

Nailfold Video Capillaroscopy for Scleroderma Screening

# INSPECTIS Digital Capillaroscope

For Assessment of Pathological and Morphological Changes in Skin Capillaries

## Non-invasive and Efficient Diagnostic Tool

Capillarocopy is a non-invasive and safe method for morphologic examination and analysis of microcirculation abnormalities related to rheumatic disease, especially systemic sclerosis. In particular, Capillaroscopy is recognised as an efficient tool to assist in the diagnosis of diseases such as primary orsecondary Raynaud's phenomenon, systemic sclerosis, systemic lupus erythematosus, mixed connective tissue disease, vasculitis or other disorders.

Inspectis high resolution Digital Capillaroscopy microscopes deliver crisp live images driven and supported by INSPECTIS© software with powerful and intuitive tools for consistent and efficient examinations, reporting and follow-up.



Normal Pattern



Early Scleroderma Pattern



Active Scleroderma Pattern



Late Scleroderma Pattern

### Secure and adaptable Database and Case Management

All patient and examination data is held in an encrypted database. Multiple databases may be created and managed for easy handling of specific cohorts or studies. Focused databases can be fully edited, and cases can be copied or moved between databases. Powerful search function finds specific patient information and patient examinations. Adaptable for local or network.

#### **Comprehensive and Flexible Assessment**

Tools meeting all the needs of internationally recognised capillaroscopy examination techniques are easily accessible and additional tools can be used to extend the depth of study if required. Assessment of saved images can be made during or after an examination. Accuracy is assured with pre-calibrated lens magnifications.

#### **Consistent and Efficient Workflow**

Hand mapping linked imaging and data storage functions provide guidance to the user during the examination, assessment and follow-up tasks assisting quick and methodical examinations. Default file names tag each image with locational and temporal data. Fingers can be flagged for follow-up and the images from the previous examinations are easily accessible any time.

#### **Reliable Automated Data handling**

Assessed images are saved tagged with all the added information including comments, counting info and measurements. Key capillaroscopy parameters can be automatically collated into an examination summary data table which is exportable as a spreadsheet.



"Designed for Ergonomic use"

### Developed with emphasis on time efficiency



INSPECTIS<sup>©</sup> Capillaroscopy software offers the doctors intuitive yet powerful tools for Scleroderma Screening.

Advanced image analysis and measuring features ability to perform follow-up and check-ups and ability to produce medical reports under national and international standardized guidelines

Best instrument for assessment of pathological and morphological changes in skin capillaries.

INSPECTIS <sup>©</sup> CAP Software	Basics	Pro
Vivid and responsive live video display	•	•
Easy freeze and capture of calibrated images	•	•
Movable 1mm square for assessing capillary density	•	•
Counting and notation tool for Capillaries and abnormal morphology with customizable settings	•	•
Size (linear) assessment tool calibrated to working lens	•	•
Contrast, Brightness and Colour Control	•	•
Calibrated Measurements	•	•
Adjustable Grid, Rectangle, Crosshair	•	•
Manual Windows based folder and file management of images and data	•	•
Movable 50 microns gauge for quick capillary thickness assessment		•
Patient record with customizable data Fields		•
Patient Examination retrieval		•
Examination Data Summary Sheet presenting all assessed data		•
One click entry of assessed data to examination summary sheet		•
Hand and Finger image and data mapping and workflow assistance		•
Follow up finger tagging		•
Detailed notation entry with customizable template creation		•
Report creation in PDF with Customizable attributes		•
Audio Memo and Video Recording, fully integrated		•
Compare live to still or still to still images (live with saved or up to 4 saved images)		•
Overlay Images, compare with adjustable transparency		•
Capillary Image Contrast Enhancement		•
Image gallery		•
Case image and data export		•
Examination data to worksheet export (Licensed Microsoft Excel installation required)		•
Advanced Search and Sort		•
Encrypted Database for complete patient case management features		•
Multiple database handling		•
Create new databases		•
Edit, copy and move cases between databases		•
Auto and manual data base back up		•

"Configurable with different Hardware and Software levels"

### System Specifications

System	
Sensor Type	1/2.5" Colour CMOS 2592H x 1944V Pixels
Aspect Ratio	4:3 at 5MP and 3MP mode. 16:9 at Full HD mode
Pixel Size	2.2 x 2.2 μm
Interface	USB 3.0 (backwards compatible with USB 2.0)
Video formats @ frame rate (max)	2592×1944 (5 MP) @ 15 fps, 2000 x 1500 (3MP) @ 22 fps, 1920 x 1080 (Full HD) @ 30 fps, 640 x 480 (binning) @ 57 fps
Adjustable parameters	Brightness, contrast and resolution
Software	Nailfold Capillaroscopy Basics Nailfold Capillaroscopy Pro, including patient journal management system
Dimensions	135 x 50 x 37 mm
Weight	205 g
Stand Mount	Standard Camera mount UNC 1/4" - 20

Optics	
Fix focal Lens 300x	Achromatic high-resolution lens with built-in light, FoV ~ 1.2 x 0.9 mm @ 3MP $$
Fix focal Lens 200x	Achromatic high-resolution lens with built-in light, FoV ~ 1.8 x 1.35 mm @ 3MP $$
Varifocal Lens 15-45x	Achromatic varifocal lens with built-in polarisation filter
Illumination	Integrated pure white LED ring light, Colour Temperature 5800K (Kelvin)

#### Ordering numbers Inspection Systems:

Item name	Order No.
Inspectis Digital Nailfold Capillary System Basics	DM-01
Inspectis Digital Nailfold Capillary System Pro Self-Install	DM-02
Inspectis Digital Nailfold Capillary System Pro Pre-Install	DM-03
Inspectis Digital Microscope System Pro Extensive	DM-04

#### Ordering numbers Optional Accessories:

Item name	Order No.
300x High-resolution Lens with Built-in Illumination	IN-013
15-45x Varifocal Lens with Built-in Polarised Illumination	IN-017
Immersion Oil Dropper	IN-024
Single-pedal Foot Switch	IN-033
Triple-pedal Foot Switch	IN-034
Capillaroscope Stand with XY-Stage	IN-035
Carrying Case	IN-037
Health Care Cart	IN-040









**Quality of Inspection** 

Inspectis Optical Systems Stockholm, Sweden

Certified ISO 13485 Medical devices quality management systems

