

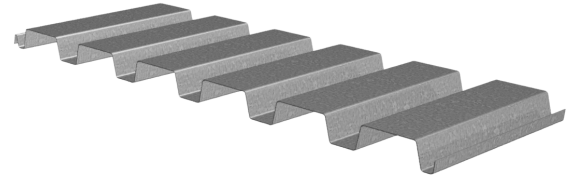
1.5B-36/1.5BI-36/1.5PLB-36 ROOF DECKS

GRADE 80 STEEL

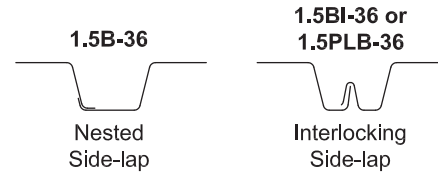
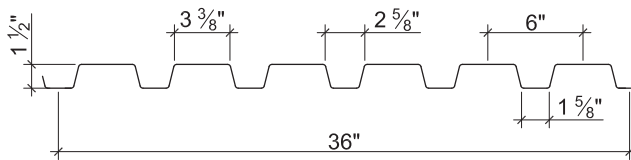
ASD

1.5B ROOF DECKS

- 1.5B-36 Deck used with Side-lap Screws
- 1.5BI-36 Deck used with TSWs or BPs
- 1.5PLB-36 Deck used with PunchLok® II System



Nominal Dimensions



Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e + I_g)/3$		Effective Section Modulus at $F_y = 60$ ksi		Allowable Moment		Vertical Web Shear V_n/Ω (lb/ft)
				I_{d+} (in ⁴ /ft)	I_{d-} (in ⁴ /ft)	S_{e+} (in ³ /ft)	S_{e-} (in ³ /ft)	M_{n+}/Ω (lb-ft/ft)	M_{n-}/Ω (lb-ft/ft)	
24	1.3	0.0239	60	0.118	0.138	0.120	0.131	359	392	1551
22	1.6	0.0295	60	0.151	0.175	0.162	0.173	485	518	3186
20	2.0	0.0358	60	0.192	0.217	0.215	0.223	644	668	3848
19	2.3	0.0418	60	0.232	0.254	0.263	0.271	787	811	4473
18	2.6	0.0474	60	0.272	0.290	0.302	0.315	904	943	5051

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
	1 1/2"	2"	3"	4"	3"	4"	1 1/2"	2"	3"	4"	3"	4"
24	657	724	837	918	1197	1300	639	691	778	840	1460	1594
22	969	1065	1226	1338	1778	1922	1011	1089	1220	1312	2201	2392
20	1383	1515	1737	1888	2553	2747	1529	1641	1830	1959	3195	3458
19	1839	2009	2295	2486	3406	3652	2120	2269	2520	2687	4295	4631
18	2317	2526	2878	3105	4303	4597	2757	2944	3260	3464	5455	5861

Standard Features

- ASTM A653 SS GR80, with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR80 with gray primer
- Standard lengths – 6'-0" to 42'-0"
- IAPMO UES ER-0652, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
 - Short cuts < 6'-0"
 - Sheet Lengths > 42'-0"
 - Alternative metallic and painted finishes
- Web Perforated Acoustical Versions

1.5B-36/1.5BI-36/1.5PLB-36 ROOF DECKS

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Inward Uniform Allowable Loads, ASD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.)										
			2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
24	Single	W_n / Ω	719	319	180	115	80	59	45	35	29	24	20
		L/240	---	287	121	62	36	23	15	11	8	6	4
	Double	W_n / Ω	663	321	187	122	85	63	48	38	31	26	22
		L/240	---	---	---	---	---	---	43	30	22	16	13
	Triple	W_n / Ω	781	389	229	150	106	78	60	48	39	32	27
		L/240	---	---	---	137	79	50	33	23	17	13	10
22	Single	W_n / Ω	970	431	243	155	108	79	61	48	39	32	27
		L/240	---	367	155	79	46	29	19	14	10	7	6
	Double	W_n / Ω	960	444	254	164	114	84	64	51	41	34	29
		L/240	---	---	---	---	---	81	54	38	28	21	16
	Triple	W_n / Ω	1164	547	315	203	142	105	80	64	52	43	36
		L/240	---	---	---	173	100	63	42	30	22	16	13
20	Single	W_n / Ω	1287	572	322	206	143	105	80	64	51	43	36
		L/240	---	466	197	101	58	37	25	17	13	9	7
	Double	W_n / Ω	1225	570	326	211	147	108	83	66	53	44	37
		L/240	---	---	---	---	---	100	67	47	34	26	20
	Triple	W_n / Ω	1481	701	404	261	183	135	103	82	66	55	46
		L/240	---	---	---	215	124	78	52	37	27	20	16
19	Single	W_n / Ω	1575	700	394	252	175	129	98	78	63	52	44
		L/240	---	563	238	122	70	44	30	21	15	11	9
	Double	W_n / Ω	1478	690	396	255	178	131	101	80	65	53	45
		L/240	---	---	---	---	---	117	78	55	40	30	23
	Triple	W_n / Ω	1782	847	489	317	222	164	126	99	81	67	56
		L/240	---	---	---	252	146	92	61	43	31	24	18
18	Single	W_n / Ω	1808	804	452	289	201	148	113	89	72	60	50
		L/240	---	660	279	143	83	52	35	24	18	13	10
	Double	W_n / Ω	1709	800	459	297	207	153	117	93	75	62	52
		L/240	---	---	---	---	---	134	89	63	46	34	27
	Triple	W_n / Ω	2057	982	568	368	258	190	146	116	94	78	65
		L/240	---	---	561	287	166	105	70	49	36	27	21

Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "----" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.

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