

SUGGESTED DESIGN GUIDES
ALLOWABLE AXIAL LOAD CAPACITIES
BRACED STUDS SUBJECTED TO LATERAL LOAD
 P_{ALLOW} , KIPS (1,000 LBS) PER STUD

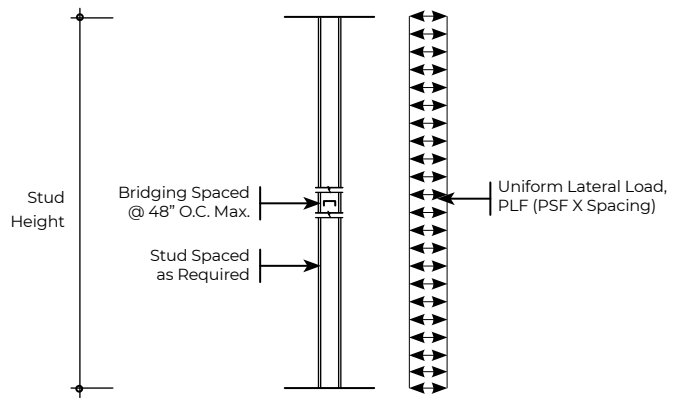
USE:

Tables allow for the selection of an axially loaded stud in the absence or presence of bending due to lateral load. The values assume the studs are typically bridged at intervals not to exceed 48" on center with alternative labor saving values published for 9 and 10 foot high walls where a single row of bridging at mid-height of the wall would suffice.

Select a stud, based on applied lateral load, spacing and height providing an allowable axial load in excess of the applied load.

NOTES:

1. The tabulated values represent the least allowable axial load of the stud in the presence of lateral load or in the absence of lateral load.
2. Values shown are limited to studs used in a simply supported application. Conditions involving cantilevers, concentrated loads, eccentricities, multiple spans, etc. should be investigated separately. The values assume the axial load is applied concentrically to the member.
3. Values are based on the installation of mechanical bridging spaced at intervals not to exceed 48" on center (columns denoted 48) with the exception of the columns entitled 9FT/MID and 10FT/MID where a single row of bridging may be installed at mid-height of the wall.
4. Stud ends shall be restrained against twisting (torsion) by means of a fixed attachment to each side of continuous track.



Deflections due to lateral load meet $L/720$ unless noted as follows:

- a. values followed by the subscript 6 _(x.xx6) meet $L/600$ deflection
 - b. values followed by the subscript 3 _(x.xx3) meet $L/360$ deflection
 - c. values followed by the subscript 2 _(x.xx2) meet $L/240$ deflection
 - d. values have been omitted where deflection exceeds $L/240$ deflection
- Lateral load deflections were calculated without regard to the composite contribution of sheathing or finishes.

5. Contact Super Stud for axial load capacities of sections not shown herein.

Note: All tables based on $F_y=50$ KSI for 54, 68, and 97 mil material, $F_y=33$ KSI for 33 and 43 mil material.

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5 PSF

AISI Designation	Legacy Designation	BRIDGING SPACED 48" ON CENTER																AISI Designation	Legacy Designation	BRIDGING AT MID-HEIGHT					
		8FT		9FT		10FT		11FT		12FT		14FT		16FT		18FT				9FT		10FT			
		16"	24"	16"	24"	16"	24"	16"	24"	16"	24"	16"	24"	16"	24"	16"	24"			16"	24"	16"	24"		
350S137-33	3-1/2SSC20	1.85	1.85	1.79	1.72	1.72	1.49 ^a	1.52	1.25 ^b	1.30 ^c	1.02 ^b	0.90 ^b	0.61 ^a	0.59 ^a					350S137-33	3-1/2SSC20	1.61	1.54	1.36	1.15 ^c	
350S162-33	3-1/2SSJ20	2.19	2.19	2.11	2.11	2.02	1.86	1.87	1.59 ^c	1.61 ^c	1.32 ^b	1.14 ^b	0.84 ^a	0.78 ^a					350S162-33	3-1/2SSJ20	1.94	1.94	1.66	1.53	
350S137-43	3-1/2SSC18	2.49	2.49	2.42	2.42	2.32	2.19	2.19	1.88 ^c	1.90	1.58 ^b	1.37 ^b	1.04 ^a	0.94 ^a					350S137-43	3-1/2SSC18	2.19	2.19	1.86	1.73	
350S162-43	3-1/2SSJ18	3.03	3.03	2.92	2.92	2.80	2.80	2.65	2.45	2.43	2.09 ^c	1.78 ^b	1.43 ^b	1.26 ^b	0.93 ^a	0.88 ^a			350S162-43	3-1/2SSJ18	2.70	2.70	2.34	2.34	
350S137-54	3-1/2SSC16	3.67	3.67	3.45	3.45	3.20	3.20	2.94	2.94	2.69	2.56 ^c	2.13 ^b	1.83 ^b	1.57 ^b	1.28 ^a	1.15 ^a			350S137-54	3-1/2SSC16	2.98	2.98	2.48	2.48	
350S162-54	3-1/2SSJ16	4.60	4.60	4.27	4.27	3.93	3.93	3.57	3.57	3.23	3.23	2.64 ^c	2.38 ^b	2.01 ^b	1.71 ^a	1.51 ^a			350S162-54	3-1/2SSJ16	3.74	3.74	3.08	3.08	
350S137-68	3-1/2SSC14	4.41	4.41	4.13	4.13	3.83	3.83	3.52	3.52	3.21	3.19	2.64	2.32 ^b	1.97 ^b	1.65 ^a	1.47 ^a			350S137-68	3-1/2SSC14	3.63	3.63	3.07	3.07	
350S162-68	3-1/2SSJ14	5.61	5.61	5.19	5.19	4.74	4.74	4.30	4.30	3.90	3.90	3.18	3.04 ^b	2.55 ^b	2.23 ^b	1.94 ^a	1.64 ^a			350S162-68	3-1/2SSJ14	4.56	4.56	3.79	3.79
362S137-33	3-5/8SSC20	1.89	1.89	1.84	1.81	1.78	1.58	1.61	1.35 ^b	1.40 ^c	1.11 ^b	0.99 ^b	0.69 ^a	0.66 ^a					362S137-33	3-5/8SSC20	1.67	1.62	1.42	1.23	
362S162-33	3-5/8SSJ20	2.24	2.24	2.17	2.17	2.09	1.97	1.96	1.70 ^c	1.73	1.43 ^b	1.25	0.94 ^a	0.87 ^a					362S162-33	3-5/8SSJ20	2.00	2.00	1.74	1.63	
362S137-43	3-5/8SSC18	2.56	2.56	2.49	2.49	2.40	2.32	2.30	2.02	2.05	1.72 ^b	1.50 ^b	1.16 ^a	1.05 ^a	0.72 ^a				362S137-43	3-5/8SSC18	2.26	2.26	1.94	1.84	
362S162-43	3-5/8SSJ18	3.11	3.11	3.01	3.01	2.90	2.90	2.76	2.61	2.60	2.25 ^c	1.94 ^c	1.58 ^b	1.40 ^b	1.05 ^a	0.99 ^a			362S162-43	3-5/8SSJ18	2.80	2.80	2.45	2.45	
362S200-43	3-5/8SSJ18	3.74	3.74	3.62	3.62	3.47	3.47	3.31	3.30	3.12	2.89	2.48 ^c	2.09 ^b	1.82 ^b	1.45 ^a	1.33 ^a			362S200-43	3-5/8SSJ18	3.40	3.40	3.02	3.02	
362S137-54	3-5/8SSC16	3.84	3.84	3.63	3.63	3.40	3.40	3.16	3.16	2.91	2.81 ^c	2.35 ^c	2.03 ^b	1.74 ^b	1.43 ^a	1.29 ^a			362S137-54	3-5/8SSC16	3.17	3.17	2.64	2.64	
362S162-54	3-5/8SSJ16	4.81	4.81	4.51	4.51	4.17	4.17	3.83	3.83	3.50	3.50	2.87	2.62 ^b	2.22 ^b	1.90 ^a	1.67 ^a			362S162-54	3-5/8SSJ16	3.96	3.96	3.30	3.30	
362S200-54	3-5/8SSJ16	6.20	6.20	5.80	5.80	5.34	5.34	4.84	4.84	4.38	4.38	3.56	3.46 ^b	2.88 ^b	2.55 ^b	2.20 ^b	1.88 ^a			362S200-54	3-5/8SSJ16	5.21	5.21	4.32	4.32
362S137-68	3-5/8SSC14	4.68	4.68	4.41	4.41	4.10	4.10	3.79	3.79	3.47	3.47	2.88	2.56 ^b	2.18 ^b	1.84 ^a	1.63 ^a	1.31 ^a			362S137-68	3-5/8SSC14	3.85	3.85	3.25	3.25
362S162-68	3-5/8SSJ14	5.97	5.97	5.57	5.57	5.11	5.11	4.65	4.65	4.22	4.22	3.46	3.35 ^b	2.81 ^b	2.47 ^b	2.15 ^a	1.82 ^a			362S162-68	3-5/8SSJ14	4.87	4.87	4.05	4.05
362S200-68	3-5/8SSJ14	7.68	7.68	7.15	7.15	6.54	6.54	5.89	5.89	5.29	5.29	4.29	4.29	3.51	3.30 ^b	2.83 ^b	2.49 ^a			362S200-68	3-5/8SSJ14	6.37	6.37	5.22	5.22
362S200-97	3-5/8SSJ12	9.81	9.81	9.13	9.13	8.34	8.34	7.53	7.53	6.79	6.79	5.52	5.52	4.51	4.51 ^c	3.73 ^b	3.50 ^b			362S200-97	3-5/8SSJ12	8.20	8.20	6.85	6.85
400S137-33	4SSC20	2.00	2.00	1.96	1.96	1.91	1.83	1.86	1.61	1.67	1.38 ^b	1.26 ^b	0.95 ^a	0.89 ^a	0.60 ^a				400S137-33	4SSC20	1.80	1.80	1.57	1.46	
400S162-33	4SSJ20	2.36	2.36	2.31	2.31	2.25	2.25	2.18	2.01	2.05	1.75 ^c	1.58 ^b	1.25 ^b	1.14 ^b	0.81 ^a	0.80 ^a			400S162-33	4SSJ20	2.16	2.16	1.93	1.91	
400S137-43	4SSC18	2.71	2.71	2.66	2.66	2.60	2.60	2.52	2.39	2.43	2.10 ^c	1.90 ^c	1.52 ^b	1.39 ^b	1.02 ^a	0.99 ^a			400S137-43	4SSC18	2.45	2.45	2.15	2.15	
400S162-43	4SSJ18	3.29	3.29	3.22	3.22	3.13	3.13	3.03	3.03	2.91	2.71	2.42	2.03 ^b	1.82 ^b	1.43 ^a	1.33 ^a	0.96 ^a			400S162-43	4SSJ18	3.02	3.02	2.72	2.72
400S200-43	4SSJ18	3.96	3.96	3.86	3.86	3.75	3.75	3.62	3.62	3.47	3.42	3.05	2.64 ^c	2.34 ^b	1.92 ^b	1.74 ^b	1.34 ^a			400S200-43	4SSJ18	3.67	3.67	3.34	3.34
400S137-54	4SSC16	4.25	4.25	4.09	4.09	3.89	3.89	3.66	3.66	3.42	3.42	2.94	2.63 ^b	2.30 ^b	1.94 ^b	1.74 ^b	1.39 ^a			400S137-54	4SSC16	3.55	3.55	3.00	3.00
400S162-54	4SSJ16	5.31	5.31	5.09	5.09	4.82	4.82	4.50	4.50	4.15	4.15	3.50	3.36 ^b	2.88 ^b	2.52 ^b	2.22 ^b	1.87 ^a			400S162-54	4SSJ16	4.53	4.53	3.80	3.80
400S200-54	4SSJ16	6.80	6.80	6.49	6.49	6.13	6.13	5.70	5.70	5.22	5.22	4.33	4.33	3.60	3.32 ^b	2.88 ^b	2.51 ^a			400S200-54	4SSJ16	5.95	5.95	5.02	5.02
400S137-68	4SSC14	5.36	5.36	5.16	5.16	4.91	4.91	4.63	4.63	4.29	4.29	3.62	3.38 ^b	2.88 ^b	2.48 ^b	2.19 ^b	1.81 ^a			400S137-68	4SSC14	4.40	4.40	3.56	3.56
400S162-68	4SSJ14	6.77	6.77	6.49	6.49	6.14	6.14	5.72	5.72	5.27	5.27	4.36	4.36	3.60	3.28 ^b	2.84 ^b	2.45 ^a			400S162-68	4SSJ14	5.80	5.80	4.35	4.35
400S200-68	4SSJ14	8.60	8.60	8.21	8.21	7.75	7.75	7.21	7.21	6.59	6.59	5.40	5.40	4.42	4.32 ^b	3.66 ^b	3.29 ^b			400S200-68	4SSJ14	7.52	7.52	6.35	6.35
400S200-97	4SSJ12	11.37	11.37	10.81	10.81	10.14	10.14	9.37	9.37	8.51	8.51	6.96	6.96	5.71	5.71	4.73	4.60 ^b			400S200-97	4SSJ12	8.86	8.86	8.31	8.31
550S137-33	5-1/2SSC20	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.07	1.79	1.77	1.42 ^b	1.43 ^b	1.04 ^a			550S137-33	5-1/2SSC20	1.93	1.93	1.71	1.71	
550S162-33	5-1/2SSJ20	2.59	2.59	2.58	2.58	2.56	2.56	2.54	2.54	2.51	2.51	2.43	2.23	2.17	1.81 ^b	1.79 ^b	1.38 ^a			550S162-33	5-1/2SSJ20	2.47	2.47	2.30	2.30
550S137-43	5-1/2SSC18	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.84	2.69	2.63	2.22 ^b	2.19 ^b	1.73 ^a			550S137-43	5-1/2SSC18	2.60	2.60	2.29	2.29	
550S162-43	5-1/2SSJ18	3.67	3.67	3.64	3.64	3.61	3.61	3.57	3.57	3.53	3.53	3.40	3.40	3.22	2.87 ^b	2.77	2.30 ^a			550S162-43	5-1/2SSJ18	3.47	3.47	3.24	3.24
550S137-54	5-1/2SSC16	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.48	4.48	4.08	3.98	3.61	3.17 ^a			550S137-54	5-1/2SSC16	3.73	3.73	3.12	3.12
550S162-54	5-1/2SSJ16	6.32	6.32	6.24	6.24	6.15	6.15	6.03	6.03	5.89	5.89	5.49	5.49	4.96	4.96	4.31	4.08 ^a			550S162-54	5-1/2SSJ16	5.75	5.75	5.08	5.08
550S137-68	5-1/2SSC14	5.32	5.32	5.32	5.32	5.32	5.32	5.32	5.32	5.32	5.32	5.32	5.32	5.25	5.25	4.66	4.24 ^a			550S137-68	5-1/2SSC14	4.58	4.58	3.67	3.67
550S162-68	5-1/2SSJ14	8.07	8.07	8.07	8.07	7.97	7.97	7.82	7.82	7.63	7.63	7.13	7.13	6.44	6.44	5.61	5.52			550S162-68	5-1/2SSJ14	7.25	7.25	6.32	6.32
600S137-33	6SSC20	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	1.95	1.98	1.65 ^c	1.67 ^c	1.29 ^b			600S137-33	6SSC20	1.91	1.91	1.68	1.68	
600S162-33	6SSJ20	2.61	2.61	2.61	2.61	2.61	2.61	2.59	2.59	2.57	2.57	2.51	2.45	2.42	2.07 ^b	2.06	1.66 ^a			600S162-33	6SSJ20	2.49	2.49	2.32	2.32
600S137-43	6SSC18	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.52	2.52	2.07 ^b			600S137-43	6SSC18	2.57	2.57	2.25	2.25
600S162-43	6SSJ18	3.69	3.69	3.69	3.69	3.69	3.69	3.66	3.66	3.62	3.62	3.53	3.53	3.39	3.23	3.16	2.70 ^b			600S162-43	6SSJ18	3.48	3.48	3.25	3.25
600S200-43	6SSJ18	4.48	4.48	4.45	4.45	4.42	4.42	4.39	4.39	4.34	4.34	4.20	4.20	4.02	4.02	3.80	3.43			600S200-43	6SSJ18	4.32			

