

$F_y = 36 \text{ ksi}$

BEAMS Angles

1 KIP = 1000 lbs

Allowable uniform loads in kips
for angles laterally supported
Neutral axis parallel to horizontal leg

For angles laterally unsupported, allowable loads must be reduced.
For angles subject to torsion, make special investigation.



Horizontal leg	Angle	Wt. per Ft.	Span in Feet											
			4	5	6	7	8	9	10	12	14	16	18	
8	L 8x8 x 1	1/8	51.0	57.9	46.3	38.6	33.1	29.0	25.7	23.2	19.3	16.6	14.5	12.9
		3/8	45.0	51.3	41.1	34.2	29.3	25.7	22.8	20.5	17.1	14.7	12.8	11.4
		1/2	38.9	44.7	35.8	29.8	25.6	22.4	19.9	17.9	14.9	12.8	11.2	9.9
		5/8	32.7	37.8	30.2	25.2	21.6	18.9	16.8	15.1	12.6	10.8	9.4	8.4
		3/4	26.4	30.8	24.6	20.5	17.6	15.4	13.7	12.3	10.3	8.8	7.7	6.8
	L 8x6 x 3/16	1/2	25.7	19.4	15.5	13.0	11.1	9.7	8.6	7.8	6.5	5.6		
		3/4	20.2	15.4	12.3	10.3	8.8	7.7	6.8	6.2	5.1	4.4		
	L 8x4 x 1/16	1/2	17.2	7.0	5.6	4.6	4.0	3.5	3.1	2.8				
	7	L 7x4 x 3/4	1/2	26.2	11.0	8.8	7.3	6.3	5.5	4.9				
5/8			22.1	9.5	7.6	6.4	5.4	4.8	4.2					
3/4			17.9	7.7	6.2	5.1	4.4	3.8	3.4					
1/2			15.8	7.0	5.6	4.6	4.0	3.5	3.1					
6	L 8x6 x 3/4	1/2	33.8	42.9	34.3	28.6	24.5	21.4	19.1	17.2	14.3	12.3	10.7	
		5/8	28.5	36.3	29.0	24.2	20.7	18.1	16.1	14.5	12.1	10.4	9.1	
		3/4	23.0	29.3	23.5	19.6	16.8	14.7	13.0	11.7	9.8	8.4	7.3	
		1/2	20.2	26.0	20.8	17.4	14.9	13.0	11.6	10.4	8.7	7.4	6.5	
	L 6x6 x 1/16	3/8	17.2	15.0	12.0	10.0	8.6	7.5	6.7	6.0	5.0	4.3		
		1/2	14.9	12.8	10.3	8.6	7.3	6.4	5.7	5.1	4.3	3.7		
	L 6x4 x 1/16	1/2	14.3	7.0	5.6	4.6	4.0	3.5	3.1					
5	L 5x5 x 5/8	1/2	20.0	14.3	11.4	9.5	8.2	7.1	6.4	5.7				
		3/4	16.2	11.7	9.4	7.8	6.7	5.9	5.2	4.7				
		1/2	12.3	8.8	7.0	5.9	5.0	4.4	3.9	3.5				
	L 5x3 1/2 x 3/8	1/2	10.4	4.4	3.5	2.9	2.5	2.2						
		3/4	8.7	3.7	2.9	2.4	2.1	1.8						
4	L 9x4 x 1	1/8	40.8	64.5	51.6	43.0	36.9	32.3	28.7	25.8	21.5	18.4	16.1	
		3/8	36.1	57.6	46.1	38.4	32.9	28.8	25.6	23.0	19.2	16.4	14.4	
		1/2	31.3	49.9	39.9	33.2	28.5	24.9	22.2	19.9	16.6	14.2	12.5	
		3/4	26.3	42.2	33.7	28.1	24.1	21.1	18.7	16.9	14.1	12.0	10.5	
		5/8	23.8	38.1	30.5	25.4	21.8	19.1	16.9	15.3	12.7	10.9	9.5	
		1/2	21.3	34.1	27.3	22.7	19.5	17.0	15.2	13.6	11.4	9.7	8.5	
4	L 8x4 x 5/8	1/2	24.2	33.7	27.0	22.5	19.3	16.9	15.0	13.5	11.2	9.6	8.4	
		3/4	19.6	27.5	22.0	18.3	15.7	13.7	12.2	11.0	9.2	7.9	6.9	
		1/2	17.2	24.2	19.4	16.1	13.8	12.1	10.8	9.7	8.1	6.9	6.0	

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With 5/8 Bolts Added TO 2/10

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for angles laterally supported
Neutral axis parallel to horizontal leg

For angles laterally unsupported, allowable loads must be reduced.
For angles subject to torsion, make special investigation.

Horizontal leg	Angle	Wt. per Ft.	Span in Feet										
			2	3	4	5	6	7	8	9	10	12	14
4	L7 ×4 × $\frac{7}{16}$	15.8	..	..	18.7	15.0	12.5	10.7	9.3	8.3	7.5	6.2	5.3
		$\frac{3}{8}$ 13.6	..	..	16.1	12.9	10.8	9.2	8.1	7.2	6.5	5.4	4.6
	L6 ×4 × $\frac{3}{8}$	12.3	..	..	12.1	9.7	8.1	6.9	6.0	5.4	4.8	4.0	
	L4 ×4 × $\frac{3}{8}$	9.8	..	..	5.5	4.4	3.7	3.1	2.7	2.4			
		$\frac{5}{16}$ 8.2	..	..	4.8	3.8	3.2	2.7	2.4	2.1			
	L4 ×3 $\frac{1}{2}$ × $\frac{5}{16}$	7.7	..	..	3.7	2.9	2.4	2.1	1.8				
3 $\frac{1}{2}$	L4 ×3 × $\frac{5}{16}$	7.2	..	..	2.7	2.1	1.8	1.5					
		$\frac{1}{4}$ 5.8	..	..	2.2	1.8	1.5	1.3					
	L5 ×3 $\frac{1}{2}$ × $\frac{1}{2}$	13.6	22.0	14.7	11.0	8.8	7.3	6.3	5.5	4.9	4.4		
		$\frac{3}{8}$ 10.4	16.9	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4		
		$\frac{5}{16}$ 8.7	13.9	9.3	7.0	5.6	4.6	4.0	3.5	3.1	2.8		
	L4 ×3 $\frac{1}{2}$ × $\frac{5}{16}$	7.7	9.5	6.4	4.8	3.8	3.2	2.7	2.4	2.1			
3	L3 $\frac{1}{2}$ ×3 $\frac{1}{2}$ × $\frac{5}{16}$	7.2	7.2	4.8	3.6	2.9	2.4	2.1	1.8				
		$\frac{1}{4}$ 5.8	5.8	3.9	2.9	2.3	1.9	1.7	1.4				
	L3 $\frac{1}{2}$ ×3 × $\frac{1}{4}$	5.4	4.3	2.9	2.2	1.7	1.4	1.2					
	L4 ×3 × $\frac{1}{2}$	11.1	13.9	9.3	7.0	5.6	4.6	4.0	3.5				
		$\frac{3}{8}$ 8.5	11.0	7.3	5.5	4.4	3.7	3.1	2.7				
		$\frac{5}{16}$ 7.2	8.8	5.9	4.4	3.5	2.9	2.5	2.2				
2 $\frac{1}{2}$		$\frac{1}{4}$ 5.8	7.3	4.9	3.7	2.9	2.4	2.1	1.8				
	L3 $\frac{1}{2}$ ×3 × $\frac{1}{4}$	5.4	5.7	3.8	2.9	2.3	1.9	1.6					
	L3 ×3 × $\frac{1}{4}$	4.9	4.3	2.8	2.1	1.7	1.4						
	L3 ×2 $\frac{1}{2}$ × $\frac{1}{4}$	4.5	2.9	2.0	1.5	1.2							
	L3 ×2 $\frac{1}{2}$ × $\frac{3}{8}$	6.6	5.9	4.0	3.0	2.4	2.0						
		$\frac{5}{16}$ 5.6	5.1	3.4	2.5	2.0	1.7						
2		$\frac{1}{4}$ 4.5	4.1	2.7	2.1	1.6	1.4						
	L2 $\frac{1}{2}$ ×2 $\frac{1}{2}$ × $\frac{1}{4}$	4.1	2.9	1.9	1.4	1.1							
	L2 $\frac{1}{2}$ ×2 × $\frac{1}{4}$	3.62	1.8	1.2	0.9								