Ace Galvanizing, Inc.
429 S. 96th St.
Seattle, WA 98108
(206) 762-0330
www.acegalv.com

Ace Galvanizing Process

1. Prior to galvanizing, material is inspected for suitability for the process. All voids must be properly vented to allow them to fill and drain with process chemicals and zinc, the items must be free of contaminates that would require sandblasting before galvanizing, and the items must fit inside the dimensions of our galvanizing kettle.
2. Material to be Galvanized is soaked in a bath of 10% Caustic Soda at a temperature of at least 180° F. to remove any cutting oils, grease, or organic contaminates. Time varies with the type and amount of contamination to be removed.
3. The material is then rinsed in a water tank to prevent carry-over of Caustic Soda to the acid tank.
4. Material is then pickled in a 10% to 12% solution of Sulfuric Acid at 145°F. to remove any rust, mill scale, and oxidation. Pickling time varies with the amount of contaminates to be removed.
5. The material is then dipped in a second rinse tank to remove acid residue.
6. Material is then submerged in a solution of 165°F. zinc ammonium chloride known as “Preflux”. This leaves a crystalline coating on the material that promotes the formation of the iron-zinc alloy layers, and also prevents oxidation of the product prior to entry to the galvanizing kettle.
7. After drying, the material is then submerged in the galvanizing kettle, which contains molten zinc at a temperature of 830°F. Immersion time varies with the mass of the material and the amount of time necessary to fill and drain any voids. The kettle is “skimmed” prior to the withdrawal of the material to prevent inclusion of ash or grit in the coating.
8. The galvanized material is then cleaned up by filing smooth any zinc drips that form during withdrawal of the item from the galvanizing kettle.
9. Galvanized material is then inspected to assure conformance with ASTM specification A123, as well as any specific customer requirements.