621	5.336	6.536
2.40	1.299	1.837	2.250	2.598	3.182	3.674	4.107	5.031	5.809	7.115
2.50	1.409	1.993	2.441	2.818	3.452	3.986	4.456	5.458	6.302	7.719



流量数据是以16°C的水测得的, 不同密度的流体流量系数参照左侧图表, 喷嘴的孔径是以0.1mm递增, 上表的数据都是标称孔径下的数据。如果要求的雾化角度是非标的, 要满足上图的流量, 喷嘴孔径可能要变大或者变小。

The air flow performance is based on water at 16°C – liquids of different thickness can be calculated using the conversion table on the left. The bore hole diameter is marked on the nozzle in 1/10 mm. For technical reasons, nozzles, which produce a spray cone differing from the normal spray cone, must be fitted with smaller or larger bore holes. Each air flow rate corresponds to the nominal bore hole.

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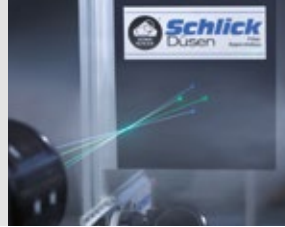
Mod. 121-123

压力式喷嘴/空心锥形
Pressure Nozzles / Hollow-Cone / Kreis

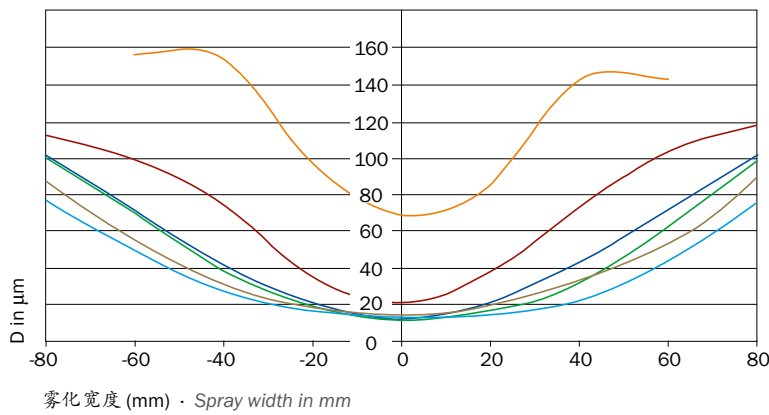
相位多普勒测量技术 PDA measurement technology

雾化效果可测量
Measurable success

SCHLICK 测量系统采用双相位激光多普勒测试原理(5瓦氩离子激光器),能精准测量雾化液滴颗粒尺寸、形态和其流动特性



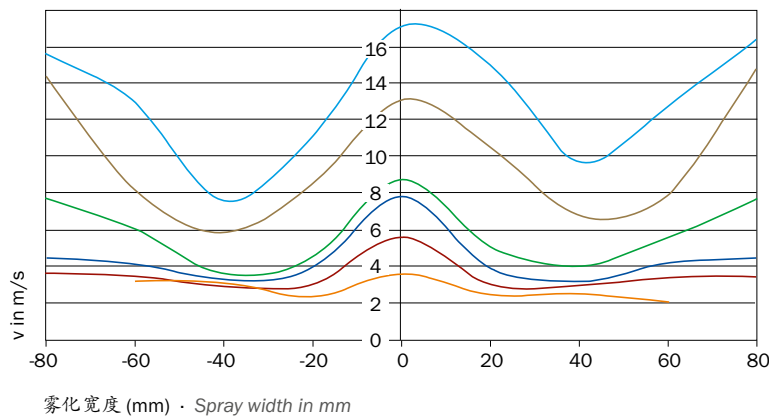
The SCHLICK measurement system, a drop measurement device designed according to the dual PDA principle (PDA = Phase-Doppler Anemometry), uses a 5-watt (argon-ionic) continuous wave laser.



1 bar 10 bar
3 bar 30 bar
6 bar 50 bar

Droplet size of Mod. 121

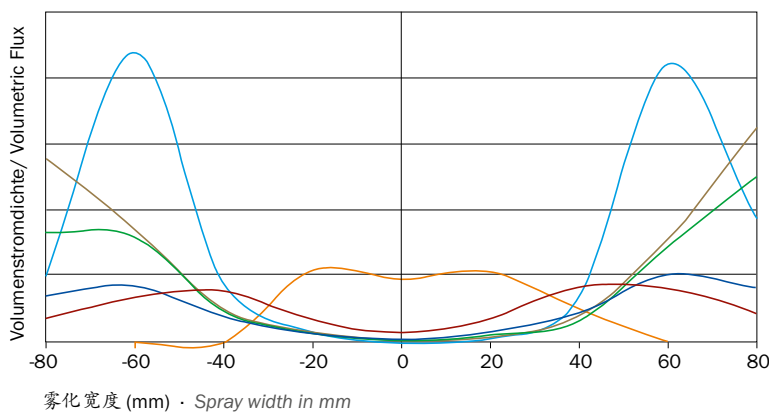
Bore diameter: 1.0 mm, normal spray angle,
spray width: 160 mm, distance: 100 mm



1 bar 10 bar
3 bar 30 bar
6 bar 50 bar

Velocities of Mod. 121

Bore diameter: 1.0 mm, normal spray angle,
spray width: 160 mm, distance: 100 mm



1 bar 10 bar
3 bar 30 bar
6 bar 50 bar

Volume density of Mod. 121

Bore diameter: 1.0 mm, normal spray angle,
spray width: 160 mm, distance: 100 mm

客户定制空心锥喷嘴

SCHLICK Customized Designs Hollow-Cone Nozzles

Mod. 121-123

压力式喷嘴/空心锥形

Pressure Nozzles / Hollow-Cone

可按客户要求定制，
小批量生产

作为一家全球领先的喷嘴制造商，SCHLICK一直为客户提供高质量的标准化解决方案。

当然，凭借高精度的制造能力以及丰富的研发经验，SCHLICK也可根据客户要求设计开发、定制喷嘴。

即使客户需求数量很少、交期短。

**Custom and individual designs,
small series**

As a leading nozzle manufacturer, high quality standardised solutions are business-as-usual for SCHLICK.

However, thanks to the breadth of its manufacturing capacities and comprehensive expertise, SCHLICK can also produce custom and individual designs for specific applications.

No matter how small the series or short the timeframe.

如有技术变更，恕不另行通知。



Mod. 77 (10 x Mod. 120)

直角设计、喷嘴和安装面齐平、雾化均匀、雾化面积大

Angled design with integrated and almost flat mounted nozzles. Large scatter cone with even flow rate density.



Mod. D10.899-1

客户特定应用, 4个103 Size3喷嘴安装到杆子, 杆子可插入到设备中

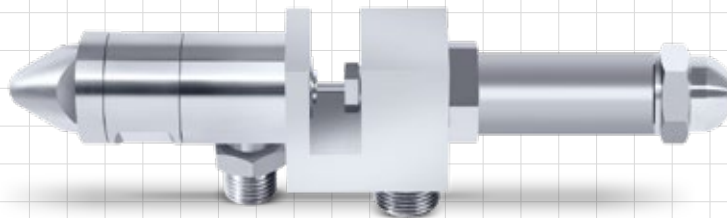
A push-in tube and 4x model 103/3 for a customer-specific application. Extremely robust construction. Welding is used to secure the nozzles.



Mod. 200 S7

客户定制设计, 为避免喷嘴堵塞, 增加过滤网, 多种孔径可供选择。

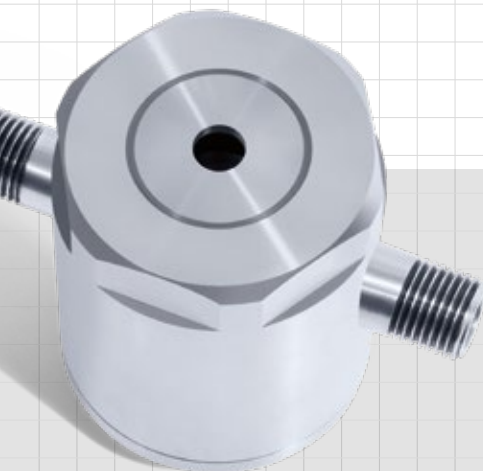
Custom design with filter to avoid blockages. Different apertures available.



Mod. 123 Form 7-1 S11

高压密封和独立的液体回流系统, 确保压缩气体不会窜到液路中, 而且气液如有泄露能很容易被检测到, 喷嘴长度可根据客户要求调整。

With high pressure sealing and separate liquid return system - this means that penetration of the control air is not possible and it is easier to detect leaks. Variable shaft length.



Mod. 100 S15

此喷嘴加装了加热套, 可随意拆卸, 用于制药和食品行业。

This version can be completely disassembled for use in the pharmaceutical/food areas. With a heating jacket.



Mod. 60/8L (48 x Mod. 121 V)

流量分配到多个喷嘴, 实现了大流量、雾化面积大, 同时雾化均匀、雾化液滴细小。

Model for creating a large scatter cone with even flow rate density. Small droplet size through the distribution of the liquid to four nozzles.

产品目录
Product Overview

两液体喷嘴
Two-Substance
Nozzles

防滴漏 / 食品包装材料技术
ABC/PCA Technique

三/四液体喷嘴
Three-/Four-
Substance Nozzles

多喷头技术
Multispray

喷嘴杆
Insertion Pipes

喷嘴头
Nozzle Heads

空心锥喷嘴
Full-Cone Nozzles

空心锥喷嘴
Hollow-Cone Nozzles

硬质合金喷嘴
Carbide Nozzles

扁平喷嘴
Flat Spray Nozzles

喷射喷嘴
Smooth-Jet Nozzles

混合喷嘴
Mixing Nozzles

拉瓦尔喷嘴
Laval Nozzles

清洗喷嘴
Cleaning Nozzles

喷嘴附件
Accessories

测试中心
Test Center