THE BOOK

DASKO LABEL

A PEAK TECHNOLOGIES BRAND

If it's worth tracking, it's worth a DASKO label!

LABELING A WAREHOUSE

AND OTHER INDUSTRIAL LABEL APPLICATIONS

TABLE OF CONTENTS

DASKO LABEL

This book is a tribute to the hundreds of customers and thousands of projects that have provided a solid foundation for the creative label solutions that DASKO LABEL has to offer. We hope our knowledge, experience and insight in labeling a warehouse will help make your WMS installation a tremendous success.

Whether you are responsible for labeling a single warehouse site or a rollout project for hundreds of sites, we can relate to your needs and speak your language. DASKO'S consultants have three decades of experience taming the ID and tracking needs for thousands of companies ranging from Fortune 100 multinationals to regional companies with challenging label requirements. Throughout the book, we share lessons learned as well as feedback from some of our customers.

WHATEVER IT TAKES

At DASKO, we understand the term "I needed it yesterday". We commit to what we can deliver and deliver what we commit. With every order, you receive our "whatever it takes" approach to service and support. From quotes to orders, DASKO adds value every step of the way. With each and every job, we offer the following services… at no charge!

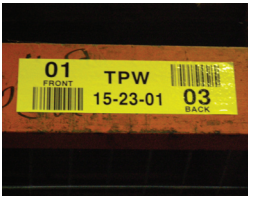
MATERIAL HANDLING INDUSTRY OF AMERICA® Member Company

- ✓ LABEL DESIGNS AND CONSULTING
- ✓ LABEL AND SIGN SAMPLES
- ✓ BARCODES FOR TEST SCANNING
- ✓ FAST TURN AROUND TIMES ON JOBS
- ✓ ASSISTANCE WITH DATA PREPARATION
- ✓ COMMITMENTS AND FOLLOW THROUGH

WE WANT TO BE YOUR LABEL PARTNER

DASKO is much more than just a product supplier. Our goal is to make your project a success and you to look good. We work closely with our customers to establish a partnership where we share our knowledge and experience and in return we learn from the challenges our customers face every day. We know what works… and what doesn't. Let us bring our experience, expertise and "whatever it takes" philosophy to your project so that you can do it once, and do it right. Call us today to discuss your label needs.

A label is not just a label…
it identifies, confirms and directs operators to work efficiently.



Any management team that has been through the fire storm of implementing a warehouse management system knows the pressures involved in the installation. The process involves meeting numerous deadlines while anticipating potential show stopping issues that arise almost daily. Detail upon detail demands the project team's attention with often the smallest items presenting a challenge that must be overcome before the team can move on to the next step in the process.

Among the challenges is the successful barcode labeling of the warehouse for companies installing automatic data collection as part of the WMS package. Successfully labeling a warehouse requires careful attention to detail, a thorough knowledge of both the current and anticipated modes of operation and proper testing within your environmental, sufficient time within the scope of the project time line to complete the job properly.

Since labeling and scanning of barcodes is a very visual activity, you should view this task through the eyes of the operators on the floor. *A label is not just a label… it identifies, confirms and directs operators to work efficiently.* Properly designed labels will allow you to:

UNLOCK THE POWER OF YOUR WMS SYSTEM

Each barcode used in your warehouse provides a key to information in your database. You need the right key to start your car, and you need the right barcode to unlock the power of your WMS system. Your barcode label solution should:

SIMPLIFY YOUR OPERATIONS

Keep it simple with easy to use designs and intelligent label placement

INCREASE YOUR PRODUCTIVITY

Reduce misreads, missing labels, errors and hand keying

MAXIMIZE YOUR RETURN ON INVESTMENT

Do not underestimate the ability of labels to improve the investment you are making in warehouse operations… and save you money.

DO IT ONCE, DO IT RIGHT

It takes time and resources to design, test, produce and install the labels and signs necessary for your project. With all this commitment and effort, you want to do it once and do it right. This can be best accomplished with a label solution that will:

FIT THE FLOW OF YOUR OPERATIONS

Label and sign designs must consider scan distance, scan angle, and placement options that will work with your barcode readers, material handling equipment and procedures.

PROVIDE A CLEAR LINE OF SIGHT

It is critical to consider the operators needs to determine label size, design and positioning.

READ THE FIRST TIME, EVERY TIME

Efficiency is the goal and first time barcode reads are required to achieve this goal. In order to make this happen, you must consider the barcode symbology, barcode size, label materials and interaction with the scanners you will use.

QUICK TO TRAIN, EASY TO UNDERSTAND

Provide good training and use effective label designs that include color coding, arrows and other options to make the labels easy to see and scan.

DASKO Delivers

With all the challenges you face implementing your WMS system, why go it alone when it comes to labels? DASKO combines a thorough understanding of warehouse operations, barcode reading capabilities, printing expertise and proven results from hundreds of similar projects to help you design a label solution that is optimized for your environment. We will help you work through the details of your label needs so you have more time to focus on other aspects of your project.

KRAFT GE imagination at work pepsi

"It was a pleasure to work with DASKO on this project. I knew nothing about identification products and through your patience and expertise, you provided us with a solution that has taken our facility to an entirely new level of professionalism. Thank you."

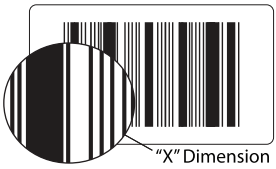
There are three key barcode specifications to consider when designing a barcode label: SYMBOLOGY • X–DIMENSION • QUIET ZONE.

Bar coding is a cost effective technology that improves accuracy and productivity, if implemented effectively. Variables to consider when designing a bar coded label include barcode symbology, print size, print material, reader capabilities, read distance required and label design. Let's review important aspects to a good barcode scan.

BARCODE SPECIFICATIONS

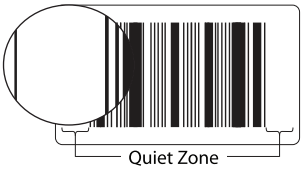
There are three key barcode specifications to consider when designing a barcode label: SYMBOLOGY, X–DIMENSION AND QUIET ZONE.

SYMBOLOGY is the language of the barcode and defines how lines and spaces are printed and read. There are literally hundreds of barcode symbologies, many of which are unique to specific industries. One example is the UPC barcode. This is a numeric-only code and is specific to the retail industry. Warehouses, manufacturing and item tracking applications often require alphanumeric barcodes. *The most common symbologies used for industrial applications are Code 128, Code 39 and Interleaved 2 of 5*. These barcodes are often referred to as one-dimensional barcodes as they are printed with lines and spaces. There are also two dimensional (2D) barcodes that resemble a tile floor and can encode data in less space than traditional 1D codes. Common 2D barcodes include Data Matrix and PDF417. See the examples below.



X DIMENSION
the thickness of the thinnest line

X DIMENSION is a measurement of the thickness of the lines and spaces of the barcode. This will directly affect the overall width of the printed barcode, which in turn affects the overall size of the label. It also directly impacts the minimum and maximum read distances of the barcode. *The height of the printed barcode does not affect the read distance but should be increased as the read distance increases to provide a larger target for the operator to scan.*



QUIET ZONE
the blank space immediately
before and after the barcode

QUIET ZONE is the blank space immediately before and after the barcode and represents the space the reader requires to prepare for and to complete the barcode read. *A proper sized quiet space is required in order for the scanner to be able to read the barcode.*

BARCODE PRINTING METHODS

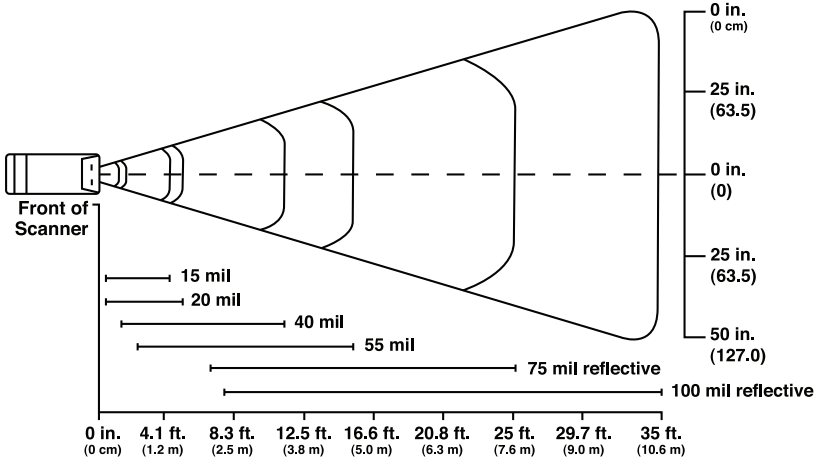
Printing barcodes with variable data (locations) or sequential numbers (pallet/case id's) requires digital printing capabilities. The most common methods of printing barcodes includes thermal transfer, direct thermal, laser, ink jet and toner. There are many considerations as to the material and print process that is appropriate for your needs. Label size, quantity, colors, lamination, base materials, etc. all have an impact on the most cost effective printing process for a specific job. *Outside vendors typically have equipment with faster speeds and greater capabilities than are available using in-house printing equipment.* See Chapter 6 for more discussion on printing processes and in-house printing versus purchasing preprinted labels.

BARCODE READERS

Barcode readers have scan engines or imagers that are engineered for specific scan distances - from short range to extended long range to a combination of both. The scanner's "depth of field", specifies the minimum and maximum reading distance a particular scanner is capable of for a particular barcode size or X dimension. In order to achieve a successful scan, the barcode reader's capabilities must be coordinated with the printed barcode to scan the desired distance. If this is not done correctly, the operators may not achieve consistent scans. That could lead to hand-keying and all the resultant data errors associated with manual data input. The barcode reader and barcode label specifications should be designed to insure a good barcode read – the first-time, every time!

Intermec MOTOROLA PSION LXE

Example of Decode Zone



WHAT ABOUT RFID IN THE WAREHOUSE?

RFID labels incorporate radio frequency technology using a microchip and antenna embedded into the label. This technology has grown for certain applications. However the use of RFID in warehousing applications is limited. It is being used for shipping compliance to certain retail and government customers and for large container shipping but it is often not cost effective for location, container or pallet/case level tracking within the four walls of a warehouse. *As the cost/benefit of this technology becomes more appropriate for warehouse applications, DASKO will lead the way!*

SHOULD I USE 2D BARCODES?

With the development of cost effective 2D barcode readers, the use of 2D barcodes has continued to grow in industrial applications. 2D imagers have a different "depth of field" than traditional laser scanners. The imagers can read barcodes from greater distances using barcode sizes smaller than those required for laser scanners.

ENCODED: DASKO LABEL
1-866-286-6500

The use of 2D barcodes allows for:

- ✓ A larger number of characters in the location scheme using less space than traditional barcodes
- ✓ Greater scan distance from the vertical post (*see Totem Pole, Chapter 7*)
- ✓ Greater scan distance from barcode signs (up to 50') (*See Chapter 9 and 10*)
- ✓ Greater scan distance for pallet id's – lpn's (*See Chapter 13 and 14)*
- ✓ Smaller labels for WIP, item and parts tracking
- ✓ "It looks more high tech" We heard this from a 3PL customer that emphasizes their use of technology to prospective customers walking through their warehouse

2D readers also have the capability to read traditional barcodes. There are many other cost and use issues that must be evaluated before making a decision on the readers that are right for you.

DASKO Delivers

DASKO offers blank and preprinted labels as well as blank and pre-encoded RFID labels. We also offer a wide variety of printing processes to provide you the most cost effective approach for each of your label needs. We can help you with barcode specifications or we can deliver printed labels where you need them, when you need them!

Campbell's

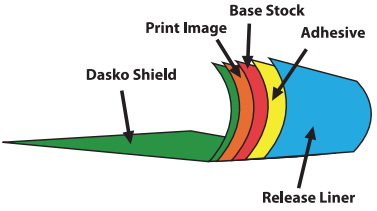
Mercedes-Benz

JCPenney Every Day Matters

"I realize that your company brings more value than just a label… we appreciate your help… thanks again"

" DASKO… your team is outstanding to work with!"

Material combinations are key - Select for durability, specific use, environment and scan distance



Materials are a key element in the success of a barcode project. Label materials affect the durability, label life and scan distance. A finished label is actually a sandwich of layers of material (see diagram). DASKO offers a wide variety of materials for barcode labels - from paper labels to durable film to aluminum labels for office to harsh environments. Blank labels for in-house printing, magnets and sign blanks can be found in Chapter 19.

BASE STOCKS

PAPER
Colors: White and colored
Durability: Less durable, short term use
Common uses: Pallet/Case Id's, LPN's, shipping labels
Special: *Available with "block out" backing to cover existing labels and prevent "bleed" thru which could adversely affect the barcode scan of the top label*

FILMS
Colors: White, Silver, Colored
Materials: Polyester, Polypropylene, Vinyl, High Temp Films, Destructible Polyethylene,
Durability: Durable, long term use
Common Uses: Locations, container Id's, equipment/property, outdoor, manufacturing, industrial
Special: *Available with "block out" backing to cover existing labels and prevent "bleed" thru which could adversely affect the barcode scan of the top label*

RETRO–REFLECTIVE FILM
Durability: Durable, long term use
Common Uses: Upper level locations, hanging signs, outdoor, long distance scanning

ALUMINUM AND STEEL
Colors: Natural and colored
Common Uses: Harsh environments, special needs
Durability: Extreme conditions

"BLOCK OUT" LABEL MATERIAL

ADHESIVES

PERMANENT ACRYLIC
Acrylic adhesives will not dry out over time. Various thickness appropriate for application.

COLD APPLY
Application temperatures to -10ºF

SPECIALTY
Removable, "void" security footprint, high tack rubber and many other specialty adhesives available for specific applications.

DASKO SHIELD *(LAMINATION)*

CLEAR FILM
Colors: Clear - Gloss or Matte
Durability: Provides Subsurface printed label
Materials: Variety of films and thicknesses appropriate for application.
Notes: Adds durability and protection from dirt, oil, humidity, water washes, solvents and chemicals for all durable and long term use labels.

MAGNETIC BACKING

INDUSTRIAL GRADE
Color: White or colored
Common uses: Location labels, Flow Rack labels, Part ID labels, Pick areas
Notes: Variety of thicknesses. Allows labels to be removed, re-positioned and/or re-used in a variety of different ways. Provides color coding.

SIGN BACKING

EXPANDED PVC PLASTIC

Color: White or colored.
Style: Flat, angled, holes.
Common uses: Floor location signs, aisle signs, info/misc. signs

THIN PROFILE PLASTIC

Color: White or colored
Style: Flat, Holes
Common Uses: Totem poles, small signs, special attachments

UNRIPPABLE VINYL

Color: White
Style: Flat, angled, holes
Common Uses: Label holder to affix to rack and angle upper level labels to ground.

CORRUGATED PLASTIC

Color: White or colored.
Style: Squares, triangles, special shapes and sizes.
Common uses: Wall signs, large hanging signs

ALUMINUM

Color: White or colored
Style: Flat, holes.
Common uses: Cold storage, outdoor locations, outdoor dock doors

DASKO Delivers

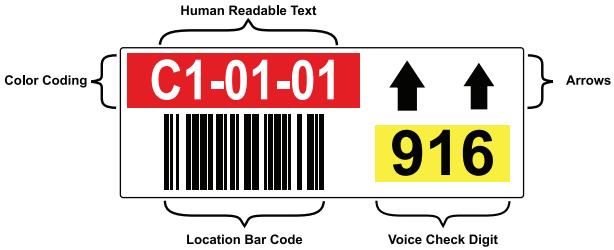
DASKO consultants can help determine the most appropriate and cost effective materials for your application. We will provide samples for testing in your environment.

BLACK&DECKER BLICK art materials BRIDGESTONE

"Rest assured that I shall recommend your company to anyone who is in the need of labels. I am quite happy with your service, thanks again."

Translate your data to a barcode system that is best for your warehouse situation.

The design of the labels and signs needed for your warehouse are specific to your needs. This chapter provides a review of common elements that you should consider when designing your labels. The information you print on the label, the sizes of the barcode and text, and the spacing you desire will all directly impact the size and shape of the label that will be required.



LOCATION BARCODE

Location ID's, Check Digits, Aliases, Part Id's etc. may have a barcode that will print on the label. Specification details for the barcode are discussed in Chapter 2. Here are some other important considerations for the information encoded in the barcode:

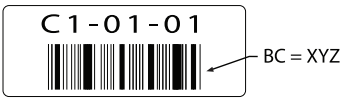
BARCODE MUST MATCH DATABASE

It is critical to make sure that what is encoded in the barcode matches what is loaded in the database. The barcode is the key to the database and must match exactly to access the appropriate record. This requires that hyphen, periods, dashes, spaces, etc. must not be included in the barcode if it is not in the database and vice-versa. The human readable associated with the barcode does not have to match the barcode or the database. The human readable is for visual use only.

Some customers want the human readable to match exactly what is in the barcode in case the barcode can not be scanned, it can then be keyed into the system. Others do not want their operators keying in location information under any circumstances.

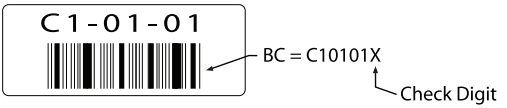
USING AN ALIAS

In some WMS systems, a unique alias is established for each location and the alias is encoded in the barcode. This requires the operator to scan the barcode and prevents them from hand keying in a location. *When scanned, the system will use the alias to cross reference to the actual location in the WMS database.* This is used to confirm it is the correct location for the transaction. The human readable displays the actual location information so the operator is unaware of the alias and will not hand key the alias into the system



USING CHECK DIGITS

Check digits are another method to require the operator to scan the location barcode. Check digits do not have to be unique for each location but they must match what is loaded in the WMS database. This can be done in many ways, but the most common are:



1. Add one or more characters to the actual location in the barcode. This can be random generated or based on a formula but it is pre-determined, loaded in the database and printed in the barcode. *The check digit is not printed in the human readable so you must scan the barcode with the check digit to confirm the transaction.*

2. Provide a separate barcode with only a check digit encoded. When the system assigns a task with a location, the operator scans this check digit which the system uses to confirm that it is the correct location for the transaction.

HUMAN READABLE TEXT

Text can be printed to any size and positioned anywhere on the label. *Text can also be printed in any color. The size, clarity, positioning and color of text provide an opportunity to convey important information to the operator.*

COLOR CODING

Color coding is a valuable tool to help the operators understand which label is associated with each location or to highlight areas of the label to provide greater awareness of certain information. Color coding is often used to identify the following:

- ✓ Differentiate labels on the same rack cross beam *(often bottom two or top two levels)*
- ✓ Easy identification of each rack level
- ✓ Highlight critical data *(aisle, bay, position, etc.)*
- ✓ Highlight voice check digit or other critical information

ARROWS

Arrows are another means to help operators understand which label is associated with each location. Arrows are often used to differentiate labels that are positioned on the same crossbeam (often bottom two or top two levels) and may be used on all levels to make it clear which label is associated with each position.

VOICE CHECK DIGITS

When voice technology is used, a check digit is commonly read by the operator into a headset to confirm the location for a transaction. Sometimes this check digit is a separate label and sometimes it is incorporated into a bar coded location label. Either way, *the voice check digit needs to be quickly and easily identified by the operator.* This can be done through the use of color coding or highlighting. DASKO also offers many alternatives to allow changes to the voice check digits so they are not memorized by the operators. See examples in Style Guide page 63.

DASKO Delivers

Label designs are not right or wrong. They need to be appropriate to your operations and DASKO consultants can help meet your needs using efficient and effective designs. Sample label designs are available in the Style Guide page 57-70.

BED BATH & BEYOND · EL DORADO A different kind of furniture store · Honeywell

"We appreciate DASKO's efforts to meet our tight deadlines… your labels look and work great!"

"Wow… your team is amazing!"

Careful preparation of your data will save you time and money in the printing and installation of your barcode labels.

LOCATION MAPPING

Often warehouses have outdated or inaccurate facility location maps. Mapping the storage locations for a WMS implementation can be extremely time consuming. However *an accurate map of locations helps confirm that all locations are included for labeling and loading into the WMS database, it provides guidance during the installation of the labels and it can be used to determine where other signage (aisle, area, informational) should be placed.* Project teams often underestimate the time required to accomplish this task. This is a critical issue which should be addressed very early in the process of implementation.

DATA FILE CREATION

In order to print the location labels, a data file with the appropriate information for each and every location is required. This list of locations is a database of variable information that will be used to communicate to the label printing software.

FILE FORMATS

The easiest and most common format to create these data files is a spreadsheet. Although it sounds simple, the database becomes more complex when you consider variables such as check digits, aliases, arrow directions, colors by levels and human readable text with separators (periods, spaces, dashes) that are not in the barcode. This database is often created along with additional information that will be used to populate your WMS database.

FILES BY LABEL TYPE

Each label type (size/format) will require its own file for printing. The initial database may include all locations but these will have to be sorted and separated by label type for printing.

SORT CRITERIA

The order in which the locations are sorted within each file is important as this is the order in which they will be printed. The print order should be determined with the label installation in mind. Rack labels are typically sorted by level as it is more efficient to apply the labels at the same level as you go down the aisle. Shelf labels may be more efficiently applied when they are printed in bay sequence so you can stand in front of one shelf and label all levels before moving to the next bay. For more discussion on label installation refer to Chapter 18.

DATA FILE EXAMPLES:

Example 1

BARCODE					HUMAN READABLE				
LEVEL F	LEVEL G	LEVEL H	LEVEL I	LEVEL J	LEVEL F	LEVEL G	LEVEL H	LEVEL I	LEVEL J
GB02F01	GB02G01	GB02H01	GB02I01	GB02J01	GB-02-F01	GB-02-G01	GB-02-H01	GB-02-I01	GB-02-J01
GB02F02	GB02G02	GB02H02	GB02I02	GB02J02	GB-02-F02	GB-02-G02	GB-02-H02	GB-02-I02	GB-02-J02
GB04F01	GB04G01	GB04H01	GB04I01	GB04J01	GB-04-F01	GB-04-G01	GB-04-H01	GB-04-I01	GB-04-J01
GB04F02	GB04G02	GB04H02	GB04I02	GB04J02	GB-04-F02	GB-04-G02	GB-04-H02	GB-04-I02	GB-04-J02
GB06F01	GB				GB-06-F01	GB-06-G01	GB-06-H01	GB-06-I01	GB-06-J01
GB06F02	GB				GB-06-F02	GB-06-G02	GB-06-H02	GB-06-I02	GB-06-J02
GB08F01	GB				GB-08-F01	GB-08-G01	GB-08-H01	GB-08-I01	GB-08-J01
GB08F02	GB				GB-08-F02	GB-08-G02	GB-08-H02	GB-08-I02	GB-08-J02
GB10F01	GB				GB-10-F01	GB-10-G01	GB-10-H01	GB-10-I01	GB-10-J01
GB10F02	GB				GB-10-F02	GB-10-G02	GB-10-H02	GB-10-I02	GB-10-J02
GB12F01	GB				GB-12-F01	GB-12-G01	GB-12-H01	GB-12-I01	GB-12-J01
GB12F02	GB				GB-12-F02	GB-12-G02	GB-12-H02	GB-12-I02	GB-12-J02
GB14F01	GB				GB-14-F01	GB-14-G01	GB-14-H01	GB-14-I01	GB-14-J01
GB14F02	GB				GB-14-F02	GB-14-G02	GB-14-H02	GB-14-I02	GB-14-J02
GB16F01	GB				GB-16-F01	GB-16-G01	GB-16-H01	GB-16-I01	GB-16-J01
GB16F02	GB				GB-16-F02	GB-16-G02	GB-16-H02	GB-16-I02	GB-16-J02
GB18F01	GB				GB-18-F01	GB-18-G01	GB-18-H01	GB-18-I01	GB-18-J01
GB18F02	GB				GB-18-F02	GB-18-G02	GB-18-H02	GB-18-I02	GB-18-J02
GB20F01	GB				GB-20-F01	GB-20-G01	GB-20-H01	GB-20-I01	GB-20-J01
GB20F02	GB				GB-20-F02	GB-20-G02	GB-20-H02	GB-20-I02	GB-20-J02
GB22F01	GB				GB-22-F01	GB-22-G01	GB-22-H01	GB-22-I01	GB-22-J01
GB22F02	GB				GB-22-F02	GB-22-G02	GB-22-H02	GB-22-I02	GB-22-J02
GB24F01	GB				GB-24-F01	GB-24-G01	GB-24-H01	GB-24-I01	GB-24-J01
GB24F02	GB				GB-24-F02	GB-24-G02	GB-24-H02	GB-24-I02	GB-24-J02
GB26F01	GB				GB-26-F01	GB-26-G01	GB-26-H01	GB-26-I01	GB-26-J01
GB26F02	GB				GB-26-F02	GB-26-G02	GB-26-H02	GB-26-I02	GB-26-J02
GB28F01	GB				GB-28-F01	GB-28-G01	GB-28-H01	GB-28-I01	GB-28-J01
GB28F02	GB				GB-28-F02	GB-28-G02	GB-28-H02	GB-28-I02	GB-28-J02

Comma

BARCODE	HUMAN READABLE
GB02F01	GB-02-F01
GB02F02	GB-02-F02
GB04F01	GB-04-F01
GB04F02	GB-04-F02
GB06F01	GB-06-F01
GB06F02	GB-06-F02
GB08F01	GB-08-F01
GB08F02	GB-08-F02
GB10F01	GB-10-F01
GB10F02	GB-10-F02
GB12F01	GB-12-F01
GB12F02	GB-12-F02

Example 2

LOCATION	ARROW
01001A	Down
01002A	Down
01003A	Down
01004A	Down
01005A	Down
01006A	Down
01007A	Down
01008A	Down
01009A	Down
01001B	Up
01002B	Up
01003B	Up
01004B	Up
01005B	Up
01006B	Up
01007B	Up
01008B	Up
01009B	Up
01001C	Up
01002C	Up
01003C	Up
01004C	Up
01005C	Up
01006C	Up
01007C	Up
01008C	Up
01009C	Up

Example 3

DASKO Delivers

A knowledgeable label vendor such as DASKO can provide you with additional guidance and assistance in the preparation of data files. DASKO also offers data creation services to map your warehouse locations and/or create all the necessary data files for your project.

DUNKIN' DONUTS MARY KAY® T.J.maxx

"All your expertise and guidance has definitely paid off for us and we are extremely happy with our final design and label formats. Please pass our thanks and appreciation to your team"

Tel: 866-286-6500 | Email: info@daskolabel.com

DASKO LABEL

The decision to purchase printed labels or to print in-house may be obvious… or it may surprise you... based on your specific application!

The option of printing your WMS label and sign needs in-house versus purchasing labels from an outside vendor requires careful consideration. The following criteria will help you determine which option you should consider based on your needs:

PURCHASE LABELS IF...	PRINT IN-HOUSE IF…
Extreme quantities, sizes or tolerances are required	Printing directly on items or packaging
Specialty materials are required for durability or harsh environments, particularly if the label requires lamination	Information is dynamic or lead times not sufficient for preprint
Specialty needs such as color coding, custom sizes/shapes or sign manufacturing are required	Work flow precludes use of an outside vendor

Advantages of buying preprinted labels:

- ✓ No capital investment
- ✓ Label quality should be guaranteed by the supplier (*it certainly is by DASKO*!)
- ✓ Labels are available when needed, eliminating any chance of down time due to labels
- ✓ Label suppliers are better equipped to offer unique capabilities in materials, designs and printing technologies that may not be available to the end user
- ✓ Offers an opportunity to take advantage of the expertise and experience of a knowledgeable label supplier such as DASKO. We have provided bar coded solutions for thousands of projects with a wide variety of label challenges.

Advantages of printing in-house:

- ✓ Barcode labels can be printed in small quantities, with no minimum level justification
- ✓ Labels can include real-time and product-sensitive data
- ✓ Mobility of equipment gives users the flexibility of moving with the needs of the production environment

It is often assumed that printing in-house costs less than purchasing printed labels. However this is not necessarily true and should be analyzed considering your specific needs and resources.

Here are costs that must be considered when evaluating in-house printing. All of these costs are fully included when you purchase preprinted labels from DASKO.

MATERIAL COSTS	LABOR COSTS	MISC. COSTS
• Printers	• Printing Run Time	• Training
• Print Heads	• Design	• Back Up (*equipment, trained operators*)
• Software	• Data File Preparation	• Down Time
• Maintenance Agreement	• Internal Print Head Maintenance	• Errors (*requiring reprints*)
• Blank Labels		
• Ribbons		
• Material Waste		

PRINTING WAREHOUSE LOCATION LABELS

Purchasing pre-printed warehouse location labels provides an excellent opportunity to take advantage of the expertise of an experienced label vendor. As you will see in the upcoming chapters on warehouse labeling, there is much to consider when selecting materials, creating designs and determining barcode specifications to make sure the labels, scanners and flow of operations all work smoothly for your lift operators.

An experienced vendor like DASKO offers creative solutions, application testing and proven results based on hundreds of similar projects. Our areas of expertise go beyond barcode specifications to include your scanners and your warehouse environment resulting in a very cost-effective insurance policy for you. Just as an experienced, trained electrical contractor can provide results, satisfaction, and peace of mind… an experienced label vendor like DASKO can provide value and insight well beyond the cost of the labels.

Tel: 866-286-6500 | Email: info@daskolabel.com

PRINTING LICENSE PLATE LABELS *(for pallets, cases, totes and WIP tracking)*

Barcode labels are used to track work-in-process and movable units of inventory. Each item being tracked requires a label with a unique identification number. These labels are sometimes used for permanent identification, however most times these are temporary labels that are used to track the item within the four walls of the warehouse or production facility. This may result in a need for thousands or many millions of labels.

DASKO specializes in servicing customers using these types of labels by offering capabilities that include:

- ✓ DASKO-TRAK numbering system that guarantees no duplicate numbers within or between orders
- ✓ Labels delivered to multiple sites with numbering shared by all sites or unique to each site
- ✓ Blanket orders with releases that provide quantity price discounts… but you only pay for labels when they are shipped.
- ✓ Unique sizes, shapes, designs and color coding
- ✓ Labels delivered where you need them, when you need them!

DASKO Delivers

The bottom line is… you must consider how big a print operation you want to establish and maintain. The more labels you print in-house; the more equipment, labor, back up and redundancy plans are required. If you are printing mission-critical labels and they are not available when needed, you may stop a manufacturing line or be prevented from putting away or shipping inventory. DASKO can meet all your label needs while you focus your resources on what you do best… running your business!

"Great job DASKO… I wish all my project tasks were this easy."

…with the service you provide and how quickly you react to our needs… we wouldn't go anywhere else… you guys are great!"

…DASKO is the best!"

Labeling racks and shelves may not be as straight forward as you expect… there are many options to consider.

There are many types of racks and shelves in different sizes and shapes that pose a wide variety of label challenges. Some of the challenges that are consistent across all beams include:



EXISTING LABELS

Often there are old labels and markings on the racks. *If you place a new barcode label over these existing labels or markings, there is a chance the bottom label or markings will "bleed" thru the top label which could cause a barcode scanning problem.* To avoid potential scanning issues as well as eliminate operator confusion with both old and new labels on the racks, you have these options:

- ✓ Remove all existing labels and clean racks
- ✓ Use a block out material for the new label (See Chapter 3)
- ✓ Reface your racks with *Label Magic* from DASKO (see Chapter 8)

LABEL SIZE

Label height should be slightly smaller than the height of the beam face so there are no exposed edges of the label. Some beams are not flat and may have channels that should be reviewed to make sure they will not impact how the barcode presents itself to the operator. The length of the label is determined as a result of the size of the barcode, other information on the label and the design layout that is preferred.

LABEL PLACEMENT

Placement of the labels is important to provide a clear line of sight to the lift operators. Labels are typically placed on the front face of the beam, however sometimes that is not possible such as drive-in or cantilever racks.

Consistent placement of labels on the rack is important to ensure a uniform look. DASKO offers installation tips as well as installation services (See Chapter 18).

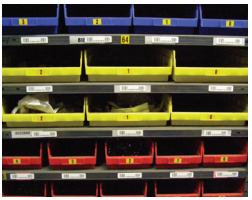
Data mapping is critical to ensure the labels are sorted, printed and delivered in the most efficient way for installation. DASKO offers data mapping guidance as well as data mapping services (See Chapter 5).

Here are some of the label considerations for common types of rack. Again, there are many exceptions and recommendations should be made specific to your rack configuration.

LOWER RACK LEVELS AND SHORT DISTANCE SCANNING

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 57-63

This is applicable to lower level racking, shelves, case pick areas and areas where only order pickers (cherry pickers) are used such that scanning for all levels is done from the same distance. *Short distance scanning in this context is typically 6 inches to 8 feet.*



PALLET RACK

Often the bottom (sometimes the top) crossbeam for the pallet rack is used to display labels for both the location directly below and above the crossbeam. *This is an excellent opportunity to use colors and arrows to make it quick and easy for the operator to associate each label with the correct location.*

DRIVE–IN RACK

This rack does not have crossbeams so there is no beam to apply a label. These racks are commonly labeled on the vertical post at the ground level. See "totem poles" for the vertical post on page 23.

FLOW RACK

These areas need to be labeled front and back with the same location information. *When printing these labels, you should have the label sets on separate rolls for the most efficient installation.* Some flow rack and pick areas have locations that can change in size based on the product stored at any given time. These areas could use magnetic labels or they can take full advantage of the creative *Label Magic* solution offered by DASKO LABEL (See Chapter 8).

DOUBLE DEEP RACK

If you need to manage locations that are double deep (or deeper), we have developed creative label designs to help you label Front/Back positions so it is easy for the operator to understand which barcode applies to each location.

CANTILEVER RACK
Sometimes there is a plate on the face of each cantilever arm that can be labeled. Often, the label must be placed on the side of the cantilever arm. Some of our customers attach a pole to the arm of the cantilever to hang a sign to the side with the location information.

VNA RACK
These areas are often straight forward and can use a fairly simple label design with the label placed on the beam directly below each location.

SHELVES/BINS
Small shelves and bins with small faces on the beams for a label, are often designed with the human readable on the side of the barcode. This allows for a taller barcode for easy scanning as well as a larger font for the text.

UPPER LEVELS AND LONG RANGE RACK SCANNING
DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 57-63

Pallet rack is used to take advantage of space above the floor. *This rack is often 4 or 5 levels but can be 10+ levels high. The rack beams can be 25+ feet from the ground.* Consideration must be made to determine the best method, for your operation, to scan the upper levels when the operator is on the ground. These label options include:

REFLECTIVE LABELS
Reflective label material, a large barcode (x dimension) and a long range reader can combine to scan a location barcode to 25+ feet.

These labels can be affixed in several different configurations:

- ✓ Directly to the rack face.
  Apply adhesive or magnetic label to the rack face. The label can be wrapped underneath the crossbeam if necessary to scan the barcode at a tight angle from the ground.

- ✓ Use angled label holder.
  A flexible label holder can be used to attach to the rack face and display the label at an angle to the ground for easier scanning. The flexibility of the label holder helps protect the label from being torn off if struck by a pallet.

TOTEM POLE ON VERTICAL POST

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 57-58, 61-62

A creative solution to scan the upper rack positions is to bring the location barcodes for the upper levels down to the ground level. Using a "totem pole" approach, these locations can be stacked and placed on the vertical post close to the ground.



When using this label approach, you should consider the following:

LABEL EVERY LOCATION

When using totem poles, we recommend that you still place a barcode label at the actual location on each level. This allows a barcode to be available at the actual location for special situations like audits or inventory counts when you may have equipment that will put you physically closer to the upper levels. It also provides the ability to color code the rack labels by level to match the totem pole for visual verification by the operator.

WHAT LEVELS SHOULD GO ON TOTEM POLE?

There are two schools of thought on this question. Some choose to have all levels on the totem pole so that scanning is consistent and training is easier as all levels are scanned from the vertical post. Others prefer to only put upper levels on the totem pole and to scan the lower levels using the labels affixed to the bottom rack levels.

COLOR CODING

Many of our customers choose to color code the rack labels and the totem pole labels by level using consistent colors by level. *Color coding provides an easy visual verification for the operator* to match the color coded label on the rack to the color coded label on the post to scan the correct barcode. This is especially important for warehouses with high turnover or that use seasonal or temporary labor.

ATTACHING TOTEM POLE TO POST

Since most vertical posts have holes in the post to allow for height adjustments of the rack beams, it is important to protect the totem pole label from damage by everyday use or tampering caused by poking holes in the label. This is easily achieved by either mounting the totem pole label on a magnetic backing or using a thin profile, industrial plastic backing on the label. The plastic backing can be attached with either double sided tape or with nylon cable ties through holes in the plastic that line up with the holes in the vertical post.

PLACEMENT ON THE POST

The totem poles should be affixed to the closest post for each location to provide the most efficient scanning solution. In a typical two pallet wide bay, the totem pole for the positions on the right side of the bay will be attached to the post on the right of the bay, the totem pole for the positions on the left side of the bay will be attached to the post on the left side of the bay.

USE ARROWS

Arrows are used on the totem pole to clearly identify which set of locations is represented on each totem pole. Continuing with the double pallet wide scenario, the totem pole on the right side of the bay requires a left arrow and the totem pole on the left side of the bay requires a right arrow. Except for the post on the very end of the aisle, each vertical post will have two totem poles and the arrows will confirm the locations contained on the totem. It is often easier to avoid printing the arrow directions directly on each totem pole but rather apply preprinted arrows in the appropriate direction during the installation.

VOICE CHECK DIGITS, DOUBLE DEEP RACK, ETC

Totem poles can be designed for double deep racks, 3 pallet wide bays, voice check digits and many other challenges to meet the needs of your unique operations.

HORIZONTAL STRIP ON LOWEST CROSS BEAM

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 62

Another option for upper level locations is similar in theory with the totem pole option. *However instead of using the vertical post, the locations for all levels for each bay position are affixed to the lowest crossbeam for scanning from the ground.* These locations can all be printed on one label and the barcodes should be staggered to avoid potential scanning issues. The horizontal strip can be color coded by level and either adhesive or magnetic backed.

BAY IDENTIFICATION LABELS

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 64

Bay identification labels will assist your lift operators to find the correct location as they drive down an aisle. Each bay can be identified on the side of the vertical posts to make it easy for the operators to read as they drive by. If your operators go up in the racks (using order pickers, cherry pickers, etc.) then you may need to include the level as well as the bay and label each level. Bay ID labels can be color coded and made to any size, shape and design.

RACK CAPACITY LABELS

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 64

These labels are used to identify maximum load capacity on racks and shelves that comply with manufacturer's specifications. The maximum load can be pre-printed or blank areas provided for you to hand write or apply a label with the maximum load weight. These can be provided as adhesive backed labels, magnetic labels or on signs for attachment to the rack. The load capacity labels can be color coded and made to any size, shape and design.

DASKO Delivers

DASKO consultants can assist you to determine what works best for your warehouse. We offer free label samples, design consultation and on-site visits to review your warehouse needs and provide you written label recommendations.

exel

INTERNATIONAL PAPER

Office DEPOT
Taking Care of Business

"It is so nice to have such a quick and thorough response. If only all my suppliers were like that… we will test the samples immediately and let you know the results."

"ROCK ON!!!!!! Thanks to everyone at DASKO that got the job done!"

Resurface your racks… quick, clean and easy!

Label Magic is a revolutionary new product to resurface your racks and provide a new surface that allows you to apply labels for permanent use or to change labels whenever you want… quick, clean and easy!

If you have existing labels or markings on your rack that will not be a part of your WMS label project or if you have flow racks or pick areas with changing location sizes or changing item information, then you should consider *Label Magic* as part of your project plan.

This patent pending product has taken years of research in material development and field testing. The result is a feature rich product for the WMS industry that will:

- ✓ Give your racks an instant face lift! *Label Magic* completely covers existing labels and markings on the rack without the hassle, expense and mess of removing old labels and cleaning racks.
- ✓ Clean and consistent WMS labeling! New labels can be applied to the *Label Magic* surface with no barcode scanning concerns.
- ✓ Change labels quick, clean and easy! Re-slot and reconfigure locations, change voice check digits, change product information. Just remove any label from the *Label Magic* surface and re-apply in a different location or apply a new label in its place.
- ✓ Save $$$! *Label Magic* allows for label changes without the cost of magnets or label holders.
- ✓ Use anywhere! *Label Magic* can be applied in dry, cooler and freezer environments.
- ✓ Compare or Contrast! *Label Magic* can be colored to match your existing racks or contrasted to identify where labels should be applied.
- ✓ Tape or Label format! Cover the entire rack beam with *Label Magic* tape or simply cover existing labels with *Label Magic* labels.

LABEL MAGIC

Label Magic can be used to cover existing labels, markings and imperfections on the rack and prepare the rack face for new labels.

LABEL MAGIC Rack Tape

In a tape form, *Label Magic* is delivered in a continuous format on a roll. This can be provided in any width required and can be easily and quickly applied to the entire length of the rack face. Labels can then be applied, removed and re-applied to the *Label Magic* easily and cleanly, at any time.

LABEL MAGIC Labels

In a label form, *Label Magic* is delivered cut to whatever specific size is designated. These *Label Magic* labels can then used to cover individual labels on the racks or to create fixed positions on the rack that can be used to change location or product information.

DASKO Delivers

You have to see it to believe it! Contact a DASKO consultant for a free sample of *Label Magic* to test on your racks.

DAIFUKU Material Handling and Beyond

kraft foods

Marshalls

"Exceeding the customers' expectation! DASKO is awesome!! Thanks a ton!!"

"Thanks, I must say I do like how you are working with me and being very responsive. I am very heavily tasked with SAP implementation recently and appreciate your support and prompt communications."

9 FLOOR LOCATIONS

Labeling floor locations requires careful consideration of the environment, equipment and products that are being moved throughout the bulk or staging areas.

DASKO offers the most complete line of labels and signs for floor locations. We have experience with thousands of projects over the last several decades and we can provide you with options that best fit your needs. These options include:

HANG SIGNS ABOVE FLOOR LOCATIONS
LABEL THE FLOOR
LABEL POSTS, WALLS OR USE MOVEABLE SIGNS

This chapter discusses when each of these approaches is most appropriate:

HANG SIGNS ABOVE FLOOR LOCATIONS

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 69

Bar coded signs can be suspended from the ceiling directly above each floor location using cable, chain or metal pipe. Stiff sign backings such as plastic or metal should be used to keep the barcode flat for easy scanning. Signs can also be shaped or hung at an angle to provide an optimal view for scanning from the ground. *Hanging signs can be suspended up to 40 feet from the floor and scanned with long range scanners using large barcodes on reflective label material.*

Some applications (such as floor stacked, single level, case pick areas) only need the barcode to be suspended 6+ feet from the floor. These signs may be more cost effective using a smaller barcode printed on a durable white label material. Signs can be manufactured using white or colored materials, cut to any size, and include bends and/or holes based on your needs. In addition to the barcode, these signs can be printed with large lettering, voice check digits, arrows, colors and graphics.

ADVANTAGES

✓ Once installed, signs can be scanned the first time, every time for the life of your WMS system

✓ If you reconfigure your warehouse or move your operations, the signs can be moved

✓ Signs can be used in cold storage and outdoor areas

LABEL THE FLOOR

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 59-60

Labeling the floor is certainly a challenge in an industrial environment. Fork lift traffic and pallets being dragged across the floor can make it difficult to keep painted lines on the floor… even more difficult to keep a bar code that needs to be scanned. *However, there are floor label solutions that can work in your environment.*

ULTRA THIN FLOOR LABEL – A DASKO developed durable floor label with aggressive concrete adhesive that has an extremely low profile to allow items to slide over. Cost effective and durable with many sizes, colors and print options available.

DURACODE FLOOR LABEL – A DASKO label that has been specifically engineered to withstand the rigors of an industrial floor environment and provide a durable bar code on the floor. After years of development, the result is a "best in class" solution for price, performance and durability. This product is offered in a variety of sizes with many print options.

METAL FLOOR FRAME KIT – Strong aluminum frame with replaceable clear lexan covering to protect the label underneath. Frame is anchored to the floor with adhesive or concrete screws. The label can be printed with many colors and print options.

ADVANTAGES

- ✓ Labels can be applied to the floor in a convenient area near the location and scanned from the lift truck without requiring long range scanners
- ✓ Floor labels work extremely well in areas with limited direct impact with fork lift traffic
- ✓ Easy install, cost effective label solution

LABEL POSTS, WALLS OR USE MOVEABLE SIGNS

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 69

Bar coded signs can be attached to walls, structural posts, or movable items such as delineator poles, cones, or home made posts. These signs can be affixed using adhesives, magnets or screws. Signs can also be shaped as tents or L shaped to be placed on pallets or between cases to identify temporary locations or staging areas (see chapter 10).

ADVANTAGES

✓ Same advantages as hanging signs above

✓ Ease of installation, flexibility with moveable posts or signs that can follow the pallet(s)

DASKO Delivers

DASKO consultants can help you with evaluating alternatives to label your floor locations. We also offer samples of floor labels and signs for you to test in your environment. DASKO also offers installation guidance, accessories (See Chapter 20) and full installation services to label all your floor locations (See Chapter 18).

BJ's WHOLESALE CLUB SLEEPY'S SMUCKER'S

"Thank you for another excellent job. We have been very happy with your knowledge and service."

"Signs are up-look great-thanks again for your effort."

"Thank everyone for your quick response on these signs… also your installation team has done an excellent job!"

Don't forget to consider staging, doors, P&D areas, and anywhere else you may drop a pallet to stage when the warehouse is busy.

Staging areas and dock doors have similar challenges as floor locations and many of the solutions are the same. However, these areas tend to have heavy fork lift traffic and labels applied to the floor typically do not work well in these areas.

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 59-60, 69

FIXED STAGING AREAS

Staging locations in fixed areas have the same considerations as floor locations. Refer to Chapter 9 for details on options for floor labels and hanging signs.

VIRTUAL STAGING AREAS

Staging locations that may be created as needed, used in overflow or other special situations need a barcode solution that is flexible to meet changing needs. Options for these areas include movable posts as discussed in Chapter 9. Another option is a bar coded location sign that is either angled as an A frame and placed on top of a pallet that is dropped anywhere in the warehouse or L shaped and slid between cases on a pallet. *Virtual location signs allow these pallets to have a l ocation assigned for scanning and when the pallet is moved, the sign can be returned to the office and the virtual staging location can be closed in your system.*

DOCK DOORS

Barcodes for dock doors should be placed so they are clearly visible with a direct sight line for easy scanning. If you have dock doors that raise straight up with no overhead obstruction, you should consider attaching a bar coded sign directly on the door. Avoid placing it on the very bottom section as this area often gets hit when the door is closed. If you have roll up doors or racking above the door, then the optimal locations for the sign are directly above the roll up or on the wall beside the door. If you label the wall, you should be consistent and label all doors on the same side. Another option for the dock door is to place an adhesive backed label on the door frame. This will work if the frame is large enough to hold a barcode that can be easily scanned from the lift truck.

11 COLD STORAGE

Refrigerators to blast freezers… special considerations may be necessary when labels are applied below 50°F.

Throughout previous chapters of this book, we have indicated options for cold storage areas. If you label locations or pallets or cases at room temperature and then put them in to freezing conditions, you may not require special materials. Materials for permanent cold storage use can be printed, colored, etc. the same as materials for dry storage applications.

SPECIAL MATERIALS FOR COLD STORAGE NEEDS ARE:

RACK – SHELF – BIN LOCATION LABELS. *(Chapter 7)*

Cold temp adhesive on durable poly material that can be applied to -10ºF.

Industrial magnetic backing that can be affixed to frozen rack

LABEL MAGIC *(Chapter 8)*

Product feature includes adhesive that can be applied to -10ºF

FLOOR LOCATIONS – STAGING– DOCK DOORS *(Chapter 9,10)*

Plastic backing will work for most needs but can become brittle and crack if hit in a freezer. Aluminum backed signs are the most durable option for extremely cold temperatures.

PALLET ID'S/CASE ID'S/LPN'S *(Chapter 13 and 14)*

Cold temp adhesive on paper or durable poly labels that can be applied to -10ºF

BLANK LABELS, MAGNETS, SIGNS *(Chapter 19)*

Cold temp adhesives on durable poly or paper labels, magnets and sign blanks of plastic or aluminum are available for in-house printing for cold storage use.

INSTALLATION *(Chapter 18)*

Installation of labels in a cold apply environment is not very different from dry areas due to the use of cold apply adhesives or magnets. However, when attaching totem poles or hanging signs, nylon cable ties may be replaced with either metal cable ties or wire.

DASKO Delivers

DASKO has a lot of experience with cold storage applications and can provide solutions that will work for you. We can provide product samples and installation services to assist with your project.

"I just wanted to let you know that the barcode labels are working great for us. Thank you for all of your help."

"Thank you so much for always being on top of our orders and giving us unsolicited play-by-play. It helps us greatly and is such a wonderful relief to be able to count on your consistent service."

No how matter how big your yard is, we have outdoor location solutions for you.

Throughout previous chapters of this book, we have indicated options for outdoor areas. Outdoor areas are exposed to the sun's damaging UV rays and may be exposed to heat, cold, humidity, rain, ice, snow and wind conditions. *Materials for outdoor applications can be printed, colored, etc. the same as materials for indoor applications.*

SPECIAL MATERIALS FOR OUTDOOR STORAGE NEEDS ARE:

RACK – SHELF – BIN LOCATION LABELS. *(Chapter 7)*
Cold temp adhesive on durable poly material that can be applied to -10ºF.

Harsh environment label materials and thicker laminations for added durability

Industrial magnetic backing that can affixed to outdoor rack

LABEL MAGIC *(Chapter 8)*
Product is made of durable materials that can be used outdoors

FLOOR LOCATIONS – STAGING– DOCK DOORS *(Chapter 9, 10)*
Plastic backing will work for most needs but aluminum backed signs are the most durable option for outdoor use.

Signs can be affixed to buildings, fences, fixed or movable posts. *If signs are to be suspended above outdoor locations, we recommend the signs are attached to two runs of cable (top and bottom of sign) and angle them to the ground.* This will eliminate interference from direct sunlight, anchor the signs from the effects of wind, provide a good line of sight for scanning and protect the signs from outdoor elements such as rain, snow and ice from building up on the face of the sign. Another option is to provide a tent or roof type coverage over each sign to protect it from the outdoor elements.

OUTSIDE DOCK DOORS *(Chapter 15)*
Outdoor signs for dock door identification typically require large lettering and do not have a barcode. The most common backing for permanent outdoor dock signs is aluminum.

PALLET ID'S/CASE ID'S/LPN'S *(Chapter 13 and 14)*
Durable label materials are typically required for these applications to withstand the outdoor environment. These durable materials can be produced as tags or adhesive labels.

BLANK LABELS, MAGNETS, SIGNS *(Chapter 19)*
Harsh environment film materials, durable thermal transfer ribbons, magnets and sign blanks of plastic or aluminum are available for in-house printing applications for outdoor use.

INSTALLATION *(Chapter 18)*
Installation of labels in an outdoor environment requires a detailed review of the specific application. DASKO consultants can assist to help you determine the best installation approach for your application.

DASKO Delivers

DASKO has a lot of experience with outdoor storage applications and will recommend solutions that will work for you. We can provide product samples and installation services to assist with your project.

"I want to express my complete satisfaction with your efforts and quality of the product. Keep up the good work."

"That's good news, great service. Thanks again for all the help and have a great day."

"We went live yesterday… your labels scanned perfectly… DASKO delivered!"

License plate labels are necessary for an automated WMS system to track inventory as it moves through the warehouse.

License plate labels (also referred to as pallet id's, case id's, LPN's and many other names) are bar coded labels used to track inventory units as they move through the warehouse. *They are typically applied and scanned when inventory is received into the warehouse and scanned to confirm each time the pallet/case/unit is moved or counted to confirm the inventory transaction as directed by your WMS system.* We will refer to these labels as LPN's throughout this chapter.

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 65-66

LPN's can be fairly simple paper labels with a single barcode or they may be multi-part labels, or weatherproof to withstand outdoor storage. Here are common considerations when designing and printing LPN labels:

ID INFORMATION

Many WMS systems use a unique sequence number (with or without prefix) on the LPN as a key to the database where all the information on that pallet is stored. Other systems print additional information on the LPN such as product, purchase order and/or storage location. *The information printed on the label will determine the size of the label required as well as help in making decisions on purchasing preprinted versus printing LPN labels in-house.*

LABEL SIZE

We discussed in chapter 2 that the label length allows for a larger barcode for a further scan distance and the height provides a larger target to scan more easily. *The minimum size of label needed for your LPNs is based on the scan distance required, number of characters in the barcode and the barcode symbology that is used.* If you need to scan the LPN's from a long distance and have 2D barcode imagers, you may consider using a 2D barcode.

LABEL DESIGN

In addition to the information to print on the label, you must consider how the pallet will be stored and whether the LPN barcode will be visible to the operator at all times. Some of our customers use sets of labels to apply the same LPN information to more than one side of the pallet. Others use "corner wrap" labels to apply a single label to a corner of the pallet and have the same barcode information visible from 2 sides of the pallet.

MULTI–PART LABEL

Some operations require multiple labels with the same LPN information to apply to documentation or to use to confirm different processes performed on the pallet. *Labels can be manufactured with one or many labels that can be removed at various times by using creative die cutting processes or a "piggyback" label material* which has multiple layers.

COLOR CODING

There are often many existing labels on pallets and cases which may have been applied during manufacturing or from a supplier. *You want your warehouse LPN to stand out so your operator can quickly and easily identify the correct label and perform the scan required.* When these other labels are present you should consider coloring your LPN to provide a visual confirmation that it is the correct label to scan. If the entire label is colored, it should be light, bright or pastel so it will not affect the barcode scan (yellow, fluorescent orange, pale blue, etc.). The label can also be color coded by printing a color bar or box around the barcode.

DURABILITY

Most indoor LPN applications (whether dry or cold) only require a paper label. There are some long term applications and outdoor storage needs that require a durable film material be used. These can be provided as an adhesive label or in a tag format.

CONVEYORS AND FIXED SCANNERS

The barcode size, design and label color should be tested in an automated environment to ensure a good scan-first time, every time.

AUTO-APPLICATION

LPN labels may be applied using automated applicators. Label rolls can be made larger to increase the run time before changing rolls.

DASKO Delivers

License plate labels may be printed in-house or they may be purchased pre-printed from a label vendor. In-house printing is typically done using thermal transfer, direct thermal or laser. Outsourcing vendors such as DASKO can use much higher speed printing presses and also ensure that you will get labels delivered where you need them, when you need them. This allows you to focus your resources on what you do best… running your warehouse! For more information on these printing options, refer to Chapter 6.

DASKO can assist with the design, printing and delivery of LPN labels. We offer blanket order pricing, safety stock, shipments to multiple locations and exclusive use of our DASKO–TRAK system with a guarantee of no duplicate numbers within or between purchase orders.

gsk GlaxoSmithKline

Lindt MAÎTRE CHOCOLATIER

Ocean Spray

"I received the labels yesterday… they look great and scan perfectly. Again thanks for the awesome service you have provided and I appreciate the effort to get it here in a short amount of time."

daskolabel.com DASKO LABEL

Tote or container labels may be a permanent id for the container or it may be a temporary label to track the specific inventory move.

Container labels are bar coded labels used to track totes, drums, crates, racks, containers, etc. that hold inventory on a permanent or temporary basis. They are typically applied to the container in advance and scanned when inventory is placed into or removed from the container as directed by your WMS system. Once the container is emptied it becomes available to be used again and the same container ID number will be scanned and re-used.

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 65-66

Container labels typically require longer term durability than LPN's and possibly exposure to harsh environments. Here are common considerations when designing and printing container labels:

ID INFORMATION

WMS systems require a unique numbering system to identify and track containers.

LABEL SIZE

We discussed in chapter 2 that the label length allows for a larger barcode for a further scan distance and the height provides a larger target to scan more easily. The minimum size of label needed for your containers is based on the scan distance required, number of characters in the barcode and the barcode symbology that is used. If you need to scan the container from a long distance and have 2D barcode readers, you may consider using a 2D barcode.

LABEL DESIGN

The label design should take into consideration the size and positioning of text on the label. In addition to the barcode and text printed on the label, you should review how the container will be stored and whether the container barcode will be visible to the operator at all times.
Sets of labels may be used to apply the same number to more than one side of the container.

LABEL/TAG HOLDER

Some operations use holders to apply or insert container labels or tags. These holders can be pouches or envelopes and may be adhesive or magnetic backed. This may also be another creative use of the *Label Magic* product that DASKO offers. See Chapter 8 for more details. See holder options in Chapter 19.

COLOR CODING

Color coding can be used to identify the container labels or certain information printed on the container label. If the entire label is colored, it should be light, bright or pastel so it will not affect the barcode scan (yellow, fluorescent orange etc.). The label can also be color coded by printing colored text, a color bar or box around the barcode.

DURABILITY

Container labels often require durable label materials that allow for long term use, protection from abrasion, outdoor storage, solvents, water washes and more. There are a variety of materials, adhesives and laminations that may be appropriate based on your application needs.

CONVEYORS AND FIXED SCANNERS

The barcode size, design and label color should be tested in an automated environment to ensure a good scan-first time, every time.

DASKO Delivers

DASKO consultants can help you review the various containers that you use in your operation to determine the best label solution for you. We offer a wide variety of label materials to meet your needs… from durable films to aluminum tags. Special adhesives and laminations are also used for harsh environment applications.

J.CREW

PEPPERIDGE FARM

PSS WORLD MEDICAL

"WOW… thanks for the great service, very much appreciated!"

Signs play a critical role in a warehouse or industrial environment to inform, confirm and direct workers. Some of the more common uses of signs in a warehouse or industrial environment include:

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 70

BARCODE LOCATION SIGNS Refer to chapter 9 and 10

AISLE SIGNS

Inventory storage environments use aisle signs to assist workers to easily locate the correct aisle for the movement of inventory. These signs can be attached to racks or posts or suspended from the ceiling. The sign may hang flat and be read from one side or it can be angled to stand out from the rack or post to be read from both sides. Hanging aisle signs can also be made in square or triangle shapes to be viewed from all sides. *When labeling an aisle, you should place a sign at every entry/exit point.* This would include both ends of an aisle as well as any breaks where there are cross aisles.

AREA SIGNS

Area signs may include general work areas such as put away zones or pick faces or they could be processing areas that are also inventory storage locations such as pallet wrap, QC, Inspection, etc. If they are physical storage locations, the sign may require a barcode. If the areas are large, then multiple signs with the same information may be required. *There should be enough signs so that anywhere in that area that inventory is placed, a sign can be read.*

SAFETY/SECURITY

Some of these requirements are dictated by regulatory agencies such as OSHA requirements and state fire codes. Others are informational signs to make your employees aware or keep them informed of company policies and procedures.

OUTSIDE DOORS AND AREAS

Dock door numbers are used to direct drivers to the appropriate door for deliveries and pickups. These signs typically have jumbo lettering and we recommend an aluminum sign backing. You may also want to consider a reflective face on the sign.

When determining your warehouse signage needs, you should consider the following criteria:

SIZE
Individual signs can be made from very small to full sheets as large as 4'x8' with jumbo lettering.

SHAPE
Most signs require a flat face for easy reading, however the sign backing may be angled in a variety of ways to allow viewing of the signs from multiple angles. This may include L shaped, V shaped, triangles and square signs.

COLOR
As discussed in previous chapters, color coding is an effective way to attract attention and help workers focus on the message. Both the sign backings and the print can be colored to meet your needs.

DURABILITY
Signs can be made with a variety of plastic and metal sign backings for indoor and outdoor applications. Since this signage is typically intended for long term usage, we recommend durable plastic or aluminum materials for sign backings. For cold storage or outdoor storage requirements refer to Chapters 11 and 12.

PRINT
Print on a sign can include text, colors, graphics and logos. Jumbo lettering is available. If a barcode is required, see Chapter 9.

DASKO Delivers

DASKO will provide the most cost effective approach for your warehouse signage; taking into account the size, colors, print requirements and quantity. We fabricate signs and can provide angles, holes and adhesive or magnetic backing. DASKO has also developed a cost effective solution for multi-sided signs such as square and triangle shapes.

Armstrong Keebler Kimberly-Clark Corporation

"Signs were received on time… look great… we appreciate your timeliness with this project."

From cradle to grave, barcode labels are used to identify and track raw materials, work-in-process and manufactured inventory.

There are many industrial label needs that are related to manufacturing processes that take place either in the warehouse or under the same roof. Some of these processes require similar labels to warehousing applications and can be found in other chapters.

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 67-68

PRODUCT NAMEPLATES

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 57-70

These labels are often used for product and/or corporate identification. The label may include barcodes, serial numbers, colors, graphics and logos. Product nameplates typically require a durable label construction made of film or metal.

SAFETY IDENTIFICATION

This includes a full range of signs, labels and products for safety, facility notices, hazardous material warning, operational hazards, highway/parking, lockout/tagout, utility tapes and pipe markers. These products can be customized to your needs - whether you have specific sizes or you want your company name on your signs.

PAINT MASK

Manufacturing processes that include a paint, stain or varnish operation may require a special label construction. This construction has a permanent lamination cover with a removable lamination on top. Once the item has been painted, the top lamination can be removed to expose a clean, laminated label underneath. This allows the same barcode to be scanned throughout the manufacturing process.

WINDSHIELD

Products that have a glass or plastic housing may need a label that is applied to the inside of the glass/plastic which can be viewed from the outside of the covering. Special label construction can be provided for adhesive to be on the face of the label to allow this to be applied properly. This also allows for a barcode to be scanned through the glass or plastic.

HIGH TEMPERATURE LABELS

Some manufacturing processes such as circuit board manufacturing, steel manufacturing and pottery firing use high temp processes that require special label materials. Label materials including film, ceramic and metal are available that can be printed with barcodes and text that will withstand up to 1,800ºF. In addition to extreme heat, label materials are available that meet RoHS compliance and withstand exposure to flux, solvents and washes. These labels can be applied with either adhesive or as a tag using cable ties, wire, screws, rivets or welding.

CALIBRATION

Calibration labels are used to ensure your tools and equipment meet required tolerances and test schedules. These labels are made of a variety of materials that provide write-on surfaces with self laminating options, can be used in harsh environments and provide tamper evident features for security. Calibration labels can be custom designed with colors, graphics and logos.

DASKO Delivers

DASKO offers a complete line of label and tag solutions for a wide range of manufacturing challenges.

Boehringer Ingelheim

GraybaR works to your advantage

MITSUBISHI ELECTRIC

"I thank you and your team for all of your time and efforts on meeting our demands. It has been great working with you and I look forward to working with you in the future."

From lift trucks to tools, office equipment to tracking a corporate fleet; barcode labels can be used to identify and track your property. Durable labels are available for indoor or outdoor applications that adhere well to today's plastic housings as well as all types of metal and other surfaces for:

- ✓ INDUSTRIAL PROPERTY AND EQUIPMENT
- ✓ OFFICE PROPERTY AND EQUIPMENT
- ✓ SECURITY AND WARRANTY TRACKING
- ✓ TOOL TRACKING

DESIGN EXAMPLES SHOWN IN STYLE GUIDE - PAGE 57-70

MATERIALS

Asset labels are most commonly used for longer term and durable use applications. Therefore, these labels are typically made from durable film, ceramic or metal depending on the conditions they will be exposed to. These label materials may withstand human contact, abrasion, solvents, water washes, outdoor exposure and extreme heat (-80ºF to 1800ºF).

ADHESIVES/ATTACHMENT

How the label is attached to the property is a critical consideration in an asset labeling solution. There are a variety of adhesives that work well in different environments. From challenging surfaces to extreme temperatures to security, there are many adhesive options. Plastic tags, metal and some ceramic labels can also be attached with cable ties, wire, screws, rivets or welding.

DESIGN

Asset labels may include a barcode, sequence number, text, graphics and logos. Color is often used on the label for highlighting information or to display your corporate identification. If many different types of assets are being labeled, you should minimize the number of label sizes required and try to find one or a few common sizes that will fit all your property. For labeling glass or plastic housing applications on the inside, the label can be reverse printed so the adhesive is on the front. This allows the label to be applied to the glass/plastic and viewed or scanned from the outside.

SECURITY OPTIONS

There are many security features that can be used in the label design and construction to provide identification and authentication of your property. Numbering systems can be developed that can not be duplicated. Materials are available that will leave a "void" footprint if removed. This identifies a label has been removed from an item and the label can not be used on another item. Other materials can not be removed in one piece and will "destruct" if removed. Laminations are available with holographic images to confirm authentication. Other laminations and print methods can prevent a label from being copied and used on other items.

DASKO Delivers

DASKO consultants can help you sort through the various considerations for your asset labels. From challenging surfaces to extreme temperatures to security, DASKO can help determine and deliver the best material and adhesive for your needs.

STANLEY

VOLVO

Xcel Mechanical Systems, Inc.

"Thanks much for your outstanding attention and customer service to our needs !!!!!"

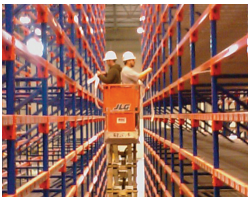
"The order arrived this morning… the labels look great… Thanks to everyone for their help in making this happen!"

"You guys are great!"

Do not under estimate the planning and effort required to install labels and signs for a WMS project!

WAREHOUSE MAP

When labeling a warehouse, one of the most valuable tools to have is a map of the warehouse that helps identify the appropriate placement of labels and signs. This map, or the immediate availability of someone who understands the location layout, will prevent wasted time, errors and the duplication of work that occurs if labels are put in the wrong place. Here are installation tips and considerations in different areas of the warehouse:



RACKS — SHELVES — BINS (*Chapter 7*)

PREPARATION

CLEAN AND DRY

Racks, bins and shelves should be clean and dry so the labels can adhere properly. New or newly painted racks should be allowed to cure before applying labels. Otherwise, outgassing can occur and lift the labels off the rack. Installers should use a rag to wipe dust and moisture from the rack prior to applying the labels.

EXISTING LABELS

If there are existing labels on the racks, it is best to remove or cover them before applying new labels. This can be a significant effort but it eliminates confusion among the operators and prevents the potential of label scanning issues when print on the bottom label "bleeds" thru to the top label which can confuse the scanner. Existing labels can be peeled or scraped off. Sometimes heat guns or chemicals are required to loosen the adhesive. Another alternative is to use DASKO'S *Label Magic* solution to reface the racks.

STRAIGHT AND CONSISTENT

We recommend the use of guides to ensure accurate and consistent positioning of the labels. A magnetic template or other cut out can be used to place the label in a specific and consistent position. Templates are specific to your racking.

APPLICATION/PRINT SEQUENCE

Rack labels are typically printed on rolls. *When installing the labels, you want to consider the most efficient application sequence as this can save much time, effort and cost.* The application sequence must be considered prior to printing the labels. Once the labels are printed it can be very difficult to try and change the sequence for applying the labels. Therefore, this sequence needs to be determined in advance and used when creating the location data files (see Chapter 5). Here are some thoughts on the sequence for various areas:

RACK LABELS

When installing labels on pallet racks, usually the most efficient way to apply them is by level. If there are upper levels, you will need an order picker or scissor lift truck and it is quicker to work down the aisle at the same level rather than constantly going up and down to apply the labels.

FLOW RACKS

Pallet or case flow racks typically require the location to be labeled front and back with the same location information. In addition to applying these labels by level, they should be printed as sets on separate rolls for easier installation of the front and back.

BINS–SHELVES

This type of storage often has all levels that can be reached from the ground. In this situation, you can either apply the labels by level or you may want to apply them by bay position so that you can stand in one area and apply all the levels for that position before you move to the next.

TOTEM POLES *(Chapter 7)*

Totem poles are applied to the vertical post, closest to the pallet positions, at the ground level. If you have double wide pallet bays, then the first and last post will carry one totem pole for the positions on one side of the bay. All the middle posts will hold two totem poles – one for the positions on the left side of the bay and the other for the right side of the next bay. The totem pole should have a hard backing to prevent either intentional or inadvertent damage to the label where the holes in the post exist. Options to install the totem pole include magnetic backing, adhesive backing or holes in the backing that line up with the holes in the post. A nylon cable tie (or wire in cold storage) can then be used affix the totem pole to the post. Arrows should be used to point each totem pole to the locations they represent. It is often most efficient to have these arrows printed on a separate roll and applied to the totem pole during the installation. Make sure you leave room on the totem pole for the arrows.

LABEL MAGIC *(Chapter 8)*

Label Magic can be used to cover existing labels, markings and imperfections on the rack and prepare the rack face for new labels (See Chapter 8 for more details). The rack should be clean and dry when *Label Magic* is applied.

LABEL MAGIC Rack Tape

In a tape form, *Label Magic* is delivered in a continuous format on a roll. This can be provided in any width required and can be easily and quickly applied to the entire length of the rack face. Labels can then be applied, removed and re-applied to the *Label Magic* easily and cleanly, at any time.

LABEL MAGIC Labels

In a label form, *Label Magic* is delivered cut to whatever specific size is designated. These *Label Magic* labels can then used to cover individual labels on the racks or to create fixed positions on the rack that can be used to change location or product information.

FLOOR LOCATIONS *(Chapter 9)*

ADHESIVE LABELS

If adhesive labels are being applied to the floor, you should make sure the area is clean and dry. New labels should not be applied over old labels on the floor. Guides should be used to keep the labels straight and consistent. These can be lines or templates created for the installation.

METAL FRAMES

Metal Frames require the same preparation as adhesive labels for the floor. The label will be adhered to the floor and the frame will either be adhered or will be affixed with concrete screws in each corner.

MOVEABLE SIGNS

Staging areas and "virtual" locations that may be opened and closed quickly may be tent or L shaped signs that require no up front installation. However, if they require pedestals of some sort, we have seen signs attached to traffic cones, delineator poles or posts stuck in a bucket of concrete or sand.

WALL MOUNTED LOCATION SIGNS *(Chapter 9 and 10)*

Signs that are being attached to walls or posts can be affixed with either magnetic backing, adhesive backing or holes in the sign that are used to affix to the wall, post or beam. The holes can be used to screw the sign in place or to use a cable tie, S hook or other fastening device to attach to the post or beam.

HANGING LOCATION SIGNS *(Chapter 9 and 10)*

Signs that are suspended above floor locations require planning and consideration to the specifics of the warehouse and its operations.

CEILING HEIGHT

What is the height of the ceiling or the trusses in the ceiling from the floor? If signs are being suspended from the ceiling, this height is based on what the chain or cable will be suspended from.

SIGN HEIGHT

How high will the sign be suspended from the floor? This should be at least a couple of feet above the highest level of floor stacked product to avoid hitting the signs with the lift trucks.

ATTACH SIGNS TO CEILING TRUSSES

If you can attach the signs at the ceiling truss level, and scan them easily from the floor, this is the most cost effective installation approach. If the ceiling truss runs in the direction you want to affix the signs, and it is an appropriate place relative to the floor location, you can cable tie the sign directly to the truss. If this is not the case, then you can string jack chain or aircraft cable across the truss and affix the sign to the chain/cable.

SUSPEND SIGNS FROM THE CEILING TRUSSES

If the trusses are too high for scanning, then the signs need to be dropped down from the ceiling. Depending on the situation, this can be done individually using chain or cable or it can be done by suspending pipe from the ceiling and using the suspended pipe to affix the signs. There are some accessories that help simplify this process. See Chapter 20 for more details.

OTHER HANGING OPTIONS

We have seen many other ceiling configurations such as wooden ceilings, drop ceilings, plaster, etc. Some of our customers have also hung large sections of PVC pipe or pieces of sheet metal and affixed labels directly to these for scanning.

STAGING – DOCK DOORS (CHAPTER 10)

STAGING

Staging and miscellaneous areas typically have similar installation challenges as moveable, wall mounted or hanging signs. See above for more details.

DOCK DOORS

Dock Doors Signs are typically affixed directly to the dock door or on the wall beside it. If your doors go straight up with no hood or rack above the door, then you can affix the sign directly to the door. It is recommended you place the sign one or two panels above the bottom so it does not take a beating when the door is closed. If you can not attach directly to the door, then it is typically preferred to attach sign on the wall to the right side of the door. You should be consistent as to the placement of the sign for each door.

WAREHOUSE SIGNAGE (CHAPTER 15)

RACK AREA AISLE SIGNS

Aisle signs in rack areas are often attached directly to the racks. Flat signs are often adhered to the end of the rack or hung using a cable tie from a crossbeam on the end of the rack. Signs that stick out from the rack are often L shaped or flat with a special attachment device to attach to the rack. See accessories in Chapter 20.

OTHER SIGNAGE

Aisle signs, areas signs, etc. can also be attached to walls or posts or suspended from the ceiling as described above.

In addition to providing complete installations, DASKO offers the accessories to hang signs. DASKO consultants can help you determine the best approach to hang signs in your facility.

COLD STORAGE (CHAPTER 11)

Installation of labels and signs in a cold environment uses the same approaches as discussed above. Cold apply adhesives or magnets must be used to adhere in cold temperatures. When attaching totem poles to rack posts or hanging signs, in extremely cold temperatures, wire or stainless steel ties should be used in place of nylon.

OUTDOOR STORAGE (CHAPTER 12)

Outdoor labels and signs can also be installed using similar methods as described above. When hanging signs outdoors, it is recommended that the sign be angled towards the ground and anchored on both sides. This requires two runs of cable or chain. If the signs are on a post or wall then you may consider building a hood to protect the sign. These options will minimize sun glare, make it easier for the operator to see the scanner beam, and protect the barcode from harsh outdoor elements such as wind, snow, ice, and UV rays.

DASKO Delivers

Your labels and signs are in… now what? Need a professional and experienced crew to install your warehouse labels? DASKO offers full installation services to make sure your warehouse is labeled and ready to go in time for your "go live". When you use DASKO for your installation, you also get a guarantee that if any labels or signs are lost or damaged, we will replace them at no charge. Labeling a warehouse is a labor intensive effort and the result is the most visible aspect of the WMS system to the warehouse operators. Our philosophy is to "do it once, do it right!"

Dawn FOOD PRODUCTS, INC.

VALERO

TOYS "R" US

"The product looks great, the service was superior and your installation was flawless."

"I couldn't believe how fast and precise DASKO was in their installation."

"DASKO's team took all the worry out of hanging our new signs."

Many projects require in-house printing and creative solutions for labels and signs. DASKO offers label blanks for thermal transfer and laser printing as well as a supporting cast of magnets, label holders and sign blanks for your in-house needs. Some of the products we offer include:

THERMAL TRANSFER LABEL BLANKS

We offer paper labels but we focus on specialty materials such as:

- ✓ Retro-reflective (for long distance scanning)
- ✓ Polypropylene Film (durable indoor applications)
- ✓ Polyester Film (durable outdoor applications)
- ✓ Polyimide/Kapton (high temperature applications)
- ✓ Specialty Adhesives (freezer, void, removable)
- ✓ Color Coded Material

We have stock sizes and custom capabilities to make blank labels to any size you need.

THERMAL TRANSFER RIBBONS

All sizes of resin enhanced wax and full resin ribbons are available for durable in-house printing. We offer ribbons by the roll or by the case.

LASER LABELS

From letter to legal size, DASKO offers paper as well as durable film laser sheets.

- ✓ Vinyl and Polyester Films (durable indoor and outdoor applications)
- ✓ Specialty Adhesives (freezer, void, removable)
- ✓ Custom printed with color, logo's, static text or variable data

Full sheets or labels die cut to any size you need.

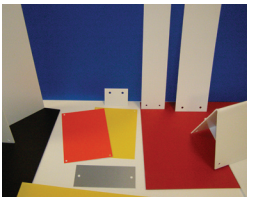
MAGNET BLANKS

Magnets can be used to create a magnetic label, magnetic sign or to be hand written an is re-usable. DASKO uses high quality, industrial magnetic material with the following features:

- ✓ 30mil or 60mil thickness
- ✓ White, brown or colored to your need
- ✓ Provided in continuous roll or delivered cut to any length
- ✓ Write-On capability
- ✓ Adhesive backed to stick on signs

SIGN BLANKS

All these signs materials can be fabricated to any size and shape. Some can be bent or designed for special shapes All materials can include holes for attachment. Some materials can be attached using magnets, adhesive tape or attachment accessories found in Chapter 20.



EXPANDED PVC Plastic

- Good for hanging
- Can be bent for angled sign
- White and colored materials available

THIN PROFILE PLASTIC

- Good for totem poles, hang tags and flat surfaces
- Can be fabricated to any size and shape
- White and colored materials available

CORRUGATED PLASTIC

- Good for aisle signs, large area and information signs
- Cost effective for large and special shape signs (triangles, squares)
- White and colored materials available

ALUMINUM

- Several thicknesses available
- Good for cold storage, outdoor and harsh environment signage
- White and colored materials available

VINYL LETTERS AND NUMBERS

Let DASKO provide the vinyl lettering for your signage. This can be used for aisle, area, safety and informational sign needs.

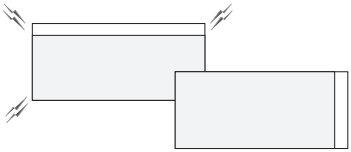
- ✓ Colored text
- ✓ Jumbo Lettering
- ✓ Delivered ready to apply to signs, walls or equipment

LABEL/TAG/SIGN HOLDERS

Label holders can be used to protect your label, provide flexibility to change information or to present label at a different angle.

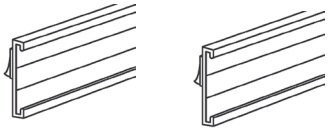
- ✓ Adhesive or Magnetic Vinyl Pouch
- ✓ Adhesive or Magnetic C Channel Holder
- ✓ Plastic Hang Tag
- ✓ Flexible Label Mount

Many options, many sizes!



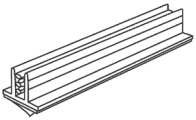
CLEAR VINYL POUCH

Crystal clear vinyl pouch to insert label or tag from side or top. Adhesive or magnetic backed. Available in hundreds of sizes.



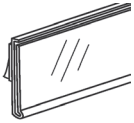
C CHANNEL

Attach to shelving or cabinet fronts. open faced design to insert labels or tags. Available in magnetic or adhesive backed plastic.



GRIPPER SIGN HOLDER

Sign holder to attach flat sign at 90 degree angle from rack or wall for aisle signs, etc. Clear plastic with permanent adhesive base.

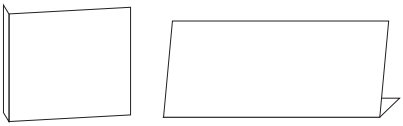


SELF ADHESIVE INFO STRIP

Adhesive backed plastic strip with clear protective face. Insert or change labels easily from side or top. Several sizes available.

FLIP-UP PALLET TAG

Attach location or product label to face. Adhesive adheres to bottom of pallet rack or other surface. Integrated hinge allows tag to swing or flip-up for easy access.

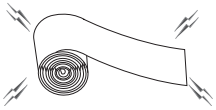


FLEXIBLE LABEL MOUNTS

Flexible plastic label mount with adhesive to attach to rack, crossbeam or vertical post. Attach location, product, aisle or bay label which will be angled from rack for easy viewing or barcode scanning. These can be made to any size.

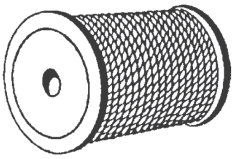
HANG TAG

Sturdy plastic tag that can be affixed to wire racking. Attach location or product label to face. These can be made to any size. Many colors.



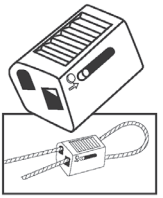
ADHESIVE BACKED MAGNET

Industrial strength magnets with adhesive backing. These can be affixed to signs to create magnetic backed signs.



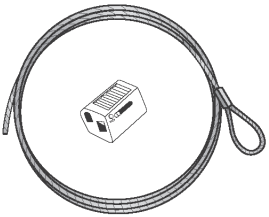
STEEL CABLE

Flexible galvanized aircraft quality cable, bare on plastic spools.



CABLE LOCK/ ADJUSTER

Lightweight, self-locking and re-usable cable lock. Lock and adjust with no special tools required.



STEEL CABLE DROP AND ADJUSTER KIT

Includes cable lock/adjuster and galvanized cable with loop on one end.

METAL JACK CHAIN

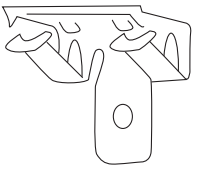
Single jack chain, steel, bright galvanized on plastic spool.

METAL CONDUIT COUPLING

Metal screw coupling for conduit pipe.

METAL CONDUIT PIPE

Allied EMT galvanized steel conduit pipe.

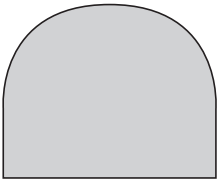


HAMMER ON BEAM CLAMP

Hammer on spring steel, anodized beam clamp.

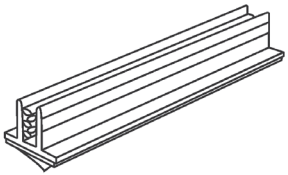
CABLE TIE

Nylon cable tie with self locking mechanism.



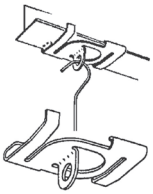
SOFT LABEL APPLICATOR

Deluxe compressed felt squeegee used to apply labels to racks. Squeezes out air bubbles for clean and consistent application without damaging the label.



GRIPPER SIGN HOLDER

Sign holder to attach flat sign at 90 degree angle from rack or wall for aisle signs, etc. Clear plastic with permanent adhesive base.



DROP CEILING TWIST LOOP

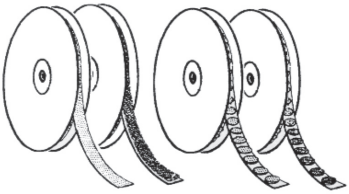
Twist to lock securely to ceiling grid. Can be used to hang signs or run cable.

HINGED SNAP RING

Steel, nickel plated multi purpose ring. Easily snaps and locks securely.

DOUBLE SIDED ADHESIVE TAPE

Provided as tape on rolls with permanent adhesive backing.



HOOK AND LOOP

Provided on rolls with permanent adhesive backing.

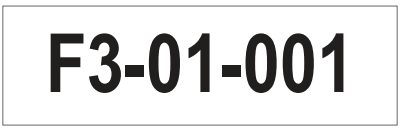
RACK - SHELF - BIN Chapter 7

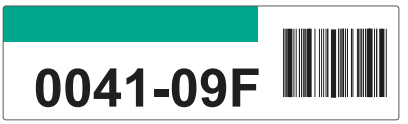
RACK LABEL - TOTEM POLE SETS

RACK - SHELF - BIN Chapter 7

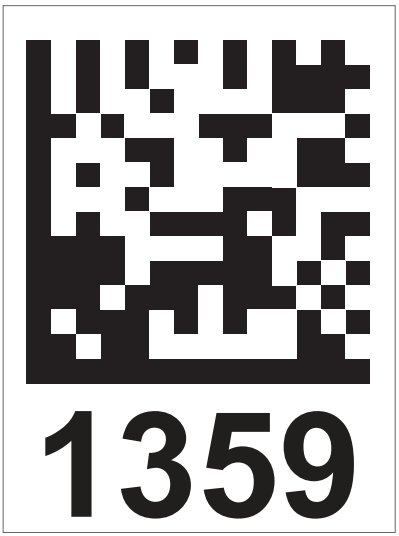
RACK LABEL - TOTEM POLE SETS

RACK - SHELF - BIN Chapter 7





RACK - SHELF - BIN



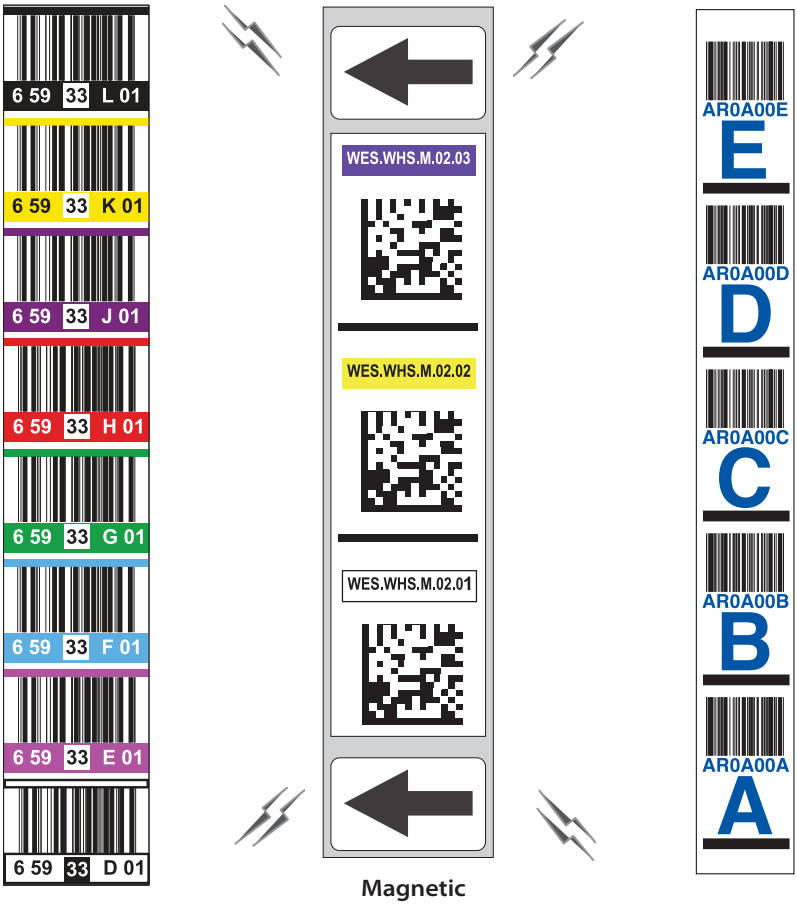
RACK - SHELF - BIN Chapter 7

TOTEM POLES

Double Deep

RACK - SHELF - BIN Chapter 7

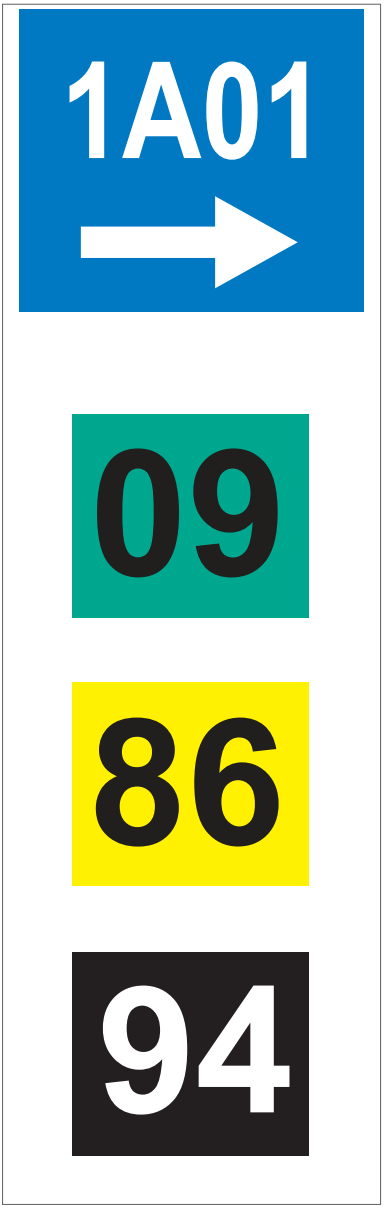
TOTEM POLES



Magnetic

HORIZONTAL STRIP

VOICE LABELS



RACK - SHELF - BIN Chapter 7

RACK CAPACITY

MAXIMUM WEIGHT
_____ LBS

MAXIMUM WEIGHT CAPACITY
2,200 LBS

5,060 LBS
CAP. PER PAIR

BAY IDENTIFICATION

BAY
54
LEVEL
07

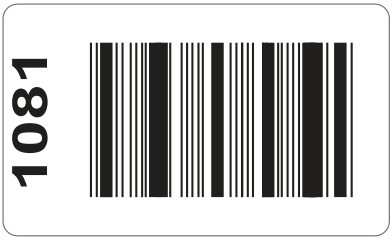
BAY
18

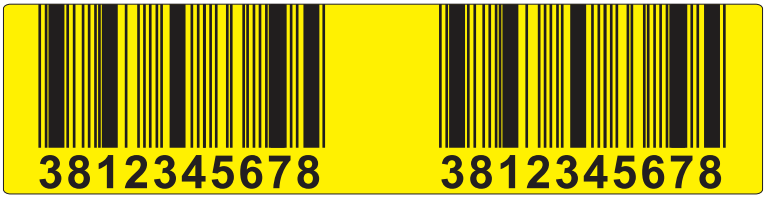
F
2
0
1

C
1
3

License Plate (LPN) - Container ID Chapter 13 & 14

License Plate (LPN) - Container ID Chapter 13 & 14





Property and Industrial — Chapter 16 & 17

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SHINING
00038
00038

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PROPERTY OF THE STATE OF MARYLAND

Equipment ID
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Always follow the operating and safety instructions of the power tool owner's manual. Wear eye protection.
Toujours suivre le mode d'emploi et les consignes de sécurité du manuel de l'Acheteur de l'outil électrique, porter des lunettes de protection.
Observe siempre las instrucciones de uso y seguridad estipuladas en el manual del propietario de la herramienta motorizada. Use particion de ojos.
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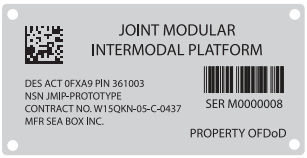
CHECK BEFORE

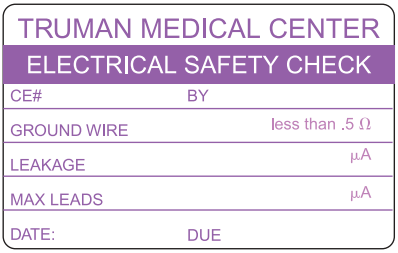
TOWN OF BERLIN
000130

BIOMED SERVICED
I.D.
DATE
BY
DUE

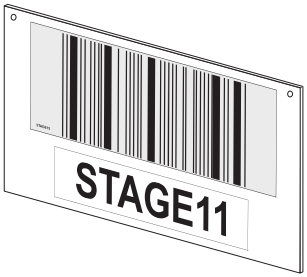
ABCDE001

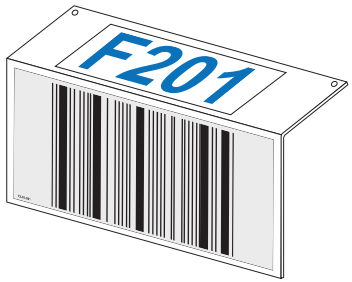
Property and Industrial — Chapter 16 & 17

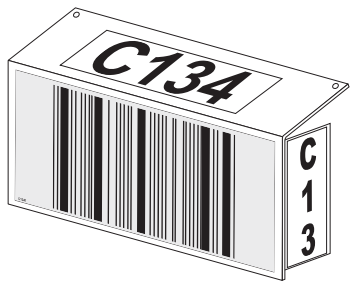




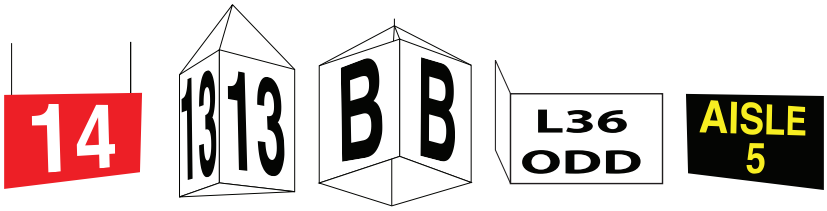
Signs Chapter 9 & 10







Signs Chapter 15



Flat | Triangular | Cube | L Shape | Flat

Lane 3 Traffic Restricted to Campbell Fleet Trucks Only. Violators will be turned around to re-enter proper lane.

SANITATION STATION
DRY AREA #1

9A 9B

RECEIVING
INGREDIENTS - UTILITY

DOOR
10

CODE 128 BAR CODE TEST SCAN

10mil

C1281

20mil

C1282

30mil

C1283

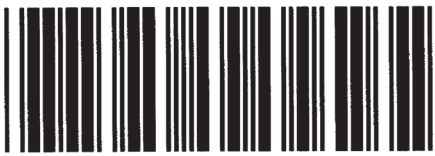
CODE 128 BAR CODE TEST SCAN

CODE 39 BAR CODE TEST SCAN

10mil, 3 to 1 ratio

C3910

20mil, 3 to 1 ratio

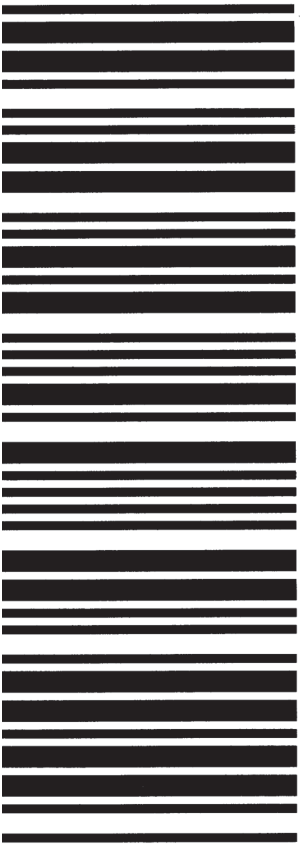


C3920

30mil, 3 to 1 ratio

C3930

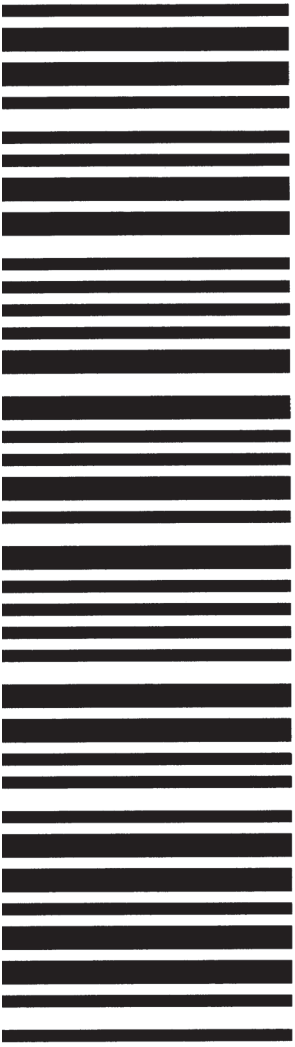
CODE 39 BAR CODE TEST SCAN



C3940

40mil

2.5 to1 ratio



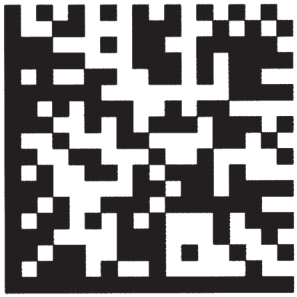
C3960

60mil

2 to 1 ratio

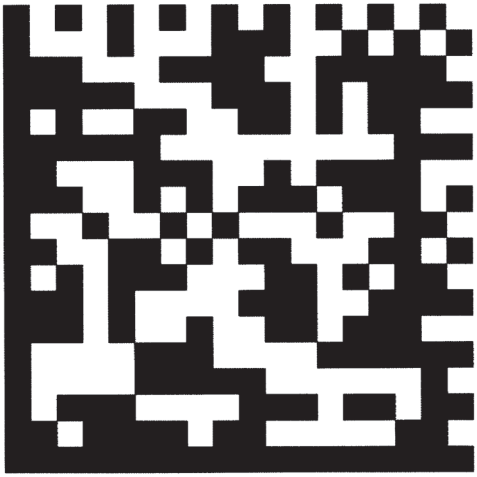
2D DATA MATRIX
BAR CODE TEST SCAN

24mil
1234DASKODM



100mil
5678DASKODI

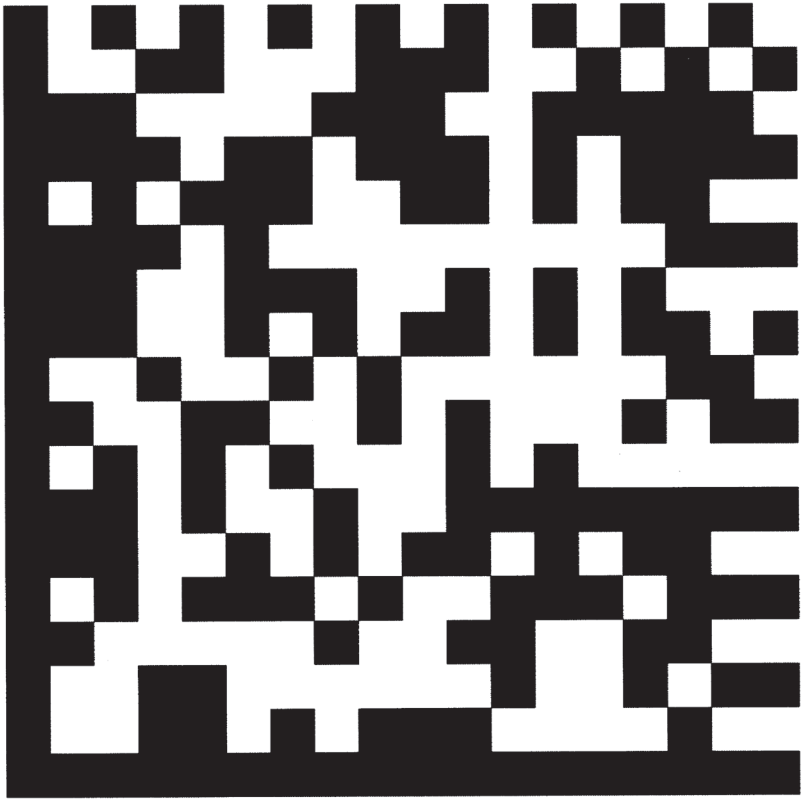
150mil



9876DASKODM

2D DATA MATRIX
BAR CODE TEST SCAN

250mil



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