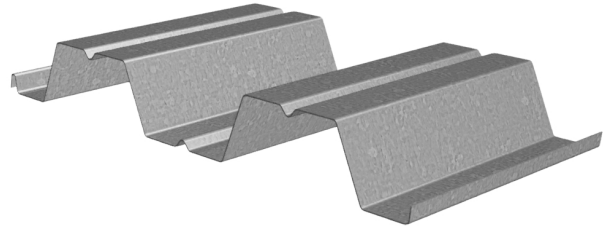
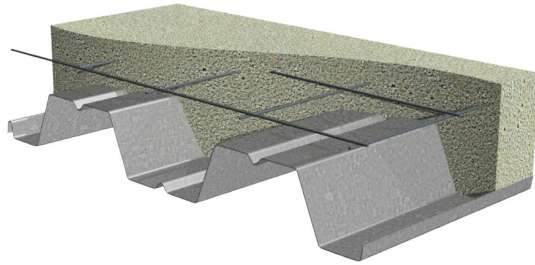
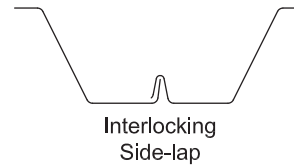
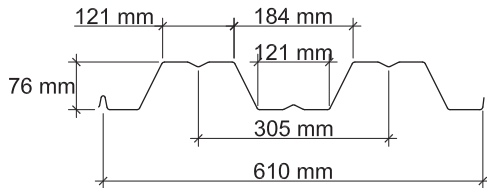


3C-24 NON-COMPOSITE DECK GRADE 50 STEEL

Metric
LSD



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 $F_y = 345$ 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	8.30	0.75	345	999.6	1006.4	20.81	22.04	6457	6838	26
20	10.25	0.91	345	1255.0	1257.7	27.53	28.98	8539	8992	46
18	13.18	1.20	345	1711.1	1711.1	40.91	42.69	12695	13243	81
16	17.08	1.52	345	2157.6	2157.6	54.46	54.46	16898	16898	114

*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	100	200	40	50	75	100	100	200
22	7.1	7.7	8.8	9.8	14.9	17.4	6.2	6.6	7.4	8.0	17.3	20.5
20	10.3	11.0	12.6	14.0	21.4	26.6	9.6	10.2	11.4	12.3	25.3	32.0
18	17.4	18.6	21.2	23.4	35.9	44.9	17.9	18.8	20.9	22.5	43.4	55.3
16	27.0	28.7	32.5	35.8	55.0	68.2	29.5	31.0	34.1	36.7	67.6	85.3

Standard Features

- ASTM A653/A653M SS GR50 Min., with Z275/G90 galvanized or ZF75/A25 galvanized
- Standard lengths – 1.83 m to 12.8 m
- 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
- Factory Hanger Tabs

3C-24 NON-COMPOSITE DECK GRADE 50 STEEL

Metric
LSD

Inward Uniform Factored Loads, LSD (kPa)

Deck Gage	Spans	Criteria	Span (mm)										
			1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800
22	Single	ϕW_n	16.0	12.9	10.7	9.0	7.7	6.6	5.8	5.1	4.5	4.0	3.6
		L/240	11.2	8.2	6.1	4.7	3.7	3.0	2.4	2.0	1.7	1.4	1.2
	Double	ϕW_n	13.7	11.5	9.8	8.4	7.3	6.3	5.6	5.0	4.4	4.0	3.6
		L/240	27.1	19.8	14.9	11.4	9.0	7.2	5.9	4.8	4.0	3.4	2.9
	Triple	ϕW_n	16.0	13.5	11.6	10.0	8.7	7.6	6.8	6.0	5.4	4.9	4.4
		L/240	21.3	15.5	11.6	9.0	7.1	5.6	4.6	3.8	3.2	2.7	2.3
20	Single	ϕW_n	21.1	17.1	14.1	11.9	10.1	8.7	7.6	6.7	5.9	5.3	4.7
		L/240	14.0	10.2	7.7	5.9	4.7	3.7	3.0	2.5	2.1	1.8	1.5
	Double	ϕW_n	19.6	16.2	13.6	11.6	10.0	8.7	7.6	6.7	6.0	5.4	4.8
		L/240	33.9	24.7	18.6	14.3	11.2	9.0	7.3	6.0	5.0	4.2	3.6
	Triple	ϕW_n	23.4	19.5	16.5	14.1	12.2	10.6	9.3	8.3	7.4	6.6	6.0
		L/240	26.6	19.4	14.6	11.2	8.8	7.1	5.7	4.7	3.9	3.3	2.8
18	Single	ϕW_n	31.4	25.5	21.0	17.7	15.1	13.0	11.3	9.9	8.8	7.9	7.1
		L/240	19.1	14.0	10.5	8.1	6.4	5.1	4.1	3.4	2.8	2.4	2.0
	Double	ϕW_n	29.9	24.6	20.6	17.5	15.0	13.0	11.4	10.1	8.9	8.0	7.2
		L/240	46.1	33.6	25.3	19.5	15.3	12.3	10.0	8.2	6.8	5.8	4.9
	Triple	ϕW_n	36.0	29.8	25.1	21.4	18.4	16.0	14.0	12.4	11.0	9.9	8.9
		L/240	36.1	26.3	19.8	15.2	12.0	9.6	7.8	6.4	5.4	4.5	3.8
16	Single	ϕW_n	41.8	33.9	28.0	23.5	20.0	17.3	15.1	13.2	11.7	10.5	9.4
		L/240	24.1	17.6	13.2	10.2	8.0	6.4	5.2	4.3	3.6	3.0	2.6
	Double	ϕW_n	38.7	31.8	26.5	22.5	19.3	16.7	14.6	12.9	11.5	10.2	9.2
		L/240	58.1	42.4	31.8	24.5	19.3	15.4	12.6	10.3	8.6	7.3	6.2
	Triple	ϕW_n	46.9	38.7	32.5	27.6	23.7	20.6	18.1	15.9	14.2	12.7	11.4
		L/240	45.6	33.2	25.0	19.2	15.1	12.1	9.8	8.1	6.8	5.7	4.8

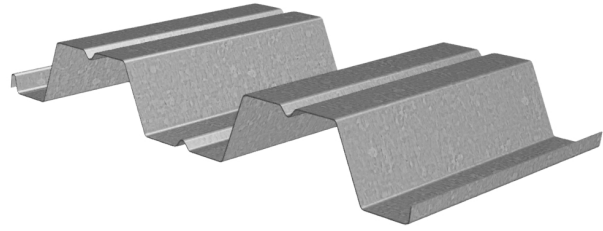
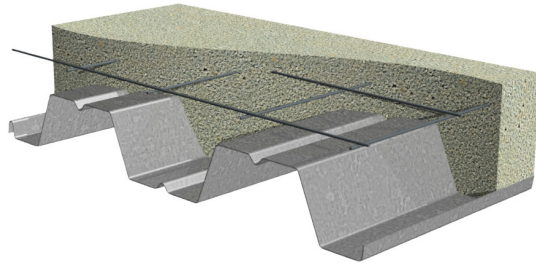
Note:

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

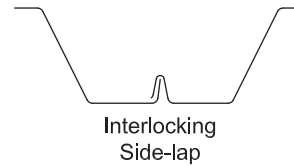
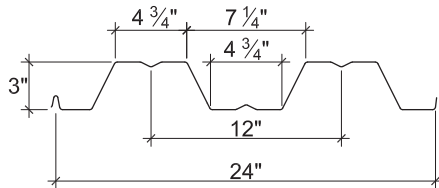
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3C-24 NON-COMPOSITE DECK GRADE 50 STEEL

Imperial
LSD



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 $F_y = 50$ 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	1.7	0.0295	50	0.732	0.737	0.387	0.410	1452	1537	1801
20	2.1	0.0358	50	0.919	0.921	0.512	0.539	1920	2021	3181
18	2.7	0.0474	50	1.253	1.253	0.761	0.794	2854	2977	5582
16	3.5	0.0598	50	1.580	1.580	1.013	1.013	3799	3799	7842

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"	4"	8"	1 1/2"	2"	3"	4"	4"	8"
22	480	527	607	674	1027	1194	420	452	507	553	1194	1401
20	693	760	871	965	1471	1822	653	701	781	849	1743	2189
18	1177	1284	1462	1613	2469	3092	1213	1296	1434	1551	2991	3806
16	1822	1978	2241	2463	3786	4698	2002	2129	2343	2524	4654	5873

Standard Features

- ASTM A653/A653M SS GR50 Min., with Z275/G90 galvanized or ZF75/A25 galvanized
- Standard lengths – 6'-0" to 42'-0"
- 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
- Factory Hanger Tabs

3C-24 NON-COMPOSITE DECK GRADE 50 STEEL

Imperial
LSD

Inward Uniform Factored Loads, LSD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.)										
			6'-0"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	11'-0"	12'-0"	13'-0"
22	Single	ϕW_n	323	237	206	181	161	143	129	116	96	81	69
		L/240	222	140	114	94	78	66	56	48	36	28	22
	Double	ϕW_n	278	214	190	170	152	137	124	113	95	80	69
		L/240	539	339	276	227	190	160	136	116	87	67	53
	Triple	ϕW_n	325	253	226	202	182	165	150	137	115	98	85
		L/240	422	266	216	178	149	125	106	91	69	53	42
20	Single	ϕW_n	427	313	273	240	213	190	170	154	127	107	91
		L/240	279	176	143	118	98	83	70	60	45	35	27
	Double	ϕW_n	397	301	265	235	210	188	170	154	128	109	93
		L/240	673	424	345	284	237	200	170	145	109	84	66
	Triple	ϕW_n	474	362	320	285	255	230	208	189	158	134	115
		L/240	528	332	270	223	186	156	133	114	86	66	52
18	Single	ϕW_n	634	466	406	357	316	282	253	228	189	159	135
		L/240	380	239	195	160	134	113	96	82	62	48	37
	Double	ϕW_n	605	454	399	353	315	282	254	230	191	161	138
		L/240	916	577	469	386	322	271	231	198	149	115	90
	Triple	ϕW_n	730	553	487	432	386	346	313	284	236	200	171
		L/240	718	452	368	303	253	213	181	155	117	90	71
16	Single	ϕW_n	844	620	540	475	421	375	337	304	251	211	180
		L/240	480	302	246	202	169	142	121	104	78	60	47
	Double	ϕW_n	783	586	514	454	405	362	326	295	245	207	177
		L/240	1155	727	591	487	406	342	291	250	187	144	114
	Triple	ϕW_n	950	716	630	558	498	446	403	365	304	256	219
		L/240	905	570	464	382	318	268	228	196	147	113	89

Note:

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

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