

SECTION PROPERTIES - PANEL-LOC®

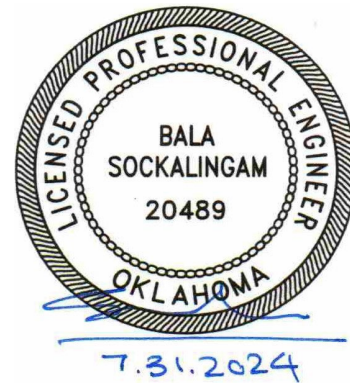
Central States Manufacturing, Inc. 36" wide Panel-Loc Panel

Section Properties & Allowables

Gauge	Thickness in.	Weight psf	Yield Stress ksi	Allowable Shear V. kips/ft	Moment of Inertia Ix in ⁴ /ft	Top in Compression (Positive Bending)			Bottom in Compression (Negative Bending)		
						lxx in ⁴ /ft	Sxx in ³ /ft	M. in.kips/ft	lxx in ⁴ /ft	Sxx in ³ /ft	M. in.kips/ft
						26	0.0185	0.860	80	0.90	0.0098
29	0.0150	0.698	80	0.73	0.0080	0.0073	0.0152	0.546	0.0047	0.0147	0.529

Notes on Section Properties:

1. Section properties and allowables are calculated in accordance with North American Specification for the Design of Cold-Formed Steel Structural Members, 2016 Edition (Reaffirmed 2020), with Supplement 2, 2020 Edition.
2. Ix is full moment of inertia, lxx +/- & Sxx +/- are effective moment of inertia and section modulus, M_o is allowable bending moment and V. is allowable shear. All values are for one foot of panel width.
3. Minimum deliverable bare steel thickness should not be less than 0.95 of design thickness.



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Central States Manufacturing, Inc. 36" wide Panel-Loc Panel													
Ga.	Span Condition		Allowable Live or Inward Loads (lb/ft ²)										
			Span (ft)										
			1.5	1.75	2	2.25	2.5	2.75	3	3.5	4	4.5	5
26 80 ksi	SS	Stress	210.3	154.5	118.3	93.5	75.7	62.6	52.6	38.6	29.6	23.4	18.9
		L/180	254.5	160.3	107.4	75.4	55.0	41.3	31.8	20.0	13.4	9.4	6.9
	DS	Stress	190.3	140.5	108.0	85.5	69.4	57.4	48.3	35.5	27.2	21.5	17.4
		L/180	612.6	385.8	258.5	181.5	132.3	99.4	76.6	48.2	32.3	22.7	16.5
	TS	Stress	220.8	163.3	125.6	99.6	80.8	66.9	56.3	41.4	31.8	25.1	20.3
		L/180	480.3	302.5	202.6	142.3	103.8	78.0	60.0	37.8	25.3	17.8	13.0
29 80 ksi	SS	Stress	161.9	118.9	91.1	71.9	58.3	48.2	40.5	29.7	22.8	18.0	14.6
		L/180	207.6	130.7	87.6	61.5	44.8	33.7	26.0	16.3	10.9	7.7	5.6
	DS	Stress	153.8	113.5	87.2	69.1	56.1	46.4	39.0	28.7	22.0	17.4	14.1
		L/180	499.7	314.7	210.8	148.1	107.9	81.1	62.5	39.3	26.4	18.5	13.5
	TS	Stress	178.5	132.0	101.5	80.4	65.3	54.0	45.5	33.5	25.6	20.3	16.4
		L/180	391.8	246.7	165.3	116.1	84.6	63.6	49.0	30.8	20.7	14.5	10.6
Ga.	Span Condition		Allowable Uplift or Outward Loads (lb/ft ²)										
			Span (ft)										
			1.5	1.75	2	2.25	2.5	2.75	3	3.5	4	4.5	5
26 80 ksi	SS	Stress	194.2	142.7	109.2	86.3	69.9	57.8	48.5	35.7	27.3	21.6	17.5
		L/180	254.5	160.3	107.4	75.4	55.0	41.3	31.8	20.0	13.4	9.4	6.9
	DS	Stress	205.4	151.8	116.7	92.5	75.0	62.1	52.3	38.5	29.5	23.3	18.9
		L/180	612.6	385.8	258.5	181.5	132.3	99.4	76.6	48.2	32.3	22.7	16.5
	TS	Stress	238.1	176.3	135.7	107.6	87.4	72.3	60.9	44.8	34.4	27.2	22.0
		L/180	480.3	302.5	202.6	142.3	103.8	78.0	60.0	37.8	25.3	17.8	13.0
29 80 ksi	SS	Stress	156.8	115.2	88.2	69.7	56.5	46.7	39.2	28.8	22.1	17.4	14.1
		L/180	207.6	130.7	87.6	61.5	44.8	33.7	26.0	16.3	10.9	7.7	5.6
	DS	Stress	158.5	117.1	90.0	71.3	57.8	47.9	40.3	29.6	22.7	17.9	14.5
		L/180	499.7	314.7	210.8	148.1	107.9	81.1	62.5	39.3	26.4	18.5	13.5
	TS	Stress	183.9	136.1	104.7	83.0	67.3	55.8	46.9	34.5	26.5	20.9	17.0
		L/180	391.8	246.7	165.3	116.1	84.6	63.6	49.0	30.8	20.7	14.5	10.6

Notes on Load Table:

- * Allowable load based on stress is the smallest load due to bending, shear and combined bending and shear.
- * Allowable load based on deflection limit cannot exceed allowable load based on stress.
- * These allowable loads are for panel strength and does not address web crippling, fasteners, support material or load testing. Frames, purlins, fasteners and all connections must be designed to resist all loads imposed on the panel.
- * Allowable uplift loads based on stress have not been increased by 33.33 % for wind uplift.
- * Allowable loads for deflection are based on deflection limitation of span/180.
- * For roof panels, self weight of the panel has to be deducted from the allowable inward load to arrive at the actual 'live load' carrying capacity of the panel.
- * SS = Simple span, DS = Double Span and TS = Three or more spans