Creating a Winery to Savour - d'Arenberg Cube Project

> Text by Tim Roberts, Photography by Craig Scott

Marc Kovacic of Construction Glazing recently had the chance to work on a uniquely challenging project - the home of d'Arenberg Wines, a South Australian company with big plans to create a world-class showcase for their coveted vintages. As he was soon to find out, exuberant creativity was the order of the day.

'It all started when we were contacted by the owner of d'Arenberg Wines, a fourth-generation winemaker,' says Marc. 'He had come up with a concept for a truly unique - and extremely challenging - design. In collaboration with the architect, Nick Salvati, we had to take this audacious idea and turn it into a fully realised building that overcame the many design challenges involved.'

The kernel of inspiration for this unconventional winery originated in the owner's creative mind over 10 years ago - with the plans being refined along the way. He wanted to build an entire building out of cubes to achieve a similar visual effect to that of a Rubik's Cube.

'The owner had always considered winemaking to be a puzzle that needs to be put together, a complex combination of geographical elements including soil and geology, viticulture, blending and balance, and this building was yet another puzzle to solve. The external patterns join together for a seamless solution, and ideally, all elements of wine should do the same. Working closely with Nick, we developed the owner's core visual concept of a series of stacked glazed cubes, covered with white abstract shapes,' says Marc.

The original design was delayed as the team grappled with the framing members. Marc and his team had some ideas on how the original plans could be amended for practicality. Initially, the owner wanted to bring all the framing members together into a fine point. However, if this was attempted, they wouldn't have had the distinct sharp edge - detracting from the streamlined look they were hoping to achieve.

'To solve this problem, we converted the original idea for stick framing into a panel wall with a painted white aluminium sheet on top of the glass,' Marc continues. 'Making this change enabled us to provide that razor-sharp finish you can now see on the surface of the glass, which is visible from far away. The external finish that we finally achieved really gave the owner the effect he was looking for.'

The building's most immediately notable feature is the mass of white shapes adorning the glass. 'The white printed pattern on the façade is made of white aluminium, with solid glass behind it,' Marc says. 'That striking pattern consists of an aluminium powder-coated sheet attached to the outside of the glazed panel with structural silicon.'









(d'Arenberg Cube Project continued)

This aesthetic choice creates an interesting visual contrast between the building's interior and exterior. 'When you're inside the building, you're looking at the back of each of those individual aluminium sheets,' says Marc. 'The owner is in the process of building customised wine cupboards to match every one of those irregular shapes, which is a demanding task. As there are 1136 aluminium shapes affixed to the exterior, there must be a matching number of cupboards! What's more, all of them have opening doors so that the wine can be stacked inside them for display."

The interior also features a clever sliding wall arrangement, offering maximum flexibility while providing a striking visual counterpoint. 'The wall slides away and opens out, leaving a cavity in the side of the building,' says Marc. 'The building's other dominant interior features include the restaurant and dining room on Levels 3 and 4, which are linked by a staircase rather than a lift. To ensure that visitors to the winery could easily travel between the bar above to the restaurant below, we designed a steel staircase featuring a glass balustrade and timber treads to bridge the two areas.'

Many other idiosyncratic additions were accommodated in the project, one of the most notable being an addition to the landscaping. 'An individual standalone cube, a replica of those in the main structure, was installed in the winery grounds,' Marc says. 'At a glance, it may appear to have fallen from the building. The cube is adorned with the same distinctive white panels as the rest of the building, and appears to have been thrown onto its side into the vineyard.

'We also constructed a stacking glass wall in the Al Fresco area, which allows the dining space to be fully opened to maximise the view for

With so much glazing used in the project, the thermal properties of the glass were a primary consideration throughout. 'We had several solar thermal issues that had to be addressed before building approval could be obtained,' Marc says. 'Throughout, the glazing has been installed with this in mind - there are 32mm units on the walls and 44mm units on the roof, all of which use Argon Low-E glass for heightened thermal performance.'

Perhaps the most audacious feature of the winery is the one that's furthest from ground level. 'The abstract white aluminium panels



are affixed to the roof as well, but the centrepiece of the roof area is something else entirely,' says Marc. 'The roof structure includes 16 huge hydraulic umbrellas, which were installed to rapidly shade the building in dramatic fashion,' Marc observes. 'They fold up into the gutters, dramatically mushrooming out when activated. When that happens, the glazed façade is shaded by the unfurled umbrellas.'

Even though the building is not yet open to the public, it's already creating a buzz. 'Everybody who's seen it so far loves it,' Marc confirms. 'There's still a fair bit of work to be done, but we're striving to get everything open by December.'

What better way could there be to display a selection of delicious wines to an appreciative public? GA