

Automation, Measurement and Conveying technology



HÄHNER-Group

ktec



Innovative, Flexible and internationally present

Since its foundation in 2008 ktec GmbH has made a name for itself as a industrial goods supplier in the body in white sector and bodyshell plant sector within the global automotive market. Customer-orientation and innovative strength have been the driving forces that have resulted in the company becoming a technology leader in the conveying technology sector.

Alongside these, flexibility, the ability to fulfil production schedules and quality contribute to the company's principles that help ktec to win over its customers. The company, with its headquarters in Geisenfeld next to Ingolstadt counts numerous reknowned automotive manufacturers amongst its satisfied customers. However ktec regular delivers technical innovative solutions in other sectors.

The company's focus in production and development are the areas of automation, measurement and conveying technology as well as steelwork which are certified according to **DIN ISO 9001**. Expert, experienced engineers and machinist and co-operation with high-level suppliers ultimately ensure the uniform high quality standards with which ktec is synonymous as a competent partner within the overall automation process.

Innovative technologies for the automation and conveying technology sector – as a young, internationally active company this is what **ktec** stands for.



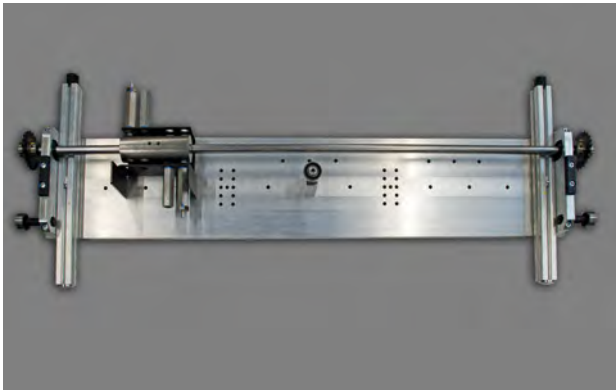


“Stopping in the deflection” as an example of a vertical accumulating pallet conveyor.

Technical solutions For conveying systems

We support our technology leader role through the regular on-going development of our technology.

Friction unit as breaking device for pallet.

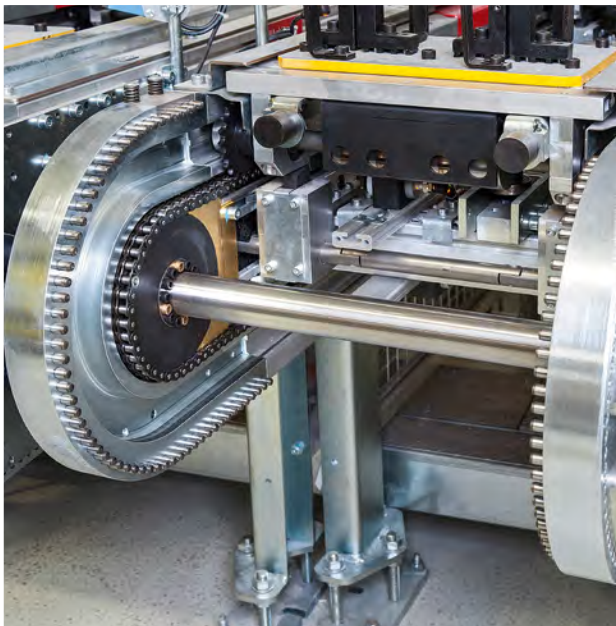


In this way **ktec** is already fulfilling customer requirements as early as the development phase, with our experts working constantly on new ideas and solutions. For example **ktec** has positioned itself as a market leader with the introduction of electrical stoppers and separators.

The focus of this research is cost reduction in energy consumption plus the installation of pneumatic systems accompanied by the suppression of compressed air leaks.

The **ktec** conveying system with components such as “Stopping in the deflection”, friction, catch release, form-finishing and deflection unit with planetary gearing system is unique and highlights the innovative conveying technology.

The noise emissions of our conveying technology is less than the 70 decibel limit.



Form Finishing and deflection
with planetary gearing system.



Custom-made conveying technology

Like a central thread conveying technology extends, not merely metaphorically, through the production stations of countless enterprises.

Employees, robots and technology is constantly changing. All work processes must be perfectly matched to each other, to ensure a trouble-free production sequence. So that the overall process can be maintained in spite of any possible human error or machine malfunction, the conveying technology must be correspondingly robust. It is for just these characteristics that products from ktec stand out.

We offer:

Accumulating pallet conveyor:

The decoupling of the loading and unloading areas enables independent working. Large and heavy components can be transported quickly and safely between cells.

Chain conveyor:

The chain conveyor is ideal for delivering components to the narrowest of spaces.

Belt conveyor:

This well-established technology is ideal for feeding in and out of components.

Slat conveyor:

Dependent on the purpose, the slats can be adapted or easily replaced. This variant can be used for feeding in and out of components.

Paternoster:

This system is ideal, to transport and buffer parts in a vertical space-saving configuration.

Special conveyor:

Innovative technologies can be very varied and specialised and ktec is expert at applying such innovations to conveying technology and is always willing to tackle new challenges.

Structural steelwork:

Conveyors of the desired height and length are installed, synchronously if required, using structural steelwork that is both space-saving and efficient in its use of space.

Automation:

To ensure a mechanically friction-free flow, millimetre-accurate control of the subsections and the delivery of components is essential.

ktec is also happy to offer its customers custom solution options, such as for example the integration of standard products in the structural steelwork or the floor-mounted installation in an already existing system.

Here the length of the conveyor section is variable. With a simple modular system up to 40 metres are achievable.

Flexible solutions guarantee problem-free processes in the production of each system. Likewise available are special models such as belt or roller conveyors.



The drive linking station
enables conveyor sections
of up to 40 metres.



Accumulating pallet conveyor – unique technology

The core product from ktec is the accumulating pallet conveyor also referred to as a pallet carousel PUB, which has contributed to the company's position as the sector technological leader. The function "Stopping in the reversing unit" is unique.

With it, the component can be fed through the deflection unit at a reduced speed after it enters it and so take up an optimum removal position. Because health and safety is an important aspect for ktec in its product development, the loading side is also ergonomically designed.

The planetary gearing system unit also offers a form-finishing with simultaneous speed reduction. A standard synchronisation shaft in the workpiece carrier automatically ensures the straight running of the chain.

A central guide or another guide element which maintains the workpiece carrier straight is therefore not necessary. Large and heavy components are transported quickly and safely, which is what makes the conveying technology of ktec so unique.



Benefits at a glance:

- Manual removal and changing of the pallets enables the easy replacement of part holders when working with multiple product variants/upon product changeover
- High conveyor speeds are achievable
- Very low maintenance expense
- Modular, simple and robust construction
- Form-finishing deflection in the units
- High torques in the deflection
- Loading and unloading decoupled
- Low energy consumption
- Upright, horizontal and suspended component transport possible
- Linking of pallets to a pallet train; enables the transport of long and large components
- Subsequent extension/shortening of the conveyor is possible



Accumulating pallet conveyor – technical facts

The following variants/conveying speeds are available:

- horizontal 6–9 m/min
- vertical (0–90°) 6–9 m/min
- accessible 6–9 m/min
- fast 12 m/min

ktec-horizontal pallet conveyor

Standard widths	500 mm, 750 mm, 1000 mm, 1250 mm, 1500 mm
Custom widths	300 mm – 2000 mm, increase in 50 mm steps
Max. length	20000 mm, linked 40000 mm
Pallet distance	190 mm – 1500 mm
Max. pallet load	approx. 100 kg
Max. torque in deflection	150 Nm
Installation	overhead or floor-mounted
Stopping in the deflection	possible
Conveyor height	700 mm – 1400 mm in 50 mm steps

ktec-vertical pallet conveyor

Standard widths	1000 mm, 1250 mm, 1500 mm
Custom widths	1000 mm – 2000 mm, increase in 50 mm steps
Max. length	20000 mm, linked 40000 mm
Pallet distance	190 mm – 1500 mm
Max. pallet load	approx. 100 kg
Max. torque in deflection	150 Nm
Installation	overhead or floor-mounted
Stopping in the deflection	possible



Chain conveyor – technology for the narrowest of spaces

Due to its space-saving design, the chain conveyor KTB is one of the most popular conveying systems for installation in a narrow space. At the same time, the design of the chain conveyor is just as flexible as that of the accumulating pallet conveyor. However as the pallet is fixed on the chain conveyor, it cannot be stopped during running. The variable angle from 0° to 90° set in assembly means that employees at the vertical chain conveyor work in an ergonomic position in compliance with health and safety, an important factor for ktec.

Thus an ascending chain conveyor is primarily and ideally suited as a facilitating link between workforce and robot. Components can be inserted here so that they can reach a considerable height from the ground to the top of up to four metres. The inserted components are released for outlet transport via the type selection button. So the robot is informed what type of components are being inserted for further processing.

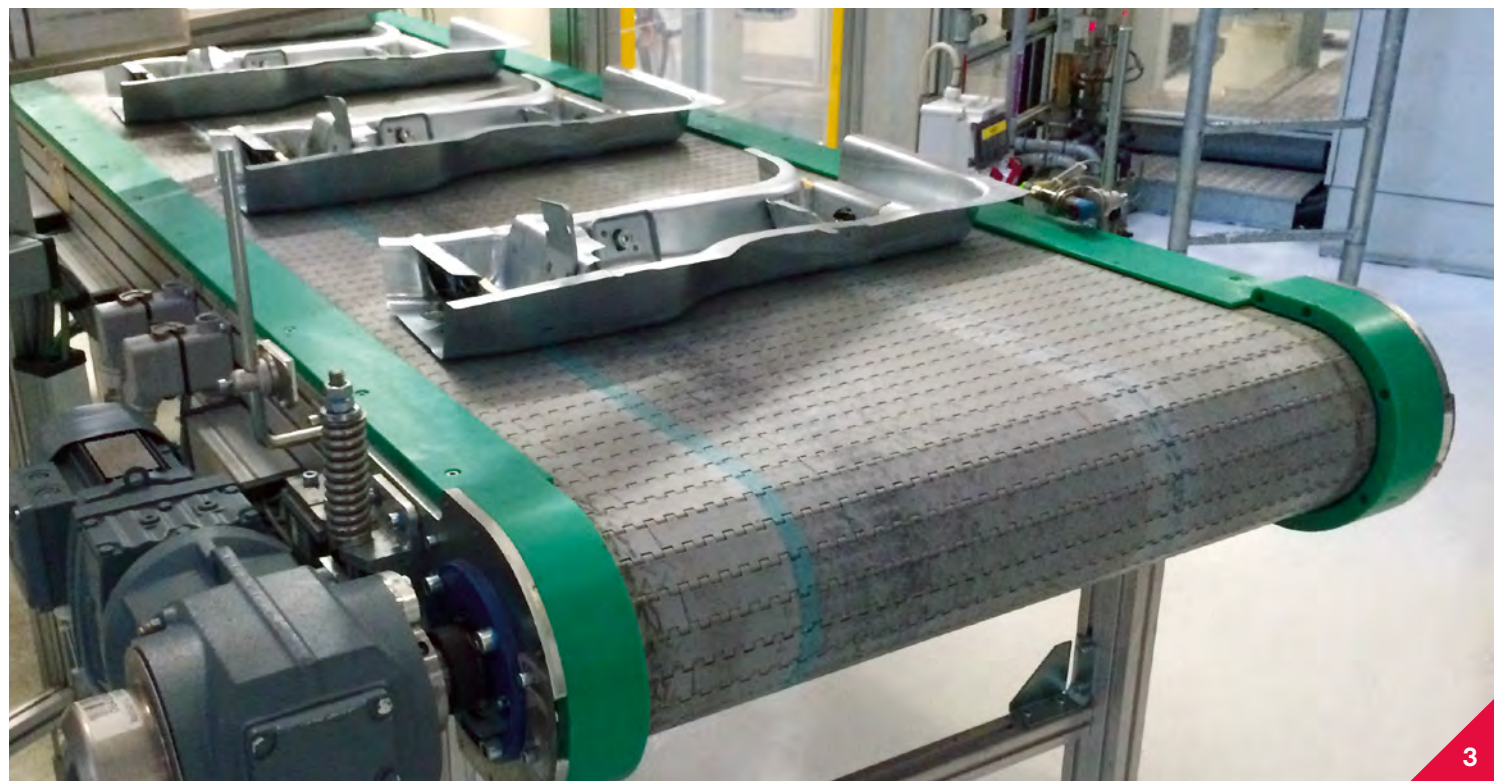
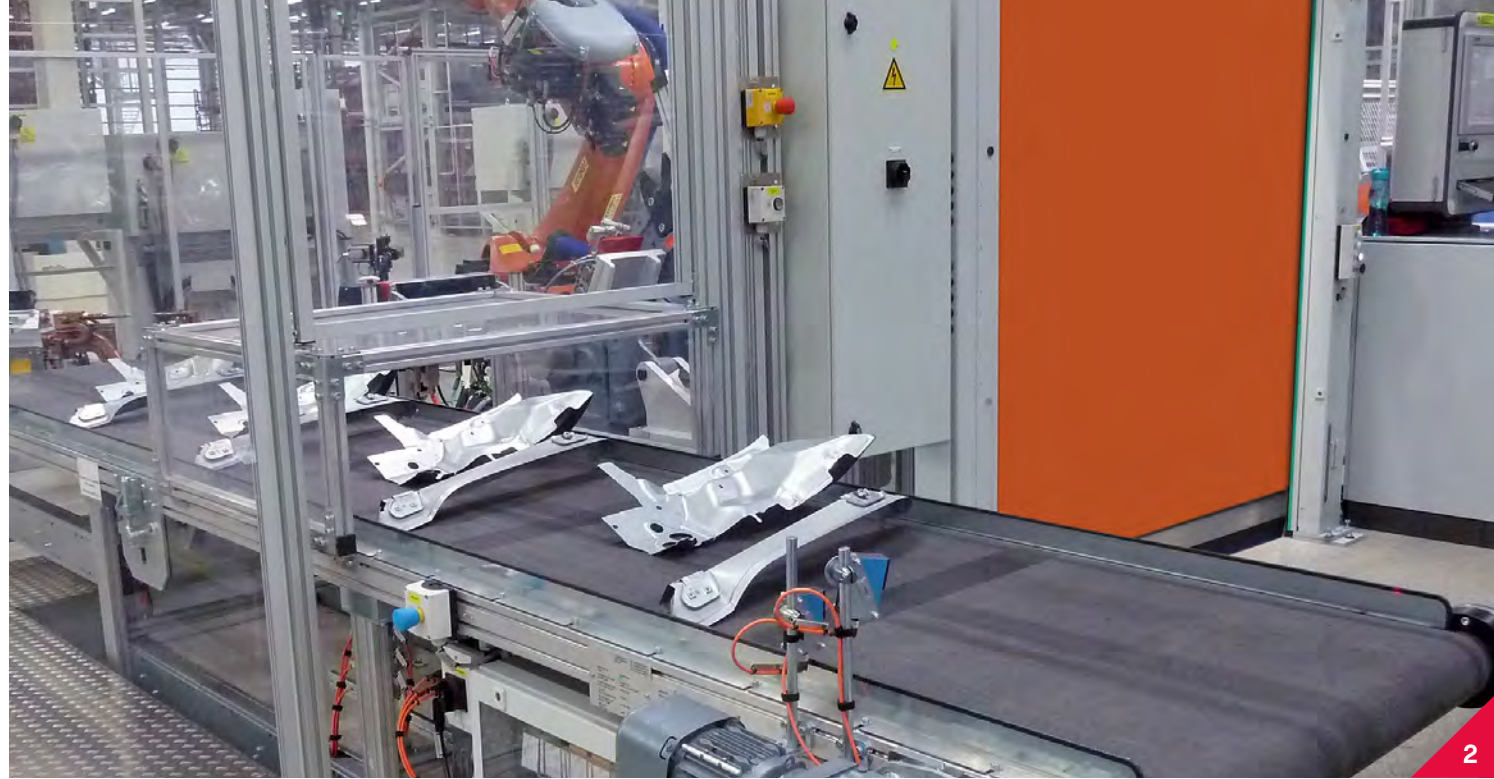
For removal of components from the top edge, the workpiece carriers are positioned by a fixing unit. During this fixing, the robot can take up the provided components with high accuracy for further processing. The walk-on chain conveyor also transports large size components. The advantage here is that the worker can perform his work easily in a safe working area between two conveyor sections.

The following variants/conveying speeds are obtainable:

- horizontal 1–2 m/min
- vertical (0–90°) 1–2 m/min
- accessible 1–2 m/min
- ascending 1–2 m/min

Technical data

Standard widths	500 mm, 750 mm, 1000 mm, 1250 mm, 1500 mm
Belt width horizontal/vertical	150 mm – 2000 mm, increase in 50 mm steps
Belt width ascending	350 mm – 2000 mm, increase in 50 mm steps
Max. length	10000 mm
Pallet length	Dependent on chain/cycle interval
Max. pallet load	60 kg
Max. torque in deflection	100 Nm
Installation	overhead or floor-mounted
Stopping in the deflection	possible



Customised conveying options

Space-saving, variable and tailored to requirements – our tailor-made conveying options.

1

Paternoster

This system is ideal to transport and buffer parts vertically. The allaround guiding of the gondola in the horizontal position means that tipping or falling out of the component is impossible.

Technical data

Width	500 mm – 2000 mm increase in 50 mm steps
Max. design height	Standard up to 10000 mm
Gondola length	100 mm
Max. gondola load	Tba
Max. torque in deflection	Tba
Stopping in the deflection	possible

2

Belt conveyor

The belt conveyor is suitable for components that have a sensitive surface and need not be transported in a precisely defined position. Components with complex surface geometries can also be transported easily.

3

Slat conveyor

Slat conveyor is used for transported material, which because of its nature, in example its weight, temperature or sharp-edged character, is not suitable for transport by any other means.



Technische
Lösungen
in Stahl

Perfectly integrated engineering – structural steelwork solutions

Alongside the wide range of conveying technology, we offer our customers the integration of the selected system in individual steelwork solutions. During the design ktec considers maintenance access so that it is compliant with health and safety regulations and possible expansion stages.

With a strong partner to help us, its then all about the implementation. In the company Stahlbau Hahner we can rely on decades of steelwork experience. The experts from Petersberg near to Fulda in Hesse, Germany fabricate steel halls from 300 m² to 10,000 m² for numerous customers from industry and trade.

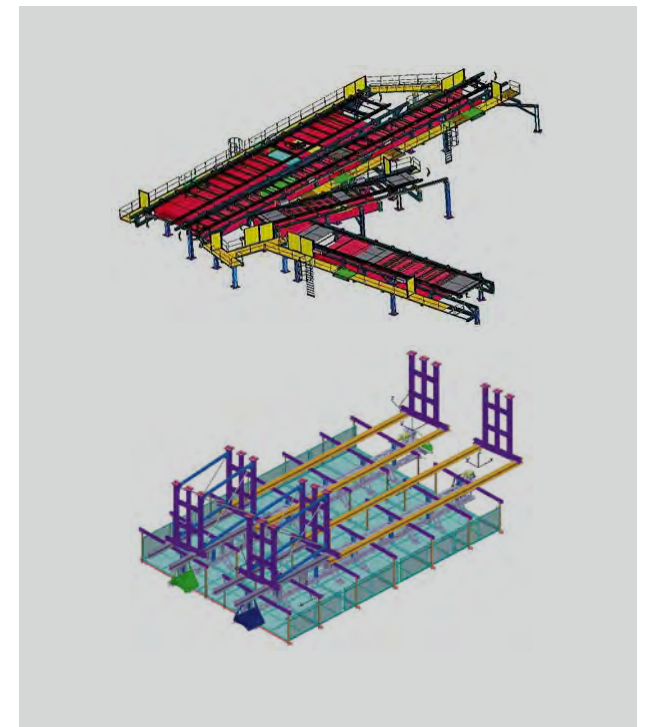
In doing so, we replicate, together with Stahlbau Hahner, the particular challenges of structural steelwork, that were first posed by the

skyscrapers built in the US cities at the turn of the 20th Century. The challenge remains the same, the fabrication methods however are a good deal more modern.

Today therefore we can offer our customers everything from just the supporting structure through to the building including roof and walls up to and including partial turn-key designs of any steel construction. In doing so we take the responsibility for coordinating the individual trades so that our customers receive everything from a one-stop supplier.

Special service areas for automotive manufacturing:

- Substructures
- Crane runways
- Robot platforms
- Robot changeover rails etc.
- Maintenance walkways





HAHNER



Highly-accurate delivery of components for trouble-free production.

Process optimisation by accurately fitting automation



We see ourselves at **ktec** as your skilled partner in the entire process for the automation of your plant. Thanks to the high availability of our conveying technology we can contribute significantly to ensuring your plant works fully automatically. Our conveyors guarantee therefore a precise supply of the components, in a precision range that varies only in a few millimeters.

Simultaneously our conveyors can serve as a buffer in your production.

Accurate Fixture technology

ktec has not only specialised on conveying technology but also on fixture technology. From development through to design and measurement, and right up to assembly, ktec takes responsibility for the fabrication process for special fixtures for different assembly sections (underbody, doors, side, etc.) – always in close co-operation and agreement with the customer.

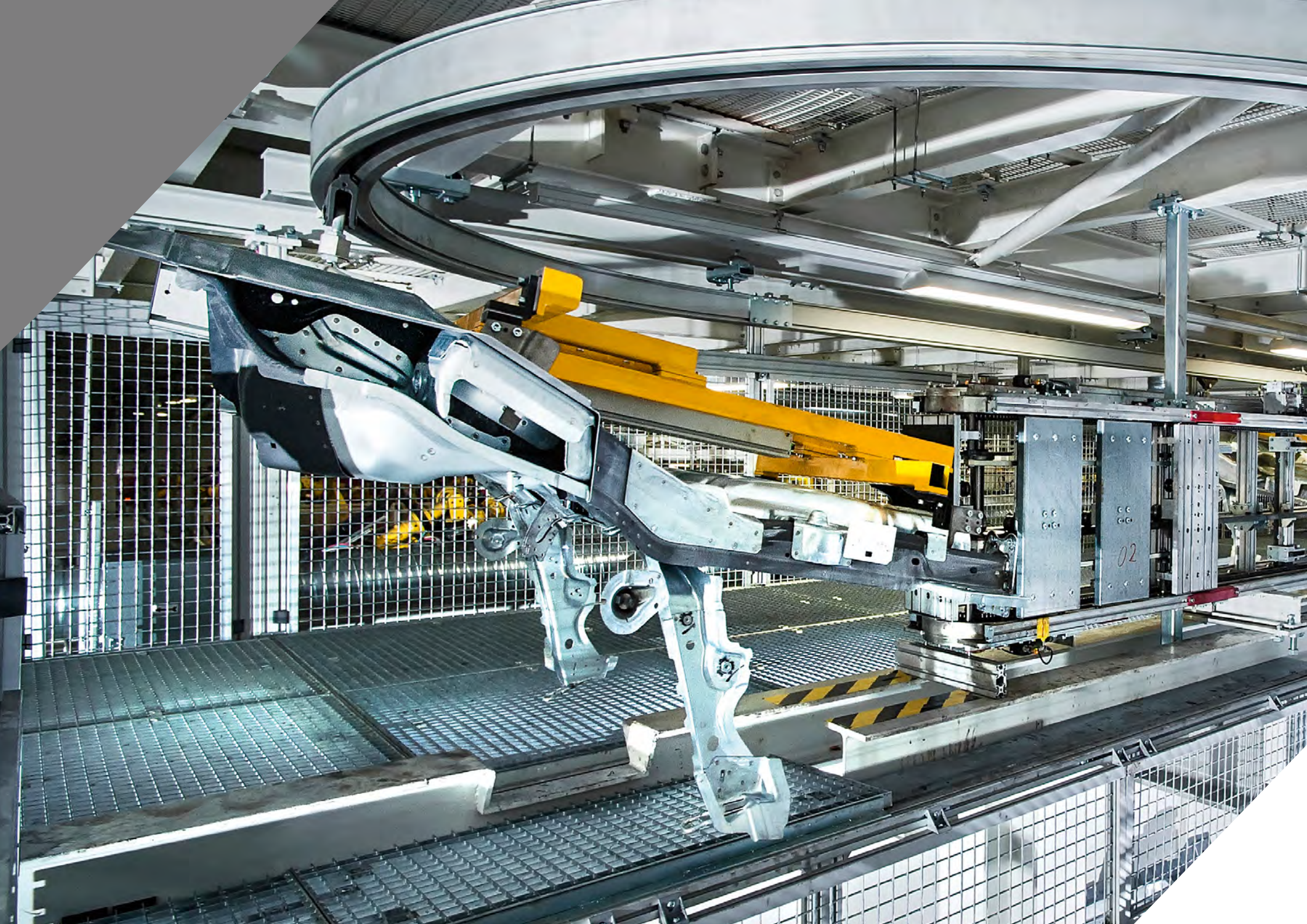
With great care and quality, customer wishes are checked in respect of their feasibility and implemented. Our own measuring stations enable the exact measurement of fixtures – if necessary we are happy to provide this service on-site at the customers. This way accuracies can be quickly determined and compensated by shimming. This way accuracy of 0.3 mm is achieved.

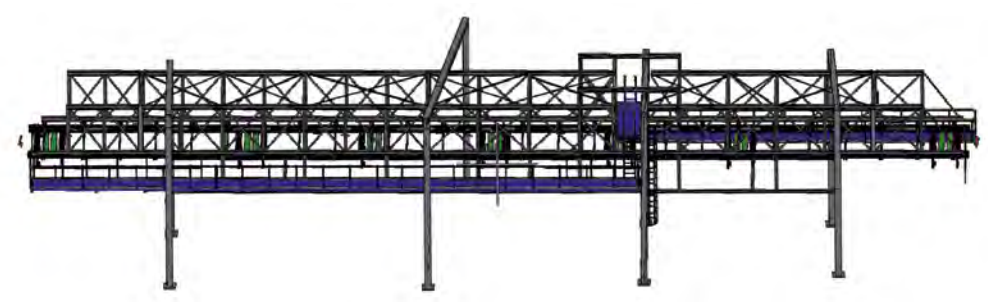
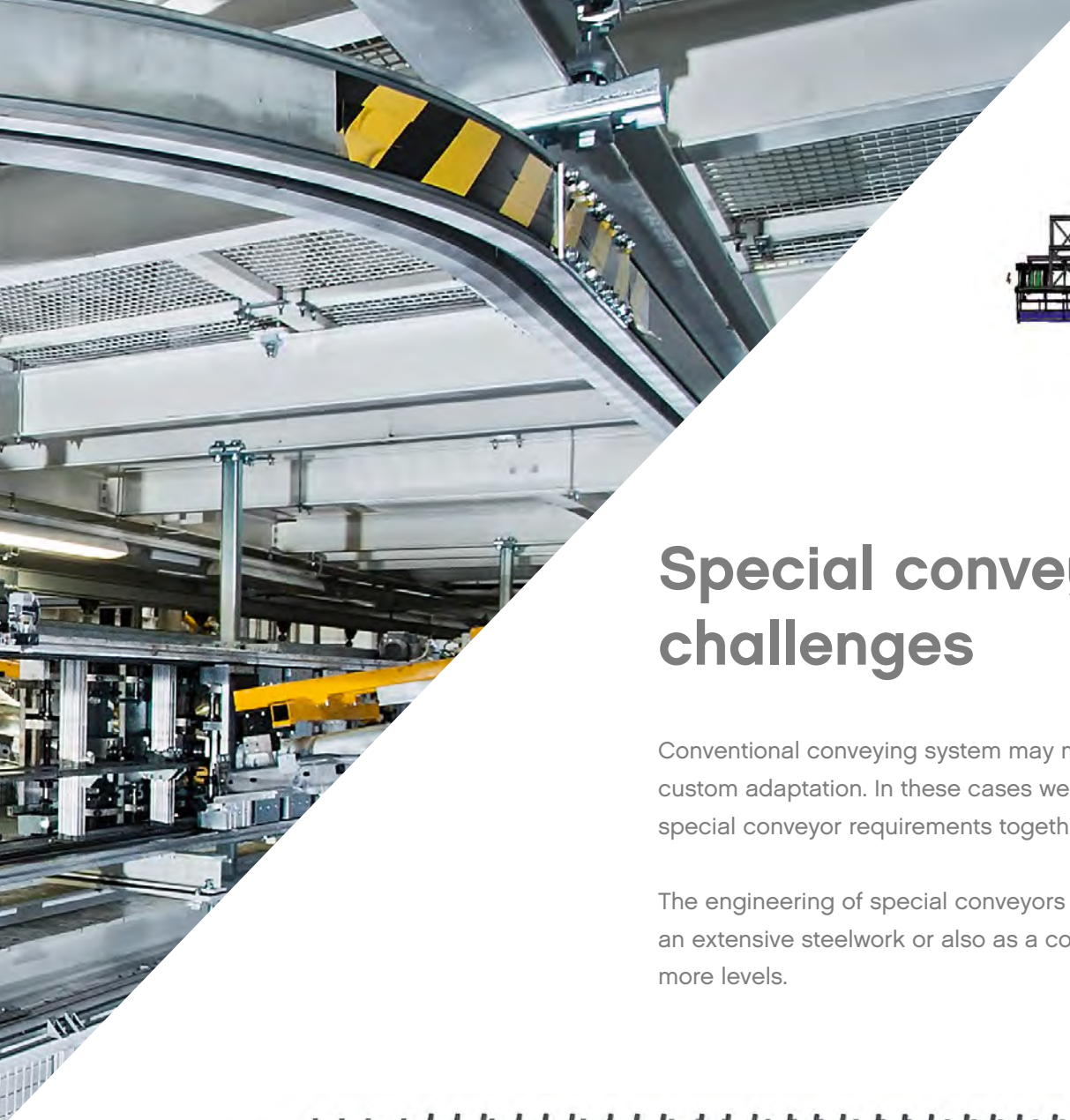


Measurement

At ktec measurements are performed with FARO measurement arms, which are fitted with CAD connections. The system is predominantly in use for the measurement of tools and fixtures in the automotive industry.







Special conveyors for extreme challenges

Conventional conveying system may meet your requirements. Sometimes however they require custom adaptation. In these cases we at ktec will be happy to develop tailor-made solutions for special conveyor requirements together with you.

The engineering of special conveyors will be realised based on your requirements. Either integrated in an extensive steelwork or also as a combination of different conveyor solutions on one or more levels.



CNC laser and sheet metal bender



**Innovative spirit and development promotion require investment.
Which is why ktec invested in 2015 in a laser system with two sheet metal bender.**

Laser system	1 BySprint Fiber 4 KW Sheet dimensions 4000x2000
Edging	2 Bystronic Expert 200 sheet metal bender Up to 200 t weight Up to 3000 mm long
Materials	Steel, stainless steel, aluminum up to 15 mm plate thickness Brass, copper up to 8 mm thick

High flexibility, quick response time and the ability for further processing (surface treatment, counterboring, thread-cutting, welded assemblies, etc.) are amongst the special features of the new machine.

With this ktec has expanded its fixture technology to such an extent that the company now has enough capacity to more than fulfill its own requirement. A total of twelve skilled workers operate a multi-shift work-pattern so that the fabrication capacities can even be flexibly exploited for third-party jobs. The rapid fulfillment of the individual deadlines of our customers is ensured.

Since then we have been cutting CNC laser blanks with complex structures and geometries based on customers' drawings. Moreover we are using the latest fibre laser cutting technology to ensure optimum edge quality both with small and large batch numbers. Thus thanks to the latest technology, we can produce complex folded and edged parts in different variants, accurately and in the shortest of times.





A

B

After-sales service – competence above and beyond technology

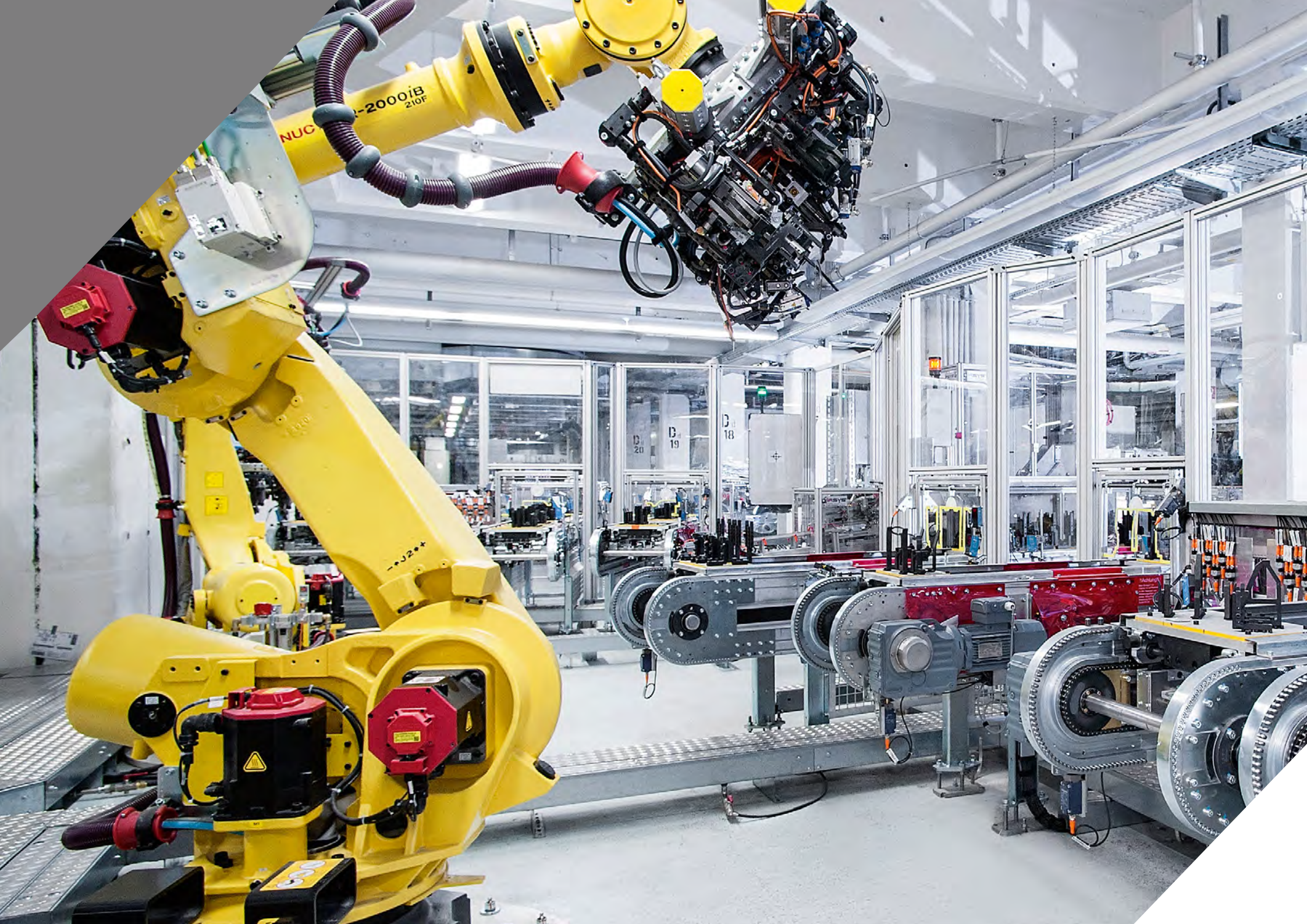
As a skilled point of contact, ktec has proven itself not only with its conveying technology but also with its in-company service support.

This is why we support our customer in all themes to do with the installation of the selected system, from planning and design through to assembly and commissioning, followed by the instruction and training of workforce and/or upgrades, conversion or maintenance of the plant. We are happy too to take over responsibility for servicing and support (based on individual maintenance and service contracts).

ktec service means:

- ✔ We guarantee minimum maintenance down time and optimum resource exploitation.
- ✔ We organise and coordinate on-site deployments for you, to keep the cost of after-sales service as low as possible.
- ✔ We as the manufacturer we ensure your spare part availability through individually matched service packages.
- ✔ We are happy to provide you with a round-the-clock service hotline for issues relating to our products.
- ✔ We guarantee you the storage of original standard parts for “Just-in-time” deliveries.
- ✔ ktec is worldwide at your disposal. With our two service points in Charlotte (USA) and Pune (India) we meanwhile support you on three continents.



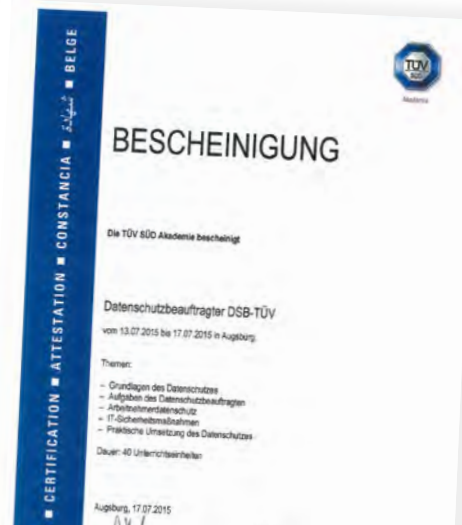


Certified quality awareness

Not only is **ktec** focussed on innovation with its high-performance product range but also on quality. Therefore **ktec** in-house process flows are subject to permanent optimisation in respect of on-going and new developments.

The basis for this are the management systems for quality, safety at work and plant safety (OHRIS certified), according to which all work at **ktec** is performed.

The company highly values the training and continuing professional development of its personnel in all departments.



Our references

We have managed, through experience and innovation, to convince business partners from around the globe to place their trust in us. ktec's conveying technology is now in use in over 20 countries spread across 4 continents. The majority of our customers are in the automotive sector.

Amongst are renowned references we are proud to mention:

📍 Charlotte Service-Point

📍 Pune Sales & Service-Point

▶ Audi

▶ BMW

▶ Volkswagen

▶ Daimler

▶ EDAG

▶ Ford

▶ Kuka

▶ Opel

▶ Porsche

▶ ThyssenKrupp System Engineering

▶ Schuler Group

▶ VDL Steelweld

▶ Aritex

▶ Magna



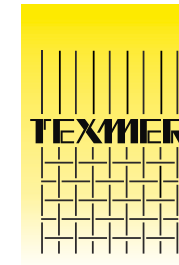
The corporate group



ktec GmbH
Königstraße 15
D-85290 Geisenfeld
tel.: +49 8452 73500-0
fax: +49 8452 73500-29
info@ktec-automation.com
www.ktec-automation.com



Stahlbau HAHNER® GmbH & Co KG
Gerhardsweg 5
D-36100 Petersberg-Böckels
tel.: +49 661 9652-0
fax: +49 661 65679
info@hahner-stahlbau.de
www.hahner-stahlbau.de



TEXMER GmbH & Co. KG
Gerhardsweg 7
D-36100 Petersberg-Böckels
tel.: +49 661 96529-0
fax: +49 661 96529-10
info@texmer.de
www.texmer.de



Metallbau Wolf GmbH & Co. KG
Kasseler Straße 1A
D-36119 Neuhoftiefengruben
tel.: +49 6655 9766-0
fax: +49 6655 9766-22
info@wolfmetall.de
www.wolfmetall.de



Evers & Fritz Metallbau GmbH
Zellaer Höhe 2
D-98544 Zella-Mehlis
tel.: +49 3682 4693-0
fax: +49 3682 4693-18
info@eversundfritz.de
www.eversundfritz.de

HAHNER-Group

ktec

ktec GmbH
Königstraße 15
D-85290 Geisenfeld

tel.: +49 8452 73500-0
fax: +49 8452 73500-29

www.ktec-automation.com

We reserve the right to make technical changes. Illustrations may show accessories, special equipment or other features which are not included in the standard scope of delivery or service. Power ratings are approximate values without any obligation.



Partner for India:

Natasha Enterprises

211, DLF Towers, 15 Shivaji Marg

Delhi-110015 India

tel.: +91 11 32918574

fax: +91 11 42263403

mobile: +91 9810069919

www.natashaenterprises.co.in