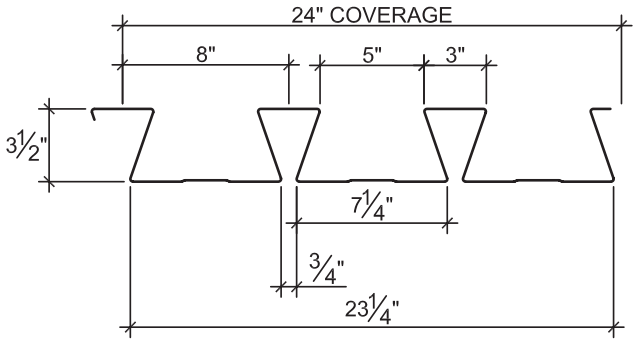
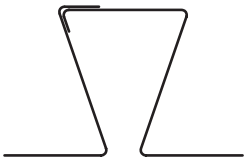
3.5D DOVETAIL ROOF DECK

- **3.5” Deep Deck**
- **FM Approved**
- **UL Fire Rated**
- **IAPMO UES ER-423**

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 $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 40 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
20	3.25	0.0358	40	1.762	1.646	0.676	0.781	3434
18	4.31	0.0474	40	2.415	2.272	0.980	1.070	6010
16	5.44	0.0598	40	3.133	2.968	1.317	1.377	8313

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: End Bearing 2"	3"	4"	5"	6"	8"	Interior Bearing 2"	3"	4"	5"	6"	8"
20	693	794	880	955	1023	1117	1185	1333	1459	1570	1670	1807
18	1168	1330	1467	1588	1697	1890	1989	2224	2422	2596	2753	3033
16	1793	2032	2233	2410	2569	2854	3054	3394	3681	3933	4162	4567

Standard Features

- ASTM A653 or A1063 SS GR 40 minimum steel with F_y = 40 ksi.
- G90 stocked standard
- Standard lengths – 6’-0” to 42’-0”
- Tables conform to ANSI/SDI RD-2017.

Optional Features

- Inquire regarding cost and lead times for:
  - -19 or 14 gage
  - -Short cuts < 6’-0”
  - -Alternative metallic and painted finishes

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Allowable Uniform Load, W_n/Ω (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	F_y/Ω	89	74	63	55	47	42	37	33	29	26	24
		L/240	87	67	53	42	34	28	24	20	17	14	12
		L/180	---	---	---	---	46	38	31	26	22	19	17
	Double	F_y/Ω	100	85	72	62	54	48	42	38	34	30	28
		L/240	---	---	---	---	---	---	---	---	---	---	---
		L/180	---	---	---	---	---	---	---	---	---	---	---
	Triple	F_y/Ω	125	105	90	78	68	60	53	47	42	38	35
		L/240	---	---	---	74	60	50	41	35	30	25	22
		L/180	---	---	---	---	---	---	---	47	40	34	29
18	Single	F_y/Ω	129	108	92	79	69	61	54	48	43	39	35
		L/240	119	92	72	58	47	39	32	27	23	20	17
		L/180	---	---	---	77	63	52	43	36	31	26	23
	Double	F_y/Ω	139	117	100	86	75	66	58	52	47	42	38
		L/240	---	---	---	---	---	---	---	---	---	---	---
		L/180	---	---	---	---	---	---	---	---	---	---	---
	Triple	F_y/Ω	173	146	124	107	93	82	73	65	58	53	48
		L/240	---	---	---	102	83	69	57	48	41	35	30
		L/180	---	---	---	---	---	---	---	64	55	47	40
16	Single	F_y/Ω	173	146	124	107	93	82	72	64	58	52	47
		L/240	155	119	94	75	61	50	42	35	30	26	22
		L/180	---	---	---	100	81	67	56	47	40	34	30
	Double	F_y/Ω	179	151	129	111	97	85	75	67	60	54	49
		L/240	---	---	---	---	---	---	---	---	---	---	---
		L/180	---	---	---	---	---	---	---	---	---	---	---
	Triple	F_y/Ω	223	188	160	138	121	106	94	84	75	68	62
		L/240	---	---	---	134	109	90	75	63	54	46	40
		L/180	---	---	---	---	---	---	---	84	71	61	53

Notes:

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