

**Connection Design** Number of Posts per end: 1

Baseplate and Anchor Bolt Input		Analysis Results		Socket Weld Design		Anchor Bolts		Baseplate					
Thickness	Yield Str.	No. of Bolts	Diameter (in.)	Yield Str.	Bot. Circle Dia. (in.)	Embedment Dia. (in.)	Weld Size (in.)	Total Weld Length (in.)	Embedment Extension (in.)	Total Length (in.)	Anchor Spacing (in.)	Anchor Size (in.)	Bending Capacity
2.250	50.00	4	2.250	55	23.00	32.00	0.402	87.68	35.00	9.600	45.000	0.75	46.15
			4.6, or 8									1.0	37.50

\* Normal Yield Strengths (36, 55, 110 ksi)  
AASHTO M314

Note: If base plate bending stress exceeded, add vertical stiffeners.  
Length of required 1/4" weld on each leg of each stiffener = 3.00 inches

Truss Chord Splice Connection Input		Analysis Results		Socket Weld Design		Connection Bolts		Conn. Pl.			
Thickness	Yield Str.	Conn. Plate Dia. (in.)	AS25 Bolt Diameter (in.)	Number of Bolts	Bot. Circle Dia. (in.)	Conn. Plate Dia. (in.)	Weld Size (in.)	Total Weld Length (in.)	Bot. Spacing (in.)	Bot. Dia. (in.)	Bending Capacity
0.750	50.00	0.750	6	6	7.50	10.00	0.228	35.13	3.665	0.58	11.45
								2.25	1.0	37.50	Allowed

Input this area for non-welded also

Truss Diagonal Connection Input (for 1/2 connection)		Analysis Results		Chord Weld Connection					
Thickness	Yield Str.	Diagonal Dia. (in.)	Conn. Plate Dia. (in.)	Diagonal Stress (ksi)	Weld Size (in.)	Weld Size (in.)	Total Weld Length (in.)	Weld Length (in.)	Capacity
0.275	50.000	50.000	0.000	N/A	2.75	0.000	0.000	0.000	0.000
				N/A	30.00	1.207	Capacity/required	6.72	Result

Note: Enter zero for welded connection

Post Diagonal Connection Input (for 1/2 connection)		Analysis Results		Post Weld Connection					
Thickness	Yield Str.	Diagonal Dia. (in.)	Conn. Plate Dia. (in.)	Diagonal Stress (ksi)	Weld Size (in.)	Weld Size (in.)	Total Weld Length (in.)	Weld Length (in.)	Capacity
0.000	18.000	18.000	0.000	N/A	0.00	0.000	0.000	0.000	0.000
				N/A	30.00	0.000	Capacity/required	6.72	Result

-N/A SINGLE POST USED  
Note: Enter zero for welded connection

Truss Support Connection (use W Shape)		Analysis Results		End Weld		End Shear		Bot. Dia.		n = Thickness		A - Weld		A - Gross				
Section	Web Thickness	Web Depth	Number of Bolts	End Weld Length (in.)	End Shear Load (kip)	Bot. Dia. (in.)	Weld Size (in.)	Weld Length (in.)	Bot. Dia. (in.)	n (in.)	Thickness (in.)	A (in.)	Weld Length (in.)	Gross Area (in <sup>2</sup> )				
W14x22	0.375	13.75	4	18.0	11.87	18.0	0.50	11.87	18.0	11	0.204	0.307	0.750	10	0.334	0.442		
				18.0	11.87	18.0	0.875	9	0.462	0.601	1.000	8	0.608	0.785	1.125	7	0.350	0.944
				18.0	11.87	18.0	1.250	7	0.969	1.227	1.375	6	1.155	1.485	1.500	6	1.402	1.787
				18.0	11.87	18.0	1.750	5	1.959	2.405	2.000	4.5	2.488	3.142	2.250	4.5	3.248	3.978
				18.0	11.87	18.0	2.500	4	3.559	4.500	2.750	4	4.534	5.840	3.000	4	5.907	7.009

Truss Support Connection (For Tri-Chord)		Analysis Results	
Bot. Dia. (in.)	Weld Size (in.)	Weld Length (in.)	Capacity
18.000	0.500	18.000	11.87
			11.87

Monotube Connection at Pole		Analysis Results	
Section	Yield Strength (ksi)	Weld Length (in.)	Capacity
W14x22	50	18.00	11.87
			11.87

General Information  
Post Dimensions: Post Dia. 14.00, Thickness 0.50, Diameter 4.00, Diameter 0.228

137-319A-C