
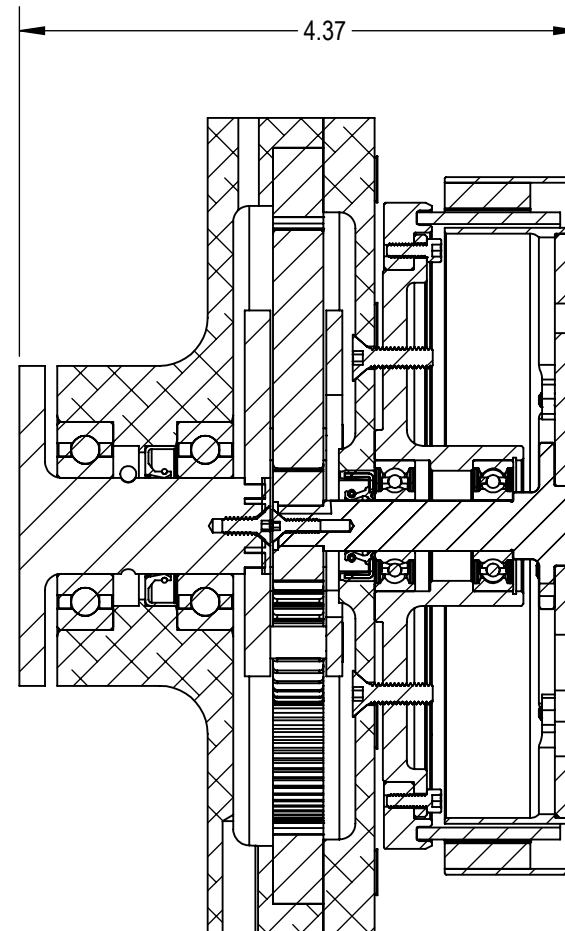
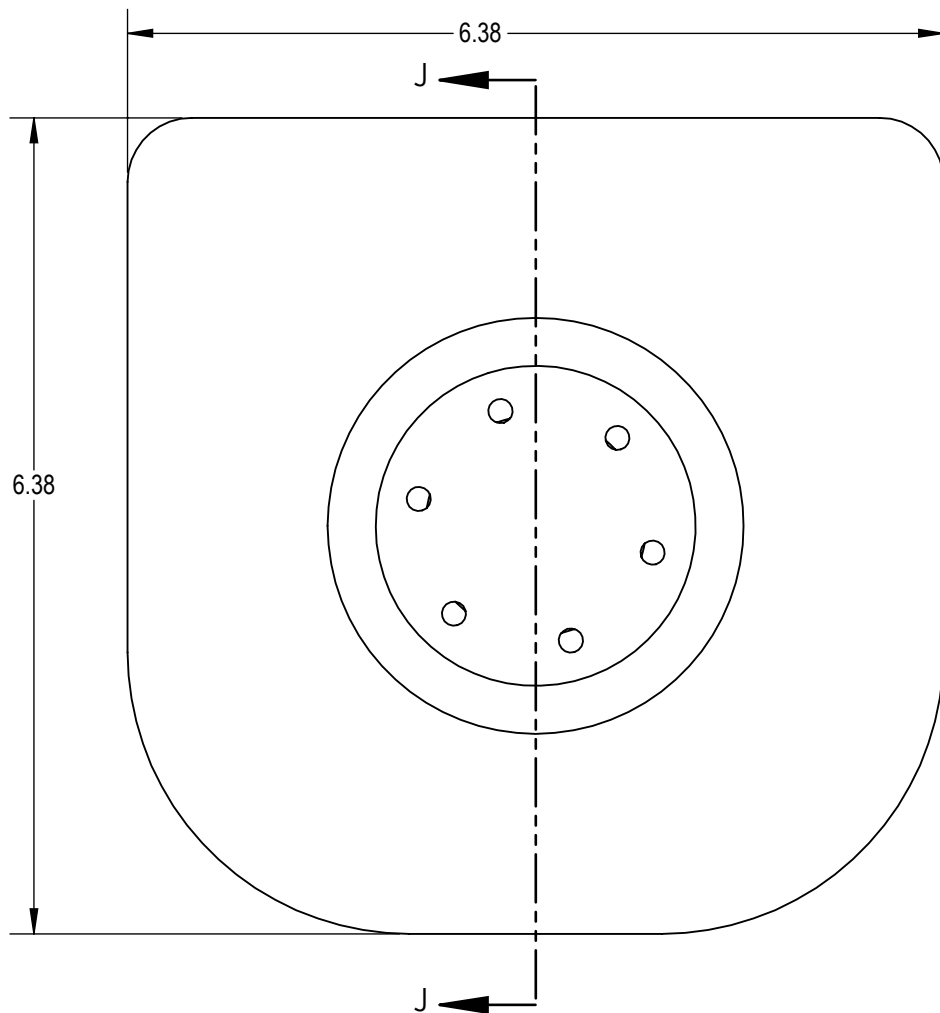
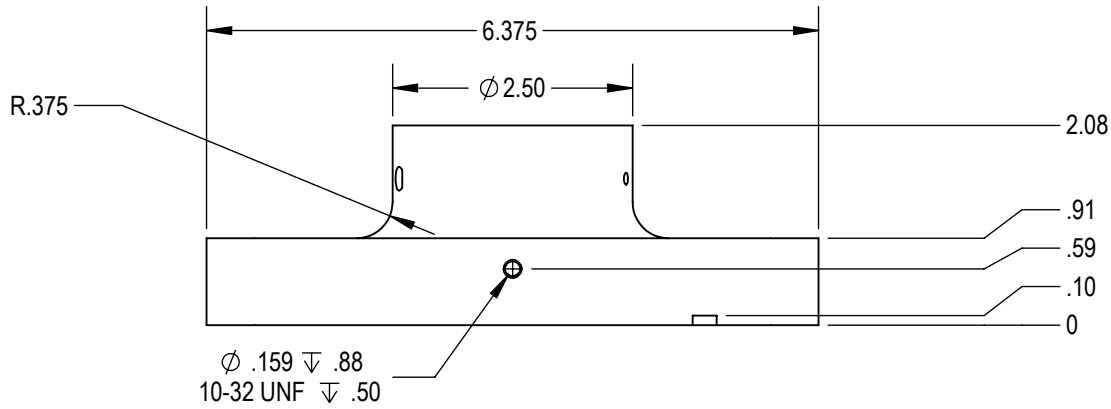


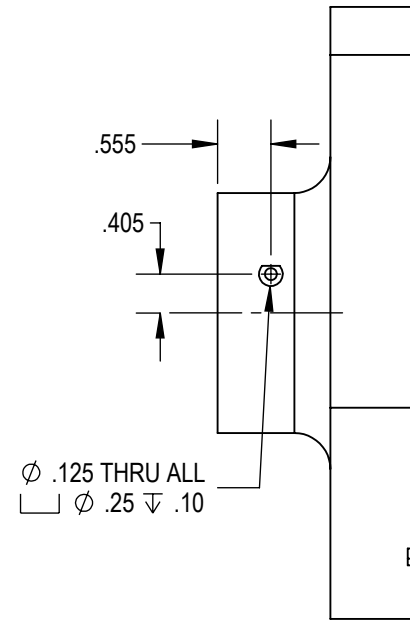
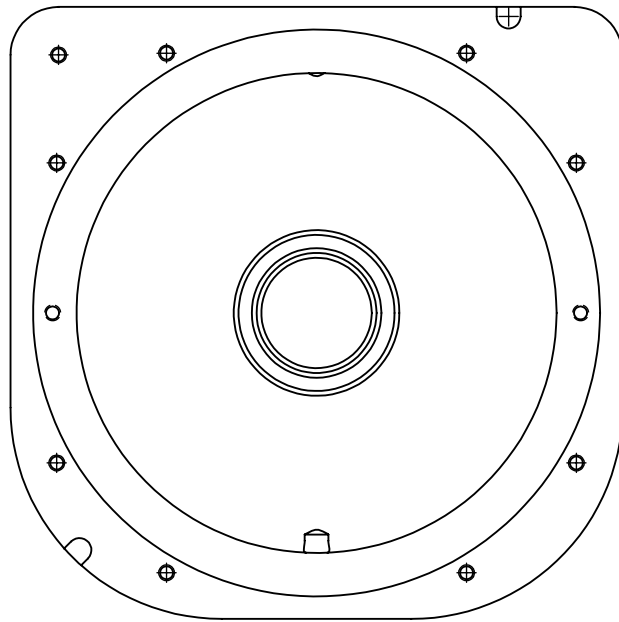
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DEFAULT TOLERANCES:		DESCRIPTION: Isometric View		MATERIAL:	
LINEAR: X. ± .25 X.X ± .1 X.XX ± .01 X.XXX ± .002	ANGULAR: X. ± 2 X.X ± 1 X.XX ± 0 30'	DRAWN BY: Basti-Boys	DATE: 5/4/2018	UNIVERSITY OF IDAHO ME DEPARTMENT	
		CHECKED BY:	DATE:		
		FILE NAME: Proto 1 Motor and Gearbox		SCALE: 2:3	SHEET: 1 OF 12



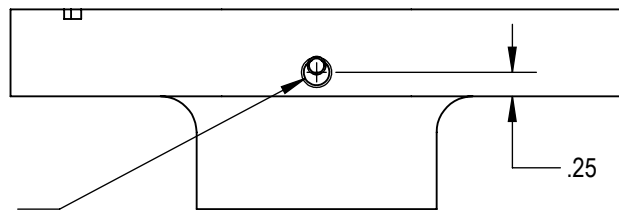
<p>PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF UNIVERSITY OF IDAHO, ME DEPARTMENT. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF UNIVERSITY OF IDAHO, ME DEPARTMENT IS PROHIBITED.</p>		<p>SECTION J-J DIMENSIONS ARE IN INCHES THIRD ANGLE PROJECTION</p>		<p>Basti-Boys Gearbox</p>											
		<p>DESCRIPTION: Cross section</p>		<p>UNIVERSITY OF IDAHO ME DEPARTMENT</p>											
<p>DEFAULT TOLERANCES:</p> <table border="0"> <tr> <td>LINEAR:</td> <td>ANGULAR:</td> </tr> <tr> <td>X. ± .25</td> <td>X. ± 2</td> </tr> <tr> <td>X.X ± .1</td> <td>X.X ± 1</td> </tr> <tr> <td>X.XX ± .01</td> <td>X.XX ± 0.30</td> </tr> <tr> <td>X.XXX ± .002</td> <td></td> </tr> </table>		LINEAR:	ANGULAR:	X. ± .25	X. ± 2	X.X ± .1	X.X ± 1	X.XX ± .01	X.XX ± 0.30	X.XXX ± .002		<p>DRAWN BY: Basti-boys</p>	<p>DATE: 5/4/2018</p>	<p>PART #:</p>	<p>QTY:</p>
LINEAR:	ANGULAR:														
X. ± .25	X. ± 2														
X.X ± .1	X.X ± 1														
X.XX ± .01	X.XX ± 0.30														
X.XXX ± .002															
		<p>CHECKED BY:</p>	<p>DATE:</p>	<p>SCALE: 2:3</p>											
		<p>FILE NAME: Proto 1 Motor and Gearbox</p>		<p>SHEET: 2 OF 12</p>											



Ø .159 ± .008
10-32 UNF ± .005



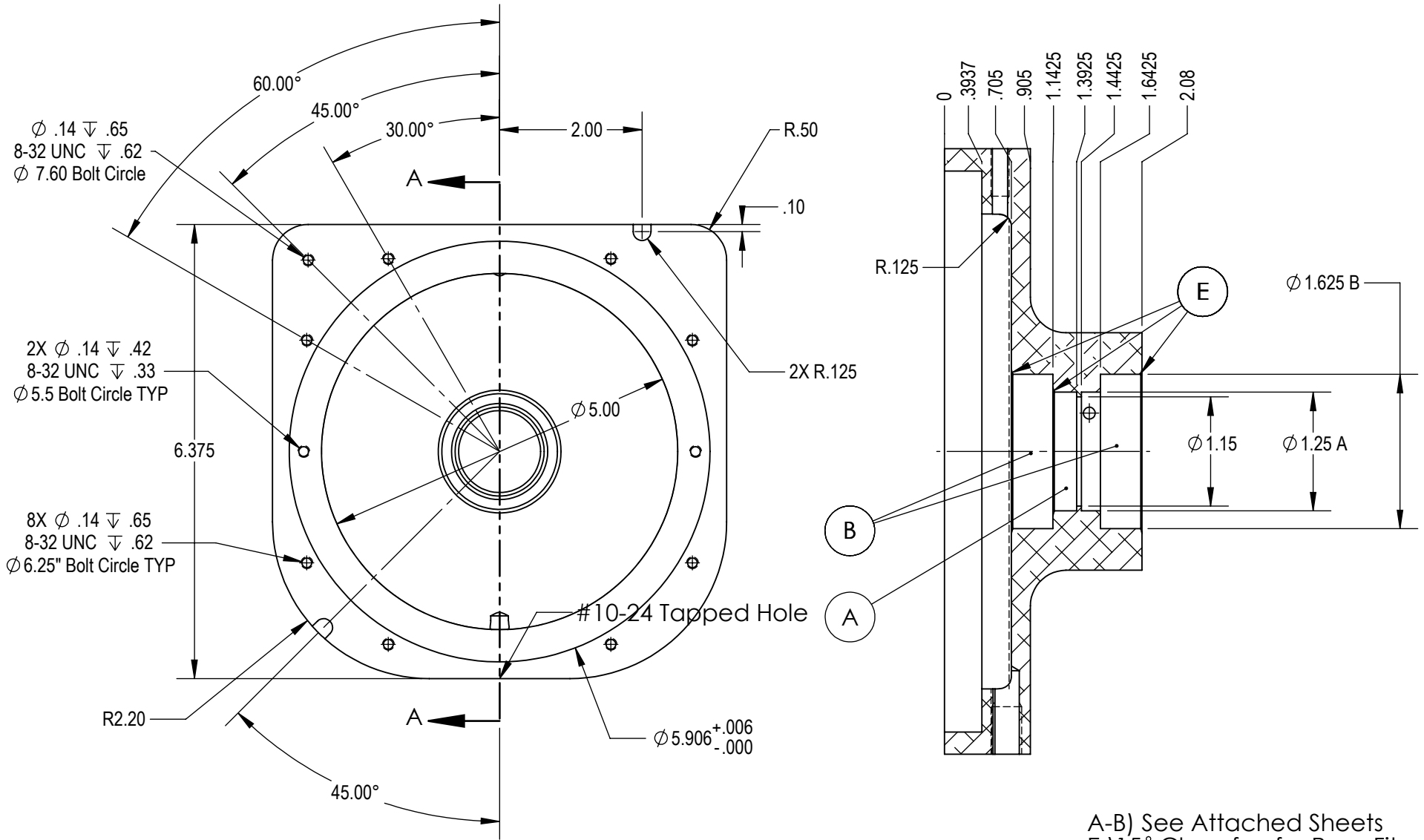
Ø .125 THRU ALL
Ø .25 ± .010



Ø .268 ± .008
M8X1.25 - 6H ± .005

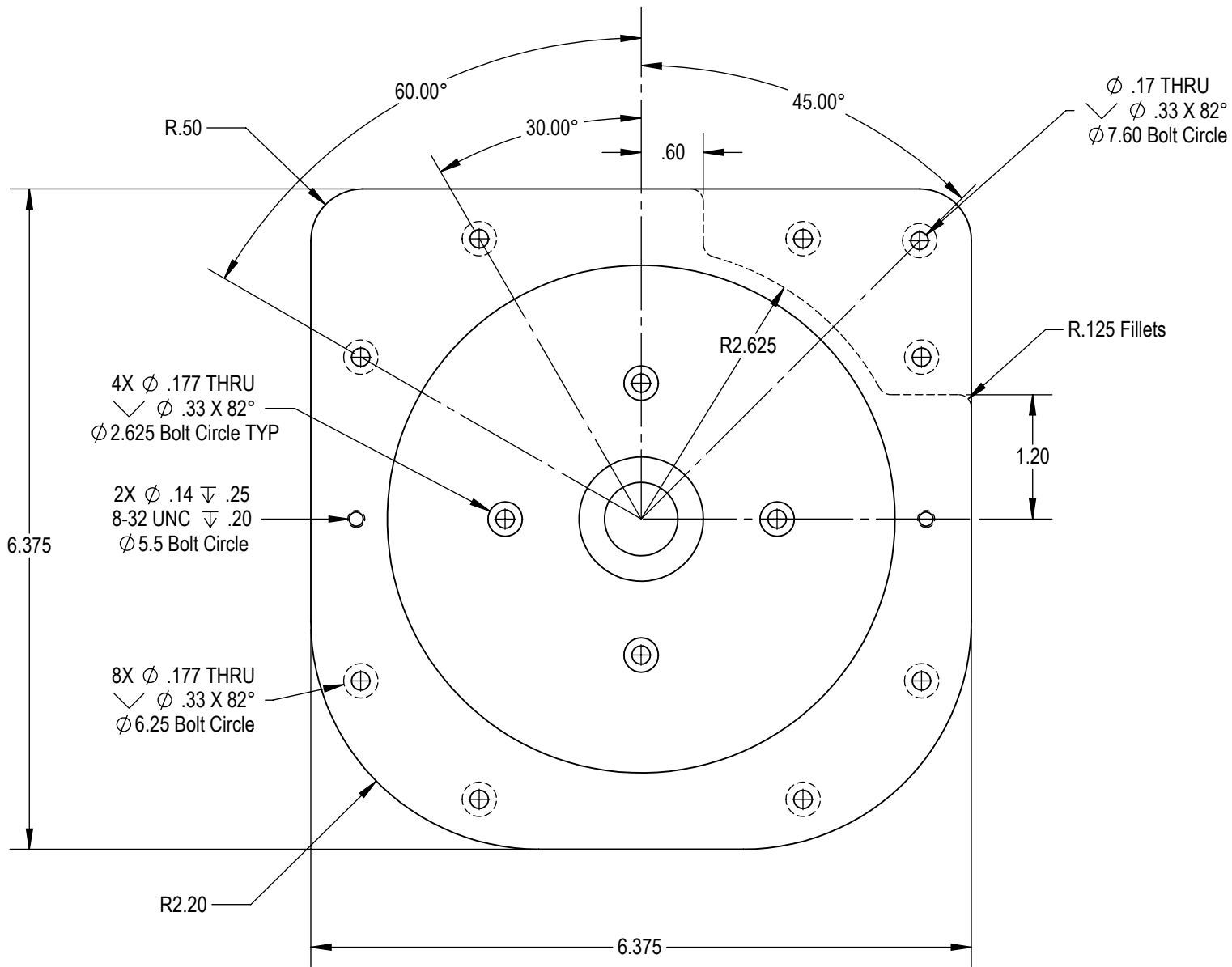
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DEFAULT TOLERANCES:		DESCRIPTION: Frontcase			
LINEAR: X. ± .25 X.X ± .1 X.XX ± .01 X.XXX ± .002	ANGULAR: X. ± 2 X.X ± 1 X.XX ± 0 30'	DRAWN BY: Basti-Boys	DATE: 5/4/2018	UNIVERSITY OF IDAHO ME DEPARTMENT	
MATERIAL:		CHECKED BY:	DATE:		
		FILE NAME: Proto 1 Motor and Gearbox		SCALE: 1:2	SHEET: 3 OF 12

SECTION A-A
SCALE 1 : 1.5

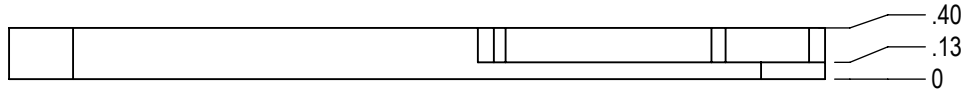


A-B) See Attached Sheets
E) 15° Chamfer for Press Fits

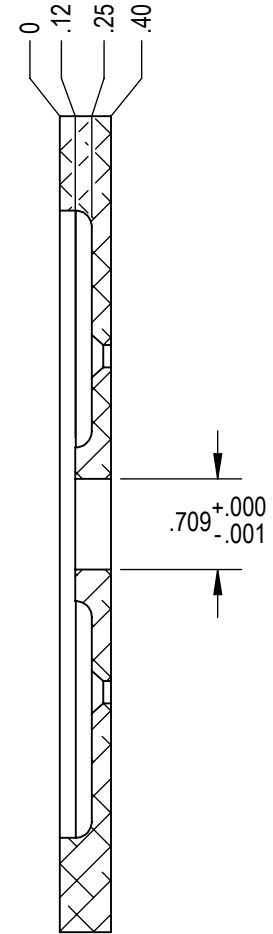
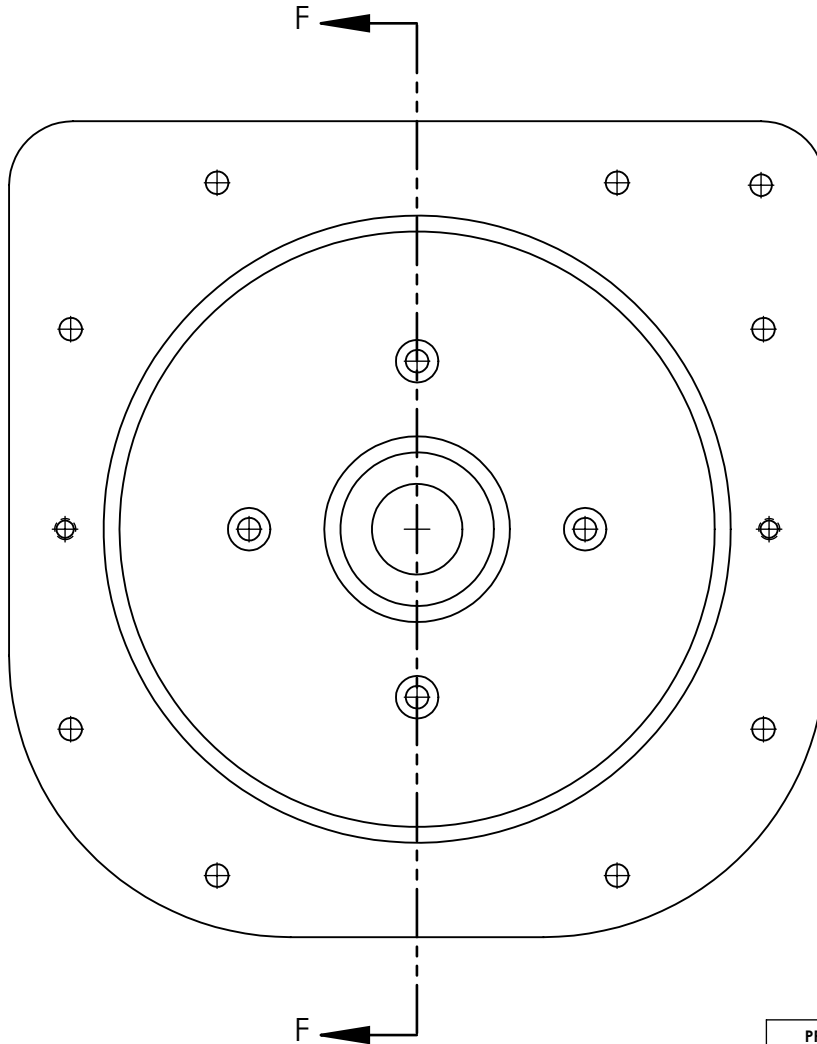
<p>PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF UNIVERSITY OF IDAHO, ME DEPARTMENT. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF UNIVERSITY OF IDAHO, ME DEPARTMENT IS PROHIBITED.</p>		<p>DIMENSIONS ARE IN INCHES THIRD ANGLE PROJECTION</p>		<p>Basti-Boys Gearbox</p>	
<p>DEFAULT TOLERANCES:</p>		<p>DESCRIPTION: Frontcase</p>		<p>UNIVERSITY OF IDAHO ME DEPARTMENT</p>	
<p>LINEAR: X. ± .25 X.X ± .1 X.XX ± .01 X.XXX ± .002</p>	<p>ANGULAR: X. ± 2 X.X ± 1 X.XX ± 0.30'</p>	<p>DRAWN BY: Basti-Boys</p>	<p>DATE: 5/4/2018</p>	<p>PART #:</p>	
<p>FILE NAME: Proto 1 Motor and Gearbox</p>		<p>CHECKED BY:</p>	<p>DATE:</p>	<p>QTY:</p>	
<p>SCALE: 1:2</p>		<p>SHEET: 4 OF 12</p>		<p>MATERIAL:</p>	



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MATERIAL: 6061 Alloy		DESCRIPTION: Gearbox Casing Back		UNIVERSITY OF IDAHO ME DEPARTMENT	
DEFAULT TOLERANCES: LINEAR: X. ± .25 X.X ± .1 X.XX ± .01 X.XXX ± .002		ANGULAR: X. ± 2 X.X ± 1 X.XX ± 0 30'		DRAWN BY: Basti-Boys DATE: 5/4/2018	
FILE NAME: Gearbox Casing Back_Idea_2		CHECKED BY: DATE:		PART #: 02 QTY:	
		SCALE: 2:3		SHEET: 5 OF 12	

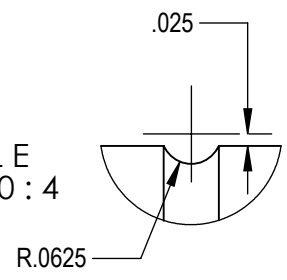


SECTION F-F
SCALE 1 : 1.5

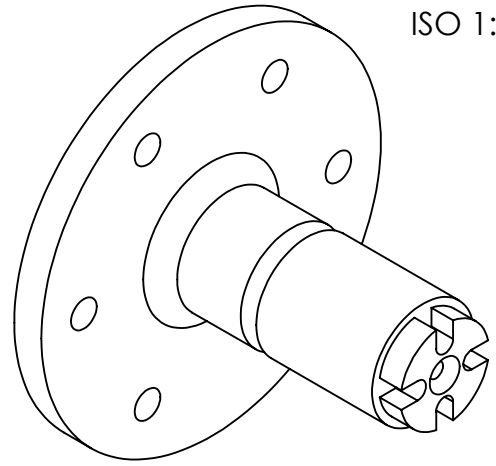


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DEFAULT TOLERANCES:		MATERIAL:			
LINEAR: X. ± .25 X.X ± .1 X.XX ± .01 X.XXX ± .002	ANGULAR: X. ± 2 X.X ± 1 X.XX ± 0 30'	DESCRIPTION: Gearbox Casing Back		UNIVERSITY OF IDAHO ME DEPARTMENT	
		DRAWN BY: Basti-Boys	DATE: 5/4/2018		
		CHECKED BY:	DATE:	PART #:	QTY:
		FILE NAME: Proto 1 Motor and Gearbox		SCALE: 1:2	SHEET: 6 OF 12

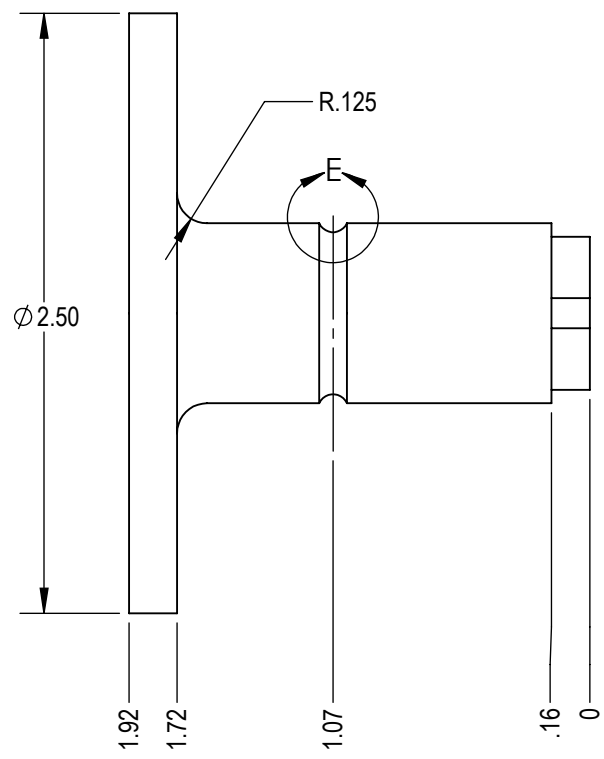
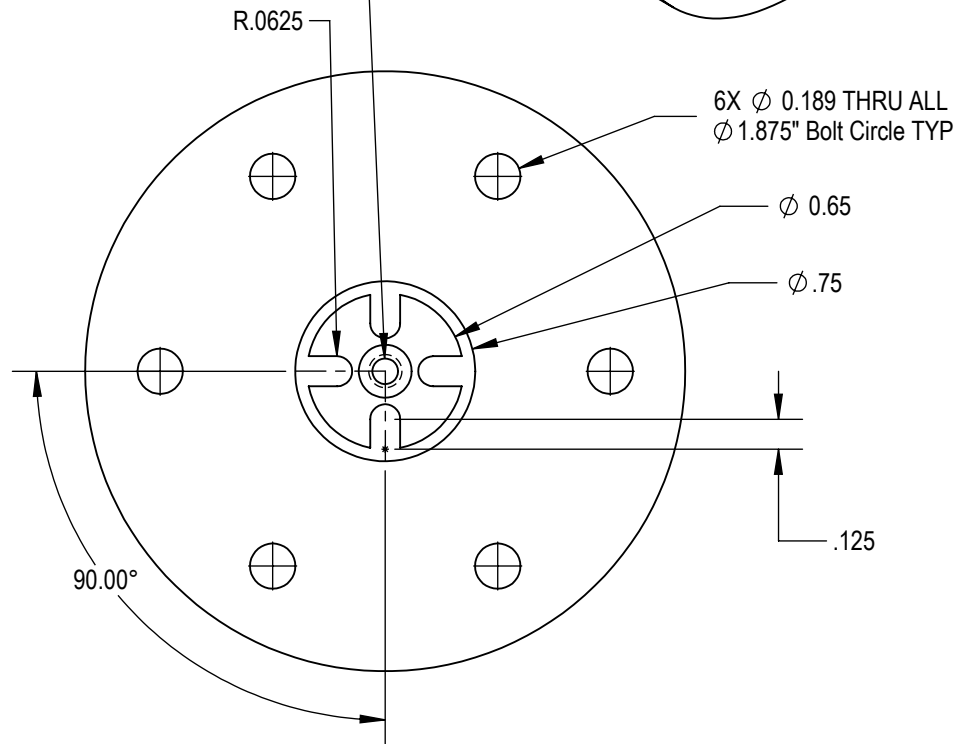
DETAIL E
SCALE 10 : 4



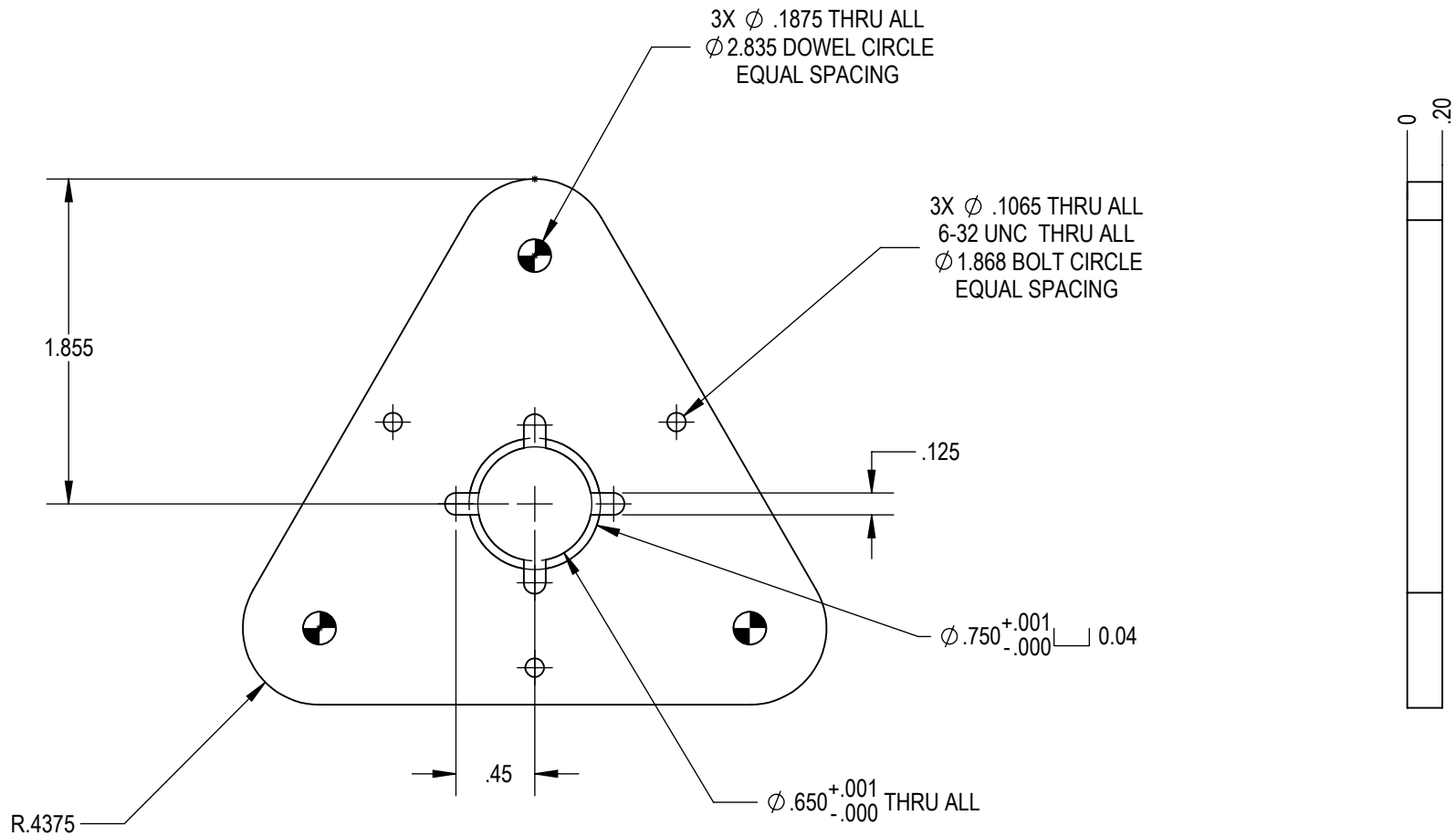
ISO 1:1




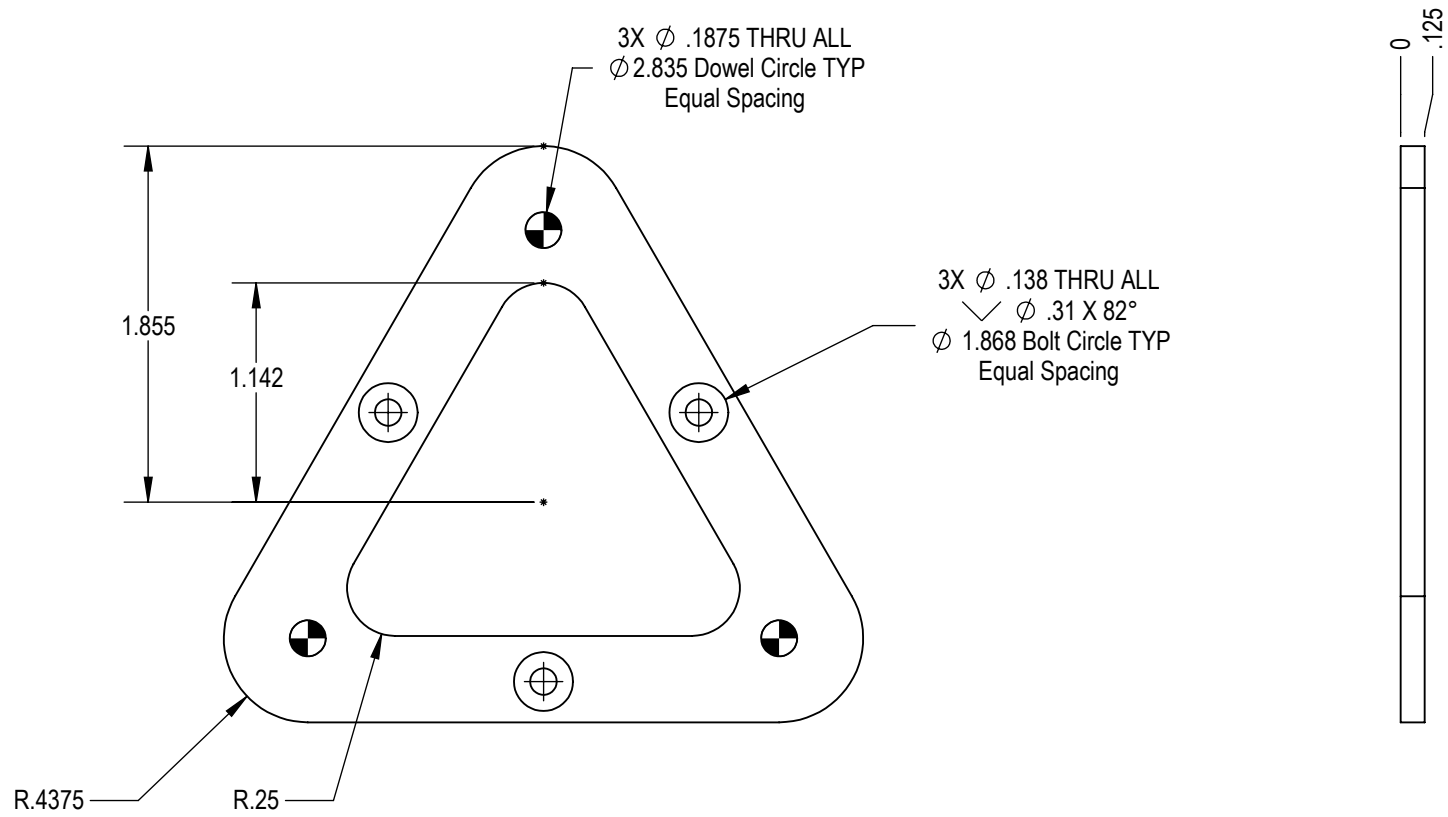
ϕ .1065 ∇ .45
6-32 UNC ∇ .38
 \checkmark ϕ 0.22 X 82°, NEAR SIDE



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		MATERIAL: AISI 1020 Steel, Cold Rolled			
DEFAULT TOLERANCES:		DESCRIPTION: Output Shaft		UNIVERSITY OF IDAHO ME DEPARTMENT	
LINEAR: X. \pm .25 X.X \pm .1 X.XX \pm .01 X.XXX \pm .002		DRAWN BY: Basti-Boys			
ANGULAR: X. \pm 2 X.X \pm 1 X.XX \pm 0 30'		CHECKED BY:		DATE:	PART #: 04
		FILE NAME: Output Shaft_05_Idea_2		SCALE: 5:4	QTY:
					SHEET: 7 OF 12

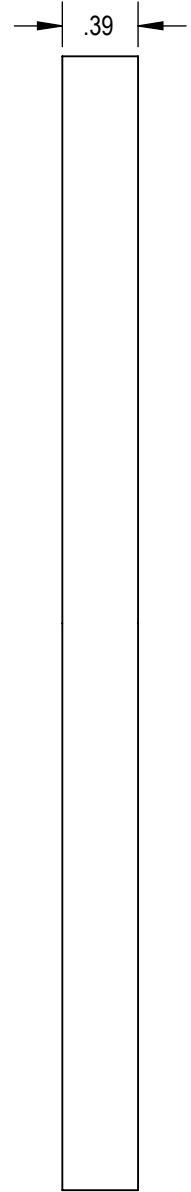
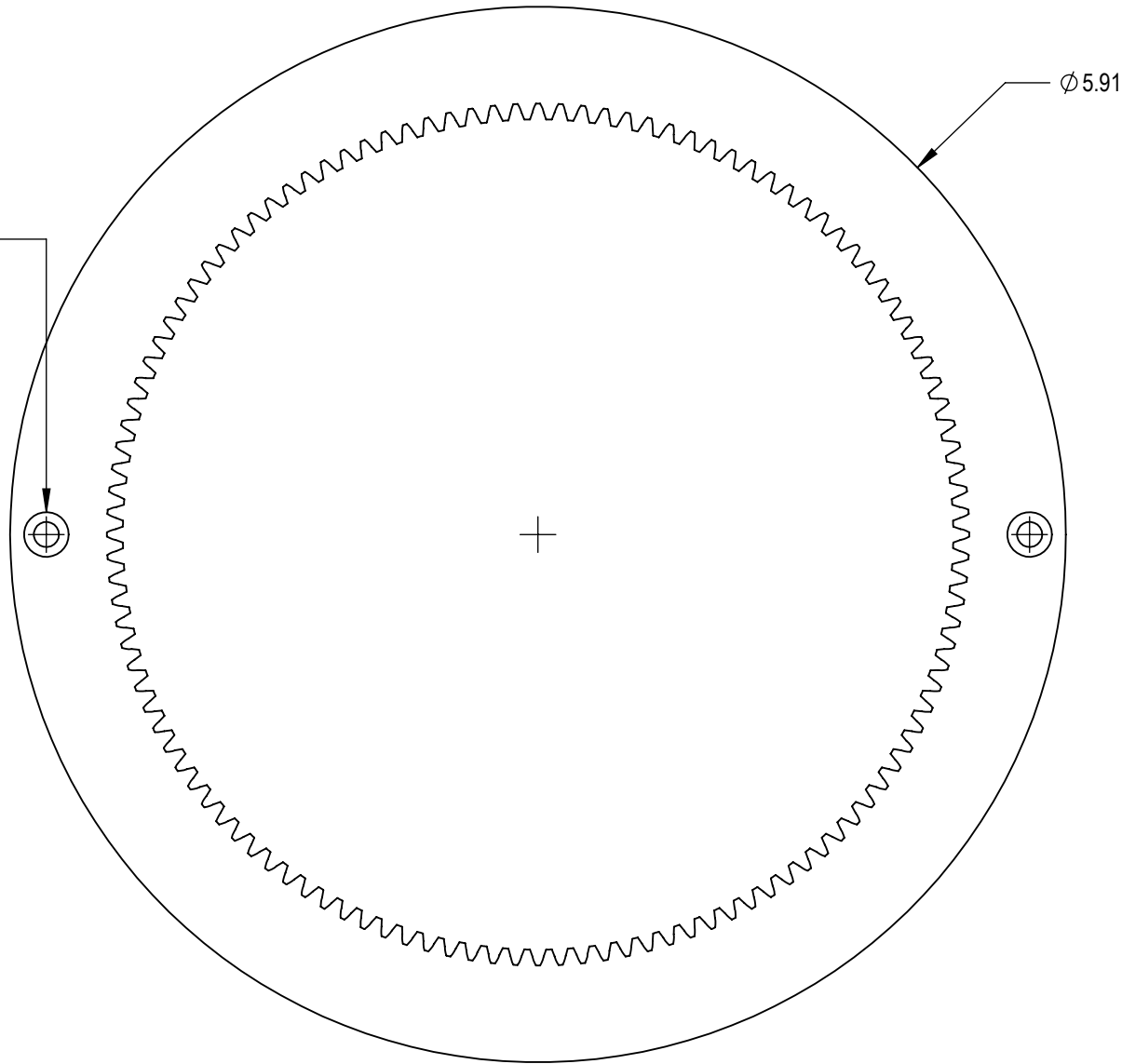


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DEFAULT TOLERANCES:		DESCRIPTION: Output Carrier			
LINER: X. \pm .25 X.X \pm .1 X.XX \pm .01 X.XXX \pm .002	ANGULAR: X. \pm 2 X.X \pm 1 X.XX \pm 0 30'	DRAWN BY: Basti-Boys	DATE: 5/4/2018	UNIVERSITY OF IDAHO ME DEPARTMENT	
		CHECKED BY:	DATE:		
		FILE NAME: Proto 1 Motor and Gearbox	SCALE: 1:1	SHEET: 8 OF 12	

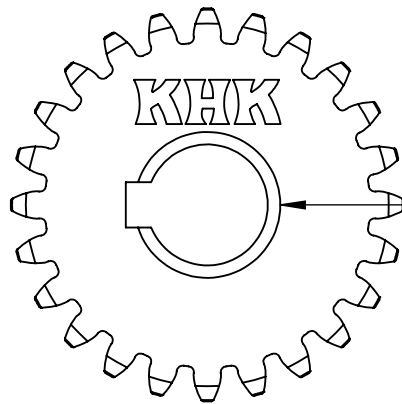


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DEFAULT TOLERANCES:		DESCRIPTION: Carrier Guide			
LINEAR: X. \pm .25 X.X \pm .1 X.XX \pm .01 X.XXX \pm .002	ANGULAR: X. \pm 2 X.X \pm 1 X.XX \pm 0 30'	DRAWN BY: Basti-Boys	DATE: 5/4/2018	PART #:	QTY:
		CHECKED BY:	DATE:	SCALE: 1:1	SHEET: 9 OF 12
		FILE NAME: Proto 1 Motor and Gearbox			

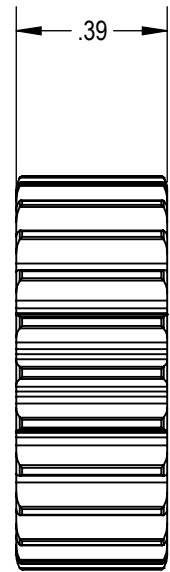
2X ϕ .14 THRU ALL
 ϕ .25 ∇ .15
 ϕ 5.5 Bolt Circle




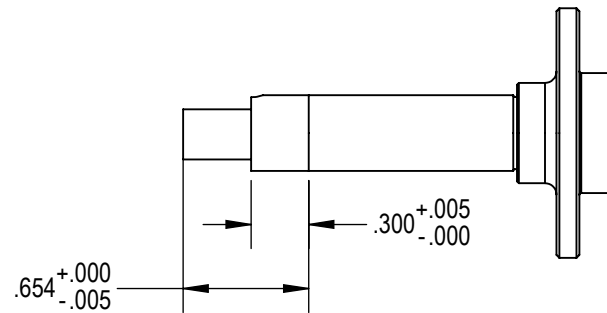
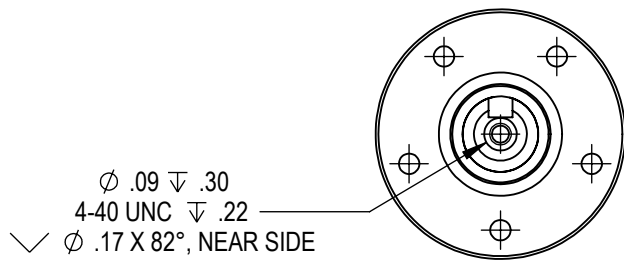
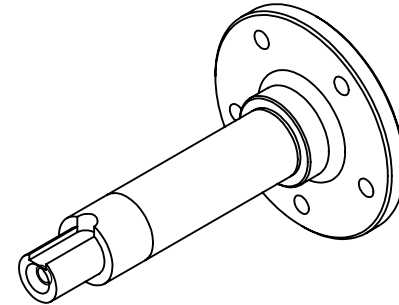
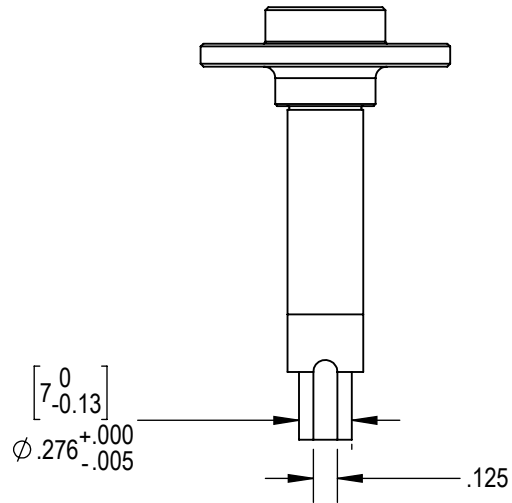
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DEFAULT TOLERANCES:		MATERIAL:			
LINEAR: X. \pm .25 X.X \pm .1 X.XX \pm .01 X.XXX \pm .002	ANGULAR: X. \pm 2 X.X \pm 1 X.XX \pm 0 30'	DESCRIPTION:	DATE: 5/4/2018	UNIVERSITY OF IDAHO ME DEPARTMENT	
		DRAWN BY: XXXX	DATE:		
		CHECKED BY:	FILE NAME: Proto 1 Motor and Gearbox	SCALE: 1:1	SHEET: 10 OF 12



$\varnothing 0.38$
 $\lrcorner 0.05$



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DEFAULT TOLERANCES: LINEAR: X. ± .25 X.X ± .1 X.XX ± .01 X.XXX ± .002		MATERIAL:			
ANGULAR: X. ± 2 X.X ± 1 X.XX ± 0 30'		DESCRIPTION: DRAWN BY: XXXX CHECKED BY: FILE NAME: Proto 1 Motor and Gearbox		DATE: 5/4/2018 DATE: PART #:	
		SCALE: 2:1		QTY: SHEET: 11 OF 12	



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DEFAULT TOLERANCES:		MATERIAL:			
LINEAR: X. $\pm .25$ X.X $\pm .1$ X.XX $\pm .01$ X.XXX $\pm .002$	ANGULAR: X. ± 2 X.X ± 1 X.XX $\pm 0.30'$	DESCRIPTION:			UNIVERSITY OF IDAHO ME DEPARTMENT
		DRAWN BY: XXXX	DATE: 5/4/2018	PART #:	
		CHECKED BY:	DATE:	SCALE: 2:1	SHEET: 12 OF 12
		FILE NAME: Proto 1 Motor and Gearbox			