

CASE STUDY

CONSUMER PRODUCTS
Black & Decker

**XEROX HELPS
RECONDITION PROFIT AT
BLACK & DECKER**

To get the job done right, you need the right tools. Just ask Black & Decker's Mike Weaver, who heads up the company's National Disposition Center in Nashville, Tennessee. Weaver's facility has the job of remanufacturing all Black & Decker products — everything from electric screwdrivers to professional saws and drills — that, for whatever reason, have been returned to the manufacturer.

With corporate headquarters in Towson, Maryland, Black & Decker is a global marketer and manufacturer of quality power tools, hardware, and building products used in and around the home and for commercial applications. Its products and services are marketed in more than 100 countries, and manufacturing operations are located in 10 countries. In the markets that it serves, Black & Decker is the world's largest supplier of power tools.

All Black & Decker products returned in North America are sent to the Nashville facility. There are many reasons for a return, from "I changed my mind" to "I plugged it in and it didn't work." Once a product has been opened and then



returned, the retailer sends it to the Nashville facility for proper disposition.

Whenever possible, the product is reconditioned, repackaged and sent to one of Black & Decker's outlet stores. There it is sold as a reconditioned product.

"The biggest challenge we face, on a daily basis, is diagnosing the failed part on a product return," Weaver explains. "Our role is to deliver failure findings back to technical departments and to remanufacture a tool or appliance that will not fail again. This is a part of our company's success. We help make things work better."



Needed: A New Approach

When it came to providing the correct owner's manual with each product, though, Weaver's group found itself searching for a new approach. They needed an approach that was flexible enough to handle an ever-changing workload, but it could not burden the department's budget.

Ultimately, the group found their answer in two parts. The first component was a Xerox Just in Time Product Documentation Solution. The second was Xerox Business Services (XBS), the worldwide leader in document outsourcing. XBS was to manage the in-house print shop.

"In the past, we'd order owner's manuals in bulk from the manufacturing plants," explains Weaver. "But since we never know what's going to be coming our way, all these extra copies would have to be warehoused until we needed one." And sometimes, a product would arrive at their doorstep for which Weaver's group wouldn't even have a warehoused manual.

Even the slightest design change for a particular product means that it must have a different owner's manual reflecting the updated design. A single product could have four or even more "types," each type reflecting a particular design



or manufacturing change. And if the reconditioning center received a type one product

when type three was currently in production, it could be difficult to locate the older version of the manual.

"We'd keep a master copy of every owner's version of the manual," says Weaver. "And if we couldn't order manuals from a manufacturing plant, we'd just copy them ourselves on our copy machines. It was a cumbersome process. We needed one full-time person just to coordinate this copying."

A Just in Time Solution: Ready for the Unexpected

So when Xerox approached Weaver with some ideas about using a just in time product documentation solution in the reconditioning facility, Black & Decker was ready to listen. "When I saw the process, I knew the Xerox solution was a good fit for us," recalls Weaver. "Initially, though, I wasn't sure the dollars were there, because we have a relatively low volume.



“However, when we conducted our feasibility study, the numbers looked good,” he continues. “I was comfortable that this was a good financial investment.”

In the summer of 1998, XBS installed the solution at the Nashville site. Designed to produce high-quality black-and-white documents on demand, in short time frames and/or short runs, the solution included a Xerox DocuTech 6135 Publisher System with DigiPath Production Software for job input management and a signature booklet maker at the finishing end. The services to implement and run the system were also part of the solution.

With this solution, Black & Decker can produce owner’s manuals on a just in time basis. It utilizes hard copy scanning; digital prepress; electronic imposition; document management; job submission via the web, network and portable media; and electronic distribution and remote printing.

Close to the Factory Floor

For maximum efficiency, the XBS print center is located in very close proximity to the factory floor, with two full-time XBS operators on-site to run the facility. Having the print center close by means that, when they are needed, owner’s manuals are only steps away.



With the Nashville plant’s ever-changing workload, long-range forecasting is impossible. Each week, the XBS staffers meet with reconditioning employees to review the week’s production schedule. The manuals required for that week are printed, then delivered to the factory floor. The owner’s manuals are made available as the products are reconditioned and packaged.

At the same time, bar-code labels are created for each item. These labels include the product’s name, catalog number and UPC code. The label and manual are bundled together so that production floor operators have everything they need to complete the job.


Weaver’s group was pleased to find that the new label process worked even better than the previous system’s output.

“With our former system, we were using a film transfer printer for the UPC codes,” says Weaver, “and our units at the Black & Decker retail outlets were having some trouble reading the UPC



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code. But since we converted to the Xerox labeling, we haven't had one complaint about hard-to-read labels."

High Quality, Every Time

There have been other benefits as well. The group's hard copy library of product manuals contained approximately 850 different catalog numbers, requiring considerable warehouse space. With several updated versions for each product, it was easy to accidentally pull the wrong document.

Keeping master copies in good condition also proved difficult. Many manuals ended up as waste because of damage or obsolescence. And "on-the-fly" manuals generated on Black & Decker's walk-up copiers were often of poor quality.

Now, all 850 owner's manuals are archived via the Xerox DigiPath system. There's no chance of pulling the wrong manual from the shelf, no warehousing costs and no danger of damage because each manual is produced only when it's needed.

Moreover, according to Weaver, under the former system about 20 percent of the manuals ended up as waste due to obsolescence or damage. With the Xerox print-on-demand system, Black & Decker has totally eliminated this kind of waste.

New Business Opportunities

According to Weaver, the just in time approach has also resulted in a new and unexpected business opportunity for the Nashville facility. Since the reconditioning group's activity currently accounts for only about half of the DocuTech 6135's total print capacity, Weaver is exploring ways to expand the facility's just in time client base.

"I've been talking with other Black & Decker manufacturing plants around the country," Weaver says, "and they're very interested to learn how we might help them by printing their owner's manuals on demand."

The Nashville reconditioning group has yet another profitable plan up its collective sleeve: offering its reconditioning services to other manufacturers outside

Black & Decker. Such a move, Weaver says, would have been impossible to contemplate without the group's XBS just in time capabilities in place.

"We intend to pursue reconditioning outside of the Black & Decker world," says Weaver. "We have no limitations on what we can recondition.

Refrigerators, dishwashers, whatever, we've got the capability. And print-on-demand gives us the flexibility to produce the owner's manuals right here, no problem."

Already, other manufacturers have expressed interest. "I don't have a sales force to go out and preach this kind of thing, so I've been speaking at a number of reverse logistics conferences getting the word out," says Weaver.

"I think we have a tremendous income opportunity here."

All this comes back to what Weaver and his group do best: figuring out what works, and fixing what doesn't.