

CALCULATION OF COMPOSITE BEAM PROPERTIES	Job Ref: -																																																		
Project: VALIDATION - NO SLAB	Page: 1 of 2																																																		
Title: 406 x 178 UB S4 S355	Date: 23 Dec 06																																																		
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Warning: Division by zero in /var/www/v-consult/programs/comprops/capacities.php on line 15			
Element Capacities for Beam 01:			
Concrete Slab Capacity	Rc = 0.0 kN		
Steel Beam Overall Capacity	Rs = 2,416.1 kN		
Steel Beam Top Flange Capacity	Rf1 = 687.6 kN		
Steel Beam Web Capacity	Rw = 1,040.9 kN		
Steel Beam Bottom Flange Capacity	Rf2 = 687.6 kN		
Stiffener Plate Capacity	Rf3 = 0.0 kN		
Shear Connector Capacity	Rq = 1,066.7 kN		(5000/300) x 64 = 1067 kN ✓
Partial Interaction	0.0 Percent		
Plastic Moment Capacity for Beam 01:			
Neutral Axis	Neutral axis is located in web		Plastic Modulus
Neutral Axis Depth	na = 201.31 mm ✓		
Moment Capacity	Mc = 368.4 kNm	10.355 = 1038 cm ³	10SS steel tables ✓
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Differences relate to root radius not being modelled in the software resulting in slightly lower I and Z values.