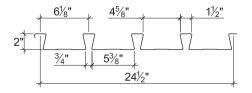
## 2.0D DOVETAIL ROOF DECK

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

#### **Nominal Dimensions**







#### **Section Properties**

	Deck Weight	Base Metal Thickness	Yield Strength	of In	ce Load	Effe Section at F <sub>y</sub> =	Modulus		vable nent	Vertical Web Shear
Deck Gage	w <sub>dd</sub> (psf)	t (in.)	F <sub>y</sub> (ksi)	l <sub>d</sub> + (in⁴/ft)	l <sub>d</sub> - (in⁴/ft)	S <sub>e</sub> + (in³/ft)	S <sub>e</sub> - (in³/ft)	M <sub>n</sub> +/Ω (lb-ft/ft)	M <sub>n</sub> -/Ω (lb-ft/ft)	V <sub>n</sub> /Ω (Ib/ft)
22	2.1	0.0295	40	0.387	0.359	0.272	0.272	543	543	2896
20	2.6	0.0358	40	0.472	0.447	0.343	0.334	684	666	3498
18	3.4	0.0474	40	0.626	0.612	0.463	0.450	924	898	4584
16	4.3	0.0598	40	0.792	0.791	0.587	0.576	1172	1150	5723

### Allowable Reactions at Supports Based on Web Crippling, $R_n/\Omega$ (lb/ft)

	Bearing Length of Webs												
		Ο	ne-Flang	je Loadi	ng	Two-Flange Loading							
Deck	End Bearing				Interior Bearing			End B	Interior Bearing				
Gage	<b>1</b> ½"	2"	3"	4"	3"	5"	11⁄2"	2"	3"	4"	3"	5"	
22	653	717	826	917	1281	1516	702	757	848	925	1567	1877	
20	931	1020	1170	1296	1823	2146	1058	1136	1266	1376	2258	2690	
18	1556	1697	1933	2132	3036	3544	1893	2023	2239	2422	3813	4507	
16	2378	2582	2926	3215	4629	5360	3043	3237	3563	3837	5866	6880	

#### **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, FM and UL Listed

#### **Optional Features**

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



# 2.0D DOVETAIL ROOF DECK GRADE 40 STEEL

#### Inward Uniform Allowable Loads, ASD (psf)

GameStrainCriteria4'-0"5'-0"6'-0"7'-0"8'-0"10'-0"11'-0"12'-013'-013'-014'-0'ParelWn / Ω2721741218968544336630026022DathWn / Ω26417111988675343336630026022ParelWn / Ω26417111988675343336630026022ParelWn / Ω26417111988675343336630026022ParelWn / Ω26417111988675343336630026022ParelWn / Ω3272121481098467534333683228ParelWn / Ω324212112180686654455383228ParelWn / Ω324209152112806042313314403127ParelWn / Ω324209162112806855453832383238ParelWn / Ω32420916211390604255463741313433ParelWn / Ω40020916011211381131<	Deck		Span (ft-in.)											
Single  1/240   117  74  50  35  25  19  15  12  9    22  Double  W <sub>n</sub> /Ω  264  171  119  88  67  53  43  36  30  26  222    Triple  W <sub>n</sub> /Ω  327  212  148  109  84  67  54  45  38  32  288    Triple  W <sub>n</sub> /Ω  327  212  148  109  84  67  54  45  38  32  288    L/240      61  44  33  26  20  16    L/240      61  44  33  26  20  20  28    Double  W <sub>n</sub> /Ω  324  209  146  108  83  65  53  44  37  31  27    L/240 <th>Gage</th> <th>Spans</th> <th>Criteria</th> <th>4'-0"</th> <th>5'-0"</th> <th>6'-0"</th> <th>7'-0"</th> <th>8'-0"</th> <th>9'-0"</th> <th>10'-0"</th> <th>11'-0"</th> <th>12'-0"</th> <th>13'-0"</th> <th>14'-0"</th>	Gage	Spans	Criteria	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"
$ \frac{1}{1} \frac{1}{2} 1$	22	Single	W <sub>n</sub> /Ω	272	174	121	89	68	54	43	36	30	26	22
$ \frac{1}{2} 2 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$		Single	L/240			117	74	50	35	25	19	15	12	9
		Double	W <sub>n</sub> / Ω	264	171	119	88	67	53	43	36	30	26	22
			L/240											21
		Triplo	W <sub>n</sub> / Ω	327	212	148	109	84	67	54	45	38	32	28
Single  n  143  90  60  42  31  23  18  14  11    20  M  N  Ω  324  209  146  108  83  65  53  44  37  31  27    L/240		mple	L/240						61	44	33	26	20	16
$ 18  \frac{1}{100}  \frac{1}{100} $		Cincelo	W <sub>n</sub> /Ω	342	219	152	112	86	68	55	45	38	32	28
Double  L/240         26    Triple  W <sub>n</sub> / Ω  401  260  182  134  103  82  66  55  46  39  34    L/240      76  55  42  32  25  20    Main  M <sub>n</sub> / Ω  462  296  205  151  115  91  74  61  51  44  38    L/240    190  120  80  56  41  31  24  19  15    Double  W <sub>n</sub> / Ω  436  282  197  145  111  88  72  59  50  42  37    L/240          35    M <sub>n</sub> / Ω  539  350  245  181  139  110  89		Single	L/240			143	90	60	42	31	23	18	14	11
$ 18  \frac{1}{1240}  \frac{1}{1240}  \frac{1}{1260}  \frac{1}{1260}$	20	Double	W <sub>n</sub> / Ω	324	209	146	108	83	65	53	44	37	31	27
	20		L/240											26
		Triple	W <sub>n</sub> / Ω	401	260	182	134	103	82	66	55	46	39	34
$ \frac{\text{Single}}{\text{L}^{2}40}  {}  190  120  80  56  41  31  24  19  15 \\ \frac{12}{10}  15  100  $			L/240						76	55	42	32	25	20
$ 18 \begin{array}{ c c c c c c c c c } \hline U_{240} & & & 190 & 120 & 80 & 56 & 41 & 31 & 24 & 19 & 15 \\ \hline & & & & & & & & & & & & & & & & & &$		Single	W <sub>n</sub> /Ω	462	296	205	151	115	91	74	61	51	44	38
$ \frac{18}{16} = \frac{1}{1240} - \frac{1}{140} - $			L/240			190	120	80	56	41	31	24	19	15
$ \frac{1}{100} = \frac{1}{100} + 1$	18	Double	W <sub>n</sub> /Ω	436	282	197	145	111	88	72	59	50	42	37
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			L/240											35
$16  \frac{1}{100}  \frac{1}{100} $		Triple	W <sub>n</sub> /Ω	539	350	245	181	139	110	89	74	62	53	46
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			L/240						104	76	57	44	34	28
$16  \frac{1}{100}  \frac{1}{100} $	16	Single	W <sub>n</sub> / Ω	586	375	260	191	146	116	94	77	65	55	48
<b>16</b> Double L/240 46 Triple $W_n / \Omega$ 688 447 313 231 178 141 114 94 79 68 58			L/240			240	151	101	71	52	39	30	24	19
$\mathbf{Triple} = \frac{W_{n}}{\Omega} = \frac{1}{688} + \frac{1}{313} + \frac{1}{313} + \frac{1}{178} + \frac{1}{114} + \frac{1}{94} + \frac{1}{79} + \frac{1}{68} + $		Double	W <sub>n</sub> / Ω	558	361	252	186	143	113	92	76	64	54	47
			L/240											46
L/240 134 98 74 57 45 36		Triple	W <sub>n</sub> /Ω	688	447	313	231	178	141	114	94	79	68	58
			L/240						134	98	74	57	45	36

#### 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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