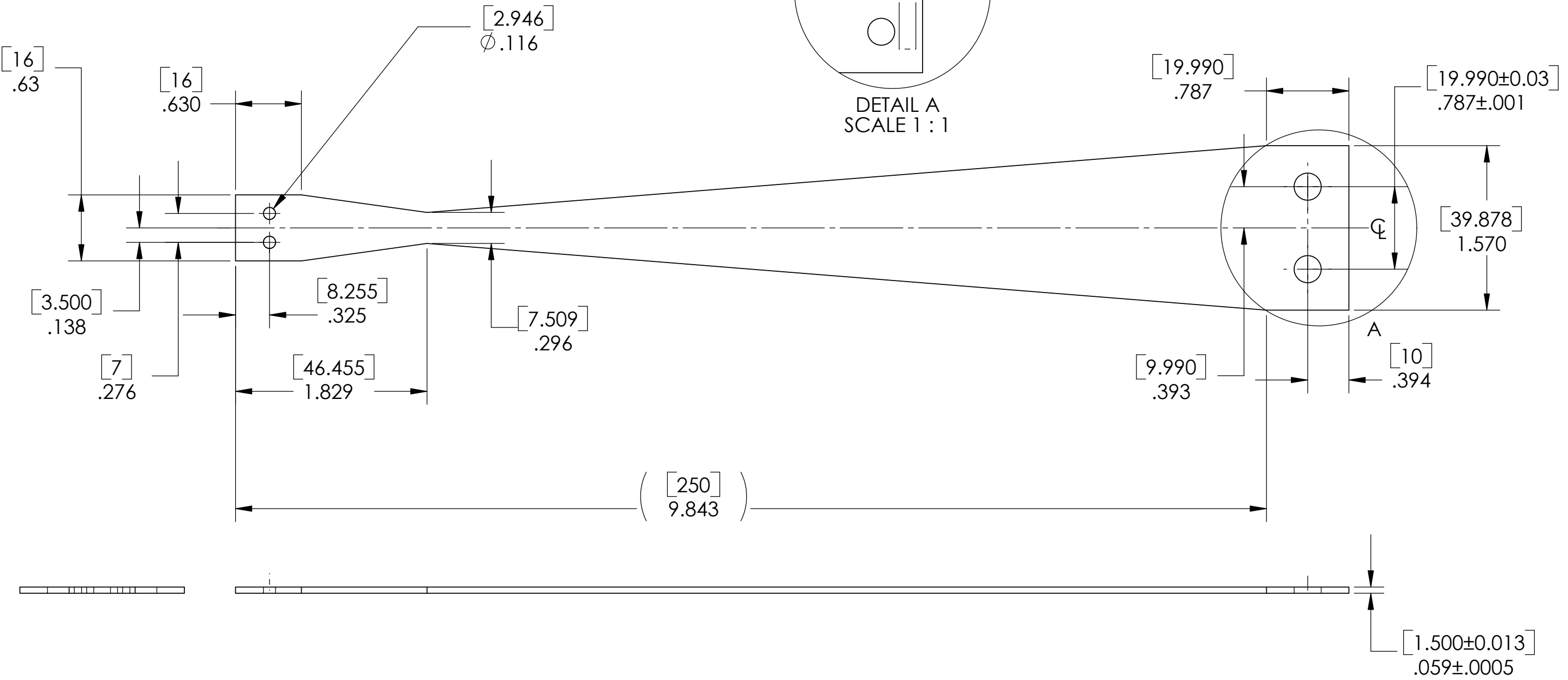
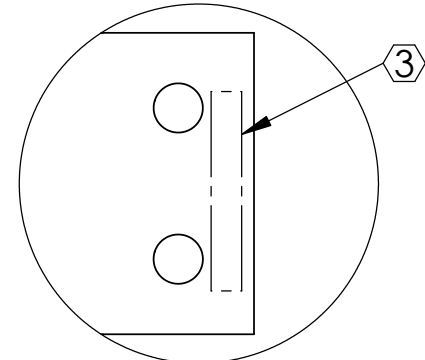


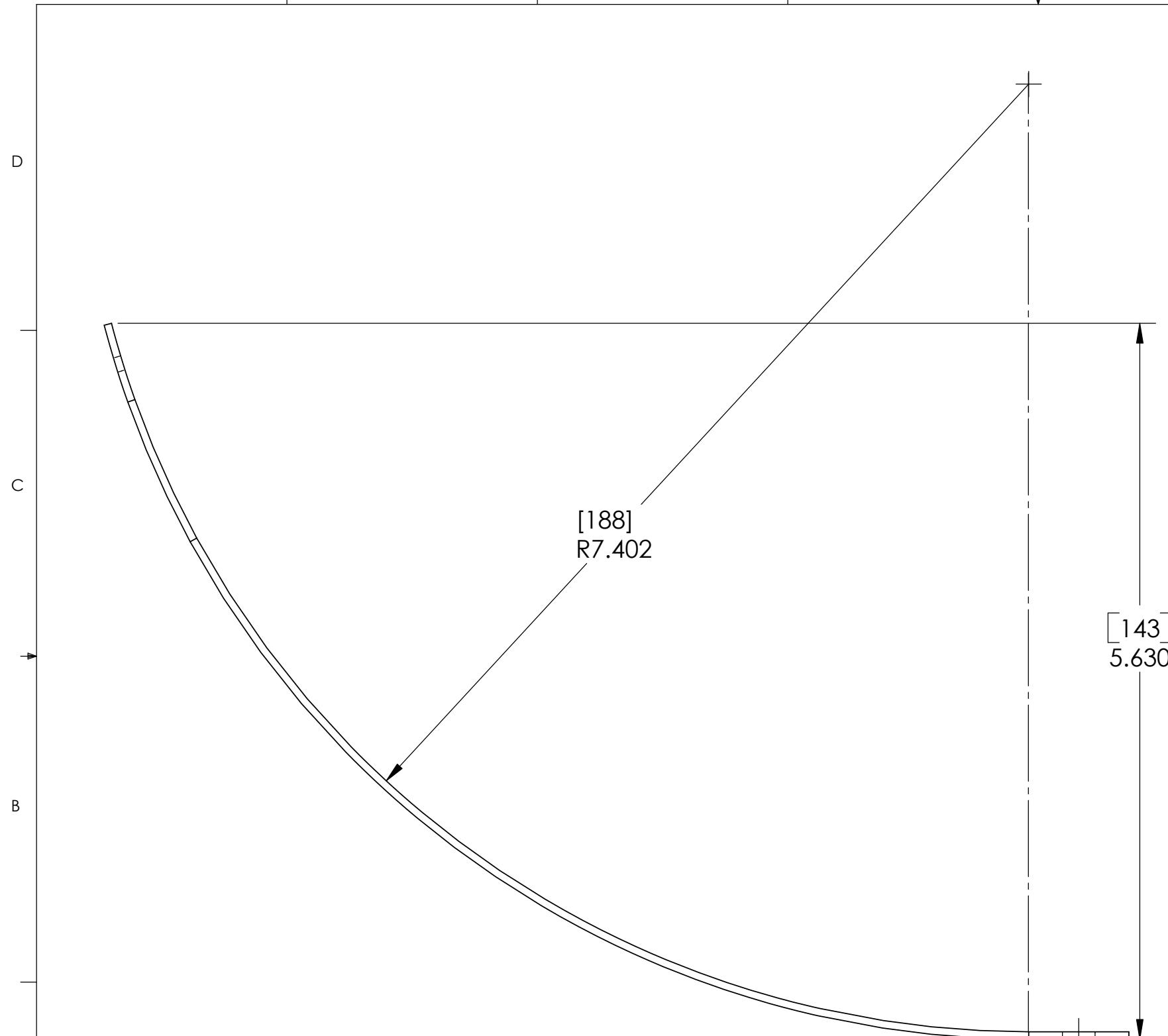
REV.	DATE	DCN #	DRAWING TREE #
A	24th JUNE 2004	E040303-00	



D020205\_UpperBlade.step

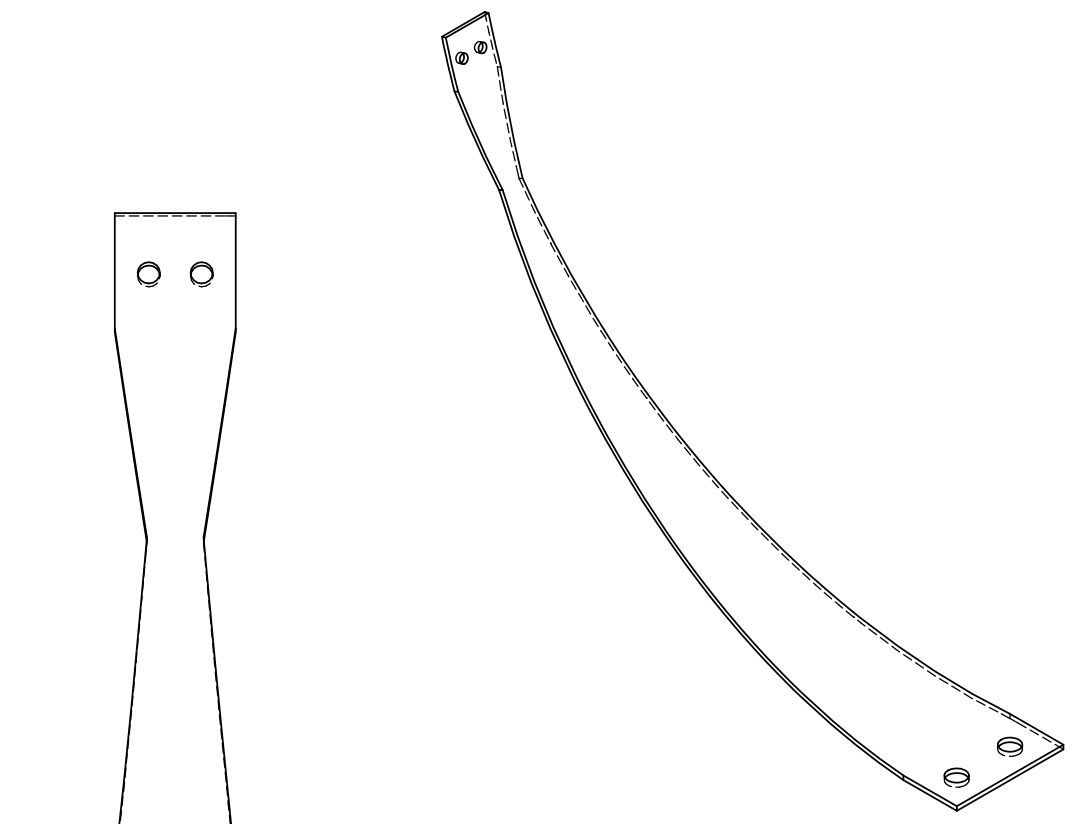
NOTES: (UNLESS OTHERWISE SPECIFIED)			PARTS LIST																
1. REMOVE ALL SHARP EDGES, R.02 MIN. 2. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410 (STAINLESS STEEL) ③ ENGRAVE OR STAMP DRAWING PART NUMBER ON NOTED SURFACE OF PART AND A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST PART AND PROCEED CONSECUTIVELY. USE .07" HIGH CHARACTERS. EXAMPLE: D020188-001. A VIBRATORY TOOL MAY BE USED. 4. VIEWS PRIOR TO FORMING 5. AFTER FORMING THE BLADES ARE ANNEALED AT 490 °C FOR 4 HOURS AND AIR COOLED BACK TO ROOM TEMPERATURE			DIMENSIONS ARE IN INCHES  TOLERANCES: .XX ± .01 .XXX ± .005  ANGULAR ± 0.5°																
MATERIAL MARAGING STEEL C250			CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY IGR. GLASGOW UNIVERSITY GEO 600 GROUP																
FINISH			SYSTEM ADVANCED LIGO																
<table border="1"> <thead> <tr> <th></th> <th>NAME</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>DRAWN</td> <td>CIT</td> <td>MAY02</td> </tr> <tr> <td>CHECKED</td> <td>MPL</td> <td>29MAY03</td> </tr> <tr> <td></td> <td>MVP</td> <td>29MAY03</td> </tr> <tr> <td>APPROVED</td> <td></td> <td></td> </tr> </tbody> </table>				NAME	DATE	DRAWN	CIT	MAY02	CHECKED	MPL	29MAY03		MVP	29MAY03	APPROVED			SUB-SYSTEM SUS	
	NAME	DATE																	
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CHECKED	MPL	29MAY03																	
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APPROVED																			
			NEXT ASSY MC UPPER BLADES																
			PART NAME UPPER BLADE																
			SIZE B	DWG. NO. D020205															
			SCALE: NTS	PROJECTION:															
			SHEET 1 OF 2																

REV.	DATE	DCN #	DRAWING TREE #



[143]  
5.630

[188]  
R7.402



NOTES: (UNLESS OTHERWISE SPECIFIED)		PARTS LIST	
<p>1. MANUFACTURE NOTES</p> <p>1.1 VIEWS SHOWN ARE THOSE AFTER FORMING AND ANNEALING.</p> <p>1.2 AS SHOWN, THE RADIUS OF CURVATURE IS THE INTERNAL RADIUS.</p> <p>1.3 AS SHOWN, THE OVERALL DEFLECTION IS MEASURED FROM THE BOTTOM OF THE BASE POINT TO THE HIGHEST POINT ON THE TIP OF THE BLADE.</p> <p>2. OTHER NOTES (FOR INTERNAL USE)</p> <p>2.1 SHAPE FACTOR FOR LOWER BLADE = 1.32</p> <p>2.2 LOAD ON LOWER BLADE (FLAT) = 4.6kg</p> <p>2.3 PREDICTED UNCOUPLED FREQUENCY = 2.3Hz</p> <p>2.4 PREDICTED FIRST INTERNAL MODE = 90Hz.</p> <p>(These were extrapolated from an earlier blade design using Equations highlighted in MVP blade paper)</p> <p>2.5 MAXIMUM STRESS = 745MPa</p> <p>2.6 SOLIDWORKS RADIUS VALUE OVER WRITTEN, WITH VALUE CALCULATED BY MVP.</p> <p>2.7 IN SW PART, BLADE MUST BE DRAWN WITH SHEET METAL AND EXTRUDED VERTICALLY DOWNWARDS.</p> <p>2.8 IN SW PART RADIUS SHOULD BE ADJUSTED TO ATTAIN DESIRED LENGTH ON DRAWING SHEET.</p>		<p>DIMENSIONS ARE IN INCHES</p> <p>TOLERANCES:</p> <p>.XX ± .01</p> <p>.XXX ± .005</p> <p>ANGULAR ± 0.5°</p>	
<p>MATERIAL</p>		<p>FINISH</p>	
<p>DRAWN</p> <p>CHECKED</p> <p>APPROVED</p>		<p>NAME</p> <p>DATE</p>	
<p>SCALE: NTS</p> <p>PROJECTION:</p>		<p>SYSTEM: <b>ADVANCED LIGO</b></p> <p>SUB-SYSTEM: <b>SUS</b></p> <p>NEXT ASSY: <b>MC: UPPER BLADE</b></p> <p>PART NAME: <b>UPPER BLADE</b></p>	
<p>SIZE: <b>B</b></p>		<p>DWG. NO.: <b>D020205</b></p>	
<p>FILE NAME/LOCATION:</p>		<p>REV.:</p>	