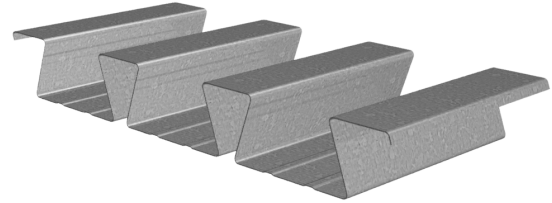


# 3.5DS-24 DOVETAIL ROOF DECK GRADE 50 STEEL

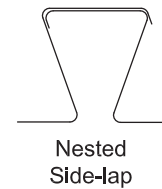
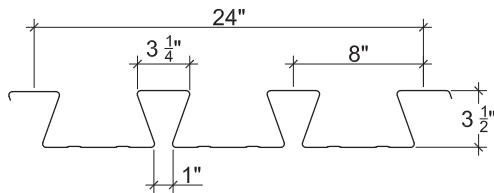
ASD

## 3.5DS-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		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	3.4	0.0359	50	1.951	1.805	0.714	0.757	1781	1889	3754
18	4.5	0.0478	50	2.681	2.505	1.052	1.108	2626	2765	6813
16	5.6	0.0598	50	3.421	3.243	1.414	1.505	3527	3756	9781

## 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	
	2"	3"	4"	5"	4"	6"	2"	3"	4"	5"	4"	6"
20	859	985	1091	1184	1735	1985	850	948	1030	1103	2046	2363
18	1465	1668	1840	1991	2933	3334	1592	1762	1905	2031	3542	4066
16	2217	2512	2760	2979	4415	4992	2565	2823	3040	3232	5411	6179

## 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:
  - 19 or 17 gage
  - Alternative metallic and painted finishes
- Acoustical Version

# 3.5DS-24 DOVETAIL ROOF DECK GRADE 50 STEEL

ASD

## Inward Uniform Allowable Loads, ASD (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"
20	Single	$W_n / \Omega$	118	99	84	73	63	56	49	44	39	36	32
		L/240	96	74	58	47	38	31	26	22	19	16	14
	Double	$W_n / \Omega$	122	103	88	76	66	58	52	46	42	37	
		L/240	---	---	---	---	---	---	---	---	---	36	
	Triple	$W_n / \Omega$	151	127	109								
		L/240	---	---	102								
18	Single	$W_n / \Omega$	174	146	124	107	93	82	73	65	58	53	48
		L/240	132	102	80	64	52	43	36	30	26	22	19
	Double	$W_n / \Omega$	180	151	129	112	97	86	76	68	61	55	
		L/240	---	---	---	---	---	---	---	68	58	49	
	Triple	$W_n / \Omega$	223	188	161								
		L/240	---	179	141								
16	Single	$W_n / \Omega$	233	196	167	144	125	110	98	87	78	71	64
		L/240	168	130	102	82	66	55	46	38	33	28	24
	Double	$W_n / \Omega$	245	206	176	152	132	117	103	92	83	75	
		L/240	---	---	---	---	---	---	---	88	75	64	
	Triple	$W_n / \Omega$	304	256	219								
		L/240	302	232	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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