

Recover Fingermarks from Fired Ammunition Casings

The act of manually loading ammunition into a gun's chamber or magazine may leave fingermarks that can be recovered and identified. However, in the vast majority of cases, the extreme flash temperature and gaseous blowback that ammunition is exposed to when a gun is fired will burn away any biological residues, effectively removing the fingerprint.

Now, using the RECOVER technique, fingermarks may be visualised *even* after biological residues have been removed with in-house tests having demonstrated the technique to be highly effective at recovering marks from fired ammunition casings.



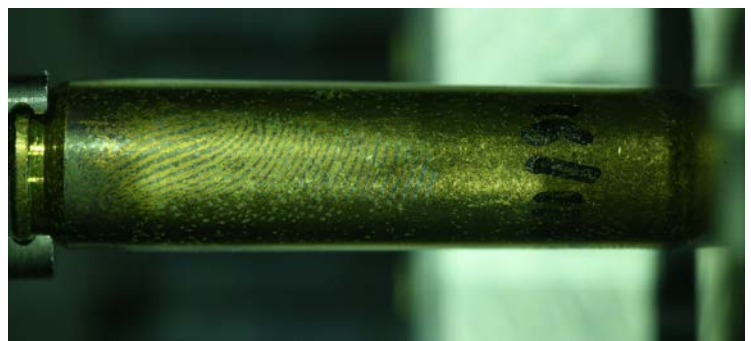
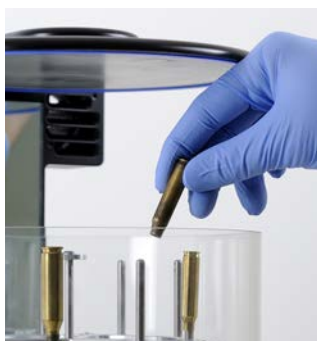
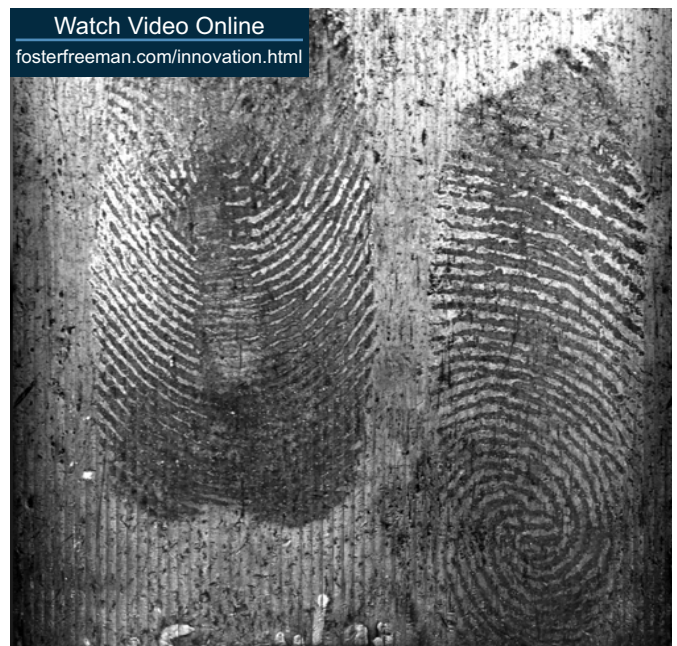
Success Rates Greater than 1:4

When a fingermark remains *in situ* on a metal object for a period of time, the naturally corrosive effect of the fingermark residues creates minute changes in the metals surface energy. RECOVER exploits these minute changes to reveal fingermarks even after all physical trace has been removed.

Previously, fingerprint recovery from fired ammunition had a success rate of less than 1%, extensive testing of the RECOVER system, using a large selection of bullet calibres fired by a variety of firearms, has seen success rates greater than 1:4*.

In testing, optimum results were achieved when marks were photographed under coaxial illumination using a Cylindrical Surface Unwrapper to create a 2-D image of the print.

* Tests conducted in multiple locations on cartridges hand-loaded 30-minutes prior to firing.



After being treated in the RECOVER chamber, fingermarks are clearly visible to the naked eye. To obtain the best possible image, the fingermarks are then photographed and digitally unwrapped to create a 2-D image