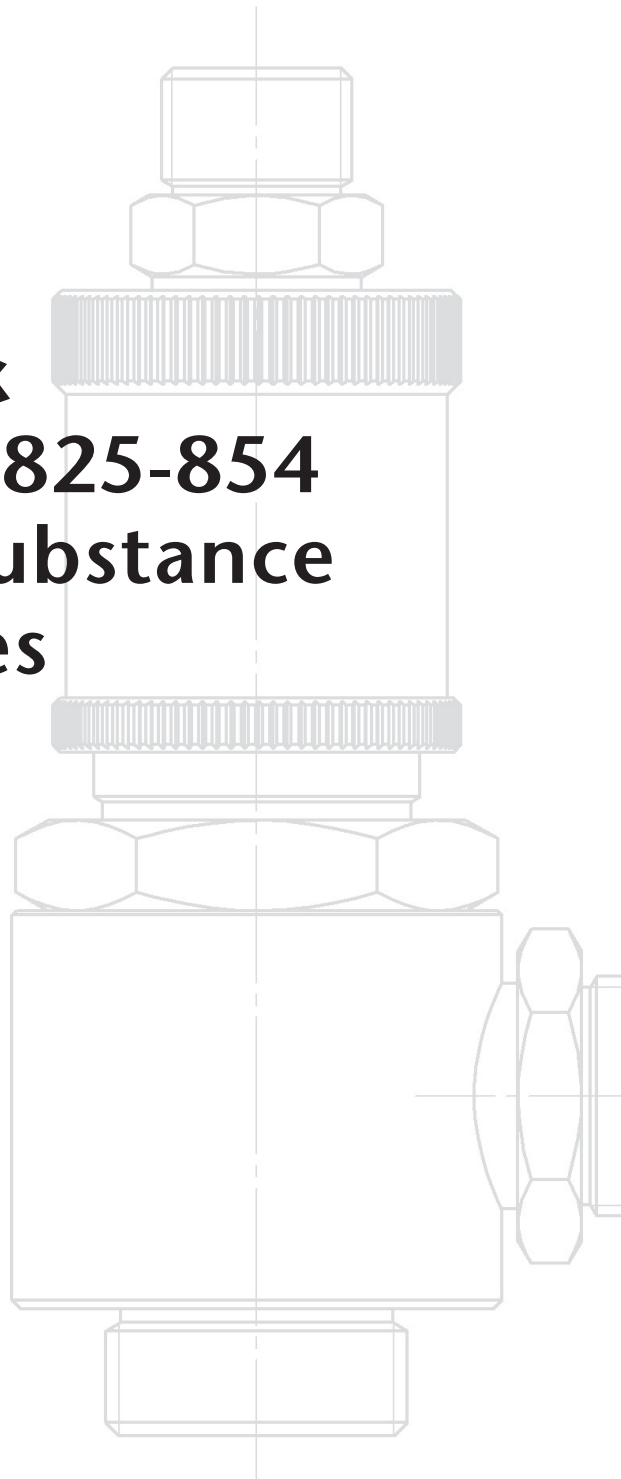


Schlick Series 825-854 Two-Substance Nozzles



Applications:

- Adsorption
- Coating
- Combustion
- Finishing
- Fluid bed technology
- Granulating
- Mixing
- Oil, alcohol recovery
- Process engineering
- Spray drying
- Thickening
- Tobacco industry

Schlick two-substance nozzles

- The 825-854 two-substance nozzles can fully atomise a liquid with the help of an atomising medium. During this process, a very large specific surface is created. The atomising medium can be compressed air, gas, or steam of 0.5 bar upwards.
- The performance ranges of the Model 825-854 Series nozzles start at the upper end of the performance ranges of the Model 970 and 940 Series nozzles.
- The liquid pressure differential is used to control the flow rate on all models.
- As an option, the nozzle's spray angle can be set between 10° and 40° with the spindle position.
- The droplet size is dependent on the mass ratio of the atomising medium per kg to water per kg.
- A liquid control range of 1:10 is achievable (under certain circumstances 1:30 is possible).
- The two components do not mix until they leave the nozzle's orifice.
- The principle of external mix two-substance nozzles makes independent control of atomisation fineness and flow rate possible.
- There are two forms of nozzle system assembly available. Form 0 with central liquid feed, and Form 1 with liquid control needle.
- Form 0 without pre-atomizer is especially suitable for the atomisation of high-viscosity liquids.
- Depending on controllability, danger of contamination and viscosity, a full cone swirl core or a three slot spinner for pre-atomizing can be fitted in Form 0. The three slot spinner achieves a better pre-atomizing, but is more susceptible to clogging.
- On Form 1, the liquid flow rate can also be controlled by the needle position.
- The standard nozzle models are provided with a screw fitting that allows simple installation in flanges or tank walls.
- Within certain limits, this series of nozzles can also be employed as injectors.
- Two-substance nozzles are used wherever a large reaction surface and/or exchange surface with larger flow rates and viscosities are required.

Nozzle designs

Form 0

With central fluid feed

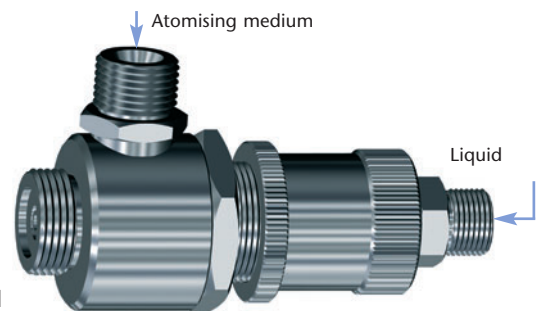


Fig. 20001

Form 1

With control needle and PVC protective cap

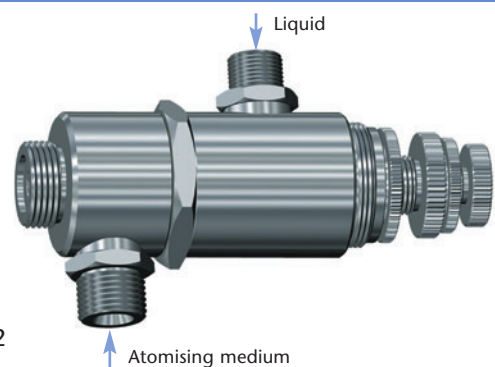


Fig. 20002

Materials

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

Custom products from other materials available on request

Dimensions

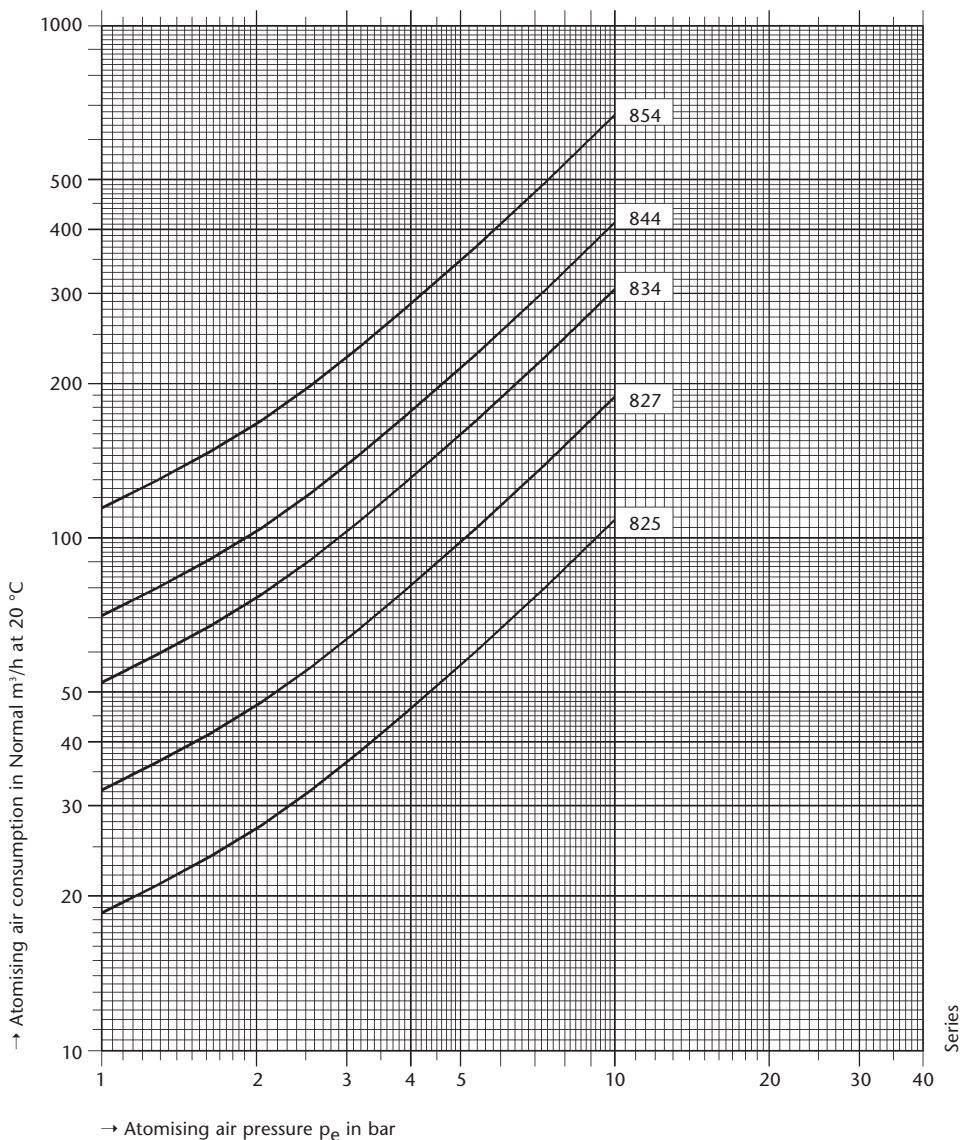
Model description	825	827	834	844	854
Liquid orifice in mm	2-3	4	6	8	10
Air inlet port	1/2	1/2	3/4	1	1 1/4
Liquid inlet port	3/8	3/8	1/2	3/4	1
Screw fitting	1/2	3/4	1	1 1/4	1 1/2
Height, Form 0 in mm	120	130	160	160	200
Height, Form 1 in mm	145	175	210	210	280

Connector fitting to ISO 228

Performance specification

Series 825-854 – Two-substance nozzles

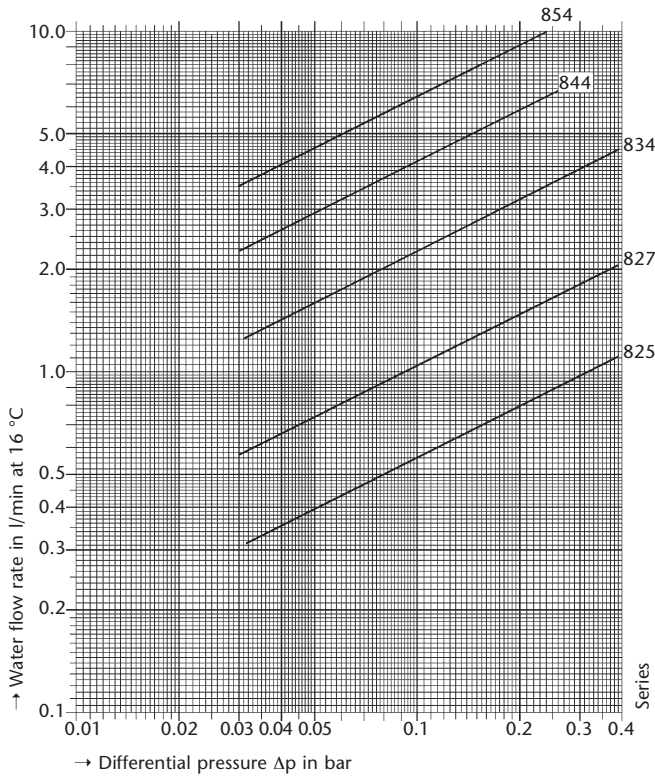
Atomising air consumption in Normal m³/h at 20 °C



Performance specification

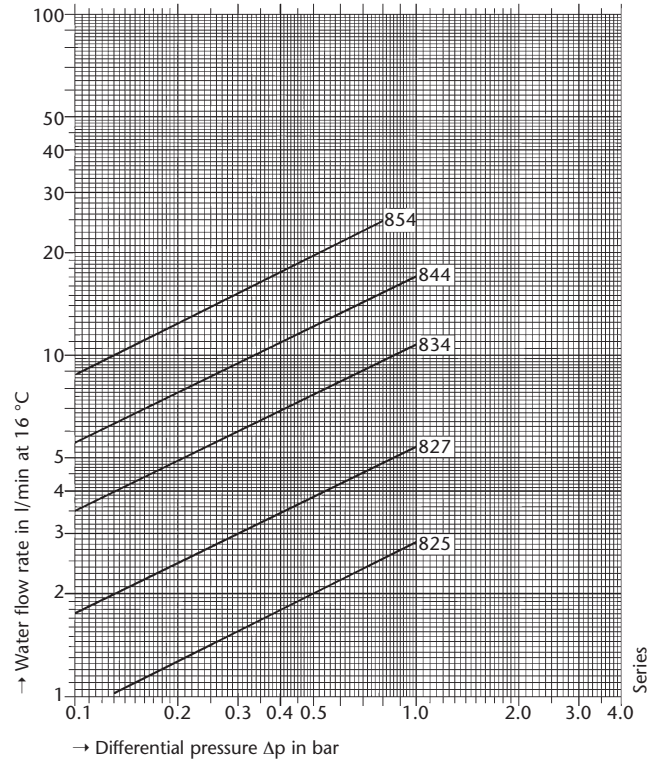
Series 825-854 Form 0 – Two-substance nozzle

Water flow rate in l/min at 16 °C



Series 825-854 Form 1 – Two-substance nozzle

Water flow rate in l/min at 16 °C

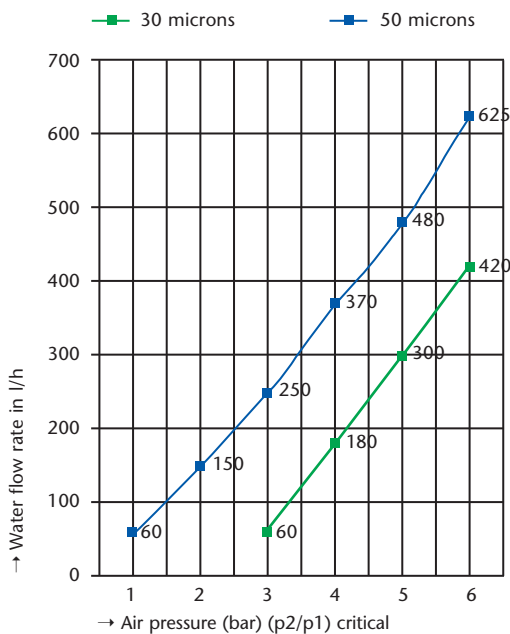


The curves end at the acceptable flow rates of each individual nozzle.

Droplet size

Model 834 – Two-substance nozzle

Mean volume droplet size



Custom versions

Model 827 Form 0 S6 – Two-substance nozzle

- The atomising air/gas/steam flow rate is controlled with shims
- Simple construction
- For spraying of suspensions and dispersions

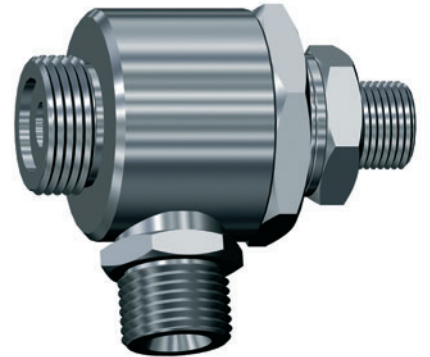


Fig. 20003

Model 834 Form 0 S7 – Two-substance nozzle

With conical (NPT) screw fitting

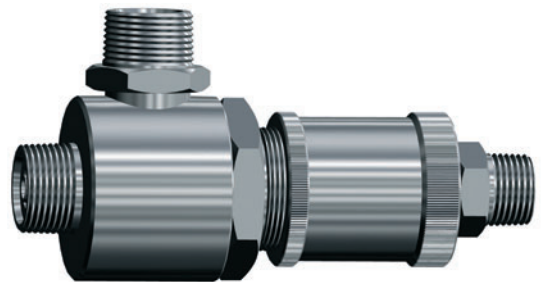


Fig. 20004

Model 854 Form 1 – Two-substance assembly

With flange connection and PVC protective cap

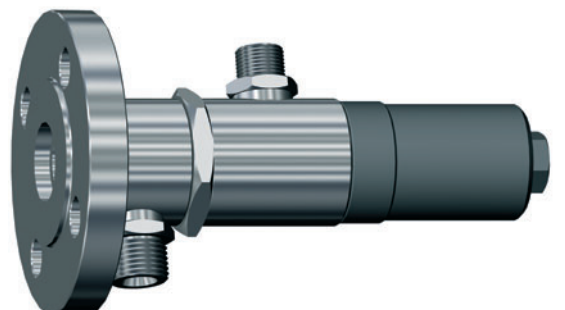


Fig. 20005

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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