

# GALVANIZING



“The Ultimate in Corrosion/Rust Protection”

## HOT DIP GALVANIZING

- Complete coverage and coating integrity inside tubular sections and hard-to-reach places.
- Galvanizing provides durability without maintenance.

Industrial use > 65 years

Tropical Marine use > 70 years

Temperate Marine use > 70 years

Suburban use > 85 years

Rural use > 120 years

- Galvanizing thickness is 5 - 6 mills.
- Type of Corrosion protection - Cathodic & Barrier
- Bond strength to steel - approx. 3600 psi.
- Abrasion resistance/hardness of coatings

Gamma (250 DPN)

Delta (244 DPN)

Zelta (179 DPN)

Eta (70 DPN)

## CAPABILITIES

- Kettle is capable of Galvanizing pieces 52' long x 6' 9" wide x 9 deep, such as a 48' semi trailer.





## STATE-OF-THE-ART GALVANIZING PROCESS

### Step 1: Preparation

Steel is thoroughly inspected for venting and drainage requirements. Tooling is selected to move it through the process tanks.

### Step 2: Cleaning

The cleaning process consists of three steps. Total immersion in a hot alkali solution removes any organic compounds; acid pickling eliminates any rust or scale; fluxing removes any oxides and promotes metallurgical bonding between steel and zinc.

### Step 3: Galvanizing

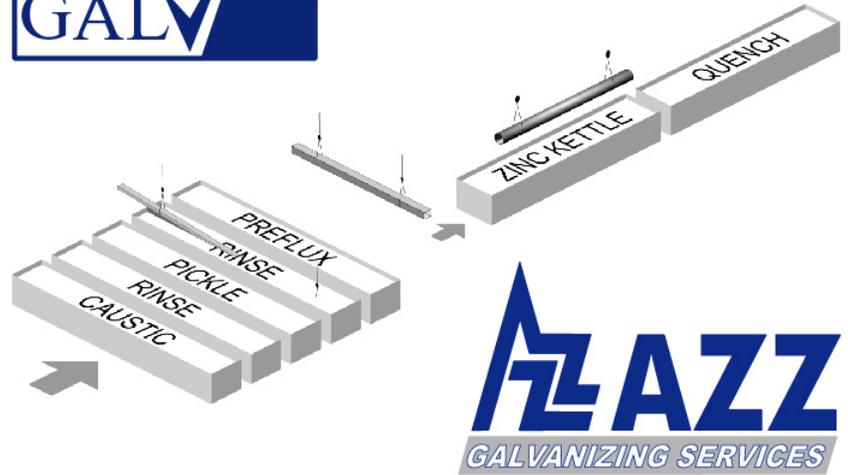
The steel is totally immersed into a bath of molten zinc until it reaches bath temperature. (approx. 840 degrees). Zinc reacts with the steel to form zinc/iron intermetallic layers on all surfaces, inside and out, of the steel product.

### Step 4: Quality Inspection

The galvanized product is cleaned, weighted and then thoroughly inspected for coating thickness, appearance and compliance with ASTM specifications. AZZ's inspection process is simple and fast, using calibrated instrumentation.

### Environment Friendly Process

Steel that is hot dip galvanized provides environmental stewardship. HGD contains no VOC's, Zinc and steel are 100% recyclable, 30% of all zinc comes from recycling and all raw materials used in the process are recycled into agriculture and other industries.



**Material as received:**  
Rust surface coated with paint, varnish, oil, dirt, etc.

**Caustic cleaning bath:**  
Organic contaminants are removed followed by water rinse.

**Acid pickling bath:**  
All rust and scale removed.

**Preflux process bath:**  
Prevents oxides from forming prior to galvanizing.

**Molten zinc bath:**  
Material is immersed in molten zinc which forms a progression of zinc-iron alloy layers metallurgically bonded to the base steel.

Felling Trailers, Inc.

1-800-245-2809 • www.felling.com • trailers@felling.com