

ENVIRO-KING™ SECTION PROPERTIES TABLE

EK3-97-8

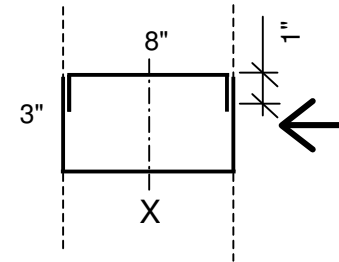
Steel thickness: 97 mil (0.1017 in - 12 ga)

Flange Width: 3.0 in
 Web Depth: 8.0 in
 Fy: 50 ksi

Section Properties:

Gross:	I_{xx} :	19.653 in ⁴	
	S_{xx} :	4.917 in ³	
	A:	2.343 in ²	
	r_x :	2.896 in	
	r_y :	1.286 in	
Effective:	I_{xx} :	19.653 in ⁴	(Deflection)
	S_{xx} :	4.917 in ³	(Flexure)
	A_e :	2.343 in ²	(Effective Area at Fy)
	y_{cg} :	4.000 in	(Distance to Neutral Axis from Top Compression Fiber)
	Ma:	12268 lb-ft	(Max. Allowable Bending Moment)
	Va:	10885 lb	(Max. Allowable Beam Shear)

8" WALL THICKNESS



Notes:

1. Section properties are based on the 2001 NAS Specification.
2. Check End Reaction for Web Crippling.
3. Bending capacities are based on the assumption that the compression flange is adequately laterally braced on both sides.
4. Allowable Moment and Shear Values are calculated assuming a negligible axial load. Load bearing jamb studs are to be designed for combined axial and bending loads by a qualified professional.
5. Strength increase due to cold work of forming has not been incorporated.
6. The effective Moment of Inertia has been calculated for deflection based on Procedure 1 of the 2001 NAS Specification by using the stress at the effective section modulus of the allowable bending moment.