Case Study

Making 'The Moment' last



Background

An intricate new crimson sculpture known as The Moment, which adorns a new apartment building in Melbourne's premier arts precinct, benefits from a hot dip galvanizing (HDG)-based duplex system that lowers total lifecycle cost whilst delivering a striking aesthetic finish.

The duplex system for this sculpture, consisting of a base HDG layer and two top coats, cost around one-fifth of a three coat paint system to provide equivalent protection, representing a massive saving for the client.

The result is a striking HDG and painted piece 7 metres in diameter and 2.4 metres deep, permanently installed 5 metres above ground. Predominantly created from 3mm mild steel and mounted on an angle frame, the installation weighs three tonnes.

The sculpture was built by artist, Damian Vick commissioned for a new residential development comprising 220 apartments in South Melbourne; the neighbourhood home to the National Gallery of Victoria, Victorian College of the Arts, Malthouse Theatre, Melbourne Recital Centre, Art Centre and the Australian Centre for Contemporary Art. Due to its location in the centre of Melbourne's art hub there was a Council requirement to provide an artistic feature to the building.

Considered the most significant of Mr Vick's works to date, he needed to ensure it was developed in such a way to ensure great longevity of both the structure and the finish.

Challenges and Solutions

Due to the complexity of the design, the structure was created from 49 individual sections with every piece hot dip galvanized, the finish primarily chosen over a paint-only application to ensure longevity. The HDG coating under the aesthetic paint means the steel substrate will not corrode and taint the work with unsightly rust staining.

The extremely odd shapes that make up the piece required precise jigging to ensure no build-up of zinc on the inside and outside surfaces. The dipping technique employed by the galvanizer in accordance with AS/NZS 4680 ensured no runs, dribbles or pimpling on the outside surfaces and sufficient coating thickness.





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Wire and touch marks were not allowed as any defect would show up due to the duplex coating. Consultation at the initial design stage allowed for adequate venting/draining to be placed and not to detract from the overall façade.

Due to the thin gauge of steel used, care with guenching was critical to ensure no distortion as any deformation at all would have made assembly of the work virtually impossible.



Duplex Specification

After the duplex paint coating had been applied and cured, the galvanizer had to ensure no damage to the top coat through handling or transporting exacerbated by the tight time schedule for transporting and installing onsite due to safety issues associated with the prominent public location. Transporting the sculpture to site required that every single item was

individually wrapped and shipped to ensure no damage to the final surface finish.



The paint work component involved whip blasting surface preparation, before applying a prime coat of DUREMAX[®] GPE at 75 microns and a topcoat of WEATHERMAX[®] HBR of 50 microns thickness.

Project Team:

Developer/Owner: PGS Management / LAS Group Architecture: Peddle Thorp Architects Project Manager: Damian Vick Hot Dip Galvanizer: Geelong Galvanizing Paint System: Geelong Galvanizing Photos: Courtesy of Damian Vick & Geelong Galvanizing AWARD



Eight Reasons to Choose Hot Dip Galvanizing

- 1. No hold ups due to weather steel can be galvanized in any weather conditions
- 2. Speed modular design compatibility to speed up construction
- 3. Tough coating system reduces transport damage & minimises on-site repairs
- 4. Inbuilt durability minimises in-service damage from vandalism & accidental knocks
- 5. Withstands UV the surface is immune to damage from the extreme Australian sun
- 6. Superior corrosion protection provides initial and lifetime cost savings
- 7. Aesthetics natural good looks
- 8. Sustainable Zinc and steel are 100% recyclable



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