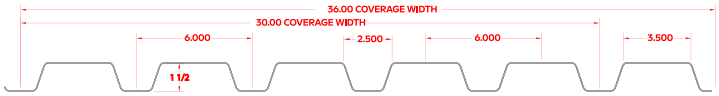
METAL DECKING SOLUTIONS

1.5 B-DECK G50



SECTION PROPERTIES (Per Foot of Width)

				Sec. Modulus		Deflection Moment of Inertia	Web Crippling Loads		Web Crippling Data			
				Midspan	Support							
Base Steel Thickness (in.)	GAGE	Yield Stress (ksi)	Weight G90 (psf)	S_{pos} (in^3)	S_{neg} (in^3)	I_{xd} (in^4)	N = 1.5" P_e (lb)	N = 3" P_i (lb)	P_{e1} End (lb)	P_{e2} End (lb)	P_{i1} Interior (lb)	P_{i2} Interior (lb)
0.0239	24	50	1.36	0.128	0.134	0.116	545	945	183	45.7	326	55.3
0.0295	22	50	1.66	0.169	0.175	0.156	803	1414	289	72.2	521	88.6
0.0358	20	50	2.01	0.209	0.223	0.200	1147	2041	438	109	798	136

ALLOWABLE UNIFORMLY DISTRIBUTED LOADS (psf)

Span Lenght (ft.)		MAX CO. CANTILEVER SPAN (ft-in.)	5.0		5.5		6.0		6.5		7.0		7.5		8.0		8.5		9.0		9.5		10.0	
			S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D
1- SPAN Bas Steel Thickness (in.)	24	6' 4"	102	61	85	46	71	35	61	28	52	22	45	18	40	15	35	12	32	10	28	9	26	8
	22	8' 5"	135	82	112	62	94	47	80	37	69	30	60	24	53	20	47	17	42	14	37	12	34	10
	20	10' 5"	167	105	138	79	116	61	99	48	85	38	74	31	65	26	58	21	51	18	46	15	42	13
2- SPAN Bas Steel Thickness (in.)	24	7' 10"	107	144	88	109	74	84	63	66	54	53	47	43	42	35	37	29	33	25	30	21	27	18
	22	10' 4"	140	195	116	146	97	113	83	89	71	71	62	58	55	48	48	40	43	33	39	28	35	24
	20	12' 9"	178	249	147	187	124	144	105	113	91	91	79	74	70	61	62	51	55	43	49	36	45	31
3- SPAN Bas Steel Thickness (in.)	24	8' 0"	133	114	110	86	93	66	79	52	68	42	59	34	52	28	46	23	41	20	37	17	33	14
	22	10' 6"	175	155	144	116	121	89	103	70	89	56	78	46	68	38	60	31	54	26	48	23	44	19
	20	13' 0"	223	197	184	148	155	114	132	90	114	72	99	58	87	48	77	40	69	34	62	29	56	25

Notes:

1 Based on ASTM A 653 structural steel.
2 Values in row "S" are based on strength.
3 Values in row "D" are based on deflection of SPAN LENGTH/240.
4 Pe = Allowable end web crippling load based on N = 1.5 in.
5 Pi = Allowable interior web crippling load based on N = 3.0 in.
6 Web crippling not included in strength calculations. See Example.
7 If bearing lengths are less than specified, see Example for use of web crippling data.
8 MAX CO. SPAN = Maximum construction span based on 200 lb concentrated load per foot of deck (ANSI/SDI RD-2017).
9 CANTIL. SPAN = Maximum construction cantilever span based on Eq. 2.4.3 of (ANSI/SDI RD-2017).
10 Allowable Strength Design (ASD) principles were used in accordance with AISI S100-16.
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GAGE	CANTILEVER SPAN
24	1' 7"
22	2' 0"
20	2' 6"