

GP Lam® LVL Beam and Header Design Properties

1 3/4" 2.0E GP Lam LVL Allowable Design Properties^a

Depth ^b	EI (10 ⁶ inch ² lbs)	Maximum Resistive Moment (ft-lbs)			Maximum Vertical Shear (lbs)			Weight (lbs/ft)
		100%	115%	125%	100%	115%	125%	
7 1/4"	111	3918	4506	4898	2411	2773	3014	3.4
9 1/2"	231	6208	7139	7760	3076	3537	3845	4.3
9 1/2"	250	6529	7508	8161	3159	3633	3949	4.4
11 1/4"	415	8985	10333	11231	3741	4302	4676	5.2
11 1/8"	488	9951	11444	12439	3948	4540	4935	5.5
14"	800	13581	15618	16976	4655	5353	5819	6.5
16"	1195	17477	20099	21846	5320	6118	6650	7.4
18"	1701	21831	25106	27289	5985	6883	7481	8.4
23 1/8"	3969	37222	42805	46528	7938	9129	9923	11.1

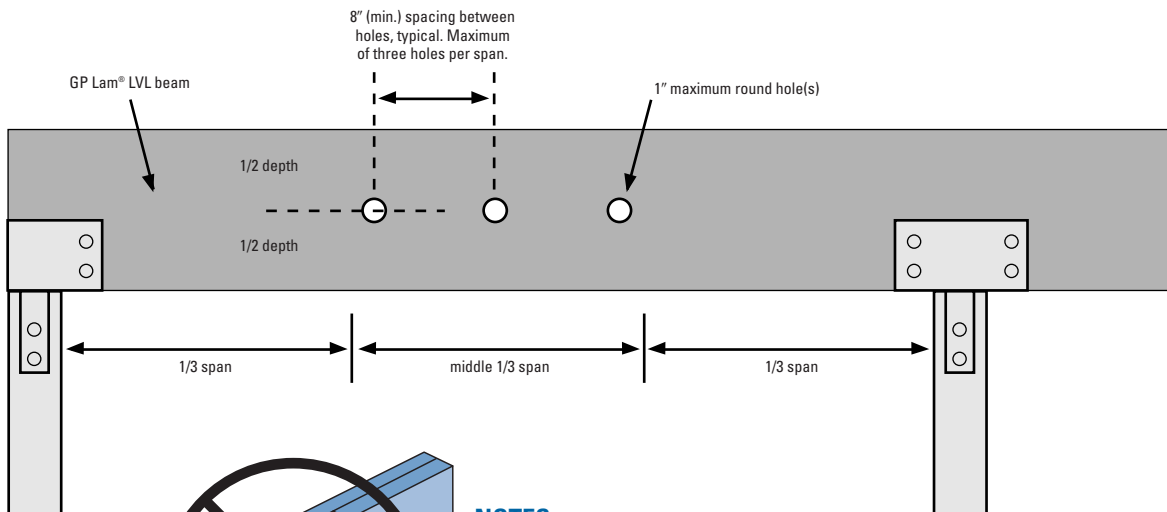
a. Table assumes beam has lateral support at bearing points and continuous lateral support along the compression edge of the beam.
 b. 1 3/4" x 16" and deeper beams must only be used in multiple-piece members.

2.0E GP Lam LVL Allowable Design Stresses

- Modulus of Elasticity $E = 2.0 \times 10^6 \text{ psi}^{(1)}$
- Shear Modulus of Elasticity $G = 125,000 \text{ psi}$
- Flexural Stress (joist) $F_b = 2900 \text{ psi}^{(2)}$
- Horizontal Shear (joist) $F_v = 285 \text{ psi}$
- Compression Perpendicular to Grain (joist) $F_{c\perp} = 750 \text{ psi}^{(1)}$
- Compression Parallel to Grain $F_{c\parallel} = 2750 \text{ psi}$

1. No increase is allowed to E or $F_{c\perp}$ for duration of load.
2. For depths (d) other than 12", multiply F_b by $(12/d)^{1/3}$.

Allowable Holes in GP Lam® LVL



NOTES:

1. Hole(s) must be located at mid-depth and within the middle 1/3 span.
2. 1" maximum round hole diameter. No rectangular holes are allowed.
3. Use a minimum 8" spacing between holes and no more than three holes per span.
4. Chart is valid for single and multiple span uniformly loaded beams only. Chart is not valid for cantilever sections.
5. Minimum beam depth 7 1/4".
6. Hole location, clearance and the effects of beam deflection should be considered to avoid problems with piping.

Do not notch, drill or cut GP Lam LVL except as shown in this publication.