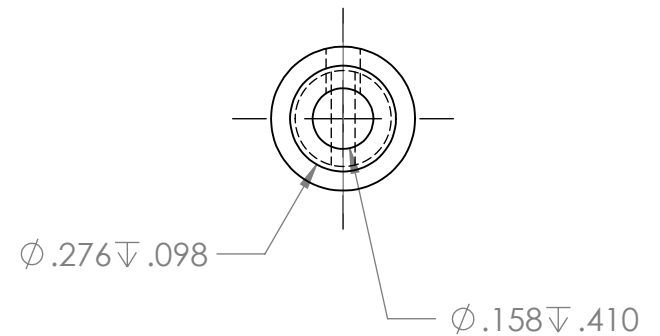
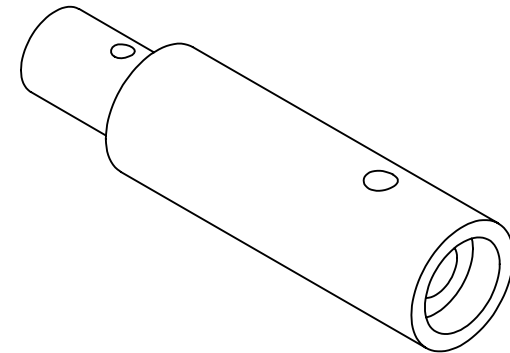
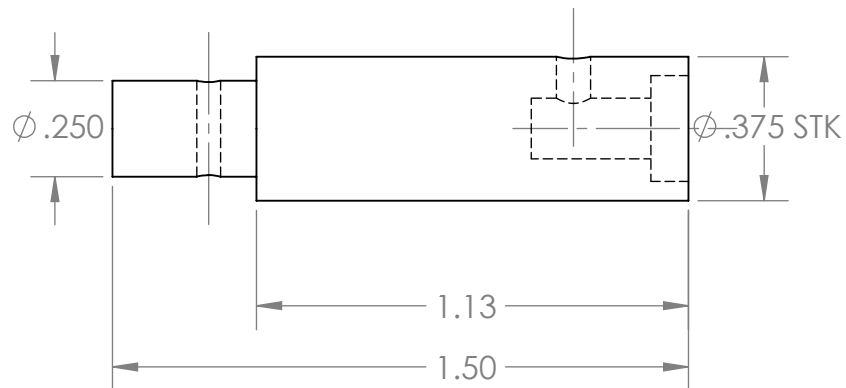
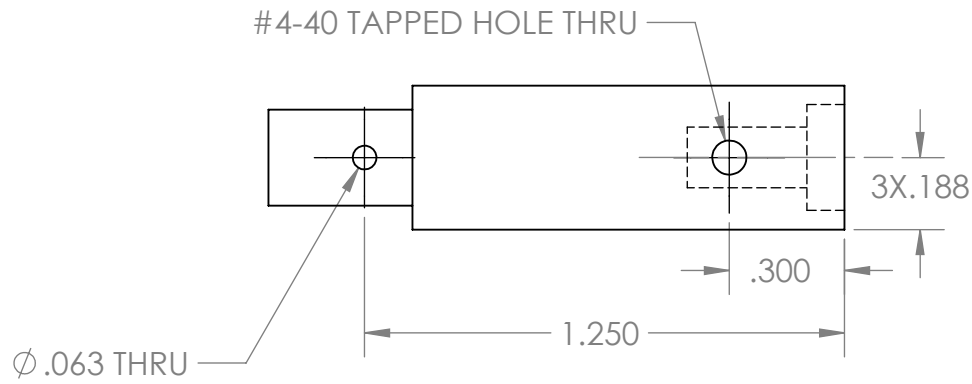


B



B

A

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REV 1	INITIAL RELEASE	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ± INTERPRET GEOMETRIC TOLERANCING PER: MATERIAL 3/4" Aluminum FINISH Burr Free	DRAWN	ABIRNB	10/26/21	ME 250 Team 103		
REV 2	FIXED DIMENTIONING		CHECKED	ABIRNB	10/2/21	TITLE: Connecting shaft		
REV 3	Fix sheet format		ENG APPR.					
			MFG APPR.					
			Q.A.					
			COMMENTS:					
			Quantity:1			SIZE A	DWG. NO. P103_08	REV 3
NEXT ASSY	USED ON					SCALE: 2:1	WEIGHT:	SHEET 1 OF 3
APPLICATION		DO NOT SCALE DRAWING						

2

1

MANUFACTURING PLAN

RAW MATERIAL STOCK: 3/4" Aluminum Round Stock

STEP	PROCESS DESCRIPTION	MACHINE	FIXTURE	TOOL(S)	SPEED (RPM)
STEP	PROCESS DESCRIPTION	MACHINE	FIXTURE	TOOL(S)	SPEED (RPM)
1	Cut out .625" of 3/8" aluminum stock	-	-	-	300 ft/min
2	Deburr the ends of the surfaces	Lathe	-	File	-
3	Place in lathe and face off to get a machined surface	Lathe	3/4 " Collet	Cutting tool	750
4	Deburr the part	-	-	File	
5	Remove part from lathe and flip	-	-	-	-
6	Repeat steps 3 and 4	Callipers	-	-	750
7	Remove part from lathe and measure with callipers	Lathe	-	-	-
8	touch off with parting tool and zero x. Cut to length taking passes of 0.050" or less	Lathe	3/4 " Collet	Parting Tool	750
9	Trim the final .375 inches down to a 0.25" diameter	Lathe	3/4" Collet	Parting Tool	750
10	Centerdrill	Lathe	3/4" Collet	Centerdrill with drill Chuck	1000
11	On the thicker side of the shaft, drill a .277" diameter hole .098 deep	Lathe	3/4" Collet	Size J drill with drill chuck	1000
12	Center Drill	Lathe	3/4" Collet	Centerdrill with drill chuck	-
13	Zero Out drill at the end of the big hole and drill in .410" with diameter .159"	-	3/4" Collet	21 drill bit Drill Chuck	1400
14	Deburr the part	Mill	-	File	

SHEET 2 OF 3

2

1

2

1

MANUFACTURING PLAN

RAW MATERIAL STOCK: 3/4" Aluminum Round Stock

STEP	PROCESS DESCRIPTION	MACHINE	FIXTURE	TOOL(S)	SPEED (RPM)
15	Use edgefinder to locate X and Y coordinates of edges	Mill	Vise 1	Edge Finder with drill chuck	1000
16	Use center drill Drill a thru hole .300" in from the thick end of the shaft with a major diameter of .089"	Mill	Vise 1	#43 Drill with drill chuck	1600
17	Drill a thru hole .38" off the thin end with a .062" diameter	Mill	Vise 1	1/16 Drill with drill chuck	1600
18	Centerdrill	Lathe	3/4" Collet	Centerdrill with drill Chuck	1600
19	Tap 4-40 thread	Mill	Vise 1	4-40 Tap drill chuck, drill chuck tap fixture	-