

Metl-Span ThermalSafe Wall Panel System
24 Ga. Exterior / 26 Ga. Interior Facings
Single Span Condition

TS Panel	Design Criteria	LSD (Limit State Design), PSF											
		Panel Span (ft)											
		5	6	7	8	9	10	11	12	13	14	15	16
3" Thick	Bending & Shear	74.7	62.2	53.3	46.7	41.5	37.3	33.9	31.1	28.7	26.7	24.9	22.3
	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	74.7	62.2	53.3	46.7	41.5	37.3	33.9	31.1	28.7	26.7	24.9	22.3
4" Thick	Bending & Shear	94.7	78.9	67.6	59.2	52.6	47.4	43.0	39.5	36.4	33.8	31.6	28.7
	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	94.7	78.9	67.6	59.2	52.6	47.4	43.0	39.5	36.4	33.8	31.6	28.7
5" Thick	Bending & Shear	111.9	93.3	80.0	70.0	62.2	56.0	50.9	46.6	43.1	40.0	37.3	34.3
	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	111.9	93.3	80.0	70.0	62.2	56.0	50.9	46.6	43.1	40.0	37.3	34.3
6" Thick	Bending & Shear	125.2	104.4	89.5	78.3	69.6	62.6	56.9	52.2	48.2	44.7	41.7	39.1
	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	125.2	104.4	89.5	78.3	69.6	62.6	56.9	52.2	48.2	44.7	41.7	39.1
7" Thick	Bending & Shear	146.4	122.0	104.5	91.5	81.3	73.2	66.5	61.0	56.3	52.3	48.8	45.7
	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	146.4	122.0	104.5	91.5	81.3	73.2	66.5	61.0	56.3	52.3	48.8	45.7
8" Thick	Bending & Shear	167.5	139.6	119.6	104.7	93.0	83.7	76.1	69.8	64.4	59.8	55.8	52.3
	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	162.4	135.3	116.0	101.5	90.2	81.2	73.8	67.7	62.5	58.0	54.1	50.8

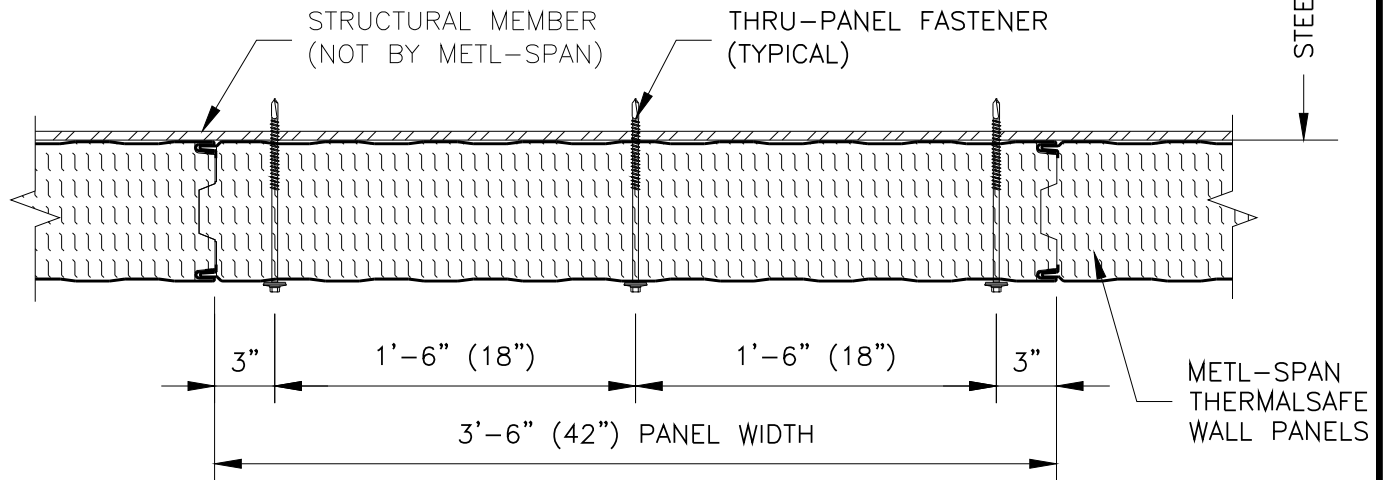
Notes

1. Based on ThermalSafe panel with 24 ga. exterior & 26 ga. interior face (min Fy = 33 ksi). The panel span is single span condition.
2. Factored resistance inward load is the lowest value of panel bending, shear, and deflection resistances.
3. Factored resistance outward load is the lowest value of panel bending, shear, deflection, and connection resistances for each fastener pattern.
4. Loads based on panel stress and deflection design criteria are derived from ASTM E-72 testing. The factored resistance loads are calculated with resistance factor of 0.5 and 0.4 for bending and shear stresses, respectively.
5. The panel and its connection strength was determined from ASTM E1592 testing and the factored resistance loads are calculated with resistance factor of 0.7.
6. Specified loads should not exceed the deflection load for L/240 limit.
7. Based on attachment with 14 ga. steel girt with fastener spacing 3"-18"-18"-3" across panel width
8. The structural capacity of the girts are not considered and must be examined independently.

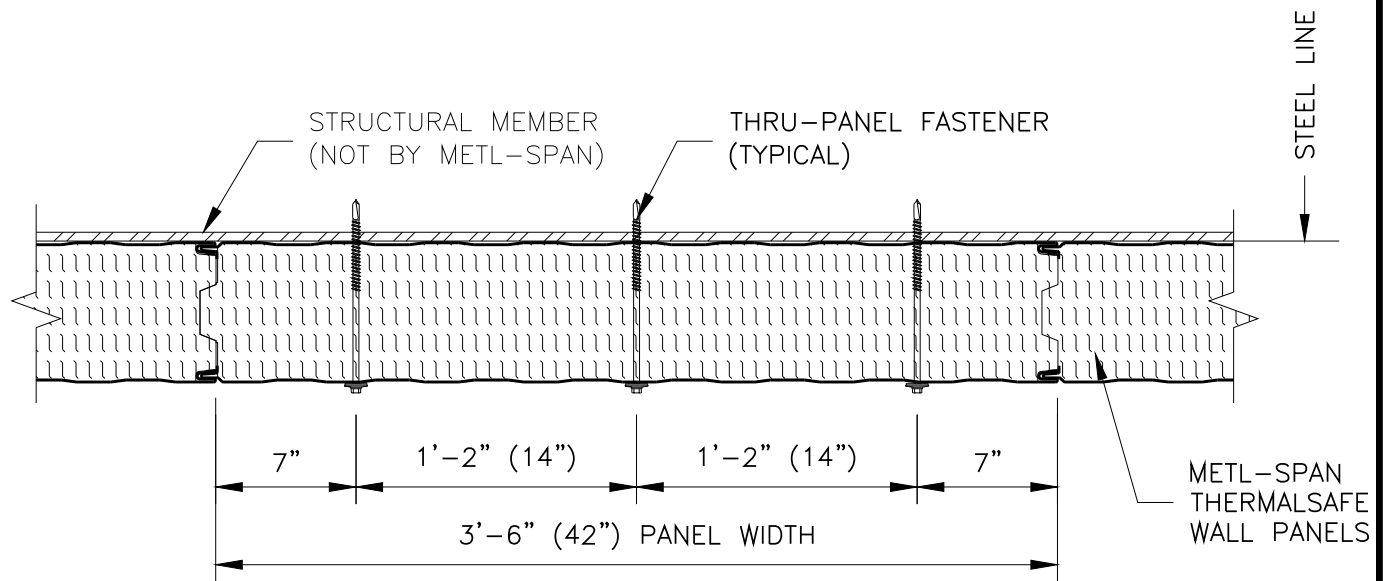
$$cap = \begin{pmatrix} 48.2 & 44.0 & 48.2 \\ 52.2 & 50.3 & 52.2 \end{pmatrix} \cdot psf \quad spn = \begin{pmatrix} 13 \\ 12 \end{pmatrix} \cdot ft \quad i = 1..3$$

$$sp'_i = \text{linterp}(cap^{(i)}, spn, 50 \cdot psf) \quad sp' = \begin{pmatrix} 12.55 \\ 12.048 \\ 12.55 \end{pmatrix} \cdot ft$$

$$span_{max} = \min(sp') \quad span_{max} = 12.048 \cdot ft$$



END CONDITION



INTERMEDIATE CONDITION

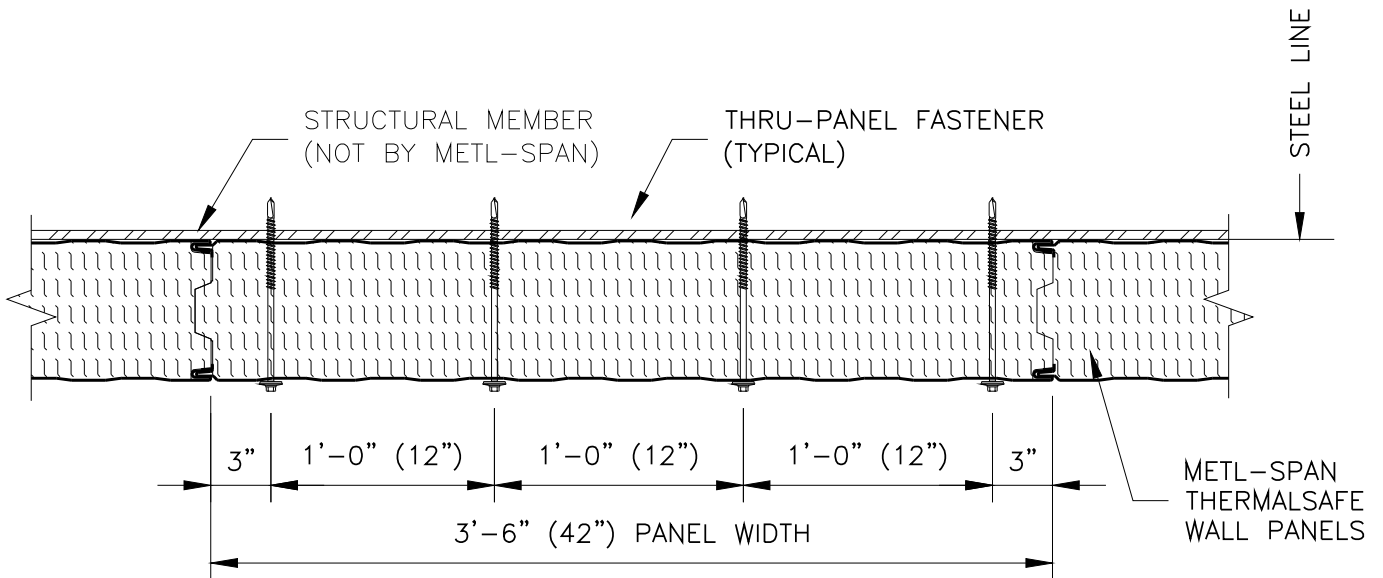
VERTICAL PANEL – THRU PANEL FASTENER PATTERNS
TSFP1

NOTE: FASTENER PATTERN TO BE DETERMINED PER SPECIFIC PROJECT DESIGN REQUIREMENTS.

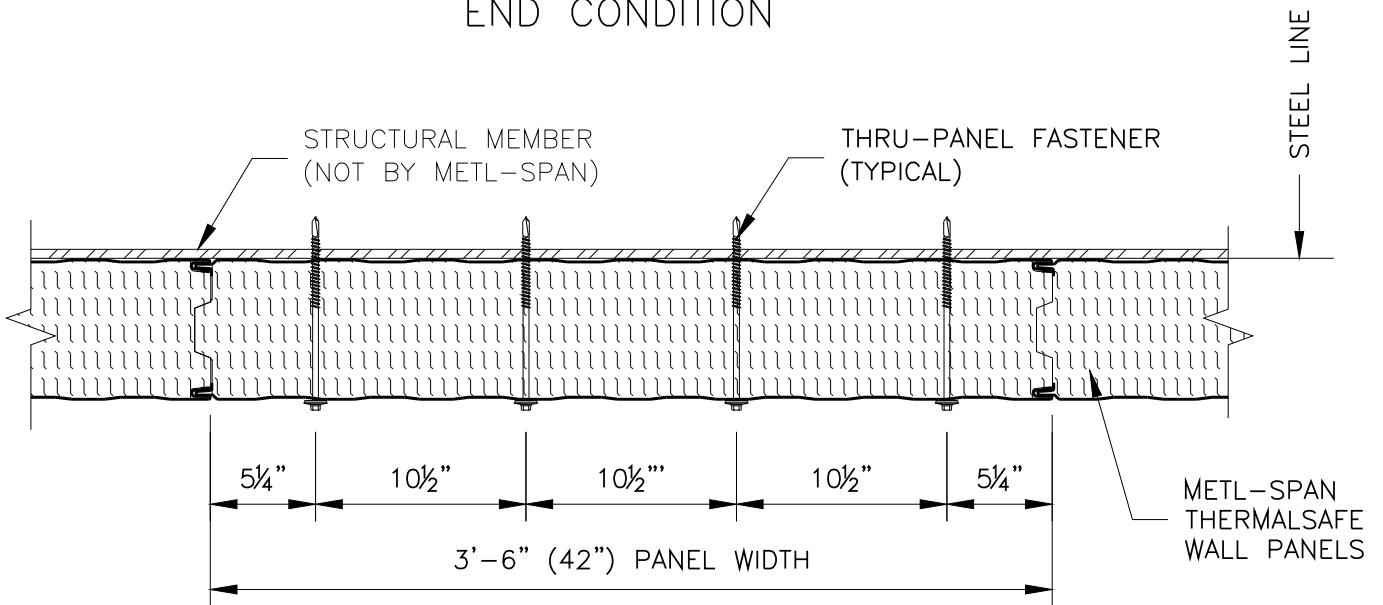
COMMERCIAL AND INDUSTRIAL

FASTENER PATTERNS TSFP1
THERMALS SAFE PANEL

TSW03010
DATE: 01-12-2016



END CONDITION



INTERMEDIATE CONDITION

VERTICAL PANEL – THRU PANEL FASTENER PATTERNS
TSFP2

NOTE: FASTENER PATTERN TO BE DETERMINED PER SPECIFIC PROJECT DESIGN REQUIREMENTS.

**COMMERCIAL AND
INDUSTRIAL**

**FASTENER PATTERNS TSFP2
THERMSAFE PANEL**

TSW03011
DATE: 01-12-2016