

Forklift Recommendations for Trus Joist® Engineered Wood Products

Compared to traditional lumber products, the availability of Trus Joist® engineered wood products (EWP) in long lengths necessitates additional attention to fork spacing. The table below lists the maximum bundle length that can be handled based on fork spacing for Trus Joist® EWP. These recommendations are primarily in place to:

- **Prevent Product Damage:** Long overhangs may result in bending stresses that damage the product.
- **Ensure Safe Handling:** Depending on bundle length, the ends of the packages may experience significant deflection that may unintentionally impact other objects.

MAXIMUM BUNDLE LENGTH AND DYNAMIC DEFLECTION^{[1][2]}

Product	Grade	Minimum Thickness	Handling Limitation	Fork Spacing (out-to-out distance)											
				4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	
TimberStrand® LSL	TJ®/WY Rim Board	1 1/8"	Max Bundle Length	31'	33'	35'	37'	39'	41'	43'	45'	47'	49'	51'	
			Dynamic Deflection	4'-5"	5'-3"	6'-2"	7'-0"	7'-9"	8'-5"	9'-0"	9'-5"	9'-7"	9'-6"	9'-2"	
	1.3E	1 1/4"	Max Bundle Length	36'	38'	40'	42'	44'	46'	48'	50'	52'	54'	56'	
			Dynamic Deflection	5'-1"	6'-0"	6'-11"	7'-10"	8'-8"	9'-6"	10'-3"	10'-10"	11'-4"	11'-8"	11'-9"	
		1 1/2"	Max Bundle Length	39'	41'	43'	45'	47'	49'	51'	53'	55'	57'	59'	
			Dynamic Deflection	4'-10"	5'-7"	6'-5"	7'-3"	8'-0"	8'-9"	9'-6"	10'-1"	10'-7"	11'-0"	11'-3"	
	3 1/2"	Max Bundle Length	56'	58'	60'	62'	64'	64'	64'	64'	64'	64'	64'		
		Dynamic Deflection	3'-8"	4'-2"	4'-7"	5'-1"	5'-6"	5'-2"	4'-11"	4'-6"	4'-1"	3'-8"	3'-3"		
	1.5E	1 1/2"	Max Bundle Length	43'	45'	47'	49'	51'	53'	55'	57'	59'	61'	63'	
			Dynamic Deflection	6'-7"	7'-7"	8'-8"	9'-8"	10'-8"	11'-8"	12'-7"	13'-6"	14'-3"	14'-11"	15'-6"	
	1.55E	1 3/4"	Max Bundle Length	47'	49'	51'	53'	55'	57'	59'	61'	63'	64'	64'	
			Dynamic Deflection	6'-5"	7'-5"	8'-4"	9'-3"	10'-3"	11'-2"	12'-1"	12'-11"	13'-8"	13'-3"	11'-7"	
3 1/2"		Max Bundle Length	62'	64'	64'	64'	64'	64'	64'	64'	64'	64'	64'		
		Dynamic Deflection	5'-3"	5'-6"	5'-4"	5'-2"	4'-11"	4'-8"	4'-5"	4'-1"	3'-8"	3'-4"	2'-11"		
1.6E	1 1/2"	Max Bundle Length	44'	46'	48'	50'	52'	54'	56'	58'	60'	62'	64'		
		Dynamic Deflection	6'-11"	7'-11"	9'-0"	10'-1"	11'-2"	12'-2"	13'-2"	14'-1"	14'-10"	15'-7"	15'-9"		
Microllam® LVL	2.0E	1 1/2"	Max Bundle Length	51'	53'	55'	57'	59'	61'	63'	65'	66'	66'		
			Dynamic Deflection	9'-3"	10'-6"	11'-9"	13'-0"	14'-3"	15'-6"	16'-9"	17'-11"	16'-6"	14'-11"	13'-3"	
	1 3/4"	Max Bundle Length	55'	57'	59'	61'	63'	65'	66'	66'	66'	66'			
		Dynamic Deflection	8'-8"	9'-10"	10'-11"	12'-1"	13'-2"	14'-4"	14'-3"	13'-3"	12'-2"	11'-0"	9'-9"		
Parallam® PSL ^[3]	1.8E	3 1/2"	Max Bundle Length	66'	66'	66'	66'	66'	66'	66'	66'	66'	66'		
			Dynamic Deflection	5'-0"	4'-11"	4'-9"	4'-7"	4'-5"	4'-3"	4'-0"	3'-8"	3'-5"	3'-1"	2'-9"	
	2.0E / 2.2E	3 1/2"	Max Bundle Length	66'	66'	66'	66'	66'	66'	66'	66'	66'	66'		
			Dynamic Deflection	4'-9"	4'-8"	4'-6"	4'-5"	4'-2"	4'-0"	3'-9"	3'-6"	3'-3"	2'-11"	2'-7"	
Weyerhaeuser LSL	Concrete Edge Form	1 1/4"	Max Bundle Length	34'	36'	38'	40'	42'	44'	46'	48'	50'	52'		
			Dynamic Deflection	4'-1"	4'-10"	5'-8"	6'-5"	7'-1"	7'-9"	8'-4"	8'-9"	9'-0"	9'-2"		

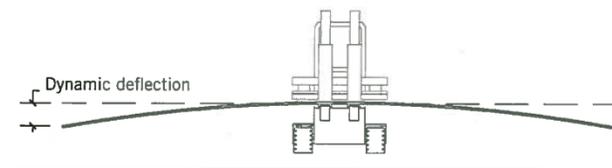
[1] Dynamic deflection is an expected deflection at each end of the package when subject to reasonable forklift motion (derived from static deflection considering a 50% increase in product self-weight); when forklift is at rest, the dynamic deflection will be less.
 [2] TJ® joists with a bundle length of 60 ft can be supported with a fork-spacing of 4 ft wide and expect less than 4" of dynamic deflection at the ends.
 [3] Treated Parallam® Plus PSL; 3 1/2" thick members with a bundle length of 48 ft can be supported with a fork-spacing of 4 ft wide and expect less than 24" of dynamic deflection at the ends.

General Notes:

- Table assumes that the packages are un-banded (i.e., worst-case scenario) and is relevant to both single pieces and multiple members stacked in flat, plank, orientation, except for TJ® joist, which must be carried in a vertical, joist orientation.
- Fork-Spacing does not incorporate safety considerations such as forklift wheelbase, forklift capacity, or bundle stability.
- Maximum Bundle Length is based on the allowable bending stress of the product and grade. Worst-case of Eastern and Western species considered.
- Table shows product lengths that may not be offered in all regions. Check with market representative for product availability.

Example:

49'-0", 1.55E 1 3/4" TimberStrand® LSL; 6' out-to-out fork spacing dynamic deflection = 7'-5".



If a product thickness is not listed, reference values for a smaller thickness of the same technology or contact your Weyerhaeuser representative.