On Demand Books
The Espresso Book Machine® 2.0

OVERVIEW The Espresso Book Machine® ("EBM"), a Time Magazine "Best Invention of 2007," provides a revolutionary direct-to-consumer distribution and print model for books. Described as "the ATM of books," the EBM Version 2.0 is a fully integrated patented book-making machine that can automatically print, bind, and trim on demand at point of sale perfect-bound library-quality paperback books with 4-color covers (indistinguishable from a book on a bookstore shelf) in minutes for a production cost of a penny a page. The EBM's software automatically tracks all jobs and remits all royalty payments. The EBM makes it possible to distribute virtually every book ever published, in any language, anywhere on earth, as easily, quickly, and cheaply as e-mail.

OPERATION Designed to operate in a variety of environments, the EBM requires minimal human intervention and only occasional maintenance, such as refilling paper trays, replacing toner cartridges, emptying the trim-paper receptacle, and clearing paper jams. An onboard computer controls the EBM's operation and provides a simple user interface for controlling print jobs and managing content.

SOFTWARE The EBM includes custom software that connects it to a virtual network of print locations, content sources, and end-user search and ordering interfaces. Content owners can manage their texts, permissioning what can be ordered where, and by whom. Print locations can manage and re-prioritize job queues based on demand. Customer-facing storefronts can easily add discovery and ordering of "print it now" books. The network uses industry-standard cryptography to provide secure communications, and delivers fine-grained visibility as content travels throughout the network. Content owners can see exactly where their content has been ordered and produced, and the system tracks every step of every transaction, providing all data needed to apportion royalties, production costs, network fees, and so on.

CONTENT On Demand Books has a strategic alliance with Lightning Source™ Inc. ("LSI"). LSI, a subsidiary of the Ingram Book Group (the world's largest wholesale distributor of books), is the industry's premier POD distributor of books. Its digital database includes over 650,000 titles from over 4,500 publishers. ODB has the use of LSI's digital conversion facilities and the right to print LSI's vast library of titles, pending publisher approval. In addition, the EBM has access to more than 400,000 public-domain books through the Open Content Alliance (a joint effort by Microsoft, Yahoo, Adobe, and the Internet Archive to create a digital database of high-quality scans of out-of-copyright books) and titles from other repositories. Content is expected to increase substantially as more EBMs are adopted by bookstores, libraries, and other venues across the globe.

How Does The Espresso Book Machine® Work?

The EBM makes a library-quality perfect-bound paperback book in a matter of minutes indistinguishable from a book on a bookstore shelf. The EBM is fully automated, and performs the following actions with minimal human intervention:

1 The user chooses a digital file from a web-based catalogue of books either at the physical EBM, or remotely via the internet (users can also bring their own files in person: on CD's, flash drives, etc.). The EBM uses PDF files for the book block and the cover.

2 A black and white duplex laser printer prints the pages of the book – the book block. The printer uses standard letter-sized (8.5" x 11") or A4 paper stock.

3 As pages are printed they are collected in the accumulator to ensure proper alignment.

4 Simultaneously, a color inkjet printer produces a full-color image on tabloid (11" x 17") or A3 cover stock that is used to form the book cover. The printed cover travels downward from the printer to the binding table where it waits for the book block.

5 Once the book block is complete, it is positioned vertically by the accumulator and transferred, in constant positive retention, to a clamp. The clamp enables the book block to travel vertically.

6 The clamp holds the book block while the bottom edge is milled to roughen the edges in preparation for glue application.

7 Immediately afterwards, a rotating wheel applies a thin layer of heat-activated glue over the milled edge.

8 The clamp then moves the book block down to the cover, which waits on the binding table. The EBM uses special pneumatics and clamps to press the cover against the spine and around the book block. This produces a traditional "perfect-bound" book.

9 The binding table opens and the clamp passes through and transfers the bound book to a robot at the shearing station. In the final steps of the process, the robot rotates the bound pages while a single carbide blade trims the edges into a book infinitely variable between 4.5" x 4.5" and 8.5" x 11".

10 The completed library-quality paperback book is presented spine first by the EBM – still warm – ready to read. As we say, "Hot off the press!"

EBM 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

Books:

- Binding: Perfect-bound books, indistinguishable from their factory-made versions.
- Page-Count: 40 to 830 pages.
- Trim Size: Infinitely variable between 8.5" x 11" and 4.5" x 4.5".
- Speed: A 300-page book in less than 4 minutes.
- File format: Standard PDF for book block and cover.
- Books can be downloaded from the web or in person from CD's, flashdrives, etc.

Consumables:

- Standard letter-size or A4 paper
- Tabloid or A3 cover stock
- Toner, ink, glue.

Core Unit Specifications:

- Dimensions: 3.8 feet wide, 2.7 feet deep, 4.5 feet high
- Weight: 800 pounds

EBM Electrical:

- 240v 1ph at 30 amps
- Box with disconnect
- UL certified