

Brady Corporation:

“Our mission is to provide innovative identification solutions which improve safety, security, productivity and performance for customers worldwide.”



Company Overview

Brady was founded in 1914 in Eau Claire, Wisconsin, USA as W.H. Brady Co., and renamed Brady Corporation in 1998. The company began selling products internationally in 1947. In 1984, Brady went public, with stock trading on the Nasdaq stock market, and in 1999, moved trading of its stock to the New York Stock Exchange, where it trades under the symbol BRC. The company's global headquarters is in Milwaukee, Wisconsin.

Brady manufactures and markets:

- products for identification and safety applications such as signs and markers, and the printers and software to produce them
- products for wire identification, including labelling materials and tools for wire and cable marking in the electrical and telecommunication markets
- high-performance identification products, including labels and signs that remain legible and highly adhesive even in harsh environments
- precision die-cut parts, including custom die-cut and slit materials for use in cellular phones, pagers, computer disk drives and automotive electronic components

Operations – some facts

- 4,300 employees around the world
- Operations in 22 countries
- Distribution in more than 100 countries through more than 4,400 distributor partners

Brady Locations

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China (Wuxi) 86-510-528-2222

Hong Kong 852-2359-3149

Japan 81-45-461-3605

Canada 1-800-263-6179

Korea 82-31-704-8414

Latin America 1-414-540-5560

Malaysia 60-4-646-2700

Mexico 525-399-6963

New Zealand 61-2-8717-2200

Philippines 63-2-658-2077

Singapore 65-6775-7261

Taiwan 886-2-2345-1430

Thailand 66-2-943-0777

USA 1-800-537-8791



Identification and Traceability Solutions for Automotive Manufacturing



End-of-life identification with ultra-durable labels
Automation efficiencies from high-speed label printers and applicators
Traceability starting with integrated label design software



Improved component labelling can lead to greater production throughput and more efficient vehicle recalls.

Could that not help your company make more money?



In today's automotive industry, there are two main factors driving the requirement for permanent traceability of vehicle components:

- Improving manufacturing process efficiency
- Safety

Driven by the vehicle manufacturers' need to protect their brands from damaging safety concerns, every part of the automotive manufacturing supply chain is now having to find ways to make their products fully traceable to the end of the vehicle's life. The ability to support safety-driven product recalls has become a basic requirement in our industry.

Looked at superficially, this could be seen simply as a cost burden.

But implemented with an advanced labelling system, component traceability can deliver substantial cost reductions both during manufacturing and once the vehicle is in service.

It might seem obvious, but the central, essential element in traceability is the *labels* that every component, sub-assembly and vehicle must carry. Decisions about labelling have a critical impact on whether you can benefit from the cost savings possible through traceability.

So you should be asking some important questions before implementing a labelling solution:

- How confident am I that the labels I use will last a vehicle's lifetime?
- Can I afford the amount of time label application adds to my production process?
- How easily and precisely can I link any individual label and the data it carries back to my central production database?
- How easily can I integrate a labelling system into my production line?

These are questions that this brochure, and the Brady line of automotive labelling systems, can help you answer.



Brady benefits: safety, service, quality, cost

How smart labelling drives out inefficiency

A state-of-the-art automated labelling system can help automotive manufacturers improve efficiency at two points: during the production process itself, and when the vehicle is in service.

Such systems link in automatically to the user's MRP or other central control software. The job of the labelling system is to ensure that barcodes and variable information can be written on to, and read from, every individual component or sub-assembly.

But because this data is visible to the production controller through the MRP system, it can help resolve problems more quickly and speed quality checks, by:

- Allowing quicker identification of faulty parts
- Allowing identification of parts by component batch number or component source, or even by the name of the operator who handled the component

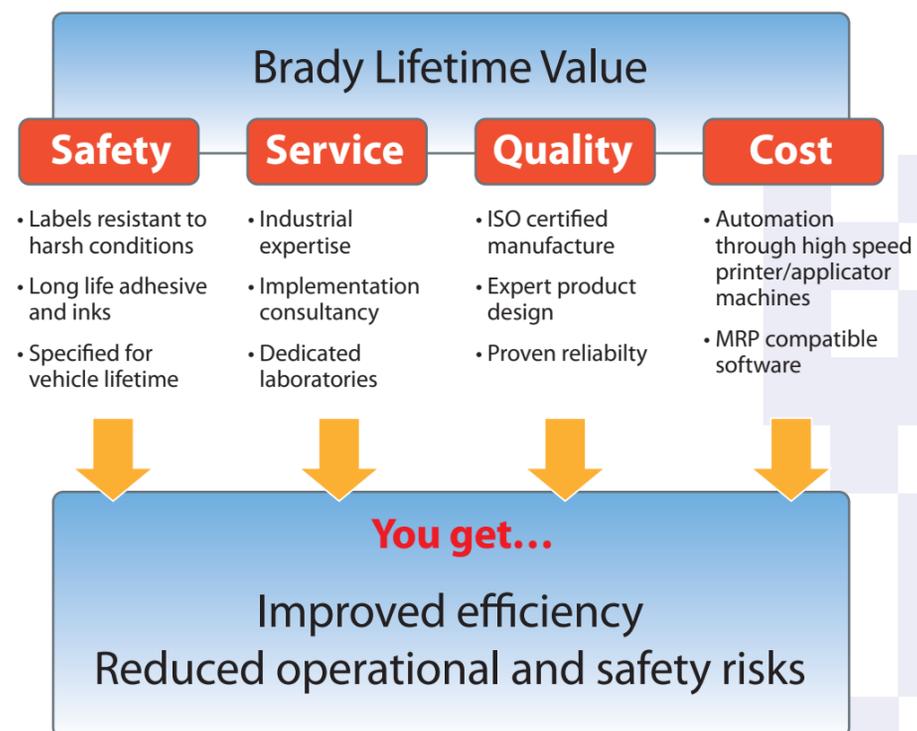
Once the vehicle is in service, the same labels will dramatically reduce the cost of product recalls. Advanced labelling offers the promise that the manufacturer can recall just the vehicles at risk (identified by chassis number), rather than the broad class (identified, for instance, by model name or year of production).

And once recalled, the at-fault components can be instantly identified by the technician against data held centrally, ensuring that sound components are not unnecessarily replaced.

Such is the potential for cost reduction

that a requirement for this kind of advanced component/sub-assembly labelling seems likely to be driven throughout the *whole* of the automotive supply chain by the vehicle manufacturers.

The question for you is, what is the best source for such a system?



So why Brady automotive labelling systems?

• Brady runs one of the world's largest R&D programmes on the design and production of industrial-grade labels. Our expertise in the application of specialist inks, adhesives, plastics and other materials used in labels is unrivalled.

• Brady products and services are focussed on its industrial customer base. We have a team of automotive engineering consultants who know how to implement a lineside labelling system for maximum efficiency.

• Brady labels are manufactured in facilities with ISO certification. You can rest assured that your production process will not be held hostage by failures in our products.

• Brady supplies a complete labelling system that includes the means to print and apply labels within your production process, and link the printing software into your production software system.

Quality

Brady is committed to world-class quality standards and are familiar with quality processes common in the automotive industry. Certifications that our various locations have gained include ISO 9001 and ISO/TS16949:2002

Our production and quality teams strive to deliver to your exact needs and are happy to work with you to develop new parts for your applications, utilising our PPAP and APQP processes when appropriate.

Although many of our materials are already proven against various automotive norms, Brady's regional laboratories can ensure that any proposed materials meet with your precise specifications. We are also committed to ensuring that our materials are compliant with the End of Life Vehicles (ELV) directive 2000/53/EC and, when required, documented in the IMDS (International Material Data System).

The Brady Labelling System

Delivering value throughout a vehicle's lifetime



A modern, efficient system for identifying components used in high-volume manufacturing must include three essential elements:

- A durable label substrate and print that will allow the accurate reading of the information after many years of exposure to harsh environments
- Production equipment that will automate the application of the label to the manufactured product
- Barcoding software that integrates into the manufacturer's MRP system. This software must enable the representation of variable data on the chosen label

Both the physical and software elements of this system must be capable of being easily integrated into the production process used by the customer.

Each of the three elements must, in itself, reach world-class quality standards; and they must operate together such that the whole system also matches automotive manufacturers' world-class quality standards.

This is the system that Brady offers to the automotive market.

Automation

Printer Applicator Machines

Brady's proprietary PAM3600 will increase your production efficiency and eliminate costs associated with the manual application of labels. The PAM3600 offers the most accurate and reliable label placement in its class. The PAM3600 can verify and place labels as small as 4mm x 4mm, while incorporating features that help eliminate common causes of production downtime such as recognition of label misplacement and of missing labels.



Thermal Transfer Printers

Brady offers a comprehensive range of printers for small or large volumes. Our printers can handle a variety of media and offer resolutions from 200dpi to 600dpi. By calling on the unique production and application knowledge of Brady's identification solutions experts, you can be sure of using the correct thermal transfer printer for your needs.



Data capture

Depending on your application, you might require hand-held, fixed position or networked, wireless data capture devices – Brady's experts can identify your exact requirements and recommend the best data-capture solution for your production environment.



Brady's experts can work with you to define the right configuration for your application.

Barcoding Software

From stand-alone label design software to integrated middleware that communicates with your ERP system, the user-friendly Bradysoft™ range of software enables you to print the unique barcode labels that begin the traceability of your components.



The extensive feature list that Bradysoft offers allows you to manipulate the data in the barcode as you require. Even with a simple serial number in a conventional barcode, you will be able to track-and-trace your labelled component through its entire lifecycle. This offers you visibility of the part as it moves through the assembly process, supporting efficiency initiatives that will keep your plant competitive. It also means you can identify the part and its entire history in service, ensuring you maintain control of quality after the goods are assembled and dispatched.

Durable Labels

- Print
- Material
- Adhesive

Printing Software

- BradySoft
- CodeSoft

Production Machines

- Printer/Applicator Machines
- Thermal Transfer Printers
- Barcode Scanners

Services

- On-site service and repair
- Consultancy

Manufacturer's Enterprise Software System



Durable labels

High-performance identification in demanding automotive applications requires:

- A label material and material top-coat that is carefully matched with an ink to create the most durable print for your application
- An adhesive selected to adhere to the application surface and stay applied for the vehicle's lifetime
- Production expertise to ensure that however the product is applied, it can be dispensed and/or handled efficiently

Whatever your application, our carefully developed material combinations can withstand any chemical that is found in use in the automotive market, often without the need to laminate. This offers you the potential to print real-time variable information when and

where you need it, thus eliminating the potential for error in line with widely adopted Poka-yoke practice.

Our label materials are extensively tested in our world-class laboratories for resistance to chemicals, abrasion, temperature and weathering including UV. In many cases, it is possible to test specific material combinations to specifications defined by you.

Brady labels can be specified for any location inside or outside a vehicle, including under-the-bonnet. A range of labels is suitable for use in the solder reflow ovens used in PCB assembly, for automotive electronics applications.

How Brady labels withstand chemical attack

BRAKE FLUID TEST



The Brady label is totally unaffected by the application of brake fluid to its surface

BRAKE FLUID TEST



The application of brake fluid to a competitor's label causes severe damage

How Brady serves the automotive market

Specialist expertise, specialist products



The high-performance component identification systems that Brady supplies are the result of many years of dedication to the automotive market.

The demands that you make on suppliers are tough: on the one hand, the products you use must withstand harsh and extreme environments, for end-product lifetimes of more than a decade; on the other, the systems that integrate them into your production processes must support high-volume manufacturing working to stringent quality standards.

Succeeding in that is a demanding challenge. Three factors have driven Brady's success in addressing the needs of its automotive customers:

Technical expertise

Brady is a specialist labelling systems supplier. Our R&D endeavours are devoted to taking forward the state-of-the-art in labels, inks and substrates, production machines and system software.

In the automotive industry, component specifications can be extremely demanding, and product lifetimes are long. That is why the label performance you need can only be reliably delivered by the advanced materials our scientists have developed.

Market knowledge

Consistently, over a period of many years, Brady has been focussed on supplying a durable range of labels for applications where high-performance, integrated systems are required.

Through constant engagement with our customers in the automotive industry, we have come to understand your particular requirements, from a product and a service standpoint.

Dedicated service and support

It's important to you to deal with suppliers who talk your language. That is why we make available dedicated sales and technical support staff who have an automotive sector specialism.

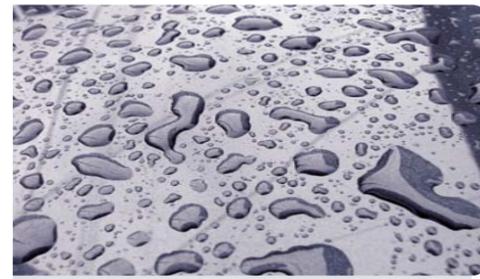
Their experience in helping automotive customers implement process efficiencies and traceability programmes is valuable, because it means you get the labelling system you need.

To us, it's just part of the service when you engage with Brady. For our customers, this intangible service often provides at least as much value as the physical products we deliver to your site.

So, what's the best way to start finding out how Brady can deliver the identification system you need?

If you want to find out how Brady's expertise and products can help you gain process efficiencies and reduce risk, give a call to your local office (see details on the back page).

They will offer advice and recommendations on how Brady systems could be best applied in your site.



Wire and cable marking

For the effective identification of wires and cables in demanding industries, Brady offer a wide range of solutions including 'flag' labels and self-laminating labels. A clear over-laminate makes self-laminating labels ideal for use in harsh environments as the printed legend is always protected.

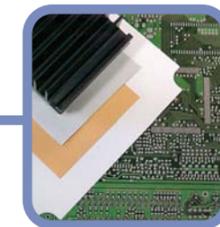


Security

To protect your product from counterfeiting, diversion and tampering and to guarantee your brand integrity, Brady offer a security label range that includes tamper evident checkerboard, void or customised footprint patterns. Also available are various overt and covert printing and material technologies including colour shifting pigments, thermo-chromic and invisible UV reflective images, security fibres and taggants. Brady are a charter member of the North American Security Products Organisation (NASPO) giving you the confidence of a completely secure supply chain for your security needs.

Die-cut products

With the ability to convert many different materials for the automotive market, including thermal management materials for electronic applications, insulators, gaskets, spacing, shielding and many more, Brady can offer you a single source for a multitude of products. Whether we work with your design engineers to develop materials or with your production engineers to assist you with accurate placement of the product, you can be assured of our expertise and our dedication to you.



Signmaking systems

Creating on-demand signs and labels in-house has never been easier. No matter what the demands are in your work

environment – whether it is in process, manufacturing, construction, transport, storage or public buildings – the Brady signmaking printers offer an endless range of solutions including safety signage, process marking, pipe marking, warning and equipment marking.



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