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Schlick
Atomizing technologies

Living for Solutions:
SCHLICK technology for SNCR & SCR processes.

Sophisticated solutions for optimum nitrogen oxide reduction.

To create a clean environment

Nitrogen oxides are produced as unwanted by-products of combustion processes, not just in vehicle engines, but also in numerous industrial and heating systems. Their harmful effects on health and the environment have resulted in legal regulations on emissions control stipulating that nitrogen oxide emissions must be reduced. In practice, this is achieved through measures that are referred to as either primary or secondary measures. While primary measures provide direct optimisation of the combustion processes, the secondary measures related to exhaust

gases convert the nitrogen oxides into nitrogen and water. These can either be emitted without causing any damage or can be used again. The SNCR and SCR processes were developed in order to meet the strict air purification requirements.

Ready for use.

The injection lances or the nozzle heads used play a key role in creating an economical nitrogen oxide reduction process. They ensure that the necessary reducing agent is injected evenly and extensively into the gas stream as a homogeneous spray.

SCHLICK offers a wide range of nozzle models, which is vital when it comes to solving a wide variety of challenges in nitrogen oxide reduction.

Tailor-made.

Wide-ranging duct dimensions, high gas speeds, fluctuating amounts of exhaust gas and turbulent flows have a lasting impact on the processes in a system and require specific structural and procedural solutions. These are precisely adjusted to the specific process and application. The SCHLICK injection lances with the two-substance nozzles or the nozzle heads are individually adapted to the respective conditions.

The straight model is typical of SNCR nozzle lances while the SCR process usually requires a 90° angled version.

Functional.

Anyone working in broad temperature ranges needs heat-resistant or temperature-resistant materials and sophisticated protective devices, e.g. tube-in-tube systems for very high temperatures or protective tubes against particles in the gas stream. Design solutions that cover all of the gas stream are required to ensure optimum injection of the reducing agent. External-mixing and internal-mixing atomisation technologies are used here, depending on the requirements in the system.

The design of the nozzle lances depends on the installation situation and/or the type of system used

Exit-side nozzle parts for the SNCR process are made of highly heat-resistant stainless steel

Specially designed bracket according to customer specifications

Struts to stabilise the nozzle lance

Adapted.

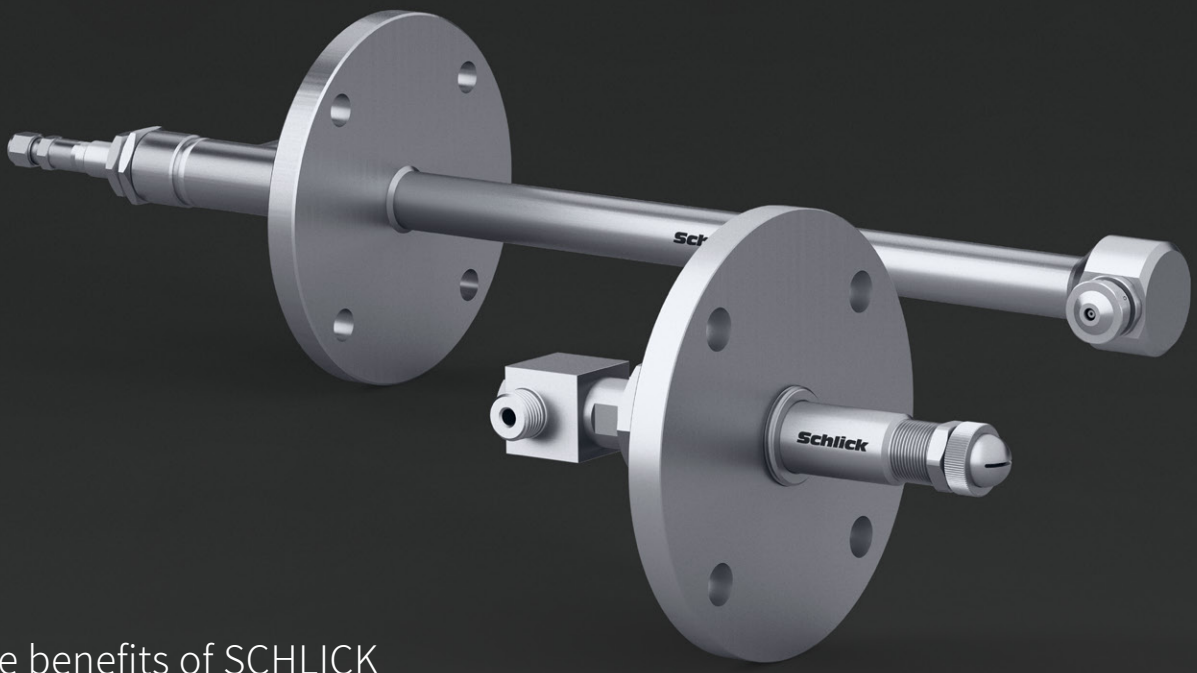
Difficult system-side conditions call for individual adjustments or special designs. These may take the form of individual connection and supply options and customised lance lengths. ‘Made by SCHLICK’ guarantees that the product is an efficient and economical solution.

The bracket and nozzle lance supply unit are specially adapted to the system

Extensive distribution.

Nozzle heads are used to evenly cover the entire width of large exhaust gas ducts – from DN 1000 upwards. Precise adjustment is achieved via the number of exchangeable nozzles in the specific head. This makes it possible to reach the outer areas of a duct.

Injection lances with a nozzle head help to achieve optimum spray distribution, even with very large duct diameters



The benefits of SCHLICK Injection lances at a glance

Customised.
Production of customer-specific designs for SNCR/SCR processes.

Convenient.
The attachment and shaft length are individually adjusted to each system.

Perfect.
SCHLICK technology guarantees consistent spray behaviour in the SNCR/SCR process.

Safe.
With special protective or cooling tube (tube-in-tube technology) if required.

Durable.
Specially designed for the reaction temperature window in the SNCR/SCR process.

Tested.
Comprehensive quality management system (QMS) for increased production reliability.

Efficient.
Homogeneous and even spray behaviour with maximum surface coverage.

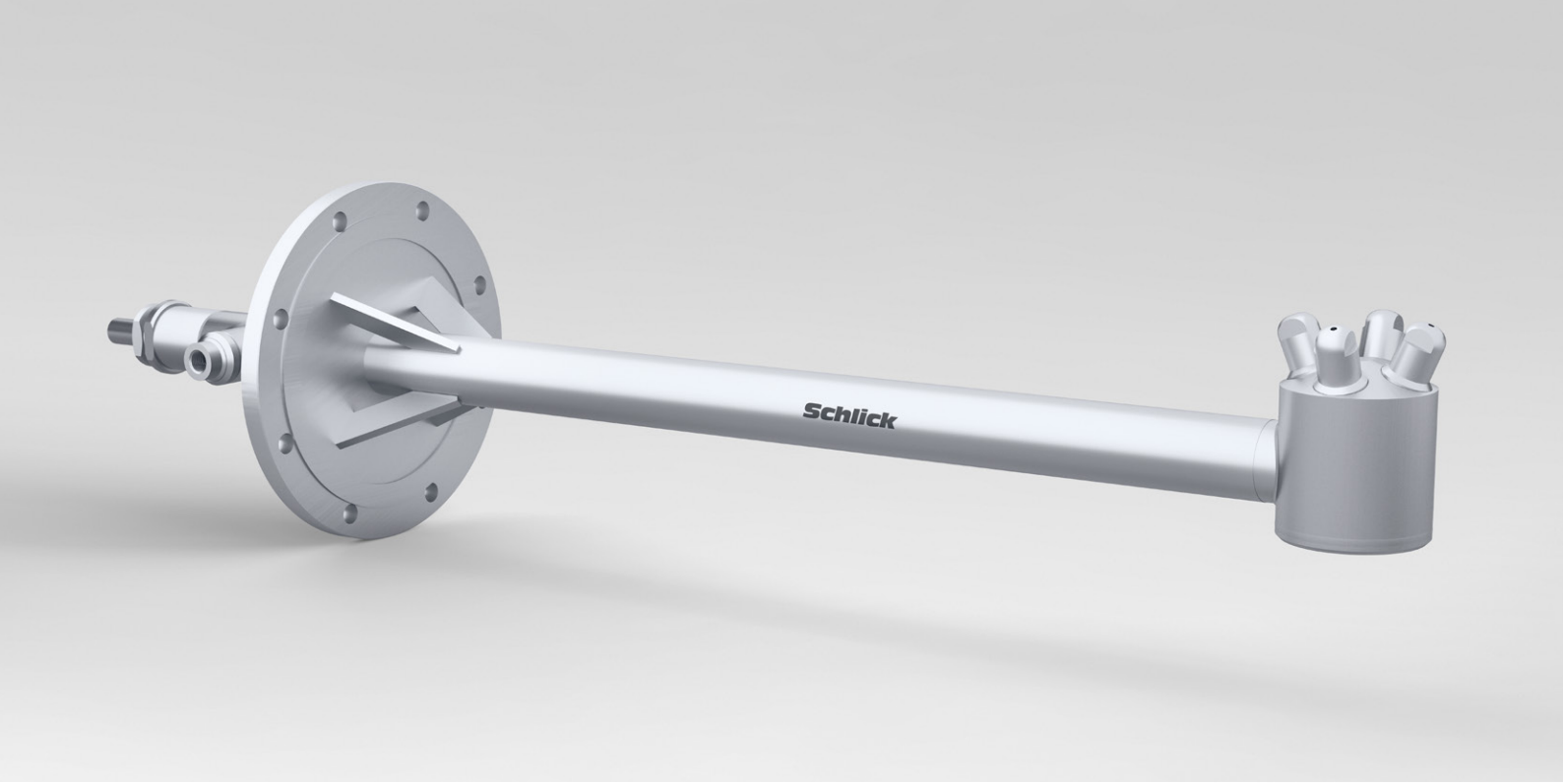
Original.
Consultation, engineering, production and testing from a single source at SCHLICK.

Straightforward.
A sophisticated nozzle structure makes cleaning work significantly easier.

Special and custom versions.

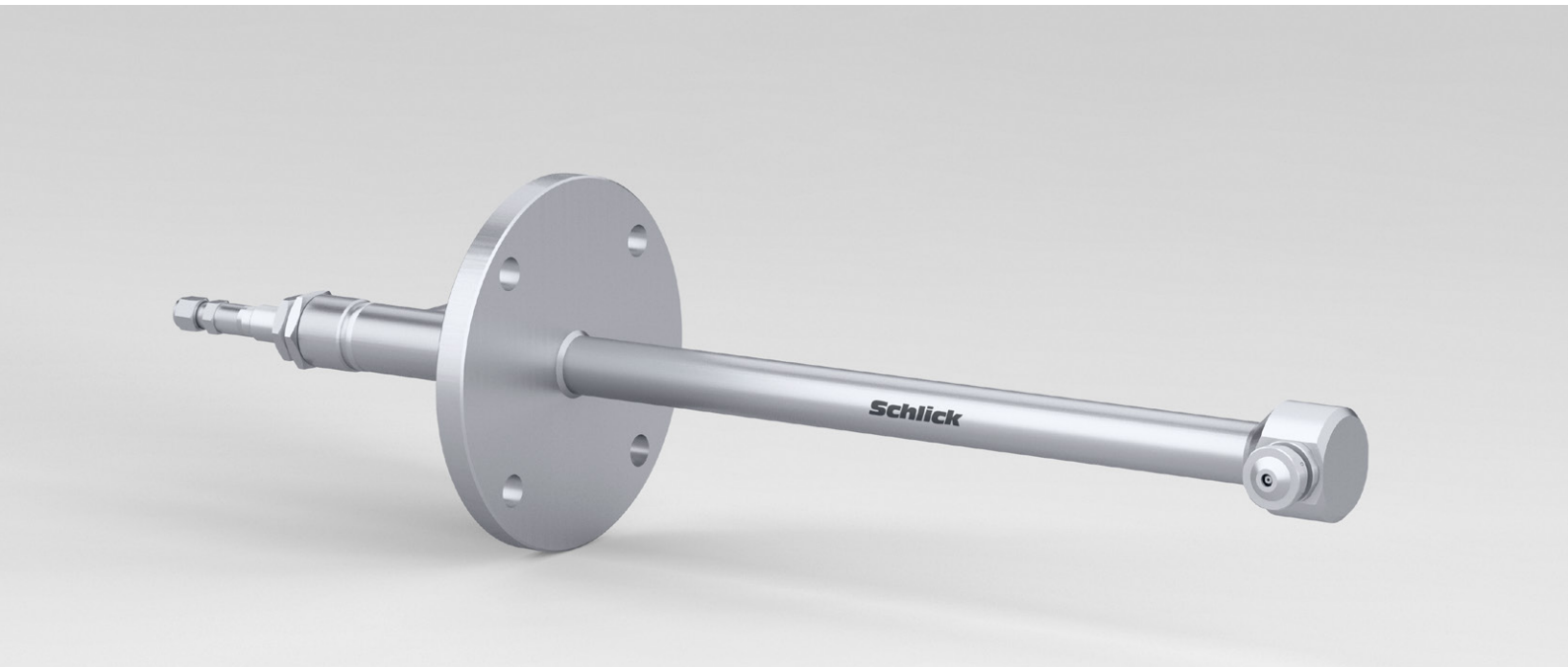
Many of our customers demand custom solutions and bespoke modifications, which can only be achieved through close consultation with expert advisers and engineers. Whatever the requirements, be it an individual system attachment, a specific large-scale spray coverage, or a process-specific design, SCHLICK can help. Our customers rightly trust in our expertise. With our fast and flexible approach, we will work to find a solution that meets your precise requirements and develop innovative technologies to realise your goals. All in line with our motto: Your application – our solution.

SNCR injection lance with tube-in-tube technology. Illustration with protective tube that has been cut open.



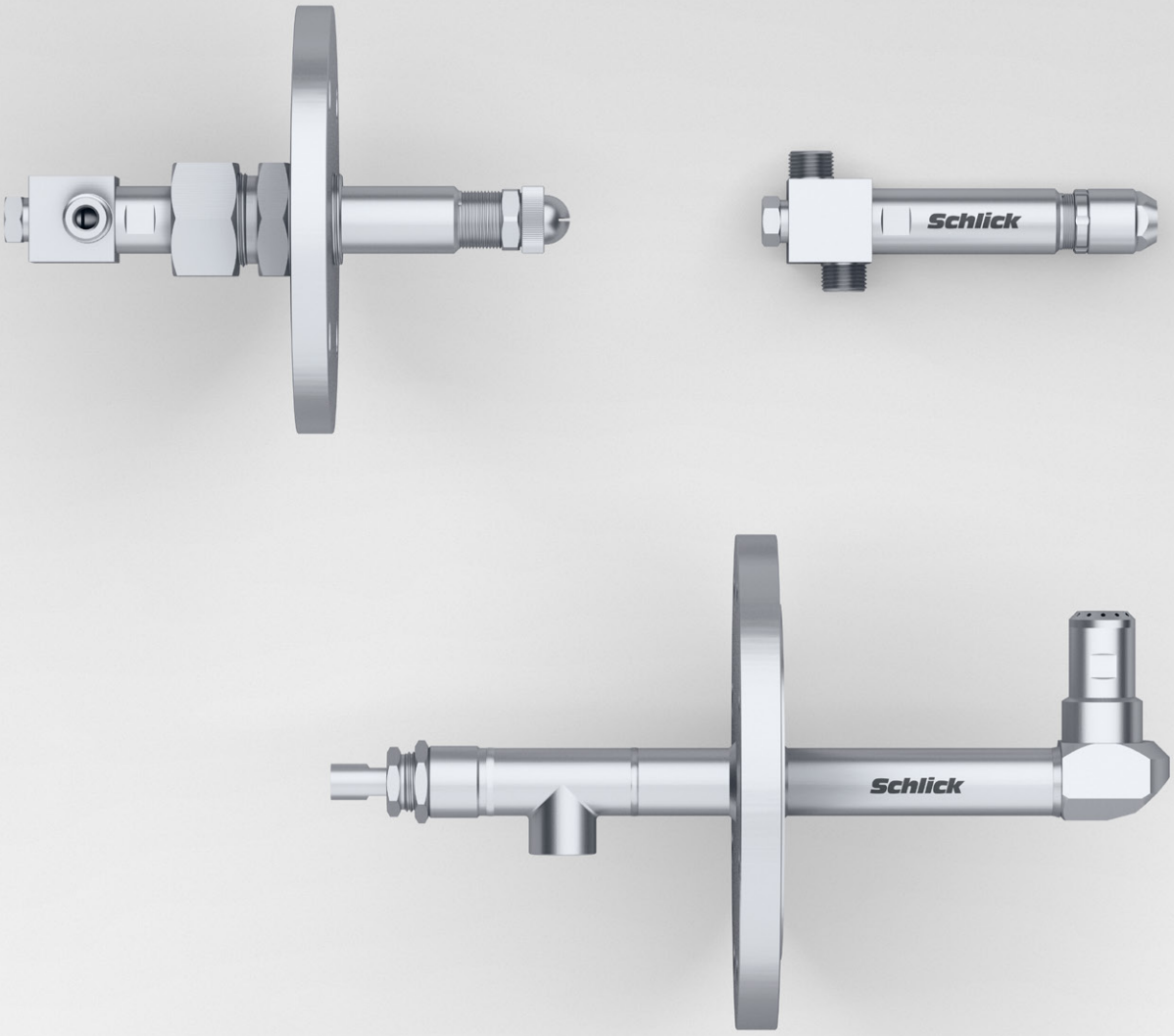
Customised.

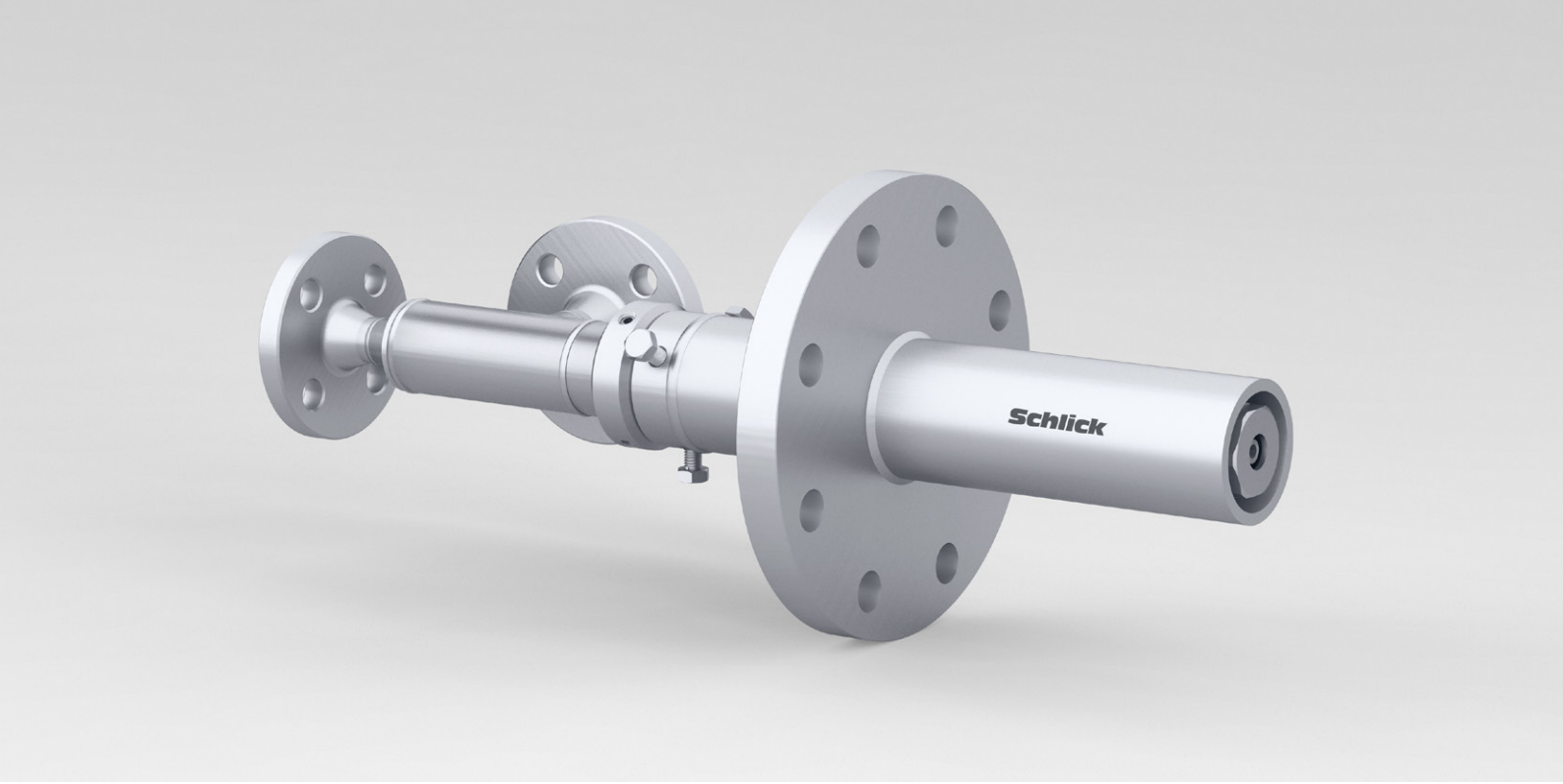
‘Living for Solutions’ is our motivation. Our solution-oriented approach is based on ongoing research and product optimisation, as well as the constant development of new techniques and procedures. This is the only sustainable way to meet individual customer requirements to a high standard. Constant and close contact with the customer, from their initial enquiry right through to product renewal, is fundamental to our business model. It ensures we can supply our customers with the very best solutions exactly when they need them. This applies for both standard and custom solutions.



Optimum.

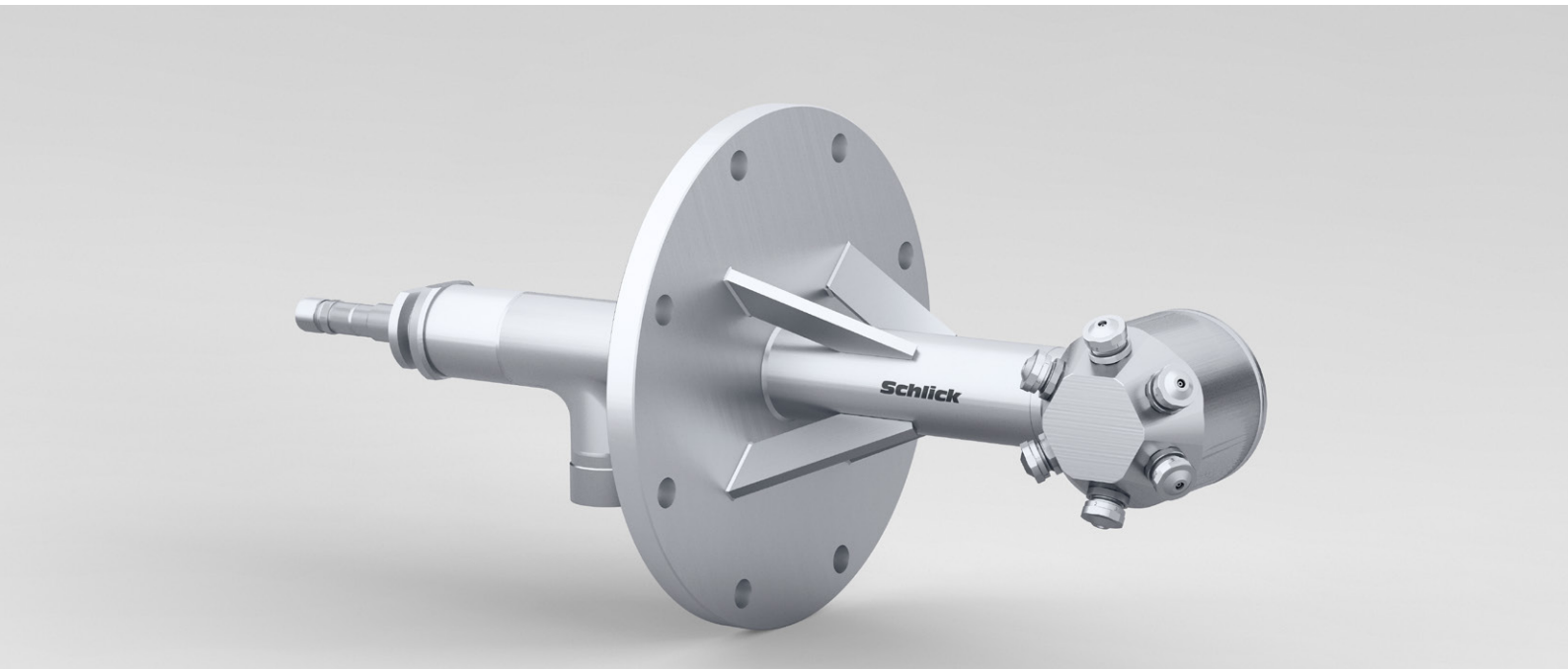
We are one of the world's leading experts in atomisation technology, with a vast wealth of experience, impressive problem-solving abilities, and a high level of manufacturing expertise. SCHLICK always tries to find the best solution for the customer. Alongside our experienced employees, the unique SCHLICK Test & Research Center forms an essential building block in this process. Here, recognised experts use their knowledge to perfect the very latest in measurement technology.





Transforming ideas into reality.

Our approach is based on two key pillars: a high level of vertical integration and extensive experience in the development and optimisation of spray technology systems. More than 90,000 designs and solutions are testament to our success. In fact, examples of our solutions can be found in almost every industry. All have been subject to rigorous functional and reliability testing at the SCHLICK Test & Research Center prior to commissioning, as reliability is key if you want to keep modern manufacturing processes running smoothly.



Your application. Our nozzle.
Our promise: Living for solutions.

Consultation, engineering, production and testing.

At SCHLICK, you get everything from one source.

The ideal solution for your application.

> Please contact us

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