Shaanxi Xubo Titanium Metal Technology Co.,ltd

诚信、正直、高效、双赢

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XUBOTI

陕西旭博钛金属科技有限公司

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企业简介
COMPANY BRIEF

Shaanxi Xubo Titanium Metal Technology Co.,ltd is located in Baoji City, which is known as “China Titanium Valley”, on the bank of Weishui River, covering an area of 30 acres,and is a source manufacturer specializing in the production of titanium-based lead dioxide anode and titanium cathode. Our main business includes the following categories

1, Production and research and development of titanium-based nano lead dioxide;
2, Titanium-based lead dioxide anode refurbishment, repair, replacement;
3, Titanium cathode plate repair, replacement;
4, titanium-copper composite conductive beam repair, replacement;
5, cyclone electrolysis titanium-based lead dioxide anode
6, etching solution copper.

Our company has more than 100,000 pieces of product production and sales experience, the annual output of titanium anode 100,000 pieces, titanium cathode 100,000 pieces, mainly used in hydrometallurgy, electrolytic copper, nickel, cobalt,, zinc and other fields. The company has more than 50 employees and 12 sets of large and medium-sized production equipment. There are five departments: R&D, Technology, Sales, Purchasing and Production.

PbO2 is a new type of insoluble metal oxide anode material, which is widely used in chlor-alkali industry, organic wastewater treatment and non-ferrous metal extraction research due to its good electrocatalytic property, strong corrosion resistance and structural stability. Especially in the field of hydrometallurgy, PbO2 anode has the advantages of low energy consumption, high current efficiency, good corrosion resistance and conductivity, long service life and high product quality in comparison with traditional lead-silver alloy anode, which has the tendency to further replace the traditional zinc anode material for electrowinning.

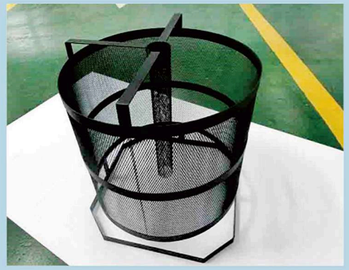
Coating thickness: 0.5-1mm

Main components of the coating: titanium base material + precious metal element base layer + conductive ceramics


X-type titanium-based lead dioxide anode 1100*600mm


Arc type titanium-based lead dioxide anode 38*134*368mm

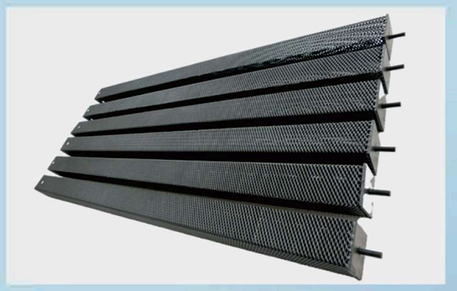

H-type titanium-based lead dioxide anode 970*1120mm

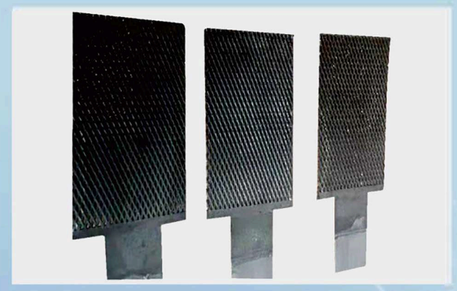

Titanium anode basket


W type titanium-based lead dioxide anode 660*1100mm

Used by customers in 32 countries around the world, it has the following advantages over traditional anodes.
1, the tank voltage is lower than that of lead-based anode:0.05V-0.1V;.
2, The weight of electrode is lighter and the operation is more convenient;
3、Long service life, 1-2 times of lead-based alloy anode.
4. Electrode adopts mesh structure, meanwhile, it improves the fluidity of electrolyte, and the current distribution is more uniform;.
5. Reduced labor expenditure, due to the absence of lead sulfate shedding, the bottom of the electrolysis tank without the appearance of precipitation, while also avoiding the conventional electrolysis deposits, which need to be then returned to the fire method of treatment brought about by the high pollution and high energy consumption;
6、Since there are no other ions such as Sn, Sb and Ag in the coating, there is no secondary pollution to the solution;
7, the resulting metal copper or metal nickel, can reach 99.99% high purity;
8、It is suitable for electrowinning nickel, copper, cobalt and other industries.

Lead dioxide anode use parameters:
(1) Electrolyte: copper sulfate + sulfuric acid or nickel sulfate + sulfuric acid.
(2)Current density<10000A/m^2.
(3)F-:< 50ppm;
(4)Cl-:<2000ppm.
(5)Temperature:< 60℃;
(6)PH value:1~4;.
(7)Service life:≥24 months.
Part of the product physical picture show.


Ruthenium-Iridium-Titanium Anodes


Iridium-tantalum titanium anode

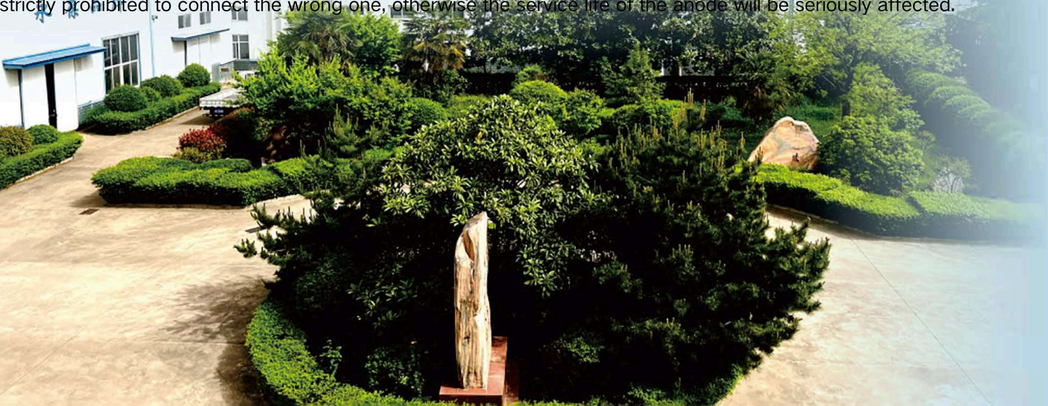

Titanium Electrode Slices

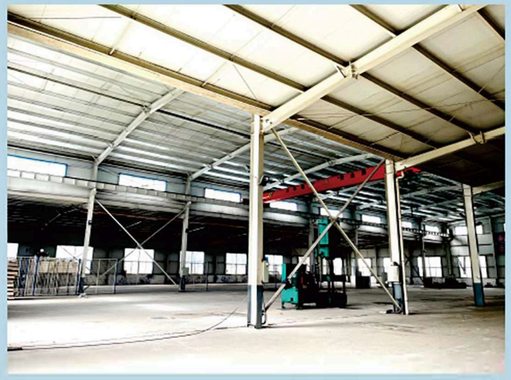

Cyclone Electrolysis Titanium Anode

公司环境
CORPORATE ENVIRONMENT

Instructions for the use of titanium lead dioxide anodes

When using lead dioxide titanium anode, you need to pay attention to the following points.
Current density control:Excessive current density should be avoided, and the rated current density should not be exceeded to prevent damage to the anode performance.
Electrolytic cell environment: The presence of many fluoride ions in the electrolytic cell should be avoided as this may adversely affect the anode.
Voltage control: The voltage of the electrolytic cell needs to be monitored to ensure that it does not exceed the safe range in order to avoid damage to the anode caused by excessive voltage.
Working time:Prolonged working time of the anode should be avoided to avoid performance degradation due to overuse.
Service life management:When the anode reaches its expected service life, it should be replaced in time to avoid continuing to use the damaged anode.
Following these precautions will ensure that the performance and life of the titanium lead dioxide anode is optimally maintained, thus ensuring the efficiency and safety of the electrolysis process. In addition, lead dioxide titanium anode is widely used in electroplating, hydrometallurgy, wastewater treatment, cathodic anticorrosion and other fields because of its strong chemical resistance, high oxygen overpotential, strong oxidizing ability during electrolysis in aqueous solution, high passable current density and other characteristics.
The opening current of single piece anode is 250A, and the cathode voltage is less than 2.5V.
Single piece anode withstand current more than 350A.
Influence of temperature:When the temperature rises, the tank voltage will be reduced and the energy consumption will be reduced. When the temperature exceeds 60℃, the consumption rate of the coating will be accelerated, so the maximum temperature under working condition should not exceed 70℃, and should be kept within 60℃ for normal use.
Strictly prohibit the use of inverted anode:The use of inverted anode will seriously affect the life of anode, if the anode metal deposition or hydrogen precipitation side reaction occurs, the anode coating will be easily detached from the surface of titanium substrate, so inverted use of titanium anode should be avoided.
Mechanical damage and non-compliant operation:Lead dioxide titanium anode in the process of installation and use, it is strictly prohibited to impact, knock, pay attention to the protection of the coating, and strictly prohibited to touch and scratch the surface of the coating. In the process of installation and use, attention should be paid to the wiring of the positive and negative poles of the output of the rectifier, and it is strictly prohibited to connect the wrong one, otherwise the service life of the anode will be seriously affected.





经营范围
BUSINESS SCOPE

1, Lead dioxide titanium anode

2,Titanium cathode plate, stainless steel cathode plate

3,Anode plate edge strips, insulators

4,Titanium clad copper conductive beam, stainless steel conductive beam, titanium clad aluminum conductive beam

5,Anti-corrosion treatment of metal materials

6,Composite metal material products

7,Metallurgical materials conductive series

8,Metallurgical liquid heat transfer series

9,Surface coating of metal electrode materials

10,Non metallic electrode

11,Nonferrous metal products production and research and development

先进设备
ADVANCED EQUIPMENT

Multi-roll leveling machine

High temperature baking oven

Laser Marking Machine

Laser cutting machine

Shearing machine

Thermal calibrating furnace

先进设备
ADVANCED EQUIPMENT

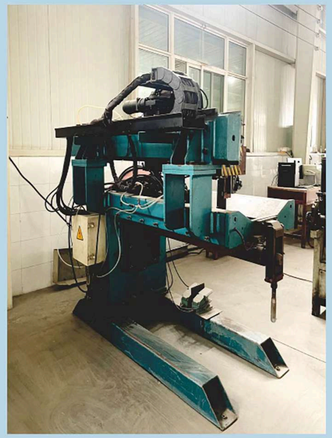
Environmental protection equipment

Small titanium mesh making machine

Bending machine

Environmental Protection Facilities

Large titanium mesh making machine



Automatic Straight Seam Welding Machine

生产产品

Lead dioxide titanium anode is a titanium mesh, titanium plate, titanium tube as a substrate for electrochemical lead dioxide plating, mainly used in nickel electrowinning, copper electrolysis, wastewater treatment and other industries.

With the continuous development of industry and science and technology, traditional anode materials are showing more and more limitations. In the hydrogen precipitation environment, the development of lead dihydrogenation electrode, PbO2: is the lack of hydrogen containing excess lead non-stoichiometric compounds, there are a variety of crystalline forms, with anodic electrodeposition method of plating of Pb02: with anti-hydrogenation, corrosion resistance (in the strong acid H2SO4 or HNO3 has a high degree of stability) hydrogen superpotential is high, conductivity, good, strong bonding force, strong oxidizing ability in the electrolysis of the aqueous solution, through the high current and other characteristics of the development of the county very promising. Current and other characteristics are very promising. At present, it has been widely used in electroplating, smelting, wastewater treatment, cathodic anticorrosion and other fields, is many other electrode materials can not be replaced.

Lead dioxide titanium anode has low resistivity, stable chemical properties, good corrosion resistance, good electrical conductivity, can pass large currents and other holdings, widely used in all kinds of organic and inorganic substances, electrolytic preparation and sewage treatment and high-purity water preparation process, the field of application is very wide.

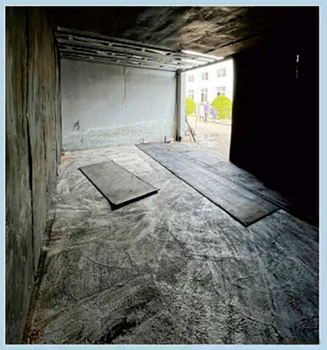
Lead dioxide titanium anode has chemical plating, thermal decomposition (coating pyrolysis method) and electrodeposition of three manufacturing methods, compared with the electrodeposition of the electrode obtained by the method of better performance, so the current preparation of PbO2 electrode is generally used in electrochemical methods directly in the substrate or the intermediate layer of electrodeposition obtained.

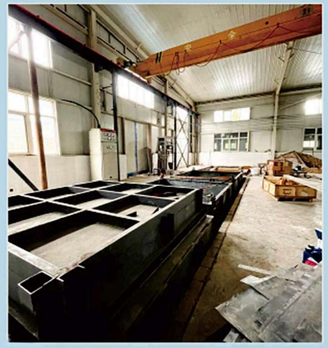
In order to ensure the good combination performance between the substrate and the surface slope layer and then ensure that the electrode has good electrical conductivity and corrosion resistance, a new type of lead dioxide titanium anode is developed. Compared with the previous lead dioxide titanium anode, the new type of lead dioxide electrode is mainly composited with the anti-clocking bottom layer between the substrate and the PbO2 coating layer, and some of them also add an intermediate layer on the bottom layer, and the new type of lead dioxide titanium anode consists of titanium base, bottom layer, intermediate layer and surface layer, and the structure of this type of lead dioxide titanium anode is composed of titanium base, bottom layer, intermediate layer and surface layer. The new lead dioxide titanium anode consists of titanium matrix, bottom layer, intermediate layer and surface layer, and the lead dioxide electrode of this structure has the following advantages.
(1) It can be used at high current density.
(2) high current efficiency; and
(3) good corrosion resistance and longevity.

Features:
1、Dissolved gas potential 21.70V, with extremely strong gasification.
2、High current efficiency, in low current density, comparable to iridium tantalum anode energy consumption. In the current density greater than 500A/m^2 energy consumption than iridium-tantalum shy, the pressure is about 0.2V higher.
3. It has double plating three-dimensional structure, and the plating layer has a very good bonding force.
4, belongs to insoluble anode, corrosion resistance.
5. The substrate can be reused after the anode plating layer is damaged.
6、Low cost, long working life, cost-effective.

Application areas: electroplating, smelting, domestic sewage treatment, persulfate production, phenol-containing wastewater discoloration treatment, oilfield wastewater, printing and dyeing wastewater, ammonia-ammonia wastewater and other fields.


laser cutting machine

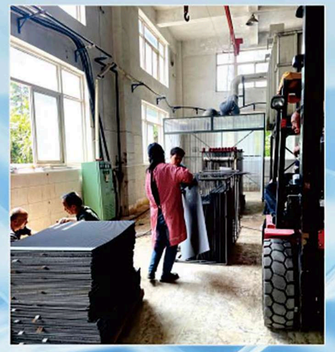

Sand blasting room


Thermal calibration

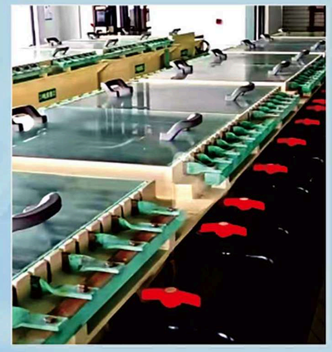

Argon arc welding


Acid etching site

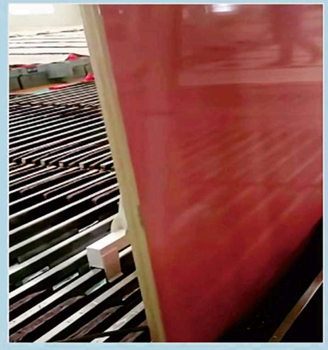

Acid etching rinsing

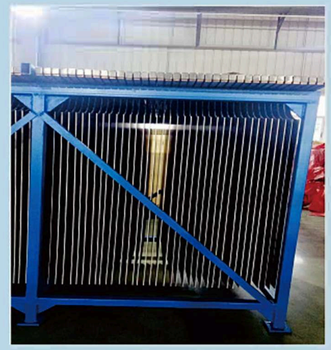

Titanium mesh transit


Electrolytic nickel tank

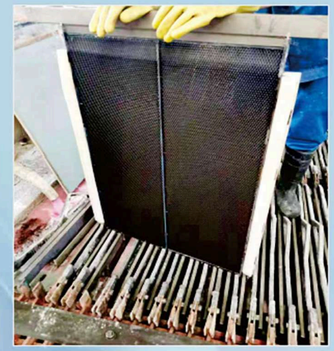

Electroplating tank


Copper extraction from etching solution


Copper electrolysis tank

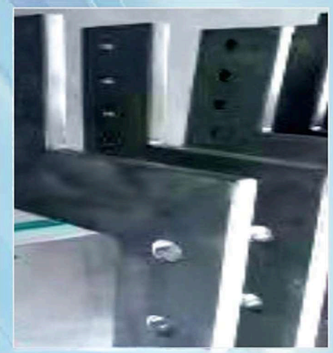

Product Packaging


W type lead dioxide titanium anode


Titanium-based lead dioxide


Wooden case


Titanium cathode plate


Stainless steel conductive beam


Titanium clad copper