

Wörner

**Automation components
for exceptional challenges**



Der Wörner-Stopper. Das Original.

A proven understanding of technologies and industries



Wörner headquarters in Denkendorf – in the heart of Baden-Württemberg, a German state renowned for its global high-tech players

From simple workshop to an international specialist for leading-edge stoppers

In 1965, Helmut Wörner established a small business that was to flourish into what is today one of the world's leading manufacturers of separating stops for automation.

In fact, the Wörner stopper is today a synonym across the globe for precision and durability.

Our corporate culture is based on innovation, genuine partnership with our customers, and a total focus on quality. And we put theory into practice with a highly skilled workforce, a creative mindset, and a long list of patented ideas. The result is pioneering products that set the bar high in terms of performance, features and longevity.

At our state-of-the-art facilities in Denkendorf, we produce a wide range of standard components that offer cost-effectiveness and proven reliability.

And we create made-to-measure solutions geared to the specific needs of each transfer system.

The result is highly satisfied customers across a wide variety of sectors – including the automotive industry, electronics, medical technology, and cleanroom manufacturing.

Moreover, we have established a global network of sales and distribution partners that have helped ensure that Wörner's made-in-Germany products are deployed successfully in all four corners of the world.



Der Wörner-Stopper. Das Original.



Stopping and positioning modules for automated assembly, handling and manufacturing

An example of Wörner-stoppers in use: workpiece holders are stopped at a defined position, and accumulated



Wörner components on production lines: ideal for ensuring efficient stop-and-go

Automated assembly systems are employed for the manufacture of many types of products. Transfer systems, tailored to the task in hand, ensure seamless assembly. A conveyor system precisely moves the workpiece holder from station to station.

Wörner components perform key tasks within these assembly systems:

- They stop the workpiece holders at accumulation sections, and then clear them individually for downstream transport.

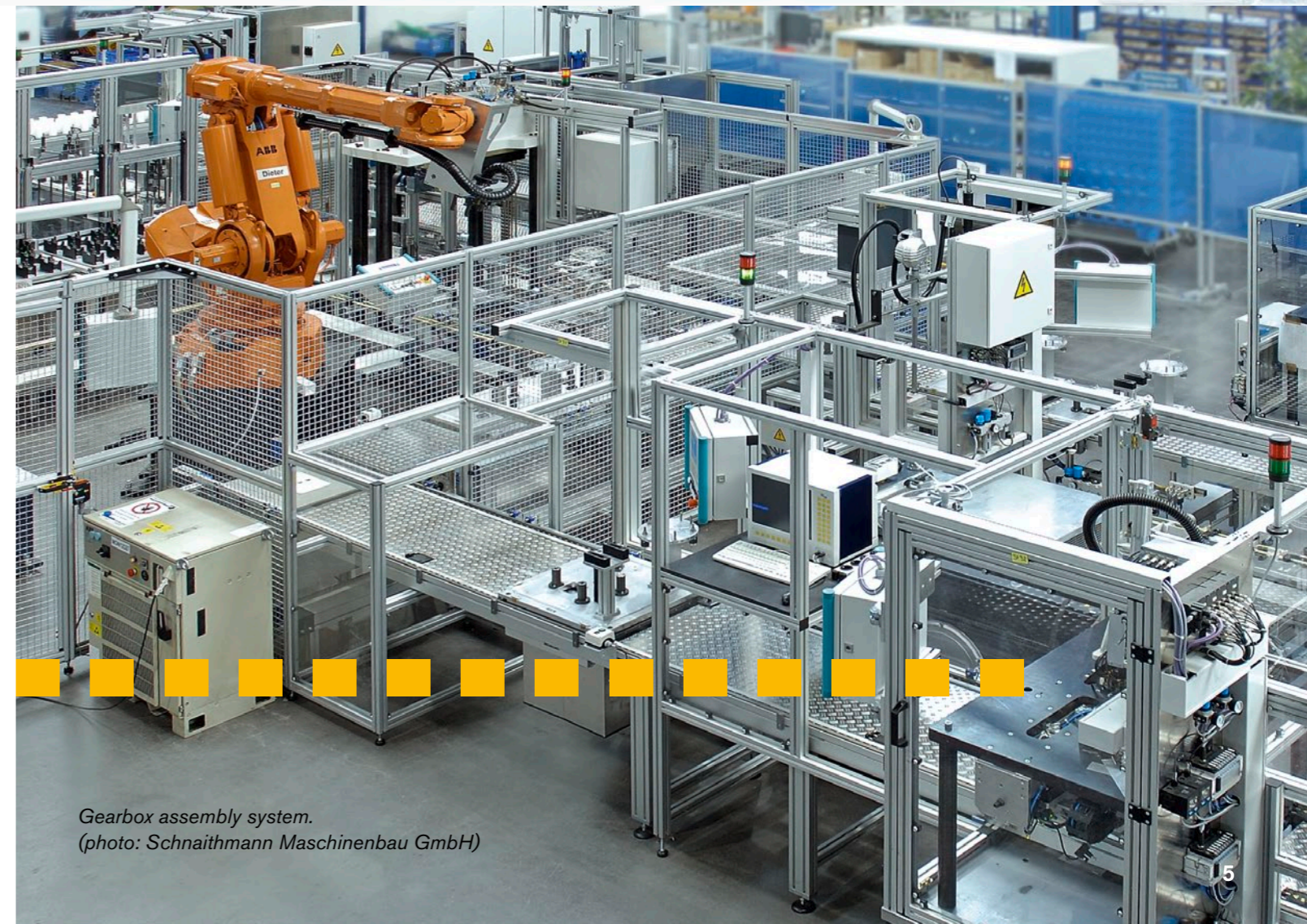
- They decelerate the workpiece holders at assembly stations, and position them precisely for subsequent machine/manual processing.
- Once processed, the workpiece holders are cleared for transport to the next station.

The choice of Wörner components depends on the speed, shape, weight and robustness of the workpiece and the type of assembly process. Possibilities include pneumatically or electrically driven, damped or undamped separating stops, index cylinders and anti-bounce stops for a variety of weight classes.

Details of Wörner products and their features are provided on pages 10 and 11.



A damped stopper gently slows the oncoming workpiece holder and ensures it reaches exactly the required position for the next step in the process



*Gearbox assembly system.
(photo: Schnaithmann Maschinenbau GmbH)*

A pioneering invention

Wörner stoppers: successful the world over

It all began with the great outdoors. A friend of the Wörner family asked for help in finding a way to damp the recoil of his hunting rifle. It was a request with huge impact.

While investigating a possible solution, Helmut Wörner suddenly realized that he could apply the same damping concept to industrial manufacturing.

In the years that followed, he took the friction-based operating design principle of multi-disk clutches originally used for damping, and developed the very first stopper with pneumatic damping. The technology was patented in Germany 1990, creating the basis for a success story that continues to this day.

Today, we make and market the fourth generation of this pneumatically damped stopper: the DBS-20/60. The technology has continued to be evolved and refined over the years, and today there are 65 standard versions available, to meet the needs of diverse transfer systems. In fact, over 100,000 units have been sold to satisfied customers around the globe. The Wörner stopper offers exceptional features, including a continuously adjustable damping, and is excellent value for money.



Helmut Wörner illustrates the stopper principle (1983)



The first industrial stopper: The Wörner Delta SDEH-5000 (1986)



Made-in-Germany Wörner innovations that enjoy international popularity

Wörner damping, stopping and positioning modules are available in a variety of standard versions and in customer-specific designs.

Local sales offices and partners ensure close working relationships with the world's leading manufacturers of automated production systems, and across multiple industries. As a result, we are able to provide expert advice and to ensure rapid, reliable delivery of our products to wherever they are needed.

We continue to extend and enhance our global ecosystem.

Our versatile specialist

New solutions through close collaboration

Schmid Maschinenbau GmbH, based in Sonnenbühl, needed separating stops that could be lowered electronically, and that were capable of stopping workpiece holders approaching from two directions. The workpiece holders had to be positioned precisely for subsequent lifting actions, and had to exit in two different directions. This is exactly the kind of challenge we relish. The specialists at Schmid and Wörner put their heads together, and came up with an idea that evolved into the two-sided DEL-350-S2. It took just eight exciting weeks of creative collaboration for the concept to go from drawing board to finished product. Since then, the stopper has become an integral part of our product portfolio, and is now frequently deployed in Schmid transfer systems.

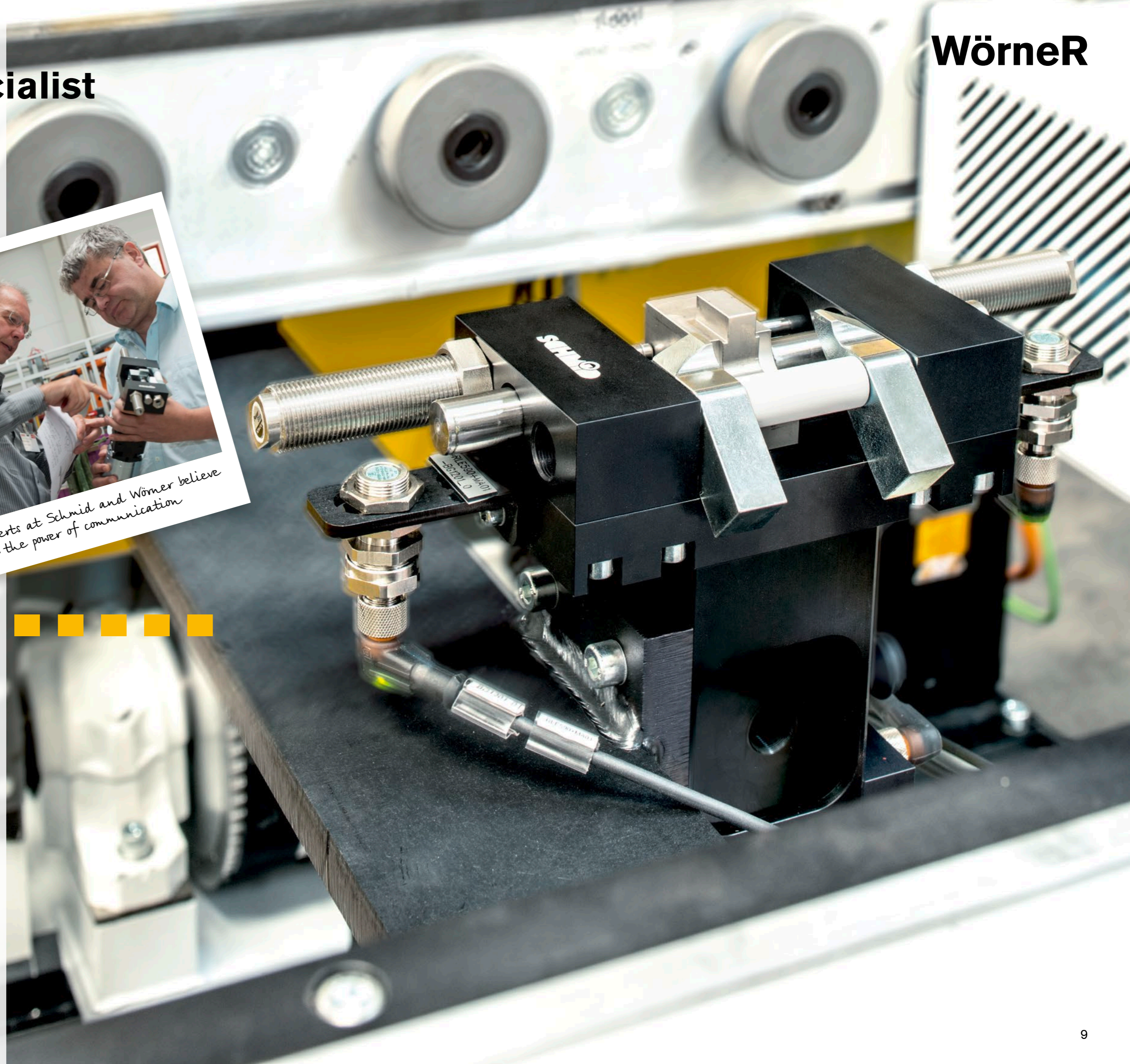


An example of our special skills: The development and manufacture of innovative custom solutions

The Wörner DEL-350-S2 two-sided stopper with sensor and anti-bounce stop is highly versatile: workpiece holders can approach and exit from and in two different directions, and the solution enables the exact positioning of the workpiece holder.

We welcome the chance to put our skills to the test with this and similar tasks: we are the ideal go-to partner for the design and manufacture of made-to-measure separating stop solutions for materials handling, conveyors, and automated production processes. With our experience and expertise, we can advise you every step of the way – before, during and after your project.

You can be sure of Wörner. Today and tomorrow.



A closer look at damping, stopping, positioning

The right solution for each and every production line

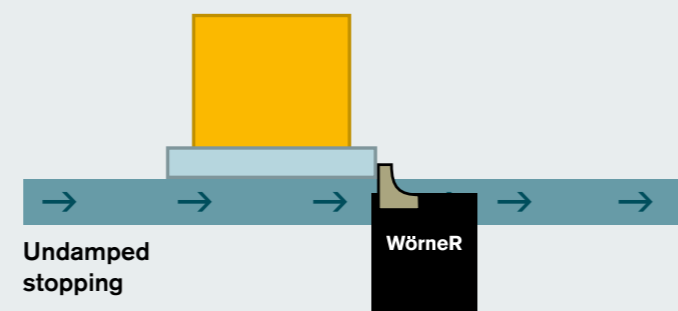
Our portfolio comprises more than 2,000 items, grouped into four product families. They include damped, undamped, pneumatic and electric separating stops, angle dampers, index cylinders and anti-bounce stops. WörneR components are ideal for applications that demand the very best in terms of technology, quality, functions and uptime.

The advantages at a glance:

All WörneR modules are

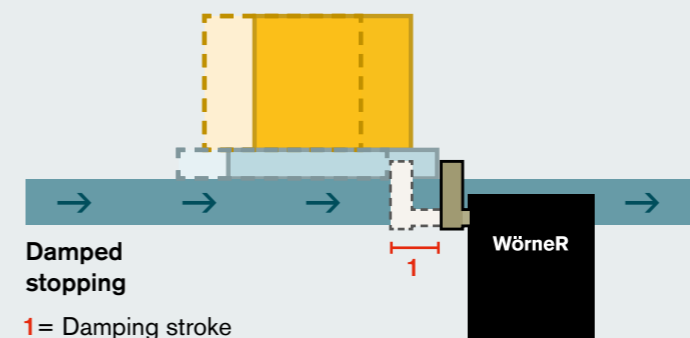
- available in diverse versions that can be configured flexibly to create made-to-measure, end-to-end solutions,
- compatible with diverse transfer systems,
- durable and maintenance-free,
- made using state-of-the-art technologies and equipment to the highest standards of environmental protection.

Stoppers Stopping and clearing



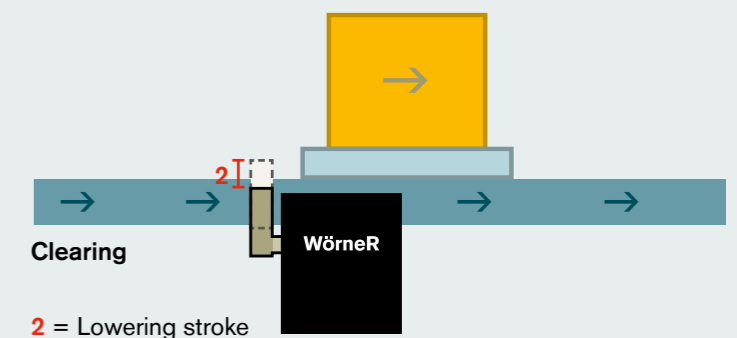
Undamped separating stops: The robust, low-cost basic version. Can be deployed in scenarios where one or multiple workpiece holders must be placed in a defined position.

Inductive and electronic proximity switches can be employed to identify the upper and lower positions of the stop. They ensure high productivity thanks to short cycle times.



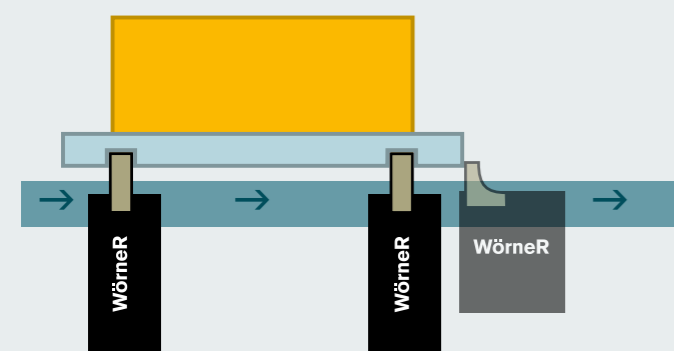
Damped separating stops: These are recommended for shock-sensitive, fragile parts. The infinitely adjustable damping mechanism gently decelerates the workpiece holder, and ensures that the work-

piece reaches its final position smoothly, stably and without vibration. The force of impact is reduced by up to 95% in comparison to undamped stoppers.



Clearing: Manually or automatically controlled, the (damped or undamped) separators clear the workpiece holder for downstream transport by lowering the stop.

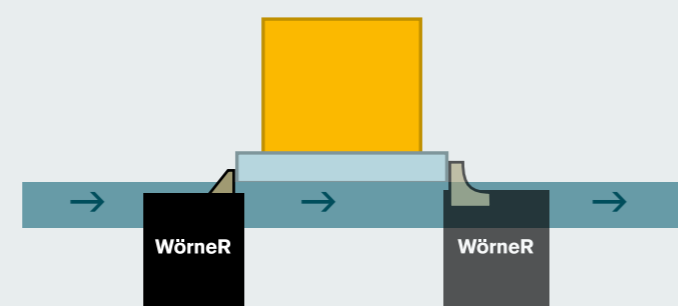
Index cylinders Lifting and positioning



Our index cylinders assure precise vertical lifting of workpiece holders – making them ideal for rapid positioning. The workpiece can be processed and assembled

without being affected by vibrations. Electronic sensors can be integrated to identify the upper and lower positions of the stop.

Anti-bounce stops Preventing rebound



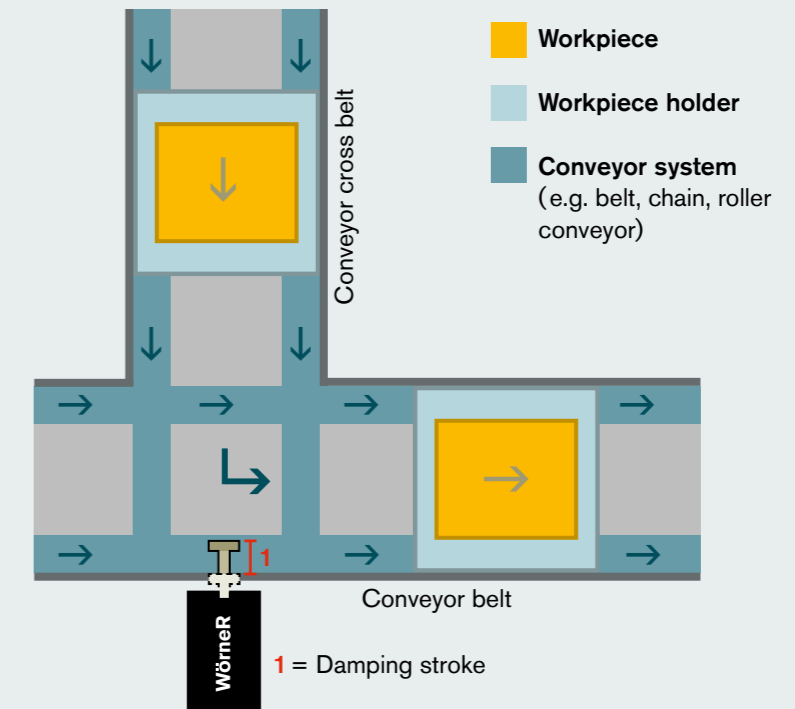
Pneumatically lowered anti-bounce stops hold the workpiece holder with workpiece in exactly the required position.

These modules are generally employed in conjunction with undamped separating stops, and are recommended for low-friction transfer systems.

Angle dampers Stopping and clearing with a change of direction

Angle dampers are employed for a change of direction, typically for shock-sensitive or fragile parts.

A continuously adjustable pneumatic damping mechanism gently stops the workpiece holder arriving from the upstream (lateral or traverse) direction and subsequently guides it in the required downstream (traverse or lateral) direction.



A stopper that just never stops

A tireless workhorse

Suzhou, China: In the company of Zhu Jun, the manager of our sales office in China, we are paying a visit to MCI Mirror Controls Co., Ltd., a customer of many years' standing, based in eastern China.

As we take a tour of the state-of-the-art manufacturing facility, Mr Zhu draws our attention to a number of Wörner DBSST stoppers that have been in operation at MCI for more than ten years. We ask the technical manager, Mr Ge, how easy it is to obtain spare parts. His face betrays his surprise at the question. His response: "Spare parts? We have never needed any."

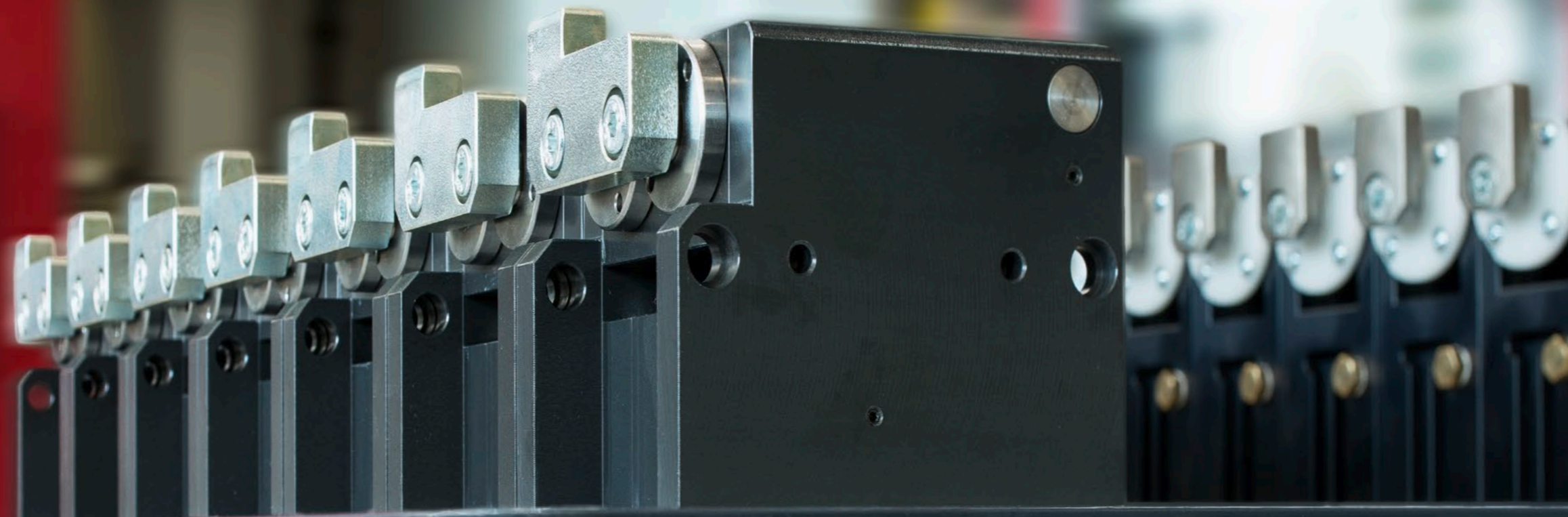


It is a situation we often encounter: Because quality and quality assurance are the bedrock of our lasting success. And part and parcel of our corporate philosophy

Customers who choose Wörner components are consciously choosing reliable, low-maintenance and highly durable products. Products that offer dependable operation, precision, and investment protection – no matter what the model, version, and weight class. And it is a choice that makes sound business sense.

Our manufacturing processes are certified to ISO 9001 and environmental protection standard ISO 14001. Each and every part is made in Germany, and is put through its paces in our test system prior to shipment.

We remain totally committed to these principles – they underpin our quality, our success, and your productivity.



The next generation

Electrically powered – simple and efficient

Wörner products enable you to conserve resources, save money, reduce installation effort, and increase energy efficiency. All at the same time.

The experts in our development department found a way to do all this and more: by means of electromechanical drives – as an attractive alternative to pneumatic systems.

The electrically powered stoppers require no pneumatic valves, connections or hoses. And they are based on the plug-and-play design principle: Attach the stopper, connect the cable, and you are good to go! It conserves resources, and significantly lowers the effort and expense of installation. The solution is supplied with integrated sensors for the detection of the stop position, diagnosis tools, a cycle counter and uptime monitor (depending on the model).



The electronics expert in our development team

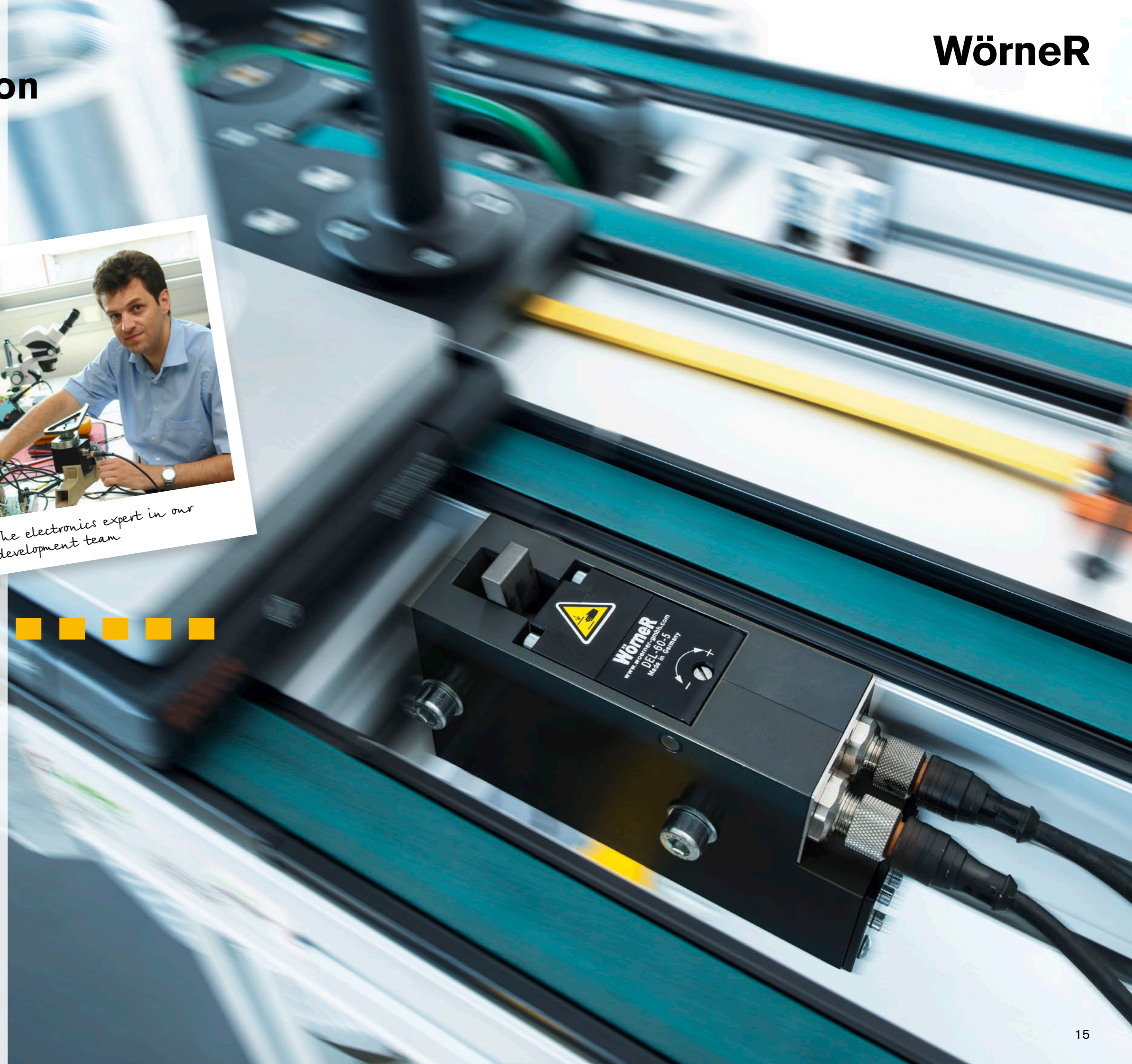
Innovation in action

The electrically powered stopper offers tangible business benefits: it is easy to install and is far more energy efficient than its pneumatic counterpart. It guarantees lower electricity consumption – and lower carbon emissions. And that means lower operating costs: In fact, they are just one tenth of the expenses of running a pneumatic stopper.

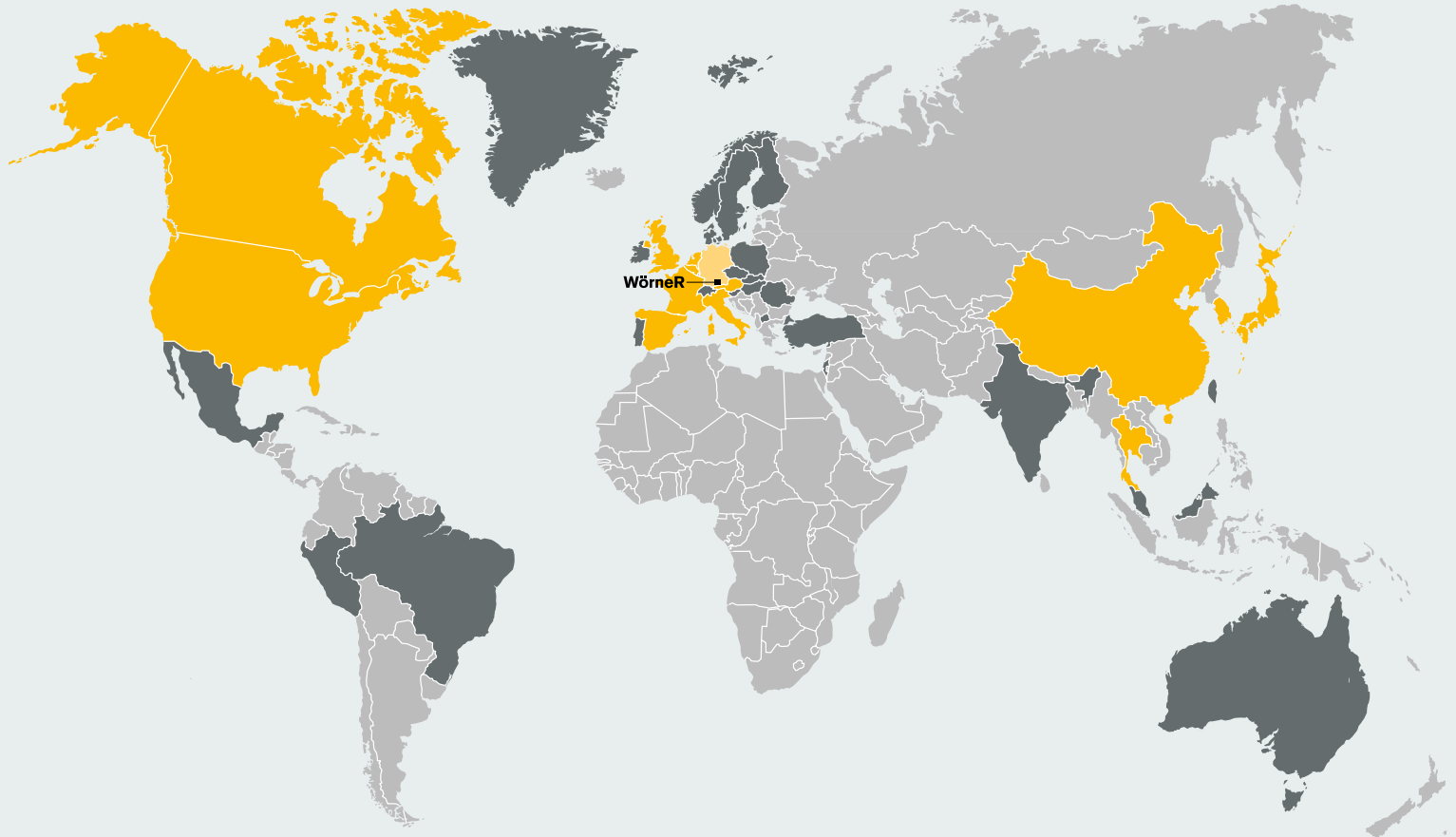
Electrically powered Wörner stoppers are therefore extremely popular with many customers. And there is now a second, even better, generation on the market.

Contact us now to discuss your challenges. We can jointly assess your options, and provide a tailor-made answer to your needs – an answer that is efficient, effective, and long-lasting.

We offer the innovations of today. And are already working on the innovations of tomorrow.



Wörner worldwide



- Countries with regional sales offices or partners
- Countries with well-established customer relationships

Contact details for our international sales partners are available from our website: www.woerner-gmbh.com

Contact us for more

We are committed to exceptional service and support.

If you should have any questions related to products, orders or shipments, or if you should require personal advice, simply contact our headquarters in Denkendorf. We will put you in touch with a representative who understands your needs.

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