THE INDIGO E-PRINT 1000

The Indigo E-Print 1000 is an offset printing press that uses special inks formulated for the digital process. It is designed to reproduce process color (CMYK) pages with quality rivaling offset printing presses with none of the dot gain or registration problems. There are no ink setup processes or plates. Sheet-fed printing offers the flexibility of easy stock selection and accommodates quick changes for the press operator.

Specifications:

Resolution: 812 dpi, 144 lpi
Paper Size: 12" x 18"
Image Area: Maximum image area: 11.5" x 17.2"
Paper Stocks: Handles coated and uncoated stocks equally well, although some paper stocks perform better than others
Process Speed: 120 feet per minute (60 cm per second)
Input Options: Adobe Postscript, Scitex HandShake, Exabyte 8mm Magnetic Tape
Throughput: 4/4 - 500 11" x 17" sheets per hour
4/0 - 1000 11" x 17" sheets per hour

Features:

Automatic Duplex Printing (Perfecting)
Each page can be automatically printed on both sides. This option, together with electronic collation, means that an entire multi-page document or publication can be printed, ready for finishing-fully automated.

Electronic Collation
With no plates required, images can be changed electronically at full printing speed, even from page to page. This option enables an entire publication to be printed with each page in the correct sequence.

Automatic Booklet Making
The automatic finishing option enables the E-Print 1000 to produce fully finished booklets with no manual intervention.

Personalization Option
The E-Print 1000 is able to change design elements on each sheet during the printing process. One-of-a-kind full-color documents can be created and individually targeted-in real time-from database profiles.

Just-In-Time (JIT) Printing
Over 15% of printed material is thrown away before it is ever used because it has become outdated and 30% of printed material is used even though it is outdated. Now files can be printed and ready in 24 or 12 hours.

Targeted Marketing
Companies are going for a much stronger targeted-marketing approach. This is a main theme in the 1990's, often called one-on-one marketing, delivering a very specific message to a very specific customer.
**ElectroInks and Sharpness of Image**

ElectroInks are liquid suspensions of fine ink pigmented particles. Indigo’s ElectroInk is the only electrostatic liquid ink in the world today. It is this ink that makes it possible to print four-color using a rechargeable electrostatic plate, and only one drum for color transfer. The E-Print achieves 100% ink transfer off the imaging blanket.

The E-Print 1000 actually prints type and process color dots sharper than dry toner printers and even sharper than conventional offset lithography. ElectroInk is applied to the paper in a semi-solid state. Any liquid content remaining is quickly removed, and the precisely deposited ElectroInk particles are instantly bonded to the paper surface as the final step in the process. The instant drying allow the E-Print 1000 to immediately duplex for automated two-sided printing of the sheet. This process yields superior type and image sharpness.

**Printing Files**

This is the workflow for the E-Print 1000:

- Files are sent to the E-Print 1000’s main processor via the network (ethernet) or Exabyte tape
- Jobs are processed and the raster data is loaded into the E-Print 1000’s main image memory
- Data is transferred to the laser imaging unit (writing head)
- The first image separation is imaged onto a photo imaging plate (PIP)
- The plate is developed on the fly using an electrophotographic process, and ink is transferred to a special blanket. The blanket transfers 100% of the ink to the sheet, which is fed from a paper input tray
- The sheet is deposited in the duplex buffer after printing the first side
- Immediately the sheet is retrieved and the imaging and printing process is repeated for the second side
- The final printed sheet is sent to the output tray. All unused ink is returned to the E-Print for reuse
- For jobs requiring finishing, the E-Print 1000’s in-line finisher provides collation, stacking, stapling, and folding

**Sum It Up:**

The Indigo E-Print 1000 offers crisp, clean sheetfed output with the luxury of personalization, duplexing, and a variety of finishing options. Although the electrophotographic process tends to limit the length of blends, large areas of flat tints and high ink coverage, companies that have been running the Indigo E-Print have high praise for the machine.

**Sources:**

Berry & Homer, Inc.  jt3@bhimaging.com  (800) 522-0888
Characters, Inc.  http://www.characters.com  Indigo E-Print 1000 installed since April, 1994
Chris Feola  cjfeola@aol.com  Article: *Digital-Press Plusses, TechNews*, Volume 1, Number 5
Colorworks:  colorwrk@qni.com  (1-816-412-7777)

Written by Ken Kaleta, 1997