

VMG LIGNUM LVL

GRADE 2.0E

ALLOWABLE AXIAL LOADS FOR COLUMNS



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1. The allowable axial load for columns tables do not consider lateral loads. An accidental eccentricity of $1/6$ the column width or depth has been considered.
2. Columns are considered unbraced over the tabulated lengths. Provide lateral restraints in both directions at the column top/bottom and at intermediate locations such that the column unbraced length does not exceed the tabulated length.
3. Columns bearing on wood shall have their capacity reduced if the bearing allowable compression parallel or perpendicular to grain, whichever is applicable to the bearing configuration, is less than the LVL compression parallel to grain. Similarly, columns bearing on hardware shall have their allowable axial load capacities limited to the hardware compression capacity.
4. Allowable axial loads have been reduced for the self-weight of the column.

HOW TO USE THE ALLOWABLE AXIAL LOAD FOR COLUMNS TABLES

1. Compute the allowable stress design axial load on the column.
2. Compare the axial load to the allowable axial load for the applicable load duration (floor, roof, or snow).
3. Verify the axial load does not exceed bearing capacity of the material the column is bearing on.

2.0E LVL Allowable Axial Load (lbf) with Floor Loads

Column Length (ft)	3.5" x 3.5"	3.5" x 5.25"	3.5" x 7.25"	5.25" x 5.25"	5.25" x 7.25"
4	18044	27067	37378	47672	65833
5	15116	22675	31313	44467	61406
6	12332	18498	25545	40585	56047
7	10064	15096	20847	36229	50031
8	8301	12451	17195	31802	43917
9	6934	10400	14363	27726	38288
10	5863	8794	12144	24184	33398
11	5012	7519	10383	21181	29250
12	4328	6493	8966	18649	25752
13	3771	5656	7811	16510	22801
14	3311	4966	6858	14699	20299
15	0	0	0	13155	18166
16	0	0	0	11831	16337
17	0	0	0	10687	14759
18	0	0	0	9695	13389
19	0	0	0	8829	12193
20	0	0	0	8070	11143
21	0	0	0	7398	10217

2.0E LVL Allowable Axial Load (lbf) with Roof Loads

Column Length (ft)	3.5" x 3.5"	3.5" x 5.25"	3.5" x 7.25"	5.25" x 5.25"	5.25" x 7.25"
4	20863	31296	43217	57822	79850
5	16781	25172	34761	52827	72951
6	13345	20017	27643	46928	64806
7	10728	16093	22224	40714	56225
8	8762	13143	18149	34947	48261
9	7266	10899	15052	30005	41435
10	6111	9166	12658	25893	35758
11	5201	7803	10775	22498	31069
12	4476	6715	9273	19686	27184
13	3888	5833	8055	17342	23949
14	3406	5109	7055	15376	21233
15	0	0	0	13713	18936
16	0	0	0	12296	16979
17	0	0	0	11079	15300
18	0	0	0	10028	13849
19	0	0	0	9115	12587
20	0	0	0	8316	11484
21	0	0	0	7613	10513

2.0E LVL Allowable Axial Load (lbf) with Snow Loads

Column Length (ft)	3.5" x 3.5"	3.5" x 5.25"	3.5" x 7.25"	5.25" x 5.25"	5.25" x 7.25"
4	19807	29712	41030	53848	74362
5	16174	24261	33503	49612	68512
6	12976	19464	26879	44552	61526
7	10486	15730	21723	39070	53955
8	8594	12891	17802	33802	46679
9	7145	10718	14802	29175	40289
10	6021	9031	12471	25271	34899
11	5133	7700	10633	22018	30407
12	4422	6634	9162	19308	26663
13	3846	5769	7967	17040	23531
14	3372	5057	6984	15130	20893
15	0	0	0	13510	18656
16	0	0	0	12127	16746
17	0	0	0	10937	15103
18	0	0	0	9908	13682
19	0	0	0	9012	12444
20	0	0	0	8227	11360
21	0	0	0	7535	10406