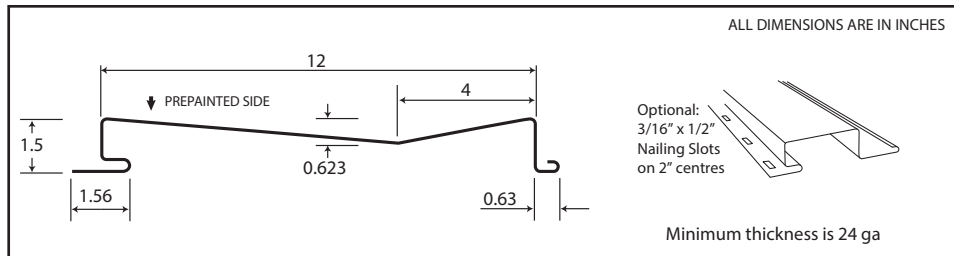




Cladding Specifications for MatrixAir™ Solar Air Heating Collector - Imperial 30038V



Section Properties

(Per Foot of Width)

Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress (ksi)	Section Modulus		Deflection Moment of Inertia Mid Span (in ⁴)	Specified Web Crippling Data (lb)			
			Mid Span (in ³)	Support (in ³)		End Pe1	End Pe2	Interior Pi1	Interior Pi2
0.030	1.87	33	0.0903	0.132	0.0817	195	48.7	376	63.9
0.036	2.23	33	0.120	0.158	0.106	287	71.8	553	94.0
0.048	2.96	33	0.184	0.210	0.163	527	132	1011	172

Notes:

- Steel conforms to ASTM A653.
- Section properties are in accordance with CSA-S136-07.
- Values in row "S" are based on strength.
- Values in row "D" are based on a deflection limit of 1/180 of the span.

Live Load Factor = 1.4; Importance Factor (I_{W-SLS}) = 0.75; Importance Factor (I_{W-ULS}) = 1.0

Load Table

Maximum Specified Uniformly Distributed Loads in psf

Span (ft.)		1-Span Base Steel Thickness (in.)			2-Span Base Steel Thickness (in.)			3-Span Base Steel Thickness (in.)		
		0.030	0.036	0.048	0.030	0.036	0.048	0.030	0.036	0.048
4'-0"	S	80	106	163	117	140	185	125	166	232
	D	149	192	296	356	461	709	281	363	559
4'-6"	S	63	84	128	92	110	146	99	131	183
	D	104	135	208	250	324	498	197	255	392
5'-0"	S	51	68	104	75	89	119	80	106	148
	D	76	98	151	182	236	363	144	186	286
5'-6"	S	42	56	86	62	74	98	66	88	123
	D	57	74	114	137	177	273	108	140	215
6'-0"	S	35	47	72	52	62	82	55	74	103
	D	44	57	88	106	137	210	83	108	165
6'-6"	S	30	40	62	44	53	70	47	63	88
	D	35	45	69	83	107	165	65	85	130
7'-0"	S	26	35	53	38	46	61	41	54	76
	D	28	36	55	67	86	132	52	68	104
7'-6"	S	23	30	46	33	40	53	35	47	66
	D	23	29	45	54	70	108	43	55	85
8'-0"	S	20	27	41	29	35	46	31	42	58
	D	19	24	37	45	58	89	35	45	70
8'-6"	S	18	24	36	26	31	41	28	37	51
	D	15	20	31	37	48	74	29	38	58
9'-0"	S	16	21	32	23	28	37	25	33	46
	D	13	17	26	31	40	62	25	32	49

- Web crippling not included in strength values. See example calculation in notes to designer.
- Oil canning may be present due to various factors. Oil canning is not a valid reason for rejection of this product.
- Contact the sales department for stocked colours and gauges.
- The load table contained on this data sheet was prepared by Dr. R.M. Schuster P.Eng. Professor Emeritus of Structural Engineering, University of Waterloo, Ontario, Canada.

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