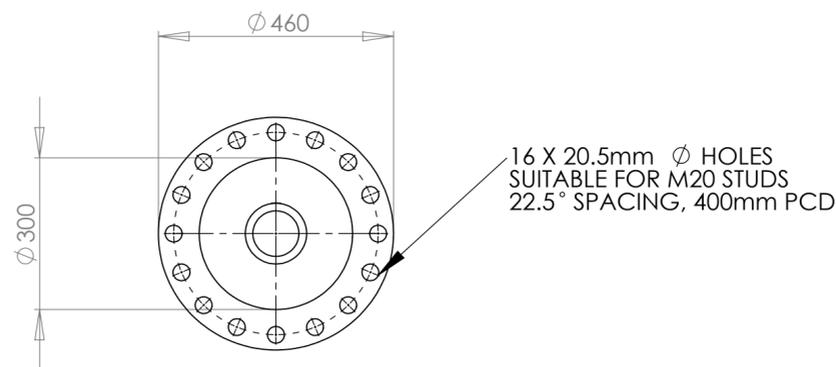
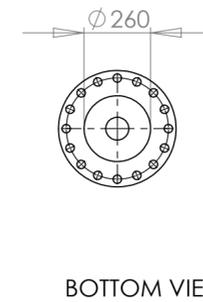
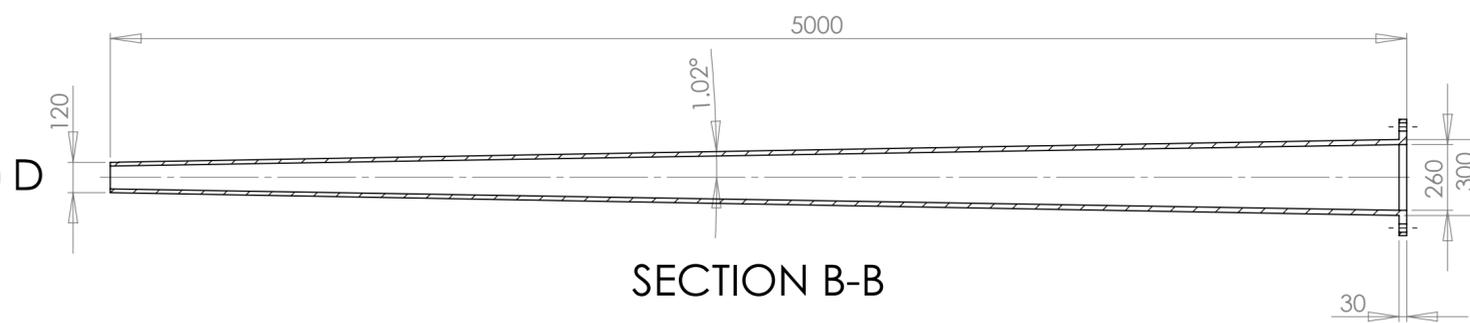
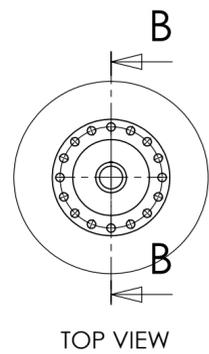
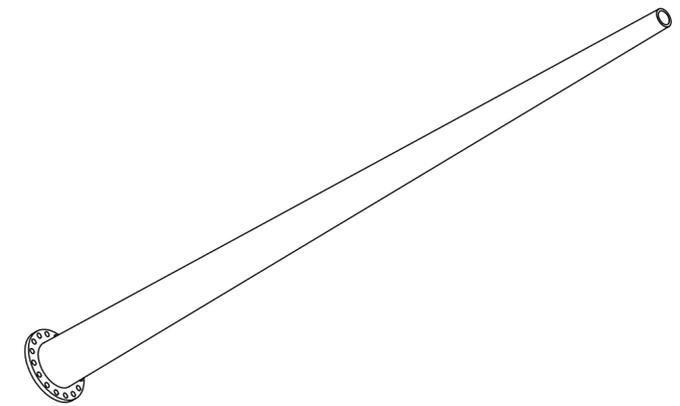


THE TURBINE NACELLE AND ROTOR CAN BE MOUNTED TO A VARIETY OF DIFFERENT PLATFORMS PROVIDED THE HEIGHT OF THE PLATFORM GIVES ADEQUATE CLEARANCE FOR THE BLADES TO ROTATE WITHOUT COMING INTO CONTACT WITH THE GROUND OR OTHER OBSTACLES, INCLUDING PEOPLE. THE TURBINE TOWER IS A STEEL TAPERED TUBE WITH A FLANGE PLATE WELDED AT ITS BASE THAT PROVIDES A PLATFORM FOR THE TURBINE AT A HEIGHT OF 5m ABOVE GROUND LEVEL. INCREASING THE HEIGHT OF THE TOWER WOULD ENSURE A MORE EFFECTIVE WIND SUPPLY. THE QUALITY OF THE WIND IMPROVES WITH AN INCREASE IN HEIGHT FROM GROUND LEVEL BECAUSE THERE IS LESS INTERFERENCE FROM TREES AND UNEVEN LAND FORMATIONS. A HEIGHT OF 5 m IS SUITABLE FOR THE TURBINE IN A SUBURBAN ENVIRONMENT AS IT ELEVATES THE TURBINE ABOVE THE AVERAGE ROOF LEVEL. INCREASING THE TOWER HEIGHT WOULD ALSO INCREASE THE OVERALL COST OF THE ASSEMBLY. STEEL HOLLOW BAR WAS CHOSEN BECAUSE IT IS STRONG, STIFF AND IS A READILY AVAILABLE MATERIAL. OTHER MATERIAL OPTIONS INCLUDE: NATURAL FIBRE COMPOSITES, CONCRETE AND OTHER COMPOSITES.



DETAIL D
SCALE 1 : 10

16 X 20.5mm ϕ HOLES
SUITABLE FOR M20 STUDS
22.5° SPACING, 400mm PCD



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UNIVERSITY OF SOUTHERN QUEENSLAN		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	KH3- 500 WIND TURBINE	
DIMENSIONS ARE IN INCHES		TOLERANCES:		DRAWN	J.KIRSCH	6/10/09	TITLE:
FRACTIONAL \pm		ANGULAR: MACH \pm BEND \pm		CHECKED			TOWER
TWO PLACE DECIMAL \pm		THREE PLACE DECIMAL \pm		ENG APPR.			SIZE DWG. NO. REV
MATERIAL		FINISH		MFG APPR.			C 26
NEXT ASSY		USED ON		Q.A.			SCALE: 1:20 SHEET 1 OF 1
APPLICATION		DO NOT SCALE DRAWING		COMMENTS:			