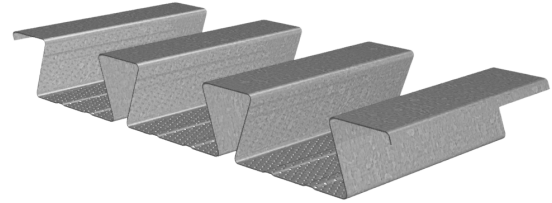


3.5DS-24 AC ACOUSTICAL DOVETAIL ROOF DECK GRADE 50 STEEL

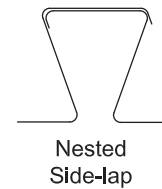
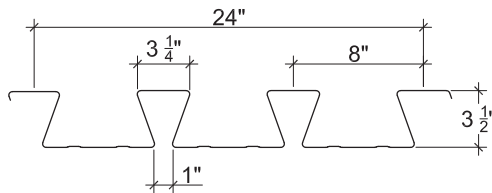
LRFD

3.5DS-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 ϕV_n (lb/ft)
				I_{d+} (in ⁴ /ft)	I_{d-} (in ⁴ /ft)	S_{e+} (in ³ /ft)	S_{e-} (in ³ /ft)	ϕM_{n+} (lb-ft/ft)	ϕM_{n-} (lb-ft/ft)	
20	3.2	0.0359	50	1.687	1.646	0.674	0.665	2528	2494	5706
18	4.2	0.0478	50	2.313	2.321	0.982	0.999	3682	3746	10356
16	5.3	0.0598	50	2.942	3.040	1.322	1.380	4959	5175	14868

Design Reactions at Supports Based on Web Crippling, ϕR_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	1315	1507	1669	1812	2580	2953	1301	1450	1576	1687	3044	3515
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:
 - 19 or 17 gage
 - Alternative metallic and painted finishes

3.5DS-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"
20	Single	ϕW_n	167	140	120	103	90	79	70	62	56	51	46
		L/240	83	64	50	40	33	27	23	19	16	14	12
	Double	ϕW_n	162	136	116	101	88	77	68	61	55	50	
		L/240	195	150	118	95	77	63	53	45	38	32	
	Triple	ϕW_n	200	169	145								
		L/240	153	118	93								
18	Single	ϕW_n	243	205	174	150	131	115	102	91	82	74	67
		L/240	114	88	69	55	45	37	31	26	22	19	16
	Double	ϕW_n	244	206	176	152	132	116	103	92	83	75	
		L/240	275	212	167	134	109	89	75	63	53	46	
	Triple	ϕW_n	304	256	219								
		L/240	216	166	131								
16	Single	ϕW_n	328	276	235	202	176	155	137	122	110	99	90
		L/240	145	112	88	70	57	47	39	33	28	24	21
	Double	ϕW_n	338	285	243	210	183	161	143	127	114	103	
		L/240	361	278	219	175	142	117	98	82	70	60	
	Triple	ϕW_n	420	354	302								
		L/240	283	218	171								

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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