

AFCO

Associated Fuel Pumps Systems Corporation

Packaging and Labeling Standard

AFCO PACKAGING AND LABELING STANDARD

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1.0 INTRODUCTION

The following section includes basic AFCO packaging and labeling requirements for supplier parts. The purpose of this section is to provide general guidelines for use in determining supplier packaging specifications that will be acceptable to AFCO. Please read this entire section prior to developing packaging specifications.

2.0 GENERAL

Supplier Responsibilities

- 2.1 It is the supplier's responsibility to design and develop cost effective packaging and interior dunnage to ensure that all parts and packaging are received damage free. AFCO may assist with the packaging design and development but is not responsible or liable for non-performance of the final pack.
- 2.2 All suppliers are required to complete and return a packaging form for every part number supplied to AFCO. (See Section 3.0)
- 2.3 Suppliers may not deviate from shipping the quoted and approved packaging without prior authorization from the AFCO Purchasing or Planning Departments.
- 2.4 It is the supplier's responsibility to inspect returnable containers for damage and cleanliness prior to usage. He is also responsible for cleaning the totes before returning back to AFCO. All returnable containers and dunnage should be returned to AFCO in the same condition in which it was received.
- 2.5 The supplier must designate a packaging contact person for problem resolution related to packaging (designate on the Packaging Data Form).
- 2.6 All expendable packaging materials must be legally and economically disposable. AFCO encourages the use of recyclable packaging materials.
- 2.7 All corrugated containers and palletized loads must be stackable unless part configuration and weight requirements do not permit, and prior approval is received from AFCO Purchasing or Planning Departments.

- 2.8 Contamination from corrugated packaging materials such as "paper flaking" can cause our products to fail. Because this is a serious concern, we request that the supplier require that his source for packaging set-up a frequent "cutting die"/"slot knife"/"trim knife" rotation program in order to minimize "paper flaking". Another alternative used to reduce "paper flaking" is to apply a coating known as Nomar 70 or 40-H Michelman to the corrugated material. One or both of these methods should be used for any parts packaged in corrugated boxes.
- 2.9 Any parts packed using plastic bags should be closed with a twist tie wrap, zip lock bag, or by twisting the top of the bag until it is closed and positioning the top between the bag and container wall to prevent it from opening. Plastic bags that are heat sealed or tied shut are not acceptable.
- 2.10 All manually handled packages must not exceed a maximum of 35 pounds unless otherwise approved by AFCO Purchasing.
- 2.11 The supplier must be able to identify lot information (date produced, shift, production line, mold, cavity, ...) for all parts supplied to AFCO by data found on the shipping label or by some other means.**

3.0 PACKAGING DATA FORM

3.1 The Packaging Data Form is the basic tool used to communicate packaging information between AFCO and its suppliers. Also this form is used to evaluate supplier adherence to AFCO's packaging philosophy, i.e. size, weight limitations, packaging costs,... Each supplier is required to have a data form on file at AFCO for each part number supplied to AFCO. The data form must be completed with all pertinent information included prior to part submission to AFCO.

3.2 Mail the completed form to:

AFCO
 Attn: Purchasing Department
 (responsible) Buyer
 P.O. Box 1326
 Anderson, SC 29622

3.3 After review of the form by AFCO, you will receive written approval to proceed with the packaging design, or notification that the proposal is not acceptable. Sample packaging shipments may be requested before or shortly after the form is approved. Written approval does not release the supplier from responsibility for damaged parts due to packaging.

3.4 A Packaging Data Form is shown below. Instructions for completing this form are included with this form.

AFCO PACKAGING DATA FORM
 Please submit a sample for review by AFCO

<p>PART INFORMATION W/BGHT: <input type="text"/> g</p> <div style="border: 1px solid black; height: 100px; text-align: center; margin-top: 10px;"> <i>Please insert picture of part here</i> </div>	<p>GENERAL INFORMATION</p> <p>PART NUMBER (AFCO): <input type="text"/></p> <p>PART NAME: <input type="text"/></p> <p>DATE: <input type="text"/></p> <p>SUPPLIER CONTACT</p> <p>NAME: <input type="text"/></p> <p>TITLE: <input type="text"/></p> <p>PHONE: <input type="text"/></p> <p>FAX: <input type="text"/></p> <p>E-MAIL: <input type="text"/></p> <p>ADDRESS: <input type="text"/></p> <p>...</p>
<p>INTERIOR CONTAINER (BOX)</p> <div style="border: 1px solid black; height: 100px; text-align: center; margin-top: 10px;"> <i>Please insert picture of container with damage and parts here</i> </div> <p>LENGTH: <input type="text"/> inches WIDTH: <input type="text"/> inches</p> <p>HEIGHT: <input type="text"/> inches WEIGHT: <input type="text"/> pounds</p>	<p>INTERIOR PART PACKAGING (CHECK ALL THAT APPLY)</p> <p><input type="checkbox"/> BAG <input type="checkbox"/> BOX <input type="checkbox"/> PARTITION</p> <p><input type="checkbox"/> PAD <input type="checkbox"/> LOOSE <input type="checkbox"/> TRAY</p> <p>PIECES PER INTERIOR BOX: <input type="text"/></p> <p><input type="checkbox"/> RETURNABLE <input type="checkbox"/> EXPENDABLE</p> <p>4-WAY ENTRY? (required) <input type="checkbox"/> yes? <input type="checkbox"/> no?</p> <p>PALLET STACKING? (required) <input type="checkbox"/> yes? <input type="checkbox"/> no?</p> <p>PIECES PER LOAD: <input type="text"/></p> <p>PALLET LOAD DIMENSIONS:</p> <p>LENGTH: <input type="text"/> cm WIDTH: <input type="text"/> cm</p> <p>HEIGHT: <input type="text"/> cm WEIGHT: <input type="text"/> pounds</p> <p>Explain how to clean table and divider (method and frequency)</p> <div style="border: 1px solid black; height: 20px; margin-top: 5px;"></div>
<p>PALLET LOAD SPECIFICATION</p> <div style="border: 1px solid black; height: 100px; text-align: center; margin-top: 10px;"> <i>Please insert picture of pallet here</i> </div> <p><input type="checkbox"/> BANDING <input type="checkbox"/> STRETCH</p>	<p>Explain how to prevent contamination</p> <div style="border: 1px solid black; height: 20px; margin-top: 5px;"></div> <p>TOTAL EXPENDABLE PRICE / PC (MATERIAL ONLY - DO NOT INCLUDE LABOR COSTS)</p> <p><input type="text"/></p> <p>APPROVAL (FOR AFCO USE ONLY)</p> <p>PUR _____ / /</p> <p>SES _____ / /</p> <p>PPS/BPS _____ / /</p> <p>PCD _____ / /</p> <p>QAD _____ / /</p>

4.0 PACKAGING ALTERNATIVES AND REQUIREMENTS

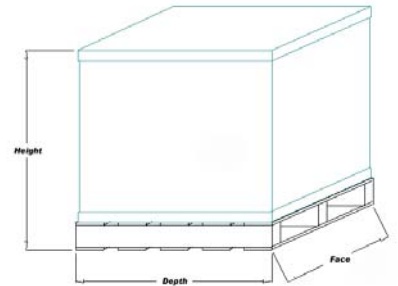
4.1 Alternatives

- Expendable (recyclable)
- Returnable
- Expendable/Returnable Combination

4.2 Requirements

4.2.1 Dimensions

Footprint Size: $\frac{\text{FACE}}{45''}$ x $\frac{\text{DEPTH}}{48''}$ AIAG Standard
(Pallet)



- * Written approval needed for other pallet sizes.

4.2.2 Strapping:

- Non-Metallic Strap
- Stretch Wrap/Shrink Wrap (recyclable only)
- Tape

4.2.3 Corner Boards:

As required to protect package.

4.2.4 Weight Limitation:

- Maximum Shipping Pack = 2,000 pounds
- Maximum Sub Pack = 35 pounds

4.2.5 Pallet Style/Type:

- Typically Wood or Plastic
- 4-Way Entry

4.2.6 Ergonomics

Any expendable pallet box which exceeds a 30 inch height, including the pallet, requires a drop panel to allow access to the parts. This drop panel must create an opening of 50 percent of the wall height and 70 percent of the container wall width dimension.

5.0 LABELING REQUIREMENTS

5.1 Introduction

Quality information is essential at Receiving. Bar code labels are required and used to eliminate opportunity for error. Errors made because of label deficiency are serious in nature. (Bar code print quality must pass verification per ANSI guidelines.)

5.1.1 AIAG Compliance:

Labels are to adhere to the specifications as detailed and illustrated in the Automotive Industry Action Group's publication "Shipping/Parts Identification Label Standard" (AIAG-B-10).

For a copy or additional information contact:

Automotive Industry Action Group
26200 Lahser Road, Suite 200
Southfield, Michigan 48034
Phone: (810) 358-3570
Fax: (810) 358-3253

5.2 Shipping/Parts I.D. Label

5.2.1 Label Size and Material (AIAG):

Label Size:

4.0 inches (102mm) high by 6.5 inches (165mm) wide (see Exhibit 1).

Label Color:

Labels shall be printed with black characters on white background.

Adhesives:

Adhesives types can be pressure sensitive or dry gummed as long as adherence to the package substrate is assured and application is wrinkle-free.

5.2.2 Returnable Packaging:

Card holders are recommended to contain and protect labels in conjunction with returnable packaging. If labels are applied directly to the returnable packaging, the label adhesive must be of a "removable" type.

5.2.3 Data Area and Titles (AIAG-B-10)

(refer to Exhibit 1)

- AIAG Standard Data:

Four data areas required by AIAG-B-10:

- Part Number
- Quantity
- Supplier Number
- Serial Number

- AIAG Special Data Area:

AFCO requires suppliers to provide four additional data areas within the portion of the label designated by AIAG-B-10 as the "Special Data Area". These fields are:

- Description and Supplier Part Number
- AFCO's Purchase Order Number
- AFCO's Engineering-Change Alphanumeric Designator
- Production Date

- Additional Data:

- Use data identifier codes as defined by the current AIAG-B-6 Data Identifier Dictionary Standard.
- Show human readable zeroes (ø) with a diagonal slash to differentiate them from alphabetic o's.

*** Note: The supplier must be able to identify lot information (date produced, shift, production line, mold, cavity, ...) for all parts supplied to AFCO by data found on the shipping label or by some other means.**

5.2.4 Label Data Table

The following table defines the eight data areas: (see Exhibit 1)

Data Area Name (1)	Description	Human Readable Characters Height	Bar Code Height	Data Identifier	Comments
Part Number (Part No.)	AFCO designated part number	0.4 - 0.5 inches (10 - 13mm)	0.5 inches (13mm)	P	Do <u>not</u> include blank characters within the bar code symbol. Do include trailing blank spaces.
Quantity	Part Quantity (per Container)	0.5 inches (13mm)	0.5 inches (13mm)	Q	
Supplier Code (Supplier)	Afco designated Supplier Code	0.25 inches (6.5mm)	0.4 inches (10mm)	V	
Serial Number (Serial) (unique Identifier)	Unique sequence of characters designated by the supplier. This number enables the supplier to trace part history by manufacturing lot.	0.25 inches (6.5mm)	0.4 inches (10mm)	S	See section on master label. (Use data identifier 4S on master labels).
* Description & Supplier Part Number (Description)	Common name of item. Supplier part number is optional but must <u>not</u> be in bar code symbology.	0.25 - 0.5 in. (6.5 - 13mm)	N/A		Locate description above supplier part number.
* AFCO's Purchase Order Number (P.O. No.)	AFCO designated purchase order number.	0.19 - 0.25 in. (4.8 - 6.5mm)	0.4 inches (10mm)	K	
* AFCO's Engineering Change Alphanumeric Designator (Engr. Change)	AFCO designated engineering change or revision level designator as printed on AFCO's part print.	0.19 - 0.25 in. (4.8 - 6.5mm)	0.4 inches (10mm)	2P	
* Production Date (Date)	Manufacturing date of parts in pack.	0.2 inches (5mm)	N/A		

(1) Acceptable abbreviations are shown within brackets ().

* Areas of the label not specified in AIAG-B-10, left to the customer's option.

5.3 Master Labels (refer to Exhibit 2)

Master labels are required when shipping a multiple pack (eg. multiple cartons or other containers are on the same pallet).

A unique serial number must be placed on the master label. The data identifier 4S must be used on master labels.

When a master label is used, serial numbers on individual sub packs are optional. When a multiple pack is stretch or shrink wrapped, attach the master label to the outside of the wrap.

5.4 Documentary Items (Federal Safety Items) (refer to Exhibit 3)

Items designated by AFCO as "documentary" parts must be identified on the shipping/parts identification label by "D-Item" is printed to the right of the part number and is not bar coded (human readable only).

5.5 Mixed Item Pack

Mixed item packs (more than one part number) are not permitted.

5.6 Label Location

Where possible, two shipping/parts identification labels must be placed on each shipping pack on adjacent sides (wraparound label acceptable).

Where possible, the top of the one master label must be 20 inches (508mm) from the bottom of the container and centered left-to-right on the widest face of the pack.

5.7 Address Label

In addition to the AIAG shipping/parts I.D. label, include 2 address labels on the pack.

- Place these labels near the I.D. label, where possible, on adjacent sides.
- Label size is as previously specified.
- For label layout see Exhibit 4.

5.8 Hazardous Material Considerations

5.8.1 Toxicology Number

When required, toxicology numbers must be on a separate label, affixed to the widest face of the pack.

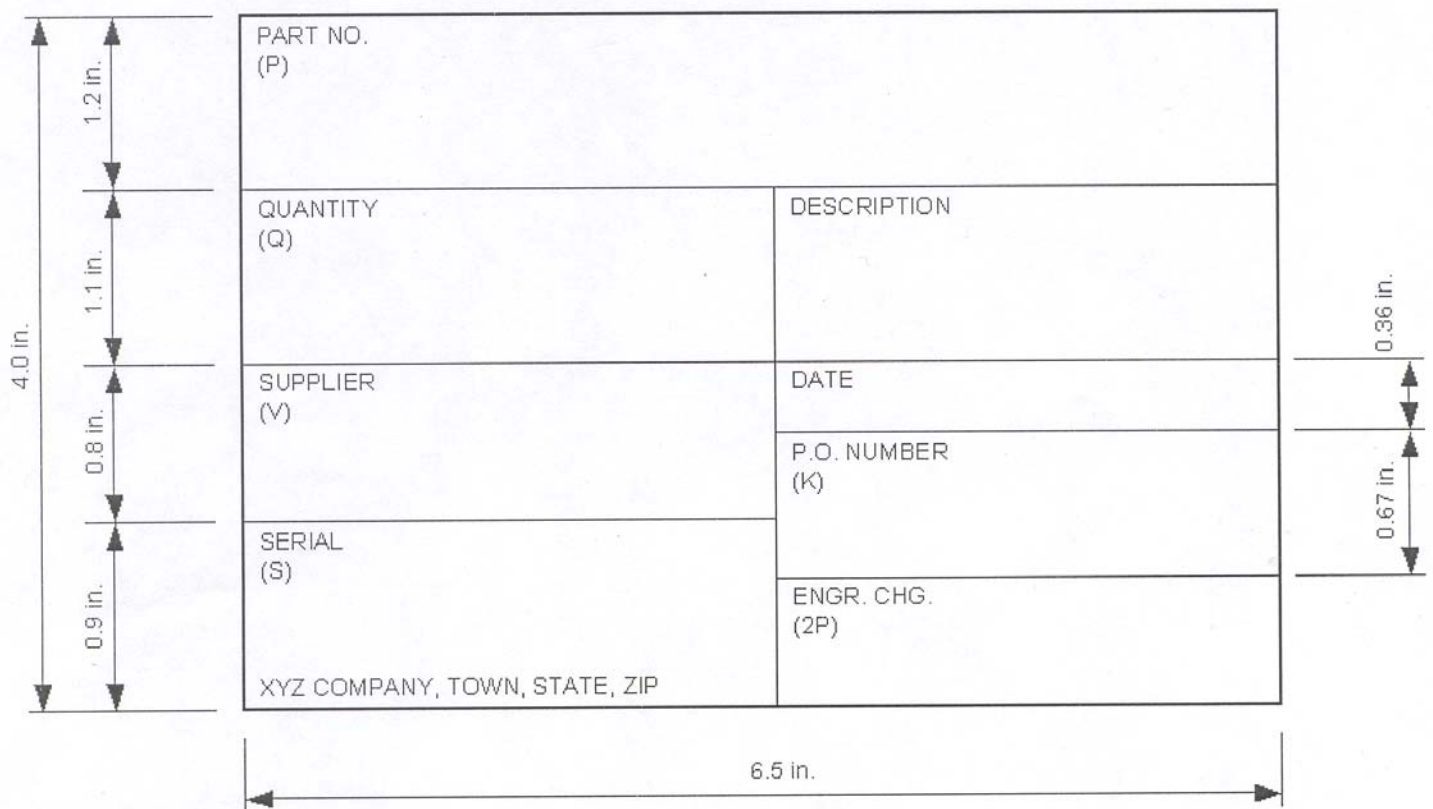
5.8.2 Hazardous Materials

Hazardous materials must be identified in accordance with all applicable Federal, State, and Local Statues.

EXHIBIT 1

4.0" x 6.5" LABEL DIMENSIONED

(not to scale)



* For detailed explanation of each section of the label, refer to 5.2.4 Label Data Table.

EXHIBIT 2

“SAMPLE” MASTER LABEL FOR COMMON ITEM PACKS

(not to scale)







<h1>MASTER LABEL</h1>	
PART NO. (P) AF012345-6789 	
QUANTITY (Q) 6575 	DESCRIPTION 9 VOLT DC MOTOR 9-234-N-DC
SUPPLIER (V) 157 	DATE 11-17-98
SERIAL (S) 1582 	P.D. NUMBER (K) PB00xxx 
	ENGR. CHG. (2P) 13UC732 

EXHIBIT 3







PART NO. (P) AF012345-6789 		D-ITEM	
QUANTITY (O) 6575 		DESCRIPTION 9 VOLT DC MOTOR 9-234-N-DC	
SUPPLIER (V) 157 		DATE 11-17-96	
SERIAL (S) 1582 		P.O. NUMBER (K) PB00xxx 	
		ENGR. CHG. 13UC732 (2P) 	

EXHIBIT 4

TO: AFCO
1100 SCOTTS BRIDGE ROAD
ANDERSON, SC 29621

Associated Fuel Pumps Systems Corporation

PACKAGING DATA FORM

- The Packaging Data Form is the basic tool used to communicate packaging information between AFCO and its suppliers. Also this form is used to evaluate supplier adherence to AFCO's packaging philosophy, i.e. size, weight limitations, packaging costs,... Each supplier is required to have a data form on file at AFCO for each part number supplied to AFCO. The data form must be completed with all pertinent information included prior to part submission to AFCO.

- Mail the completed form to:

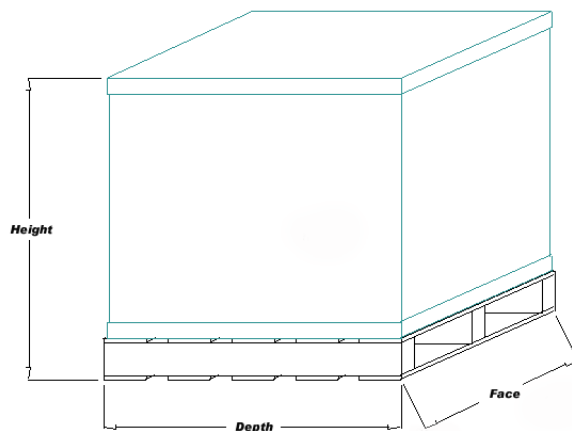
AFCO
Attn: Purchasing Department
(responsible) Buyer
P.O. Box 1326
Anderson, SC 29622

- After review of the form by AFCO, you will receive written approval to proceed with the packaging design, or notification that the proposal is not acceptable. Sample packaging shipments may be requested before or shortly after the form is approved. Written approval does not release the supplier from responsibility for damaged parts due to packaging.

Packaging Data Form Instructions

Refer to the form on the following pages for the corresponding instructions.

- (1) AFCO's part number
- (2) The common name of the part.
- (3) Date the form is submitted.
- (4) The Supplier's Company name and mailing address.
- (5) Proposal type (preliminary, final, or change)
- (6) Name, Title, and phone numbers of a person to contact about any packaging problems that may arise.
- (7) Dimensions of 1 part (not packaged).
- (8) Finish on the part being supplied.
- (9) Interior pack information.
- (10) Pallet or unit load packaging information.
- (11) Pallet specifications/information (pallet only - do not include any box, carton, or tote dimensions in this section. They are included under #14).
- (12) How is the interior pack closed or held shut?
- (13) How is the pallet or unit load closed or held shut?
- (14) Overall dimensions of 1 pallet or unit load. Also, can pallet loads be stacked for transport without damage?



<= one pallet load or unit load

- (15) How are parts packed inside the small boxes? loose, bags,...?
- (16) Cost of packaging per piece being supplied (not of each packaging component).
* do not include labor costs.
- (17) Name and phone numbers of the person who completed the form.
- (18) AFCO use only (for approvals)
- (19) Show a photograph or drawing of 1 part.
- (20) Show a photograph or drawing of the dunnage.
- (21) Show a photograph or drawing of the small or individual container.
- (22) Show a photograph or drawing of the pallet or unit load.