



N DECK TECHNICAL SHEET

N DECK SECTION PROPERTIES (PER FOOT OF WIDTH)

Base Steel Thickness	Weight (psf)	Yield Stress (ksi)	Section Modulus (in ³ /ft)		Deflection Moment of Inertia (in ⁴ /ft)		Allowable Bending		V _n /Ω (lbs/ft)	Allowable Web Crippling					
							M _p /Ω (in-lbs/ft)	M _n /Ω (in-lbs/ft)		End Bearing			Interior Bearing		
			S _{e+}	S _{e-}	I _{d+}	I _{d-}				1-1/2"	2"	3"	1-1/2"	2"	3"
22GA (0.0295")	1.8	50	0.357	0.396	0.699	0.833	10,681	11,843	2,653	581	639	735	942	1,022	1,156
20GA (0.0358")	2.2	50	0.466	0.528	0.872	1.054	13,942	15,799	4,206	838	918	1,052	1,364	1,474	1,660
18GA (0.0474")	2.9	50	0.692	0.751	1.206	1.443	20,728	22,472	7,289	1,418	1,546	1,761	2,324	2,500	2,795
16GA (0.0598")	3.7	50	0.898	0.966	1.597	1.840	26,886	28,922	9,318	2,188	2,376	2,692	3,609	3,866	4,297

N DECK CONSTRUCTION SPANS

Span Condition	Gage	ASD Span	ASD Cantilever Span	Construction Span Notes
Single	22	16'-7"	4'-4"	1. All construction load spans are calculated using a 200lb service load on a 1ft width of deck, in accordance with ANSI/SDI RD-2017 and ANSI/SDI SD-2022.
	20	20'-10"	5'-7"	
	18	28'-7"	7'-6"	
	16	34'-1"	9'-2"	
Double or Triple	22	20'-2"		2. All cantilever construction load spans are calculated using a 200lb service load on a 1ft width of deck and a 10psf uniform distributed load, in accordance with ANSI/SDI RD-2017 and ANSI/SDI SD-2022.
	20	25'-3"		
	18	34'-5"		
	16	40'-8"		

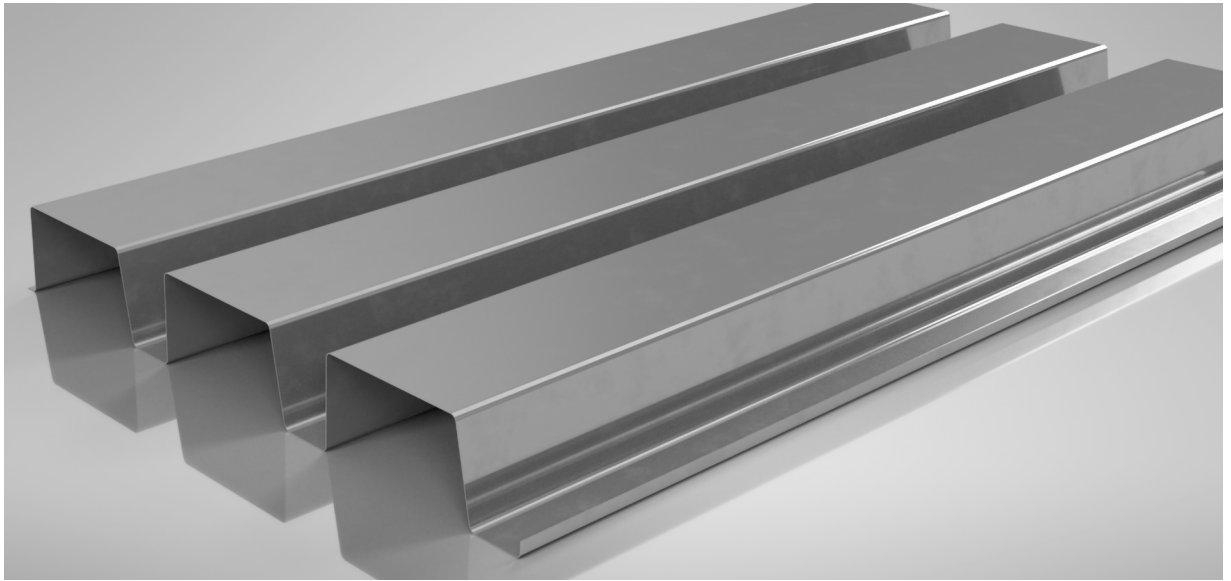
N DECK ALLOWABLE UNIFORMLY DISTRIBUTED LOADS (PSF)

Span Length (ft)		SINGLE SPAN BASE STEEL THICKNESS (GAGE)				DOUBLE SPAN BASE STEEL THICKNESS (GAGE)				TRIPLE SPAN BASE STEEL THICKNESS (GAGE)			
		22	20	18	16	22	20	18	16	22	20	18	16
10'-0"	Strength	69	91	135	176	77	103	147	189	97	129	184	237
	Defl.	46	57	79	105	110	138	191	252	86	108	149	198
	Uplift	81	108	153	197	73	95	141	183	91	118	176	228
11'-0"	Strength	57	75	111	144	63	85	121	156	80	107	152	195
	Defl.	34	43	59	79	83	104	143	190	65	81	112	148
	Uplift	67	89	127	163	61	79	117	152	75	98	146	189
12'-0"	Strength	48	62	93	121	53	71	101	130	67	89	127	164
	Defl.	27	33	46	61	64	80	110	146	50	62	86	114
	Uplift	57	75	107	138	51	67	99	128	64	83	123	159
13'-0"	Strength	40	53	79	102	45	60	86	110	57	76	108	139
	Defl.	21	26	36	48	50	63	87	115	39	49	68	90
	Uplift	49	65	92	118	44	57	85	110	54	71	105	136
14'-0"	Strength	35	45	68	88	38	52	74	95	49	65	93	119
	Defl.	17	21	29	38	40	50	69	92	32	39	54	72
	Uplift	42	56	79	102	38	50	73	95	47	61	91	118
15'-0"	Strength	30	39	59	76	33	45	64	82	42	56	80	103
	Defl.	14	17	23	31	33	41	56	75	26	32	44	59
	Uplift	37	49	69	89	33	44	64	83	41	54	80	103
16'-0"	Strength	26	34	51	66	29	39	56	72	37	49	70	90
	Defl.	11	14	19	26	27	34	47	62	21	26	36	48
	Uplift	33	43	61	79	30	39	57	74	37	48	70	91
17'-0"	Strength	23	30	45	58	26	34	49	63	32	43	62	80
	Defl.	9	12	16	21	22	28	39	51	18	22	30	40
	Uplift	29	39	55	70	26	34	51	66	33	42	63	81
18'-0"	Strength	20	26	40	52	23	30	43	56	29	38	55	71
	Defl.	8	10	14	18	19	24	33	43	15	18	26	34
	Uplift	26	35	49	63	24	31	46	59	29	38	56	73
19'-0"	Strength	18	24	35	46	20	27	39	50	26	34	49	63
	Defl.	7	8	12	15	16	20	28	37	13	16	22	29
	Uplift	24	31	44	57	22	28	41	53	26	34	51	66
20'-0"	Strength	16	21	32	41	18	24	35	45	23	31	44	57
	Defl.	6	7	10	13	14	17	24	32	11	13	19	25
	Uplift	22	29	40	52	20	25	37	49	24	31	46	60

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1. All section properties, ASD flexural strengths, and ASD ($\Omega = 1.67$) uniform loads are calculated in accordance with ANSI/SDI RD-2017, ANSI/SDI SD-2022, AISI S100-2012 and AISI S100-2016
2. Loads shown in tables are uniformly distributed superimposed loads in psf. Span length assumes center-to-center spacing of supports. Tabulated loads shall not be increased by assuming clear span dimensions.
3. For loads that cause L/120 Deflection, multiply by 2.0. For loads that cause L/180 Deflection, multiply by 1.33. For loads that cause L/360 Deflection, multiply by 0.667.



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