2.0DS-30 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

LRFD

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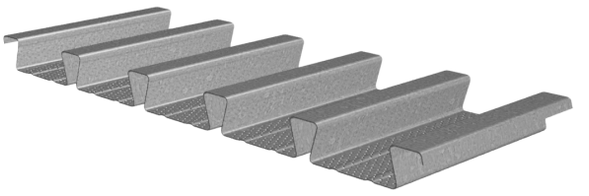
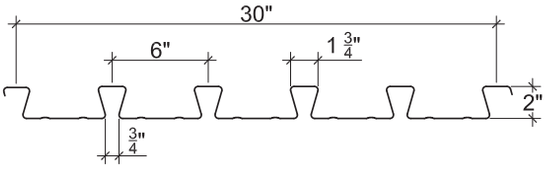
- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **FM Listed**



Nominal Dimensions



Nested
Side-lap

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 $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Design Moment øM$_n$+ (lb-ft/ft)	øM$_n$- (lb-ft/ft)	Vertical Web Shear øV$_n$ (lb/ft)
22	2.1	0.0299	50	0.370	0.331	0.281	0.252	1053	945	5068
20	2.5	0.0359	50	0.446	0.417	0.352	0.337	1319	1265	6047
18	3.4	0.0478	50	0.596	0.600	0.481	0.482	1805	1809	7949
16	4.3	0.0598	50	0.765	0.793	0.617	0.624	2315	2340	9812

Design Reactions at Supports Based on Web Crippling, øR$_n$ (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 3"	5"
22	1275	1401	1613	1791	2316	2669	1315	1416	1586	1729	2833	3298
20	1785	1955	2241	2482	3252	3724	1946	2090	2330	2532	4025	4656
18	3014	3286	3743	4127	5514	6249	3553	3794	4200	4541	6926	7930
16	4534	4924	5578	6130	8315	9340	5637	5996	6599	7108	10538	11960

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:
  - -21,19 or 17 gage
  - -Alternative metallic and painted finishes

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Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
22	Single	ϕW_n	527	337	234	172	132	104	84	70	59	50	43
		L/240	379	194	112	71	47	33	24	18	14	11	9
	Double	ϕW_n	460	297	208	153	117	93	75	62	52	45	38
		L/240	817	418	242	152	102	72	52	39	30	24	19
	Triple	ϕW_n	569	369	258	190	146	116	94	78	65	56	
		L/240	640	328	190	119	80	56	41	31	24	19	
20	Single	ϕW_n	659	422	293	215	165	130	105	87	73	62	54
		L/240	457	234	135	85	57	40	29	22	17	13	11
	Double	ϕW_n	612	396	277	204	157	124	101	83	70	60	51
		L/240	1029	527	305	192	129	90	66	49	38	30	24
	Triple	ϕW_n	754	491	344	254	195	155	125	104	87	74	
		L/240	806	413	239	150	101	71	52	39	30	23	
18	Single	ϕW_n	903	578	401	295	226	178	144	119	100	85	74
		L/240	610	313	181	114	76	54	39	29	23	18	14
	Double	ϕW_n	870	564	395	292	224	177	144	119	100	85	74
		L/240	1480	758	439	276	185	130	95	71	55	43	35
	Triple	ϕW_n	1070	698	490	362	279	221	179	148	125	106	
		L/240	1160	594	344	217	145	102	74	56	43	34	
16	Single	ϕW_n	1157	741	514	378	289	229	185	153	129	110	94
		L/240	784	401	232	146	98	69	50	38	29	23	18
	Double	ϕW_n	1121	728	510	377	289	229	186	154	129	110	95
		L/240	1957	1002	580	365	245	172	125	94	72	57	46
	Triple	ϕW_n	1377	900	632	468	360	285	232	192	161	138	
		L/240	1534	785	454	286	192	135	98	74	57	45	

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.