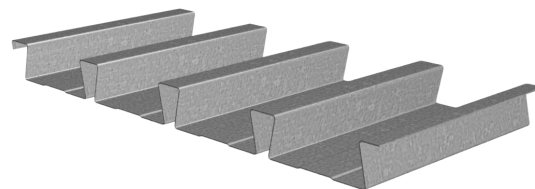


2.0D DOVETAIL ROOF DECK GRADE 40 STEEL

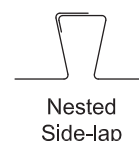
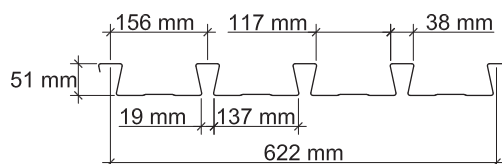
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2.0D DOVETAIL ROOF DECK

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



Nominal Dimensions



Section Properties

Deck Gage	Deck Weight w_{dd} (kg/m ²)	Base Metal Thickness t (mm)	Yield Strength F_y (MPa)	Effective Moment of Inertia at Service Load* $I_d = (2I_e + I_g)/3$		Effective Section Modulus* at $F_y = 276$ MPa		Factored Moment*		Vertical Web Shear* ϕV_n (kN)
				I_{d+} (mm ⁴ x10 ³)	I_{d-} (mm ⁴ x10 ³)	S_{e+} (mm ³ x10 ³)	S_{e-} (mm ³ x10 ³)	ϕM_{n+} (N-m)	ϕM_{n-} (N-m)	
22	10.25	0.75	276	528.5	490.2	14.62	14.62	3631	3631	54
20	12.69	0.91	276	644.6	610.4	18.44	17.96	4576	4456	65
18	16.59	1.20	276	854.9	835.7	24.89	24.19	6177	6005	86
16	20.98	1.52	276	1081.5	1080.2	31.56	30.97	7835	7687	107

*Physical Properties per meter (m) of width

Factored Reactions at Supports Based on Web Crippling, ϕR_n (kN/m)

Deck Gage	Bearing Length of Webs (mm)											
	One-Flange Loading						Two-Flange Loading					
	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
	40	50	75	100	75	125	40	50	75	100	75	125
22	13.2	14.2	16.3	18.1	24.4	28.9	13.1	13.9	15.5	16.9	29.9	35.7
20	18.8	20.1	23.1	25.6	34.8	40.9	19.7	20.8	23.2	25.2	43.0	51.2
18	31.3	33.5	38.2	42.1	57.9	67.5	35.2	37.1	41.0	44.3	72.7	85.9
16	47.8	51.0	57.8	63.5	88.3	102.3	56.5	59.3	65.3	70.3	111.8	131.2

Standard Features

- ASTM A653/A653M SS GR40 Min., with Z275/G90 galvanized
- Standard lengths – 1.83 m to 12.8 m
- UL and FM Listed
- Cold-formed steel deck conforms to CAN/CSA S136-16 and meets the guidelines of CSSBI 10M-2018.

Optional Features

- Inquire regarding cost and lead times for:
 - Short cuts < 1.83 m
 - Sheet Lengths > 12.8 m
 - Alternative metallic and painted finishes
- Perforated Acoustical Versions

2.0D DOVETAIL ROOF DECK GRADE 40 STEEL

Inward Uniform Factored Loads, LSD (kPa)

Deck Gage	Spans	Criteria	Span (mm)										
			1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200
22	Single	ϕW_n	20.2	12.9	9.0	6.6	5.1	4.0	3.2	2.7	2.2	1.9	1.7
		L/240	20.0	10.2	5.9	3.7	2.5	1.8	1.3	1.0	0.7	0.6	0.5
	Double	ϕW_n	19.5	12.6	8.8	6.5	5.0	4.0	3.2	2.7	2.2	1.9	1.6
		L/240	44.6	22.8	13.2	8.3	5.6	3.9	2.9	2.1	1.7	1.3	1.0
	Triple	ϕW_n	24.0	15.6	11.0	8.1	6.2	4.9	4.0	3.3	2.8	2.4	2.1
		L/240	35.0	17.9	10.4	6.5	4.4	3.1	2.2	1.7	1.3	1.0	0.8
20	Single	ϕW_n	25.5	16.3	11.3	8.3	6.4	5.0	4.1	3.4	2.8	2.4	2.1
		L/240	24.3	12.5	7.2	4.5	3.0	2.1	1.6	1.2	0.9	0.7	0.6
	Double	ϕW_n	23.9	15.5	10.8	8.0	6.1	4.9	3.9	3.3	2.7	2.3	2.0
		L/240	55.5	28.4	16.5	10.4	6.9	4.9	3.6	2.7	2.1	1.6	1.3
	Triple	ϕW_n	29.4	19.2	13.4	9.9	7.6	6.1	4.9	4.1	3.4	2.9	2.5
		L/240	43.5	22.3	12.9	8.1	5.4	3.8	2.8	2.1	1.6	1.3	1.0
18	Single	ϕW_n	34.4	22.0	15.3	11.2	8.6	6.8	5.5	4.5	3.8	3.3	2.8
		L/240	32.3	16.5	9.6	6.0	4.0	2.8	2.1	1.6	1.2	0.9	0.8
	Double	ϕW_n	32.1	20.8	14.6	10.8	8.3	6.6	5.3	4.4	3.7	3.2	2.7
		L/240	76.0	38.9	22.5	14.2	9.5	6.7	4.9	3.7	2.8	2.2	1.8
	Triple	ϕW_n	39.5	25.8	18.1	13.4	10.3	8.2	6.6	5.5	4.6	3.9	3.4
		L/240	59.6	30.5	17.7	11.1	7.4	5.2	3.8	2.9	2.2	1.7	1.4
16	Single	ϕW_n	43.6	27.9	19.4	14.2	10.9	8.6	7.0	5.8	4.8	4.1	3.6
		L/240	40.8	20.9	12.1	7.6	5.1	3.6	2.6	2.0	1.5	1.2	1.0
	Double	ϕW_n	41.0	26.6	18.7	13.8	10.6	8.4	6.8	5.6	4.7	4.0	3.5
		L/240	98.3	50.3	29.1	18.3	12.3	8.6	6.3	4.7	3.6	2.9	2.3
	Triple	ϕW_n	50.4	32.9	23.1	17.1	13.2	10.4	8.5	7.0	5.9	5.0	4.3
		L/240	77.0	39.4	22.8	14.4	9.6	6.8	4.9	3.7	2.9	2.2	1.8

Note:

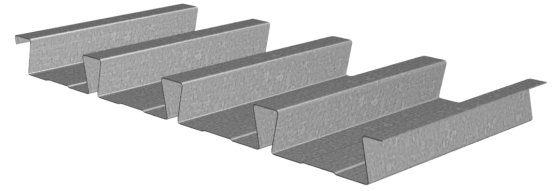
1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

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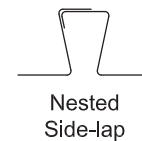
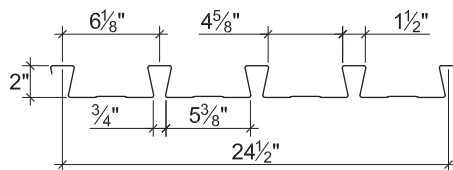
2.0D DOVETAIL ROOF DECK GRADE 40 STEEL

2.0D DOVETAIL ROOF DECK

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



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 $F_y = 40$ ksi		Factored 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)	
22	2.1	0.0295	40	0.387	0.359	0.272	0.272	816	816	3706
20	2.6	0.0358	40	0.472	0.447	0.343	0.334	1029	1002	4477
18	3.4	0.0474	40	0.626	0.612	0.463	0.450	1389	1350	5868
16	4.3	0.0598	40	0.792	0.791	0.587	0.576	1761	1728	7325

Factored 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	
	1 1/2"	2"	3"	4"	3"	5"	1 1/2"	2"	3"	4"	3"	5"
22	888	976	1123	1248	1681	1990	885	953	1068	1165	2057	2463
20	1267	1388	1591	1762	2393	2817	1333	1431	1595	1734	2963	3530
18	2116	2308	2629	2899	3985	4652	2386	2548	2821	3051	5005	5916
16	3234	3512	3979	4372	6075	7035	3835	4079	4489	4835	7699	9031

Standard Features

- ASTM A653/A653M SS GR40 Min., with Z275/G90 galvanized
- Standard lengths – 6'-0" to 42'-0"
- UL and FM Listed
- Cold-formed steel deck conforms to CAN/CSA S136-16 and meets the guidelines of CSSBI 10M-2018.

Optional Features

- Inquire regarding cost and lead times for:
 - Short cuts < 6'-0"
 - Sheet Lengths > 42'-0"
 - Alternative metallic and painted finishes
- Perforated Acoustical Versions

2.0D DOVETAIL ROOF DECK GRADE 40 STEEL

Inward Uniform Factored Loads, LSD (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	408	261	181	133	102	81	65	54	45	39	33
		L/240	396	203	117	74	50	35	25	19	15	12	9
	Double	ϕW_n	394	255	178	132	101	80	65	54	45	39	33
		L/240	886	454	262	165	111	78	57	43	33	26	21
	Triple	ϕW_n	484	316	221	164	126	100	81	67	56	48	41
		L/240	694	355	206	130	87	61	44	33	26	20	16
20	Single	ϕW_n	514	329	229	168	129	102	82	68	57	49	42
		L/240	483	248	143	90	60	42	31	23	18	14	11
	Double	ϕW_n	482	313	219	161	124	98	80	66	55	47	41
		L/240	1103	565	327	206	138	97	71	53	41	32	26
	Triple	ϕW_n	594	387	272	201	154	122	99	82	69	59	51
		L/240	864	443	256	161	108	76	55	42	32	25	20
18	Single	ϕW_n	694	444	309	227	174	137	111	92	77	66	57
		L/240	641	328	190	120	80	56	41	31	24	19	15
	Double	ϕW_n	649	421	295	217	167	132	107	89	75	64	55
		L/240	1510	773	447	282	189	133	97	73	56	44	35
	Triple	ϕW_n	798	521	365	270	208	165	134	111	93	79	69
		L/240	1184	606	351	221	148	104	76	57	44	34	28
16	Single	ϕW_n	881	564	391	288	220	174	141	116	98	83	72
		L/240	811	415	240	151	101	71	52	39	30	24	19
	Double	ϕW_n	829	538	377	278	214	169	137	114	96	81	70
		L/240	1952	999	578	364	244	171	125	94	72	57	46
	Triple	ϕW_n	1018	665	467	346	266	211	171	142	119	102	88
		L/240	1530	783	453	285	191	134	98	74	57	45	36

Note:

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

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