

WORLD LEADERS
IN GALVANIZING PLANTS



Collaborated with



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PRE-TREATMENT TANKS



Precimax activities focus on from the conceptual design and implementation of facility for the pre-treatment process in hot dip galvanizing plants. Our rectangular tanks, customized according to the application, stand for a long life span and operating safety. Diverse tank types meet the demands of the special spectrum of containers required for hot dip galvanizing plants. Our tanks are employed as baths for:

- » **Degreasing**
- » **Pickling**
- » **Stripping**
- » **Rinsing**
- » **Fluxing**
- » **After Treatment**
- » **Quenching**
- » **Passivation**

The Pickling tanks are manufactured from PX-98-CR & PX-PP The lining and the exterior cladding are welded together and hermitically sealed. This excludes the possibility of the steel reinforcement being attacked by aggressive mediums. Manufactured by Precimax in collaboration with Gehard-**WEBER**-Kunststofftechnik-Verarbeitung GmbH, Germany.

PRE-HEATERS/DRYERS

Custom designed to suit varying work handling techniques and plant layout, Precimax driers can increase galvanizing bath throughput and minimize the incidence of zinc splash. Precimax can design and install:

- » **Tunnel driers**
 - » **Pit driers**
 - » **Compartment driers**
- High air flow gives uniform drying/ pre-treatment with low heat input. It is often possible to use waste gases from the furnaces as a source of heat.



PRECIMAX - HASCO HIGH VELOCITY GALVANIZING FURNACES

Precimax-Hasco are pioneers of the pulse - fired, high velocity Galvanizing Furnace system giving high fuel efficiency with low, even kettle wear.

- Other features include:
- » **High Fuel Efficiency**
 - » **Long kettle Life**
 - » **Custom design using latest CAD system**
 - » **Rapid temperature response**
 - » **Less Dross**
 - » **Consistent Zinc temperature**
 - » **Low emission levels**
 - » **Choice of control systems**
 - » **Fully automatic damper**
 - » **"Superheat" provision**
 - » **Low Maintenance cost**
 - » **Rapid installation**

State of the art centralized PLC control option, especially applicable to automatic plants, with integration of all product options. Manufactured by Precimax in collaboration with HascoThermic Ltd, UK.



FLUX REGENERATION SYSTEM

The fluxing bath is being polluted by acid residues and above all by dissolved iron. Consequently it makes the quality of the galvanizing process worse; moreover iron being entered by a polluted fluxing flow into the galvanizing bath binds itself with zinc and precipitates to the bottom, thus increasing dross. A continuous treatment of the fluxing bath will help you get rid of this problem and cut the zinc consumption dramatically.

The continuous depuration is based upon two combined reactions an acid-base reaction and an oxide reduction which correct fluxing acidity and simultaneously cause the iron to precipitate.

The mud collected at the bottom is regularly being tapped and filtered.



VIEW OF A CONTINUOUS FLUX REGENERATION SYSTEM

POLLUTION CONTROL EQUIPMENT FOR GALVANIZING PLANTS

- » Scrubbing System for Acid Fumes
- » Enclosure & Bag Filters for Zinc Baths
- » Effluent treatment Plants

ENCLOSURE

Manufactured by Precimax in collaboration with HascoThermic Ltd, UK.



BAG FILTERS

SCRUBBERS FOR ACID FUMES

MOLTEN ZINC PUMP / HOT METAL PUMP

- 1) Type : Immersion
- 2) Capacity : Rated from one (1) Ton/min upto 2.5 Tonnes/min
- 3) Motor : Up to 7.5 HP 440 volts 3 phase 50/60 Hz
- 4) Net Weight : Approx 380 Kgs.
- 5) The operating temperature is 450 C.

Essential accessory for any efficient galvanizing plant at regular periodic intervals to remove the molten zinc from the furnace in order to check the kettle wall thickness as also when the tank containing the molten metal leaks.

The pump lifts the molten metal through the delivery pipe and is discharged into prepared moulds / receptacles for cooling and these ingots can be easily transferred back to the tank at the time of remelting and reuse.

The pump is submerged type driven by an electric motor consisting of the main body with internal parts of high temperature material suitable to handle zinc in molten condition. The special purpose totally enclosed impeller is driven by a motor through an extended shaft duly coupled.

The pump is driven by an electric motor giving a maximum flow rate of 2.5 tonnes/min and can be operated by a single person during emergency and prevents damage to furnace or kettles.



MOLTEN ZINC PUMP / HOT METAL PUMP

PNEUMATIC DROSS GRAB

- 1) Heavy duty design
- 2) Stainless Steel / Mild Steel construction
- 3) No "Forced" closure - will not damage lost parts of bucket
- 4) Ideal for use with deep kettles
- 5) The best solution with enclosures

The dross grab is fabricated in stabilized stainless steel sized to suit your galvanizing kettle dimensions. The two grab flaps are perforated with suitable sized holes to allow free molten zinc to run back into the bath.

We include for a single point lift only, and so do not allow for any steelwork i.e. arrestor hooks or unloading frame to retain the head fabrication

Required minimum clearance height from top face of kettle to underside of your lifting hook for moving loaded drossing grab away from kettle is d+750 mm.

NOTE

It is not advisable to use the drossing grab in a zinc temperature exceeding 470 C



PNEUMATIC DROSS GRAB