

# Corrosion protection coatings

Automotive fastener coatings



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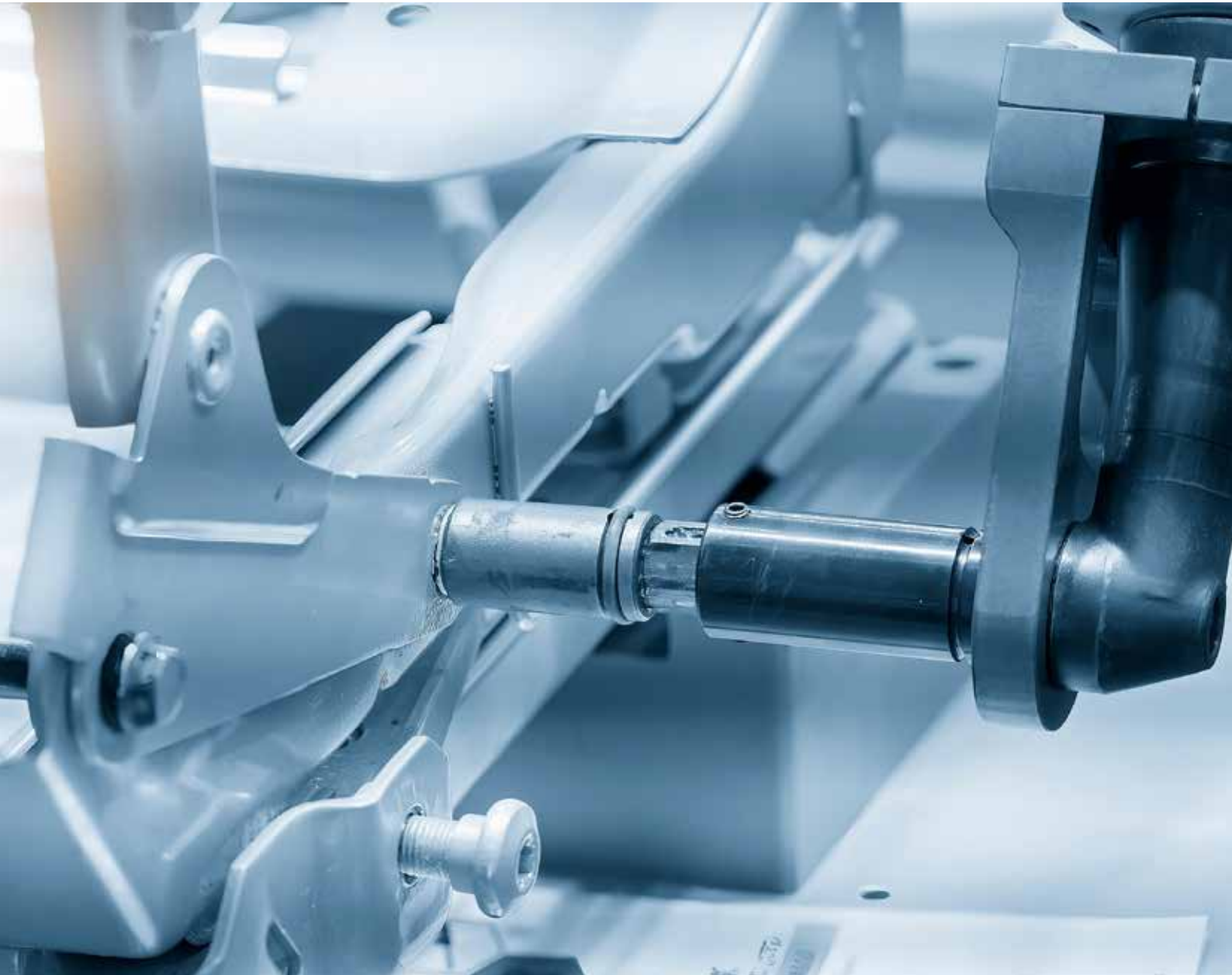
General Metal Finishing

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Corrosion protection coatings

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# Automotive fastener coatings

Automotive fasteners require sophisticated corrosion protection coatings with precisely adjusted friction characteristics. We offer a wide spectrum of coating technologies that meet the specifications of many OEMs and are approved by automotive manufacturers worldwide. These technologies include corrosion protection solutions based on electrolytic deposition, as well as zinc flake coatings.



With a global presence in more than 40 countries, MKS' Atotech is the approved choice of OEMs and Tiers worldwide. You can expect nothing less than first-class service and customer support.



The Coefficient of Friction (CoF) is an essential value in the world of fasteners, as it must fall within a specified range. MKS' Atotech lubricated topcoats, sealers, and lubricants meet the specific CoF requirements set by various OEMs.



Ten of our TechCenters are dedicated to corrosion protection technologies. They offer a wide range of services, from examination of customer samples to process qualification and pilot production.



Corrosion protection coating requirements are no longer about pure functionality. Our product range also fulfills the industry's steadily increasing decorative requirements, offering high-gloss or deep black solutions that provide excellent aesthetics without sacrificing performance.



Our processes comply with the latest environmental legislations. Our goal is to soon provide a complete range of cobalt and fluoride-free conversion coatings. Today, our portfolio already includes a wide range of cobalt- and fluoride-free conversion coatings.



The Corrosion Protection Competence Center in Trebur, Germany, is our R&D headquarters for leading corrosion protection technologies. It's a unique facility that maximizes synergies between outstanding local service and innovative technologies.

# Most demanding requirements

OEMs are offering more comprehensive warranties for their products, imposing substantial performance requirements on fasteners. This means corrosion protection demands are significantly higher than in the past.

Small coefficient of friction windows required by OEMs ensure the right clamping force during automotive assembly. Achieving the ideal balance between coating thickness and the right level of corrosion protection is crucial in the development of corrosion protection technologies. MKS' Atotech provides both electrolytic-based and zinc flake-based coating technologies to fulfill complex requirements for fasteners of all kind – making us the approved choice of the automotive industry.

## Electrolytic zinc and zinc alloy coatings



Besides zinc iron and tin zinc plating technologies, the MKS' Atotech product portfolio includes every variety of zinc plating technology, as well as one of the most comprehensive ranges of zinc nickel processes available on the market. To meet increased demand for greater corrosion resistance and color options, this selection also includes a broad spectrum of high-performance Cr(VI)-free conversion coatings and sealers. Our unique processes are designed to exceed the industry's most demanding requirements, creating the optimal combination of high corrosion protection and sophisticated appearance. And with our innovative auxiliary equipment, enhanced plating performance at reduced economic cost and environmental impact is easily within reach.

## Zinc flake coatings



With a comprehensive product range of zinc flake finishes, MKS' Atotech provides a perfect complement to its product portfolio of electroplated corrosion protection processes. Our zinc flake coating technology is embraced by the automotive fastener industry due to its excellent corrosion protection and stable friction properties at competitive costs. The coatings are completely free of Cr(VI), nickel, lead, mercury, cadmium and cobalt. Zinc flake coatings from MKS' Atotech are flexible systems that can be modularly and individually adapted to meet various requirements. These systems are made up of a comprehensive range of processes, including silver and black base coats, organic and inorganic top coats.

## Combined technologies



Coating systems that combine zinc / zinc nickel, passivates and topcoats are capable of providing extraordinary corrosion protection with an appealing and durable appearance. These combined coating systems allow the industry to keep up with continuous improvement requirements, such as the automotive industry's demands for both increased corrosion protection and improved appearance of electroplated parts.

# End markets and industries MKS serves



Automotive



Sanitary



Heavy machinery



Construction



Household appliances



Energy

