



**Kent** UnLimited, Inc.

## Wide Span Shelving Installation Instructions

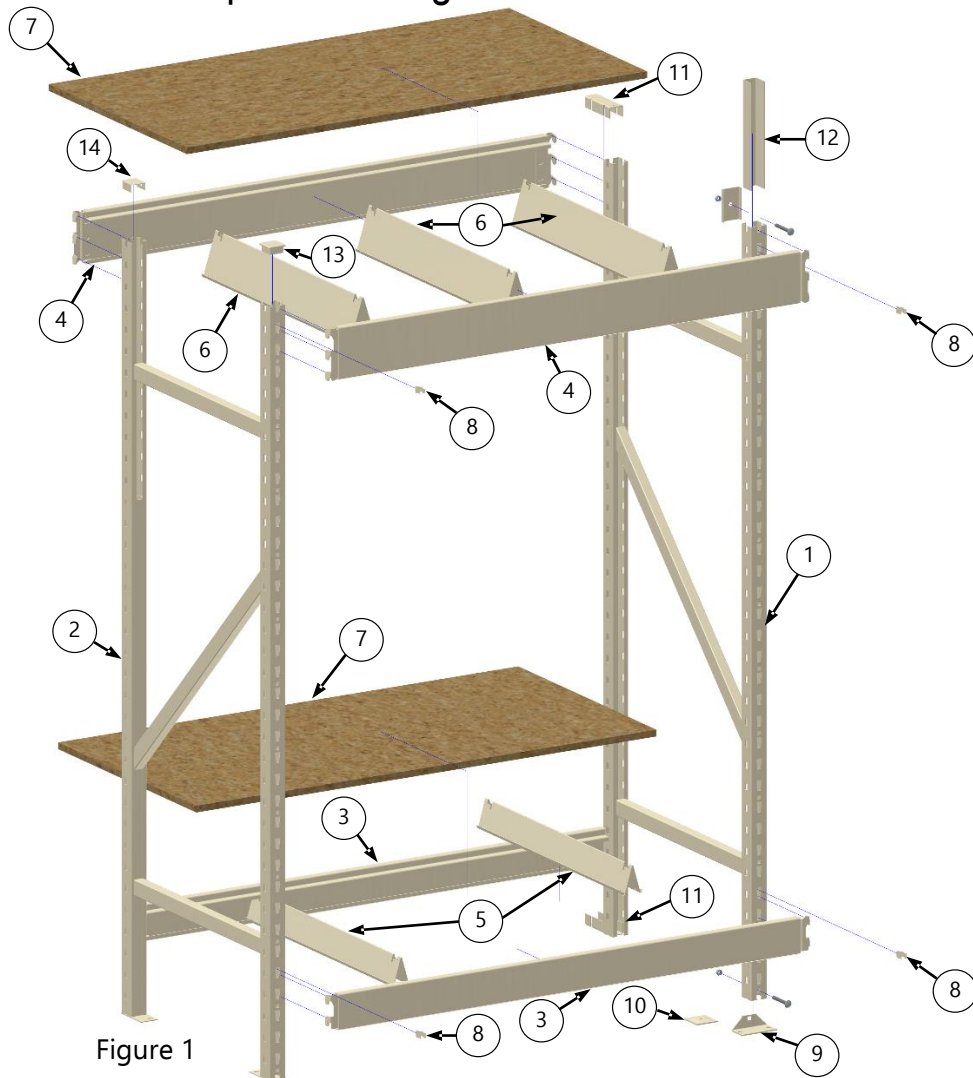


Figure 1

ITEM	PART NUMBER	DESCRIPTION	EXAMPLE
1	WSFwwhhh	Wide Span Frame (width x height)	WSF24072
2	WSFwwhhhHD	Wide Span Frame – Heavy Duty	WSF24072HD
3	WSBww	Wide Span Beam (length) – Standard	WSB48
4	WSBwwHD	Wide Span Beam – Heavy Duty	WSB48HD
5	WSDSdd	Wide Span Deck Support – Standard	WSDS24
6	WSDSddHD	Wide Span Deck Support – Heavy Duty	WSDS24HD
7	WSDddwwHD	Wide Span Deck Heavy Duty	WSD2448
8	WSBC	Wide Span Beam Clip (Packages of 10 only)	WSBCPK10
9	WSFA	Wide Span Floor Anchor (Packages of 10 only); Includes Hardware	WSFAPK10
10	WSFS	Wide Span Floor Shim (Packages of 10 only)	WSFSPK10
11	WSBBC	Wide Span Back to Back Connector (Packages of 2 only)	WSBBCPK2
12	WSFC	Wide Span Frame Connector (Packages of 2 only); Includes Hardware	WSFCPK2
13	WSFPC	Wide Span Frame Plastic Cap (Ivory & Black Only)	WSFPC
14	WSFCAP	Wide Span Frame Cap	WSFCAP



## Wide Span Shelving Installation Instructions

### Wide Span Frames

Note: Heavy Duty Wide Span Frames are available for use with hand stackers.

Heavy Duty Frames have reinforced uprights. "U" shaped reinforcement channels are welded in the lower section of each upright (See Figure 2).

**WARNING:** Make sure that heavy duty frames are installed in the areas where hand stackers may be used.

- Standard frames do not have the reinforcing member.

1.1 To aid in proper alignment and to avoid needless moving of the units after assembly, a chalk line should be popped on the floor to outline aisles and Wide Span placement, before starting the installation.

- If Wide Span rack is to be used **parallel to a wall**, space the rear of the frames 2 inches away from the wall to allow space for beam height adjustment or changes.
- If Wide Span racks are to be used **back to back**, space frames 2 inches apart to allow beam adjustment or movement. (See back to back details – Page 7)

1.2 Erect two Wide Span Frames vertically with the diagonal bracing facing opposite directions (See Page 1 – Figure 1). Make sure that the small ends of the post slots face downward. Align the fronts of each frame to the chalk line.

1.3 Install one beam on each side of the Wide Span Frames. Use the square hole located every 6 inches on the frame post as a guide, to reference position of each beam. Place beams at the lowest level parallel with the floor. Front and rear beams must be installed at the same height from floor level. Both ends of a beam must be inserted into the upright slots at the same time.

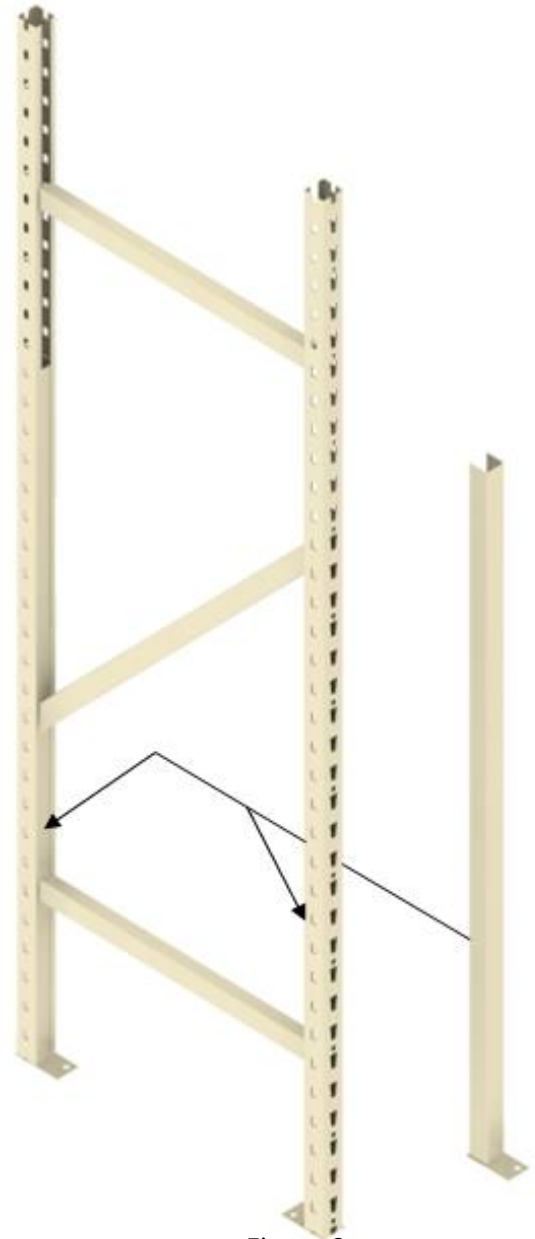


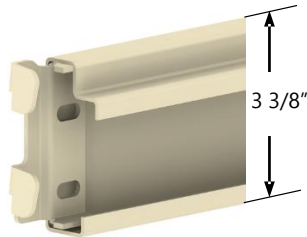
Figure 2



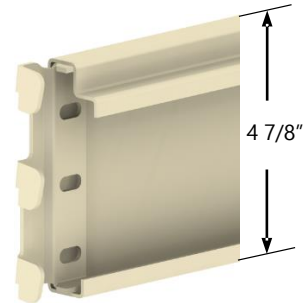
## Wide Span Shelving Installation Instructions

### Wide Span Beams

- 2.1 Before installing the remaining beams, make sure the Heavy Duty Beams (if required) are installed at levels desired for heavy duty application. (See loading information - Page 9)



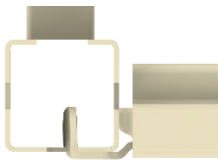
Standard Beam



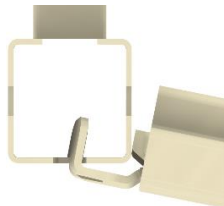
Heavy Duty Beam

- 2.2 Check section and make sure that:

- All beams are properly seated and square with Wide Span Frames. (See Figure 3)
- Engagement hooks are shouldered to the bottoms of the upright slots.
- All front and rear beams for each tier are installed parallel to floor.
- Each set of beams for each level are the same height from the floor.



CORRECT: Beam is square with upright.



WRONG: DO NOT install beams out of proper alignment OR allow frames to be shifted out of alignment.



Figure 3

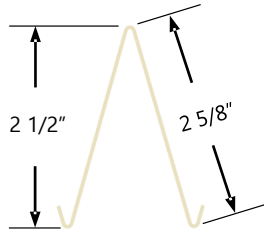
- 2.3 After first section is installed, a run of Wide Span may be started....

- Erect one upright frame with the diagonal bracing facing opposite direction of companion frame. (Note: diagonal bracing facing opposite directions on all alternate frame assemblies)
- Install lowest desired beams first and work your way upward, keeping pairs of beams at the same height from floor level.
- After run has been assembled, check over the entire unit...
  - Check all beams for proper engagement and squareness to upright
  - Level all assemblies, using shims as required. (See Shims Instructions)
  - Anchor all frame assemblies to the floor. (See Floor Anchor - Page 6)

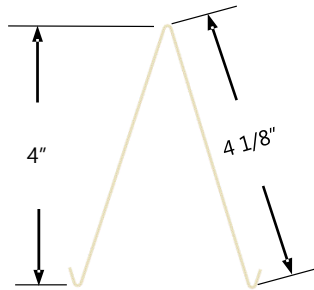


## Wide Span Shelving Installation Instructions

### Shelf Supports



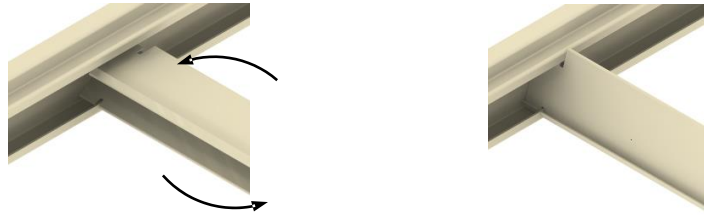
Standard



Heavy Duty

3.1 To install shelf supports, tilt support sideways, slant and insert between front and rear beam flanges. Position shelf support slots over beam flanges and rotate shelf support to vertical position.

- If outer support fit too tightly, install them toward center and slide them to proper space.

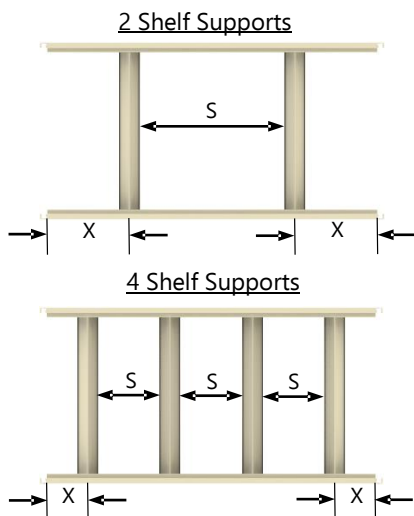


3.2

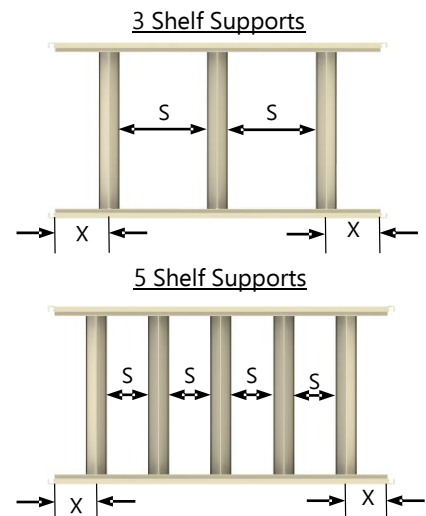
### Shelf Support Locations

Beam Size	2 Supports		3 Supports		4 Supports		5 Supports	
	X	S	X	S	X	S	X	S
48"	12"	24"	8"	16"	6"	12"	6"	9"
60"	15"	30"	10"	20"	6"	16"	6"	12"
72"	18"	36"	12"	24"	9"	18"	6"	15"
96"	24"	48"	12"	36"	12"	24"	6"	21"

NOTE: Heavy Duty Beams require a minimum of 3 Shelf Supports.



Top views for shelf support locations.





# Kent UnLimited, Inc.

## Wide Span Shelving Installation Instructions

### Wide Span Shelves

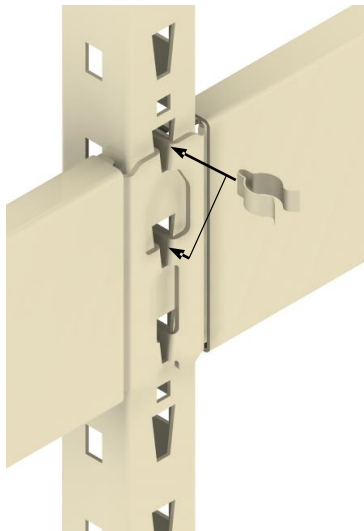


4.1 The type of shelf board used should be determined by the service duty requirements.

- Heavy Duty Shelves are 5/8' industrial grade high strength particle board.
- Sealed or color coated shelves are an option that may be ordered.

### Beam Lock Clips

5.1



- Beam Lock Clips are required for all Heavy Duty Beams, when hand stackers are used to load shelves.
- Beam Lock Clips prevent accidental or unintentional dislodging of beams and are recommended to be used.

5.2 Lock Clips have rounded sides to match upright slots.

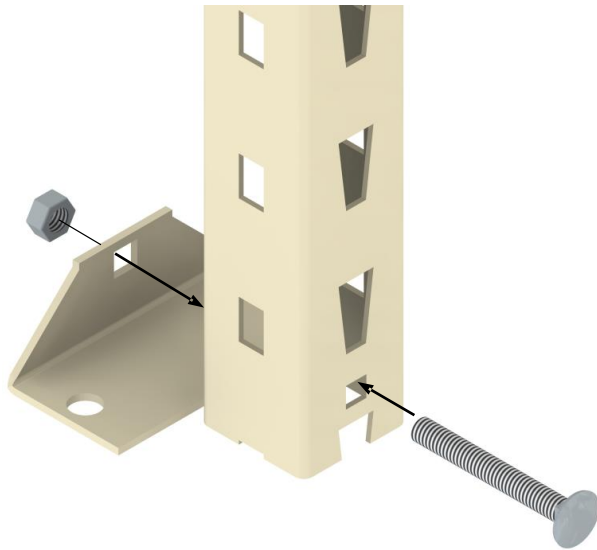
- Insert Lock Clip into the top space of the same slot of the upright above the top hook(s) of each beam. If the top slot is used on the upright, insert lock clip into space above second beam hook(s), in same slot of upright.



# Kent UnLimited, Inc.

## Wide Span Shelving Installation Instructions

### Floor Anchor



- 6.1 Floor Anchors are suggested to be used to help maintain proper installation alignment.
- Floor Anchors are required when hand stacker equipment is to be used or :
    - The ratio of height versus the depth of the unit exceeds 5:1 ratio.
    - The Upright load should be spread over a larger area.

6.2 Stackable Floor Shims/Floor Protector Shims **cannot** be used with Floor Anchors.

- Install Floor Anchors to bottoms of uprights using hardware provided.
  - Shim units as required after basic assembly has been erected and secure floor anchors to floor, using suitable anchors (not provided).

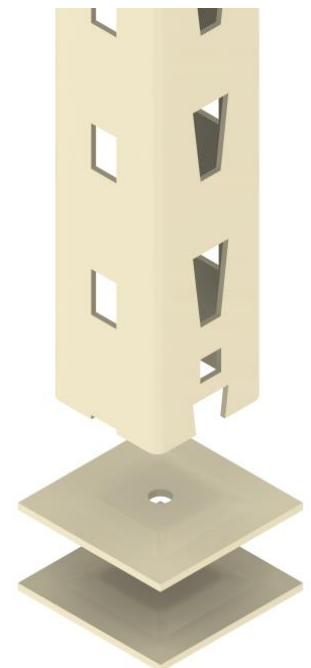
### Stackable Floor Shims/ Floor Protectors

7.1 Floor Shims are used to level the Wide Span system, when Floor Anchors are not used.

- Floor Shims are made to nest one on top of another, until required stack height is reached to level low spots in the floor surface.
- Floor Shims are also used to protect floors. Shims will prevent uprights from cutting through floor tile.

7.2 Install Floor Shims/ Floor Protectors after first assembly has been erected and during assembly of a run of wide span.

- To install shims, lift one upright at a time, position shim emboss into upright and lower upright onto shim.
- Depending on floor surface, two or more shims may be required on several upright posts to level the properly.

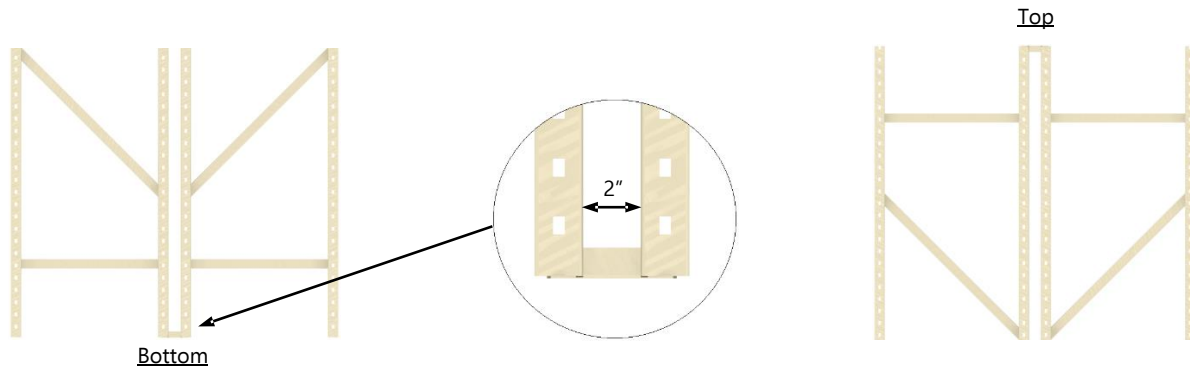




# Kent UnLimited, Inc.

## Wide Span Shelving Installation Instructions

### Back to Back Connectors

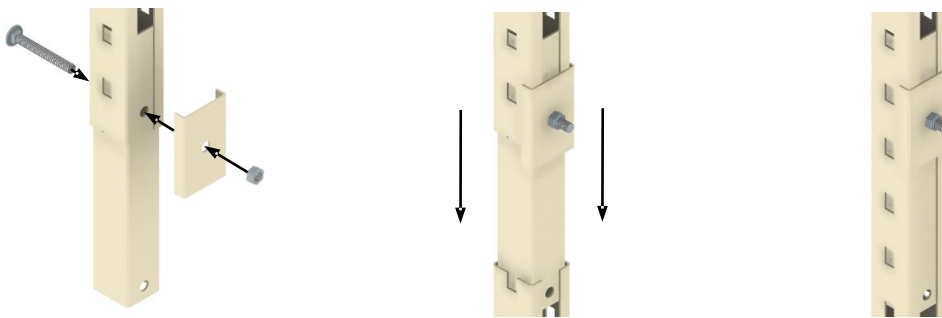


8.1 Back to Back Connectors are used to space Wide Span sections 2" apart evenly, in order to allow beam repositioning space between frames.

- Set frame uprights into slots of connectors at base and install connectors on the tops of each back to back Wide Span Frame.

NOTE: When Floor Anchors or Shims are used, the base connectors are not required. Clamp or use a 2" block as a guide for the lower section.

### Upright Connectors



9.1 Upright connectors are required for two piece upright frames and when adding height extensions to existing installations.

- Slide connector channels into bottoms of each upright of extension frame, with open side of channel facing the face of the upright. Insert bolt into square hole located at base of upright, and then slide bolt through upright and center hole of connector channel. Install clamp over bolt with open side toward upright and thread nut onto bolt several turns.
- After channels have been installed in base of uprights, hoist frame over existing unit frame, then lower frame gradually and insert the upright connector channels into the tops of existing frame uprights.
- When frame is fully seated and plumb with bottom frame, tighten nuts with clamp spanning outside both upper and lower uprights.
- Tighten nuts snug, but do not over tighten and deform upright face.



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## Wide Span Shelving Safety Precautions

1. Wide Span must be installed level and properly.
  - Install strictly in accordance with manufacturer's instructions.
2. **Do Not** use Wide Span as a ladder, work platform, or a walkway.
3. If any portion or component of Wide Span rack becomes damaged, the rack must be unloaded and damaged components replaced immediately or before reloading rack.
4. **NEVER** use fork trucks to load or unload Wide Span racks.
5. Hand load and unload **ONLY**.
  - Walk type stackers may **ONLY** be used with Heavy Duty Beams, Beam Lock Clips and Heavy Duty Wide Span Frames properly anchored.
  - Pallets must span and rest on front and rear beams.
6. **NEVER** exceed maximum distributed static load capacities.
  - Never drop weight onto shelves or beams.
  - Avoid concentrated loads. Loads other than evenly distributed loads can reduce the capacity by 50 percent.
7. Maximum upright assembly load is 10,000 pounds with beams spaced not more than 48 inches vertically on center and first beam set located at the lowest upright slots or all uprights anchored.
  - **CAUTION:** Center uprights carry  $\frac{1}{2}$  the load of opposing units.
8. Anchor Wide Span racks when the ratio of height versus the depth of the rack exceeds a 5:1 ratio.
9. Check Wide Span racks periodically for maintenance requirements.
  - Check for damage and insure shelving sections remain aligned.
10. Keep heavy loads at lowest possible position, to stabilize units.





**Kent** UnLimited ,Inc.

Wide Span Shelving User Instructions

**POST IN A CONSPICUOUS PLACE**

**WARNING:** Overloading, misuse or abuse of Wide Span system can contribute to collapse and personal injury .

- Concentrated loads reduce capacity by 50%.
- If any portion or component of the Wide Span rack becomes damaged, the rack must be unloaded and damaged components replaced before reloading for use.
- Hand load ONLY, Fork trucks or mechanical equipment must NOT be used.
- Walk type stackers may ONLY be used with Heavy Duty Beams, Beam Lock Clips, and Heavy Duty Wide Span Frames anchored.
- Pallets must span and rest on front and rear beams.
- Maximum upright assembly load of 10,000 pounds requires beams spaced not more than 48 inches vertically and first beam set located at the lowest upright slots. Anchor all uprights, if lowest slots are not used.

Maximum Evenly Distributed Static Load Capacities in Pounds					
(Using 5/8 in particle board shelf with proper shelf supports)					
Frame Depth	Beam Length	Number of Shelf Supports			
		2	3	4	5
18 – 36	48	1,000	2,000	2,000	2,000
18 – 36	60	2,000	2,500	2,500	2,500
18 – 36	72	1,800	2,000	2,000	2,000
18 – 36	96	1,600	1,600	1,600	1,600
42 – 48	48	1,200	1,800	2,400	2,400
42 – 48	60	1,200	1,800	2,400	2,400
42 – 48	72	1,200	1,800	2,000	2,000
42 – 48	96	1,200	1,600	1,600	1,600

**Heavy Duty Beams**

- Heavy Duty Beams MUST have 3 or more shelf supports.
- Maximum evenly distributed static load capacity for a pair of Heavy Duty Beams is 3,000 pounds (ALL Lengths).
- Hand Stacker pallet load 1,000 pounds per pallet, two pallets per set of Heavy Duty Beams Maximum.

**WARNING:** These capacities are for evenly distributed loads; uneven or concentrated loads reduce these capacities 50 percent.

- **DO NOT** use Fork Lifts.
- Walk Type Stackers are ONLY to be used **WITH** heavy duty components, lock clips, and floor shims.



WALK TYPE STACKER:  
ALLOWED with Heavy Duty components, locking clips, and floor anchors.

FORK LIFT:  
DO NOT USE



Safety Precautions to insure Wide Span is used safely:

1. DO NOT use Wide Span as a ladder, work platform or a walkway.
2. NEVER overload uprights or beams. NEVER drop weight onto shelves or beams.
3. CORRECT dislodged beams, misalignment or any damage immediately.
4. Keep heavy loads on lowest possible level.