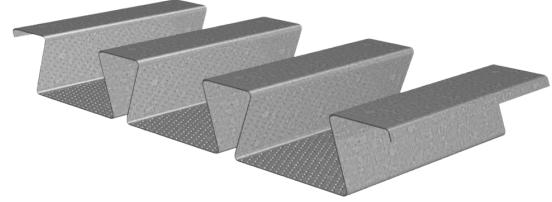


# 3.5DF-24 AC ACOUSTICAL DOVETAIL ROOF DECK GRADE 50 STEEL

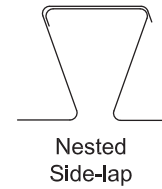
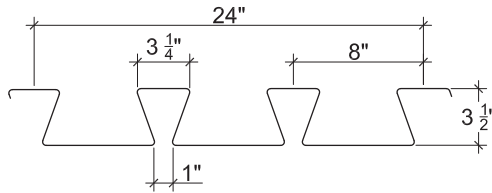
LRFD

## 3.5DF-24 AC DOVETAIL ROOF DECK

- Enhanced 2-Coat Polyester Paint
- White Factory Primer Paint
- Galvanized Finish
- FM Listed



## 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		Design Moment		Vertical Web Shear $\phi V_n$ (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)	$\phi M_{n+}$ (lb-ft/ft)	$\phi M_{n-}$ (lb-ft/ft)	
18	4.2	0.0478	50	2.318	2.268	0.984	0.834	3691	3128	10356
16	5.3	0.0598	50	2.948	2.947	1.325	1.144	4971	4291	14868

## Design Reactions at Supports Based on Web Crippling, $\phi R_n$ (lb/ft)

Deck Gage	Bearing Length of Webs											
	One-Flange Loading					Two-Flange Loading						
	End Bearing		Interior Bearing			End Bearing		Interior Bearing				
	2"	3"	4"	5"	4"	6"	2"	3"	4"	5"	4"	6"
18	2241	2553	2815	3046	4363	4960	2435	2695	2915	3108	5269	6048
16	3392	3843	4223	4557	6567	7425	3924	4319	4652	4945	8048	9192

## Standard Features

- ASTM A653 SS GR 50 Min. with G90
- Standard lengths – 6'-0" to 40'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

## Optional Features

- Inquire regarding cost and lead times for:
  - 17 gage
  - Alternative metallic and painted finishes

# 3.5DF-24 AC ACOUSTICAL DOVETAIL ROOF DECK GRADE 50 STEEL

LRFD

## Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.)										
			11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"
18	Single	$\phi W_n$	244	205	175	151	131	115	102	91	82	74	67
		L/240	114	88	69	55	45	37	31	26	22	19	16
	Double	$\phi W_n$	205	172	147	127	111	97	86	77	69	62	
		L/240	269	207	163	131	106	87	73	61	52	45	
	Triple	$\phi W_n$	255	215	183								
		L/240	211	162	128								
16	Single	$\phi W_n$	329	276	235	203	177	155	138	123	110	99	90
		L/240	145	112	88	70	57	47	39	33	28	24	21
	Double	$\phi W_n$	281	237	202	174	152	134	118	106	95	86	
		L/240	350	269	212	170	138	114	95	80	68	58	
	Triple	$\phi W_n$	350	295	252								
		L/240	274	211	166								

### 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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