Tech Brief 01-05-010

Reverse Engineering Gun Component

Figure 1 – Original Part

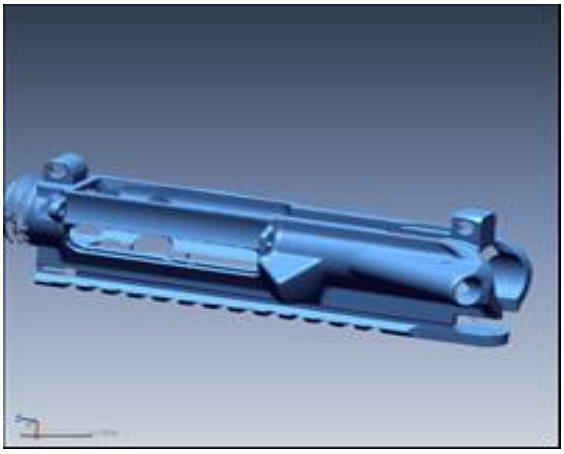

Figure 2 – Laser Scanned Data

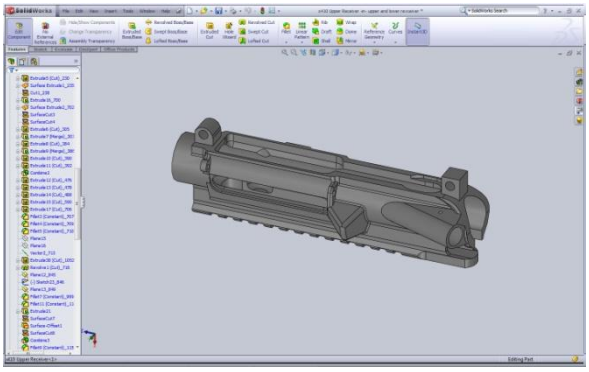

Figure 3 – Final Solidworks Model

Problem:

Sporting Goods needs to reproduce a series of parts in order to put a new firearm into production. This requires a set of 3D models and 2D Drawings.

Traditional Method:

Hand measurements are normally used to pull off dimensions and radiuses. However, the complex shapes and angles were not features that could be accurately measured by hand.

NeoMetrix Solution:

- Laser scan with Konica-Minolta Range 7 3D scanner accurate to .0015”
- Rapidform to align and merge multiple scans (Figure 2)
- Curves and sketches developed based upon scanned data to facilitate solid modeling.
- Accuracy analyzer used to verify accuracy of final model to original part.

NeoMetrix Advantage:

- Complex geometry accurately captured
- Quick turnaround time
- 100% Editable Solidworks part file to make future design changes
- Ability to make a rapid prototype to check fit parts to existing mates

407-268-9110 phone
407-386-7797 fax

NeoMetrix Technologies, Inc
4044 W. Lake Mary Blvd. 104-203
Lake Mary, FL 32746

info@neometrixtech.com
www.neometrixtech.com