

3D Scanning Handguns

Handguns come in many different sizes, shapes, materials, calibers and more. In addition, there are many additional options to consider when purchasing a handgun including holsters, laser sights, flashlights, larger capacity magazines, grips and much more.

The Problem

Numerous aftermarket companies that design and build these accessories need to have an accurate CAD model of any given handgun in order to design their products to fit precisely. Unfortunately most gun manufacturers will not release their CAD data to anyone for competitive reasons.

Since most modern hand guns have many parts and very complex and organic shapes trying to create a CAD model of these guns through manual methods is not possible. This is especially important when design holsters as many of today's holsters are made of a composite material that fits the guns shape precisely.

Add on laser sites and flashlights also present similar problems as it is important to have an accurate CAD model of a particular gun so the product can be designed to fit and function correctly.

The Solution

Most gun manufacturers will not release their 3D CAD data to any outside companies for competitive and confidentiality reasons. Because of this, many of these aftermarket companies contact EMS to 3D scan these guns and create a highly accurate, highly detailed 3D CAD model. This allows them to design precise fitting accessories in a very short time. To do this EMS uses their Konica-Minolta Range 7 because it works especially well on dark surfaces without the need to "treat" the surface with paint, dust or other substances. Most laser and white light scanners don't scan dark or shiny surfaces very well and must paint or dust the part. Since guns have many moving and precise fitting parts spraying them with something is not an attractive option.

Conclusion

When it comes time to scan complex guns of any size or shape EMS has the equipment and know-how to get the project done.

To learn more visit www.ems-usa.com



3D Scanning a handgun with a Konica-Minolta Range 7



Laser scanning a handgun without requiring surface treatment



Numerous sample CAD models from scan data. Inset shows detail in grip area