

Beam For Unprotected Floor/Ceiling, Fluted/Form Deck, Concrete Slab

Products: Monokote® MK-6/HY, MK-6s, Z-106, Z-106/HY, Z-106/G, Z-146 and Retro-Guard® RG

Unrestrained Beam

Flange Protection: Full and Half Flange Thickness

U.L. Design No: N782

Concrete Weight: Normal Weight Concrete

FULL FLANGE TIP THICKNESS					Member		HALF FLANGE TIP THICKNESS				
1 hr	1.5 hr	2 hr	3 hr	4 hr	Size x Wt	W/D	1 hr	1.5 hr	2 hr	3 hr	4 hr
3/8	3/4	1	1 5/8	2 1/4	W4 x 13	0.670	1/2	7/8	1 3/16	1 15/16	2 5/8
3/8	3/4	1	1 5/8	2 1/4	W5 x 16	0.664	1/2	7/8	1 1/4	1 15/16	2 5/8
3/8	11/16	15/16	1 1/2	2 1/16	W5 x 19	0.776	1/2	13/16	1 1/8	1 3/4	2 7/16
1/2	15/16	1 1/4	2 1/16	2 7/8	W6 x 9	0.398	5/8	1 1/8	1 9/16	2 7/16	3 5/16
7/16	13/16	1 1/8	1 13/16	2 9/16	W6 x 12	0.526	9/16	1	1 3/8	2 3/16	2 15/16
7/16	13/16	1 1/8	1 7/8	2 9/16	W6 x 15	0.521	9/16	1	1 3/8	2 3/16	2 15/16
3/8	3/4	1	1 5/8	2 1/4	W6 x 16	0.684	1/2	7/8	1 3/16	1 7/8	2 9/16
3/8	3/4	1	1 5/8	2 1/4	W6 x 20	0.678	1/2	7/8	1 3/16	1 7/8	2 5/8
5/16	5/8	7/8	1 7/16	2	W6 x 25	0.839	7/16	3/4	1 1/16	1 11/16	2 5/16
1/2	15/16	1 5/16	2 1/8	2 15/16	W8 x 10	0.375	11/16	1 1/8	1 9/16	2 1/2	3 3/8
7/16	7/8	1 3/16	1 15/16	2 5/8	W8 x 13	0.483	5/8	1	1 7/16	2 1/4	3 1/16
7/16	13/16	1 1/8	1 13/16	2 1/2	W8 x 15	0.551	9/16	15/16	1 5/16	2 1/8	2 7/8
3/8	3/4	1 1/16	1 3/4	2 7/16	W8 x 18	0.583	9/16	15/16	1 5/16	2 1/16	2 13/16
3/8	3/4	1	1 5/8	2 1/4	W8 x 21	0.675	1/2	7/8	1 3/16	1 15/16	2 5/8
3/8	11/16	1	1 5/8	2 3/16	W8 x 24	0.704	1/2	7/8	1 3/16	1 7/8	2 9/16
5/16	5/8	7/8	1 7/16	2	W8 x 28	0.819	7/16	3/4	1 1/16	1 11/16	2 5/16
3/8	11/16	15/16	1 1/2	2 1/16	W8 x 31	0.803	1/2	13/16	1 1/8	1 3/4	2 3/8
5/16	5/8	7/8	1 3/8	1 15/16	W8 x 35	0.907	7/16	3/4	1 1/16	1 5/8	2 3/16
5/16	9/16	13/16	1 5/16	1 3/4	W8 x 40	1.030	7/16	11/16	15/16	1 1/2	2 1/16
5/16	1/2	11/16	1 3/16	1 5/8	W8 x 48	1.210	3/8	5/8	7/8	1 3/8	1 7/8
5/16	7/16	5/8	1	1 7/16	W8 x 58	1.440	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	9/16	15/16	1 5/16	W8 x 67	1.650	5/16	1/2	11/16	1 1/8	1 1/2
1/2	15/16	1 5/16	2 1/16	2 7/8	W10 x 12	0.392	11/16	1 1/8	1 9/16	2 7/16	3 5/16
7/16	7/8	1 3/16	1 15/16	2 5/8	W10 x 15	0.484	5/8	1	1 7/16	2 1/4	3 1/16
7/16	13/16	1 1/8	1 13/16	2 1/2	W10 x 17	0.543	9/16	15/16	1 3/8	2 1/8	2 7/8
3/8	3/4	1 1/16	1 3/4	2 3/8	W10 x 19	0.607	9/16	15/16	1 1/4	2	2 3/4
3/8	3/4	1 1/16	1 3/4	2 3/8	W10 x 22	0.606	9/16	15/16	1 5/16	2	2 3/4
3/8	11/16	1	1 9/16	2 3/16	W10 x 26	0.708	1/2	7/8	1 3/16	1 7/8	2 9/16
3/8	11/16	15/16	1 1/2	2 1/16	W10 x 30	0.809	1/2	13/16	1 1/8	1 3/4	2 3/8
3/8	11/16	15/16	1 1/2	2 1/16	W10 x 33	0.786	1/2	13/16	1 1/8	1 3/4	2 3/8
5/16	5/8	13/16	1 3/8	1 7/8	W10 x 39	0.929	7/16	3/4	1	1 5/8	2 3/16
5/16	9/16	3/4	1 1/4	1 3/4	W10 x 45	1.060	3/8	11/16	15/16	1 1/2	2
5/16	9/16	13/16	1 5/16	1 13/16	W10 x 49	1.010	7/16	11/16	15/16	1 1/2	2 1/16
5/16	9/16	3/4	1 1/4	1 11/16	W10 x 54	1.110	3/8	5/8	15/16	1 7/16	1 15/16
5/16	1/2	11/16	1 1/8	1 9/16	W10 x 60	1.220	3/8	5/8	7/8	1 3/8	1 13/16
5/16	1/2	11/16	1 1/16	1 7/16	W10 x 68	1.380	3/8	9/16	13/16	1 1/4	1 11/16
5/16	7/16	5/8	1	1 3/8	W10 x 77	1.540	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	9/16	7/8	1 1/4	W10 x 88	1.740	5/16	1/2	11/16	1 1/16	1 7/16
5/16	3/8	1/2	13/16	1 1/8	W10 x 100	1.970	5/16	7/16	5/8	15/16	1 5/16
5/16	3/8	1/2	3/4	1 1/16	W10 x 112	2.170	5/16	7/16	9/16	7/8	1 3/16
1/2	15/16	1 1/4	2 1/16	2 7/8	W12 x 14	0.405	5/8	1 1/16	1 9/16	2 7/16	3 5/16
7/16	7/8	1 3/16	1 15/16	2 11/16	W12 x 16	0.457	5/8	1 1/16	1 7/16	2 5/16	3 1/8
7/16	13/16	1 1/8	1 13/16	2 1/2	W12 x 19	0.540	9/16	15/16	1 3/8	2 1/8	2 15/16
3/8	3/4	1 1/16	1 11/16	2 3/8	W12 x 22	0.623	9/16	7/8	1 1/4	2	2 11/16
3/8	3/4	1 1/16	1 11/16	2 3/8	W12 x 26	0.612	9/16	15/16	1 1/4	2	2 3/4
3/8	11/16	1	1 5/8	2 3/16	W12 x 30	0.699	1/2	7/8	1 3/16	1 7/8	2 9/16
3/8	11/16	15/16	1 1/2	2 1/16	W12 x 35	0.810	1/2	13/16	1 1/8	1 3/4	2 3/8
5/16	5/8	7/8	1 7/16	2	W12 x 40	0.860	7/16	3/4	1 1/16	1 11/16	2 1/4
5/16	5/8	13/16	1 5/16	1 13/16	W12 x 45	0.974	7/16	11/16	1	1 9/16	2 1/8
5/16	9/16	3/4	1 1/4	1 3/4	W12 x 50	1.060	3/8	11/16	15/16	1 1/2	2
5/16	9/16	13/16	1 5/16	1 13/16	W12 x 53	1.020	7/16	11/16	15/16	1 1/2	2 1/16
5/16	9/16	3/4	1 1/4	1 11/16	W12 x 58	1.100	3/8	11/16	15/16	1 7/16	1 15/16
5/16	9/16	3/4	1 1/4	1 11/16	W12 x 65	1.110	3/8	5/8	15/16	1 7/16	1 15/16
5/16	1/2	11/16	1 1/8	1 9/16	W12 x 72	1.230	3/8	5/8	7/8	1 5/16	1 13/16
5/16	1/2	11/16	1 1/16	1 1/2	W12 x 79	1.340	3/8	9/16	13/16	1 1/4	1 3/4
5/16	7/16	5/8	1	1 3/8	W12 x 87	1.470	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	9/16	15/16	1 5/16	W12 x 96	1.610	5/16	1/2	11/16	1 1/8	1 1/2
5/16	3/8	9/16	7/8	1 1/4	W12 x 106	1.770	5/16	1/2	11/16	1 1/16	1 7/16
5/16	3/8	1/2	13/16	1 1/8	W12 x 120	1.990	5/16	7/16	5/8	15/16	1 5/16

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Unrestrained Beam

Flange Protection: Full and Half Flange Thickness

U.L. Design No: N782

Concrete Weight: Normal Weight Concrete

FULL FLANGE TIP THICKNESS					Member		HALF FLANGE TIP THICKNESS				
1 hr	1.5 hr	2 hr	3 hr	4 hr	Size x Wt	W/D	1 hr	1.5 hr	2 hr	3 hr	4 hr
5/16	3/8	1/2	3/4	1 1/16	W12 x 136	2.230	5/16	7/16	9/16	7/8	1 3/16
5/16	3/8	7/16	11/16	15/16	W12 x 152	2.450	5/16	3/8	1/2	13/16	1 1/8
5/16	3/8	3/8	5/8	7/8	W12 x 170	2.720	5/16	3/8	1/2	3/4	1
5/16	3/8	3/8	5/8	13/16	W12 x 190	3.000	5/16	3/8	7/16	11/16	15/16
5/16	3/8	3/8	9/16	3/4	W12 x 210	3.270	5/16	3/8	7/16	5/8	7/8
5/16	3/8	3/8	1/2	11/16	W12 x 230	3.550	5/16	3/8	3/8	5/8	13/16
5/16	3/8	3/8	1/2	11/16	W12 x 252	3.840	5/16	3/8	3/8	9/16	3/4
5/16	3/8	3/8	7/16	5/8	W12 x 279	4.190	5/16	3/8	3/8	1/2	11/16
5/16	3/8	3/8	7/16	9/16	W12 x 305	4.490	5/16	3/8	3/8	1/2	11/16
5/16	3/8	3/8	3/8	9/16	W12 x 336	4.850	5/16	3/8	3/8	1/2	5/8
7/16	13/16	1 1/8	1 13/16	2 9/16	W14 x 22	0.534	9/16	1	1 3/8	2 1/8	2 15/16
3/8	3/4	1 1/16	1 11/16	2 5/16	W14 x 26	0.628	9/16	7/8	1 1/4	2	2 11/16
3/8	3/4	1	1 11/16	2 5/16	W14 x 30	0.644	1/2	7/8	1 1/4	1 15/16	2 11/16
3/8	11/16	15/16	1 9/16	2 3/16	W14 x 34	0.725	1/2	13/16	1 3/16	1 13/16	2 1/2
3/8	11/16	15/16	1 1/2	2 1/16	W14 x 38	0.809	1/2	13/16	1 1/8	1 3/4	2 3/8
5/16	5/8	7/8	1 7/16	1 15/16	W14 x 43	0.874	7/16	3/4	1 1/16	1 5/8	2 1/4
5/16	5/8	13/16	1 5/16	1 13/16	W14 x 48	0.970	7/16	11/16	1	1 9/16	2 1/8
5/16	9/16	3/4	1 1/4	1 3/4	W14 x 53	1.060	3/8	11/16	15/16	1 1/2	2
5/16	9/16	3/4	1 1/4	1 11/16	W14 x 61	1.100	3/8	11/16	15/16	1 7/16	1 15/16
5/16	1/2	11/16	1 1/8	1 9/16	W14 x 68	1.220	3/8	5/8	7/8	1 3/8	1 13/16
5/16	1/2	11/16	1 1/16	1 1/2	W14 x 74	1.320	3/8	9/16	13/16	1 1/4	1 3/4
5/16	7/16	5/8	1	1 7/16	W14 x 82	1.450	5/16	9/16	3/4	1 3/16	1 5/8
5/16	1/2	11/16	1 1/8	1 1/2	W14 x 90	1.310	3/8	9/16	13/16	1 5/16	1 3/4
5/16	7/16	5/8	1 1/16	1 7/16	W14 x 99	1.430	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 5/16	W14 x 109	1.570	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	9/16	15/16	1 1/4	W14 x 120	1.710	5/16	1/2	11/16	1 1/16	1 7/16
5/16	3/8	1/2	7/8	1 3/16	W14 x 132	1.890	5/16	7/16	5/8	1	1 3/8
5/16	3/8	1/2	13/16	1 1/8	W14 x 145	1.990	5/16	7/16	5/8	15/16	1 5/16
5/16	3/8	1/2	3/4	1 1/16	W14 x 159	2.160	5/16	7/16	9/16	7/8	1 1/4
5/16	3/8	7/16	11/16	1	W14 x 176	2.380	5/16	3/8	9/16	13/16	1 1/8
5/16	3/8	7/16	11/16	15/16	W14 x 193	2.600	5/16	3/8	1/2	3/4	1 1/16
5/16	3/8	3/8	5/8	7/8	W14 x 211	2.810	5/16	3/8	1/2	3/4	1
5/16	3/8	3/8	9/16	13/16	W14 x 233	3.080	5/16	3/8	7/16	11/16	15/16
5/16	3/8	3/8	9/16	3/4	W14 x 257	3.360	5/16	3/8	7/16	5/8	7/8
5/16	3/8	3/8	1/2	11/16	W14 x 283	3.660	5/16	3/8	3/8	9/16	13/16
5/16	3/8	3/8	1/2	5/8	W14 x 311	3.980	5/16	3/8	3/8	9/16	3/4
5/16	3/8	3/8	7/16	5/8	W14 x 342	4.320	5/16	3/8	3/8	1/2	11/16
5/16	3/8	3/8	7/16	9/16	W14 x 370	4.630	5/16	3/8	3/8	1/2	11/16
5/16	3/8	3/8	3/8	9/16	W14 x 398	4.930	5/16	3/8	3/8	7/16	5/8
5/16	3/8	3/8	3/8	1/2	W14 x 426	5.210	5/16	3/8	3/8	7/16	5/8
5/16	3/8	3/8	3/8	1/2	W14 x 455	5.530	5/16	3/8	3/8	7/16	9/16
5/16	3/8	3/8	3/8	7/16	W14 x 500	5.950	5/16	3/8	3/8	3/8	9/16
5/16	3/8	3/8	3/8	7/16	W14 x 550	6.430	5/16	3/8	3/8	3/8	1/2
5/16	3/8	3/8	3/8	7/16	W14 x 605	6.960	5/16	3/8	3/8	3/8	7/16
5/16	3/8	3/8	3/8	3/8	W14 x 665	7.490	5/16	3/8	3/8	3/8	7/16
5/16	3/8	3/8	3/8	3/8	W14 x 730	8.080	5/16	3/8	3/8	3/8	7/16
7/16	13/16	1 1/8	1 13/16	2 1/2	W16 x 26	0.558	9/16	15/16	1 5/16	2 1/8	2 7/8
3/8	3/4	1	1 5/8	2 5/16	W16 x 31	0.661	1/2	7/8	1 1/4	1 15/16	2 5/8
3/8	11/16	1	1 5/8	2 3/16	W16 x 36	0.702	1/2	7/8	1 3/16	1 7/8	2 9/16
3/8	11/16	15/16	1 1/2	2 1/16	W16 x 40	0.780	1/2	13/16	1 1/8	1 3/4	2 7/16
5/16	5/8	7/8	1 7/16	1 15/16	W16 x 45	0.870	7/16	3/4	1 1/16	1 11/16	2 1/4
5/16	5/8	13/16	1 5/16	1 7/8	W16 x 50	0.962	7/16	11/16	1	1 9/16	2 1/8
5/16	9/16	3/4	1 1/4	1 11/16	W16 x 57	1.090	3/8	11/16	15/16	1 7/16	2
5/16	9/16	3/4	1 1/4	1 11/16	W16 x 67	1.090	3/8	11/16	15/16	1 7/16	2
5/16	1/2	11/16	1 1/8	1 9/16	W16 x 77	1.250	3/8	5/8	7/8	1 5/16	1 13/16
5/16	7/16	5/8	1 1/16	1 7/16	W16 x 89	1.430	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	15/16	1 5/16	W16 x 100	1.590	5/16	1/2	3/4	1 1/8	1 1/2
3/8	3/4	1	1 5/8	2 1/4	W18 x 35	0.672	1/2	7/8	1 3/16	1 15/16	2 5/8
3/8	11/16	15/16	1 1/2	2 1/8	W18 x 40	0.768	1/2	13/16	1 1/8	1 13/16	2 7/16

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Unrestrained Beam

Flange Protection: Full and Half Flange Thickness

U.L. Design No: N782

Concrete Weight: Normal Weight Concrete

FULL FLANGE TIP THICKNESS					Member		HALF FLANGE TIP THICKNESS				
1 hr	1.5 hr	2 hr	3 hr	4 hr	Size x Wt	W/D	1 hr	1.5 hr	2 hr	3 hr	4 hr
5/16	5/8	7/8	1 7/16	1 15/16	W18 x 46	0.876	7/16	3/4	1 1/16	1 5/8	2 1/4
5/16	5/8	7/8	1 7/16	1 15/16	W18 x 50	0.880	7/16	3/4	1 1/16	1 5/8	2 1/4
5/16	5/8	13/16	1 5/16	1 7/8	W18 x 55	0.963	7/16	11/16	1	1 9/16	2 1/8
5/16	9/16	13/16	1 1/4	1 3/4	W18 x 60	1.040	7/16	11/16	15/16	1 1/2	2 1/16
5/16	9/16	3/4	1 3/16	1 11/16	W18 x 65	1.130	3/8	5/8	7/8	1 7/16	1 15/16
5/16	1/2	11/16	1 1/8	1 9/16	W18 x 71	1.220	3/8	5/8	7/8	1 3/8	1 13/16
5/16	9/16	3/4	1 3/16	1 11/16	W18 x 76	1.130	3/8	5/8	7/8	1 7/16	1 15/16
5/16	1/2	11/16	1 1/8	1 9/16	W18 x 86	1.270	3/8	5/8	13/16	1 5/16	1 13/16
5/16	1/2	5/8	1 1/16	1 7/16	W18 x 97	1.420	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 3/8	W18 x 106	1.550	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	9/16	15/16	1 1/4	W18 x 119	1.720	5/16	1/2	11/16	1 1/16	1 7/16
3/8	11/16	15/16	1 9/16	2 1/8	W21 x 44	0.746	1/2	13/16	1 1/8	1 13/16	2 1/2
5/16	5/8	7/8	1 7/16	2	W21 x 50	0.838	7/16	3/4	1 1/16	1 11/16	2 5/16
5/16	5/8	13/16	1 3/8	1 7/8	W21 x 57	0.952	7/16	11/16	1	1 9/16	2 1/8
5/16	5/8	13/16	1 3/8	1 7/8	W21 x 62	0.952	7/16	11/16	1	1 9/16	2 1/8
5/16	9/16	13/16	1 1/4	1 3/4	W21 x 68	1.040	7/16	11/16	15/16	1 1/2	2 1/16
5/16	9/16	3/4	1 1/4	1 11/16	W21 x 73	1.110	3/8	5/8	15/16	1 7/16	1 15/16
5/16	1/2	11/16	1 1/8	1 9/16	W21 x 83	1.260	3/8	5/8	13/16	1 5/16	1 13/16
5/16	1/2	5/8	1 1/16	1 7/16	W21 x 93	1.400	5/16	9/16	13/16	1 1/4	1 11/16
5/16	1/2	11/16	1 1/8	1 1/2	W21 x 101	1.300	3/8	9/16	13/16	1 5/16	1 3/4
5/16	7/16	5/8	1 1/16	1 7/16	W21 x 111	1.430	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 5/16	W21 x 122	1.570	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	9/16	15/16	1 1/4	W21 x 132	1.680	5/16	1/2	11/16	1 1/16	1 1/2
5/16	3/8	9/16	7/8	1 3/16	W21 x 147	1.870	5/16	7/16	5/8	1	1 3/8
5/16	5/8	7/8	1 7/16	2	W24 x 55	0.828	7/16	3/4	1 1/16	1 11/16	2 5/16
5/16	5/8	13/16	1 3/8	1 7/8	W24 x 62	0.934	7/16	3/4	1	1 9/16	2 3/16
5/16	5/8	13/16	1 3/8	1 7/8	W24 x 68	0.942	7/16	3/4	1	1 9/16	2 3/16
5/16	9/16	13/16	1 1/4	1 3/4	W24 x 76	1.050	7/16	11/16	15/16	1 1/2	2
5/16	9/16	3/4	1 3/16	1 5/8	W24 x 84	1.150	3/8	5/8	7/8	1 3/8	1 15/16
5/16	1/2	11/16	1 1/8	1 9/16	W24 x 94	1.280	3/8	5/8	13/16	1 5/16	1 3/4
5/16	1/2	11/16	1 1/8	1 9/16	W24 x 104	1.240	3/8	5/8	7/8	1 5/16	1 13/16
5/16	1/2	11/16	1 1/16	1 7/16	W24 x 117	1.380	3/8	9/16	13/16	1 1/4	1 11/16
5/16	7/16	5/8	1	1 3/8	W24 x 131	1.540	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	9/16	15/16	1 1/4	W24 x 146	1.700	5/16	1/2	11/16	1 1/16	1 7/16
5/16	3/8	9/16	7/8	1 3/16	W24 x 162	1.880	5/16	7/16	5/8	1	1 3/8
5/16	9/16	13/16	1 5/16	1 3/4	W27 x 84	1.030	7/16	11/16	15/16	1 1/2	2 1/16
5/16	9/16	3/4	1 3/16	1 5/8	W27 x 94	1.150	3/8	5/8	7/8	1 3/8	1 15/16
5/16	1/2	11/16	1 1/8	1 9/16	W27 x 102	1.240	3/8	5/8	7/8	1 5/16	1 13/16
5/16	1/2	5/8	1 1/16	1 7/16	W27 x 114	1.390	5/16	9/16	13/16	1 1/4	1 11/16
5/16	7/16	5/8	1	1 3/8	W27 x 129	1.560	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	5/8	1	1 3/8	W27 x 146	1.550	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	9/16	15/16	1 1/4	W27 x 161	1.700	5/16	1/2	11/16	1 1/16	1 7/16
5/16	3/8	9/16	7/8	1 3/16	W27 x 178	1.870	5/16	7/16	5/8	1	1 3/8
5/16	9/16	13/16	1 5/16	1 13/16	W30 x 90	1.020	7/16	11/16	15/16	1 1/2	2 1/16
5/16	9/16	3/4	1 3/16	1 11/16	W30 x 99	1.120	3/8	5/8	15/16	1 7/16	1 15/16
5/16	1/2	11/16	1 3/16	1 5/8	W30 x 108	1.210	3/8	5/8	7/8	1 3/8	1 7/8
5/16	1/2	11/16	1 1/8	1 1/2	W30 x 116	1.300	3/8	9/16	13/16	1 5/16	1 3/4
5/16	1/2	5/8	1 1/16	1 7/16	W30 x 124	1.390	5/16	9/16	13/16	1 1/4	1 11/16
5/16	7/16	5/8	1	1 3/8	W30 x 132	1.470	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	9/16	15/16	1 5/16	W30 x 173	1.660	5/16	1/2	11/16	1 1/16	1 1/2
5/16	3/8	9/16	7/8	1 3/16	W30 x 191	1.850	5/16	7/16	5/8	1	1 3/8
5/16	3/8	1/2	13/16	1 1/8	W30 x 211	2.010	5/16	7/16	5/8	15/16	1 5/16
5/16	1/2	11/16	1 3/16	1 5/8	W33 x 118	1.210	3/8	5/8	7/8	1 3/8	1 7/8
5/16	1/2	11/16	1 1/16	1 1/2	W33 x 130	1.320	3/8	9/16	13/16	1 1/4	1 3/4
5/16	7/16	5/8	1 1/16	1 7/16	W33 x 141	1.430	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 3/8	W33 x 152	1.530	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	9/16	15/16	1 1/4	W33 x 169	1.700	5/16	1/2	11/16	1 1/16	1 7/16
5/16	3/8	9/16	7/8	1 3/16	W33 x 201	1.790	5/16	1/2	11/16	1 1/16	1 3/8
5/16	3/8	1/2	13/16	1 1/8	W33 x 221	1.970	5/16	7/16	5/8	15/16	1 5/16

Beam For Unprotected Floor/Ceiling, Fluted/Form Deck, Concrete Slab

Products: Monokote® MK-6/HY, MK-6s, Z-106, Z-106/HY, Z-106/G, Z-146 and Retro-Guard® RG

Unrestrained Beam

Flange Protection: Full and Half Flange Thickness

U.L. Design No: N782

Concrete Weight: Normal Weight Concrete

FULL FLANGE TIP THICKNESS					Member		HALF FLANGE TIP THICKNESS				
1 hr	1.5 hr	2 hr	3 hr	4 hr	Size x Wt	W/D	1 hr	1.5 hr	2 hr	3 hr	4 hr
5/16	3/8	1/2	3/4	1 1/16	W33 x 241	2.130	5/16	7/16	9/16	15/16	1 1/4
5/16	1/2	11/16	1 1/8	1 9/16	W36 x 135	1.290	3/8	5/8	13/16	1 5/16	1 3/4
5/16	7/16	5/8	1 1/16	1 7/16	W36 x 150	1.430	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 3/8	W36 x 160	1.510	5/16	9/16	3/4	1 3/16	1 9/16
5/16	7/16	5/8	15/16	1 5/16	W36 x 170	1.600	5/16	1/2	11/16	1 1/8	1 1/2
5/16	7/16	9/16	15/16	1 1/4	W36 x 182	1.720	5/16	1/2	11/16	1 1/16	1 7/16
5/16	3/8	9/16	7/8	1 3/16	W36 x 194	1.810	5/16	1/2	11/16	1	1 3/8
5/16	3/8	1/2	13/16	1 1/8	W36 x 210	1.960	5/16	7/16	5/8	15/16	1 5/16
5/16	3/8	1/2	13/16	1 1/8	W36 x 230	1.950	5/16	7/16	5/8	1	1 5/16
5/16	3/8	1/2	13/16	1 1/16	W36 x 245	2.080	5/16	7/16	5/8	15/16	1 1/4
5/16	3/8	7/16	11/16	1	W36 x 256	2.370	5/16	3/8	9/16	13/16	1 1/8
5/16	3/8	1/2	3/4	1 1/16	W36 x 260	2.180	5/16	7/16	9/16	7/8	1 3/16
5/16	3/8	7/16	3/4	1	W36 x 280	2.350	5/16	3/8	9/16	13/16	1 1/8
5/16	3/8	7/16	11/16	15/16	W36 x 300	2.500	5/16	3/8	1/2	13/16	1 1/16
1/2	15/16	1 5/16	2 1/8	2 15/16	Other	0.37	11/16	1 1/8	1 9/16	2 1/2	3 7/16
1/2	15/16	1 5/16	2 1/8	2 15/16	Other	0.38	11/16	1 1/8	1 9/16	2 1/2	3 3/8
1/2	15/16	1 5/16	2 1/16	2 7/8	Other	0.39	11/16	1 1/8	1 9/16	2 7/16	3 3/8
1/2	15/16	1 1/4	2 1/16	2 7/8	Other	0.40	5/8	1 1/8	1 9/16	2 7/16	3 5/16
1/2	15/16	1 1/4	2 1/16	2 13/16	Other	0.41	5/8	1 1/16	1 1/2	2 3/8	3 1/4
7/16	7/8	1 1/4	2	2 13/16	Other	0.42	5/8	1 1/16	1 1/2	2 3/8	3 1/4
7/16	7/8	1 1/4	2	2 13/16	Other	0.43	5/8	1 1/16	1 1/2	2 3/8	3 3/16
7/16	7/8	1 1/4	2	2 3/4	Other	0.44	5/8	1 1/16	1 1/2	2 5/16	3 3/16
7/16	7/8	1 3/16	2	2 3/4	Other	0.45	5/8	1 1/16	1 7/16	2 5/16	3 3/16
7/16	7/8	1 3/16	1 15/16	2 11/16	Other	0.46	5/8	1 1/16	1 7/16	2 5/16	3 1/8
7/16	7/8	1 3/16	1 15/16	2 11/16	Other	0.47	5/8	1	1 7/16	2 1/4	3 1/8
7/16	7/8	1 3/16	1 15/16	2 11/16	Other	0.48	5/8	1	1 7/16	2 1/4	3 1/16
7/16	7/8	1 3/16	1 7/8	2 5/8	Other	0.49	5/8	1	1 7/16	2 1/4	3 1/16
7/16	13/16	1 3/16	1 7/8	2 5/8	Other	0.50	5/8	1	1 3/8	2 3/16	3
7/16	13/16	1 1/8	1 7/8	2 9/16	Other	0.51	9/16	1	1 3/8	2 3/16	3
7/16	13/16	1 1/8	1 7/8	2 9/16	Other	0.52	9/16	1	1 3/8	2 3/16	2 15/16
7/16	13/16	1 1/8	1 13/16	2 9/16	Other	0.53	9/16	1	1 3/8	2 1/8	2 15/16
7/16	13/16	1 1/8	1 13/16	2 1/2	Other	0.54	9/16	15/16	1 3/8	2 1/8	2 15/16
7/16	13/16	1 1/8	1 13/16	2 1/2	Other	0.55	9/16	15/16	1 5/16	2 1/8	2 7/8
7/16	13/16	1 1/8	1 13/16	2 1/2	Other	0.56	9/16	15/16	1 5/16	2 1/8	2 7/8
7/16	13/16	1 1/16	1 3/4	2 7/16	Other	0.57	9/16	15/16	1 5/16	2 1/16	2 13/16
7/16	13/16	1 1/16	1 3/4	2 7/16	Other	0.58	9/16	15/16	1 5/16	2 1/16	2 13/16
3/8	3/4	1 1/16	1 3/4	2 7/16	Other	0.59	9/16	15/16	1 5/16	2 1/16	2 13/16
3/8	3/4	1 1/16	1 3/4	2 3/8	Other	0.60	9/16	15/16	1 5/16	2	2 3/4
3/8	3/4	1 1/16	1 11/16	2 3/8	Other	0.61	9/16	15/16	1 1/4	2	2 3/4
3/8	3/4	1 1/16	1 11/16	2 3/8	Other	0.62	9/16	7/8	1 1/4	2	2 3/4
3/8	3/4	1 1/16	1 11/16	2 5/16	Other	0.63	9/16	7/8	1 1/4	2	2 11/16
3/8	3/4	1 1/16	1 11/16	2 5/16	Other	0.64	9/16	7/8	1 1/4	1 15/16	2 11/16
3/8	3/4	1	1 11/16	2 5/16	Other	0.65	1/2	7/8	1 1/4	1 15/16	2 11/16
3/8	3/4	1	1 5/8	2 5/16	Other	0.66	1/2	7/8	1 1/4	1 15/16	2 5/8
3/8	3/4	1	1 5/8	2 1/4	Other	0.67	1/2	7/8	1 3/16	1 15/16	2 5/8
3/8	3/4	1	1 5/8	2 1/4	Other	0.68	1/2	7/8	1 3/16	1 7/8	2 5/8
3/8	11/16	1	1 5/8	2 1/4	Other	0.69	1/2	7/8	1 3/16	1 7/8	2 9/16
3/8	11/16	1	1 5/8	2 3/16	Other	0.70	1/2	7/8	1 3/16	1 7/8	2 9/16
3/8	11/16	1	1 9/16	2 3/16	Other	0.71	1/2	13/16	1 3/16	1 7/8	2 9/16
3/8	11/16	1	1 9/16	2 3/16	Other	0.72	1/2	13/16	1 3/16	1 7/8	2 1/2
3/8	11/16	15/16	1 9/16	2 3/16	Other	0.73	1/2	13/16	1 3/16	1 13/16	2 1/2
3/8	11/16	15/16	1 9/16	2 1/8	Other	0.74	1/2	13/16	1 3/16	1 13/16	2 1/2
3/8	11/16	15/16	1 9/16	2 1/8	Other	0.75	1/2	13/16	1 1/8	1 13/16	2 7/16
3/8	11/16	15/16	1 1/2	2 1/8	Other	0.76	1/2	13/16	1 1/8	1 13/16	2 7/16
3/8	11/16	15/16	1 1/2	2 1/8	Other	0.77	1/2	13/16	1 1/8	1 3/4	2 7/16
3/8	11/16	15/16	1 1/2	2 1/16	Other	0.78	1/2	13/16	1 1/8	1 3/4	2 7/16
3/8	11/16	15/16	1 1/2	2 1/16	Other	0.79	1/2	13/16	1 1/8	1 3/4	2 3/8
3/8	11/16	15/16	1 1/2	2 1/16	Other	0.80	1/2	13/16	1 1/8	1 3/4	2 3/8
3/8	11/16	15/16	1 1/2	2 1/16	Other	0.81	1/2	13/16	1 1/8	1 3/4	2 3/8
5/16	5/8	7/8	1 7/16	2	Other	0.82	7/16	3/4	1 1/16	1 11/16	2 5/16
5/16	5/8	7/8	1 7/16	2	Other	0.83	7/16	3/4	1 1/16	1 11/16	2 5/16
5/16	5/8	7/8	1 7/16	2	Other	0.84	7/16	3/4	1 1/16	1 11/16	2 5/16
5/16	5/8	7/8	1 7/16	2	Other	0.85	7/16	3/4	1 1/16	1 11/16	2 5/16

Beam For Unprotected Floor/Ceiling, Fluted/Form Deck, Concrete Slab

Products: Monokote® MK-6/HY, MK-6s, Z-106, Z-106/HY,
Z-106/G, Z-146 and Retro-Guard® RG

Unrestrained Beam

Flange Protection: Full and Half Flange Thickness

U.L. Design No: N782

Concrete Weight: Normal Weight Concrete

FULL FLANGE TIP THICKNESS					Member		HALF FLANGE TIP THICKNESS				
1 hr	1.5 hr	2 hr	3 hr	4 hr	Size x Wt	W/D	1 hr	1.5 hr	2 hr	3 hr	4 hr
5/16	5/8	7/8	1 7/16	2	Other	0.86	7/16	3/4	1 1/16	1 11/16	2 1/4
5/16	5/8	7/8	1 7/16	1 15/16	Other	0.87	7/16	3/4	1 1/16	1 11/16	2 1/4
5/16	5/8	7/8	1 7/16	1 15/16	Other	0.88	7/16	3/4	1 1/16	1 5/8	2 1/4
5/16	5/8	7/8	1 3/8	1 15/16	Other	0.89	7/16	3/4	1 1/16	1 5/8	2 1/4
5/16	5/8	7/8	1 3/8	1 15/16	Other	0.90	7/16	3/4	1 1/16	1 5/8	2 1/4
5/16	5/8	7/8	1 3/8	1 15/16	Other	0.91	7/16	3/4	1	1 5/8	2 3/16
5/16	5/8	7/8	1 3/8	1 7/8	Other	0.92	7/16	3/4	1	1 5/8	2 3/16
5/16	5/8	13/16	1 3/8	1 7/8	Other	0.93	7/16	3/4	1	1 5/8	2 3/16
5/16	5/8	13/16	1 3/8	1 7/8	Other	0.94	7/16	3/4	1	1 9/16	2 3/16
5/16	5/8	13/16	1 3/8	1 7/8	Other	0.95	7/16	11/16	1	1 9/16	2 1/8
5/16	5/8	13/16	1 5/16	1 7/8	Other	0.96	7/16	11/16	1	1 9/16	2 1/8
5/16	5/8	13/16	1 5/16	1 13/16	Other	0.97	7/16	11/16	1	1 9/16	2 1/8
5/16	9/16	13/16	1 5/16	1 13/16	Other	0.98	7/16	11/16	1	1 9/16	2 1/8
5/16	9/16	13/16	1 5/16	1 13/16	Other	0.99	7/16	11/16	1	1 9/16	2 1/8
5/16	9/16	13/16	1 5/16	1 13/16	Other	1.00	7/16	11/16	1	1 1/2	2 1/16
5/16	9/16	13/16	1 5/16	1 13/16	Other	1.01	7/16	11/16	15/16	1 1/2	2 1/16
5/16	9/16	13/16	1 5/16	1 13/16	Other	1.02	7/16	11/16	15/16	1 1/2	2 1/16
5/16	9/16	13/16	1 5/16	1 3/4	Other	1.03	7/16	11/16	15/16	1 1/2	2 1/16
5/16	9/16	13/16	1 1/4	1 3/4	Other	1.04	7/16	11/16	15/16	1 1/2	2 1/16
5/16	9/16	13/16	1 1/4	1 3/4	Other	1.05	7/16	11/16	15/16	1 1/2	2
5/16	9/16	3/4	1 1/4	1 3/4	Other	1.06	3/8	11/16	15/16	1 1/2	2
5/16	9/16	3/4	1 1/4	1 3/4	Other	1.07	3/8	11/16	15/16	1 7/16	2
5/16	9/16	3/4	1 1/4	1 3/4	Other	1.08	3/8	11/16	15/16	1 7/16	2
5/16	9/16	3/4	1 1/4	1 11/16	Other	1.09	3/8	11/16	15/16	1 7/16	2
5/16	9/16	3/4	1 1/4	1 11/16	Other	1.10	3/8	11/16	15/16	1 7/16	1 15/16
5/16	9/16	3/4	1 1/4	1 11/16	Other	1.11	3/8	5/8	15/16	1 7/16	1 15/16
5/16	9/16	3/4	1 3/16	1 11/16	Other	1.12	3/8	5/8	15/16	1 7/16	1 15/16
5/16	9/16	3/4	1 3/16	1 11/16	Other	1.13	3/8	5/8	7/8	1 7/16	1 15/16
5/16	9/16	3/4	1 3/16	1 11/16	Other	1.14	3/8	5/8	7/8	1 7/16	1 15/16
5/16	9/16	3/4	1 3/16	1 5/8	Other	1.15	3/8	5/8	7/8	1 3/8	1 15/16
5/16	9/16	3/4	1 3/16	1 5/8	Other	1.16	3/8	5/8	7/8	1 3/8	1 7/8
5/16	9/16	3/4	1 3/16	1 5/8	Other	1.17	3/8	5/8	7/8	1 3/8	1 7/8
5/16	1/2	3/4	1 3/16	1 5/8	Other	1.18	3/8	5/8	7/8	1 3/8	1 7/8
5/16	1/2	3/4	1 3/16	1 5/8	Other	1.19	3/8	5/8	7/8	1 3/8	1 7/8
5/16	1/2	3/4	1 3/16	1 5/8	Other	1.20	3/8	5/8	7/8	1 3/8	1 7/8
5/16	1/2	11/16	1 3/16	1 5/8	Other	1.21	3/8	5/8	7/8	1 3/8	1 7/8
5/16	1/2	11/16	1 1/8	1 9/16	Other	1.22	3/8	5/8	7/8	1 3/8	1 13/16
5/16	1/2	11/16	1 1/8	1 9/16	Other	1.23	3/8	5/8	7/8	1 5/16	1 13/16
5/16	1/2	11/16	1 1/8	1 9/16	Other	1.24	3/8	5/8	7/8	1 5/16	1 13/16
5/16	1/2	11/16	1 1/8	1 9/16	Other	1.25	3/8	5/8	7/8	1 5/16	1 13/16
5/16	1/2	11/16	1 1/8	1 9/16	Other	1.26	3/8	5/8	13/16	1 5/16	1 13/16
5/16	1/2	11/16	1 1/8	1 9/16	Other	1.27	3/8	5/8	13/16	1 5/16	1 13/16
5/16	1/2	11/16	1 1/8	1 9/16	Other	1.28	3/8	5/8	13/16	1 5/16	1 3/4
5/16	1/2	11/16	1 1/8	1 9/16	Other	1.29	3/8	5/8	13/16	1 5/16	1 3/4
5/16	1/2	11/16	1 1/8	1 1/2	Other	1.30	3/8	9/16	13/16	1 5/16	1 3/4
5/16	1/2	11/16	1 1/8	1 1/2	Other	1.31	3/8	9/16	13/16	1 5/16	1 3/4
5/16	1/2	11/16	1 1/16	1 1/2	Other	1.32	3/8	9/16	13/16	1 1/4	1 3/4
5/16	1/2	11/16	1 1/16	1 1/2	Other	1.33	3/8	9/16	13/16	1 1/4	1 3/4
5/16	1/2	11/16	1 1/16	1 1/2	Other	1.34	3/8	9/16	13/16	1 1/4	1 3/4
5/16	1/2	11/16	1 1/16	1 1/2	Other	1.35	3/8	9/16	13/16	1 1/4	1 11/16
5/16	1/2	11/16	1 1/16	1 1/2	Other	1.36	3/8	9/16	13/16	1 1/4	1 11/16
5/16	1/2	11/16	1 1/16	1 1/2	Other	1.37	3/8	9/16	13/16	1 1/4	1 11/16
5/16	1/2	11/16	1 1/16	1 7/16	Other	1.38	3/8	9/16	13/16	1 1/4	1 11/16
5/16	1/2	5/8	1 1/16	1 7/16	Other	1.39	5/16	9/16	13/16	1 1/4	1 11/16
5/16	1/2	5/8	1 1/16	1 7/16	Other	1.40	5/16	9/16	13/16	1 1/4	1 11/16
5/16	1/2	5/8	1 1/16	1 7/16	Other	1.41	5/16	9/16	13/16	1 1/4	1 11/16
5/16	1/2	5/8	1 1/16	1 7/16	Other	1.42	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1 1/16	1 7/16	Other	1.43	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 7/16	Other	1.44	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 7/16	Other	1.45	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 7/16	Other	1.46	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 3/8	Other	1.47	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 3/8	Other	1.48	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 3/8	Other	1.49	5/16	9/16	3/4	1 3/16	1 5/8

Beam For Unprotected Floor/Ceiling, Fluted/Form Deck, Concrete Slab

Products: Monokote® MK-6/HY, MK-6s, Z-106, Z-106/HY, Z-106/G, Z-146 and Retro-Guard® RG

Unrestrained Beam

Flange Protection: Full and Half Flange Thickness

U.L. Design No: N782

Concrete Weight: Normal Weight Concrete

FULL FLANGE TIP THICKNESS					Member		HALF FLANGE TIP THICKNESS				
1 hr	1.5 hr	2 hr	3 hr	4 hr	Size x Wt	W/D	1 hr	1.5 hr	2 hr	3 hr	4 hr
5/16	7/16	5/8	1	1 3/8	Other	1.50	5/16	9/16	3/4	1 3/16	1 5/8
5/16	7/16	5/8	1	1 3/8	Other	1.51	5/16	9/16	3/4	1 3/16	1 9/16
5/16	7/16	5/8	1	1 3/8	Other	1.52	5/16	9/16	3/4	1 3/16	1 9/16
5/16	7/16	5/8	1	1 3/8	Other	1.53	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	5/8	1	1 3/8	Other	1.54	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	5/8	1	1 3/8	Other	1.55	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	5/8	1	1 3/8	Other	1.56	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	5/8	1	1 5/16	Other	1.57	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	5/8	15/16	1 5/16	Other	1.58	5/16	1/2	3/4	1 1/8	1 9/16
5/16	7/16	5/8	15/16	1 5/16	Other	1.59	5/16	1/2	3/4	1 1/8	1 1/2
5/16	7/16	5/8	15/16	1 5/16	Other	1.60	5/16	1/2	11/16	1 1/8	1 1/2
5/16	7/16	9/16	15/16	1 5/16	Other	1.61	5/16	1/2	11/16	1 1/8	1 1/2
5/16	7/16	9/16	15/16	1 5/16	Other	1.62	5/16	1/2	11/16	1 1/8	1 1/2
5/16	7/16	9/16	15/16	1 5/16	Other	1.63	5/16	1/2	11/16	1 1/8	1 1/2
5/16	7/16	9/16	15/16	1 5/16	Other	1.64	5/16	1/2	11/16	1 1/8	1 1/2
5/16	7/16	9/16	15/16	1 5/16	Other	1.65	5/16	1/2	11/16	1 1/8	1 1/2
5/16	7/16	9/16	15/16	1 5/16	Other	1.66	5/16	1/2	11/16	1 1/16	1 1/2
5/16	7/16	9/16	15/16	1 5/16	Other	1.67	5/16	1/2	11/16	1 1/16	1 1/2
5/16	7/16	9/16	15/16	1 1/4	Other	1.68	5/16	1/2	11/16	1 1/16	1 1/2
5/16	7/16	9/16	15/16	1 1/4	Other	1.69	5/16	1/2	11/16	1 1/16	1 7/16
5/16	7/16	9/16	15/16	1 1/4	Other	1.70	5/16	1/2	11/16	1 1/16	1 7/16
5/16	7/16	9/16	7/8	1 1/4	Other	1.75	5/16	1/2	11/16	1 1/16	1 7/16
5/16	3/8	9/16	7/8	1 3/16	Other	1.80	5/16	1/2	11/16	1	1 3/8
5/16	3/8	9/16	7/8	1 3/16	Other	1.85	5/16	7/16	5/8	1	1 3/8
5/16	3/8	1/2	7/8	1 3/16	Other	1.90	5/16	7/16	5/8	1	1 3/8
5/16	3/8	1/2	13/16	1 1/8	Other	1.95	5/16	7/16	5/8	1	1 5/16
5/16	3/8	1/2	13/16	1 1/8	Other	2.00	5/16	7/16	5/8	15/16	1 5/16
5/16	3/8	7/16	3/4	1	Other	2.25	5/16	3/8	9/16	7/8	1 3/16
5/16	3/8	7/16	11/16	15/16	Other	2.50	5/16	3/8	1/2	13/16	1 1/16
5/16	3/8	3/8	5/8	7/8	Other	2.75	5/16	3/8	1/2	3/4	1
5/16	3/8	3/8	5/8	13/16	Other	3.00	5/16	3/8	7/16	11/16	15/16
5/16	3/8	3/8	9/16	3/4	Other	3.25	5/16	3/8	7/16	5/8	7/8
5/16	3/8	3/8	1/2	3/4	Other	3.50	5/16	3/8	3/8	5/8	13/16
5/16	3/8	3/8	1/2	11/16	Other	3.75	5/16	3/8	3/8	9/16	13/16
5/16	3/8	3/8	1/2	5/8	Other	4.00	5/16	3/8	3/8	9/16	3/4
5/16	3/8	3/8	7/16	5/8	Other	4.25	5/16	3/8	3/8	1/2	11/16
5/16	3/8	3/8	7/16	9/16	Other	4.50	5/16	3/8	3/8	1/2	11/16
5/16	3/8	3/8	7/16	9/16	Other	4.75	5/16	3/8	3/8	1/2	5/8
5/16	3/8	3/8	3/8	9/16	Other	5.00	5/16	3/8	3/8	7/16	5/8
5/16	3/8	3/8	3/8	1/2	Other	5.25	5/16	3/8	3/8	7/16	9/16
5/16	3/8	3/8	3/8	1/2	Other	5.50	5/16	3/8	3/8	7/16	9/16
5/16	3/8	3/8	3/8	1/2	Other	5.75	5/16	3/8	3/8	7/16	9/16
5/16	3/8	3/8	3/8	7/16	Other	6.00	5/16	3/8	3/8	3/8	1/2
5/16	3/8	3/8	3/8	7/16	Other	6.25	5/16	3/8	3/8	3/8	1/2
5/16	3/8	3/8	3/8	7/16	Other	6.50	5/16	3/8	3/8	3/8	1/2
5/16	3/8	3/8	3/8	7/16	Other	6.75	5/16	3/8	3/8	3/8	1/2
5/16	3/8	3/8	3/8	3/8	Other	7.00	5/16	3/8	3/8	3/8	7/16
5/16	3/8	3/8	3/8	3/8	Other	8.00	5/16	3/8	3/8	3/8	7/16