

## The Company

Heart of Hightech



PANTA RHEI - EVERYTHING FLOWS



# SCHERZINGER

## PUMP TECHNOLOGY



In the middle of the Black Forest, at nearly 1000 m sea level, we have been producing gear pumps of the highest quality for over 75 years now at our headquarters in Furtwangen. The family business tradition does not contradict our modern business culture. On the contrary, these values form a symbiotic relationship which builds the DNA of Scherzinger.

The associates group consists of third- and fourth-generation descendents of the company's founder. They guarantee the independence of the business and ensure a sustainable, long-term orientation.

The management team and modern management culture which is marked by trust, cooperative collaboration and high personal engagement secure our outstanding position on the market together with the entire workforce. Through creativity and candor, paired with a systematic approach, we are continuously successful in taking new paths in the development and production of displacement pumps for varied applications and in occupying interesting market segments.

Matthias Derse | CEO



H e a r t o f H i g h t e c h

## The company

In 1937 Ernst Scherzinger fulfilled his initial vision – the construction of gear pumps of highest quality.

In the next logical step, he developed the first German oil burner pump as internal gear pump in 1959.

The constant expansion of the Furtwangen site was extended to international markets in 1964.

Since 1980 Scherzinger has been a global partner for gas turbine components. The development of innovative products enables, in turn, the development of new business fields, such as the automobile industry, mechanical engineering and the chemical industry. They form the basis for healthy industrial diversity.

Scherzinger has been the market leader for auxiliary heating pumps for commercial vehicles since 2000. We are characterized by a high standard of quality awareness which can only be ensured by a good team of reliable experts using state-of-the-art technologies.

We are curious about unknown areas – regardless of whether this concerns difficult applications, exotic materials or undeveloped international markets.

### We are certified according to the following standards:

- Since 1995: EN ISO 9001
- Since 2002: EN ISO 14001
- Since 2002: VDA 6.1
- Since 2009: ISO/TS 16949





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## Pump principles

The core competence of the company Scherzinger is the production of rotating displacement pumps – with the focus on three specific types:

- External gear pumps
- Internal gear pumps
- Gerotor pumps

Rotating displacement pumps are distinguished by the application of two geared rotors. The rotor fixated on the drive shaft transfers the rotary movement to the second rotor. A defined volume is displaced by the rotary movement, which allows fluids to be extracted and pumped against pressure.

Due to their simple, sturdy design and operating reliability, gear pumps are the most widespread type of rotating displacement pumps.

## Business units

Scherzinger is divided into 10 business units:

- Plant and Process Engineering
- Automotive and Racing
- Chemical and Petrochemical
- Building Technology
- Power Generation
- Mechanical Engineering
- Medical Engineering
- Commercial Vehicles and Municipal Technology
- Environmental Technology
- Pulp and Paper

## Examples of application

Our services comprise the development, production, inspection and sale of pumps and valves.

To meet the demands of the market, we focus strictly on the desires of our customers.

To ensure perfect process sequences, our range of services not only covers the production, but also comprehensive logistics as well as customized support.

- **Drive technology:** Hydraulic door openers for revolving doors
- **Cooling and air compressors:** Lubrication of the bearing points
- **Transmission:** Increased transmission load due to specific compressed oil supply
- **Wind power stations:** Lubrication of large transmissions
- **Steam turbines:** Reduction of friction due to bearing lubrication
- **Pre-wetted salt spreading:** Wetting of dry salt for road de-icing
- **Biotechnology:** Transport of fluids in the fermenter process
- **Chemistry:** Pumping of sulfuric acid for biodiesel production
- **Pharmaceutics:** Coating of syringe bodies



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### Introduction to Company Values

As a middle-class family business, we are bound to the values of our company's founder. Just as Ernst Scherzinger did not strive for the greatest possible profit during his lifetime but rather solved the problems of one customer after another, we would also like to permanently solve the problems of our customers today and accomplish additional benefits for society in doing so:

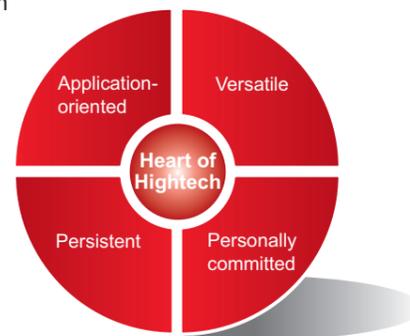
*„WE MUST FIRST THINK OF OUR CUSTOMERS IF WE WANT OUR CUSTOMERS TO THINK OF US AS WELL.“*

### Heart of Hightech

Our gear pumps play a major role in our customers' technology. They ensure that vital elements in the world of cars and motor racing as well as mechanical engineering receive the lubrication they need. Or they convey demanding media in chemical processes in plant construction and process engineering. Even where fuel is pumped for power plant technology, Scherzinger has been a recognised name and trusted partner for decades.

Our gear pumps and conveying systems act like a human heart. They are both persistent and application-oriented – a system on which our customers can rely at all times.

Once Scherzinger – always Scherzinger. We are particularly proud of this customer view as it is our personally committed employees that really make us stand out. They work day in, day out to deliver the familiar high Scherzinger quality. That is why we can confidently stand over our claim – Heart of Hightech.



### Application-oriented

Our gear pump and system solutions aim to fulfil just one goal – that of finding the most cost-effective long-term solution to our customer's problem.

To achieve this, we rely on our in-depth knowledge and experience from our unique mix of market segments.

This means we can guarantee our customers high-quality, customised gear pump solutions produced to order or in series production.

Our strength is our application advice and comprehensive support on all aspects of conveying solutions – that's what we stand for at Scherzinger.



### Persistent

With our reputation as a problem-solver for demanding applications, we are used to displaying great perseverance when working on our customers' projects. We love challenges where we can apply our knowledge and strengths.

When we speak of persistence, we always have an eye on who we are working for – our customers. This means we don't settle for what is standard, but clearly focus our intent on a successful outcome – that is our basic stance at Scherzinger.

Our gear pumps are known for their particularly long service life, even in the most complex applications.

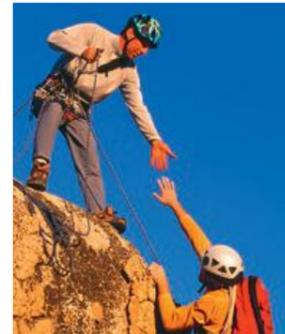




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Personally committed

Supplying a product for a customer's system – lots of companies can do that. Offering the customer a solution precisely tailored to his needs – only we can do that. It is important to us that our gear pumps fit seamlessly into our customers' systems and perform their job there reliably and efficiently. Thanks to the high level of quality, process reliability is assured at all times – totally in keeping with our "Heart of Hightech" philosophy.



We are different from others because, as a family company based in the Black Forest, we put our heart and soul into designing and producing our gear pumps. Attention to detail is still our tradition and the Scherzinger team is known for its personal commitment.

Versatile

As specialists in gear pumps and system solutions, we are up-to-date on all kinds of applications. We offer our customers the perfect solution for each individual circumstance and adapt flexibly to new situations.



Our decades of experience in gear pump technology lend us the vision needed to implement changes early and to stay versatile.

At Scherzinger, it's the people that make the difference. Our customers choose us for our diverse skills and willingness to accept challenges. The trust placed in us by our customers is the fundamental basis for this – and is what keeps us going each day.





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### Organization / management system

Customer proximity and professionalism have formed the basis of our success for many years. Quality stands for the fulfillment of requirements. The requirements of our customer take highest priority here.

Customer satisfaction is an important basis for a successful future!

Our business organization is focused on the corporate goals. It is constantly adapted to the operational requirements. The management manual with all the corresponding parts serves as a written basis for the organization.

### Monitoring of the management system

The company management has appointed a quality and environmental management officer (QMB) and assigned him on their behalf with the introduction, maintenance and continuous optimization of the management system (as described). The QMB is obliged to inform the company management about the performance of the system and the necessity of improvements. He promotes quality awareness throughout the entire organization. This takes place under particular observance of the customer requirements.

### Kaizen

Constant improvement of the achieved statuses is decisive. For this purpose, the company management agrees on binding quality and environmental goals and specific improvement programs with the executive managers. They are further substantiated and developed within the departments. It is the task of all personnel to make a best-possible contribution towards achieving the goals.



### Personnel

The manifold tasks and responsibilities in the management system have been defined to a sufficient extent.

Any personnel within the entire management system who assume defined responsibilities are qualified and have undergone training for this purpose. In the course of the defined processes, it is ensured that the regular training requirements are identified and covered with suitable measures.

Staff motivation plays a major role. The superiors raise the awareness of the personnel in this respect and motivate them to cooperate actively and creatively.



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## Training

We offer them an ideal start to their professional career and a variety of development options. The in-house training procedure has been defined precisely - it is supplemented by the following contents:

- **Active involvement in trade and job fairs**
- **Enhancement of organizational skills**
- **Development of social skills – specific strengthening of the team spirit**
- **Specific enhancement of the strengths in training as well as in the future area of application**

## Facilities

All facilities required to achieve the corporate goals and implement the customer requirements are available or are procured upon request. To ensure the availability of the facilities and production equipment, we carry out preventative and preemptive maintenance.

## Working environment

Suitable working and environmental conditions are observed specifically at all workplaces as part of the plant maintenance.

For this purpose, we are supervised medically by the works doctor and observe the specific regulations and laws.

## Product implementation planning

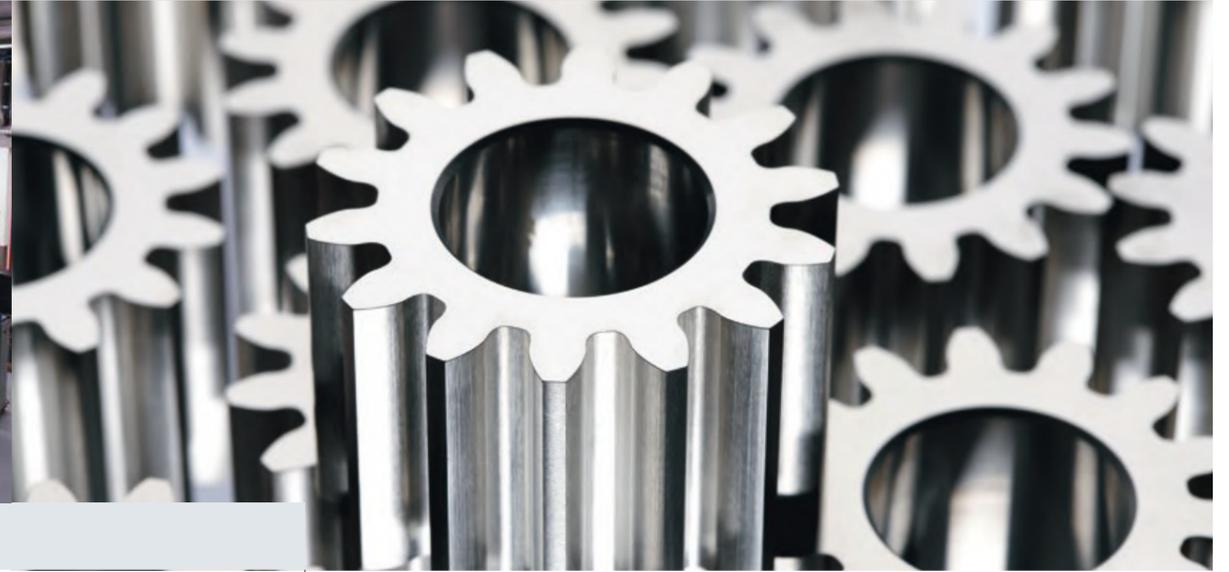
## Customer-related processes

The following is defined when planning the processes for the implementation of the products:

- **Product, project or contractual objectives**
- **Need for (personal, organizational, technical) resources**
- **Test activities for the implementation and confirmation of the quality of the products**
- **Necessary records**

We determine the customer requirements systematically while observing the:

- **Product-related specifications.**
- **Expectations of the customer on the intended use of the products.**
- **Legal and official requirements.**
- **Assessment of the product requirements.**
- **Assessment of the resulting significant environmental aspects.**
- **Communication with the customer.**



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## Development

The history of a product developed according to customer wishes or on one's own initiative is described by the development process.

Customer requirements are registered and communicated to the project management by the sales process. In the order acceptance process, requirements specifications are created in accordance with the customer requirements and technical specifications generated from the project control with involvement of the customer.

The result of the development process is a functional model transferred for release.

## Innovation

Systematic innovation management represents a key factor at Scherzinger and ensures the growing challenges can be encountered actively in the global market.

A long-term competitive edge is generated by a continuous flow of innovations.

A distinction is made between the following innovation areas:

### Innovations of the market performance:

- New products, new services, new production processes

### Innovations of the business model:

- Alteration of the value adding configuration

### Innovations in the organization:

- Improvement of the structures, procedures
- Management system and corporate culture

## Procurement

Products are procured in a way which ensures the procured products meet the requirements. Particular attention is given to the following aspects:

- Selection of suppliers due to their ability to meet our requirements in consideration of the requirements for the QM/UM system of the supplier
- Rules for the assessment of suppliers due to their delivery quality and the coordinated subsequent measures
- Clear, unambiguous, complete and correct procurement details
- Definition of the required tests on procured products

## Production & provision of services

Our products are produced and our services provided under controlled organizational and technical conditions. Specific regulations in process descriptions and/or implementation instructions apply to the:

- Labeling and traceability of products
- Handling of customer property
- Handling, storage, packaging, conservation and shipment
- Tests in all necessary stages of production/service provision
- Comprehensive test equipment management



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### Planning

The required tests are planned and actually conducted on the basis of the introduced management system.

If the existing specifications are not sufficient, we will compile individual quality plans which can be adapted to the specific requirements of customers or to the own desires of the company.

### Customers and employee satisfaction

We establish the level of customer satisfaction systematically with defined methods. If it does not correspond to the expected level, measures have to be initiated in order to raise the customer satisfaction level.

Furthermore, we work actively on the creation of prerequisites for the long-term assurance of the supply with qualified and motivated personnel.

### Internal audits

In order to evaluate the effectiveness of our management system, we plan internal audits, carry them out and initiate suitable measures on the basis of the audit results to achieve continuous improvement.

### Improvement

We exercise active improvement management. For example, we pursue long-term and short-term Kaizen measures in a targeted manner and in this way improve our management system according to plans.

### Corrective measures

If errors occur, we take effective measures to eliminate their causes:

- Error detection
- Determination of the error causes
- Definition of the activities required
- Documentation of the results of the activities
- Evaluation of the effectiveness of measures.  
This procedure includes the treatment in the event of any significant environmental effects.

### Preventive measures

We try to detect and avoid the causes of potential errors by taking appropriate measures:

- Detection of potential errors and their causes
- Definition and implementation of preventive measures
- Documentation of the results of preventive measures
- Assessment of the effectiveness of measures

[www.scherzinger.de](http://www.scherzinger.de)

Plant and Process Engineering

Power Generation

Automotive and Racing

Environmental Technology

Chemical and Petrochemical

Mechanical Engineering

Commercial Vehicles and Municipal Engineering

Building Technology

Medical Engineering

Pulp and Paper

The logo features the word "SCHERZINGER" in a bold, sans-serif font. The letter "O" is replaced by a red circle with a white dot in the center, resembling a stylized eye or a pump component. Below "SCHERZINGER" is the phrase "PUMP TECHNOLOGY" in a smaller, all-caps, sans-serif font.

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