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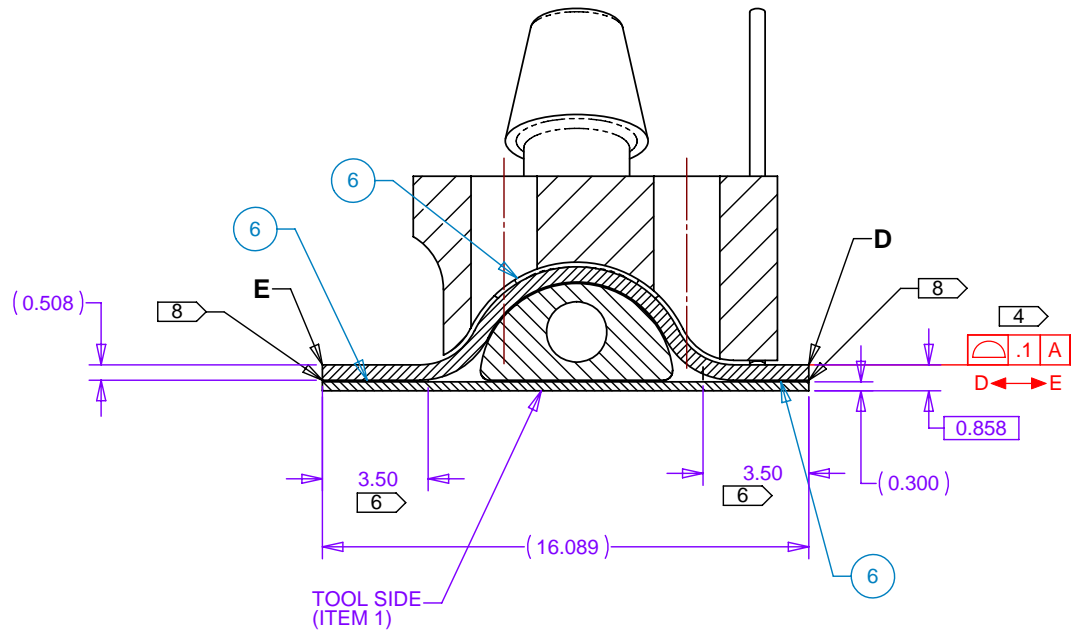
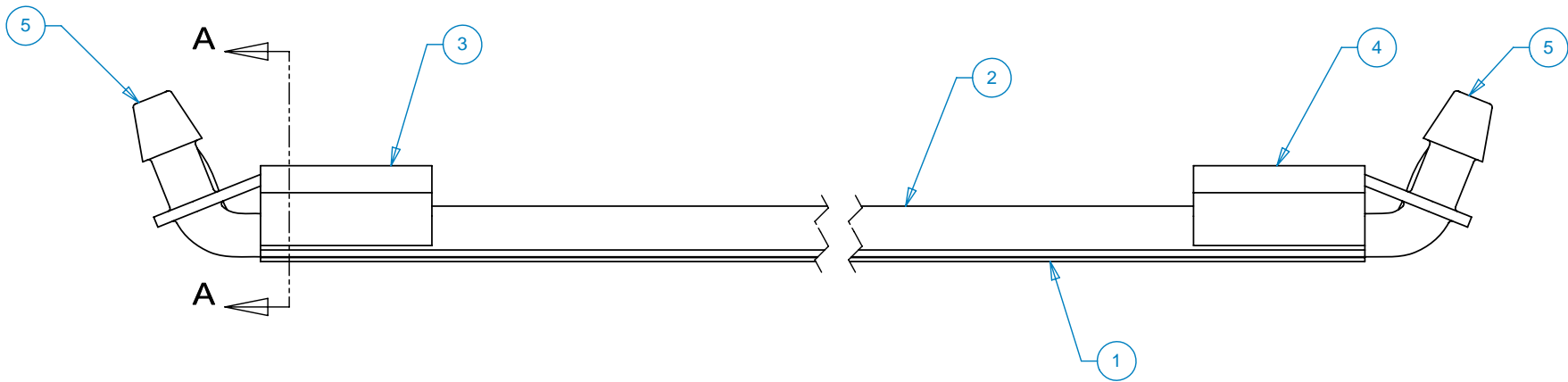
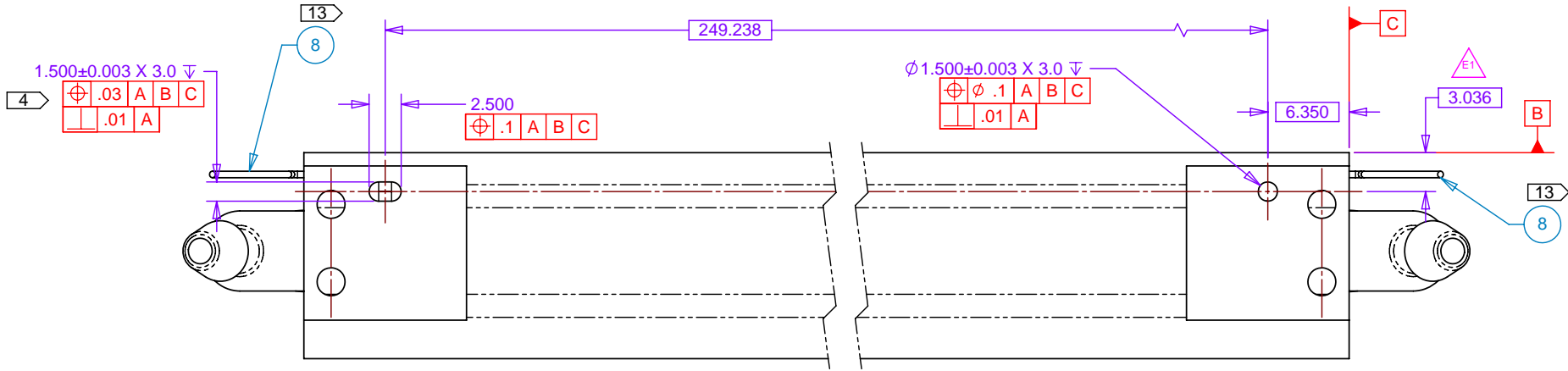
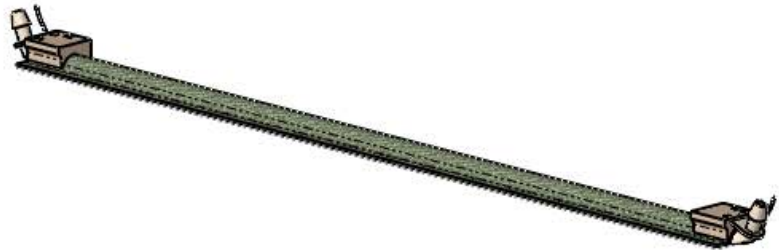
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REV	DESCRIPTION	DATE	APPROVED
A1	Added Items 11 & 12	01/16/08	RJ Ponchione
A2	Added Detail View E		
B1	249.238 was 244.475	02/11/08	RJ Ponchione
B2	6.350 was 8.731		
C	Added Item 11, Grounding Wire to Both Ends	07/02/08	RJ Ponchione
D1	Removed Co-Cured Bonded Assembly		
D2	Parallel .01 was Profile .1	07/21/08	RJ Ponchione
D3	Profile .10 was .01		
D4	4.036 was 3.036		
E1	3.036 was 4.036	07/28/08	RJ Ponchione



SECTION A-A
SCALE 8 : 1

SEE SHEET 2 FOR NOTES

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ITEM	QTY	PART NO.	DESCRIPTION	MATERIAL
1	1	111-PHX-02-2032-1	VTX Barrels 1 & 2 Stave Thermal Plane	
2	1	111-PHX-02-2033-1	VTX Barrels 1 & 2 Stave Omega Piece	
3	1	111-PHX-02-2035-1	VTX Barrels 1 & 2 Stave Left Fitting	
4	1	111-PHX-02-2037-1	VTX Barrels 1 & 2 Stave Right Fitting	
5	2	Supplied By Customer	Cooling Line Barb	
6	AR	HYSOL 9394	Epoxy Adhesive	HYSOL 9394
7	AR		Marking Ink	HYSOL M-9-N
8	AR		Ground Wire	
	-1	PARTS LIST		

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-		CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		HYTEC, INC	
DECIMALS .X = +/- .25 .XX = +/- .75 .XXX = +/- .250	ANGULAR = +/- 30' SURFACE FINISH = 250	FINISH		TITLE PHENIX CENTRAL UPGRADE VTX BARRELS 1 & 2 STAVE BONDED ASSEMBLY	
PART NO. 111-PHX-02-2031-1& 3		Designer Roger L. Smith	SIGNATURE Roger L. Smith	DATE 1/4/2008	DWG. NO. 111-PHX-02-2031
		Checked RJ Ponchione	Engineer RJ Ponchione	1/8/2008	SIZE D
		Approved RJ Ponchione		1/8/2008	SHEET NO. 1 of 2
					SCALE 4:1
					REVISION E

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NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS IN MILLIMETERS
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
3. PARTS TO BE THOROUGHLY CLEANED TO REMOVE ALL LOOSE PARTICULATES
- 4

 INDICATES CRITICAL ATTRIBUTE. MEASUREMENT SHALL BE MADE AND RECORDED BEFORE AND AFTER THERMAL CYCLING.
5. MARK "111-PHX-01-2123-__ REV " (CURRENT REVISION) AND "S/N XX" (WHERE XX IS A UNIQUE 2 DIGIT SERIAL NUMBER FOR EACH PART, STARTING WITH 01) IN APPROXIMATE LOCATION SHOWN WITH 3.0 ±0.5mm HIGH CHARACTERS USING INDELIBLE INK (ITEM 6).
- 6

 EPOXY BOND MUST COVER ENTIRE DIMENSION.
7. THERMAL CYCLE BONDED ASSEMBLY AFTER FINAL FABRICATION.
CYCLES: EIGHT, FROM +0°C TO +40°C
RAMP RATE: 2°C/MINUTE -1/+2°C
DWELL TIME: HOLD CHAMBER AT PLATEAU TEMPERATURE FOR 45 MINUTES
- 8

 ENSURE EPOXY ADHESIVE (ITEM 9) DOES NOT EXTEND BEYOND DIMENSION INDICATED.
- 9

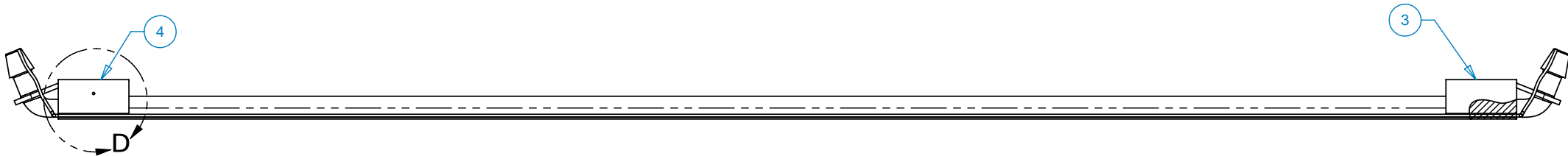
 DRILL VENT HOLE AFTER DRILLING PIN HOLE (ITEM 4).

11. BURST TEST AT 80psi FOR 1 MINUTE.

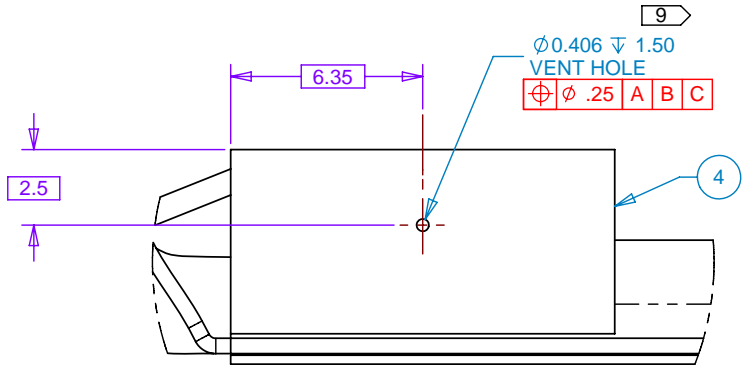
12. ASSEMBLY TO BE LEAK TIGHT TO 0.01 ml-mbar/sec. TESTING METHOD TO BE APPROVED BY HYTEC.
- 13

 GROUND WIRE INSTALLED AT TIME OF FABRICATION.

REV	DESCRIPTION	DATE	APPROVED
A1	Added Items 11 & 12	01/16/08	RJ Ponchione
A2	Added Detail View E		
B1	249.238 was 244.475	02/11/08	RJ Ponchione
B2	6.350 was 8.731		
C	Added Item 11, Grounding Wire to Both Ends	07/02/08	RJ Ponchione
D1	Removed Co-Cured Bonded Assembly	07/21/08	RJ Ponchione
D2	Parallel .01 was Profile .1		
D3	Profile .10 was .01		
D4	4.036 was 3.036		
E1	3.036 was 4.036	07/28/08	RJ Ponchione

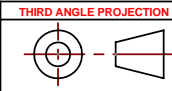


SECTION C-C
SEE SHEET 1



DETAIL D
SCALE 8 : 1

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DECIMALS .X = +/- .25 .XX = +/- .75 .XXX = +/- .250	ANGULAR = +/- .30' SURFACE FINISH = 250	FINISH		TITLE PHENIX CENTRAL UPGRADE VTX BARRELS 1 & 2 STAVE BONDED ASSEMBLY	
PART NO. 111-PHX-02-2031-1& 3		Designer	Roger L. Smith	DATE	1/4/2008
		Drawn	RJ Ponchione	1/8/2008	
		Checked	RJ Ponchione	1/4/2008	
		Approved	RJ Ponchione	1/8/2008	
		DWG. NO.	111-PHX-02-2031		SIZE
		SCALE	2:1		SHEET NO.
		REVISION	E		2 of 2

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REV	REVISIONS	DATE	APPROVED
	DESCRIPTION		
A	Added 1.02 diam. Hole	01/16/08	RJ Ponchione
B1	Removed 2X 1.02 Diam. Holes	07/01/08	RJ Ponchione
B2	7.678 was 7.178		
B3	16.089 was 15.589		

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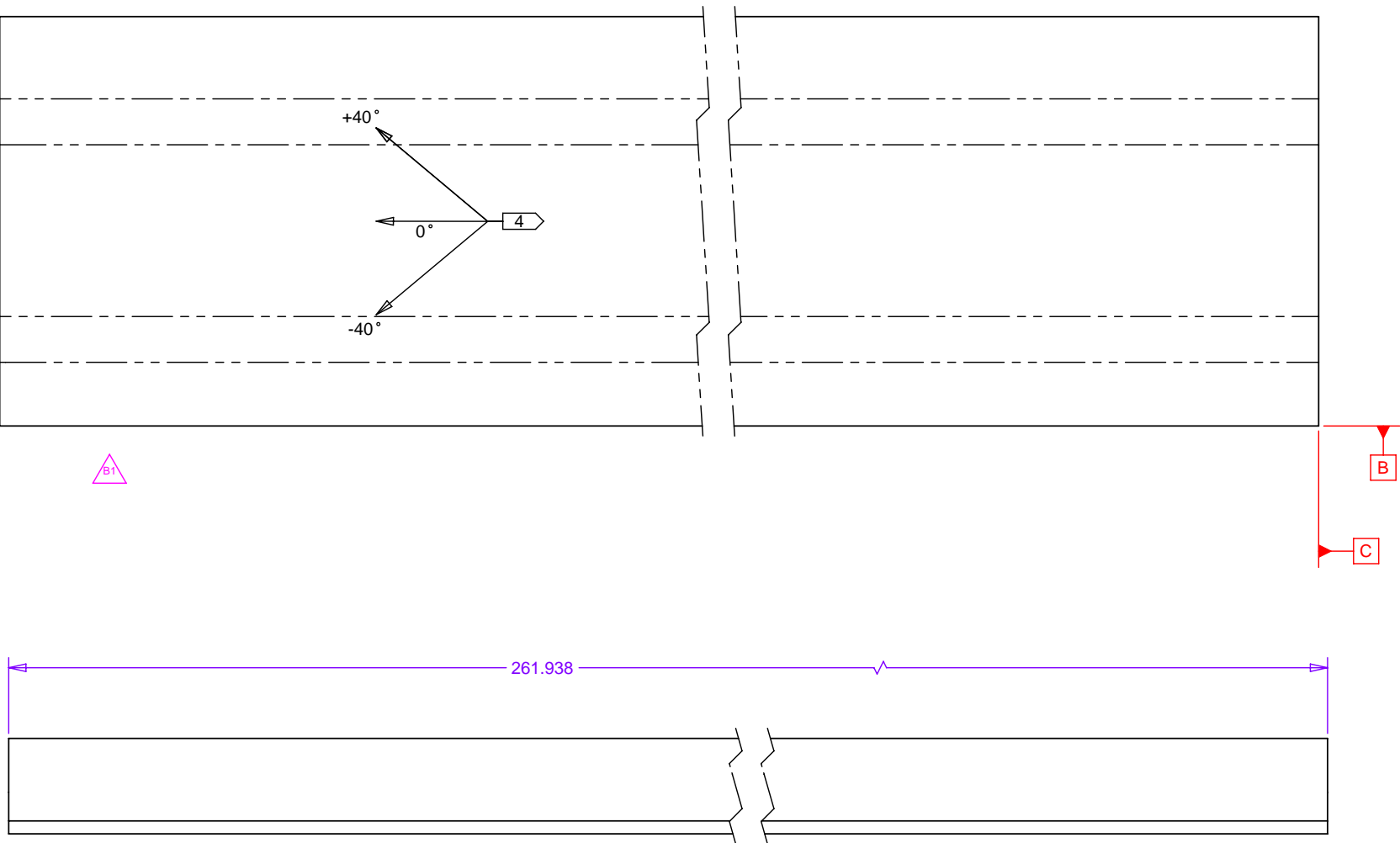
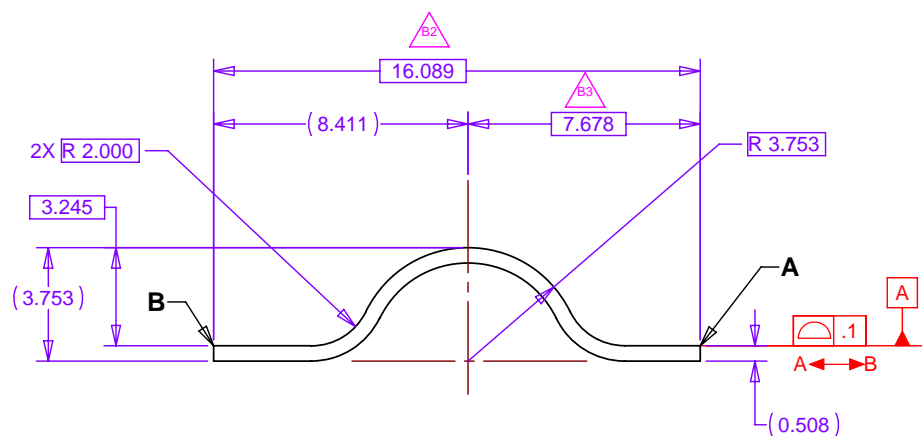
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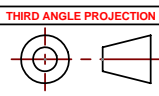
A



Mass = 4.0 grams (INFORMATION ONLY)

1. ALL DIMENSIONS IN MILLIMETERS.
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
3. DIMENSIONS ARE FOR FINAL PART SIZE AT ROOM TEMPERATURE (20°C, ± 5°C, 10-70% HUMIDITY) AFTER CURE.

4 MATERIAL: M55J/RS-3 GRAPHITE/CYANATE ESTER, 0.0025 INCH CPT, LAMINATED AND CURED PER SPECIFICATION TBD. ORIENTED [0/+40/0/-40]s, 8 PLYS, 0.020 INCHES TOTAL THICKNESS. FIBER VOLUME 59% ±3%, VOID CONTENT 2% MAX. ALTERNATE PREPREG AND CPT MAY BE USED WITH PRIOR WRITTEN APPROVAL OF HYTEC. MATERIAL CERTIFICATION SHALL BE SUPPLIED.



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DECIMALS .X = +/- .25 .XX = +/- .75 .XXX = +/- .250	ANGULAR = +/- .30° SURFACE FINISH = 250	TITLE PHENIX CENTRAL UPGRADE VTX BARRELS 1 & 2 STAVE OMEGA PIECE		DWG. NO. 111-PHX-02-2033	
FINISH		SIGNATURE		SIZE D	
PART NO. 111-PHX-02-2033-1		DATE		SHEET NO. 1 of 1	
DESIGNER		DESIGNER		SCALE 1:1	
DRAWN		DRAWN		REVISION C	
CHECKED		CHECKED			
ENGINEER		ENGINEER			
APPROVED		APPROVED			

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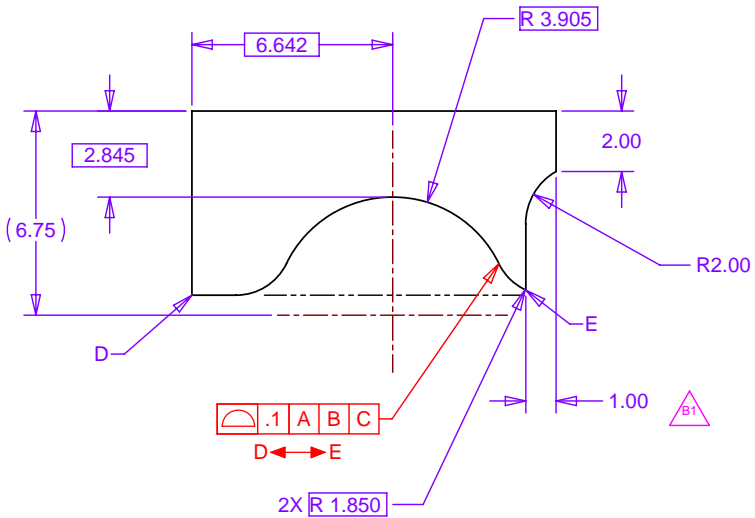
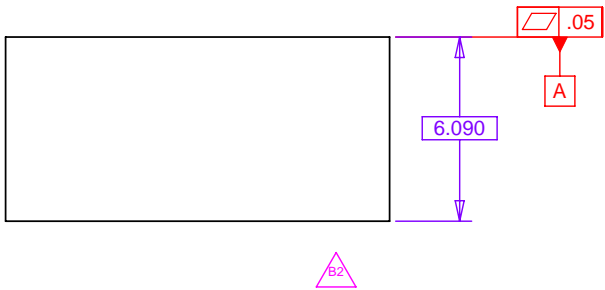
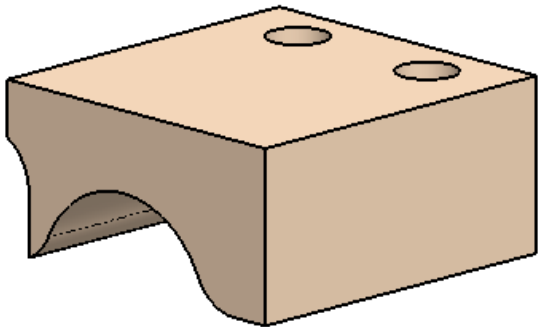
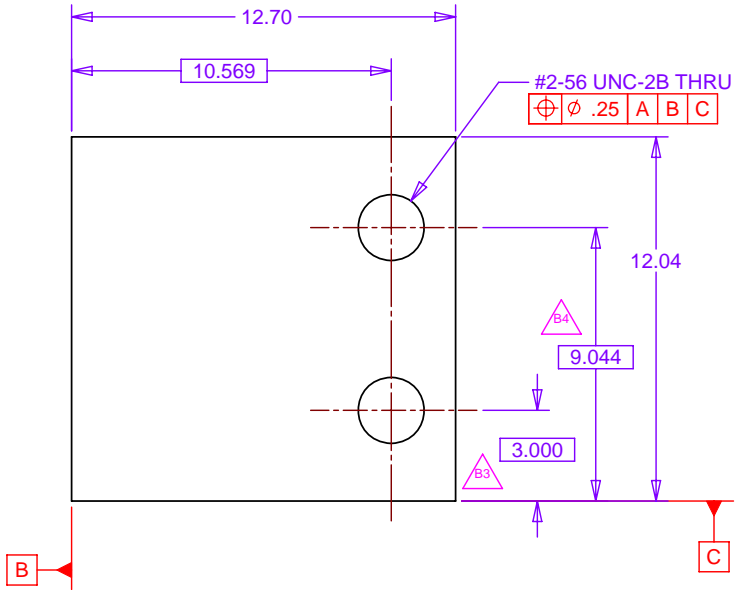
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REV	REVISIONS	DATE	APPROVED
	DESCRIPTION		
A	Added 1.02 diam. Slot	01/16/08	R.J Ponchione
B1	1.00 was .50		
B2	Removed 1.02 Diam. Slot		
B3	3.00 was 2.00		
B4	9.044 was 10.044	07/02/08	R.J Ponchione

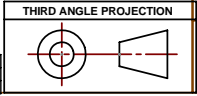


Mass = 1.0 grams (INFORMATION ONLY)

MATERIAL: UNFILLED PEEK

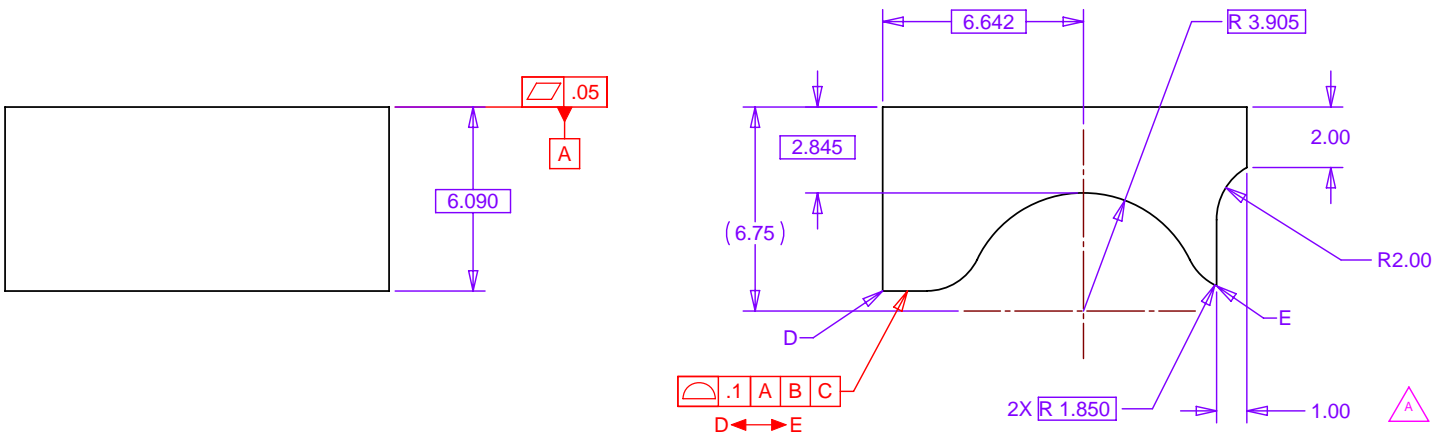
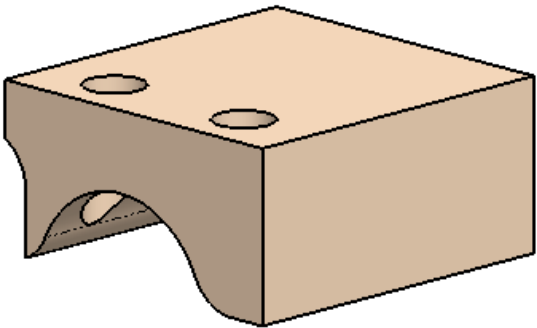
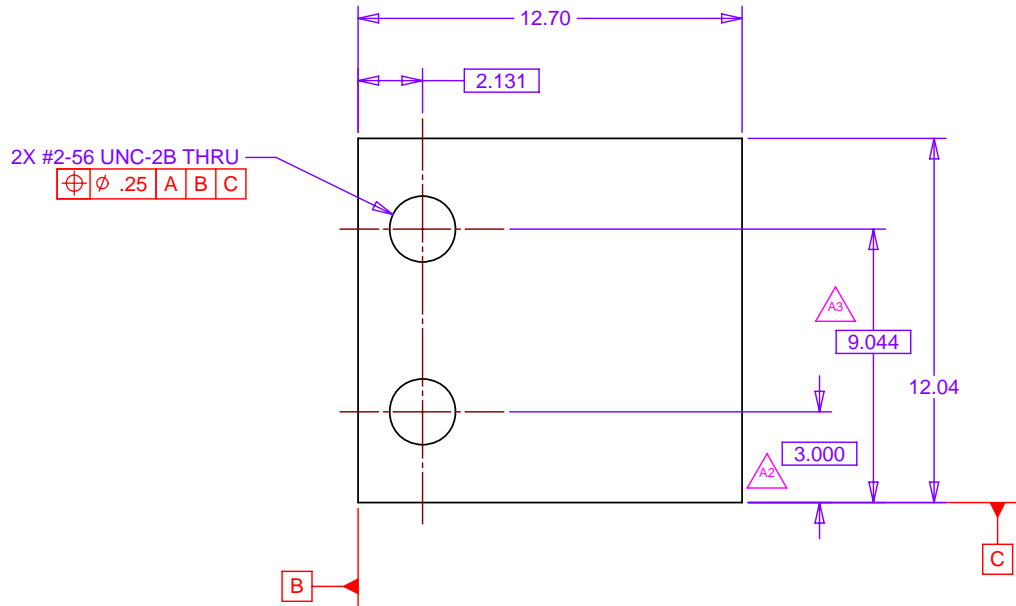
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1. ALL DIMENSIONS IN MILLIMETERS
 2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.

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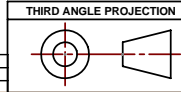
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS -TOLERANCES-		CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE DO NOT SCALE DRAWING		HYTEC, INC		
DECIMALS X = +/- .25 .XX = +/- .75 .XXX = +/- .250				TITLE <div>PHENIX CENTRAL UPGRADE</div> <div>VTX BARRELS 1 & 2 STAVE</div> <div>SLOTTED LEFT FITTING</div>		
FINISH			SIGNATURE	DATE	DWG. NO. <div>111-PHX-02-2035</div> <div>D</div> <div>1 of 1</div>	
PART NO. 111-PHX-02-2035-1,3 & 5		Designer	Roger L. Smith	1/4/2008		
		Drawn	Roger L. Smith	1/4/2008		
		Checked	RJ Ponchione	1/8/2008		
		Engineer	RJ Ponchione	1/4/2008		
		Approved	RJ Ponchione	1/8/2008	SCALE 8:1	REVISION B

	REVISIONS			
REV	DESCRIPTION		DATE	APPROVED
A1	1.00 was .50		07/10/08	RJ Ponchione
A2	3.000 was 2.000			
A3	9.044 was 10.044			



MATERIAL: UNFILLED PEEK Mass = 1.0 grams (INFORMATION ONLY)

- NOTES: UNLESS OTHERWISE SPECIFIED
- ALL DIMENSIONS IN MILLIMETERS
 - DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.



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DECIMALS .X = +/- .25 .XX = +/- .75 .XXX = +/- .250				TITLE PHENIX CENTRAL UPGRADE VTX BARRELS 1 & 2 STAVE RIGHT FITTING	
ANGULAR = +/- .30'				DWG. NO.	
SURFACE FINISH = 250				SIZE	
FINISH				SHEET NO.	
		Designer	Roger L. Smith	1/4/2008	
		Drawn	Roger L. Smith	1/4/2008	
		Checked	RJ Ponchione	1/8/2008	
		Engineer	RJ Ponchione	1/4/2008	
		Approved	RJ Ponchione	1/8/2008	
PART NO. 111-PHX-02-2037-1,3 & 5				111-PHX-02-2037 D 1 of 1	
				SCALE 8:1	REVISION A