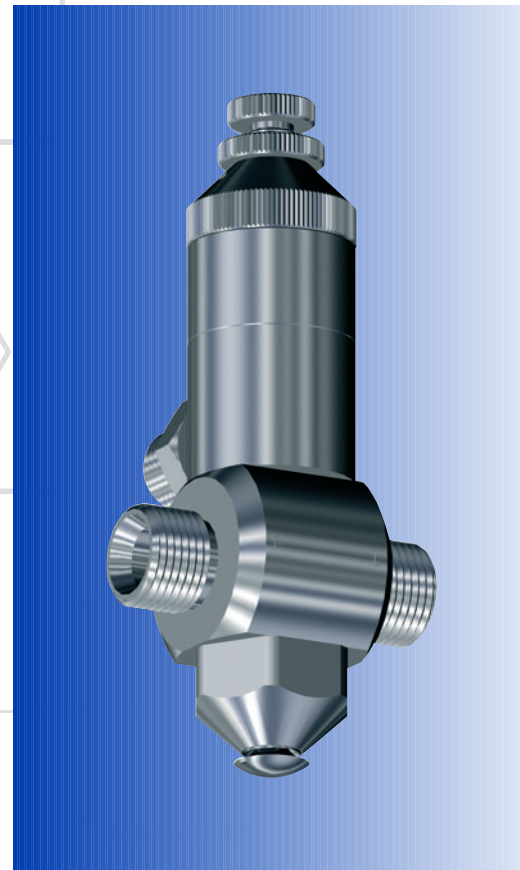


# Schlick Series 938-848 and 0/28-0/48 Two-Substance Nozzles for finest atomisation

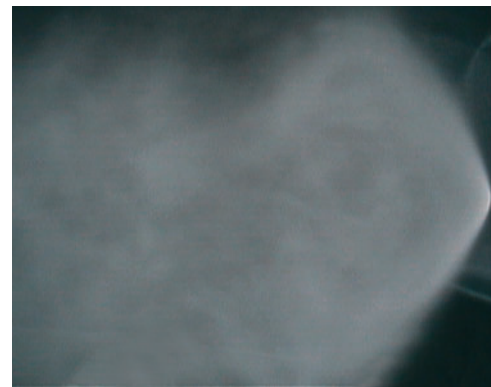
## **Applications:**

- Air conditioning
- Coating
- Combustion
- Disinfecting
- Finishing
- Fluid bed technology
- Granulating
- Mixing
- Process engineering
- Recovery
- Spray drying
- Tobacco industry



## Schlick two-substance nozzles for finest atomisation

- The 938, 848, 0/28 and 0/48 Models can fully atomise liquids to get a large specific surface with the help of atomising air, steam, or gas.
- These nozzles can atomise liquids to a far finer degree than other two-substance nozzles.
- The nozzles are of modular design and available in several forms.
- The liquid pressure differential can be used to control the flow rate on all models.
- On models with a control needle the needle setting can also be used to control the flow rate. This provides a larger range of liquid control.
- The minimal required differential liquid pressure is for  
Model 938 and 0/28:      0.050 bar  
Model 0/48                  0.035 bar  
Model 848                   0.027 bar
- The nozzles work with an atomising air pressure of 0.7 bar upwards.
- The fine droplet size can be set by the ratio of kg air to kg liquid.
- The liquid and atomising air are mixed at the orifice discharge.
- The nozzle spray angle can vary up to 140° depending on the ratio of liquid to water.
- The liquid should be free of solid particles. Because of the nozzle geometry, only liquids of low viscosity can be used, depending on surface tension maximum 30 to 100 mPas.
- Models 0/48 and 848 are designed for double air atomisation. On the one hand, this increases energy consumption but on the other, they create finest droplets, even with high liquid flow rates.



## Nozzle designs

### Form 0

With blind plug (basic model)



Fig. 18001

### Form 4

Supplied with a control needle for atomising tasks having highly variable flow rates

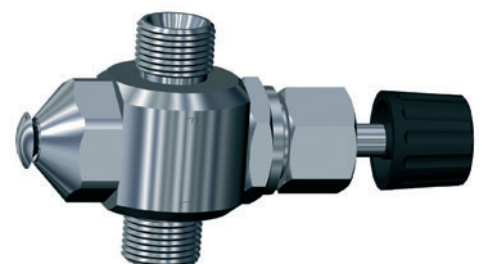


Fig. 18002

## Nozzle designs

### **Form 5**

As Form 4, but with graduations on the liquid control needle for fine setting of the flow rate, designed for experiments, laboratories, etc.



Fig. 18003

### **Form 6**

With straight (central) fluid feed



Fig. 18004

### **Form 7**

Pneumatically controlled using the atomising air. The nozzle needle closes the orifice automatically and abruptly when the atomising air is shut off. Especially suitable for etching, marking, cyclic spraying and above all for liquids under pressure where drips are to be avoided.

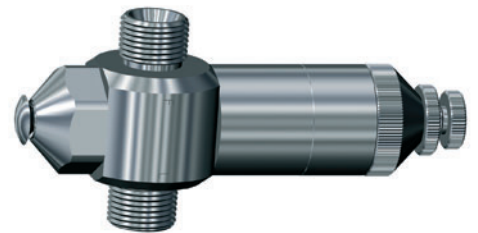


Fig. 18005

### **Form 7-1**

As Form 7, but with control by control air. Separate connectors for control air and atomising air

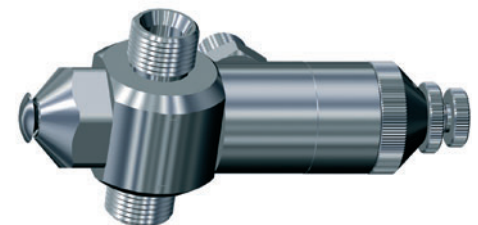


Fig. 18006

### **Form 8**

With solenoid valve  
Standard design: 220 V, 50 Hz, 100 % ED  
Ambient temperature: max. 55 °C  
Enclosure protection IP 65  
Cycling frequency limited only by the changeover time

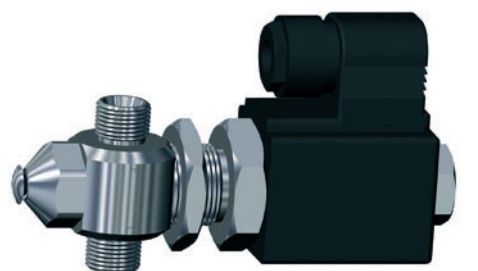


Fig. 18007

# Materials

- Brass
- Acid resistant stainless steel
- Heat resistant stainless steel
- Titanium
- HASTELLOY

Custom products from other materials available on request

# Performance specification

## Models 938 and 0/28 with straight air feed

Air pressure in bar	Air consumption in Normal m³/h	Liquid pressure in bar	Water flow rate in l/min
0.7	4.7	0.05	0.4
1.0	5.3	0.08	0.5
1.5	7.0	0.13	0.6
2.0	8.2	0.19	0.7
2.5	9.5	0.27	0.8
3.0	11.0	0.34	0.9
3.5	12.5	0.44	1.0
4.0	14.0	0.55	1.1
4.5	15.0	0.65	1.2
5.0	16.5	0.74	1.3
5.5	17.5	0.85	1.4
6.0	19.0	0.98	1.5

## Model 0/48 with double air feed

Air pressure in bar	Air consumption in Normal m³/h	Liquid pressure in bar	Water flow rate in l/min
1.0	28	0.13	0.7
2.0	43	0.50	1.4
3.0	58	1.00	2.0
4.0	74	1.60	2.5
5.0	84	2.40	3.2
6.0	88	4.00	4.0

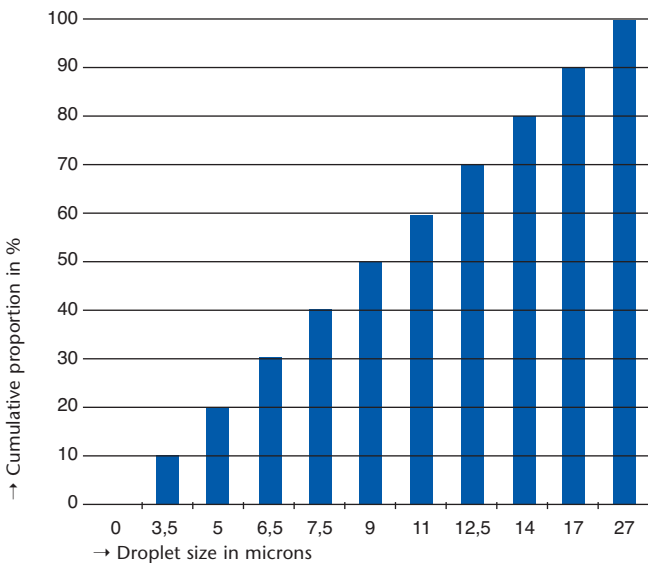
## Model 848 with double air feed

Air pressure in bar	Air consumption in Norm-m³/h	Liquid pressure in bar	Water flow rate in l/min
1.0	80	0.027	1.8
2.0	120	0.130	4.0
3.0	160	0.400	7.0
4.0	205	0.840	9.5
5.0	240	1.200	12.5
6.0	285	1.900	15.0

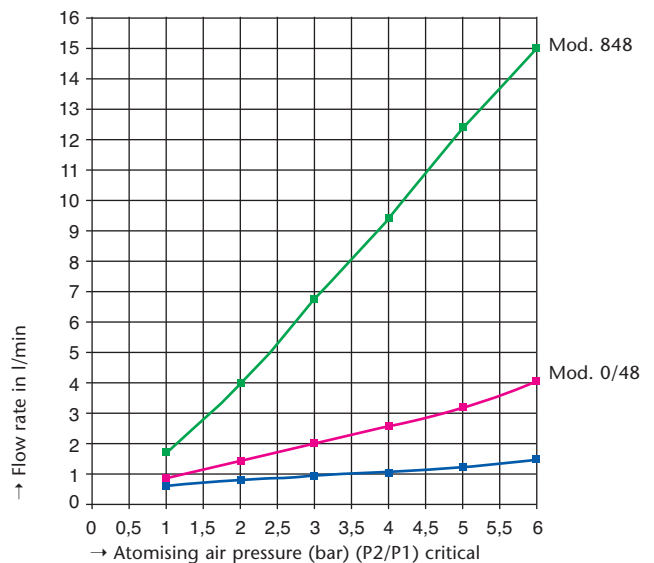
# Droplet size

## Model 0/48

Droplet distribution



Mean volume droplet size (50 microns constant)



Water flow rate 0.4 l/min, spray angle 120°  
Atomising air pressure 4 bar (ü)

## Custom versions

### Model 0/28 – Two-substance nozzle

Lance version



Fig. 18008

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### Model 0/48 S4 Form 0 – Two-substance nozzle

With double air feed



Fig. 18009

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### Model 848 S1 – Two-substance nozzle

Liquid feed from the rear

Double air feed

Welded construction

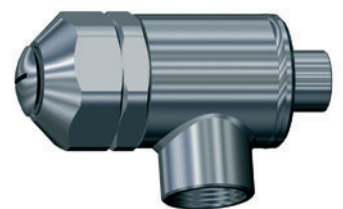


Fig. 18010

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### Model 0/48 S10 – Two-substance nozzle

Right-angled Form

With screw fitting

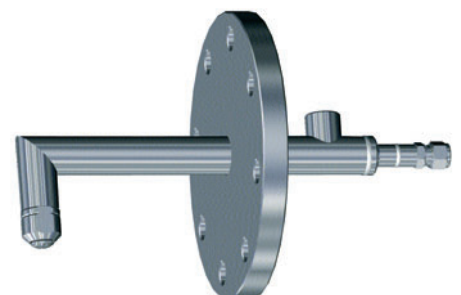


Fig. 18011

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## Service spectrum

### Pilot test laboratory

Before any new spray nozzles are used we subject them to comprehensive trials in our own test laboratory – if need be to your operational parameters. During these tests, we precisely determine droplet size, velocities and flow densities with our modern DUAL PDA laser-measuring equipment.



### Test nozzles

Schlick spray nozzles are world renowned for highest precision. We can offer you the best and most lasting solution to your requirements. And, if you want, we can supply you with test nozzles in advance – just contact us.

### Engineering

Take advantage of our comprehensive expertise – from design to installation – the conception of new products or

the optimisation of existing plant. We would be glad to help you improve the success of your operation.

### Repair service

As well as competent advice and its inception, you can profit from an efficient after-sales service that guarantees long-term supply of all products. We carry out both repair and conversion of Schlick spray nozzles, and in emergency, we can supply spare parts quickly and reliably.

### Onsite service

If required we will investigate and develop an optimal solution to suit individual requirements onsite. We will advise you and give you support during installation and initial start-up of the plant. A further plus is the help available from our worldwide technical field service network.

### Custom products

As one of the leading spray nozzle manufacturers in Europe, we can offer both high quality standard solutions and are in the position of developing customised products for individual tasks as fast as possible, even for small production runs.



### Documentation to the customer's requirements

Reliability and quality are the basis for successful cooperation with our international customers. This applies both to our products and to our service. If you wish, we will supply you with all necessary documentation such as technical handbooks for the nozzles (drawings, flow diagrams, installation and operating instructions) together with factory and material specifications.



All specifications are subject to change (flow rates/dimensions).

The performance/flow rate specifications quoted are descriptive or product identities and can vary by up to ±5 percent on delivery.



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