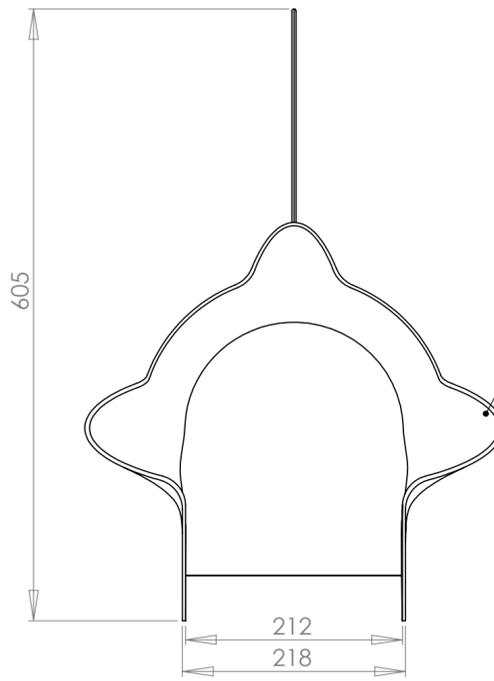
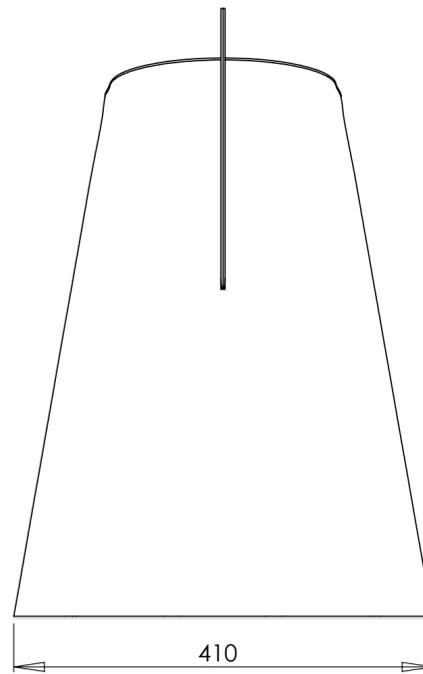


SIDE VIEW



FRONT VIEW

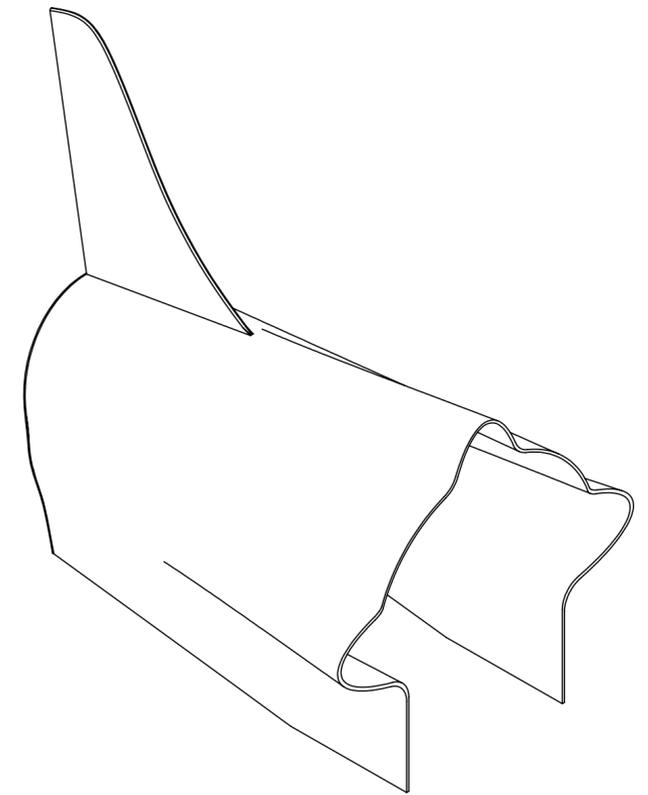


TOP VIEW

AIR PORTS FOR PURPOSE OF COOLING BRAKE AND GENERATOR.

THE NACELLE COVER IS A MOLDED FIBRE GLASS HOUSING WHICH SHELTERS THE DRIVE TRAIN, BRAKING SYSTEM AND ELECTRICAL GENERATOR FROM THE WEATHER AND BIRD LIFE. THE COVER IS DESIGNED TO FASTEN TO THE GEARBOX HOUSING AND INCLUDES AIR INTAKES WHICH CHANNEL WIND TOWARD THE BRAKING SYSTEM TO REMOVE HEAT FROM THE SYSTEM. MESH PLATES ARE FIXED AT THE ENTRY POINTS OF THE AIR INTAKES AND THE TAIL END OF THE COVER TO ENSURE A FREE FLOWING CHANNEL WHILST PREVENTING ANY WILD LIFE MAKING ITS WAY INTO THE BRAKING SYSTEM. THE PROTOTYPE COVER WAS DESIGNED TO BE FABRICATED OUT OF FIBRE GLASS AS THE MATERIAL IS READILY AVAILABLE AND EASY TO FORM. ULTIMATELY IT IS HOPED TO DEVELOP AND USE A NATURAL FIBRE COMPOSITE INSTEAD OF FIBRE GLASS.

THE COVER ALSO INCORPORATES A STEEL REINFORCED FIBRE GLASS VEIN THAT ACTS AS THE TURBINE DIRECTIONAL ADJUSTMENT MECHANISM. WHEN THE WIND DIRECTION CHANGES THE VEIN WILL ENSURE THAT THE TURBINE DIRECTS ITS ROTOR INTO THE DIRECTION OF ONCOMING FLOW.



PROPRIETARY AND CONFIDENTIAL
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UNIVERSITY OF SOUTHERN QUEENSLAND		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±		NAME J.KIRSCH	DATE 6/10/09	KH3- 500 WIND TURBINE	
NEXT ASSY		USED ON		CHECKED		TITLE: NACELL COVER	
APPLICATION		DO NOT SCALE DRAWING		ENG APPR.		REV	
				MFG APPR.		SIZE DWG. NO.	
				Q.A.		C 25	
				COMMENTS:		SCALE: 1:10 SHEET 1 OF 1	