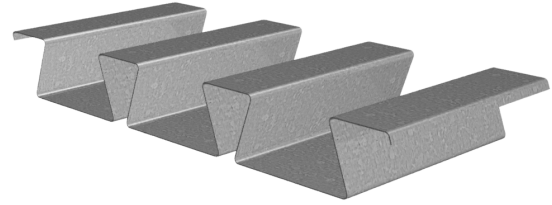


# 3.5DF-24 DOVETAIL ROOF DECK GRADE 50 STEEL

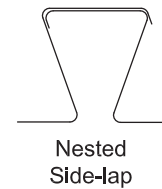
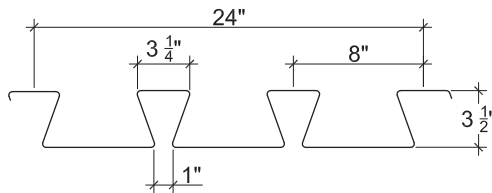
LRFD

## 3.5DF-24 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	4.5	0.0478	50	2.688	2.496	1.055	0.935	3957	3507	10356
16	5.6	0.0598	50	3.430	3.256	1.417	1.289	5314	4835	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, FM and UL Listed

## Optional Features

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

# 3.5DF-24 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	$\phi W_n$	262	220	187	162	141	124	110	98	88	79	72
		L/240	132	102	80	64	52	43	36	30	26	22	19
	Double	$\phi W_n$	229	193	165	142	124	109	97	86	77	70	
		L/240	296	228	179	144	117	96	80	68	57	49	
	Triple	$\phi W_n$	285	240	205								
		L/240	232	179	141								
16	Single	$\phi W_n$	351	295	252	217	189	166	147	131	118	106	96
		L/240	169	130	102	82	67	55	46	39	33	28	24
	Double	$\phi W_n$	316	266	227	196	171	150	133	119	107	96	
		L/240	386	298	234	187	152	126	105	88	75	64	
	Triple	$\phi W_n$	393	331	283								
		L/240	303	233	183								

### 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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