

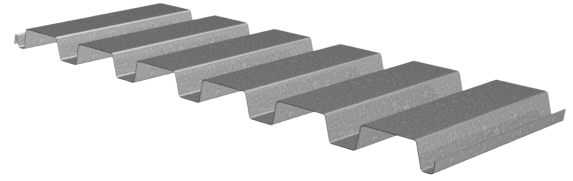
1.5B-36/1.5BI-36/1.5PLB-36 ROOF DECKS

GRADE 80 STEEL

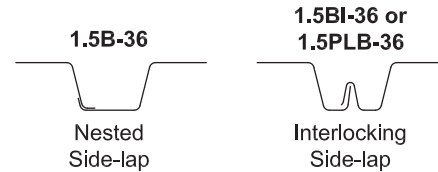
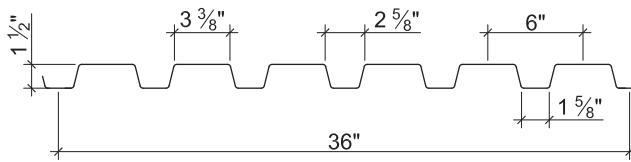
LRFD

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		Design Moment		Vertical Web Shear ϕV_n (lb/ft)
				I_{d+} (in ⁴ /ft)	I_{d-} (in ⁴ /ft)	S_{e+} (in ³ /ft)	S_{e-} (in ³ /ft)	ϕM_{n+} (lb-ft/ft)	ϕM_{n-} (lb-ft/ft)	
24	1.3	0.0239	60	0.118	0.138	0.120	0.131	540	590	2357
22	1.6	0.0295	60	0.151	0.175	0.162	0.173	729	779	4842
20	2.0	0.0358	60	0.192	0.217	0.215	0.223	968	1004	5849
19	2.3	0.0418	60	0.232	0.254	0.263	0.271	1184	1220	6799
18	2.6	0.0474	60	0.272	0.290	0.302	0.315	1359	1418	7678

Design Reactions at Supports Based on Web Crippling, ϕR_n (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	1005	1108	1281	1405	1781	1933	977	1057	1190	1285	2171	2371
22	1482	1629	1875	2047	2645	2859	1547	1666	1867	2007	3273	3559
20	2116	2318	2658	2889	3797	4087	2339	2511	2800	2997	4752	5143
19	2813	3074	3512	3803	5067	5432	3243	3472	3856	4111	6389	6888
18	3545	3865	4403	4751	6401	6839	4218	4505	4987	5300	8114	8718

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

GRADE 80 STEEL

LRFD

Inward Uniform Design Loads, LRFD (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	ϕW_n	1080	480	270	173	120	88	68	53	43	36	30
		L/240	967	287	121	62	36	23	15	11	8	6	4
	Double	ϕW_n	1000	484	281	183	128	95	73	58	47	39	33
		L/240	2724	807	341	174	101	64	43	30	22	16	13
	Triple	ϕW_n	1179	586	345	226	159	118	91	72	58	48	41
		L/240	2135	633	267	137	79	50	33	23	17	13	10
22	Single	ϕW_n	1458	648	365	233	162	119	91	72	58	48	41
		L/240	1237	367	155	79	46	29	19	14	10	7	6
	Double	ϕW_n	1445	668	382	246	171	126	97	77	62	51	43
		L/240	3454	1024	432	221	128	81	54	38	28	21	16
	Triple	ϕW_n	1753	823	473	306	214	157	121	96	77	64	54
		L/240	2707	802	338	173	100	63	42	30	22	16	13
20	Single	ϕW_n	1935	860	484	310	215	158	121	96	77	64	54
		L/240	1573	466	197	101	58	37	25	17	13	9	7
	Double	ϕW_n	1844	858	491	316	221	163	125	99	80	66	56
		L/240	4283	1269	535	274	159	100	67	47	34	26	20
	Triple	ϕW_n	2231	1055	607	393	275	203	156	123	100	83	69
		L/240	3357	995	420	215	124	78	52	37	27	20	16
19	Single	ϕW_n	2367	1052	592	379	263	193	148	117	95	78	66
		L/240	1901	563	238	122	70	44	30	21	15	11	9
	Double	ϕW_n	2226	1039	595	384	268	197	151	120	97	80	68
		L/240	5014	1486	627	321	186	117	78	55	40	30	23
	Triple	ϕW_n	2685	1275	736	477	333	246	189	149	121	100	84
		L/240	3930	1164	491	252	146	92	61	43	31	24	18
18	Single	ϕW_n	2718	1208	680	435	302	222	170	134	109	90	76
		L/240	2229	660	279	143	83	52	35	24	18	13	10
	Double	ϕW_n	2574	1204	691	446	311	229	176	139	113	93	79
		L/240	5724	1696	716	366	212	134	89	63	46	34	27
	Triple	ϕW_n	3100	1477	854	554	387	286	219	174	141	117	98
		L/240	4487	1329	561	287	166	105	70	49	36	27	21

Note:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

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