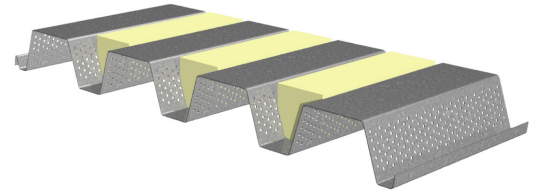


3NLA-32/3NIA-32/3PLNA-32 ACOUSTICAL ROOF DECKS GRADE 80 STEEL

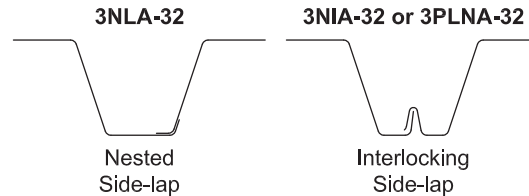
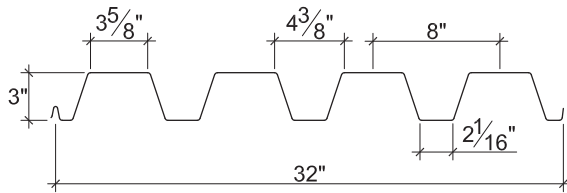
LRFD

32" WIDE 3N ACOUSTICAL ROOF DECKS

- 3NLA-32 Deck used with Side-lap Screws
- 3NIA-32 Deck used with TSWs or BPs
- 3PLNA-32 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)	
22	1.7	0.0295	60	0.604	0.672	0.318	0.329	1431	1481	2480
20	2.1	0.0358	60	0.754	0.832	0.412	0.440	1854	1980	4445
19	2.4	0.0418	60	0.903	0.989	0.509	0.535	2291	2408	6403
18	2.8	0.0474	60	1.048	1.136	0.605	0.626	2723	2817	8238

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"	4"	8"	1 1/2"	2"	3"	4"	4"	8"
22	937	1029	1185	1316	2102	2444	843	908	1018	1110	2375	2787
20	1361	1491	1709	1893	3013	3730	1329	1427	1590	1729	3480	4370
19	1830	1999	2284	2524	4010	5047	1892	2026	2250	2438	4704	6015
18	2325	2536	2888	3186	5057	6334	2508	2679	2966	3208	5999	7635

Standard Features

- ASTM A653 SS GR80, with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 with gray primer
- Standard lengths – 6'-0" to 42'-0"
- IAPMO UES ER-0652 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

3NLA-32/3NIA-32/3PLNA-32 ACOUSTICAL ROOF DECKS GRADE 80 STEEL

LRFD

Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.)										
			4'-0"	6'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
22	Single	ϕW_n	716	318	179	141	114	95	80	58	45	35	29
		L/240	619	183	77	54	40	30	23	14	10	7	5
	Double	ϕW_n	593	295	173	139	113	94	80	59	45	36	29
		L/240	1658	491	207	146	106	80	61	39	26	18	13
	Triple	ϕW_n	689	353	211	170	139	116	99	73			
		L/240	1300	385	162	114	83	62	48	30			
20	Single	ϕW_n	927	412	232	183	148	123	103	76	58	46	37
		L/240	772	229	97	68	49	37	29	18	12	8	6
	Double	ϕW_n	865	412	238	190	155	128	108	80	61	49	39
		L/240	2053	608	257	180	131	99	76	48	32	23	16
	Triple	ϕW_n	1029	502	293	234	191	159	134	99			
		L/240	1609	477	201	141	103	77	60	38			
19	Single	ϕW_n	1145	509	286	226	183	151	127	93	72	57	46
		L/240	925	274	116	81	59	44	34	22	14	10	7
	Double	ϕW_n	1089	511	293	233	189	157	132	97	75	59	48
		L/240	2440	723	305	214	156	117	90	57	38	27	20
	Triple	ϕW_n	1311	626	362	288	235	195	164	121			
		L/240	1913	567	239	168	122	92	71	45			
18	Single	ϕW_n	1361	605	340	269	218	180	151	111	85	67	54
		L/240	1073	318	134	94	69	52	40	25	17	12	9
	Double	ϕW_n	1295	602	344	273	222	184	155	114	88	69	56
		L/240	2803	831	350	246	179	135	104	65	44	31	22
	Triple	ϕW_n	1567	740	426	339	276	229	193	142			
		L/240	2197	651	275	193	141	106	81	51			

Note:

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

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