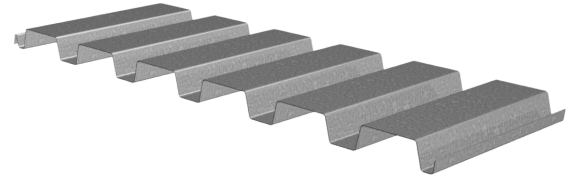


1.5B-36/1.5BI-36/1.5PLB-36 ROOF DECKS GRADE 50 STEEL

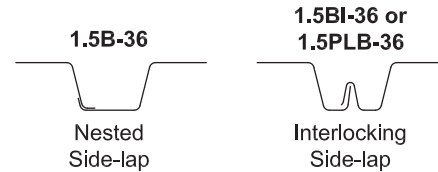
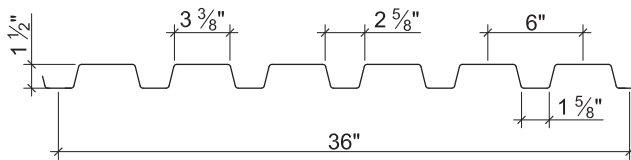
ASD

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 $F_y = 50$ 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)	
22	1.6	0.0295	50	0.155	0.178	0.169	0.179	422	447	2654
20	2.0	0.0358	50	0.197	0.217	0.224	0.229	559	571	3207
19	2.3	0.0418	50	0.239	0.257	0.266	0.278	663	693	3728
18	2.6	0.0474	50	0.277	0.290	0.306	0.318	763	793	4209
16	3.3	0.0598	50	0.364	0.367	0.393	0.402	981	1003	5261

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"
22	807	887	1021	1115	1482	1602	842	908	1017	1093	1834	1994
20	1153	1263	1448	1574	2127	2289	1274	1368	1525	1632	2662	2881
19	1532	1674	1913	2071	2839	3043	1766	1891	2100	2239	3579	3859
18	1931	2105	2398	2588	3586	3831	2297	2454	2716	2887	4546	4884
16	2958	3212	3639	3900	5517	5855	3713	3950	4347	4590	7050	7523

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. 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

GRADE 50 STEEL

ASD

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"
22	Single	W_n / Ω	843	375	211	135	94	69	53	42	34	28	23
		L/240	---	---	159	81	47	30	20	14	10	8	6
	Double	W_n / Ω	823	382	219	141	98	72	56	44	36	29	25
		L/240	---	---	---	---	---	---	55	39	28	21	16
	Triple	W_n / Ω	997	470	271	175	122	90	69	55	44	37	31
		L/240	---	---	---	---	102	64	43	30	22	17	13
20	Single	W_n / Ω	1117	497	279	179	124	91	70	55	45	37	31
		L/240	---	478	202	103	60	38	25	18	13	10	7
	Double	W_n / Ω	1044	487	279	180	126	93	71	56	46	38	32
		L/240	---	---	---	---	---	---	67	47	34	26	20
	Triple	W_n / Ω	1260	598	345	223	156	115	88	70	57	47	40
		L/240	---	---	---	215	124	78	52	37	27	20	16
19	Single	W_n / Ω	1327	590	332	212	147	108	83	66	53	44	37
		L/240	---	580	245	125	73	46	31	21	16	12	9
	Double	W_n / Ω	1257	589	338	218	152	112	86	68	55	46	38
		L/240	---	---	---	---	---	---	79	56	41	30	23
	Triple	W_n / Ω	1514	722	417	271	189	140	107	85	69	57	48
		L/240	---	---	---	254	147	93	62	44	32	24	18
18	Single	W_n / Ω	1527	679	382	244	170	125	95	75	61	50	42
		L/240	---	673	284	145	84	53	35	25	18	14	11
	Double	W_n / Ω	1435	673	386	249	174	128	98	78	63	52	44
		L/240	---	---	---	---	---	---	89	63	46	34	27
	Triple	W_n / Ω	1727	825	477	310	217	160	123	97	79	65	55
		L/240	---	---	---	287	166	105	70	49	36	27	21
16	Single	W_n / Ω	1962	872	490	314	218	160	123	97	78	65	54
		L/240	---	---	373	191	110	70	47	33	24	18	14
	Double	W_n / Ω	1811	850	488	315	220	162	124	99	80	66	56
		L/240	---	---	---	---	---	---	113	79	58	44	34
	Triple	W_n / Ω	2177	1041	603	391	274	202	155	123	100	82	69
		L/240	---	---	---	363	210	132	89	62	45	34	26

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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