



Australia's first sustainable hot dip galvanizing plant



# **HOT DIP GALVANIZING CORROSION PROTECTION FOR STEEL STRUCTURES**

[kingfield.com.au](http://kingfield.com.au)

# AUSTRALIA'S FIRST SUSTAINABLE HOT DIP GALVANIZING PLANT

Kingfield Galvanizing has set a new benchmark in Australia for sustainable hot dip galvanizing (HDG).

Kingfield is a wholly Australian-owned family business that has operated in Melbourne's northern suburbs for over 30 years. In 2015, the company invested over \$20 million to build the future of local HDG, developing Australia's first state-of-the-art hot dip galvanizing facility.

Kingfield's plant integrates enclosed zones to reduce emissions, automated materials handling systems and technology to recycle or re-use energy, waste and materials; to reduce the environmental impact of hot dip galvanizing.

## LIFECYCLE COST BENEFITS

HDG's predictable performance delivers lifecycle cost benefits for manufacturing, engineering, agriculture, construction and infrastructure projects. Best practice design and fabrication can optimise coating consistency for complex designs, to further enhance HDG's performance.

Hot dip galvanizing forms a robust chemical bond with a steel structure and is not susceptible to damage during handling, transport and installation; providing health and safety benefits for a project.

Galvanized steel is ideal for structures in remote locations, manufacturing facilities and high traffic areas. HDG's average service life is significantly longer than alternative coatings for steel, minimising the costs and disruptions associated with shutdowns for general maintenance cycles.

***The cost of  
corrosion is > 4%  
of global GDP***

## 3 LEVELS OF CORROSION PROTECTION

Hot dip galvanizing provides the most effective form of corrosion protection for fabricated steel components. Three levels of protection are created during the HDG process to deliver predictable performance, even in highly corrosive environments.



- **Barrier protection**  
Zinc forms a chemical bond with the steel, forming a physical envelope for internal and external protection
- **Zinc patina**  
Reduces exposure of the galvanizing coating to environmental conditions
- **Cathodic protection**  
The surrounding galvanizing coating protects any small exposed areas of steel from corrosion

***85% or our population lives within  
50km's of the coast, subjecting  
our construction to the corrosive  
nature of salt air.***



## GREEN STAR RATED COMMERCIAL PROJECTS

Kingfield's responsible manufacturing processes have achieved third party verified sustainability credentials, with an Environmental Product Declaration for HDG and a Product Health Declaration from Global Green Tag™.

Kingfield galvanized steel can contribute to points on Green Star rated residential, commercial and community projects within the Design & As Built tool, across three credit categories.



**Sustainable Products;**  
via Kingfield's  
Environmental Product  
Declaration (EPD)



**Lifecycle Assessment;**  
requires a whole of  
building, whole of life  
comparative lifecycle  
assessment to a  
reference building



**Indoor Pollutants;**  
for meeting total  
internal VOC limits

## IS RATED INFRASTRUCTURE PROJECTS

Kingfield Galvanizing can contribute to points on IS rated infrastructure projects on the Design & As Built scorecard and the Operations scorecard of ISCA Rating Tool v1.2 and the Design & As Built scorecard and the Planning scorecard of ISCA Rating Tool v2.0, across a range of credit categories.

### TOOL V1.2

- Sustainable Leadership & Commitment
- Material Footprint, Measurement & Reduction
- Environmentally Labelled Products
- Identification of Suppliers
- Diversion from Landfill
- Deconstruction/Disassembly
- Adaptation Option

### TOOL V2.0

- Economic & Financial Stability
- Resource Strategy Development
- Material Lifecycle Impact Measure & Management
- Environmentally Labelled Products
- Supplier Assessment & Selection
- Strategic Workforce Planning
- Climate & Natural Hazards





Winner  
Premier's **Sustainability** Awards 2017

**KINGFIELD**  
GALVANIZING

35 O'Herns Road  
Somerton VIC 3062

P: 03 9305 3902

E: [sales@kingfield.com.au](mailto:sales@kingfield.com.au)

[kingfield.com.au](http://kingfield.com.au)

