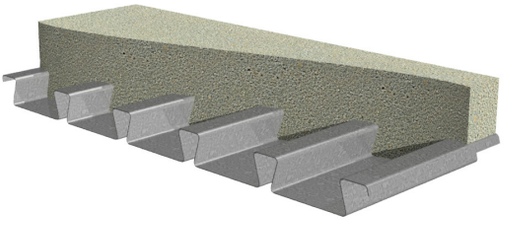
2.0DF-30 FL FORMLOK® DOVETAIL DECK
GRADE 50 STEEL

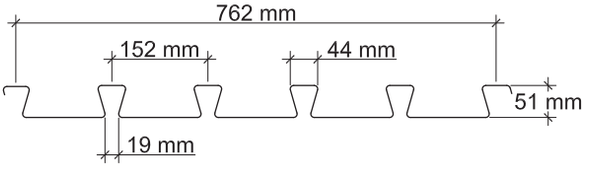
Metric LSD

2.0DF-30 FL DOVETAIL DECK

- **Enhanced 2-Coat Polyester Paint**
- **White Factory Primer Paint**
- **Galvanized Finish**
- **UL 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+ (mm^4x10^3)	I_d- (mm^4x10^3)	Effective Section Modulus* at F_y = 345 MPa S_e+ (mm^3x10^3)	S_e- (mm^3x10^3)	Factored Moment* $øM_n$+ (N-m)	$øM_n$- (N-m)	Vertical Web Shear* $øV_n$ (kN)
20	13.18	0.912	345	715.6	639.1	20.43	18.49	6335	5743	74
18	17.58	1.214	345	954.5	901.3	28.49	26.40	8839	8189	98
16	21.97	1.519	345	1197.6	1170.3	36.02	33.98	11182	10536	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
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 or ZF75/A25 galvannealed
- Standard lengths – 1.8 m to 12.2 m
- UL Listed
- Cold-formed steel deck conforms to AISI S100-16 and meets the guidelines of CSSBI 12M-2024.

Optional Features

- Inquire regarding cost and lead times for:
  - -19 or 17 gage
  - -Alternative metallic and painted finishes

2.0DF-30 FL FORMLOK® DOVETAIL DECK
NORMAL WEIGHT CONCRETE (2325 kg/m³)

Metric LSD

Maximum Unshored Spans

Slab Depth			Maximum Unshored Construction Clear Span (mm)		
Total (mm)	Topping (mm)	Deck Gage	1	2	3
102	51	20	2945	3086	3189
		18	3221	3666	3789
		16	3452	4138	4064
135	84	20	2671	2773	2866
		18	2927	3299	3410
		16	3142	3728	3786
140	89	20	2638	2734	2825
		18	2891	3253	3361
		16	3103	3676	3752

Composite Deck-Slab Properties

Concrete + Deck (kPa)	Deflection $I_d = (I_{cr}+I_u)/2$ (mm^4x10^3/m)	Moment $øM_{no}$ (kN-m/m)	Shear $øV_{no}$ (kN/m)
2.2	8396.09	31.89	75
2.3	9368.65	40.89	75
2.3	10239.63	49.48	75
3.0	18178.08	41.85	99
3.0	20193.61	53.97	99
3.1	22005.17	65.61	99
3.1	20105.20	43.40	103
3.1	22323.15	56.02	103
3.2	24319.33	68.15	103

Notes:
1. Maximum unshored spans are based on 1.0 kPa uniform construction live load and 2.2 kN/m concentrated construction live load.
2. Maximum unshored spans do not consider web-crippling. Required bearing should be determined based on specific span conditions.

Superimposed Factored Load, $øW_n$, / Deflection at L/360 (kPa)

NWC (2325 kg/m³), f'_c = 20 MPa

Total Slab Depth	Deck Gage	Span (mm)							
		3000	3600	3900	4200	4500	4800	5400	6000
102	20	25.6/13.5	16.9/7.8	14.0/6.1	11.7/4.9	9.8/4.0	8.3/3.3	5.9/2.3	4.3/1.7
	18	33.5/15.0	22.4/8.7	18.7/6.8	15.7/5.5	13.3/4.5	11.3/3.6	8.4/2.5	6.2/1.9
	16	41.1/16.4	27.6/9.5	23.1/7.5	19.5/6.0	16.7/4.8	14.3/4.0	10.7/2.8	8.1/2.0
135	20	33.5/29.2	22.1/16.9	18.3/13.3	15.2/10.6	12.8/8.6	10.8/7.1	7.8/5.0	5.6/3.6
	18	44.2/32.4	29.5/18.8	24.6/14.7	20.7/11.8	17.5/9.6	14.9/7.9	11.0/5.6	8.2/4.0
	16	54.5/35.3	36.7/20.4	30.7/16.1	25.9/12.9	22.1/10.4	19.0/8.6	14.2/6.0	10.7/4.4
140	20	34.7/32.3	22.9/18.7	19.0/14.7	15.8/11.7	13.3/9.5	11.2/7.9	8.0/5.5	5.8/4.0
	18	45.9/35.9	30.6/20.7	25.5/16.3	21.5/13.1	18.2/10.6	15.5/8.7	11.4/6.1	8.5/4.5
	16	56.6/39.1	38.1/22.6	31.8/17.8	26.9/14.2	22.9/11.5	19.7/9.5	14.7/6.7	11.2/4.9

Notes:
1. The composite deck-slab design is based on tested performance and engineering analysis in accordance Section 7.6.1 of CSSBI 12M-2024.
2. For high loads long term concrete creep should be considered.
3. See Composite Deck-Slab Superimposed Load tool for alternate slabs.