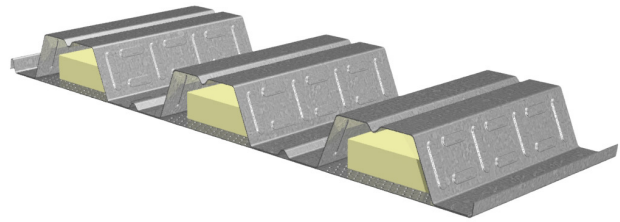


# 3VLPA CELLULAR ACOUSTICAL COMPOSITE DECK GRADE 50 STEEL

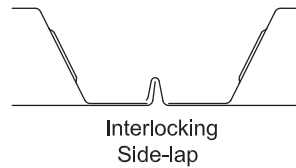
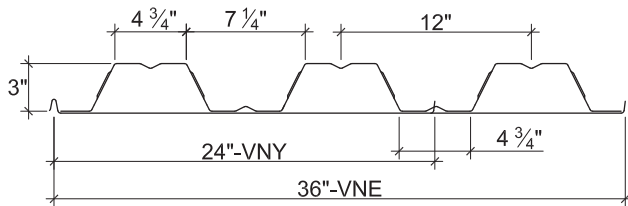
ASD

## 3VLP CELLULAR ACOUSTICAL COMPOSITE DECK

- 3VLPA Deck used with TSWs or BPs
- 3PLVLP Deck used with PunchLok® II System



## Nominal Dimensions



Plant	Cover Width
VNY	24"
VNE	36"

## 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 $V_n/\Omega$ (lb/ft)
				$I_{d+}$ (in <sup>4</sup> /ft)	$I_{d-}$ (in <sup>4</sup> /ft)	$S_{e+}$ (in <sup>3</sup> /ft)	$S_{e-}$ (in <sup>3</sup> /ft)	$M_{n+}/\Omega$ (lb-ft/ft)	$M_{n-}/\Omega$ (lb-ft/ft)	
20/20	3.4	0.0358/0.0358	50	1.457	1.082	0.543	0.465	1355	1160	2485
20/18	3.9	0.0358/0.0474	50	1.542	1.151	0.571	0.512	1425	1277	2485
18/20	4.1	0.0474/0.0358	50	1.837	1.398	0.853	0.670	2128	1672	4361
18/18	4.5	0.0474/0.0474	50	1.965	1.477	0.866	0.715	2161	1784	4361
18/16	5.0	0.0474/0.0598	50	2.078	1.578	0.864	0.798	2156	1991	4361
16/18	5.2	0.0598/0.0474	50	2.359	1.819	1.142	0.917	2849	2288	6126
16/16	5.7	0.0598/0.0598	50	2.496	1.931	1.159	1.002	2892	2500	6126

## Allowable Reactions at Supports Based on Web Crippling, $R_n/\Omega$ (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	510	559	640	709	1121	1388	518	556	620	674	1328	1668
18/XX	866	944	1075	1186	1881	2900	963	1028	1138	1231	2279	2900
16/XX	1339	1455	1648	1811	2884	3579	1589	1690	1860	2003	3546	4474

## Standard Features

- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 6'-0" to 42'-0"
- IAPMO UES ER-0652 and UL Listed
- Tables conform to ANSI/SDI C-2017

## Optional Features

- Inquire regarding cost and lead times for:
  - Short Cuts < 6'-0"
  - Sheet Lengths > 42'-0"
  - Alternative metallic finishes

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.