The cost of hot dip galvanizing is determined by a number of factors. These include:

- The cost of zinc;
- The type of item being galvanized: light, medium, heavy, 1, 2, or 3-dimensional, hollow or solid section.
- The size of the item;
- The current cost of labour, chemicals, waste disposal and recycling, power and gas
- Sustainable margins to support reinvestment in the business.

The cost of zinc has a major impact and can make up 40% of the total processing cost. Zinc is a globally traded commodity and its price is set by the London Metals Exchange (LME). The zinc price is volatile depending on world supply and demand as well as local availability.

As a result, the cost of hot dip galvanizing steel can range from several hundred dollars per tonne for large, on-going tonnages of structural steel, to several thousand per tonne for small cash-sale items.

In some cases, a unit rate may be negotiated where repetitious manufactured products such as fence panels, star pickets or building products are processed on a regular basis. The tonnage of steel that can be processed through the galvanizing bath in a given time will have a big impact on how it is costed. All the fixed overhead costs of the galvanizing business are allocated to the galvanizing bath. Steel fabrications that can be processed at 6 tonnes per hour will incur a lower bath cost component than those than can only be processed at 2 tonnes per hour.

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How much does hot dip galvanizing cost?

This means that attention to detail design can significantly reduce galvanizing costs. A fabrication that can be assembled from 2-dimensional sections will be less costly to process than if it was a 3-dimensional fabrication, as more fabricated sections can be loaded onto the galvanizing jigs in 2-d form. Fabrications that have dimensions within those of the galvanizing bath will avoid the additional cost associated with double-end dipping that is required with items that are longer or deeper than the bath dimensions.

While the costs of galvanizing lighter steel sections appears to be significantly higher than heavier sections, there is a significant cost saving when compared on a surface area basis. Hot dip galvanized coatings are the most cost effective heavy-duty coatings when compared on this basis.

For example:-

**Medium structural steel** (12mm section thickness) could be galvanized for say, $800/tonne.

Steel of this thickness has a surface area of about 20 m²/tonne, so the cost of galvanizing per square metre is $40.

**Light steelwork**, commonly associated with box trailers, or light hollow section that averages 3 mm in thickness may cost $1500/tonne to galvanize. Its surface area is 85 m²/tonne so the cost of hot dip galvanizing is then less than $18/m².

Hot-dip galvanizing provides significant value for money. No other coating for steel matches galvanizing’s unique combination of properties and advantages:

1. For most steelwork, galvanizing provides the lowest long-term cost. In many cases it also provides lowest initial cost.
2. The galvanized coating is part of the steel surface it protects. It has outstanding toughness and resistance to mechanical damage in transport, erection and service.
3. Galvanizing’s cathodic protection for steel ensures that small areas of the base steel exposed through impacts or abrasion are protected from corrosion.
4. During galvanizing the work is completely immersed in molten zinc and the entire surface is coated, even recesses and returns which often cannot be coated using other processes.
5. Galvanizing is versatile process. Items ranging from small fasteners and threaded components, up to massive structural members can be coated.
7. ‘Duplex’ coatings of galvanizing-plus-paint are often the most economic solution to the problem of protecting steel in highly corrosive environments. The life of the combined coatings exceeds the total life of the two coatings if they were used alone.