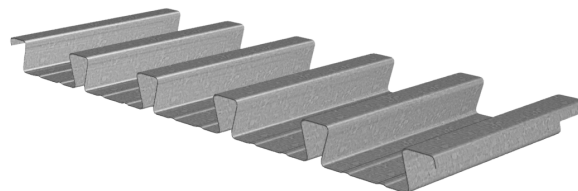


# 2.0DS-30 DOVETAIL ROOF DECK GRADE 50 STEEL

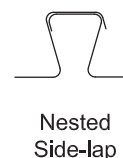
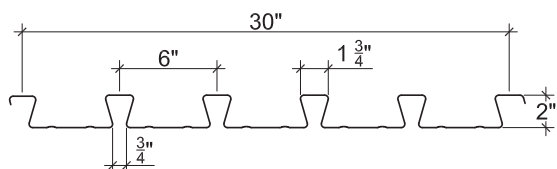
LRFD

## 2.0DS-30 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 $I_d = (2I_e + I_o)/3$		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)	
22	2.2	0.0299	50	0.430	0.382	0.301	0.306	1130	1146	5068
20	2.7	0.0359	50	0.520	0.473	0.378	0.373	1417	1398	6047
18	3.6	0.0478	50	0.695	0.661	0.527	0.509	1977	1907	7949
16	4.5	0.0598	50	0.872	0.856	0.667	0.648	2501	2430	9812

## 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	
	1½"	2"	3"	4"	3"	5"	1½"	2"	3"	4"	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, FM and UL Listed

## Optional Features

- Inquire regarding cost and lead times for:
  - 21,19 or 17 gage
  - Alternative metallic and painted finishes
- Acoustical Version

# 2.0DS-30 DOVETAIL ROOF DECK GRADE 50 STEEL

LRFD

## 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	$\phi W_n$	565	361	251	184	141	112	90	75	63	53	46
		L/240	440	226	131	82	55	39	28	21	16	13	10
	Double	$\phi W_n$	551	358	250	185	142	112	91	75	63	54	47
		L/240	943	483	279	176	118	83	60	45	35	27	22
	Triple	$\phi W_n$	678	442	311	230	177	140	114	94	79	67	
		L/240	739	378	219	138	92	65	47	36	27	22	
20	Single	$\phi W_n$	708	453	315	231	177	140	113	94	79	67	58
		L/240	533	273	158	99	67	47	34	26	20	16	12
	Double	$\phi W_n$	671	436	305	225	173	137	111	92	77	66	57
		L/240	1167	598	346	218	146	102	75	56	43	34	27
	Triple	$\phi W_n$	825	539	378	280	215	171	138	115	96	82	
		L/240	915	468	271	171	114	80	59	44	34	27	
18	Single	$\phi W_n$	988	633	439	323	247	195	158	131	110	94	81
		L/240	712	364	211	133	89	62	46	34	26	21	17
	Double	$\phi W_n$	913	594	416	307	236	187	152	125	105	90	78
		L/240	1631	835	483	304	204	143	104	78	60	48	38
	Triple	$\phi W_n$	1122	733	515	381	293	233	189	156	132	112	
		L/240	1278	654	379	239	160	112	82	61	47	37	
16	Single	$\phi W_n$	1250	800	556	408	313	247	200	165	139	118	102
		L/240	893	457	265	167	112	78	57	43	33	26	21
	Double	$\phi W_n$	1161	755	529	391	300	238	193	160	134	115	99
		L/240	2112	1081	626	394	264	185	135	102	78	62	49
	Triple	$\phi W_n$	1424	932	655	485	373	296	240	199	167	143	
		L/240	1655	848	490	309	207	145	106	80	61	48	

### 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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