

CREATING 'IMPOSSIBLE' ART

Customer Challenge

Rinus Roelofs sometimes calls himself a 'digital sculptor' – he designs sculptures on a computer. His work consists of complex shapes and surfaces, and traditional production methods struggle to accomplish his ideas. He has been using 3D printing in plastic for some time, but that is not a good material for a life-size open-air work of art. To place a sculpture in a museum garden, for instance, Rinus needed to demonstrate that his work can be produced life-size in metal.

Selected approach

Rinus Roelofs worked with 3Dealise to 3D print a sand mould, and produce a prototype in cast iron. 3Dealise engineered and printed the casting mould. 3Dealise uses ExOne's largest and fastest 3D sand printer, which can print up to 1.8 metres x 1 metre x 0.7 metres within 24 hours. Larger moulds can be created by stacking prints (like Lego). Sand moulds can be used for a range of metals such as iron or bronze depending on the end-customer's preferences. 3Dealise called on 165 years of foundry experience of Sanders Castings to produce a high quality complex prototype in cast iron.

Customer benefits

Rinus Roelofs is a leading expert in 3D design. But, like many other customers, he is not an expert in casting mould design or the underlying casting technology. Working with 3Dealise allowed him to focus on the sculpture, in the confidence that 3Dealise engineers would turn his idea into an actual prototype.

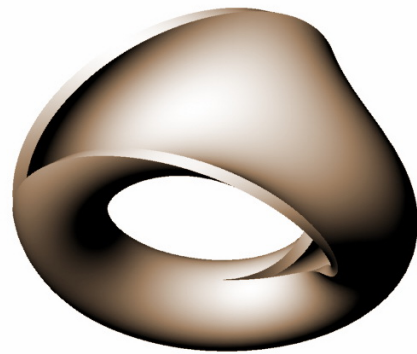
The selected approach is flexible to adapt easily to the final size and material.

The lead time for this project – sand mould design, 3D printing, casting and finishing – was two weeks.

Rinus Roelofs - rinusroelofs.nl

3Dealise - 3dealise.com

Sanders Castings - sanders.biz



Specifications

Project	prototype of a complex sculpture
Material	cast iron
Pattern available	digital design only
Batch size	1
Lead time	2 weeks (sand mould design, 3D printing, casting and finishing)

3Dealise

TOUCH YOUR IDEAS

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