

Ti Anode Fabricators Pvt Ltd, India offers an extensive range of anode and cathode modules with various types of platinum group precious metal oxide (catalyst) coatings suited to a host of electrochemical processes - with long life times & low operating potentials for service in...

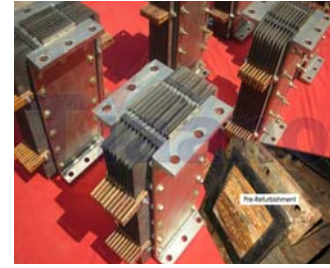
- **Hypochlorite cells for Monopolar or Bipolar arrangements.**
- Chlorine anodes for Membrane, Mercury (runner, rod & strip) and Diaphragm Cells.
- Chlorate & Perchlorate anodes for Plate type, Diaphragm, Modular & Tank Cells.
- Anodes for Iodate & Bromate cells.
- Anodes for metal finishing & Recovery.
- Anodes for Cathodic protection.
- Anodes for Fuel cells.

Substrate: The anode substrate is Titanium and the cathode substrates may Titanium, Hastelloy, Nickel, normal Mild steel, or Ultra-Low Carbon steel. The anodes are known as Dimensionally Stable Anodes, DSA.

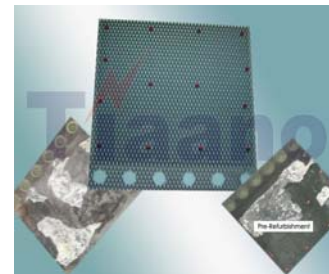
Catalyst: Tiaano's coating systems are based on a range of nano-structured multi-layers of metal oxides, they includes Ruthenium, Iridium, Platinum, Palladium, Titanium, Tantalum; offer increased performance over conventional materials by maximising catalytic phases and surface area interactions. By adding doping agents to the catalysts, we are able to make them more selective and further improve performance.

The developed High Density coating technology allows for very thin layers to be deposited increasing cost effectiveness. The Mixed Metal Oxide Coated substrate will undergo multiple thermal treatments at elevated temperatures. This process will achieve very good bonding properties between the mixed metal oxides coating and the substrates.

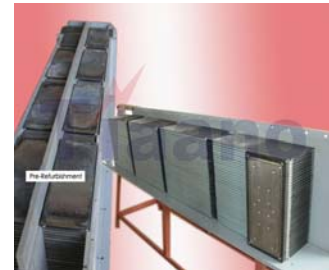
Refurbishment: Refurbishment includes recoating, rebuilding the standoff and / or replacement, depending on the condition of the Anodes and Electrolyzers. Low current output, damaged standoffs, leaking seals or damaged mounting threads are the symptoms of refurbishment.



Daki



Desalination



Disinfection



Seawater-Intake

Spares to be refurbished or Replaced:

Following parts are also to be replaced or refurbished, based on the customer's request.

- ❖ DSA Titanium Anode Substrates all in the form of plate, tube, mesh and custom fabricated.
- ❖ Any Cathode substrates irrespective of MOC like titanium, Steel, Nickel alloy (Hastelloy).
- ❖ Mixed Metal Oxide or Platinum coating on DSA anodes.
- ❖ CPVC, Clear PVC, PVC with GRP Cell Housing.
- ❖ Rubber lined steel shell housing.
- ❖ PTFE (Teflon), Silicon, Neoprene, EPDM Gaskets.
- ❖ PVDF, PTFE, PVC Spacers.
- ❖ Titanium, Steel, Copper & Brass Hard wares.
- ❖ Hydrogen vent nozzles.
- ❖ Titanium Heat exchangers to maintain the temperature of electrolytes between 5 to 27° C.
- ❖ Titanium Piping and fittings.

Advantages:

- Recoating leads double the life of Electrolyzers (anode & cathode assembly) with half of the cost, buying new one.
- Electrolyzers can be refurbished to new specifications.
- Tiaano's in-depth, hands-on knowledge of anode recoating & well-equipped in-plant infrastructures can help customers prolong the life of expensive anode structures through repair & recoating, rather than replacement.
- Further to expedite the delivery of refurbishment, Tiaano keeps most of the raw material of Platinum group precious metals, Substrates in stock.

General Cell Maintenance:

All cells require cleaning. This must be carried out before the calcium buildup within the cell housing becomes one big block (6-8 months gap). Left for too long it will do two things.

- Break the cell housing.
- Shorten the cell life.

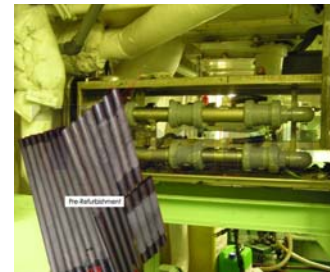
cel Using a diluted solution of hydrochloric acid and water can do cleaning. The dilution of acid to water should be 1 (one) part acid and 8 (eight) parts water, mixed in a separate container, then poured into your cell cleaning container. The cell cleaning process can take between 15 minutes and a few hours, depending on how much scale is on the cell. The cell must be completely free of any scale and rinsed in clean water by Jet (high pressure). On average, the I will need to be cleaned every four weeks.

We refurbished & recoated the electrochlorination plants and its Electrolyzers, which was originally made by...

Seven Trent DeNora, Titanor, Titan, Chlorotec, Cumberland, Pepcon, Chloropac, Seaclor, Sanilec, Diaki, Mitsubishi, Sespri, Siemens, US Filter, Sanichlor, Electrocatalytic, Nippon.



Off Shore



DSA-Coating



Power Plant



Steel Plant