US

Metl Span CFR-42 Roof System 24 Ga. Exterior / 26 Ga. Interior Facings Allowable Load Chart (SNOW) for Two or More Equal Spans							
CFR Panel Dimensions	**Design Criteria**	**Long Term Allowable Load (psf)**					
		Panel Span (ft)					
		2.5	**3.0**	**4.0**	**5.0**	**6.0**	**7.0**
42" wide	Bending & Shear	147.7	121.5	88.9	69.7	57.2	48.4
2" thick	Deflection (L/180)	82.2	67.7	49.5	38.5	31.0	25.7
2 fasteners/clip	Connection	58.5	53.5	46.8	42.5	34.5	28.5
42" wide	Bending & Shear	169.3	139.6	102.4	80.3	65.8	55.7
2.5" thick	Deflection (L/180)	100.3	82.8	60.8	47.5	38.6	32.2
2 fasteners/clip	Connection	65.0	58.5	50.3	45.1	36.6	30.4
42" wide	Bending & Shear	188.7	155.7	114.5	89.9	73.7	62.3
3" thick	Deflection (L/180)	116.2	96.2	70.9	55.6	45.3	38.0
2 fasteners/clip	Connection	71.3	63.5	53.6	47.6	38.7	32.2
42" wide	Bending & Shear	199.2	164.8	121.7	95.8	78.7	66.5
4" thick	Deflection (L/180)	141.6	117.4	87.0	68.6	56.3	47.4
2 fasteners/clip	Connection	84.0	73.4	59.9	51.8	42.4	35.7
42" wide	Bending & Shear	225.7	187.1	138.6	109.4	90.0	76.2
5" thick	Deflection (L/180)	158.2	131.4	97.7	77.3	63.6	53.8
3 fasteners/clip	Connection	86.5	75.5	61.8	53.4	44.4	37.9
42" wide	Bending & Shear	249.4	207.0	153.8	121.7	100.3	85.0
6" thick	Deflection (L/180)	166.2	138.1	102.9	81.7	67.4	57.2
3 fasteners/clip	Connection	88.8	77.6	63.5	55.0	46.3	40.0

Notes

1. Based on CFR-42 panel with 24 ga. exterior face (min Fy = 50 ksi) and 26 ga. interior face (min Fy = 33 ksi).
2. Based on attachment at interior supports with CFR panel clip and (2 or 3 as shown above) 1/4"-14 Self-Drilling Tek 3 screws in min. 14 ga. steel or (2) 1/4"-14 Self-Drilling Tek 3 screws in min. 12 ga. steel. Two fasteners per clip are required at end supports. In lieu of self-drilling screws, self-tapping screws may be used.
3. Allowable positive load is the lowest value of panel bending and shear strength & deflection limit for 50% Shear Modulus.
4. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength for 100% Shear Modulus.
5. Connection loads may be increased with Fablok. Consult Metl-Span for additional loads.
6. The loads based on panel stress and deflection design criteria are derived from ASTM E-72 structural testing. The allowable loads are calculated with a factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, deflection limitation of L/180 and with a factor of safety of 2.0 for connection strength.
7. The clip fastener capacity was determined from manufacturer fastener pullout data and the allowable loads are calculated with a factor of safety of 3.0.
8. The structural capacity of the purlins are not considered and must be examined independently.
9. Multiple spans are based on 3 or more spans conditions.

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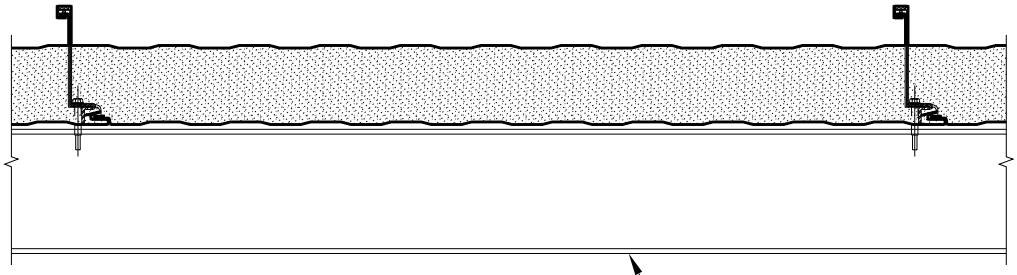
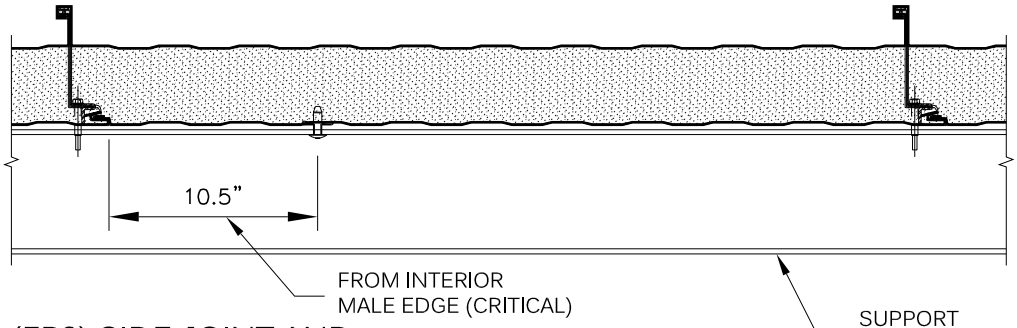


(FP1) SIDE JOINT ONLY

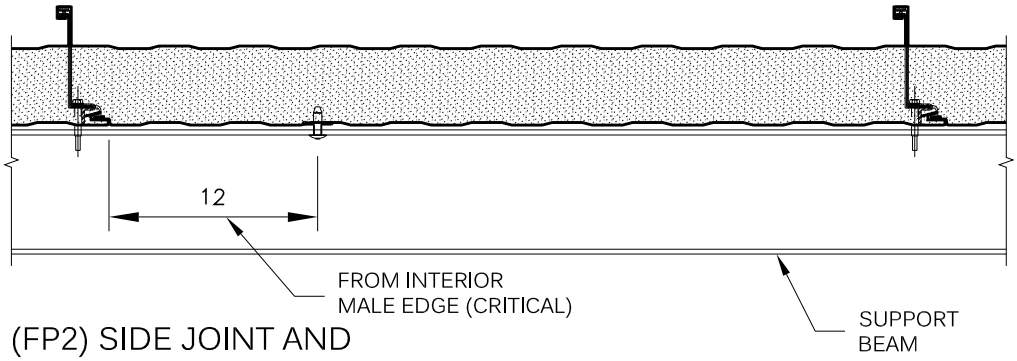
SUPPORT BEAM

FP1 SAME CLIP AND FASTENER FOR CFR42, CFR36, CFR30



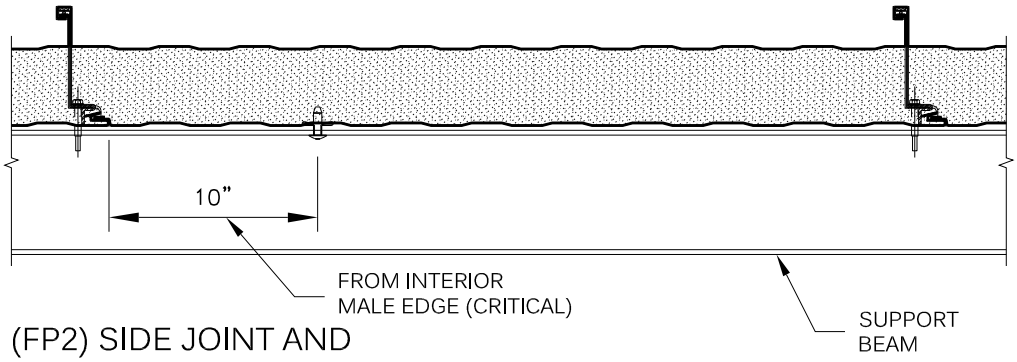
(FP2) SIDE JOINT AND (1) BULB-TITE

FP2 FOR CFR42



(FP2) SIDE JOINT AND (1) BULB-TITE

FP2 FOR CFR36



(FP2) SIDE JOINT AND (1) BULB-TITE

FP2 FOR CFR30

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