

For over 30 years Kingfield Galvanizing has galvanized steel components for engineering, construction and infrastructure projects throughout Australia. Based in Melbourne's northern suburbs, we recently invested \$20 million in developing a state-of-the-art hot dip galvanizing (HDG) manufacturing facility. Kingfield now operates the largest sustainable and most highly automated galvanizing plant, with the lowest emissions of any HDG plant in the southern hemisphere.

## What does this investment mean for our customers?

Our state-of-the-art equipment is capable of galvanizing large scale components for major construction projects, infrastructure works and vehicle chassis.

Automated materials handling and processing equipment prepares steel substrates to the highest level. Undercover storage and our remote controlled dipping system delivers a consistent galvanized coating to provide long-life protection against rust or create a uniform surface for paint over galvanizing projects.

With a plant capacity of over 30,000 tonnes per annum and 30 jigs operating on our line, we offer the flexibility to schedule urgent or impromptu jobs without compromising quality.

Our experienced team of galvanizing professionals provide technical advice to engineers and fabricators regarding design and preparation of steel components to achieve the desired galvanizing thickness and finish for each installation.

## THE KINGFIELD EXPERIENCE



Technical assistance, specialist design & fabrication advice

Products picked up, steel prepared and galvanized at Australia's largest sustainable HDG plant



Galvanized items stored, delivered to customer or directly to site for installation

## Sustainable operating practices significantly reduce environmental impacts

- Automated materials handling equipment delivers more consistency in the pre-treatment process, resulting in uniform steel preparation and reduced consumption of chemicals
- Fully enclosed pre-treatment, drying & hot dip galvanizing facilities prevent emissions from entering the atmosphere
- Waste created from the galvanizing process is recycled and re-used
- Heat from the furnace is reclaimed
- Water is recycled within our plant
- Energy consumption per tonne is reduced

# Improved manufacturing processes and greater workplace safety

Automation replaces manual galvanizing processes to deliver greater consistency. This benefits both preparation of the steel surface and uniformity of the final protective zinc coating.

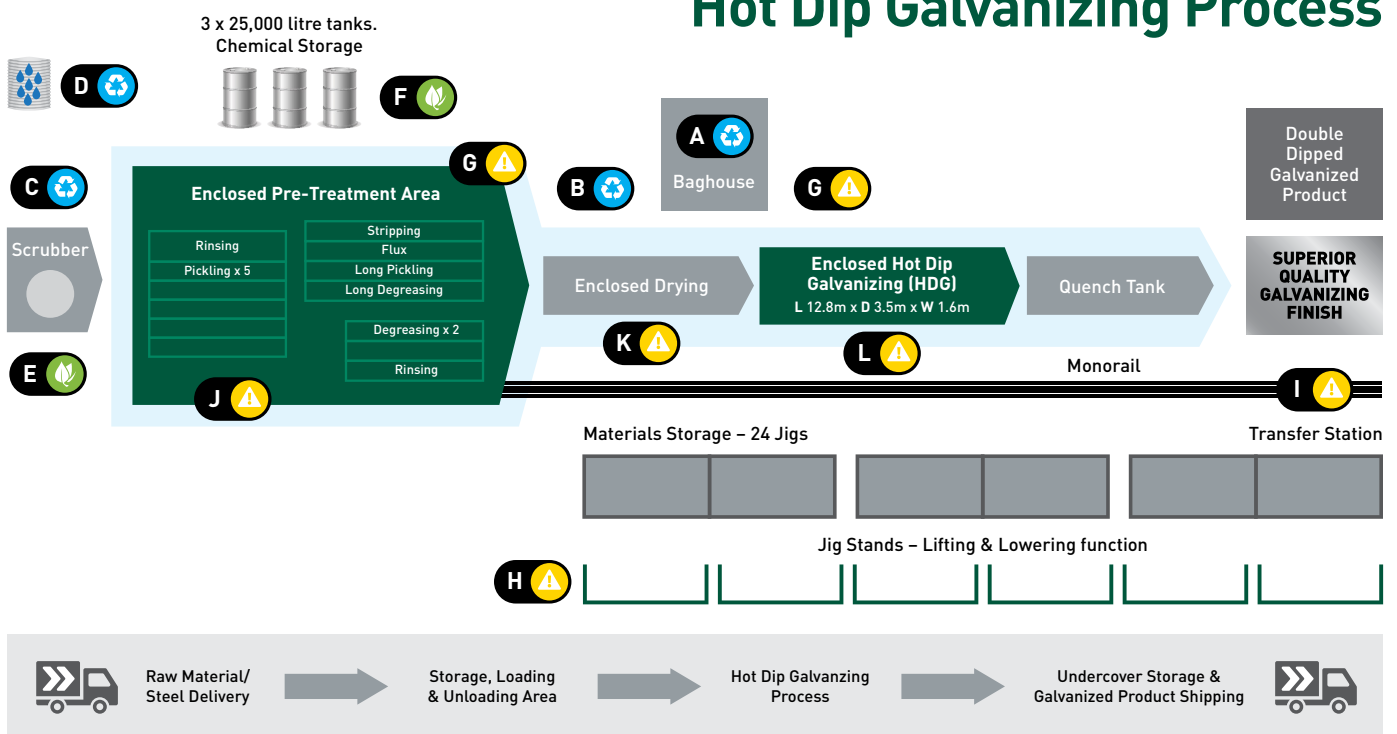
Kingfield's plant transformation includes staff free zones, automated materials handling systems, adjustable jig stands, extra jig stations and a transfer section that holds 24 jigs. Each of these upgrades reduces the risk of injury, from moving steel objects.

Our enclosed pre-treatment room & fume extraction systems further reduce the potential for injury or exposure to chemicals.

*State-of-the-Art Equipment and Processes create a controlled, measured & reliable galvanizing environment.*

*Collectively these features minimise downtime, maintain a high quality, consistent galvanizing finish, increase throughput and enable Kingfield to reliably deliver on client deadlines.*

## Hot Dip Galvanizing Process



### Recycling Initiatives & Sustainable Operating Practices

- A:** Collection of Zinc Fume Emissions. Ash recycled & Zinc reclaimed.
- B:** Heat recycled from HDG Furnace for Heating Pre-Treatment Chemicals.
- C:** Acid cleaned from air in Pre-Treatment room is re-used in Pre-Treatment tanks; reducing waste & water use.
- D:** Water run-off captured & re-used across site.



### Significantly Reduced Environmental Impacts

- E:** Corrosive Emissions collected & treated via Scrubber, clean air then exhausted to environment.
- F:** Reducing chemical usage & waste by heating chemicals & using automated processes with defined recipes.



### Improved Workplace Safety & State-of-the-Art Manufacturing Processes

- G:** Bunded areas & advanced plumbing systems minimise risk of catastrophic event & exposure to chemicals.
- H:** Superior materials handling with 30 jigs, 6 lifting & lowering stations.
- I:** Monorail enables 5 jigs to move concurrently along Galvanizing line for process efficiencies.
- J:** Automated system eliminates product damage & enables untreated product to be correctly vented & drained.
- K:** Enclosed Drying Area improves process efficiencies
- L:** Remote Control Galvanizing delivers greater control of angle & speed at bath; for superior galvanizing finish.