



PERFECT

PIPING SOLUTION LLC

HOUSE OF HARD CHROME PLATING



HARD CHROME PLATING

Hard chrome plating is an integral part of many industrial Machine components such as rods, shafts, rollers and pins. This material has high hardness and a low coefficient Of friction which gives it superior resistance to the abrasive and erosive wear encountered during machine operation. Hard Chorme also has excellent corrosion-resistance, protecting against atmospheric oxidation and other forms of corrosion.

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We do hard chrome plating

Hard chrome plating is an electroplating process in which a layer of chromium is applied to a surface to improve corrosion and wear resistance, reduce friction, and extend the life of part used in extreme working environments. A wide range of materials, component sizes and complexity can be plated making hard chrome a popular choice for many industrial and commercial applications.

Chrome plating is the process of applying thin layer of chromium on a substrate (metal or alloy) through an electroplating process. In simpler terms, electroplating is achieved by passing an electrical charge between two electrodes which are saturated in a electrolyte bath comprised of a chrome acid solution. During the flow of electricity between the two electrodes, chromium atoms are deposited in a layer of the electrode to be plated. The finished product like chrome finish that has practical applications in the automotive industrial aerospace and transportation field.

Our Aims

PERFECT has one of the best plating facilities in the UAE which is capable of providing hard chrome plating to components. The processes result in functional and corrosion-resistant components.

Benefits of hard chrome plating

- | | | |
|-----------------------------|---------------------------|--------------------------------|
| ★ Hard Coating | ★ Low Friction | ★ Excellent Wear Resistance |
| ★ Good Corrosion Resistance | ★ 5 to 1,000 Micron Thick | ★ Grinding & Polishing Service |

High Hardness

Electro-deposited chrome is extremely hard, with typical Values of 63-70HRC, hence the term 'HARD' chrome. This makes it an excellent coating for wear resistant and abrasion resistant applications.



Corrosion Resistance

Hard Chrome has an extremely high resistance to atmospheric oxidation, and a good resistance to most oxidising and reducing agents with the exception to Chlorides and other Halides), hence its wide-spread use in the Food and Chemical Industries.

Wear Resistance

The high hardness and low frictional properties of Hard Chrome provide it with extremely good resistance to abrasive and erosive wear, extending the life of components.

LOW COEFFICIENT OF FRICTION:

Hard Chrome has a very low coefficient of friction.

Sacrificial Wear Layer

Since Hard Chrome deposits are readily removed with chemical strippers, without detrimental effect to the base material, the part can be stripped and re-plated repeatedly, when wear shows without loss or damage to the base part.

Applications

- ★ Hydraulic and Pneumatic Piston Rods and Cylinders
- ★ Dies, Screws, etc. Automotive and Mechanical components
- ★ Press Tools and Punches
- ★ Food Machinery valves, Gates and Bodies, Mining Equipment.
- ★ Pump shafts and rotors.

Machining

Hard Chrome deposits can be successfully finished by grinding, finishing or polishing.





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