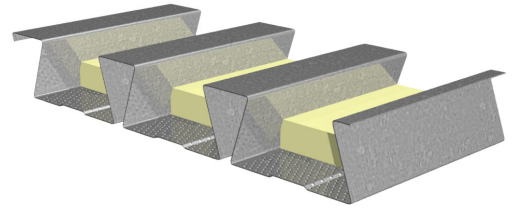


# 3.5DA ACOUSTICAL DOVETAIL ROOF DECK GRADE 40 STEEL

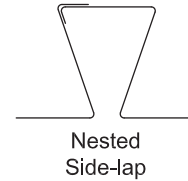
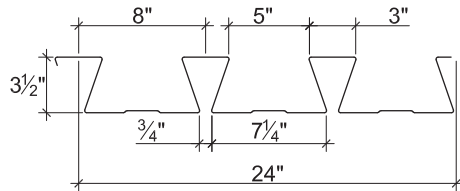
LRFD

## 3.5DA ACOUSTICAL 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 $F_y = 40$ 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)	
20	3.1	0.0358	40	1.531	1.430	0.655	0.657	1965	1971	5221
18	4.1	0.0474	40	2.098	1.950	0.934	0.928	2802	2784	9138
16	5.1	0.0598	40	2.719	2.533	1.255	1.241	3765	3723	12635

### 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"
20	1060	1215	1346	1461	2170	2484	1092	1218	1324	1417	2564	2962
18	1787	2035	2245	2429	3602	4096	2004	2219	2399	2559	4354	4998
16	2744	3108	3416	3687	5475	6191	3270	3599	3876	4120	6717	7671

### Standard Features

- ASTM A653 SS GR 40 Min. with G90
- Standard lengths – 6'-0" to 42'-0"
- Tables conform to ANSI/SDI RD-2017
- IAPMO UES ER-423 and FM Listed

### Optional Features

- Inquire regarding cost and lead times for:
  - 19 gage
  - Short cuts < 6'-0"
  - Alternative metallic and painted finishes

# 3.5DA ACOUSTICAL DOVETAIL ROOF DECK GRADE 40 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"
20	Single	$\phi W_n$	130	109	93	80	70	61	54	49	44	39	36
		L/240	75	58	46	37	30	25	20	17	15	13	11
	Double	$\phi W_n$	128	108	92	80	70	61	54	48	43	39	36
		L/240	170	131	103	82	67	55	46	39	33	28	24
	Triple	$\phi W_n$	160	135	115	99							
		L/240	133	102	81	65							
18	Single	$\phi W_n$	185	156	133	114	100	88	78	69	62	56	51
		L/240	103	80	63	50	41	34	28	24	20	17	15
	Double	$\phi W_n$	182	153	131	113	98	87	77	68	61	56	50
		L/240	231	178	140	112	91	75	63	53	45	38	33
	Triple	$\phi W_n$	227	191	163	141							
		L/240	181	140	110	88							
16	Single	$\phi W_n$	249	209	178	154	134	118	104	93	83	75	68
		L/240	134	103	81	65	53	44	36	31	26	22	19
	Double	$\phi W_n$	244	205	175	151	132	116	103	92	82	74	67
		L/240	301	231	182	146	119	98	81	69	58	50	43
	Triple	$\phi W_n$	304	256	218	188							
		L/240	236	181	143	114							

**Note:**

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

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