



3.0” ‘N’ Deep Rib Roof Deck Specification Sheet

Features and Benefits



Prompt Lead Times are our specialty. All orders are promptly produced and shipped to meet your on-site specifications.

Project Management and Engineering Services are offered by Cordeck’s full, expert, in-house engineering and detailing services to assure optimal planing and design. Our experienced engineers and technicians provide individual customer service and attention to detail from *concept to completion*.

SDI Membership by the manufacturer guarantees product quality in accordance to the Steel Deck Institute (SDI).

AutoCAD® Drawings can be transferred electronically for improved quality and reduced time and cost of drawing transmittal.

Bundle Placement Plans are provided to ensure correct location of bundles during unloading and hoisting.

On-Spec, Guaranteed Quality. Our production staff are true craftsmen and take pride in completing each job to perfection.

Knowledgeable, Courteous, Caring Employees Throughout our Ranks. We’re a family business, no “big corporate” attitude here! We genuinely appreciate our customers’ patronage and treat each order, regardless of size, with the utmost care and attention.

CORDECK IS YOUR NATIONWIDE METAL DECK SUPPLY COMPANY

ROOF DECK

FORM DECK

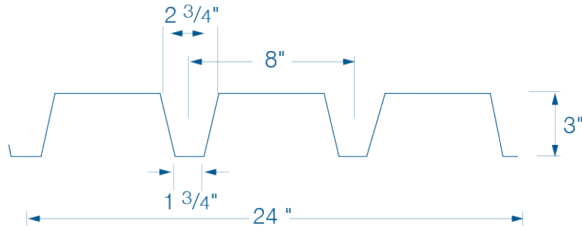
CELLULAR ROOF DECK

COMPOSITE FLOOR DECK

CELLULAR COMPOSITE FLOOR DECK

METAL DECK ACCESSORIES

3.0" 'N' Deep Rib Roof Deck



Section Properties

3.0" Type 'N' Roof Deck Section Properties								
Gage	t in	Wd psf	Sp in ³ /ft	Sn in ³ /ft	I _p in ⁴ /ft	I _n in ⁴ /ft	V _a lbs/ft	F _y ksi
22	0.030	2.26	0.382	0.433	0.659	0.884	2232	33
20	0.036	2.71	0.501	0.552	0.848	1.079	3287	33
19	0.042	3.15	0.597	0.659	1.045	1.260	4217	33
18	0.047	3.56	0.688	0.749	1.238	1.430	4771	33
16	0.060	4.46	0.893	0.944	1.683	1.807	5988	33

Allowable Uniform Load

3.0" Type 'N' Roof Deck Allowable Uniform Load (PSF)													
No. of Spans	Gage	Max. SDI Const. Span	Allowable Total (PSF / Load Causing Deflection of L/240 or 1 inch (PSF))										
			Span - Feet and Inches (ctr. To ctr. Supports)										
			10' - 0"	10' - 6"	11' - 0"	11' - 6"	12' - 0"	12' - 6"	13' - 0"	13' - 6"	14' - 0"	14' - 6"	15' - 0"
1	22	11' - 7"	50 / 43	46 / 37	42 / 32	38 / 28	35 / 25	32 / 22	30 / 20	28 / 18	26 / 16	24 / 14	22 / 13
	20	13' - 2"	66 / 56	60 / 48	55 / 42	50 / 37	46 / 32	42 / 28	39 / 25	36 / 23	34 / 20	31 / 18	29 / 16
	19	14' - 7"	79 / 69	71 / 59	65 / 51	59 / 45	55 / 40	50 / 35	47 / 31	43 / 28	40 / 25	37 / 22	35 / 20
	18	15' - 11"	91 / 81	82 / 70	75 / 61	69 / 53	63 / 47	58 / 42	54 / 37	50 / 33	46 / 30	43 / 27	40 / 24
	16	18' - 6"	118 / 110	107 / 95	97 / 83	89 / 73	82 / 64	75 / 56	70 / 50	65 / 45	60 / 40	56 / 36	52 / 33
2	22	13' - 8"	56 / 122	51 / 105	47 / 92	43 / 80	39 / 71	36 / 62	34 / 55	31 / 50	29 / 44	27 / 40	25 / 36
	20	15' - 6"	72 / 152	65 / 131	60 / 114	55 / 100	50 / 88	46 / 78	43 / 69	40 / 62	37 / 55	34 / 50	32 / 45
	19	16' - 11"	86 / 182	78 / 157	71 / 137	65 / 120	60 / 105	55 / 93	51 / 83	47 / 74	44 / 66	41 / 60	38 / 54
	18	18' - 1"	98 / 211	89 / 182	81 / 158	74 / 139	68 / 122	63 / 108	58 / 96	54 / 86	50 / 77	47 / 69	44 / 62
	16	20' - 4"	123 / 276	112 / 238	102 / 207	93 / 181	86 / 159	79 / 141	73 / 125	68 / 112	63 / 100	59 / 90	55 / 82
3	22	13' - 8"	69 / 95	64 / 82	58 / 72	53 / 63	49 / 55	45 / 49	42 / 43	39 / 39	36 / 35		
	20	15' - 6"	90 / 119	81 / 103	74 / 90	68 / 78	63 / 69	58 / 61	53 / 54	50 / 48	46 / 43		
	19	16' - 11"	107 / 143	97 / 123	89 / 107	81 / 94	75 / 83	69 / 73	64 / 65	59 / 58	55 / 52		
	18	18' - 1"	122 / 165	111 / 143	101 / 124	92 / 109	85 / 96	78 / 84	72 / 75	67 / 67	63 / 60		
	16	20' - 4"	154 / 216	139 / 186	127 / 162	116 / 142	107 / 125	99 / 111	91 / 98	85 / 88	79 / 79		

Maintenance Loads Standard

3.0" Type 'N' Roof Deck SDI - Maximum Spans for Construction and Maintenance Loads Standard			
Deck Profile	Deck Type	Span Condition	Maximum Span
Deep Rib Deck	3DR22	1	11' - 0"
		2 or more	13' - 0"
	3DR20	1	12' - 6"
		2 or more	14' - 8"
	3DR18	1	15' - 0"
		2 or more	17' - 0"

SDI Maximum Cantilever Spans

3.0" Type 'N' Roof Deck SDI Maximum Cantilever Spans for 3" Roof Deck		
Deck Profile	Deck Type	Cantilever Span
Deep Rib Deck	3DR22	3' - 5"
	3DR20	3' - 11"
	3DR18	4' - 9"

3.0” ‘N’ Deep Rib Roof Deck

Product Information Design

Cordeck certifies that our ‘N’ Deep Roof Deck has been evaluated in accordance with the applicable SDI Standards and property values for the Uniform Load Tables, and meets or exceeds SDI requirements.

Load shown in tables are uniformly distributed total (dead plus live) load in psf (kPa). All loads are governed by the allowable flexural stress limit of 20 ksi (140 Mpa) maximum yield steel. Where heavy construction loads or other unusual concentrated loads are anticipated during the lifetime of the deck, the specified live load must be increased to offset the effects of the abnormal concentrated load. See Maximum Spans for Construction and Maintenance Loads in the SDI Design Manual.

The rib width limitations shown are taken at the theoretical intersection points on the flange and web projections. Depending on the radius used, the load table could vary from what is shown.

Material

All steel used to manufacture Cordeck’s ‘N’ Deep Rib Roof Deck will be galvanized, prime painted, or a combination of the two.

Prime Painted

1. All steel shall be produced to ASTM A1008 standard.
2. Roof deck shall receive one coat of standard gray primer paint over cleaned and pretreated steel.
3. The primer coat is intended to protect the steel for only a reasonably short period of exposure, in normal, atmospheric conditions, and shall be considered an impermanent and provisional coating.
4. Field painting of prime painted material is recommended especially where the deck is exposed.

Galvanized

1. All G-60 or G-90 shall be produced to ASTM A653 standards.
2. All steel shall be coated to conform to ASTM A924 G-60 or G-90 or to Federal Specifications QQ-S-775.
3. Galvanized finish in G-60 coating is desirable in high moisture atmospheric conditions.
4. Cordeck shall not be responsible for the cleaning of the underside of the steel deck to ensure bond of fireproofing. Adherence of fireproofing material is dependent on many variables. The adhesion ability of fireproofing materials is the responsibility of the fireproofing applicator.

Accessories

1. Cordeck can supply metal deck accessories necessary to complete your project.

**PROUDLY MADE
IN THE USA**

Since 1994

3.0” ‘N’ Deep Rib Roof Deck

SDI Member

1. All steel deck material is manufactured by Steel Deck Institute members or manufactured in accordance to SDI.
2. Cordeck certifies that all material will be in accordance with the SDI Deck Manual specifications.
3. Cordeck's 3.0” ‘N’ Deep Rib Roof Deck conforms to all applicable SDI Deck Manual specifications.

Installation

1. Cordeck's Roof Deck shall be installed by qualified and experienced workers.
2. Roof Deck installation drawings shall be submitted to the project architect and engineer for approval prior to the manufacture of materials.
3. Roof Deck shall be placed in accordance with approved erection drawings.
4. End laps shall be a nominal 2” and positioned over supports.
5. Position each deck unit on a supporting structural frame. Adjust to final position with accurately aligned side laps and end bearings on supporting members. On joist framing, be sure the appropriate end laps occur over a top chord angle for proper anchorage.
6. When one row is placed end to end begin another making alignment adjustments if necessary.
7. Each deck unit shall be placed on supporting steel framework and adjusted steel framework.
8. Cutting the openings through the deck and all skew cutting shall be performed in the field. Openings not shown on the erection drawing such as those required for stack, conduits, plumbing, vents, etc., shall be cut and reinforced if necessary by the trades requiring the openings.

Attachment

1. Roof Deck sheets shall be attached as soon as possible after placement. All sheets placed shall be attached prior to the end of each work day. Arc welding is the most commonly used method for attaching Cordeck Metal Roof Deck to structural supports. Welder shall immediately follow the placement crew.

Attachment Cont.

2. All welds are to be made from the top of the deck down through the bottom flange of the ribs. Welds shall penetrate and attached all thicknesses of material to the structural supports.
3. Caution shall be exercised on the selection of the electrodes to provide positive attachment and to prevent high amperage blow holes.
4. Puddle welds shall be at least 5/8” in diameter or elongated puddle welds with an equal perimeter. Fillet welds, when use, shall be at least 1” long.
 - a. 3.0” ‘N’ Deep Roof Deck ends shall be welded to structural supports at 12” on center maximum and 18” on center maximum at intermediate supports.
 - b. Various mechanical fastening systems other than welding are recognized as viable anchoring methods provided they are reviewed, approved, or specified by the project designer. These include, but are not limited to, power-activated or pneumatically driven fasteners and screws.
 - c. When spans exceed 5’-0”, side laps shall be fastened together at a maximum spacing of 36” on center.

Attachment must be determined by the designer as part of the overall building design process. Values given in this document are adequate, in most cases.

Storage and Handling

1. Protect metal deck from corrosion, deformation, and other damage during storage, handling, and installation.
2. Deck not promptly erected shall be stored off the ground, with one end elevated to provide drainage. Bundles must be protected against condensations with a ventilated waterproof covering.
3. Bundles must be stacked so there is no danger of shifting or material damage. Bundles must be checked for tightness and re-tightened if necessary.
4. Deck bundles on the building frame must always be placed near a main supporting beam at the column or a wall. In no situation are the bundles to be placed on unbolted frames or unattached and unbridged joists. The structural frame must be properly braced to receive the bundles.

