SECTION PROPERTIES - CD 2000®

Central States Manufacturing, Inc. 36" wide CD 2000 Panel											
Section Properties & Allowables											
Gauge	Thickness in.	Weight psf	Yield Stress ksi	Allowable Shear V_a kips/ft	Moment of Inertia I_x in^4/ft	Top in Compression (Positive Bending)			Bottom in Compression (Negative Bending)		
						I_{xx} in^4/ft	S_{xx} in^3/ft	M_a in.kips/ft	I_{xx} in^4/ft	S_{xx} in^3/ft	M_a in.kips/ft
26	0.0185	0.878	80	0.78	0.0135	0.0133	0.0276	0.993	0.0110	0.0266	0.953
29	0.0150	0.713	80	0.63	0.0111	0.0103	0.0209	0.753	0.0083	0.0212	0.763

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. I_x is full moment of inertia, I_{xe} +/- & S_{xe} +/- are effective moment of inertia and section modulus, M_a is allowable bending moment and V_a 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.

4. 26 gauge = ULTRA, 29 gauge = PRIME

7.31.2024

Ga.	Span Condition												

Central States Manufacturing, Inc. 36" wide CD 2000 Panel

Ga.	Span Condition		Allowable Live or Inward Loads (lb/ft^2)										
			Span (ft)										
			2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.5	5
26 80 ksi	SS	Stress	165.6	130.8	106.0	87.6	73.6	62.7	54.1	47.1	41.4	32.7	26.5
		L/180	147.7	103.7	75.6	56.8	43.8	34.4	27.6	22.4	18.5	13.0	9.5
	DS	Stress	153.9	122.4	99.6	82.6	69.6	59.4	51.3	44.8	39.4	31.2	25.3
		L/180	355.5	249.7	182.0	136.7	105.3	82.8	66.3	53.9	44.4	31.2	22.8
	TS	Stress	178.1	141.9	115.6	96.0	80.9	69.1	59.7	52.1	45.9	36.3	29.5
		L/180	278.7	195.8	142.7	107.2	82.6	65.0	52.0	42.3	34.8	24.5	17.8
29 80 ksi	SS	Stress	125.6	99.2	80.4	66.4	55.8	47.5	41.0	35.7	31.4	24.8	20.1
		L/180	120.7	84.8	61.8	46.4	35.8	28.1	22.5	18.3	15.1	10.6	7.7
	DS	Stress	123.4	98.1	79.8	66.2	55.8	47.6	41.1	35.9	31.6	25.0	20.3
		L/180	290.6	204.1	148.8	111.8	86.1	67.7	54.2	44.1	36.3	25.5	18.6
	TS	Stress	142.8	113.8	92.7	76.9	64.8	55.4	47.9	41.8	36.8	29.1	23.6
		L/180	227.8	160.0	116.7	87.6	67.5	53.1	42.5	34.6	28.5	20.0	14.6
Ga.	Span Condition		Allowable Uplift or Outward Loads (lb/ft^2)										
			Span (ft)										
			2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.5	5
26 80 ksi	SS	Stress	158.9	125.5	101.7	84.0	70.6	60.2	51.9	45.2	39.7	31.4	25.4
		L/180	147.7	103.7	75.6	56.8	43.8	34.4	27.6	22.4	18.5	13.0	9.5
	DS	Stress	160.0	127.3	103.6	86.0	72.4	61.9	53.4	46.6	41.0	32.5	26.3
		L/180	355.5	249.7	182.0	136.7	105.3	82.8	66.3	53.9	44.4	31.2	22.8
	TS	Stress	185.0	147.5	120.2	99.8	84.2	71.9	62.2	54.3	47.8	37.8	30.7
		L/180	278.7	195.8	142.7	107.2	82.6	65.0	52.0	42.3	34.8	24.5	17.8
29 80 ksi	SS	Stress	127.2	100.5	81.4	67.3	56.5	48.2	41.5	36.2	31.8	25.1	20.4
		L/180	120.7	84.8	61.8	46.4	35.8	28.1	22.5	18.3	15.1	10.6	7.7
	DS	Stress	121.9	96.9	78.8	65.4	55.1	47.0	40.6	35.4	31.2	24.7	20.0
		L/180	290.6	204.1	148.8	111.8	86.1	67.7	54.2	44.1	36.3	25.5	18.6
	TS	Stress	141.1	112.3	91.5	75.9	64.0	54.7	47.2	41.2	36.3	28.7	23.3
		L/180	227.8	160.0	116.7	87.6	67.5	53.1	42.5	34.6	28.5	20.0	14.6

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

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