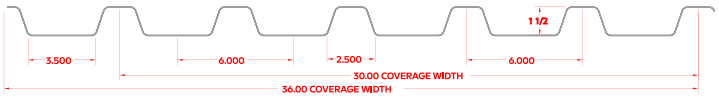
METAL DECKING SOLUTIONS

1.5 BR-DECK G37



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	37	1.36	0.140	0.137	0.144	403	700	135	33.8	241	40.9
0.0295	22	37	1.66	0.183	0.172	0.177	594	1047	214	53.4	386	65.6
0.0358	20	37	2.01	0.225	0.213	0.214	849	1510	324	81.0	591	100

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	5' 1"	83	75	68	57	57	44	49	34	42	27	37	22	32	18	29	15	25	13	23	11	21	9
	22	6' 8"	108	93	89	70	75	54	64	42	55	34	48	27	42	23	37	19	33	16	30	14	27	12
	20	8' 3"	133	112	110	84	92	65	79	51	68	41	59	33	52	27	46	23	41	19	37	16	33	14
2- SPAN Bas Steel Thickness (in.)	24	6' 4"	81	179	67	135	56	104	48	82	41	65	36	53	32	44	28	37	25	31	22	26	20	22
	22	8' 3"	102	221	84	166	71	128	60	101	52	81	45	65	40	54	35	45	31	38	28	32	25	28
	20	10' 2"	126	267	104	201	87	155	74	122	64	97	56	79	49	65	43	54	39	46	35	39	31	33
3- SPAN Bas Steel Thickness (in.)	24	6' 5"	101	142	83	107	70	82	60	65	52	52	45	42	39	35	35	29	31	24	28	21	25	18
	22	8' 5"	127	175	105	132	88	101	75	80	65	64	57	52	50	43	44	36	39	30	35	26	32	22
	20	10' 4"	157	212	130	159	109	123	93	96	80	77	70	63	61	52	54	43	48	36	43	31	39	26

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' 2"
22	1' 6"
20	1' 10"