

Fingerprints

Systems for the Detection, Capture & Enhancement
of latent fingerprints

foster+freeman

Forensic Science Equipment



foster+freeman

Improving the Quality of Forensic Evidence

Foster + Freeman are innovators in the design and manufacture of systems for the examination of questioned documents, latent fingerprints, trace evidence and shoe prints.

Founded in 1978 the company's reputation has been built upon the development of leading edge forensic technology.

Foster + Freeman products are used by all major police forces and forensic science laboratories worldwide as well as government agencies, commercial and private organisations such as homeland security, immigration authorities, security printers, lottery companies, university departments and national libraries.

With offices in the UK and the USA, and a global network of agents and distributors, Foster + Freeman are able to provide customers with a high level of technical support, installation and training.

Detect, Capture and Enhance latent fingerprints

Industry leading products built around pioneering technology

Used in over 150 countries

Quality in design and construction

Worldwide product support

MVC/D cabinets

a range of cyanoacrylate fuming cabinets



MVC/D cyanoacrylate fuming cabinets are the latest and most advanced range of systems for the development of latent fingerprints with cyanoacrylate monomer.

The cabinets can be operated in either manual or automatic mode and have been designed to accommodate both cyanoacrylate and PolyCyano UV, a new one-stage cyanoacrylate/fluorescent stain for developing fingerprints which eliminates the need for further chemical treatment.

Designed to ensure the highest level of safety, each MVC/D cabinet utilises internal, high capacity, fan driven, activated carbon filters to cleanse the chamber after fuming. Automatic safety interlocks prevent the door from being opened during a fuming cycle and until the fume cleansing process has been completed. The system is self-contained and low maintenance, eliminating the need for external fume extraction.

UV-C DNA decontamination lamps are available as an optional accessory for all MVC/D cabinets. Emitting high energy shortwave UV at 254nm, the lamps will destroy exposed DNA adhering to the internal surfaces of the cabinet. Safety features ensure that the lamps are not activated unless the cabinet door is securely closed.

- Available in three sizes: 200 litres, 632 litres, & 1876 litres
- Automated and Manual modes of operation
- Compatible with PolyCyano UV one-stage fuming process
- Self-contained cleansing system, no external venting required

MVC lite portable cyanoacrylate fuming chamber

MVC lite is a fully portable fingerprint fuming chamber for the safe and controlled development of latent fingerprints at the crime scene.

Mounted within a rugged weather-proof case, the MVC lite retains all the features of a full sized fuming chamber and can be used for the development of latent fingerprints using both cyanoacrylate and PolyCyano UV, the cyanoacrylate/fluorescent stain that eliminates the need for subsequent chemical dyeing.

A fully automated system with safety interlocks and self contained fume cleansing, the MVC lite maintains a safe environment for the rapid visualisation of fingerprints on evidence at the crime scene.

Durable, Automatic, Safe & Versatile

- High quality construction with rugged weather-proof carry case
- Pre-programmed fuming cycles with optional manual overrides
- Self-contained fume cleansing process and safety interlocks
- Compatible with cyanoacrylate and PolyCyano one-stage treatment



SUPERfume Crime scene cyanoacrylate fuming system



SUPERfume is a cyanoacrylate fuming system for developing latent fingerprints in situ at major scenes of crime. Designed to treat domestic rooms, offices, garages and vehicles, the kit eliminates the need for dismantling fixtures and fittings and transporting items back to the laboratory for processing.

The kit is designed as individual components that are easily transported and deployed, comprising a humidifier, two cyanoacrylate evaporators with integral dispersing fans, and an activated carbon filter unit. The powerful 2.3kW humidifier can quickly generate the optimum 80%RH in most closed environments. After fuming, the filter system is activated to remove any residual cyanoacrylate vapour.

The complete kit, including warning signs, cyanoacrylate monomer and cabling is supplied in three carrying cases.

- Transforms an area of up to 100m³ into a fingerprint fuming chamber
- For use in rooms, garages and outdoors with a fuming tent
- Cost effective, efficient & portable



PolyCyano UV

the one-step fluorescent fuming process

The Foster + Freeman MVC/D range of cyanoacrylate fuming cabinets and the MVC lite portable fuming systems are designed to accommodate the use of the PolyCyano UV one-stage chemical staining process.

Exclusive to Foster + Freeman outside of Japan, PolyCyano UV dramatically reduces fingerprint processing times by combining cyanoacrylate monomer with a fluorescent stain in a one-stage fuming process inside the cabinet.

Whilst standard Ethyl-2 Cyanoacrylate evaporates at 120°C PolyCyano UV requires further heating to 230°C. To achieve this increased evaporation temperature all Foster + Freeman MVC Cabinets now feature a dual-temperature heating unit, while older cabinets can be upgraded in the field.

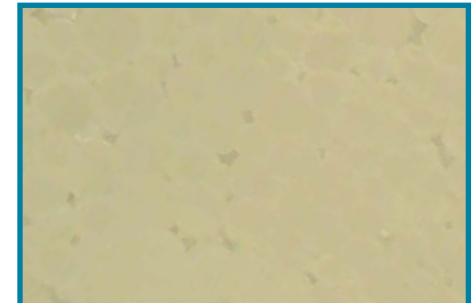
Once evidence has been treated with PolyCyano UV, fingerprints can be seen to fluoresce brightly under appropriate illumination; Crime-lites are ideal for such examinations.



Porcelain



Polystyrene



Plastic shopping bag



PolyCyano UV treated fingerprints fluoresce brightly under UV illumination

TFD-2

Thermal Fingerprint Developer



Designed and manufactured by Foster + Freeman, the TFD-2 marks a breakthrough in the detection and enhancement of latent fingerprints using non-destructive thermal development.

The first of its kind, the TFD-2 is an automated, high-throughput device capable of developing fingerprints on large quantities of documents, dramatically reducing examination time and manpower requirements.

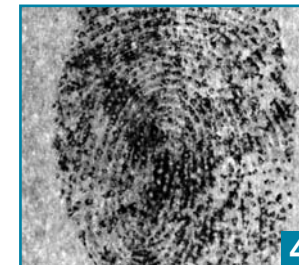
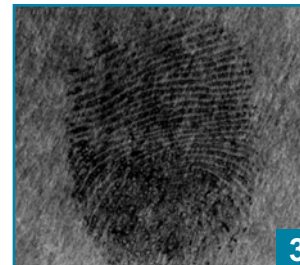
The simple process of heating a document to an optimum temperature induces a chemical reaction between the latent fingerprint and the paper to produce a fluorescent by-product that is visible under intense blue or blue/green illumination when viewed through an appropriate filter.

Controls maintain the optimum heating temperature and carriage speed to ensure that documents are undamaged. Developed fingerprints remain visible for more than 2 years.

- Latent prints can be detected in seconds
- No chemical process required
- Visible prints feature excellent ridge detail and contrast
- Can be used sequentially with chemical treatments

Fluorescent images of fingerprints processed with the TFD-2 and grayscale reversed using the DCS fingerprint workstation

1. Newspaper
2. US dollar bill
3. Standard white office paper
4. Notepaper
5. Chinese Yen



Crime-lite ASV

anti-Stokes laser viewing enclosure

The Crime-lite ASV is a bench-top viewing enclosure for the stimulation of infrared activated anti-Stokes fingerprint dusting powders.

Anti-Stokes powders absorb invisible infrared radiation and re-emit the energy at visible wavelengths, a process that is the reverse of standard fluorescence.

Excellent results can be obtained with fingerprints on 'busy' multicoloured backgrounds and on backgrounds which fluoresce at similar wavelengths to standard fingerprint treatments.

- Bright visualisation of fingerprints under IR
- Minimises the impact of background fluorescence
- Safe Class 1 laser viewing enclosure



Anti-Stokes powder is applied using a magnetic brush.



Fingerprint viewed under intense white light illumination



Fingerprint viewed under Crime-lite ASV illumination



Fingerprints on a drinks can fluoresce brightly while background fluorescence is greatly reduced

DCS 4

Comprehensive workstation for the capture & enhancement of latent fingerprints

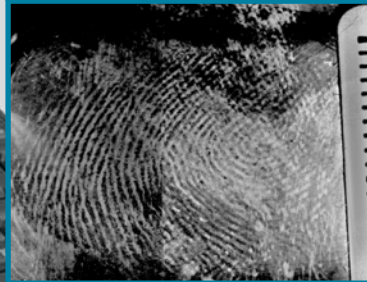
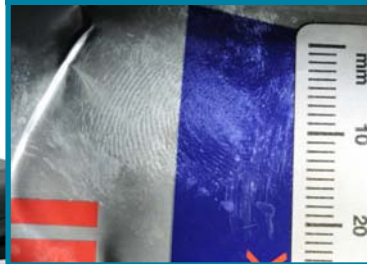


The DCS™4 is a dedicated workstation for processing latent fingerprints offering the complete solution to their examination from capture to enhancement to courtroom presentation.

The workstation consists of a high specification digital camera, multi-wavelength lighting, a powerful desktop PC and dedicated application software. The key to the effectiveness of the DCS™4 is the simple way in which enhancement software is made available to the operator, allowing complex operations to be applied in just a few clicks of the PC mouse.

- Image capture using a high resolution digital camera
- Software toolboxes for effective image enhancement
- Audit trail records details of all image processing

Fingerprint on a drinks can treated with cyanoacrylate



Fingerprint is recovered from a 'two-tone' background



Fingerprint on a complex background treated with ninhydrin



Crime-lite Imager

Semi-automated latent fingerprint capture system



The Crime-lite Imager, an evidence recording system, is designed to meet the varying demands of fingerprint photography by providing optimum illumination for all common treatments and backgrounds.

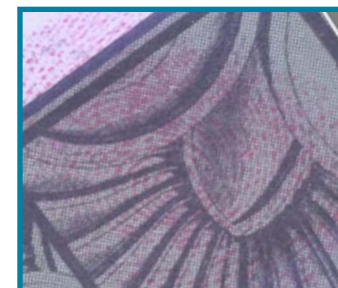
Combining advanced imaging and multi-wavelength illumination with simple to use software, the Crime-lite Imager enables operatives with varying degrees of photographic expertise to consistently produce high quality results.

Using the Automatic Mode of operation, effective imaging and enhancement can be achieved by selecting a pre-set evidence type from the drop down menu. The image of the evidence is automatically enhanced in several ways with results being displayed as thumbnails. The best results may be examined as full-screen images. In Advanced Mode the operator may select and apply specific image enhancement processes with full manual control of lighting and filters.

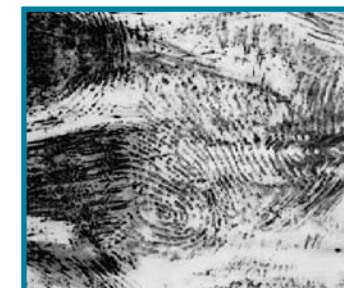
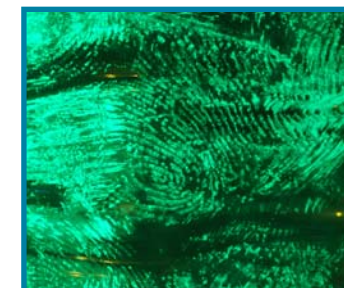
PolyCyano UV
fingerprints on plastic bag



Ninhydrin
fingerprints on paper



BY40
fingerprints on plastic bottle



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