



**AVS HAS BEEN PROVIDING THE PULP AND PAPER INDUSTRIES WITH CUSTOM IMAGE ANALYSIS INSTRUMENT SOLUTIONS SINCE 1990.**

**DESIGNED, DEVELOPED AND MADE IN THE USA.**

**BACKED BY FAST TECHNICAL SUPPORT AND PERSONAL SERVICE.**

**WHAT CAN WE SOLVE FOR YOU?**

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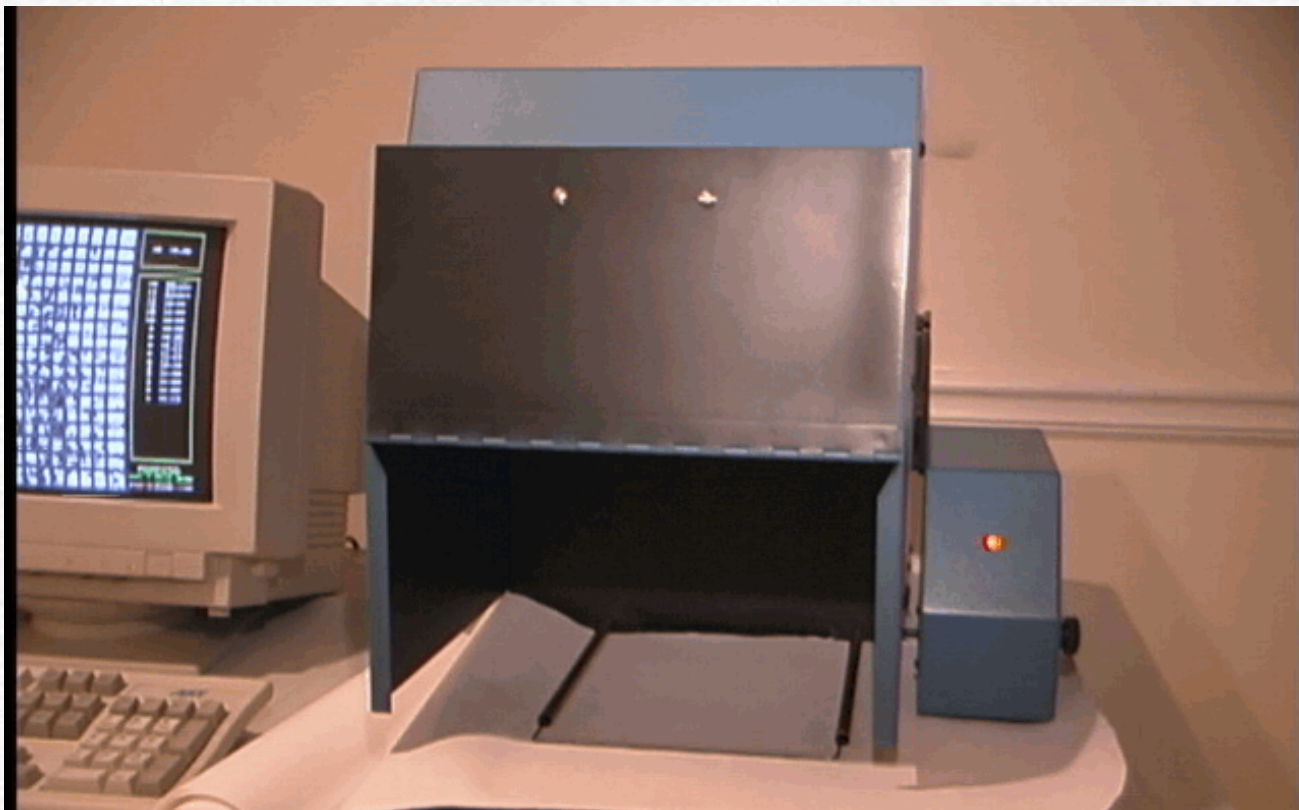
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## **UFA-2000 FORMATION TESTER**

[IMAGES](#)



A uniquely designed transmitted light imaging platform, combined with specific software algorithms to give a single unit formation index that correlates with visual assessment. +/- 1 Unit repeatability make this unit the best in the industry. Complete basis weight compensation, cold light imaging and easy automated strip testing for Cross Machine profiles.




70 sq.cm. sample area  
Simple 0-100 index

Easy to use menu driven operating system  
Real time image display on screen  
Floc and Void test  
Histograms of all data  
Over 11,000 data points measured  
Mimics human vision  
Report archiving to disk  
RS-232 data output  
Cold light imaging  
Many user definable features  
Automatic basis weight adjustment - tissue to board  
CD profile reporting - adjustable paper feed intervals

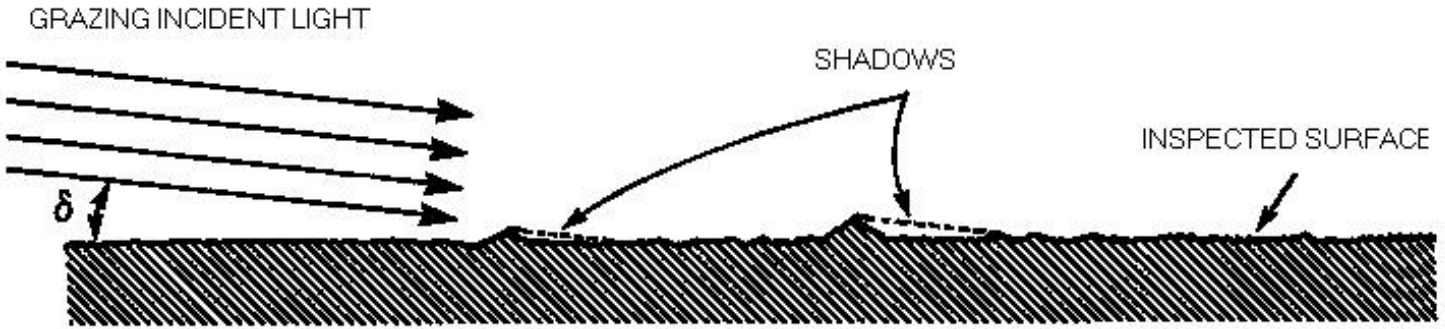
## **PIN-2000** PINHOLE TESTER

### IMAGES



The system utilizes high intensity direct specular illumination and state of the art CCD camera imaging. Advanced image algorithms developed by AVS are specially designed to give repeatable results. In a few seconds, a complete report is generated on screen with count, total square millimeters and size categories. A profile report for CD strips is user programmable for intervals as close as 4 inches. A profile report is also user programmable for up to five individual size ranges. Illumination adjustment for basis weight and color is automatic.

- FULL GRAYLEVEL IMAGE ON SCREEN
- LARGE 3x4 inch SAMPLE MEASUREMENT AREA
- SOLID STATE IMAGING
- RS-232 OUTPUT TO HOST IF DESIRED
- AUTO FEED FOR CD PROFILES
- AUTOMATIC BASIS WEIGHT ADJUSTMENT
- USER SELECTABLE REPORTS



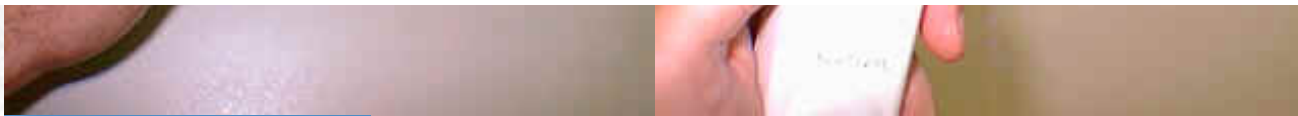
introduces a new low angle illumination smoothness/texture analyzer. Utilizing solid state cold light imaging and state of the art CCD camera design, advanced image algorithms mimic human vision. In a few seconds, a single repeatable index is generated relating to the visual surface appearance of the paper. Compensation for lighting and sample color is automatic.

- FULL GRAYLEVEL DISPLAY ON SCREEN
- LARGE 3X4 INCH SAMPLE AREA
- SOLID STATE COLD LIGHT IMAGING
- SMOOTHNESS INDEX
- OBJECT TOPOGRAPHY
- VACUUM TABLE KEEPS SAMPLES FLAT
- RS-232 FULL DATA OUTPUT

**SCOPE-2000** CONTACT MICROSCOPE FOR PAPER

IMAGES





- Full Featured commercial grade Microscope
- CCD Camera built into lens head
- Snap on lens from 30x-750x
- Solid State Light Source integrated into lens head
- Contact focus , perfect for paper imaging
- Handheld, point and shoot
- No Microscope stage or limitations like conventional
- High quality color image viewable on TV monitor
- Optional image capture and analysis systems and software available
- Optional video image printer available

Two models :

- Portable Battery operated with integrated 32 image storage to PC card memory, and 2inch color LCD viewing screen
- Video out for monitor connection or image capture and analysis.
- Desktop - AC adaptor and cradle - Stores 2 images
- Video out for monitor connection or image capture and analysis.



**PIA-2000**      **DIRT COUNT ANALYZER**      [IMAGES](#)

The PI A-2000 uses an Hewlett Packard (HP) Scanner with 600DPI optical resolution to scan the paper in 256 graylevels. It pre-scans the sheet and allows the user to select a thresholding method that will then be programmed for that grade. This Grade selection is then chosen from the Main menu for all future tests of this grade. The program algorithms are optimized for data accuracy, speed and minimum system requirements, This allows a low cost dedicated test bed in the lab that can be easily maintained with maximum up time. All operation are accessible through 3 40 column easy to read screens. A quick keys box

indicates what can be accessed from each screen. The Features menu , where program options are set for reporting, image screen attributes etc. can be locked out once set. Other program configuration features allow company title for all screens and reports, auto date file archiving, and auto pre-scan for every sample.

- Full 256 Graylevel determination
  - 400/600/800 DPI spatial resolution
  - Visual threshold tool with false color speck ID
  - Full DPI resolution Zoom of Region of Interest within sample
  
  - Auto archive with date for filename
    - Archive years of tests on single Hard Drive
  - RS-232 raw data output
    - ASCII file spreadsheet compatible output
  - User selectable Automatic dirt determination threshold
    - Fixed absolute threshold
    - Expressed as percentage difference from background
    - Expressed as graylevel offset from background
  - Any sample size up to 8.5"x11", square, round or rectangular
  - User definable edge offsets to measurable area
  - 4 user programmable size category bands for separate reporting
    - Ex: Report separate values for sizes .04-.8
  - Measure Dark or Light particles in contrast to background (Stickies)
  - Sq.mm. and/or Count profile of all measurements plotted about mean
  - Automatic accumulation of sample results, no requirement to tell unit how many samples you want to test
  - Simply choose sample size and all parameters are accumulated automatically for each test
  - Report Results
    - PPM per sample and accumulated
    - Sq.mm. area and count per size category
    - Real Total sq.mm. / PPM and extrapolated sq.mm / PPM for 1 sq. meter
  - Selectable Histogram of sq.mm. of dirt per size category
  - Selectable Profile report
- T563 Capable
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## **MSU-2000**

### **MICRO-SURFACE UNIFORMITY**

### **IMAGES**

This software allows the scanner to be used as a paper image analyzer for determining surface characteristics such as:

- Mottle
- Solid Print Uniformity
- Missing dot tests
- Print bleeding /wicking/feathering for ink jet /laser print quality
- Print uniformity
- Evaluation of ink smear tests
- White top liner board appearance
- Edge roughness

These are a few of the applications presently in use with the MSU. Any visually assessed type test is a candidate for use with the MSU , which can translate the images of the sample into non-subjective numbers that correlate to human visual assessment or better. The following features make the MSU easy to use , unlike larger, more complex and costly systems. It's algorithms are custom tailored to cover those needs specifically of interest to the Pulp & Paper industry.

Features:

- 256 Graylevel analysis
- Image and data archiving to disk
- Up to 10 user definable sample type tests may be "trained" into the system
- Two choices for threshold setting , by histogram or lo-hi band
- Full Graylevel image on screen
- Region of Interest (ROI) allows tests within scanned area
- Offsets allow scanning window to be set anywhere in 8.5x11" area
- On screen graphical results in histogram and size tables
- Fast , reliable , repeatable results
- Easy to use Menu software
- Calibration plates supplied with every system
- Migrates from R&D to lab with specific trained test sequences for each sample type

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