

**Model**

Steel A992

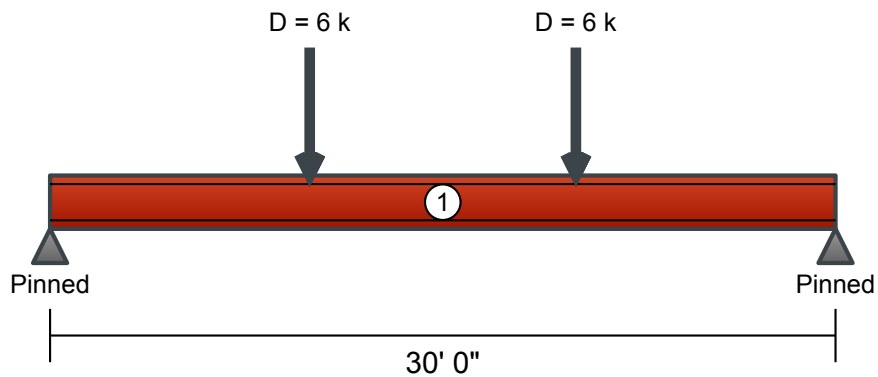
W14X48 (484 in<sup>4</sup>)

1 Span

2 Loads

Continuous Bracing

AISC Steel LRFD



⚡ Analyze &amp; Design

✓ Design OK

AISC LRFD - W14X48 - A992

✓ Bending 0.22

Mu (Demand)	64.91 kip-ft
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$\Phi$ Mn (Capacity)	294.00 kip-ft
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Controlling Equation	F2.1: Yielding
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Location	15' 0"
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Load Combo1.4D

✔ Deflection 0.77	
Based On	Service Cases
Max Service Case	Wind Limit
Max Dy	-0.766 in = L/470
Live Load Limit	L/360
Dead + Live Limit	L/360
Snow or Wind Limit	L/360
Total Load Limit	L/240

✔ Shear 0.05	
Vu (Demand)	-6.69 kip
ΦVn (Capacity)	140.76 kip
Controlling Equation	G2.1: Nominal Shear Strength
Location	28' 9"
Load Combo	1.4D

Design Info	
Shape Type	W14X48
Weight	48.00 lbs/ft
Self Weight	Included
Ix	484.00 in 4
Bracing	Continuous Bracing

Fy Reactions (lbs)

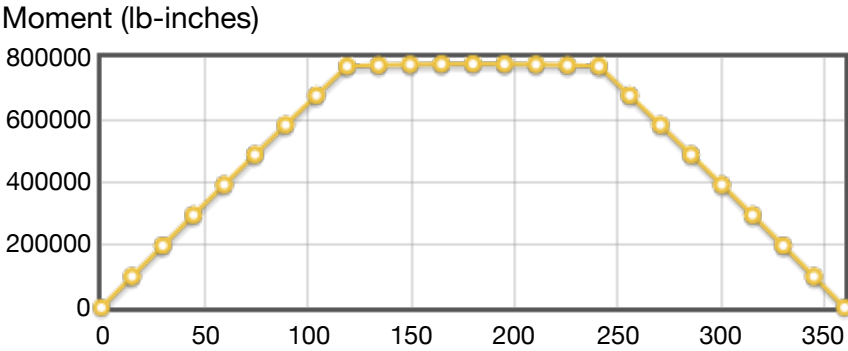
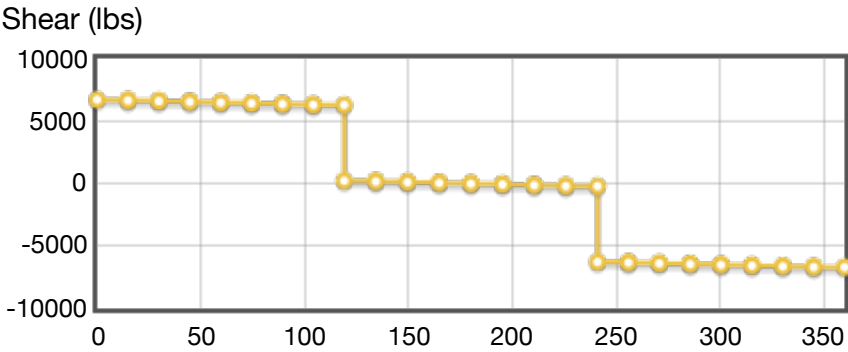
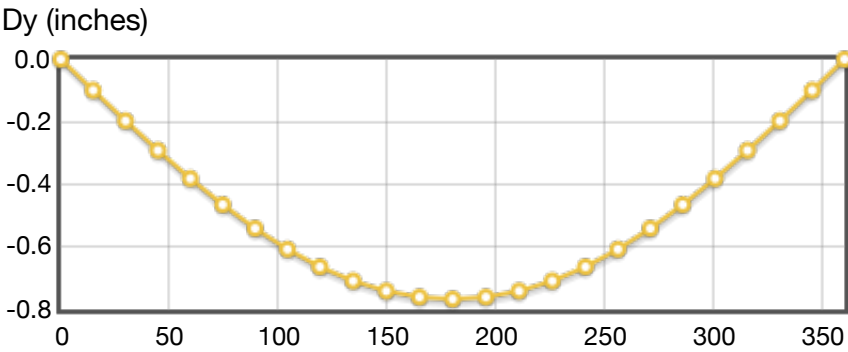
Support	D	L	Lr	S	W	E	H	R
0	6720	0	0	0	0	0	0	0

1	6720	0	0	0	0	0	0	0
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Mz Reactions (lb-in)

Support	D	L	Lr	S	W	E	H	R
0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0

Plots Load Combinations ▾



Legend  
■ D

## Numerical Results

Load Combination

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## Extremes

Type	Value	Location
Max dy (in)	180	-0.77
Max Shear (lbs)	0	6690
Max Moment (lb-in)	180	778878

## Details

Location (in)	Dy (in)	Shear (lbs)	Moment (lb-in)
0	0	6690	74
14.88	-0.1	6690, 6631	99591
29.75	-0.2	6631, 6571	198224
44.63	-0.29	6571, 6512	295971
59.5	-0.38	6512, 6452	392833
74.38	-0.46	6452, 6393	488810
89.25	-0.54	6393, 6333	583903
104.13	-0.61	6333, 6274	678110
119	-0.66	6274, 213	771432
134.25	-0.71	213, 152	774691
149.5	-0.74	152, 91	777017
164.75	-0.76	91, 31	778412
180	-0.77	31, -30	778878

195.25	-0.76	-30, -91	778412
210.5	-0.74	-91, -152	777017
225.75	-0.71	-152, -213	774691
241	-0.66	-213, -6274	771436
255.88	-0.61	-6274, -6333	678110
270.75	-0.54	-6333, -6393	583903
285.63	-0.46	-6393, -6452	488810
300.5	-0.38	-6452, -6512	392833
315.38	-0.29	-6512, -6571	295971
330.25	-0.2	-6571, -6631	198224
345.13	-0.1	-6631, -6690	99591
360	0	-6690	74