



THE HOME
OF QUALITY

stein[®]
AUTOMATION

GETTING TO THE HEART
OF TRANSFER

How do I transport small batch sizes economically?
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How can I make my production processes flexible?
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How intelligent is my assembly line?
Page 8

YOUR WAY IS OUR GOAL

Assembly-line transfer systems are our passion and strength. We want to accompany our customers' workpieces along the assembly line as intelligently, carefully and safely as possible.

The systems we have developed are modular, compact and completely reliable. Our logistics meet the requirements for Industry 4.0. Networked production plants are selectively controlled using intelligent RFID technology.

All STEIN systems have one thing in common: they guarantee our customers the best quality for their production. Our proven technology is available in a variety of forms to meet different demands.

Welcome to STEIN. Find out about our company and our products!

Jürgen Noailles | Monika Stein



'STEIN AUTOMATION is a family business that goes the extra mile. You can sense the passion of the employees every day. Our philosophy of striving for success with standardisation of both the mechanics and the PLC is something that inspires me day in, day out.'

Jürgen Noailles, Managing Director

CONTINUING A GOOD TRADITION

STEIN was founded in 1969 in the German town of Schwenningen. Since then, we have enjoyed the best experiences in the tradition of a value-focused family company that is at the same time open to new ideas and bold decisions.

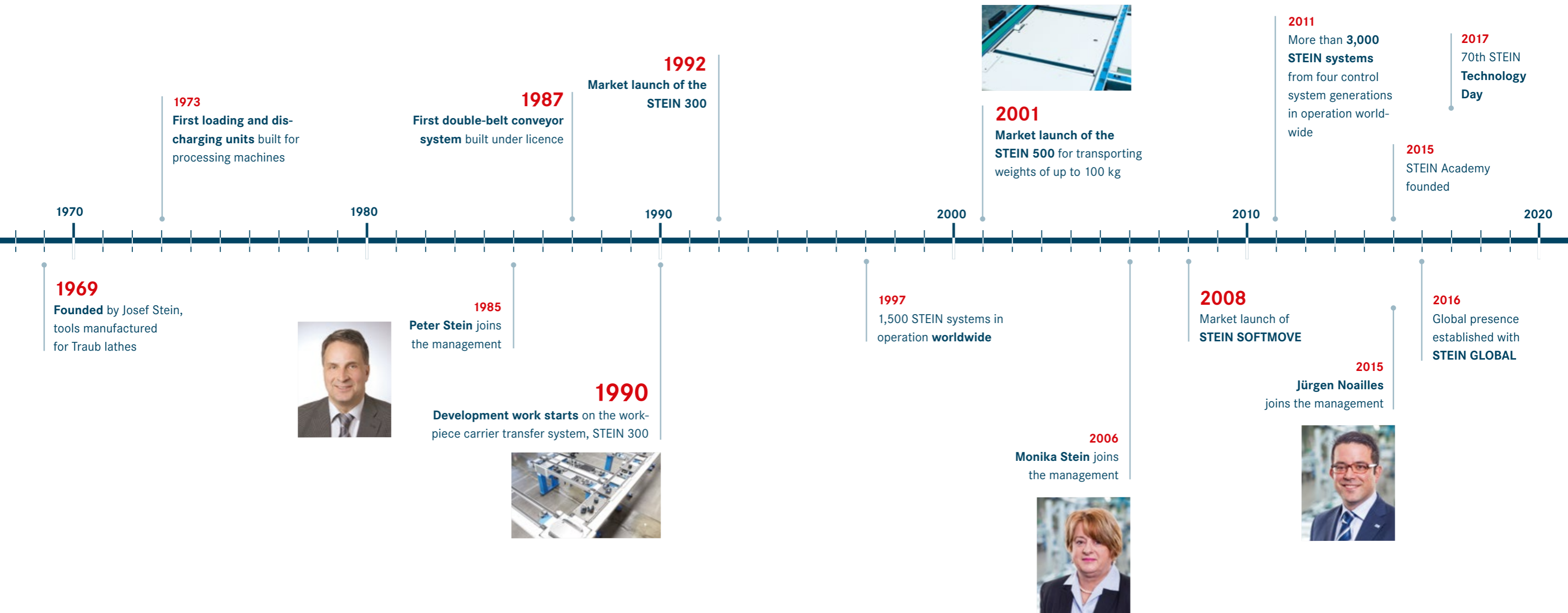
We believe that serving our customers not only means providing them with expertise and powerful solutions, but also means cultivating long-term, collaborative relationships sustained by mutual trust.

With our stable base of regular customers and motivated, long-serving employees, our future looks bright.



1993

STEIN delivers the first networked assembly lines for Industry 4.0





**FLEXIBLE
RESPONSE**



**EFFICIENT
PRODUCTION**



**SIMPLE
CONTROL**

LOGISTICS FOR THE INDUSTRY OF TOMORROW

In logistics, STEIN has laid down the foundations for Industry 4.0, which has had a major role in shaping our portfolio since 1992.

We have been bringing our extensive logistics and data-processing experience to the market since 1992 with our logistics management services. Networked production plants are intelligently controlled using RFID technology.



+ An **easy-to-configure schedule** ensures safe transport.

+ **Intelligent workpiece carriers** transmit the unique identity of each workpiece to the relative station.



In the age of Industry 4.0, production is gradually changing. Keywords such as batch size 1, variant diversity, networking and process-orientated production flows are important requirements that a transfer system will have to satisfy in the future.

When it comes to transitioning processes, it is important to take a holistic approach right from the start. STEIN as already implemented many solutions and is working on more.

+ **FLEXIBLE, EVEN WITH SHORT DELIVERY TIMES**

Short delivery times are becoming increasingly important, and buying decisions are often delayed as long as possible for cash-flow reasons. We are in a very good position here thanks to our toolkit comprising both mechanics and software.

- Components are delivered within 4 to 6 weeks
- Working in tandem with STEIN LOGISTIK, we supply complete solutions in 10 to 12 weeks

+ **EASY TO ADAPT, EVEN FOR SPECIFIC REQUIREMENTS**

STEIN LOGISTIK achieves great things whilst remaining absolutely transparent and easy to use. As a result, after a brief introduction anyone can assign schedules for different product variants.

- Orders and schedules are easy to configure, even for product variants
- Compliant with standards!

+ **EFFICIENT, EVEN FOR SMALL BATCH SIZES**

With our installations and systems, the flow of material can be controlled in such a way that the workpiece carriers intelligently find their own way. STEIN LOGISTIK guarantees that material flow and data management run as cost-effectively as possible in the production process, even with small production units.

- ERP connection
- Batch size 1 and mixed production



‘Many things only evolve during production. That’s why STEIN is always open to optimisation requests, and this

input is especially valuable to us when it comes to software issues. At STEIN, good human communication is the icing on the cake.’

Bernhard Bamberger, Production Manager at the Niederstetten Plant in Germany for ebm-papst

GENERATING SUSTAINABLE PROCESSES TOGETHER

Success means good planning. Our staff will therefore work extremely closely with customers in the initial stages to work out which are the vital details in a specific transfer process.

After all, every production process has its own character. For us, getting to the heart of this is key.

AFTER ALL, EVERY PRODUCTION PROCESS HAS ITS OWN CHARACTER. FOR US, GETTING TO THE HEART OF THIS IS KEY.

Our success at STEIN is based on collaboration with our customers, suppliers and partners. We want our network to benefit from this too and that's why we organise STEIN Technology Days, where knowledge and experiences are shared in a pleasant atmosphere. Working in cooperation with two university professors, the STEIN Academy bridges the gap between theory and practice in automation.

TURNING IDEAS INTO REALITY



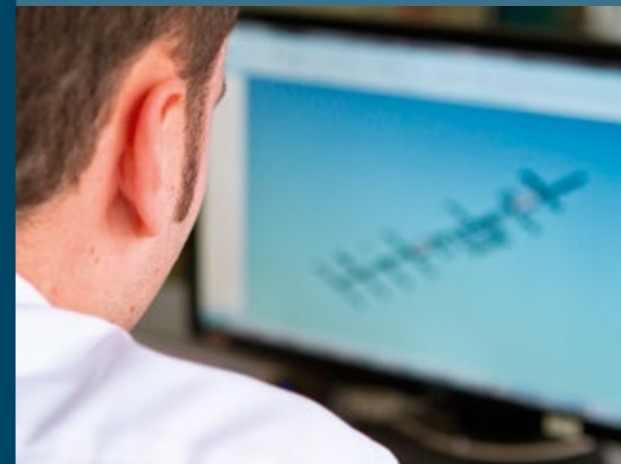
PLANNING, CONCEPT AND CONSULTATION

Our many years of experience in assembly logistics here at STEIN and the production expertise of our customers result in a sophisticated assembly concept. Modular planning allows us to provide planning security in a very short space of time based on a detailed proposal which includes fixed scheduling.



DEVELOPMENT, CONFIGURATION AND IMPLEMENTATION

Standardised custom layouts are created for each specific transfer system. Thanks to the adaptable modules, the designs are immediately achievable and can be implemented quickly and efficiently. The interfaces are generated and the system configured in parallel with this mechanical layout.

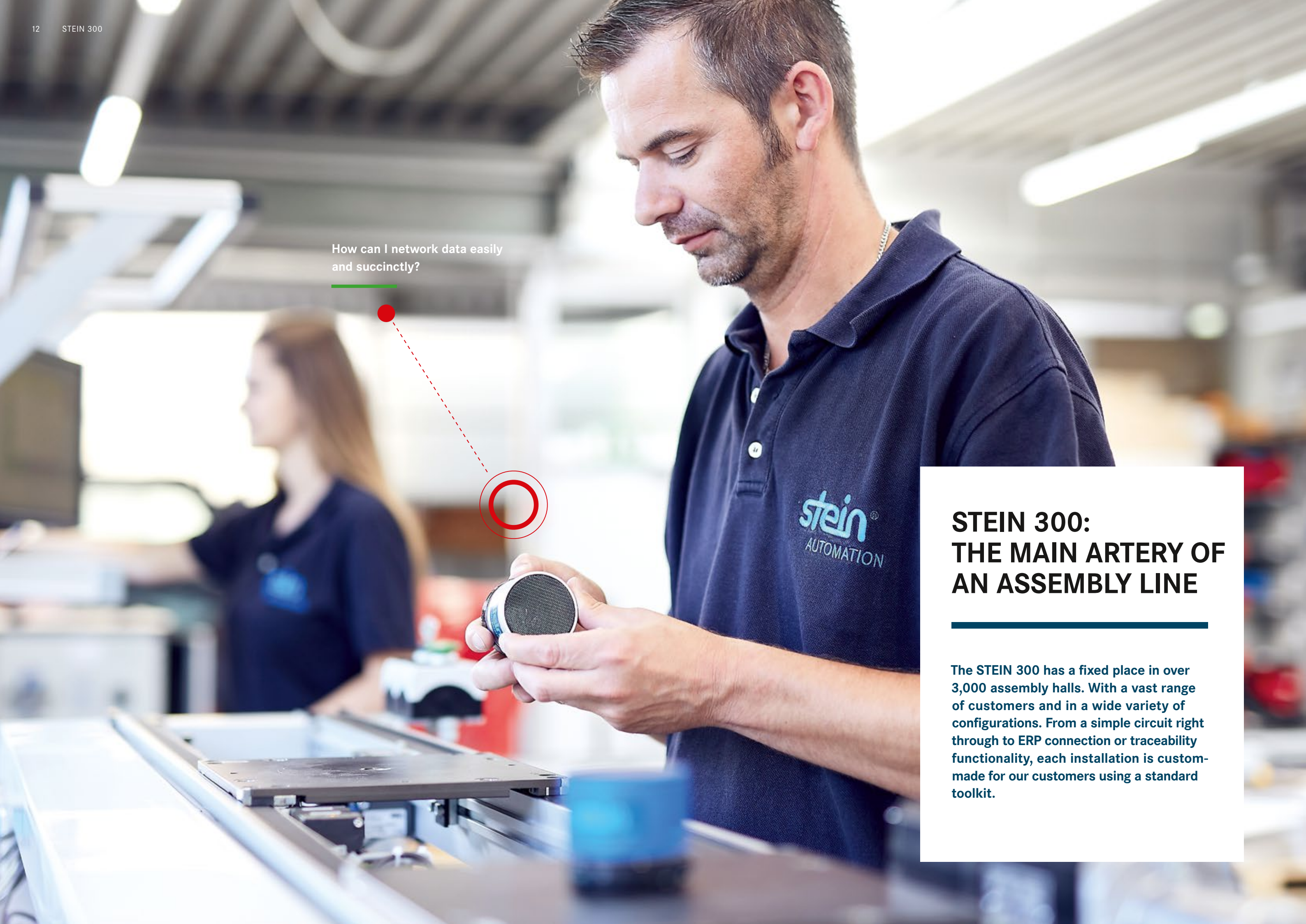


SERVICE AND SUPPORT FOR ALL CONTROL SYSTEM GENERATIONS

Thanks to standardisation, all the different generations of the assembly lines supplied can get expert support on an ongoing basis. STEIN provides operators with reliable support either onsite or remotely. Service videos demonstrate the simple operation in a way that is easy to understand.



How can I network data easily
and succinctly?



STEIN 300: THE MAIN ARTERY OF AN ASSEMBLY LINE

The STEIN 300 has a fixed place in over 3,000 assembly halls. With a vast range of customers and in a wide variety of configurations. From a simple circuit right through to ERP connection or traceability functionality, each installation is custom-made for our customers using a standard toolkit.

Our standard portfolio here at STEIN makes us unique in the world of manufacturers for workpiece carrier transport. We provide our customers with everything from individual components to the full carefree package, all from a single source.

CONSTANT SUPPORT

Our customers benefit from over 25 years of experience. Expert servicing and replacement parts are provided for all four control system generations.

IMPLEMENTATION ON REQUEST

Our customers decide for themselves how far they want us to help them with putting the STEIN 300 into operation. There are three options. If required, we supply the individual components of the STEIN 300 in such a way that the customer can configure and assemble it themselves. It is also possible to order a complete system including installation by STEIN, but without an integrated control system. The third option is to provide a complete STEIN 300 with control system – the ideal all-inclusive version for customers where getting the system ready for operation quickly is what counts.

CHOOSE YOUR IDEAL SOLUTION

1

STEIN COMPONENTS

STEIN 300 with individual components is the basis for successful production. To allow customers to go their own way when realising their installations, all components and corresponding data are available in the 'toolkit'. Plant designers and engineers can use them to create custom solutions with all the possibilities of STEIN technology.

2

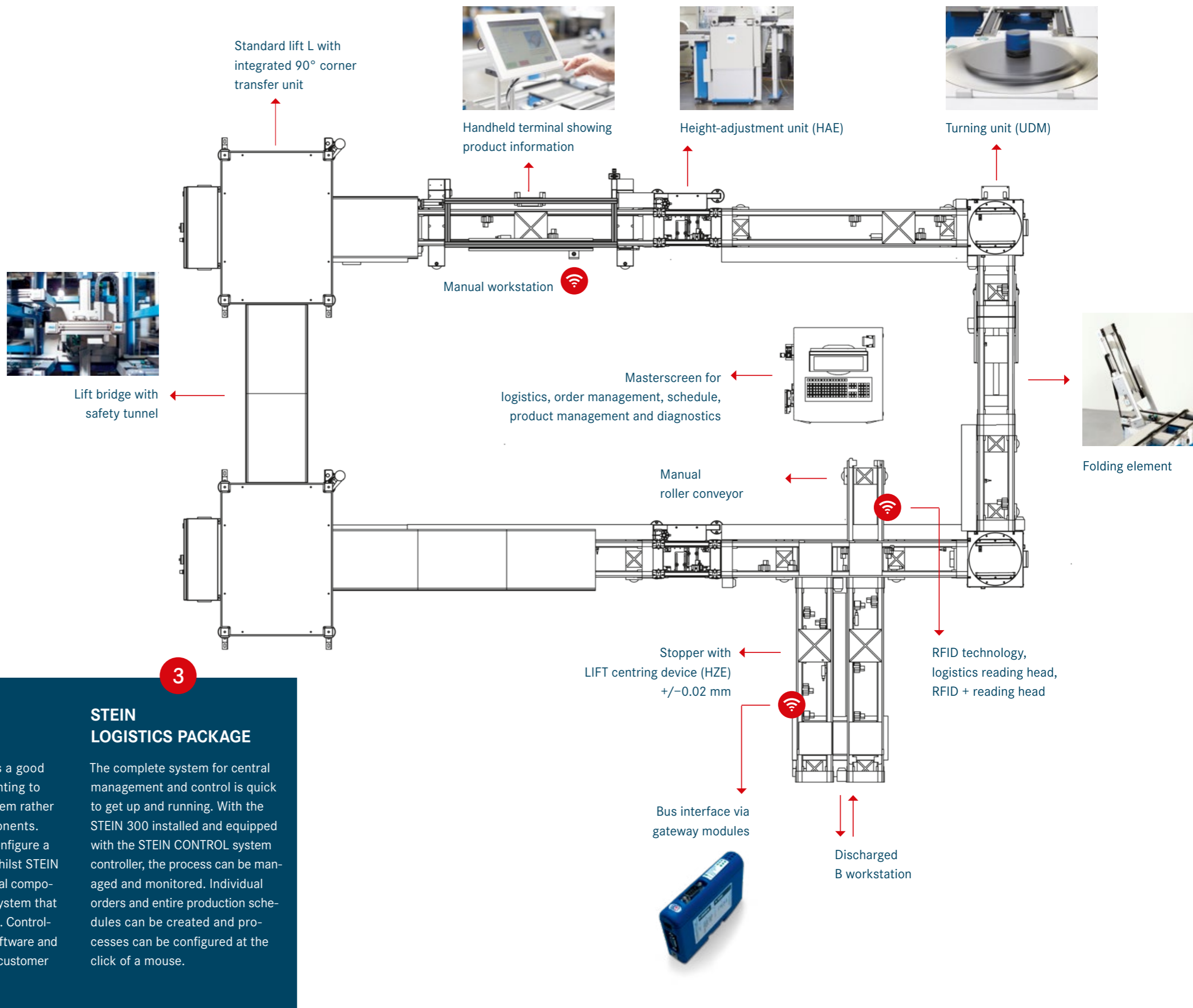
STEIN INSTALLED

STEIN 300 installed is a good choice for anyone wanting to order an installed system rather than individual components. Savvy planners can configure a system themselves, whilst STEIN assembles the individual components and delivers a system that is virtually ready to use. Controlling the system with software and hardware is left to the customer

3

STEIN LOGISTICS PACKAGE

The complete system for central management and control is quick to get up and running. With the STEIN 300 installed and equipped with the STEIN CONTROL system controller, the process can be managed and monitored. Individual orders and entire production schedules can be created and processes can be configured at the click of a mouse.





+ At Stein, your employees take centre stage

+ Flexible working heights



In addition to the subject of networking, STEIN also promotes mechanical innovation. Ergonomics plays a very important role here. With our systems, operators are free to decide whether they want to sit or stand to work. The height of the conveyor belt automatically adapts to the requirements.

SOFTMOVE – QUIET

The gentle drive of the motors dramatically reduces noise. Workpiece carriers do not bump against each other. Belts do not wear through. The result is a quiet, energy-efficient transfer system, which is good for the health of your employees.

FOLDING ELEMENT – CONVENIENT

Free access to closed internal spaces in the system allows installation technicians to work in a relaxed – and more successful – way.

DISPLAY TERMINAL – INFORMATIVE

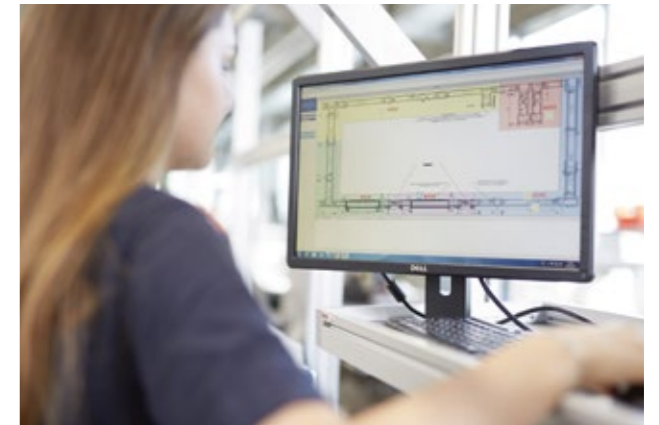
The product communicates with the operator. This supports the working process directly, especially since this feature is also available as a navigator.

STEIN CONTROL – FAST

Individual orders and entire production schedules can be created at the click of a mouse. This allows our customers to configure their processes very easily without having to do any programming.

HEIGHT-ADJUSTABLE MANUAL WORKSTATIONS – IDEAL

Everyone is unique and has their own ideal working height. With STEIN, operators are free to choose the height, allowing them to stay relaxed to provide the best performance.



Workpieces are moved **gently and quietly** with Softmove

How can I transport heavy workpieces easily?

STEIN 500: FOR HEAVY ITEMS

The STEIN 500 performs particularly heavy jobs. It transports heavy workpieces weighing up to 100 kg safely and effortlessly through the production process. The products can even overhang the edges.

Despite the heavy parts, configuration and control of the system is still easy with tried-and-trusted STEIN LOGISTIK.



Easy to get off the ground with up to **100 kg**

The STEIN 500 has the same qualities as the basic STEIN 300 system.

EASIER TRANSPORT

Gentle, fast and jam-free transport is made possible with intelligent DC motors, and the workpiece carriers themselves move on ball-bearing rollers so that their heavy weight does not become a hindrance.

EFFICIENT FOR HEAVY WORKPIECES

This efficient and safe solution in particular impresses operators every day. The workpiece carriers do not bump against each other, preventing wear, vibration and noise despite the workpieces weighing up to 100 kg. Various products in a variety of sizes can be transported at the same time on one workpiece carrier.



+ BENEFITS

- flexible and jam-free transport
- extremely quiet
- also suitable for overhanging products
- for weights up to 100 kg
- workpiece carrier sizes from 450 x 450 mm to 1,200 x 800 mm

**GENTLE
TRANSPORT**



**ENERGY-
SAVING**



**REDUCED
WEAR**



STEIN SOFTMOVE: START/STOP WITH THE UTMOST CARE

Thanks to Softmove, we transport our customers' products from station to station very gently and with maximum energy efficiency. The system control, STEIN LOGISTIK, allows you to configure rather than program.

This increases system availability due to low wear and ensures low energy consumption as well as a quieter workplace.

SOFTMOVE.
TRANSPORT MARKE STEIN

THE PEOPLE BEHIND THE SOLUTIONS

At STEIN, we don't just help each other with our work – we work together. This is important, because new ideas and inspiration thrive in a pleasant atmosphere, benefiting everyone. We respect every employee and their work and this is reflected in the way we deal with each other.

For us, one idea is key: at STEIN, our employees don't work for a company; they are part of the company. Only then are individuals happy to contribute to the greater whole with their own independent work, which we nurture and value.

MASTERFUL SOLUTIONS

Even everyday work can be improved. Lots of ideas for improvement come from our employees.

TEAMWORK

At STEIN, working together is not just a method but a conviction.

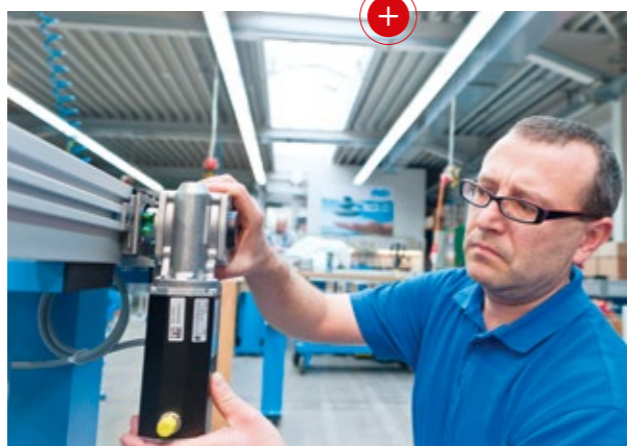
DIRECT CUSTOMER CONTACT

With us, experience and service go hand in hand: 80% of our employees communicate directly with customers.

LEARNING IS PART OF WORKING

STEIN takes on apprentices in the company every year, investing in the future in the process.

Each transfer system is **examined thoroughly** before delivery.



Quick and easy change of modules



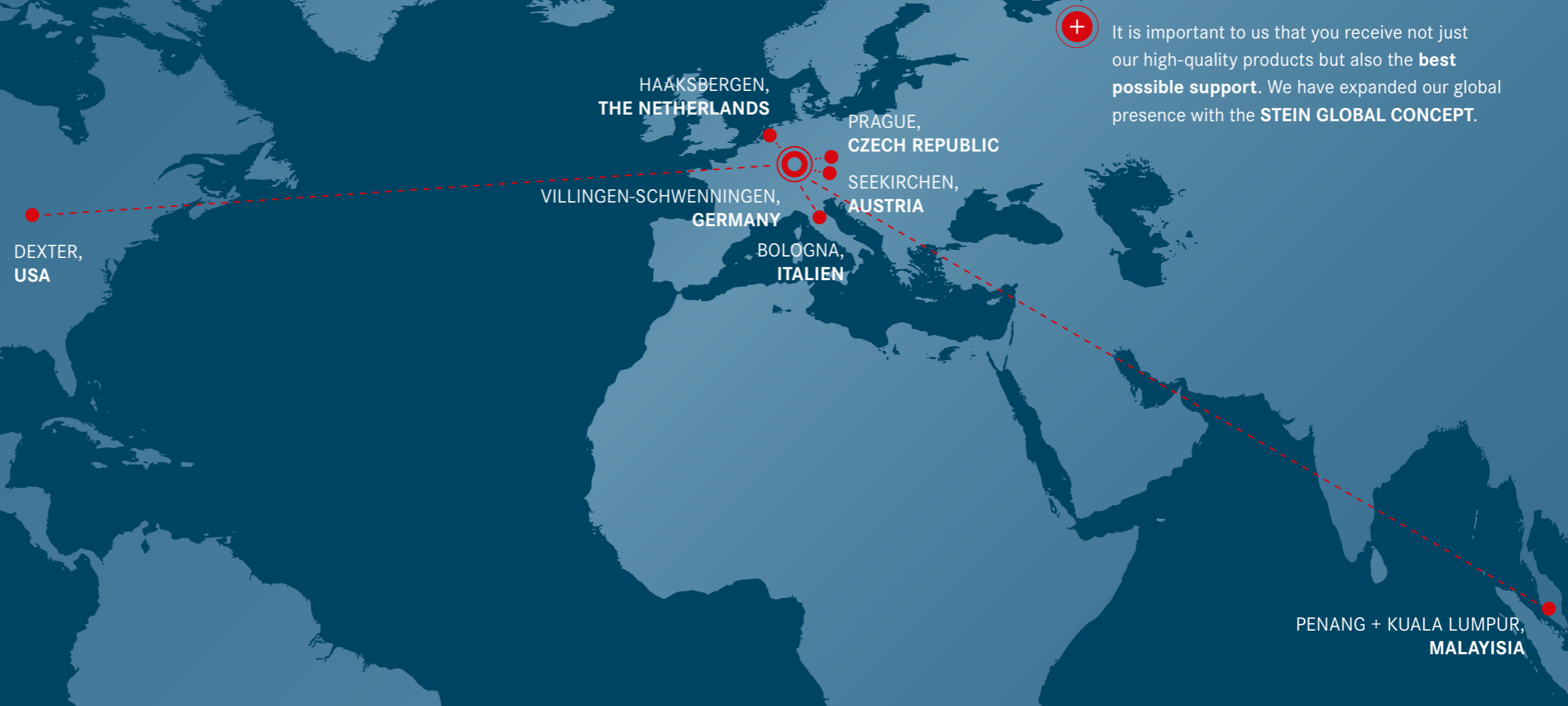
STEIN AROUND THE WORLD

If we merely sold products to our customers, that would be a business – not a partnership. That’s why long-term, honest and constructive relationships with our customers are very important to us.

Long-term, honest and constructive relations with our customers are very important to us. Customers can – and do – approach us at any time with new tasks and questions. Last but not least, it is a valuable opportunity for us to learn and develop new skills together with our customers.








Our service strategy helps us in developing customer relationships: our customers’ production take absolute priority. Online diagnosis and remote maintenance are tools which enable us to be close enough to provide help and support quickly at any time, even for customers who are a long way away.

We take pleasure in every new customer and at the same time take pride in having a large number of regular and existing customers who have been successfully using and valuing our systems and their collaboration with STEIN for many years.



It is important to us that you receive not just our high-quality products but also the **best possible support**. We have expanded our global presence with the **STEIN GLOBAL CONCEPT**.

WE ARE PROUD TO BE ABLE TO HELP SHAPE THE SUCCESS OF MARKET LEADERS:

- | | | | |
|--|---|--|--|
|  Automotive
CONTINENTAL
KIEKERT
MAGNA
MAHLE |  Toys and leisure
ATOMIC
PLAYMOBIL
EHEIM |  Household equipment
VORWERK
MIELE
EMSA
BKS |  Electrical engineering
FESTO
HILTI
WERMA |
|  Medical
B BRAUN
BAXTER |  Propulsion technology
EBM-PAPST
SBS-FEINTECHNIK
AMK
SEW |  Solar
JONAS + REDMANN
CENTROTHERM | |



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