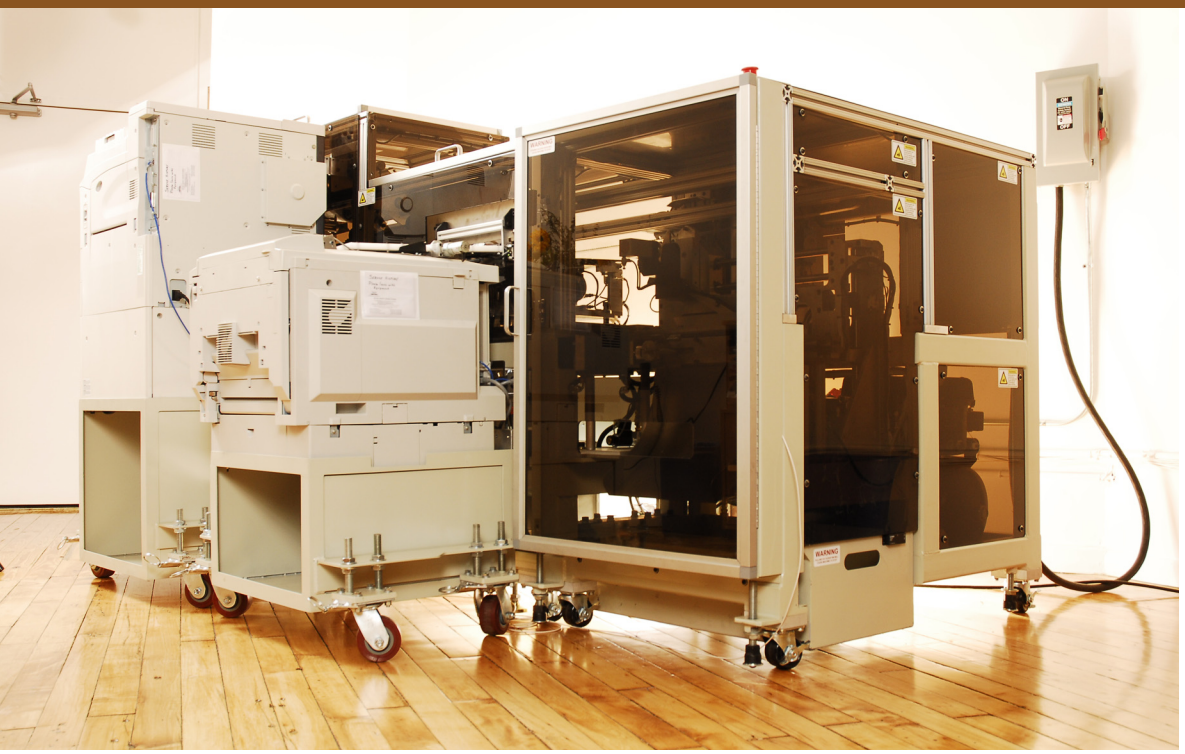
ON DEMAND BOOKS Espresso Book Machine Model 1.5



OVERVIEW

The Espresso Book Machine (the "EBM") is a fully integrated patented book making machine which can automatically print, bind and trim on demand at point of sale perfect bound library quality paperback books with 4-color covers (indistinguishable from the factory made original) in minutes for a production cost of a penny a page. Digital files are retrieved and transmitted via the Internet through our proprietary web-based digital rights management software. The EBM requires minimal human intervention and maintenance, and all printing, book block milling, page jogging, cover alignment, binding and shearing are performed in a continuous mechanical process. The standard model includes a black and white duplex laser printer for producing book blocks and a color printer for creating covers with full UV and moisture protection. Version 1.5 is modular in design and can accommodate additional duplex printers (from 2-6) depending on production requirements, e.g. the 2-printer model can produce a 300-page book in about 4 minutes. It can also be shipped inexpensively in modular units and easily reassembled at location. An onboard computer controls the EBM's operation and provides a simple user interface for controlling print jobs and managing content.

OPERATION

Designed to operate in a variety of environments, the EBM requires only occasional operator maintenance. Standard duties include refilling paper trays, replacing toner cartridges, emptying the waste paper receptacle, and clearing paper jams. The book block printers use standard letter (8.5 x 11) reams for paper stock, with 24 pound office and 92 brightness is recommended. Cover stock is tabloid (11 x 17), and should be high gloss for best results. Print jobs can be initiated from the machine itself or (optionally) from any locally connected computer using nothing more than a web browser. The onboard software system tracks all jobs, and can archive a complete history of all activity for analysis and review purposes

SOFTWARE

The Company's web-based software can retrieve and encrypt a purely digital or scanned file, convert it into a high quality print ready format and transmit it to the EBM printer of the customers choosing. Ordering can be done from a home computer or from an in-store kiosk. Depending on the wishes of the content owner, the file is either deleted or cached. A detailed transaction history is stored on the EBM network providing complete transparency to the content owners about the use of their files.

CONTENT

The Company has access to over 200,000 out-of-copyright files provided by the Open Content Alliance together with approximately 2,200 World Bank titles and Arabic-language texts from the Library of Alexandria, Egypt. We expect access to content to increase substantially as more EBM's become adopted in bookstores, libraries and other retail venues across the globe.

CONTACT INFORMATION: ON DEMAND BOOKS 584 BROADWAY SUITE 1100 NEW YORK, NY 10012
TEL: 212-966-2222 | FAX: 212-966-2229 | DIRECT ALL INQUIRES TO: INFO@ONDEMANDBOOKS.COM

DIMENSIONS

- Length: 100 inches
- Depth (with printers): 60 inches
- Depth (without): 30 inches
- Height: 61 inches

WEIGHT

- Main Unit: 1,200 lbs.
- B&W Printer with cart: 280 lbs.
- Cover Printer with cart: 180 lbs.
- Total: 1,660 lbs.

ELECTRICAL SPECIFICATIONS

- Circuit: 240v 60 amps 1ph
- Load: 30 amps (approx.)
- Connection: Box with disconnect
- Certification: UL

CONSUMABLES

- 8.5x11 Book Block Stock
- 11x17 Cover Stock
- Charcoal Filter
- Glue Pellets

PATENTS

7,014,182 Unified Process

6,986,630 Laminated Cover

6,928,914 Book Trimming Method

6,443,682 Bind and Trim Perfect Bound

6,193,458 System of Binding & Trimming

6,142,721 Binding Apparatus & Method

How Does The Espresso Book Machine Work?

The EBM makes a library quality perfect bound paperback book in a matter of minutes indistinguishable from the factory made version. The machine is fully automated, and performs the following actions with minimal human intervention:

1 A black and white duplex laser printer prints the pages of the book. The text and images are correctly located so that all pages will be properly aligned and centered when the book is trimmed to its intended size. The printer uses standard letter sized (8.5" x 11") paper stock.

2 As the pages emerge from the laser printer, they are collected in an accumulator. This device helps ensure that all pages are properly aligned.

3 While the pages of the book are being printed, a color laser printer produces a full color image on a single piece of large, heavy-weight paper stock that is used to form the book cover. This printed tabloid (11" x 17") sheet is placed directly onto a binding table.

4 Once the pages of the book are complete, they are positioned vertically by the accumulator and placed in a carriage. This carriage moves the book along the length of the machine as it is transformed from a collection of single pages into a fully bound book.

5 Just behind the black and white laser printer, there is a jogger. Here the pages are placed on a vibrating platform that further ensures that all of the sheets of paper are properly aligned and square.

6 Next, the carriage pulls the bottom edge of the pages, which will end up being the spine of the book, over a mill. This roughens the edge of the pages to help ensure that when glue is applied that it will adhere fully to each page.

7 After being milled, the bottom edge of the book is moved over a glue pot, where a rotating wheel is used to apply a thin layer of heat activated glue over the entire spine of the book.

8 The carriage then moves the book over the binding table where the cover is waiting. The binding table used pneumatics and electrical clamps to press the cover onto the book from three sides. This produces a traditional "perfect bound" book.

9 The carriage then transfers the bound book to the shearing mechanism. In the shearing process, a single carbide blade trims the top edge, bottom edge and outside edge of the book. Trim sizes are infinitely variable between 8 1/2" x 11" and 4 1/2" x 4 1/2"

10 The completed book is released by the machine—still warm—ready to read. As we say "Hot off the press!"

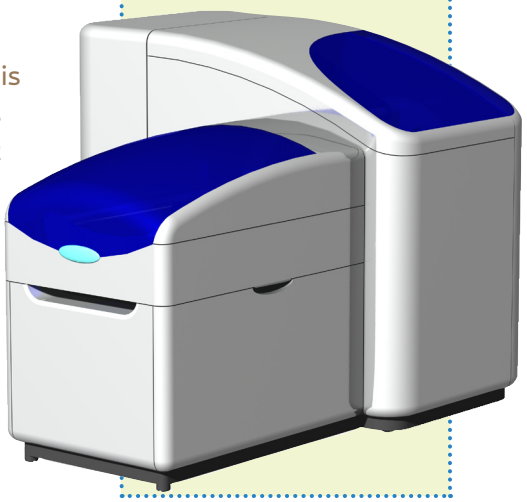
COMING SOON

Espresso Book Machine Version

SMALL FOOTPRINT MODEL

APPROXIMATE DIMENSIONS

- Length: 62 inches
- Depth (with printers): 51 inches
- Depth (without): 27 inches
- Height: 53 inches

ELECTRICAL SPECIFICATIONS

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