

ESDA[®]2

THE IMAGING SYSTEM FOR INDENTED WRITING

foster+freeman



ESDA[®]2- the improved system for detecting indented writing on questioned documents

New features include:

- Toner pad for cleaner image development
- Retains the original cascade development technique
- Processes documents up to A3 size
- Replaceable vacuum bed
- Aerosol hood for 'powder cloud' development



ESDA[®]2

Outstanding technology with improved design

ESDA[®] is the leading technology for detecting indented writing on questioned documents. ESDA[®] works by creating an invisible electrostatic image of indented writing, which is then visualised by the application of charge sensitive toners. The sensitive imaging process reacts to sites of microscopic damage to fibres at the surface of a document, which have been created by abrasive interaction with overlying surfaces during the act of handwriting.

ESDA[®] is the ideal forensic tool. As well as being simple to operate, it produces positive, life-size transparencies of indented writing without damage or contamination to original documents and without interference to other forensic tests, and documents may be processed repeatedly without loss of sensitivity.

The Cascade Developer

This is the standard image development system for ESDA and consists of carrier beads coated with specially formulated toner powder that becomes tribo-electrically charged when in contact with the beads. When 'cascaded' over the electrostatic image of the document the charged toner becomes dislodged and is attracted to the areas of indented writing. The beads are recovered from the collection tray on the side of the instrument for reuse. Loose toner which may fall on to the background is recaptured by the carrier beads and removed to maintain a good image contrast.



The Toner Pad allows the operator more control over the image development process.

The Toner Pad development system

Traditionally, cascade developers have been used in the image development process but ESDA[®]2 is supplied with a new system - the Toner Pad - a technique that ensures a cleaner operating experience while maintaining excellent sensitivity.

A soft, brushed-textile pad, impregnated with toner is simply wiped across the surface of the imaging film to produce visible images of any indented writing present. Each hand held pad, has an integral reservoir of toner, sufficient for 200 images, which is simply dispensed into the pad, prior to use, with a light tap. The new system is cleaner to use; it removes the need to handle loose powder and, as the concentration of toner in the pad is easy to control, it eliminates problems associated with under-or over-toned cascade developer.

The Toner Pad gives the operator better control of the image development process as it can be applied to specific areas of interest. It also eliminates the need to constantly recover cascade beads.

The Aerosol Hood development system (optional accessory)

Now available as an accessory, the Aerosol Hood is an alternative to Cascade Developer and the Toner Pad. It dispenses a fine powder cloud of toner which is attracted to the electrostatic image of any indented writing as it settles over the document.

The clear acrylic hood enables the operator to monitor image development to obtain optimum results. It uses the same toner as the cascade developer.

Please quote: **Part No. E/ADHOOD**

New A3 size bed with airborne toner filter

The larger vacuum bed and wider imaging film enable documents up to A3 size (310mm x 440mm) to be processed. The new stainless steel vacuum bed is also easily replaced.

ESDA[®]2 also features a powerful extraction fan and filter to remove airborne toner. Air above the instrument is drawn around the sides of the vacuum bed and through the filter to create a cleaner operating environment.

Permanent records

Images of indented writing can be made permanent by the simple process of laminating the developed images with transparent self-adhesive plastic film.

ESDA[®]2 – the complete system

ESDA[®]2 is designed for examining all types of documents up to A3 size and is supplied with one reel of imaging film, cascade developer, 50 toner pads, a pack of fixing film and document humidifier. Foster & Freeman are always pleased to offer advice, training or routine equipment maintenance, and ESDA[®]2 is just one of a range of innovative instruments available to forensic science laboratories for improving the quality of evidence.



Foster & Freeman Ltd reserve the right to alter the specification of ESDA[®]2 or any accessories without prior notice.

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