

THE WORLD OF CRANE COMPONENTS

KARL GEORG



WEAREALEADING **AND DISTRIBUTOR OFULTRA-RELIABLE PRODUCTS FOR THE WORLD OF CRANE**

MANUFACTURER **COMPONENTS**

KARL GEORG GROUP EXECUTIVE DIRECTORS, FROM LEFT TO RIGHT ROLF GRESSNER, TIM WINKEL, OLAF HEES AND ACHIM GEYER

CRANE ENGINEERING

SMELTING WORKS

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LOGISTICS

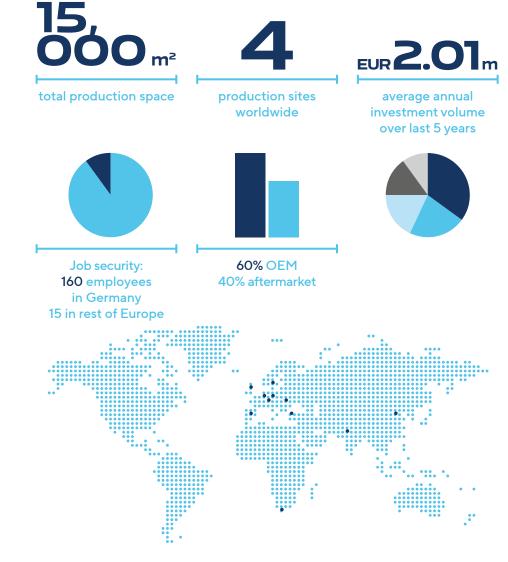


THE KARL GEORG GROUP

The KARL GEORG GROUP is one of Europe's leading developers and manufacturers of crane and manufacturing components, supplying more than 3,000 OEM customers, service providers and plant operators in 55 countries.

KARL GEORG GROUP customers benefit from an extensive product portfolio that ranges from drive components, load handling gear, rail clamping and damping systems to turnkey lifting systems. Customers with more demanding projects also appreciate the Group's specialised solution expertise. KARL GEORG GROUP maintains a policy of continuous investment in modern manufacturing systems and the training of well-qualified personnel as well as ecological and community projects. Ensuring sustainable and resource-friendly development forms a fundamental part of our investment decision-making.

Despite Covid-19 and procurement difficulties, KARL GEORG GROUP has continued to expand its business activities and successfully completed major development projects.



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- Crane manufacturers
- Steelmaking and processing
- Materials handling
- Freight handling
- Other

GERMANY Ingelbach, Wetter, Neitersen SPAIN - Madrid POLAND - Radzionków NORWAY - Larvik SOUTH AFRICA - Cape Town NETHERLANDS - Breda SLOVENIA – Liptovský Mikuláš UNITED KINGDOM Stockton-on-Tees CHINA - Beijing INDIA – Delhi TURKEY - Istanbul

STATEMENT FROM OUR CEO

VISION AND VALUES

"Today, as the European market leader for crane travel wheels, we are continuing to focus on developing our core competencies."

Michael Schnaufer / CEO, KARL GEORG GROUP





THE WORLD OF CRANE COMPONENTS

Tim Winkel / Executive Direct

PUTTING OUR CUSTOMERS AND EMPLOYEES FIRST

KARL GEORG - A FAMILY-RUN BUSINESS WITH NEARLY A CENTURY OF HISTORY

The Karl Georg success story started in a barn in Neitersen in south west Germany. With unshakeable confidence in his vision, my grandfather Karl Georg started a workshop - virtually from scratch - for repairing agricultural machinery in 1925. Thanks to his skills as a mechanic and inventor, however, he had soon progressed to manufacturing buffers for railway carriages. The Neitersen facility also boasted its own free forging smithy and, later, an electrical steelworks. In 1966, another business segment was added: the production of crane travel wheels, for which a new plant was built a little later at our current head office.

Today, we are the European market leader for crane travel wheels, and continue to be a reliable partner for demanding crane and manufacturing components. In all these activities, we strive to improve our core competencies, transforming our steel production business into a consultancy and solution provider. This is built on the experience we have acquired over decades, from the simple crane wheel to our innovative KG wheel block system and complete, turnkey running gear. Our starting point is always the customer application, whether parts are needed for use in tough environmental conditions, with reduced-wear materials or for ATEX applications. Our portfolio is rounded off by other parts produced within our group of companies - from simple rail clamps to our highly sophisticated open-winch hoist.

With the introduction of our new CI, we are opening a new chapter in the history of our company. And making further inroads into the global market. Inspired by the pioneering spirit of our founder, the KARL GEORG Group management team is setting off on this new path together with our dedicated and motivated employees. While keeping a weather eye on the needs of our customers, who we support with our comprehensive application expertise. Even though our company now has a new look, I can promise you that we will always stand for safety, quality and reliability - and not just for our customers and employees but for all of our products and services. KARL GEORG... to be continued!

Michael Schnaufer

CEO, KARL GEORG GROUP

OUR VISION

THE KARL GEORG GROUP

We want to make the world of our crane components available to the global market. For our customers on any continent, in any time zone and in any language. Wherever they are in the world, customers enjoy the proven performance and safety provided by products and services from Karl Georg.



OUR MISSION

KEEP IT SIMPLE

We organise our business to be as straightforward and convenient as possible for our customers and partners. Accessible communication, tools with intuitive controls and high availability around the clock - and all over the world.

FOCUS ON THE CUSTOMER

We want to offer our customers exactly what they want. How do we know what that is? We listen. Often, we need to look at the bigger picture rather than spend too much time on the technical details.

BE PART OF THE SOLUTION

This is where we can play to our strengths - drawing on our creativity and technical support, and accepting responsibility for ensuring the best solution is deployed for our customers.

"Our passion for crane components is based on customer confidence. We win this trust with our ability to innovate, our uncompromisingly high quality and our rock-solid reliability."

OUR VALUES

RELIABILITY

With their uncompromisingly high quality, our first-class products keep your plants and processes running without issues, leaving you free to concentrate on vour core business.

INNOVATION

We are also happy to develop technically demanding solutions for use in nuclear power or ATEX facilities, for example.

CLOSE TO OUR CUSTOMERS

We build customer relationships that last. Our long-term and constructive partnerships are created by our approachability and cooperativeness, and the knowledge that we can rely on one another.

Tim Winkel - Executive Directo

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CRANE WHEELS

For over 50 years, KARL GEORG has supplied crane travel wheels to factory/DIN standards or customer drawings in diameters from 100 to 1,250 mm and in batch sizes from 1 upwards. Our crane wheel materials - forged steel, cast steel or ductile cast iron - are carefully matched to the specific use case.

Crane wheels can be executed with or without a wheel flange or gear wheel, and with rolling or plain bearings.

Depending on requirements, we can also offer anti-slip surface layer hardening as well as custom colours. We can also supply you with a range of matching accessories, including pinions, crane wheel axles, thrust washers and other crane components and parts.

KARL GEORG factory standards





KG 010.2



KG 015



KG 020



KG 030

DIN standards

KG 010.1





DIN 15074



DIN 15075





DIN 15079

PROPERTIES With or without wheel flange

Smooth bore Keyway







One-sided wheel flange for hoist drives (monorail hoist)
With plain bearing (e.g. CuSn7Zn4Pb7-C-GC or PAN-SoMs140)
Rolling bearing (deep groove ball bearing, cylindrical roller

TGL standards





TGL 34964

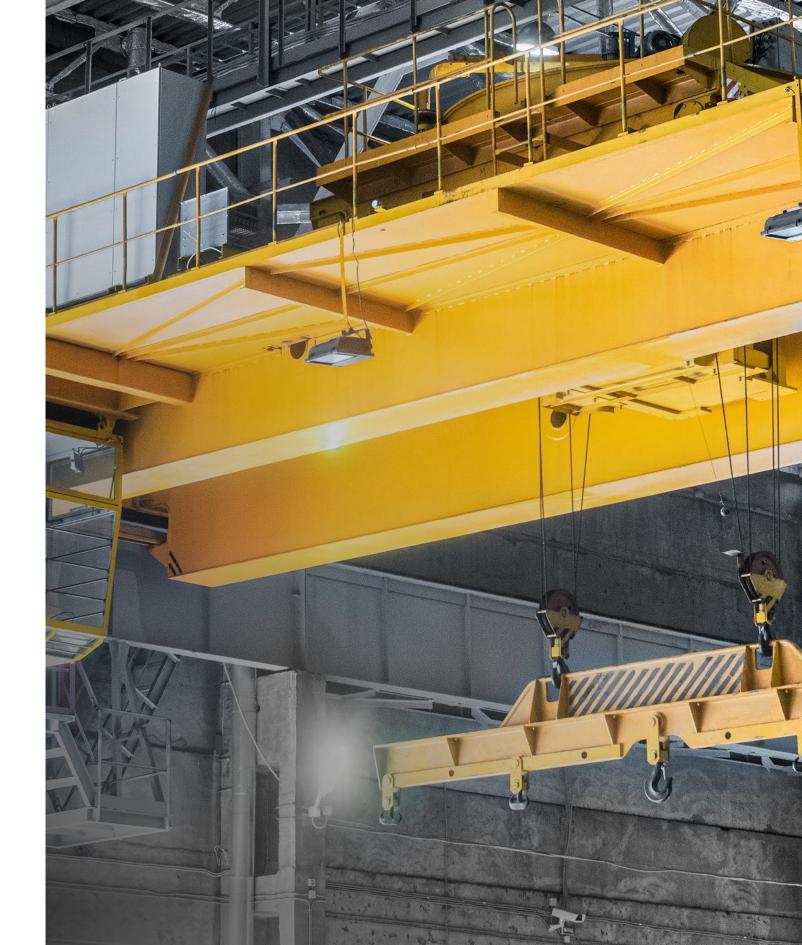
TGL 34965



High-quality rolling bearings from leading manufacturers such as SKF, FAG, NACHI, etc.

Press-fit or bolted-on gear wheel

bearing, spherical roller bearing)



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WHEEL BLOCKS

Our drive solution for a low-maintenance direct-driven system with manufacturer-neutral choice of gearbox. High load-bearing capacities plus a compact form factor ensure maximum power density in your facility.

Karl Georg wheel blocks are available in the sizes 160, 200, 250, 250-V (reinforced), 315, 400 and 500. Able to handle loads from 6.8 to 40 t, these are turnkey drive units that are capable of supporting a wide range of conveying scenarios.

Offering a wide choice of connection options (bolt, head, face

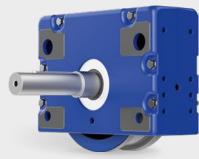
or flank connection) and many additional, application-specific features (high-temperature or ATEX models, Vulkollan® wheels, etc.), these are the ideal, universal solution for machinery manufacturing and plant engineering.

When equipped with Karl Georg original accessory parts - which include roller guides, cellular plastic buffers or rail sweepers - our wheel blocks can also handle a wide range of additional functions within your facility.

VARIANTS

Sizes: 160, 200, 250, 250-V, 315, 400 and 500

- High load capacities, from 6.8 to 40 t
- Materials EN-GJS-700-2, 42CrMo+QT
- Secure crane wheel/shaft ball connection Drive shafts suitable for all makes of drive
- Wide range of connection options Temperature range –30 to +200 °C
- ATEX models
- Crane wheels PA12G (polyamide)
- Vulkollan® (polyurethane elastomer) Individually matched to the use case
- (lubrication, wheel material, drive systems)

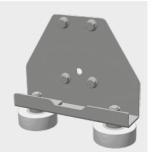


DRIVEN

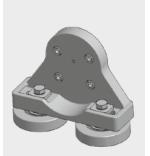


NON-DRIVEN

ACCESSORIES



HORIZONTAL ROLLER GUIDE



HORIZONTAL ROLLER GUIDE



RAIL CLEANING SYSTEM



RAIL SWEEPER



WHEEL SETS

The wheel set of choice for heavy-duty drive systems. KARL GEORG wheel and crane wheel sets according to factory, DIN or steelwork standards can handle wheel loads from 3 to 120 t with crane wheel diameters from 160 to 1,250 mm and the use of selected, high-strength materials.

As a ready-to-fit module, our wheel and crane wheel sets are easy to install in a bogie or subframe, for example, and with only the use of simple tools. The drive shafts can be individually designed to match the gearbox interfaces from a wide range of gearbox makers. Karl Georg wheel and crane wheel sets: always the perfect fit.

VARIANTS

DIN 15090 standard:

Pillow block bearing Corner bearing (one-piece) Corner bearing (split, TGL standard)

Flange bearing

- Narrow and wide variant

- With/without wheel tyres - With/without pressure oil press fit - Crane wheel Ø 315-1000 mm - Bearing housing executed as basket bearing

KARL GEORG factory standard KG 125 (comparable with earlier Demag type KEM wheel sets) Crane wheel Ø: 160, 250, 400, 500, 630 mm KARL GEORG factory standard KG 130 (comparable with Demag type DWS wheel sets) Crane wheel Ø: 160, 200, 250, 315, 400, 500, 630 mm

Rolling-element bearing series 222 and 223



WHEEL SET **RAD KG 125**



RN KG 125



DRIVEN WHEEL SET DIN 15090



CRANE WHEEL TGL 34968



WHEEL SET **RND KG 125**

WHEEL SET

RAE KG 130

Flanged bearing housing

with sheet metal cover

IDLER WHEEL SET

DIN 15090

IDLER WHEEL SET

TGL 34968



RA KG 125

WHEEL SET



RNE KG 130 Flanged bearing housing with sheet metal cover



TGL standard Crane wheel Ø: 320-900 mm

Custom variants - From customer drawing - From sample

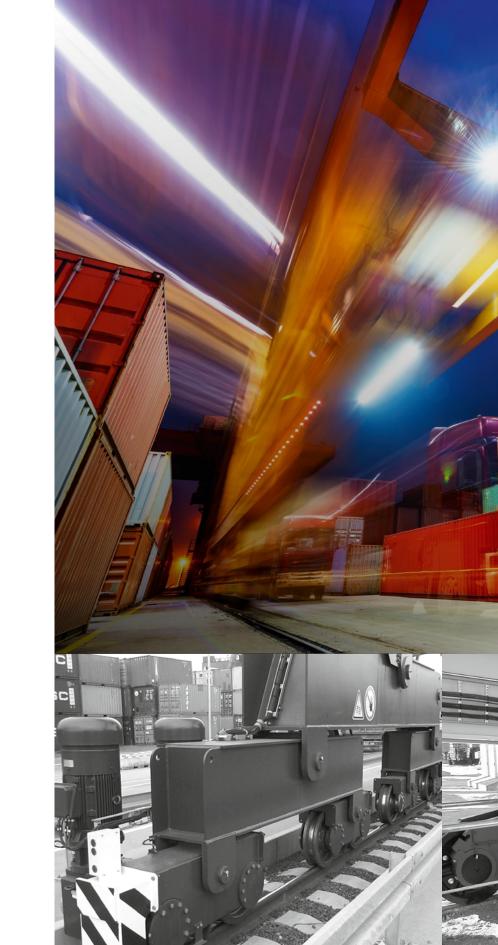
Crane wheel material, strength and hardness to KG standard or customer spec

Drive shafts to match slip-on gears

- With shrink disc
- With feather key (DIN 6885) With splined-shaft profile (DIN 5480) With Hirth coupling (Künz standard) Alternatively to match/with connecting flange
- for coupling or cardan shaft

As delivered

Assembled, painted, with grease fill in component parts, for installation at customer







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BRAKE SYSTEMS

QUALITY

A one-stop shop for customer-specific industrial brake solutions. Made in Europe with more than 30 years of experience in development and manufacturing. Each brake unit is subjected to an extensive final inspection - including comprehensive functional testing - before shipping. All brake units can be equipped with a wide range of control switches.

PERFORMANCE

We supply made-to-measure solutions that maximise efficiency. Our rugged, high-strength design, together with the maintenancefree brake joints, self-lubricating bushings and high-quality actuators we produce in house all work to maximise the unit's service life. In conjunction with our patented KBBxtrem® brake lining, our brakes easily exceed the levels of safety required by standards or offered by the competition.

VARIANTS

From drum brakes (DIN 15435 or smelting works HWN 1964 standards) to disc brakes or custom designs – our in-house brake works can always deliver the brake unit you need.

DRUM BRAKES

Our high-strength designs are used for standard brakes, smelting works variants or custom designs tailored to meet your requirements.

DISC BRAKES

We use a heavy-duty design to maximise the unit's service life and with guaranteed interchangeability for all popular industrial standards.



DRUM BRAKES



DISC BRAKES

KBBxtrem®

Patented and tested high-performance brake lining. The lining of choice for optimum safety. Right for any budget



cycles per hour.



ELECTROHYDRAULIC BRAKE DRUMS AND BRAKE DISCS LIFTING EQUIPMENT Our electrohydraulic lifting equip-Our in-house production facilities ment is designed for continuous guarantee first-class quality, operation and up to 2,000 usage optimum availability and short lead times.

HIGH-PERFORMANCE BRAKE LININGS

The combination of ultra-reliable frictional velocity (60 m/s) and maximum surface pressure optimises the results of risk and hazard assessments



THE WORLD OF CRANE COMPONENTS

WINCHES AND HOISTS

When it comes to winches and hoists, our standard solution is almost always made to measure. In-depth knowledge, one-of-akind experience, strong vertical integration, uncompromising use of high-quality materials and all components produced in Europe. Sustainable partnerships with leading gearbox and motor manufacturers. All of which forms the basis for meeting the most stringent quality demands.

or on mounting plate.



HIGH-PERFORMANCE HOOK BLOCKS

gear motors.

A high-strength, rugged solution featuring single or double-hook suspension and forged or laminated construction. Hook with 360° rotation, can also be locked in position.



CUSTOM HOOK BLOCKS

Tailor-made solutions for customer-specific use cases with up to 500 t load capacity - designed and built in house.



HOOK BLOCKS WITH LIFTING HOOK MOTORIZED HOOK SUSPENSIONS ROTATION Single, double or custom

hooks supplied as an Rotate and position your loads at the touch assembled, ready-to-fit of a button - optionally suspension that meets with electrical coupling the toughest requireto uncouple the hook ments for part safety. (rotate to disengage). Use of long-life SEW

HIGH-QUALITY CABLE DRUMS -MADE IN GERMANY

We focus on the details when it comes to designing and building our cable drums. Our in-house production facility uses the highest quality materials to create tailor-made cable drums able to meet any customer requirements. Whatever the connection you need for your drivetrain - we can handle it.



QUALITY RAILS Rails manufactured by leading European steelworks - giving you peace of mind for comprehensively tested quality.



RAIL UNDERLAYS



HIGH-QUALITY CABLE PULLEYS AND JIB SHEAVES

We manufacture our high-quality cable pulleys and jib sheaves from cast steel, forged steel, as welded designs or made from innovative industrial plastics. Our production unit works from drawings, diagrams or samples, using specialised, high-efficiency CNC lathe/milling centres.



WHEEL SETS

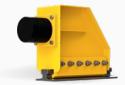
Our ready-to-fit, high-volume solution for any type of drive application, customer specification or environmental conditions. With wear protection or ATEX models - just as required. We can supply everything that is needed - from big to small.

RUNNING GEAR





CELLULAR PLASTIC BUFFERS Cellular plastic buffers with insertion plate and threaded pin



HYDRAULIC BUFFERS

Heavy-duty hydraulic buffers for crane and general machinery manufacturing, and materials handling/warehouse systems.

BUMPERS

To comply with applicable accident prevention regulations, crane and hoist tracks must be equipped with fixed end stops.



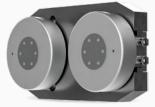
Our rail underlays are made from high-quality synthetic rubber (Shore A 85) with steel inlay.



RAIL CLAMPING SYSTEMS Rail clamping systems for all popular profiled rails and beams, according to DIN 1025/1-5.



Ready-to-fit running gear for a wide range of applications as crane or hoist running gear, on industrial gates, or in airport/ security gate systems.



UNIVERSAL GUIDE ROLLERS Universal guide roller set for the precise and low-wear guidance of your unit on rail systems.

LOAD HANDLING GEAR AND BEAMS

Crane components from the KARL GEORG GROUP set the standards wherever heavy loads need to be transported while meeting stringent safety standards, and high temperature fluctuations create challenging conditions for materials.

When processing molten materials and other high-value products, reliable pro-

cess cranes are literally pivotal to your facility: their components need to meet any and all requirements as well as having optimised wear and fatigue characteristics to ensure they can offer a long service life.

Our beams keep their promises – even under the extreme conditions found in a steelworks or on an offshore drilling rig. All of this is possible thanks to decades of experience in designing parts that meet heavy-duty smelting standards and demanding environmental conditions. From tempered cable pulleys to load handling gear, high-performance parts from the KARL GEORG Group guarantee high availability and operational readiness.



CAST LIFTING BEAMS

Complete beam units, tailored to local requirements and matched to the corresponding hoist. Load capacities of up to 500 t - higher loads on request.

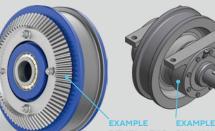
LAMINATED HOOKS Laminated hooks (DIN 15407) are essential for moving casting ladles. Load capacities of 16 to 320 t are possible here.

CUSTOM DESIGNS

Many of the products manufactured by Karl Georg feature bespoke, customer-specific designs. Our design and development department can offer solutions capable of handling any use case.

Thanks to our modern production lines and high flexibility, we can offer competitive quotes starting from a batch size of a single unit. Solution designs can be drawn up based on a simple photo or a scan of your existing drawings.

Crane wheels with internal toothing, wheel sets with pillow block bearings or custom drive shafts, cable pulleys with bolted-on gear wheels – or wheel blocks with a chain drive or encoders.



BEVEL GEAR PILLOW BLOCK HOUSING



OUR WORKFLOW



Continuous investment in modern equipment

Karl Georg is all about response times, production to tight tolerances and delivery performance. And we're always looking to improve. This is why we invest in the latest machinery and are increasingly digitalising our processes. Just recently, we added the following pieces of equipment to further expand and optimise our production processes:

DMC 80 FD duoBLOCK

OUR MISSION

CTX beta 1250 TC with Robo2Go HESSAPP FFG VDM 1000



Systematic development at our company sites

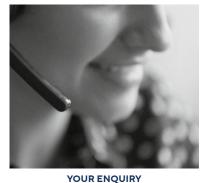
Since 1998, our head office has been based in Ingelbach-Bahnhof, an idyllic location in the midst of beautiful countryside. Based in the heart of the Westerwald region, you're welcome to visit us here and tour our 8,500 square metres of design, build and production space. We're also looking to expand our production facilities and the customer centre. At KoRo RIW GmbH in Wetter (Ruhr region), we've now taken things one step further, with spending already budgeted along with additional production facilities and expansions to the customer centre.



Investing in our personnel

Our highly qualified employees are the foundation of our business and the starting-point for our success. Whether in production, quality management, technical systems, administration, logistics or our customer support teams, our motivated and well-qualified employees guarantee the high quality of our products. Our programme of further training and instruction is an important part of skilling up our workforce. And we want to set the standards - not follow them. Which is why we prioritise the modernisation of the programmes we have in place and their interfacing with digitalised processes, as we promote the use and deployment of new techniques, innovations and updates.

From your initial enquiry to the production of technical drawings, advice and assistance when developing your individual order and final production - as a customer of the KARL GEORG GROUP you can rely on outstanding support throughout your project.



Simply contact us directly or visit

www.karl-georg.de for further details



QUOTATION We provide you with a tailor-made quote for your individual project



PRODUCTION Our digitalised workflow ensures rapid, high-precision production from batch sizes of a single unit



QUALITY CONTROL Fully-audited DIN ISO 9001 quality. Please ask for a copy of our certification



+49 2688 95 16-0 om@karl-georg.de www.karl-georg.de



DESIGN Our product designers use the data you provide to prepare technical drawings



WORLDWIDE DELIVERY Flexible and rapid shipments, packed for air freight and maritime shipping

WELOOKFORWARDTOYOURENQUIRY

TECHNICAL STANDARDS

Complementing the high standards for our raw materials, we also regularly introduce new technical standards at Karl Georg to increase the reliability and durability of our products.

One example is our factory standard for heavy-duty crane wheels, 42CrMo-4HDA+QT HDA (= heavy-duty application). This guarantees a hardness of at least 320 HB on the running surface. The end result is significantly reduced wear plus a longer service life.

Sandblasting, painting and drying three production processes whose environmental impact has been considerably reduced by our investments in advanced technical systems. Unless otherwise specified, all our products are provided with corrosion protection as standard.

Thanks to the use of modern coating systems together with high quality paint components, we are able to meet reguirements up to C5 VH in accordance with DIN EN ISO 12944-1. To facilitate our individual, rapid and flexible approach to customer colour requests, our coating specialists use the paint mixing station

to create the right hue - even for short production runs. This means that custom colours outside the spectrum offered by standard RAL colours are also possible.

To ensure rapid and efficient drying, the primed or painted products are then transferred to our semi-automated drying facility. The negative pressure in the facility coupled with waste heat recovery helps to keep the entire process run environmentally friendly.



Specially adapted sandblasting plant used for our products



The extraction and filter system in our new painting facility significantly reduces its environmental impact



A look inside our semi-automated drying facility

RECONDITIONING

New is not always better: Karl Georg also offers a professional repair and reconditioning service for faulty or worn crane wheels wheel sets and wheel blocks.

We're also happy to offer a pick-up and drop-off service for your components.



Before reconditioning

After cleaning and dismantling in our facility, the parts are then inspected by our technicians. Customers receive a detailed overview of the parts to replace or available for reuse, as well as a work estimate for the order. Typically, a repair or reconditioning job offers savings of



After reconditioning



30-40% compared with the cost of pur-

chasing a new part. After repairs and re-



Example of gear profile reconditioning

QUALITY CONTROL AND MATERIALS TESTING

Karl Georg stands for quality. Our company has been continuously certified to ISO 9001 since the early 1990s.

Quality at Karl Georg is measurable.



From the smallest groove with a keyway right up to a 2.5 t crane wheel with a 14 x 76 gear profile module. Anyone who decides to purchase a Karl Georg solution will receive a first-class, mature product that can

be relied on by customers worldwide. Thanks to outstanding production accuracy and our continuous quality control to the highest standards, plants and facilities using Karl Georg components enjoy high reliability and a long service life.

For customers needing proof of our standards, we can supply material test certificates from type 2.1 to 3.2 (DIN EN 10204).

CERTIFIED TESTING METHODS (LEVEL 2)

♥ Ultrasound testing (UT) Magnetic particle testing (MT) Dye penetrant testing (PT)

OTHER TESTING METHODS

• Optical 3D measuring methods Hardness testing (HRc, HV, HB testing methods)





Thanks to continuous further training for our employees and our modern technical testing facilities, we can offer a wide range of in-factory testing - such as hardness testing, ultrasound testing and MT/PT crack detection to standards or customer specs.

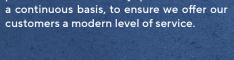
Other types of tests are offered in cooperation with our accredited partners. We are also authorised to re-mark metallic workpieces in order to ensure continuous and unbroken traceability of the materials used.

PEOPLE AT

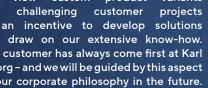


KEVIN MÜLLER Head of Sales and Order Processing Thanks to our competent and flexible sales We also strive to optimise our sales team, we are able to utilise our skills in consulting and personalised customer support to guarantee the successful completion of customer projects and orders.

We view custom product variants and challenging customer projects as an incentive to develop solutions and draw on our extensive know-how. The customer has always come first at Karl Georg – and we will be guided by this aspect of our corporate philosophy in the future.



processes and delivery performance on



📜 Want to benefit from our expertise – or have a question about our product portfolio? Contact us today: **T:** +49 2688 95 16-34 M: k.mueller@karl-georg.de

CARSTEN GÖRGEN Head of CAD

As a manufacturer of crane components. our products are as diverse as their fields of application. Which means we need to respond quickly and flexibly to any customer enquiry. Our ever-expanding expertise makes all of this possible.

We're also the experts for the exceptional: after all, the majority of our design work is based on aftermarket enquiries - which can involve components from any crane manufacturer anywhere in the world. While designing new facilities is one of our

core competencies, we often work from simple scans or photos when preparing technical drawings for the components that need to be replaced.

Our wealth of know-how increases with every enquiry, and every part that we design and build.



DAVIS TISSEN Trainee Machinist



MARIO KEBER Head of Ouality Management

I'm currently completing my apprenticeship 'Workshops in the Woods', where trainas a cutting machinist at Karl Georg in Ingelees can acquire additional kinds of skills. bach-Bahnhof. And I'm already looking forward to becoming 'one of the family' once I've finished Apart from KG being a local employer my training. in the Westerwald region, which makes it an easy commute, there are also plenty of familiar faces for me among my colleagues Looking to get started in steel? Check out our Instagram channel here. During my training, I'm learning much for details of all of our latest job more than just the technical stuff that you might need for a final exam. Apart from our sessions in the apprenticeship and production facilities, we also have projects like our instagram.com/karl georg gruppe Karl Georg means quality. We received ty team can draw on extensive skills and exour first ISO 9001 certificate back in 1996. perience in NDT and quality management. Customer satisfaction is the benchmark For us, quality means continuous improvefor our quality. ment for our processes in order to meet growing demands from our customers and to ensure our company can develop further, so as to be able to participate in new certifi-Have a question about the kind cation processes. of quality controls we offer at Karl Georg? Contact us today: Apprenticeships, staff training and professional development make up a key pillar of T: +49 2688 95 16-0

our quality management system. Our quali-M: info@karl-georg.de



ANDREAS LÖHMANN **Head of Production**

And our innovative investments ensure that our quality-oriented production processes will continue to run smoothly – like perfectly matched gear wheels - in the future.

In recent years, we have expanded our machine pool to include advanced mills and lathes, as well as a sandblasting and painting facility adapted specifically for our own products. The digitalisation of our manufacturing processes has also helped to reduce downtime and changeover times while simultaneously maximising capacity utilisation.

This continuous process of optimisation, plus our highly motivated and wellqualified employees, means we can finish up to 2,500 crane wheels, wheel sets and wheel blocks every month while fully accounting for customer requirements - even for single-batch runs. Looking to the future, we will continue to focus on process optimisation and digitalisation strategies at Karl Georg.



Head of Shipping and Goods Dispatch

And products from the Karl Georg group are popular - with a customer base of more than 3,000 companies from all over the world.

Ensuring that goods get to customers on This is guaranteed by the long experience time is an important factor for our success gained in dispatch work by our seasoned here. Our network of reliable and trustpackaging team. Whether sea, air or road ed logistics partners means we can offer freight is required, it can all be packed seour customers shipping solutions that are curely and specific to the customer order. fast, flexible and tailored to match their requirements. From single crane wheels to 3.5-tonne wheel sets with pre-assembled pillow block or corner bearing housings.

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le at Karl Georg

KARL GEORG

All products are also packed individually to ensure that they reach their destination safe and sound.



We're keeping our workforce local



To ensure they acquire the necessary know-how, our trainees not only spend time in the apprenticeship workshop but also in the production facility as well as several projects that have a regional focus. This emphasis on our staff gaining rich and varied vocational and further training is part of the Karl Georg company DNA.

We're reducing our carbon footprint

An investment in the future of energy generation.

The solar panels in the on-roof photovoltaic system at Karl Georg GmbH have been sparkling in the sunshine since 2009. In 2016 and 2020, this system on our factory buildings was expanded to around 500 kWp by additional modules and today supplies plenty of green energy for direct use at our Ingelbach site. And has further reduced our overall carbon emissions.





From the region, for the region

Things are certainly very busy at Karl Georg's company premises in Ingelbach-Bahnhof.

Busy as a bee, in fact: in 2021, the lathes and milling machines here were joined by some new pieces of 'equipment' - hives for honeybees.

This contribution to biodiversity was set up with the help of a local beekeeper. Bees from a total of seven hives now gather pollen and pollinate flowers within an area of about 2 km². This was also the reason why we planted fruit trees on our factory premises.

In a good year, when our hardest-working 'employees' leave something to spare, our customers can look forward to a natural and sustainable gift in the form of midsummer honey.

HOW WE ARE **STAYING SUSTAIN** ABLE



In the heart of the Westerwald: a steel-based company that's well on the way to a green future

Our wonderful planet and its natural resources have only limited availability and resilience. So far, so good, perhaps - but we want to ensure that our Earth remains a home for us. For the future. for our children and for our children's children.

At Karl Georg, we've recognised the need to take action and we are looking not only to position our company as a modern business but also to achieve lasting change - for the sake of our environment, our employees and everyone else. To achieve this goal, we will be auditing our value creation processes and production methods continuously to ensure and further improve their sustainability. Rules for handling limited resources, and for environment, health and safety (EHS) aspects are a key point of focus here.

We are well aware that companies such as Karl Georg - because of our value creation processes as well as our economic and technological potential have a leading role to play as we transition towards sustainable production

and resource-friendly consumption.

We've set ourselves the goal of making a difference at both the upstream and downstream ends of our value chain. and also offsetting the carbon emissions created here as a result of manufacturing our products. By reusing and recycling the materials (including ancillary and waste materials) required by or created during production, Karl Georg ensures the cost-effective handling of all resources and raw materials.

As a fourth-generation family-run business looking to enjoy a prosperous future, Karl Georg is already integrating environmental protection into its manufacturing processes. Like any manufacturing business, our energy needs are high, but we see this as an opportunity to ensure the responsible handling of resources, and to systematically optimise - and ideally reduce - our energy inputs as far as possible. Our machine pool is operated using renewable energy, some of which is provided by our in-house photovoltaic system. Some of our crane wheels are therefore manu-



factured using zero-carbon, environ-

mentally friendly solar power.

New milling machines for efficient production



New drying facility with waste heat recovery

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A shortage of specialists? Not at this owner-managed, family-run business!

Anyone taking a tour of our production facility at Ingelbach can't help but notice the friendly and positive atmosphere here. Hardly surprising, though, when there are so many familiar faces: over 90% of all production apprentices are offered permanent employment after completing their training. It's been company policy for years - and this well-trained, competent local workforce is now the cornerstone of our advanced manufacturing unit.



IMPRESSIONS



FORMATION

Karl Georg establishes the business in Neitersen. Equipped with its own smithy and steelworks, the company starts by producing buffers, truck trailers and rubber-tired trailers for agricultural use.

COMPANY TIMELINE









FIRST CRANE TRAVEL WHEELS

The 'crane wheel construction' era begins. Still based in Neitersen, the company starts producing its first crane travel wheels. Production at the Ingelbach site also starts in the same year. Thanks to its policy of continuous investment in new machinery, the company starts toothed crane wheel production in 1975.





MICHAEL SCHNAUFER **TAKES THE WHEEL**

Michael Schnaufer, grandson of company founder Karl Georg, becomes our new CEO.



INVENTION OF THE KARL GEORG WHEEL BLOCK

True to the inventive spirit of its company founder, the Karl Georg company develops the first removable wheel block. This can now be used as a universal part, especially in machinery manufacturing and materials handling.



RELOCATION TO INGELBACH-BAHNHOF

In September 1998, Karl Georg Stahlherstellungs- und Verarbeitungs GmbH moves from Neitersen to its new office building in Ingelbach-Bahnhof.



NEW HORIZONS

Karl Georg Stahlherstellungs- und Verarbeitungs GmbH is restructured while also being renamed Karl Georg GmbH to emphasise the new direction for the company. Karl Georg GmbH also introduces a new company image, while modernising not only its manufacturing processes but also its brand design.



Office building - and company headquarters since 1998





A place to meet and relax, just outside our canteen building









Our zen garden, viewed through the conference room window

A look inside part of our production facility



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