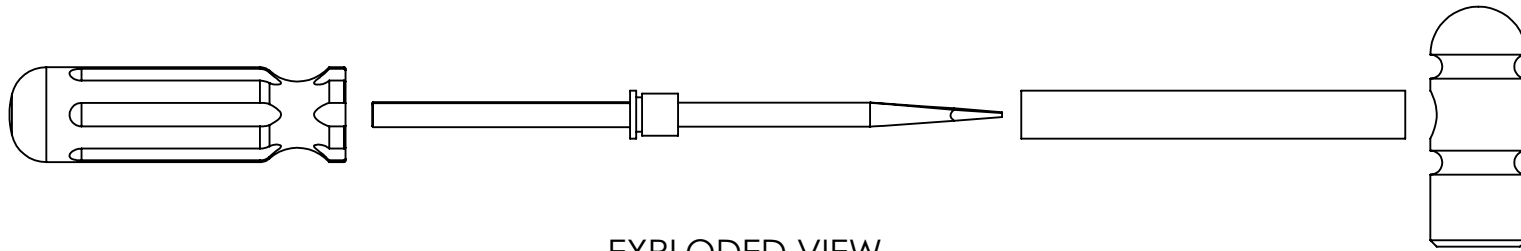
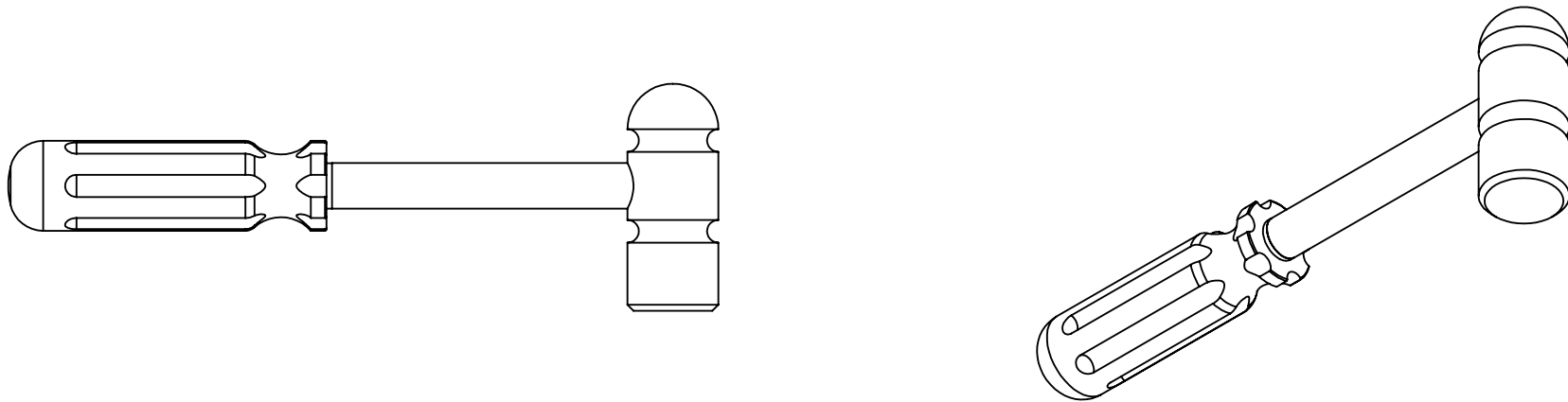


EGR100 Hammer Screwdriver Project

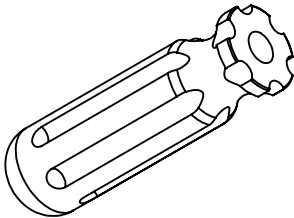
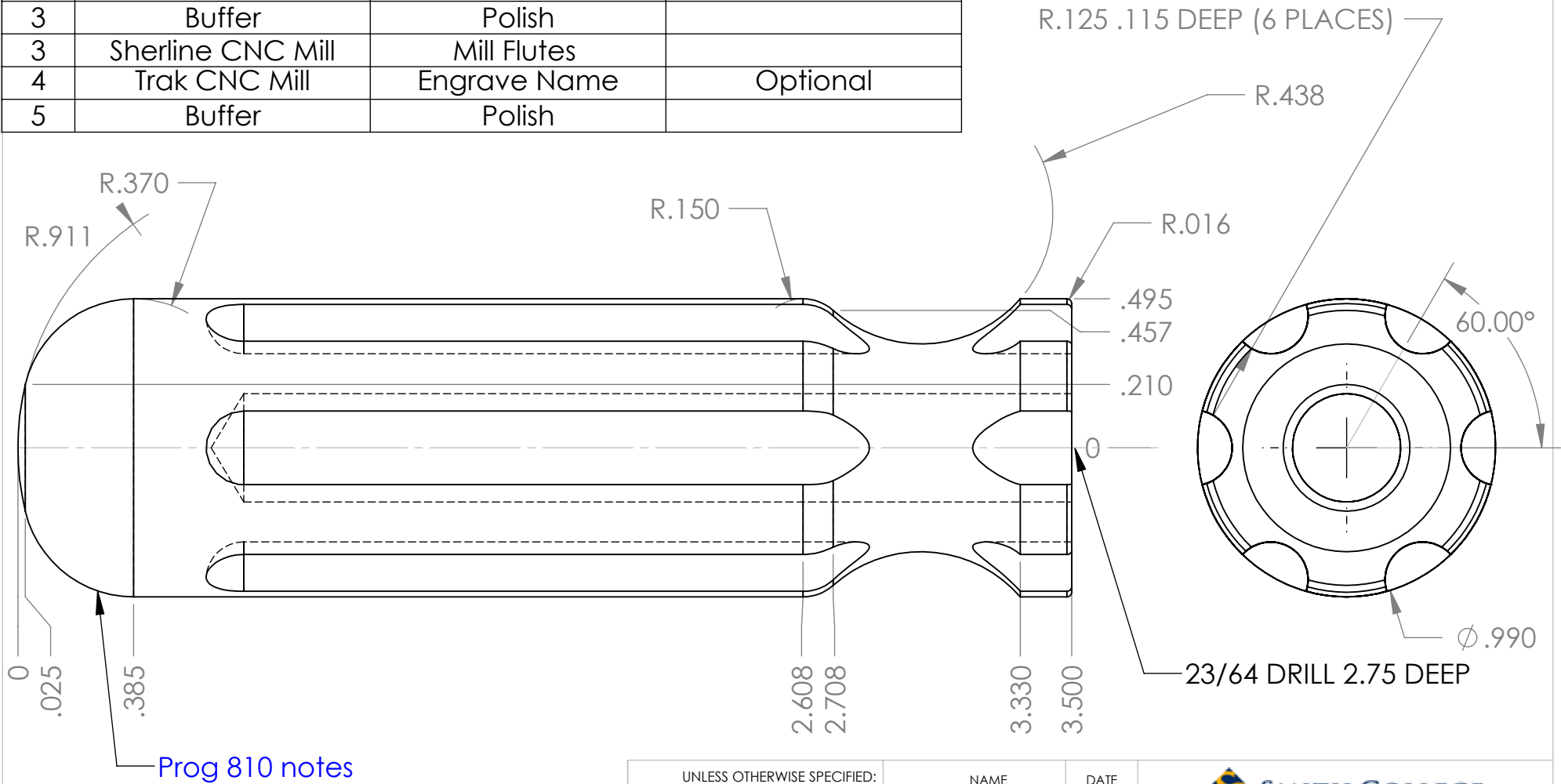


EXPLODED VIEW



UNLESS OTHERWISE SPECIFIED:		NAME		DATE		 SMITH COLLEGE		
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/32"$ ANGULAR: MACH $\pm .5$ BEND $\pm$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$		DRAWN	EJJ	7/16/09	Hammer Assembly			
		CHECKED	D&G	7/16/09				
		ENG APPR.						
		MFG APPR.						
		INTERPRET DRAWING PER: ASME Y14.5-1994		QUAL APPR.			SIZE	Part
MATERIAL		COMMENTS:			A			3
Steel/Acrylic								
FINISH								
REMOVE ALL SHARP EDGES AND BURRS		SCALE: 2:1			WEIGHT:		SHEET 1 OF 6	

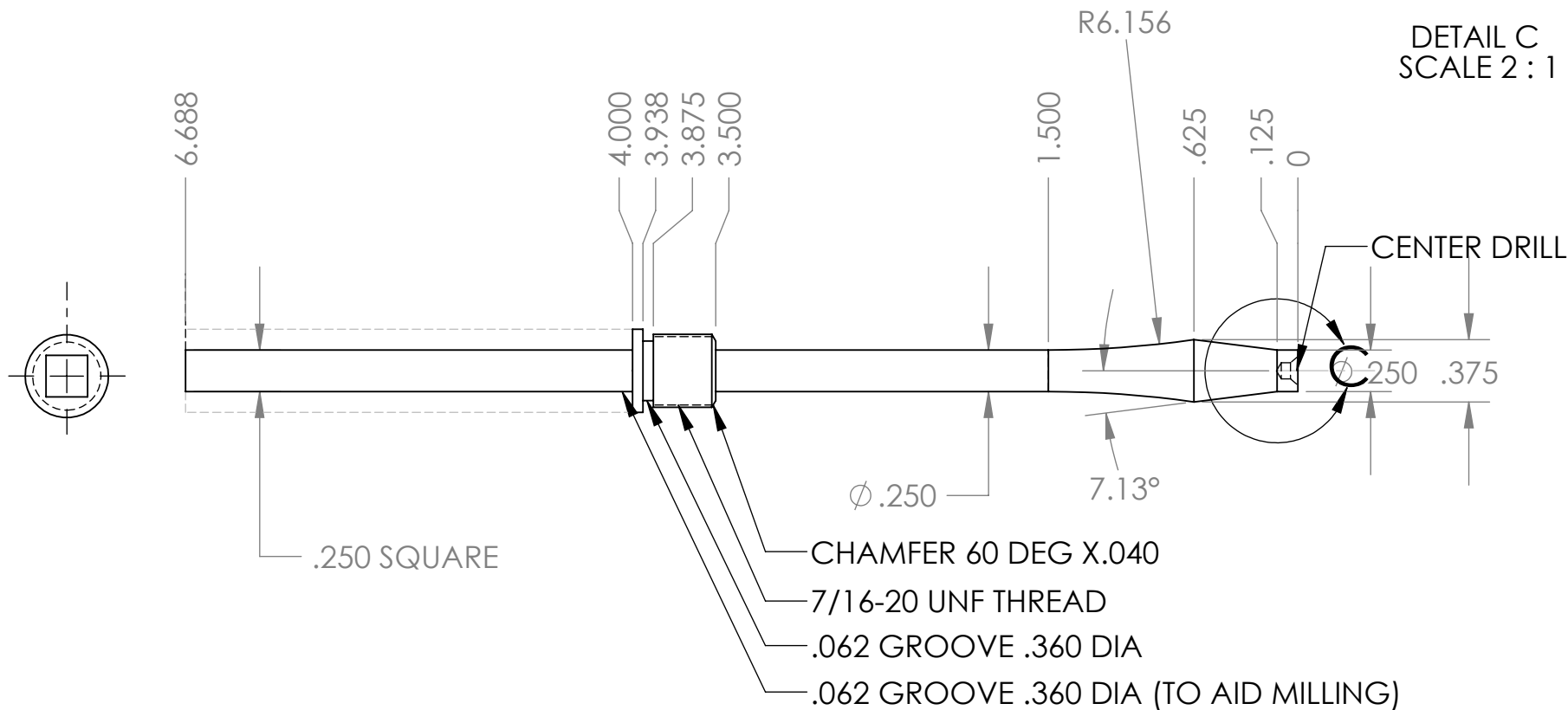
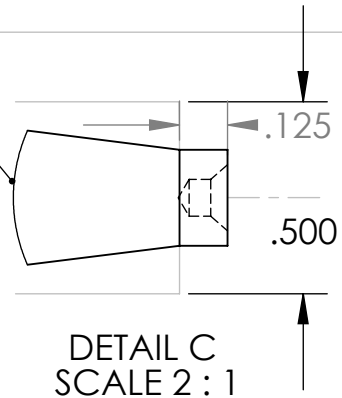
Operations List			
1	Trak CNC Lathe	Turn radiuses, Cutoff	Program 810
2	Trak CNC Lathe	Face Cleanup, Drill	DRO
3	Buffer	Polish	
3	Sherline CNC Mill	Mill Flutes	
4	Trak CNC Mill	Engrave Name	Optional
5	Buffer	Polish	



UNLESS OTHERWISE SPECIFIED:		NAME		DATE		 SMITH COLLEGE					
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .5 BEND ± TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005		DRAWN EJJ		7/16/09		Hammer Handle					
		CHECKED D&G		7/16/09							
		ENG APPR.									
		MFG APPR.									
		QUAL APPR.									
INTERPRET DRAWING PER: ASME Y14.5-1994		COMMENTS:		SIZE		Part		PART REV		DOC REV	
MATERIAL Clear Acrylic				A						3	
FINISH											
REMOVE ALL SHARP EDGES AND BURRS				SCALE: 1:2		WEIGHT:		SHEET 2 OF 6			

OPERATIONS LIST		
1	Saw	Cut stock to 6-7/8 length
2	Trak CNC Lathe	Face/Turn/Center Drill one end
1	Trak CNC Lathe	Turn profile/Thread/Groove Prog 710
2	Bridgeport	Mill .250 square flats
3	Wire brush wheel	Burnish threads

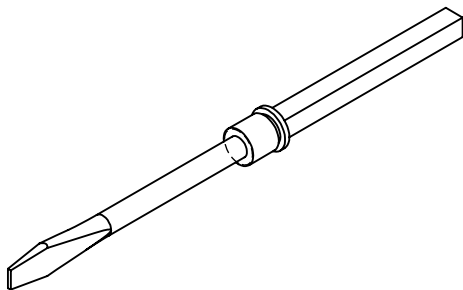
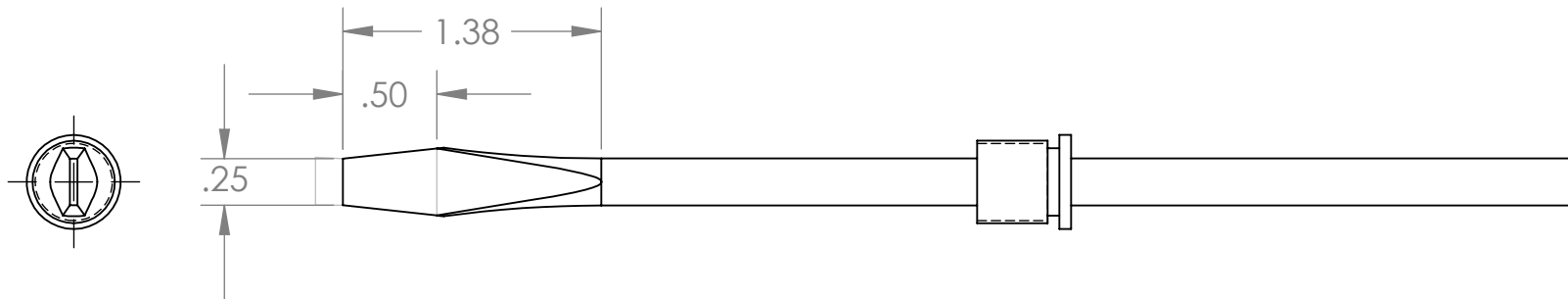
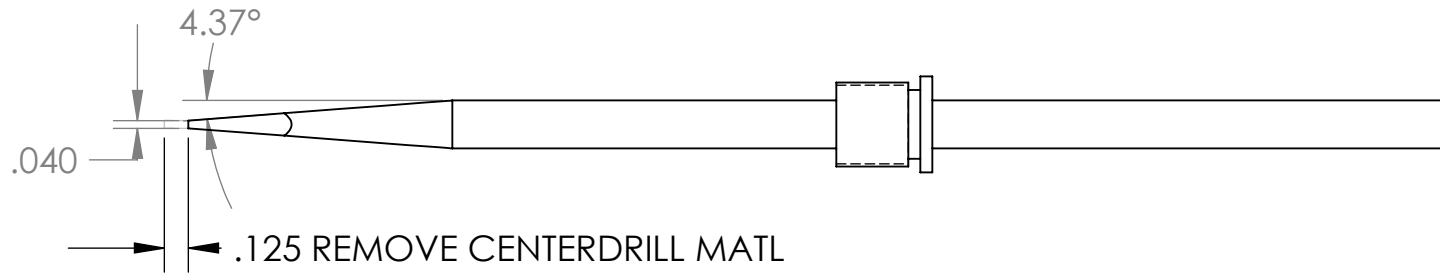
Prog 710 notes



UNLESS OTHERWISE SPECIFIED:		NAME		DATE		 SMITH COLLEGE							
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/32"$ ANGULAR: MACH $\pm .5$ BEND $\pm$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$		DRAWN EJJ		7/16/09		CNC turned shaft							
		CHECKED D&G		7/16/09									
		ENG APPR.											
		MFG APPR.											
		QUAL APPR.											
INTERPRET DRAWING PER: ASME Y14.5-1994		COMMENTS:				SIZE		Part		PART REV		DOC REV	
MATERIAL Steel						A						3	
FINISH													
REMOVE ALL SHARP EDGES AND BURRS						SCALE: 1:1		WEIGHT:				SHEET 3 OF 6	

OPERATIONS LIST

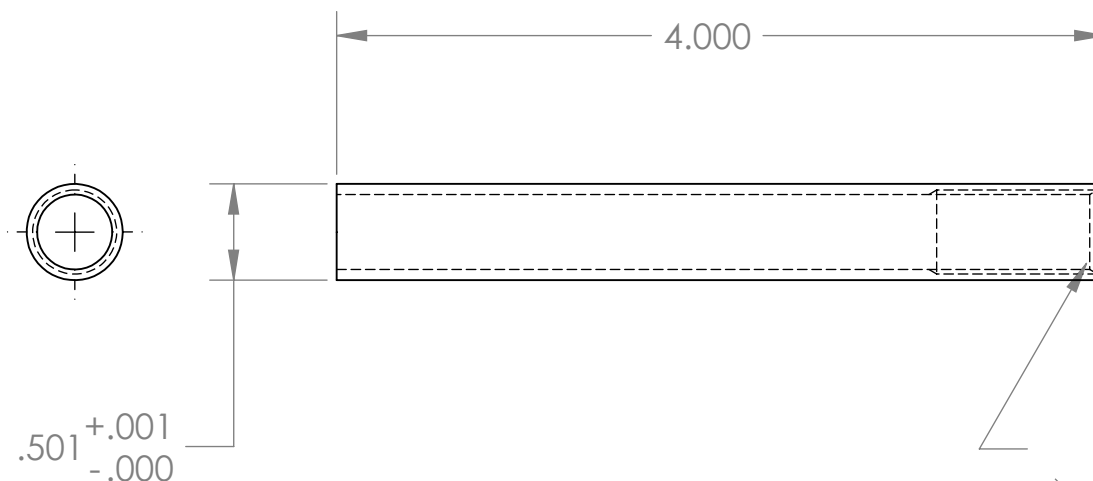
1	Trak Mill	Machine blade shape/trim end
2	Torch/casenite	Heat treat and temper blade
3	1" belt sander	Polish blade faces
4	emery cloth	Polish



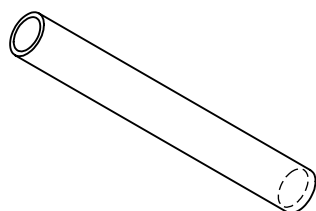
UNLESS OTHERWISE SPECIFIED:		NAME		DATE		 SMITH COLLEGE			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/32"$ ANGULAR: MACH $\pm .5$ BEND $\pm$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$		DRAWN EJJ		7/16/09					
		CHECKED D&G		7/16/09					
		ENG APPR.							
		MFG APPR.							
		QUAL APPR.							
INTERPRET DRAWING PER: ASME Y14.5-1994		COMMENTS:				Finished Blade Shaft			
MATERIAL Steel									
FINISH									
REMOVE ALL SHARP EDGES AND BURRS						SIZE A	Part	PART REV	DOC REV 3
						SCALE: 1:1	WEIGHT:	SHEET 4 OF 6	

OPERATIONS LIST

1	Saw	Cut stock to 5 inch length
2	Engine Lathe	Face end/Countersink
3	Engine Lathe	Drill
4	Engine Lathe	Tap (Use tap guide, tailstock)
5	Engine Lathe	Turn Diameter (use tailstock)
6	Engine Lathe	Cutoff (use spacer blocks)

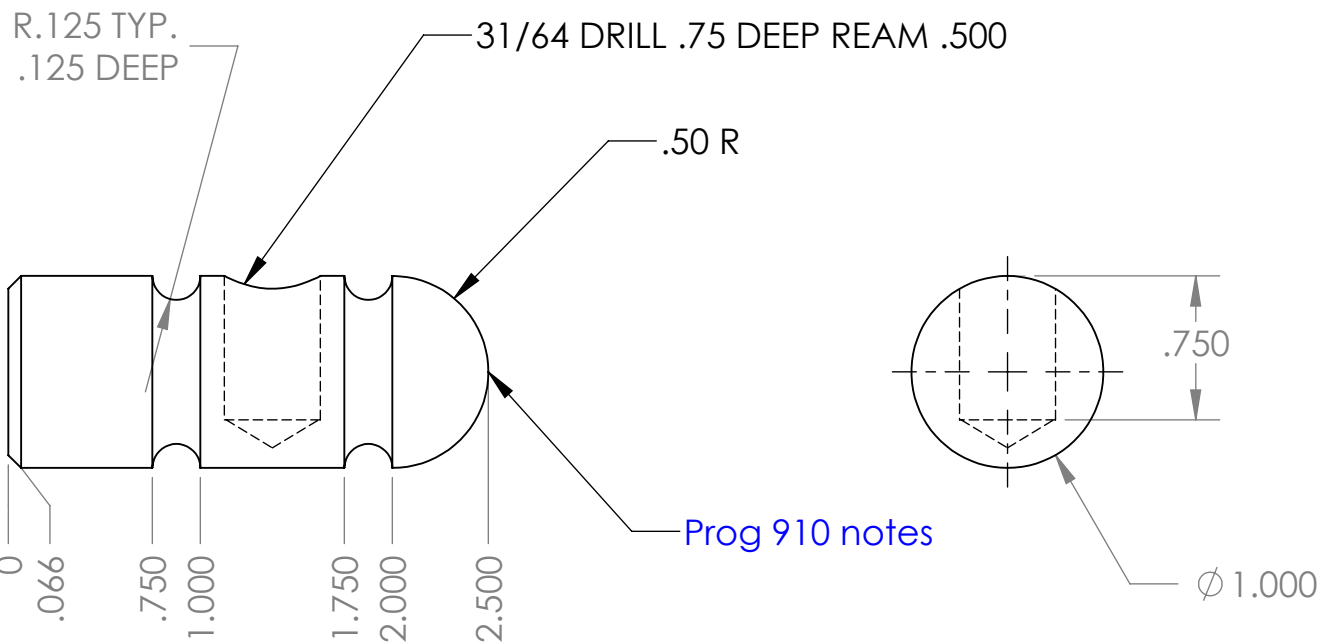


ϕ .391 THRU ALL
 7/16-20 UNF ∇ .875
 $\checkmark$ ϕ .481 X 60°, NEAR SIDE



UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 SMITH COLLEGE	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm$ 1/32" ANGULAR: MACH $\pm$.5 BEND $\pm$ TWO PLACE DECIMAL $\pm$.01 THREE PLACE DECIMAL $\pm$.005		DRAWN EJJ	7/16/09		
INTERPRET DRAWING PER: ASME Y14.5-1994 MATERIAL Black Water Pipe FINISH REMOVE ALL SHARP EDGES AND BURRS		CHECKED D&G	7/16/09	Tube	
		ENG APPR.			
		MFG APPR.			
		QUAL APPR.			
		COMMENTS:		SIZE A	Part
				SCALE: 1:1	WEIGHT:
					SHEET 5 OF 6

OPERATIONS LIST		
1	Saw	Cutoff 2-5/8 inch length
2	Engine Lathe	Face/chamfer one end
3	Engine Lathe	Turn Grooves
4	Engine Lathe	Knurl
5	Trak CNC Lathe	Radius head, Program 910
6	Bridgeport	Drill/Ream (use fixture block to locate centers)



UNLESS OTHERWISE SPECIFIED:		NAME		DATE		SMITH COLLEGE					
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .5 BEND ± TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005		DRAWN EJJ		7/16/09		Hammer Head					
		CHECKED D&G		7/16/09							
		ENG APPR.									
		MFG APPR.									
		QUAL APPR.									
INTERPRET DRAWING PER: ASME Y14.5-1994		COMMENTS:		SIZE		Part		PART REV		DOC REV	
MATERIAL Steel				A						3	
FINISH											
REMOVE ALL SHARP EDGES AND BURRS				SCALE: 1:1		WEIGHT:				SHEET 6 OF 6	