



“The System” Slotted Track Cross Section Properties

Gross section properties calculated per AISI S100 for standard slotted track cross-section geometry. $F_y = 33 \text{ ksi}$ (30, 33, 43 mil); 50 ksi (54, 68 mil). Steel per ASTM A653/A1003.

A = Cross-sectional area **I_x** = Moment of inertia, x-axis **r_x** = Radius of gyration, x-axis **I_y** = Moment of inertia, y-axis **r_y** = Radius of gyration, y-axis

Web	Leg	Mils	Design t (in.)	A (in. ²)	Wt (lb/ft)	I _x (in. ⁴)	r _x (in.)	I _y (in. ⁴)	r _y (in.)	
2 1/2"	2 1/2"	30	0.0312	0.234	0.796	0.306	1.140	0.160	0.828	
	2 1/2"	33	0.0346	0.259	0.883	0.339	1.140	0.178	0.827	
	2 1/2"	43	0.0451	0.338	1.150	0.443	1.150	0.230	0.826	
	2 1/2"	54	0.0566	0.424	1.440	0.565	1.160	0.288	0.824	
	2 1/2"	68	0.0713	0.534	1.820	0.728	1.170	0.360	0.821	
	3"	30	0.0312	0.265	0.902	0.359	1.160	0.262	0.993	
	3"	33	0.0346	0.294	1.000	0.398	1.160	0.290	0.993	
	3"	43	0.0451	0.383	1.300	0.521	1.170	0.376	0.991	
	3"	54	0.0566	0.480	1.640	0.664	1.180	0.470	0.989	
	3 5/8"	2 1/2"	30	0.0312	0.269	0.915	0.667	1.580	0.181	0.820
2 1/2"		33	0.0346	0.298	1.020	0.740	1.580	0.200	0.820	
2 1/2"		43	0.0451	0.389	1.320	0.966	1.580	0.260	0.818	
2 1/2"		54	0.0566	0.488	1.660	1.220	1.590	0.324	0.816	
2 1/2"		68	0.0713	0.614	2.090	1.570	1.600	0.406	0.813	
	3"	30	0.0312	0.300	1.020	0.776	1.610	0.296	0.992	
	3"	33	0.0346	0.333	1.130	0.861	1.610	0.327	0.992	
	3"	43	0.0451	0.434	1.480	1.120	1.610	0.425	0.990	
	3"	54	0.0566	0.544	1.850	1.430	1.620	0.531	0.988	
	4"	2 1/2"	30	0.0312	0.281	0.955	0.824	1.710	0.187	0.816
2 1/2"		33	0.0346	0.311	1.060	0.914	1.710	0.207	0.815	
2 1/2"		43	0.0451	0.406	1.380	1.190	1.720	0.268	0.813	
2 1/2"		54	0.0566	0.509	1.730	1.510	1.720	0.335	0.811	
2 1/2"		68	0.0713	0.641	2.180	1.930	1.740	0.418	0.808	
	3"	30	0.0312	0.312	1.060	0.960	1.750	0.305	0.989	
	3"	33	0.0346	0.346	1.180	1.060	1.750	0.338	0.989	
	3"	43	0.0451	0.451	1.530	1.380	1.750	0.439	0.987	
	3"	54	0.0566	0.565	1.920	1.750	1.760	0.548	0.985	
	6"	2 1/2"	30	0.0312	0.343	1.170	2.020	2.420	0.211	0.784
2 1/2"		33	0.0346	0.381	1.300	2.240	2.420	0.233	0.783	
2 1/2"		43	0.0451	0.496	1.690	2.920	2.430	0.303	0.781	
2 1/2"		54	0.0566	0.622	2.120	3.680	2.430	0.377	0.779	
2 1/2"		68	0.0713	0.783	2.670	4.670	2.440	0.472	0.776	
	3"	43	0.0451	0.541	1.840	3.340	2.480	0.498	0.960	
	3"	54	0.0566	0.679	2.310	4.210	2.490	0.622	0.957	
	8"	2 1/2"	43	0.0451	0.586	1.990	5.630	3.100	0.326	0.746
		2 1/2"	54	0.0566	0.735	2.500	7.090	3.110	0.407	0.744
		2 1/2"	68	0.0713	0.926	3.150	8.980	3.110	0.509	0.741
	3"	43	0.0451	0.631	2.150	6.370	3.180	0.540	0.925	
	3"	54	0.0566	0.792	2.690	8.030	3.180	0.675	0.923	
10"	2 1/2"	43	0.0451	0.676	2.300	9.520	3.750	0.344	0.713	
	2 1/2"	54	0.0566	0.848	2.890	12.000	3.760	0.429	0.711	
	2 1/2"	68	0.0713	1.070	3.640	15.100	3.760	0.536	0.708	

Notes:

1. Gross properties based on the full section, not reduced for flange slots.
2. For deflection calculations, use effective moment of inertia (I_{xe}).
3. Contact Metal-Lite for additional sizes and effective section properties.



“The System” Slotted Track UL Assemblies

“The System™” by Metal-Lite is UL Classified per UL 2079 for fire-resistant joint systems. The following UL Design Numbers have been tested and approved for use with Metal-Lite slotted deflection track in 1-hour and 2-hour fire-rated head-of-wall assemblies.

Metal-Lite UL Classified Joint System Design Numbers (UL 2079)				
HW-D-0020	HW-D-0021	HW-D-0024	HW-D-0025	HW-D-0027
HW-D-0028	HW-D-0029	HW-D-0031	HW-D-0036	HW-D-0042
HW-D-0043	HW-D-0044	HW-D-0045	HW-D-0046	HW-D-0047
HW-D-0048	HW-D-0049	HW-D-0051	HW-D-0052	HW-D-0062
HW-D-0063	HW-D-0066	HW-D-0067	HW-D-0068	HW-D-0069
HW-D-0071	HW-D-0072	HW-D-0073	HW-D-0076	HW-D-0077
HW-D-0082	HW-D-0083	HW-D-0084	HW-D-0085	HW-D-0087
HW-D-0088	HW-D-0089	HW-D-0099	HW-D-0101	HW-D-0102
HW-D-0103	HW-D-0106	HW-D-0107	HW-D-0108	HW-D-0111
HW-D-0134	HW-D-0136	HW-D-0137	HW-D-0143	HW-D-0162
HW-D-0167	HW-D-0185	HW-D-0186	HW-D-0193	HW-D-0195
HW-D-0208	HW-D-0246	HW-D-0252	HW-D-0260	HW-D-0263
HW-D-0264	HW-D-0267	HW-D-0272	HW-D-0278	HW-D-0280
HW-D-0293	HW-D-0365	HW-D-0404	HW-D-0420	HW-D-0421
HW-D-0453	HW-D-0455	HW-D-0456	HW-D-0461	HW-D-0462
HW-D-0463	HW-D-0475	HW-D-0476	HW-D-0477	HW-D-0480
HW-D-0483	HW-D-0484	HW-D-0486	HW-D-0491	HW-D-0517
HW-D-0526	HW-D-0527	HW-D-0532	HW-D-0541	HW-D-0542
HW-D-0564	HW-D-0569	HW-D-0570	HW-D-0571	HW-D-0572

Details and information for each individual system can be found in the XHBN section of Volume 2 of the UL Fire Resistance Directory. For the most current list of UL approvals, visit: metal-lite.net/index.php/metal-framing/metal-lite-ul-approvals-metal-framing