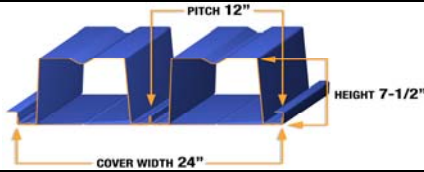


SECTION PROPERTIES $f_y = 40 \text{ ksi}$

GAGE	Wd	I _D (DEFLECTION)	Sp	S _n	R _{be}			R _{bi}		V _a
					4"	5"	6"	5"	6"	
20/20	5.16	13.550	2.057	2.900	797	865	927	1606	1708	1686
20/18	5.73	14.605	2.057	3.002	797	865	927	1606	1708	1686
18/20	6.27	17.776	3.190	3.763	1372	1484	1586	2668	2829	3919
18/18	6.84	18.940	3.178	3.886	1372	1484	1586	2668	2829	3919
18/16	7.45	19.976	3.170	3.999	1372	1484	1586	2668	2829	3919



LRFD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LRFD LOADS, psf														
Span	Load Combinations	SINGLE SPAN					DOUBLE SPAN					TRIPLE SPAN				
		GAGE														
		20/20	20/18	18/20	18/18	18/16	20/20	20/18	18/20	18/18	18/16	20/20	20/18	18/20	18/18	18/16
15'-0"	$\lambda_D D + \lambda_L L$ (Strength)	100*	99*	175*	175*	174*	85*	84*	143*	143*	142*	97*	97*	164*	163*	163*
	D+L (Deflection)	100	99	175	175	174	85	84	143	143	142	97	97	164	163	163
	L (Deflection)	100	99	175	175	174	85	84	143	143	142	97	97	164	163	163
16'-0"	$\lambda_D D + \lambda_L L$ (Strength)	93*	93*	164*	163*	163*	79*	79*	134*	133*	133*	91*	90*	153*	153*	153*
	D+L (Deflection)	93	93	164	163	163	79	79	134	133	133	91	90	153	153	153
	L (Deflection)	93	93	164	163	163	79	79	134	133	133	91	90	153	153	153
17'-0"	$\lambda_D D + \lambda_L L$ (Strength)	88*	87*	154*	153*	153*	74*	74*	126*	125*	125*					
	D+L (Deflection)	88	87	154	153	153	74	74	126	125	125					
	L (Deflection)	88	87	154	153	153	74	74	126	125	125					
18'-0"	$\lambda_D D + \lambda_L L$ (Strength)	82*	82*	145*	144*	144*	70*	69*	118*	118*	118*					
	D+L (Deflection)	82	82	145	144	144	70	69	118	118	118					
	L (Deflection)	82	82	145	144	144	70	69	118	118	118					
19'-0"	$\lambda_D D + \lambda_L L$ (Strength)	78*	77*	137*	136*	136*	66*	65*	112*	111*	111*					
	D+L (Deflection)	78	77	137	136	136	66	65	112	111	111					
	L (Deflection)	78	77	137	136	136	66	65	112	111	111					
20'-0"	$\lambda_D D + \lambda_L L$ (Strength)	73*	73*	130*	129*	129*	62*	61*	106*	105*	105*					
	D+L (Deflection)	73	73	130	129	129	62	61	106	105	105					
	L (Deflection)	73	73	130	129	129	62	61	106	105	105					
21'-0"	$\lambda_D D + \lambda_L L$ (Strength)	70*	69*	123*	122*	122*	59*	58*	100*	100*	100*					
	D+L (Deflection)	70	69	123	122	122	59	58	100	100	100					
	L (Deflection)	70	69	123	122	122	59	58	100	100	100					
22'-0"	$\lambda_D D + \lambda_L L$ (Strength)	66*	66*	117*	116*	116*	56*	55*	95*	95*	95*					
	D+L (Deflection)	66	66	117	116	116	56	55	95	95	95					
	L (Deflection)	66	66	117	116	116	56	55	95	95	95					
23'-0"	$\lambda_D D + \lambda_L L$ (Strength)	63*	62*	112*	111*	111*	53*	53*	91*	90*	90*					
	D+L (Deflection)	63	62	112	111	111	53	53	91	90	90					
	L (Deflection)	63	62	112	111	111	53	53	91	90	90					
24'-0"	$\lambda_D D + \lambda_L L$ (Strength)	60*	60*	107*	106*	106*	51*	50*	87*	86*	86*					
	D+L (Deflection)	60	60	107	106	106	51	50	87	86	86					
	L (Deflection)	60	60	107	106	106	51	50	87	86	86					
25'-0"	$\lambda_D D + \lambda_L L$ (Strength)	58*	57*	102*	102*	102*										
	D+L (Deflection)	58	57	102	102	102										
	L (Deflection)	58	57	102	102	102										
26'-0"	$\lambda_D D + \lambda_L L$ (Strength)	55*	54*	98*	97*	97*										
	D+L (Deflection)	55	54	98	97	97										
	L (Deflection)	55	54	98	97	97										
27'-0"	$\lambda_D D + \lambda_L L$ (Strength)	53*	52*	94*	93*	93*										
	D+L (Deflection)	53	52	94	93	93										
	L (Deflection)	53	52	94	93	93										
28'-0"	$\lambda_D D + \lambda_L L$ (Strength)	51*	50*	90*	90*	90*										
	D+L (Deflection)	51	50	90	90	90										
	L (Deflection)	51	50	90	90	90										

15'-0"	$\lambda_D D + \lambda_L L$ (Strength)	100*
	D+L (Deflection)	100
	L (Deflection)	100

- Max. superimposed factored LRFD dead + live load (psf) (governed by strength limitation)
- Max. superimposed unfactored LRFD dead + live load (psf) (governed by deflection limitation)
- Max. superimposed unfactored LRFD live load (psf) (governed by deflection limitation)
- Vertical load span (center to center spacing)

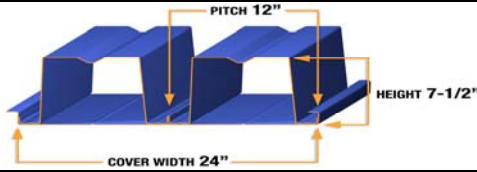
- Wd Weight of deck (uncoated), psf
- I_D Moment of inertia for deflection per foot of deck width (in⁴/ft)
- Sp Section modulus for positive bending per foot of deck width, (in³/ft)
- S_n Section modulus for negative bending per foot of deck width, (in³/ft)
- λ_D, λ_L Load factors for D & L loads to be applied by Engineer in accordance with Building Codes.
- R_{be} Allowable exterior web crippling value per foot of deck, plf
- R_{bi} Allowable interior web crippling value per foot of deck, plf
- V_a Allowable shear value per foot of deck width, plf
- D Uniform dead load, psf
- L Uniform live load, psf

- Notes:
- Bending strength based on flexural stress limit of 38 ksi.
 - Loads marked with asterisk (*) are governed by moment & shear, interior (6" bearing) and exterior (4" bearing) reactions (web crippling) or moment & reactions.
 - Deflection based on maximum dead + live load deflection of L/240 or 1 in. and on maximum live load deflection of L/360 or 1 in.
 - An upper limit of 400 psf has been applied to the loads.
 - Deck length over 45'-0" require inquiry and special accommodations. Please contact the Metal-Dek Group® for further information.

The section properties table is based on 2001 AISI's North American Specification for the Design of Cold-Formed Steel Structural Members (2004 Supplement).
Acoustical profile is also available.

SECTION PROPERTIES $f_y = 40 \text{ ksi}$

GAGE	Wd	I _D (DEFLECTION)	S _p	S _n	R _{be}			R _{bi}		V _a
					4"	5"	6"	5"	6"	
16/18	8.02	23.142	4.597	4.818	2133	2302	2455	4057	4293	7881
16/16	8.62	24.652	4.567	4.952	2133	2302	2455	4057	4293	7881
16/14	9.36	25.988	4.544	5.076	2133	2302	2455	4057	4293	7881
14/16	10.04	29.051	6.358	6.081	3240	3487	3710	6060	6397	15392
14/14	10.77	30.874	6.444	6.245	3240	3487	3710	6060	6397	15392



LRFD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LRFD LOADS, psf														
Span	Load Combinations	SINGLE SPAN					DOUBLE SPAN					TRIPLE SPAN				
		GAGE														
		16/18	16/16	16/14	14/16	14/14	16/18	16/16	16/14	14/16	14/14	16/18	16/16	16/14	14/16	14/14
22'-0"	$\lambda_D D + \lambda_L L$ (Strength)	184*	184*	183*	282*	282*	146*	146*	145*	221*	220*					
	D+L (Deflection)	122	130	136	153	162	146	146	145	221	220					
	L (Deflection)	95	101	107	119	127	146	146	145	221	220					
23'-0"	$\lambda_D D + \lambda_L L$ (Strength)	176*	175*	174*	270*	270*	140*	139*	138*	210*	210*					
	D+L (Deflection)	101	107	113	126	135	140	139	138	210	210					
	L (Deflection)	83	89	93	105	111	140	139	138	210	210					
24'-0"	$\lambda_D D + \lambda_L L$ (Strength)	168*	167*	167*	258*	258*	133*	133*	132*	201*	201*					
	D+L (Deflection)	84	89	94	105	112	133	133	132	201	201					
	L (Deflection)	73	78	82	92	98	133	133	132	201	201					
25'-0"	$\lambda_D D + \lambda_L L$ (Strength)	161*	160*	159*	246	247*										
	D+L (Deflection)	70	74	78	88	94										
	L (Deflection)	65	69	73	81	86										
26'-0"	$\lambda_D D + \lambda_L L$ (Strength)	154*	154*	153*	226	229										
	D+L (Deflection)	58	62	65	73	79										
	L (Deflection)	58	61	65	72	77										
27'-0"	$\lambda_D D + \lambda_L L$ (Strength)	148*	148*	147	209	212										
	D+L (Deflection)	49	52	55	62	66										
	L (Deflection)	49	52	55	62	66										
28'-0"	$\lambda_D D + \lambda_L L$ (Strength)	139	137	136	193	196										
	D+L (Deflection)	41	44	46	52	56										
	L (Deflection)	41	44	46	52	56										
29'-0"	$\lambda_D D + \lambda_L L$ (Strength)	129	127	126	179	182										
	D+L (Deflection)	35	37	39	44	47										
	L (Deflection)	35	37	39	44	47										
30'-0"	$\lambda_D D + \lambda_L L$ (Strength)	120	118	117	167	169										
	D+L (Deflection)	30	31	33	37	40										
	L (Deflection)	30	31	33	37	40										
31'-0"	$\lambda_D D + \lambda_L L$ (Strength)	112	110	109	156	158										
	D+L (Deflection)	25	26	28	31	34										
	L (Deflection)	25	26	28	31	34										
32'-0"	$\lambda_D D + \lambda_L L$ (Strength)	104	103	101	145	147										
	D+L (Deflection)	21	22	23	26	29										
	L (Deflection)	21	22	23	26	29										
33'-0"	$\lambda_D D + \lambda_L L$ (Strength)	97	96	94	136	138										
	D+L (Deflection)	18	19	19	22	24										
	L (Deflection)	18	19	19	22	24										
34'-0"	$\lambda_D D + \lambda_L L$ (Strength)	91	90	88	127	129										
	D+L (Deflection)	15	16	16	19	20										
	L (Deflection)	15	16	16	19	20										
35'-0"	$\lambda_D D + \lambda_L L$ (Strength)	85	84	83	119	121										
	D+L (Deflection)	12	13	13	15	17										
	L (Deflection)	12	13	13	15	17										

22'-0"	$\lambda_D D + \lambda_L L$ (Strength)	184*	← Max. superimposed factored LRFD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	122	← Max. superimposed unfactored LRFD dead + live load (psf) (governed by deflection limitation)
	L (Deflection)	95	← Max. superimposed unfactored LRFD live load (psf) (governed by deflection limitation)

Vertical load span (center to center spacing)

- Wd Weight of deck (uncoated), psf
- I_D Moment of inertia for deflection per foot of deck width (in⁴/ft)
- S_p Section modulus for positive bending per foot of deck width, (in³/ft)
- S_n Section modulus for negative bending per foot of deck width, (in³/ft)
- λ_D, λ_L Load factors for D & L loads to be applied by Engineer in accordance with Building Codes.
- R_{be} Allowable exterior web crippling value per foot of deck, plf
- R_{bi} Allowable interior web crippling value per foot of deck, plf
- V_a Allowable shear value per foot of deck width, plf
- D Uniform dead load, psf
- L Uniform live load, psf

- Notes:
- Bending strength based on flexural stress limit of 38 ksi.
 - Loads marked with asterisk (*) are governed by moment & shear, interior (6" bearing) and exterior (4" bearing) reactions (web crippling) or moment & reactions.
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