

VMG LIGNUM LVL

GRADE 2.0E
SCARF CUT TABLES



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1. Maximum allowable reactions are based on floor load duration, $C_d=1.0$.
2. Minimum heel height is measured at the exterior of the bearing and assumes the maximum notch at the inside face of the bearing is 25% of the gross depth.
3. Tabulated maximum allowable reactions consider LVL shear and bearing compression perpendicular to grain. For bearing on wood plates, reactions shall be limited to wood plate compression perpendicular to grain.

HOW TO USE THE SCARF CUT TABLES

1. Compute the allowable stress design reaction for the beam.
2. Compare the calculated reaction to the tabulated allowable reaction.
3. For multi-ply beams, the allowable reactions may be multiplied by the number of beam plies.

Maximum Allowable Reaction for Scarf Cuts (lbf)

Beam Depth (in)	5.500	7.250	9.250	9.500	11.250	11.875	14.000	16.000	18.000
Slope Range	1.5" 2.0E LVL, 3" to < 5.25" Bearing								
3:12 to < 9:12	1444	1903	2428	2494	2953	3117	3150	3150	3150
9:12 to 12:12	1711	2256	2878	2956	3150	3150	3150	3150	3150
Slope Range	1.75" 2.0E LVL, 3" to < 5.25" Bearing								
3:12 to < 9:12	1684	2220	2833	2909	3445	3637	3675	3675	3675
9:12 to 12:12	1996	2631	3357	3448	3675	3675	3675	3675	3675
Slope Range	1.5" 2.0E LVL, <= 5.25" Bearing								
3:12 to < 9:12	1444	1903	2428	2494	2953	3117	3675	4200	4725
9:12 to 12:12	1711	2256	2878	2956	3500	3694	4356	4978	5513
Slope Range	1.75" 2.0E LVL, <= 5.25" Bearing								
3:12 to < 9:12	1684	2220	2833	2909	3445	3637	4288	4900	5513
9:12 to 12:12	1996	2631	3357	3448	4083	4310	5081	5807	6431

Minimum Heel Height For Scarf Cuts (in)

Beam Depth (in)	5.500	7.250	9.250	9.500	11.250	11.875	14.000	16.000	18.000
Bearing Range	1.5" and 1.75" 2.0E LVL, Slope 3:12 to < 9:12								
3" to < 5.25"	3.375	4.688	6.188	6.375	7.688	8.156	9.750	11.250	12.750
5.25" or more	2.813	4.125	5.625	5.813	7.125	7.594	9.188	10.688	12.188
Bearing Range	1.5" and 1.75" 2.0E LVL, Slope 9:12 to < 12:12								
3" to < 5.25"	1.875	3.188	4.688	4.875	6.188	6.656	8.250	9.750	11.250
5.25" or more	0.188	1.500	3.000	3.188	4.500	4.969	6.563	8.063	9.563