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Reference numbers shown throughout the charts in this catalog are part numbers which may be more familiar to customers in various regions of the United States. These are included for the convenience of our new customers who have recently switched from a competitor's product line to USP.

The reference numbers in this catalog are for general application comparison only and should not be used as a substitution tool. The user is responsible to compare specific load values, fastener schedules, material specifications, and other factors to determine suitability of use for any particular product.

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- **Wood Screw Applications**  
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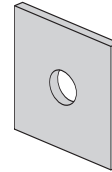
- **B Series**  
Design information on bolts specified for USP product line.



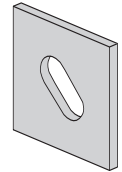
B

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- **HBPS/LBPS Series**  
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- **LBP Series**  
Galvanized standard bearing plates.



BP/LBP



HBPS/LBPS

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Proper fasteners are a critical component in a sound wood frame structure. To ensure successful installations of its connectors, USP offers a full range of structurally-rated nails. All galvanized nails supplied by USP are Hot-dipped for greater corrosion resistance. Stainless steel nails are available on a stock basis size of 8d x 1 1/2" (see Nail Specification table). Any USP connector requiring a NA16D-RS, NA20D, NA25, or NA250 nail is shipped with the nails attached to the connector in convenient poly bags.

**Finish:** See chart

**Materials:** ASTM A 123; ASTM A 153 (HDG)



**Installation:**

- Allowable shear values assume nail embedment into the wood of the entire nail or 10 nail diameters (whichever is less). Otherwise, the nail must be embedded at least 6 nail diameters, with the load reduced using the equation below:

$$\text{Reduced Load} = \frac{\text{Published Load} \times \text{Actual Penetration}}{\text{Nail Diameter} \times 10}$$

- Load reductions may occur if nails are used other than those specified. See the chart Optional Nails for Face Mount Hangers and Straight Straps on page 21 for load reduction factors regarding nail substitutions.
- For pneumatic nail use, see Installation Notes on page 18 and reference USP's technical bulletins.

**Nail Specification table**

USP Stock No.	Ref. No.	Finish <sup>4</sup>	Description	Nail Diameter	Length	Withdrawal Load <sup>7</sup>	Nails Per Lb.	Allowable Shear per Nail (Lbs.) <sup>1,2,3,5</sup>								
								Steel Gauge								
								3	7	10	12	14	16	18	20	22
NA11 <b>N8-GC</b>	N8HDG ---	HDG GC	8d x 1-1/2	0.131	1-1/2	48	152	---	---	---	---	---	96	95	94	94
NA11SS	SSN8	SS	8d x 1-1/2	0.131	1-1/2	48	143	---	---	---	---	---	96	95	94	94
NA9D <b>N10-GC</b>	N10HDG ---	HDG GC	10d x 1-1/2	0.148	1-1/2	54	100	---	---	126	118	114	112	112	112	111
NA16D	N16HDG	HDG	16d x 2-1/2	0.162	2-1/2	99	66	192	177	158	147	140	138	136	136	---
NA16D-RS	---	Bright	16d Ring Shank	0.148	3-1/2	140	47	181	164	147	---	---	---	---	---	---
NA21	---	HDG	20d x 1-3/4	0.192	1-3/4	81	65	211	184	168	159	152	---	---	---	---
NA20D	---	HDG	20d x 2-1/2	0.192	2-1/2	117	41	231	202	184	174	167	---	---	---	---
NA250	N54AHDG	HDG	1/4 x 2-1/2	0.250	2-1/2	152	27	275	241	225	216	---	---	---	---	---
NA25	---	HDG	1/4 x 3	0.250	3	183	22	275	241	225	216	---	---	---	---	---
<b>N8C-GC</b>	---	GC	8d Common	0.131	2-1/2	80	126	---	---	---	---	98	96	95	94	94
8d Common	---	Bright	8d Common													
<b>N10C-GC</b>	---	GC	10d Common	0.148	3	108	70	---	154	136	125	118	115	114	113	112
10d Common	---	Bright	10d Common													
16d Sinker	---	Bright	16d Sinker	0.148	3-1/4	117	60	160	154	136	125	118	115	114	113	---
<b>N16C-GC</b>	---	GC	16d Common													
16d Common	---	Bright	16d Common	0.162	3-1/2	138	48	192	177	158	147	140	138	136	136	---
20d Common	---	Bright	20d Common													
				0.192	4	187	29	231	202	184	174	167	---	---	---	---

1) Loads are calculated according to specifications of Part II of the National Design Specifications for Wood Construction (NDS®), 2005 Edition.  
 2) Loads apply to Douglas Fir-Larch (G=0.50) and Southern Pine (G=0.55). For Spruce-Pine-Fir (G=0.42) multiply above values by 0.86, for other wood types refer to NDS® or consult USP.  
 3) Shear values assumes full penetration of at least 10 nail diameters.  
 4) HDG = Hot-Dip Galvanized; GC = Gold Coat; SS = Stainless Steel; Bright = No Finish.  
 5) For steel with Fu=45,000 psi, and gage minimum bare metal thickness.  
 6) Fastener values may be increased for duration of load.  
 7) Withdrawal loads assume full penetration.

New products or updated product information are designated in red

**Minimum Fastener Penetration table**

Nail Penny	Wire Gauge	Shank Diameter (inches)	Minimum Penetration for Full Shear Load (inches)	Minimum Penetration for Reduced Shear Load <sup>2</sup> (inches)
6d	11-1/2 ga.	.113	1.13	0.68
8d	10-1/4 ga.	.131	1.31	0.79
10d/16d Sinker	9 ga.	.148	1.48	0.89
12d	9 ga.	.148	1.48	0.89
16d	8 ga.	.162	1.62	0.97
20d	6 ga.	.192	1.92	1.15

1) Less than the specified nail penetration shall be multiplied by the applicable adjustment factor.  
 2) For penetration less than this distance, the nail has no value.  
 3) Penetrations are derived according to the 2005 NDS®.

**⚠ Reduced Fastener Penetration Example** (See chart on left):

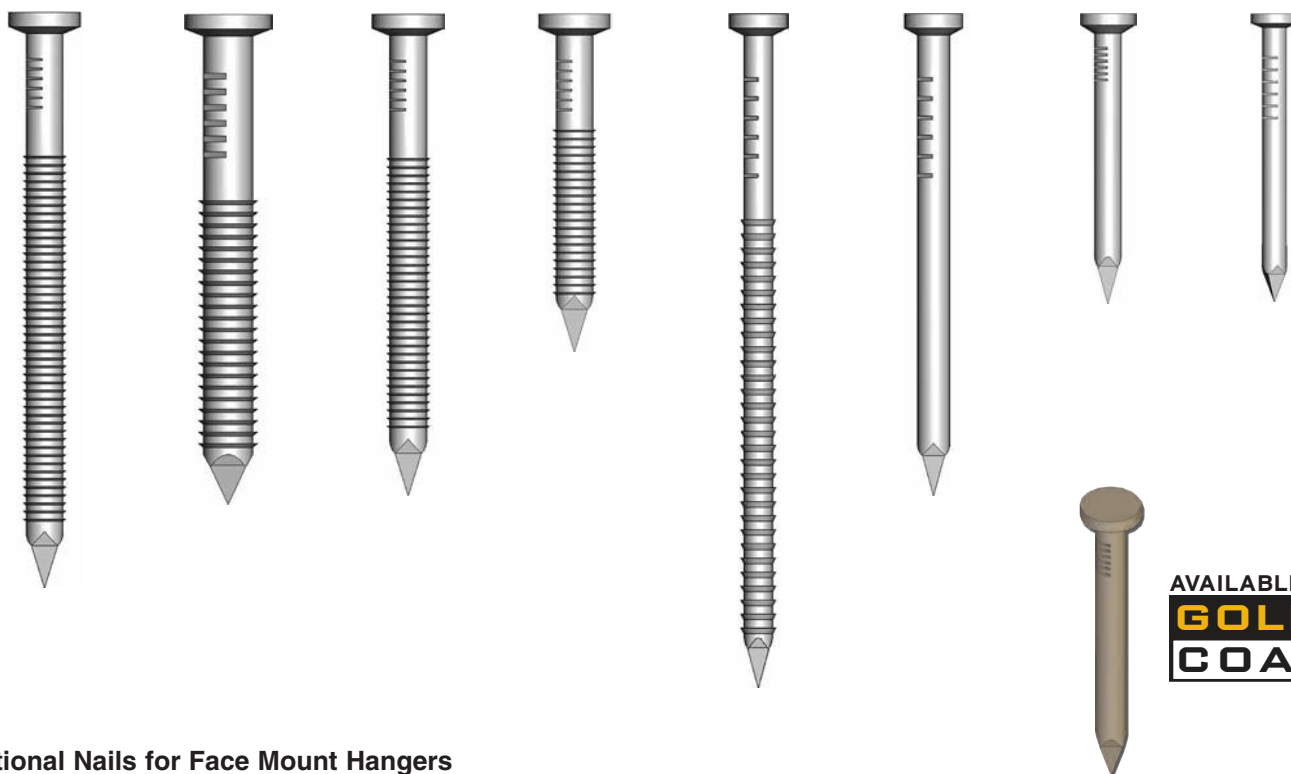
**HD210** – listed load is 1680 lbs. @ 100% for 16d common nails.

**Reduced HD210 capacity if using a 2x DF-L or SP header:**

1680 lbs. x 1.5 = 1555 lbs. @ 100%  
1.62

continued on next page

**NA25** .250 x 3"  
**NA250** .250 x 2 1/2"  
**NA20D** .192 x 2 1/2"  
**NA21** .192 x 1 3/4"  
**NA16D-RS** .148 x 3 1/2"  
**NA16D** .162 x 2 1/2"  
**NA9D** .148 x 1 1/2"  
**NA11** .131 x 1 1/2"



Fasteners

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### Optional Nails for Face Mount Hangers and Straight Straps load table

Catalog Nail	Replacement Fastener <sup>1</sup>	Allowable Load Adjustment Factor			
		DF-L	SP	S-P-F	LVL
16d common	8d common	0.70	0.75	0.60	0.70
16d common	10d Box	0.67	0.72	0.58	0.67
16d common	10d common	0.83	0.91	0.72	0.83
16d common	12d common	0.83	0.91	0.72	0.83
16d common	10d x 1-1/2	0.81	0.88	0.70	0.81
16d common	10d Sinker	0.59	0.64	0.51	0.59
16d common	16d Box	0.74	0.80	0.64	0.74
16d common	16d Sinker	0.83	0.91	0.72	0.83
16d common	16d x 2-1/2	1.00	1.00	0.86	1.00
16d common	No. 8 x 1-1/2 Wood Screw	0.60	0.66	0.52	0.60
10d common	8d Box	0.63	0.68	0.54	0.63
10d common	10d Sinker	0.70	0.77	0.61	0.70
10d common	8d common	0.83	0.90	0.72	0.83
10d common	10d Box	0.80	0.87	0.70	0.80
10d common	8d x 1-1/4	0.64	0.69	0.55	0.64
10d common	No. 8 x 1-1/2 Wood Screw	0.72	0.79	0.63	0.72
10d common	10d x 1-1/2	0.97	1.00	0.84	0.97
10d common	16d Sinker	1.00	1.00	0.86	1.00
10d common	No. 8 x 1-1/2 Wood Screw	0.72	0.79	0.63	0.72
12d common	10d x 1-1/2	0.97	1.00	0.84	0.97
12d common	16d Sinker	1.00	1.00	0.86	1.00
12d common	No. 8 x 1-1/2 Wood Screw	0.72	0.79	0.63	0.72
8d common	8d Box	0.75	0.81	0.65	0.75
8d common	8d x 1-1/4	0.76	0.83	0.66	0.76
8d common	No. 8 x 1-1/2 Wood Screw	0.86	0.95	0.75	0.86
8d x 1-1/2	8d x 1-1/4	0.76	0.83	0.66	0.76
8d x 1-1/2	No. 8 x 1-1/2 Wood Screw	0.86	0.95	0.75	0.86
10d x 1-1/2	8d x 1-1/2	0.86	0.93	0.74	0.86
10d x 1-1/2	No. 8 x 1-1/2 Wood Screw	0.74	0.81	0.64	0.74

1) No. 8 x 1-1/2 Wood Screw has a shank diameter of 0.164" and shall conform to ANSI/ASME Standard B18.6.1-1981.

### How to Use:

The base value is the catalog listed nail in Douglas Fir-Larch and the adjustment factor is the multiplier for the applicable replacement nail and wood combination.

- Adjustment factors may vary with some custom hangers or steel thicker than 10 gauge. Contact USP for exceptions.
- **Roofing nails shall not be substituted for any nail size or type.**

**⚠ Optional Nails Example:**

**JL210** – listed load is 1595 lbs. @ 100% for 10d common nails.

**If substituting:**  
 8d common nails with DF-L or LVL:  
 1595 lbs. x .83 = 1323 lbs.

8d common nails with SP:  
 1595 lbs. x .90 = 1435 lbs.

8d common nails with S-P-F:  
 1595 lbs. x .72 = 1148 lbs.

No further reductions are required.

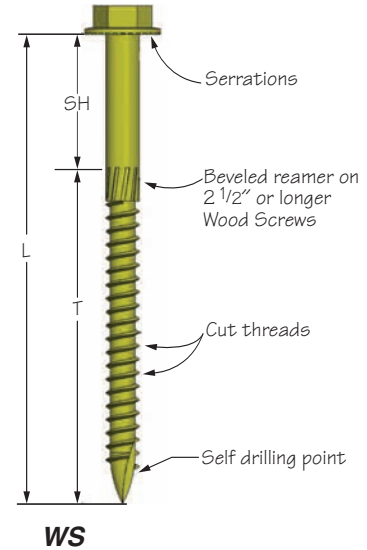
The WS Wood Screw is a self-drilling screw used for numerous framing applications. This screw features a reverse locking serration on the bottom of the screw head to help prevent over tightening against a steel plate. The USP head stamp identifies screws for easy inspection.

Screw shear capacities are based on a diameter of 0.242" when the shear plane is on the screw shank (SH) and 0.185" when the shear plane is on the knurl or threads (T). USP WS Wood Screws have a bending yield strength of 217,000 psi. For conditions not charted here, screw loads may be calculated as shown in the NDS® and increased for duration of load.

- Materials:** 1/4" diameter Grade 5 steel  
**Finish:** See chart  
**Codes:** ICBO 5634, L.A.City RR 25433

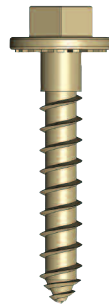
**Installation:**

- Screws are self-drilling.
- Install using a low speed clutch drill with 3/8" hex head driver. The washer head should be flat to the surface and the serrations will oppose turning and release the clutch. Do not over-tighten the screws.
- Installing the screw at an angle may introduce additional bending and tension forces into the fastener if the screw head is not flat on the bearing surface. Care should be given to ensure the fastener is installed perpendicular to the plane of the side plate.



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**For Attaching Multi-Ply Wood Trusses or LVL or PSL members, or floor trusses, see pages 23-25.**



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USP Stock No.	Ref. No.	Description	Dimensions				Finish <sup>1,5</sup>	DF-L / SP <sup>2,4</sup>				S-P-F <sup>2,4</sup>				
			L	SH	T	Wood to Wood		Steel to Wood				Wood to Wood	Steel to Wood			
								(DF-L to DF-L)	12 Gauge	10 Gauge	7 Gauge		3 Gauge	(S-P-F to S-P-F)	12 Gauge	10 Gauge
WS15	SDS25112	1/4" x 1-1/2"	1-1/2"	1/4"	1-1/4"	Zinc	---	251	248	244	243	---	217	214	211	211
<b>WS15-GC</b>	---	1/4" x 1-1/2"	1-1/2"	1/4"	1-1/4"	GC	---	251	248	244	243	---	217	214	211	211
WS17	SDS25134	1/4" x 1-3/4"	1-3/4"	3/8"	1-3/8"	Zinc	---	296	293	290	292	---	255	253	251	253
WS2	SDS25200	1/4" x 2"	2"	1/4"	1-3/4"	Zinc	---	304	306	313	327	---	262	264	271	284
WS25	SDS25212	1/4" x 2-1/2"	2-1/2"	1/4"	2-1/4"	Zinc	177	304	306	313	327	137	262	264	271	284
WS3	SDS25300	1/4" x 3"	3"	3/4"	2-1/4"	Zinc	229	304	306	313	327	177	262	264	271	284
WS35	SDS25312	1/4" x 3-1/2"	3-1/2"	3/4"	2-3/4"	Zinc	229	304	306	313	327	177	262	264	271	284
WS4	---	1/4" x 4"	4"	1"	3"	Zinc	229	304	306	313	327	177	262	264	271	284
WS45	SDS25412	1/4" x 4-1/2"	4-1/2"	1-1/4"	3-1/4"	Zinc	272	304	306	313	327	216	262	264	271	284
WS6	SDS25600	1/4" x 6"	6"	1-3/4"	4-1/4"	Zinc	272	304	306	313	327	216	262	264	271	284

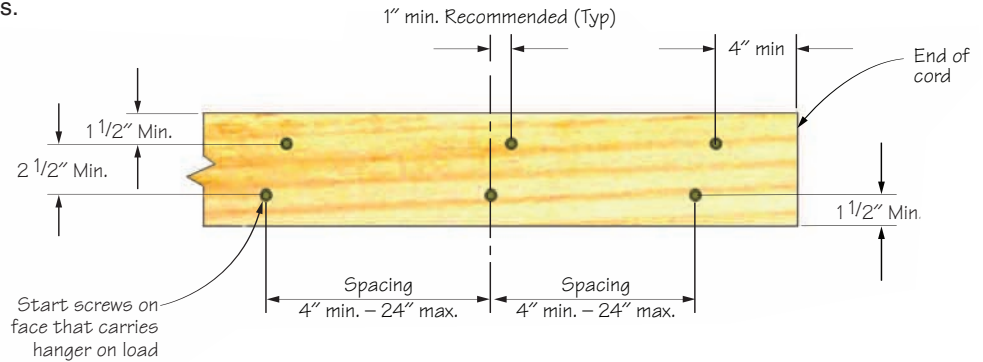
1) Zinc = Yellow zinc dichromate; GC = Gold Coat.  
 2) Allowable loads are based on the 1997 NDS®. Light Gauge or 3 Gauge loads given assume use with metal side plates, Fes = 45 ksi.  
 3) Wood-to-wood loads are based on 1-1/2" thick wood side members.  
 4) Loads are for 100% duration of load factors, and may be increased for other duration factors in accordance with the NDS.  
 5) Loads are for shear applications when used as described in this catalog. Please contact USP for applications and installations involving tension forces.  
**New products or updated product information are designated in red.**

## JOINING 2, 3, OR 4 PLY WOOD TRUSSES

The installation instructions and design example shown below are intended for a design professional who will be responsible for determining the location and number of wood screws to adequately transfer all loads on the truss.

### Installation:

- Screw spacing shall not be greater than 24" on center and less than 4" on center. However, the location of any individual screw may be adjusted up to one-half the required screw spacing to avoid lumber defects or interference with other hardware.
- Load or hanger spacing shall not be greater than 24" center-to-center.
- The last truss ply must have a minimum of 1 1/4" of screw penetration and no more than 1/8" gap between each ply.
- Screws cannot be installed through metal truss plates unless the Truss Engineer approves predrilling.
- On 2x4 members, use one row of wood screws. On 2x6 and 2x8 use two rows, and on 2x10 use three rows. Stagger all rows.
- The truss bottom chord shall have lateral bracing installed as called out by the Truss Engineer to prevent any displacement from torsional forces.
- Install screws from one side without flipping the truss.
- Top and bottom chords require screws and in some cases the webs may require screws.
- All lateral bracing should be attached to each truss ply.
- Increase edge and end distances if wood splitting occurs.



USP Stock No.	Ref. No.	Description	Dimensions			Finish	Shear Plane Location	Allowable Shear Loads (Lbs.) <sup>1,2,3</sup>								
			L	SH	T			Douglas Fir-Larch (G = 0.50)		Southern Pine (G = 0.55)		Spruce-Pine-Fir (G = 0.42)				
								Floor	Roof	Floor	Roof	Floor	Roof			
			100%	115%	125%			100%	115%	125%	100%	115%	125%			
WS3	SDS25300	1/4" x 3"	3"	3/4"	2-1/4"	Zinc	SH, T	230	265	290	265	305	330	175	200	220
							T	230	265	290	265	305	330	175	200	220
WS45	SDS25412	1/4" x 4-1/2"	4-1/2"	1-1/4"	3-1/4"	Zinc	SH	270	310	340	310	355	390	215	245	270
							T	230	265	290	265	305	330	175	200	220
WS6	SDS25600	1/4" x 6"	6"	1-3/4"	4-1/4"	Zinc	T	230	265	290	265	305	330	175	200	220
							SH	270	310	340	310	355	390	215	245	270

1) Allowable loads are based on 1997 NDS®.  
 2) The Truss Engineer shall apply all adjustment factors required per 1997 NDS®.  
 3) Loads are based on 1-1/2" thick wood side members. Side and main members of same wood species.  
 4) SH = screw shank; T = threads.

## Design Example

### 3 Ply with Mixed Wood Species:

Bottom Chord: 2x6 Southern Pine  
 Top Chord: 2x4 Spruce-Pine-Fir

### WS45 Wood Screw Allowable Loads:

(Assume shear plane across the screw shank)  
 Southern Pine: 355 lbs. each at 115%  
 Spruce-Pine-Fir: 245 lbs. each at 115%

### Bottom Chord Wood Screw Spacing:

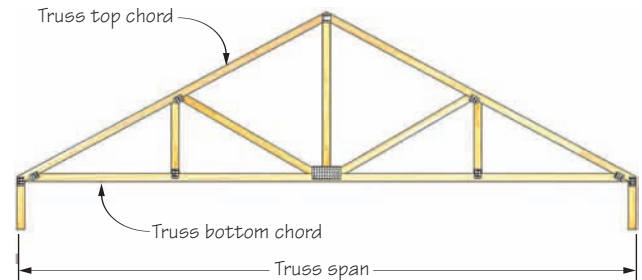
Using 2 rows of WS45 Wood Screws in 2x6  
 $2 \times 355/500 \times \frac{\# \text{ Plys}}{\# \text{ Plys} - 1} = 2.13 \text{ ft.}$   
 Use maximum spacing of 24".

### Top Chord Wood Screw Spacing:

Only 1 row of WS45 Wood Screws in 2x4 member  
 $1 \times 245/60 \times \frac{\# \text{ Plys}}{\# \text{ Plys} - 1} = 6.12 \text{ ft.}$   
 Use maximum spacing of 24".

### Required Loads:

Bottom Chord Load: 500 plf  
 Top Chord Load: 60 plf  
 (Roof Live Load: CD = 1.15)



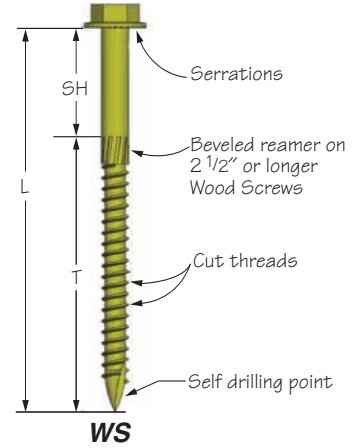
Typical Truss Profile (profile may vary)

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## JOINING 2, 3, OR 4 PLY LVL OR PSL MEMBERS

### Installation Notes:

- For 2 ply members, wood screws shall be installed with the screw heads in the loaded ply.
- For 3 or 4 ply members, wood screws shall be installed in both outer plies.
- Designer shall specify all wood screws locations.
- Increase edge and end distances if wood splitting occurs.
- Stagger all screws installed into the opposite face.
- A minimum of 2 rows of screws shall be used for all members with  $H = 5\ 1/2"$  and larger.



USP Stock No.	Ref. No.	Description	Dimensions			Multiple Members Installation Figure <sup>3</sup>	Maximum Allowable Uniform Loads that can be applied to either outside member (Lbs. Per Lineal Ft.) <sup>1,2,4,5,6,7</sup>								
			L	SH	T		DF-L / SP								
							Wood Screw Spacing								
							12" O.C.		18" O.C.		24" O.C.				
2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows										
WS35	SDS25312	1/4" x 3-1/2"	3-1/2"	1"	2-1/2"	1	1000	1500	665	1000	500	750			
						2	750	1125	500	750	375	565			
						4	750	1125	500	750	375	565			
						5	665	1000	445	665	335	500			
						6	1000	1500	665	1000	500	750			
WS6	SDS25600	1/4" x 6"	6"	1-3/4"	4-1/4"	3	665	1000	445	665	335	500			
						6	1000	1500	665	1000	500	750			

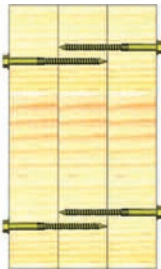
- 1) Allowable Uniform Loads are based on the 1997 NDS®.
- 2) Based on Zscrew = 250 lbs. in Douglas Fir-Larch (G=0.50) with a side member thickness of not less than 1-3/4".
- 3) Load values depicted assume all uniform load is applied to the most narrow outside ply only.
- 4) Load values neglect any contribution of screws installed to opposite side, even if they extend significantly into the loaded ply.
- 5) Loads are for normal (100%) duration of load, and may be increased in accordance with the code.
- 6) Uniform loads in table represent the capacity of the fasteners. The capacity of the LVL or PSL beam may be less and should be checked by a qualified designer or with the manufacturer's literature.
- 7) A qualified designer shall ensure the adequacy of a 7" wide beam to resist the applied load on one edge; otherwise, the loads shall be uniformly distributed across the width or applied equally on both sides.

Figure 1



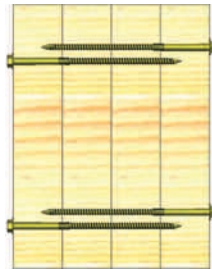
WS35 installed in (2) 13/4" Ply

Figure 2



WS35 installed in (3) 13/4" Ply

Figure 3



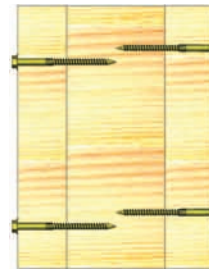
WS6 installed in (4) 13/4" Ply

Figure 4



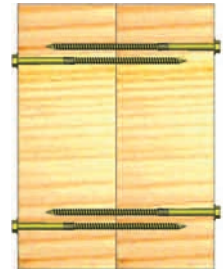
WS35 installed in (1) 13/4", (1) 31/2" Ply

Figure 5



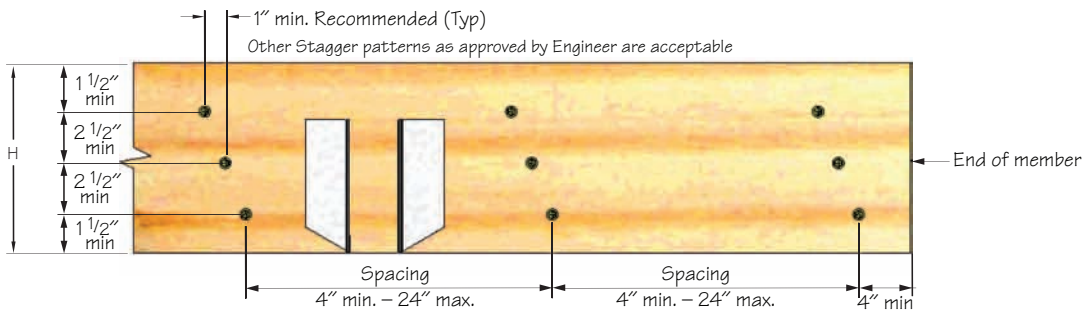
WS35 installed in (2) 13/4", (1) 31/2" Ply

Figure 6



WS6 installed in (2) 31/2" Ply

### Recommended Row Guidelines



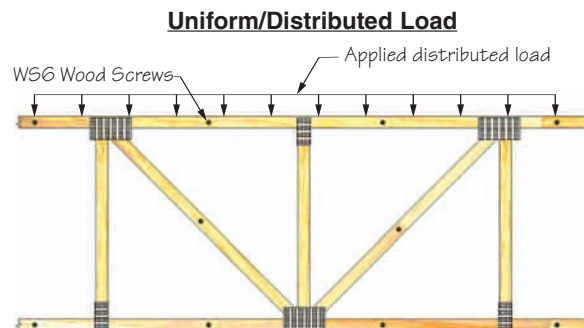
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## JOINING 2 PLY 4x2 FLOOR TRUSSES

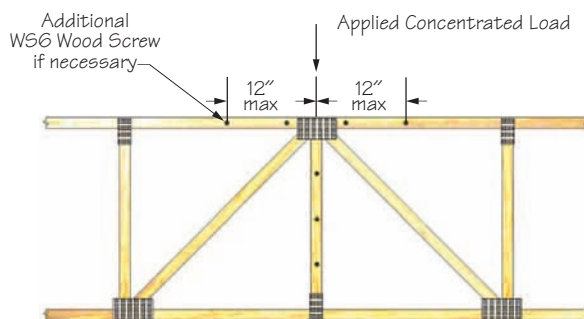
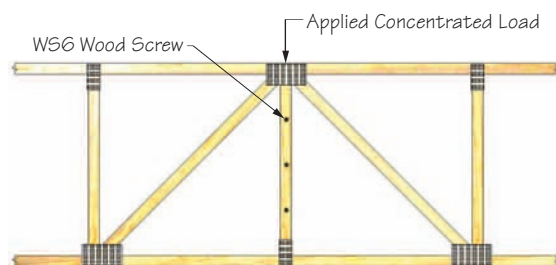
The following information pertains to the use of the USP's WS6 Wood Screws to fasten together a two-ply 4x2 floor truss girder, such that the induced loads are supported by both truss plys. Screw spacing and the location of each specific screw may vary depending on the design criteria for each application, and therefore must be determined by the truss or building designer. However, in the determination of screw locations, the following criterion shall also be considered. These criterion are varying dependent upon how trusses are loaded as follows:

### Uniform/Distributed Load

- Screws shall be installed into the top chord with a horizontal spacing between screws of not less than 4-inches on center and not more than 24-inches on center.
- A minimum end distance of 4-inches must be maintained. If necessary, additional screws may be installed in the bottom chord.
- Center screw vertically on 1 1/2" dimension of top chord. If splitting occurs, it may be necessary to pre-drill the holes in accordance with the code.
- The screws shall be installed with the headed end of the screw on the loaded truss. If either ply is "the loaded truss", the screws shall be divided between the two plys, with the spacing on each side twice the minimum indicated above.
- The screws shall not be installed through the metal truss plates, unless approved by the truss designer and the plates are pre-drilled, on each side to a 1/4-inch diameter. Do not drill through the wood.
- The maximum gap between the wood members of the two trusses shall be 1/8-inch.
- The truss designer shall design the truss members with the capacity and capability of the screws in mind, and shall meet all provisions of the code and ANSI/TPI.
- Individual screw locations may need to be adjusted to avoid conflicts with connectors, problematic wood or other framing members. Adjustments should follow the criteria described in this section.



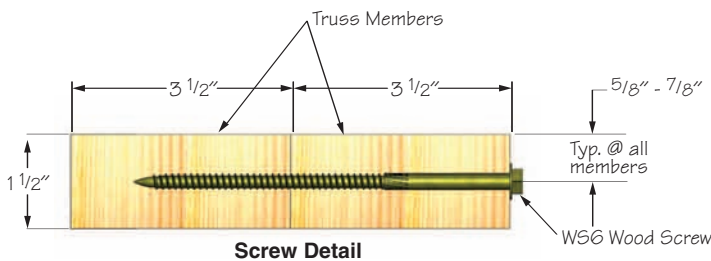
### Concentrated/Point Load



### Concentrated/Point Load

The placement of fasteners for concentrated loading includes all requirements of uniform loading with the additional following criteria:

- Loads must occur over a vertical member, and the necessary concentration of screws shall be installed in the vertical member.
- Additional screws may be installed on the top chord and adjacent web members if necessary.
- The fasteners should be grouped as close to the concentrated load as possible, but satisfy the same minimum spacing indicated for uniform loading.
- In no case shall the required group of fasteners extend beyond 12-inches from the location of the concentrated load.



USP Stock No.	Ref. No.	Allowable Shear Loads <sup>1</sup>		
		Douglas Fir-Larch (G = 0.50)	Southern Pine (G = 0.55)	Spruce-Pine-Fir (G = 0.42)
		Floor (100%)	Floor (100%)	Floor (100%)
WS6	SDS25600	230	265	175

<sup>1</sup>) Allowable shear loads based on 1997 NDS® and no further increase is allowed.

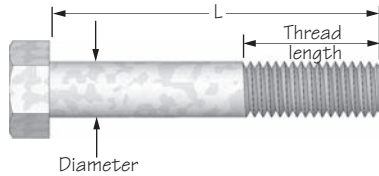
For customer convenience, we offer a wide range of bolts specified for the USP product line. Each bolt is shipped with two washers and one hex nut. Connector products requiring bolts for installation have a special, highlighted "bolt box" on or opposite their catalog location.

**Materials:** Bolts and nuts are standard hex head conforming to ASTM A 307 Grade A or SAE Grade 2 or better. Washers conform to American National Standard Type A plain steel, ANSI B.22.1.

**Finish:** Zinc plated

**Installation:**

- For installation into connectors in general, install with both washers unless otherwise directed in this catalog.



USP Stock No.	Description Dia. x L	Thread Length
B384	3/8 x 4	1
B125	1/2 x 5	1-1/4
B126	1/2 x 6	1-1/4
B127	1/2 x 7	1-1/2
B128	1/2 x 8	1-1/2
B583	5/8 x 3	1-1/2
B584	5/8 x 4	1-1/2
B585	5/8 x 5	1-1/2
B586	5/8 x 6	1-1/2
B587	5/8 x 7	1-3/4
B588	5/8 x 8	1-3/4
B589	5/8 x 9	1-3/4
B5810	5/8 x 10	1-3/4
B343	3/4 x 3	1-3/4
B344	3/4 x 4	1-3/4
B345	3/4 x 5	1-3/4
B346	3/4 x 6	1-3/4
B347	3/4 x 7	2
B348	3/4 x 8	2
B349	3/4 x 9	2
B3410	3/4 x 10	2
B3411	3/4 x 11	2

USP Stock No.	Description Dia. x L	Thread Length
B785	7/8 x 5	2
B786	7/8 x 6	2
B787	7/8 x 7	2-1/4
B788	7/8 x 8	2-1/4
B7810	7/8 x 10	2-1/4
B103	1 x 3	2-1/4
B104	1 x 4	2-1/4
B105	1 x 5	2-1/4
B106	1 x 6	2-1/4
B107	1 x 7	2-1/2
B108	1 x 8	2-1/2

**Metric Conversion**

Bolt Diameter Conversion	
Inches	Millimeters
3/8	9.50
1/2	12.70
5/8	15.90
3/4	19.10
7/8	22.20
1	25.40
1-1/8	28.58
1-1/4	31.75

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## BEARING PLATES – BP, HBPS, LBP, & LBPS SERIES

**BP** – Designed to meet code requirements for mudsill-to-foundation.

**HBPS/LBPS** – Offers anchor bolt adjustment slots.

**LBP** – Galvanized finish for corrosion resistance.

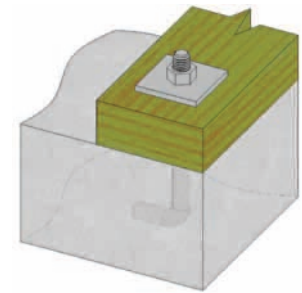
**Materials:** See chart

**Finish:** BP & HBPS – none;  
LBP & LBPS – G-185 galvanizing

**Options:** BP and HBPS models are available in Hot-dip galvanized except for BP343. To order, add *HDG* to end of stock number, as in **BP1-HDG**.

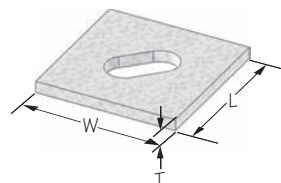
**Installation:**

- Bolt holes are sized 1/16" larger than Bolt Dia. shown in chart.

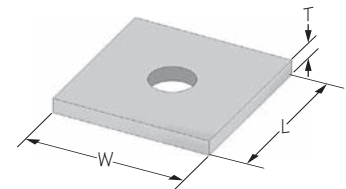


**Typical Bearing Plate installation**

USP Stock No.	Ref. No.	Plate Thickness (T)	Dimensions		Bolt Dia.
			W	L	
LBP12-TZ	LBP1/2Z	9/64	2	2	1/2
LBP58-TZ	LBP5/8Z	9/64	2	2	5/8
LBP34-TZ	--	9/64	2	2	3/4
LBPS12-TZ	LBPS1/2Z	9/64	3	3	1/2
LBPS58-TZ	LBPS5/8Z	9/64	3	3	5/8
HBPS12	--	1/4	3	3	1/2
HBPS34	--	1/4	3	3	3/4
BP12	BP1/2	3/16	2	2	1/2
BP582	BP5/8-2	3/16	2	2	5/8
BP58	BP5/8	1/4	2-1/2	2-1/2	5/8
BP583	BP5/8-3	1/4	3	3	5/8
BP34	BP3/4	5/16	2-3/4	2-3/4	3/4
BP78	BP7/8	5/16	3	3	7/8
BP1	BP1	3/8	3-1/2	3-1/2	1
BP343	--	1/4	3	3	3/4



**HBPS/LBPS Slotted Bearing Plate**



**BP/LBP Standard Bearing Plate**

In some applications the code requires specific size plate washers be provided between the foundation sill plate and the nut. **IRC R602.11.1, IBC 2305.3.10, UBC 1806.6.1(2).**