

The ADF (Automatic Document Feeder) is an ideal complement to QEA's IAS-1000 Automated Image Analysis System. It provides completely automated inspection of a stack of printed samples; and it eliminates the need to have an operator constantly feeding print samples into the IAS-1000.

Overview

In a typical session, an operator would load the ADF with small batches of samples (e.g. 50 to 75 sheets) and select the appropriate program sequence from the IAS-1000 software and click the START TEST button. The IAS-1000 software would then control the ADF to load one sheet at a time, make the requested print quality measurements, and eject the sheets into the output stack. The samples can be run in the *Batch Mode* when the user is trying to gather statistical information from a group of printed pages that are nominally identical. Alternatively, the samples can be run in the *List Mode*, in which each sample may originate from a unique test condition, for example, each sample is from a different printer. In the *List Mode*, the sample ID, the specific test to run, and the output data locations are all drawn from a list specified by the user.



Quality Engineering Associates, Inc.

System Specifications*

Specifications

- Paper Sizes: A4, A3[†], 8.5x11", 11x17"[†]
- Paper Weights: 16# 24# (60 90 gsm) (3 - 9 mils thickness)'
- Input Stack Capacity: 12mm (0.5") of stack height; approx. 60 to 125 sheets depending on sheet thickness and condition
- Document Condition: Samples should be dried and toner fixed before being fed into ADF
- Jam Detection: multiple optical detectors used to stop operation in the event of a paper jam
- Paper Registration: After loading, sample is pressed against registration fingers
- Noise <65 dBA
- Load/Unload Time <15 second total
- MTBF > 1000 sheets between mis-feeds

System Hardware

System Controller

- Dedicated PLC for ADF
- Single line LCD display and four push buttons
- Connects to IAS-1000 motion control box.

Document Handler Subsystem

- Input Stack
- Platen Interchanger
- Output Stack.

Vacuum Table

- Vacuum supplied by fan built into table
- Can be turned on/off remotely from computer
- High flow rate to hold-down difficult samples

Electrical Requirements

• 100 to 240 VAC±10% @ 50/60 Hz Auto-switching

Maintenance and Operating Environment

- Requires good maintenance practices typical for laboratory equipment
- Periodic cleaning of feed rolls and feed belts to remove paper dust and debris.
- 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

- Packaged dimensions: 86 cm x 61 cm x 61 cm (34 in x 24 in x 24 in) W×L×H
- Approximate shipping weight: 45 kg (100 lbs)

Documentation

User guide

- † Large paper size can only be fed onto an A3 size IAS-1000 system
- * Specifications subject to change without notice (4/15/01)