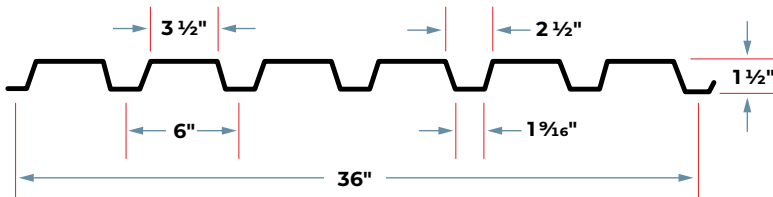


B-DECK

GRADE 33 STEEL



Options

- Vented
- Hanger Tabs

Section Properties

Gage	Design Thickness (inches)	Weight (psf)	F _y (ksi)	S _e + (inch ³) per foot	S _e - (inch ³) per foot	ASD (Ω = 1.67)		I _d + (inch ⁴) per ft.	I _d - (inch ⁴) per ft.
						M _p /Ω (inch-lbs per ft)	M _n /Ω (inch-lbs per foot)		
22	0.0295	1.6	33	0.175	0.187	3450	3686	0.149	0.173
20	0.0358	2.0	33	0.222	0.236	4380	4657	0.191	0.218
18	0.0474	2.6	33	0.302	0.312	5961	6165	0.270	0.290
16	0.0598	3.0	33	0.386	0.390	7628	7700	0.357	0.363

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016.

Shear and Web Crippling

Gage	V _n /Ω (lbs/ft)	Web Crippling (R _n /Ω), lbs/ft One Flange Loading End Bearing			Web Crippling (R _n /Ω), lbs/ft One Flange Loading Interior Bearing		
		1-1/2"	2"	3"	1-1/2"	2"	3"
		22	1939	528	581	669	724
20	3042	755	827	948	1059	1145	1289
18	4025	1263	1377	1569	1830	1969	2201
16	4975	1934	2101	2380	2867	3071	3414

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016.

Allowable Uniform Downward Loads, ASD (PSF)

Span	Gage	5'-0"	5"-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"
Single	22	92	76	64	54	47	41	36	32	28	25	23
	20	117	97	81	69	60	52	46	40	36	32	29
	18	159	131	110	94	81	71	62	55	49	44	40
	16	203	168	141	120	104	90	79	70	63	56	51
Double	22	98	81	68	58	50	44	38	34	30	27	25
	20	124	103	86	73	63	55	49	43	38	34	31
	18	164	136	114	97	84	73	64	57	51	46	41
	16	205	170	143	121	105	91	80	71	63	57	51
Triple	22	123	102	85	73	63	55	48	43	38	34	31
	20	155	128	108	92	79	69	61	54	48	43	39
	18	206	170	143	122	105	91	80	71	63	57	51
	16	257	212	178	152	131	114	100	89	79	71	64

Allowable Uniform Upward Loads, ASD (PSF)

Span	Gage	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"
Single	22	98	81	68	58	50	44	38	34	30	27	25
	20	124	103	86	73	63	55	49	43	38	34	31
	18	164	136	114	97	84	73	64	57	51	46	41
	16	205	170	143	121	105	91	80	71	63	57	51
Double	22	92	76	64	54	47	41	36	32	28	25	23
	20	117	97	81	69	60	52	46	40	36	32	29
	18	159	131	110	94	81	71	62	55	49	44	40
	16	203	168	141	120	104	90	79	70	63	56	51
Triple	22	115	95	80	68	59	51	45	40	35	32	29
	20	146	121	101	86	74	65	57	51	45	40	37
	18	199	164	138	118	101	88	78	69	61	55	50
	16	254	210	177	150	130	113	99	88	78	70	64

- Notes**
- All section properties and ASD ($\Omega = 1.67$) uniform loads are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016
 - 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.
 - Bending Moment formulae used for flexural stress limitations are: Simple and Two Span $M = \frac{wL^2}{8}$ Three Span or More $M = \frac{wL^2}{10}$
 - Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.

Uniform Superimposed Service Load that Causes L/240 Deflection (PSF)

Span	Gage	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"
Single	22	78	59	45	36	29	23	19	16	13	11	10
	20	100	75	58	46	37	30	25	20	17	15	13
	18	142	107	82	65	52	42	35	29	24	21	18
	16	187	141	108	85	68	56	46	38	32	27	23
Double	22	188	141	109	86	69	56	46	38	32	27	24
	20	242	182	140	110	88	72	59	49	41	35	30
	18	341	257	198	155	124	101	83	69	59	50	43
	16	451	339	261	205	164	134	110	92	77	66	56
Triple	22	147	111	85	67	54	44	36	30	25	21	18
	20	189	142	109	86	69	56	46	38	32	28	24
	18	267	201	155	122	97	79	65	54	46	39	33
	16	353	265	204	161	129	105	86	72	61	51	44

Note
 For loads that cause L/120 Deflection, multiply by 2.0. For loads that cause L/180 Deflection, multiply by 1.5. For loads that cause L/360 Deflection, multiply by 0.667.

Maximum Construction and Cantilever Spans

Span	Gage	ASD Span	ASD Cantilever Span
Single	22	5'-9"	1'-6"
	20	7'-4"	1'-11"
	18	9'-11"	2'-7"
	16	12'-9"	3'-2"
Double or Triple	22	7'-1"	
	20	9'-0"	
	18	12'-3"	
	16	15'-8"	

- Notes**
- All construction load spans are calculated using a 200 pound service load on a 1 foot width of deck, in accordance with ANSI/SDI RD-2017.
 - All cantilever construction load spans are calculated using a 200 pound service load on a 1 foot width of deck and a 10 psf uniform distributed load, in accordance with ANSI/SDI RD-2017.

