

# METAL COAT INDUSTRY

MANUFACTURE, SERVICE & EXPORTER

ALL TYPE OF HOT DIP GALVANIZING PLANT

ALL TYPE OF ELECTRO PLATING PLANT

INDUSTRIAL & GENERAL FABRICATION

Website : [www.metalcoatindustry.in](http://www.metalcoatindustry.in)



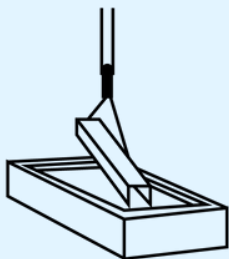
# WHO WE ARE

WE PROVIDE ALL TYPES OF HOT DIP GALVANIZING PLANT WITH DIFFERENT KIND OF HIGH-QUALITY & WE ALSO PROVIDE ALL TYPE OF PLATING PLANT INDUSTRIAL & GENRAL FABRICATION WE PROVIDE OPTIMAL SERVICE THAT EXCEED OUR CLIENT PROJECT.

## ABOUT US

OUR COMPANY ESTABLISHED IN THE YEAR 1998, OUR TEAM HAS 20+ YEARS OF EXPERIENCE IN METAL SURFACE FINISHING & COATING WE, **METAL COAT INDUSTRY**, ARE ONE OF THE PROMINENT MANUFACTURERS AND SUPPLIERS OF AN EXTENSIVE RANGE OF ALL TYPE OF HOT DIP GALVANIZING PLANT & ALL TYPE ELECTRO PLATING PLANT. WE ARE GUIDED BY OUR MENTOR '**MR. GREGORY RODRIGUES**' WHO HOLDS A RICH DOMAIN KNOWLEDGE IN THE RESPECTIVE FIELD. HE IS SUCCESSFUL ENTREPRENEUR, WHO HELP US TO LEAD ALL OUR BUSINESS OPERATIONS EFFICIENTLY.

## WHAT WE PROVIDE



HOT DIP  
GALVANIZING



ELECTRO  
PLATING



INDUSTRIAL & GENERAL  
FABRICATION





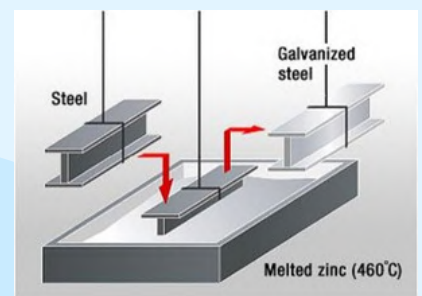
**WE PROVIDE  
TURNKEY HOT DIP  
GALVANIZING  
PLANT**



**OUR COMPANY EQUIPPED WITH EXPERTISE AND EXPERIENCE IN THE GALVANIZING PROCESSING INDUSTRY.... WE ARE INDIA'S LEADING MANUFACTURER, EXPORTER, SUPPLIER AND CONSTRUCTOR OF HOT DIP GALVANIZING PLANT. WE HAVE DESIGNED, SUPPLIED & ERECTED GALVANIZING PLANTS IN INDIA, SOUTH AFRICA & GULF COUNTRY**

# GALVANIZING PROCESS

Hot dip galvanizing is the process of coating iron or steel with a layer of zinc by immersing the metal in a bath of molten zinc at a temperature of around 450 °C (842 °F). ... Hot dip galvanizing is a very simple process that provides long term corrosion protection to steelwork



## IN STEPS WITHIN THE GALVANIZING PROCESS INCLUDE :

01

a cleaning cycle - decreasing and chemical clean

02

fluxing - helps to wet the surface of the steel

03

galvanizing - immersion of steel into bath of molten zinc

04

post treatment (optional)





## PICKLING / PRE TREATMENT LINE

The pretreatment section is a fundamental part of the hot dip galvanizing installation. In the pretreatment section, in addition to proper pickling tanks, degreasing, rinsing, fluxing and acid stripping tanks are also located. All operations pertaining the chemical preparation of the steel surface to be galvanized are performed in the pretreatment section. Traditionally, these steps in surface preparation have not been the center focus of galvanizers, mostly because of the intrinsic robustness of the entire process

## ACID PROOF BRICKS TANK

With enriched industrial experience and knowledge, we are providing qualitative Acid Proof Brick Lining Service. Our professionals use high





## MS+ FRP TANK

Fiberglass Reinforced Plastics FRP Coating is protective lamination on the desired surface to provide corrosion resistance against water, chemical proofing, high strength, dimension stability, and is known for its ease of application, maintain, and repair.





# PP (POLYPROPYLENE) SHEET TANK

PP Tanks are made with the thermoplastic polymer used in a wide variety of applications such as the manufacture of chemical storage tanks. ...

Polypropylene chemical tanks could be a lightweight, durable thermoplastic that's denser, stiffer, and stronger than polyethylene and also includes a high melting point.





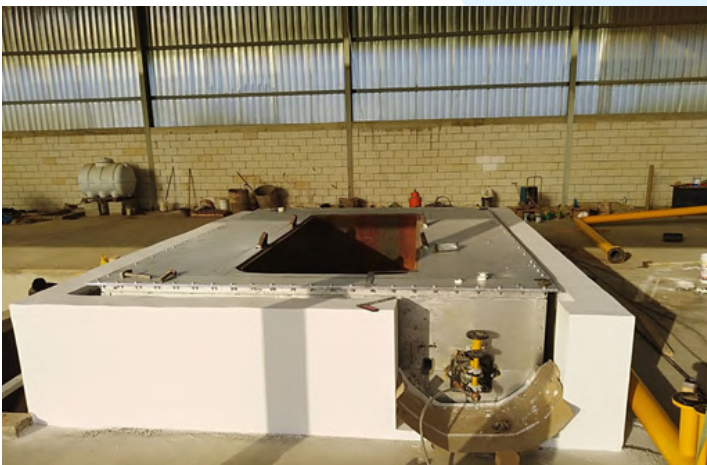
# FURNACE

## 1) MANUAL CONVENTIONAL FURNACE

Galvanizing Furnaces are known for features such as strength, high durability, corrosion resistance, and optimum usage and are consistently used for galvanizing small components like fasteners & auto parts and large parts like poles, pipes & pillars. Our range finds application in is used in foundry and mini steel plants for various processes such as calculation, ageing, homogenizing, baking, and heat treatment. Our galvanizing furnaces do not require much space and are accessible at cost operative prices. Low maintenance, used in numerous industrial applications, Sturdy construction, perfectly designed, Superior strength etc.

Features:

- Optimum performance
- Less maintenance
- Long functional life





## 2) PULSE FIRED HIGH VELOCITY FURNS

Special designs highly efficient and reliable Pulse Fired High Velocity galvanizing furnace. The furnace is equipped with High Velocity burners, safety valves, pressure controls, and temperature control

We make the furnace using high quality mild steel rolled sections. Qualified and skilled engineers assemble the control pipe trains meet the best performance and aesthetics. The casing is thickly insulated using international quality ceramic fibers and modules. Metal coat Industry designs and delivers PULSE FIRED HIGH VELOCITY FURNACE that offers reduced zinc consumption low Ash and Dross Formation significant process productivity benefits fuel savings long Kettle Life low in maintenance improved temperature uniformity lower NOx emissions improved turn-down Pulse firing controls thermal input by cycling burners from high to low or high-off to meet the zinc required heat demand





# HOT AIR DRYING

## 1) PLATE TYPE DRYING

Flue waste gas from galvanizing furnace recirculated through oven dryer in order to pre-heat the steel before immersion in Zinc kettle to avoid Zinc spattering and faster reaction with molten zinc.

The high alumina bricks for combustion chambers.

The IS-8 Standard Bricks & Stamping Mass for Gas Chamber the IS-6 Bottom and Drying Deck Where Temperature Is Low Insulating Materials to prevent heat loss

M.S. Hot Plates of 10mm thickness inside ceramic fiber blanket 1260 deg c  
Insulating bricks (bricks size) 9" X4.5"X 1.5" (Class-I)

Heating system: Waste gases generated in the galvanizing furnace are transferred through brick lined duct

Cross Flow Duct Arrangement – Circulating ducts are arranged along the full length of the oven chamber on each side to ensure uniform flow across the work pieces.

All Ductwork is manufactured from heavy gauge steel – internal oven ducts 6mm thick to resist corrosion.





## 2) OVEN TYPE DRYING

Metal Coat Industry hot air dryer is integrated with the galvanizing furnace designed to pre-heat the structural steel by re-circulating the exhaust flue gases generated out of the furnace. The hot air is used for complete drying and preheating of the steel to be hot dipped, to allow faster reaction and in the molten zinc thereby reducing fuel consumption and loss of zinc due to spurting. There are many factors that differentiate our design and manufacture of a quality industrial hot air oven from a poor quality or low end system including:

- Proper airflow
- Use of properly temperature rated components,
- Proper sizing of air recirculation (to get a reasonable air velocity and number of air changes per minute) and burner components,
- A powered exhaust system,
- Use of dryer material and for energy efficiency and longevity,
- Oven workmanship and complete solution, and
- Detailed operation and maintenance manual documentation with preventative maintenance recommendations to name a few.

The oven is operated with a single or two door system equipped with a motorized crane moving over the rail mounted on the periphery of the oven wall.





# ZINC KETTLE

The steel used for making the zinc kettle has low silicon, phosphorous and carbon to limit the interaction between zinc and iron thereby lowering the wearing rate of the kettle wall. ... Moreover, all the joints and mild steel plates guarantees corrosion resistance, providing high material strength.

Special quality plates are used to manufacture high-quality zinc kettle that are customized to suit the site preferences of the galvanizing plant. Our specialized zinc kettle with round edges and corners is specifically designed to give high life to kettle and ensure lesser generation of zinc dross.

We ensure high strength of kettle by insulating the bottom using refractory casting and fiber, by protecting the sides from bulging by using high-temp resistant support, and by electroslog welding and radiography testing. Moreover, all the joints and mild steel plates guarantees corrosion resistance, providing high material strength.





## POST TREATMENT TANK

### QUENCHING TANK & DICHROMATE TANK

Quench and Passivation tanks are post-treatment tanks that are used to treat the workpiece after galvanizing it in the kettle. They are a significant part of the galvanizing process that completes the process of galvanization. we supplies top-notch quality quenching and passivation tanks made of mild steel and coated with epoxy paint that precisely meets your post-treatment requirements.

Quench tank is used to do the quenching process by rapidly cooling the material galvanized in the kettle to get the material properties. It prevents phase transformation of the material. Passivation tank is used to treat the material to reduce its chemical reactivity. It is used to make the galvanized material more rust-resistant.

Quench and passivation tanks end the galvanizing process and hold high importance. we give a long-lasting life to the galvanized zinc and ensure great customer satisfaction. We customize premium-grade post-treatment tanks that would perfectly suit your complete plant facility





# CENTRIFUGAL DRYER

The Centrifugal Dryers are basically a spin dryer. They are typically used when parts are being processed in bulk. The parts may be placed into an appropriate size basket that then is inserted into the dryer. The dryer is then closed, turned on and spins the basket at a very high speed to force any liquid, oil, etc. to leave the part. Along with the spinning action drying the parts, an optional heater can be installed to offer adequate time in drying the samples.





# WATER COOLING TOWER

We are associated with the offerings to our clients with high-grade FRP Counter Flow Towers. These FRP Counter Flow Towers are the equipment used to cool & adjust the temperature process of hot water at a specific level. Our robustly manufactured array of FRP cooling towers is designed using the most advanced technology. Thus, it incorporates the ability of resisting wear and tear. These towers are mainly designed for application in commercial and industrial purposes



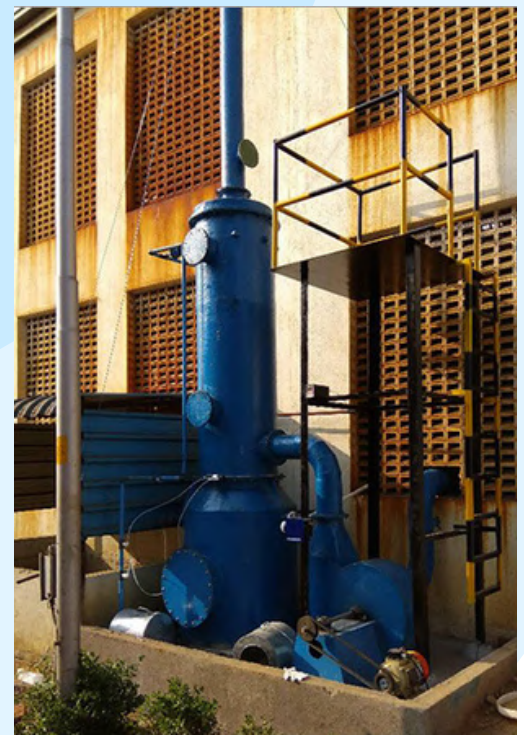


# ACID FUME SCRUBBING SYSTEM

The Acid Fume Scrubbers we make available are made from 100% corrosion resistant thermoplastic material and has a long life. Our Acid Fume Scrubbers are widely used in stainless steel pickling plants, chrome plating plants, zinc plating plants, electroplating plants, anodizing plants, hot-dip galvanizing plants, pipe pickling plants, etc.

Details :

- Fumes are absorbed through the Fume hoods and taken to the Scrubber unit through Thermoplastic ducting. Inside the scrubber unit, the gases are absorbed in the scrubbing liquid and returned to the circuit thus letting only Clean Air come out through Stack/Chimney.
- Our Scrubber system will be complete with Fume hoods, Exhaust Ducting, Blower, Column of Raschig/Pall rings, Spray Nozzles, Circulation Pump, Collection Sump, Mist Eliminator, etc.
- Each Scrubber System is individually designed to optimize the particular application which ensures "Very High Separation Efficiencies in Scrubbing" and "Complete Compliance of emission norms"





# ZINC DUST COLLECTOR

Fume extraction systems are essential safety measure to many industrial Hot Dip Galvanizers. Effective extraction both for smoke and fume is absolutely vital, not only for workers safety, but for optimum productivity too.

Our commitment and ability to solve air pollution problems have made us the innovative leader in the field of hot dip galvanizing industries.

Select the process of zinc fume collection

- Side suction with slot (suitable for rack plating): the exhaust openings are on the both sides of zinc kettle, using induced draft fan, the zinc fume is collected to bag filter to be treated. Noted: not suitable for the zinc kettle which width is over 1.8meter.
- End blowing - end suction (suitable for rack plating): using blower on one end of the zinc kettle, the zinc fume is blown to the recycling cover on other end, using induced draft fan, the zinc fume is collected to bag filter to be treated. Noted: not suitable for the zinc kettle which length is over 10meters.

## Components

- Recovery system
- Incoming pipeline
- Zinc fume treatment equipment
- Zinc ash recycling part (ash hopper)
- Induced draft fan
- Exhaust part

## Features

- big air volume
- better cleaning effect
- high efficiency of dust removal
- reliable operation
- easy to maintenance





# ELECTRO PLATING PLANT

With vast experience and knowledge, METAL COAT INDUSTRY are engaged in offering a wide collection of Electroplating Plant. Our Electroplating Plants are well-known for their maintenance free and robust design. Our Electroplating Plants are widely used in different sectors such as Water/ Wastewater treatment Tanks, Chemicals Engineering, Air Purification Tank and Plating Equipment.



we manufacture and undertake supply of automatic, semi automatic and manual electroplating equipment for Alkaline Zinc Plating Process ,Tri Nickel Chrome Plating Process, Plating On Plastic Process, Phosphating Process, Anodising Process, Precious Metal Plating Process, Electro polishing Process, Plating on PCB for Through Hole metalization, Copper Tin Lead Pattern Plate, Horizontal Panel Plate Desmear/ Blackoxide/ Gold Plate. We have successfully deployed these machines in the premises of several companies in India.





# ELECTRO PLATING & GALVANIZING CHEMICAL

For Hot-Dip Galvanization it is important to use the correct concentration of the correct chemical solvent. The preparation and plating are carried out with chemicals. These include certain acids and molten zinc. Chemical solutions are used in different processes of galvanization such as surface cleaning or coating. The list of chemicals used in our processes is as follows.

- Alkaline degreasers
- Acidic degreasers
- Acid inhibitors
- Nickel Based Galva Flux
- Double salt Pre-flux
- Sodium Di-chrome, etc



From manufacturing metal finishing chemicals for cleaning, plating, chromating, polishing etc. to setting up

Turnkey projects in the metal finishing industry, we offer it all.

METAL COAT INDUSTRY has a long and successful history having been established for over 50 years, working with some of the biggest names throughout a wide and diverse range of Industries.

- Copper Sulphate
- Copper Salt
- Copper Additive
- Zinc A & B Salt
- Zinc Additional M & R
- Passivation
- Brighter
- Nickel Salt
- Chrome Salt, Etc







## COMPANY DETAIL

# METAL COAT INDUSTRY

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*thank you*

**AND WE LOOK  
FORWARD TO  
WORKING WITH YOU**