THE BEST PRACTICE GUIDE TO:
OSHA SAFETY SIGNS

Brought to You by Your Label & Sign Professionals!

Your #1 Source for Industrial Identification & Communication Solutions!
Guide Contents

This is a guide to best safety sign* practices. In following these recommendations, you will meet all codes and maximize effective communication of safety related information and warnings.

If you should need further assistance after reviewing this best practice guide, please contact one our knowledgeable customer service representatives at 1-800-788-5572.

| 1 | The Importance of Safety Signs | pg. 1 |
| 2 | OSHA Compliance & Safety | pg. 2 |
|   | Other Organizations Involved In Standardization | pg. 2 |
| 3 | OSHA Compliant Safety Signs & Labels | pg. 3 |
| 4 | Sign Classifications | pg. 4 |
|   | Primary Hazard Classifications | pg. 4 |
|   | Secondary Hazard Classifications | pg. 5 |
|   | Non-Hazard Signs | pg. 7 |
|   | Discontinued Headers | pg. 7 |
| 5 | OSHA & ANSI Sign Classification Table | pg. 8 |
| 6 | Safety Symbols | pg. 9 |
|   | Safety Symbols (Pictograms, Pictorals, or Glyphs) | pg. 9 |
|   | Surround Shapes | pg. 9 |
| 7 | Evaluation of Facility | pg. 10 |
| 8 | Creating Your Own Safety Signs | pg. 11 |
|   | Header | pg. 11 |
|   | Safety Symbol | pg. 12 |
|   | Message Panel | pg. 12 |
| 9 | Tools & Supplies | pg. 13 |
| 10 | How To Create Signs & Labels | pg. 14 |
|    | Label Creation Steps | pg. 14 |
|    | Wide Format Label & Sign Printing | pg. 14 |
| 11 | Sign & Label Maintenance | pg. 15 |
| 12 | Summary | pg. 15 |
|    | Appendix | pg. 16 |

* The words “sign” and “label” will be used interchangeably. In general, the only difference between a sign and a label is how it is used. The same standards and codes apply to both signs and labels.
1. The Importance of Safety Signs

Welcome to the Best Practice Guide To: OSHA Safety Signs. You will find valuable information within this guide that will assist you in improving the safety of workers. Understanding the importance of safety signs is the first step. Let’s get started.

According to the Census of Fatal Occupational Injuries, a total of 5,488 fatal work injuries were recorded in the United States in 2007. This statistic excludes work injuries and narrowly avoided workplace disasters. Machinery, electrical connection points, chemicals, visual obstructions, and other potential causes of injury and fatalities exist throughout a facility.

While the 2007 figures are still too high, this number “represents the smallest annual preliminary total since the Census of Fatal Occupational Injuries (CFOI) program was first conducted in 1992.”

The first step in improving safety is to eliminate safety hazards. If that is not possible, engineering controls should be used to remove the hazard or place a barrier between the worker and the hazard. If engineering controls cannot be used, the next step is to implement administrative controls and the final step is to use PPE to protect workers from hazards.

Safety signs and labels play a role in all of these steps except the first, elimination of the hazard. They are an important part of any serious effort to reduce risk and promote safety in the workplace. The Occupational Safety and Health Administration (OSHA) has been a catalyst in encouraging safety sign usage, compliance, and standardization. With such efforts comes an awareness of the importance for organizations to follow specific guidelines and procedures for using safety signs. This will help you and your employees avoid hazardous situations.

1. An explosion at an oil refinery in Big Springs, Texas caused a major fire. The event injured 5 and shut down the facility for two months.

DISCLAIMER: The information presented in this best practice guide was obtained from sources whom we deem reliable and the best available sources; Graphic Products, Inc. has made every effort to assure this information is correct. However, we do not guarantee accuracy or completeness. Graphic Products, Inc. makes no representations or warranties of any kind, express or implied. Information in this guide is subject to change without notice. Except as expressly provided for in writing, the liability of Graphic Products, Inc. arising from the use of this guide is specifically excluded and Graphic Products, Inc. disclaims all warranties and any liability for damages of any kind and any liability whether in contract, tort under statute or otherwise for any injury, damage or loss whatsoever. No reliance should be placed on information contained or to be implied or inferred in this guide, and users of this guide should verify all information with ANSI and OSHA sources directly.

1http://www.bls.gov/news.release/cfoi.nr0.htm
2. OSHA Compliance & Safety

Understanding the importance of safety signs is a positive step in the effort to eliminate injuries and fatalities in the workplace. However, knowing is half the battle. Certain criteria need to be met by employers to ensure safety within the workplace. Employers are not alone in this effort. Different organizations have long been established to guide employers through understanding how to use safety signs properly and effectively.

The employer’s responsibility, as defined in Occupational Safety and Health Act of 1970\textsuperscript{2}, is to provide a safe and healthy workplace for their employees.

To help employers, OSHA’s role in workplace safety is “to promote the safety and health of America’s working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health.” Complying with OSHA standards for worker safety should be a major priority for any organization. Using effective safety signs in accordance with OSHA standards not only helps create a safe workplace, it has the added benefit of improving morale by announcing to your employees that you are concerned for their safety. And when workers are safe, organizations are more successful.

Other Organizations Involved In Standardization

Along with OSHA, three additional organizations are involved in safety sign standardization and compliance: the International Standards Organization (ISO), the National Fire Protection Association (NFPA), and the American National Standards Institute (ANSI).

Each organization has developed safety standards as a part of its areas of responsibility. For example, the OSHA code states that safety signs must be used, and the ANSI Z535 safety sign standards specify formats, colors, and symbols for safety signs. The ANSI standard is the most commonly used standard for sign design.\textsuperscript{3} It applies to signs and labels used on machinery, products and buildings. It applies in most educational institutions, manufacturing plants, warehouses and other types of facilities throughout the U.S. and the world.\textsuperscript{4}

Companies that adhere to such standards protect employees from workplace hazards. In addition, by complying with established standards, organizations and their employees are in a better position to defend themselves should there be liability litigation. Meeting standards may even prevent litigation altogether. Additional advantages of adhering to safety sign standards include the following: elimination of confusion, quicker understanding of the message, and it gives workers the ability to move from one facility to another and immediately understand signage in their new location. As a result, workers are less likely to get into hazardous situations.

\textsuperscript{2}For details about OSHA, including compliance assistance, laws and regulations, and facts, visit http://www.osha.gov\textsuperscript{3} ANSI Z535 standards are explained further at www.ansi.org and can be purchased online at http://global.ihs.com
3. OSHA Compliant Safety Signs & Labels

A number of considerations should be kept in mind prior to creating a safety sign or label. Everyone in your facility (employee, contractor or visitor) should be able to understand the message each sign conveys. OSHA provides clear information on what constitutes the definition of a safety sign, how they should be used, and where they should be placed.

ANSI Z535 and the OSHA §1910.14 Specifications for Accident Prevention Signs require the use of safety signs to indicate specific hazards that, without identification, may lead to accidental injury to workers and/or the public, or lead to property damage (see table on page 9). Keep signs simple and concise, but also make sure they communicate sufficient information so that the message is clear.

When making OSHA compliant safety signs, the sign itself should not present a safety hazard. OSHA specifies that signs must have rounded or blunt corners and they must not have any sharp edges, burrs, splinters, or other sharp projections. OSHA also specifies that the means of attaching the sign to a wall, post or other supporting material may not cause a hazard. For example, the ends or heads of bolts, or other fastening devices, must be located in such a way that they do not constitute a hazard.

OSHA standards must always be followed. However, OSHA does not specify technical aspects for signs such as the sign size, text size and placement, and location of symbols and safety symbols. When OSHA does not have a requirement, then ANSI standards should be followed. Of course, all federal, state or municipal regulations that apply must also be followed.

Note: OSHA compliant labels should be designed to the same standards as safety signs. For example, they should use the same colors as signs. Be consistent in your design so that your labels look like your signs. Variations in design can result in confusion and result in more time needed to read and understand the label. Consistent design of labels and signs, the colors used, how safety symbols are used, and what the header looks like all help communicate critical information quickly.

4. Sign Classifications

Now that you are aware of OSHA compliance and general safety sign practices, the next step is to review different types of safety signs, the nature of their content, and how certain guidelines concerning visual communication are imperative to safety in the workplace.

There are three primary hazard classifications: Danger, Warning, and Caution. OSHA also requires biological hazards to be specifically labeled. There are three secondary hazard classifications: Notice, Fire Safety, and Safety Signs. Safety signs include signs with headers such as “Safety Equipment,” “Eyewash,” or “Emergency Shutdown Procedure.” Another type of sign, the non-hazard sign, is purely informational. Non-hazard signs meet a variety of general communication needs.

Primary Hazard Classifications

DANGER

Danger signs indicate an immediate hazard which, if not avoided, will result in death or serious injury. Danger signs should be limited to the most extreme situations and signify that special precautions are necessary.

The heading “DANGER” is printed in white letters on a red background and is preceded by the safety alert symbol (an equilateral triangle surrounding an exclamation mark). The message should be printed in black or red letters on a white background, or white letters on a black background. Additional safety symbols may be included in the message area.

OSHA states that there is to be no variation in the type of design of signs posted to warn of specific dangers and radiation hazards.

WARNING

Warning signs represent a hazard level between caution and danger. “Warning” indicates a hazardous situation which, if not avoided, could result in death or serious injury.

The heading “WARNING” (preceded by the safety alert symbol) is written in black on an orange background. Additional wording and safety symbols are printed in black on the lower portion of the sign.

Warning signs and labels can be any size, but it is appropriate for the sign to be noticed and easily read from a safe distance. They need to communicate the warning information before someone is in a dangerous area or acts in a dangerous manner.
CAUTION

A caution sign indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. Caution signs are used in areas where potential injury or equipment damage is possible, or to caution against unsafe practices. Caution signs should only be used if there is a risk of personal injury (for hazards which may result in equipment damage only, see “NOTICE” below).

The heading “CAUTION” is written in black letters on a yellow background and is preceded by the safety alert symbol. The message and safety symbols in the body of the sign are printed in black.

BIOLOGICAL HAZARD

According to OSHA §1910.145(e)(4), “The biological hazard warning shall be used to signify the actual or potential presence of a biohazard and to identify equipment, containers, rooms, materials, experimental animals, or combinations thereof, which contain, or are contaminated with, viable hazardous agents... presenting a risk or potential risk to the well-being of man.” The symbol design must conform to the design as shown in the “BIOHAZARD” sign and contain the word “Biohazard” or “Biological Hazard.”

The biohazard symbol can be black, fluorescent orange, or orange-red color. Background color is optional as long as there is sufficient contrast for the biohazard symbol to be clearly defined. A biohazard can also be indicated on a danger or warning sign and may include the safety alert symbol.

Secondary Hazard Classifications

NOTICE

Use notice signs to provide general information that is important or relevant to a building, an area, a machine, or equipment. Notice signs address practices not related to personal injury.

The heading “NOTICE” should be in white italic letters on a blue background. Notice signs should never include the safety alert symbol. The body of the sign is white, and the message is in blue or black lettering on a white background, or white lettering on a black background. Safety symbols can be printed in either blue or black.

Notice signs can include information about procedures, operating instructions, maintenance information, rules, or directions. Notice signs are never used for personal injury hazards or warnings, but can be used to indicate possible equipment or property damage.
GENERAL SAFETY SIGNS

These signs are used to provide notices of general practice and rules relating to health, first aid, medical equipment, sanitation, housekeeping, and suggestions relative to general safety measures.

Signs containing safety instructions or procedures should use heading “SAFETY INSTRUCTIONS” or “SAFETY PROCEDURES.” Where practical, use a more definitive heading, such as “SAFETY SHUTDOWN PROCEDURE.” Signs indicating the location of safety equipment should use a specific header such as “EYEWASH.” If multiple safety items are in the same location, simply use the header “SAFETY EQUIPMENT.”

The message and safety symbols should be printed in green or black on a white background. The signs may also be printed in white on a green background. These signs should never include the safety alert symbol.

FIRE SAFETY

These signs are used to indicate the location of emergency fire fighting equipment. Unlike other signs, they do not require a header. The message and safety symbol are printed in red on a white background, or in white on a red background. Because these signs do not indicate a personal safety hazard, the safety alert symbol must not be used.

Fire safety signs are not used to show the direction to fire equipment, but rather its immediate location.

ADMITTANCE

The admittance sign bridges all of the above categories.

Admittance messages may be included on a sign with any header. You might decide to put “Unauthorized Personnel, Keep Out” on a danger, warning, caution, or notice sign. You may choose to include an admittance message on a general safety sign. The type of header and message content should be determined by the personal risk (if any) or consequences of entering the restricted area.

The primary action statement should be simple, direct, and applicable to the hazard. Keep only essential hazard-related information on the sign. If necessary, consideration can be given to referring the viewer to another source for additional safety information or for permission to proceed. When information on consequence, avoidance, or type of hazard is readily inferred, this information may be omitted from the message panel.

For more examples of different types of signs, visit www.graphicproducts.com.
Non-Hazard Signs

Other types of signs are non-hazard; therefore, the messages conveyed through text and safety symbols don’t imply hazardous situations, potential equipment damage, or threat of injury. These include directional signs, maintenance information, work procedures, and general information.

Although these types of signs are not classified as safety signs, the information they provide still contributes to safety. Whether they encourage workers to properly dispose of trash or point visitors in the right direction, these signs contribute to a safe workplace.

In general, a well-informed employee is a safer employee.

There are many different types of information signs. Some may identify work areas or rooms. Others may remind employees about performing desired activities (throw away trash). Still others give directions, provide operating instructions, or show maintenance schedules. Whatever information an employee, contractor, inspector, or visitor may need about your facility can be supplied using an informational sign.

DISCONTINUED HEADERS

The following headers are no longer included in the ANSI standard. Previously, they were included as an alternative to the preferred format. Existing signs in use or already manufactured which display this older style may continue to be used, but newly created signs should use the preferred format.
## 5. OSHA & ANSI Sign Classification Table

For purposes of this guide, the words “sign” and “signs” may be substituted for the words “tag” and “tags” in the following table:

<table>
<thead>
<tr>
<th>SIGN</th>
<th>OSHA</th>
<th>ANSI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DANGER</strong></td>
<td>Danger tags shall be used in major hazard situations where an immediate hazard presents a threat of death or serious injury to employees.</td>
<td>Indicates a hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.</td>
</tr>
<tr>
<td></td>
<td>OSHA §1910.145(f)(5)</td>
<td>ANSI Z535.2-2007 (4.11.1)</td>
</tr>
<tr>
<td><strong>WARNING</strong></td>
<td>Warning tags may be used to represent a hazard level between “Caution” and “Danger,” instead of the required “Caution” tag, provided that they have a signal word of “Warning” and an appropriate major message.</td>
<td>Indicates a hazardous situation which, if not avoided, could result in death or serious injury.</td>
</tr>
<tr>
<td></td>
<td>OSHA §1910.145(f)(7)</td>
<td>ANSI Z535.2-2007 (4.11.2)</td>
</tr>
<tr>
<td><strong>CAUTION</strong></td>
<td>Caution tags shall be used in minor hazard situations where a non-immediate or potential hazard or unsafe practice presents a lesser threat of employee injury.</td>
<td>Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.</td>
</tr>
<tr>
<td></td>
<td>OSHA §1910.145(f)(6)</td>
<td>ANSI Z535.2-2007 (4.11.3)</td>
</tr>
<tr>
<td><strong>NOTICE</strong></td>
<td>Other tags may be used in addition to those required by §1910.145(f), or in situations where §1910.145(f) does not require tags, provided that they do not detract from the impact or visibility of the signal word or major message of any required tag.</td>
<td>“NOTICE” is the preferred signal word to address practices not related to personal injury. The safety alert symbol shall not be used with this signal word.</td>
</tr>
<tr>
<td></td>
<td>OSHA §1910.145(f)(9)</td>
<td>ANSI Z535.2-2007 (4.11.4)</td>
</tr>
<tr>
<td><strong>SAFETY</strong></td>
<td>Safety instruction signs shall be used where there is a need for general instructions and suggestions relative to safety measures.</td>
<td>Signs used to indicate general instructions relative to safe work practices or indicate the location of safety equipment.</td>
</tr>
<tr>
<td></td>
<td>OSHA §1910.145(c)(3)</td>
<td>ANSI Z535.2-2007 (4.11.5)</td>
</tr>
<tr>
<td><strong>BIOHAZARD</strong></td>
<td>Biological hazard tags shall be used to identify the actual or potential presence of a biological hazard and to identify equipment, containers, rooms, experimental animals, or combinations thereof, that contain or are contaminated with hazardous biological agents.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSHA §1910.145(f)(8)(i)</td>
<td></td>
</tr>
</tbody>
</table>
6. Safety Symbols

Both OSHA and ANSI encourage the use of safety symbols whenever useful. If a safety symbol helps to convey a message more quickly and clearly, it should be included on the sign. It is necessary to understand what they are, when they should be used, and where they should be placed on safety signs.

Safety Symbols (Pictograms, Pictorals, or Gliph)

Signs and labels may include safety symbols, often called pictograms pictorals, or gliph. Safety symbols can portray required actions, consequences, explicit direction, or the effects of interaction with certain chemicals, machines, and other hazards. Signs and labels may include more than one pictorial to show a sequence of events for one hazard.

Safety symbols should be consistent, readable, and easily understood. They usually consist of a black image on a white background.

Surround Shapes

You may consider using a surround shape. However, a surround shape will decrease the available space for a symbol. Surround shapes should not be used if they detract from the major message.

HAZARD ALERTING △

You can use this surround shape to highlight a hazardous condition. The symbol should be drawn within a black equilateral triangle and can include a yellow background.

MANDATORY ACTION ○

This type of symbol conveys actions that must be taken to avoid hazards. This symbol consists of a white image within a solid blue or black circle.

PROHIBITION ☓

For actions that should not be taken, this surround shape is required. It consists of a red or black circle with a diagonal slash at 45° from the upper-left to the lower-right.

INFORMATION □

The square (or rectangular) surround shape is typically used to convey equipment location, places of exit, and permitted actions.
7. Evaluation of Facility

Many areas in and around your facility require visual safety communication. Depending on the size and layout of your facility, this might seem like a daunting task. However, taking necessary steps to identify all of these areas assures your compliance with OSHA and ANSI standards and results in greater safety awareness, fewer injuries, and successful organizations.

The first step is an evaluation of your facility to determine its existing condition.

It is important to identify areas in your facility where visual information needs to be added, clarified, and replaced. The objective is to improve in safety, productivity, and compliance. When evaluating your facility, take notice of the following:

EXISTING SIGNS AND LABELS

- Are signs and labels consistent throughout your facility?
- Are they still legible? (Damaged, deteriorated, etc.)
- Are they still accurate? (Name, label color, etc.)
- Do they meet current OSHA and/or ANSI standards?
- Are they visible and readable from a safe distance?
- Do they effectively communicate the message?

AREAS WHERE DIRECTIONAL SIGNS ARE NEEDED

- Are people directed to the correct location?
- Is there clear direction to safety and fire equipment?
- Is the fire exit clearly marked?
- Are there areas where redirection is necessary?

HAZARDOUS AREAS NOT PREVIOUSLY INSPECTED OR EVALUATED

AREAS REQUIRING SAFETY SIGNS THAT ARE NOT CLEARLY POSTED

AREAS WHERE MAINTENANCE IS PERFORMED

AREAS WHERE TEMPORARY SIGNS ARE NEEDED

NEW EQUIPMENT AND MACHINERY

TRAFFIC AREAS

The appendix provides a typical inspection guide that can help you to conduct a thorough inspection of your facility. It will help you to identify and note safety hazards and identify problems that can be eliminated through proper labeling and signage. Appendix A is based on the Graphic Products Facility Safety & Identification Workbook.
8. Creating Your Own Safety Signs

Armed with the ability to recognize the different types of safety signs, their classifications, and specific symbols used, it is now beneficial to know some basic sign design components prior to creating your own sign. Through given examples, this next section will explain in further detail three main components of a safety sign.

In an article entitled “Designing Effective Safety Signs” in Occupational Hazards magazine, Ryan Ebens explains three components of a safety signs: header, safety symbol, and message panel (see figure 1 on page 15). The following are only a few examples of how to create safety signs. OSHA does not specify technical aspects for signs such as the sign size, text size and placement, and location of safety symbols. However, readability is important, so use judgment when creating your safety signs. Refer to the Facility Identification Evaluation Guide in appendix A to help you determine the technical aspects of your safety signs relative to specific areas both inside and outside your facility.

Header

The top portion of the sign contains the signal word. The words “DANGER,” “WARNING,” “CAUTION,” and “NOTICE” signal the level of alert. If there is a risk of personal injury, the signal word must be preceded by the safety alert symbol (an exclamation point inside an equilateral triangle). For general safety signs, choose appropriate signal words such as “STARTUP PROCEDURE” or “EMERGENCY SHOWER.” Headers are optional on fire safety signs but should never include the safety alert symbol.

This model can help you determine which header is appropriate:

To avoid confusion, your signs should be consistent throughout your facility. If you are currently using signs with any discontinued headers, it might be time to replace them with signs using the preferred style.

Refer to Annex E of ANSI Z535.4-2007 for help on sign classification, assessing risk, and choosing a signal word. It is also includes many more examples and sample layouts which may be appropriate for your facility. ANSI Z535.1-2006 gives further information on color standards and tolerances for the signal word panel.
Safety Symbol

When appropriate, you may use a graphic representation that conveys your message without using words. The safety symbol should “describe the type of hazard, or evasive/avoidance actions to be taken” ANSI Z535.2-2007 (8.1.2).

Safety symbols should effectively communicate the message, be easily understood, and be visible from a safe distance. An industrial symbol library of over 400 symbols is included in Graphic Products’ comprehensive software package (visit our website at www.GraphicProducts.com or www.DuraLabel.com).

Message Panel

The message panel describes a hazard, indicates how to avoid it, and advises workers of the consequences of not avoiding the hazard. Always follow these basic guidelines:

- Use left-aligned text
- Use sans-serif fonts (such as Helvetica)
- Write in “headline style”
- Use sentence-style capitalization
- Avoid prepositional phrases
- Use active voice

When determining the order of the message content, consider the target audience’s prior knowledge of the hazard and the necessary reaction time required to avoid dangerous consequences. Also, make sure that the most urgent message is the most prominent.

OSHA 1910.145(e)(2) states: “The wording of any sign should be easily read and concise. The sign should contain sufficient information to be easily understood. The wording should make a positive, rather than negative suggestion and should be accurate in fact.”

The two signs below present the same information. However, the sign on the right communicates the message much more effectively because it follows these guidelines.
9. Tools & Supplies

Before beginning a sign making or labeling project, you’ll need to have the necessary tools and supplies. The process is not complicated and neither are the tools.

As stated on OSHA’s official Web site, “All new signs and replacements of old signs shall be in accordance with these specifications.” Graphic Products, Inc. provides the necessary tools to create the safety signs and labels you need.

If only a couple signs and labels are needed, and there is no rush to have them applied, they can be ordered online or from local sign shops. If more than just a couple signs and labels are needed, it is more economical to get a sign and label printer, such as the DuraLabel PRO 300 or the DuraLabel 9000. With these types of printers you can make both standard and customized signs and labels as needed.

RECOMMENDED TOOLS

- Computer with Windows (2000 or above)
- Word processing software (MS Word, Open Office, etc)
- Laptop (for portability if needed)
- DuraLabel PRO 300 printer – uses vinyl from 1/2” to 4” in width
- DuraLabel 7000 printer – uses vinyl from 4” to 7” in width
- DuraLabel 9000 printer – uses vinyl up to 9” in width
- DuraLabel PRO library of symbols, templates and examples
- DuraLabel PRO 300 battery (for portability if needed)
- Vinyl supply (vinyl size and color depends on the types of signs that are needed)
- Thermal transfer ribbon

COMMON SUPPLIES (visit www.duralabelsupplies.com for a complete list of supplies)

- Cold storage supply vinyl
- Reflective vinyl for low light settings
- Phosphorescent (or “glow-in-the-dark”) vinyl
- Oily surface supply
- Chemical resistant supplies for harsh environments
- Die-cut arc flash or RTK labels

OTHER TOOLS AND MATERIALS

- MBX Vinyl Zapper (pictured right) removes old, hard-to-remove vinyl, decals, reflective tape and adhesives quickly and easily in a single operation
- Cleaning supplies to prepare surface for labeling and sign placement
- Sign blanks – used as backing for safety signs
10. How To Create Signs & Labels

The following steps describe using the DuraLabel PRO 300. Other printers, such as the DuraLabel 7000 and the DuraLabel 9000 (pictured here), work in a similar manner.

Label Creation Steps

In these examples we’ll describe the sign making process using Microsoft Word (or Open Office). Detailed instructions are included with every DuraLabel printer. The DuraLabel CD comes with MSWord label and sign templates. Using the templates speeds up the job—the basic layout of a label or vinyl strip for a sign is already designed for you. Simply customize the content as needed.

STEP ONE Connect your DuraLabel printer to a PC. Much like a conventional printer, you can connect using an RS-232 Serial Port, USB2, or CF card socket.

STEP TWO Determine the sign size and use an appropriate template or set the page size accordingly.

STEP THREE Type in a sans-serif font, using capital letters only where necessary. Add safety symbols.

STEP FOUR Determine the appropriate vinyl and ribbon color. Load these supplies into the printer.

STEP FIVE Print your labels.

Large-Format Sign Printing

Larger safety signs may also be created using multiple strips. The DLP and the DuraLabel 7000 can combine strips of vinyl to create larger signs. Either printer will automatically tile the sign using several strips of vinyl, which then can be applied to a sign blank to make a large sign.

DuraLabel brand printers deliver quality, wide-format labels and signs. They print clearly for optimal readability for every job. DuraLabel provides high-quality printing on vinyl and die-cut labels that meet or exceed industry standards for quality and durability. These durable thermal transfer printers and their supplies are designed to withstand even the harshest of factory environments.
11. Sign & Label Maintenance

Safety signs should last a number of years, but sometimes they become dirty, damaged, deteriorated, or missing. Keep inventory of all the signage in your facility, and regularly inspect signs to evaluate their condition. This will ensure compliance with standards and regulations while maintaining a safe work environment.

Safety signs are only useful when they are visible, so they should be properly maintained to ensure legibility. Under normal conditions, signs and labels will last 5-7 years. Environmental conditions can result in varying sign and label lifespans.

Most DuraLabel PRO 300, DuraLabel 7000, and DuraLabel 9000 supplies are chemical resistant, but solvents and cleaning agents may be used when necessary to clean off dirt, grime, oil, etc.

If cleaning is not possible and a sign is not readable, replace the existing sign with a new one. Should the need arise, an MBX Vinyl Zapper can be used to remove it (visit www.graphicproducts.com for more info).

Set up a schedule to reevaluate your facility. Refer to the Appendix of this guide for help.

12. Summary

By now you should have a sound understanding of what safety signs are, why they are important, and how to best utilize them at your facility. Remember to refer to this guide and the included sources as needed.

When used properly and according to OSHA and ANSI Z535 standards, safety signs help to reduce risk, promote safety in the workplace, and assist in the effort of reducing work-related accidents and fatal injuries.

This guide is produced for your benefit as a facility manager to create, distribute, and position safety signs in required and suggested places throughout your workplace environment. Understanding this guide will contribute to the morale of your employees and to the overall success of your organization.

Pictured to the right, the DuraLabel 7000 prints on 7" wide vinyl tape. It’s pictured with the MPS 150, a small, mobile print station designed specifically to work with DuraLabel printers.

This guide is for general purposes only. It is not a substitute for review of applicable standards. © 2009 Graphic Products, Inc. All Rights Reserved.
Appendix

Each section asks questions regarding specific areas where we have found our customers have consistently required improvement. After each question, record your observations in the area provided. You can then use that information to assess the visual communication needs of your facility.

GENERAL LABELING

Identify signs and labels which are not legible:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Identify inconsistent signs and labels:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

OSHA COMPLIANCE & SAFETY

Machines which require lockout instructions:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Operator positions which require specific instructions:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Equipment which requires maintenance instructions:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Areas which require Department Manager’s extensions or emergency contact information:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

GENERAL SAFETY AND INFORMATION

Areas which require instructions for obtaining permits:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

First aid, safety shower, and eye wash stations:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Compressed gas storage areas and containers:

Areas without visible exit signs or directions:

Ladders, scaffolding and lift equipment not properly marked:

Identify any door which can be mistaken for an exit:

Areas where emergency procedures are not clearly posted:

HAZARDOUS CHEMICALS

Secondary (non-manufacturer) containers for chemicals, cleaners, solvents, or for disposal which are not marked:

Which managers have the authority to create and apply appropriate Right-to-Know information to these containers?

Areas which need posted safety procedures:

Evacuation routes that are not clearly marked:

Hazardous waste containers, tanks and vessels:
Hazardous waste storage areas:

Areas containing asbestos:

PERSONAL PROTECTIVE EQUIPMENT

Identify all doors leading to areas where PPE is required:

Areas which require PPE, but are not clearly marked:

Areas which require entry permits:

WAREHOUSE

Are all bins, racks, and shelves clearly and uniformly marked?

Identify all clearance and load limits:

Areas where forklift/fork trucks operate:

ELECTRICAL HAZARDS

Equipment which require lockout/tag-out procedures:

Areas which require entry permits:

Machines with high voltage electrical connection points:
Are all switches and controls clearly marked?

Identify electrical panels which are not clearly marked with 36” clearance, high voltage warning labels, specific voltage, panel number, and breaker identification:

Identify floor areas in front of panels that need to be marked to keep the area clear:

Identify all panels, breakers, and switches which are not clearly marked to identify what they control:

Identify all electrical wires, cables, bundles, and conduits:

Identify every electrical panel and motor control center which is not marked “High Voltage.”

NOTES

Now that you have used this guide to evaluate the signage needs of your facility, it’s time to make a plan to address the areas which need improvement.

A Graphic Products representative will be able to assist you in choosing the right solution for your facility, your application and your budget. Call 800-788-5572 for more information.