

---

**WE**

---

**PROTECT**

---

**WHAT**

---

**MUST**

---

**ENDURE.**

---



*haslinger*

# OUR EXPERIENCE. YOUR ADVANTAGE.

Hartchrom Haslinger has been working in the field of surface technology since 1974. The firm supports its customers as a partner when it comes to high quality coatings.

Our fields of competence extend from hard chrome plating and chemical nickel plating to combination plating processes all the way to precision circular grinding and a perfect finish.

Since 1996, Hartchrom Haslinger has been part of the Parzer Group, an association of companies in the surface technology industry in Austria, Germany and Switzerland. We therefore offer our customers in Central and Eastern Europe strong support and a broad, professional range of services.



# YOUR SPECIALIST AND STRONG PARTNER.

As a specialist in hard chrome plating and chemical nickel plating, we offer many years of experience and maximum expertise when it comes to protecting your products against wear and corrosion.

Our coatings reduce wear and extend the life expectancy of the most diverse work pieces and components. In addition, hard chrome plating is also used to repair cylindrical parts.

That is how you save time and money on maintenance, refitting and expensive new investments. We have comprehensive technical facilities at our disposal with which we can process the most varied parts.

With our 11 chrome plating plants (an electrolyte volume totalling 124,000 litres) and a nickel automat with 3 nickel plating baths (an electrolyte volume totalling 16,000 litres) we are able to process the largest dimensions anywhere in Austria.

With our own mould production and its specially designed equipment we can coat parts of complicated geometry with the greatest precision.

## QUALITY



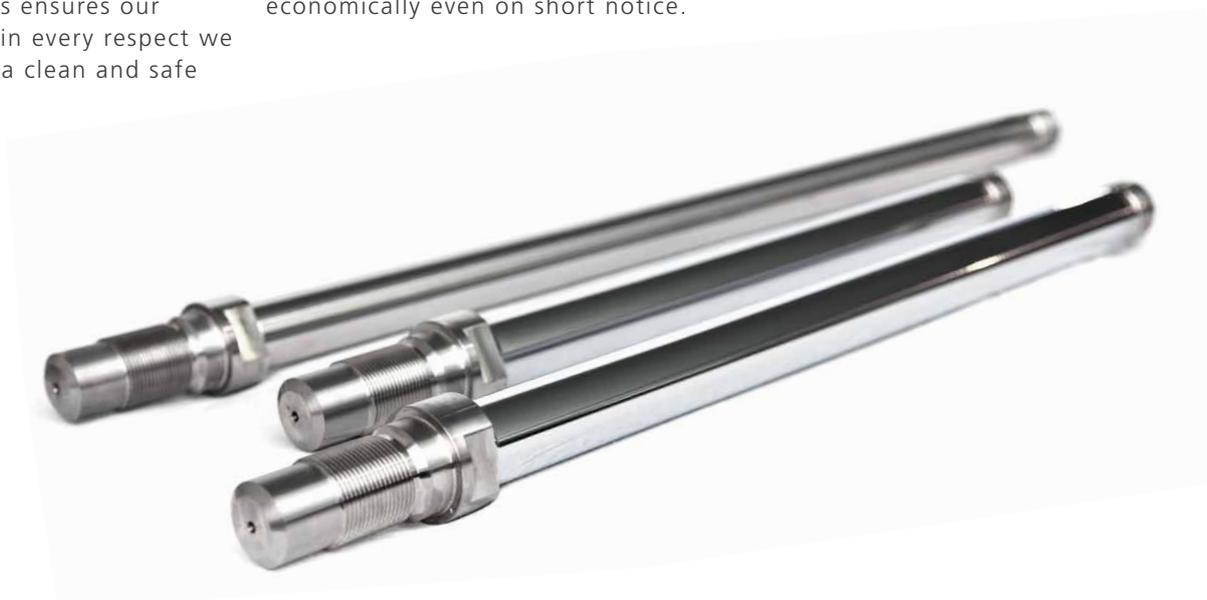
Quality is our top priority. That is why our company has ISO 9001 :2008 certification. It is the only way in which we meet our customers' high expectations to their complete satisfaction. Another important principle for us is to meet all environmental and safety regulations. This ensures our customers that in every respect we are engaged in a clean and safe business.

## FLEXIBILITY

Thanks to an experienced, well-trained team we can process work pieces of any size and geometric shape, all in optimal fashion. Due to the large number of facilities which are operating around the clock, we can react with flexibility to all requirements. This enables us to process orders quickly and economically even on short notice.

## RELIABILITY

It is a matter of course for us to complete all orders in the shortest possible time and to meet deadlines. Our smooth customer-oriented communication system also characterizes us as a reliable long-term business partner.



# UNDER GREAT STRESS? HARD CHROME PROTECTS.

When it comes to the crunch, hard chrome is the right choice. We use electrolysis to apply layers of chrome directly to the base material. The layers can have thicknesses between 0.5 µm and 1 mm. Due to the high hardness of up to 1,000 HV that can be achieved, hard chrome plated surfaces are particularly hard-wearing and corrosion-resistant. Thanks to the use of multilayer processes, corrosion resistance can be further increased. Another advantage of this type of coating is the very low friction coefficient. Hard chrome layers also have a strongly anti-adhesive behaviour and are highly resistant against a large variety of aggressive materials.

Since hard chrome baths are operated at only about 55° C, the coating causes neither warpage nor structural change in the base material; the work piece remains unchanged in its structure. To achieve

the best possible chromium separation and an even distribution of the layers, technically sophisticated equipment is necessary that is accurately adapted to the shape of the work piece. We are able to produce such equipment ourselves.

## PROCESSING DIMENSIONS\*

Length	6.000 mm
Diameter	2.100 mm
Weight	10.000 kg

\*The above processing dimensions represent the largest possible individual dimension. Our specialists will be glad to discuss with you whether your work piece can be processed in the desired shape and size.



# COMPLEX? PRECISE AND SAFE WITH CHEMICAL NICKEL.

Contrary to galvanic nickel plating, chemical nickel plating has the advantage of absolute dimensional integrity and accurate contour hardening. Whether the work piece has points, angles, drill holes or indents, the coating follows its surfaces with complete evenness, even in case of complex structures or internal surfaces.

Depending on the type of application, the possible layer thicknesses vary between 2 and 100 µm. Due to the fact that deposition is without cracks and amorphous, an extremely high degree of corrosion resistance is achieved.

With heat treatment, the hardness can be increased from 500 HV up to 950 HV, and wear resistance can be clearly improved.

Especially in the field of mechanical engineering, the advantages of chemical nickel plating offer an alternative to other coating methods.

## PROCESSING DIMENSIONS

Dimensions	2.200 x 2.100 x 700 mm
Weight	10.000 kg



# BETTER PROTECTION WITH COMBINATION. SPECIFIC, FLEXIBLE AND ECONOMICAL.

## HARD CHROME AND NICKEL PLATING:

The combination of hard chrome and chemical nickel includes the advantages of both methods and is characterized by a particularly high degree of protection against wear and corrosion.

A combination layer is the ideal solution for components exposed to great mechanical stress as well as to corrosive media (e.g. in the offshore sector).

## SELECTRON:

The selectron method is a partial plating process in which only specifically selected areas of a work piece are processed. It is therefore particularly well-suited for repairing damage to installed components. Since it does not require any disassembly and reassembly, transportation and subsequent mechanical processing of the work pieces, this plating method is very flexible and economical.



# PRECISELY FORMED.

## CIRCULAR GRINDING AND POLISHING:

Grinding and polishing processes serve to prepare for optimal plating as well as for the final perfection of dimensions and surfaces. If the quality criteria require it, or if the customer wishes it, we will do polishing, belt grinding or stone grinding of the work pieces and components. We achieve a running accuracy of 0.01 mm and a surface roughness of Ra 0.015  $\mu\text{m}$ .

We also offer circular grinding as an individual service without plating!

## REPAIRS:

In many cases, cylindrical parts (piston rods, cylinders, rollers) badly worn or damaged due to a high degree of wear and tear can be repaired by chrome plating and subsequent custom grinding. Thus, the expensive new production can often be avoided, even with new work pieces whose dimensions are not within the required tolerances.

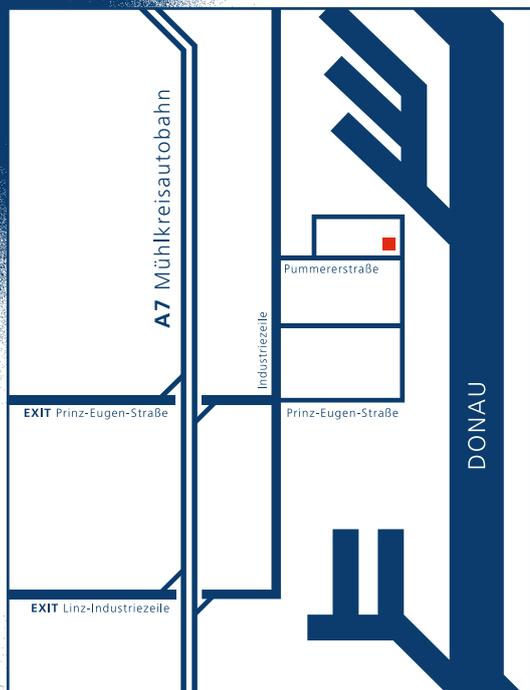
In any concrete cases, we will be glad to inform you about the various possibilities of processing your parts.



## PROCESSING DIMENSIONS\*

Processing	Length	Diameter	Weight
Precision circular grinding (between points)	5.500 mm	720 mm	2.000 kg
Belt grinding	5.000 mm	700 mm	2.000 kg
Polishing	5.000 mm	680 mm	2.000 kg

\*The above processing dimensions represent the largest possible individual dimension. Our specialists will be glad to discuss with you whether your work piece can be processed in the desired shape and size.



**HARTCHROM HASLINGER  
OBERFLÄCHENTECHNIK GES.M.B.H.**

A-4020 Linz, Pummererstraße 21-25

Tel.: 0043 / 732 77 83 65

Fax: 0043 / 732 77 31 67-21

[office@hartchrom.at](mailto:office@hartchrom.at)

[www.hartchrom.at](http://www.hartchrom.at)



A company of the Parzer Group in Germany, Austria and Switzerland  
ANKE / STRÖTZEL / HASLINGER / BRUNNER