

# ENVIRO-KING™ SECTION PROPERTIES TABLE

**EK3-97-6**

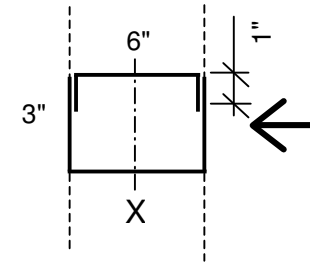
Steel thickness: 97 mil (0.0451 in - 12 ga)

Flange Width: 3.0 in  
 Web Depth: 6.0 in  
 Fy: 50 ksi

**Section Properties:**

Gross:	$I_{xx}$ :	9.746 in <sup>4</sup>	
	$S_{xx}$ :	3.252 in <sup>3</sup>	
	A:	1.936 in <sup>2</sup>	
	$r_x$ :	2.243 in	
	$r_y$ :	1.248 in	
	Effective:	$I_{xx}$ :	9.746 in <sup>4</sup>
	$S_{xx}$ :	3.253 in <sup>3</sup>	(Flexure)
	$A_e$ :	1.936 in <sup>2</sup>	(Effective Area at Fy)
	$y_{cg}$ :	3.000 in	(Distance to Neutral Axis from Top Compression Fiber)
	Ma:	8115 lb-ft	(Max. Allowable Bending Moment)
	Va:	10472 lb	(Max. Allowable Beam Shear)

## 6" 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.