

Brother™ Desktop Label Printers Manufacturing Case Study

Brother P-touch® laminated labels help battery manufacturer implement harsh environment labeling solution

Business Problem

Manufacturing lead acid batteries has production challenges, but sourcing a serial number label shouldn't be one of them. The quality assurance team at a leading manufacturer of lead acid batteries decided they wanted a product marking solution to track their batteries in real time through the production process. They needed a durable, barcode label with a unique identifier that could also serve as the product serial number after production, thus eliminating the need to re-label the batteries at the end of the process.

During production, the batteries and any labels are exposed to harsh chemicals (sulfuric acid and the base solution used to neutralize the acid), and repeated abrasion while cleaning off the chemicals. Finding a labeling solution that could hold up in that environment, while at the same time being able to meet the quality control needs presented some unique challenges.

The first challenge was to find a labeling system that could print product information on demand, and could be integrated with their MRP software and placed directly on the production line.

The second, and most difficult challenge was to identify a label media for product tracking that could withstand the harsh production environment. If possible, they also wanted to use that label for the serial number on the finished product.

PART# 10086341-101

MANUFACTURED DATE: 01/18/2010

CAPACITY: 2400 AMP-HOUR

1.205 - 1.220 SPECIFIC GRAVITY, 25°C (77°F)

SERIAL#  **Y89123-63J000128** Made in the USA

Business Solution

The battery manufacturer knew, early on, that the most important part of their solution would be the label. Their quality control procedures required accurate product tracking throughout production, so the label had to stay readable after being exposed to harsh battery chemicals and abrasion.

The battery manufacturer spent a long time looking for the right labeling solution. Pre-printed labels didn't meet their need for flexible, on-demand printing, so they looked at using thermal label printers. After testing several products, they found that, while some label material was able to hold up to one chemical or the other, only the Brother™ P-touch® laminated labels were able to withstand both the acid and base solutions, as well the abrasion, while showing almost no sign of damage or degradation in performance.

Since the P-touch labels looked good enough to be left on the product at the end of the production process, the battery manufacturer decided to use that same label as the product serial number label. This saved them both time and money by eliminating the need to re-label the battery.

Now they needed a label printer that was small and durable enough to be placed in the production line, and could be easily integrated with their MRP software. Since Brother manufactures a full line of label printers and label media, the battery manufacturer was able to select a desktop label printer that fit their use model. In addition, Brother was able to provide them with the software tools and technical support that they needed to make the label printing a seamless part of their production process.



Fast Facts

Industry: Manufacturing – Harsh Environment Labeling

Challenge

To find an on-demand labeling solution that produces durable labels to withstand a harsh manufacturing environment; must be easily integrated with an MRP system.

Solution

Brother P-touch® Desktop Label Printers and Laminated HG and TZ Labels.

Benefits of Brother Label Printers

- Print high-quality laminated labels that resist abrasion, extreme temperatures, chemical exposure, moisture and fading.
- On-demand label printing eliminates the risk of managing preprinted labels while delivering more control to print labels with real time information.
- Brother provides the software tools and technical support to help developers create labels and integrate label printing seamlessly into their applications.
- Brother P-touch labels come in a drop-in tape cartridge system that simplifies media replacement.
- High speed, high resolution thermal transfer printing – maximum print speed is 3.15 ips; maximum resolution is 360 x 720 dpi.*

For more information about Brother P-touch harsh environment labeling solutions, please contact Brother Mobile Solutions at:

Phone: 1-800-543-6144

Email: mobilesolutions@brother.com

Web: www.brothermobilesolutions.com

*Requires use of HG/HGe tape

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Brother™ Desktop Label Printers

Manufacturing Case Study

Putting the Solution Together

To create the bar-coded, serial number labels, the battery manufacturer used Brother P-touch Editor label design software. Once the labels were created, they then used these software development tools to easily integrate the label printing directly with their MRP software.

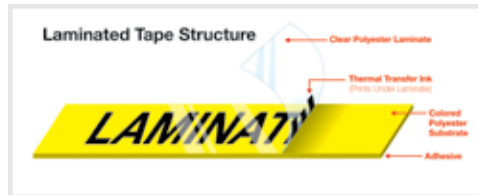
With all the pieces in place, they could now transfer product information from their database to the label printer in real time, on the production floor. The result was a unique serial number label printed as needed for each battery, directly from their MRP system.

Finding a labeling system that could meet all of the battery manufacturer's needs was a challenge that, for them, had only one viable solution – the Brother P-touch laminated labeling system.

The Brother P-touch desktop label printer and laminated labels, along with P-touch Editor label design software and Brother labeling integration tools, provided the battery manufacturer with everything they needed to put together a complete harsh environment labeling solution for their lead-acid battery production.

P-touch Laminated Labeling

Brother P-touch laminated labels are designed and tested for use in harsh environment applications to offer protection from moisture, industrial chemicals, UV light, abrasion, and temperatures from -80°C to 100°C. The durability of the labels comes from their construction, with two polyester layers - the substrate and the lamination - encapsulating the printed resin ink. All printing is done on the underside of the clear polyester lamination layer.



Having the lamination applied as part of the printing process saves time and eliminates the need for manual overlamination. The result is an extremely durable label that stands up to the toughest conditions.

The Brother HG and TZ laminated P-touch tapes come in self-contained, drop-in cassettes, with the substrate, the ink ribbon, and the lamination in a single package. This makes media replacement easy and trouble free - as simple as dropping in a new cassette. It also saves time when compared to other thermal transfer label printers that require loading the label media and the ink ribbon separately, which often results in wrinkles in the ink ribbon and misaligned media.

The Brother P-touch label printers use a thermal transfer technology to print the labels. The important difference, however, between the P-touch system and other

labeling products is the lamination. P-touch labels are printed and laminated in a single process, where the thermal transfer ink is encapsulated between the polyester (PET) substrate and the clear polyester lamination.

Brother offers two models of desktop barcode and label printers for harsh environment labeling applications: the PT-9700PC, with USB and Serial interfaces; and the PT-9800PCN, with standard USB, Host USB, Serial, and Ethernet interfaces.

Both printers produce high-quality, laminated labels suitable for harsh environment labeling. With resolutions up to 360 x 720 dpi and a maximum print speed of 3.15 ips, they can be configured to print on-demand, laminated labels that will fit many vertical market applications.

Brother's desktop and handheld labeling products are being used successfully in many harsh environment applications, and across many industries.

For more information about Brother P-touch label printing solutions, please contact Brother Mobile Solutions at 1-800-543-6144, or send us an e-mail at mobilesolutions@brother.com.



PT-9700PC Desktop Label Printer
(USB, Serial)



PT-9800PCN Desktop Label Printer
(USB, Serial, Host USB, Ethernet)

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