



## SP40S

### Technical Specification Sheet & Installation Guide



### **pointGUARD<sup>®</sup> Pallet Protection Products**

*A division of*

*United Pallet Services, Inc.*

*4043 Crows Landing Road, Modesto, California 95358*

*(209) 538-5844 • [www.unitedpalletservices.com](http://www.unitedpalletservices.com)*

*Questions regarding installation or pallet specifications should be directed to:*

**Aaron Roberson**

Quality Assurance Manager

(209) 538-5844

[aaron@unitedpalletservices.com](mailto:aaron@unitedpalletservices.com)

# Pre-Installation:

Before the start of the installation process, please note:

- The SP40S pointGUARD® Pallet Protector was designed to be installed on a new manufactured wooden pallet (or skid) that meets our pallet specifications. Retrofitting on an existing pallet can be done in certain situations where the pallet is already built to specifications that are laid out in this guide. Contact our office at (209) 538-5844 to inquire about the conditions that need to be met to make a retrofit successful.
- For optimal results, the design of the pallet (lumber positioning, thickness of lumber, etc.) is crucial to ensure an accurate fit. The recommended specifications are outlined in this guide and should be closely followed. We recommend providing a copy of this Guide to your pallet manufacturer. A PDS® (*Pallet Design System*®) Pallet Specification Sheet can be provided to you at no charge by calling our office at (209) 538-5844.
- Kiln-Dried lumber should be used for the top lead boards and the 2x4 stringers. This is noted in the *TECHNICAL SPECIFICATION - Pallet* section, but is being noted here due to its importance. Failure to do so can leave a gap between the wood and the plastic, which will decrease the effectiveness of the pallet protector.
- Although the most popular size of pallet for the SP40S is a 48" x 40" pallet, please note that it can fit any pallet length as long as the width remains 40". Also the pallet must have (3) 2" x 4" stringers (that meet the width and height specifications in this guide) and the deck height matches the requirements outlined in this guide. Examples include:
  - 40" x 40"
  - 42" x 40"
  - 44" x 40"
  - 52" x 40"
  - 60" x 40"

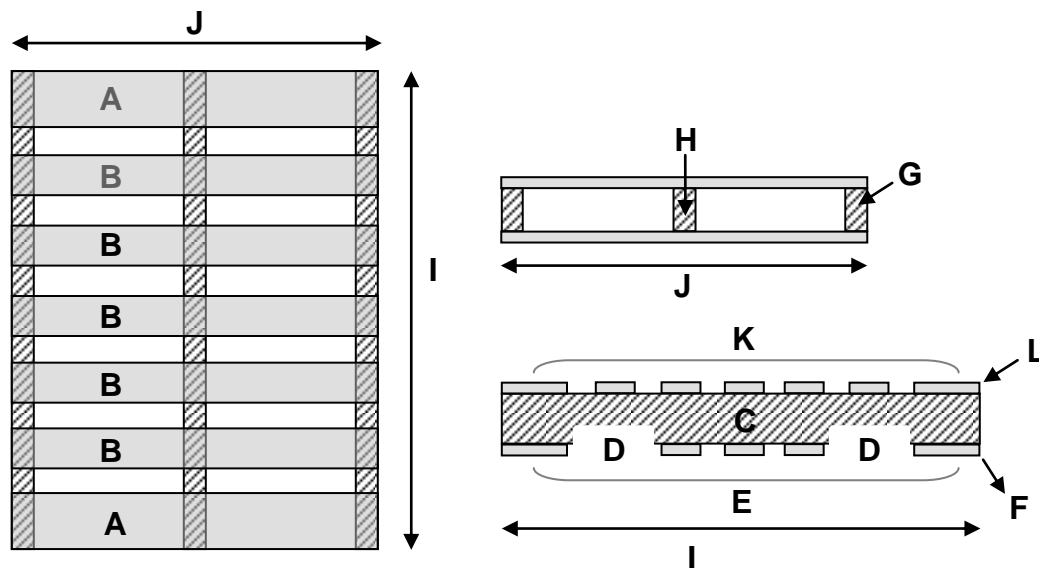
In certain cases, it is possible to attach a SP40S protector to a wing pallet with a top deck width greater than 40", however the bottom deck has to remain 40" in width and other requirements have to met as well. Call our office at (209) 538-5844 to discuss this situation if needed.

- It is possible to only install an SP40S on one end of the pallet if, once the unit load is in position; the pallet is only handled from one end before the pallet is relieved of the product.
- The SP40S is manufactured in sets of 2 with the bottom of the units attached at 3 break-off points. Simply grasp each point guard and bend back and forth until they snap apart.



# Wood Pallet Glossary of Terms:

- A - 1x6** Piece of lumber measuring 6" (nom) in width
- B - 1x4** Piece of lumber measuring 4" (nom) in width
- C - 2x4 Nominal Stringer (Runner)** Usually a 1.5" x 3.5" piece of lumber
- D - 4-Way Pallet / 2-Way Pallet** Term used when side of pallet has notch for forklift entry (4-Way shown)
- E - Bottom Deck** Bottom area of pallet that touches the floor
- F - Bottom Lead Board** Piece of lumber on the bottom and at the very front or back of the pallet
- G - End of the Stringer** End of the 2x4 stringer
- H - Middle Stringer** The very middle 2x4 stringer
- I - Pallet Length** The overall length of the pallet
- J - Pallet Width** The overall width of the pallet
- K - Top Deck** Top area of pallet where footprint of product will rest
- L - Top Lead Board** Piece of lumber on the top and at the very front or back of the pallet



*NOTE: Pallet terms on this page are noted in the installation steps as superscript*

**Example...** "Top lead board<sup>l</sup> must be flush with the pointGUARD protector"

# Technical Specifications—SP40S:

## Description:

Plastic pallet protector for wood pallets

## Application:

Made to fit a 3-stringer<sup>C</sup> pallet with a width of 40"

## Physical Properties:

100% Virgin Polypropylene with UV Inhibitor\*

## Measurements:

39.50" WIDE x 3.81" TALL

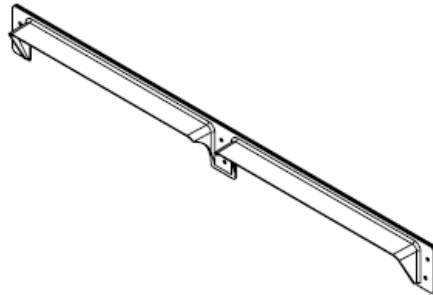
## Attaches to pallet with:

(3-6 per side, 6-12 total for pallet) 1.5" or 1" #8 wood screws

## Weight:

0.75 lbs. each/1.5 lbs. for the set

\* UV Inhibitor information available by contacting our office

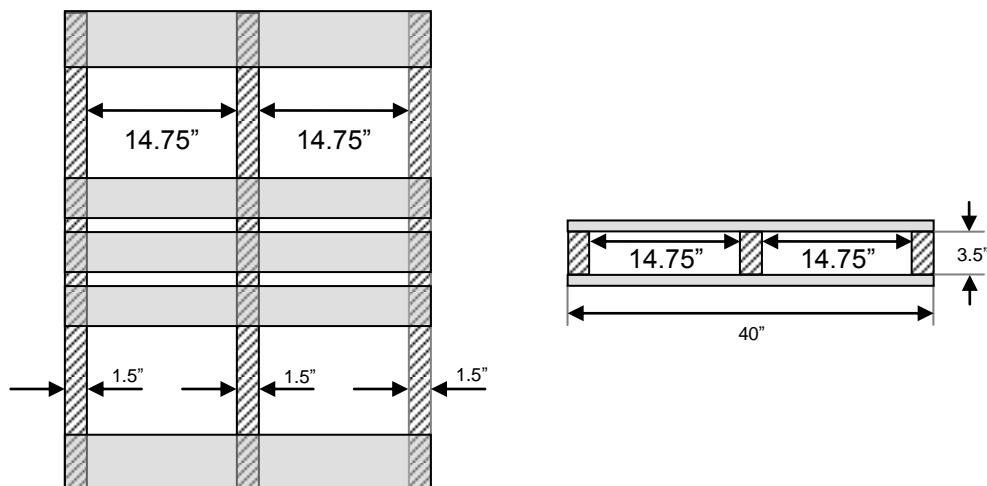


# Technical Specifications —PALLET:

*The pallet must be manufactured to the following specs so that the plastic protector will fit accurately. Failure to adhere to this specification information will result in an incorrect attachment and loss of complete protection for the pallet.*

## Stringer<sup>C</sup> Dimensions / Placement:

- (3) 2" x 4" Nominal Stringers<sup>C</sup> (Length: Size as needed)
- Width 1.5", Height 3.5" / Placed evenly apart (14.75" between stringers<sup>C</sup>)
- RECOMMENDATION: KILN-DRIED TO PREVENT SHRINKAGE

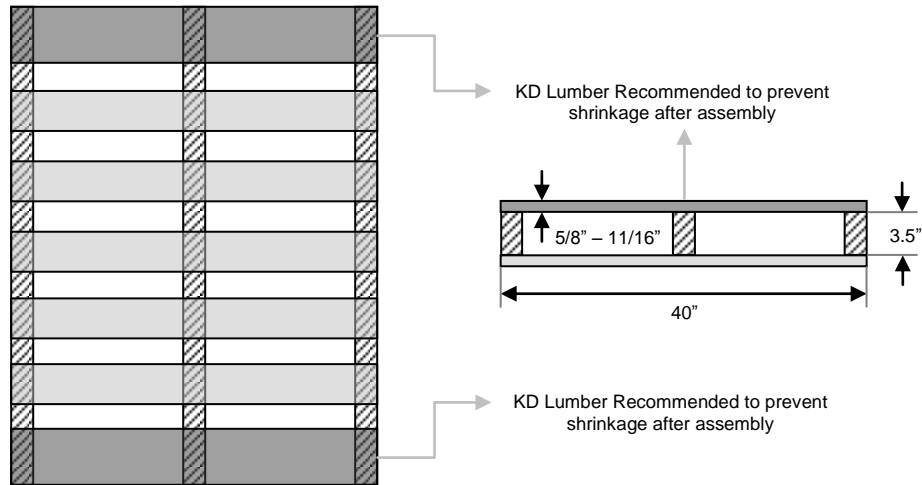


### Bottom Deck Dimensions/Placement:

- No suggested requirements due to the SP40S providing no protection for the bottom deck<sup>E</sup>

### Top Deck<sup>K</sup> Dimensions:

- **THICKNESS:** Target 5/8" - 11/16" (can be thicker, but will increase damage exposure)
- **RECOMMENDATION:** LEAD BOARD<sup>L</sup> SHOULD BE KILN-DRIED TO PREVENT SHRINKAGE



### Pallet Length<sup>I</sup> Remarks:

- Adding the SP40S pointGUARD<sup>®</sup> Pallet Protector to a pallet will make the pallet length<sup>I</sup> approx. 0.50" longer
- To keep the length of the pallet at the current dimensions, reduce pallet length<sup>I</sup> by 0.50" (EXAMPLE: 48" 2x4 Stringer<sup>C</sup> will need to be reduced to 47.50" or a 40" 2x4 down to 39.50")

### Forklift Opening Remarks:

- Adding the SP40S pointGUARD<sup>®</sup> Pallet Protector to a pallet will reduce the main entry opening by 1/8"

### NOTE:

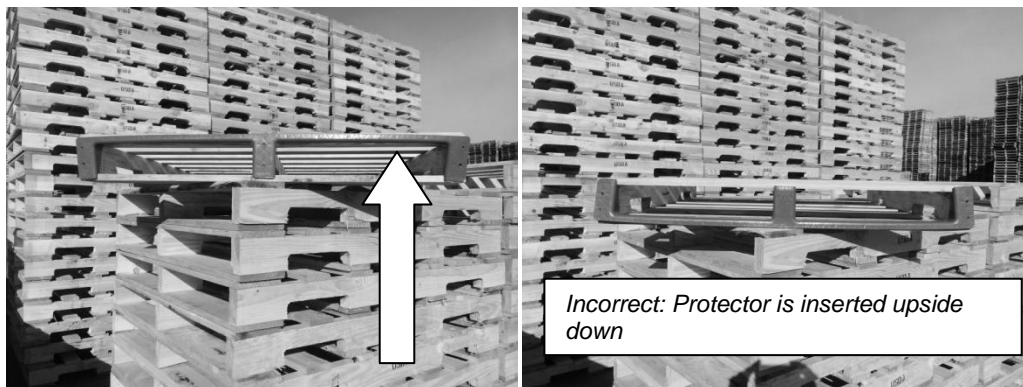
- All corners on the pallet should be constructed flush and square

# Installation Process:

- To get started, make sure you have read the *Pre-Installation* section and have built the wood pallet to the specifications outlined in this guide (*If retrofitting to an existing pallet, make sure you have verified that the stringer<sup>C</sup> dimensions/placement have met those laid out in this guide*)
- Next, make sure you have the following:
  - A standard cordless or pneumatic impact driver (20V ideal)
  - (3-6) 1.5" of 1" #8 Wood Screws per pallet (6-12 for a set of pointGUARD<sup>®</sup> Pallet Protectors)
  - Tape measure

## Step #1

- Verify that the pallet has been built correctly (see *Technical Specification* section in this guide)
- Insert the SP40S protector into the pallet centering it around the middle stringer<sup>H</sup> so that the top lead board<sup>L</sup> has plastic protection in front and below it



## Step # 2

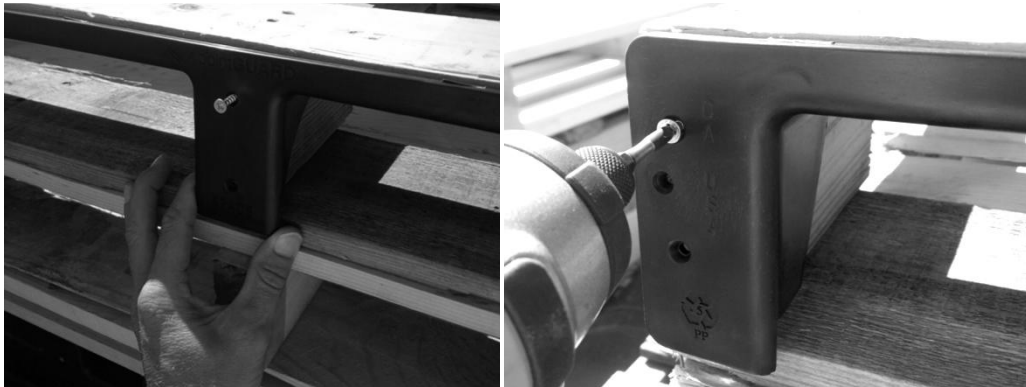
- Pull the SP40S protector as far to the top of pallet as possible without exceeding the height of the top lead board<sup>L</sup> and then check again so that it is centered to the pallet before beginning step #3



**Why this is Important:** Overhang increases the chances that the pointGUARD® Pallet Protector can be snagged on equipment. Also, making sure the pointGUARD® Pallet Protector is flush or below the top deck<sup>K</sup> of the pallet reduces damage exposure to the unit load.

## Step # 3

- Using the driver, screw (1) 1.5" or 1" #8 Wood screw thru the pointGUARD® Pallet Protector and then into the middle stringer<sup>H</sup>, choosing the best pilot hole to avoid cracks and defects
- Then proceed to securing each outside stringer<sup>C</sup> (Note: More than one screw per stringer<sup>C</sup> may be used for a more secure attachment)



## Step # 4

- Countersink screws to 1/16" - 1/8", careful that the screw will not back out of loose grain wood. A (#8) 2" or 4" screw can be substituted in the occurrence of an unset screw
- The pallet should not be used In the event that a screw(s) will not hold the pointGUARD® Pallet Protector in position



**Why this is Important:** Screws that are not countersunk can back out and snag on equipment, product, person and automated machinery.

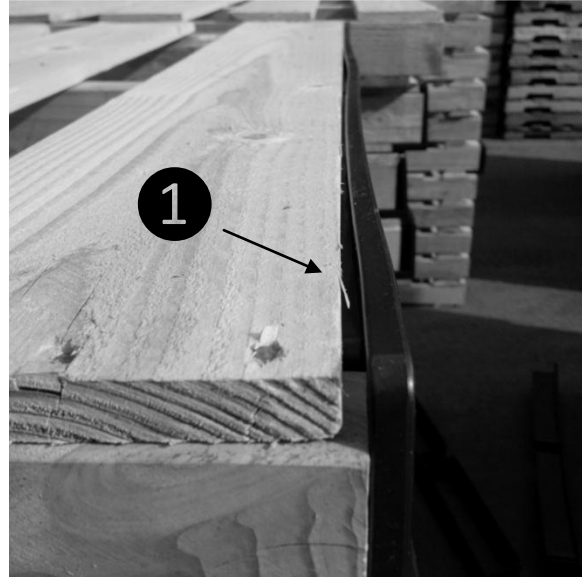
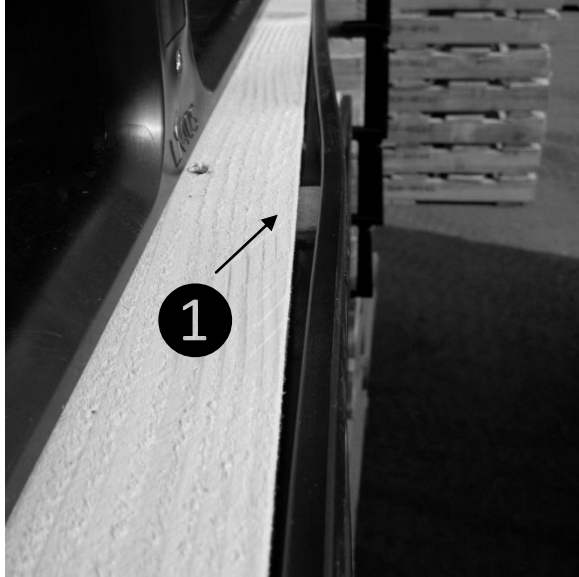
## Step # 5

- Repeat steps #1 - #4 on the opposite side of pallet

## Troubleshooting Section:

Avoid the following during installation. These errors will result in the protector possibly cracking or not protecting the pallet as designed.

1. Problem: Top lead board<sup>L</sup> not flush with end of stringer<sup>G</sup>



**Questions: Call (209) 538-5844 for installation guidance and support**