

SS 100 PANEL



UL LISTED CONSTRUCTION NUMBERS

#575
SECTION ANALYSIS REPORT
AND
SPAN LOAD TABLES

1300 40TH DENVER, CO 80205-3311

PH 303-294-0538 *** 800-574-1717 ***** FAX 303-294-9407**

DESCRIPTION

PRODUCT COVERED:

This section of the Procedure covers a copper roof panel, which is identified by the manufacturer as "SS100." The panel is produced at job sites by portable rolling machines.

The panel is roll formed from 16 oz (0.0216 in. thick) copper to the configuration shown in ILL. 1.

SPECIFICATIONS OF FINISHED PRODUCT:

THICKNESS

The base thickness of the copper used in the fabrication of the panel shall be not less than 0.0216 in.

DIMENSIONS

The cross-sectional dimensions of the panel piece shall be in accordance with the cross-section shown in ILL. 1.

STRENGTH

The strength records of the copper shall be reviewed. The copper shall conform to ASTM B370. The weight of copper shall be a minimum of 16 oz/ft².



**Underwriters
Laboratories Inc.®**

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NEW TECH MACHINERY CORP
MR G BATTISTELL
1300 40TH ST
DENVER CO 80205

RE: Project Number(s) - 03NK22866

Your most recent Certification is shown below. You may also view this information, or a portion of this information (depending on the product category), on UL's Online Certifications Directory at www.ul.com/database. Please review the text and contact the Conformity Assessment Services staff member who handled your project if revisions are required. For instructions on placing an order for this information in a 3 x 5-inch format, you may refer to the enclosed order form for UL Card Service.

TJPV
Metal Roof Deck Panels

November 21, 2003

NEW TECH MACHINERY CORP
1300 40TH ST, DENVER CO 80205

R14692

Coated steel panels, field - formed.

Underwriters Laboratories Inc. Metal Roof Deck Panels, Fabricated, installed and used in the following roof deck constructions with corresponding panel identifications:

Coated steel panels identified as "Snap Panel 550" for use in Construction No. 373.

Coated steel panels identified as "Panel 210A" for use in Construction Nos. 90, 176, 180, 238, 238A.

Coated steel or aluminum panels identified as "Snap Panel 675" for use in Construction Nos 254, 255, 261, 303.

Coated steel panels identified as "SS675" for use in Construction Nos. 343, 508 and 508A.

Coated steel panels identified as "SS450" for use in Construction No. 370.

Coated steel panels identified as "SS150" for use in Construction No. 554.

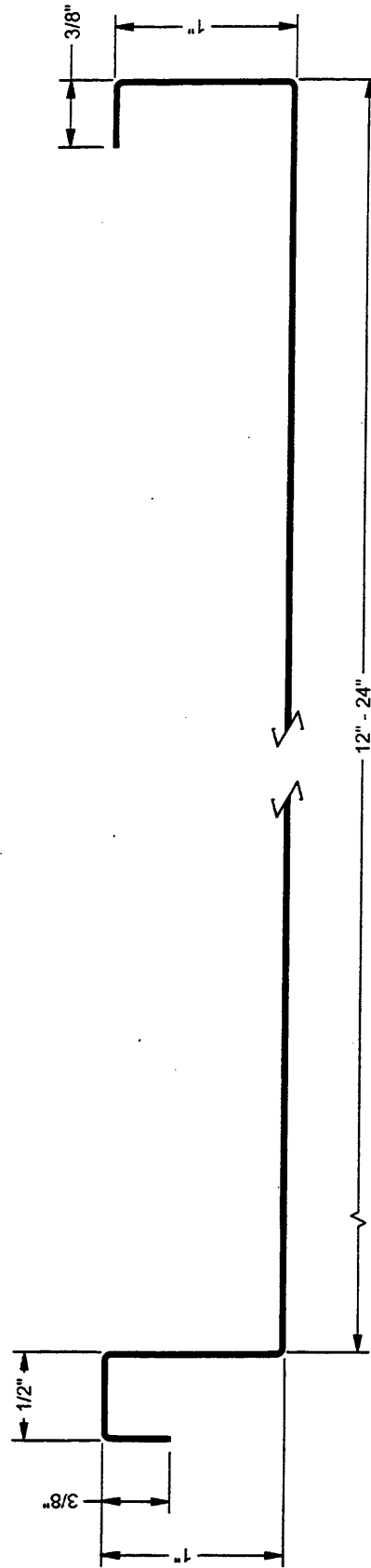
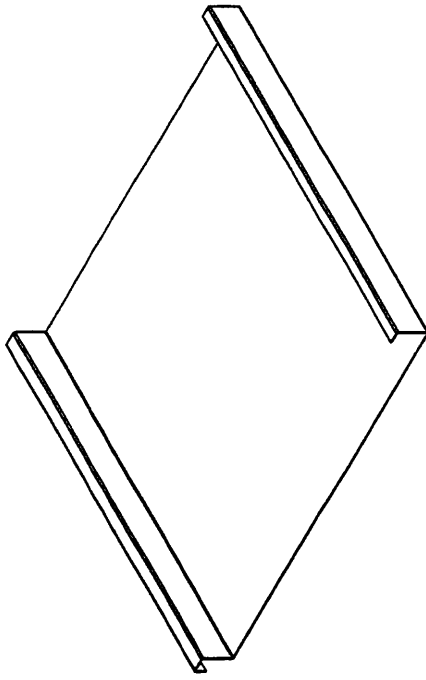
Coated steel panels identified as "SS100" for use in Construction No. 575.

Coated steel panels identified as "FF100" for use in Construction No. 529.

See Roof Deck Construction for description of construction numbers.

LOOK FOR LISTING MARK ON PRODUCT





NOTE:
MATERIAL USAGE: 3"

MATERIAL				LENGTH		FINISH		NEW TECH MACHINERY CORP.			
REV	ECN NO.	DATE	RELEASED BY	TOLERANCES		PART NAME		DRAWN BY		PART NAME	
				.XX = ± .01		SAWYER		SS100 PANEL PROFILE		SS100 PANEL PROFILE	
				.XXX = ± .005		DATE		9/11/2002		DATE	
				FRACTION = ± 1/32"		CHECK BY		A		SHEET	
				ANGLE = ± 1/2°		DATE		NONE		1 OF 1	
										PART NUMBER	
										SS100	
										REVISION	
										0	



Online Certifications Directory

TGKX.575 Roof Deck Constructions

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Roof Deck Constructions

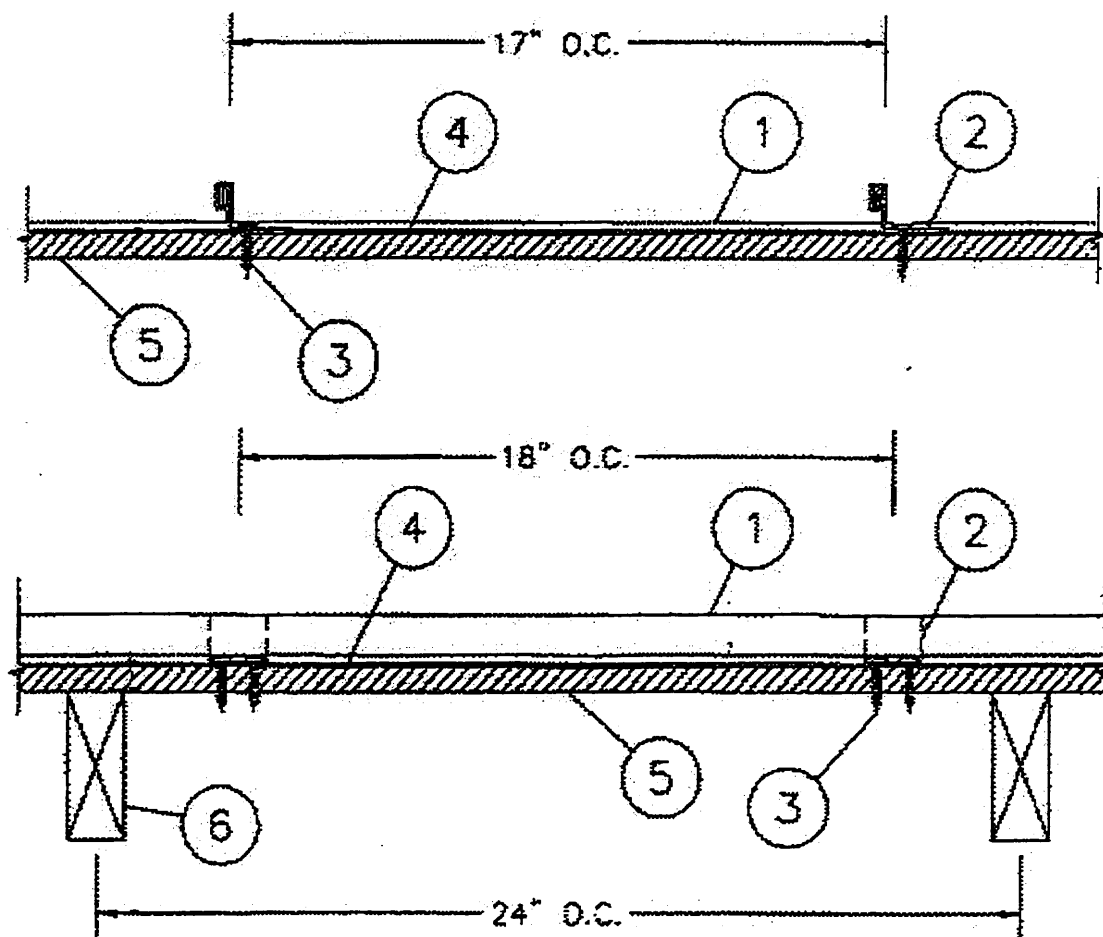
Guide Information

Construction No. 575

November 21, 2003

Uplift — Class 90

Fire Not Investigated



1. **Metal Roof Deck Panels*** — 0.0216 in. thick copper (16 oz). Max panel width 17 in., rib height 1 in. Panels continuous over two or more spans with no end-lap.

NATIONAL ROOFING

CONTRACTORS ASSOCIATION — "Architectural Copper Panel"

NEW TECH MACHINERY CORP — "SS100"

2. **Roof Deck Fasteners (Panel Clips)** — One piece stainless steel assembly, 1-1/2 in. wide, 1-1/8 in. high. Min thickness .015 in. (No. 28 MSG). Clips spaced max of 18 in. OC.

NATIONAL ROOFING

CONTRACTORS ASSOCIATION — "Architectural Copper Panel Clip"

3. **Fasteners (Screws)** — Fasteners used to attach the plywood deck (Item 5) to the joists (Item 6) to be No. 6-18, 1-7/8 in. long bugle-head steel screws. The screws are

to be spaced 6 in. OC at the plywood edges and 12 in. OC in the field of the plywood. The fasteners used to attach the panel clips (Item 2) to the plywood deck to be No. 10-12 by 1 in. long pancake head, No 2 Phillips drive, A-point, coated steel screws. A min of two fasteners per panel clips are to be used.

4. Underlayment — Any UL Classified base or ply sheet, attached per manufacturers recommendations.

5. Plywood — Min 19/32 in. thick, Grade C-D plywood, all joints to occur over supports. All joints are to be sealed against leakage by using tape, self-adhering polymer modified bituminous membranes and/or caulk.

6. Joists — Graded dimension lumber, No. 2 or better. Spaced a max of 24 in. OC.

Refer to general information, Roof Deck Construction, for Items not evaluated.

*Bearing the UL Classification Mark

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JOHN F. BUTTS & ASSOC., INC.

CONSULTING ENGINEERS
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www.jfba.com

November 17, 2003

New Tech Machinery
1300 40th Street
Denver, CO 80205-3311

**Re: Section Analysis Report
New Tech SS100 Panel
Job No. 183-06**

Gentlemen:

Per your request, please find enclosed the engineering calculations for the above referenced project. The section, with the structural properties indicated in this report is certified to meet or exceed the requirements of the AISI/NASPEC 2001 Cold-Formed Steel Design (US)

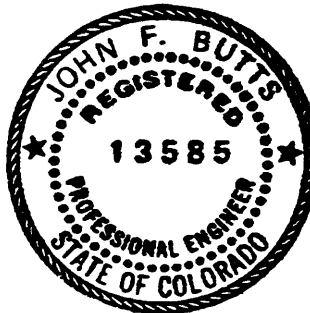
Please note that the panel analysis and Load Tables have been evaluated based on the assumption that the proper bearing, side laps, end laps, bracing, anchorage and structural supports are being utilized in the member's installation. We do not certify the installation method, attachment and supporting materials.

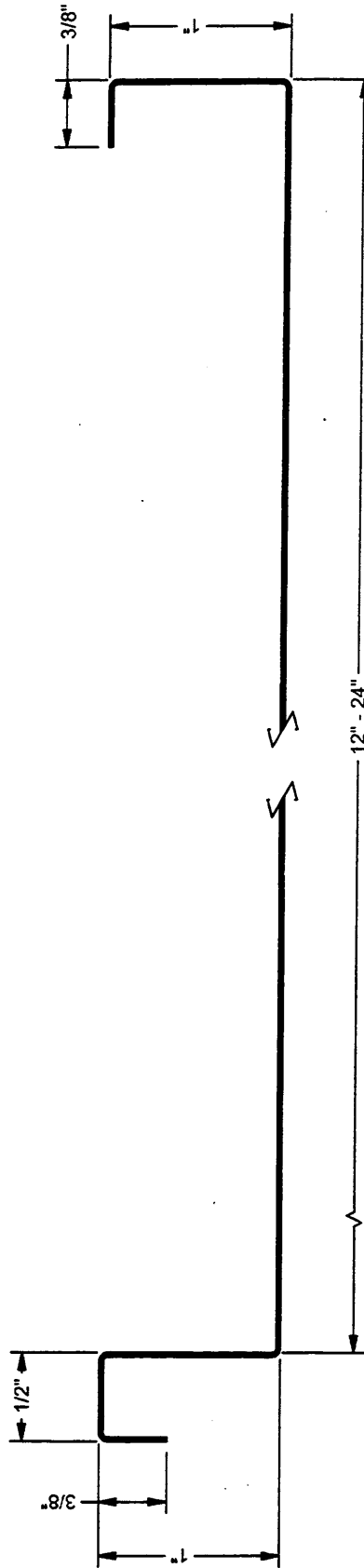
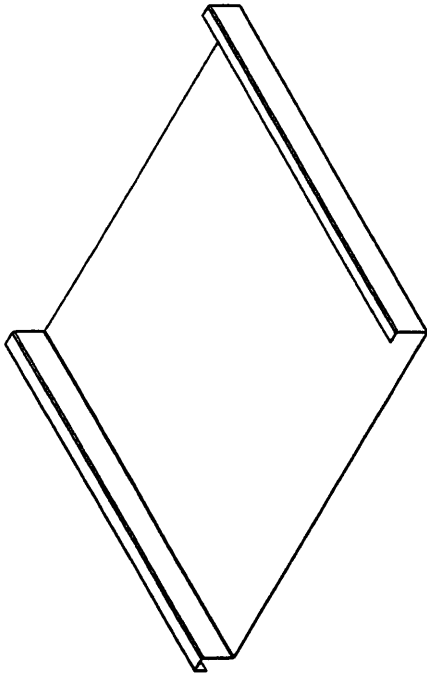
If we can be of further assistance or if you require additional information, please call.

Sincerely,

John F. Butts, P.E.
President

enc. Section Drawing
Section Analysis
Section Load Tables





NOTE:
MATERIAL USAGE: 3"

MATERIAL				LENGTH		FINISH		NEW TECH MACHINERY CORP.			
REVISION HISTORY				REV	ECN NO.	DATE	RELEASED BY	TOLERANCES	DRAWN BY	PART NAME	
								.XX = ± .01	SAWYER		
								.XXX = ± .005	DATE		
								FRACTION = ± 1/32"	9/11/2002		
								ANGLE = ± 1/2°	CHECK BY	SIZE	SHEET
									DATE	SCALE	1 OF 1
										PART NUMBER	SS100
											REVISION
											0

John F. Butts & Associates, Inc.
 2480 Vantage Drive
 Colorado Springs, CO 80919
 (719) 598-7666

Analysis per AISI 2001/NASPEC Cold-Formed Steel Design (US)

New Tech SS100 Panel

File: SS100X12
 Date: 11/17/2003
 Panel2002, V11.00

Alloy: ASTM A792, G50
 Fy = 50.00 ksi
 Fv = 30.00 ksi

QUALIFICATIONS PER AISI SPECIFICATIONS

- (a) Maximum w/t Ratio's Exceeded [Section B1.1(a)]: No
 (b) Maximum h/t Ratio's Exceeded [Section B1.2(a)]: No

Section Dimensional Data (Edge Seam: 90 deg.)

Type	Name	Gage	Height in	Width in	Lip in	t in	Weight plf	Coil Width in
Hat		24	1.000	12.000	0.000	0.0240	1.227	15.018

Gross Sectional Properties

Area in ²	Ix in ⁴	Sx in ³	Rx in	Ycg in	Iy in ⁴	Sy in ³	Ry in	Xcg in
0.3604	0.0337	0.0395	0.306	0.149	6.1017	0.9747	4.114	6.260

Effective Properties

Vnx kip	Ix in ⁴	Sx in ³	Mnx kip-in	Mny kip-in	Iy in ⁴	Sy in ³	Pne kip	Pnei kip/in
1.256	0.0280	0.0299	1.496	—	—	—	0.572	0.097

Torsional Properties

Xo in	Ro in	Beta	Cw in ⁶	Jv*1000 in ⁴	Fy ksi	Fu ksi	E ksi	G ksi
-0.387	4.144	0.991	0.807	0.069	50	65	29500	11300

Shear, moment and bearing values shown are nominal values and must be modified by the appropriate factor of safety (ASD) or resistance factor (LRFD).

Factors of Safety (ASD)

FS (Compression) = 1.80
 FS (Tension) = 1.67
 FS (Web Crippling) = 2.00
 FS (Bending) = 1.67
 FS (Shear) = 1.60

Resistance Factor (LRFD)

RF (Compression) = 0.85
 RF (Tension) = 0.90
 RF (Web Crippling) = 0.75
 RF (Bending) = 0.95
 RF (Shear) = 0.95

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Analysis per AISI 2001/NASPEC Cold-Formed Steel Design (US)

New Tech SS100 Panel

File: SS100X14
 Date: 11/17/2003
 Panel2002, V11.00

Alloy: ASTM A792, G50
 Fy = 50.00 ksi
 Fv = 30.00 ksi

QUALIFICATIONS PER AISI SPECIFICATIONS

- (a) Maximum w/t Ratio's Exceeded [Section B1.1(a)]: No
 (b) Maximum h/t Ratio's Exceeded [Section B1.2(a)]: No

Section Dimensional Data (Edge Seam: 90 deg.)

Type	Name	Gage	Height in	Width in	Lip in	t in	Weight plf	Coil Width in
Hat		24	1.000	14.000	0.000	0.0240	1.390	17.018

Gross Sectional Properties

Area in ²	Ix in ⁴	Sx in ³	Rx in	Ycg in	Iy in ⁴	Sy in ³	Ry in	Xcg in
0.4084	0.0345	0.0397	0.290	0.133	9.0813	1.2513	4.715	7.258

Effective Properties

Vnx kip	Ix in ⁴	Sx in ³	Mnx kip-in	Mny kip-in	Iy in ⁴	Sy in ³	Pne kip	Pnei kip/in
1.256	0.0286	0.0301	1.503	---	---	---	0.572	0.097

Torsional Properties

Xo in	Ro in	Beta	Cw in ⁶	Jv*1000 in ⁴	Fy ksi	Fu ksi	E ksi	G ksi
-0.348	4.737	0.995	1.137	0.078	50	65	29500	11300

Shear, moment and bearing values shown are nominal values and must be modified by the appropriate factor of safety (ASD) or resistance factor (LRFD).

Factors of Safety (ASD)

FS (Compression) = 1.80
 FS (Tension) = 1.67
 FS (Web Crippling) = 2.00
 FS (Bending) = 1.67
 FS (Shear) = 1.60

Resistance Factor (LRFD)

RF (Compression) = 0.85
 RF (Tension) = 0.90
 RF (Web Crippling) = 0.75
 RF (Bending) = 0.95
 RF (Shear) = 0.95

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Analysis per AISI 2001/NASPEC Cold-Formed Steel Design (US)

New Tech SS100 Panel

File: SS100X16
 Date: 11/17/2003
 Panel2002, V11.00

Alloy: ASTM A792, G50
 Fy = 50.00 ksi
 Fv = 30.00 ksi

QUALIFICATIONS PER AISI SPECIFICATIONS

- (a) Maximum w/t Ratio's Exceeded [Section B1.1(a)]: No
 (b) Maximum h/t Ratio's Exceeded [Section B1.2(a)]: No

Section Dimensional Data (Edge Seam: 90 deg.)

Type	Name	Gage	Height in	Width in	Lip in	t in	Weight plf	Coil Width in
Hat		24	1.000	16.000	0.000	0.0240	1.553	19.018

Gross Sectional Properties

Area in ²	Ix in ⁴	Sx in ³	Rx in	Ycg in	Iy in ⁴	Sy in ³	Ry in	Xcg in
0.4564	0.0351	0.0399	0.277	0.120	12.878	1.5599	5.312	8.255

Effective Properties

Vnx kip	Ix in ⁴	Sx in ³	Mnx kip-in	Mny kip-in	Iy in ⁴	Sy in ³	Pne kip	Pnei kip/in
1.256	0.0291	0.0302	1.508	—	—	—	0.572	0.097

Torsional Properties

Xo in	Ro in	Beta	Cw in ⁶	Jv*1000 in ⁴	Fy ksi	Fu ksi	E ksi	G ksi
-0.316	5.328	0.996	1.527	0.088	50	65	29500	11300

Shear, moment and bearing values shown are nominal values and must be modified by the appropriate factor of safety (ASD) or resistance factor (LRFD).

Factors of Safety (ASD)

FS (Compression) = 1.80
 FS (Tension) = 1.67
 FS (Web Crippling) = 2.00
 FS (Bending) = 1.67
 FS (Shear) = 1.60

Resistance Factor (LRFD)

RF (Compression) = 0.85
 RF (Tension) = 0.90
 RF (Web Crippling) = 0.75
 RF (Bending) = 0.95
 RF (Shear) = 0.95

John F. Butts & Associates, Inc.
 2480 Vantage Drive
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Analysis per AISI 2001/NASPEC Cold-Formed Steel Design (US)

New Tech SS100 Panel

File: SS100X18
 Date: 11/17/2003
 Panel2002, V11.00

Alloy: ASTM A792, G50
 Fy = 50.00 ksi
 Fv = 30.00 ksi

QUALIFICATIONS PER AISI SPECIFICATIONS

- (a) Maximum w/t Ratio's Exceeded [Section B1.1(a)]: No
 (b) Maximum h/t Ratio's Exceeded [Section B1.2(a)]: No

Section Dimensional Data (Edge Seam: 90 deg.)

Type	Name	Gage	Height in	Width in	Lip in	t in	Weight plf	Coil Width in
Hat		24	1.000	18.000	0.000	0.0240	1.717	21.018

Gross Sectional Properties

Area in ²	Ix in ⁴	Sx in ³	Rx in	Ycg in	Iy in ⁴	Sy in ³	Ry in	Xcg in
0.5044	0.0356	0.0400	0.266	0.110	17.587	1.9005	5.905	9.254

Effective Properties

Vnx kip	Ix in ⁴	Sx in ³	Mnx kip-in	Mny kip-in	Iy in ⁴	Sy in ³	Pne kip	Pnei kip/in
1.256	0.0295	0.0302	1.512	---	---	---	0.572	0.097

Torsional Properties

Xo in	Ro in	Beta	Cw in ⁶	Jv*1000 in ⁴	Fy ksi	Fu ksi	E ksi	G ksi
-0.290	5.918	0.998	1.979	0.097	50	65	29500	11300

Shear, moment and bearing values shown are nominal values and must be modified by the appropriate factor of safety (ASD) or resistance factor (LRFD).

Factors of Safety (ASD)

FS (Compression) = 1.80
 FS (Tension) = 1.67
 FS (Web Crippling) = 2.00
 FS (Bending) = 1.67
 FS (Shear) = 1.60

Resistance Factor (LRFD)

RF (Compression) = 0.85
 RF (Tension) = 0.90
 RF (Web Crippling) = 0.75
 RF (Bending) = 0.95
 RF (Shear) = 0.95

Section : New Tech SS100 Panel
File : SS100X12

Page: S1
Date: 11/17/2003

Width | 12.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		2.00	2.17	2.33	2.50	2.67	2.83	3.00	3.17	3.33
1	L/180	148	126	108	94	83	73	65	58	53
	L/240	148	126	108	94	83	73	65	58	50
	L/360	148	121	96	78	65	54	45	39	33
2	L/180	158	134	116	101	89	78	71	63	57
	L/240	158	134	116	101	89	78	71	63	57
	L/360	158	134	116	101	89	76	64	55	47
3	L/180	182	156	134	117	103	92	82	73	67
	L/240	182	156	134	117	103	92	82	73	67
	L/360	182	156	134	117	103	92	82	73	62

*** Table generated without web stiffener requirements and may have lower allowable values.

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
Modulus of Elasticity (E) = 29500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI, C3.2]
- b) Combined Bending and Shear [AISI, C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
FS (Shear) = 1.60
FS (Web Crippling) = 2.00

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.694 ft (L/180)
Two Span : Maximum Span = 1.969 ft (L/180)
Three Span + : Maximum Span = 2.091 ft (L/180)

Section : New Tech SS100 Panel
File : SS100X12

Page: S2
Date: 11/17/2003

Width | 12.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		3.50	3.67	3.83	4.00	4.17	4.33	4.50	4.67	4.83
1	L/180	48	43	39	36	33	30	27	24	22
	L/240	43	37	33	29	25	23	20	18	16
	L/360	29	25	22	19	17	15	13	12	11
2	L/180	51	47	42	39	36	33	30	28	26
	L/240	51	47	42	39	36	32	29	26	23
	L/360	40	35	31	27	24	21	19	17	15
3	L/180	60	55	50	46	42	39	36	33	31
	L/240	60	55	50	46	42	39	36	33	31
	L/360	54	47	41	36	32	28	25	23	20

*** Table generated without web stiffener requirements and may have lower allowable values.

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
Modulus of Elasticity (E) = 29500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI, C3.2]
- b) Combined Bending and Shear [AISI, C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
FS (Shear) = 1.60
FS (Web Crippling) = 2.00

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.694 ft (L/180)
Two Span : Maximum Span = 1.969 ft (L/180)
Three Span + : Maximum Span = 2.091 ft (L/180)

Section : New Tech SS100 Panel
File : SS100X12

Page: S3
Date: 11/17/2003

Width | 12.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		5.00	5.17	5.33	5.50	5.67	5.83	6.00	6.17	6.33
1	L/180	20	18	16	15	13	12	11	10	10
	L/240	15	13	12	11	10	9	9	8	7
	L/360	10	9	8	7	7	6	6	5	5
2	L/180	24	22	21	19	18	17	16	15	14
	L/240	21	19	17	16	14	13	12	11	10
	L/360	14	13	11	10	10	9	8	7	7
3	L/180	28	26	25	23	22	20	19	18	17
	L/240	28	25	23	21	19	17	16	15	14
	L/360	19	17	15	14	13	12	11	10	9

*** Table generated without web stiffener requirements and may have lower allowable values.

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
Modulus of Elasticity (E) = 29500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI, C3.2]
- b) Combined Bending and Shear [AISI, C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
FS (Shear) = 1.60
FS (Web Crippling) = 2.00

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.694 ft (L/180)
Two Span : Maximum Span = 1.969 ft (L/180)
Three Span + : Maximum Span = 2.091 ft (L/180)

Section : New Tech SS100 Panel
File : SS100X14

Page: S4
Date: 11/17/2003

Width | 14.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		2.00	2.17	2.33	2.50	2.67	2.83	3.00	3.17	3.33
1	L/180	127	108	93	81	71	63	56	50	45
	L/240	127	108	93	81	71	63	56	50	43
	L/360	127	105	84	69	57	47	40	34	29
2	L/180	135	116	100	87	77	68	60	54	48
	L/240	135	116	100	87	77	68	60	54	48
	L/360	135	116	100	87	77	67	56	48	41
3	L/180	158	135	116	102	89	79	71	63	57
	L/240	158	135	116	102	89	79	71	63	57
	L/360	158	135	116	102	89	79	71	63	55

*** Table generated without web stiffener requirements and may have lower allowable values.

- Formula's used in Load Tables for FLEXURE and DEFLECTION are:
 One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
 Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
 Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
 Modulus of Elasticity (E) = 29500 ksi
- Allowable uniform loads are determined per the following:
 - Allowable Shear Stress (Fv) [AISI, C3.2]
 - Combined Bending and Shear [AISI, C3.3]
 - Combined Bending & Web Crippling [AISI C3.5]
- Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
 FS (Shear) = 1.60
 FS (Web Crippling) = 2.00
- Allowance has been made for member Dead Weight.
- Minimum panel support bearing length = 2.00 in
- Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.700 ft (L/180)
 Two Span : Maximum Span = 1.976 ft (L/180)
 Three Span + : Maximum Span = 2.099 ft (L/180)

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File : SS100X14

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Width | 14.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		3.50	3.67	3.83	4.00	4.17	4.33	4.50	4.67	4.83
1	L/180	41	37	34	31	28	26	24	21	19
	L/240	38	33	29	25	22	20	18	16	14
	L/360	25	22	19	17	15	13	12	11	9
2	L/180	44	40	36	33	30	28	26	24	22
	L/240	44	40	36	33	30	28	25	22	20
	L/360	35	31	27	24	21	19	17	15	13
3	L/180	51	47	42	39	36	33	30	28	26
	L/240	51	47	42	39	36	33	30	28	26
	L/360	47	41	36	32	28	25	22	20	18

*** Table generated without web stiffener requirements and may have lower allowable values.

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
Modulus of Elasticity (E) = 29500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI, C3.2]
- b) Combined Bending and Shear [AISI, C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
FS (Shear) = 1.60
FS (Web Crippling) = 2.00

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.700 ft (L/180)
Two Span : Maximum Span = 1.976 ft (L/180)
Three Span + : Maximum Span = 2.099 ft (L/180)

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File : SS100X14

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Date: 11/17/2003

Width | 14.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		5.00	5.17	5.33	5.50	5.67	5.83	6.00	6.17	6.33
1	L/180	17	16	14	13	12	11	10	9	8
	L/240	13	12	11	10	9	8	7	7	6
	L/360	9	8	7	6	6	5	5	5	4
2	L/180	20	19	18	16	15	14	13	13	12
	L/240	18	17	15	14	13	11	11	10	9
	L/360	12	11	10	9	8	8	7	6	6
3	L/180	24	22	21	19	18	17	16	15	14
	L/240	24	22	20	18	17	15	14	13	12
	L/360	16	15	13	12	11	10	9	9	8

*** Table generated without web stiffener requirements and may have lower allowable values.

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
Modulus of Elasticity (E) = 29500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI, C3.2]
- b) Combined Bending and Shear [AISI, C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
FS (Shear) = 1.60
FS (Web Crippling) = 2.00

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.700 ft (L/180)
Two Span : Maximum Span = 1.976 ft (L/180)
Three Span + : Maximum Span = 2.099 ft (L/180)

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File : SS100X16

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Date: 11/17/2003

Width | 16.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span	Deflection	Span Length (Feet)								
		2.00	2.17	2.33	2.50	2.67	2.83	3.00	3.17	3.33
1	L/180	112	95	82	71	62	55	49	44	39
	L/240	112	95	82	71	62	55	49	44	39
	L/360	112	94	75	61	50	42	35	30	26
2	L/180	119	102	87	77	67	59	52	47	42
	L/240	119	102	87	77	67	59	52	47	42
	L/360	119	102	87	77	67	59	50	42	36
3	L/180	138	118	102	89	79	69	62	55	49
	L/240	138	118	102	89	79	69	62	55	49
	L/360	138	118	102	89	79	69	62	55	49

*** Table generated without web stiffener requirements and may have lower allowable values.

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
Modulus of Elasticity (E) = 29500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI, C3.2]
- b) Combined Bending and Shear [AISI, C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
FS (Shear) = 1.60
FS (Web Crippling) = 2.00

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.704 ft (L/180)
Two Span : Maximum Span = 1.981 ft (L/180)
Three Span + : Maximum Span = 2.104 ft (L/180)

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File : SS100X16

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Date: 11/17/2003

Width | 16.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		3.50	3.67	3.83	4.00	4.17	4.33	4.50	4.67	4.83
1	L/180	36	32	30	27	25	23	21	19	17
	L/240	33	29	25	22	20	18	16	14	13
	L/360	22	19	17	15	13	12	10	9	8
2	L/180	38	34	31	29	26	24	22	20	19
	L/240	38	34	31	29	26	24	22	20	18
	L/360	31	27	24	21	19	17	15	13	12
3	L/180	45	41	37	34	31	28	26	24	22
	L/240	45	41	37	34	31	28	26	24	22
	L/360	42	37	32	28	25	22	20	18	16

*** Table generated without web stiffener requirements and may have lower allowable values.

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
Modulus of Elasticity (E) = 29500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI, C3.2]
- b) Combined Bending and Shear [AISI, C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
FS (Shear) = 1.60
FS (Web Crippling) = 2.00

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.704 ft (L/180)
Two Span : Maximum Span = 1.981 ft (L/180)
Three Span + : Maximum Span = 2.104 ft (L/180)

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File : SS100X16

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Date: 11/17/2003

Width | 16.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		5.00	5.17	5.33	5.50	5.67	5.83	6.00	6.17	6.33
1	L/180	15	14	13	11	10	10	9	8	8
	L/240	11	10	9	9	8	7	7	6	6
	L/360	8	7	6	6	5	5	4	4	4
2	L/180	18	16	15	14	13	12	11	11	11
	L/240	16	15	13	12	11	10	9	9	8
	L/360	11	10	9	8	7	7	6	6	5
3	L/180	21	19	18	17	16	15	14	13	12
	L/240	21	19	18	16	15	14	12	12	11
	L/360	14	13	12	11	10	9	8	8	7

*** Table generated without web stiffener requirements and may have lower allowable values.

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
Modulus of Elasticity (E) = 29500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI, C3.2]
- b) Combined Bending and Shear [AISI, C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
FS (Shear) = 1.60
FS (Web Crippling) = 2.00

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.704 ft (L/180)
Two Span : Maximum Span = 1.981 ft (L/180)
Three Span + : Maximum Span = 2.104 ft (L/180)

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File : SS100X18

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Date: 11/17/2003

Width | 18.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		1.50	1.67	1.83	2.00	2.17	2.33	2.50	2.67	2.83
1	L/180	178	144	119	99	85	73	63	55	49
	L/240	178	144	119	99	85	73	63	55	49
	L/360	178	144	119	99	84	68	55	45	38
2	L/180	188	152	126	106	91	78	68	59	52
	L/240	188	152	126	106	91	78	68	59	52
	L/360	188	152	126	106	91	78	68	59	52
3	L/180	218	178	147	123	106	91	80	70	61
	L/240	218	178	147	123	106	91	80	70	61
	L/360	218	178	147	123	106	91	80	70	61

*** Table generated without web stiffener requirements and may have lower allowable values.

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
Modulus of Elasticity (E) = 29500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI, C3.2]
- b) Combined Bending and Shear [AISI, C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
FS (Shear) = 1.60
FS (Web Crippling) = 2.00

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.707 ft (L/180)
Two Span : Maximum Span = 1.985 ft (L/180)
Three Span + : Maximum Span = 2.109 ft (L/180)

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 File : SS100X18

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 Date: 11/17/2003

Width | 18.00 in
 Alloy | ASTM A792, G50 (Fy =50 ksi)
 Gauge | 24 (0.024 in)
 Edge Seam: 90 deg.

Allowable Strength Design (ASD)
 Wind Load Factor = 1.00
 Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		3.00	3.17	3.33	3.50	3.67	3.83	4.00	4.17	4.33
1	L/180	44	39	35	32	29	26	24	22	20
	L/240	44	39	35	30	26	23	20	18	16
	L/360	32	27	23	20	17	15	13	12	11
2	L/180	46	41	37	34	30	28	25	23	21
	L/240	46	41	37	34	30	28	25	23	21
	L/360	45	38	33	28	25	22	19	17	15
3	L/180	55	49	44	40	36	33	30	27	25
	L/240	55	49	44	40	36	33	30	27	25
	L/360	55	49	44	38	33	29	25	22	20

*** Table generated without web stiffener requirements and may have lower allowable values.

1. Formula's used in Load Tables for FLEXURE and DEFLECTION are:

One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
 Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
 Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
 Modulus of Elasticity (E) = 29500 ksi

2. Allowable uniform loads are determined per the following:

- a) Allowable Shear Stress (Fv) [AISI, C3.2]
- b) Combined Bending and Shear [AISI, C3.3]
- c) Combined Bending & Web Crippling [AISI C3.5]

3. Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
 FS (Shear) = 1.60
 FS (Web Crippling) = 2.00

4. Allowance has been made for member Dead Weight.

5. Minimum panel support bearing length = 2.00 in

6. Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.707 ft (L/180)
 Two Span : Maximum Span = 1.985 ft (L/180)
 Three Span + : Maximum Span = 2.109 ft (L/180)

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File : SS100X18

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Date: 11/17/2003

Width | 18.00 in
Alloy | ASTM A792, G50 (Fy =50 ksi)
Gauge | 24 (0.024 in)
Edge Seam: 90 deg.

Allowable Strength Design (ASD)
Wind Load Factor = 1.00
Allowable Uniform Load (psf)

Span Deflection		Span Length (Feet)								
		4.50	4.67	4.83	5.00	5.17	5.33	5.50	5.67	5.83
1	L/180	19	17	15	14	12	11	10	9	9
	L/240	14	13	11	10	9	8	8	7	6
	L/360	9	8	8	7	6	6	5	5	4
2	L/180	19	18	17	15	14	13	12	12	12
	L/240	19	18	16	15	13	12	11	10	9
	L/360	13	12	11	10	9	8	7	7	6
3	L/180	23	21	20	18	17	16	15	14	13
	L/240	23	21	20	18	17	16	15	13	12
	L/360	18	16	14	13	12	11	10	9	8

*** Table generated without web stiffener requirements and may have lower allowable values.

- Formula's used in Load Tables for FLEXURE and DEFLECTION are:
 One Span - $M_p = .125wl^2$, $M_n = .125wl^2$, $x = .0130wl^4/EI$
 Two Span - $M_p = .125wl^2$, $M_n = .096wl^2$, $x = .0092wl^4/EI$
 Three Span - $M_p = .080wl^2$, $M_n = .107wl^2$, $x = .0069wl^4/EI$
 Modulus of Elasticity (E) = 29500 ksi
- Allowable uniform loads are determined per the following:
 - Allowable Shear Stress (Fv) [AISI, C3.2]
 - Combined Bending and Shear [AISI, C3.3]
 - Combined Bending & Web Crippling [AISI C3.5]
- Factors of Safety used to determine uniform loads:

FS (Bending) = 1.67
 FS (Shear) = 1.60
 FS (Web Crippling) = 2.00
- Allowance has been made for member Dead Weight.
- Minimum panel support bearing length = 2.00 in
- Concentrated load = 250 lbs at mid-span, load width = 4 in

Simple Span : Maximum Span = 1.707 ft (L/180)
 Two Span : Maximum Span = 1.985 ft (L/180)
 Three Span + : Maximum Span = 2.109 ft (L/180)

