



QUALITÄT  
MARKE  
SCHWARZWALD

**stein**<sup>®</sup>  
AUTOMATIONSSYSTEME





## **WE KEEP GETTING BETTER WITH EXPERIENCE AND CURIOSITY**

Conveyor systems for assembly processes are our passion and our strength. For us, our customers' workpieces are not just products – they are the heart of their company. Our task is thus clear: to make sure that these workpieces are guided through the assembly process with intelligence, care, and safety. We develop and build workpiece carrier conveyor systems which are modular, compact, and absolutely reliable. We are constantly looking for ways to improve these systems to guarantee the best possible workpiece transportation through the assembly process. This is our aim and our promise.

We hope this brochure gives you insight into our company. But allow us to say the most important thing in advance: our experience shows that trust is the best basis for good partnerships. We would be very happy if both trust and a good partnership were the result of your reading this brochure.

Oliver Mauch | Monika Stein



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## A COMPANY'S VITA

A company is like a tree. It needs strong roots and a beneficial location. It has a stable trunk consisting of long-serving employees and long-time customers. It must be able to grow but remain healthy while doing so. And it rarely stands alone in a vast field.

We would like to use this brochure to introduce ourselves. We are a company from the Black Forest in Germany. Our company history spans over 40 years, and has been shaped by the desire to make our customers' production processes continuously better and smarter. A sense of responsibility for our customers, our employees, and our social and regional environment has guided us along the way.

STEIN was founded in 1969. Since then, our tradition of being a value-oriented family business open for new ideas and bold steps has taken us down a successful path.

- 1969** Founded by Josef Stein, manufacturing of equipment/tools for Traub lathes
- 1973** Production of loading and unloading equipment for processing machinery
- 1985** Josef's son Peter Stein joins STEIN management
- 1987** The first licensed double-belt band plant is built
- 1990** Development of the STEIN 300 workpiece carrier conveyor system begins
- 1992** STEIN 300 launch
- 2003** STEIN 500 launch
- 2006** The management team welcomes Monika Stein as a new member
- 2009** STEIN 700 launch
- 2011** With Oliver Mauch, the third family generation joins the management team
- 2012** STEIN introduces the new corporate design "Qualität Marke Schwarzwald" (Trademark Black Forest Quality)

"The term 'family business' does not only stand for kinship, but for trust and continuity as well. These values are as meaningful for a company as they are for a family."



Oliver Mauch, Managing Director



The image shows a large industrial turning unit in a factory setting. The unit is a large, dark, circular metal structure with a polished surface. It is mounted on a white base. In the background, there are other industrial components and a conveyor belt system. In the top right corner, there is a decorative clock face with a floral pattern and Roman numerals. A dark teal text box is overlaid on the right side of the image.

Masterpieces need quite a bit of tinkering until they're really perfect.

#### TURNING UNIT

- swift and smooth rotation
- the workpiece retains its alignment
- alternative to classic transfer units
- ideal for intersections

## FINDING THE BEST WAYS

The best way to reach your goal is to adapt to the road ahead, not to change course all the time. Our components are based on this principle.

### WELL-PROVEN... AND SPECIAL

We develop standards of a quality so high that in essence, they always remain the same. But we can modify and adapt them according to individual needs. Thus every conveyor system which leaves the STEIN factory halls is a specific customer dream come true. And each one contains valuable experience gained from previous projects. This is why we do not avoid the term "standardization." For us, it means that we can rely on well-proven knowledge to tread new paths safely.

### WE KNOW WHERE WE STAND

There are paths we cannot take and customer requests we are unable to meet. We are not in the special engineering business and do not believe in price dumping. We do believe that system reliability and service responsibility are more important than short-term sales at any price.

### WE SIMPLY TAKE OUR TIME

To accomplish new tasks and optimally satisfy customers' expectations, we want to get to know the special features of individual processes and products in detail. This is why our path to success includes personal meetings and regular communication before and during a project. We know from experience: the best solutions for the customer are found together with the customer.

Conveyor with belt running on roller elements.

### FEATURES

- longer service life
- less abrasion
- less contamination
- reduced wear and noise

"We are a special engineering company, so we deviate from the STEIN standard on certain details. During our many years of collaboration, STEIN has always been accommodating and supportive in the search for special solutions."

Jürgen Franke, Development & Construction of Special Machinery, B. Braun Melsungen AG



## SAFE CONDUCT FOR WORKPIECES

Good material flow within the system is the pulse of an effective process. This is why our passion is systems that carry workpieces to where they are supposed to be. Accurately, safely and perfectly harmonized with all work steps and workstations.

### THE SUM OF ITS PARTS

STEIN automation systems are more than the sums of their parts – because they integrate our decade-long experience into the daily production processes of our customers. But STEIN systems can be broken down into single modules. This is important, because it makes them easy to reconfigure, expand or downsize. They are available in a variety of dimensions for everything from the largest halls to the narrowest spaces. And they can be customized to fit a variety of different workpieces and workstations, so the flexibility STEIN systems provide to assembly facilities is unmatched.

### NO TIME LOST

The best systems are of little use if they are not ready on time. This is why we are glad we can save our customers' precious time with short delivery times. Every STEIN

system is set up and tested in-house before it is shipped, which ensures that our customers can set it up easily and start it up immediately as required. This means we can find and fix potential problems before they can become real problems for our customers.

### LEAN PRODUCTION – THE LOGICAL CHOICE

Can the great flexibility of what is known as lean production be combined with the numerous advantages of STEIN systems and the tried-and-tested STEIN CONTROL? Yes, very easily, by installing certain components from the proven STEIN 300 modular system. This makes it possible to execute numerous procedures – such as rotating and moving workpiece carriers – manually. At the same time, the path to production line automation remains completely open to the customer. To automate and upgrade, it is sufficient to equip the installed components with the appropriate assemblies – for example, by adding belts or motors. This allows current demands to be met at any time.

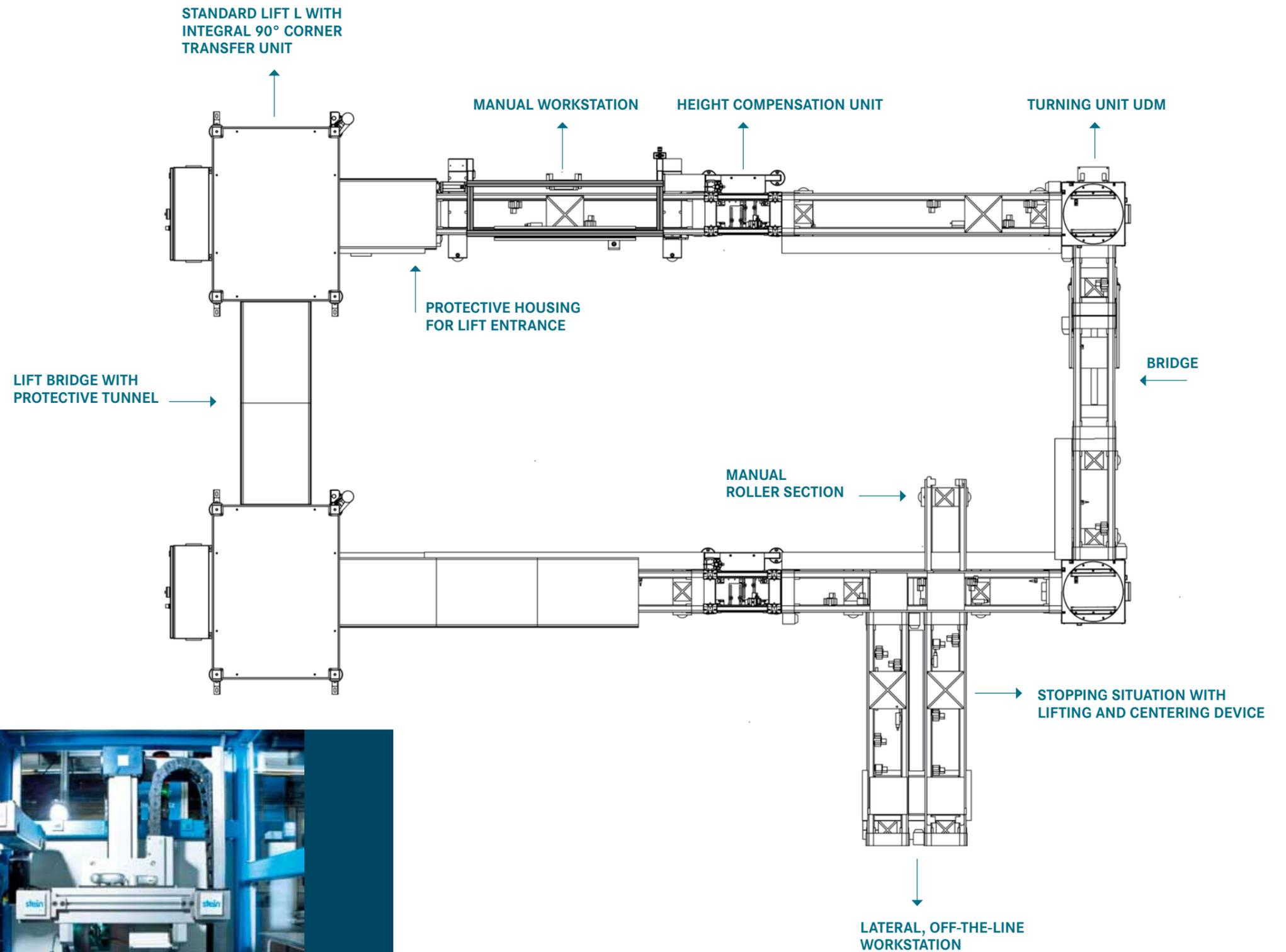


# STEIN 300: VITAL LINE FOR ASSEMBLY

Our basic system, the STEIN 300, has firmly established its presence in over 3,000 factory halls. It serves a variety of customers in a variety of configurations. But we think every new system we put together is something special. Because it is not only for conveying workpieces. It also conveys our concept of the perfect assembly process directly to the customer.

## THE MANY FORMS OF PERFECTION

Our customers may determine the extent to which we help them use the STEIN 300 – and they have three options. We can simply provide customers with the individual components, so they can configure and assemble the system themselves. It is also possible to order a complete system assembled by STEIN, but without integrated control components and software. The third option: a complete STEIN 300 with STEIN system controls installed. This is an ideal, all-inclusive alternative for customers who have tight schedules.



CONVEYOR LINE



LIFT

### STEIN CONTROL – THE STEIN SYSTEM CONTROL

We know what the perfect conveyor system looks like. But only our customers know what their perfect production process needs to look like. This is why we put process design in their hands: with integrated STEIN system controls. They are the nervous system of any process. They control and monitor the read heads, stoppers, and motors. With a few mouse clicks, they can set individual tasks and plan entire production sequences, so STEIN customers can configure their processes without having to program them.

### EXPERTS FOR SPECIAL CHALLENGES:

When a production process includes special tasks, a good conveyor system must be able to adapt to them. A range of special modules can be integrated into the STEIN 300 to make it even more effective. For example:

#### SOFTMOVE

Using DC motors, the intelligent SOFTMOVE control system ensures that workpiece carriers start gently, brake carefully and never forcefully collide.

#### TURNING UNIT

The turning unit facilitates smooth assembly processes and makes individual work steps easier by keeping workpiece carriers aligned during transportation.

#### SWIVELING WORKSTATION

STEIN's swiveling workstation module can be ergonomically adapted to fit the needs of individual workers perfectly.



#### TRANSFER UNIT 90°

This transfer unit moves the workpiece carrier from the main section to the traverse section or from the traverse section onto the main section – easily and with high accuracy.

#### BRIDGE

The bridge enhances the mobility within production halls by making the system easily accessible. The modules listed above are a selection of the many solutions highlighting STEIN's versatility.

#### FEATURES

- technology well-proven over and over again
- maximum flexibility through modular construction
- swift, smooth, and energy efficient
- for loads up to 20 kg
- dimensions from 160 mm - 400 mm (seamless variability within this range), other dimensions upon request



STAND WITH INTEGRATED SYSTEM CONTROL



BRIDGE



SWIVELING WORKSTATION



TURNING UNIT UDM

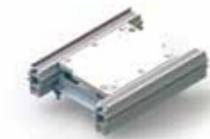
## STEIN 300: PERFECTION PIECE BY PIECE

The STEIN 300 system is the perfect basis for successful production. And the basis of the system is its individual modules. To enable customers to explore their own ways when designing and constructing their systems, STEIN has compiled all of its modules in a catalog for quick and easy ordering.

When we created this modular “construction kit,” we had production design engineers and constructors of self-built facilities in mind. To allow them absolute freedom during the planning process while having the full range of STEIN technology at their disposal, all of the CAD data of all the components is available to download. Planners usually have time, but sometimes construction has tight schedules. In these cases in particular, STEIN’s short delivery times are very welcome.



**CONVEYOR**



**CENTERING DEVICE ZED**  
(positioning tolerance  
+/- 0,02 mm)



**STOPPER**



**TRANSFER UNIT 90°**



**TRANSFER UNIT 180°**



**DOUBLE COLUMN  
STAND**

“STEIN’s great flexibility in the planning process was of immense help to us and they always deliver quickly and on schedule. We were amazed at how fast we could take the systems online.”

Dr. Carsten Marzenell, Production engineering and equipment factory maintenance manager  
at Vorwerk Elektrowerke GmbH & Co. KG



## STEIN 500: GOING STRONG

### STEIN 500

The STEIN 500 is an expert when it comes to difficult tasks. But its strength does not come at the expense of its abilities: it has all the properties of the basic system. Its intelligent direct current motors guarantee smooth, fast transportation without pile-ups. The workpiece carriers themselves glide on ball bearing-mounted load rollers to compensate for their heavy weight. The products the STEIN 500 conveys may be big and heavy, but configuring and controlling it requires little effort, thanks to reliable STEIN system controls.

### FEATURES

- flexible transportation without pile-ups
- extremely silent
- handles protruding products
- max. weight 60 kg
- for workpiece carrier dimensions from 450 x 450 mm – 1200 x 800 mm



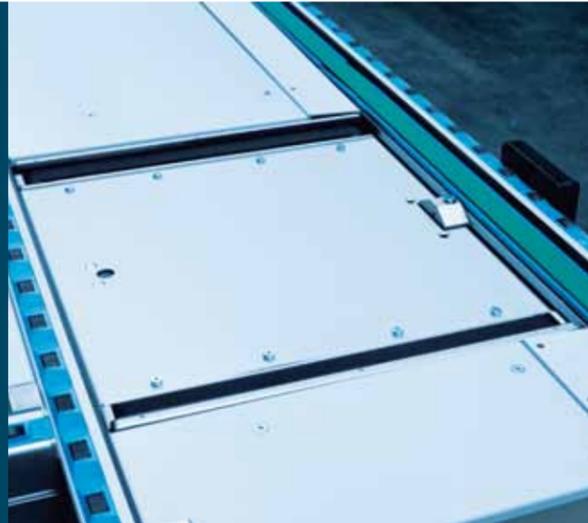
## STEIN 700: FOR INNOVATIVE SOLAR TECHNOLOGY

### STEIN 700

The power of the sun is nature's gift, but technological competence is indispensable for harnessing this energy. When it comes to conveyor systems, the demands of solar industry customers are very specific. Our answer is the modification of our systems, adapting them perfectly to the production of solar cells or solar modules and transporting these materials with extraordinary care. Thus, cushioned stoppers are no longer necessary.

### FEATURES

- clean room-equivalent applications
- very simple integration
- swift, smooth transportation
- different dimensions on one production line
- based on the well-proven STEIN standard
- option of 2 to 5 tracks



90°/180° CORNER TRANSFER UNIT



STOP POSITION



5-TRACK CONVEYOR



TRANSFER UNIT IN A PRODUCTION LINE

## TOTAL CONTROL, ABSOLUTE CARE

The advantages of the STEIN CONTROL system control are quickly summarised, but their value is easily seen every day. It allows configuration instead of programming, enables the simple and independent creation of schedules, and is provided with interfaces. Customers profit from the remote servicing capabilities and additional quality assurance factors such as optional traceability, useful statistical functions and the external ERP system integration option. However, what is unique is the care of transport – because this is perfectly integrated into your own production thanks to SOFTMOVE.

▶ TRANSPORT WITH CARE

▶ SAVE ENERGY

▶ REDUCE WEAR

The SOFTMOVE technology makes your process more intelligent by automatically adapting the speed of the workpiece carrier, continuously and smoothly, thus preventing forceful collisions.

This makes SOFTMOVE a winner for all production lines where particularly delicate workpieces are moved. Here, the automatic motor control ensures that the products are always gently started and stopped. Even extremely delicate workpieces can be moved quickly, safely and efficiently – without complex workpiece carrier designs for product transport.

### WELL CALCULATED

Using SOFTMOVE, thanks to the automatic switching on and off of transport belts as required, unnecessary motor running can be avoided – this allows power consumption to be reduced by up to 80%.

### CLEANLY TRANSFERRED

SOFTMOVE improves working conditions in production and leads to lower servicing costs because machine soiling is considerably reduced.

### LONG-TERM CONSIDERATIONS

Machine maintenance costs are also reduced by using SOFTMOVE. But primarily, their life as a whole is extended – which is of special long-term value.

**SOFTMOVE.**  
TRANSPORT MARKE STEIN

# STEIN IS “WE”

At STEIN, we work with each other and not just next to each other. This is important because inspiration flows and new ideas flourish in a positive work environment, and eventually benefit everyone. We respect each member of the team and their work and treat each other accordingly.

The defining concept behind our team strategy is: the people at STEIN are not only working for a company, but they are a part of this company. This is vital because it motivates every individual to contribute to the whole while working independently – a situation that we like and encourage.



Every conveyor system is carefully tested before being shipped



Even daily tasks can lead to inventive solutions: our employees are full of smart suggestions.



At STEIN, teamwork is more than a procedure – it is a principle.



Experience and service go hand in hand: 80% of our employees have direct contact with the customer.



Working = learning: the trainee positions we provide every year are part of STEIN's investment in the future.

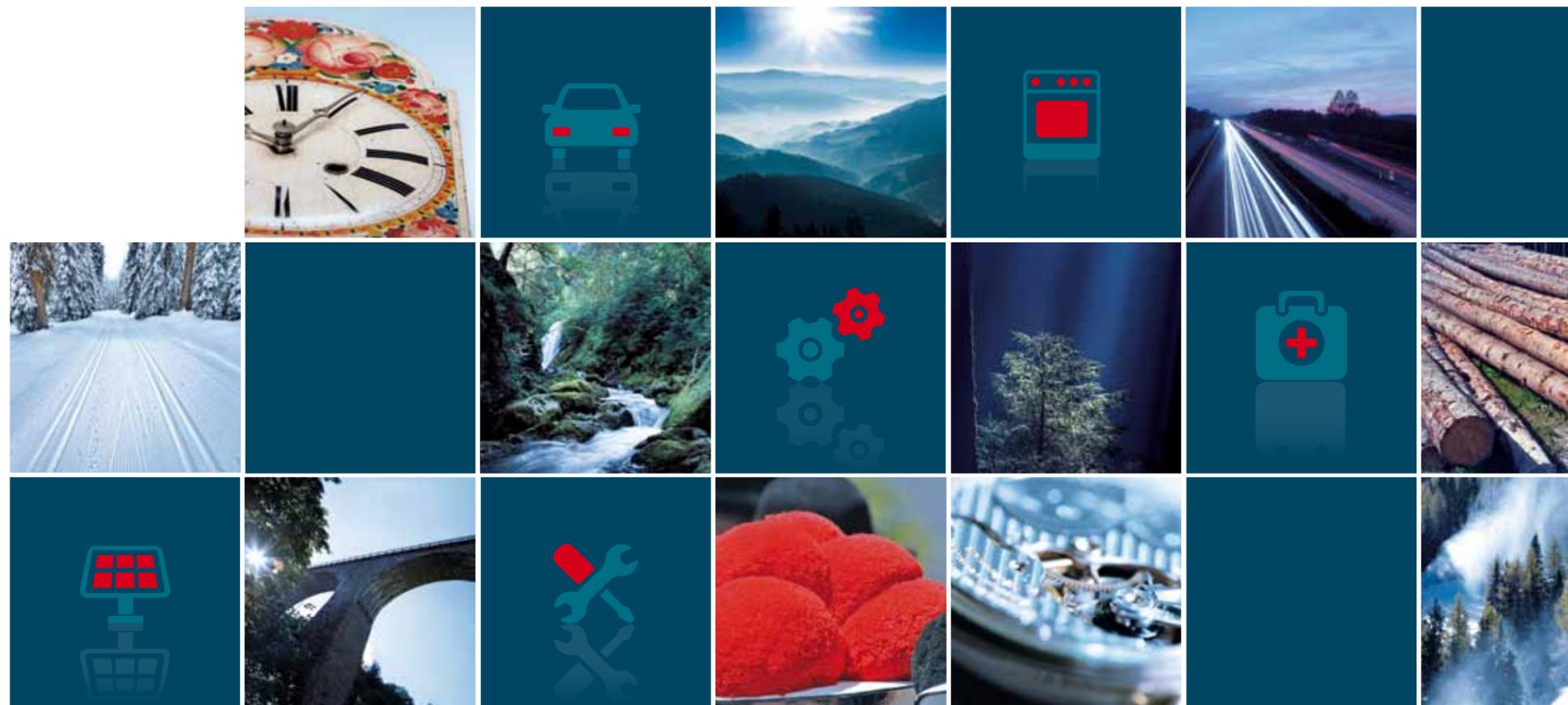


# TRUST FOR THE LONG TERM

If we merely sold products to our customers, we would be making deals but not forging partnerships. At STEIN, we value long-term, honest, and constructive relationships with our customers. We want customers to feel comfortable approaching us with their problems and questions – not in the least because this provides us with a valuable opportunity to learn and develop new skills together with customers.

Our service strategy helps us manage our customer relationships. It is quite simple: customer production processes are our top priority. Tele-diagnostics and remote servicing are instruments that enable us to be close to customers even if they are far away, and to provide help and support as quickly as possible.

Of course we are happy to welcome all of our new customers – but at the same time, we are proud of our large number of long-term customers, who have been successfully working with us and our systems for many years. Some of the companies we have the pleasure of working with are listed below.



**AUTOMOTIVE**  
KIEKERT  
BÖCO  
WITTE  
CONTINENTAL

**TOYS/LEISURE**  
ATOMIC  
PLAYMOBIL  
EHEIM

**APPLIANCES**  
VORWERK  
IMPERIAL  
E.G.O

**MEDICAL INDUSTRY**  
B | BRAUN  
CERAMTEC

**DRIVE ENGINEERING**  
EBM-PAPST  
AMK  
SEW

**SOLAR INDUSTRY**  
SOLARWORLD  
JONAS + REDMANN  
CENTROTHERM

**ELECTRICAL ENGINEERING**  
FESTO  
WERMA  
HILTI

“During the production process, unforeseen situations arise all of the time. We can count on STEIN to help us with optimization requests even at short notice and we especially appreciate their software competence. Our good personal relationship with STEIN is the final touch.”

Bernhard Bamberger, Production Manager Niederstetten, ebm-papst





Careful, calm plans allow  
you to meet highest demands  
safely.

#### **STEIN AUTOMATION SYSTEMS**

- swift and smooth
- intelligent and flexible
- with a passion for details
- Qualität Marke Schwarzwald  
(Trademark Black Forest Quality)





QUALITÄT  
MARKE  
SCHWARZWALD

**stein**®  
AUTOMATIONSSYSTEME

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