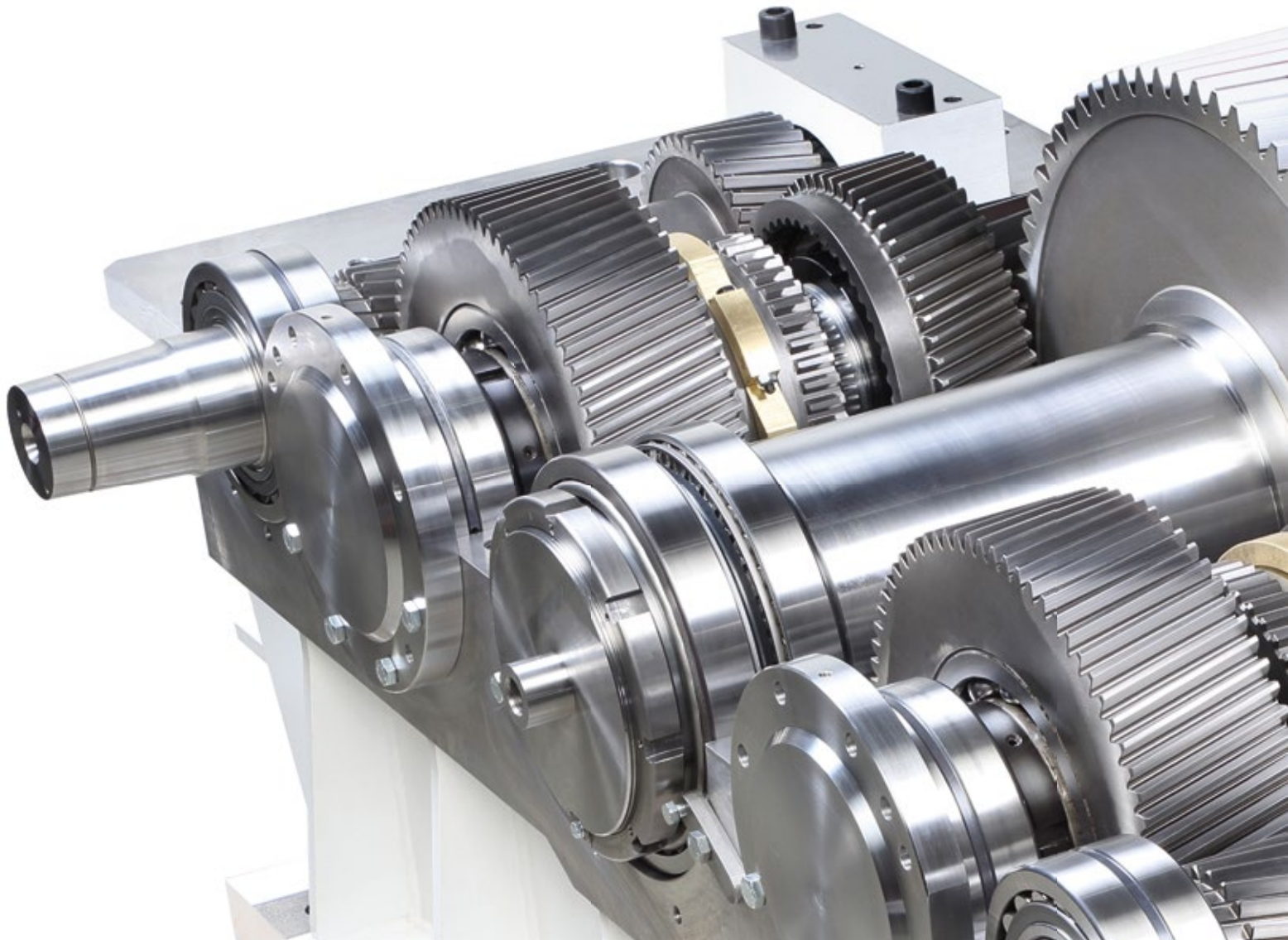


**HENSCHEL**



# Quality pays off



Railway Gears | Extrusion Gears | Special Gears | Melt Pumps | Couplings | Components | Service

**Reliable | Intelligent | Efficient**





International experience coupled with exacting German engineering: that's what makes Henschel such a powerful brand. A brand that is robust and reliable. Quality made by Henschel.

Only time can tell whether quality pays off. With more than 200 years of history to its name, Henschel has an unequivocal answer to that question: yes, quality does pay off if medium- to long-term goals have been set.

The DHG 300 industrial locomotive is an impressive example of what Henschel gearboxes can achieve. The gearboxes were delivered in 1972 and haven't stopped working since. Only the roller bearings were renewed during the locomotive's 2007 overhaul. The gear teeth were in perfect condition even after running for millions of kilometres. So it stands to reason that these Henschel gearboxes will keep running smoothly in the decades to come.

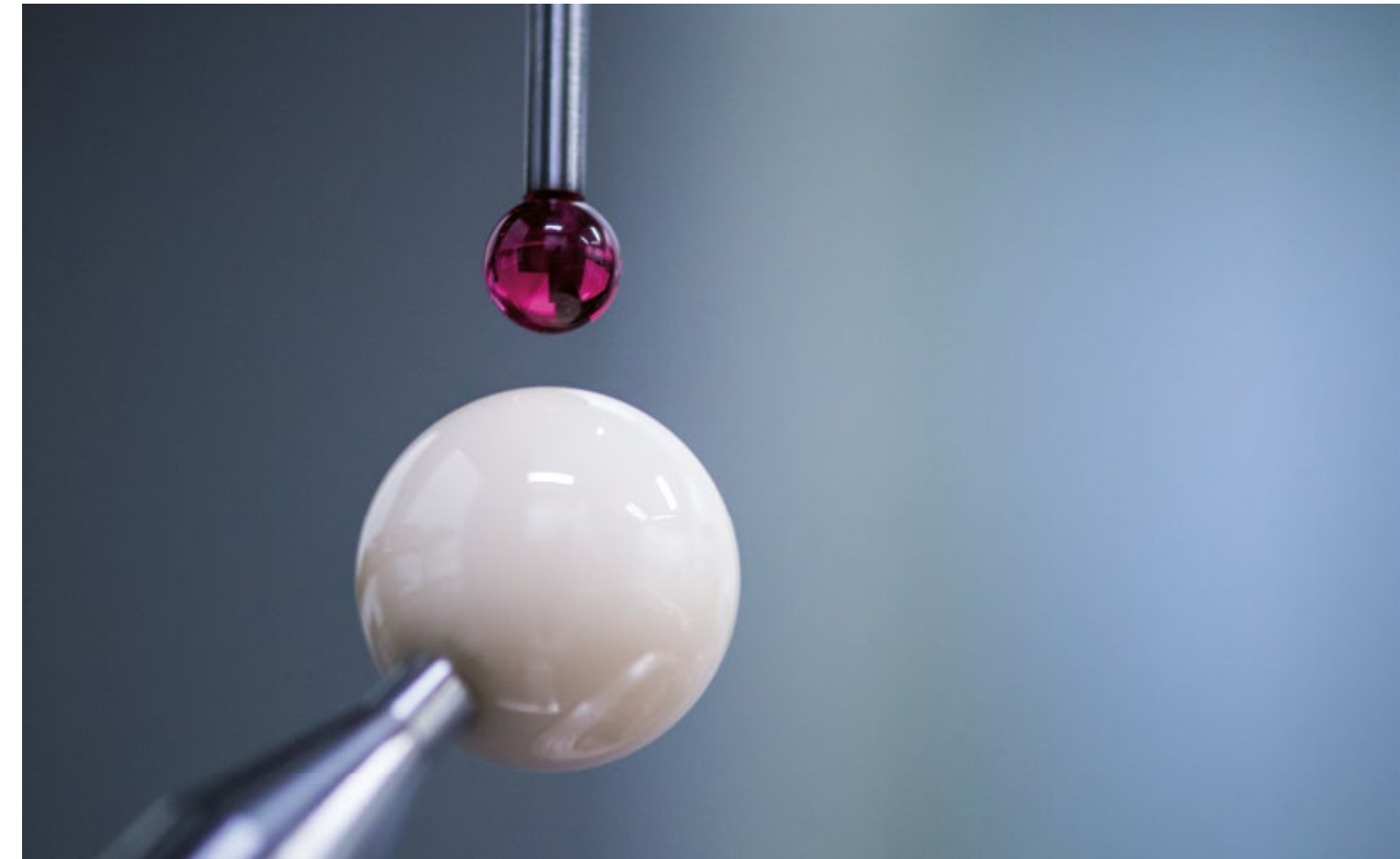
This aspiration – to consistently make our products and solutions stronger, sounder and safer than required – lays the foundation of our superb reputation: "Quality made by Henschel". Henschel no longer builds locomotives and aircraft. Instead, the brand now stands for its core expertise in:

**Powertrains, in particular the gearbox and its components.**



“We develop and produce first-class solutions to ensure that power is transferred efficiently and safely. Henschel stands for high operational safety, because we develop and produce everything in-house – a crucial factor in meeting our aspirations.”

Matthias Henke  
President and CEO, Henschel Holding, Kassel



**From vehicles to systems and machines – Henschel develops products and special solutions for drives that are perfectly matched to the customer’s overall system and economic objectives.**

**| Reliable**

We develop systems that can also cope with unforeseeable requirements, because everything we design is always slightly stronger and sounder than necessary. Safety and stability in all of our processes: a hallmark that applies just as well to collaboration with our customers.

**| Intelligent**

As a hotbed of German engineering, Henschel harnesses the best available knowledge in its core markets worldwide. This knowledge is applied and expanded every day. We utilise this knowledge to create new solutions that secure our competitive edge in the market.

**| Efficient**

In our working methods, engineering, manufacture and service, we’re just as efficient as our products in operation. Maximum efficiency, minimum maintenance intervals, and high safety margins all add up to outstanding products.

In order to do justice to each of these three aspects, to this day we continue to take direct responsibility for everything we develop and produce, for this is critical to quality. Only those aspects that we ourselves can influence and implement – directly and immediately – are permitted to impact the reliability of our products.

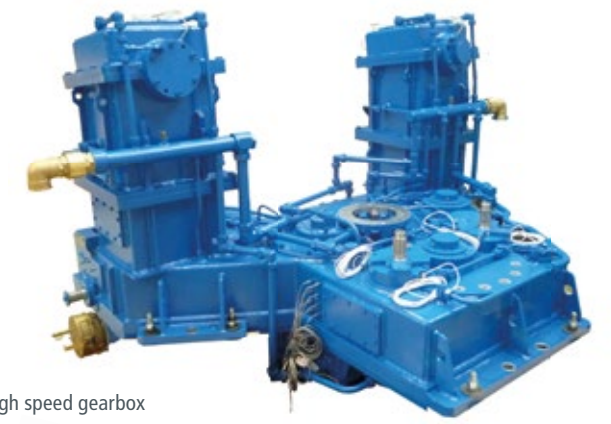
- | Railway gearboxes**
- | Extruder gearboxes**
- | Special gearboxes**
- | Melt pumps**
- | Couplings**
- | Components**
- | Service**







We will redefine limits of technical possibilities to meet the challenges you offer us.



High speed gearbox in a test bench for helicopter gearboxes



Top drive gearbox for drill drives used in deep drilling technology



Pellet mill from Amandus Kahl with a Henschel worm gear set

A solution from Henschel is often called for wherever drives are exposed to extreme conditions and where round-the-clock availability is just as critical: 24 hours a day, 7 days a week.

We look forward to assisting you with your challenges, from drives in deep drilling technology – whether at 60 °C in the desert or -56 °C in the Arctic – all the way to high-speed gearboxes for Formula One test benches or helicopters with an rpm above 140,000. Other challenges might include a heavy lorry axle that is subject to extreme load changes or attaining very high efficiency in pumps, extruders and compressors.

Taking standards such as DIN EN ISO, AGMA or API as well as ATEX explosion protection regulations into consideration, we shift the boundaries of what is technically possible. In so doing, we set the standard for putting our products into use quickly and safely. And that is true whether it's a one-of-a-kind product or an entire series.

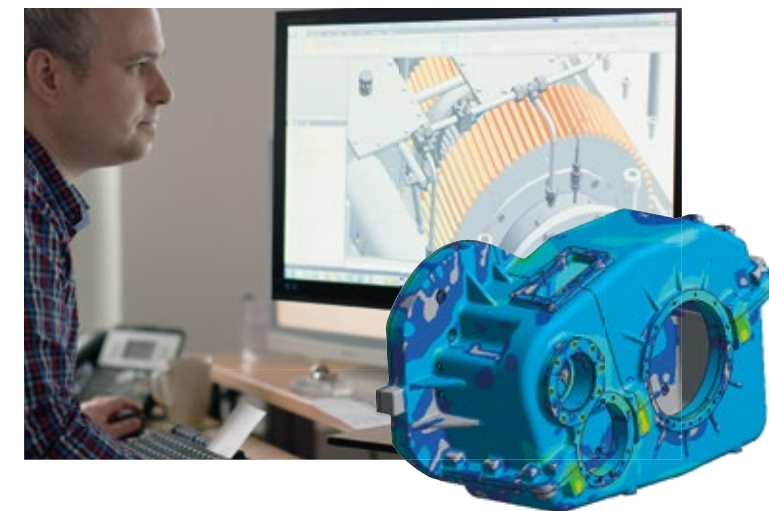
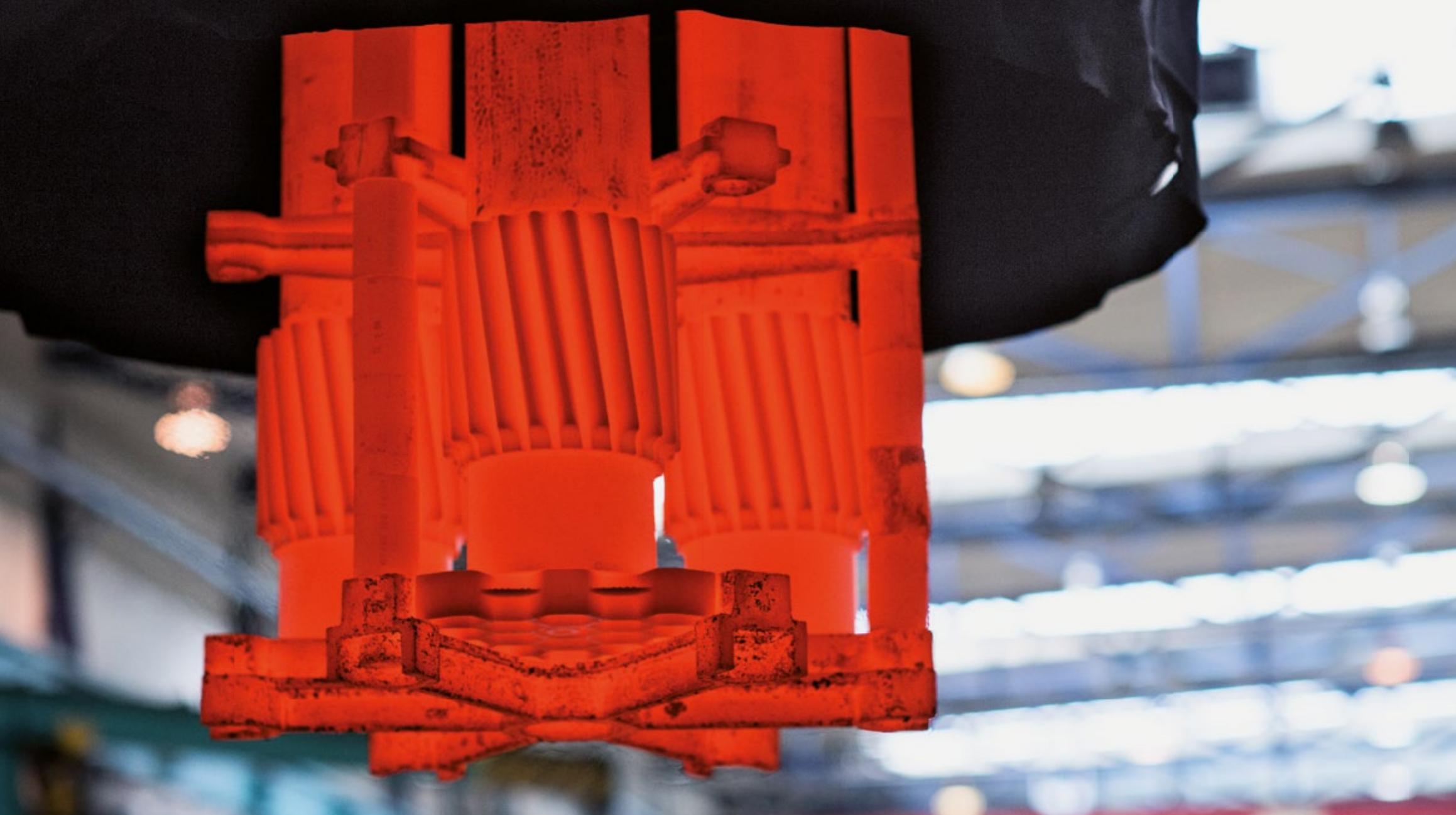
“For decades, we’ve relied on our close cooperation with Henschel for developing and improving the performance of our individual drives at various machines for highly specialised markets. The solutions that Henschel provides are winners in terms of their design, quality and durability.”

Dr. Manfred Heinrich, Head of Production and Materials Management  
Amandus Kahl GmbH & Co. KG, Reinbek

High speed, high torque, high power – gearboxes from Henschel not only represent fulfilment of the most exacting requirements; they also feature the greatest possible running smoothness and minimal noise generation.

We develop and produce cutting-edge technology, continually improving our products through on-going research and development in order to meet your exacting requirements for engines and gearboxes in future as well as today.





The quality we incorporate in all of our products and processes is based on the continuous expansion of our vertical range of manufacturing. That is the only means by which experience and expertise can consistently lead to top results, independent of quantity.

**Vertical range of manufacturing is a central theme in our company. We do our utmost to deliver the finest products available in the shortest amount of time.**

Assembly stands designed specifically for Henschel can be quickly and easily retrofitted for a wide variety of requirements to suit individual and series assembly. And a high degree of standardisation ensures that the stipulated process quality remains constant over the long term.

Our heat treatment shop is crucial to the quality of our products. We place great value on the best possible results in the hardening process – after all, this is a significant element in the robustness of our products.

**“For our new TMK 2200 low-floor tram, Henschel developed and produced 840 drive systems with 2,520 gearboxes, incorporating an innovative low-floor drive. We decided to join forces with Henschel based on the perfect combination of development expertise and the high degree of vertical range of manufacturing.”**

Dr. Ivan Bahun, President of the Managing Board  
KONCAR Electric Vehicles Inc., Zagreb

Exchanging experiences between every department and site is a key guarantor of Henschel’s success. This is true of every development and production process, all around the world. Living out this philosophy of knowledge transfer places customers and their specific requirements at centre stage.





“At Henschel, I’m learning to see my speciality – machining – as part of a larger context.”

Thomas Göbel  
Thuringia’s best machining apprentice in 2015,  
Henschel Fertigungstechnik, Heilbad Heiligenstadt



**Thomas Göbel views himself as part of the overall production process; in his work he is already focusing on how the customer will use the product.**

From the start of his apprenticeship, he has been encouraged to think and act constructively. This is a major factor in why his training has been such a success.

Henschel Fertigungstechnik develops and manufactures housings, labyrinth seals and components, amongst other specialities. As at other Henschel sites, Henschel Fertigungstechnik is designed to accommodate both separate parts and series. The high degree of automation supported by the use of external programming stations and RFID-assisted tool recognition as well as multi-pallet pools help ensure high process reliability and efficiency.

**“Henschel has been supplying us with a variety of series-production quality mechanical components and prototypes for railway gearboxes since mid-2014. Henschel offers an impressive 100 % delivery reliability and zero-error rate. In Henschel we have found a partner that – thanks to our excellent collaboration in development work – offers us top product quality with state-of-the-art technology.”**

Mie Mie Thet, Director, Global Commodity Traction Motor,  
Head of TOP & Localization Propulsion & Controls  
Bombardier Transportation GmbH, Hennigsdorf





A comprehensive look at the entire powertrain, consistent thought and action with regard to its subsequent use – that’s what we do every day. Probably that is what makes us so conscientious – because we are so aware of our responsibility.

**Quality is not measured – quality is produced. Henschel gearboxes, melt pumps, components and service have followed this tradition for many decades.**

At Henschel, what we now call a quality management system began as the result of a shared idea of quality and the desire to make this quality a reality every day. This gave rise to the Henschel company standard, which was later systematically developed further with the introduction of the DIN EN ISO standards. In 2008, Henschel became the world’s first gearbox manufacturer to meet the rigorous requirements for IRIS certification. Moreover, Henschel has its own calibration laboratory, certified in accordance with DIN 17025 and accredited by DAkkS.

The documented quality we offer gives our customers a great sense of security right from the start – when the contract is awarded. Particularly in the sphere of railway technology, an overall consideration of the powertrain takes on tremendous significance because of the safety requirements involved. This applies in equal measure to high-speed projects such as the current ICE T tilting train and to local public transport.



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**“We had very positive experiences working together with Henschel on an underground railway project. Thanks to the expert and excellent cooperation, a customer-specific drive was developed while working under great time constraints, and promptly delivered.”**

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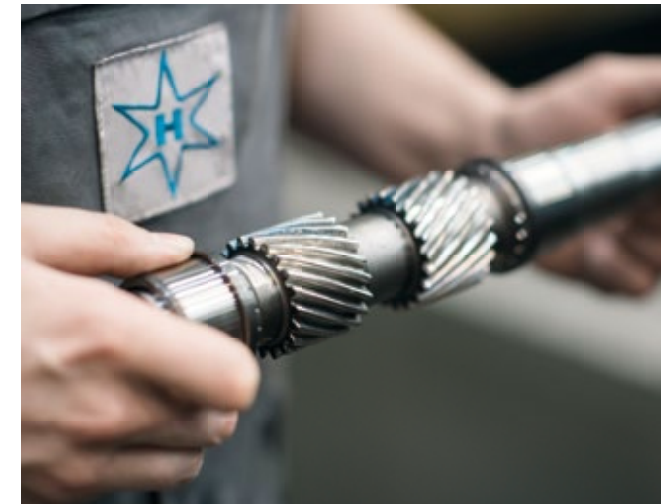
Petra Stackebrandt, Head of Electrical Component Procurement  
Stadler Pankow GmbH, Berlin



“Henschel Service are entitled to enable the highest availability of machinery and equipment in our industry.”

Jörg Neubauer

Divisional Director, Henschel Service, Kassel



**Service from Henschel – based on a passion for reliability and technological durability.**

The experienced and globally networked Henschel Service team inspects, replaces and repairs components and systems used in numerous industrial applications. We organise complete service chains, from cleaning to refurbishing. Each customer is given a personalised service package for effective minimisation of downtimes.

Henschel Service is a one-stop supplier. From individual items to components, we have what you're looking for, even components and systems from other manufacturers.

We define service as world-wide mobility and speed. We will repair your components and systems on site as required. That eliminates long transport and transfer processes. The workflow is transparent at all times.

We are also happy to repair and restore rare and individual one-off pieces, even if they are no longer complete. We owe that to our Henschel tradition. And you might be amazed at how much we can still learn from solutions of over a century ago, because we keep them in our archive, together with all of their constructional backgrounds.



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