



AlphaSTUD™ AlphaTRACK™ Physical Section Properties

AlphaSTUD™		Base Metal	Design	Min. Yield	Gross Properties ⁵							Effective Properties ⁶					Torsional Properties							
Section	Nominal	Min. Thickness (In)	Thickness (In)	Strength (ksi)	Area (In ²)	Weight (lb/ft)	I _{xx} (In ⁴)	S _{xx} (In ³)	R _x (In)	I _{yy} (In ⁴)	R _y (In)	I _{xx} ⁴ (In ⁴)	S _{xx} (In ³)	M _{xx-L} (In-k)	M _{xx-D} ⁴ (In-k)	V _{xx} (lb)	V _{total} (lb)	Jx1000 (In ⁴)	C _w (In ⁶)	X _o (In)	m (In)	R _o (In)	b (In)	L _u (In)
162AS137-15 ¹	1-5/8" x 25 Ga.	0.0150	0.0158	50	0.076	0.26	0.037	0.045	0.692	0.020	0.517	0.033	0.027	0.67	0.70	232	104	0.006	0.014	-1.249	0.714	1.519	0.323	27.5
162AS137-20	1-5/8" x 20 Ga.	0.0200	0.0211	57	0.101	0.34	0.048	0.059	0.689	0.027	0.515	0.044	0.037	1.27	1.36	500	165	0.015	0.018	-1.243	0.710	1.511	0.324	26.2
162AS137-30	1-5/8" x 30 Mil	0.0296	0.0312	33	0.141	0.48	0.067	0.083	0.690	0.034	0.488	0.066	0.062	1.23	1.36	572	124	0.046	0.018	-1.134	0.647	1.414	0.357	31.5
250AS137-15 ¹	2-1/2" x 25 Ga.	0.0150	0.0158	50	0.090	0.31	0.096	0.076	1.030	0.024	0.514	0.088	0.046	1.15	1.11	147	141	0.008	0.032	-1.109	0.656	1.598	0.518	31.5
250AS137-20	2-1/2" x 20 Ga.	0.0200	0.0211	57	0.120	0.41	0.126	0.101	1.027	0.031	0.511	0.115	0.071	2.41	2.13	352	251	0.018	0.042	-1.103	0.653	1.591	0.520	25.7
250AS137-30	2-1/2" x 30 Mil	0.0296	0.0312	33	0.169	0.57	0.176	0.141	1.023	0.039	0.481	0.173	0.113	2.24	2.16	832	397	0.055	0.047	-1.002	0.595	1.511	0.560	31.3
362AS137-15 ^{1,7}	3-5/8" x 25 Ga.	0.0150	0.0158	50	0.108	0.37	0.223	0.123	1.437	0.027	0.499	0.188	0.064	1.60	1.62	100	100	0.009	0.070	-0.975	0.597	1.807	0.709	26.4
362S137-19	3-5/8" x 20 Ga.	0.0185	0.0195	57	0.134	0.46	0.275	0.152	1.431	0.035	0.508	0.263	0.092	3.13	3.03	193	176	0.017	0.097	-1.019	0.625	1.829	0.889	27
362AS137-30	3-5/8" x 30 Mil	0.0296	0.0312	33	0.204	0.69	0.413	0.228	1.424	0.044	0.464	0.406	0.157	3.11	3.26	776	457	0.066	0.108	-0.877	0.540	1.736	0.745	31.2
400AS137-15 ^{1,7}	4" x 25 Ga.	0.0150	0.0158	50	0.114	0.39	0.280	0.140	1.568	0.028	0.493	0.223	0.066	1.66	1.79	90	90	0.009	0.087	-0.938	0.579	1.893	0.754	26.3
400AS137-20	4" x 20 Ga.	0.0200	0.0211	57	0.151	0.52	0.371	0.186	1.566	0.036	0.490	0.358	0.098	3.34	3.48	216	216	0.022	0.115	-0.932	0.576	1.887	0.756	25.3
400AS137-30	4" x 30 Mil	0.0296	0.0312	33	0.215	0.73	0.520	0.260	1.553	0.045	0.458	0.511	0.175	3.46	3.63	701	490	0.070	0.136	-0.843	0.524	1.826	0.787	31.1
600AS137-15 ^{1,7}	6" x 25 Ga.	0.0150	0.0158	50	0.145	0.49	0.730	0.243	2.240	0.031	0.460	-	-	-	-	-	-	0.012	0.217	-0.784	0.503	2.418	0.895	-
600AS137-20 ¹	6" x 20 Ga.	0.0200	0.0211	57	0.194	0.66	0.969	0.323	2.237	0.041	0.458	-	-	-	-	-	-	0.029	0.285	-0.779	0.500	2.412	0.896	-
600AS137-30	6" x 30 Mil	0.0296	0.0312	33	0.278	0.95	1.363	0.454	2.215	0.050	0.425	1.298	0.317	6.26	5.56	461	461	0.090	0.347	-0.701	0.453	2.362	0.912	30.4

AlphaTRACK™		Base Metal	Design	Min. Yield	Gross Properties ⁶							Effective Properties at Yield Stress ³				Torsional Properties					
Section	Nominal	Min. Thickness (In)	Thickness (In)	Strength (ksi)	Area (In²)	Weight (lb/ft)	I _{xx} (In⁴)	S _{xx} (In³)	R _x (In)	I _{yy} (In⁴)	R _y (In)	I _{xx} ⁴ (In⁴)	S _{xx} ⁴ (In³)	M _{xx} (In-k)	V _a (lb)	J (In⁴)	C _w (In⁶)	X _o (In)	m (In)	R _o (In)	b
162AT125-15	1-5/8" x 25 Ga.	0.0150	0.0158	50	0.065	0.22	0.034	0.039	0.717	0.011	0.412	-	-	-	-	0.005	0.006	-0.881	0.507	1.208	0.468
162AT125-20	1-5/8" x 20 Ga.	0.0200	0.0211	57	0.087	0.30	0.045	0.053	0.719	0.015	0.411	0.030	0.025	0.86	500	0.013	0.007	-0.878	0.505	1.207	0.471
162AT125-30	1-5/8" x 30 Mil	0.0296	0.0312	33	0.128	0.44	0.067	0.078	0.722	0.022	0.409	0.054	0.048	0.95	612	0.042	0.011	-0.872	0.502	1.204	0.475
250AT125-15	2-1/2" x 25 Ga.	0.0150	0.0158	50	0.079	0.27	0.085	0.066	1.037	0.013	0.400	-	-	-	-	0.007	0.015	-0.771	0.462	1.353	0.675
250AT125-20	2-1/2" x 20 Ga.	0.0200	0.0211	57	0.105	0.36	0.114	0.088	1.039	0.017	0.399	0.082	0.040	1.35	340	0.016	0.019	-0.769	0.461	1.353	0.677
250AT125-30	2-1/2" x 30 Mil	0.0296	0.0312	33	0.156	0.53	0.169	0.130	1.042	0.025	0.397	0.140	0.087	1.71	832	0.051	0.029	-0.763	0.458	1.351	0.681
362AT125-15 ¹	3-5/8" x 25 Ga.	0.0150	0.0158	50	0.097	0.33	0.196	0.106	1.425	0.014	0.381	-	-	-	-	0.008	0.034	-0.668	0.416	1.619	0.830
362AT125-20	3-5/8" x 20 Ga.	0.0200	0.0211	57	0.129	0.44	0.263	0.142	1.426	0.019	0.380	0.199	0.058	1.97	233	0.019	0.045	-0.665	0.414	1.619	0.831
362AT125-30	3-5/8" x 30 Mil	0.0296	0.0312	33	0.191	0.65	0.389	0.209	1.428	0.027	0.378	0.330	0.149	2.94	754	0.062	0.067	-0.661	0.412	1.618	0.833
400AT125-15 ¹	4" x 25 Ga.	0.0150	0.0158	50	0.103	0.35	0.247	0.121	1.550	0.014	0.374	-	-	-	-	0.009	0.043	-0.640	0.402	1.718	0.861
400AT125-20	4" x 20 Ga.	0.0200	0.0211	57	0.137	0.47	0.330	0.161	1.551	0.019	0.373	0.242	0.064	2.17	211	0.020	0.057	-0.637	0.401	1.718	0.862
400AT125-30	4" x 30 Mil	0.0296	0.0312	33	0.203	0.69	0.488	0.238	1.553	0.028	0.372	0.417	0.172	3.41	683	0.066	0.084	-0.633	0.398	1.718	0.864
600AT125-15 ¹	6" x 25 Ga.	0.0150	0.0158	50	0.134	0.46	0.646	0.213	2.194	0.016	0.343	-	-	-	-	0.011	0.108	-0.524	0.343	2.281	0.947
600AT125-20 ¹	6" x 20 Ga.	0.0200	0.0211	57	0.179	0.61	0.863	0.284	2.195	0.021	0.342	-	-	-	-	0.027	0.144	-0.522	0.341	2.282	0.948
600AT125-30	6" x 30 Mil	0.0296	0.0312	33	0.265	0.90	1.278	0.419	2.196	0.031	0.340	1.074	0.240	4.74	454	0.086	0.212	-0.519	0.339	2.282	0.948

Values are based on AISI Standard, North American Specification for the Design of Cold-Formed Steel Structural Members, 2012 edition (AISI S100-2012). All calculations are based on allowable strength design (ASD). Where Effective Properties are listed as "-", flange width-to-thickness exceeds 60 or web height-to-thickness exceeds 260, tested values available upon request. The data contain herein is intended as a general guide only and all designs should be completed by a design professional with cold-formed steel design expertise.

Table Notes:

- Where section designations include a superscript '1', web height-to-thickness exceeds 200. Web stiffeners are required at all supports and concentrated loads.
- Effective Properties include the effects of cold-forming as applicable in Section A7.2 of AISI S100-12.
- Effective X-X Axis properties of stud sections based on punched sections. Track sections are considered unpunched.
- The effective moment of inertia for deflection is calculated at a stress which results in a section modulus such that the stress times the section modulus at that stress is equal to the allowable local buckling moment.
- Tabulated gross properties are based on the full, unreduced section away from punchouts.
- Moment capacity for distortional buckling based on K_f = 0.
- Non-structural 15-mil effective properties are determined using the Direct Strength Method (AISI S100, Appendix I).



Limiting Heights for Studs Braced @ 48"o.c.

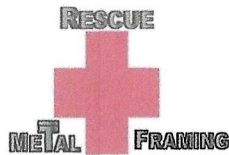
AlphaSTUD™		Spacing (in) oc	5 psf			7.5 psf			10 psf		
Fy (ksi)			L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
162AS137-15	50	12	8' 8"	7' 7"	6' 7"	7' 1"	6' 7"	5' 9"	6' 2"	6' 0"	5' 3"
162AS137-15	50	16	7' 6"	6' 11"	6' 0"	6' 2"	6' 0"	5' 3"	5' 4"	5' 4"	4' 9"
162AS137-15	50	24	6' 2"	6' 0"	5' 3"	5' 0"	5' 0"	4' 7"	4' 4"	4' 4"	4' 2"
162AS137-20	57	12	10' 9"	8' 7"	7' 6"	9' 4"	7' 6"	6' 7"	8' 5"	6' 10"	5' 11"
162AS137-20	57	16	9' 9"	7' 10"	6' 10"	8' 5"	6' 10"	5' 11"	7' 3"	6' 2"	5' 5"
162AS137-20	57	24	8' 5"	6' 10"	5' 11"	6' 10"	5' 11"	5' 2"	5' 11"	5' 5"	4' 9"
162AS137-30	33	12	12' 0"	9' 7"	8' 5"	9' 11"	8' 4"	7' 4"	8' 7"	7' 7"	6' 8"
162AS137-30	33	16	10' 7"	8' 9"	7' 7"	8' 7"	7' 7"	6' 8"	7' 6"	6' 11"	6' 1"
162AS137-30	33	24	8' 7"	7' 7"	6' 8"	7' 0"	6' 7"	5' 10"	6' 1"	6' 0"	5' 3"
250AS137-15	50	12	11' 9"	10' 6"	9' 2"	9' 7"	9' 2"	8' 0"	8' 4"	8' 4"	7' 3"
250AS137-15	50	16	10' 2"	9' 6"	8' 4"	8' 4"	8' 4"	7' 3"	7' 2"	7' 2"	6' 7"
250AS137-15	50	24	8' 4"	8' 4"	7' 3"	6' 9"	6' 9"	6' 4"	5' 10"	5' 10"	5' 9"
250AS137-20	57	12	14' 9"	11' 10"	10' 4"	12' 10"	10' 4"	9' 0"	11' 6"	9' 5"	8' 2"
250AS137-20	57	16	13' 4"	10' 9"	9' 5"	11' 6"	9' 5"	8' 2"	9' 11"	8' 6"	7' 5"
250AS137-20	57	24	11' 6"	9' 5"	8' 2"	9' 4"	8' 2"	7' 2"	8' 1"	7' 5"	6' 6"
250AS137-30	33	12	16' 4"	13' 3"	11' 7"	13' 4"	11' 6"	10' 1"	11' 7"	10' 5"	9' 2"
250AS137-30	33	16	14' 2"	12' 0"	10' 6"	11' 7"	10' 5"	9' 2"	10' 0"	9' 6"	8' 4"
250AS137-30	33	24	11' 7"	10' 5"	9' 2"	9' 5"	9' 1"	8' 0"	8' 2"	8' 2"	7' 3"
362AS137-15	50	12	13' 4" e	13' 4" e	11' 10" e	10' 11" e	10' 11" e	10' 4" e	9' 5" e	9' 5" e	9' 4" e
362AS137-15	50	16	11' 6" e	11' 6" e	10' 9" e	9' 5" e	9' 5" e	9' 4" e	8' 2" e	8' 2" e	8' 2" e
362AS137-15	50	24	9' 5" e	9' 5" e	9' 4" e	7' 8" e	7' 8" e	7' 8" e	6' 8" e	6' 8" e	6' 8" e
362S137-19	57	12	18' 7"	15' 1"	13' 2"	15' 2"	13' 2"	11' 8"	13' 2"	11' 11"	10' 5"
362S137-19	57	16	16' 0"	13' 8"	11' 11"	13' 1"	11' 11"	10' 5"	11' 4"	10' 10"	9' 6"
362S137-19	57	24	13' 1"	11' 11"	10' 5"	10' 8"	10' 5"	9' 1"	9' 0"	9' 0"	8' 3"
362AS137-30	33	12	19' 4"	17' 6"	15' 4"	15' 10"	15' 3"	13' 5"	13' 8"	13' 8"	12' 2"
362AS137-30	33	16	16' 9"	15' 11"	13' 11"	13' 8"	13' 8"	12' 2"	11' 10"	11' 10"	11' 0"
362AS137-30	33	24	13' 8"	13' 8"	12' 2"	11' 2"	11' 2"	10' 7"	9' 8"	9' 8"	9' 7"
400AS137-15	50	12	13' 7" e	13' 7" e	12' 6" e	11' 1" e	11' 1" e	10' 11" e	9' 7" e	9' 7" e	9' 7" e
400AS137-15	50	16	11' 9" e	11' 9" e	11' 4" e	9' 7" e	9' 7" e	9' 7" e	8' 4" e	8' 4" e	8' 4" e
400AS137-15	50	24	9' 7" e	9' 7" e	9' 7" e	7' 10" e	7' 10" e	7' 10" e	6' 9" e	6' 9" e	6' 9" e
400AS137-20	57	12	19' 1"	16' 11"	14' 10"	15' 7"	14' 10"	12' 11"	13' 6"	13' 5"	11' 9"
400AS137-20	57	16	16' 7"	15' 5"	13' 5"	13' 6"	13' 5"	11' 9"	11' 9"	11' 9"	10' 8"
400AS137-20	57	24	13' 6"	13' 5"	11' 9"	11' 0"	11' 0"	10' 3"	9' 7"	9' 7"	9' 4"
400AS137-30	33	12	20' 5"	18' 11"	16' 7"	16' 8"	16' 6"	14' 6"	14' 5"	14' 5"	13' 1"
400AS137-30	33	16	17' 8"	17' 2"	15' 1"	14' 5"	14' 5"	13' 1"	12' 6"	12' 6"	11' 11"
400AS137-30	33	24	14' 5"	14' 5"	13' 1"	11' 9"	11' 9"	11' 5"	10' 3"	10' 3"	10' 3"
600AS137-30	33	12	27' 3"	25' 11"	22' 10"	22' 3"	22' 3"	19' 10"	19' 3"	19' 3"	18' 0"
600AS137-30	33	16	23' 7"	23' 6"	20' 8"	19' 3"	19' 3"	18' 0"	16' 8"	16' 8"	16' 3"
600AS137-30	33	24	19' 3"	19' 3"	18' 0"	15' 9"	15' 9"	15' 8"	13' 7" e	13' 7" e	13' 7" e

Values are based on AISI Standard, North American Specification for the Design of Cold-Formed Steel Structural Members, 2012 edition (AISI S100-2012). All calculations are based on allowable strength design (ASD).

Table Notes:

- Where section is noted with superscript "1", web height-to-thickness ratio exceeds 200. Web stiffeners required at all points of support.
- Allowable moment taken as the minimum of global ($K_y L_y = 48"$), local and distortional buckling with $k=0$. Provide bridging at 48" oc maximum.
- Loads have not been modified for strength or deflection calculations.
- Non-composite heights are based on steel properties only.
- Flexural strength and moment of inertia for deflection calculated in accordance with AISI S100-2012 (Effective Width Procedures).
- Web crippling check based on 1-inch end bearing. Where listed limiting heights are followed by "e" web stiffeners are required.

AlphaSTUD, AlphaTRACK and the information contained herein are property of Steel Investment Group, LLC



Fully Braced Limiting Heights

AlphaSTUD™		Spacing (in) oc	5 psf			7.5 psf			10 psf		
Fy (ksi)			L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
162AS137-15	50	12	9' 5"	7' 7"	6' 7"	7' 9"	6' 7"	5' 9"	6' 8"	6' 0"	5' 3"
162AS137-15	50	16	8' 2"	6' 11"	6' 0"	6' 8"	6' 0"	5' 3"	5' 9"	5' 6"	4' 9"
162AS137-15	50	24	6' 8"	6' 0"	5' 3"	5' 5"	5' 3"	4' 7"	4' 9"	4' 9"	4' 2"
162AS137-20	57	12	10' 9"	8' 7"	7' 6"	9' 4"	7' 6"	6' 7"	8' 5"	6' 10"	5' 11"
162AS137-20	57	16	9' 9"	7' 10"	6' 10"	8' 5"	6' 10"	5' 11"	7' 8"	6' 2"	5' 5"
162AS137-20	57	24	8' 5"	6' 10"	5' 11"	7' 4"	5' 11"	5' 2"	6' 6"	5' 5"	4' 9"
162AS137-30	33	12	12' 0"	9' 7"	8' 5"	10' 5"	8' 4"	7' 4"	9' 0"	7' 7"	6' 8"
162AS137-30	33	16	10' 11"	8' 9"	7' 7"	9' 0"	7' 7"	6' 8"	7' 10"	6' 11"	6' 1"
162AS137-30	33	24	9' 0"	7' 7"	6' 8"	7' 5"	6' 7"	5' 10"	6' 5"	6' 0"	5' 3"
250AS137-15	50	12	12' 2"	10' 6"	9' 2"	9' 11"	9' 2"	8' 0"	8' 7"	8' 4"	7' 3"
250AS137-15	50	16	10' 6"	9' 6"	8' 4"	8' 7"	8' 4"	7' 3"	7' 5"	7' 5"	6' 7"
250AS137-15	50	24	8' 7"	8' 4"	7' 3"	7' 0"	7' 0"	6' 4"	6' 1"	6' 1"	5' 9"
250AS137-20	57	12	14' 9"	11' 10"	10' 4"	12' 10"	10' 4"	9' 0"	11' 7"	9' 5"	8' 2"
250AS137-20	57	16	13' 4"	10' 9"	9' 5"	11' 7"	9' 5"	8' 2"	10' 4"	8' 6"	7' 5"
250AS137-20	57	24	11' 7"	9' 5"	8' 2"	9' 9"	8' 2"	7' 2"	8' 5"	7' 5"	6' 6"
250AS137-30	33	12	16' 7"	13' 3"	11' 7"	13' 10"	11' 6"	10' 1"	12' 0"	10' 5"	9' 2"
250AS137-30	33	16	14' 9"	12' 0"	10' 6"	12' 0"	10' 5"	9' 2"	10' 5"	9' 6"	8' 4"
250AS137-30	33	24	12' 0"	10' 5"	9' 2"	9' 10"	9' 1"	8' 0"	8' 6"	8' 3"	7' 3"
362AS137-15	50	12	14' 8" e	13' 6" e	11' 10" e	11' 11" e	11' 10" e	10' 4" e	10' 4" e	10' 4" e	9' 4" e
362AS137-15	50	16	12' 8" e	12' 3" e	10' 9" e	10' 4" e	10' 4" e	9' 4" e	8' 11" e	8' 11" e	8' 6" e
362AS137-15	50	24	10' 4" e	10' 4" e	9' 4" e	8' 5" e	8' 5" e	8' 2" e	7' 4" e	7' 4" e	7' 4" e
362S137-19	57	12	19' 1"	16' 1"	13' 2"	16' 5"	13' 2"	11' 6"	14' 3"	12' 0"	10' 6"
362S137-19	57	16	17' 4"	13' 9"	12' 0"	14' 3"	12' 0"	10' 6"	12' 4"	10' 11"	9' 6"
362S137-19	57	24	14' 3"	12' 0"	10' 6"	11' 7"	10' 6"	9' 2"	10' 1" e	9' 6" e	8' 4"
362AS137-30	33	12	20' 4"	17' 6"	15' 4"	16' 7"	15' 3"	13' 5"	14' 5"	13' 10"	12' 2"
362AS137-30	33	16	17' 8"	15' 11"	13' 11"	14' 5"	13' 10"	12' 2"	12' 6"	12' 6"	11' 0"
362AS137-30	33	24	14' 5"	13' 10"	12' 2"	11' 9"	11' 9"	10' 7"	10' 2"	10' 2"	9' 7"
400AS137-15	50	12	14' 11" e	14' 4" e	12' 6" e	12' 2" e	12' 2" e	10' 11" e	10' 6" e	10' 6" e	9' 11" e
400AS137-15	50	16	12' 11" e	12' 11" e	11' 4" e	10' 6" e	10' 6" e	9' 11" e	9' 1" e	9' 1" e	9' 0" e
400AS137-15	50	24	10' 6" e	10' 6" e	9' 11" e	8' 7" e	8' 7" e	8' 7" e	7' 5" e	7' 5" e	7' 5" e
400AS137-20	57	12	21' 1"	16' 11"	14' 10"	17' 3"	14' 10"	12' 11"	14' 11"	13' 5"	11' 9"
400AS137-20	57	16	18' 3"	15' 5"	13' 5"	14' 11"	13' 5"	11' 9"	12' 11"	12' 2"	10' 8"
400AS137-20	57	24	14' 11"	13' 5"	11' 9"	12' 2"	11' 8"	10' 3"	10' 7"	10' 7"	9' 4"
400AS137-30	33	12	21' 6"	18' 11"	16' 7"	17' 7"	16' 6"	14' 6"	15' 2"	15' 0"	13' 1"
400AS137-30	33	16	18' 7"	17' 2"	15' 1"	15' 2"	15' 0"	13' 1"	13' 2"	13' 2"	11' 11"
400AS137-30	33	24	15' 2"	15' 0"	13' 1"	12' 5"	12' 5"	11' 5"	10' 9"	10' 9"	10' 5"
600AS137-30	33	12	27' 3"	25' 11"	22' 10"	22' 3"	22' 3"	19' 10"	19' 3"	19' 3"	18' 0"
600AS137-30	33	16	23' 7"	23' 6"	20' 8"	19' 3"	19' 3"	18' 0"	16' 8"	16' 8"	16' 3"
600AS137-30	33	24	19' 3"	19' 3"	18' 0"	15' 9"	15' 9"	15' 8"	13' 7" e	13' 7" e	13' 7" e

Values are based on AISI Standard, North American Specification for the Design of Cold-Formed Steel Structural Members, 2012 edition (AISI S100-2012). All calculations are based on allowable strength design (ASD).

Table Notes:

- Where section is noted with superscript "1", web height-to-thickness ratio exceeds 200. Web stiffeners required at all points of support.
- Allowable moment taken as the minimum of local and distortional buckling with $k=0$.
- Loads have not been modified for strength or deflection calculations.
- Non-composite heights are based on steel properties only.
- Flexural strength and moment of inertia for deflection calculated in accordance with AISI S100-2012 (Effective Width Procedures).
- Web crippling check based on 1-inch end bearing. Where listed limiting heights are followed by "e" web stiffeners are required.

AlphaSTUD, AlphaTRACK and the information contained herein are property of Steel Investment Group, LLC

Lit. No. SIGLmHgtFB1015



Web Crippling Values

AlphaSTUD TM	F _y Design Thickness (ksi)	Condition 1 Bearing Length (in)				Condition 2 Bearing Length (in)				Condition 3 Bearing Length (in)				Condition 4 Bearing Length (in)				
		1	3.5	4	6	1	3.5	4	6	1	3.5	4	6	1	3.5	4	6	
162AS137-15	0.0158	50	67	111 ^{1,2}	117 ^{1,2}	139 ^{1,2}	119	173 ^{1,2}	182 ^{1,2}	210 ^{1,2}	48	69 ^{1,2}	72 ^{1,2}	83 ^{1,2}	137	183 ^{1,2}	190 ^{1,2}	214 ^{1,2}
162AS137-20	0.0211	57	133	214 ¹	226 ¹	269 ^{1,2}	246	351 ¹	366 ¹	420 ^{1,2}	105	147 ¹	153 ¹	174 ^{1,2}	286	375 ¹	388 ¹	434 ^{1,2}
162AS137-30	0.0312	33	159	251 ¹	264 ¹	312 ¹	312	433 ¹	451 ¹	513 ¹	141	190 ¹	198 ¹	223 ¹	372	473 ¹	488 ¹	540 ¹
250AS137-15	0.0158	50	63	104 ²	110 ²	131 ^{1,2}	116	169 ²	177 ²	204 ^{1,2}	37	53 ²	56 ²	64 ^{1,2}	121	163 ²	169 ²	190 ^{1,2}
250AS137-20	0.0211	57	126	203	215	255 ^{1,2}	240	342	358	410 ^{1,2}	87	121	126	144 ^{1,2}	260	341	353	394 ^{1,2}
250AS137-30	0.0312	33	152	240	253	299 ¹	306	424	442	503 ¹	123	166	172	194 ¹	346	439	453	502 ¹
362AS137-19	0.0195	57	91	147	155	184 ²	155	223	233	268 ²	53	74	77	88 ²	182	240	248	278 ²
362AS137-30	0.0312	33	145	229	242	285	300	416	433	492	104	140	146	164	318	404	417	462
400AS137-20	0.0211	57	116	188	199	236 ²	232	331	346	397 ²	62	86	90	102 ²	225	294	305	341 ²
400AS137-30	0.0312	33	143	226	238	281	298	413	430	489	98	133	138	156	310	394	407	450
600AS137-30	0.0312	33	134	211	223	263	290	401	418	475	72	97	101	114	272	346	357	395

Values are based on AISI Standard, North American Specification for the Design of Cold-Formed Steel Structural Members, 2012 edition (AISI S100-2012). All calculations are based on allowable strength design (ASD). The data contain herein is intended as a general guide only and all designs should be completed by a design professional with cold-formed steel design expertise.

Table Notes:

1. Bearing length to web height ratio, N/h exceeds limit of 2.
2. Bearing length to thickness ratio, N/t exceeds limit of 210.
3. Listed allowable loads apply only to stud members with stiffened flanges.
4. Listed allowable loads are based on members "fastened to supports".
5. Listed allowable loads are for unpunched webs. Capacity reductions for end and interior one flange loading may be calculated per AISI S100 section C3.4.2

