



NeoMetrix
Technologies, Inc.

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Reverse Engineering Phoenix Award



Figure 1 – Phoenix statue



Figure 2 – Phoenix objet part



Figure 3 – RTV silicone mold and urethane casting

Problem:

When the DOD wanted to make scaled duplicates of the Phoenix Award for Maintenance Excellence, they called NeoMetrix.

Traditional Method:

Contracting an artist to recreate a reduced scale work of art can be time consuming and expensive. Silicone molding of the original will work for a full scale model, but the scale cannot be reduced.

NeoMetrix Solution:

- Original piece is scanned using the Faro ScanArm.
 - Scan Data is registered, merged, and aligned in Rapidform XOR.
 - Final model is scaled down to the desired size.
 - Prototype part is printed on the Objet Alaris 3D Printer with a layer thickness of 28 um.
 - RTV silicone mold created using Objet part as pattern.
 - Multiple Urethane parts can be produced from a single mold.
- ### NeoMetrix Advantage:
- Rapidly capture part geometry through laser scanning.
 - Accurate tooling created overnight ready for multiple runs with customer choice of material.