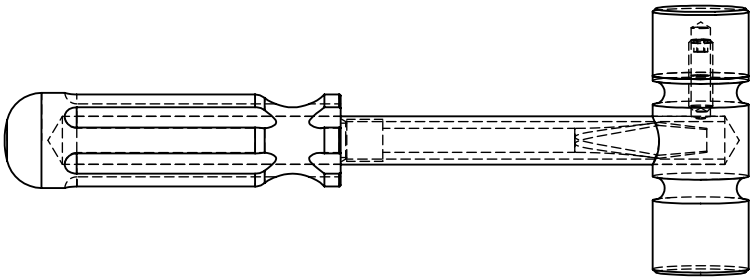
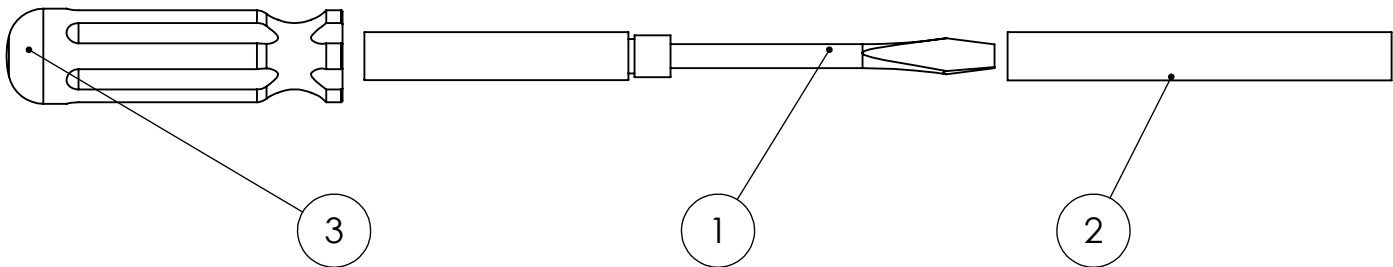
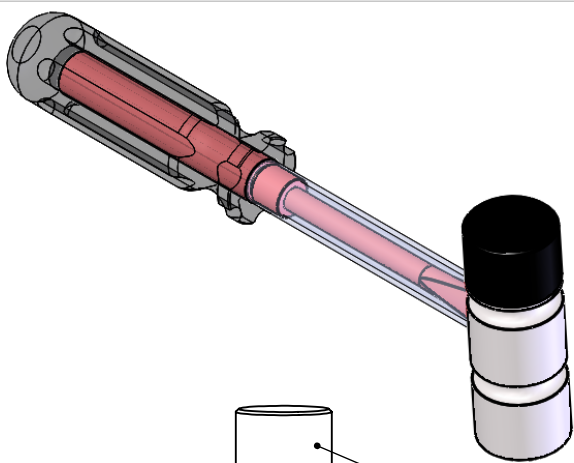

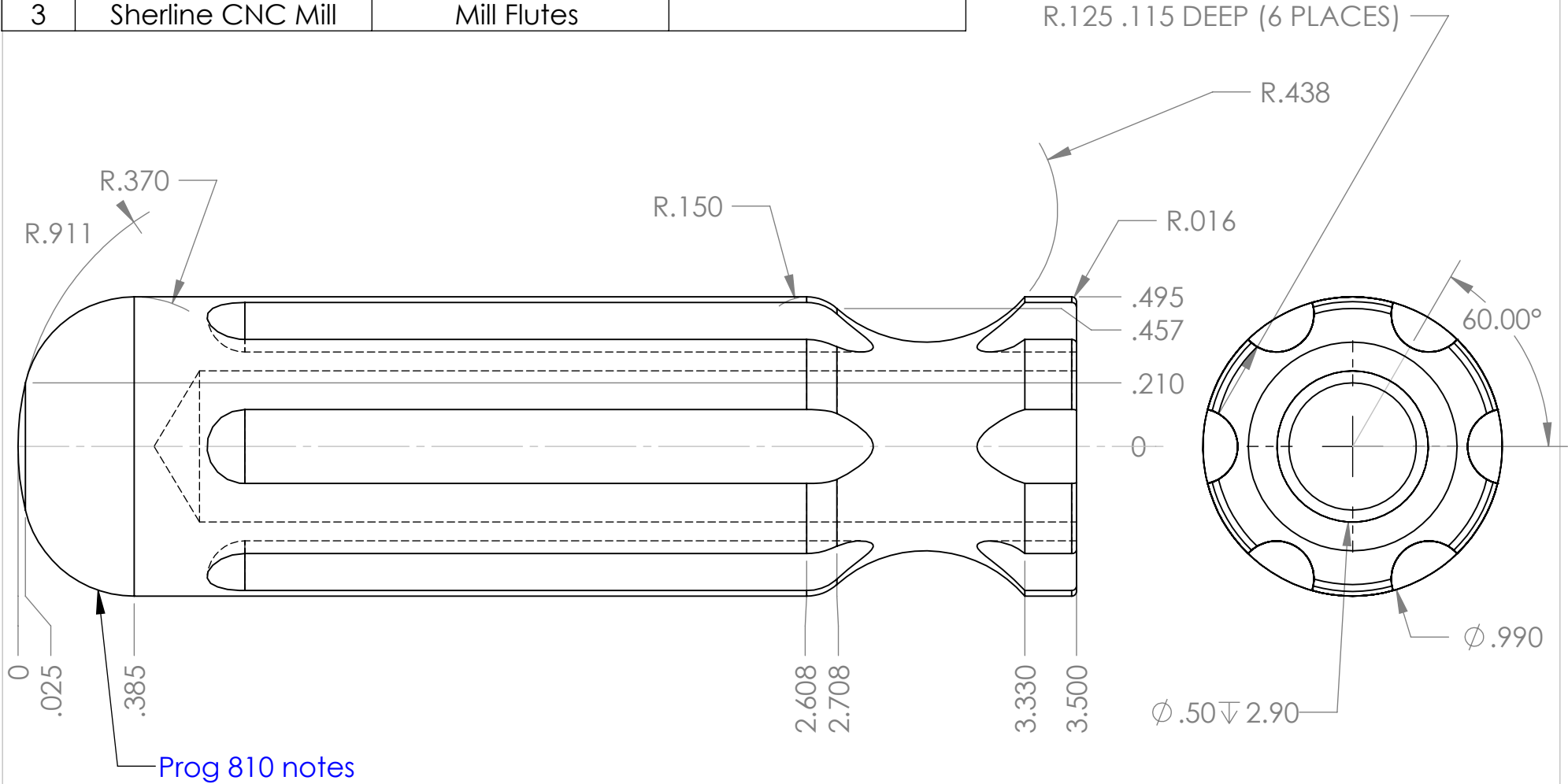



ITEM NO.	PART NUMBER	DESCRIPTION	round shaft/QTY.
1	driver_shaft_01	Finished Blade Shaft	1
2	tube_01	Tube	1
3	handle_03	Hammer Handle	1
4	Head_plastic_face	Hammer Head	1
5	Head_plastic_face_2	Plastic Face	1
6	socket set screw cup point_ai	1/4-20x.75 Set Screw	1



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .5 BEND ± TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005 INTERPRET DRAWING PER: ASME Y14.5-1994	MATERIAL Steel/Acrylic		Hammer Assembly				 SMITH COLLEGE			
	FINISH									
	COMMENTS: Assembly Procedure: Screw shaft to tube. Press tube into head. Press handle onto shaft. Install set screw in head. Screw plastic face onto head.		DRAWN EJJ	DATE 2/19/2015	SIZE Part A 100	PART REV	DOC REV 10			
			CHECKED DKR	DATE 2/19/2015						
			REMOVE ALL SHARP EDGES AND BURRS				SCALE: 1:2	WEIGHT:	SHEET 1 OF 7	

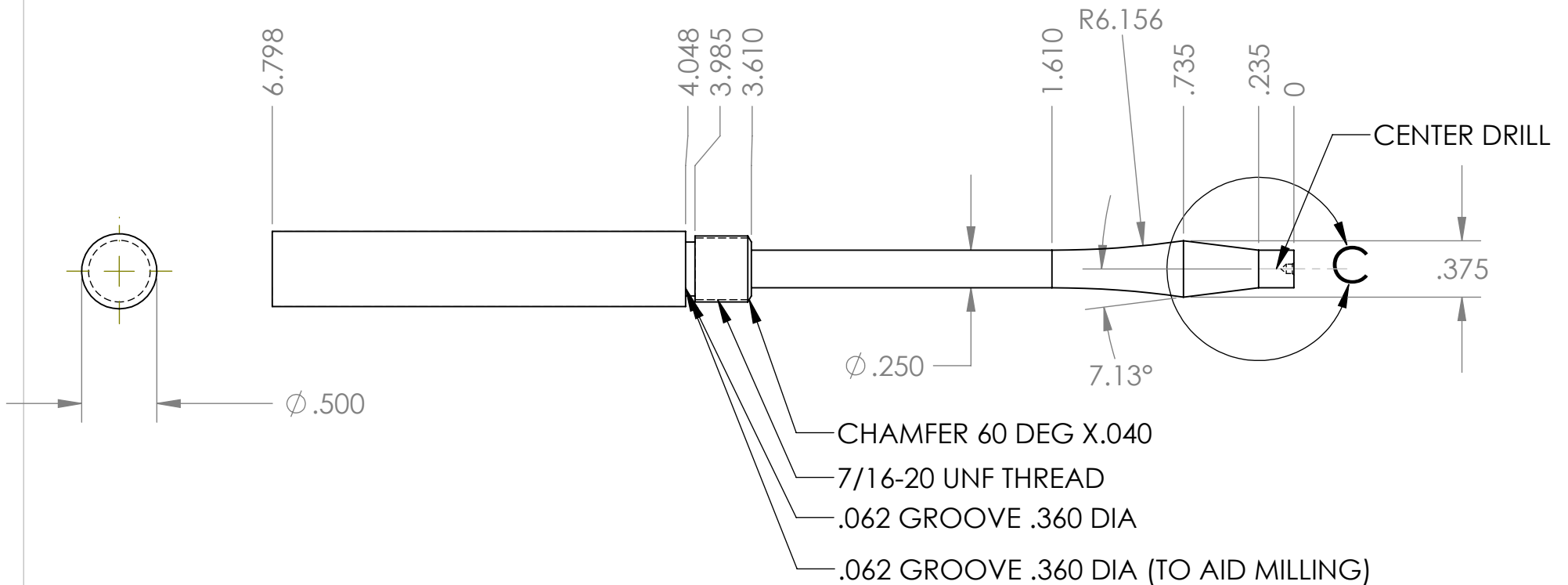
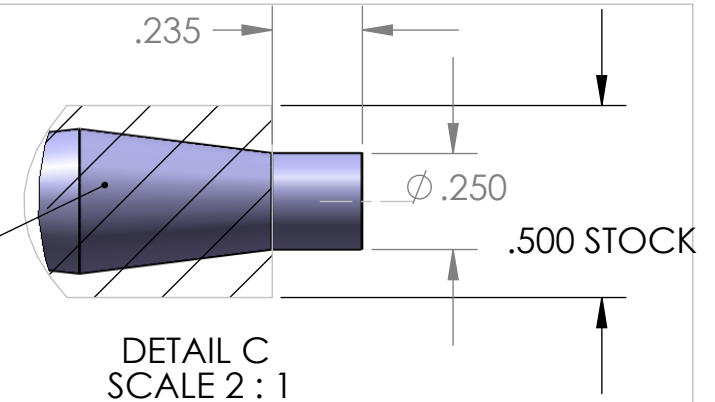
Operations List			
1	Trak CNC Lathe	Turn radiuses, Cutoff	Program 810
2	Trak CNC Lathe	Face Cleanup, Drill	DRO
3	Sherline CNC Mill	Mill Flutes	



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .5 BEND ± TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005 INTERPRET DRAWING PER: ASME Y14.5-1994	MATERIAL Acetel		Hammer Handle			 SMITH COLLEGE			
	FINISH								
	COMMENTS: Assembly Procedure: Screw shaft to tube. Press tube into head. Press handle onto shaft. Install set screw in head. Screw plastic face onto head.		DRAWN EJJ	DATE 2/19/2015	SIZE A	Part 100	PART REV	DOC REV 10	
			CHECKED DKR	DATE 2/19/2015					
			REMOVE ALL SHARP EDGES AND BURRS			SCALE: 1:2		WEIGHT:	SHEET 2 OF 7
5	4	3	2	Hammer_plastic_face_02		1			

OPERATIONS LIST		
1	Saw	Cut stock to 6-7/8 length
2	Trak CNC Lathe	Face/Turn/Center Drill one end
3	Trak CNC Lathe	Turn profile/Thread/Groove Prog 711
4	Wire brush wheel	Burnish threads

Prog 711 notes



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES

TOLERANCES:

FRACTIONAL $\pm 1/32"$

ANGULAR: MACH $\pm .5$ BEND \pm

TWO PLACE DECIMAL $\pm .01$

THREE PLACE DECIMAL $\pm .005$

INTERPRET DRAWING PER: ASME Y14.5-1994

MATERIAL Low Carbon Steel

FINISH

COMMENTS:

Assembly Procedure: Screw shaft to tube. Press tube into head. Install set screw in head. Screw plastic face onto head.

CNC turned shaft

DRAWN

EJJ

DATE

2/19/2015

CHECKED

DKR

DATE

2/19/2015

REMOVE ALL SHARP EDGES AND BURRS



SIZE

A

Part

100

PART REV

DOC REV

10

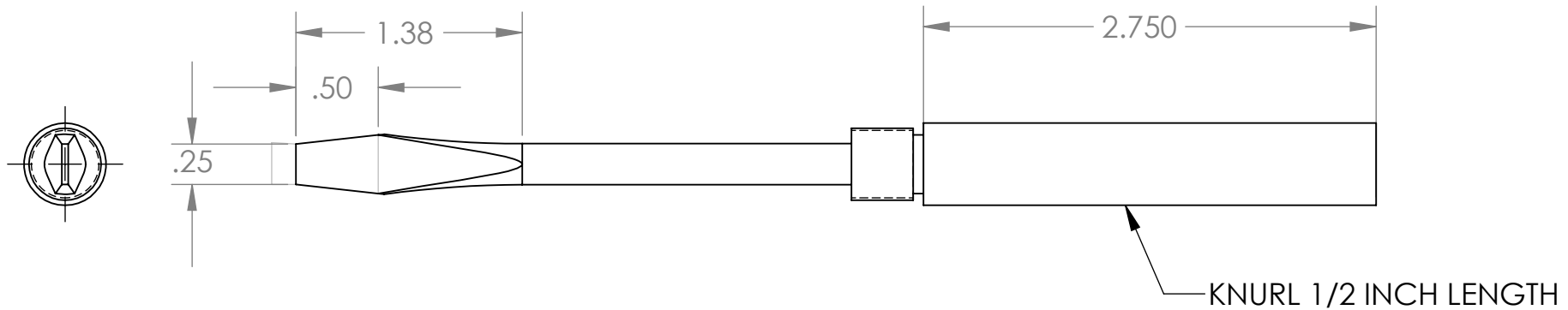
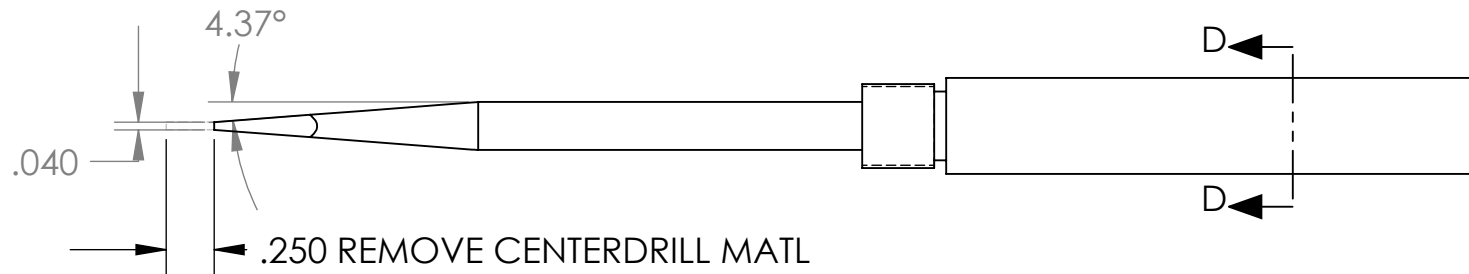
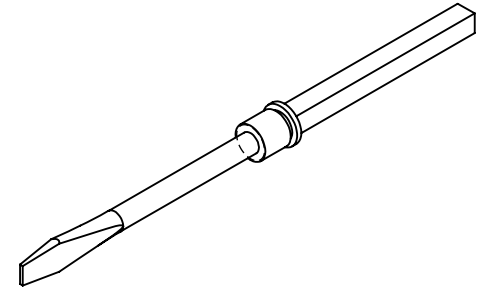
SCALE: 1:1

WEIGHT:

SHEET 3 OF 7

OPERATIONS LIST

1	Emery cloth	Polish shaft
2	Trak Mill	Machine blade shape/trim end/Engrave
3	Torch/casenite	Heat treat and temper blade
4	Emery cloth	Polish blade faces
5	Lathe	Knurl 1/2" of shaft for friction fit



UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES:
 FRACTIONAL $\pm 1/32"$
 ANGULAR: MACH $\pm .5$ BEND \pm
 TWO PLACE DECIMAL $\pm .01$
 THREE PLACE DECIMAL $\pm .005$
 INTERPRET DRAWING PER: ASME Y14.5-1994

MATERIAL Low Carbon Steel
 FINISH
 COMMENTS:
 Assembly Procedure: Screw shaft to tube. Press tube into head. Press handle onto shaft. Install set screw in head. Screw plastic face onto head.

Finished Blade Shaft

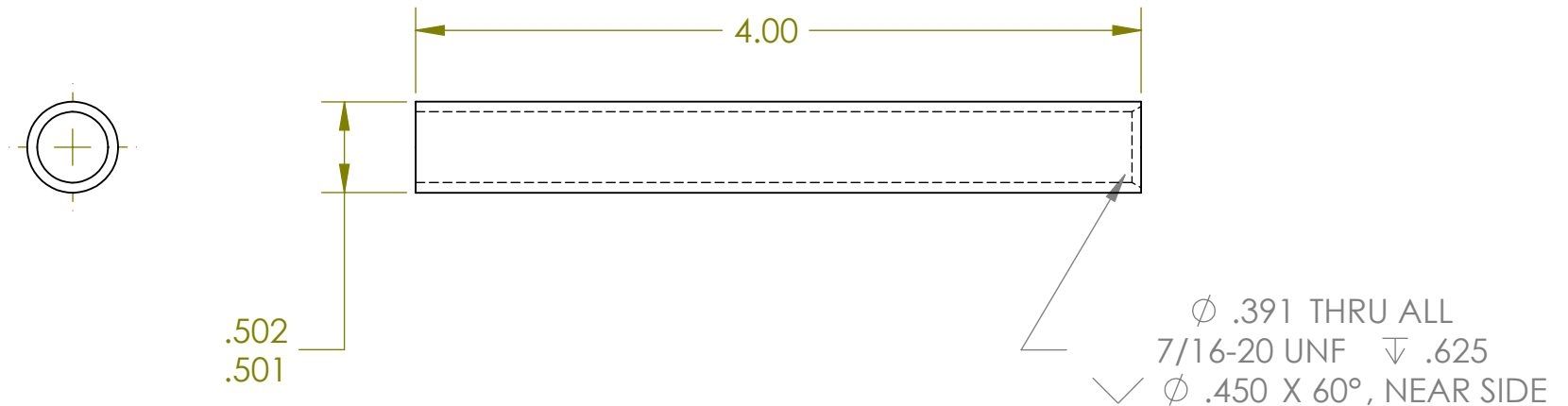
DRAWN EJJ DATE 2/19/2015
 CHECKED DKR DATE 2/19/2015
 REMOVE ALL SHARP EDGES AND BURRS



SIZE Part 100
 SCALE: 1:1 WEIGHT: SHEET 4 OF 7
 Hammer_plastic_face_02 1

OPERATIONS LIST

1	Saw	Cut stock to 4-1/8 inch length
2	Engine Lathe	Face end/Countersink
3	Engine Lathe	Drill
4	Engine Lathe	Tap (Use tap guide, tailstock)



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES

TOLERANCES:

FRACTIONAL $\pm 1/32"$

ANGULAR: MACH $\pm .5$ BEND \pm

TWO PLACE DECIMAL $\pm .01$

THREE PLACE DECIMAL $\pm .005$

INTERPRET DRAWING PER: ASME Y14.5-1994

MATERIAL 1/2 steel tubing

FINISH

COMMENTS:

Assembly Procedure: Screw shaft to tube. Press tube into head. Press handle onto shaft. Install set screw in head. Screw plastic face onto head.

Tube

DRAWN

EJJ

DATE

2/19/2015

CHECKED

DKR

DATE

2/19/2015

REMOVE ALL SHARP EDGES AND BURRS



SMITH COLLEGE

SIZE

A

Part

100

PART REV

DOC REV

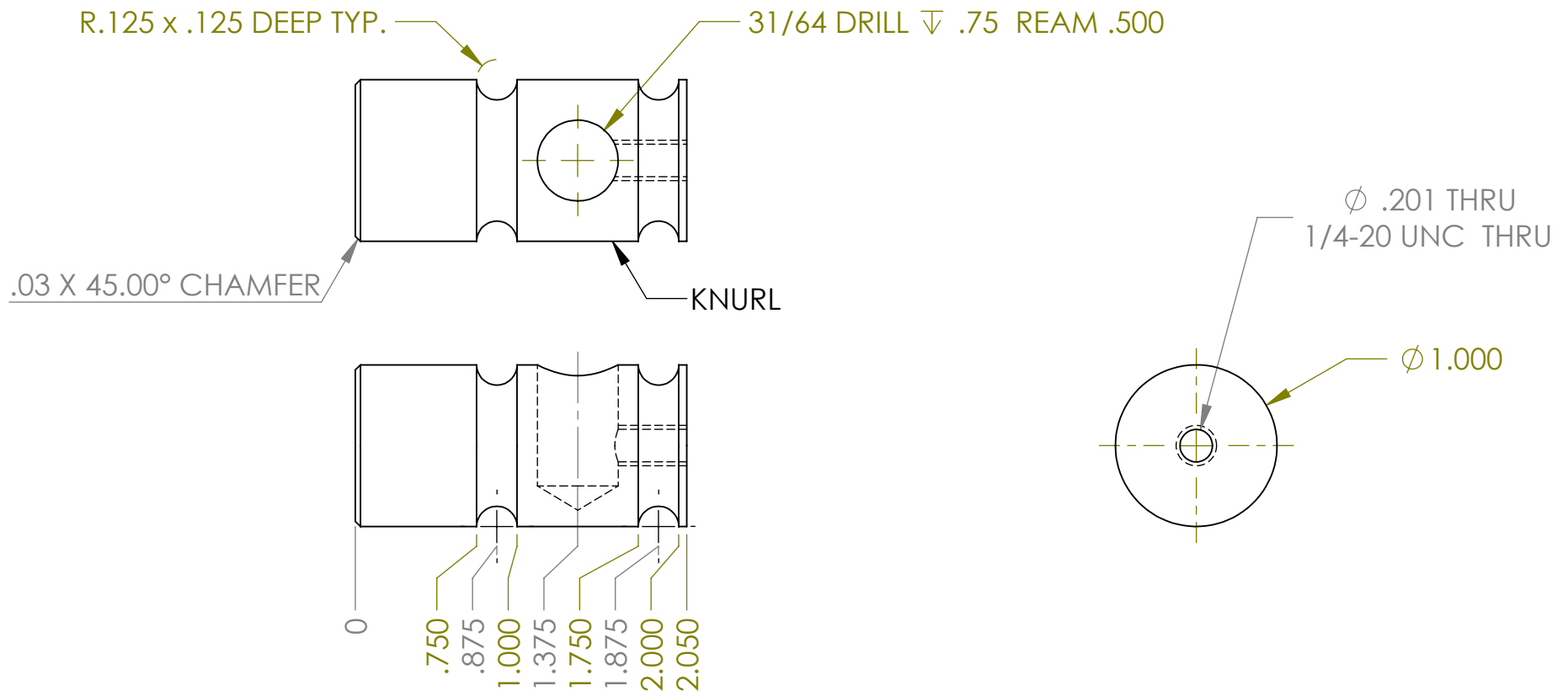
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SCALE: 1:1

WEIGHT:

SHEET 5 OF 7

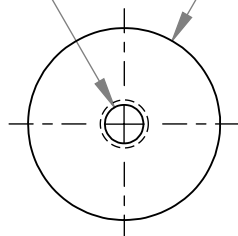
OPERATIONS LIST		
1	Saw	Cutoff long enough to make two heads (5 inches)
2	Engine Lathe	Face/ Chamfer Hammer face
3	Engine Lathe	Turn Grooves - regrip for each groove
4	Engine Lathe	Knurl
5	Saw	Cutoff hammer head 2-1/8
6	Engine Lathe	Face/Turn to 2.05 length
7	Bridgeport	Drill/Ream (use fixture block to locate centers)
8	Engine Lathe	Centerdrill/Drill/Tap 1/4-20



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .5 BEND ± TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005 INTERPRET DRAWING PER: ASME Y14.5-1994	MATERIAL Low Carbon Steel		Hammer Head					
	FINISH							
	COMMENTS: Assembly Procedure: Screw shaft to tube. Press tube into head. Press handle onto shaft. Install set screw in head. Screw plastic face onto head.		DRAWN EJJ	DATE 2/19/2015	SIZE A	Part 100	PART REV	DOC REV 10
			CHECKED DKR	DATE 2/19/2015				
			REMOVE ALL SHARP EDGES AND BURRS		SCALE: 1:1		WEIGHT:	
5	4	3	2	Hammer_plastic_face_02				1

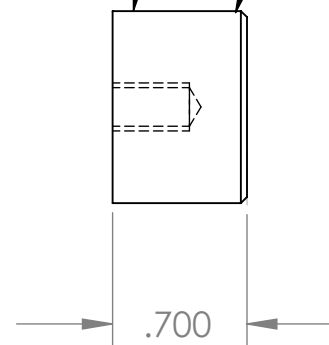
ϕ .201 ∇ .400
 1/4-20 UNC ∇ .400

ϕ 1.000



Prog 301

1/32 CHAMFER



UNLESS OTHERWISE SPECIFIED:
 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
 INTERPRET DRAWING PER: ASME Y14.5-1994

MATERIAL ABS Plastic
 FINISH
 COMMENTS:
 Assembly Procedure: Screw
 shaft to tube. Press tube into
 head. Press handle onto
 shaft. Install set screw in
 head. Screw plastic face
 onto head.

Plastic Face



DRAWN EJJ
 CHECKED DKR
 DATE 2/19/2015
 DATE 2/19/2015
 REMOVE ALL SHARP EDGES AND BURRS

SIZE Part
A 100
 SCALE: 1:1 WEIGHT: SHEET 7 OF 7