



L K S | K R  N E N B E R G E R  
 Metallveredlungswerk

*Anything but superficial*



# HISTORY AND FAMILY

TRADITION HAS A NAME: IN CENTRAL GERMANY  
AND WORLDWIDE

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**1951:** the date of the company’s foundation by husband and wife Carolina and Lothar Kronenberger. Today, the tradition and responsibility of running a family company continues into the third generation.



Starting out as a back-courtyard grinding shop, the business already added another string to its bow in the mid-50s by purchasing a high-gloss chrome machine. At that time, the main work was finishing horn rings for Volkswagen.

The 1960s saw the third and fourth pillars of the company established, with the parallel construction of galvanisation and hard chrome plating plants. In the subsequent decades, the company invested in various cylindrical grinding and superfinish machines, with the hard chrome department becoming its backbone.



# ORDINARY STANDARDS HAVE NEVER BEEN GOOD ENOUGH FOR US.

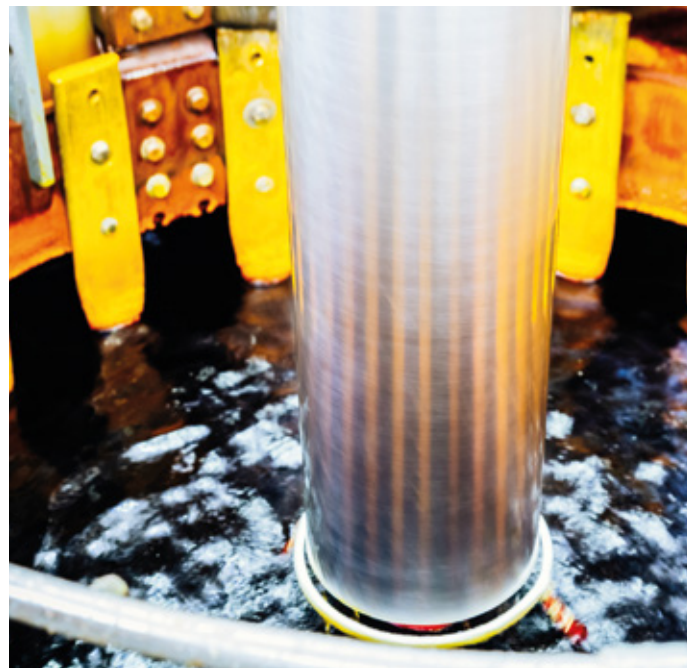
## *Anything but Superficial*

... IS MORE THAN JUST A SLOGAN FOR US

We are there for you with a wide range of services that a multitude of customers regularly request.

Whether it is a big run, small batch or prototype: we will work out the project together with you.

WHERE OTHERS ARE  
HESITANT OR GIVE  
UP, WE ARE JUST  
GETTING STARTED.



## WHY US?

Many reasons. We are always there for you.

Whether it's coating with zinc black B4 BlackProtection, often preferred as an alternative to CED or bluing.

Or in the field of high-gloss chromium, the duplex procedure. Chrome-plating stainless steel is also one of our specialties.

We are world leaders in the field of hard chrome plating, producing surfaces with a mirror gloss (superfinish).

Alongside surface finishes, we offer several additional services. These include our own vehicle fleet and the option to store your components in our finished parts warehouse, a competitive advantage for you.

## SIMPLY GET IN TOUCH





# WE PLATE IN HARD CHROME

FOR YOU

With several tanks of varying width and depth, we are versatile in our set-up and can serve customers whose components measure up to 4.5 m in length and 1 m in diameter. We are happy to deal with pieces weighing up to 4.5 t. We also handle small parts to outstanding quality.

## SURFACE & DIMENSIONS

### MAXIMUM WORKPIECE DIMENSIONS:

Item weight up to 4.5 t:	Ø 1,000 mm ↔ 4,500 mm
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### SURFACES:

Layer thicknesses:	10 – 500 [µm]
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Hardness:	850 – 950 HV 0.1
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Single, duplex, multi-layer coatings, matt chrome plating with an individual roughness and structure

## COATING PROCESS

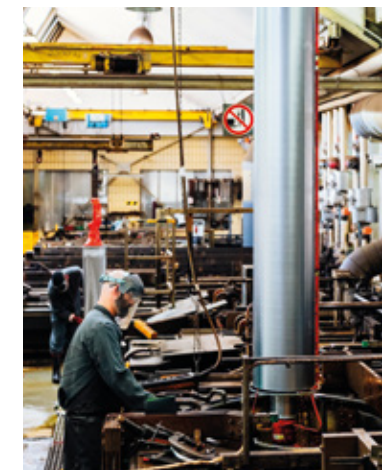
SINGLE

DUPLEX

MULTIPLE

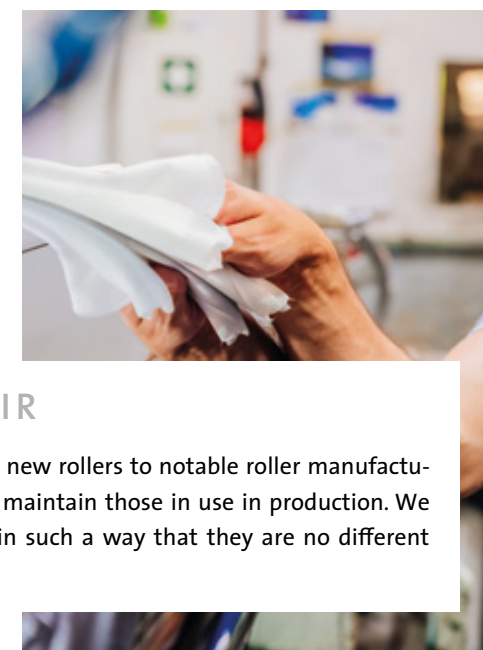
MATT CHROME

As desired, the layer thicknesses can be between 10 µm and over 500 µm.



## ANNEALING FURNACES – WE GO FURTHER

Directly after hard chrome plating comes heat treatment in our annealing furnaces. This tempering process causes the outgassing of the coated rollers or other components.



## ROLLER REPAIR

In addition to supplying new rollers to notable roller manufacturers, we also repair and maintain those in use in production. We are able to treat them in such a way that they are no different from new rollers.



# PRECISION TO THE FINEST DETAIL

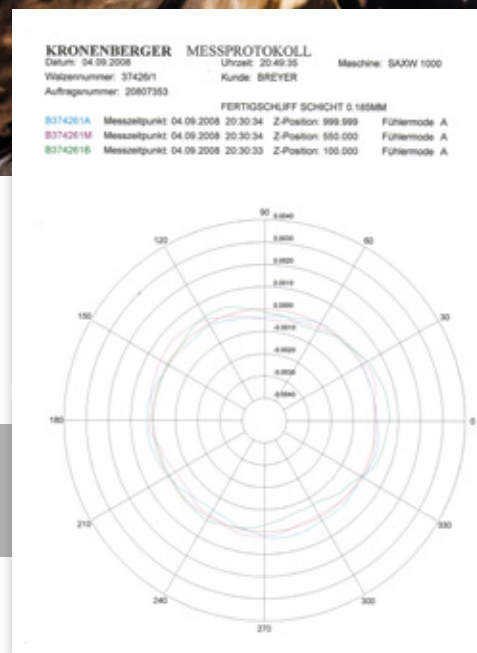
Cylinders, rollers, special parts, prototypes, large and small series are all handled by us.

We grind your parts of up to

- 1 M DIAMETER
- 6 M LENGTH
- 8 T WEIGHT

exactly to your specifications.

This includes freely defined special curves, e.g. concave or convex grinding. Regardless whether we're talking chrome, ceramic or carbide coatings, matt, polished or high gloss. We achieve roughnesses up to an impressive  $R_{\max} < 0.025 \mu\text{m}$ .



## SURFACE & DIMENSIONS

### MAXIMUM WORKPIECE DIMENSIONS

Item weight up to 8 t

Ø 1,000 mm  
↔ 6,000 mm

The surface quality achievable by Superfinish depends on the coating material used. While hard chrome surfaces achieve a surface with a reproducible roughness of  $R_{\max} < 0.025 \mu\text{m}$ , ceramic and carbide coating systems manage characteristic values up to  $R_{\max} < 0.3 \mu\text{m}$  and hardnesses of max. 1500 HV 0.1.

# WORLDWIDE LEADER IN HIGH GLOSS MIRROR SUPERFINISH

Today, superfinish is used to produce smart phones, tablets, LCDs, plasma screens and head-up displays of outstanding quality. Because the more precise and even the roller surface is, the higher the quality of the end product.

## SURFACE & DIMENSIONS

### MAXIMUM WORKPIECE DIMENSIONS

Item weight up to 5 t

Ø 1,000 mm  
↔ 5,000 mm

### REPRODUCIBLE ROUGHNESS:

$R_{\max} \leq 0.025 \mu\text{m}$

Superfinish  
Mirror gloss





# MORE THAN CORROSION PROTECTION

In the past, galvanic coatings were seen as purely technical surfaces. Today, industry and the end customer have higher demands.

We coat components with the hexavalent chromium-free passivation products zinc black, zinc blue and thick-film passivation. With our own in-house frame construction facility we guarantee short delivery times.

## TOP COAT

This 1–2-µm-thick coating contributes to even greater corrosion resistance. Thanks to its harder surface, components' scratch resistance is also improved.

## ZINC BLACK – THE ALTERNATIVE TO BLUING AND CED COATING

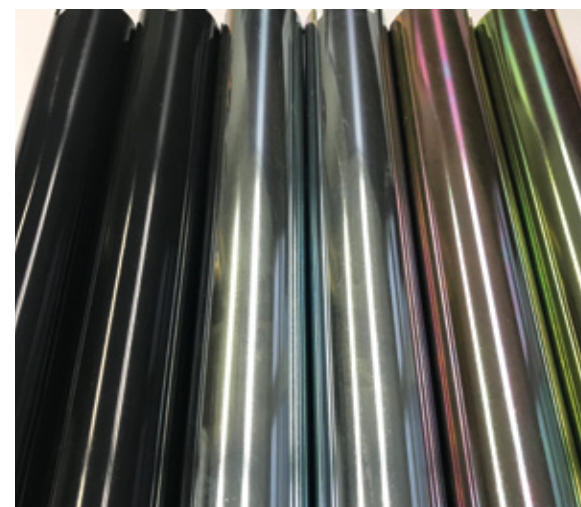


Our black passivation is considered a higher-quality alternative to bluing and CED coating by our many customers from the mechanical engineering and plant construction fields. Alongside its markedly better corrosion resistance of over 150 h to white rust formation, it is also much more resistant to scratching.

## B4 BLACKPROTECTION

As an alternative to black passivation, we now offer B4 as an innovative BlackProtection special surface.

This sets new benchmarks in appearance and corrosion protection (> 400 h to DIN EN ISO 9227 NSS to 2% white rust formation). B4 Black Protection is a surface specially developed by and only available from LKS Kronenberger.



## SURFACE & DIMENSIONS

### PLANT DIMENSIONS:

Plant 1:	2,900 x 1,100 x 400 [mm]
Plant 2:	3,000 x 1,250 x 220 [mm]

### HEXAVALENT CHROMIUM-FREE POST-TREATMENT:

Thin-film passivation  
with/without seal (TopCoat; T2)

Thick-film passivation  
with/without seal (TopCoat; T2)

Blue passivation  
with/without seal (TopCoat; T2)

Black passivation  
with/without seal (TopCoat; T2)

B4 BlackProtection

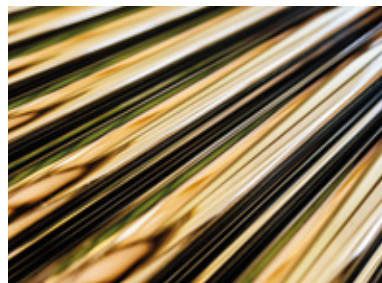
no passivation

### HEXAVALENT CHROMIUM-CONTAINING POST-TREATMENT:

Yellow chromating without sealant



## GLOSS CHROME – ONE OF THE NOBLEST SURFACES



High-gloss chrome offers excellent corrosion protection and increases your products' lifespan significantly. Depending on the requirements, we can finish your component with various combinations of layers such as Ni/Cr (nickel/chromium) or Ni/Ni/Cr (double nickel/chromium).

WE PROCESS WORKPLACES  
MADE OF THE FOLLOWING  
MATERIALS:

COPPER

STEEL

BRASS

STAINLESS STEEL

IN ADDITION TO CHROME  
PLATING, WE OFFER THE  
FOLLOWING SERVICES FOR  
YOUR COMPONENTS:

- Grinding
- Polishing
- Matting
- Assembly works  
(e.g. plugging chairs together, assembling components, separate packaging)
- Storage in our high-bay warehouses
- Transport by our own lorries

The satisfaction of our long-term customers speaks for itself, and some of our business relationships have now lasted for several decades. Notable chair and furniture-makers are among our regular customers.

With our own in-house frame construction facility we guarantee short delivery times.

NO COMPONENT LEAVES OUR PREMISES  
WITHOUT A QUALITY CHECK FROM OUR  
EXPERIENCED EMPLOYEES

### SURFACES & DIMENSIONS

MAXIMUM  
WORKPIECE DIMENSIONS:

3,000 x 1,100 x 570 mm

SURFACES:

Nickel (Ni)

Double nickel (Ni/Ni)

Nickel/chromium (Ni/Cr)

Double nickel/chromium (Ni/Ni/Cr)



REAL ARTISANAL HANDCRAFT

## MANUAL GRINDING

FOR PARTICULARLY HIGH QUALITY REQUIREMENTS

## GLOSSIER, HIGHER-QUALITY SURFACES



Mechanically processing parts before finishing allows the creation of an even glossier and thus higher-quality surface.

## PERFECT SURFACES EVEN FOR COMPLEX PARTS

OUR TRAINED SPECIALISTS CAN ALSO GRIND COMPLEX COMPONENTS UP TO TWO METRES LONG, BY HAND.

Your individual products need manual treatment that achieves what mass production lines cannot. Let your products stand out from the crowd by having mechanical pre-processing carried out before finishing!

PARTICULARLY IN THESE FIELDS, MANUAL GRINDING IS AN IMPORTANT COMPONENT OF THE FINISHING PROCESS:

OLD-TIMER PARTS



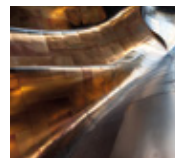
MOTORCYCLE PARTS



SANITARY OBJECTS



DESIGNER-COMPONENTS



HIGH-QUALITY FURNITURE COMPONENTS



LAST BUT NOT LEAST:

## OUR FLEET AND WAREHOUSE MANAGEMENT- FROM US TO YOU

For more than 50 years, we have offered a complete solution for our customers, covering logistics requirements with our own fleet of vehicles. We have built continuously on this tradition over recent years. With our two articulated lorries and semi-trailer, we serve our customers directly with daily factory transports.







ZUSAMMENARBEIT IM  
TRUSTING COLLABORATION IS  
GOOD:

*Mutual respect and  
transparency is longer lasting*



ENVIRONMENTAL PROTECTION

*Quality management and environmental  
protection go hand in hand with us and  
are reassessed on a daily basis*

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