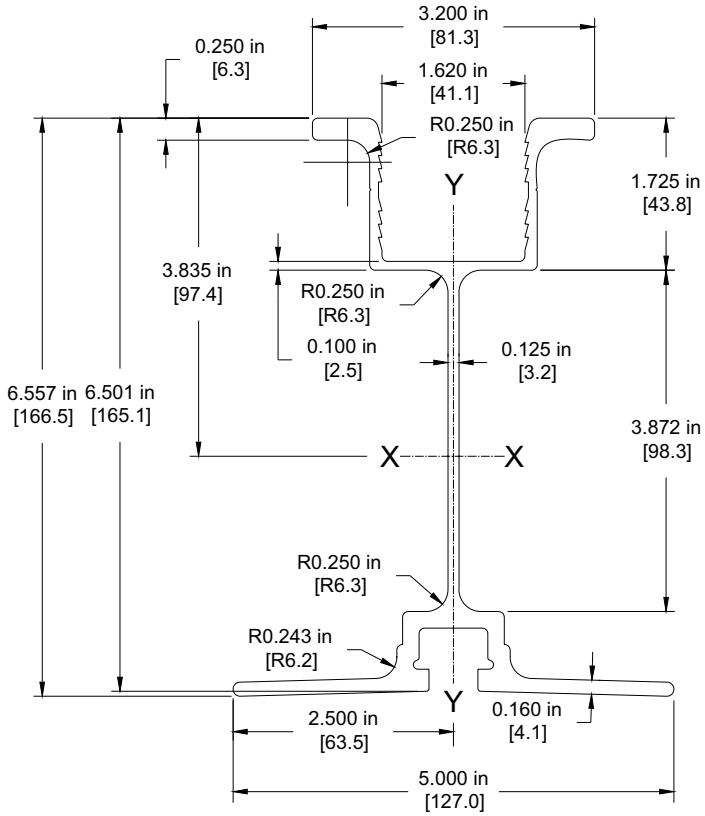
Aluma Beam Section Properties



Section Properties		Imperial	Metric
Cross-Section Area	A (without nailer)	2.66 in^2	1716 mm^2
Moment of Inertia	I_{xx}	16.96 in^4	7.06E6 mm^4
	I_{yy}	2.65 in^4	1.10E6 mm^4
Section Modulus	$S_{xx(min)}$	4.42 in^3	72.50E3 mm^3
	$S_{yy(min)}$	1.06 in^3	17.35E3 mm^3
Radius of Gyration	r_x	2.52 in	64.11 mm
	r_y	1.00 in	25.32 mm
Torsion Constant	J	0.05 in^4	19.11E3 mm^4
Warping Constant	H	7.57 in^6	2.03E9 mm^6
Weight/ft	(without nailer)	3.18 lb/ft	4.73 kg/m
	(with nailer)	4.00 lb/ft	5.95 kg/m
Material Properties	AA ALUMINUM ALLOY 6061-T6		
Ultimate Tensile Strength	F_u	38 ksi	260 MPa
Yield Strength	F_y	35 ksi	240 MPa
Modulus of Elasticity	E	10150 ksi	70000 MPa
Density	ρ	0.0975 lb/in^3	2700 kg/m^3
% Elongation			8%

Note: Bolt slot accepts 1/2” SAE Gr. 5 or ASTM A307 Hex bolts, Aluma bolts or standard square head bolts.

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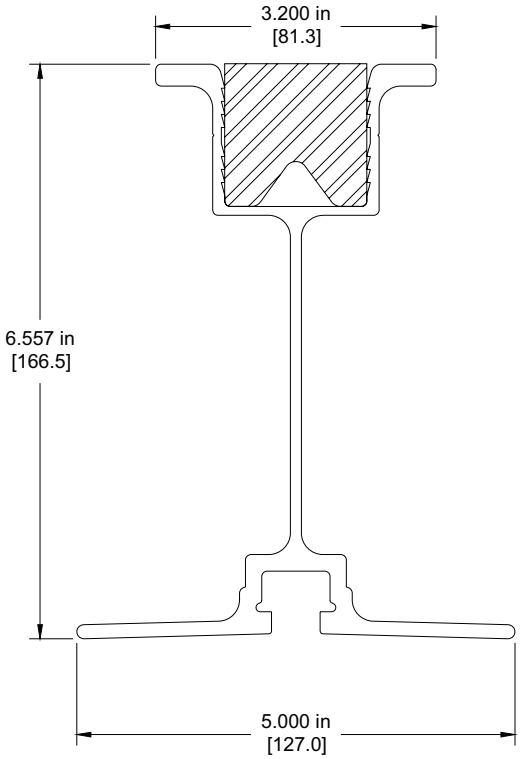

	Imperial	Metric
Allowable Bending Moment	76.34 kip-in	8.58 kN-m
Allowable Interior Reaction	12.35 kips	54.94 kN
Allowable Shear	7.31 kips	32.52 kN
Allowable End Reaction	6.17 kips	27.47 kN
Safety Factor 2.2:1 (on ultimate)		

(Interior reaction based on an effective bearing length of 5” (127mm))