

Punching & Drilling

By Katherine O'Brien, editor
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Do you know the hole story?

Postpress

Heavy-duty, high volume drilling

Founded in 1963, Rollem USA (Anaheim, CA) is probably best known for its line of perfining, scoring and slitting equipment, but it has been distributing heavy-duty Durselen drills for about 10 years.

Larry Corwin, president of Rollem USA, explains that the drills, which range from about \$15,000 to \$150,000 are best suited to commercial printers, trade binderies, book printers, publishers and others doing high-volume drilling. "We're looking to do things that have never been done at this upper end of the market," he says, specifically citing the ability to add drilling inline to a perfect binder without sacrificing speed as well as the potential to drill rather than punch some mechanical binding applications.

Rollem's Durselen offerings include:

- PB-04 for all purpose three-hole or five-hole automotive work.
- PB-05 for drilling large-format sheets before cutting.
- PB-15, a system said to be five times faster than a regular drill. It features automatic feeding, jogging, drilling and delivery for processing looseleaf, perfect bound books, and stitched or mechanically bound books with 2:1, 3:1, 4:1 and 5:1 mechanical binding patterns.

- PB-09, which is similar to PB-15, but not as fast. PB-09 offers 900 stacks per hour vs. PB-15's 1,500.
- PB-10 DOD for short-run drilling applications with frequent hole pattern changes and/or paper sizes.
- PB-12 Gantry for use inline with stitchers and perfect binders.
- PB-16, a modular machine with up to 15 drilling heads.



**A Durselen
drilling head**

Sliding table for mechanical binding

Corwin anticipates the PB-16 will be Rollem's most popular system. "It can be a dedicated or multiple application machine," he explains. "Because it's modular, you can start with a basic model and add other components."

PB-16 can be equipped with a programmable sliding table for mechanical binding patterns and a programmable back gauge for multiple-up drilling work, such as tags or labels. The programmable sliding table handles longer runs, larger paper formats and complex, multi-stroke patterns.

"You need the sliding table for mechanical binding," says Corwin. "It will accept a program where the drilling head is deployed multiple times on the same book with incremental movement on the same stroke. The operator can program how much the table moves the product before each stroke."

Although punches are typically used for mechanical binding, Corwin says a drill such as



the PB-16 can be advantageous for diverse content jobs.

"Suppose you have a Wire-O book with a lot of different elements such as tabs, outside pages, inserts. With this drill, you can do one collation and process the book as whole. With a punch, you typically have to decollate the book to group all like elements together and then recollate



it following the punching process."

Inline with a perfect binder

For drilling inline with a perfect binder, Rollem offers PB-12 Gantry, a machine Corwin describes as having a flow-through configuration. "Similar to a three-knife trimmer, a product comes in one end, gets drilled and exits on the other end. This has helped us crack the speed barrier, since the machine doesn't have to wait for one stack to come out before inputting another."

Because the PB-12 has a rated speed of 1,500 cycles per hour vs. perfect binders that, at minimum, are producing 4,000 books per hour, the drill's lift must provide the speed equalizer. "A typical perfect bound book is between 1/4 to 1/2 inch thick," explains Corwin. "Because PB-12 can run a two-inch lift per cycle, if the book is 1/2 inch thick, it can still run eight books high per cycle.

Multiply that by 1,500 and you've got 12,000 books per hour." Rollem will be exhibiting at Print 05.

High-volume drill is a hole lot better

Two years ago Anthony Estrada wasn't looking for a drill. But when the general manager of BJ Bindery (Santa Ana, CA) attended Graph Expo and saw Rollem's Durselen PB-09 drill, he bought it on the spot.

PB-09 was the forerunner to Rollem's PB-15. They're essentially the same machine, but the PB-09's has a rated speed of 900 stacks per hour vs. PB-15's 1,500. Both feature automatic feeding, jogging, and drilling. A sliding table required for mechanical binding is standard on PB-15 and optional on PB-09.

In both cases, piles of material are placed on an infeed conveyor belt, automatically jogged, then fed to the drilling unit at a 45-degree angle.

Impressive speed and accuracy

Estrada says the PB-09 provides BJ Bindery with the versatility it needs. "We were impressed by its speed and accuracy," he says. "Also, the fact that one operator can work the infeed as well as the outfeed. We've reduced labor costs while increasing productivity by at least 35 percent."



The 48,000-sq.-ft., 100-employee trade bindery is the largest in Orange County. "We don't have the luxury of setting up for one particular job," explains Estrada. "We never know what sizes are going to be thrown in our direction, what book thickness or type of sheets."

Prior to adding the PB-09, BJ Bindery had four other drilling machines, ranging from five to 20 years old. Formerly used every day, the old drills are now kept only for backup.

"Before, we would never do anything over seven holes," says Estrada. "The quality was inconsistent. Flat top drills are not accurate—when you're jogging the paper, you're hitting the back gauge and it will start to move after awhile."

BJ Bindery has done 28- and even 44-hole jobs. Estrada says the computer-controlled PB-09 offers much faster setup and throughput vs. older drills. "It's an advantage. Many of our competitors have the old kind, and the speeds are a lot slower and probably require a minimum of two people. If we are doing the same job, we can do it in one-third the time with one person."

Blown away

Like BJ Bindery, management at Brown's Bindery (Columbia, SC) purchased the PB-15 (shown below) after seeing a trade show demonstration. "The Brown brothers saw it at a Graph Expo last year and it blew them away," recounts William Burritt, bindery supervisor. "It's three times faster than our old drills, which weren't computerized. I can adjust this machine on the fly—the set up time is incredibly fast."

Brown's specializes in perfect and mechanical binding as well as folding. "We do just about everything except die cutting," explains Burritt. He adds that the bindery is probably in the midrange when it comes to drilling, "But when it rains, it pours. We've seen everything from 10,000 books per week to 200,000." Burritt says PB-15 is enabling the bindery to do work it couldn't previously handle, such as a 28-hole book. "With the Durselen, it only took me a few minutes to set up the machine. With four heads, I hit it seven times and knocked out 1,000 books in 15-20 minutes. That probably would've taken more than a hour with the old drill."