

*ENGINEERING
YOUR SPRAY SOLUTION*



SHAPING THE
FUTURE WITH SPRAY.



The quality of steel is specifically determined by the exact cooling process during production. The quality of cooling depends on the ability to distribute water precisely in the required amount at the right time – under extreme conditions. Lechler is the market leader in this field thanks to its vast experience and product quality.



**THE FUTURE WILL RELY ON HIGH-STRENGTH STEEL.
LEADING STEEL MANUFACTURERS RELY
ON LECHLER.**

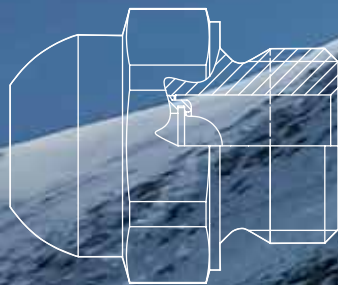


**MORE AND MORE PEOPLE NEED FOOD.
MORE AND MORE FARMERS TRUST
LECHLER.**



As little as possible,
as much as needed – this
statement is especially true when it
comes to using products for plant
protection. With a wide range of approved
nozzles, Lechler ensures that only the right plants
will grow. The resulting crop yields help feed the
increasing populations on all the continents of our planet.

When it comes to important investments in Alpine leisure activities, the highest levels of precision are essential. Nozzle technology from Lechler transforms ultra-fine water droplets into snow with optimum efficiency – for perfect skiing conditions on site. This is an important factor for ensuring snow coverage in many ski resorts.

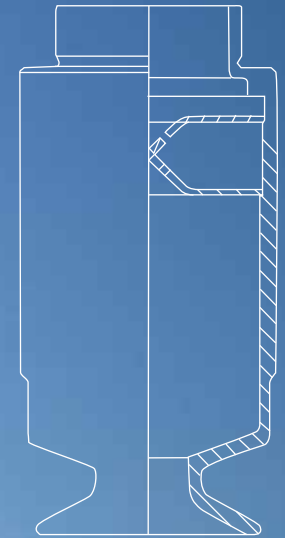




WINTER SPORTS NEED SNOW AND ICE.
LECHLER NOZZLES DO BOTH.

LARGER SHIPS ARE SAILING THE SEAS.
LECHLER MINIMIZES THEIR FOOTPRINT.



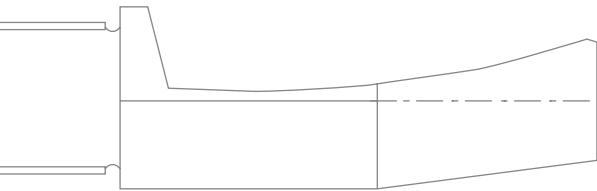


Cruises,
cargo trans-
port, trade –
the oceans have
always been a pathway
for motor driven vehicles.
And these motors must also
run as smooth and clean as
possible. Lechler offers efficient
solutions for clean ship operations.



PRECISION FOR FLUIDS.

FROM AGRICULTURAL TECHNOLOGY TO CEMENT PRODUCTION.



Even though Lechler was already founded in 1879, the actual success story of the company started with a patent dating from 1893. The “centrifugal sprayer” registered back then laid the foundation for a unique research and development history in the field of atomization technology and spray processes.

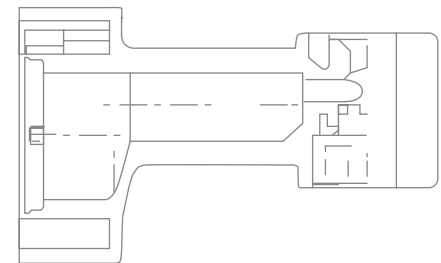
Today, we offer more than 25,000 nozzle variants for a wide range of applications in four divisions: General Industry, Agricultural Technologies, Metallurgy and Environmental Technologies. In all of these markets, the focus is always on the application. Consequently, all our nozzles and spray systems are designed to ensure optimum

operation in the individual scenario. This can include everything from rapid nozzle changeover to longer service life in extreme conditions, micrometer-precise droplet generation or large, robust flow rates for maximum throughput.

To guarantee this, we at Lechler rely on experience and quality:

- Experience based on a comprehensive understanding of the processes and requirements of our customers
- Quality through materials customized to the specific application and minimum production tolerances





GENERAL INDUSTRY

Food production, chemical industry, automotive industry...: There is hardly any area of production where nozzles from Lechler cannot be found. With tailor-made nozzles and comprehensive industry-specific and process understanding, we help to make production even more efficient.

➤➤ **DEVELOPMENT WITH NOZZLE DRIVE.**
FOR ALL INDUSTRIES.



AGRIGULTURAL TECHNOLOGIES

From plant protection through liquid fertilizer application to irrigation – Lechler offers the suitable nozzles for every application in order to achieve the best possible results in a short time with minimal and exact material consumption.



METALLURGY

Steel producers are under large competitive pressure worldwide. In order to be successful, costs have to be reduced and the quality of the end products improved. Lechler nozzles make an important contribution to production for better steel while reducing the use of resources.



ENVIRONMENTAL TECHNOLOGIES

Whether flue gas desulfurization or gas treatment – increasingly strict emissions regulations mean that many industries are faced with enormous economic challenges. Lechler offers a clean solution with a wide range of nozzles and efficient gas treatment systems for every task.



Food and beverage industry

Chemical industry

Surface technology

Automotive industry

Shipbuilding

FULL BANDWIDTH FOR INDUSTRY

At first glance, a beverage bottle, PC board and luxury car would not appear to have much in common. However, if we focus less on the end product and instead consider the underlying production process, one thing becomes clear: Without precise atomization of a wide range of various fluids, it would not be possible to manufacture most everyday products.

Lechler is continuously developing new, individual solutions to make processes safer and more efficient in many different industries. Our customers can therefore choose today from an enormous range of nozzles and nozzle systems for the following applications:

- Cleaning
- Cooling
- Humidification
- Disinfection
- Cutting
- Drying





Field crops

Bush and tree crops

Horticulture

Golf courses and
sports grounds

Area maintenance

THE GROWTH DRIVERS FROM LECHLER

Strict environmental regulations, high crop yields, time-efficient and weather-dependent application of plant protection products – modern agriculture is confronted with many, often contradictory requirements. “More is better” would definitely be the wrong solution here. Instead, exact dosage and application are vital when it comes to plant protection products and liquid fertilizers. This does not just protect the plants and environment, but also reduces costs.

In addition, today the distributed active ingredients must be delivered to the target location safely and effectively with minimal losses – and this depends in particular on the pressure, angle and droplet spectrum of the spray. Lechler offers a very wide range of different nozzles for all these requirements. These meet all the required approvals for each specific country, so that the right Lechler nozzle is available for every application:

- Plant protection
- Liquid fertilizer delivery
- Irrigation
- Humidification
- Container and tank cleaning





Steel industry

Aluminum industry

Non-ferrous metal
industry

BEST STEEL GRADES – BASED ON COOL CALCULATION

The steel and aluminum industry is facing major challenges. In the area of lightweight construction, metal materials are encountering increasing pressure from non-metallic alternatives. In pipeline and building construction, the metallurgical demands on steel materials have been increasing for many years. There are cost pressures from global overcapacities and the more stringent emissions trading legislation which will come into effect as from 2021.

These challenges force producers to continuously optimize their plants. The focus here is on improved surface qualities, lower energy costs in terms of the Total Cost of Ownership (TCO) as well as the CO₂ emissions in all processes.

Lechler nozzles and spray systems offer appropriate solutions for all three areas.

These are based on the detailed process understanding of our experts. Using in-house simulation programs with exact measured nozzle parameters, they develop customized and precisely matched solutions.

In this way, Lechler ensures all over the world that energy costs can be reduced in existing manufacturing processes while maintaining the same product quality and productivity. For energy savings also lead directly to a reduction in CO₂ emissions.

- Secondary cooling for continuous steel casting
- High-pressure descaling for hot rolling of steel
- Roll cooling for hot and cold rolling of steel, aluminum and non-ferrous metals
- Metal strip treatment in pickling and coating applications
- Flue gas cleaning for iron and steel production





- Power plants
- Waste incineration plants
- Cement plants

EFFECTIVE PREVENTION OF AIR POLLUTION

In view of more stringent emission limits, reliable flue gas cleaning has not been since long a legal question for many companies, but has increasingly also become a topic of strategic importance.



Lechler supports its customers with a comprehensive range of solutions – from individual nozzles and nozzle lances to complete gas treatment systems. Our in-depth process understanding combined with analysis of detailed flow simulations allows us to reliably meet strict emission thresholds even under difficult conditions. Our product range in the field of environmental technologies covers the following areas:

- Flue gas desulfurization
- Gas cooling and conditioning
- Denitrification in SNCR and SCR processes
- Droplet separation





OUR DEVELOPMENT: INNOVATION AS STANDARD.

There are many reasons for the success of our products. An important one is the fact that we do not just develop the spray characteristics of every nozzle with computer assistance, but also carry out intensive testing in the spray laboratory. With its ultra-modern Research and Technology Center, Lechler has set new standards worldwide and has impressively proven its technology leadership. The benefits for our customers are clear: On test rigs with pressures up to 500 bar and flow rates of up to 6,000 l/min, it is possible to realistically simulate even exceptional application scenarios and precisely analyze spray behavior. Paired with our many years

of experience, this results in solutions that are exactly tailored to a wide variety of different requirements.

Development is followed by series production. From CAD/CAM-controlled metal machining and precise injection molding to ceramic sintering, we master all leading production processes in order to realize even complex nozzle designs with the most suitable materials. And because quality is always critical in the end, Lechler has a certified quality management system in accordance with ISO 9001:2015, which we regularly adapt to new requirements.



»» WORLDWIDE SUCCESS: FROM SOUTHERN GERMANY.

Many technology leaders are based in southern Germany. This has also been the home of Lechler for over 140 years. This is where speed, endurance and precision all thrive. Reasons that have made us the market leader for nozzle technology in Europe with more than 700 employees.

With our headquarters in Metzingen and a global presence on all continents, Lechler stands for innovation and quality. This is proven by the large number of patents, over 25,000 nozzle types and production of several million nozzles per year.



The driving forces behind this performance are value-oriented actions, the willingness to continuously improve and the special way in which we treat our staff. This is shown on one hand by the particularly close networking and collegial cooperation of our highly-qualified employees. It can also be seen in the encouragement of individual responsibility, active employee development and knowledge transfer. This leads to quality and true loyalty. People enjoy working at Lechler and also tend to stay for a long time.

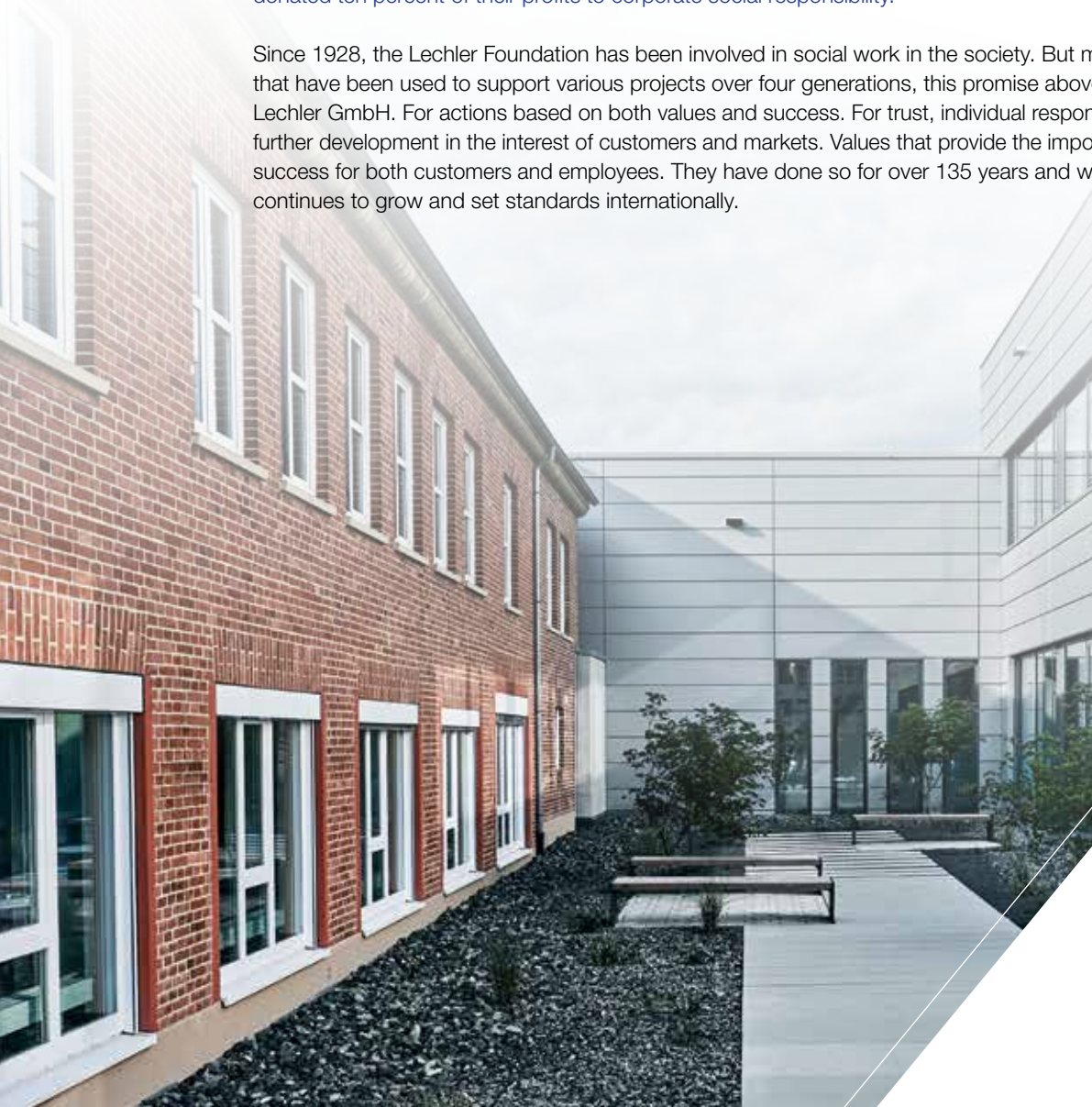
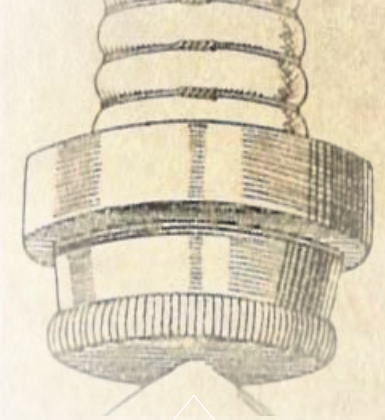




OUR FUTURE: A SUCCESSFUL PAST.

The founding of Lechler also involved important social motives. Ever since the early days in 1879, the shareholders have donated ten percent of their profits to corporate social responsibility.

Since 1928, the Lechler Foundation has been involved in social work in the society. But more than the considerable amounts that have been used to support various projects over four generations, this promise above all stands for the philosophy of Lechler GmbH. For actions based on both values and success. For trust, individual responsibility, continuous improvement and further development in the interest of customers and markets. Values that provide the important basis for sustainable company success for both customers and employees. They have done so for over 135 years and will also ensure that Lechler GmbH continues to grow and set standards internationally.



1879



Company founded by Paul Lechler

1893



Patent for liquid atomization

1967



Relocation of production to Metzingen



HEADING FOR THE FUTURE: FROM METZINGEN INTO THE WORLD.

Strong roots are the basis for successful growth. At Lechler, our roots go deep. From our basis in Germany, the first steps towards globalization were taken in the 1970s with the expansion into Great Britain and the USA.

14 SUBSIDIARIES, 6 PRODUCTION CENTERS.

Since then our worldwide presence was consistently expanded. Initially in Europe, but as early as 1993 – with the branch in Mumbai – also in the increasingly important Asian market. Further locations in China, Malaysia and most recently Indonesia followed.

Right now, Lechler produces in Germany, England, Hungary, India, China and the USA. Further subsidiaries and more than 40 representatives complete the worldwide sales network. Despite our international orientation, we remain a German company at heart – with the typical passion for accuracy, innovation and the urge to become even better.



Headquarters in Metzingen
Germany



1978



Expansion to the USA and then to other countries

1995



Production, sales and administration are concentrated in Metzingen

2010



Expansion of production with new 13,000 m² production hall

2016



Opening of the ultra-modern Research and Technology Center in Metzingen



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