



Metalphoto of Cincinnati

A DIVISION OF
Horizons Incorporated



The Manufacturer's Guide to Metal Labeling

www.mpofcinci.com

Key Takeaway

Metal labeling is a technique used to track and manage physical assets and equipment. It involves attaching durable metal tags, plates or labels directly onto assets in order to provide a permanent, tamper-resistant way to identify and keep records of that asset.

The Manufacturer's Guide to Metal Labeling

Every organization needs to identify, track, and manage the important assets that keep its operations running. Labeling or tagging these assets is a must to keep tabs on your most valuable or important property, and metal labeling is one of the most popular labeling solutions for manufacturers.

Different materials are best suited for different applications. **Metal is more durable than plastic**, which makes it an ideal substrate for demanding or harsh environments.

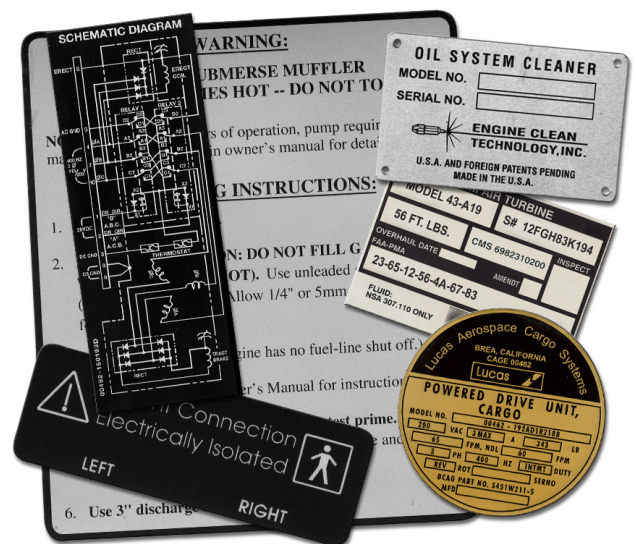
Even if you've already decided on metal labels for your factory or plant, you still need to understand the different types of metal labels available, as well as tips to help you get as much value out of your investment as possible.

This comprehensive guide will give you a detailed overview of metal labeling, its advantages over alternative materials, and best practices for using metal labels in your own business.

What is Metal Labeling?

Metal labeling is a tagging method that businesses use to add durable labels to machinery or equipment. Sometimes this is for tracking assets, while other times it's for safety, compliance, or educational purposes.

Metal labels are a widely-used method for identifying products, machinery, and



equipment in industrial applications. Metal labels and tags display important safety and operational information, including:

- **Serial numbers**
- Barcodes
- Instructions
- Hazard warnings

While manufacturers can choose between many different substrate options for their labels, metal is the most popular option because it's more durable. This means the information will be legible for a longer period of time, which **helps manufacturers reduce costs** while improving compliance.

Depending on the substrate, metal labels come in a variety of sizes, shapes, colors, and thicknesses. **MPC offers customizable metal labels and tags** to meet a variety of different use cases in manufacturing.

To get the most value out of your metal labels, it's important to choose the right substrate for your use case, budget, and needs. Choose from these popular options for either blank or pre-printed metal labels that last.

Metalphoto® (Rigid or Foil) for Metal Labeling



MPC's Metalphoto® labels and tags are created from the most durable anodized aluminum substrate available. Graphics are sealed beneath a sapphire-hard anodic layer of aluminum, which creates an impenetrable surface. Our Metalphoto® labels and tags survive outdoors for over 20 years, even when exposed to extreme conditions.

Metalphoto® labels and tags can be purchased as a rigid or foil option. While still very durable, foil Metalphoto® labels are thin and flexible, which makes them easy to attach

to textured or contoured surfaces, like pipes or valves. Rigid Metalphoto® labels come in various thicknesses for increased performance in the toughest conditions.

If you go with MPC's metal labels, you can choose to either pre-print the labels so they arrive factory-ready, or you can choose blank tags to customize on-site.

Anodized Aluminum Labels and Tags (Rigid or Foil)

Anodized aluminum labels and tags are a cost-effective alternative to Metalphoto®. While **not as impenetrable as Metalphoto®**, anodized aluminum is still very durable. This gives it excellent resistance to:

- Extreme temperatures
- Chemicals
- Cleaning solvents
- Abrasions from dirt or sand

Anodized aluminum labels and tags can also be flexible or rigid, which will depend on the equipment or machinery you want to label.

Stainless Steel Labels and Tags



Stainless steel is another strong metal labeling option that withstands corrosion, chemicals, and high heat. Different grades of stainless steel are suitable for a wide variety of applications.

MPC offers **three types of stainless steel**:

- **Type 304:** Type 304 stainless steel is the most common type of stainless steel available. Because of its chemical components, this type costs less and has excellent formability.

- **Type 316:** Type 316 stainless steel is more expensive than type 304. However, 316 is stronger and more corrosion-resistant, which makes it especially suitable for marine environments.
- **Type 430:** Type 430 stainless steel is a budget-friendly option that's magnetic and more rigid than other types of steel. This type isn't as durable, though, so it's better for aesthetic applications.

Brass Labels and Tags



Brass labels and tags are a decorative yet durable option for manufacturing labels. Brass labels work well both inside and in harsh outdoor environments. This metal substrate offers excellent resistance to:

- Corrosion
- Saltwater
- Tarnish
- Chemicals
- Solvents
- Extreme temperatures

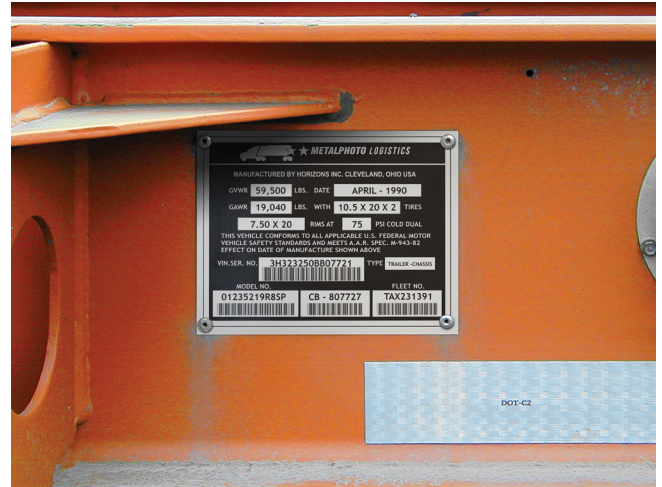
Brass is a low-friction metal that won't generate sparks, so this metal substrate is a safer option for environments with electrical components, fire, or explosives.

The Advantages of Metal Labels Over Conventional Labels

Better Durability

Metal labels are durable and reliable, which makes them ideal for permanently identifying assets exposed to harsh weather conditions.

Rain, snow, ultraviolet radiation, and extreme temperatures can damage polyester or vinyl labels, which renders the identification useless in just a few months. But metal substrates are naturally resistant to environmental damage, impact damage and abrasion from dirt.



Improved Compliance

Because metal labeling is stronger and more resilient, many organizations choose to invest in this permanent option for their products or equipment. However, some industries actually require their assets to have metal identification labels.

For example, the **Department of Defense (DoD) mandates metal labels** on machinery and other assets. The labels must also have specific identification numbers that are machine-readable.

Reduce Long-Term Costs

While metal labels often have a higher initial cost than conventional materials, opting for metal can save money in the long run. Since metal labels are more durable than plastic, polyester, or paper, they have a longer expected lifetime. The information on metal labels remains easily readable and your labels will rarely need replacing.

Improve Security

Using metal for identification labels provides greater safety and security because it's nearly impossible to remove or alter the information on these tags.

For manufacturers with a large number of expensive assets, permanent metal labels help you not only stay compliant with tamper-resistant labels, but also keep your manufacturing sites secure from sabotage.

Standardize Tracking

Whether in a factory or a warehouse, **manufacturers need to track assets** between locations and departments. Opting for standardized metal labels helps you keep accurate inventory of your equipment, machinery, and other assets across all locations.

Four Common Use Cases for Metal Labeling in Manufacturing

Metal labels are ideal for any industry that uses heavy equipment, including construction, military, aerospace, or transportation. Manufacturing is no different.

From property identification tags to hazardous material warning labels, manufacturers can use metal tags in a variety of ways. Every manufacturer is different, but manufacturers commonly use metal labels for these four use cases.

1. Product Identification

Every manufacturer converts raw materials into finished goods that they push through the **supply chain**. As you **scale up production**, it's a good idea to generate labels for these goods — especially if you manufacture heavy machinery yourself.

Metal product identification tags allow manufacturers to track nearly every data point on a product, including its source materials, manufacturing date, employee activity, and much more. This makes it much easier for manufacturers to **identify quality issues** in their products or simplify the **recall process** if they find an issue with a product.



2. Safety and Caution Labels

Manufacturing is a dangerous job, and a single misstep can cause catastrophic injuries. Whether you're required to follow certain **safety regulations** or you follow safety best practices out of an abundance of caution, proper labeling is a must to keep your employees safe.

Opting for paper safety labels will save money in the short term, but these labels aren't built to last. Manufacturers run the risk of displaying unreadable labels, which can put you at risk of employee injuries and litigation.



Durable metal labels ensure your messaging will remain readable regardless of wear and tear, transportation mishaps, or extreme weather. Metalphoto®, anodized aluminum, and stainless steel labels are all suitable for industrial and heavy equipment applications.

3. Asset Tracking

Metal labels and tags are a crucial part of asset identification and tracking in the manufacturing industry. Paired with a **solid asset tracking system**, metal labels help manufacturers manage equipment, tools, and machinery across all their locations.

Scannable metal labels make it easy for employees to submit error-free reports about assets. It also speeds up check-in/check-out processes, leaving a paper trail that can help recover lost assets.

Unlike other materials, durable metal labels won't fade or rub off with regular use. Manufacturers can enjoy greater peace of mind knowing that their asset labels can outlast the lifespan of the asset itself.

4. Maintenance Tracking

Factories and warehouses often contain valuable equipment that requires frequent maintenance. Metal equipment tags are ideal for tracking repairs and locating individual parts and pieces in a manufacturing plant.

Instead of conducting maintenance on a predetermined schedule, your team can use a maintenance tracking system for **predictive maintenance**. Your team will only service the equipment that needs maintenance, reducing costs and saving time.

Four Tips for Using Metal Labels in Manufacturing

As a manufacturer, it's important to **optimize time, materials, and costs** to be as competitive as possible. Metal labels are a solid investment, but even then, it's important to get as much value from that investment as possible. Follow these tips to optimize your metal label ROI.

1. Select the appropriate label substrate for your application

Always consider the environmental demands of the workplace before choosing a metal substrate for your labels. While most metals are very durable, some — like Metalphoto® — are especially suited for rugged environments.

Stainless steel is an ideal choice for food processing equipment, while brass might be best for applications where there are explosive risks present.

2. Consider the best attachment method

In addition to selecting the appropriate substrate, consider the surface of the asset you want to tag. For example, if the surface is curved or textured — such as a pipe or valve — a flexible foil equipment tag might be the best choice.



3. Encourage timely label printing and accurate application

If you want to order blank metal labels and print them in-house, make sure you have enough label printers on hand at each location before you order the blanks. This will make it much easier to print and apply the labels as soon as they arrive at your facility.

4. Utilize barcode or RFID technology

Human-readable labels are important, but human error can slow down some processes. Instead, opt for metal labels that are both human- and machine-readable. This means every tag needs a text-based description for human users and either a QR or barcode for computers to read.



It's easy to generate QR and barcodes from your [asset tracking software](#). These codes make maintenance, asset tracking, and product identification much easier, as employees only need to scan the code.

MPC: Your Partner for Durable Manufacturing Labels

Metal labeling gives manufacturers a durable, long-lasting identification solution that can withstand even the most challenging environments. Metal labels and tags are an excellent investment that helps you get maximum performance and value out of the expensive equipment that keeps your business running.

When it's time to start labeling your equipment, assets, or tools, go with an experienced metal label provider like MPC.

MPC's metal labels and tags are exceptionally durable, which makes them the preferred choice for indoor and outdoor applications. MPC manufactures both pre-printed and blank labels that meet stringent government and industry standards.

Contact MPC today to find the best metal labels for your business.

Metalphoto of Cincinnati

A Division of Horizons Incorporated



Metalphoto of Cincinnati has been a leading full-service manufacturer of durable custom nameplates, panels, overlays, labels and signs for more than 50 years. Our experience is our strength, providing the knowledge and capability to deliver the best solution for your product identification needs. From the dedicated graphics, engineering and customer service teams, to the experienced machine and die operators in our manufacturing plant, each of our associates is committed to providing the high quality products and service that consistently delight our customers.

As a manufacturer of custom identification items, equipment front panels and overlays, MPC offers design support at every turn. Whether you simply need your drawing refined, or have a concept but need assistance with the development of your product, MPC's team includes graphic designers as well as industrial and manufacturing engineers, who will guide you through each step of taking your product from design, and through the manufacturing process that is the most cost-effective for you, the customer.

LET'S TALK