Pallet Classification

Pallet Classification defines Pallet Size, Class, Type, Style, Construction, and Use Category. Terminology is consistent with the NWPCA Uniform Standard for Wood Pallets.

Pallet ID is your own name or identification for this pallet design (maximum 60 characters). It will be displayed on all printouts and drawings for this pallet.

Pallet Size is the overall pallet dimensions expressed as Pallet Length × Pallet Width.

Pallet Length is the length of the Stringers (Stringer-class pallets) or Top Stringerboards (Block-class pallets). For Panel-deck Block-class pallets without stringerboards, Pallet Length is typically the pallet dimension parallel to the Top Panel Deck strong axis.

Pallet Width is the length of the Top Deckboards. For Panel-deck pallets, Pallet Width is the Top Panel Deck dimension perpendicular to Pallet Length.

Pallet Class defines the basic pallet design class:

- **Stringer-class** pallets utilize rectangular stringers (or runners) - wood components that run the full length of the pallet. The top deck is fastened to the top edge of the stringers. For Double-face pallets, the bottom deck is fastened to the bottom edge of the stringers.

- **Block-class** pallets utilize rectangular blocks (or cylindrical posts), which separate the top deck from bottom deck (if Double-Face). **Block-class** pallets with lumber decks have top stringerboards, which run the full length of the pallet and are fastened to the blocks.
The **Pallet Use Category** is defined in the NWPCA Uniform Standard for Wood Pallets:

- **Multiple-Use** Pallets are intended for repeated uses for more than one unit load. **Multiple-Use** Pallets are also referred to as Returnable Pallets.

- **Limited-Use** Pallets are intended for use with a single unit load. **Limited-Use** Pallets are also referred to as Shipping Pallets.

**Pallet Style** defines the basic construction style of the pallet:

- **Single-Face** pallets have only one deck and are also referred to as Skids.

  ![Single-Face](image)

- **Double-Face Non-Reversible** pallets have a specific top face and a specific bottom face, which are not interchangeable.

  ![Double-Face Non-Reversible](image)

- **Double-Face Reversible** pallets have a top and bottom deck which are identical, so the pallet can be used "reversibly".

  ![Double-Face Reversible](image)
Entry Type further defines the pallet design and indicates how the pallet may be entered by forklift and pallet jack equipment:

- **2-Way** pallet designs are Stringer-Class pallets without stringer notches. They can be entered and lifted by forklift and pallet jack from only the two ends, thus the term **2-Way** entry.

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2-Way
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- **Partial 4-Way** pallet designs include Stringer-Class pallets with stringers notched for fork tine entry. These notches are rarely sized to accommodate pallet jacks, which can only enter the pallet from the ends. Only forklifts can enter and lift the pallet from the sides as well as ends, thus the term **Partial 4-Way** entry.

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Partial 4-Way
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- **Partial 4-Way** pallet designs also include Block-Class pallets with an Overlap Base. The overlapped bottom stringerboards and bottom deckboards typically prevents the entry of pallet jack wheels over the bottom stringerboards (without damaging the pallet), but pallet jacks can enter the pallet over the bottom deckboards. Only forklifts can enter and lift the pallet from all 4 directions, thus the term **Partial 4-Way** entry.

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Partial 4-Way
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- **Full 4-Way** pallet designs are Single-Face Block-Class pallets or Double-Face Non-Reversible Block-Class pallets with a Panel Base, Perimeter Base, or Unidirectional Base. The single layer bottom deck (if present) and potentially large openings between blocks (or posts) allows entry of forklifts or pallet jacks from all pallet sides and ends, thus the term **Full 4-Way** entry.

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Full 4-Way
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PDS allows the following **Top Deck Constructions** for each Pallet Class:

**Stringer-Class:**
- Deckboard
- Panel

**Block-Class:**
- Deckboard/Stringerboard
- Panel
- Panel/Stringerboard

**Deckboard** Top Deck Constructions apply to Stringer-class pallets with lumber Top Deckboards.

**Deckboard/Stringerboard** Top Deck Constructions apply to Block-class pallets with lumber Top Deckboards attached to Top Stringerboards.

**Top Panel Deck** Constructions apply to Stringer-class pallets and Block-class pallets without Top Stringerboards.

**Panel/Stringerboard** Top Deck Constructions apply to Block-class pallets with a Top Panel Deck attached to Top Stringerboards.
PDS allows the following **Bottom Deck Constructions** for each Pallet Class:

**Stringer-Class:**
- Deckboard
- Panel Base

**Block-Class:**
- Panel Base
- Perimeter Base
- Overlap Base
- Unidirectional Base

**Deckboard** Bottom Deck Constructions apply to Stringer-class pallets with lumber Bottom Deckboards.

**Panel Base** Bottom Deck Constructions apply to Stringer-class pallets or Block-class pallets with a bottom deck panel.

**Perimeter Base** Bottom Deck Constructions may be used on Block-class pallets and are characterized by boards oriented in both directions but in the same plane. There are boards continuously around the bottom deck perimeter - hence the term **Perimeter Base**.
Overlap Base  Bottom Deck Constructions may be used on Block-class pallets and are characterized by bottom deckboards and bottom stringerboards oriented in opposite directions. The deckboards and stringerboards are overlapped at the blocks - hence the term Overlap Base.

Unidirectional Base  Bottom Deck Constructions may be used on Block-class pallets. They are characterized by having bottom deckboards that may be oriented along the pallet length or the pallet width. The deckboards run in only one direction - hence the term Unidirectional Base.

Deck Style further defines construction style of pallet decks.

- **Flush**: ends of deckboards and edges of panels are Flush with stringer or stringerboard edge. For Panel Deck Block-class pallets without stringerboards, panel edges are Flush with block edges.

- **Single-Wing**: ends of top deckboards and edges of top panels overhang stringer or stringerboard edge. Bottom Deck, if present, is Flush.

- **Double-Wing**: ends of top and bottom deckboards and edges of top and bottom panels overhang stringer or stringerboard edge. Bottom Wing must be ≤ Top Wing.
**Stringerboard Style** further defines construction style of Block-class pallets with stringerboards.

- **Flush**: ends of stringerboards are **Flush** with ends of blocks.

- **Single-Cantilever**: ends of top stringerboards overhang ends of blocks. Ends of bottom stringerboards, if present, are **Flush** with ends of blocks.

- **Double-Cantilever**: Overlap Base Block-class pallets only. Ends of top and bottom stringerboards overhang ends of blocks. Top and bottom stringerboards must be parallel, and Bottom Cantilever must be ≤ Top Cantilever.

**Bottom Deck Orientation** may be specified for Block-class pallets.

- **Overlap Base** or **Unidirectional Base**: Bottom Deckboards may be **Parallel** or **Perpendicular** to Pallet Length.

- **Perimeter Base**: Butted Boards may be **Parallel** or **Perpendicular** to Pallet Length. Outer Boards will be oriented opposite direction.