

# **MANUFACTURING CAPABILITIES**

### SMNPO - ENGINEERING

## GALVANIZING WORKS



#### Currently, JSC "SMNPO - Engineering" can perform the following types of coatings:

Galvanochemical

**Galvanizing:** The most popular galvanisation type. A thin layer of zinc gives metals a shine and prevents corrosion. Zinc is used for processing tubular products, containers.





<u>Nickel plating</u>: This processing method is optimal for making metals resistant to environmental influences. The nickel layer reliably protects products from corrosion caused by contamination with alkalis, acids, and salts. Nickel-plated parts are highly resistant to abrasion and mechanical damage.



**Chrome plating:** this procedure increases the strength characteristics of metals, as well as their resistance to various aggressive influences. In addition, it improves the appearance of parts and repairs damaged parts. Depending on the technology of execution, the chrome coating can have different properties and parameters. For example, matte gray increases the hardness of the metal, shiny increases its wear resistance, milky plastic gives an aesthetic appearance and enhances corrosion resistance.







<u>Cadmium plating</u>: this method allows to prevent from the negative effects of sea water and atmospheric corrosion, in this regard, the most critical parts of aviation and ship equipment are subjected to cadmium plating. In addition, it is used to process products that are designed for use in tropical climates.







**Electropolishing:** Treatment of metal parts to give them a shiny appearance and to remove minor scratches or chips from their surface. It has a beneficial effect on the physical, chemical and aesthetic properties of the surface of the part.

The result of this procedure is to protect the part from rust, as well as possible corrosion by various alkalis and acids, and will help make it more resistant and durable.



<u>Oxidation</u>: oxidation of steel is the procedure for creating an oxide layer on metal surfaces. This operation is carried out to form decorative and protective coatings, as well as special dielectric layers on steel products.





<u>Phosphating:</u> used for additional protection against corrosion, improving hardness, wear resistance, increasing the electrical insulating properties of the base coating on ferrous and non-ferrous metals. The essence of the phosphating process is to create a layer of poorly soluble iron, zinc or manganese phosphates on the surface of the protected product.

