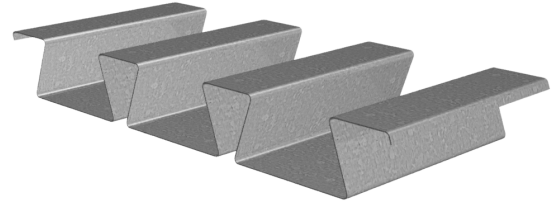


3.5DF-24 DOVETAIL ROOF DECK GRADE 50 STEEL

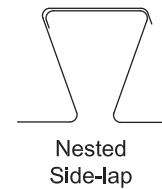
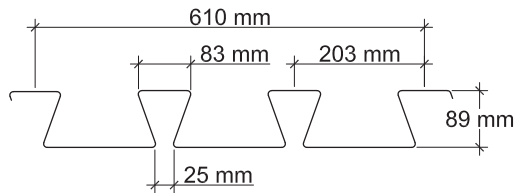
Metric
LSD

3.5DF-24 DOVETAIL ROOF DECK

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



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)	
18	21.97	1.214	345	3670.7	3408.5	56.72	50.27	17602	15600	127
16	27.34	1.519	345	4684.0	4446.4	76.18	69.30	23640	21508	183

*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	
	50	75	100	125	100	150	50	75	100	125	100	150
18	28.9	32.9	36.3	39.3	55.9	63.5	29.2	32.3	34.9	37.2	67.5	77.5
16	43.8	49.6	54.5	58.8	84.2	95.1	47.0	51.7	55.7	59.2	103.1	117.7

Standard Features

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

3.5DF-24 DOVETAIL ROOF DECK GRADE 50 STEEL

Metric
LSD

Inward Uniform Factored Loads, LSD (kPa)

Deck Gage	Spans	Criteria	Span (mm)										
			3300	3600	3900	4200	4500	4800	5100	5400	5700	6000	6300
18	Single	ϕW_n	13.0	10.9	9.3	8.0	7.0	6.1	5.4	4.8	4.3	3.9	3.6
		L/240	6.7	5.1	4.0	3.2	2.6	2.2	1.8	1.5	1.3	1.1	1.0
	Double	ϕW_n	11.3	9.5	8.1	7.0	6.1	5.4	4.8	4.3	3.8	3.5	3.1
		L/240	14.9	11.5	9.0	7.2	5.9	4.8	4.0	3.4	2.9	2.5	2.1
	Triple	ϕW_n	14.0	11.8	10.1	8.7							
		L/240	11.7	9.0	7.1	5.7							
16	Single	ϕW_n	17.4	14.6	12.5	10.7	9.4	8.2	7.3	6.5	5.8	5.3	4.8
		L/240	8.5	6.6	5.2	4.1	3.4	2.8	2.3	1.9	1.7	1.4	1.2
	Double	ϕW_n	15.6	13.1	11.2	9.7	8.4	7.4	6.6	5.9	5.3	4.8	4.3
		L/240	19.4	15.0	11.8	9.4	7.7	6.3	5.3	4.4	3.8	3.2	2.8
	Triple	ϕW_n	19.4	16.3	13.9	12.1							
		L/240	15.2	11.7	9.2	7.4							

Note:

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

NOTICE: Design defects that could cause injury or death may result from relying on the information in this document without independent verification by a qualified professional. The information in this document is provided "AS IS". Nucor Corporation and its affiliates expressly disclaim: (i) any and all representations, warranties and conditions and (ii) all liability arising out of or related to this document and the information in it.