



SUPPLIER PACKAGING AND LABELING REQUIREMENTS MANUAL

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CVG Supplier Packaging and Labeling Requirements Manual

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1.0 INTRODUCTION

1.1 Preface

The packaging and labeling requirements described herein, take effect upon supplier's receipt of this document. Exceptions may be made on a case by case basis by the Materials Manager of the receiving CVG locations.

1.2 Purpose

The purpose of this specification is to provide guidance and define requirements relative to the packaging and labeling of shipments into CVG by its direct material suppliers.

1.3 Scope

This specification applies to all direct material suppliers shipping to any CVG location within North America.

1.4 Delivery Performance

A supplier's conformance (or non-conformance) to this specification has a direct result on that supplier's Delivery Performance PPM rating.

1.5 General Statements

- a. This document applies to all direct material products shipped to any North American CVG location.
- b. In this document the word SHALL refers to a required action, and the word SHOULD refers to a recommended action.
- c. Packaging must be documented, validated, and approved as part of any PPAP submission.
- d. Compliance is mandatory, unless on a case-by-case basis an exception is warranted.

1.6 Applicable References

- a. Parts Identification and Tracking Application Standard, AIAG B-4, Version 3, dated 2/1/03
- b. Trading Partner Labels Implementation Guideline, AIAG B-10, Version 3, dated 6/1/04
- c. Quality Assurance Guideline for Shipping Labels, AIAG B-8, Version 3, dated 11/1/10
- d. Expendable Packaging Data Sheet, CVG QF-152, Revision D, dated 3/8/12
- e. Packaging Material RFQ, CVG QF-154, Revision A, dated 6/12/08
- f. Packaging - Shipping Trial Document, CVG QF-153, Revision B, dated 11/6/08
- g. Data Identifier and Application Identifier Standard, ANSI MH10.8.2-2016
- h. Bar Code Print Quality Guidelines, ISO 15416:2016, Version 2, dated 12/1/16

For additional information and publications on AIAG standards, go to the Automotive Industry Action Group's website www.aiag.org

For additional information and publications on ANSI standards, go to the American National Standard Institute's website www.ansi.org

For additional information on SPI symbology, go to the Society of Plastics Industry's website www.plasticsindustry.org

For additional information and publications on NWPCA standards, go to the National Wooden Pallet & Container Association's website www.nwPCA.com

2.0 PACKAGING SPECIFIC REQUIREMENTS

2.1 General Requirements

- a. Mixing of part numbers in a container or pallet is discouraged, and is not the preferred manner of shipping, or receiving product. Exceptions may be made in special cases due to low volumes and/or shipping/handling expense.
- b. The supplier is responsible for the packaging and labeling of their product to ensure proper condition and quality upon delivery to a CVG plant. Parts must arrive at a CVG plant on-time, without damage, no rust or corrosion, and no contamination. Packaging shall be agreed upon prior to the first shipment of material.
- c. Packaging is to be considered part of the supplier's manufacturing/distribution process and shall be included in their Process Flow Diagram, Process FMEA, Control Plan, PPAP, Corrective Action, Continuous Improvement documentation.
- d. The supplier shall be responsible for completion and submission of forms QF-152 Expendable Packaging Data Sheet, and QF-153 Packaging-Shipping Trial Document to the appropriate Commodity Manager, Plant Materials Manager, or appropriate Supplier Quality contact for CVG approval, when applicable.
- e. Returnable containers are the preferred manner of packaging and transport when it is feasible and cost effective. When returnable containers are used, the supplier shall be responsible for its cleanliness, and for storage at their site. In addition, if returnable containers are used, an alternate method of packaging shall also be documented and approved, for times when returnable containers are unavailable (approval for alternate packaging must be coordinated with CVG in the same methods defined for the standard packaging approval).
- f. On occasion, testing may be necessary to properly assess the ability of the packaging design to fulfill the requirements of this specification. If testing is needed, or if sample shipments are necessary to validate the packaging design, contact the appropriate CVG Commodity Manager / Plant Materials Manager, or appropriate Supplier Quality contact for guidance.
- g. Supplier initiated packaging or cost improvements are encouraged, but must first be reviewed and approved by CVG prior to implementation.

2.2 Trans-Oceanic Shipping Requirements

For any trans-oceanic shipping, please contact the CVG Logistics Coordinator for up-to-date information on carrier and schedules at (614) 289-5361. Also see Oceanic Container Specifications in the attachments of this manual. In addition to the requirements noted in paragraph 2.1, suppliers will need to ensure that all products are protected from moisture/water damage when shipping product trans-oceanic.

2.3 Specific Packaging Requirements

2.3.1 Palletization Requirements

Face	Depth	Height (inc. pallet)
CVG Standard 48" (1150mm)	40" (1016mm)	40" (1016mm)
AIAG Standard 48" (1150mm)	45" (1220mm)	51" (1295mm)
AIAG Standard 32" (760mm)	30" (820mm)	40" (1016mm)
AIAG Standard 36" (914mm)	30" (820mm)	40" (1016mm)

- a. The CVG standard pallet size is 48" x 40". If a different sized pallet is required, the pallet length should be sized to accommodate the part length while maintaining the 48" pallet dimension for proper trailer utilization.
- b. Pallets should be stamped on at least one side with the pallets overall footprint dimension.
- c. All pallets must be able to support a 2800 lb. load while triple stacked.
- d. The use of corrugated, salvage, and other pallet alternatives are prohibited unless investigated in cooperation with CVG Plant/Quality Engineering.
- e. Unitization and palletization is required for all parts and should be designed to stabilize and complement the primary containers to prevent movement throughout the handling cycle.
- f. The unit load must be modular to the pallet and remain stable for material handling and storage after initial part access and removal.
- g. All containers must be properly palletized and secured to the pallet.
- h. Palletized cartons should be uniform in size to maintain load stability.
- i. Maximum overall height per unit load is 40".
- j. Containers must be palletized in individual level layers (tiers) on the pallet. No "pyramid" unit loads. If material release quantities do not permit shipment of individual level layers of containers, investigate and explore alternative methods of containerization and/or contact CVG Plant/Quality Engineering for assistance.
- k. Palletize by like part number, if at all possible. **The default policy of CVG is to not mix loads, and to not load right and left hand parts on the same pallet.**
- l. Unique requirements or concerns may exist and be required by individual plants.
- m. No material is to extend beyond the pallet edge, nor be more than 2" less than pallet footprint on any side.
- n. For wood pallets – they shall conform to National Wood Pallet Container Association Voluntary Standard for Wood Pallets (NWPCA), be double face, non-reversible, and shall allow 4-way entry.
- o. Wood pallets imported into the U.S., shall be free of bark and pests according to U.S. regulations (reference regulations at the government website www.aphis.usda.gov/ppq/swp).

2.3.2 Securing Material

The preferred method of securing material is either plastic, heat sealed strapping of green polyester, or stretch film. Plastic strapping and stretch film should secure the entire palletized load including the pallet. The use of unitizing adhesives for individual cartons is encouraged.

When a unit load is stretch wrapped, a Master Label or a Mixed Load Label shall be adhered to the outside of the stretch film, visible to operators and readable for barcode scanning. This label is required for all stretched wrapped unit loads of single or multiple packs. This label may be removed with the stretch film making individual container labeling necessary as described later in the specification.

2.3.3 Weight Limitations

- a. Maximum shipping weight: 2800 lbs., triple stacked pallets
- b. Maximum primary container weight: 40 lbs.

2.3.4 Corner Boards

As required to protect shipment.

2.3.5 Corrugated Paper

- a. Corrugated paper fiber board shall exhibit adequate strength to withstand transportation, support multiple stacking of unit pallet loads, and be of sufficient burst strength to protect the product within.
- b. If an exception to stacking is required, the packaging shall be conspicuously labeled as such, i.e. "DO NOT STACK" labels or cones, "STACK NO MORE THAN 2 HIGH", etc.

2.3.6 Plastic Bags

When plastic bags are used for packaging, they should be utilized inside the primary container, totes, or bulk containers for adequate protection. The containers and plastic bags shall be labeled in accordance with this document's labeling requirements.

2.3.7 Containers

The primary container will carry the part from shipping to assembly where it is presented to the operator.

2.3.7.1 Requirements:

- a. The compression strength of the container(s) must support contents triple stacked up to 100" in height for maximum trailer density and storage. No "Top Load Only" containers.
- b. No more than one-part number per container. There may be unusual or special circumstances where this will need to be addressed. Contact the CVG plant for an exception.
- c. Container(s) must be completely filled and may require redesign to eliminate void space, part shifting, and container crushing.
- d. Small, manually-handled totes must not exceed 40 lbs., and should contain at least 10 parts.
- e. No individual or aftermarket packaging is permitted for production parts.
- f. The unsupported bottom of the manually-handled container must hold the weight of its contents.
- g. Large, mechanically-handled bulk containers should be used for large, heavy parts with typically high release quantities. The container must be designed with adequate compression strength to prevent sidewall bulging and incorporate a "break-away" feature with minimal staple usage if it will be adhered to the pallet unitization.
- h. Unit loads must be properly loaded, blocked, and braced for shipment.
- i. Void space must be filled to prevent load shifting in transit.

2.3.7.2 Size:

- a. Apply the finished piece part weight (lbs.) and the estimated shipping/release quantity to a matrix to determine classification into manually-handled tote or a mechanically-handled bulk container. The part characteristics (size, volume, handling, etc.) are what dictate the container selection.
- b. Acceptable primary container sizes will be modular to the standard 48" x 40" pallet footprint. If it is necessary to deviate from the given primary container sizes, please contact the CVG Packaging/Quality Engineer for approval.

2.3.7.3 Sealing:

Acceptable methods of sealing manually-handled totes are strippable reinforced tape or spot gluing. Alternative methods may only be acceptable with prior approval from the receiving plant locations.

2.3.8 Internal Part protection

Parts must be secured and protected in the primary container and be free of damage upon delivery. Internal dunnage must not restrict part presentation to the operator.

- a. Whenever possible, paper-based dunnage shall be used.
- b. For part surfaces requiring plastic packaging materials, the material must be designed for recyclability and ease of segregation. All plastic packaging must be identified by resin type according to the symbology established by the Society of Plastics Industry (SPI).
- c. No foreign materials may be adhered to corrugated board or wood.

2.3.9 Packaging Authorization Flow Chart

See section 4.0

2.3.10 Expendable Packaging Data Sheet

See Attachment 1

2.3.11 Packaging-Shipping Trial Document

See Attachment 2

3.0 LABELING REQUIREMENTS

3.1 Types of Labels

There will be three different label types required of CVG suppliers, each depending on how the product is packaged. The examples described and shown are the preferred formats, however, the data fields are mandatory. Actual labels may vary consistent with the supplier's printing capabilities.

3.1.1 Primary Container Label

This label is used to identify the primary container, whether it is a carton, tote, box, etc. containing the same part number. See Attachment 3 for an example.

3.1.2 Master Load Label

This label is to be used for all shipments of material, regardless of quantity of containers. This label functions to summarize the total quantity and parts on/in a single shipping container, pallet, skid, etc. See Attachment 4 for an example.

3.1.3 Mixed Load Label

This label is used for shipping containers, pallets, skids, etc. holding more than one single primary container of different part numbers. See Attachment 5 for an example.

3.1.4 Label Application and Usage Summary Table

Packaging Used	Primary Container Label	Master Load Label	Mixed Load Label
Primary Container Single P/N	X	X (if also shipping container)	
Multiple Containers Single P/N or Single Pallet	X	X (each pallet)	
Multiple Containers Multiple P/Ns or Single Pallet	X		X (each pallet)

3.2 Data Identifiers

See Attachment 6 for commonly used Data Identifiers anticipated to be used for CVG labeling requirements.

3.3 General Requirements

3.3.1 Label Formatting and Terminology

See Attachment 7 for clarification.

3.3.2 Label Size

Label size can be either 4.0" (102mm) high by 6.0" (152mm) wide (preferred), or 4.0" (102mm) high by 6.5" (165mm) wide.

3.3.3 Label Color

Label color shall be white with bold, black printing.

Note: Exceptions to this requirement will be determined by the individual plants based on their special/temporary needs, with examples being: Major engineering change is implemented; Product is prototype material; Early Production Containment; Clean point demarcation; Left/Right handed parts segregation; etc. This exception will be communicated to the supplier at the CVG plant level.

3.3.4 Adhesives

Adhesives can be either pressure sensitive or dry gummed so long as label adherence is assured and is wrinkle-free. For returnable containers, the adherence shall not leave a residue when label is removed, and label must be easily removed without tearing.

3.3.5 Label Font

Bar Code symbols shall be represented by Human Readable Interpretation characters (HRI), not to include Data Identifiers, Start and Stop characters, and shall be printed left justified approximately 1.0-1.5" (25-38mm) from the left edge of the Block or Sub-block. The preferred font is Arial, all upper case. See Attachment 9 for a summary of font size specifics.

3.3.6 Symbology

All Bar Codes shall be Code 128 symbology. A leading space character shall not be used. The four characters %, /, \$, + shall not be used. Recommended "X" Dimension is .015" (.38mm), but shall be between 0.010-0.017" (0.25-0.43mm). Bar Code symbol shall have a leading and a trailing quiet zone of a minimum of 10 times the "X" dimension.

Note: Based on plant specific needs and requirements, there may be instances when some labels will need to incorporate 2-D labeling symbology (i.e. PDF417 symbology). This should be addressed with the CVG plant directly.

3.3.7 Print Quality

The printing media shall be of proper carbon content to ensure passing ANSI X3.182 parameters. The following minimums shall also be met:

- Minimum print quality grade 2.0 (c)
- Measure aperture 0.005" (.127mm)
- Inspection wavelength 660nm ±10nm

3.4 Label Quantity and Placement

3.4.1 Label Protection

Label protection is the responsibility of the supplier. Placement shall be such that the label(s) are not compromised in any way to any CVG plant. Protection against moisture, weather, etc. should be considered. When choosing protection for the labels, the supplier shall consider the effects such protection may have on the reflectivity and contrast characteristics, so not to interfere with the ability to scan the labels with contact and non-contact scanners.

3.4.2 Label Location

3.4.2.1 Primary Container Labels

Two labels shall be used for each primary container. The labels shall be on adjacent sides of the container. Labels shall not wrap around the corners of the container, be as close to the upper edge of the container as possible, but should be a minimum of 1.25" from the edges of the container.

Note: For material that is rolled (e.g., vinyl), a label will be placed in each end of the core for traceability and identification.

3.4.2.2 Master Load Label

Two labels shall be used for each container. The labels shall be on opposite sides of the container. Labels shall not wraparound the corners of the container. The labels shall be placed on the upper half of the container, centered, no closer than 1.25" from any edge, and no higher than 60" from bottom of pallet to bottom edge of label. If more than one Master label is needed, they will be placed vertically from one another.

3.4.2.3 Mixed Load Label

Two labels shall be used for each container. The labels shall be on opposite sides of the container. Labels shall not wraparound the corners of the container. The labels shall be placed on the upper half of the container, centered, no closer than 1.25" from any edge, and no higher than 60" from bottom of pallet to bottom edge of label. If used in conjunction with a Master label, it will be placed vertically of the Master label, above any Master label.

3.4.2.4 Internal Container Label

One label shall be used for each sub-pack of a container. As best as possible, labels should not wraparound corners, and should be away from any edge.

3.4.2.5 Returnable Containers

In cases where the returnable containers have label holders on opposite sides the labels may be placed in these holders. Labels should be no closer than 1.25" from any edge. Labels shall not wraparound the corners. Label may be placed on adjacent sides if it is more prudent. Any and all labels from returnable containers shall be removed before reuse.

Note: Returnable containers shall also require identification that contains the supplier's name and return location on the outside of each returnable packaging item. Failure to properly identify returnable packaging will result in delays in returning the packaging/dunnage.

3.4.2.6 Packing Slip

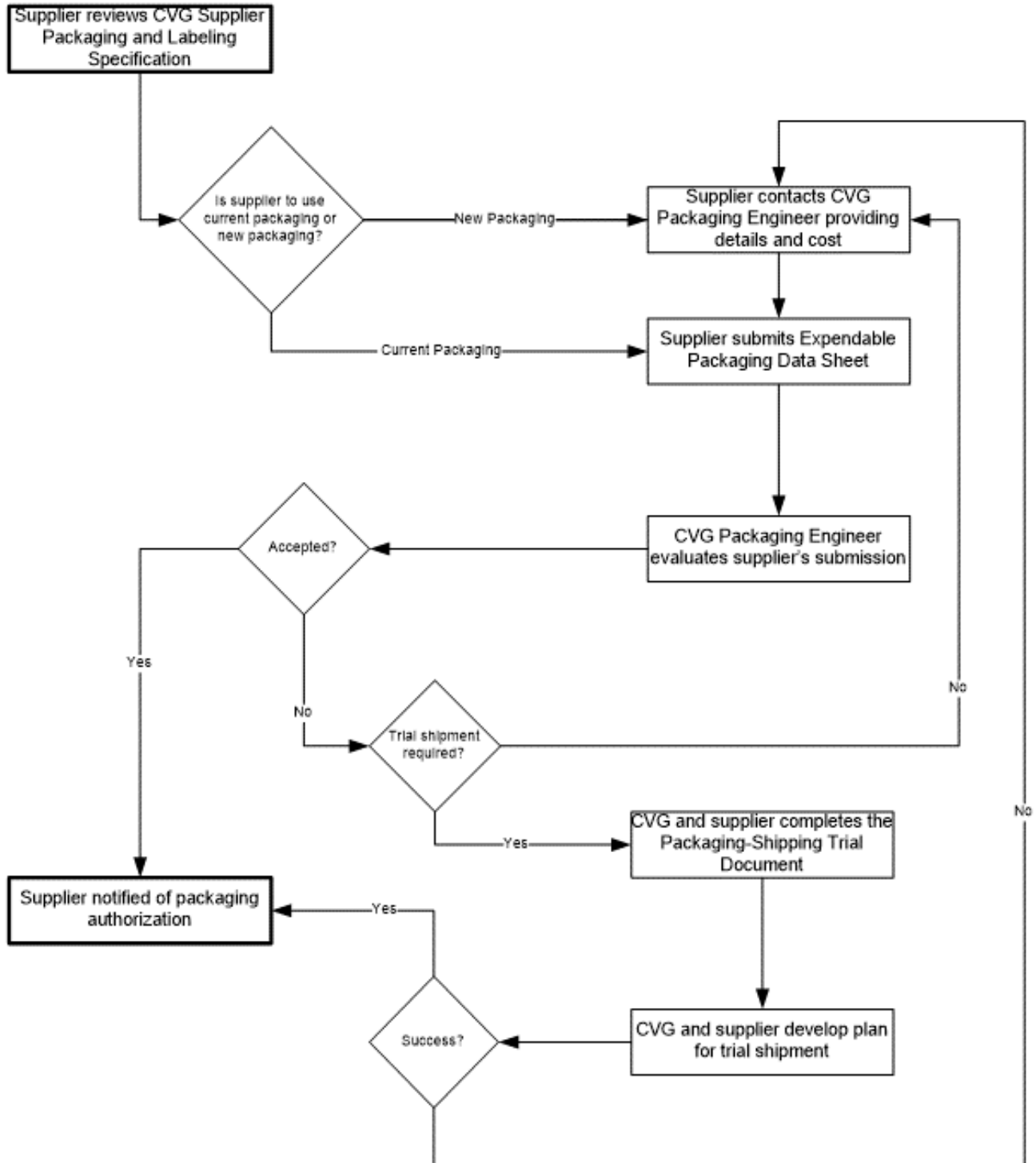
The packing slip contains important information necessary for proper receipt and financial processing. The following items shall be provided:

- Supplier Code number
- P.O. number
- Ship to address
- Bill to address
- Ship date
- CVG part number(s)
- Total quantity (per part number)
- Packing slip number

Every shipment shall have a Packing slip. The design and format of the Packing slip is at the discretion of the supplier, provided it meets the above requirements.

4.0 PACKAGING AUTHORIZATION

4.1 Flow Chart



ATTACHMENT 1 – Expendable Packaging Data Sheet



Commercial Vehicle Group

Expendable Packaging Data Sheet

Supplier Name:		Supplier ID#:	
Supplier Contact Person:		Phone #:	
Email Address:		Date:	
This Data sheet is for:		CVG Part #:	

(A) Basic Information:	# Parts per Container: <input style="background-color: yellow;" type="text"/>	# Containers per pallet: <input style="background-color: yellow;" type="text"/>	
	# Pallets per Container(20'40'153'): <input style="background-color: yellow;" type="text"/>	# Total Parts Shipped: <input style="background-color: yellow;" type="text"/> parts	
Part Weight: <input style="background-color: yellow;" type="text"/> lbs.	Part Dimensions: <input style="background-color: yellow;" type="text"/> in. Length, <input style="background-color: yellow;" type="text"/> in. Width, <input style="background-color: yellow;" type="text"/> in. Height		
(B) Primary Container Information: (This may be corrugated box etc.)			
<input style="background-color: yellow;" type="text"/> in. Length	X <input style="background-color: yellow;" type="text"/> in. Width	X <input style="background-color: yellow;" type="text"/> in. Height	<input style="background-color: yellow;" type="text"/> lbs. Tare Weight
<input style="background-color: yellow;" type="text"/> Wall Construction	<input style="background-color: yellow;" type="text"/> Edge Crush Test (ECT)	<input style="background-color: yellow;" type="text"/> Burst Strength	
<input style="background-color: yellow;" type="text"/> Container Style	<input style="background-color: yellow;" type="text"/> Cost of Container	/	<input style="background-color: yellow;" type="text"/> # Parts per Container = <input style="background-color: #d9ead3;" type="text"/> (B)
(C) Dunnage Information: <input style="background-color: yellow;" type="text"/>			
Describe internal part protection with type of material/style in the primary container.			
	<input style="background-color: yellow;" type="text"/> Cost of Dunnage	/	<input style="background-color: yellow;" type="text"/> # Parts per Container = <input style="background-color: #d9ead3;" type="text"/> (C)
(D) Pallet Information: <input type="checkbox"/> Non-Heat Treated <input type="checkbox"/> Heat Treated			
<input style="background-color: yellow;" type="text"/> in. Length	X <input style="background-color: yellow;" type="text"/> in. Width	X <input style="background-color: yellow;" type="text"/> in. Height	<input style="background-color: yellow;" type="text"/> lbs. Tare Weight, <input style="background-color: yellow;" type="text"/> lbs. Max Load
<input style="background-color: yellow;" type="text"/> Pallet Cost	/	(<input style="background-color: yellow;" type="text"/> # Containers per tier X <input style="background-color: yellow;" type="text"/> # Tiers per Pallet X <input style="background-color: yellow;" type="text"/> # Parts per Container)	= <input style="background-color: #d9ead3;" type="text"/> (D)
(E) Unitization Information: <input style="background-color: yellow;" type="text"/> Method of Securing container to pallet			
<input style="background-color: yellow;" type="text"/> Unitization Cost	/	<input style="background-color: yellow;" type="text"/> # Containers per Pallet / <input style="background-color: yellow;" type="text"/> # parts per Container	= <input style="background-color: #d9ead3;" type="text"/> (E)
(F) Label Information: Follow AIAG Publication B-10 and also the CVG Supplier Packaging and Labeling Guidelines & Specifications.			
<input style="background-color: yellow;" type="text"/> Labels per container	X	<input style="background-color: yellow;" type="text"/> Label Cost / <input style="background-color: yellow;" type="text"/> # Parts per Container	= <input style="background-color: #d9ead3;" type="text"/> (F)
(G) Total Packaging Cost per part: (B+C+D+E+F)			= <input style="background-color: #d9ead3;" type="text"/> \$0.0000 (G)

Please Sign and Date completed Form


Signature (Only Authorized)	Date: mm/dd/yyyy

Submit Data sheet to:

CVG / Global Truck Division
 Corporate Purchasing Group/Packaging Engineering
 7800 Walton Parkway
 New Albany, OH 43054
 Fax Number: (614) 289-5361

Note: All of the above yellow highlighted fields need to be completed. Place N/A if not applicable. This sheet is to be used only for Expendable packaging. Place digitized photos on page two which will aid in clarification.
Please attach copy of blueprint for product.

ATTACHMENT 2 – Packaging - Shipping Trial Document

	Commercial Vehicle Group Global Truck Division
Packaging - Shipping Trial Document	
Trial Date <input style="width: 100px;" type="text"/> / <input style="width: 100px;" type="text"/> / <input style="width: 100px;" type="text"/>	Shipping Conductor <input style="width: 150px;" type="text"/>
From <input style="width: 150px;" type="text"/>	Shipping To <input style="width: 150px;" type="text"/>
Box Part No <input style="width: 150px;" type="text"/>	Liaison <input style="width: 150px;" type="text"/>
Purpose <input style="width: 100%; height: 40px;" type="text"/>	
Current Box Specifications	
ECT <input style="width: 50px;" type="text"/> Bursting Strength <input style="width: 50px;" type="text"/>	Box Construction <input style="width: 50px;" type="text"/> Single/Double/Triple Wall
Box Style <input style="width: 50px;" type="text"/> FOL/FTD RSC/HSC Tray Other	Size Limit <input style="width: 50px;" type="text"/> Inches Gross Wt <input style="width: 50px;" type="text"/> Lbs
Proposed Box Specifications	
ECT <input style="width: 50px;" type="text"/> Bursting Strength <input style="width: 50px;" type="text"/>	Box Construction <input style="width: 50px;" type="text"/> Single/Double/Triple Wall
Box Style <input style="width: 50px;" type="text"/> FOL/FTD RSC/HSC Tray Other	Size Limit <input style="width: 50px;" type="text"/> Inches Gross Wt <input style="width: 50px;" type="text"/> lbs
Results	
Check One Below	Comment below on What needs to be changed <i>OR</i> failed
<input type="checkbox"/> Sample package with no issues	<input style="width: 100%; height: 20px;" type="text"/>
<input type="checkbox"/> Sample package with minimal issues	<input style="width: 100%; height: 20px;" type="text"/>
<input type="checkbox"/> Sample package with significant issues	<input style="width: 100%; height: 20px;" type="text"/>
<input type="checkbox"/> Sample package will not work	<input style="width: 100%; height: 20px;" type="text"/>
Sign Off <input style="width: 150px;" type="text"/>	CVG-Liasion <input style="width: 150px;" type="text"/>
Note: Attach pictures of the packaging trial box on page two upon receipt. Use " Hold Ticket" on CVG-002 worksheet for identification of the trial box. When using this form, the form QF-152 shall also need to be completed and submitted.	

Form QF-153

ATTACHMENT 3 – Primary Container Label

ANY DEVIATIONS OR EXCLUSIONS FROM THE REQUIREMENTS SHOWN BELOW MUST BE APPROVED BY THE MATERIALS MANAGER OF THE RECEIVING CVG SITE.

Sender's Address
Block Title: FROM
Data: Supplier's Address
Text Height: 8 LPB (1.5mm)
Max Chars: 6 lines, up to 25 char per line

Part Number of Contents
Block Title: PART NUMBER (P)
Data: Customer assigned part number
Text Height: 3 LPB (7mm)
Max Chars: 15 chars + 1 Di (P)

Part Revision
Block Title: REVISION
Data: Drawing revision level
Text Height: 2 LPB (1.4mm)
Max Chars: 1 line, max 2 chars











Supplier Identification
Block Title: SUPPLIER CODE (V)
Data: Customer assigned supplier ID
Text Height: 4 LPB (5mm)
Max Chars: 25 + 1 Di (V)

Unique Identification Number
Block Title: SERIAL NUMBER (S)
Data: Unique box ID number (where applicable)
Text Height: 4 LPB (5mm)
Max Chars: 10 chars + 1 Di (S)

Supplier Traceability Number
Block Title: LOT NUMBER OR BATCH (1T)
Data: Supplier assigned ID number
Text Height: 4 LPB (5mm)
Max Chars: 15 char + 2 Di (1T)

PRIMARY CONTAINER LABEL

• All Bar Codes SHALL be Code 128 Symbology
• All Bar Codes SHALL be 10 mm in height
• All Bar Codes SHALL follow AIAG B-10 Revision 3 Appendix F. Recommended Format for Small Labeling Area (SLA)
• All Block Titles SHOULD be 6 LPB (3mm)
• All elements of the Primary Container Label SHALL follow AIAG B-10 Revision 3 unless otherwise specified on this page

FROM: CVG SUPPLIER A 1000 MAIN STREET SUITE 500 ANYWHERE, OH 43054	TO: COMMERCIAL VEHICLE GROUP 7800 WALTON PARKWAY NEW ALBANY, OH 43054	PO NUMBER (K) PO00066 	REVISION D 
PART NUMBER (P) CN_200123 	QTY+UOM (7Q) 10000 EA 	PART DESCRIPTION WIDGET, THREE SIDED MACHINED PROTOTYPE BLACK 	
SUPPLIER CODE (V) CVG SUPPLIER A 	MFG DATE 12-12-18 	EXP DATE 12-12-18 	LOT NUMBER OR BATCH (1T) 123456-100 
SERIAL NUMBER (S) SUP123456 			

Recipient's Address
Block Title: TO
Data: Customer's address
Text Height: 7 LPB (2mm)
Max Chars: 4 lines, up to 25 char per line

Purchase Order
Block Title: PO NUMBER (K)
Data: Purchase order number
Text Height: 4 LPB (5mm)
Max Chars: 6 + 1 Di (K)

Quantity and Unit of Measure
Block Title: QTY + UOM (7Q)
Data: Quantity of material followed by two-character unit of measure code
Text Height: 4 LPB (5mm)
Max Chars: 12 + 2 Di (7Q)

Description of Part
Block Title: PART DESCRIPTION
Data: Part Description
Text Height: 7 LPB (2mm)
Max Chars: 2 lines, 25 char on a line

Manufactured Date of Material
Block Title: MFG DATE
Data: Date product produced
Text Height: 4 LPB (5mm)
Max Chars: 8

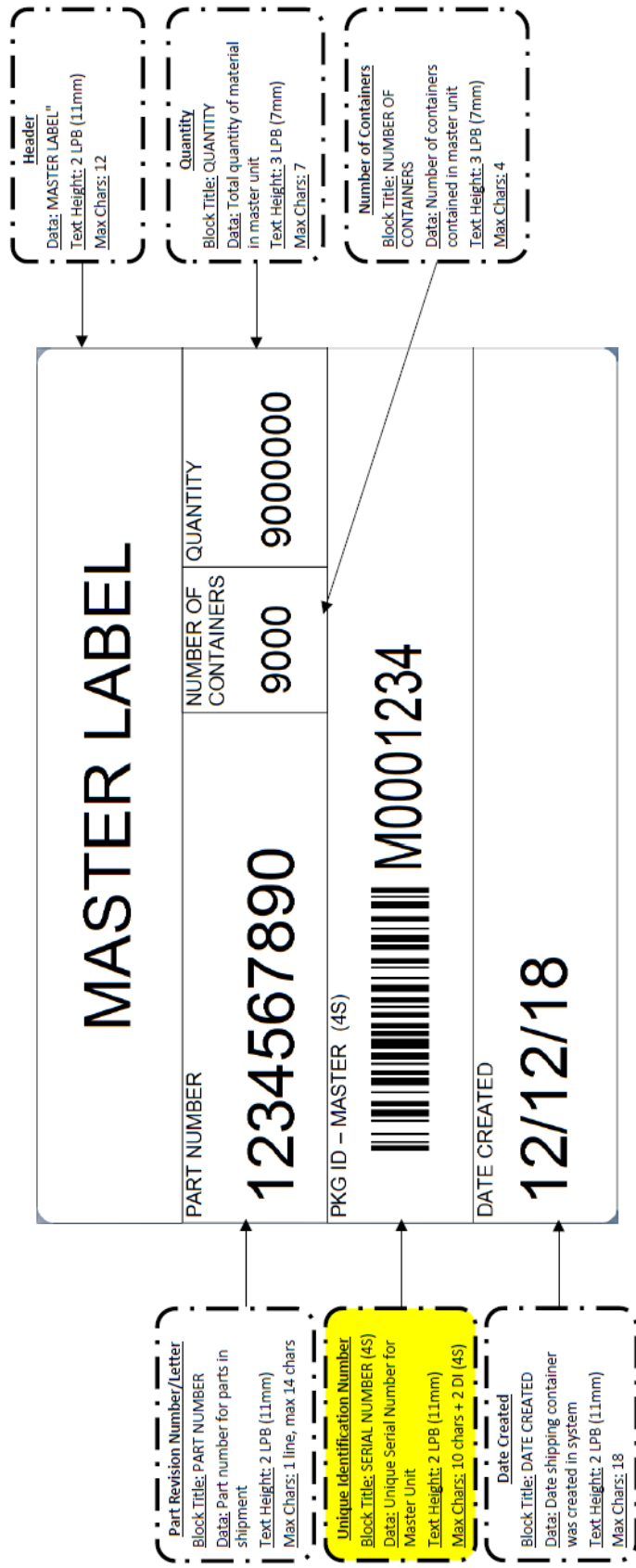
Expiration Date of Material
Block Title: EXP DATE
Data: Expiration date of item if applicable
Text Height: 4 LPB (5mm)
Max Chars: 8

Customer Commercial Vehicle Group 7800 Walton Parkway New Albany, OH 43054	Label Title & Purpose: Primary Container Label Label format to be used on the primary (smallest) container	Note: Illustration is not to scale. Any dimensions that are not otherwise specified on this page SHALL be in compliance with latest revision of AIAG B-10
Authorized By:	Issue Date 1/1/2019	Revision Original
	Document Number CVG-Receive Container	

ATTACHMENT 4 – Master Load Label

MASTER UNIT LABEL

- All Bar Codes SHALL be Code 128 Symbology
- All Bar Codes SHALL be 10 mm in height
- All Bar Codes SHALL follow AIAG B-10 Revision 3 Appendix F. Recommended Format for Small Labeling Area (SLA)
- All Block Titles SHOULD be 6 LBP (3mm)
- All elements of the Primary Container Label SHALL follow AIAG B-10 Revision 3 unless otherwise specified on this page



Customer Commercial Vehicle Group 7800 Walton Parkway New Albany, OH 43054	Label Title & Purpose: Master Unit Label; identification for packaging containing multiple containers of like items on a single customer order		Note: Illustration is not to scale. Any dimensions that are not otherwise specified on this page SHALL be in compliance with latest revision of AIAG B-10
Authorized By: TBD	Issue Date DRAFT	Revision Original	Document Number CVG-Master Label

ATTACHMENT 5 – Mixed Load Label

MIXED LOAD LABEL
<ul style="list-style-type: none"> • All Bar Codes SHALL be Code 128 Symbology • All Bar Codes SHALL be 10 mm in height • All Bar Codes SHALL follow AIAG B-10 Revision 3 Appendix F. Recommended Format for Small Labeling Area (SLA) • All Block Titles SHOULD be 6 LBP (3mm) • All elements of the Primary Container Label SHALL follow AIAG B-10 Revision 3 unless otherwise specified on this page



Customer Address: Commercial Vehicle Group 7800 Walton Parkway New Albany, OH 43054	Label Title & Purpose: Mixed Load Label; Identification for packaging containing multiple containers of <i>unlike</i> items on a single customer order	Note: Illustration is not to scale. Any dimensions that are not otherwise specified on this page SHALL be in compliance with latest revision of AIAG B-10
Authorized By: TBD	Issue Date: DRAFT	Revision: Original
		Document Number: CVG-Mixed Label

ATTACHMENT 6 – Data Identifiers Listing

Data Identifier	Suggested Short Title	Maximum Recommended Data Length	Comments
K	PO NUMBER (K)		Purchase Order Number, customer assigned
5K			Reference number assigned by the customer to identify a Shipment Authorization (Release) against an established Purchase Order
15K	PULL SIGNAL # (15K)		Pull Signal – Kanban ID
P	PART # CUST (P)		Part Number, assigned by the customer
1P	PART # SPLR (1P)		Part Number, assigned by the supplier
2P	EC # (2P)		Code assigned to specify the revision level of the part
10P			Hazardous Material Code as defined by ANSI X12.3
Q	QUANTITY (Q)		Quantity, integer numeric, unit of measure assumed to be each
1Q	LENGTH (1Q) or THEORETICAL WEIGHT (1Q)		Actual Length or Theoretical Weight
2Q	ACTUAL WEIGHT (2Q)		Actual Weight
7Q	QTY + UOM (7Q)		Quantity and unit of measure in the format: Quantity followed by the two-character Unit of Measure code as defined ANSI X12.3
11Q	TARE WT. (11Q)		Tare Weight: weight of an empty container
S	SERIAL # (S)		Serial Number assigned by the supplier to an entity for its lifetime
3S	PKG ID – UNIT (3S)	9	Package Identification assigned by the supplier to the lowest level of packaging that has a package ID code
4S	PKG ID – MASTER (4S)	9	Package Identification assigned by the supplier to packaging containing multiple containers of <i>like</i> items on a single customer order
5S	PKG ID – MIXED (5S)	9	Package Identification assigned by the supplier to packaging containing multiple containers of <i>unlike</i> items on a single customer order
1T	LOT NUMBER OR BATCH (1T) or HEAT NUMBER (1T)	18	Traceability number assigned to a unique batch or group of items by the supplier or manufacturer
V	SUPPLIER CODE (V)		Supplier Code assigned by the customer

ATTACHMENT 7 – Labeling Format and Terminology

* Recommended font is Arial, San Serif
 * Zeros will have a slash through them (e.g. 0)
 * All characters will be upper case
 * Block Titles: Character height will be either 6, 7, or 8 Lines Per Block (LPB)

Double height Building Blocks are the largest allowed, and only one per label.
 $2.0" \pm 0.4"$
 $(51 \pm 10mm)$

For a full width Building Block, maximum total of characters must not exceed 19 (including data identifiers).

Full height Building Block
 $1.0" \pm 0.2"$
 $(25 \pm 5mm)$

Half height Building Block
 $0.5" \pm 0.1"$
 $(12.5 \pm 2.5mm)$

Half height Building Block may only contain text and/or graphics, no bar codes symbols. Smallest block allowed.

No more than four (4) sub-blocks from any one Building Block. No more than one bar code symbol per sub-block.

Maximum number of characters in both bar code sub-blocks combined must not exceed 16 characters, including data identifiers.

FROM: CVG SUPPLIER 123 ANYWHERE STREET ANYTOWN, US 98765	TO: CVG PLANT 7800 WALTON PARKWAY NEW ALBANY, OH 43054	PART NO. (P) 46528-001	EXPIRATION DATE 06-01-08
THREE SIDED WIDGET		LOT NUMBER (TT) 1233444	MANUFACTURING DATE 01-01-08
QUANTITY (Q) 13500	SUPPLIER NUMBER (V) 363555	(Side-by-side bar code sub-blocks must be formatted as shown. Left-most sub-block is always as shown, as is the right-most sub-block. If only one sub-block has a bar code symbol, then left-most sub-block will have the bar code symbol.)	

Quiet Zone, an area devoid of any markings or characters, will be before and after bar code symbol, of a width of $0.25" (6.35mm)$.

Space before Human Readable Interpretation (HRI), in this case "363555", to be $1.0" - 1.5"$.

Minimum height of $0.5" (13mm)$.

Horizontal and Vertical lines are recommended, but not required.

Customer Name: Commercial Vehicle Group 7800 Walton Parkway New Albany, OH 43054	Label Title & Purpose: Labeling Format and Terminology Display some typical aspects of a common Code 39 label	Issue Date Revision Original	Document Number
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ATTACHMENT 8 – Font Size Terminology

Lines Per Block	Maximum Characters Per Line	Approximate Point Height	Approximate Height in Inches	Approximate Height in Millimeters
1 LPB	8	64	0.90	22.0
2 LPB	18	32	0.40	11.0
3 LPB	28	20	0.25	7.0
4 LPB	34	16	0.20	5.0
5 LPB	42	12	0.15	4.0
6 LPB	48	10	0.12	3.0
7 LPB	59	8	0.10	2.0
8 LPB	68	6	0.08	1.5

ATTACHMENT 9 – Oceanic Container Specifications

Conversion Table

Convert From:	To:	Multiply By:
Cubic Feet	Cubic Meters	0.028317
Cubic Meters	Cubic Feet	35.3145
Short Tons	Metric Tones	0.9072
Metric Tons	Short Tons	1.102
Pounds	Kilograms	0.4536
Kilograms	Pounds	202046
Centimeters	Inches	0.3937
Inches	Centimeters	2.54
Inches	Meters	0.0254
Meters	Inches	39.37
Meters	Feet	3.281
Long Tons	Metric Tons	1.016
Metric Tons	Long Tons	0.9842
Measurement Tons	Cubic Tons	1.1327

Metric Container Dimensions

Equipment	Interior Dimensions	Door Opening	Top Opening	Tare Weight	Cubic Capacity	Payload
20' Standard Container	L: 5.919 m W: 2.340 m H: 2.380 m	W: 2.286 m H: 2.278 m		1,900 kg	33.0 cbm	22,100 kg
40' Standard Container	L: 12.051 m W: 2.340 m H: 2.380 m	W: 2.289 m H: 2.278 m		3,084 kg	67.3 cbm	27,397 kg
40' High Cube	L: 12.056 m W: 2.347 m H: 2.684 m	W: 2.340 m H: 2.585 m		2,900 kg	76.0 cbm	29,600 kg
45' High Cube	L: 13.582 m W: 2.347 m H: 2.690 m	W: 2.340 m H: 2.584 m		4,110 kg	85.7 cbm	28,390 kg
20' Open Top	L: 5.919 m W: 2.340 m H: 2.286 m	W: 2.286 m H: 2.251 m	L: 5.425 m W: 2.222 m	2,174 kg	31.6 cbm	21,826 kg
40' Open Top	L: 12.043 m W: 2.338 m H: 2.272 m	W: 2.279 m H: 2.272 m	L: 11.585 m W: 2.162 m	4,300 kg	64.0 cbm	25,181 kg
40' Reefer	L: 11.207 m W: 2.246 m H: 2.183 m	W: 2.216 m H: 2.183 m		4,600 kg	54.9 cbm	25,881 kg
40' High Cube Reefer	L: 11.557 m W: 2.286 m H: 2.491 m	W: 2.286 m H: 2.454 m		4,320 kg	65.8 cbm	28,180 kg
20' Flat Rack	L: 5.702 m W: 2.438 m H: 2.327 m			2,330 kg		21,670 kg
40' Flat Rack	L: 11.820 m W: 2.148 m H: 2.095 m			5,260 kg		25,220 kg
40' Collapsible Flat Rack	L: 12.08 m W: 2.126 m H: 2.043 m			5,800 kg		29,200 kg
45' High Cube Container	L: 13.102 m W: 2.294 m H: 2.509 m	W: 2.290 m H: 2.467 m		5,200 kg	75.4 cbm	27,300 kg