

PALLET DESIGN SYSTEM Version 5.1

Pallet Structural Analysis

Customer:
General

Prepared by:
Pallets Plus Inc.
PDS License: 481 Printed: August 30, 2013

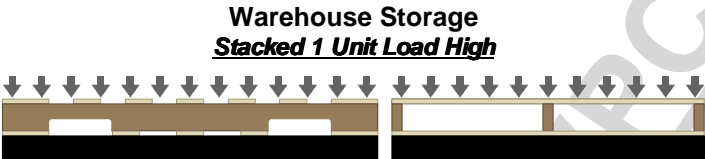
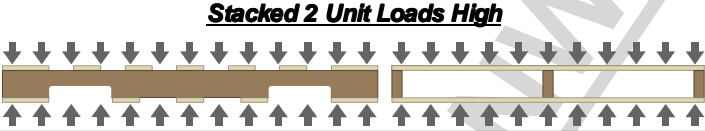
Pallet ID: GMA

Classification: 48.00 x 40.00, Stringer-Class, Double-Face Non-Reversible, Partial 4-Way, Reusable, New Manufacture

General Load Type: Uniformly Distributed - Full Pallet Coverage

Load Weight Variability: Low

Service Environment: Dry Environment (EMC <= 19%)

Support Condition		Safe Average Load	Deflection at Average Load	User Specified Deflection Limit	Average Load for Deflection Limit	Critical Member
Side View	End View					
Warehouse Storage Stacked 1 Unit Load High 		5264 lbs.	0.18 in.	----	----	Interior Top Deckboard
Stacked 2 Unit Loads High 		3290 lbs. per pallet	0.18 in.	----	----	Interior Top Deckboard



Pallet Design System (PDS)

Developed and owned by:

National Wooden Pallet and Container Association (NWPCA)

Research and development for early versions of PDS were conducted in cooperation with:
 Center for Unit Load Design, Virginia Tech Department of Wood Science and Forest Products;
 U.S.D.A. Forest Service and Forest Products Laboratory; APA - The Engineered Wood Association;
 Software Technologies Laboratory, Virginia Tech Department of Industrial and Systems Engineering

The recommendations from PDS are based on the NWPCA's continuing program of laboratory and field research. They represent the best available engineering information compiled to date. However, the quality of workmanship, the input data, and the conditions in which pallets are used may vary widely. Therefore, the Association cannot accept responsibility for pallet performance or design as actually constructed. Wood pallets manufactured to this PDS design are for the sole purpose of storing and/or transporting material. Under no circumstance should any person stand, step, or lean upon them or otherwise use them for support.

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Pallet Physical Property Analysis

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Average Pallet Weight	At Manufacture	At 25% MC	At 19% MC	At 15% MC	At 12% MC
	63 lbs.	49 lbs.	47 lbs.	45 lbs.	44 lbs.



Component	Original Dimension	Shrinkage from Manufacture to 19% MC	Shrinkage from Manufacture to 15% MC
Top Deckboards	0.625 in. Thickness	0.015 in. (+/- 0.004 in.)	0.022 in. (+/- 0.006 in.)
	3.500 in. Width	0.087 in. (+/- 0.025 in.)	0.125 in. (+/- 0.036 in.)
	6.000 in. Width	0.148 in. (+/- 0.042 in.)	0.215 in. (+/- 0.061 in.)
Stringers	3.500 in. Height	0.087 in. (+/- 0.025 in.)	0.125 in. (+/- 0.036 in.)
	1.375 in. Width	0.034 in. (+/- 0.010 in.)	0.049 in. (+/- 0.014 in.)
Bottom Deckboards	0.625 in. Thickness	0.015 in. (+/- 0.004 in.)	0.022 in. (+/- 0.006 in.)
	3.500 in. Width	0.087 in. (+/- 0.025 in.)	0.125 in. (+/- 0.036 in.)
	6.000 in. Width	0.148 in. (+/- 0.042 in.)	0.215 in. (+/- 0.061 in.)

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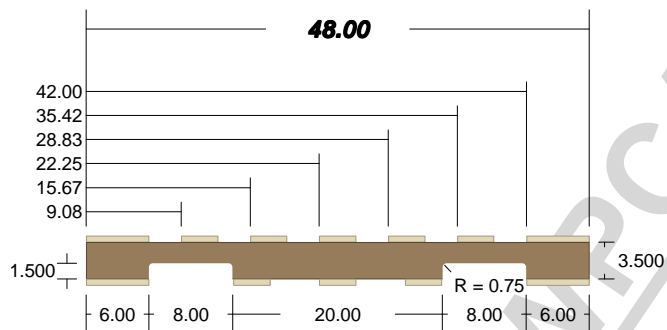
2-D Pallet Drawings

All dimensions in inches

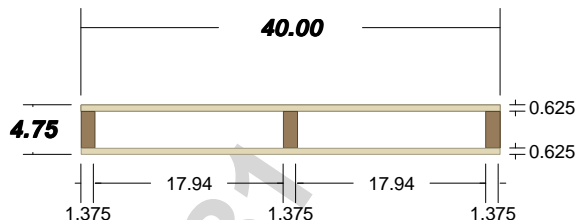
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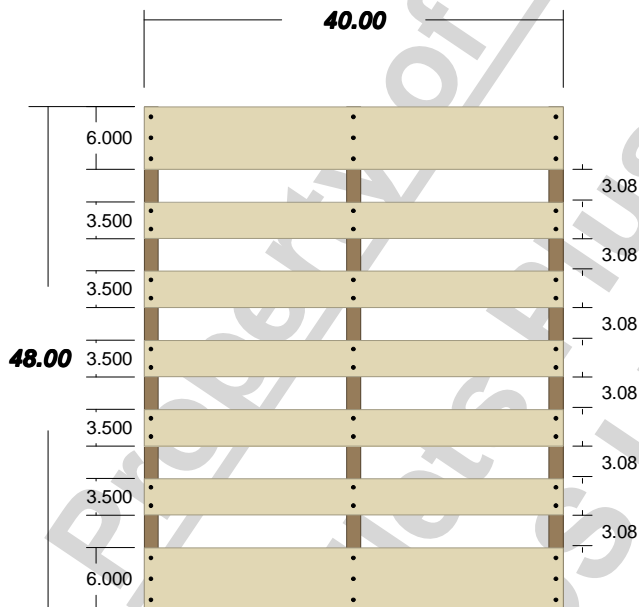
Side View



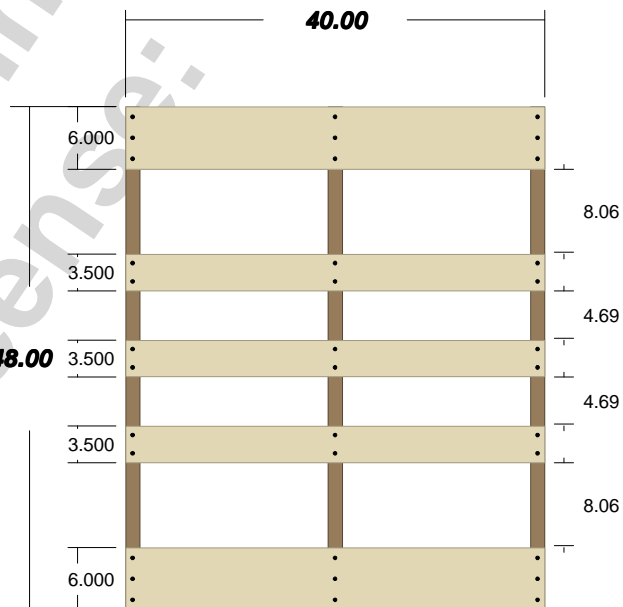
End View



Top View



Bottom View



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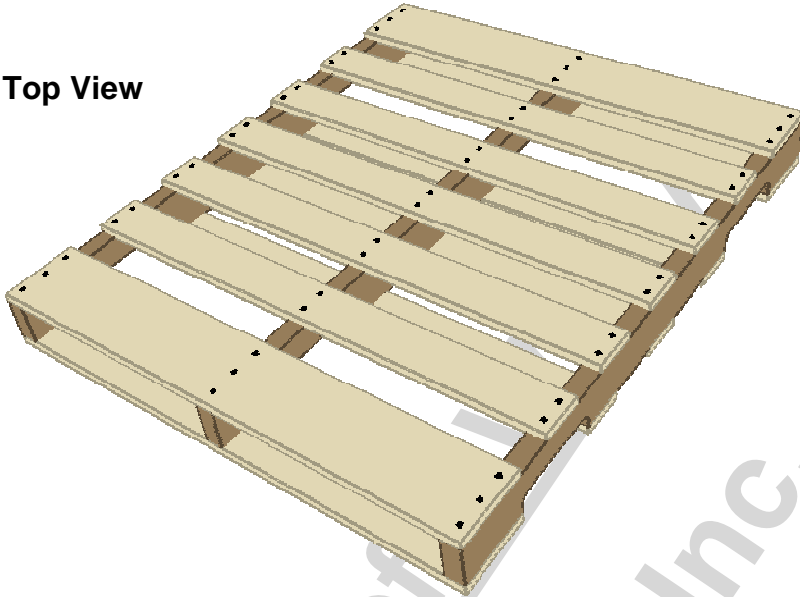
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3-D Pallet Drawings

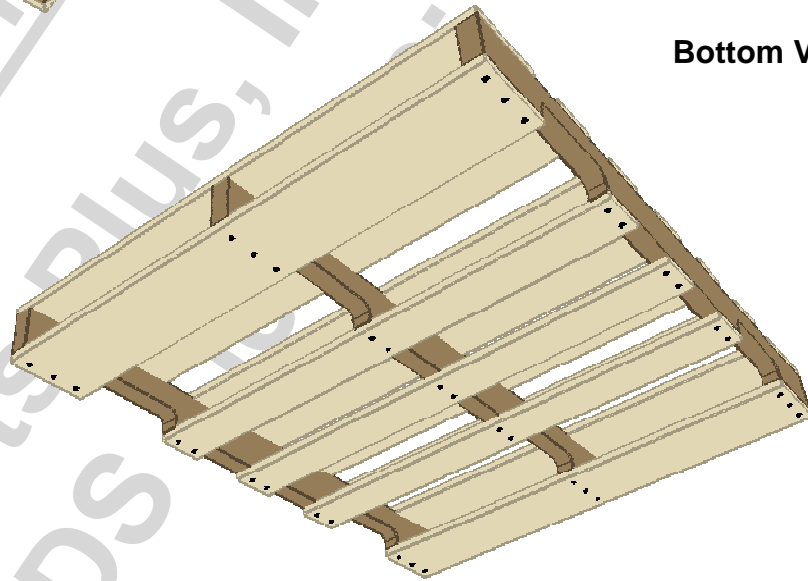
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Top View



Bottom View



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