

Bottle Scan Case Study

Test Report: Polyga Compact S1

About Polyga

Polyga is a developer of 3D scanners and mesh processing software based in Vancouver, Canada. We have more than 10 years of experience building structured light 3D scanners and software that meet complex 3D imaging requirements. Our line of 3D scanners are a trusted brand of 3D imaging solutions used worldwide for a variety of industrial applications.

Products & Technology

All Polyga 3D scanners use structured-light technology for capturing high-resolution digital 3D scans from real world objects. These systems are great for companies, manufacturers, academic institutions, visual effect studios, and research labs that need 3D scan data for visualization and measurement applications including:

- 3D modeling
- documentation/archiving
- reverse engineering
- scientific measurement
- computer-aided inspection
- rapid prototyping/3D printing



Scanning Overview

Scanners:

Polyga Compact S1

Introduction:

The purpose of this sample test was to perform a demonstration to examine the accuracy of the Polyga Compact S1 in capturing the dimensions of a glass bottle. The bottle was placed onto a rotary table and then rotated. The parts needed to be sprayed with developer spray to reduce the surface reflection of the projected patterns. Modelling clay was used to add geometry features to aid in scan mesh alignment.

Scan Processing Results:

Each model below comprised of 16 scans prior to merging.

Equipment Used

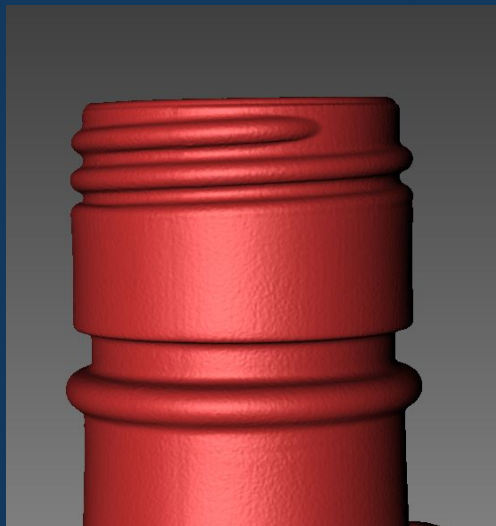
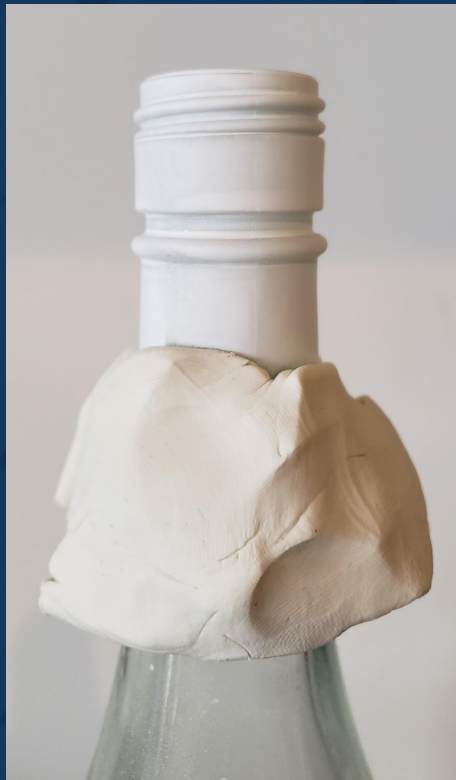


Polyga Compact S1



Lightweight Rotary Table

Scan Results



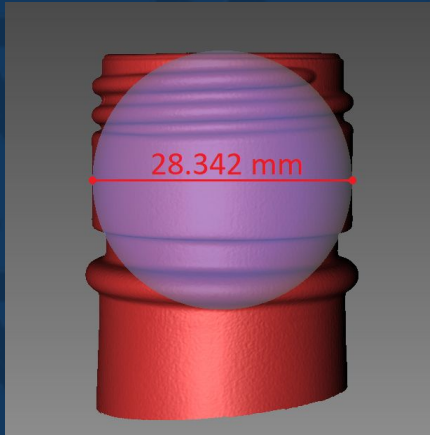
[Click Here to Download Samples](#)

Scan Results

Measurement Data

The close-up scan of the bottleneck was taken of the object with the HDI Compact S1 at a stand-off distance of 180 mm. Modelling clay was used to create geometry to align the scans. Using the measurement tool in Flexscan3D, a sphere was created to measure the width of the bottleneck. Measurement data is recorded in the table below.

Object Scan Diameter Measurement	28.342 mm
Actual Diameter Measurement	28.350 mm



Contact

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