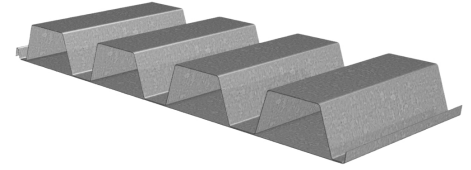


3NP-32/3PLNP-32 CELLULAR DECK GRADE 50 STEEL

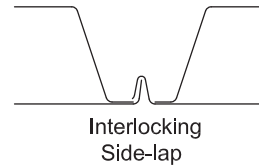
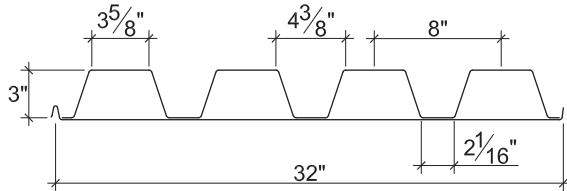
LRFD

32" WIDE 3NP CELLULAR ROOF DECK

- 3NP-32 Deck used with TSWs or BPs
- 3PLNP-32 Deck used with PunchLok® II System



Nominal Dimensions



Plant	Cover Width	Pan Connection Method
VNE	32"	Resistance Welds

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		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)	
20/20	3.7	0.0358/0.0358	50	1.519	1.153	0.496	0.492	1860	1845	5716
20/18	4.2	0.0358/0.0474	50	1.645	1.248	0.523	0.552	1961	2070	5716
18/20	4.4	0.0474/0.0358	50	1.931	1.460	0.786	0.674	2948	2528	10028
18/18	4.9	0.0474/0.0474	50	2.094	1.568	0.806	0.733	3023	2749	10028
18/16	5.5	0.0474/0.0598	50	2.243	1.699	0.806	0.822	3023	3083	10028
16/18	5.7	0.0598/0.0474	50	2.549	1.901	1.093	0.901	4099	3379	13777
16/16	6.2	0.0598/0.0598	50	2.732	2.046	1.116	0.998	4185	3743	13777

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"
20/XX	1184	1297	1487	1647	2524	3126	1206	1295	1444	1569	2996	3762
18/XX	2009	2191	2496	2752	4234	5304	2239	2392	2648	2864	5138	6540
16/XX	3108	3375	3823	4201	6493	8057	3693	3928	4323	4656	7994	10087

Standard Features

- ASTM A653 SS GR50 Min., with G60
- 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 finishes
- Cellular Acoustical Versions

NOTICE: Design defects that could cause injury or death may result from relying on the information in this document without independent verification by a qualified professional. The information in this document is provided "AS IS". Nucor Corporation and its affiliates expressly disclaim: (i) any and all representations, warranties and conditions and (ii) all liability arising out of or related to this document and the information in it.