



This device may look extra-terrestrial, but it has a much more down-to-earth purpose: to create decorative garden features for the National Trust.

Our 'dodecorative' solution for the National Trust

On the eastern edge of Plymouth, near the banks of the Plym estuary, lies the 466 acre Saltram Estate, in the care of the National Trust since 1957.

Attracting around 180,000 visitors each year, Saltram's popularity continues to grow. It is famed not only for its Georgian mansion and parkland walks, but also its spacious and varied gardens, which include rare species, leisurely avenues and an intriguing folly.

Multi-faceted challenge

In October 2017 Senior Gardener Dr Martin Stott approached Aldermans to enquire if we could make a custom-built concrete mould. The Trust wanted to create perfect dodecahedral ornaments to be placed as decorative features in the garden.

Clearly the mould had to be strong enough to hold the weight of the concrete; precisely shaped; and securely fastened to prevent concrete leakage. It would also need to be removed easily after use and reconstructed for future projects.

Design and development

Dr Stott had designed an initial prototype of the mould in wood. This provided us with a basis for creating 3D drawings, using Solidworks, from which we created precise manufacturing specifications. These drawings were approved by the client before we began production.

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The first step was to laser cut the 12 mould panels out of 3mm CR4 mild steel, using our Amada CNC Fibre Laser. With its swift transfer of programming and fast, precise output, this machine has proven to be a valued asset to our laser cutting department since its arrival in February 2017.

The second step was to create brackets, which would be welded to each of the 30 edges to allow the mould to be fastened together and disassembled. These brackets were folded to a precise angle using one of our suite of powerful press brakes.

The position of the brackets was etched onto each face to ensure precise alignment. All the pieces were then passed to our skilful welding team, who carefully attached the brackets, complete with screws and wing nuts, to create the final assembled unit.

Fast turnaround

From order to delivery of the mould took just one month; and the client has been delighted with the quality of the piece, and the appearance of the first ornaments. Dr Stott has since chosen to coat the unit in a primer to help protect it against corrosion and enhance its longevity. He has also asked us to add a hole to the top panel, so that any excess concrete can easily escape the mould.

At present we have created just one size, but additional sizes may be created in future.



**National
Trust**



“Having searched online for a local metal engineering firm, I was pleased to discover Aldermans on our doorstep. The service from them has been excellent, and swift. It’s a high-quality mould which will help us create some stylish pieces to enhance the gardens.”

**Dr Martin J Stott, Senior Gardener
National Trust, Saltram, Plymouth**



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