



QB Corporation

Known for Quality & Versatility In Producing All Types of Glued Laminated Beams

[Product Information](#) [The Company](#) [What's New](#) [Links](#)

[Why QB Glulam](#) [Technical Stuff](#)
[Project Photos](#) [Conversion Tables](#)
[Find a Distributor](#) [Capacity Tables](#)



Conversion Tables

- ▶ [Equivalent Glulam Sections For Solid Sawn Beams](#)
- ▶ [Equivalent Glulam Sections for Steel Beams](#)
- ▶ [Equivalent Glulam Sections for LVL Beams](#)
- ▶ [Key Specs of Conversion Charts](#)

Equivalent Glulam Sections For Solid Sawn Beams:

Sawn Section	Roof Beams	Roof Beams	Floor Beams
Normal Size	Select Structural	No. 1	
3 x 8	3-1/8 x 6	3-1/8 x 6	3-1/8 x 7-1/2
3 x 10	3-1/8 x 7-1/2	3-1/8 x 6	3-1/8 x 9
3 x 12	3-1/8 x 9	3-1/8 x 7-1/2	3-1/8 x 12
3 x 14	3-1/8 x 10-1/2	3-1/8 x 9	3-1/8 x 13-1/2
4 x 6	3-1/8 x 6	3-1/8 x 6	3-1/8 x 6
4 x 8	3-1/8 x 6	3-1/8 x 6	3-1/8 x 9
4 x 10	3-1/8 x 9	3-1/8 x 7-1/2	3-1/8 x 10-1/2
4 x 12	3-1/8 x 10-1/2	3-1/8 x 9	3-1/8 x 12
4 x 14	3-1/8 x 12	3-1/8 x 10-1/2	3-1/8 x 13-1/2
4 x 16	3-1/8 x 13-1/2	3-1/8 x 12	3-1/8 x 6
6 x 8	5-1/8 x 7-1/2	5-1/8 x 7-1/2	5-1/8 x 9
6 x 10	5-1/8 x 9	5-18 x 7-1/2	5-1/8 x 10-1/2
6 x 12	5-1/8 x 10-1/2	5-1/8 x 9	5-1/8 x 12
6 x 14	5-1/8 x 12	5-1/8 x 10-1/2	5-1/8 x 13-1/2
6 x 16	5-1/8 x 13-1/2	5-1/8 x 12	5-1/8 x 16-1/2
6 x 18	5-1/8 x 15	5-1/8 x 13-1/2	5-1/8 x 18
6 x 20	5-1/8 x 18	5-1/8 x 16-1/2	5-1/8 x 19-1/2
8 x 10	6-3/4 x 9	6-3/4 x 9	6-3/4 x 10-1/2
8 x 12	6-3/4 x 10-1/2	6-3/4 x 10-1/2	6-3/4 x 12
8 x 14	6-3/4 x 12	6-3/4 x 12	6-3/4 x 13-1/2
8 x 16	6-3/4 x 13-1/2	6-3/4 x 13-1/2	6-3/4 x 16-1/2

8 x 18	6-3/4 x 16-1/2	6-3/4 x 15	6-3/4 x 18
8 x 20	6-3/4 x 18	6-3/4 x 16-1/2	6-3/4 x 19-1/2
8 x 22	6-3/4 x 19-1/2	6-3/4 x 18	6-3/4 x 22-1/2

[▶ Back to the Top](#)

Equivalent Glulam Sections for Steel Beams:

Steel Section	Roof Beams		Floor Beams	
W 6 x 9	3-1/8 x 10-1/2	or 5-1/8 x 9	3-1/8 x 10-1/2	or 5-1/8 x 9
W 8 x 10	3-1/8 x 12	or 5-1/8 x 9	3-1/8 x 13-1/2	or 5-1/8 x 12
W 12 x 14	3-1/8 x 16-1/2	or 5-1/8 x 13-1/2	3-1/8 x 18	or 5-1/8 x 15
W 12 x 16	3-1/8 x 18	or 5-1/8 x 13-1/2	3-1/8 x 19-1/2	or 5-1/8 x 16-1/2
W 12 x 19	3-1/8 x 19-1/2	or 5-1/8 x 16-1/2	3-1/8 x 21	or 5-1/8 x 18
W 10 x 22	3-1/8 x 21	or 5-1/8 x 16-1/2	3-1/8 x 19-1/2	or 5-1/8 x 16-1/2
W 12 x 22	5-1/8 x 18	or 6-3/4 x 15	5-1/8 x 19-1/2	or 6-3/4 x 16-1/2
W 14 x 22	5-1/8 x 18	or 6-3/4 x 16-1/2	5-1/8 x 21	or 6-3/4 x 18
W 12 x 26	5-1/8 x 19-1/2	or 6-3/4 x 18	5-1/8 x 21	or 6-3/4 x 19-1/2
W 14 x 26	5-1/8 x 21	or 6-3/4 x 18	5-1/8 x 21	or 6-3/4 x 19-1/2
W 16 x 26	5-1/8 x 21	or 6-3/4 x 19-1/2	5-1/8 x 22-1/2	or 6-3/4 x 21
W 12 x 30	5-1/8 x 21	or 6-3/4 x 19-1/2	5-1/8 x 21	or 6-3/4 x 19-1/2
W 14 x 30	5-1/8 x 22-1/2	or 6-3/4 x 19-1/2	5-1/8 x 22-1/2	or 6-3/4 x 21
W 16 x 31	5-1/8 x 24	or 6-3/4 x 21	5-1/8 x 25-1/2	or 6-3/4 x 22-1/2
W 14 x 34	5-1/8 x 24	or 6-3/4 x 21	5-1/8 x 24	or 6-3/4 x 22-1/2
W 18 x 35	5-1/8 x 27	or 6-3/4 x 24	5-1/8 x 27	or 6-3/4 x 25-1/2
W 16 x 40	5-1/8 x 28-1/2	or 6-3/4 x 25-1/2	5-1/8 x 27	or 6-3/4 x 25-1/2
W 21 x 44	5-1/8 x 33	or 6-3/4 x 28-1/2	5-1/8 x 33	or 6-3/4 x 30
W 18 x 50	5-1/8 x 34-1/2	or 6-3/4 x 30	5-1/8 x 31-1/2	or 6-3/4 x 26-1/2
W 21 x 50	5-1/8 x 34-1/2	or 6-3/4 x 31-1/2	5-1/8 x 34-1/2	or 6-3/4 x 31-1/2
W 18 x 55	-----	or 6-3/4 x 31-1/2	-----	or 6-3/4 x 30
W 21 x 62	-----	or 6-3/4 x 36	-----	or 6-3/4 x 34-1/2

[▶ Back to the Top](#)

Equivalent Glulam Sections for LVL Beams:

LVL Section	Roof Beams		Floor Beams	
2 pcs. 1-3/4 x 9-1/2	3-1/8 x 12	or 5-1/8 x 9	3-1/8 x 10-1/2	or 5-1/8 x 9
2 pcs. 1-3/4 x 11-7/8	3-1/8 x 15	or 5-1/8 x 12	3-1/8 x 13-1/2	or 5-1/8 x 12
2 pcs. 1-3/4 x 14	3-1/8 x 16-1/2	or 5-1/8 x 13-1/2	3-1/8 x 16-1/2	or 5-1/8 x 13-1/2
2 pcs. 1-3/4 x 16	3-1/8 x 19-1/2	or 5-1/8 x 15	3-1/8 x 18	or 5-1/8 x 15
2 pcs. 1-3/4 x 18	3-1/8 x 21	or 5-1/8 x 16-1/2	3-1/8 x 19-1/2	or 5-1/8 x 16-1/2
3 pcs. 1-3/4 x 9-1/2	3-1/8 x 21	or 5-1/8 x 10-1/2	3-1/8 x 12	or 5-1/8 x 10-1/2
3 pcs. 1-3/4 x 11-7/8	5-1/8 x 18	or 5-1/8 x 13-1/2	3-1/8 x 15	or 5-1/8 x 13-1/2
3 pcs. 1-3/4 x 14	5-1/8 x 18	or 6-3/4 x 16-1/2	3-1/8 x 18	or 5-1/8 x 15
3 pcs. 1-3/4 x 16	5-1/8 x 19-1/2	or 6-3/4 x 16-1/2	5-1/8 x 18	or 5-1/8 x 18
3 pcs. 1-3/4 x 18	5-1/8 x 21	or 6-3/4 x 18	5-1/8 x 19-1/2	or 6-3/4 x 18

[▶ Back to the Top](#)

Key Specs of Conversion Charts Above:

- ▶ Roof beam sections are compared on the basis of equivalent bending resistance only. These sizes assume a dry condition of use and a 1.15 increase for duration of load (as for snow loading) as applicable to wood members. Sizes shown should also be checked for shear, deflection and other applicable strength properties and design considerations. For determining glulam roof beam sections an Fb value of 2400 psi, modified by the AITC volume effect factor, was used.

- ▶ Floor beam sections are compared on the basis of equivalent stiffness (E1) only assuming a dry condition of use for the wood members. Sizes shown should also be checked for shear, bending and other applicable strength properties and design considerations. For determining glulam floor beam sections, an MOE value of 1,800,000 psi was used.

- ▶ Solid sawn sections are based on the assumption of using either a select structural or No. 1 visual grade having the following assumed design values:

Members 2 to 4 inches thick and 5 inches and wider:

Select Structural	Fb=1450 psi	MOE=1,900,000
No.1	Fb=1000 psi	MOE=1,700,000

Members having a least dimension of 5 inches or greater:

Select structural	Fb=1600 psi	MOE=1,600,00
No. 1	Fb=1350 psi	MOE=1,600,000

- ▶ Steel sections were selected as the most economical from the "Manual of Steel Construction," AISC, 8th Edition. Design values used for conversion were:

--	--	--	--	--

$F_y=36 \text{ ksi}$	$F_b=0.66 \times F_y$	$MOE=29,000 \text{ ksi}$
----------------------	-----------------------	--------------------------

► LVL sections are based on the following assumed design values:

$F_b=3200 \text{ psi}$ (adjusted for $C_y=(12/d)^{1/6}$ for depths greater than 12 inches.)	$MOE=2,000,000 \text{ PSI}$
---	-----------------------------

► [Back to the Top](#)

► [Return to Product Information](#)

QBcorporation

[Return to the Home Page](#)

QB Corporation

Copyright © 2003. All Rights Reserved.

[E-Mail](#)