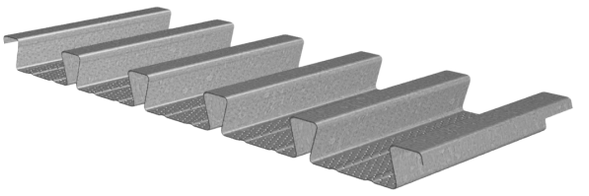
2.0DS-30 AC ACOUSTICAL DOVETAIL ROOF DECK
GRADE 50 STEEL

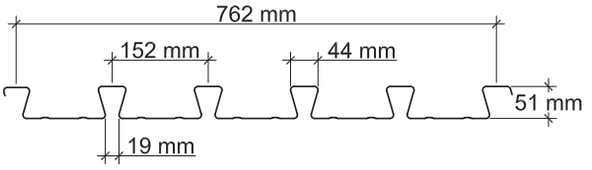
Metric LSD

2.0DS-30 AC DOVETAIL ROOF DECK

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



Nominal Dimensions



Nested
Side-lap

Section Properties

Deck Gage	Deck Weight w_{dd} (kg/m²)	Base Metal Thickness t (mm)	Yield Strength F_y (MPa)	Effective Moment of Inertia at Service Load* $I_d = (2I_e+I_g)/3$ I_d+ (mm⁴x10³)	I_d- (mm⁴x10³)	Effective Section Modulus* at F_y = 345 MPa S_e+ (mm³x10³)	S_e- (mm³x10³)	Factored Moment* øM$_n$+ (N-m)	øM$_n$- (N-m)	Vertical Web Shear* øV$_n$ (kN)
22	10.25	0.759	345	505.3	452.0	15.11	13.55	4684	4204	62
20	12.21	0.912	345	609.1	569.5	18.92	18.12	5865	5625	74
18	16.60	1.214	345	813.9	819.4	25.86	25.91	8031	8047	98
16	20.99	1.519	345	1044.7	1082.9	33.17	33.55	10297	10409	121

*Physical Properties per meter (m) of width

Factored Reactions at Supports Based on Web Crippling, øR$_n$ (kN/m)

Deck Gage	Bearing Length of Webs (mm) One-Flange Loading End Bearing 40	50	75	100	Interior Bearing 75	125	Two-Flange Loading End Bearing 40	50	75	100	Interior Bearing 75	125
22	16.8	18.1	20.8	23.1	29.7	34.4	16.0	16.9	19.0	20.7	36.3	42.5
20	23.5	25.2	28.9	32.0	41.7	48.0	23.7	25.0	27.9	30.3	51.6	60.0
18	39.7	42.4	48.3	53.2	70.7	80.5	43.2	45.4	50.3	54.3	88.8	102.1
16	59.6	63.6	72.0	79.1	106.6	120.3	68.4	71.8	79.0	85.1	135.1	154.0

Standard Features

- ASTM A653/A653M SS GR50 Min., with Z275/G90 galvanized
- Standard lengths – 1.8 m to 12.2 m
- 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:
  - -21, 19 or 17 gage
  - -Alternative metallic and painted finishes

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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	26.1	16.7	11.6	8.5	6.5	5.2	4.2	3.4	2.9	2.5	2.1
		L/240	19.1	9.8	5.7	3.6	2.4	1.7	1.2	0.9	0.7	0.6	0.4
	Double	ϕW_n	22.5	14.6	10.2	7.5	5.8	4.6	3.7	3.1	2.6	2.2	1.9
		L/240	41.1	21.1	12.2	7.7	5.1	3.6	2.6	2.0	1.5	1.2	1.0
	Triple	ϕW_n	27.7	18.1	12.7	9.4	7.2	5.7	4.6	3.8	3.2	2.8	2.4
		L/240	32.2	16.5	9.5	6.0	4.0	2.8	2.1	1.5	1.2	0.9	0.8
20	Single	ϕW_n	32.7	20.9	14.5	10.7	8.2	6.5	5.2	4.3	3.6	3.1	2.7
		L/240	23.0	11.8	6.8	4.3	2.9	2.0	1.5	1.1	0.9	0.7	0.5
	Double	ϕW_n	29.9	19.4	13.6	10.1	7.7	6.1	5.0	4.1	3.5	3.0	2.5
		L/240	51.8	26.5	15.3	9.7	6.5	4.5	3.3	2.5	1.9	1.5	1.2
	Triple	ϕW_n	36.6	24.0	16.9	12.5	9.6	7.6	6.2	5.1	4.3	3.7	3.2
		L/240	40.6	20.8	12.0	7.6	5.1	3.6	2.6	2.0	1.5	1.2	0.9
18	Single	ϕW_n	44.7	28.6	19.9	14.6	11.2	8.8	7.2	5.9	5.0	4.2	3.7
		L/240	30.7	15.7	9.1	5.7	3.8	2.7	2.0	1.5	1.1	0.9	0.7
	Double	ϕW_n	42.4	27.7	19.4	14.4	11.0	8.8	7.1	5.9	4.9	4.2	3.6
		L/240	74.5	38.2	22.1	13.9	9.3	6.5	4.8	3.6	2.8	2.2	1.7
	Triple	ϕW_n	51.8	34.1	24.0	17.8	13.7	10.9	8.8	7.3	6.2	5.3	4.5
		L/240	58.4	29.9	17.3	10.9	7.3	5.1	3.7	2.8	2.2	1.7	1.4
16	Single	ϕW_n	57.3	36.7	25.5	18.7	14.3	11.3	9.2	7.6	6.4	5.4	4.7
		L/240	39.4	20.2	11.7	7.4	4.9	3.5	2.5	1.9	1.5	1.1	0.9
	Double	ϕW_n	54.6	35.7	25.1	18.5	14.3	11.3	9.2	7.6	6.4	5.5	4.7
		L/240	98.5	50.4	29.2	18.4	12.3	8.6	6.3	4.7	3.6	2.9	2.3
	Triple	ϕW_n	66.5	43.8	31.0	23.0	17.7	14.1	11.4	9.5	8.0	6.8	5.9
		L/240	77.2	39.5	22.9	14.4	9.7	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.