

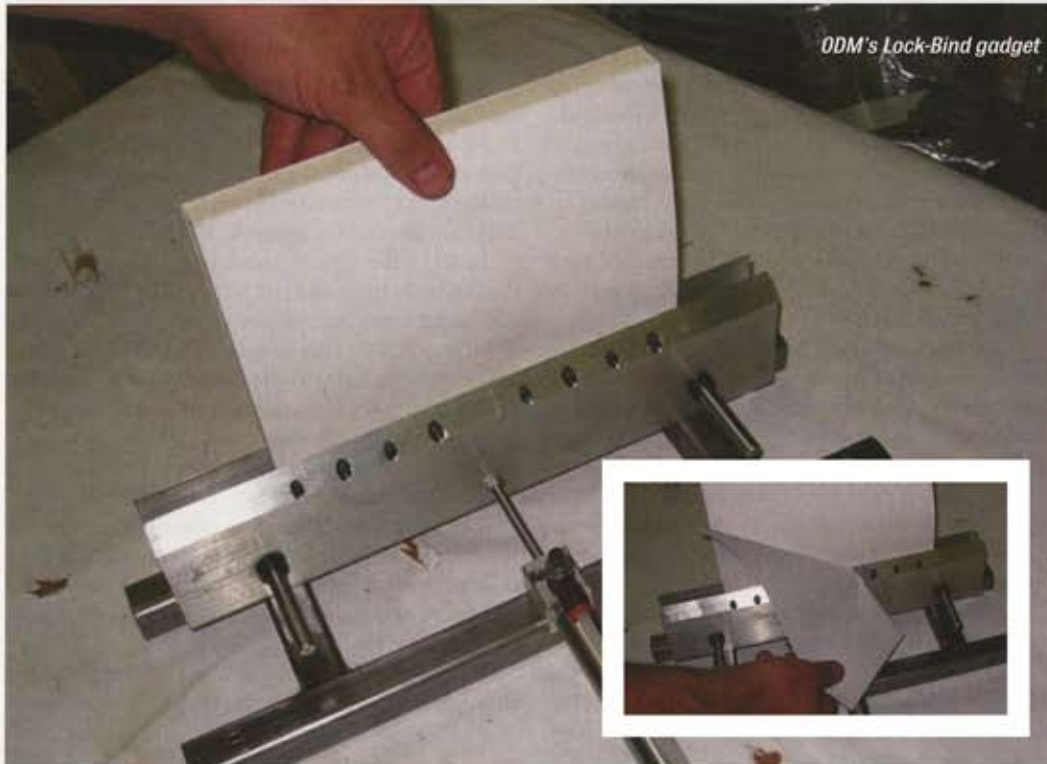
Not quite perfect

FOGRA reportedly investigates more than 400 adhesive binding failures annually. Many complaints concern splits between pages two and three, a problem that is especially evident on hardcover bindings. The cover's lever action generally is the culprit. When you open a book and lift the cover, unusual pressure is exerted onto the binding. Those forces are looking for the weakest point—typically, the adhesive binding.

To combat such problems, large book printers rely on multimillion dollar equipment including gathering machines, endpaper attachments, side-gluing or back-lining equipment. They add single folio endpapers to their machine infeeds which are off set to allow milling the spine. After the adhesive is applied, the spine is lined with a special back-lining paper. On certain book blocks, the width of the lining paper is such that it extends only 3/16 inch on each side onto the end sheets. With appropriate side-gluing, the small strips are then glued into place. A clamping effect results. The first and last sheets of the fragile adhesive binding are now secured. That feature is further enhanced when rounding and backing.

Grin & bind it

Some short-run options for hardcover photo books



ODM's Lock-Bind gadget

Based on a consumer survey of more than 1,000 U.S. photo merchandise buyers, InfoTrends (Weymouth, MA) projects that the photo book market segment will grow from \$377 million in revenue in 2008 to reach \$1.2 billion by 2013. This is great news—provided you're prepared to deliver quality hardcover bindings on demand.

Hardcover binding begins with endsheets. LBS (Des Moines, IA) (www.lbsbind.com) sells a tabbed endsheet—a single folded sheet with a strip and a tab extending 1/8 inch past the fold.

The perfect binding process is straightforward: Add the endpapers, mill the spine, apply the adhesive—hot melt, PUR or PVA—and then cover the spine. Rather than a printed softcover, some printers use waste papers, grain direction parallel to the spine. After curing or drying, the remaining paper is peeled off. Once the spine is covered, the book block is ready for trimming and hardcover binding. Removing the excess paper, however, often damages the adhesive binding. While it's possible to salvage some books, reworking short-run jobs is costly.

Locking in the first and last sheets

On Demand Machinery's (ODM) (Elizabeth, NJ) (www.odmmachinery.com) Lock-Bind gadget lets users "lock-in" the first and last sheets and safely remove the side-panels. The result is a well-engineered book block that can absorb all tensile forces exerted onto the binding edge. Lock-Bind enables small shops with relatively inexpensive adhesive binding machines produce high quality, adhesive bound hardcover books.

After perfect binding, the book block is inserted into ODM's Lock-Bind gadget. The pneumatically operated clamp is automatically activated. Using both hands, the operator tears off the panels of waste paper, leaving a thin strip of paper, 3/16 inch wide on each side. After casing-in, these small stubs offer unusual resistance away from the fragile binding edge. The tensile forces exerted onto the first and last sheets are diverted inwards, creating a durable hardcover binding.

Ribler's (Stuttgart, Germany) (www.ripler-gmbh.de) new perfect binder creates a unique lay-flat binding. It uses a specially formulated PVA adhesive that is said to be as strong as PUR. An extrusion head applies the glue, eliminating clean up. Each glue cartridge can bind about 500 books.

Growing with photo books

"Photo books are keeping us busy," says John F. Jacobson, Jr., president of On Demand Machinery (ODM) (Elizabeth, NJ). "We still do a lot of on-demand work with companies such as Lightning Source, but this has been our biggest growth area in the last four years."

In the days prior to digital photography and printing, most wedding albums incorporated glued pages and resembled children's board books. A single copy might cost \$1,000 vs. \$150 to \$200 for a digitally produced book. "Instead of a single [event], today people might order books for multiple occasions," says Jacobson. "A lot of companies also utilize photo books for catalogs or real estate prospectus."

ODM's users range from small printers with one digital press and book production line to a photo processor with 25 presses and 18 sets of ODM equipment under one roof. Most customers have HP Indigo presses and produce an average of 750 books per day.

Some ODM users have outgrown entry-level binding options or are looking for more flexibility. "Our core system is case making for producing a hard cover and casing, which is our Sticker casing in and Smasher building in machines," says Jacobson.

The Casemaking line consists of the Spreader Topside gluer, the Slider Case Gauge, Stomper turning in machine and the Squeezer rotary press. ODM also offers an automatic side sewer ("Super Sewer") as well as a fully automatic, self-adjusting building in machine ("Super Smasher").

A basic ODM system, depending on the configuration, typically costs \$80,000. "If you just bought a \$500,000 digital press, you don't want to skimp on bindery equipment," says Jacobson. "Our customers can produce high quality books equivalent to those produced on traditional high-volume bookbinding machines."

Jacobson urges prospects to consider the value of an individual photo prints vs. a bound, hardcover book. "It's usually \$0.30 per print vs. \$25 to \$50 for the photo book," says Jacobson. "[Would you] still want to skimp?"

Jacobson proudly notes ODM products are made in the United States. "Given these times that's important to us and it should be to others, too."

About ODM

ODM traces its roots to American Graphic Arts (AGA), a used equipment dealership founded in the 1920s. In the late 1970s, AGA hired John F. Jacobson, Sr. as part of its effort to expand beyond used presses and die cutters.

Jacobson Sr. was formerly a plant engineer at the Tapley Rutter Co. (Moonachie, NJ), a company known for its fine Bibles and extra-bound books. In 1985, he bought AGA and the company increased its equipment rebuilding and custom retrofitting activities.

In 1997, as the first digital presses were coming to market, AGA launched ODM. Jacobson Jr. says years of rebuilding used equipment helped the company identify and avoid potential design flaws. "The first few years were tough, but the [on demand market] has blossomed in the last few years," he says. "It's going great. Last year we sold 100-percent new machinery."

BOOKBINDING
MADE SIMPLE!



A 'How To' guide on
hard-cover bookbinding

...and its applications
in producing books for the
on-demand digital industry.



On Demand Machinery offers an
8-pg. pamphlet on producing single
copy hardcover books with virtually
no makeready.