

Section Properties & Strengths per AISI S100 & AISC 360 - Square Steel Posts

Post Size	D _p	t _{nom}	t _{des}	E	A	I	S	r	Z	F _y	M _{allow}
	lbs / ft	in	in	msi	in ²	in ⁴	in ³	in	in ³	ksi	kip-ft
1-1/2" x 1-1/2" x 14 Ga	1.54	0.083	-	29.5	0.452	0.148	0.197	0.572	-	45	0.44
1-1/2" x 1-1/2" x 11 Ga	2.13	0.12	-	29.5	0.625	0.192	0.256	0.554	-	45	0.57
2" x 2" x 16 Ga	1.67	0.065	-	29.5	0.489	0.301	0.301	0.784	-	45	0.68
2" x 2" x 14 Ga	2.1	0.083	-	29.5	0.628	0.372	0.372	0.776	-	45	0.84
2" x 2" x 11 Ga	2.94	0.12		29.5	0.865	0.498	0.498	0.759	-	45	1.12
2" x 2" x 1/4"	5.38	0.25	0.2325	29	1.51	0.747	0.747	0.704	0.964	45	2.16
2-1/2" x 2-1/2" x 14 Ga	2.66	0.083	-	29.5	0.784	0.7536	0.603	0.981	-	45	1.35
2-1/2" x 2-1/2" x 11 Ga	3.76	0.12	-	29.5	1.105	1.025	0.82	0.963	-	45	1.84
2-1/2" x 2-21/2" x 1/4"	7.08	0.25	0.2325	29	1.97	1.63	1.3	0.908	1.63	45	3.66
3" x 3" x 12 Ga	4.22	0.11	-	29.5	1.24	1.704	1.136	1.172	-	45	2.55
3" x 3" x 11 Ga	4.57	0.12	-	29.5	1.345	1.222	1.222	1.167	-	45	2.74
3" x 3" x 1/4"	8.78	0.25	0.2325	29	2.44	3.02	2.01	1.11	2.48	45	5.57
4" x 4" x 11 Ga	5.7	0.11	-	29.5	1.68	4.198	2.099	1.581	-	45	4.71
4" x 4" x 1/4"	12.18	0.25	0.2325	29	3.37	7.8	3.9	1.52	4.69	45	10.53
6" x 6" x 1/4"	18.99	0.25	0.2325	29	5.24	28.6	9.54	2.34	11.2	45	25.15
Post Size	lbs / ft	in	in	msi	in ²	in ⁴	in ³	in	in ³	ksi	kip-ft
	D _p	t _{nom}	t _{des}	E	A	I	S	r	Z	F _y	M _{allow}