

foster+freeman

Forensic Science Innovation

# VSC<sup>®</sup> 8000/HS

for document examination

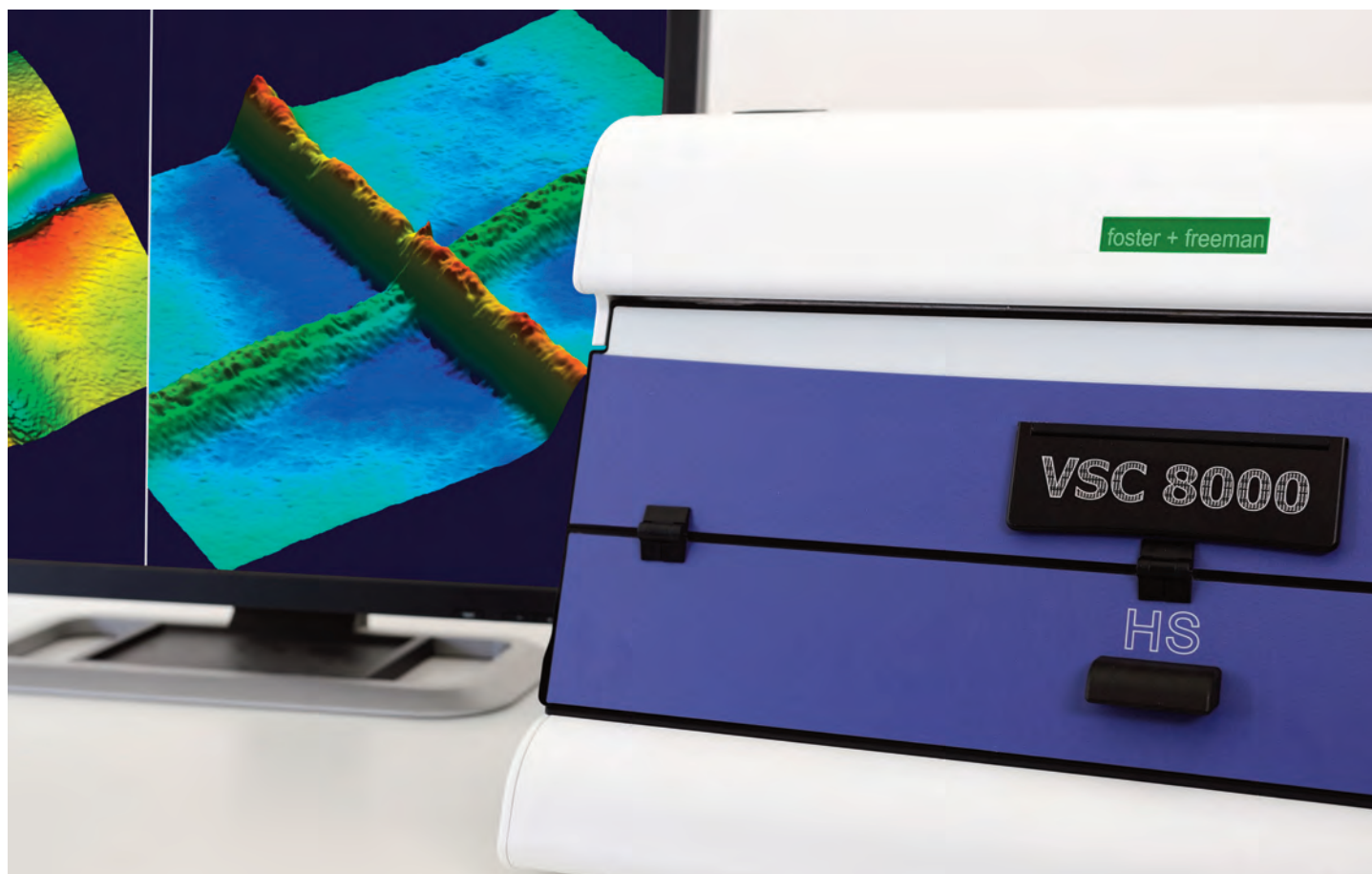


## The Essential Video Spectral Comparator

Examine and Authenticate  
Passports and ID Cards  
Security Documents  
Banknotes and Cheques

# VSC<sup>®</sup> 8000/HS A STATE-OF-THE-ART WORKSTATION

The VSC<sup>®</sup>8000/HS combines sophisticated digital imaging and multi-wavelength LED technology with a clear and efficient software interface, to provide a complete solution to the examination of all forms of questioned documents.



## Trusted Technology

The VSC<sup>®</sup>8000/HS's advanced design is foster+freeman technology at its best, trusted by immigration authorities, government agencies and forensic examiners worldwide

## Reveal Detail

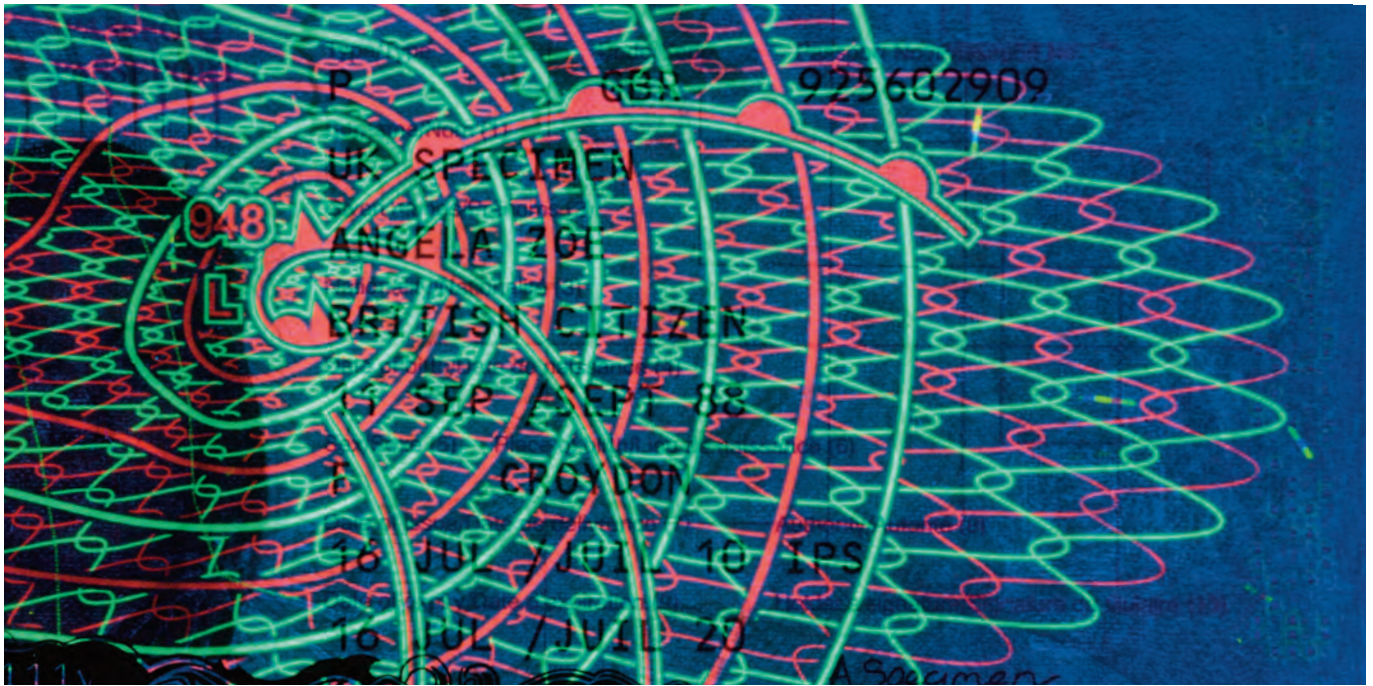
Using a high-precision 12MP camera in combination with dedicated examination tools to observe covert security features, confirm document authenticity, or reveal evidence of forgery.

## Excellent Image Quality

Using **SRI** Super Resolution Imaging, the VSC<sup>®</sup>8000/HS provides sharp, bright images of documents at the highest magnification.

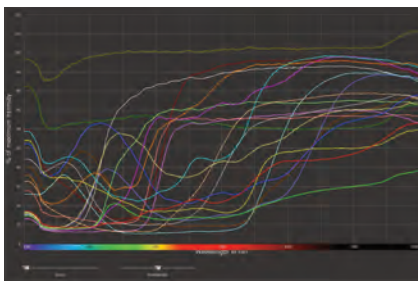


# VSC® 8000/HS SYSTEM FEATURES



## 12MP **SRI** Technology

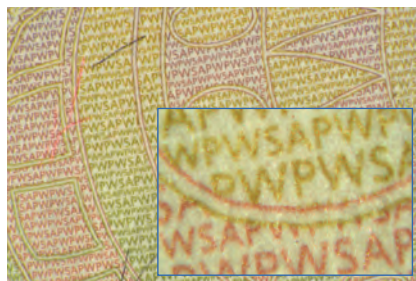
Unique to the VSC®8000/HS, Super Resolution Imaging (**SRI**) is an optical system providing excellent clarity and image resolution of documents captured using a high-precision 12MP camera.



## Microspectrophotometer

Non-destructive spectral analysis of documents can identify differences in ink and paper formulations.

Absorption, Reflectance, Fluorescence & Transmitted spectra can be captured in real time and displayed on-screen in a simple graphical format.



## 250x Optical Magnification

Interrogate documents in microscopic detail using the VSC8000/HS's advanced optics technology.

Use up to 250x optical magnification (2400x digital) to scrutinise evidence of tampering and the presence of security features including microprint and taggants.



## Integrated XY Stage

A motorised XY translation stage allows fast and precise positioning of documents at high magnification.

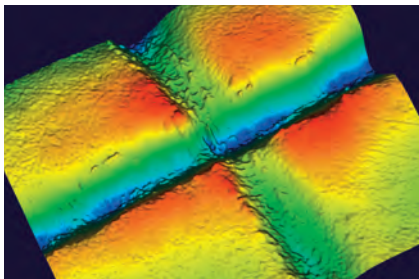
Smooth sub-millimetre movements are controlled via simple on-screen controls.

# VSC® 8000/HS SOFTWARE



## Intelligent Software

VSC® Suite is a software package that maximises the effectiveness of the VSC®8000/HS by providing the user with complete control of VSC® functions via a fluent quick-access toolbar.



## 3-Dimensional Imaging

Derive a 3D model of a documents surface topography in order to better analyse security features, pen-tip strokes and other impressions in paper.

Colormap, invert, and rotate images throughout 3-dimensional space to aid analysis.



## Automated Examinations

Automated examination procedures greatly increase both the speed and efficiency of examinations.

Multiple images are displayed as thumbnails stored with VSC examination settings.



## Calibration & diagnostics

To ensure accurate and repeatable results, the system can be calibrated using NIST traceable standards.

Simple automated diagnostics check the status of motors, light sources and filters. Requires optional VSC Calibration Tool



# VSC® 8000/HS APPLICATIONS



*Evidence of tampering*



*UV fluorescent fibres and ink*



*Infrared fluorescent ink stamp*



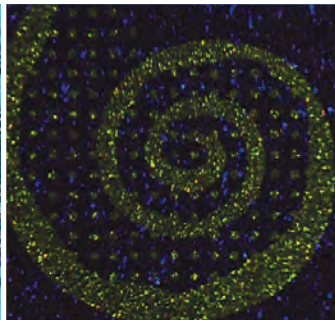
*UV phosphorescent feature*



*Anti-Stokes security feature*



*OVD feature on banknote*



*Circular polarised feature*



*Oblique illumination of embossing*

## Multi-spectral illumination

Directional, multi-spectral light sources from UV, through the visible spectrum, to IR can reveal details that are invisible under white light, including semi-covert security features designed to respond at set wavebands.

- UV activated features
- OVDs & holograms
- Anti-Stokes features
- Retro-reflective features
- Optically variable inks
- Phosphorescent inks
- Watermarks
- Multiple laser images
- Latent images
- Birefringent features
- See-through register
- Stamps and embossing



## Alterations & Counterfeits

Reveal evidence of document abuse including page or photo substitution and chemical erasures.

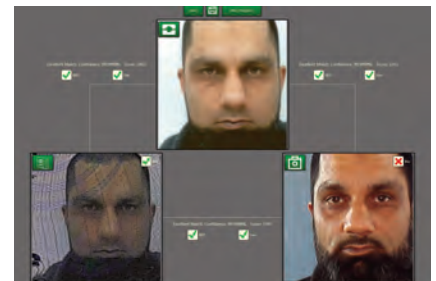
Analyse inks and papers using infrared examination, hyperspectral imaging and the system's integral microspectrometer.



## Advanced Security Features

VSC software can auto-detect e-passport data and decode barcodes, Machine Readable Zones (MRZ), and concealed information.

Software is regularly updated to include examination procedures for new security techniques when adopted.



## Facial Recognition

Identify an individual by comparing their physical appearance with the photo(s) present in a passport or ID document.

An optional accessory, the VSC Facial Recognition Kit is powered by the **gemalto** Live Face Identification System.

# VSC® 8000/HS ACCESSORIES

For further information on any of the accessories listed below, please see the 'VSC8000/HS Accessories' datasheet.

## Document and banknote databases

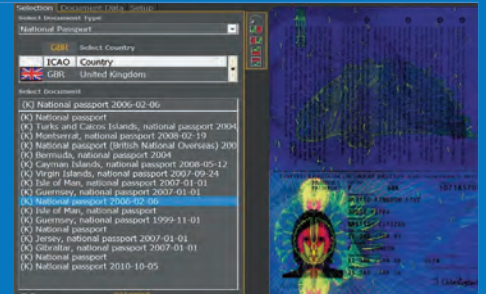
Two reference databases showing the security features found on travel documents, including passports and ID cards, and banknotes.

### Banknotes database

Information and images banknotes from 184 countries

### Security Documents database

Information and images of passports, ID cards and Driving Licences from 197 countries



## Microscope Options

A range of high magnification imaging systems providing input into the VSC®8000/HS via a high resolution video camera. *For full details see 'VSC Microscopes' datasheet*



### Nikon Microscopes

Contact Foster+Freeman to request further details



### Leica Microscopes

Contact Foster+Freeman to request further details

### DVM Microscope

Digital Video Microscope with UV & white light LEDs provides up to x2290 magnification

### PVM Microscope

Portable Video Microscope with 3x optical zoom provides up to x249 magnification



## E-Passport and ID Card Readers

A choice of stand-alone e-Passport readers that can operate independently of the VSC®.

### Reader Option 1A

- OCR, MRZ, RFID & CARD reader
- Stand-alone or VSC® integrated

### Reader Option 2A

- High-performance flatbed reader
- 500 DPI high resolution imaging
- Multiple wavelength illumination
- OCR, MRZ, RFID

### Reader Option 3

- RFID and CARD reader with CCID interface
- USB connection to PC

## Examination Accessories

### VSC Facial Recognition Kit

A choice of Standard or Experts hardware for the capture and comparison of facial images. *See dedicated brochure for further details*

### gemalto® Live Face Identification System

Powerful facial comparison software. Compare passport photo with e-chip and live images.

- High match accuracy
- NIST report available

### Invisible Information Decoders

Software to display embedded IPI and ICI on passports and ID cards. Uses Scrambled Indicia Technology supplied under licence from Graphic Security System Corp.

### Letterscreen++ Decoder

Software to display unique microtext wave detection and verification by special algorithm based on personal data in MRZ. Supplied under licence from Jura, Hungary

### Document Support Weights

Set of three non-marking document weights

### UV Polarised Light Viewer

UV polarised light viewer for VSC®8000 (specifically to view Swiss passports).

### Magnetic Security Feature Imager

Magnetic ink profiler with USB connection.

### Quartz Glass Holding Plate

200 X 200mm Quartz glass plate to hold documents flat during examination.

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