

# IAS-1000AS™

An Automated Scanning Color Measurement System Brought To You By QEA, Innovator In Image Quality Measurement

## Why do we need another Color Measurement System?

### Problem:

- *Color management has become un-manageable.*
  - *In printer profiling, don't you feel that there are simply too many colors to measure, too much data to handle, always short on time, and never have enough hands around?*

### The QEA Solution:

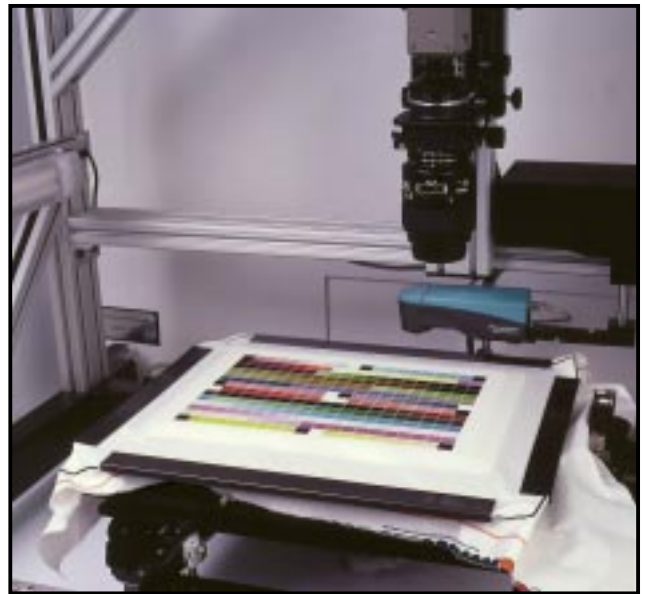
- *The highly automated IAS-1000AS helps you get more done quickly and reliably using a computerized scanning and reporting system.*

### Problem:

- *Color measurement has become un-measurable.*
  - *Today's business opportunities go beyond printing on paper. How do you handle textiles & other flexible samples that are distorted? What about foam boards or other unconventional substrates that pushes beyond your existing profiling equipment's capabilities?*

### The QEA Solution:

- *The IAS-1000AS handles difficult samples with ease and grace: a special mount for textiles, a sophisticated fiducial algorithm to automatically handle fabric distortion, and adjustable table height for testing a broad range of sample thickness.*



*IAS-1000AS Automated Scanning Color Measurement System*

## Features at a Glance

### Automation & Flexibility

- Automated high speed measurement of color charts on paper, textiles, vinyl, foam board and other substrates without human intervention

### Colorimetric & Densitometric Measurements

- Measurement of spectral, colorimetric, and densitometric values with reliability and precision.

### Reflection & Transmission Measurements

- Measurement in both reflection and transmission modes for opaque and transparent colors.

### User Programmable Test Sequence

- Programmable test sequence for high speed scanning of various designs of color charts.

### User Friendly Software

- Field-proven user-friendly software to develop measurement sequence reliably and rapidly.

### Compatibility

- Output fully compatible with most popular color profiling software.

### Expandability

- System fully expandable to a powerful image evaluation system with objective print quality analysis, gloss scanning, and automated document feeding.

# IAS-1000AS™ Automated Scanning Color Measurement System

## Typical Applications

- Color measurement for printer color profiling
- Color measurement for printer color quality attributes: color gamut, density, and tone reproduction
- Color measurement for production color quality monitoring

## System Specifications\*

### Spectral Measuring Head

- Spectral Analysis – holographic diffraction grating
- Spectral Range – 380 to 730 nm
- Physical Resolution – 10nm
- Light Source – gas gilled tungsten
- Measurement Aperture – 4mm, standard (option: 8mm)
- Measurement Geometry – 45/0 ring optic, DIN5033
- Colorimetry: CIE-XYZ, CIE-xyY, CIE-L\*a\*b\*, CIE-L\*C\*h
- (Illumination types: D50, D65, A, C, F1...F12)
- Standard Observers: 2°, 10°
- Measurement Range  
Reflection:
  - 380-480, 650-730 nm: 0-200%
  - 480-520, 600-650 nm: 0-150%
  - 520-600 nm: 0-120%Density DIN 16536: 0.0D – 2.5 D
- Short-term repeatability: 0.03  $\Delta E^*$  CIELAB (D50, 2°), mean value of 10 measurements every 10s on white
- Density Standards
  - DIN 16536 (ISO Status E)
  - DIN 16536 NB (ISO Status I)
  - ANSI Status A
  - ANSI Status T

### Other System Hardware

- Instrumentation; data acquisition and control hardware; including all necessary interface electronics, cables, and connectors

### Positioning Stage

- Range: Letter and A4, standard; other sizes available
- Step Size: 16  $\mu\text{m}$  (0.0006 in)
- Maximum Linear Speed: 5.1 cm/sec (2 in/sec)

### Vacuum Generator for Sample Hold Down

- Vacuum pump included

### Control Software

- Control software provides all measurement, data acquisition, and data analysis functions

### Computer Configuration (customer-supplied)

- Pentium PC
- Microsoft Windows ® 95/98/ME
- Microsoft Excel ® 7.0 or higher

### Electrical Requirements

- 110 VAC $\pm$ 10% @ 50/60 Hz or  
230 VAC $\pm$ 10% @ 50/60 Hz

### Maintenance and Operating Environment

- Requires good maintenance practices typical for laboratory equipment
- Temperature
  - Operating: 10° to 32° C (50° to 90° F)
  - Storage: 0° to 35° C (32° to 95° F)
- Relative humidity
  - Operating: 20% to 80%
  - Storage: 10% to 95% (non-condensing)

### Dimensions and Shipping Weight

- Approximate dimensions for standard letter/A4 configuration (consult factory for A3 option)
- Main Unit: 119 cm x 94 cm x 127 cm (47"x37"x50")
- Approximate total weight, standard letter/A4 configuration (2 pieces): 200 kg (440 lbs)

### Documentation

- User's Guide

\* All specifications subject to change without notice.