

**EVALUATION REPORT OF
METL-SPAN THERMSAFE™ WALL PANELS**

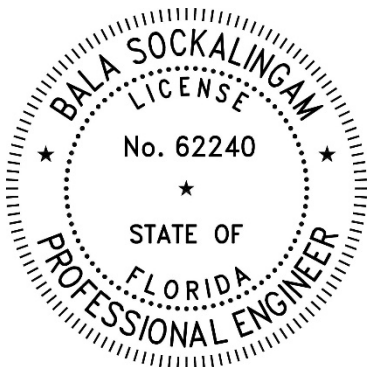
**FLORIDA BUILDING CODE 8TH EDITION (2023)
FLORIDA PRODUCT APPROVAL
FL 16377.4-R6
STRUCTURAL COMPONENTS
STRUCTURAL WALL**

**Prepared For:
Metl-Span
A Nucor Company
700 State Highway 121 Bypass, Suite 200
Lewisville, Texas 75057
Telephone: (972) 221-6656**

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**This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (2 Pages)
Load Span Tables (9 Pages)**

**Report No. C2864-5
Date: 1.25.2025**



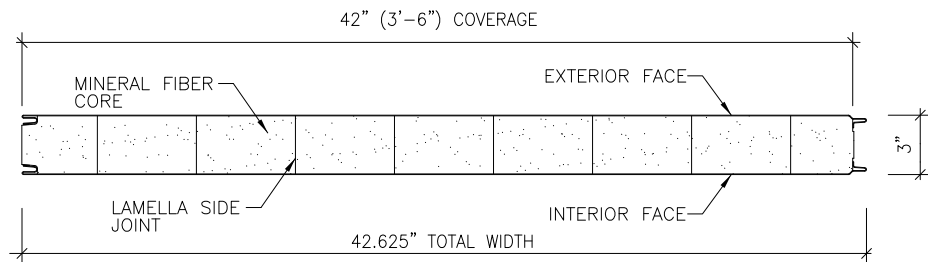
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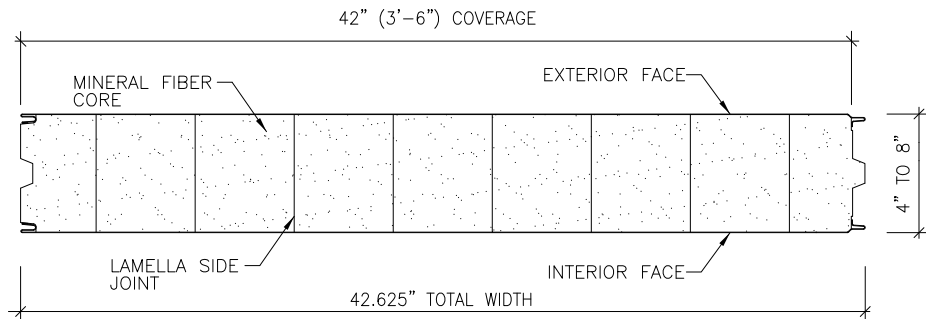
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Manufacturer:	Metl-Span, a Nucor Company
Product Name:	ThermalSafe™ Wall Panel
Panel Description:	ThermalSafe™ panels are factory-assembled, metal faced, sandwich panels adhered with rigid mineral wool lamellas core. Maximum 42" coverage. Panel thickness: 3", 4", 5", 6", 7" & 8". One edge has a square or “spline” groove cut into the mineral fiber core down the length of the panel. The opposite edge of the panel has a square shape protrusion or “spline tongue” extending from the mineral fiber core running down the length of the panel. This allows a tongue-and-groove fit of the mineral fiber cores between adjacent panels.
Panel Core:	The mineral fiber core is non-combustible, rigid mineral wool lamellas. Mineral wool fibers were oriented perpendicular to the panel skins for maximum structural strength and adhered to the panel skins with two-part adhesive. Nominal core density is 8.5 pcf.
Exterior skin:	Min. 26 ga., 33 ksi galvanized coated steel (ASTM A653), galvalume AZ50 or AZ55 coated steel (ASTM A792) or stainless steel (ASTM A240) with ‘Light Mesa’ profiles with embossed or smooth finish as per FBC 2023 Section 1405.2. Minimum base metal thickness is 0.017".
Interior skin:	Min. 26 ga., 33 ksi galvanized coated steel (ASTM A653), galvalume AZ50 or AZ55 coated steel (ASTM A792) or stainless steel (ASTM A240) with ‘Light Mesa’ profiles with embossed or smooth finish as per FBC 2023 Section 1405.2. Minimum base metal thickness is 0.017".
Support Description:	Min. 16 ga., 50 ksi steel section for fastener patterns F1, F2 & F3. (Must be designed by others)
Design Pressure:	Inward and outward transverse loads are shown in the load span table. The allowable loads for panel strength, connection and deflection limit of L/240 were developed from test data. Maximum panel span is 16'.
Through fasteners	Panels fastened to min. 16 ga. steel supports with ¼"-14 Type 3 hex head self-drilling screws with nominal 5/8" diameter neoprene bonded washers. Fastener shall be of sufficient length to penetrate through the support a minimum of ¾". For 12 ga. or thicker steel, ¼"-20 or ¼"-28 Type 5 self-drilling screws with nominal 5/8" diameter neoprene bonded washers may be used. In lieu of self-drilling screws, self-tapping screws may be used.

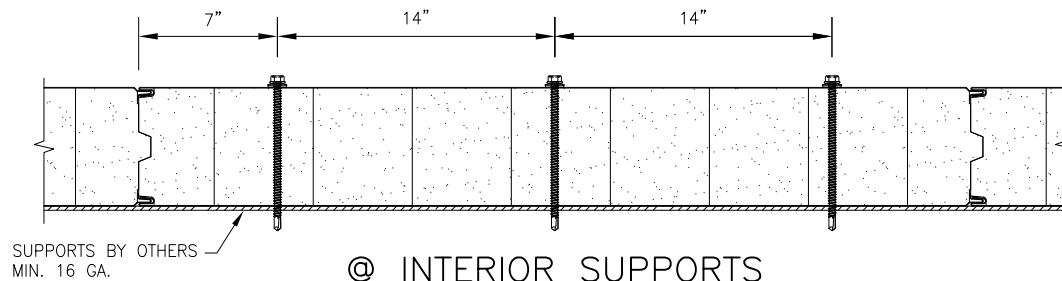
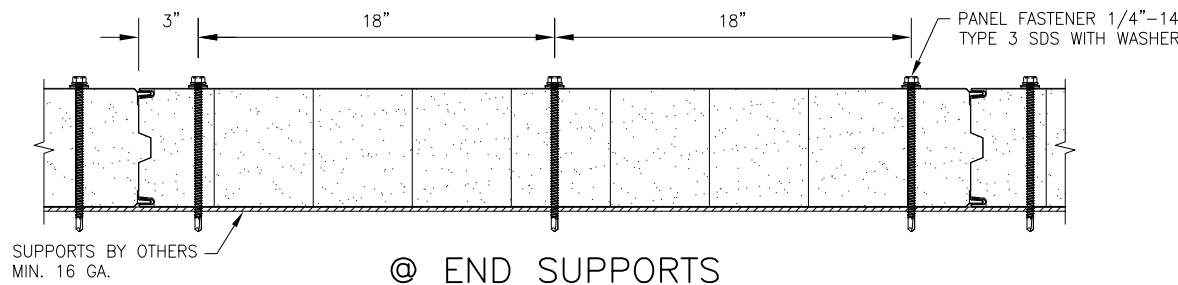
Expansion Fasteners:	Elco's Fab-Lok® FAS/FAC 10-4, 10-8 or 10-12 expansion fasteners to fasten the interior skin to support. In lieu of Fab-Lok, SFS Intec Bulb-Tite Rivets (1194719 or 1194721) may be used.
Panel Attachment: Fastener pattern F1	All fasteners are corrosion resistant. Panels fastened to min. 16 ga. steel supports with (3) through fasteners spaced at 3"-18"-18"-3" at end supports and at 7"-14"-14"-7" at interior supports.
Fastener pattern F2	Panels fastened to min. 16 ga. steel supports with (4) through fasteners spaced at 3"-12"-12"-12"-3" at end supports and at 5.25"-10.5"-10.5"-10.5"-5.25" at interior supports.
Fastener pattern F3	Panels fastened to min. 16 ga. steel supports with (3) through fasteners spaced at 3"-18"-18"-3" at end supports and with (4) Fab-Lok fasteners or Bulb-Tite Rivets spaced at 5.25"-10.5"-10.5"-10.5"-5.25" at interior supports.
Test Standards:	Wall assembly tested in accordance with ASTM E72-98 and E72-02 "Standard Test Methods of Conducting Strength Tests of Panels for Building Construction" as outlined in Acceptance Criteria for Sandwich Panels AC04. The test procedure in the above test standard complies with the testing requirements of ASTM E330-14 "Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference".
Code Compliance:	The product described herein has demonstrated compliance with FBC 2023 Section 1404.5.
Product Limitations:	Design wind loads shall be determined for each project in accordance with FBC 2023 Section 1609 or ASCE 7-22 using allowable stress design. The maximum support spacing listed herein shall not be exceeded. The design pressure for reduced support spacing may be computed using rational analysis prepared by a Florida Professional Engineer or Metl-Span load span tables. This evaluation report is not applicable in High Velocity Hurricane Zone.
Supporting Documents:	ASTM E330 (E72/AC04) Test Reports ENCON Technology Inc. C1322-1, Reporting Date 12/9/2004 C1322-2, Reporting Date 12/10/2004 C1848-1, Reporting Date 12/27/2012



3" THICK PANEL



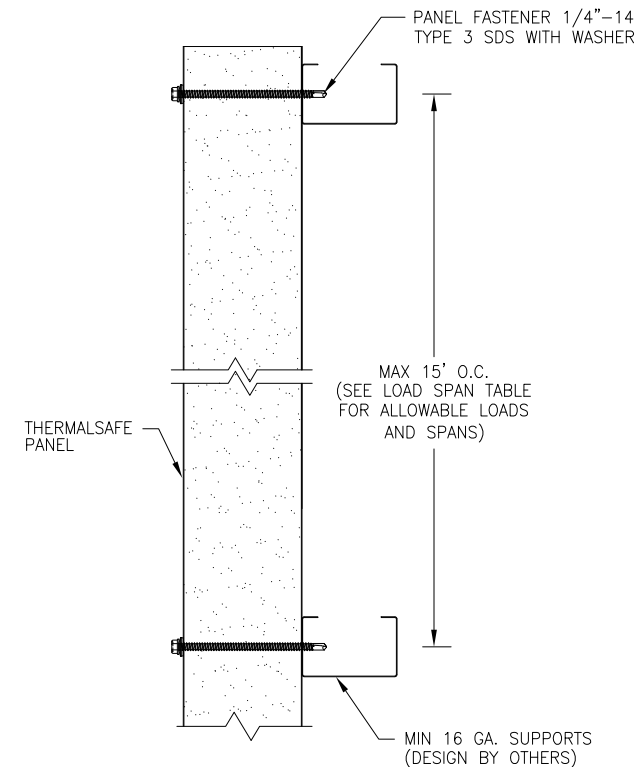
4" THROUGH 8" THICK PANELS



FASTENER PATTERN F1

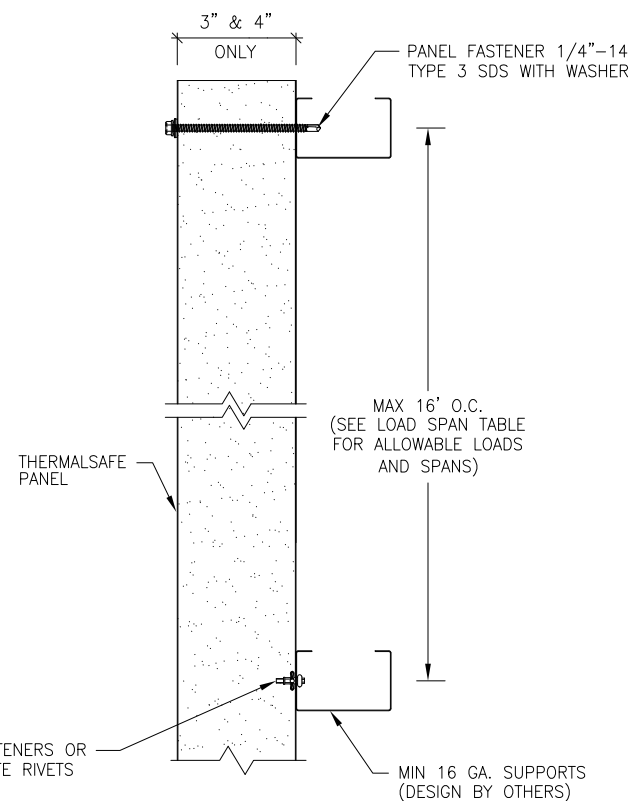
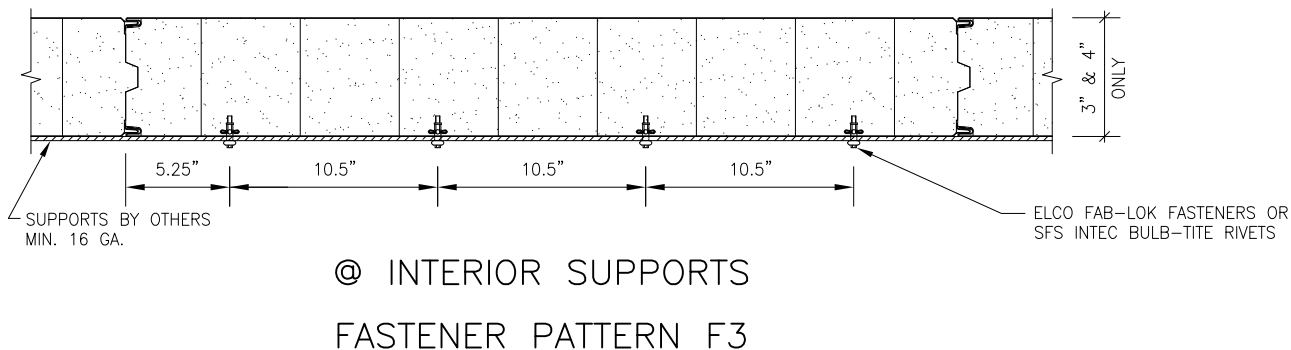
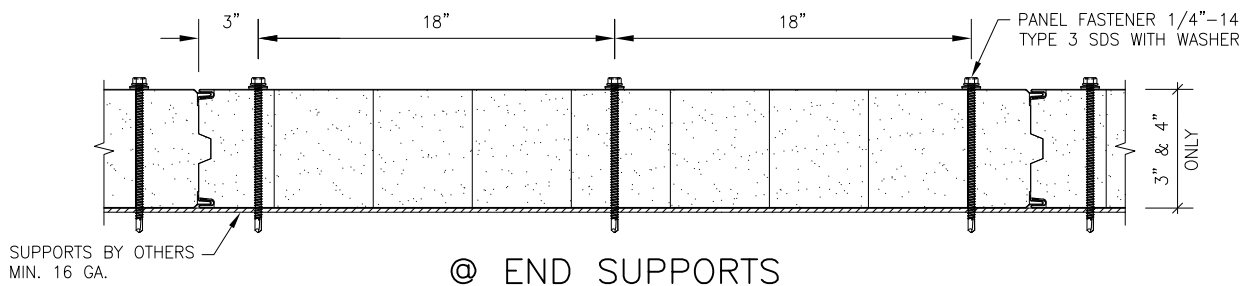
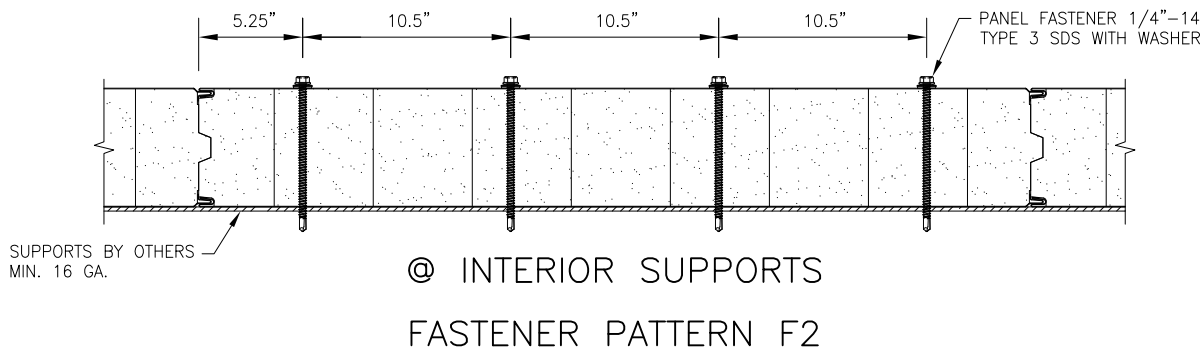
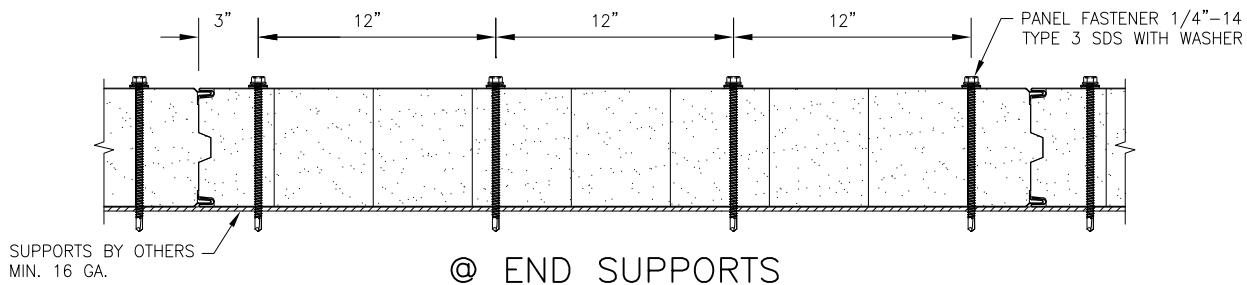
GENERAL NOTES:

1. THIS STRUCTURAL WALL PANEL SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH FLORIDA BUILDING CODE (FBC). THE DESIGN PRESSURES AS DETERMINED FROM SECTION 1609 AND ASCE 7-22 MUST BE MULTIPLIED BY 0.6.
2. PANELS ARE MAX 42" WIDE, CONSIST OF MIN. 26 GA. ($t = 0.017"$ MIN.) EXTERIOR OR INTERIOR STEEL SKINS ($F_y = \text{MIN. } 33 \text{ KSI}$) AND ARE SANDWICHED WITH RIGID MINERAL WOOL LAMELLAS CORES. NOM. DENSITY: 8.5 LB/CU.FT.
3. PANELS SHALL BE INSTALLED OVER WALL STRUCTURE AS SPECIFIED ON THESE DRAWINGS.
4. PANELS MUST BE INSTALLED OVER MIN. 2 SUPPORTS. HORIZONTAL SEAMS MAY BE PRESENT AT CENTERLINE OF SUPPORTS PROVIDING THE SEAMS ARE FLASHED & PROPERLY SEALED PER METL-SPAN SPECIFICATIONS AND EACH PANEL END IS SECURED PER THESE DRAWINGS.
5. REQUIRED DESIGN WIND LOADS SHALL BE DETERMINED FOR EACH PROJECT. THIS PANEL SYSTEM MAY NOT BE INSTALLED WHEN THE REQUIRED DESIGN WIND LOADS ARE GREATER THAN THE ALLOWABLE WIND LOADS SPECIFIED ON LOAD SPAN TABLES.
6. ALL SCREWS SHALL BE CORROSION RESISTANT SCREWS.
7. THE SUPPORTING STRUCTURE, OVER WHICH THE PANELS ARE TO BE INSTALLED, MUST BE MINIMUM 16 GAGE (MIN. 0.059") STEEL WITH MIN. $F_y = 50 \text{ KSI}$.
8. THESE WALL PANELS SHALL NOT BE CONSIDERED TO OR BE USED FOR TRANSFER OF DIAPHRAGM ACTION OF WALL TO SUPPORTING STRUCTURE.



SECTION VIEW
F1 OR F2

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PLT:	DATE: 4/6/15
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE THERMALS SAFE WALL PANEL	MANUFACTURER METL-SPAN A NUCOR COMPANY 700 STATE HIGHWAY 121 BYPASS, SUITE 200 LEWISVILLE, TX 75057 972-221-6656
CONSULTANTS BALA SOCKALINGAM, PH.D., P.E. 1216 N LANSING AVE, SUITE C TULSA, OK 74106 PHONE: 918-492-5992 FAX: 866-366-1543	REV.
DRAWING NO. 2864-5	PAGE NO. 1 OF 2



SECTION VIEW
F3

DRAWN BY: B.S.	CHECKED BY: R.H.
DATE: 4/6/15	
NO.	
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE THERMALSAFE WALL PANEL	
CONSULTANTS BALA SOCKALINGAM, PH.D., P.E. 1216 N LANSING AVE, SUITE C TULSA, OK 74106 PHONE: 918-492-5992 FAX: 866-366-1543	
MANUFACTURER METL-SPAN A NUCOR COMPANY 700 STATE HIGHWAY 121 BYPASS, SUITE 200 LEWISVILLE, TX 75057 972-221-6656	
DRAWING NO. 2864-5	REV.
PAGE NO. 2	OF 2

METL-SPAN THERMSAFE (TS) PANEL SYSTEM

(26 ga. Exterior & Interior Faces)

Single Span Condition

Minimum 16 ga. Supports

TS Panel	Design Criteria	Allowable Load (psf)											
		Panel Span (ft)											
		5	6	7	8	9	10	11	12	13	14	15	16
3" Thick	Bending & Shear	62.4	52.0	44.6	39.0	34.7	31.2	28.4	26.0	24.0	22.3	20.4	17.9
	Deflection (L/240)	85.2	65.9	52.0	41.7	33.9	27.8	23.0	19.2	16.2	13.7	11.7	10.1
	Connection F1	41.8	34.8	29.9	26.1	23.2	20.9	19.0	17.4	16.1	13.7	11.7	10.1
4" Thick	Bending & Shear	79.3	66.1	56.7	49.6	44.1	39.7	36.1	33.1	30.5	28.3	26.3	23.1
	Deflection (L/240)	114.1	89.9	72.3	59.1	48.9	40.8	34.4	29.2	24.9	21.4	18.5	16.0
	Connection F1	49.8	41.5	35.5	31.1	27.6	24.9	22.6	20.7	19.1	17.8	16.6	15.6
5" Thick	Bending & Shear	93.1	77.6	66.5	58.2	51.7	46.5	42.3	38.8	35.8	33.2	31.0	27.9
	Deflection (L/240)	140.1	111.7	91.0	75.4	63.2	53.4	45.6	39.1	33.7	29.3	25.5	22.4
	Connection F1	57.9	48.3	41.4	36.2	32.2	29.0	26.3	24.1	22.3	20.7	19.3	18.1
6" Thick	Bending & Shear	104.6	87.1	74.7	65.3	58.1	52.3	47.5	43.6	40.2	37.3	34.9	32.2
	Deflection (L/240)	162.4	130.5	107.4	89.8	76.0	65.0	55.9	48.5	42.2	37.0	32.5	28.7
	Connection F1	66.1	55.1	47.2	41.3	36.7	33.0	30.0	27.5	25.4	23.6	22.0	20.7
7" Thick	Bending & Shear	122.2	101.8	87.3	76.4	67.9	61.1	55.5	50.9	47.0	43.6	40.7	37.7
	Deflection (L/240)	192.0	155.1	128.3	107.9	91.8	78.9	68.4	59.6	52.2	45.9	40.6	36.0
	Connection F1	74.2	61.9	53.0	46.4	41.2	37.1	33.7	30.9	28.6	26.5	24.7	23.2
8" Thick	Bending & Shear	139.8	116.5	99.8	87.4	77.7	69.9	63.5	58.2	53.8	49.9	46.6	43.1
	Deflection (L/240)	221.7	179.7	149.3	126.1	107.8	93.1	81.0	70.9	62.4	55.2	49.0	43.6
	Connection F1	74.2	61.9	53.0	46.4	41.2	37.1	33.7	30.9	28.6	26.5	24.7	23.2

Notes

1. Based on TS panel with 26 ga. exterior & interior face (min $F_y = 33$ ksi). The panel span is single span condition.
2. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
3. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength.
4. The loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing.
The allowable loads are calculated with factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, and deflection limitation of L/240.
5. The connection strengths are derived from ASTM E72 structural testing and the allowable loads are calculated with factor of safety of 2.5.
6. Based on attachment to minimum 16 ga. steel support with fastener spacing 3"-18"-18"-3" across panel width
7. The structural capacity of the girts are not considered and must be examined independently.
8. Panels must be installed as per Evaluation Report FL 16377.4 and Metl-Span current installation procedure.

METL-SPAN THERMALSAFE (TS) PANEL SYSTEM

(26 ga. Exterior & Interior Faces)

Two or more spans conditions

Minimum 16 ga. Supports

TS Panel	Design Criteria	Allowable Load (psf)											
		Panel Span (ft)											
		5	6	7	8	9	10	11	12	13	14	15	16
3" Thick	Bending & Shear	55.2	45.4	38.5	33.4	29.5	26.3	23.7	21.6	19.8	18.3	17.0	15.9
	Deflection (L/240)	89.0	70.8	57.9	48.2	40.6	34.5	29.4	25.3	21.9	19.1	16.7	14.6
	Connection F1	46.5	38.4	32.4	27.9	24.5	21.9	19.7	18.0	16.5	15.3	14.2	13.3
	Connection F2	48.9	41.8	36.0	31.1	27.3	24.3	22.0	20.0	18.4	17.0	15.8	14.8
	Connection F3	30.9	25.2	21.2	18.3	16.1	14.3	12.9	11.8	10.8	10.0	9.3	8.7
4" Thick	Bending & Shear	71.1	58.3	49.4	42.8	37.8	33.8	30.5	27.7	25.4	23.5	21.8	20.4
	Deflection (L/240)	117.2	94.0	77.5	65.2	55.6	48.0	41.6	36.3	31.8	28.0	24.7	21.9
	Connection F1	47.9	39.2	33.0	28.4	25.0	22.2	20.0	18.2	16.7	15.4	14.3	13.4
	Connection F2	56.1	46.8	39.5	34.0	29.9	26.6	23.9	21.8	20.0	18.5	17.1	16.0
	Connection F3	31.4	25.7	21.6	18.7	16.4	14.6	13.1	11.9	10.9	10.1	9.4	8.8
5" Thick	Bending & Shear	85.3	69.9	59.2	51.2	45.2	40.4	36.5	33.3	30.5	28.1	26.1	24.4
	Deflection (L/240)	142.5	115.1	95.4	80.7	69.3	60.2	52.8	46.6	41.2	36.6	32.6	29.2
	Connection F1	48.6	39.8	33.5	28.9	25.3	22.5	20.3	18.4	16.9	15.6	14.5	13.5
	Connection F2	62.2	50.9	42.9	37.0	32.4	28.8	26.0	23.6	21.6	20.0	18.5	17.3

Notes

1. Based on TS panel with 26 ga. exterior & interior faces (min Fy = 33 ksi) for 2 or more spans condition.
2. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
3. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength.
4. The loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing.
The allowable loads are calculated with factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, and deflection limitation of L/240.
5. The connection strengths are derived from ASTM E72 structural testing and the allowable loads are calculated with factor of safety of 2.5.
6. Fastener Spacing across panel width into minimum 16 ga. supports:
Connection F1 (3 Fasteners): End Support (3"-18"-18"-3") & Intermediate (7"-14"-14"-7")
Connection F2 (4 Fasteners): End Support (3"-12"-12"-12"-3") & Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
Connection F3: 3 Fasteners at End Support (3"-18"-18"-3") & 4 FabLok at Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
7. The structural capacity of the girts are not considered and must be examined independently.
8. Panels must be installed as per Evaluation Report FL 16377.4 and Metl-Span current installation procedure.

METL-SPAN THERMSAFE (TS) PANEL SYSTEM

(26 ga. Exterior & Interior Faces)

Two or more spans conditions

Minimum 16 ga. Supports

TS Panel	Design Criteria	Allowable Load (psf)											
		Panel Span (ft)											
		5	6	7	8	9	10	11	12	13	14	15	16
6" Thick	Bending & Shear	96.4	79.0	66.8	57.8	50.9	45.5	41.1	37.5	34.4	31.8	29.5	27.5
	Deflection (L/240)	164.2	133.2	111.0	94.3	81.4	71.0	62.6	55.6	49.7	44.5	39.9	36.0
	Connection F1	49.1	40.2	33.9	29.3	25.7	22.8	20.5	18.7	17.1	15.7	14.6	13.6
	Connection F2	65.5	53.7	45.3	39.0	34.2	30.5	27.4	24.9	22.8	21.0	19.5	18.2
7" Thick	Bending & Shear	113.4	93.0	78.6	68.0	59.8	53.4	48.2	44.0	40.4	37.4	34.7	32.3
	Deflection (L/240)	193.6	157.6	131.7	112.2	97.0	84.9	75.0	66.8	59.9	54.0	48.7	44.1
	Connection F1	49.4	40.5	34.2	29.5	25.9	23.0	20.7	18.8	17.2	15.9	14.7	13.7
	Connection F2	65.9	54.1	45.6	39.4	34.5	30.7	27.6	25.1	23.0	21.2	19.6	18.3
8" Thick	Bending & Shear	130.5	107.0	90.5	78.2	68.8	61.4	55.4	50.5	46.4	42.9	39.9	37.2
	Deflection (L/240)	223.2	182.0	152.4	130.1	112.8	98.9	87.6	78.2	70.3	63.5	57.6	52.3
	Connection F1	49.6	40.8	34.5	29.7	26.1	23.2	20.9	18.9	17.3	16.0	14.8	13.8
	Connection F2	66.2	54.4	45.9	39.7	34.8	30.9	27.8	25.3	23.1	21.3	19.7	18.4

Notes

1. Based on TS panel with 26 ga. exterior & interior faces (min $F_y = 33$ ksi) for 2 or more spans condition.
2. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
3. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength.
4. The loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing.
The allowable loads are calculated with factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, and deflection limitation of L/240.
5. The connection strengths are derived from ASTM E72 structural testing and the allowable loads are calculated with factor of safety of 2.5.
6. Fastener Spacing across panel width into minimum 16 ga. supports:
Connection F1 (3 Fasteners): End Support (3"-18"-18"-3") & Intermediate (7"-14"-14"-7")
Connection F2 (4 Fasteners): End Support (3"-12"-12"-12"-3") & Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
Connection F3: 3 Fasteners at End Support (3"-18"-18"-3") & 4 FabLok at Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
7. The structural capacity of the girts are not considered and must be examined independently.
8. Panels must be installed as per Evaluation Report FL 16377.4 and Metl-Span current installation procedure.

METL-SPAN THERMALSAFE (TS) PANEL SYSTEM

(26 ga. Exterior & Interior Faces)

Two or more spans conditions

Minimum 14 ga. Supports

TS Panel	Design Criteria	Allowable Load (psf)											
		Panel Span (ft)											
		5	6	7	8	9	10	11	12	13	14	15	16
6" Thick	Bending & Shear	96.4	79.0	66.8	57.8	50.9	45.5	41.1	37.5	34.4	31.8	29.5	27.5
	Deflection (L/240)	164.2	133.2	111.0	94.3	81.4	71.0	62.6	55.6	49.7	44.5	39.9	36.0
	Connection F1	52.5	43.0	36.3	31.3	27.5	24.4	22.0	20.0	18.3	16.8	15.6	14.6
	Connection F2	67.0	54.9	46.3	39.9	35.0	31.1	28.0	25.5	23.3	21.5	19.9	18.6
7" Thick	Bending & Shear	113.4	93.0	78.6	68.0	59.8	53.4	48.2	44.0	40.4	37.4	34.7	32.3
	Deflection (L/240)	193.6	157.6	131.7	112.2	97.0	84.9	75.0	66.8	59.9	54.0	48.7	44.1
	Connection F1	53.4	43.9	37.0	31.9	28.0	24.9	22.4	20.3	18.6	17.2	15.9	14.8
	Connection F2	71.5	58.7	49.5	42.7	37.5	33.3	30.0	27.2	24.9	23.0	21.3	19.9
8" Thick	Bending & Shear	130.5	107.0	90.5	78.2	68.8	61.4	55.4	50.5	46.4	42.9	39.9	37.2
	Deflection (L/240)	223.2	182.0	152.4	130.1	112.8	98.9	87.6	78.2	70.3	63.5	57.6	52.3
	Connection F1	53.7	44.1	37.3	32.2	28.2	25.1	22.6	20.5	18.8	17.3	16.0	14.9
	Connection F2	71.9	59.0	49.9	43.0	37.8	33.6	30.2	27.4	25.1	23.1	21.4	20.0

Notes

1. Based on TS panel with 26 ga. exterior & interior faces (min Fy = 33 ksi) for 2 or more spans condition.
2. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
3. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength.
4. The loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing.
The allowable loads are calculated with factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, and deflection limitation of L/240.
5. The connection strengths are derived from ASTM E72 structural testing and the allowable loads are calculated with factor of safety of 2.5.
6. Fastener Spacing across panel width into minimum 14 ga. supports:
Connection F1 (3 Fasteners): End Support (3"-18"-18"-3") & Intermediate (7"-14"-14"-7")
Connection F2 (4 Fasteners): End Support (3"-12"-12"-12"-3") & Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
Connection F3: 3 Fasteners at End Support (3"-18"-18"-3") & 4 FabLok at Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
7. The structural capacity of the girts are not considered and must be examined independently.
8. Panels must be installed as per Evaluation Report FL 16377.4 and Metl-Span current installation procedure.

METL-SPAN THERMSAFE (TS) PANEL SYSTEM

(24 ga. Exterior & 26 ga. Interior Faces)

Single Span Condition

Minimum 16 ga. Supports

TS Panel	Design Criteria	Allowable Load (psf)											
		Panel Span (ft)											
		5	6	7	8	9	10	11	12	13	14	15	16
3" Thick	Bending & Shear	62.3	51.9	44.5	38.9	34.6	31.2	28.3	26.0	24.0	22.3	20.3	17.9
	Deflection (L/240)	86.8	67.5	53.7	43.3	35.4	29.3	24.4	20.5	17.3	14.8	12.6	10.9
	Connection F1	48.9	40.7	34.9	30.5	27.1	24.4	22.2	20.4	17.3	14.8	12.6	10.9
4" Thick	Bending & Shear	79.2	66.0	56.6	49.5	44.0	39.6	36.0	33.0	30.5	28.3	26.1	22.9
	Deflection (L/240)	115.7	91.6	74.1	60.9	50.7	42.6	36.0	30.7	26.3	22.7	19.7	17.2
	Connection F1	59.8	49.9	42.7	37.4	33.2	29.9	27.2	24.9	23.0	21.4	19.7	17.2
5" Thick	Bending & Shear	93.1	77.6	66.5	58.2	51.7	46.5	42.3	38.8	35.8	33.2	31.0	27.4
	Deflection (L/240)	141.6	113.4	92.8	77.3	65.1	55.3	47.4	40.9	35.4	30.9	27.0	23.8
	Connection F1	70.8	59.0	50.6	44.3	39.3	35.4	32.2	29.5	27.2	25.3	23.6	22.1
6" Thick	Bending & Shear	104.4	87.0	74.6	65.2	58.0	52.2	47.4	43.5	40.1	37.3	34.8	31.4
	Deflection (L/240)	163.7	132.1	109.1	91.7	77.9	66.9	57.9	50.3	44.0	38.7	34.2	30.3
	Connection F1-16 ga.	80.8	67.3	57.7	50.5	44.9	40.4	36.7	33.6	31.1	28.8	26.9	25.2
	Connection F1-14 ga.	81.8	68.2	58.4	51.1	45.5	40.9	37.2	34.1	31.5	29.2	27.3	25.6
7" Thick	Bending & Shear	122.0	101.6	87.1	76.2	67.8	61.0	55.4	50.8	46.9	43.6	40.7	36.7
	Deflection (L/240)	193.4	156.7	130.1	109.8	93.9	81.0	70.4	61.6	54.2	47.9	42.5	37.9
	Connection F1-16 ga.	80.8	67.3	57.7	50.5	44.9	40.4	36.7	33.6	31.1	28.8	26.9	25.2
	Connection F1-14 ga.	92.8	77.3	66.3	58.0	51.6	46.4	42.2	38.7	35.7	33.1	30.9	29.0
8" Thick	Bending & Shear	139.6	116.3	99.7	87.2	77.5	69.8	63.4	58.2	53.7	49.8	46.5	42.0
	Deflection (L/240)	223.2	181.4	151.1	128.1	109.9	95.3	83.2	73.1	64.6	57.4	51.1	45.7
	Connection F1-16 ga.	80.8	67.3	57.7	50.5	44.9	40.4	36.7	33.6	31.1	28.8	26.9	25.2
	Connection F1-14 ga.	92.8	77.3	66.3	58.0	51.6	46.4	42.2	38.7	35.7	33.1	30.9	29.0

Notes

1. Based on TS panel with 24 ga. exterior & 26 ga. interior face (min Fy = 33 ksi). The panel span is single span condition.
2. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
3. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength.
4. The loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing.
The allowable loads are calculated with factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, and deflection limitation of L/240.
5. The connection strengths are derived from ASTM E72 structural testing, and the allowable loads are calculated with factor of safety of 2.5.
6. Based on attachment to 16 or 14 ga. steel girt with fastener spacing 3"-18"-18"-3" across panel width.
7. The structural capacity of the girts are not considered and must be examined independently.
8. Panels must be installed as per Evaluation Report FL 16377.4 and Metl-Span current installation procedure.

METL-SPAN THERMALSAFE (TS) PANEL SYSTEM

(24 ga. Exterior & 26 ga. Interior Faces)

Two or more spans conditions

Minimum 16 ga. Supports

TS Panel	Design Criteria	Allowable Load (psf)											
		Panel Span (ft)											
		5	6	7	8	9	10	11	12	13	14	15	16
3" Thick	Bending & Shear	55.5	45.6	38.6	33.5	29.6	26.4	23.8	21.7	19.9	18.4	17.1	16.0
	Deflection (L/240)	90.0	71.8	58.9	49.2	41.8	35.6	30.6	26.4	23.0	20.1	17.6	15.5
	Connection F1	47.4	38.7	32.6	28.1	24.7	22.0	19.8	18.1	16.6	15.3	14.2	13.3
	Connection F2	55.5	45.6	38.6	33.5	29.6	26.4	23.8	21.7	19.9	18.4	17.1	16.0
	Connection F3	35.0	28.6	24.1	20.8	18.2	16.3	14.7	13.3	12.2	11.3	10.5	9.8
4" Thick	Bending & Shear	71.7	58.8	49.8	43.1	38.0	34.0	30.7	28.0	25.6	23.7	22.0	20.5
	Deflection (L/240)	118.2	95.1	78.6	66.3	56.7	49.1	42.9	37.5	33.0	29.1	25.9	23.0
	Connection F1	48.2	39.4	33.2	28.6	25.1	22.4	20.1	18.3	16.8	15.5	14.4	13.4
	Connection F2	64.3	52.6	44.3	38.2	33.5	29.8	26.8	24.4	22.4	20.7	19.2	17.9
	Connection F3	35.6	29.1	24.5	21.2	18.6	16.5	14.9	13.5	12.4	11.4	10.6	9.9
5" Thick	Bending & Shear	85.3	69.9	59.1	51.1	45.1	40.3	36.4	33.2	30.5	28.1	26.1	24.3
	Deflection (L/240)	143.6	116.2	96.6	81.9	70.5	61.4	54.0	47.8	42.5	37.9	33.9	30.4
	Connection F1	48.8	40.0	33.7	29.1	25.5	22.7	20.4	18.5	17.0	15.7	14.5	13.6
	Connection F2	65.1	53.3	45.0	38.8	34.0	30.2	27.2	24.7	22.7	20.9	19.4	18.1

Notes

1. Based on TS panel with 24 ga. exterior & 26 ga. interior face (min Fy = 33 ksi) for 2 or more spans condition.
2. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
3. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength.
4. The loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing.
The allowable loads are calculated with factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, and deflection limitation of L/240.
5. The connection strengths are derived from ASTM E72 structural testing and the allowable loads are calculated with factor of safety of 2.5.
6. Fastener Spacing across panel width into minimum 16 ga. supports:
Connection F1 (3 Fasteners): End Support (3"-18"-18"-3") & Intermediate (7"-14"-14"-7")
Connection F2 (4 Fasteners): End Support (3"-12"-12"-12"-3") & Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
Connection F3: 3 Fasteners at End Support (3"-18"-18"-3") & 4 FabLok at Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
7. The structural capacity of the girts are not considered and must be examined independently.
8. Panels must be installed as per Evaluation Report FL 16377.4 and Metl-Span current installation procedure.

METL-SPAN THERMSAFE (TS) PANEL SYSTEM

(24 ga. Exterior & 26 ga. Interior Faces)

Two or more spans conditions

Minimum 16 ga. Supports

TS Panel	Design Criteria	Allowable Load (psf)											
		Panel Span (ft)											
		5	6	7	8	9	10	11	12	13	14	15	16
6" Thick	Bending & Shear	96.8	79.4	67.1	58.0	51.1	45.6	41.2	37.6	34.5	31.9	29.6	27.6
	Deflection (L/240)	165.2	134.3	112.2	95.5	82.6	72.2	63.8	56.8	50.8	45.8	41.2	37.3
	Connection F1	49.3	40.5	34.2	29.5	25.8	23.0	20.7	18.8	17.2	15.8	14.7	13.7
	Connection F2	65.8	54.0	45.6	39.3	34.5	30.7	27.6	25.0	22.9	21.1	19.6	18.3
7" Thick	Bending & Shear	113.9	93.4	78.9	68.2	60.1	53.6	48.4	44.1	40.5	37.5	34.8	32.5
	Deflection (L/240)	194.7	158.8	132.9	113.5	98.3	86.2	76.3	68.1	61.2	55.3	50.1	45.5
	Connection F1	49.6	40.7	34.4	29.7	26.1	23.2	20.8	18.9	17.3	16.0	14.8	13.8
	Connection F2	66.2	54.3	45.9	39.6	34.8	30.9	27.8	25.2	23.1	21.3	19.7	18.4
8" Thick	Bending & Shear	131.1	107.5	90.9	78.6	69.1	61.7	55.6	50.7	46.5	43.0	40.0	37.4
	Deflection (L/240)	224.3	183.3	153.8	131.5	114.2	100.4	89.0	79.6	71.6	64.8	59.0	53.8
	Connection F1	49.8	41.0	34.6	29.9	26.3	23.4	21.0	19.1	17.4	16.1	14.9	13.9
	Connection F2	66.5	54.6	46.2	39.9	35.0	31.2	28.0	25.4	23.3	21.4	19.9	18.5

Notes

1. Based on TS panel with 24 ga. exterior & 26 ga. interior face (min Fy = 33 ksi) for 2 or more spans condition.
2. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
3. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength.
4. The loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing.
The allowable loads are calculated with factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, and deflection limitation of L/240.
5. The connection strengths are derived from ASTM E72 structural testing and the allowable loads are calculated with factor of safety of 2.5.
6. Fastener Spacing across panel width into minimum 16 ga. supports:
Connection F1 (3 Fasteners): End Support (3"-18"-18"-3") & Intermediate (7"-14"-14"-7")
Connection F2 (4 Fasteners): End Support (3"-12"-12"-12"-3") & Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
Connection F3: 3 Fasteners at End Support (3"-18"-18"-3") & 4 FabLok at Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
7. The structural capacity of the girts are not considered and must be examined independently.
8. Panels must be installed as per Evaluation Report FL 16377.4 and Metl-Span current installation procedure.

METL-SPAN THERMALSAFE (TS) PANEL SYSTEM

(24 ga. Exterior & 26 ga. Interior Faces)

Two or more spans conditions

Minimum 14 ga. Supports

TS Panel	Design Criteria	Allowable Load (psf)											
		Panel Span (ft)											
		5	6	7	8	9	10	11	12	13	14	15	16
3" Thick	Bending & Shear	55.5	45.6	38.6	33.5	29.6	26.4	23.8	21.7	19.9	18.4	17.1	16.0
	Deflection (L/240)	90.0	71.8	58.9	49.2	41.8	35.6	30.6	26.4	23.0	20.1	17.6	15.5
	Connection F1	53.9	45.6	38.6	33.5	29.6	26.4	23.8	21.7	19.9	18.4	17.1	16.0
	Connection F2	55.5	45.6	38.6	33.5	29.6	26.4	23.8	21.7	19.9	18.4	17.1	16.0
	Connection F3	35.0	28.6	24.1	20.8	18.2	16.3	14.7	13.3	12.2	11.3	10.5	9.8
4" Thick	Bending & Shear	71.7	58.8	49.8	43.1	38.0	34.0	30.7	28.0	25.6	23.7	22.0	20.5
	Deflection (L/240)	118.2	95.1	78.6	66.3	56.7	49.1	42.9	37.5	33.0	29.1	25.9	23.0
	Connection F1	63.3	51.8	43.6	37.6	33.0	29.4	26.4	24.0	22.0	20.3	18.9	17.6
	Connection F2	69.5	57.3	48.3	41.6	36.5	32.5	29.3	26.6	24.4	22.5	20.9	19.5
	Connection F3	35.6	29.1	24.5	21.2	18.6	16.5	14.9	13.5	12.4	11.4	10.6	9.9
5" Thick	Bending & Shear	85.3	69.9	59.1	51.1	45.1	40.3	36.4	33.2	30.5	28.1	26.1	24.3
	Deflection (L/240)	143.6	116.2	96.6	81.9	70.5	61.4	54.0	47.8	42.5	37.9	33.9	30.4
	Connection F1	66.7	54.6	46.1	39.7	34.8	31.0	27.9	25.3	23.2	21.4	19.9	18.5
	Connection F2	78.5	64.3	54.2	46.7	41.0	36.5	32.8	29.8	27.3	25.2	23.4	21.8

Notes

1. Based on TS panel with 24 ga. exterior & 26 ga. interior face (min Fy = 33 ksi) for 2 or more spans condition.
2. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
3. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength.
4. The loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing.
The allowable loads are calculated with factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, and deflection limitation of L/240.
5. The connection strengths are derived from ASTM E72 structural testing and the allowable loads are calculated with factor of safety of 2.5.
6. Fastener Spacing across panel width into minimum 14 ga. supports:
Connection F1 (3 Fasteners): End Support (3"-18"-18"-3") & Intermediate (7"-14"-14"-7")
Connection F2 (4 Fasteners): End Support (3"-12"-12"-12"-3") & Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
Connection F3: 3 Fasteners at End Support (3"-18"-18"-3") & 4 FabLok at Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
7. The structural capacity of the girts are not considered and must be examined independently.
8. Panels must be installed as per Evaluation Report FL 16377.4 and Metl-Span current installation procedure.

METL-SPAN THERMALSAFE (TS) PANEL SYSTEM

(24 ga. Exterior & 26 ga. Interior Faces)

Two or more spans conditions

Minimum 14 ga. Supports

TS Panel	Design Criteria	Allowable Load (psf)											
		Panel Span (ft)											
		5	6	7	8	9	10	11	12	13	14	15	16
6" Thick	Bending & Shear	96.8	79.4	67.1	58.0	51.1	45.6	41.2	37.6	34.5	31.9	29.6	27.6
	Deflection (L/240)	165.2	134.3	112.2	95.5	82.6	72.2	63.8	56.8	50.8	45.8	41.2	37.3
	Connection F1	70.0	57.4	48.5	41.8	36.7	32.6	29.3	26.6	24.4	22.5	20.8	19.4
	Connection F2	86.9	71.3	60.2	51.9	45.5	40.5	36.4	33.1	30.3	27.9	25.9	24.1
7" Thick	Bending & Shear	113.9	93.4	78.9	68.2	60.1	53.6	48.4	44.1	40.5	37.5	34.8	32.5
	Deflection (L/240)	194.7	158.8	132.9	113.5	98.3	86.2	76.3	68.1	61.2	55.3	50.1	45.5
	Connection F1	73.0	60.0	50.7	43.7	38.4	34.1	30.7	27.9	25.5	23.5	21.8	20.3
	Connection F2	95.0	78.0	65.9	56.9	49.9	44.4	39.9	36.3	33.2	30.6	28.3	26.4
8" Thick	Bending & Shear	131.1	107.5	90.9	78.6	69.1	61.7	55.6	50.7	46.5	43.0	40.0	37.4
	Deflection (L/240)	224.3	183.3	153.8	131.5	114.2	100.4	89.0	79.6	71.6	64.8	59.0	53.8
	Connection F1	73.4	60.3	51.0	44.1	38.7	34.4	30.9	28.1	25.7	23.7	21.9	20.4
	Connection F2	95.4	78.5	66.4	57.3	50.3	44.7	40.2	36.5	33.4	30.8	28.5	26.6

Notes

1. Based on TS panel with 24 ga. exterior & 26 ga. interior face (min Fy = 33 ksi) for 2 or more spans condition.
2. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
3. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength.
4. The loads based on panel stress and deflection design criteria are derived from ASTM E72 structural testing.
The allowable loads are calculated with factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, and deflection limitation of L/240.
5. The connection strengths are derived from ASTM E72 structural testing and the allowable loads are calculated with factor of safety of 2.5.
6. Fastener Spacing across panel width into minimum 14 ga. supports:
Connection F1 (3 Fasteners): End Support (3"-18"-18"-3") & Intermediate (7"-14"-14"-7")
Connection F2 (4 Fasteners): End Support (3"-12"-12"-12"-3") & Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
Connection F3: 3 Fasteners at End Support (3"-18"-18"-3") & 4 FabLok at Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
7. The structural capacity of the girts are not considered and must be examined independently.
8. Panels must be installed as per Evaluation Report FL 16377.4 and Metl-Span current installation procedure.