



ICC-ES Listing Report ESL-1436

Issued August 2023

This listing is subject to renewal in August 2024.

CSI: DIVISION: 05 00 00—METALS
Section: 05 31 00—Steel Decking
Section: 05 31 13—Steel Floor Decking
Section: 05 31 23—Steel Roof Decking
Section 05 36 00—Composite Metal Decking

Product Certification System:

The ICC-ES product-certification system includes evaluating reports of tests of standard manufactured product, prepared by accredited testing laboratories and provided by the listee, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the listee's quality system.

Product: NEW MILLENNIUM STEEL DECKS:

- ROOF DECK PANELS; RD, RDV, F, B, BV, BI, BIV, BA, BIA, N, AND NA
- FORM DECK PANELS; FD, FDB, FD EXTENDED LEG, FDV, FDR, FDI, AND FDIV
- COMPOSITE DECK PANELS; CD, CDB, CD EXTENDED LEG, CDI, AND CDR

Listee: NEW MILLENNIUM BUILDING SYSTEMS, LLC

Compliance with the following standard:

- CSA S136-16, North American specification for the design of cold-formed steel structural members (using the Appendix B provisions applicable to Canada), CSA Group.

Compliance with the following building codes:

The deck panels have been evaluated based on CSA S136, as referenced in the applicable sections of the following code editions:

- *National Building Code of Canada*® 2020 (NBC)
Applicable Section: Volume 1 – Division B: 4.3.4.2.
- *National Building Code of Canada*® 2015 (NBC)
Applicable Section: Volume 1 – Division B: 4.3.4.2.

Description of Product:

New Millennium steel decks are used as floor and roof deck to support vertical loads, and as components of horizontal diaphragms and composite floor assemblies.

- **New Millennium Steel Decks:** The deck panels are cold-formed from steel sheets complying with ASTM A653 or ASTM A1008 and have either a galvanized, painted/painted, phosphatized/painted, or mill finish. The deck panels range from 14.3 mm to 76.2 mm in depth and 610 mm to 914 mm in width. See Table A for deck panel profiles, Table C for specifications, and Table D for finishes. See Figure 2 for embossment patterns and Figure 4 for hole pattern dimensional information for the acoustic steel roof decks.
- **Supports:** Hot-Rolled Steel Supports must comply with CSA S16. Cold-Formed Steel Supports must comply with CSA S136. Wood Supports must comply with CSA O86 and be structural lumber. Concrete supports must comply with CSA A23.3.

- **Connections:** Connections between the steel deck and support must be in accordance with the applicable codes.
- **Concrete Fill:**
 - Structural Concrete: Normal weight and structural low density concrete must be in accordance with the NBC (i.e. CSA A23.3) and must have a minimum 28-day compressive strength of 20.7 MPa. Structural low density concrete fill must have a maximum air-dry unit weight of 1760 kg/m³.
 - Lightweight Insulation Concrete: Insulating concrete aggregate must conform to ASTM C332.

Design Requirements:

■ Vertical Load Design:

- The section properties included in this listing comply with CSA S136. To account for the perforated webs in the BA, BIA, and NA steel deck panels, compliance has also been shown with the SDI white paper "Perforated Metal Deck Design with Commentary" (SDI PMDDWC), dated November 18, 2011.
- Table B includes figures for web crippling reactions. The minimum permissible bearing length must be the larger of 19 mm, the length required to provide sufficient edge or end distance for the support fasteners, and the length required to provide sufficient strength to prevent web crippling under the design loading.
- Calculation of web crippling values with bearing lengths and/or support conditions other than those described in Footnote 4 of Tables 2-7, 9-14, and 15-19 must be in accordance with CSA S136 and SDI PMDDWC, as applicable.
- The steel roof decks must be designed and constructed in accordance with the NBC and SDI RD using the properties in Tables 1-7. The steel form decks must be designed and constructed in accordance with the NBC and SDI NC using the section properties in Tables 8-14. Structural concrete slabs used with form deck must be designed in accordance with the requirements of SDI NC and CSA A23. The steel composite decks must be designed and constructed in accordance with the NBC and SDI C using the section properties in Tables 15-19.
- The moments of inertia included in the tables, which are used for deflection calculations, have been determined as follows for single and multiple span conditions:

$$\text{Single span: } I_D \text{ 1 Span} = (I_g + 2I_p)/3$$

$$\text{Multiple span: } I_D \text{ 2+ Span} = \text{MAX}\{(I_g + 2I_p)/3 | (I_g + 2I_n)/3\}$$

■ Horizontal Load (Diaphragm) Design:

- Panels without Concrete Fill: Diaphragm shear strength and stiffness of the steel deck panels and panel connections must be determined in accordance with AISI S310, using the section properties in Tables 1, 8, and 15. See Figure 1 for typical attachment patterns. Diaphragm strength and stiffness determination must consider the effects of web perforations in acoustic steel roof decks in accordance with SDI PMDDWC.
- Panels with Concrete Fill: Diaphragm shear strength and stiffness of the steel decks considering the contribution of concrete fill must be determined in accordance with AISI S310. Diaphragm design considering the contribution of the concrete must be in accordance with the design and construction detail requirements specified in AISI S310 and in conformance with the manufacturer's separate evaluation report if not covered in the NBC for the intended use.

Identification:

1. Packaging of each bundle of the New Millennium Steel Decks carries a label indicating the manufacturer's name and address, the deck type, the minimum base-metal thickness (uncoated), minimum specified yield strength, the ICC-ES Listing number (ESL-1436), and the ICC-ES listing mark, as applicable.
2. The report holder's contact information is the following:

NEW MILLENNIUM BUILDING SYSTEMS, LLC
3565 HIGHWAY 32 NORTH
HOPE, ARKANSAS 71801
(870) 722-4100
www.newmill.com

Installation:

The deck panels must be installed in accordance with this listing, the New Millennium Building Systems, LLC published installation guidelines and instructions, and applicable codes. If there is a conflict between the New Millennium Building Systems, LLC published installation guidelines and instructions and this listing, this listing governs.

Deck panels and fasteners must be installed at locations in accordance with the plans and specifications approved by the code official. Fasteners must be installed in accordance with the applicable standards and specifications and fastener manufacturer recommendations.

Deck panels must be installed with the galvanized or bare steel deck panel face in contact with the concrete and the galvanized or prime painted deck panel surface on the underside. Deck panels must be clean and free of foreign materials prior to placement of concrete.

Conditions of listing:

1. The listing addresses only conformance with the standards and code sections noted above.
2. Approval of the product's use is the sole responsibility of the local code official.
3. The listing applies only to the materials tested and as submitted for review by ICC-ES.
4. The minimum loads of NBC must be considered by the design professional based on the specific occupancy for use, as applicable.
5. Special inspections must comply with NBC.
6. Calculations and details demonstrating that the loads applied to the deck panels comply with this report must be submitted to the code official for approval. Calculations and drawings must be prepared, signed and sealed by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
7. Concrete-filled sections must not be used to support loads that are predominantly vibratory, such as those for operation of heavy machinery, reciprocating motors or moving loads.
8. Vertical load design of deck panels, without concrete fill, must be based on section properties noted within this ICC-ES listing.
9. When the steel deck panels are used as roof decks, the panels must be covered with an approved code-complying roof covering.
10. The New Millennium steel decks are manufactured in Butler, Indiana; Lake City, Florida; Hope, Arkansas; and Salem, Virginia under a quality control program with inspections by ICC-ES.

TABLE A—STEEL DECK PANEL PROFILES

Notes: Profiles ending with letter “V” are vented (see Figure 3); Profiles ending with letter “A” are perforated (see Figure 4); Profiles with an “I” have interlocking sidelaps. Otherwise, profiles have nestable sidelaps.

ROOF DECKS	FORM DECKS	COMPOSITE DECKS
1.0RD, 1.0RDV	0.6FD, 0.6FDV	1.5CD, 1.5CDI
F	1.0FD, 1.0FDV	2.0CD, 2.0CDB, 2.0CD Extended Leg
B, BV, BA, BI, BIV, BIA	1.5FD	3.0CD, 3.0CD Extended Leg
N, NA	1.5FDR, 1.5FDV, 1.5FDI, 1.5FDIV	1.5CDR
	2.0FD, 2.0FDB, 2.0FD Extended Leg	
	3.0FD, 3.0FD Extended Leg	

TABLE B—WEB CRIPPLING CONDITIONS (ONE FLANGE AND TWO FLANGE LOADING)

END ONE FLANGE LOADING (EOF) ¹	INTERIOR ONE FLANGE LOADING (IOF) ²	END TWO FLANGE LOADING (ETF) ³	INTERIOR TWO FLANGE LOADING (ITF) ⁴

1. EOF - The distance from the edge of the bearing to the end of the member is $\leq 1.5h$, and the clear distance between the bearing edges of adjacent opposite concentrated loads or reactions is $\geq 1.5h$.
2. IOF - The distance from the edge of the bearing to the end of the member is $> 1.5h$, and the clear distance between the bearing edges of adjacent opposite concentrate loads or reactions is $\geq 1.5h$.
3. ETF - The distance from the edge of the bearing to the end of the member is $\leq 1.5h$, and the clear distance between the bearing edges of adjacent opposite concentrated loads or reactions is $< 1.5h$.
4. ITF - The distance from the edge of the bearing to the end of the member is $> 1.5h$, and the clear distance between the bearing edges of adjacent opposite concentrated loads or reaction is $< 1.5h$.

TABLE C—STEEL DECK PANEL SPECIFICATIONS

GAGE (DESIGN METAL THICKNESS) ¹	MINIMUM GRADE OF STEEL ² (MPa)						
	ROOF DECKS			FORM DECKS			COMPOSITE DECKS
DECK TYPE	No. 26 to 16 gage (0.45 to 1.52 mm)			No. 28 to 16 gage (0.38 to 1.52 mm)			No. 23 to 16 gage (0.75 to 1.52 mm)
	RD, RDV	F	B, BA, BI, BIA, BV, BIV, N, NA	0.6FD, 0.6FDV, 1.0FD, 1.0FDV	1.5FD, 1.5FDV, 1.5FDR, 1.5FDI, 1.5FDIV	2.0FD, 2.0FDB, 2.0FD Extended Leg, 3.0FD, 3.0FD Extended Leg	1.5CD, 1.5CDI, 1.5CDR, 2.0CD, 2.0CDB, 2.0CD Extended Leg, 3.0CD, 3.0CD Extended Leg
ASTM A653 SS ³	550	275	275	550	275	275	275
ASTM A1008 SS	550	275	275	550	275	275	275
ASTM A653 HSLAS or HSLAS-F	550	275	275	550	275	275	275
ASTM A1008 HSLAS or HSLA-F	550	310	310	550	310	310	310

¹The base metal thickness delivered to the jobsite must be at least 95 percent of the design metal thickness.

²The minimum steel grades listed are the minimum grades that will be provided by the report holder. The SDI RD, NC and C standards specify minimum grade 230 steel. Higher grade steel than the minimum in Table C is permitted to be specified for use subject to material availability, cost and manufacturing limitations specific to deck profile and gage, except minimum grades published as 550 will be provided as grade 550. Steel deck section properties and design strengths for steel grades ranging from 230 to 550 are tabulated based on design yield strengths in Tables 2 – 7, 9 – 14 and 16 – 19. See CSA S136, Section A3 for correlation of steel grade specified minimum yield strength to design yield strength.

³ASTM A653 SS Grade 345 Class 2 is not permitted for use.

TABLE D—STEEL DECK PANEL FINISH

STEEL SPECIFICATION	ROOF DECKS	FORM DECKS	COMPOSITE DECKS
ASTM A653	Galvanized or Galvanized/Painted	Galvanized or Galvanized/Painted	Galvanized or Galvanized/Painted
ASTM A1008	Painted or Mill	Phosphatized/Painted or Mill	Phosphatized/Painted or Mill

The galvanized deck panels are formed from ASTM A653 steel, with a minimum G30 galvanized coating (total both sides). Galvanized/painted deck may have shop primer specified and applied over the galvanized top and/or bottom surface, except for decks supporting concrete, primer is not permitted on the side of the deck in contact with concrete. Phosphatized/painted deck panels have a phosphatized (uncoated) top surface and primer painted bottom surface. Painted deck panels have primer painted top and bottom surfaces. Mill finished deck panels have no coating on either top or bottom surfaces.

TABLE E—MANUFACTURING LOCATIONS

New Millennium Building Systems, LLC Butler, Indiana	New Millennium Building Systems, LLC Lake City, Florida
New Millennium Building Systems, LLC Hope, Arkansas	New Millennium Building Systems, LLC Salem, Virginia

TABLE F – DESIGN BASE METAL THICKNESS, t (mm)¹

GAUGE	THICKNESS, t
28	0.378
27	0.417
26	0.455
25	0.531
24	0.605
23	0.683
22	0.749
21	0.836
20	0.909
19	1.062
18	1.204
17	1.367
16	1.519

¹The base steel thickness delivered to the jobsite must be at least 95 percent of the design base metal thickness listed.

TABLE G – DEFINITION OF SYMBOLS

SYM.	DEFINITION
A_s	Gross area of steel cross-section
d	Panel corrugation pitch
D_d	Deck section depth measured at mid-thickness
e	One-half the bottom flat width of panel measured between points of intercept. See DDM04, figure 3.2.2
f	Top flat width of panel measured between points of intercept. See DDM04, Figure 3.2.2
f_y	Design level yield stress, reduced from the ASTM specified yield stress when required per CSA S136, section A3
h	Flat dimension of web measured in plane of the web
I_D	Effective moment of inertia for calculating deflection under a uniform load per single span (1-Span) or multi-span (2+ Span)
I_g	Deck section gross moment of inertia
I_n	Effective moment of inertia under negative (upward) bending
I_p	Effective moment of inertia under positive (downward) bending
K	Composite deck profile and embossment pattern coefficient, based on slab width $\geq 6'-0"$ measured perpendicular to deck sheet length
R	Inside bend radius
s	Developed flute width per width, $d = 2(e + w) + f$
S_n	Effective section modulus under negative (upward) bending at applied stress equal to f_y
S_p	Effective section modulus under positive (downward) bending at applied stress equal to f_y
t	Base design steel thickness
w	Web flat width of panel measured between points of intercept. See DDM04, figure 3.2.2
w_{dd}	Deck panel weight
W_r	Average deck rib width
\bar{y}_d	Distance from the deck bottom flange mid-thickness to gross deck section centroid
θ	Web angle measured under a top flange from horizontal plane at panel bottom to web
$\Phi M_{n,n}$	LSD design bending strength under negative (upward) bending
$\Phi M_{n,p}$	LSD design bending strength under positive (downward) bending
Φr_{be}	LSD design web crippling strength over supports at sheet ends
Φr_{bi}	LSD design web crippling strength over interior sheet supports
ΦV_n	LSD design vertical shear strength

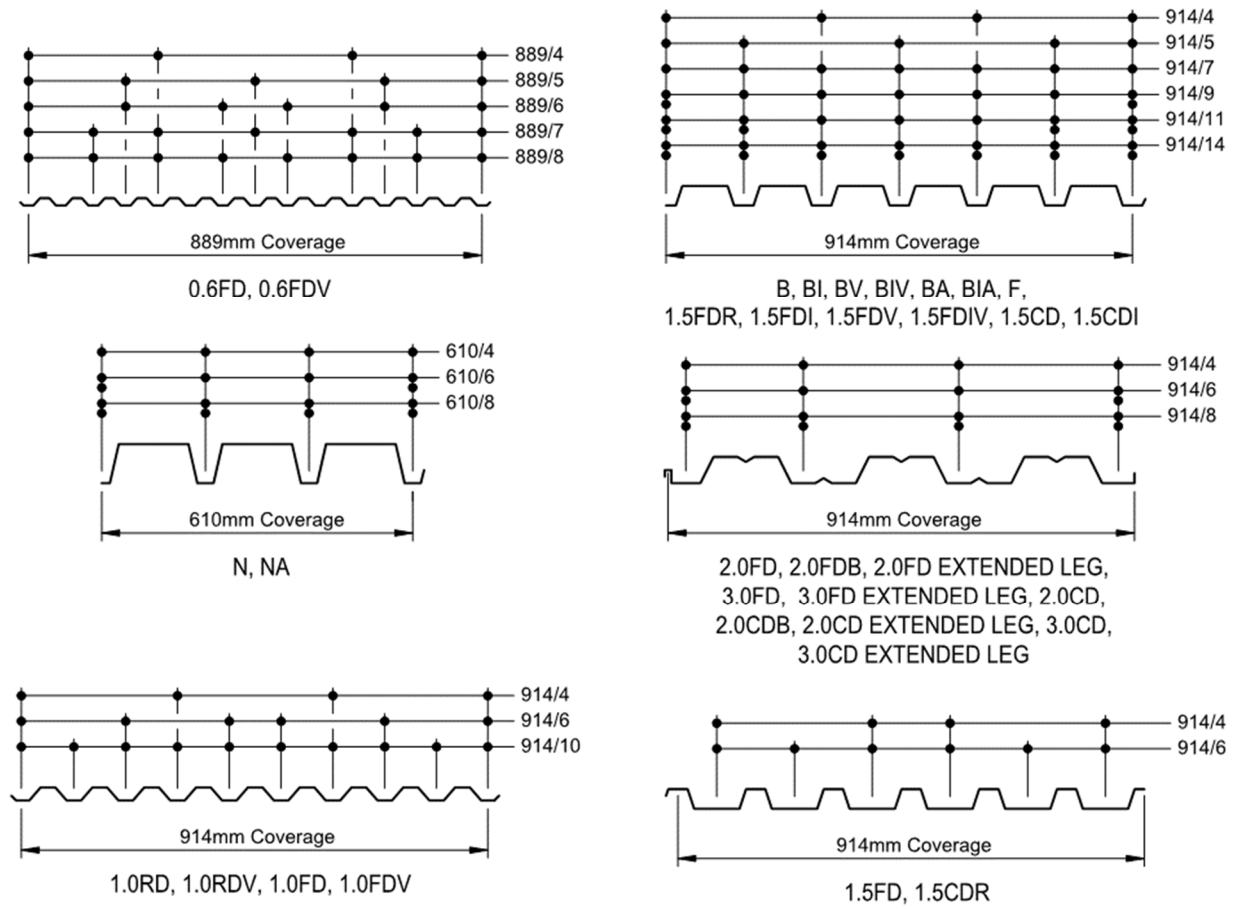
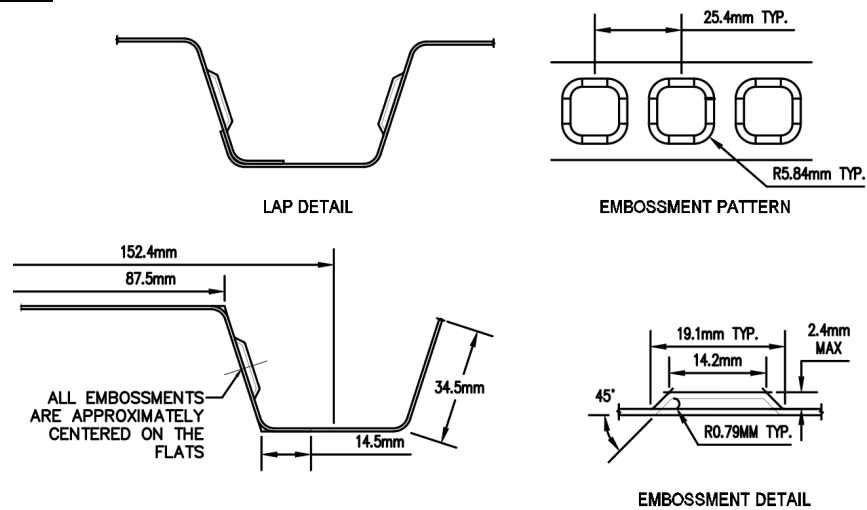
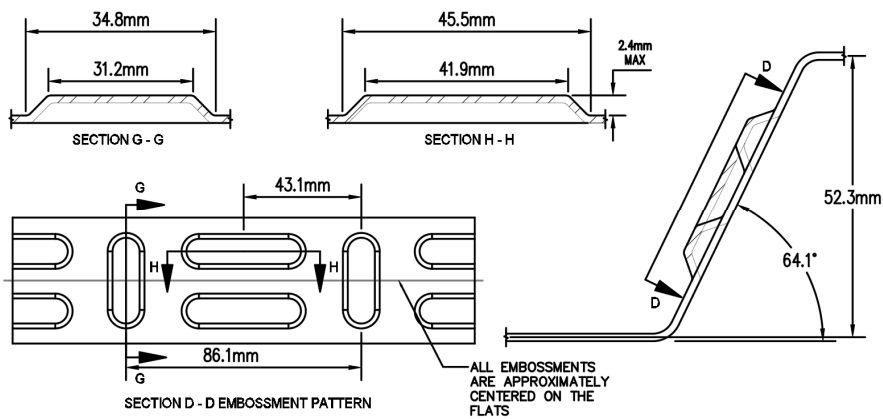


FIGURE 1—DIAPHRAGM DESIGN: TYPICAL FASTENER LAYOUTS

For 38mm Composite Deck:



For 51mm Composite Deck:



For 76mm Composite Deck:

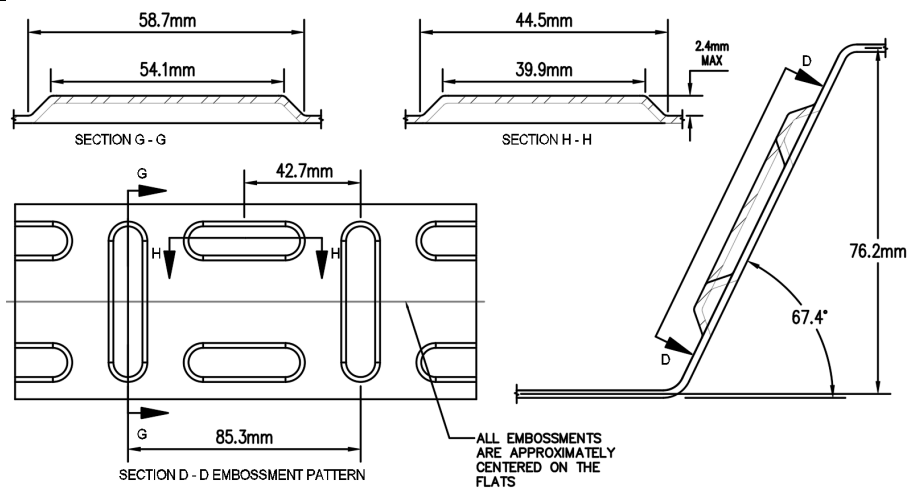
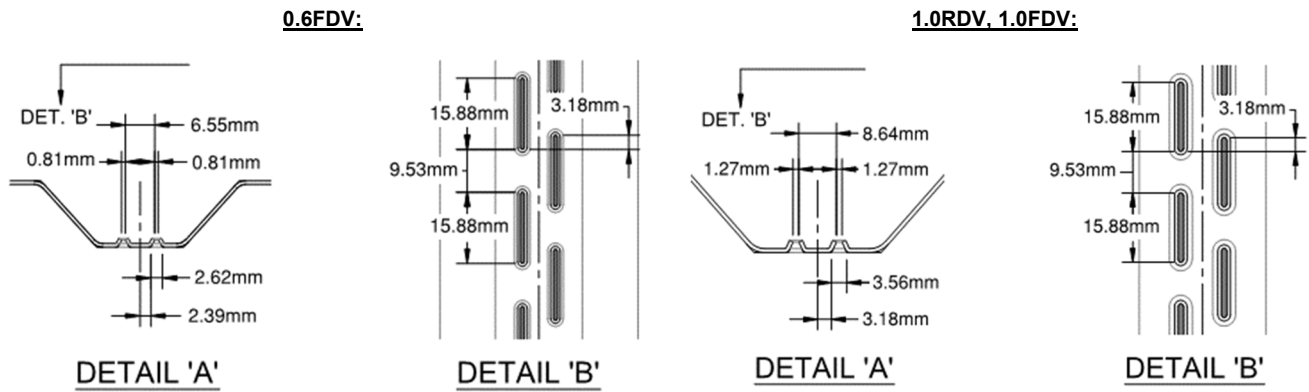


FIGURE 2—COMPOSITE DECKS: EMBOSSMENT DETAILS (Note: Embossments are not optional for Composite Decks)



BV, BIV, 1.5FDV, 1.5FDIV:

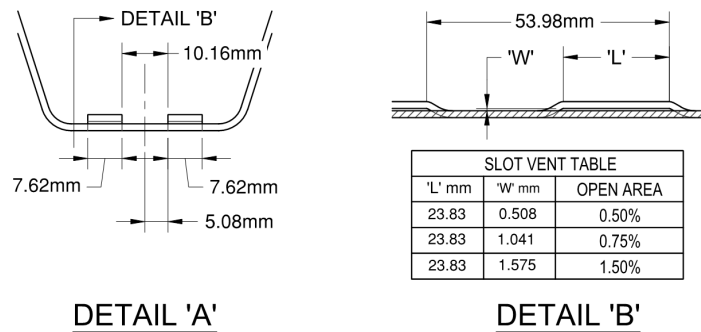


FIGURE 3—VENTED DECKS: VENT DETAILS

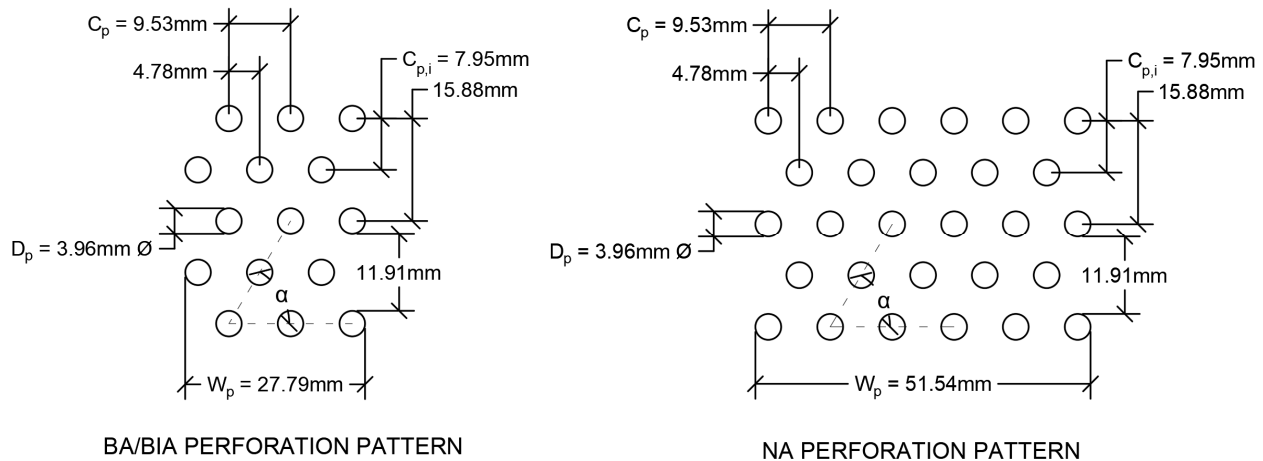


FIGURE 4—ACOUSTICAL DECKS: ACOUSTICAL DECK PERFORATION PATTERNS

TABLE 1
ROOF DECK GENERAL PROPERTIES

Type	Gage	w _{dd} (kg/m ²)	A _s (mm ² /m)	I _g (mm ⁴ /m)	Geometry						Geometry for Warping Calc ⁴		
					D _d (mm)	d (mm)	W _r (mm)	h (mm)	Θ (deg)	R (mm)	e (mm)	f (mm)	w (mm)
1.0RD 1.0RDV	26	4.57	582	58043	25.1	101.6	50.8	28.9	48.6	4.78	14.34	28.68	33.45
	25	5.33	679	67761				28.9					
	24	6.07	773	77153				28.9					
	23	6.86	874	87190				28.8					
	22	7.52	959	95606				28.8					
	21	8.39	1069	106608				28.8					
	20	9.13	1163	115991				28.7					
F	23	7.05	898	159411	36.7	152.4	29.7	33.6	65.8	4.83	6.60	106.17	40.27
	22	7.73	985	174771				33.5					
	21	8.62	1098	194844				33.5					
	20	9.38	1195	211955				33.4					
	19	10.95	1395	247324				33.3					
	18	12.41	1581	280299				33.2					
	17	14.08	1794	317940				33.1					
B BV BI BIV	23	7.27	926	218482	36.7	152.4	53.3	30.3	72.5	5.26	20.86	87.53	38.48
	22	7.97	1015	239540				30.2					
	21	8.89	1132	267064				30.2					
	20	9.67	1232	290526				30.1					
	19	11.28	1438	339030				30.0					
	18	12.79	1630	384254				29.9					
	17	14.51	1849	435886				29.8					
BA BIA	23	6.95	837	211953	36.7	152.4	53.3	30.3	72.5	5.26	20.86	87.53	38.48
	22	7.62	918	232380				30.2					
	21	8.49	1024	259078				30.2					
	20	9.24	1114	281835				30.1					
	19	10.79	1300	328881				30.0					
	18	12.23	1473	372744				29.9					
	17	13.87	1672	422819				29.8					
N	23	9.11	1161	1118026	77.7	203.2	57.2	68.4	83.0	5.26	23.81	136.49	78.31
	22	9.99	1273	1225784				68.3					
	21	11.14	1419	1366619				68.3					
	20	12.12	1544	1486670				68.2					
	19	14.15	1803	1734844				68.1					
	18	16.04	2044	1966218				67.9					
	17	18.20	2319	2230346				67.8					
NA	23	8.54	1003	1047577	77.7	203.2	57.2	68.4	83.0	5.26	23.81	136.49	78.31
	22	9.37	1100	1148520				68.3					
	21	10.45	1227	1280441				68.3					
	20	11.36	1335	1392889				68.2					
	19	13.26	1558	1625325				68.1					
	18	15.04	1766	1842006				67.9					
	17	17.06	2003	2089336				67.8					
	16	18.96	2226	2320912				67.7					

Notes:

1. See Table A for profile configuration and cover width of deck types listed.
2. See Table F for design thickness t, of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. s = Developed flute width per width d = 2 (e + w) + f. See AISI S310, Section D2, for diagram of e, f and w.

TABLE 2
ROOF DECKS - TYPES 1.0RD, 1.0RDV

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
26	230	58.01	58.01	57.99	57.99	3.99	4.29	817	878	21.22	5.09	8.73
	275	57.80	57.80	57.68	57.63	3.87	4.07	961	1010	25.36	6.17	10.58
	310	57.60	57.60	57.38	57.29	3.80	3.99	1062	1115	26.90	6.94	11.90
	345	57.38	57.38	57.05	56.93	3.74	3.93	1160	1218	28.35	7.72	13.22
	380	57.16	57.16	56.72	56.56	3.68	3.87	1257	1319	29.73	8.49	14.55
	415	56.94	56.94	56.38	56.19	3.63	3.81	1353	1419	31.06	9.26	15.87
25	230	67.76	67.76	67.76	67.76	4.87	5.05	998	1035	24.74	6.78	11.72
	275	67.76	67.76	67.76	67.76	4.74	5.01	1176	1245	29.99	8.22	14.21
	310	67.72	67.73	67.71	67.71	4.65	4.99	1299	1393	33.74	9.25	15.98
	345	67.62	67.62	67.55	67.52	4.58	4.81	1420	1491	37.49	10.27	17.76
	380	67.47	67.47	67.33	67.27	4.51	4.73	1539	1616	40.54	11.30	19.53
	415	67.30	67.30	67.08	66.99	4.45	4.67	1656	1738	42.34	12.33	21.31
24	230	77.15	77.15	77.15	77.15	5.74	5.79	1176	1185	28.14	8.61	14.98
	275	77.15	77.15	77.15	77.15	5.59	5.75	1389	1428	34.11	10.44	18.16
	310	77.15	77.15	77.15	77.15	5.50	5.73	1536	1599	38.38	11.74	20.43
	345	77.15	77.15	77.15	77.15	5.41	5.70	1680	1769	42.64	13.05	22.70
	380	77.15	77.15	77.15	77.15	5.34	5.68	1821	1939	46.91	14.35	24.96
	415	77.09	77.09	77.06	77.06	5.26	5.66	1960	2107	51.17	15.65	27.23
23	230	87.19	87.19	87.19	87.19	6.52	6.52	1335	1335	31.77	10.78	18.85
	275	87.19	87.19	87.19	87.19	6.52	6.52	1619	1619	38.51	13.06	22.85
	310	87.19	87.19	87.19	87.19	6.42	6.51	1793	1819	43.32	14.70	25.70
	345	87.19	87.19	87.19	87.19	6.33	6.49	1964	2013	48.14	16.33	28.56
	380	87.19	87.19	87.19	87.19	6.24	6.47	2131	2207	52.95	17.96	31.41
	415	87.19	87.19	87.19	87.19	6.16	6.44	2295	2399	57.76	19.60	34.27
22	230	95.61	95.61	95.61	95.61	7.13	7.13	1461	1461	34.81	12.76	22.40
	275	95.61	95.61	95.61	95.61	7.13	7.13	1771	1771	42.19	15.47	27.15
	310	95.61	95.61	95.61	95.61	7.13	7.13	1992	1992	47.46	17.40	30.54
	345	95.61	95.61	95.61	95.61	7.10	7.13	2204	2213	52.73	19.33	33.93
	380	95.61	95.61	95.61	95.61	7.01	7.12	2394	2430	58.01	21.27	37.33
	415	95.61	95.61	95.61	95.61	6.93	7.10	2580	2643	63.28	23.20	40.72
21	230	106.61	106.61	106.61	106.61	7.93	7.93	1624	1624	38.76	15.57	27.44
	275	106.61	106.61	106.61	106.61	7.93	7.93	1968	1968	46.99	18.88	33.26
	310	106.61	106.61	106.61	106.61	7.93	7.93	2214	2214	52.86	21.24	37.42
	345	106.61	106.61	106.61	106.61	7.93	7.93	2460	2460	58.73	23.60	41.58
	380	106.61	106.61	106.61	106.61	7.93	7.93	2706	2706	64.61	25.96	45.74
	415	106.61	106.61	106.61	106.61	7.93	7.93	2952	2952	70.48	28.32	49.89
20	230	115.99	115.99	115.99	115.99	8.60	8.60	1762	1762	42.13	18.17	32.10
	275	115.99	115.99	115.99	115.99	8.60	8.60	2135	2135	51.07	22.02	38.91
	310	115.99	115.99	115.99	115.99	8.60	8.60	2402	2402	57.45	24.78	43.78
	345	115.99	115.99	115.99	115.99	8.60	8.60	2669	2669	63.84	27.53	48.64
	380	115.99	115.99	115.99	115.99	8.60	8.60	2936	2936	70.22	30.28	53.51
	415	115.99	115.99	115.99	115.99	8.60	8.60	3203	3203	76.60	33.04	58.37
19	230	135.40	135.40	135.40	135.40	9.99	9.99	2045	2045	49.08	24.10	42.78
	275	135.40	135.40	135.40	135.40	9.99	9.99	2479	2479	59.49	29.22	51.86
	310	135.40	135.40	135.40	135.40	9.99	9.99	2789	2789	66.92	32.87	58.34
	345	135.40	135.40	135.40	135.40	9.99	9.99	3098	3098	74.36	36.52	64.82
	380	135.40	135.40	135.40	135.40	9.99	9.99	3408	3408	81.79	40.17	71.30
	415	135.40	135.40	135.40	135.40	9.99	9.99	3718	3718	89.23	43.82	77.78

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

**TABLE 3
ROOF DECKS - TYPE F**

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	151.10	159.41	146.94	159.41	5.39	5.92	1104	1213	30.00	8.60	15.22
	275	148.63	159.41	143.24	159.41	5.32	5.92	1320	1470	36.36	10.42	18.45
	310	147.04	159.41	140.85	159.41	5.27	5.92	1472	1654	40.90	11.72	20.75
	345	145.58	159.41	138.66	159.41	5.23	5.92	1623	1838	45.45	13.03	23.06
	380	144.24	159.41	136.65	159.41	5.20	5.92	1773	2022	49.99	14.33	25.36
	415	143.00	159.41	134.80	159.41	5.16	5.92	1922	2206	54.54	15.63	27.67
22	230	168.08	174.77	164.73	174.77	5.98	6.49	1225	1328	32.85	10.19	18.09
	275	165.59	174.77	160.99	174.77	5.90	6.49	1465	1610	39.82	12.35	21.92
	310	163.95	174.77	158.54	174.77	5.85	6.49	1634	1811	44.80	13.89	24.66
	345	162.42	174.77	156.25	174.77	5.81	6.49	1802	2013	49.78	15.44	27.40
	380	161.00	174.77	154.12	174.77	5.77	6.49	1968	2214	54.76	16.98	30.14
	415	159.68	174.77	152.14	174.77	5.73	6.49	2133	2415	59.73	18.52	32.88
21	230	190.16	194.84	187.82	194.84	6.76	7.22	1384	1478	36.58	12.45	22.17
	275	187.77	194.84	184.23	194.84	6.67	7.22	1656	1792	44.34	15.09	26.87
	310	186.14	194.84	181.78	194.84	6.62	7.22	1847	2016	49.88	16.97	30.23
	345	184.58	194.84	179.45	194.84	6.57	7.22	2037	2240	55.42	18.86	33.58
	380	183.11	194.84	177.24	194.84	6.52	7.22	2225	2464	60.97	20.74	36.94
	415	181.72	194.84	175.15	194.84	6.48	7.22	2413	2688	66.51	22.63	40.30
20	230	208.80	211.95	207.23	211.95	7.42	7.84	1520	1606	39.75	14.53	25.94
	275	206.60	211.95	203.92	211.95	7.33	7.84	1819	1947	48.18	17.61	31.44
	310	205.03	211.95	201.57	211.95	7.27	7.84	2030	2190	54.20	19.82	35.37
	345	203.50	211.95	199.27	211.95	7.22	7.84	2240	2433	60.22	22.02	39.30
	380	202.03	211.95	197.06	211.95	7.17	7.84	2447	2677	66.24	24.22	43.23
	415	200.62	211.95	194.95	211.95	7.13	7.84	2653	2920	72.27	26.42	47.16
19	230	246.49	247.32	246.08	247.32	8.80	9.12	1802	1869	46.27	19.30	34.57
	275	244.97	247.32	243.80	247.32	8.70	9.12	2160	2265	56.09	23.39	41.91
	310	243.71	247.32	241.90	247.32	8.64	9.12	2412	2548	63.10	26.32	47.14
	345	242.38	247.32	239.91	247.32	8.58	9.12	2662	2831	70.11	29.24	52.38
	380	241.03	247.32	237.89	247.32	8.52	9.12	2909	3114	77.12	32.17	57.62
	415	239.69	247.32	235.88	247.32	8.47	9.12	3155	3397	84.13	35.09	62.86
18	230	280.30	280.30	280.30	280.30	10.08	10.31	2065	2112	52.33	24.29	43.63
	275	279.74	280.30	279.47	280.30	9.98	10.31	2478	2560	63.43	29.44	52.88
	310	278.96	280.30	278.29	280.30	9.91	10.31	2769	2880	71.35	33.12	59.49
	345	277.99	280.30	276.83	280.30	9.85	10.31	3057	3200	79.28	36.80	66.10
	380	276.91	280.30	275.22	280.30	9.79	10.31	3343	3520	87.21	40.48	72.71
	415	275.77	280.30	273.51	280.30	9.74	10.31	3627	3840	95.14	44.16	79.32
17	230	317.94	317.94	317.94	317.94	11.54	11.66	2363	2388	59.20	30.62	55.13
	275	317.94	317.94	317.94	317.94	11.44	11.66	2839	2895	71.76	37.11	66.82
	310	317.88	317.94	317.85	317.94	11.37	11.66	3175	3257	80.73	41.75	75.17
	345	317.51	317.94	317.29	317.94	11.31	11.66	3508	3619	89.70	46.39	83.53
	380	316.90	317.94	316.39	317.94	11.25	11.66	3839	3980	98.67	51.03	91.88
	415	316.15	317.94	315.25	317.94	11.19	11.66	4166	4342	107.64	55.67	100.23
16	230	353.19	353.19	353.19	353.19	12.89	12.92	2639	2645	65.61	37.15	67.01
	275	353.19	353.19	353.19	353.19	12.79	12.92	3176	3207	79.53	45.03	81.22
	310	353.19	353.19	353.19	353.19	12.73	12.92	3554	3607	89.47	50.66	91.37
	345	353.19	353.19	353.19	353.19	12.67	12.92	3930	4008	99.41	56.29	101.53
	380	353.15	353.19	353.13	353.19	12.61	12.92	4302	4409	109.35	61.92	111.68
	415	352.88	353.19	352.72	353.19	12.55	12.92	4672	4810	119.29	67.54	121.83

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 4
ROOF DECKS - TYPES B, BV, BI, BIV

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	203.48	217.76	195.98	217.40	8.65	9.01	1772	1844	28.27	9.04	15.68
	275	199.66	217.07	190.25	216.36	8.27	8.73	2052	2166	34.27	10.96	19.01
	310	197.27	216.27	186.66	215.17	8.05	8.56	2247	2390	38.55	12.33	21.39
	345	195.11	215.40	183.43	213.85	7.86	8.41	2438	2609	42.84	13.69	23.76
	380	192.29	214.49	179.19	212.49	7.69	8.27	2625	2824	47.12	15.06	26.14
	415	189.69	213.58	175.29	211.13	7.55	8.15	2810	3036	51.41	16.43	28.51
22	230	226.97	239.24	220.69	239.09	9.87	10.16	2020	2080	30.96	10.71	18.66
	275	223.00	238.74	214.73	238.34	9.46	9.86	2349	2446	37.52	12.98	22.61
	310	220.45	238.37	210.91	237.78	9.20	9.67	2570	2700	42.21	14.60	25.44
	345	218.13	237.76	207.42	236.87	8.98	9.50	2786	2948	46.90	16.22	28.27
	380	216.00	237.02	204.23	235.76	8.78	9.35	2998	3192	51.59	17.85	31.09
	415	214.05	236.22	201.30	234.56	8.61	9.22	3207	3432	56.28	19.47	33.92
21	230	257.70	267.06	253.02	267.06	11.12	11.68	2278	2392	34.45	13.08	22.89
	275	253.71	266.81	247.03	266.68	11.00	11.36	2729	2819	41.76	15.85	27.74
	310	251.07	266.47	243.07	266.18	10.80	11.14	3015	3112	46.98	17.83	31.21
	345	248.61	266.17	239.38	265.72	10.53	10.95	3266	3398	52.20	19.82	34.68
	380	246.32	265.86	235.95	265.25	10.29	10.78	3513	3678	57.42	21.80	38.14
	415	244.19	265.38	232.76	264.53	10.09	10.62	3755	3953	62.64	23.78	41.61
20	230	283.75	290.53	280.36	290.53	12.20	12.82	2499	2625	37.42	15.27	26.80
	275	279.91	290.53	274.61	290.53	12.06	12.62	2994	3134	45.36	18.50	32.48
	310	277.28	290.41	270.66	290.35	11.98	12.40	3345	3463	51.03	20.82	36.54
	345	274.78	290.09	266.91	289.87	11.90	12.20	3693	3784	56.70	23.13	40.60
	380	272.42	289.67	263.37	289.24	11.65	12.01	3975	4098	62.37	25.44	44.66
	415	270.20	289.33	260.04	288.73	11.41	11.83	4247	4406	68.04	27.76	48.73
19	230	336.59	339.03	335.37	339.03	14.44	15.01	2957	3074	43.53	20.27	35.76
	275	333.58	339.03	330.86	339.03	14.29	14.91	3546	3702	52.76	24.57	43.35
	310	331.26	339.03	327.38	339.03	14.19	14.82	3962	4139	59.36	27.64	48.77
	345	328.92	339.03	323.86	339.03	14.10	14.77	4375	4584	65.96	30.71	54.19
	380	326.61	339.03	320.40	339.03	14.02	14.59	4785	4980	72.55	33.78	59.61
	415	324.36	338.92	317.03	338.86	13.95	14.40	5193	5363	79.15	36.85	65.02
18	230	384.00	384.25	383.88	384.25	16.53	16.96	3384	3473	49.19	25.50	45.17
	275	382.36	384.25	381.41	384.25	16.37	16.95	4062	4208	59.63	30.91	54.75
	310	380.68	384.25	378.89	384.25	16.26	16.89	4541	4717	67.08	34.77	61.59
	345	378.78	384.25	376.04	384.25	16.17	16.80	5016	5212	74.53	38.64	68.44
	380	376.77	384.25	373.03	384.25	16.08	16.72	5488	5705	81.98	42.50	75.28
	415	374.73	384.25	369.96	384.25	16.00	16.65	5956	6199	89.44	46.36	82.13
17	230	435.89	435.89	435.89	435.89	18.90	19.17	3870	3925	55.61	32.14	57.12
	275	435.85	435.89	435.83	435.89	18.74	19.17	4651	4758	67.41	38.95	69.24
	310	435.28	435.89	434.97	435.89	18.63	19.16	5202	5350	75.83	43.82	77.89
	345	434.22	435.89	433.39	435.89	18.53	19.13	5749	5935	84.26	48.69	86.55
	380	432.86	435.89	431.35	435.89	18.43	19.06	6292	6504	92.68	53.56	95.20
	415	431.31	435.89	429.02	435.89	18.35	18.97	6831	7063	101.11	58.43	103.86
16	230	484.24	484.24	484.24	484.24	21.11	21.22	4322	4346	61.58	38.98	69.47
	275	484.24	484.24	484.24	484.24	20.95	21.22	5199	5267	74.64	47.25	84.21
	310	484.24	484.24	484.24	484.24	20.84	21.22	5819	5926	83.97	53.16	94.73
	345	484.19	484.24	484.16	484.24	20.74	21.21	6434	6580	93.30	59.07	105.26
	380	483.70	484.24	483.43	484.24	20.64	21.18	7044	7228	102.63	64.97	115.78
	415	482.85	484.24	482.15	484.24	20.55	21.15	7650	7875	111.96	70.88	126.31

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 5
ROOF DECKS - TYPES BA, BIA

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	198.09	211.21	191.16	210.84	8.36	8.53	1712	1747	19.04	8.64	15.59
	275	194.30	210.48	185.47	209.75	7.96	8.24	1976	2046	23.08	10.48	18.90
	310	191.90	209.66	181.87	208.51	7.73	8.07	2159	2253	25.96	11.79	21.26
	345	189.72	208.75	178.60	207.15	7.53	7.91	2337	2455	28.85	13.10	23.62
	380	187.34	207.81	175.03	205.74	7.36	7.77	2512	2654	31.73	14.41	25.98
	415	184.53	206.86	170.82	204.32	7.21	7.65	2684	2848	34.62	15.72	28.34
22	230	220.97	232.07	215.27	231.91	9.56	9.65	1958	1975	20.83	10.26	18.55
	275	217.08	231.55	209.44	231.13	9.14	9.33	2269	2316	25.25	12.44	22.48
	310	214.56	231.17	205.66	230.56	8.87	9.14	2477	2552	28.40	14.00	25.29
	345	212.24	230.53	202.18	229.60	8.64	8.97	2681	2783	31.56	15.55	28.10
	380	210.11	229.76	198.97	228.45	8.44	8.82	2880	3009	34.72	17.11	30.91
	415	208.14	228.94	196.02	227.21	8.26	8.68	3075	3230	37.87	18.66	33.72
21	230	250.83	259.08	246.70	259.08	10.76	11.12	2203	2278	23.16	12.57	22.76
	275	247.00	258.81	240.96	258.68	10.65	10.79	2644	2678	28.07	15.24	27.59
	310	244.43	258.46	237.10	258.16	10.45	10.57	2918	2951	31.58	17.14	31.04
	345	242.01	258.15	233.48	257.68	10.17	10.37	3156	3217	35.09	19.05	34.49
	380	239.75	257.82	230.08	257.20	9.93	10.19	3388	3478	38.60	20.95	37.94
	415	237.63	257.33	226.90	256.45	9.71	10.03	3616	3733	42.11	22.86	41.39
20	230	276.06	281.84	273.17	281.84	11.78	12.22	2412	2502	25.13	14.70	26.66
	275	272.45	281.84	267.76	281.84	11.67	12.01	2896	2982	30.46	17.82	32.31
	310	269.94	281.71	263.98	281.65	11.60	11.78	3238	3291	34.27	20.05	36.35
	345	267.51	281.38	260.35	281.15	11.53	11.57	3578	3590	38.08	22.27	40.39
	380	265.21	280.94	256.89	280.49	11.27	11.38	3846	3883	41.89	24.50	44.43
	415	263.02	280.59	253.62	279.97	11.02	11.20	4103	4170	45.69	26.73	48.47
19	230	327.06	328.88	326.15	328.88	13.90	14.31	2846	2931	29.18	19.58	35.59
	275	324.40	328.88	322.16	328.88	13.78	14.21	3419	3528	35.37	23.73	43.14
	310	322.27	328.88	318.96	328.88	13.70	14.12	3825	3942	39.79	26.70	48.53
	345	320.08	328.88	315.68	328.88	13.63	14.07	4228	4364	44.21	29.67	53.93
	380	317.90	328.88	312.41	328.88	13.56	13.88	4628	4737	48.64	32.63	59.32
	415	315.75	328.76	309.19	328.70	13.50	13.68	5026	5095	53.06	35.60	64.71
18	230	372.66	372.74	372.62	372.74	15.87	16.17	3249	3311	32.92	24.69	44.96
	275	371.42	372.74	370.76	372.74	15.74	16.16	3907	4012	39.90	29.93	54.50
	310	369.98	372.74	368.60	372.74	15.66	16.10	4373	4495	44.89	33.67	61.32
	345	368.29	372.74	366.07	372.74	15.58	16.00	4835	4965	49.88	37.41	68.13
	380	366.47	372.74	363.33	372.74	15.51	15.92	5294	5432	54.87	41.16	74.94
	415	364.58	372.74	360.50	372.74	15.45	15.85	5751	5901	59.85	44.90	81.75
17	230	422.82	422.82	422.82	422.82	18.10	18.28	3706	3743	37.14	31.19	56.88
	275	422.82	422.82	422.82	422.82	17.98	18.28	4462	4537	45.02	37.80	68.94
	310	422.52	422.82	422.37	422.82	17.89	18.27	4996	5101	50.65	42.53	77.56
	345	421.71	422.82	421.16	422.82	17.81	18.24	5527	5658	56.28	47.25	86.18
	380	420.58	422.82	419.46	422.82	17.74	18.16	6055	6198	61.90	51.98	94.80
	415	419.23	422.82	417.43	422.82	17.67	18.07	6579	6728	67.53	56.70	103.41
16	230	469.71	469.71	469.71	469.71	20.17	20.24	4131	4144	41.05	37.89	69.19
	275	469.71	469.71	469.71	469.71	20.06	20.24	4978	5023	49.76	45.93	83.87
	310	469.71	469.71	469.71	469.71	19.97	20.24	5577	5651	55.98	51.67	94.35
	345	469.71	469.71	469.71	469.71	19.90	20.22	6173	6274	62.20	57.42	104.83
	380	469.47	469.71	469.35	469.71	19.82	20.19	6764	6890	68.42	63.16	115.32
	415	468.85	469.71	468.41	469.71	19.75	20.16	7353	7506	74.64	68.90	125.80

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 6
ROOF DECKS - TYPE N

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	945.95	1104.06	859.91	1097.08	18.25	20.94	3737	4288	34.41	6.35	12.07
	275	923.06	1095.84	825.58	1084.74	17.61	19.84	4370	4925	35.78	7.69	14.63
	310	910.62	1090.05	806.91	1076.06	17.24	19.07	4814	5325	35.78	8.65	16.46
	345	902.80	1084.52	795.18	1067.77	16.92	18.41	5251	5712	35.78	9.62	18.29
	380	895.91	1079.30	784.85	1059.93	16.65	17.84	5683	6088	35.78	10.58	20.12
	415	889.79	1074.37	775.67	1052.54	16.41	17.34	6111	6455	35.78	11.54	21.95
22	230	1064.13	1216.86	983.30	1212.40	20.74	23.52	4247	4817	41.39	7.56	14.37
	275	1036.51	1210.29	941.87	1202.54	19.98	22.93	4959	5692	45.57	9.17	17.42
	310	1020.89	1204.98	918.44	1194.58	19.54	22.26	5457	6217	47.24	10.31	19.60
	345	1007.74	1199.63	898.72	1186.55	19.17	21.48	5947	6666	47.24	11.46	21.77
	380	997.35	1194.42	883.12	1178.74	18.85	20.81	6432	7101	47.24	12.61	23.95
	415	990.28	1189.42	872.52	1171.23	18.56	20.21	6911	7525	47.24	13.75	26.13
21	230	1217.93	1362.69	1143.58	1360.72	24.17	26.97	4949	5523	51.48	9.30	17.64
	275	1191.42	1357.55	1103.83	1353.02	23.24	26.31	5768	6531	56.67	11.27	21.38
	310	1172.02	1353.64	1074.71	1347.16	22.70	25.91	6340	7234	60.11	12.68	24.06
	345	1155.50	1349.30	1049.94	1340.64	22.25	25.54	6903	7926	63.36	14.09	26.73
	380	1141.35	1344.60	1028.72	1333.59	21.85	24.98	7459	8526	65.60	15.50	29.40
	415	1129.06	1339.81	1010.28	1326.41	21.51	24.26	8008	9032	65.60	16.91	32.08
20	230	1347.62	1486.34	1278.09	1486.17	27.24	29.94	5578	6131	60.95	10.90	20.67
	275	1322.17	1481.87	1239.91	1479.47	26.16	29.25	6493	7260	67.11	13.22	25.05
	310	1306.64	1478.56	1216.63	1474.50	25.54	28.81	7131	8044	71.18	14.87	28.18
	345	1286.85	1475.10	1186.94	1469.32	25.01	28.41	7758	8816	75.03	16.52	31.32
	380	1270.08	1471.36	1161.79	1463.71	24.55	28.06	8377	9576	78.69	18.17	34.45
	415	1255.42	1467.35	1139.79	1457.70	24.14	27.74	8988	10327	82.19	19.83	37.58
19	230	1620.19	1734.85	1562.87	1734.85	32.51	35.71	6657	7312	77.10	14.59	27.61
	275	1591.37	1734.85	1519.64	1734.85	32.10	35.38	7967	8782	91.48	17.69	33.46
	310	1573.34	1734.52	1492.58	1734.35	31.77	34.91	8872	9749	97.03	19.90	37.65
	345	1557.10	1731.71	1468.22	1730.14	31.07	34.48	9640	10699	102.28	22.11	41.83
	380	1542.40	1729.09	1446.17	1726.21	30.46	34.08	10396	11630	107.28	24.32	46.01
	415	1529.02	1726.41	1426.11	1722.20	29.93	33.70	11142	12547	112.05	26.53	50.20
18	230	1877.08	1966.22	1832.50	1966.22	37.41	40.69	7661	8333	87.27	18.47	34.89
	275	1846.75	1966.22	1787.01	1966.22	36.94	40.49	9168	10050	105.78	22.38	42.29
	310	1827.20	1966.22	1757.70	1966.22	36.65	40.33	10234	11261	119.00	25.18	47.58
	345	1809.29	1966.22	1730.82	1966.22	36.39	39.94	11291	12391	131.52	27.98	52.87
	380	1792.84	1966.22	1706.15	1966.22	36.16	39.52	12342	13487	137.94	30.78	58.15
	415	1777.70	1964.84	1683.44	1964.15	35.72	39.08	13300	14549	144.08	33.57	63.44
17	230	2170.18	2230.35	2140.09	2230.35	43.07	46.08	8821	9436	98.84	23.40	44.15
	275	2140.31	2230.35	2095.29	2230.35	42.54	46.08	10558	11437	119.81	28.36	53.52
	310	2120.21	2230.35	2065.14	2230.35	42.21	46.06	11786	12861	134.79	31.91	60.21
	345	2101.31	2230.35	2036.78	2230.35	41.91	45.89	13004	14238	149.76	35.45	66.90
	380	2083.61	2230.35	2010.25	2230.35	41.65	45.45	14214	15512	164.74	39.00	73.59
	415	2067.07	2230.35	1985.43	2230.35	41.41	45.07	15417	16781	179.72	42.54	80.28
16	230	2441.74	2477.68	2423.77	2477.68	48.42	51.10	9916	10465	109.65	28.50	53.73
	275	2414.54	2477.68	2382.97	2477.68	47.84	51.10	11874	12684	132.91	34.54	65.12
	310	2395.14	2477.68	2353.88	2477.68	47.47	51.10	13256	14270	149.52	38.86	73.26
	345	2376.33	2477.68	2325.66	2477.68	47.15	51.10	14628	15855	166.13	43.18	81.40
	380	2358.31	2477.68	2298.63	2477.68	46.85	51.05	15989	17422	182.75	47.50	89.54
	415	2341.16	2477.68	2272.89	2477.68	46.58	50.60	17342	18839	199.36	51.82	97.68

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 7
ROOF DECKS - TYPE NA

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	888.90	1032.76	809.56	1025.35	16.70	18.57	3420	3803	22.62	5.85	11.95
	275	863.69	1023.97	771.75	1012.16	16.03	17.56	3978	4360	23.52	7.09	14.49
	310	849.68	1017.80	750.73	1002.90	15.64	16.98	4367	4742	23.52	7.98	16.30
	345	841.83	1011.90	738.96	994.05	15.31	16.48	4750	5113	23.52	8.87	18.11
	380	834.90	1004.38	728.57	982.78	15.03	16.04	5128	5476	23.52	9.75	19.92
	415	828.72	995.10	719.29	968.87	14.78	15.66	5501	5830	23.52	10.64	21.74
22	230	1003.55	1139.06	931.07	1134.33	19.08	21.17	3907	4335	27.19	7.01	14.24
	275	973.88	1132.08	886.55	1123.85	18.28	20.32	4537	5044	29.93	8.50	17.26
	310	956.69	1126.39	860.78	1115.32	17.82	19.64	4976	5484	31.03	9.56	19.41
	345	942.19	1120.68	839.03	1106.76	17.43	19.05	5408	5911	31.03	10.62	21.57
	380	930.51	1115.13	821.51	1098.43	17.09	18.54	5833	6328	31.03	11.68	23.73
	415	923.42	1109.78	810.87	1090.42	16.79	18.09	6253	6735	31.03	12.74	25.88
21	230	1145.74	1276.27	1078.39	1274.18	22.37	24.38	4580	4992	33.80	8.66	17.49
	275	1122.35	1270.82	1043.30	1266.01	21.39	23.69	5310	5881	37.21	10.50	21.20
	310	1103.65	1266.68	1015.25	1259.79	20.84	23.27	5818	6498	39.47	11.81	23.85
	345	1085.63	1262.07	988.23	1252.88	20.36	22.63	6316	7022	41.60	13.12	26.50
	380	1070.08	1257.02	964.90	1245.31	19.94	22.02	6807	7514	43.07	14.44	29.14
	415	1056.52	1251.92	944.55	1237.65	19.58	21.47	7290	7995	43.07	15.75	31.79
20	230	1268.86	1392.53	1206.85	1392.35	25.33	27.15	5187	5559	40.00	10.20	20.49
	275	1243.61	1387.79	1168.97	1385.25	24.20	26.43	6006	6559	44.04	12.36	24.84
	310	1228.04	1384.28	1145.61	1379.98	23.55	25.97	6575	7251	46.71	13.91	27.95
	345	1213.53	1380.61	1123.85	1374.48	22.99	25.56	7133	7930	49.23	15.45	31.05
	380	1195.24	1376.64	1096.41	1368.52	22.51	25.16	7681	8586	51.64	17.00	34.16
	415	1179.23	1372.39	1072.40	1362.14	22.08	24.53	8221	9134	53.93	18.54	37.26
19	230	1526.77	1625.33	1477.49	1625.33	30.19	32.48	6183	6651	50.54	13.73	27.39
	275	1498.99	1625.33	1435.82	1625.33	29.85	32.14	7409	7979	59.97	16.65	33.20
	310	1481.34	1624.97	1409.35	1624.79	29.55	31.66	8252	8840	63.61	18.73	37.35
	345	1465.30	1622.00	1385.29	1620.33	28.82	31.21	8941	9684	67.05	20.81	41.50
	380	1450.66	1619.22	1363.33	1616.16	28.18	30.79	9617	10507	70.32	22.89	45.65
	415	1437.25	1616.38	1343.22	1611.91	27.62	30.40	10282	11317	73.45	24.97	49.81
18	230	1768.61	1842.01	1731.91	1842.01	34.68	37.05	7101	7588	57.15	17.46	34.64
	275	1740.26	1842.01	1689.38	1842.01	34.29	36.84	8511	9145	69.28	21.16	41.98
	310	1721.63	1842.01	1661.44	1842.01	34.05	36.68	9508	10241	77.94	23.81	47.23
	345	1704.34	1842.01	1635.51	1842.01	33.83	36.27	10498	11252	86.14	26.45	52.48
	380	1688.31	1842.01	1611.47	1842.01	33.64	35.83	11481	12228	90.34	29.10	57.73
	415	1673.44	1840.54	1589.16	1839.80	33.20	35.37	12360	13169	94.36	31.75	62.98
17	230	2043.05	2089.34	2019.90	2089.34	39.83	41.96	8157	8591	64.66	22.22	43.85
	275	2016.25	2089.34	1979.71	2089.34	39.40	41.96	9780	10414	78.38	26.93	53.15
	310	1997.73	2089.34	1951.93	2089.34	39.14	41.93	10928	11710	88.17	30.29	59.80
	345	1980.04	2089.34	1925.39	2089.34	38.89	41.76	12067	12957	97.97	33.66	66.44
	380	1963.27	2089.34	1900.24	2089.34	38.67	41.30	13199	14095	107.77	37.03	73.08
	415	1947.43	2089.34	1876.47	2089.34	38.47	40.90	14324	15228	117.56	40.39	79.73
16	230	2295.96	2320.91	2283.48	2320.91	44.68	46.53	9150	9528	71.65	27.15	53.38
	275	2272.74	2320.91	2248.66	2320.91	44.22	46.53	10977	11549	86.85	32.90	64.70
	310	2255.55	2320.91	2222.87	2320.91	43.94	46.53	12268	12993	97.71	37.02	72.79
	345	2238.51	2320.91	2197.31	2320.91	43.67	46.53	13550	14437	108.57	41.13	80.87
	380	2221.92	2320.91	2172.43	2320.91	43.43	46.47	14823	15860	119.42	45.24	88.96
	415	2205.92	2320.91	2148.42	2320.91	43.21	46.00	16088	17127	130.28	49.36	97.05

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 8
FORM DECK GENERAL PROPERTIES

Type	Gage	W _{dd} (kg/m ²)	A _s (mm ² /m)	I _g (mm ⁴ /m)	Geometry						Geometry for Warping Calc ⁴		
					D _d (mm)	d (mm)	W _r (mm)	h (mm)	Θ (deg)	R (mm)	e (mm)	f (mm)	w (mm)
0.6FD 0.6FDV	28	3.65	465	14992	14.0	63.5	31.7	16.4	47.7	2.64	9.53	19.05	18.87
	27	4.01	511	16499				16.3					
	26	4.38	558	18007				16.3					
	25	5.11	651	21021				16.3					
	24	5.82	742	23934				16.3					
	23	6.58	838	27047				16.2					
	22	7.21	919	29658				16.2					
	21	8.05	1025	33071				16.2					
1.0FD 1.0FDV	26	4.57	582	58043	25.1	101.6	50.8	28.9	48.6	4.78	14.34	28.68	33.45
	25	5.33	679	67761				28.9					
	24	6.07	773	77153				28.9					
	23	6.86	874	87190				28.8					
	22	7.52	959	95606				28.8					
	21	8.39	1069	106608				28.8					
	20	9.13	1163	115991				28.7					
	19	10.66	1358	135396				28.7					
1.5FD	23	7.27	926	218482	36.7	152.4	99.1	30.3	72.5	5.26	43.76	41.73	38.48
	22	7.97	1015	239540				30.2					
	21	8.89	1132	267064				30.2					
	20	9.67	1232	290526				30.1					
	19	11.28	1438	339030				30.0					
	18	12.79	1630	384254				29.9					
	17	14.51	1849	435886				29.8					
	16	16.13	2055	484240				29.7					
1.5FDR 1.5FDV 1.5FDI 1.5FDIV	23	7.27	926	218482	36.7	152.4	53.3	30.3	72.5	5.26	20.86	87.53	38.48
	22	7.97	1015	239540				30.2					
	21	8.89	1132	267064				30.2					
	20	9.67	1232	290526				30.1					
	19	11.28	1438	339030				30.0					
	18	12.79	1630	384254				29.9					
	17	14.51	1849	435886				29.8					
	16	16.13	2055	484240				29.7					
2.0FD 2.0FDB 2.0FD Extended Leg	23	6.98	889	431976	52.3	304.8	152.4	51.8	64.1	4.78	63.50	127.00	58.16
	22	7.65	975	473705				51.7					
	21	8.53	1087	528269				51.7					
	20	9.28	1183	574804				51.6					
	19	10.84	1381	671068				51.5					
	18	12.29	1565	760898				51.4					
	17	13.94	1776	863542				51.3					
	16	15.49	1974	959753				51.2					
3.0FD 3.0FD Extended Leg	23	7.61	969	973441	76.2	304.8	152.4	75.7	67.4	4.78	60.33	120.65	82.55
	22	8.34	1063	1067372				75.7					
	21	9.30	1185	1190163				75.6					
	20	10.12	1289	1294860				75.6					
	19	11.81	1504	1511364				75.5					
	18	13.38	1705	1713300				75.4					
	17	15.18	1934	1943925				75.3					
	16	16.86	2148	2159982				75.2					

Notes:

1. See Table A for profile configuration and cover width of deck types listed.
2. See Table F for design thickness t, of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. s = Developed flute width per width d = 2 (e + w) + f. See AISI S310, Section D2, for diagram of e, f and w.

TABLE 9
FORM DECKS - TYPES 0.6FD, 0.6FDV

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
28	230	14.99	14.99	14.99	14.99	1.97	2.03	403	415	15.76	6.37	9.58
	275	14.99	14.99	14.99	14.99	1.91	1.98	474	492	19.10	7.72	11.62
	310	14.99	14.99	14.99	14.99	1.87	1.94	523	543	21.49	8.69	13.07
	345	14.98	14.98	14.97	14.97	1.84	1.91	570	592	23.88	9.65	14.52
	380	14.95	14.95	14.94	14.93	1.81	1.88	617	641	26.26	10.62	15.97
	415	14.92	14.92	14.89	14.87	1.78	1.85	663	689	28.65	11.58	17.42
27	230	16.50	16.50	16.50	16.50	2.23	2.24	456	459	17.33	7.57	11.45
	275	16.50	16.50	16.50	16.50	2.16	2.22	537	552	21.00	9.17	13.88
	310	16.50	16.50	16.50	16.50	2.12	2.21	593	618	23.63	10.32	15.61
	345	16.50	16.50	16.50	16.50	2.09	2.17	647	673	26.25	11.47	17.35
	380	16.50	16.50	16.50	16.50	2.05	2.13	701	728	28.88	12.61	19.08
	415	16.49	16.49	16.48	16.48	2.02	2.10	753	782	31.50	13.76	20.82
26	230	18.01	18.01	18.01	18.01	2.44	2.44	499	499	18.89	8.86	13.46
	275	18.01	18.01	18.01	18.01	2.42	2.44	600	605	22.90	10.74	16.32
	310	18.01	18.01	18.01	18.01	2.38	2.43	664	678	25.76	12.08	18.36
	345	18.01	18.01	18.01	18.01	2.34	2.42	725	750	28.63	13.42	20.40
	380	18.01	18.01	18.01	18.01	2.30	2.39	786	817	31.49	14.76	22.44
	415	18.01	18.01	18.01	18.01	2.27	2.36	845	878	34.35	16.10	24.48
25	230	21.02	21.02	21.02	21.02	2.83	2.83	580	580	22.01	11.69	17.92
	275	21.02	21.02	21.02	21.02	2.83	2.83	703	703	26.68	14.17	21.72
	310	21.02	21.02	21.02	21.02	2.83	2.83	791	791	30.02	15.95	24.43
	345	21.02	21.02	21.02	21.02	2.83	2.83	878	878	33.35	17.72	27.15
	380	21.02	21.02	21.02	21.02	2.81	2.83	959	966	36.69	19.49	29.86
	415	21.02	21.02	21.02	21.02	2.77	2.82	1033	1051	40.03	21.26	32.58
24	230	23.93	23.93	23.93	23.93	3.21	3.21	657	657	25.02	14.75	22.75
	275	23.93	23.93	23.93	23.93	3.21	3.21	796	796	30.33	17.88	27.58
	310	23.93	23.93	23.93	23.93	3.21	3.21	896	896	34.12	20.12	31.02
	345	23.93	23.93	23.93	23.93	3.21	3.21	995	995	37.91	22.36	34.47
	380	23.93	23.93	23.93	23.93	3.21	3.21	1095	1095	41.70	24.59	37.92
	415	23.93	23.93	23.93	23.93	3.21	3.21	1194	1194	45.49	26.83	41.37
23	230	27.05	27.05	27.05	27.05	3.61	3.61	738	738	28.22	18.37	28.48
	275	27.05	27.05	27.05	27.05	3.61	3.61	895	895	34.20	22.26	34.52
	310	27.05	27.05	27.05	27.05	3.61	3.61	1007	1007	38.48	25.05	38.83
	345	27.05	27.05	27.05	27.05	3.61	3.61	1119	1119	42.75	27.83	43.15
	380	27.05	27.05	27.05	27.05	3.61	3.61	1231	1231	47.03	30.61	47.46
	415	27.05	27.05	27.05	27.05	3.61	3.61	1343	1343	51.30	33.39	51.78
22	230	29.66	29.66	29.66	29.66	3.94	3.94	806	806	30.89	21.66	33.72
	275	29.66	29.66	29.66	29.66	3.94	3.94	977	977	37.44	26.25	40.87
	310	29.66	29.66	29.66	29.66	3.94	3.94	1099	1099	42.12	29.54	45.98
	345	29.66	29.66	29.66	29.66	3.94	3.94	1221	1221	46.80	32.82	51.09
	380	29.66	29.66	29.66	29.66	3.94	3.94	1344	1344	51.48	36.10	56.20
	415	29.66	29.66	29.66	29.66	3.94	3.94	1466	1466	56.16	39.38	61.31
21	230	33.07	33.07	33.07	33.07	4.37	4.37	894	894	34.37	26.32	41.17
	275	33.07	33.07	33.07	33.07	4.37	4.37	1083	1083	41.66	31.91	49.90
	310	33.07	33.07	33.07	33.07	4.37	4.37	1219	1219	46.86	35.89	56.14
	345	33.07	33.07	33.07	33.07	4.37	4.37	1354	1354	52.07	39.88	62.38
	380	33.07	33.07	33.07	33.07	4.37	4.37	1490	1490	57.28	43.87	68.62
	415	33.07	33.07	33.07	33.07	4.37	4.37	1625	1625	62.48	47.86	74.85

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 51mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 10
FORM DECKS - TYPES 1.0FD, 1.0FDV

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
26	230	58.01	58.01	57.99	57.99	3.99	4.29	817	878	21.22	5.09	8.73
	275	57.80	57.80	57.68	57.63	3.87	4.07	961	1010	25.36	6.17	10.58
	310	57.60	57.60	57.38	57.29	3.80	3.99	1062	1115	26.90	6.94	11.90
	345	57.38	57.38	57.05	56.93	3.74	3.93	1160	1218	28.35	7.72	13.22
	380	57.16	57.16	56.72	56.56	3.68	3.87	1257	1319	29.73	8.49	14.55
	415	56.94	56.94	56.38	56.19	3.63	3.81	1353	1419	31.06	9.26	15.87
25	230	67.76	67.76	67.76	67.76	4.87	5.05	998	1035	24.74	6.78	11.72
	275	67.76	67.76	67.76	67.76	4.74	5.01	1176	1245	29.99	8.22	14.21
	310	67.72	67.73	67.71	67.71	4.65	4.99	1299	1393	33.74	9.25	15.98
	345	67.62	67.62	67.55	67.52	4.58	4.81	1420	1491	37.49	10.27	17.76
	380	67.47	67.47	67.33	67.27	4.51	4.73	1539	1616	40.54	11.30	19.53
	415	67.30	67.30	67.08	66.99	4.45	4.67	1656	1738	42.34	12.33	21.31
24	230	77.15	77.15	77.15	77.15	5.74	5.79	1176	1185	28.14	8.61	14.98
	275	77.15	77.15	77.15	77.15	5.59	5.75	1389	1428	34.11	10.44	18.16
	310	77.15	77.15	77.15	77.15	5.50	5.73	1536	1599	38.38	11.74	20.43
	345	77.15	77.15	77.15	77.15	5.41	5.70	1680	1769	42.64	13.05	22.70
	380	77.15	77.15	77.15	77.15	5.34	5.68	1821	1939	46.91	14.35	24.96
	415	77.09	77.09	77.06	77.06	5.26	5.66	1960	2107	51.17	15.65	27.23
23	230	87.19	87.19	87.19	87.19	6.52	6.52	1335	1335	31.77	10.78	18.85
	275	87.19	87.19	87.19	87.19	6.52	6.52	1619	1619	38.51	13.06	22.85
	310	87.19	87.19	87.19	87.19	6.42	6.51	1793	1819	43.32	14.70	25.70
	345	87.19	87.19	87.19	87.19	6.33	6.49	1964	2013	48.14	16.33	28.56
	380	87.19	87.19	87.19	87.19	6.24	6.47	2131	2207	52.95	17.96	31.41
	415	87.19	87.19	87.19	87.19	6.16	6.44	2295	2399	57.76	19.60	34.27
22	230	95.61	95.61	95.61	95.61	7.13	7.13	1461	1461	34.81	12.76	22.40
	275	95.61	95.61	95.61	95.61	7.13	7.13	1771	1771	42.19	15.47	27.15
	310	95.61	95.61	95.61	95.61	7.13	7.13	1992	1992	47.46	17.40	30.54
	345	95.61	95.61	95.61	95.61	7.10	7.13	2204	2213	52.73	19.33	33.93
	380	95.61	95.61	95.61	95.61	7.01	7.12	2394	2430	58.01	21.27	37.33
	415	95.61	95.61	95.61	95.61	6.93	7.10	2580	2643	63.28	23.20	40.72
21	230	106.61	106.61	106.61	106.61	7.93	7.93	1624	1624	38.76	15.57	27.44
	275	106.61	106.61	106.61	106.61	7.93	7.93	1968	1968	46.99	18.88	33.26
	310	106.61	106.61	106.61	106.61	7.93	7.93	2214	2214	52.86	21.24	37.42
	345	106.61	106.61	106.61	106.61	7.93	7.93	2460	2460	58.73	23.60	41.58
	380	106.61	106.61	106.61	106.61	7.93	7.93	2706	2706	64.61	25.96	45.74
	415	106.61	106.61	106.61	106.61	7.93	7.93	2952	2952	70.48	28.32	49.89
20	230	115.99	115.99	115.99	115.99	8.60	8.60	1762	1762	42.13	18.17	32.10
	275	115.99	115.99	115.99	115.99	8.60	8.60	2135	2135	51.07	22.02	38.91
	310	115.99	115.99	115.99	115.99	8.60	8.60	2402	2402	57.45	24.78	43.78
	345	115.99	115.99	115.99	115.99	8.60	8.60	2669	2669	63.84	27.53	48.64
	380	115.99	115.99	115.99	115.99	8.60	8.60	2936	2936	70.22	30.28	53.51
	415	115.99	115.99	115.99	115.99	8.60	8.60	3203	3203	76.60	33.04	58.37
19	230	135.40	135.40	135.40	135.40	9.99	9.99	2045	2045	49.08	24.10	42.78
	275	135.40	135.40	135.40	135.40	9.99	9.99	2479	2479	59.49	29.22	51.86
	310	135.40	135.40	135.40	135.40	9.99	9.99	2789	2789	66.92	32.87	58.34
	345	135.40	135.40	135.40	135.40	9.99	9.99	3098	3098	74.36	36.52	64.82
	380	135.40	135.40	135.40	135.40	9.99	9.99	3408	3408	81.79	40.17	71.30
	415	135.40	135.40	135.40	135.40	9.99	9.99	3718	3718	89.23	43.82	77.78

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 11
FORM DECKS - TYPE 1.5FD

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	217.76	217.76	217.40	195.98	9.01	8.65	1844	1772	28.27	9.04	15.68
	275	217.07	217.07	216.36	190.25	8.73	8.27	2166	2052	34.27	10.96	19.01
	310	216.27	216.27	215.17	186.66	8.56	8.05	2390	2247	38.55	12.33	21.39
	345	215.40	215.40	213.85	183.43	8.41	7.86	2609	2438	42.84	13.69	23.76
	380	214.49	214.49	212.49	179.19	8.27	7.69	2824	2625	47.12	15.06	26.14
	415	213.58	213.58	211.13	175.29	8.15	7.55	3036	2810	51.41	16.43	28.51
22	230	239.24	239.24	239.09	220.69	10.16	9.87	2080	2020	30.96	10.71	18.66
	275	238.74	238.74	238.34	214.73	9.86	9.46	2446	2349	37.52	12.98	22.61
	310	238.37	238.37	237.78	210.91	9.67	9.20	2700	2570	42.21	14.60	25.44
	345	237.76	237.76	236.87	207.42	9.50	8.98	2948	2786	46.90	16.22	28.27
	380	237.02	237.02	235.76	204.23	9.35	8.78	3192	2998	51.59	17.85	31.09
	415	236.22	236.22	234.56	201.30	9.22	8.61	3432	3207	56.28	19.47	33.92
21	230	267.06	267.06	267.06	253.02	11.68	11.12	2392	2278	34.45	13.08	22.89
	275	266.81	266.81	266.68	247.03	11.36	11.00	2819	2729	41.76	15.85	27.74
	310	266.47	266.47	266.18	243.07	11.14	10.80	3112	3015	46.98	17.83	31.21
	345	266.17	266.17	265.72	239.38	10.95	10.53	3398	3266	52.20	19.82	34.68
	380	265.86	265.86	265.25	235.95	10.78	10.29	3678	3513	57.42	21.80	38.14
	415	265.38	265.38	264.53	232.76	10.62	10.09	3953	3755	62.64	23.78	41.61
20	230	290.53	290.53	290.53	280.36	12.82	12.20	2625	2499	37.42	15.27	26.80
	275	290.53	290.53	290.53	274.61	12.62	12.06	3134	2994	45.36	18.50	32.48
	310	290.41	290.41	290.35	270.66	12.40	11.98	3463	3345	51.03	20.82	36.54
	345	290.09	290.09	289.87	266.91	12.20	11.90	3784	3693	56.70	23.13	40.60
	380	289.67	289.67	289.24	263.37	12.01	11.65	4098	3975	62.37	25.44	44.66
	415	289.33	289.33	288.73	260.04	11.83	11.41	4406	4247	68.04	27.76	48.73
19	230	339.03	339.03	339.03	335.37	15.01	14.44	3074	2957	43.53	20.27	35.76
	275	339.03	339.03	339.03	330.86	14.91	14.29	3702	3546	52.76	24.57	43.35
	310	339.03	339.03	339.03	327.38	14.82	14.19	4139	3962	59.36	27.64	48.77
	345	339.03	339.03	339.03	323.86	14.77	14.10	4584	4375	65.96	30.71	54.19
	380	339.03	339.03	339.03	320.40	14.59	14.02	4980	4785	72.55	33.78	59.61
	415	338.92	338.92	338.86	317.03	14.40	13.95	5363	5193	79.15	36.85	65.02
18	230	384.25	384.25	384.25	383.88	16.96	16.53	3473	3384	49.19	25.50	45.17
	275	384.25	384.25	384.25	381.41	16.95	16.37	4208	4062	59.63	30.91	54.75
	310	384.25	384.25	384.25	378.89	16.89	16.26	4717	4541	67.08	34.77	61.59
	345	384.25	384.25	384.25	376.04	16.80	16.17	5212	5016	74.53	38.64	68.44
	380	384.25	384.25	384.25	373.03	16.72	16.08	5705	5488	81.98	42.50	75.28
	415	384.25	384.25	384.25	369.96	16.65	16.00	6199	5956	89.44	46.36	82.13
17	230	435.89	435.89	435.89	435.89	19.17	18.90	3925	3870	55.61	32.14	57.12
	275	435.89	435.89	435.89	435.83	19.17	18.74	4758	4651	67.41	38.95	69.24
	310	435.89	435.89	435.89	434.97	19.16	18.63	5350	5202	75.83	43.82	77.89
	345	435.89	435.89	435.89	433.39	19.13	18.53	5935	5749	84.26	48.69	86.55
	380	435.89	435.89	435.89	431.35	19.06	18.43	6504	6292	92.68	53.56	95.20
	415	435.89	435.89	435.89	429.02	18.97	18.35	7063	6831	101.11	58.43	103.86
16	230	484.24	484.24	484.24	484.24	21.22	21.11	4346	4322	61.58	38.98	69.47
	275	484.24	484.24	484.24	484.24	21.22	20.95	5267	5199	74.64	47.25	84.21
	310	484.24	484.24	484.24	484.24	21.22	20.84	5926	5819	83.97	53.16	94.73
	345	484.24	484.24	484.24	484.16	21.21	20.74	6580	6434	93.30	59.07	105.26
	380	484.24	484.24	484.24	483.43	21.18	20.64	7228	7044	102.63	64.97	115.78
	415	484.24	484.24	484.24	482.15	21.15	20.55	7875	7650	111.96	70.88	126.31

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 12
FORM DECKS - TYPES 1.5FDR, 1.5FDV, 1.5FDI, 1.5FDIV

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	203.48	217.76	195.98	217.40	8.65	9.01	1772	1844	28.27	9.04	15.68
	275	199.66	217.07	190.25	216.36	8.27	8.73	2052	2166	34.27	10.96	19.01
	310	197.27	216.27	186.66	215.17	8.05	8.56	2247	2390	38.55	12.33	21.39
	345	195.11	215.40	183.43	213.85	7.86	8.41	2438	2609	42.84	13.69	23.76
	380	192.29	214.49	179.19	212.49	7.69	8.27	2625	2824	47.12	15.06	26.14
	415	189.69	213.58	175.29	211.13	7.55	8.15	2810	3036	51.41	16.43	28.51
22	230	226.97	239.24	220.69	239.09	9.87	10.16	2020	2080	30.96	10.71	18.66
	275	223.00	238.74	214.73	238.34	9.46	9.86	2349	2446	37.52	12.98	22.61
	310	220.45	238.37	210.91	237.78	9.20	9.67	2570	2700	42.21	14.60	25.44
	345	218.13	237.76	207.42	236.87	8.98	9.50	2786	2948	46.90	16.22	28.27
	380	216.00	237.02	204.23	235.76	8.78	9.35	2998	3192	51.59	17.85	31.09
	415	214.05	236.22	201.30	234.56	8.61	9.22	3207	3432	56.28	19.47	33.92
21	230	257.70	267.06	253.02	267.06	11.12	11.68	2278	2392	34.45	13.08	22.89
	275	253.71	266.81	247.03	266.68	11.00	11.36	2729	2819	41.76	15.85	27.74
	310	251.07	266.47	243.07	266.18	10.80	11.14	3015	3112	46.98	17.83	31.21
	345	248.61	266.17	239.38	265.72	10.53	10.95	3266	3398	52.20	19.82	34.68
	380	246.32	265.86	235.95	265.25	10.29	10.78	3513	3678	57.42	21.80	38.14
	415	244.19	265.38	232.76	264.53	10.09	10.62	3755	3953	62.64	23.78	41.61
20	230	283.75	290.53	280.36	290.53	12.20	12.82	2499	2625	37.42	15.27	26.80
	275	279.91	290.53	274.61	290.53	12.06	12.62	2994	3134	45.36	18.50	32.48
	310	277.28	290.41	270.66	290.35	11.98	12.40	3345	3463	51.03	20.82	36.54
	345	274.78	290.09	266.91	289.87	11.90	12.20	3693	3784	56.70	23.13	40.60
	380	272.42	289.67	263.37	289.24	11.65	12.01	3975	4098	62.37	25.44	44.66
	415	270.20	289.33	260.04	288.73	11.41	11.83	4247	4406	68.04	27.76	48.73
19	230	336.59	339.03	335.37	339.03	14.44	15.01	2957	3074	43.53	20.27	35.76
	275	333.58	339.03	330.86	339.03	14.29	14.91	3546	3702	52.76	24.57	43.35
	310	331.26	339.03	327.38	339.03	14.19	14.82	3962	4139	59.36	27.64	48.77
	345	328.92	339.03	323.86	339.03	14.10	14.77	4375	4584	65.96	30.71	54.19
	380	326.61	339.03	320.40	339.03	14.02	14.59	4785	4980	72.55	33.78	59.61
	415	324.36	338.92	317.03	338.86	13.95	14.40	5193	5363	79.15	36.85	65.02
18	230	384.00	384.25	383.88	384.25	16.53	16.96	3384	3473	49.19	25.50	45.17
	275	382.36	384.25	381.41	384.25	16.37	16.95	4062	4208	59.63	30.91	54.75
	310	380.68	384.25	378.89	384.25	16.26	16.89	4541	4717	67.08	34.77	61.59
	345	378.78	384.25	376.04	384.25	16.17	16.80	5016	5212	74.53	38.64	68.44
	380	376.77	384.25	373.03	384.25	16.08	16.72	5488	5705	81.98	42.50	75.28
	415	374.73	384.25	369.96	384.25	16.00	16.65	5956	6199	89.44	46.36	82.13
17	230	435.89	435.89	435.89	435.89	18.90	19.17	3870	3925	55.61	32.14	57.12
	275	435.85	435.89	435.83	435.89	18.74	19.17	4651	4758	67.41	38.95	69.24
	310	435.28	435.89	434.97	435.89	18.63	19.16	5202	5350	75.83	43.82	77.89
	345	434.22	435.89	433.39	435.89	18.53	19.13	5749	5935	84.26	48.69	86.55
	380	432.86	435.89	431.35	435.89	18.43	19.06	6292	6504	92.68	53.56	95.20
	415	431.31	435.89	429.02	435.89	18.35	18.97	6831	7063	101.11	58.43	103.86
16	230	484.24	484.24	484.24	484.24	21.11	21.22	4322	4346	61.58	38.98	69.47
	275	484.24	484.24	484.24	484.24	20.95	21.22	5199	5267	74.64	47.25	84.21
	310	484.24	484.24	484.24	484.24	20.84	21.22	5819	5926	83.97	53.16	94.73
	345	484.19	484.24	484.16	484.24	20.74	21.21	6434	6580	93.30	59.07	105.26
	380	483.70	484.24	483.43	484.24	20.64	21.18	7044	7228	102.63	64.97	115.78
	415	482.85	484.24	482.15	484.24	20.55	21.15	7650	7875	111.96	70.88	126.31

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 13
FORM DECKS - TYPE 2.0FD, 2.0FDB, 2.0FD EXTENDED LEG

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	424.16	424.16	420.25	409.27	12.63	12.85	2585	2631	20.79	4.43	8.21
	275	419.48	419.48	413.23	401.75	12.04	12.29	2987	3051	22.89	5.37	9.95
	310	416.20	416.20	408.31	396.75	11.69	11.96	3263	3340	24.28	6.04	11.19
	345	413.05	413.05	403.59	392.07	11.38	11.67	3531	3622	25.60	6.71	12.44
	380	410.06	410.06	399.10	387.71	11.11	11.42	3793	3898	26.84	7.38	13.68
	415	407.23	407.23	394.85	383.64	10.88	11.20	4049	4169	28.04	8.05	14.92
22	230	469.02	469.02	466.68	455.75	14.48	14.69	2965	3008	24.98	5.26	9.74
	275	465.01	465.01	460.66	448.59	13.81	14.06	3428	3489	27.53	6.37	11.81
	310	461.96	461.96	456.09	443.64	13.41	13.68	3746	3820	29.20	7.17	13.29
	345	458.93	458.93	451.54	438.91	13.07	13.35	4054	4143	30.78	7.97	14.76
	380	455.97	455.97	447.10	434.42	12.76	13.06	4354	4458	32.29	8.76	16.24
	415	453.11	453.11	442.81	430.18	12.48	12.80	4648	4767	33.72	9.56	17.71
21	230	526.08	526.08	524.99	515.15	17.00	17.19	3480	3521	27.83	6.43	11.92
	275	523.59	523.59	521.25	509.32	16.24	16.47	4030	4087	33.73	7.80	14.45
	310	521.16	521.16	517.61	504.74	15.78	16.03	4406	4476	36.32	8.77	16.26
	345	518.52	518.52	513.65	500.18	15.37	15.65	4770	4855	38.29	9.74	18.06
	380	515.80	515.80	509.56	495.74	15.01	15.31	5124	5224	40.16	10.72	19.87
	415	513.08	513.08	505.48	491.45	14.69	15.00	5470	5586	41.94	11.69	21.68
20	230	572.89	572.89	571.93	564.41	19.21	19.39	3934	3971	30.26	7.52	13.93
	275	572.25	572.25	570.97	559.92	18.38	18.60	4562	4616	36.68	9.11	16.89
	310	570.69	570.69	568.63	556.16	17.87	18.11	4991	5058	41.26	10.25	19.00
	345	568.64	568.64	565.56	552.09	17.42	17.69	5406	5487	45.33	11.39	21.11
	380	566.33	566.33	562.09	547.88	17.02	17.30	5810	5906	47.55	12.53	23.22
	415	563.88	563.88	558.42	543.72	16.66	16.96	6204	6315	49.66	13.66	25.33
19	230	668.85	668.85	667.74	666.02	23.92	24.07	4899	4928	35.26	9.99	18.53
	275	668.85	668.85	667.74	661.75	22.98	23.17	5705	5751	42.74	12.11	22.46
	310	668.85	668.85	667.74	659.05	22.40	22.60	6254	6311	48.09	13.63	25.27
	345	668.79	668.79	667.66	656.56	21.87	22.09	6784	6855	53.43	15.14	28.07
	380	668.06	668.06	666.56	653.59	21.39	21.64	7299	7384	58.77	16.66	30.88
	415	666.79	666.79	664.65	650.42	20.95	21.22	7800	7901	64.11	18.17	33.69
18	230	758.41	758.95	757.16	757.98	27.87	27.81	5706	5694	39.92	12.59	23.34
	275	758.41	758.41	757.16	756.71	27.18	27.40	6746	6800	48.39	15.26	28.29
	310	758.41	758.41	757.16	753.84	26.54	26.78	7410	7479	54.43	17.16	31.82
	345	758.41	758.41	757.16	751.18	25.95	26.23	8051	8138	60.48	19.07	35.36
	380	758.41	758.41	757.16	748.72	25.41	25.71	8672	8774	66.53	20.98	38.89
	415	758.41	758.41	757.16	746.44	24.92	25.23	9277	9394	72.58	22.88	42.43
17	230	860.74	861.35	859.35	860.26	31.53	31.55	6457	6461	45.22	15.87	29.43
	275	860.74	861.35	859.35	860.26	31.53	31.49	7827	7815	54.81	19.24	35.67
	310	860.74	861.35	859.35	860.26	30.88	31.33	8623	8750	61.66	21.64	40.13
	345	860.74	860.99	859.35	859.72	30.24	30.70	9381	9525	68.51	24.05	44.59
	380	860.74	860.74	859.35	857.14	29.64	30.12	10116	10278	75.36	26.45	49.05
	415	860.74	860.74	859.35	854.70	29.09	29.58	10830	11012	82.21	28.86	53.51
16	230	956.67	957.34	955.13	956.14	34.95	35.01	7157	7169	50.17	19.26	35.71
	275	956.67	957.34	955.13	956.14	34.95	34.98	8676	8682	60.81	23.35	43.29
	310	956.67	957.34	955.13	956.14	34.95	34.94	9760	9756	68.41	26.26	48.70
	345	956.67	957.34	955.13	956.14	34.31	34.83	10644	10806	76.01	29.18	54.11
	380	956.67	957.34	955.13	956.14	33.66	34.23	11489	11681	83.61	32.10	59.52
	415	956.67	957.34	955.13	956.14	33.06	33.62	12310	12519	91.21	35.02	64.93

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 51mm for end bearing and 102mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 14
FORM DECKS - TYPE 3.0FD, 3.0FD EXTENDED LEG

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	958.69	958.69	951.32	934.80	20.00	20.82	4095	4263	20.04	4.63	9.02
	275	948.77	948.77	936.44	919.09	19.15	20.01	4753	4966	20.04	5.61	10.94
	310	941.84	941.84	926.03	908.60	18.65	19.52	5208	5452	20.04	6.31	12.31
	345	935.19	935.19	916.06	898.81	18.01	19.10	5588	5927	20.04	7.01	13.67
	380	928.87	928.87	906.59	889.67	17.31	18.64	5908	6363	20.04	7.71	15.04
	415	922.90	922.90	897.62	881.15	16.70	18.02	6218	6711	20.04	8.41	16.41
22	230	1059.41	1059.41	1055.43	1039.35	22.84	23.71	4677	4855	25.66	5.50	10.70
	275	1050.91	1050.91	1042.68	1024.53	21.88	22.78	5432	5655	26.45	6.67	12.97
	310	1044.46	1044.46	1033.00	1014.22	21.31	22.24	5951	6209	26.45	7.50	14.60
	345	1038.04	1038.04	1023.37	1004.30	20.81	21.76	6457	6750	26.45	8.34	16.22
	380	1031.77	1031.77	1013.97	994.89	20.37	21.33	6952	7280	26.45	9.17	17.84
	415	1025.74	1025.74	1004.92	986.01	19.77	20.95	7361	7801	26.45	10.00	19.46
21	230	1187.65	1187.65	1186.40	1173.40	26.70	27.62	5467	5656	31.92	6.75	13.08
	275	1182.41	1182.41	1178.54	1161.17	25.60	26.56	6355	6593	35.14	8.18	15.86
	310	1177.29	1177.29	1170.85	1151.59	24.94	25.93	6965	7240	36.71	9.20	17.84
	345	1171.69	1171.69	1162.45	1142.19	24.36	25.37	7559	7871	36.71	10.23	19.83
	380	1165.92	1165.92	1153.80	1132.97	23.85	24.87	8139	8489	36.71	11.25	21.81
	415	1160.15	1160.15	1145.15	1123.98	23.39	24.43	8707	9096	36.71	12.27	23.79
20	230	1293.04	1293.04	1292.13	1283.85	30.09	31.05	6161	6357	37.79	7.90	15.28
	275	1291.75	1291.75	1290.20	1275.46	28.89	29.90	7171	7421	41.61	9.58	18.52
	310	1288.48	1288.48	1285.30	1267.59	28.16	29.19	7863	8152	44.13	10.77	20.84
	345	1284.15	1284.15	1278.80	1258.80	27.51	28.57	8537	8864	46.52	11.97	23.15
	380	1279.25	1279.25	1271.45	1250.15	26.94	28.02	9194	9561	47.33	13.17	25.47
	415	1274.07	1274.07	1263.68	1241.56	26.42	27.52	9836	10245	47.33	14.36	27.78
19	230	1509.28	1509.84	1508.24	1509.07	37.29	38.05	7636	7792	51.52	10.53	20.29
	275	1509.28	1509.28	1508.24	1503.88	35.93	36.98	8919	9179	56.72	12.77	24.59
	310	1509.28	1509.28	1508.24	1498.72	35.08	36.17	9797	10099	60.16	14.36	27.67
	345	1509.18	1509.18	1508.09	1493.97	34.32	35.42	10648	10991	63.42	15.96	30.74
	380	1507.68	1507.68	1505.84	1488.48	33.63	34.73	11478	11854	66.51	17.55	33.82
	415	1505.01	1505.01	1501.83	1481.88	33.00	34.09	12288	12692	69.47	19.15	36.89
18	230	1710.99	1711.60	1709.83	1710.75	43.34	43.28	8874	8863	60.03	13.29	25.52
	275	1710.99	1711.60	1709.83	1710.75	42.68	43.12	10595	10704	72.77	16.11	30.94
	310	1710.99	1711.24	1709.83	1710.20	41.77	42.64	11663	11907	77.36	18.12	34.80
	345	1710.99	1710.99	1709.83	1706.40	40.93	41.80	12698	12969	81.55	20.13	38.67
	380	1710.99	1710.99	1709.83	1700.15	40.15	41.03	13704	14004	85.53	22.15	42.54
	415	1710.99	1710.99	1709.83	1694.41	39.44	40.31	14685	15009	89.33	24.16	46.41
17	230	1941.36	1942.04	1940.08	1941.09	49.07	49.10	10048	10055	68.04	16.78	32.15
	275	1941.36	1942.04	1940.08	1941.09	49.07	49.01	12180	12165	82.48	20.34	38.96
	310	1941.36	1942.04	1940.08	1941.09	49.07	48.93	13702	13664	92.78	22.88	43.84
	345	1941.36	1942.04	1940.08	1941.09	48.63	48.83	15089	15151	103.09	25.43	48.71
	380	1941.36	1942.04	1940.08	1941.09	47.80	48.35	16315	16500	110.18	27.97	53.58
	415	1941.36	1941.36	1940.08	1937.76	47.03	47.57	17509	17712	115.08	30.51	58.45
16	230	2157.20	2157.93	2155.81	2156.90	54.42	54.46	11144	11151	75.53	20.38	38.96
	275	2157.20	2157.93	2155.81	2156.90	54.42	54.46	13508	13519	91.55	24.71	47.23
	310	2157.20	2157.93	2155.81	2156.90	54.42	54.39	15196	15187	102.99	27.79	53.13
	345	2157.20	2157.93	2155.81	2156.90	54.42	54.30	16885	16846	114.44	30.88	59.03
	380	2157.20	2157.93	2155.81	2156.90	54.42	54.23	18573	18507	125.88	33.97	64.94
	415	2157.20	2157.93	2155.81	2156.90	53.62	54.06	19964	20128	137.32	37.06	70.84

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 64mm for end bearing and 127mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 15
COMPOSITE DECK GENERAL PROPERTIES

Type	Gage	W _{dd} (kg/m ²)	A _s (mm ² /m)	I _g (mm ⁴ /m)	ȳ _d (mm)	K	Geometry						Geometry for Warping Calc ⁴		
							D _d (mm)	d (mm)	W _r (mm)	h (mm)	Θ (deg)	R (mm)	e (mm)	f (mm)	w (mm)
1.5CD 1.5CDI	23	7.27	926	218482	22.05	1.00	36.7	152.4	53.3	30.3	72.5	5.26	20.86	87.53	38.48
	22	7.97	1015	239540		1.00				30.2					
	21	8.89	1132	267064		1.00				30.2					
	20	9.67	1232	290526		1.00				30.1					
	19	11.28	1438	339030		1.00				30.0					
	18	12.79	1630	384254		1.00				29.9					
	17	14.51	1849	435886		1.00				29.8					
16	16.13	2055	484240	1.00	29.7										
1.5CDR	23	7.27	926	218482	14.65	1.00	36.7	152.4	99.1	30.3	72.5	5.26	43.76	41.73	38.48
	22	7.97	1015	239540		1.00				30.2					
	21	8.89	1132	267064		1.00				30.2					
	20	9.67	1232	290526		1.00				30.1					
	19	11.28	1438	339030		1.00				30.0					
	18	12.79	1630	384254		1.00				29.9					
	17	14.51	1849	435886		1.00				29.8					
16	16.13	2055	484240	1.00	29.7										
2.0CD 2.0CDB 2.0CD Extended Leg	23	6.98	889	431976	25.75	1.00	52.3	304.8	152.4	51.8	64.1	4.78	63.50	127.00	58.16
	22	7.65	975	473705		1.00				51.7					
	21	8.53	1087	528269		1.00				51.7					
	20	9.28	1183	574804		1.00				51.6					
	19	10.84	1381	671068		1.00				51.5					
	18	12.29	1565	760898		1.00				51.4					
	17	13.94	1776	863542		0.99				51.3					
16	15.49	1974	959753	0.91	51.2										
3.0CD 3.0CD Extended Leg	23	7.61	969	973441	37.35	1.00	76.2	304.8	152.4	75.7	67.4	4.78	60.33	120.65	82.55
	22	8.34	1063	1067372		1.00				75.7					
	21	9.30	1185	1190163		1.00				75.6					
	20	10.12	1289	1294860		1.00				75.6					
	19	11.81	1504	1511364		1.00				75.5					
	18	13.38	1705	1713300		1.00				75.4					
	17	15.18	1934	1943925		1.00				75.3					
16	16.86	2148	2159982	1.00	75.2										

Notes:

1. See Table A for profile configuration and cover width of deck types listed.
2. See Table F for design thickness t, of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. s = Developed flute width per width d = 2 (e + w) + f. See AISI S310, Section D2, for diagram of e, f and w.

TABLE 16
COMPOSITE DECKS - TYPES 1.5CD, 1.5CDI

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	203.48	217.76	195.98	217.40	8.65	9.01	1772	1844	28.27	9.04	15.68
	275	199.66	217.07	190.25	216.36	8.27	8.73	2052	2166	34.27	10.96	19.01
	310	197.27	216.27	186.66	215.17	8.05	8.56	2247	2390	38.55	12.33	21.39
	345	195.11	215.40	183.43	213.85	7.86	8.41	2438	2609	42.84	13.69	23.76
	380	192.29	214.49	179.19	212.49	7.69	8.27	2625	2824	47.12	15.06	26.14
	415	189.69	213.58	175.29	211.13	7.55	8.15	2810	3036	51.41	16.43	28.51
22	230	226.97	239.24	220.69	239.09	9.87	10.16	2020	2080	30.96	10.71	18.66
	275	223.00	238.74	214.73	238.34	9.46	9.86	2349	2446	37.52	12.98	22.61
	310	220.45	238.37	210.91	237.78	9.20	9.67	2570	2700	42.21	14.60	25.44
	345	218.13	237.76	207.42	236.87	8.98	9.50	2786	2948	46.90	16.22	28.27
	380	216.00	237.02	204.23	235.76	8.78	9.35	2998	3192	51.59	17.85	31.09
	415	214.05	236.22	201.30	234.56	8.61	9.22	3207	3432	56.28	19.47	33.92
21	230	257.70	267.06	253.02	267.06	11.12	11.68	2278	2392	34.45	13.08	22.89
	275	253.71	266.81	247.03	266.68	11.00	11.36	2729	2819	41.76	15.85	27.74
	310	251.07	266.47	243.07	266.18	10.80	11.14	3015	3112	46.98	17.83	31.21
	345	248.61	266.17	239.38	265.72	10.53	10.95	3266	3398	52.20	19.82	34.68
	380	246.32	265.86	235.95	265.25	10.29	10.78	3513	3678	57.42	21.80	38.14
	415	244.19	265.38	232.76	264.53	10.09	10.62	3755	3953	62.64	23.78	41.61
20	230	283.75	290.53	280.36	290.53	12.20	12.82	2499	2625	37.42	15.27	26.80
	275	279.91	290.53	274.61	290.53	12.06	12.62	2994	3134	45.36	18.50	32.48
	310	277.28	290.41	270.66	290.35	11.98	12.40	3345	3463	51.03	20.82	36.54
	345	274.78	290.09	266.91	289.87	11.90	12.20	3693	3784	56.70	23.13	40.60
	380	272.42	289.67	263.37	289.24	11.65	12.01	3975	4098	62.37	25.44	44.66
	415	270.20	289.33	260.04	288.73	11.41	11.83	4247	4406	68.04	27.76	48.73
19	230	336.59	339.03	335.37	339.03	14.44	15.01	2957	3074	43.53	20.27	35.76
	275	333.58	339.03	330.86	339.03	14.29	14.91	3546	3702	52.76	24.57	43.35
	310	331.26	339.03	327.38	339.03	14.19	14.82	3962	4139	59.36	27.64	48.77
	345	328.92	339.03	323.86	339.03	14.10	14.77	4375	4584	65.96	30.71	54.19
	380	326.61	339.03	320.40	339.03	14.02	14.59	4785	4980	72.55	33.78	59.61
	415	324.36	338.92	317.03	338.86	13.95	14.40	5193	5363	79.15	36.85	65.02
18	230	384.00	384.25	383.88	384.25	16.53	16.96	3384	3473	49.19	25.50	45.17
	275	382.36	384.25	381.41	384.25	16.37	16.95	4062	4208	59.63	30.91	54.75
	310	380.68	384.25	378.89	384.25	16.26	16.89	4541	4717	67.08	34.77	61.59
	345	378.78	384.25	376.04	384.25	16.17	16.80	5016	5212	74.53	38.64	68.44
	380	376.77	384.25	373.03	384.25	16.08	16.72	5488	5705	81.98	42.50	75.28
	415	374.73	384.25	369.96	384.25	16.00	16.65	5956	6199	89.44	46.36	82.13
17	230	435.89	435.89	435.89	435.89	18.90	19.17	3870	3925	55.61	32.14	57.12
	275	435.85	435.89	435.83	435.89	18.74	19.17	4651	4758	67.41	38.95	69.24
	310	435.28	435.89	434.97	435.89	18.63	19.16	5202	5350	75.83	43.82	77.89
	345	434.22	435.89	433.39	435.89	18.53	19.13	5749	5935	84.26	48.69	86.55
	380	432.86	435.89	431.35	435.89	18.43	19.06	6292	6504	92.68	53.56	95.20
	415	431.31	435.89	429.02	435.89	18.35	18.97	6831	7063	101.11	58.43	103.86
16	230	484.24	484.24	484.24	484.24	21.11	21.22	4322	4346	61.58	38.98	69.47
	275	484.24	484.24	484.24	484.24	20.95	21.22	5199	5267	74.64	47.25	84.21
	310	484.24	484.24	484.24	484.24	20.84	21.22	5819	5926	83.97	53.16	94.73
	345	484.19	484.24	484.16	484.24	20.74	21.21	6434	6580	93.30	59.07	105.26
	380	483.70	484.24	483.43	484.24	20.64	21.18	7044	7228	102.63	64.97	115.78
	415	482.85	484.24	482.15	484.24	20.55	21.15	7650	7875	111.96	70.88	126.31

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 17
COMPOSITE DECKS - TYPE 1.5CDR

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	217.76	217.76	217.40	195.98	9.01	8.65	1844	1772	28.27	9.04	15.68
	275	217.07	217.07	216.36	190.25	8.73	8.27	2166	2052	34.27	10.96	19.01
	310	216.27	216.27	215.17	186.66	8.56	8.05	2390	2247	38.55	12.33	21.39
	345	215.40	215.40	213.85	183.43	8.41	7.86	2609	2438	42.84	13.69	23.76
	380	214.49	214.49	212.49	179.19	8.27	7.69	2824	2625	47.12	15.06	26.14
	415	213.58	213.58	211.13	175.29	8.15	7.55	3036	2810	51.41	16.43	28.51
22	230	239.24	239.24	239.09	220.69	10.16	9.87	2080	2020	30.96	10.71	18.66
	275	238.74	238.74	238.34	214.73	9.86	9.46	2446	2349	37.52	12.98	22.61
	310	238.37	238.37	237.78	210.91	9.67	9.20	2700	2570	42.21	14.60	25.44
	345	237.76	237.76	236.87	207.42	9.50	8.98	2948	2786	46.90	16.22	28.27
	380	237.02	237.02	235.76	204.23	9.35	8.78	3192	2998	51.59	17.85	31.09
	415	236.22	236.22	234.56	201.30	9.22	8.61	3432	3207	56.28	19.47	33.92
21	230	267.06	267.06	267.06	253.02	11.68	11.12	2392	2278	34.45	13.08	22.89
	275	266.81	266.81	266.68	247.03	11.36	11.00	2819	2729	41.76	15.85	27.74
	310	266.47	266.47	266.18	243.07	11.14	10.80	3112	3015	46.98	17.83	31.21
	345	266.17	266.17	265.72	239.38	10.95	10.53	3398	3266	52.20	19.82	34.68
	380	265.86	265.86	265.25	235.95	10.78	10.29	3678	3513	57.42	21.80	38.14
	415	265.38	265.38	264.53	232.76	10.62	10.09	3953	3755	62.64	23.78	41.61
20	230	290.53	290.53	290.53	280.36	12.82	12.20	2625	2499	37.42	15.27	26.80
	275	290.53	290.53	290.53	274.61	12.62	12.06	3134	2994	45.36	18.50	32.48
	310	290.41	290.41	290.35	270.66	12.40	11.98	3463	3345	51.03	20.82	36.54
	345	290.09	290.09	289.87	266.91	12.20	11.90	3784	3693	56.70	23.13	40.60
	380	289.67	289.67	289.24	263.37	12.01	11.65	4098	3975	62.37	25.44	44.66
	415	289.33	289.33	288.73	260.04	11.83	11.41	4406	4247	68.04	27.76	48.73
19	230	339.03	339.03	339.03	335.37	15.01	14.44	3074	2957	43.53	20.27	35.76
	275	339.03	339.03	339.03	330.86	14.91	14.29	3702	3546	52.76	24.57	43.35
	310	339.03	339.03	339.03	327.38	14.82	14.19	4139	3962	59.36	27.64	48.77
	345	339.03	339.03	339.03	323.86	14.77	14.10	4584	4375	65.96	30.71	54.19
	380	339.03	339.03	339.03	320.40	14.59	14.02	4980	4785	72.55	33.78	59.61
	415	338.92	338.92	338.86	317.03	14.40	13.95	5363	5193	79.15	36.85	65.02
18	230	384.25	384.25	384.25	383.88	16.96	16.53	3473	3384	49.19	25.50	45.17
	275	384.25	384.25	384.25	381.41	16.95	16.37	4208	4062	59.63	30.91	54.75
	310	384.25	384.25	384.25	378.89	16.89	16.26	4717	4541	67.08	34.77	61.59
	345	384.25	384.25	384.25	376.04	16.80	16.17	5212	5016	74.53	38.64	68.44
	380	384.25	384.25	384.25	373.03	16.72	16.08	5705	5488	81.98	42.50	75.28
	415	384.25	384.25	384.25	369.96	16.65	16.00	6199	5956	89.44	46.36	82.13
17	230	435.89	435.89	435.89	435.89	19.17	18.90	3925	3870	55.61	32.14	57.12
	275	435.89	435.89	435.89	435.83	19.17	18.74	4758	4651	67.41	38.95	69.24
	310	435.89	435.89	435.89	434.97	19.16	18.63	5350	5202	75.83	43.82	77.89
	345	435.89	435.89	435.89	433.39	19.13	18.53	5935	5749	84.26	48.69	86.55
	380	435.89	435.89	435.89	431.35	19.06	18.43	6504	6292	92.68	53.56	95.20
	415	435.89	435.89	435.89	429.02	18.97	18.35	7063	6831	101.11	58.43	103.86
16	230	484.24	484.24	484.24	484.24	21.22	21.11	4346	4322	61.58	38.98	69.47
	275	484.24	484.24	484.24	484.24	21.22	20.95	5267	5199	74.64	47.25	84.21
	310	484.24	484.24	484.24	484.24	21.22	20.84	5926	5819	83.97	53.16	94.73
	345	484.24	484.24	484.24	484.16	21.21	20.74	6580	6434	93.30	59.07	105.26
	380	484.24	484.24	484.24	483.43	21.18	20.64	7228	7044	102.63	64.97	115.78
	415	484.24	484.24	484.24	482.15	21.15	20.55	7875	7650	111.96	70.88	126.31

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 38mm for end bearing and 76mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

TABLE 18
COMPOSITE DECKS - TYPE 2.0CD, 2.0CDB, 2.0CD EXTENDED LEG

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	424.16	424.16	420.25	409.27	12.63	12.85	2585	2631	20.79	4.43	8.21
	275	419.48	419.48	413.23	401.75	12.04	12.29	2987	3051	22.89	5.37	9.95
	310	416.20	416.20	408.31	396.75	11.69	11.96	3263	3340	24.28	6.04	11.19
	345	413.05	413.05	403.59	392.07	11.38	11.67	3531	3622	25.60	6.71	12.44
	380	410.06	410.06	399.10	387.71	11.11	11.42	3793	3898	26.84	7.38	13.68
	415	407.23	407.23	394.85	383.64	10.88	11.20	4049	4169	28.04	8.05	14.92
22	230	469.02	469.02	466.68	455.75	14.48	14.69	2965	3008	24.98	5.26	9.74
	275	465.01	465.01	460.66	448.59	13.81	14.06	3428	3489	27.53	6.37	11.81
	310	461.96	461.96	456.09	443.64	13.41	13.68	3746	3820	29.20	7.17	13.29
	345	458.93	458.93	451.54	438.91	13.07	13.35	4054	4143	30.78	7.97	14.76
	380	455.97	455.97	447.10	434.42	12.76	13.06	4354	4458	32.29	8.76	16.24
	415	453.11	453.11	442.81	430.18	12.48	12.80	4648	4767	33.72	9.56	17.71
21	230	526.08	526.08	524.99	515.15	17.00	17.19	3480	3521	27.83	6.43	11.92
	275	523.59	523.59	521.25	509.32	16.24	16.47	4030	4087	33.73	7.80	14.45
	310	521.16	521.16	517.61	504.74	15.78	16.03	4406	4476	36.32	8.77	16.26
	345	518.52	518.52	513.65	500.18	15.37	15.65	4770	4855	38.29	9.74	18.06
	380	515.80	515.80	509.56	495.74	15.01	15.31	5124	5224	40.16	10.72	19.87
	415	513.08	513.08	505.48	491.45	14.69	15.00	5470	5586	41.94	11.69	21.68
20	230	572.89	572.89	571.93	564.41	19.21	19.39	3934	3971	30.26	7.52	13.93
	275	572.25	572.25	570.97	559.92	18.38	18.60	4562	4616	36.68	9.11	16.89
	310	570.69	570.69	568.63	556.16	17.87	18.11	4991	5058	41.26	10.25	19.00
	345	568.64	568.64	565.56	552.09	17.42	17.69	5406	5487	45.33	11.39	21.11
	380	566.33	566.33	562.09	547.88	17.02	17.30	5810	5906	47.55	12.53	23.22
	415	563.88	563.88	558.42	543.72	16.66	16.96	6204	6315	49.66	13.66	25.33
19	230	668.85	668.85	667.74	666.02	23.92	24.07	4899	4928	35.26	9.99	18.53
	275	668.85	668.85	667.74	661.75	22.98	23.17	5705	5751	42.74	12.11	22.46
	310	668.85	668.85	667.74	659.05	22.40	22.60	6254	6311	48.09	13.63	25.27
	345	668.79	668.79	667.66	656.56	21.87	22.09	6784	6855	53.43	15.14	28.07
	380	668.06	668.06	666.56	653.59	21.39	21.64	7299	7384	58.77	16.66	30.88
	415	666.79	666.79	664.65	650.42	20.95	21.22	7800	7901	64.11	18.17	33.69
18	230	758.41	758.95	757.16	757.98	27.87	27.81	5706	5694	39.92	12.59	23.34
	275	758.41	758.41	757.16	756.71	27.18	27.40	6746	6800	48.39	15.26	28.29
	310	758.41	758.41	757.16	753.84	26.54	26.78	7410	7479	54.43	17.16	31.82
	345	758.41	758.41	757.16	751.18	25.95	26.23	8051	8138	60.48	19.07	35.36
	380	758.41	758.41	757.16	748.72	25.41	25.71	8672	8774	66.53	20.98	38.89
	415	758.41	758.41	757.16	746.44	24.92	25.23	9277	9394	72.58	22.88	42.43
17	230	860.74	861.35	859.35	860.26	31.53	31.55	6457	6461	45.22	15.87	29.43
	275	860.74	861.35	859.35	860.26	31.53	31.49	7827	7815	54.81	19.24	35.67
	310	860.74	861.35	859.35	860.26	30.88	31.33	8623	8750	61.66	21.64	40.13
	345	860.74	860.99	859.35	859.72	30.24	30.70	9381	9525	68.51	24.05	44.59
	380	860.74	860.74	859.35	857.14	29.64	30.12	10116	10278	75.36	26.45	49.05
	415	860.74	860.74	859.35	854.70	29.09	29.58	10830	11012	82.21	28.86	53.51
16	230	956.67	957.34	955.13	956.14	34.95	35.01	7157	7169	50.17	19.26	35.71
	275	956.67	957.34	955.13	956.14	34.95	34.98	8676	8682	60.81	23.35	43.29
	310	956.67	957.34	955.13	956.14	34.95	34.94	9760	9756	68.41	26.26	48.70
	345	956.67	957.34	955.13	956.14	34.31	34.83	10644	10806	76.01	29.18	54.11
	380	956.67	957.34	955.13	956.14	33.66	34.23	11489	11681	83.61	32.10	59.52
	415	956.67	957.34	955.13	956.14	33.06	33.62	12310	12519	91.21	35.02	64.93

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 51mm for end bearing and 102mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.

**TABLE 19
COMPOSITE DECKS - TYPE 3.0CD, 3.0CD EXTENDED LEG**

Gage	Design f_y (MPa)	Effective Section Properties / Meter Width						LSD Design Strengths (No Fill) / Meter Width				
		I_D 1 Span ($mm^4 \times 10^3$)	I_D 2+ Span ($mm^4 \times 10^3$)	I_p ($mm^4 \times 10^3$)	I_n ($mm^4 \times 10^3$)	S_p ($mm^3 \times 10^3$)	S_n ($mm^3 \times 10^3$)	$\Phi M_{n,p}$ (N-m)	$\Phi M_{n,n}$ (N-m)	ΦV_n (kN)	ΦR_{be} (kN)	ΦR_{bi} (kN)
23	230	958.69	958.69	951.32	934.80	20.00	20.82	4095	4263	20.04	4.63	9.02
	275	948.77	948.77	936.44	919.09	19.15	20.01	4753	4966	20.04	5.61	10.94
	310	941.84	941.84	926.03	908.60	18.65	19.52	5208	5452	20.04	6.31	12.31
	345	935.19	935.19	916.06	898.81	18.01	19.10	5588	5927	20.04	7.01	13.67
	380	928.87	928.87	906.59	889.67	17.31	18.64	5908	6363	20.04	7.71	15.04
	415	922.90	922.90	897.62	881.15	16.70	18.02	6218	6711	20.04	8.41	16.41
22	230	1059.41	1059.41	1055.43	1039.35	22.84	23.71	4677	4855	25.66	5.50	10.70
	275	1050.91	1050.91	1042.68	1024.53	21.88	22.78	5432	5655	26.45	6.67	12.97
	310	1044.46	1044.46	1033.00	1014.22	21.31	22.24	5951	6209	26.45	7.50	14.60
	345	1038.04	1038.04	1023.37	1004.30	20.81	21.76	6457	6750	26.45	8.34	16.22
	380	1031.77	1031.77	1013.97	994.89	20.37	21.33	6952	7280	26.45	9.17	17.84
	415	1025.74	1025.74	1004.92	986.01	19.77	20.95	7361	7801	26.45	10.00	19.46
21	230	1187.65	1187.65	1186.40	1173.40	26.70	27.62	5467	5656	31.92	6.75	13.08
	275	1182.41	1182.41	1178.54	1161.17	25.60	26.56	6355	6593	35.14	8.18	15.86
	310	1177.29	1177.29	1170.85	1151.59	24.94	25.93	6965	7240	36.71	9.20	17.84
	345	1171.69	1171.69	1162.45	1142.19	24.36	25.37	7559	7871	36.71	10.23	19.83
	380	1165.92	1165.92	1153.80	1132.97	23.85	24.87	8139	8489	36.71	11.25	21.81
	415	1160.15	1160.15	1145.15	1123.98	23.39	24.43	8707	9096	36.71	12.27	23.79
20	230	1293.04	1293.04	1292.13	1283.85	30.09	31.05	6161	6357	37.79	7.90	15.28
	275	1291.75	1291.75	1290.20	1275.46	28.89	29.90	7171	7421	41.61	9.58	18.52
	310	1288.48	1288.48	1285.30	1267.59	28.16	29.19	7863	8152	44.13	10.77	20.84
	345	1284.15	1284.15	1278.80	1258.80	27.51	28.57	8537	8864	46.52	11.97	23.15
	380	1279.25	1279.25	1271.45	1250.15	26.94	28.02	9194	9561	47.33	13.17	25.47
	415	1274.07	1274.07	1263.68	1241.56	26.42	27.52	9836	10245	47.33	14.36	27.78
19	230	1509.28	1509.84	1508.24	1509.07	37.29	38.05	7636	7792	51.52	10.53	20.29
	275	1509.28	1509.28	1508.24	1503.88	35.93	36.98	8919	9179	56.72	12.77	24.59
	310	1509.28	1509.28	1508.24	1498.72	35.08	36.17	9797	10099	60.16	14.36	27.67
	345	1509.18	1509.18	1508.09	1493.97	34.32	35.42	10648	10991	63.42	15.96	30.74
	380	1507.68	1507.68	1505.84	1488.48	33.63	34.73	11478	11854	66.51	17.55	33.82
	415	1505.01	1505.01	1501.83	1481.88	33.00	34.09	12288	12692	69.47	19.15	36.89
18	230	1710.99	1711.60	1709.83	1710.75	43.34	43.28	8874	8863	60.03	13.29	25.52
	275	1710.99	1711.60	1709.83	1710.75	42.68	43.12	10595	10704	72.77	16.11	30.94
	310	1710.99	1711.24	1709.83	1710.20	41.77	42.64	11663	11907	77.36	18.12	34.80
	345	1710.99	1710.99	1709.83	1706.40	40.93	41.80	12698	12969	81.55	20.13	38.67
	380	1710.99	1710.99	1709.83	1700.15	40.15	41.03	13704	14004	85.53	22.15	42.54
	415	1710.99	1710.99	1709.83	1694.41	39.44	40.31	14685	15009	89.33	24.16	46.41
17	230	1941.36	1942.04	1940.08	1941.09	49.07	49.10	10048	10055	68.04	16.78	32.15
	275	1941.36	1942.04	1940.08	1941.09	49.07	49.01	12180	12165	82.48	20.34	38.96
	310	1941.36	1942.04	1940.08	1941.09	49.07	48.93	13702	13664	92.78	22.88	43.84
	345	1941.36	1942.04	1940.08	1941.09	48.63	48.83	15089	15151	103.09	25.43	48.71
	380	1941.36	1942.04	1940.08	1941.09	47.80	48.35	16315	16500	110.18	27.97	53.58
	415	1941.36	1941.36	1940.08	1937.76	47.03	47.57	17509	17712	115.08	30.51	58.45
16	230	2157.20	2157.93	2155.81	2156.90	54.42	54.46	11144	11151	75.53	20.38	38.96
	275	2157.20	2157.93	2155.81	2156.90	54.42	54.46	13508	13519	91.55	24.71	47.23
	310	2157.20	2157.93	2155.81	2156.90	54.42	54.39	15196	15187	102.99	27.79	53.13
	345	2157.20	2157.93	2155.81	2156.90	54.42	54.30	16885	16846	114.44	30.88	59.03
	380	2157.20	2157.93	2155.81	2156.90	54.42	54.23	18573	18507	125.88	33.97	64.94
	415	2157.20	2157.93	2155.81	2156.90	53.62	54.06	19964	20128	137.32	37.06	70.84

Notes:

1. See Table A for deck profile configuration and cover width.
2. See Table F for design thickness t , of deck gages listed.
3. See Table G for definition of variable symbols shown in this table.
4. Web crippling design strengths, R_{be} and R_{bi} , are based on minimum bearing lengths of 64mm for end bearing and 127mm for interior bearing, and assume one-flange loading with deck panels fastened to supports.