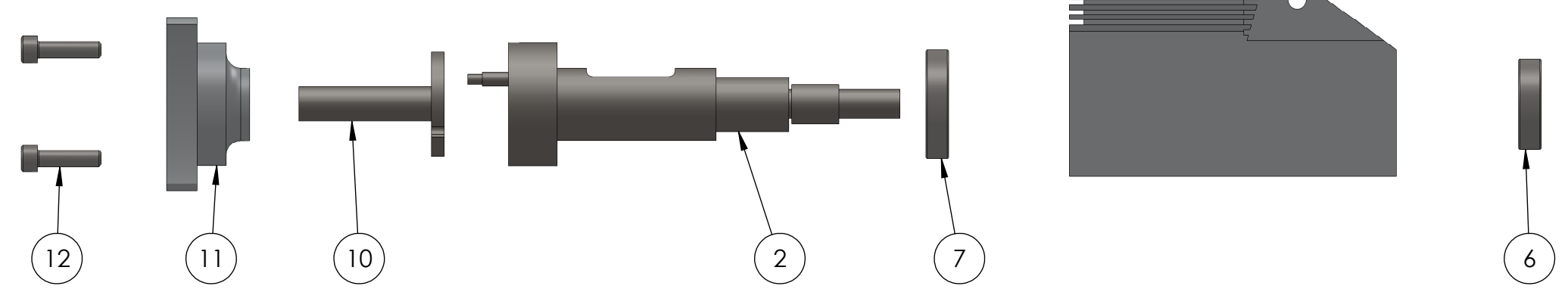
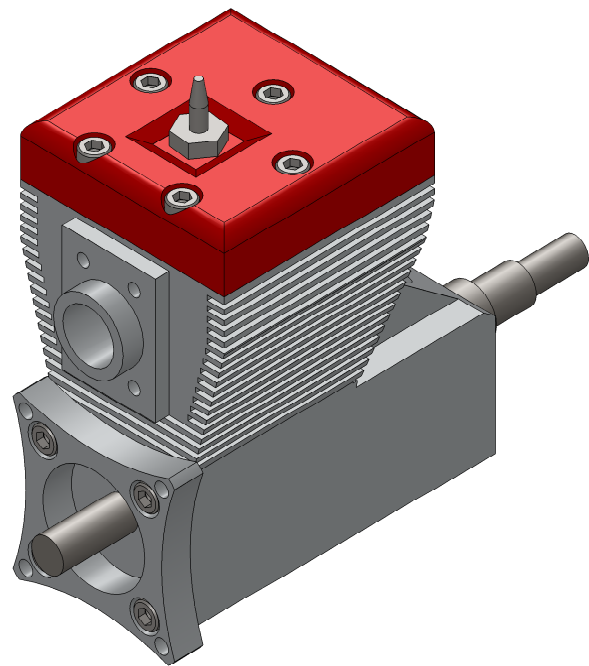
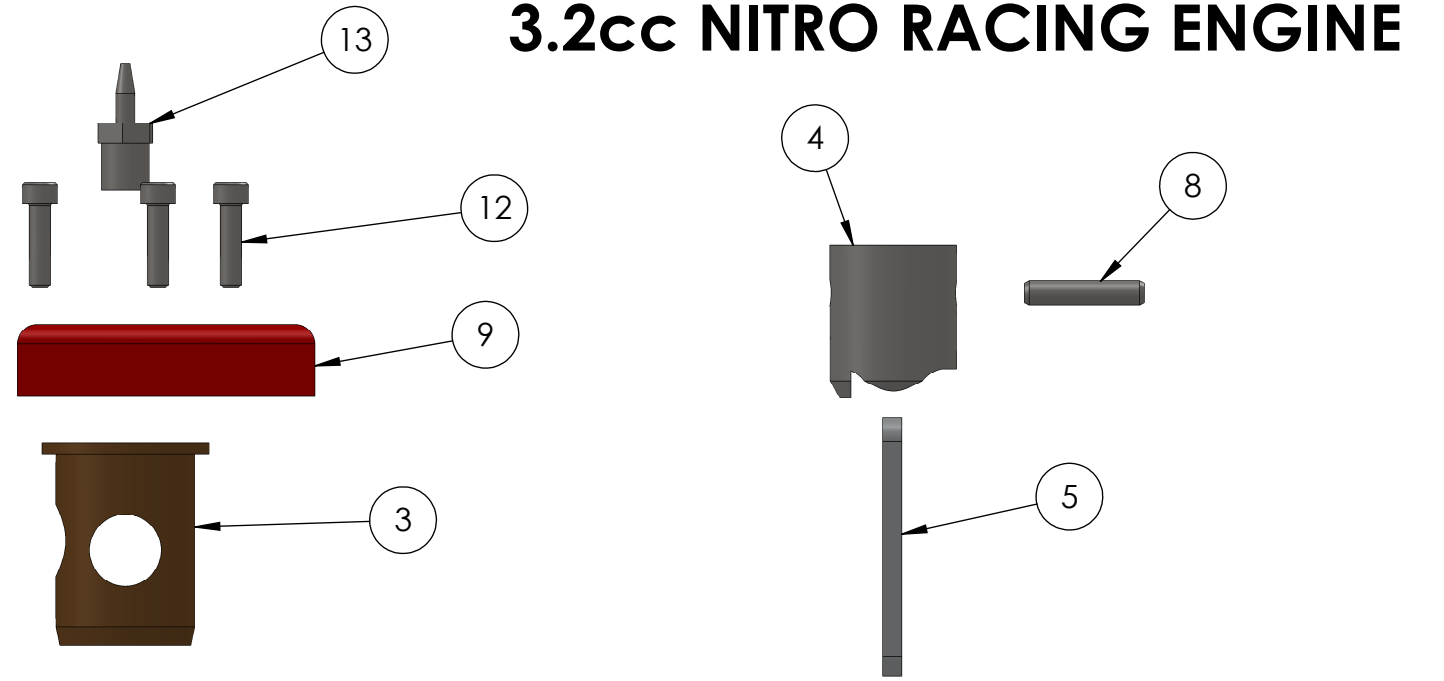


ITEM NO.	PART NUMBER	MAKE / BUY	QTY.
1	MOTOR HOUSING	MACHINED	1
2	CRANKSHAFT	MACHINED	1
3	BORE SLEEVE	MACHINED	1
4	PISTON	MACHINED	1
5	PISTON ROD	MACHINED	1
6	ROLLER BEARING (0.3750 - 0.6250 - 0.1562)	PURCHASED	1
7	ROLLER BEARING (0.5000 - 0.7500 - 0.1562)	PURCHASED	1
8	PIN (0.125x0.625)	PURCHASED	1
9	HEAD	MACHINED	1
10	STARTER SHAFT	MACHINED	1
11	STARTER PLATE	MACHINED	1
12	SHCS (0.112-40x0.4375x0.4375)	PURCHASED	9
13	GLOW PLUG	PURCHASED	1

MTR2010-1 3.2cc NITRO RACING ENGINE



UNLESS OTHERWISE SPECIFIED:
 TOLERANCES:
 FRACTIONAL: ±1/32
 ANGULAR: ±1°
 DECIMAL:
 .X ±.030
 .XX ±.010
 .XXX ±.005
 .XXXX ±.0005
 MATERIAL:
 SEE BOM

DESIGNED BY: WILL SNELL 4/18/10
 NOTES:
 NO BURRS, NO SHARP EDGES

WILL-J DESIGNS

TITLE:
 3.2cc NITRO RACING ENGINE

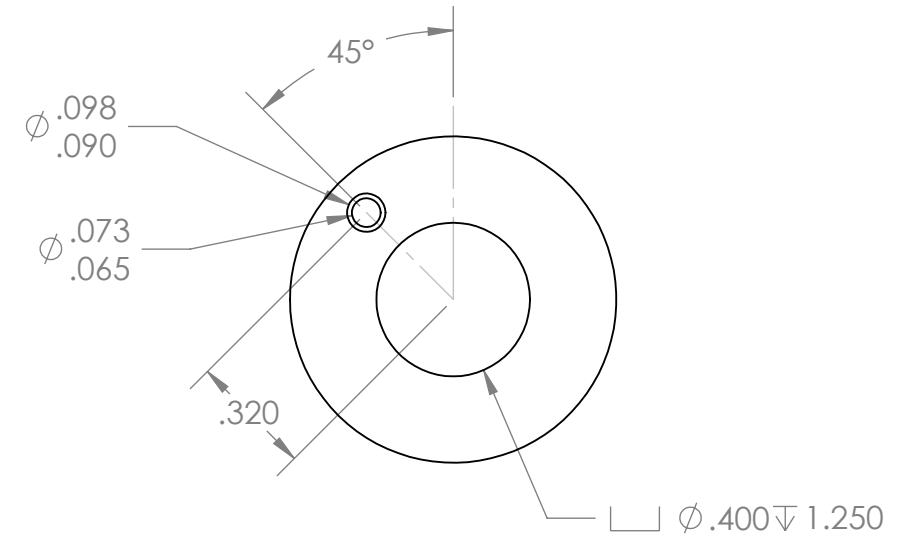
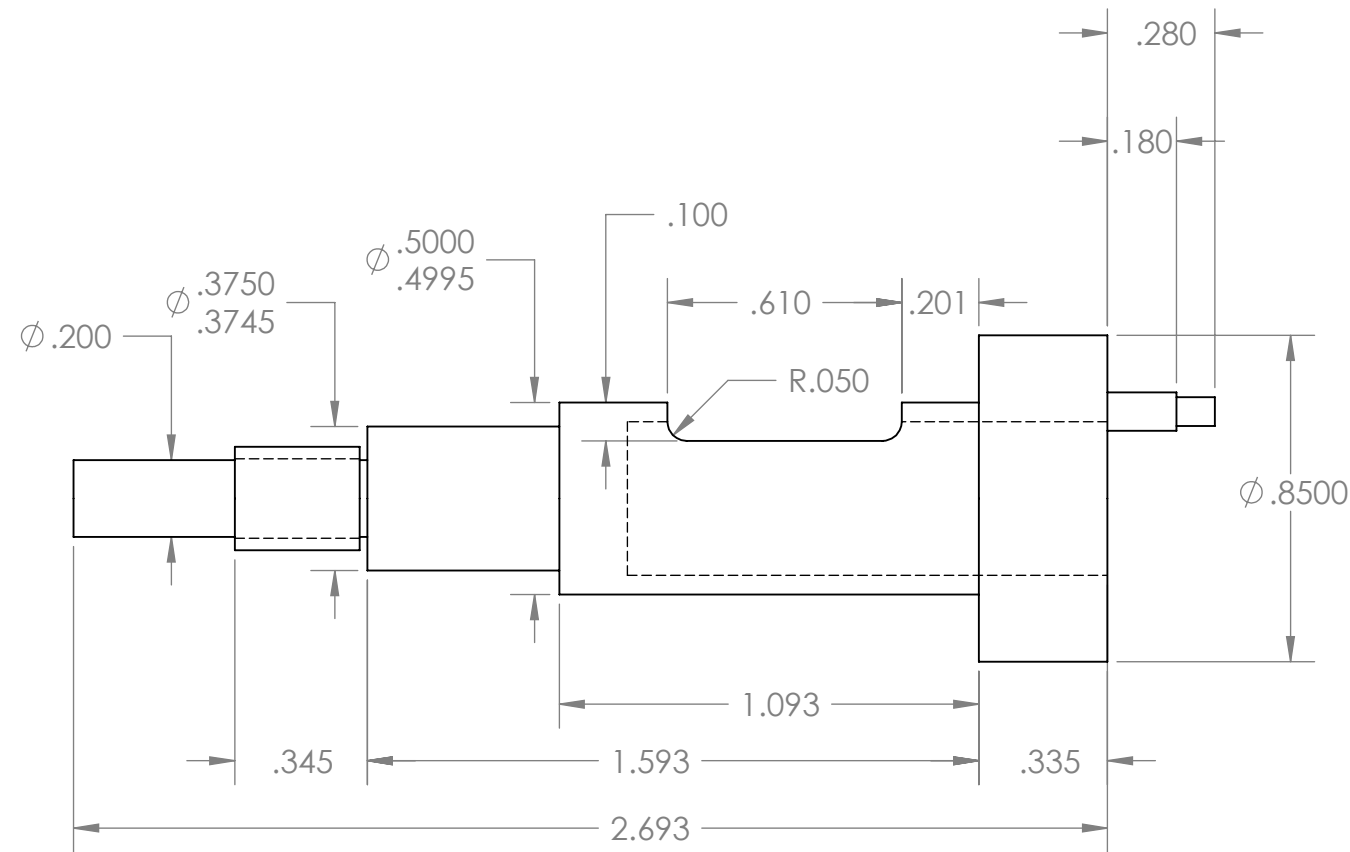
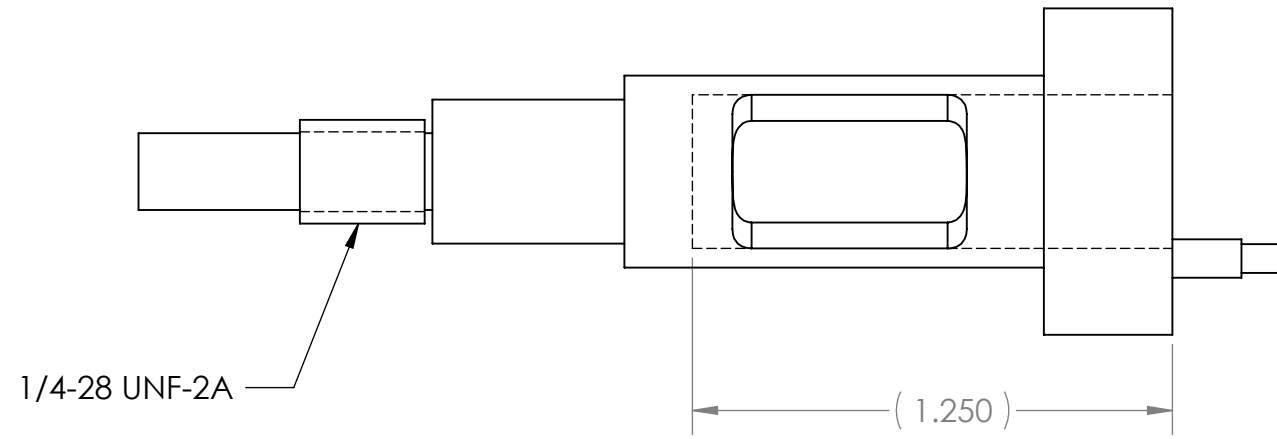
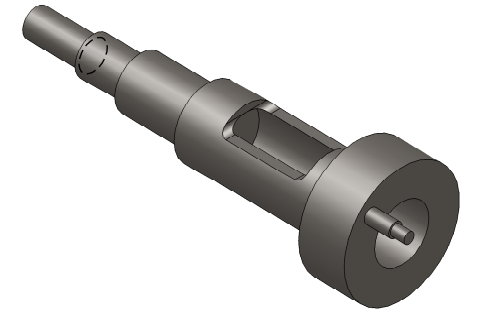
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FINISH/ PLATING/ HARDNESS REQD

SIZE DWG. NO. REV
B MTR2010-1

SCALE: 1:2 WEIGHT: SHEET 1 OF 9

MTR2010-1 CRANKSHAFT



UNLESS OTHERWISE SPECIFIED:

TOLERANCES:
FRACTIONAL: $\pm 1/32$
ANGULAR: $\pm 1^\circ$
DECIMAL:
.X $\pm .030$
.xx $\pm .010$
.xxx $\pm .005$
.xxxx $\pm .0005$

MATERIAL:
12L14 STEEL

FINISH / PLATING / HARDNESS REQD
55-58 Rc Rockwell

DESIGNED BY: WILL SNELL 4/18/10

NOTES:
NO BURRS, NO SHARP EDGES

**ALL DIAMETERS TO BE
CONCENTRIC W/IN .001" TOTAL**

WILL-J DESIGNS

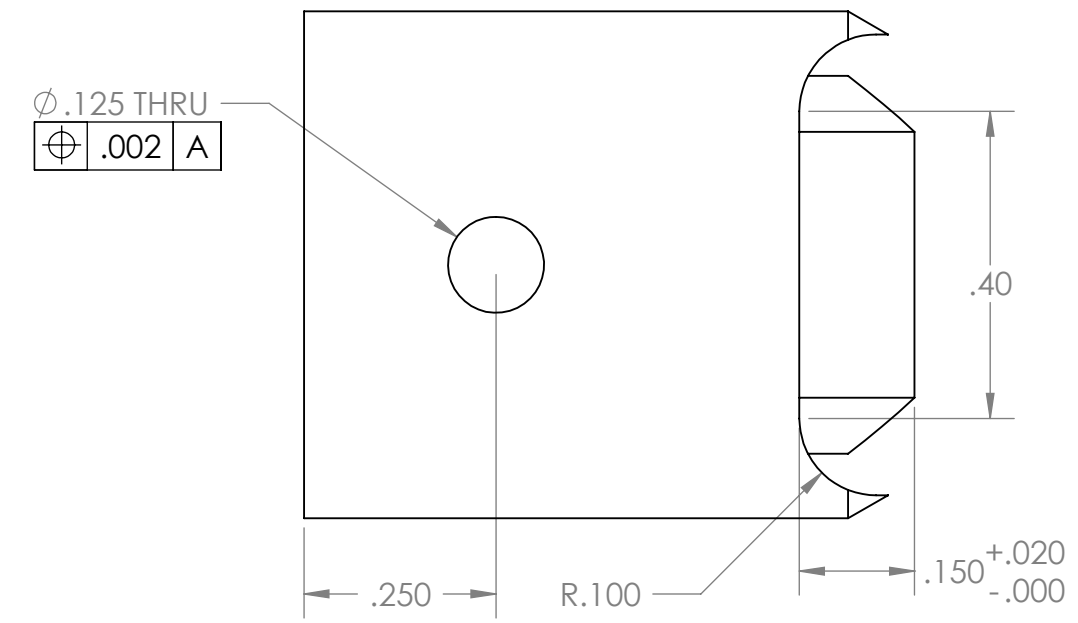
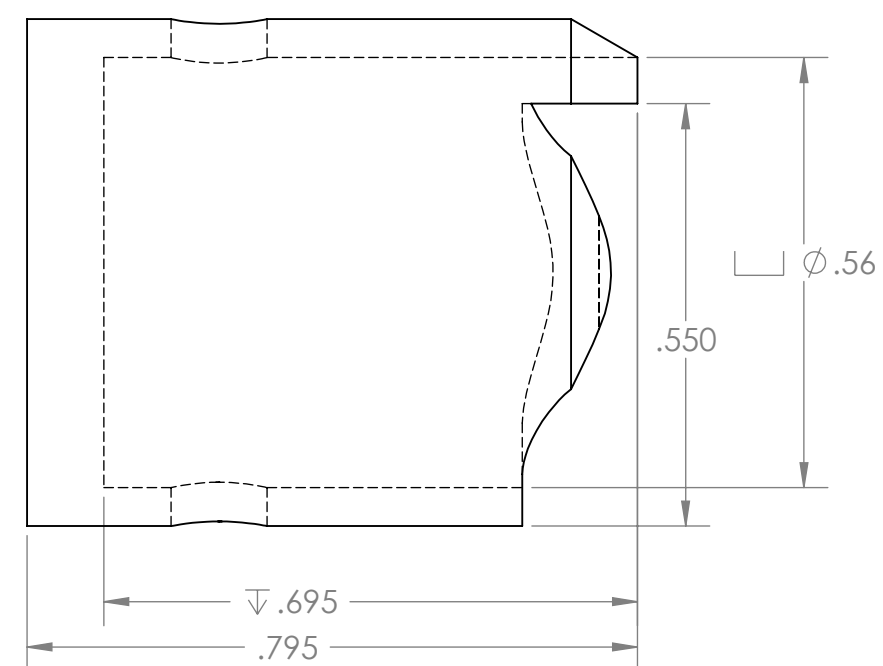
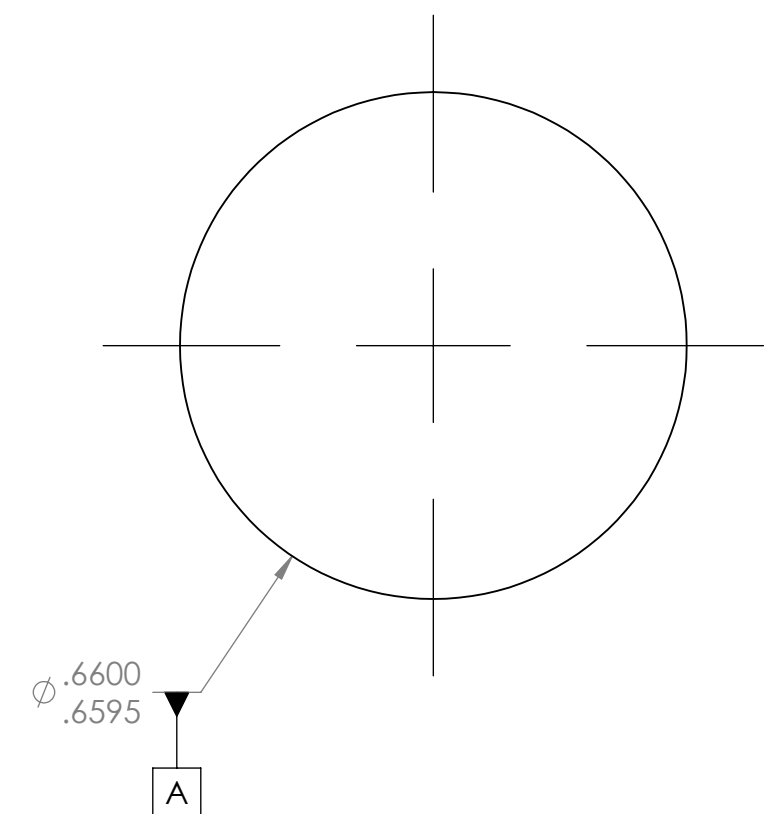
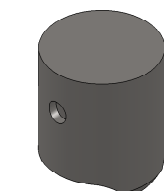
TITLE:
3.2cc NITRO RACING ENGINE

SIZE	DWG. NO.	REV
B	MTR2010-1	

SCALE: 2:1	WEIGHT:	SHEET 3 OF 9
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MTR2010-1 PISTON



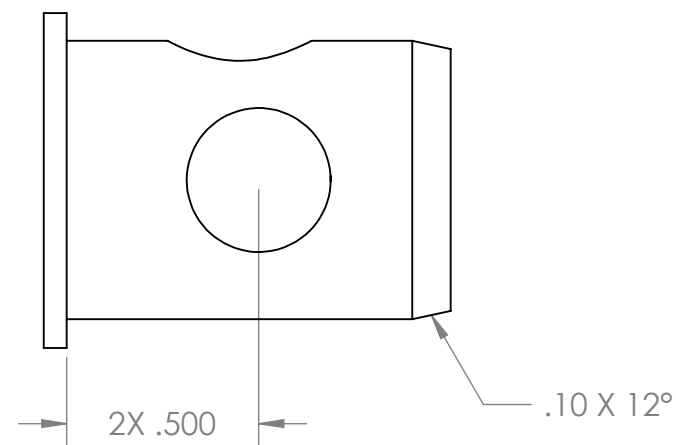
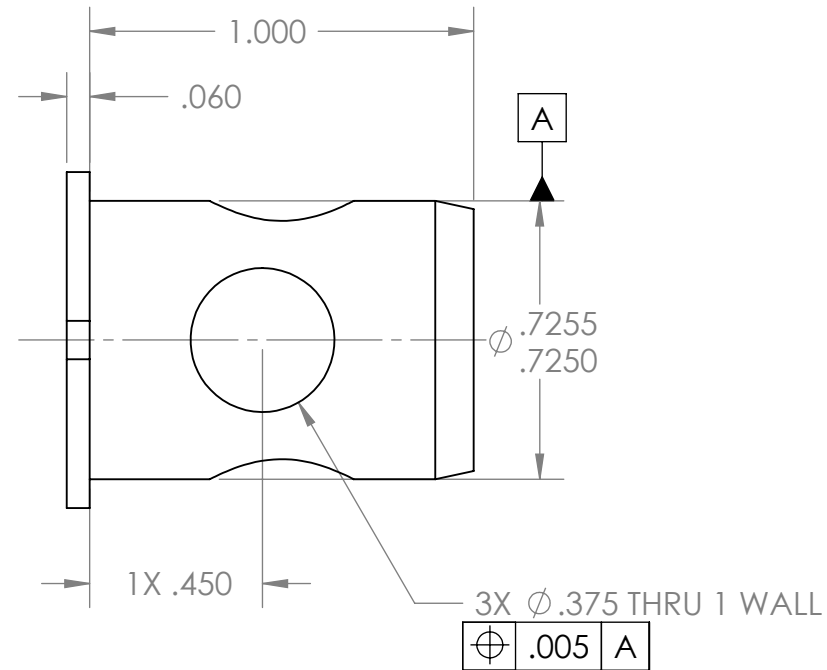
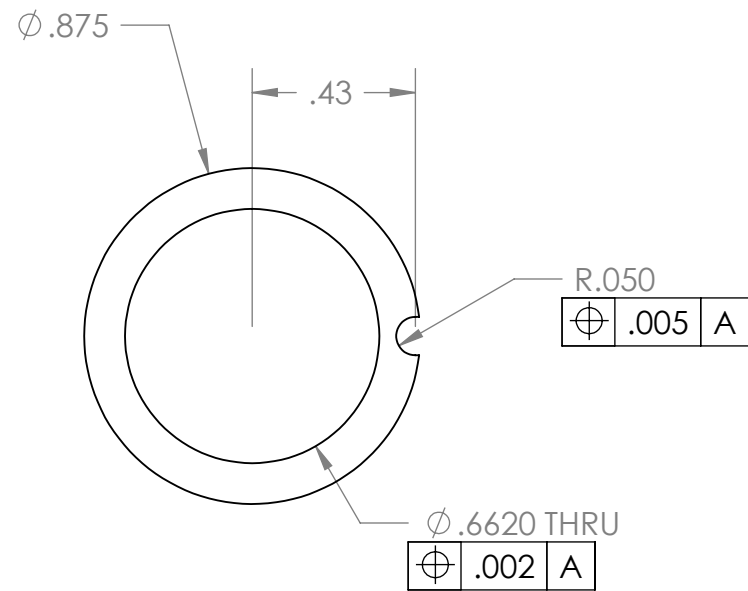
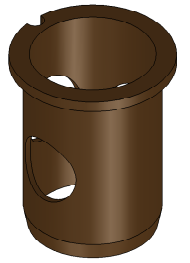
UNLESS OTHERWISE SPECIFIED:
 TOLERANCES:
 FRACTIONAL: $\pm 1/32$
 ANGULAR: $\pm 1^\circ$
 DECIMAL:
 .X $\pm .030$
 .xx $\pm .010$
 .xxx $\pm .005$
 .xxxx $\pm .0005$
 MATERIAL:
 303 STAINLESS STEEL
 FINISH / PLATING / HARDNESS REQD
 NONE

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DESIGNED BY: WILL SNELL 4/18/10
 NOTES:
 NO BURRS, NO SHARP EDGES

WILL-J DESIGNS		
TITLE:		3.2cc NITRO RACING ENGINE
SIZE	DWG. NO.	REV
B	MTR2010-1	
SCALE: 4:1	WEIGHT:	SHEET 4 OF 9

MTR2010-1 BORE SLEEVE



UNLESS OTHERWISE SPECIFIED:

TOLERANCES:
 FRACTIONAL: $\pm 1/32$
 ANGULAR: $\pm 1^\circ$
 DECIMAL:
 .X $\pm .030$
 .xx $\pm .010$
 .xxx $\pm .005$
 .xxxx $\pm .0005$

MATERIAL:
BRONZE

FINISH / PLATING / HARDNESS REQD
NONE

DESIGNED BY: WILL SNELL 4/18/10

NOTES:
 NO BURRS, NO SHARP EDGES

WILL-J DESIGNS

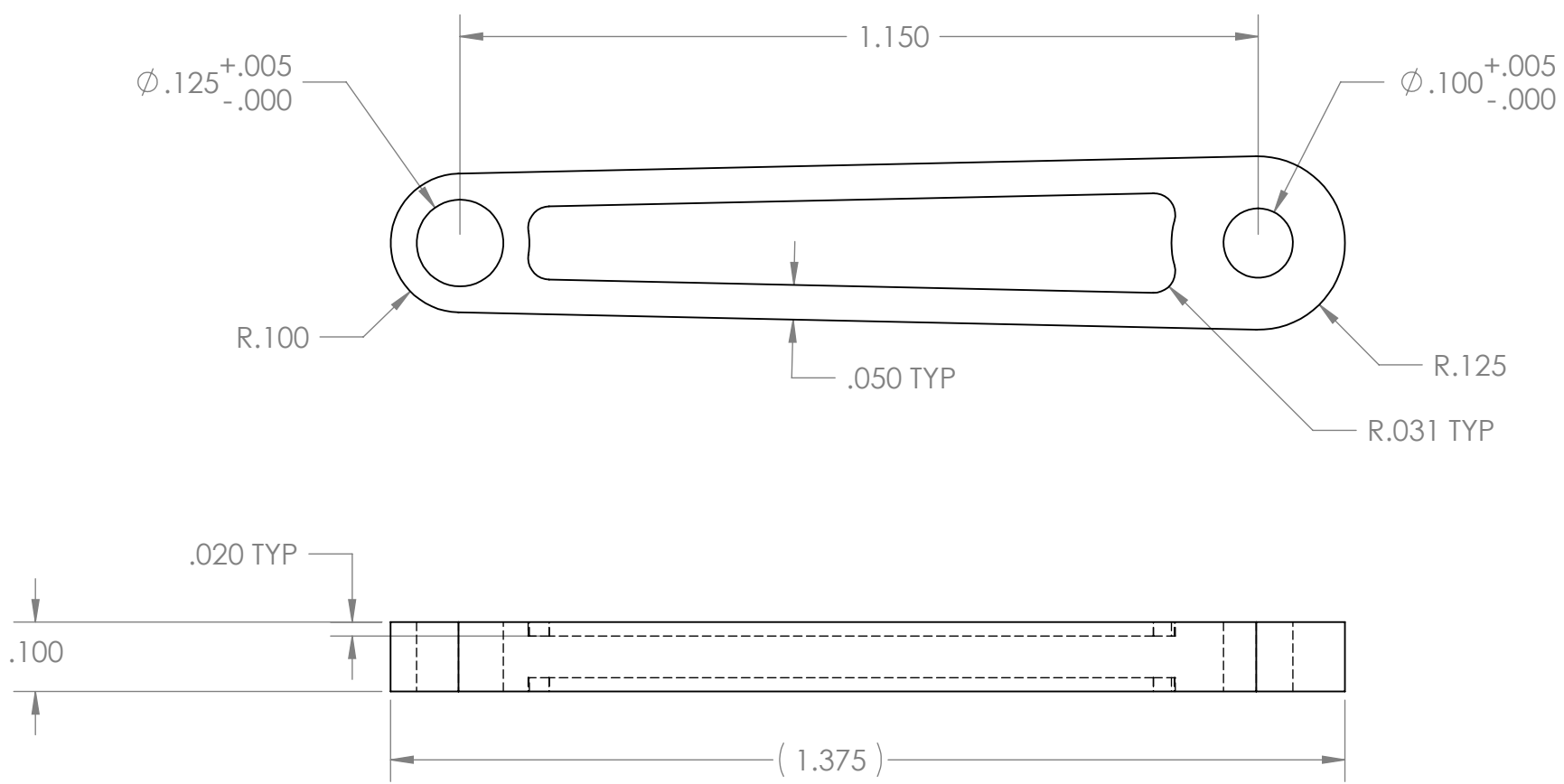
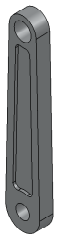
TITLE:
3.2cc NITRO RACING ENGINE

SIZE	DWG. NO.	REV
B	MTR2010-1	

SCALE: 2:1	WEIGHT:	SHEET 5 OF 9
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MTR2010-1 PISTON ROD



UNLESS OTHERWISE SPECIFIED:

TOLERANCES:
 FRACTIONAL: $\pm 1/32$
 ANGULAR: $\pm 1^\circ$
 DECIMAL:
 .X $\pm .030$
 .xx $\pm .010$
 .xxx $\pm .005$
 .xxxx $\pm .0005$

MATERIAL:
303 STAINLESS STEEL

FINISH / PLATING / HARDNESS REQD
NONE

DESIGNED BY: WILL SNELL 4/18/10

NOTES:
 NO BURRS, NO SHARP EDGES

WILL-J DESIGNS

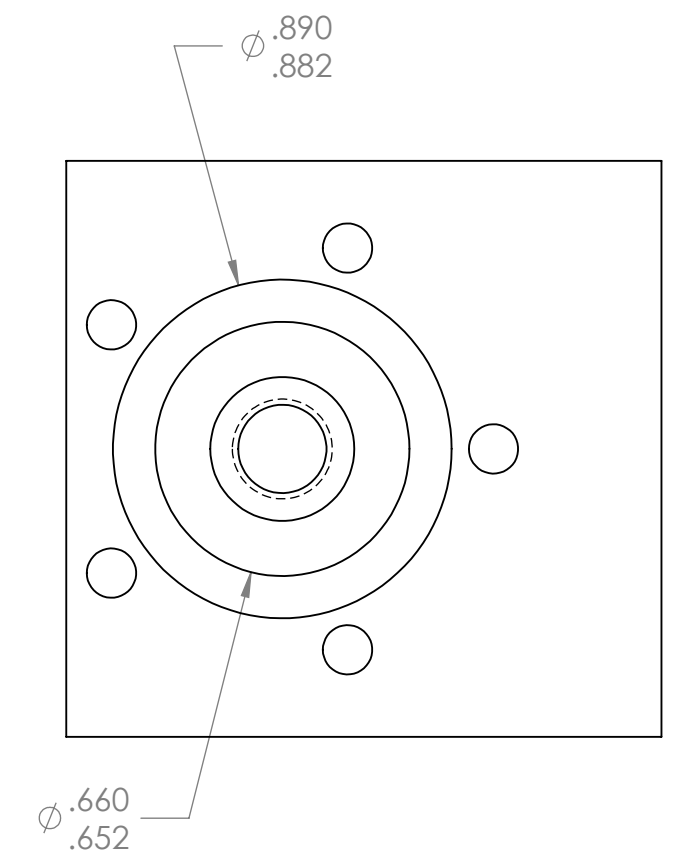
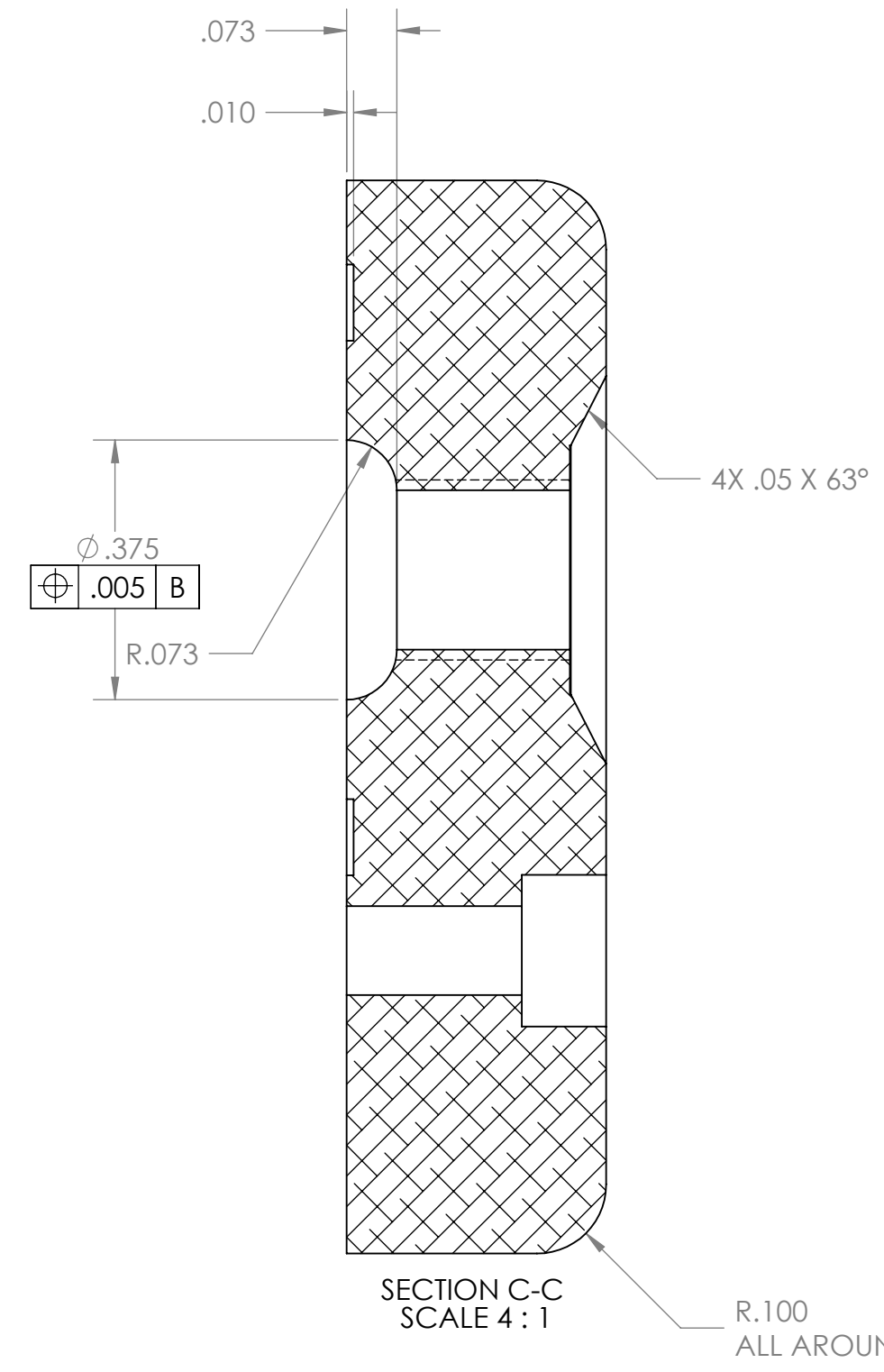
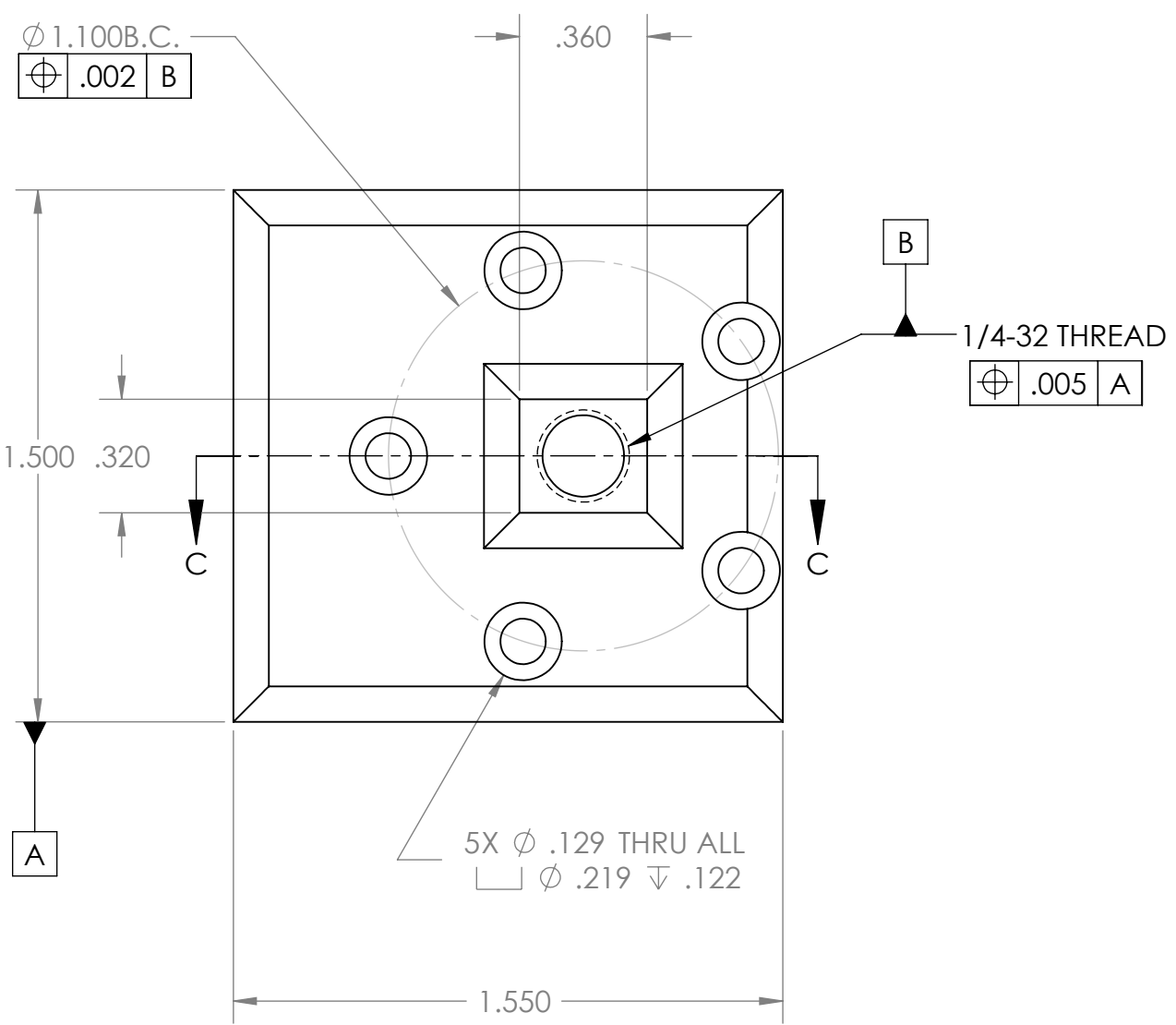
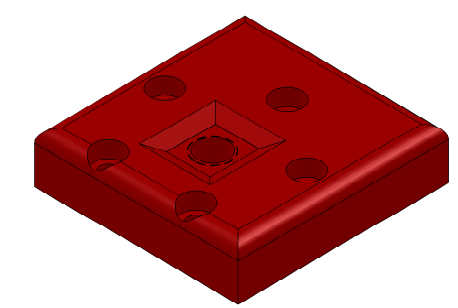
TITLE:
3.2cc NITRO RACING ENGINE

SIZE	DWG. NO.	REV
B	MTR2010-1	

SCALE: 4:1	WEIGHT:	SHEET 6 OF 9
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MTR2010-1 HEAD



UNLESS OTHERWISE SPECIFIED:
 TOLERANCES:
 FRACTIONAL: $\pm 1/32$
 ANGULAR: $\pm 1^\circ$
 DECIMAL:
 .X $\pm .030$
 .XX $\pm .010$
 .XXX $\pm .005$
 .XXXX $\pm .0005$
 MATERIAL:
6061 ALUMINUM
 FINISH / PLATING / HARDNESS REQD
TYPE II, RED ANODIZE

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DESIGNED BY: WILL SNELL 4/18/10

NOTES:
NO BURRS, NO SHARP EDGES

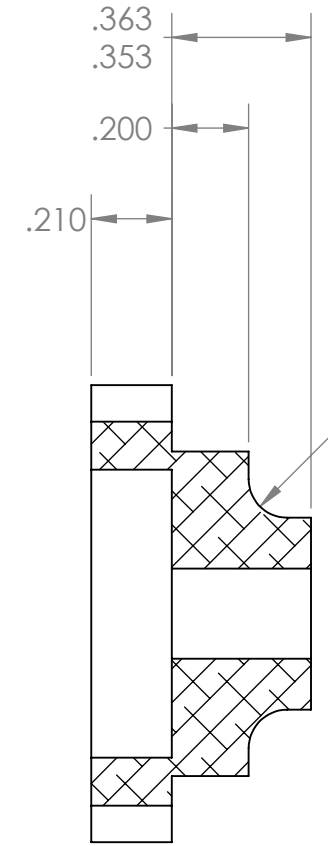
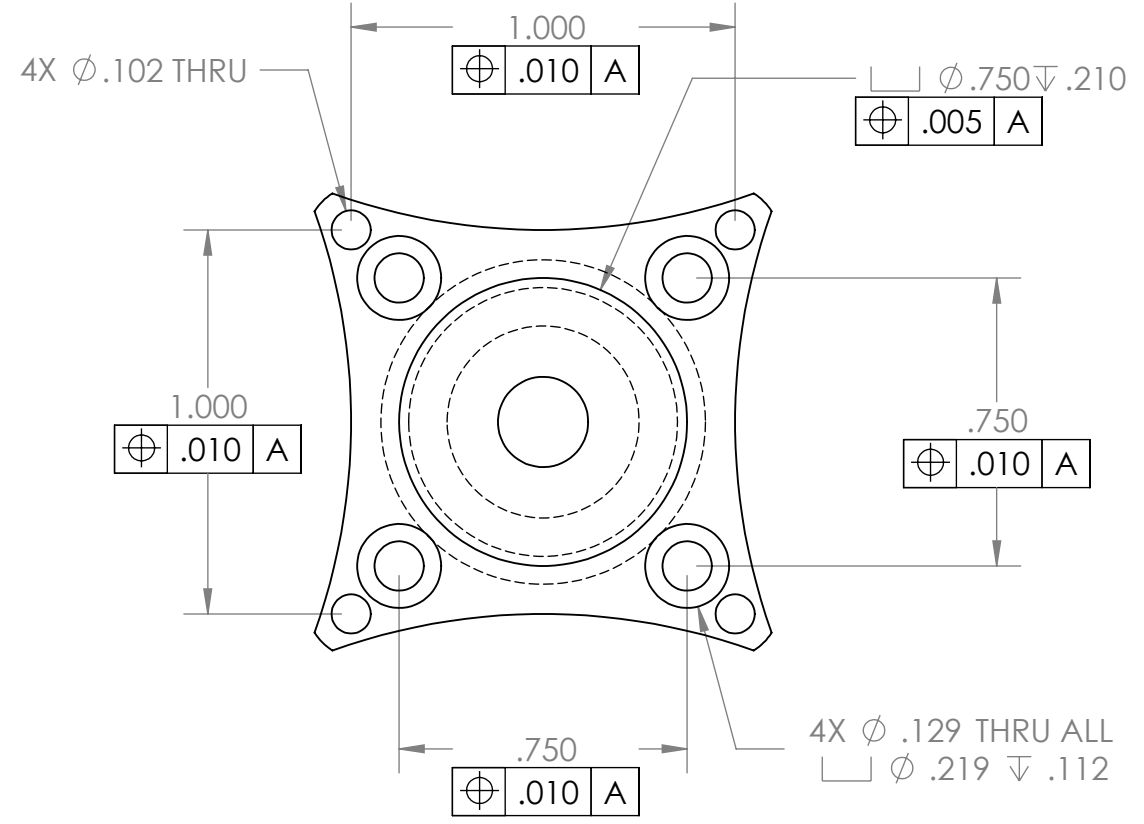
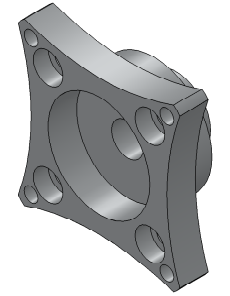
WILL-J DESIGNS

TITLE:
3.2cc NITRO RACING ENGINE

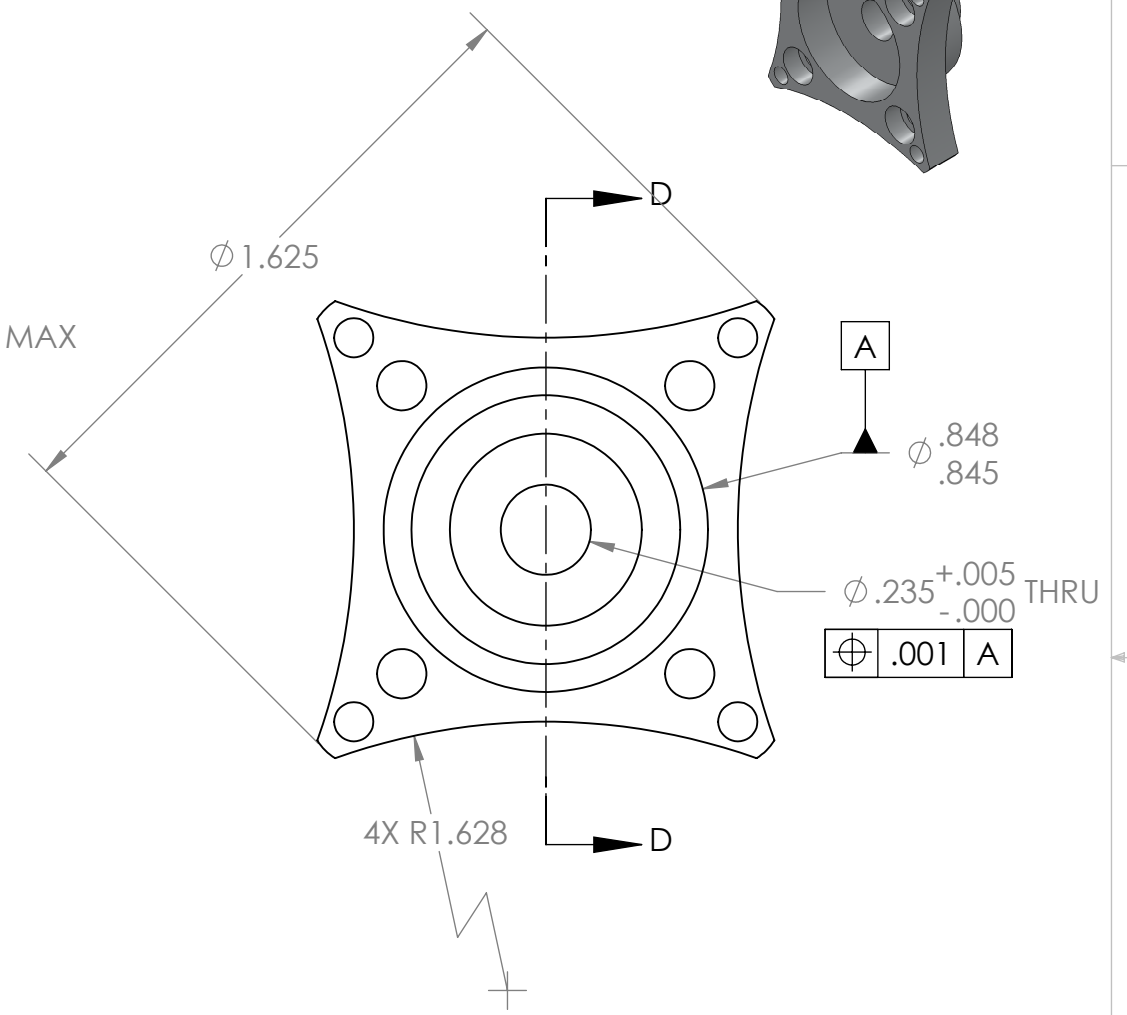
SIZE	DWG. NO.	REV
B	MTR2010-1	

SCALE: 2:1 WEIGHT: SHEET 7 OF 9

MTR2010-1 STARTER PLATE



SECTION D-D



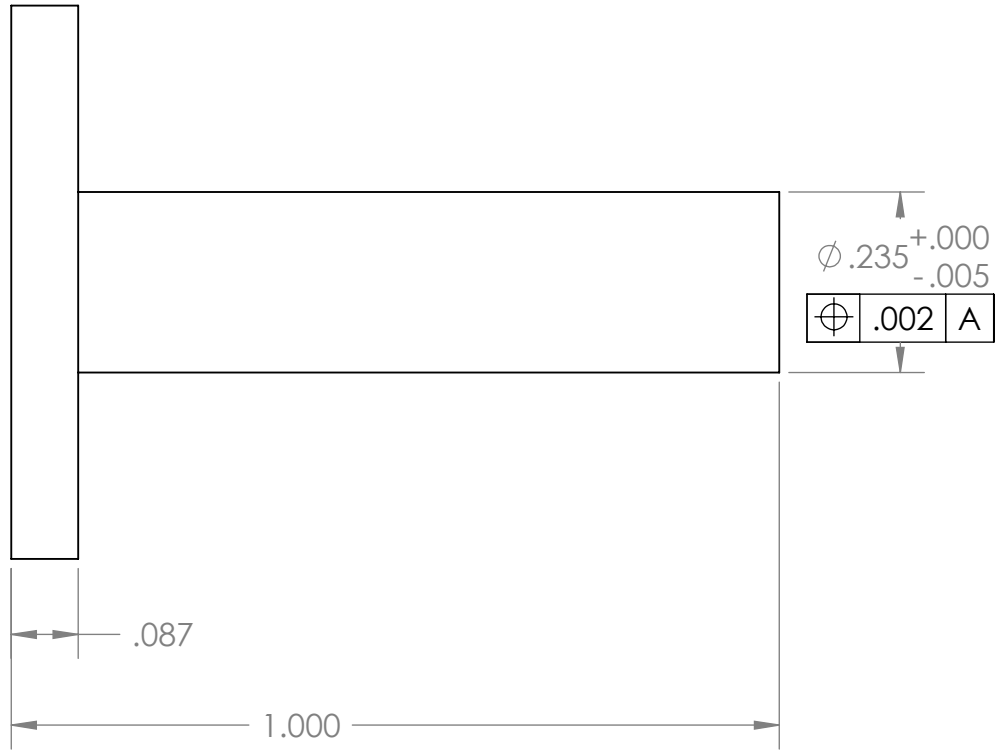
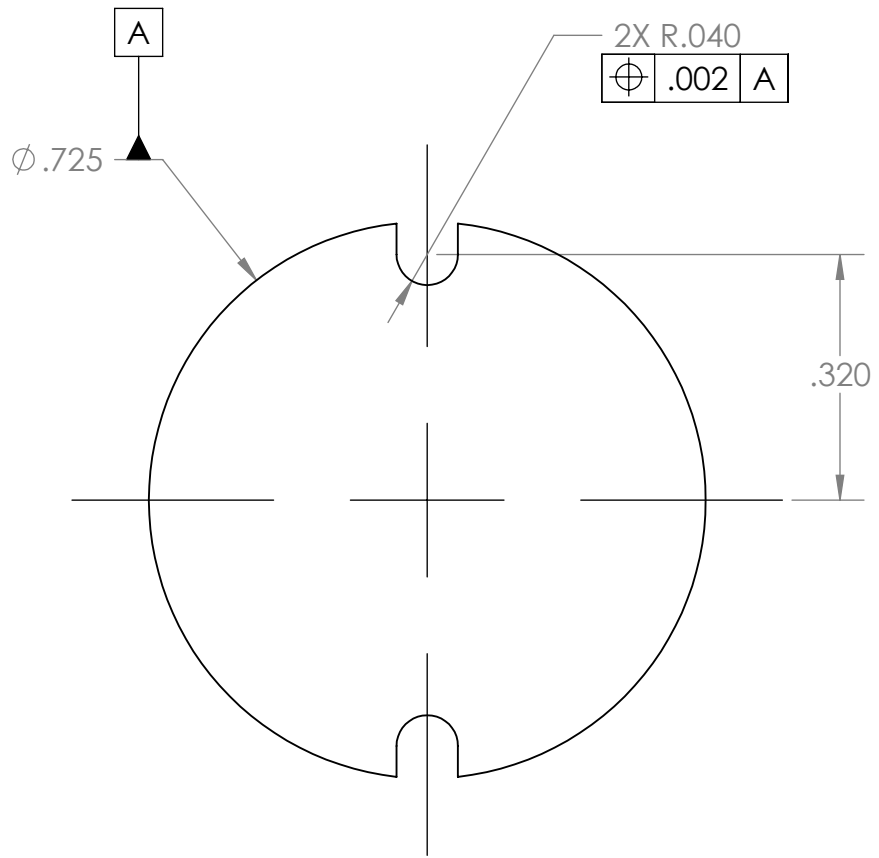
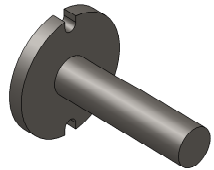
UNLESS OTHERWISE SPECIFIED:
 TOLERANCES:
 FRACTIONAL: $\pm 1/32$
 ANGULAR: $\pm 1^\circ$
 DECIMAL:
 .X \pm .030
 .xx \pm .010
 .xxx \pm .005
 .xxxx \pm .0005
 MATERIAL:
 6061 ALUMINUM
 FINISH / PLATING / HARDNESS REQD
 NONE

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DESIGNED BY: WILL SNELL 4/18/10
 NOTES:
 NO BURRS, NO SHARP EDGES

WILL-J DESIGNS
 TITLE:
 3.2cc NITRO RACING ENGINE
 SIZE DWG. NO. REV
B MTR2010-1
 SCALE: 2:1 WEIGHT: SHEET 8 OF 9

MTR2010-1 STARTER SHAFT



UNLESS OTHERWISE SPECIFIED:

TOLERANCES:
 FRACTIONAL: $\pm 1/32$
 ANGULAR: $\pm 1^\circ$
 DECIMAL:
 .X ± 0.30
 .xx ± 0.10
 .xxx ± 0.05
 .xxxx ± 0.005

MATERIAL:
12L14 STEEL

FINISH / PLATING / HARDNESS REQD
55-58 Rc ROCKWELL

DESIGNED BY: WILL SNELL 4/18/10

NOTES:
 NO BURRS, NO SHARP EDGES

WILL-J DESIGNS

TITLE:
3.2cc NITRO RACING ENGINE

SIZE	DWG. NO.	REV
B	MTR2010-1	

SCALE: 4:1	WEIGHT:	SHEET 9 OF 9
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