How to Hardcover Bind on Small Perfect Binders

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These days, many on-demand printing establishments bind their own soft-cover bound books, most often in very small quantities. Soft-cover bindings are of course no problem—after all that is what perfect binding machines are designed for. The question often asked is how a hardcover binding can be perfected on our binders? If we do not grind off the spine, the folded signatures or sections are not converted into single sheets and the paper fibers will not be exposed. If you have asked these questions because you want to create more durable hardcover bindings, these are the procedures to follow:

The Folded, Tabbed Endsheet

This endpaper structure is the same as a single folded endsheet except that it has a 1/8 inch paper tab extending along the fold. The tab holds the single folded endsheet away from the spine, allowing the book block and endsheets to be inserted into any perfect binder and milled. The paperstrip is milled off, the fold stays intact. Such tabbed endsheets are commercially available.

Removing the Panels

In some plants, the panels are torn off by hand, one at a time. This is time consuming and worse, if the panels are torn off, it creates a weakness at the most critical areas of an adhesive bound book - the first and last sheets.

A better solution would be to build a special clamp for this operation. The bound book block is then placed flat onto the platform. The cover breakers, approximately 3.5 to 4mm thick, are equipped with a knife-like scoring device on top. These nipping plates, operated either pneumatically or via a foot pedal, then press the book block from both sides, slightly scoring the relative, stiff, tabbed endsheet.

Then, using both hands at once, the cover panels are manually torn off, resulting in a U-shaped “lock” which will secure the first and last sheets. The bound book blocks are then ready to receive headbands, a back lining material, and are then ready for casing-in. Rounding and backing is another option. However, for such an operation, a stretchable covering material over the spine may need to be used.

No such device is yet available commercially, but there is an incentive to build and market it for any machinery supplier who services the on-demand hardcover binding markets.

The Better Quality Merits After Casing-in

Once a book block is cased-in into a hardcover, the small, U-shaped extension from the spine creates resistance at the right place. When flexing the cover panels, the stress exerted onto the hinges is seeking the weakest points. On the drawing below, note that there is no pressure applied onto the most critical, adhesive bound first and last leaves. The result is a most durable, hardcover binding.
Create a Good Book Block with ODM’s New Lock-Bind Gadget

On Demand Machinery’s Lock-Bind gadget enables your bindery department to ‘lock-in’ the first and last sheets while safely removing the side-panels. The result is a well-engineered book block that’s ready for casing-in. This intermediate step (prior to casing-in) will form a solid book block that will now be able to absorb all tensile forces exerted onto the binding edge. It’s fast and easy to create a good book block. Just follow these simple steps. 1. After perfect binding, the book block is inserted into ODM’s Lock-Bind gadget. 2. The pneumatically operated clamp is automatically activated. 3. 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 extra tab end-sheets offer unusual resistance away from the fragile binding edge strengthening the side cover. The tensile forces exerted onto the first and last sheets are diverted inward, creating a durable hardcover binding.

The ODM Lock-Bind is an ideal gadget for small print shops with relatively inexpensive adhesive binding machines to help produce high quality, adhesive bound hardcover books on-demand. **Note:** Casing-in and building-in machines are required for hard cover bookbinding production.

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