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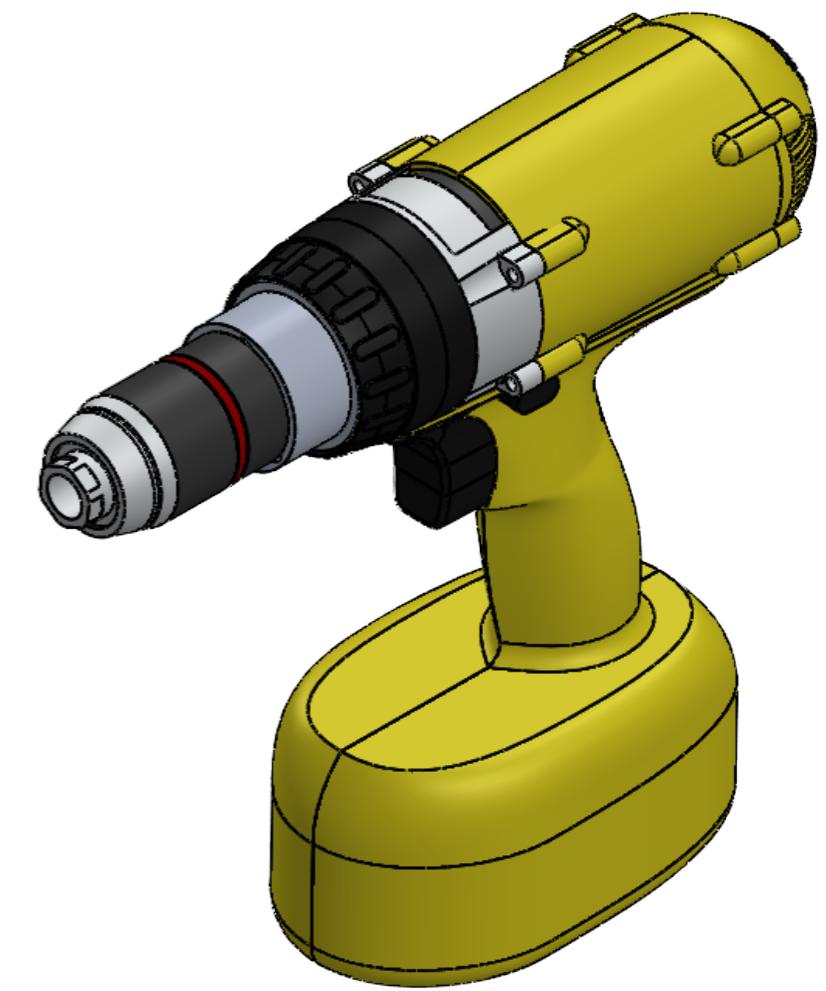
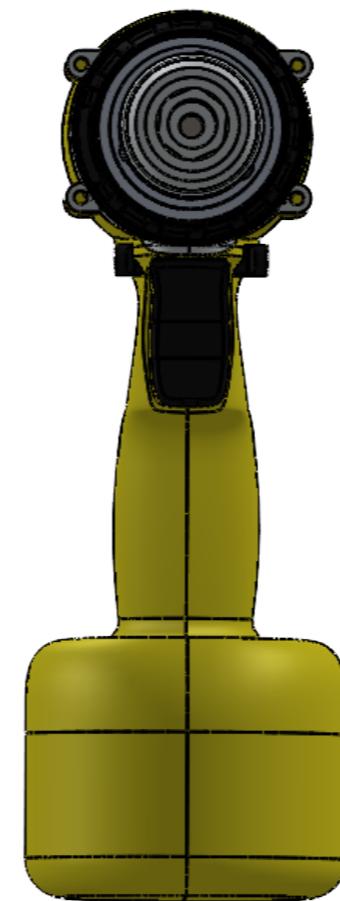
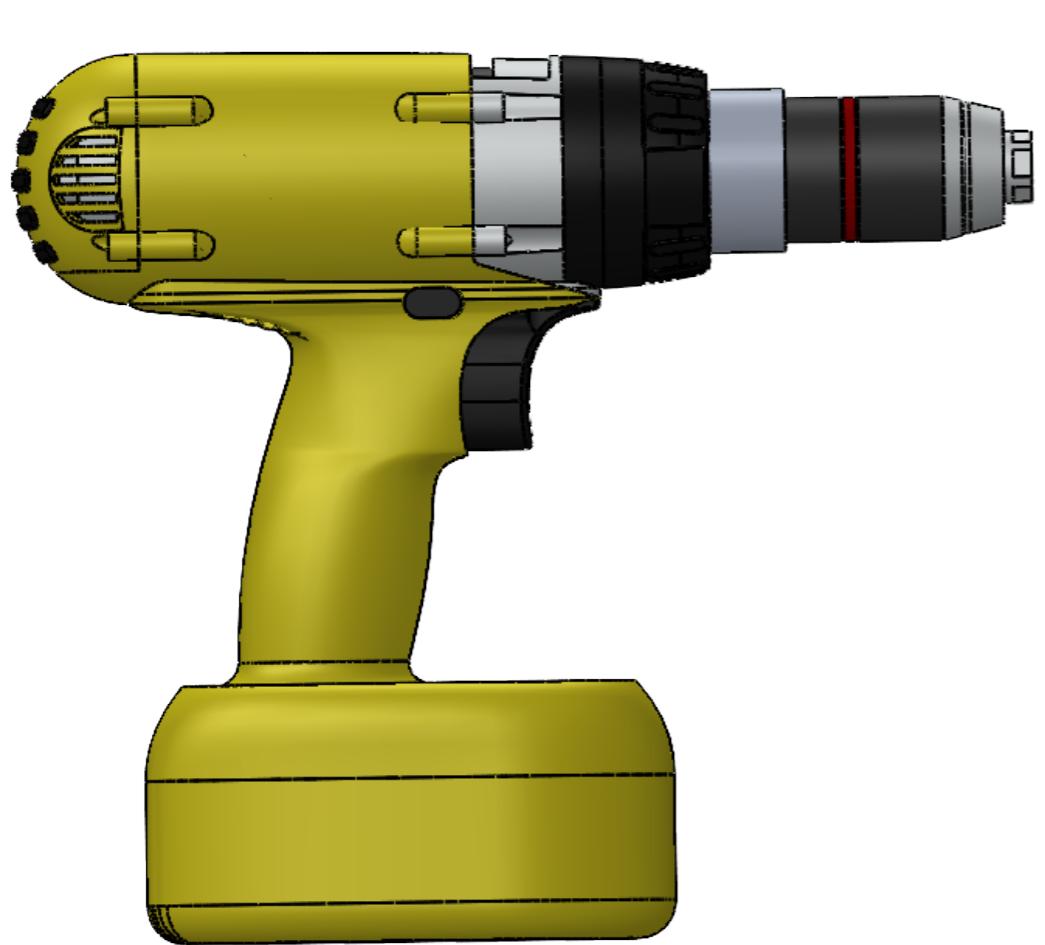
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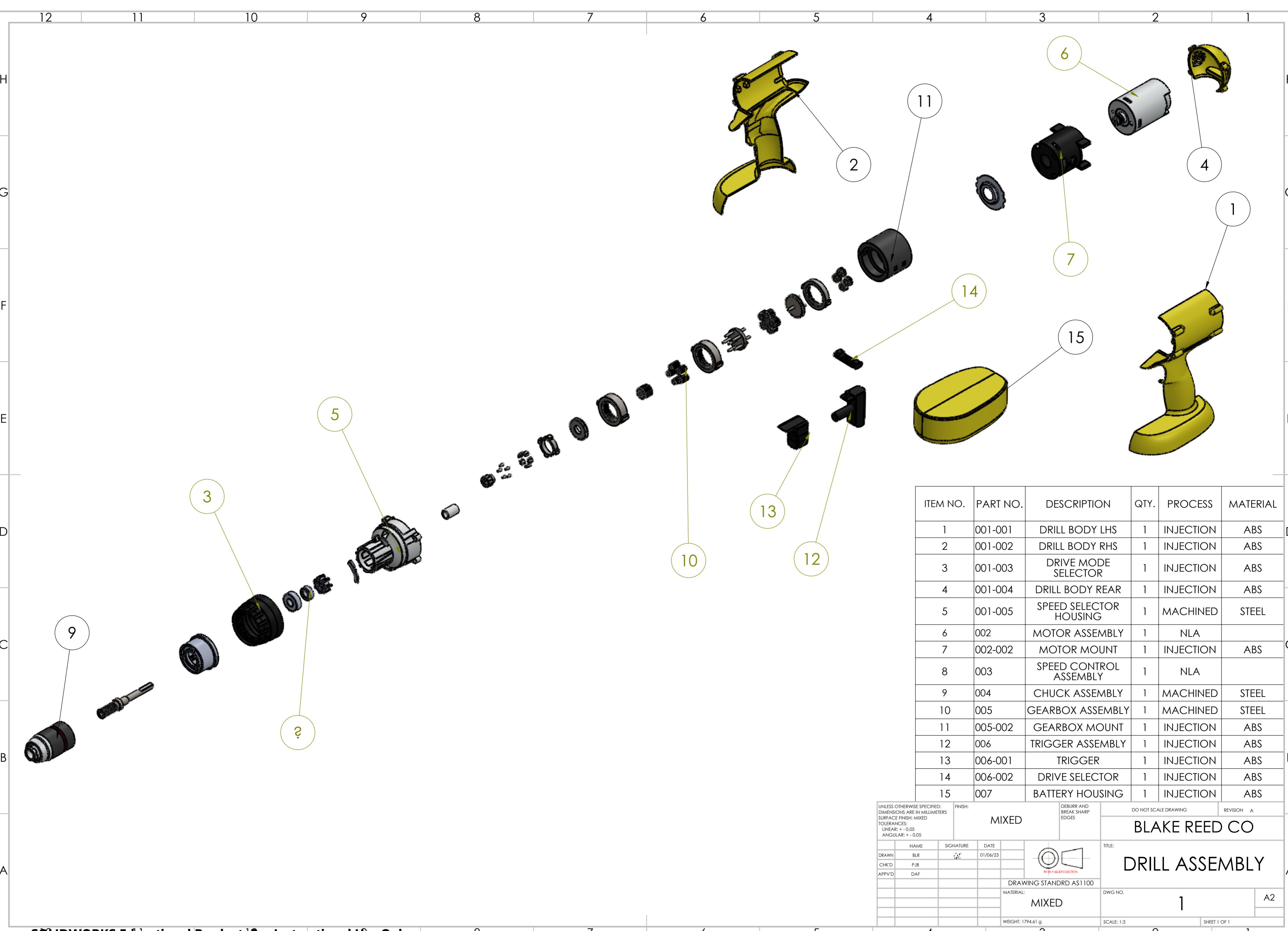
1

9/06/2023

BLAKE REED 22030016



ENGR2024 A3 DRILL ENGINEERING DRAWINGS



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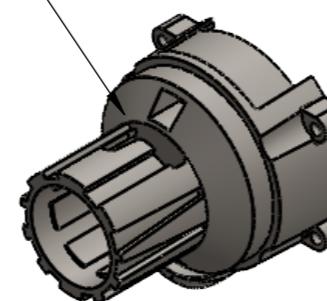
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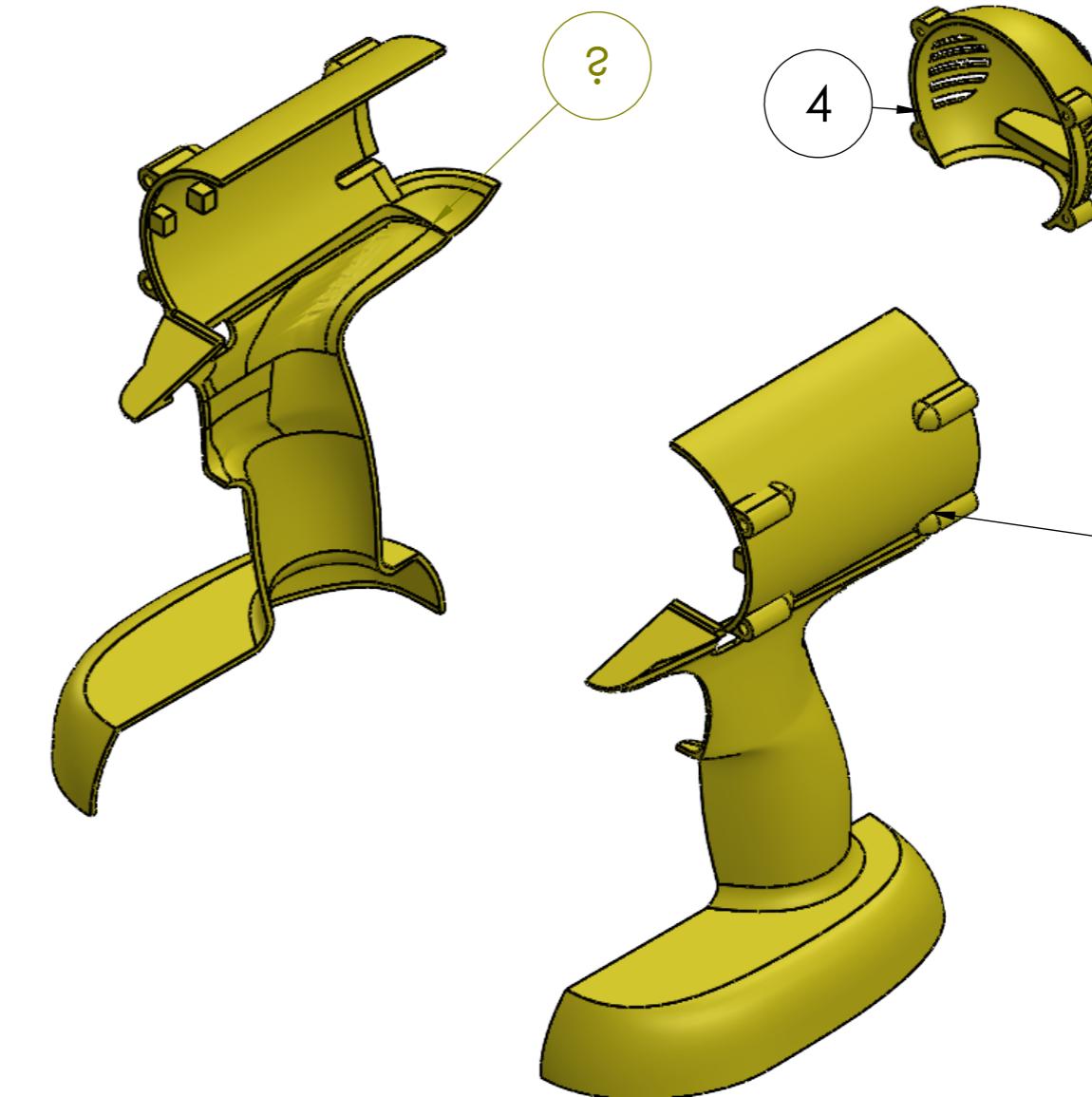
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ITEM NO.	PART NO.	DESCRIPTION	QTY.	PROCESS	MATERIAL
1	001-001	BODY LHS	1	INJECTION	ABS
2	001-002		1	INJECTION	ABS
3	001-003	DRIVE MODE SELECTOR	1	INJECTION	ABS
4	001-004	DRILL BODY REAR	1	INJECTION	ABS
5	001-005	SPEED SELECTOR HOUSING	1	MACHINED	STEEL

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH: MIXED
TOLERANCES:
LINEAR: + 0.05
ANGULAR: + - 0.05

MIXED

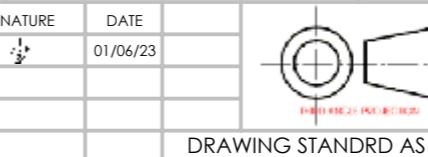
DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION A

BLAKE REED CO

DRAWN	BLR	SIGNATURE	DATE
CHK'D	PJB		01/06/23
APP'D	DAF		



DRAWING STANDRD AS1100

MATERIAL:
MIXED

WEIGHT: 573.30 g

SCALE: 1:2

TITLE:

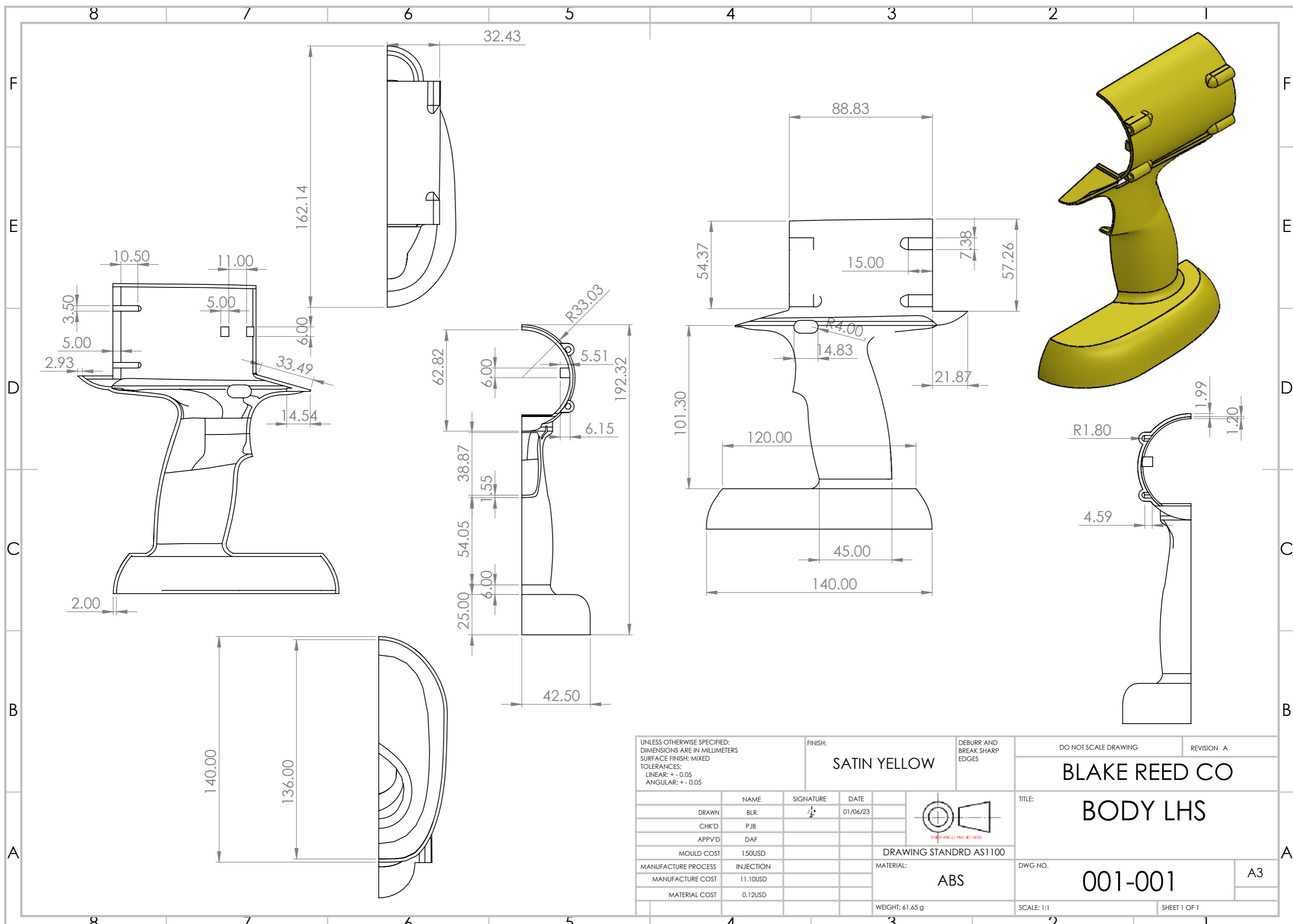
BODY ASSEMBLY

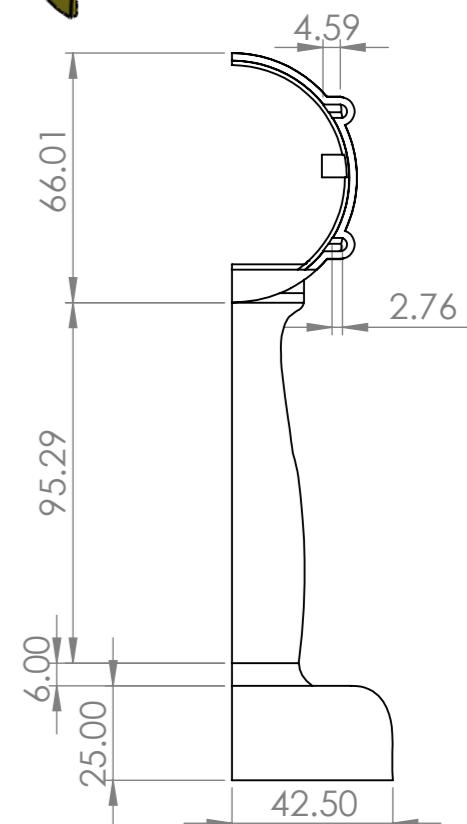
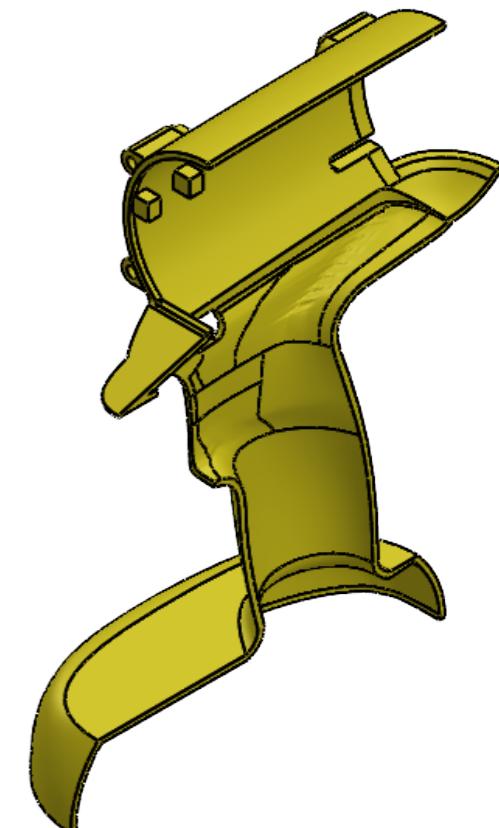
DWG NO.

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A3

SHEET 1 OF 1





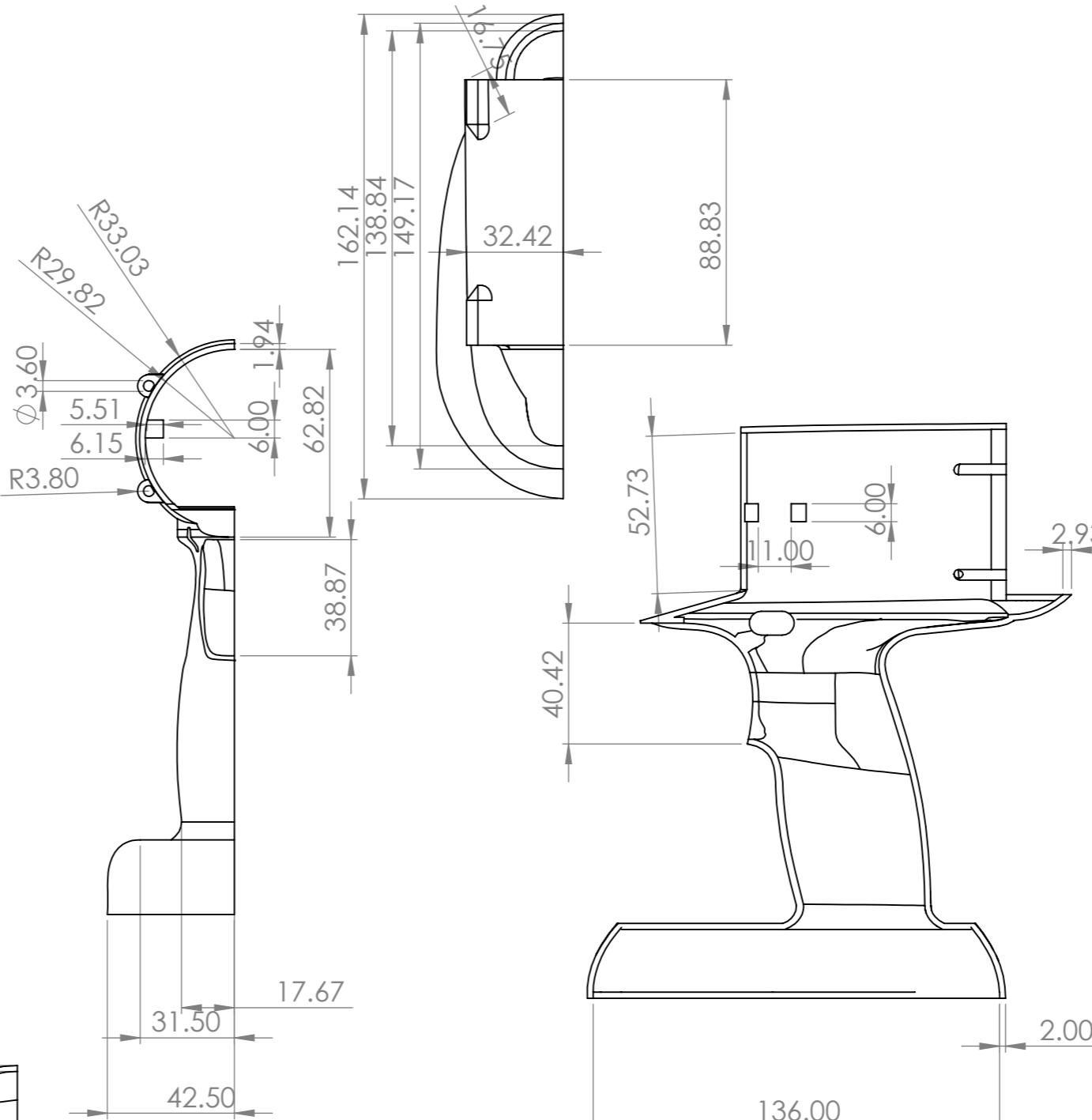
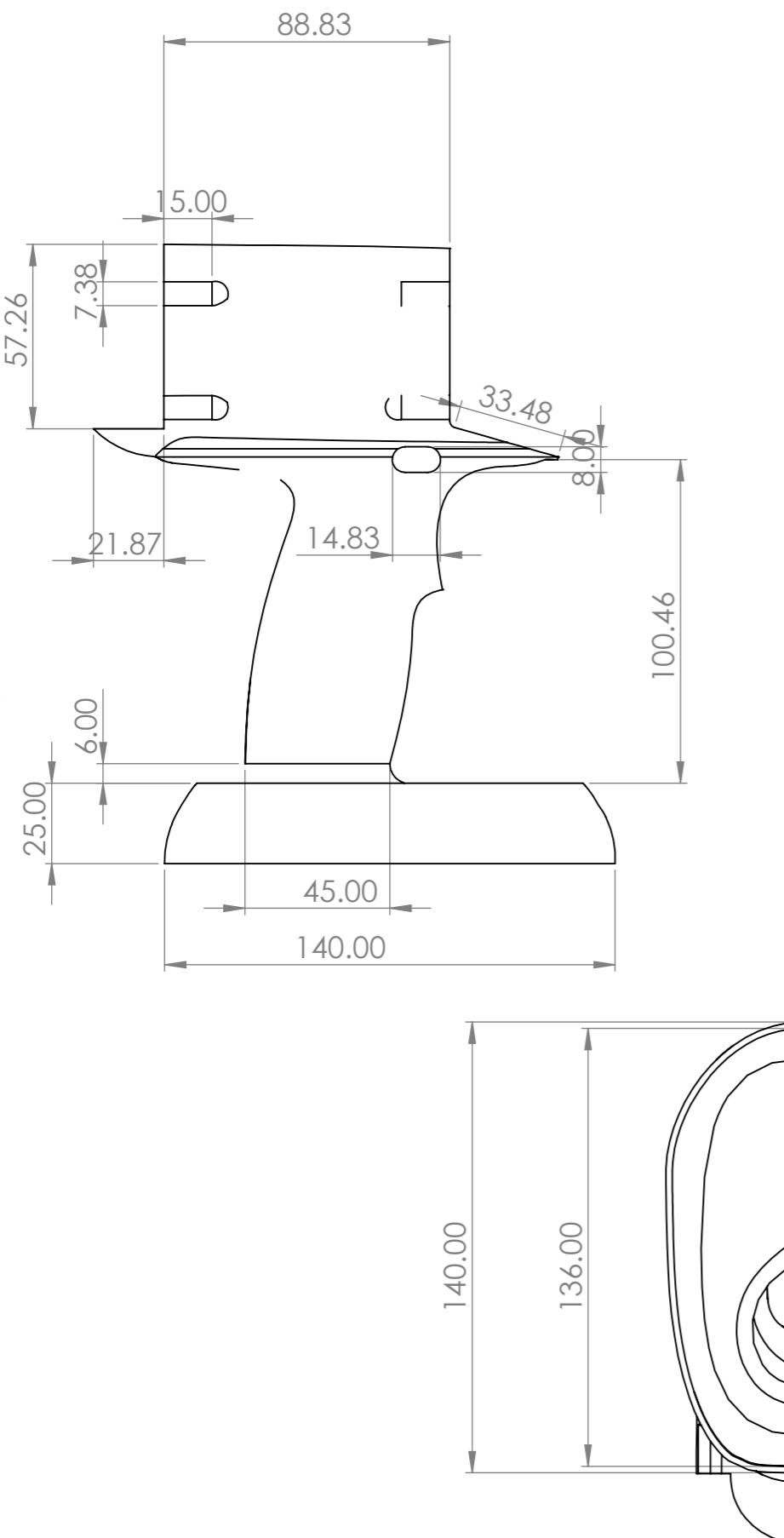
DO NOT SCALE DRAWING

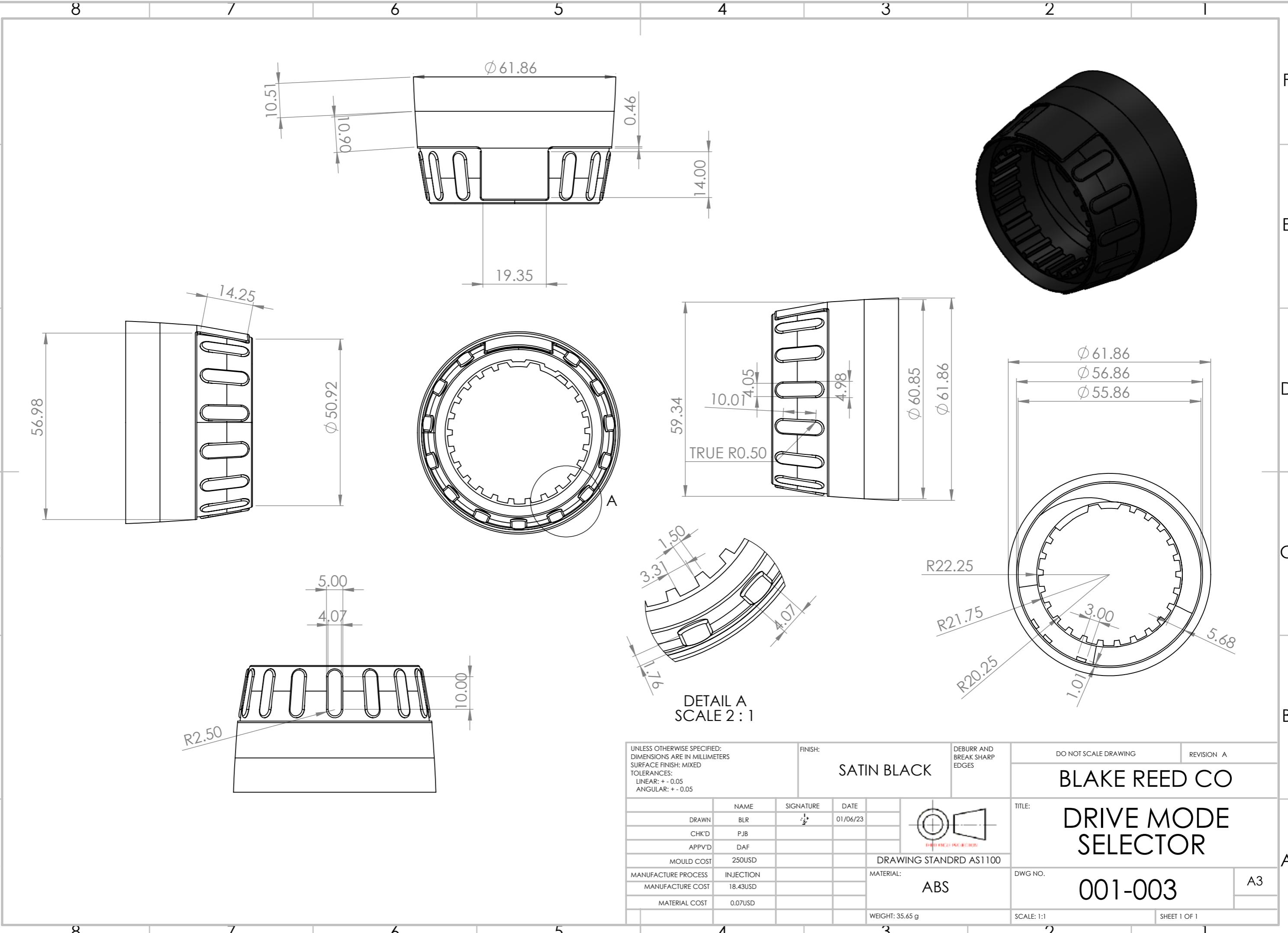
BODY RHS

001-002

A3

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: MIXED TOLERANCES: LINEAR: + - 0.05 ANGULAR: + - 0.05		FINISH: SATIN YELLOW		DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION A	
					BLAKE REED CO		
DRAWN	NAME BLR	SIGNATURE 	DATE 01/06/23		TITLE: BODY RHS	DWG NO. 001-002	A3
CHK'D	PJB						
APPV'D	DAF						
MOULD COST	150USD			DRAWING STANDRD AS1100			
MANUFACTURE PROCESS	INJECTION			MATERIAL: ABS			
MANUFACTURE COST	11.10USD						
MATERIAL COST	0.12						
				WEIGHT: 62.47 g	SCALE: 1:1	SHEET 1 OF 1	





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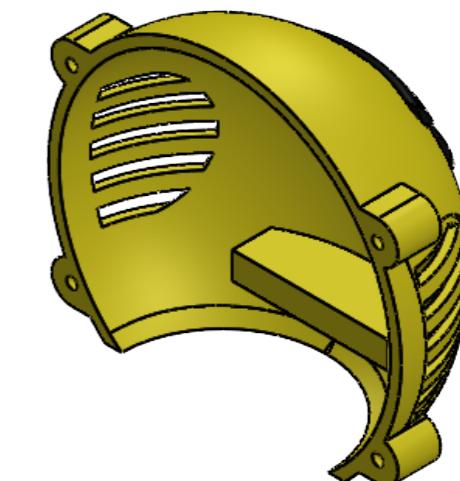
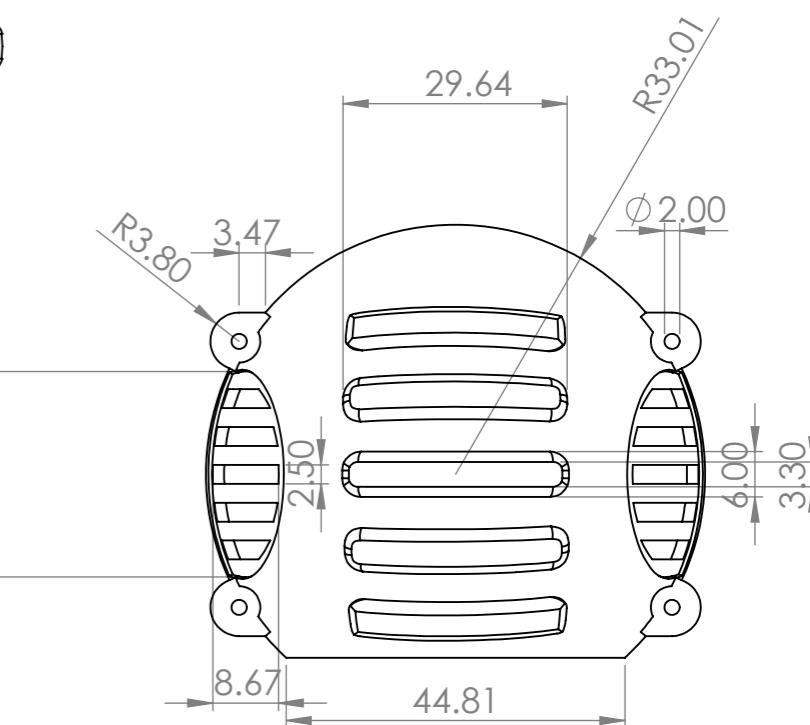
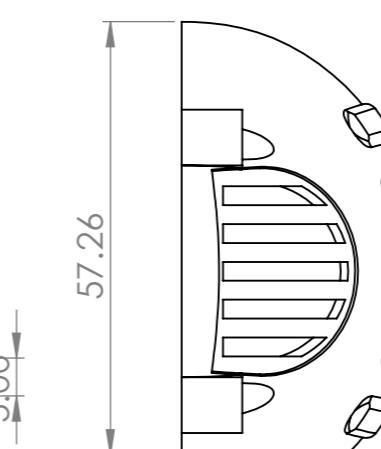
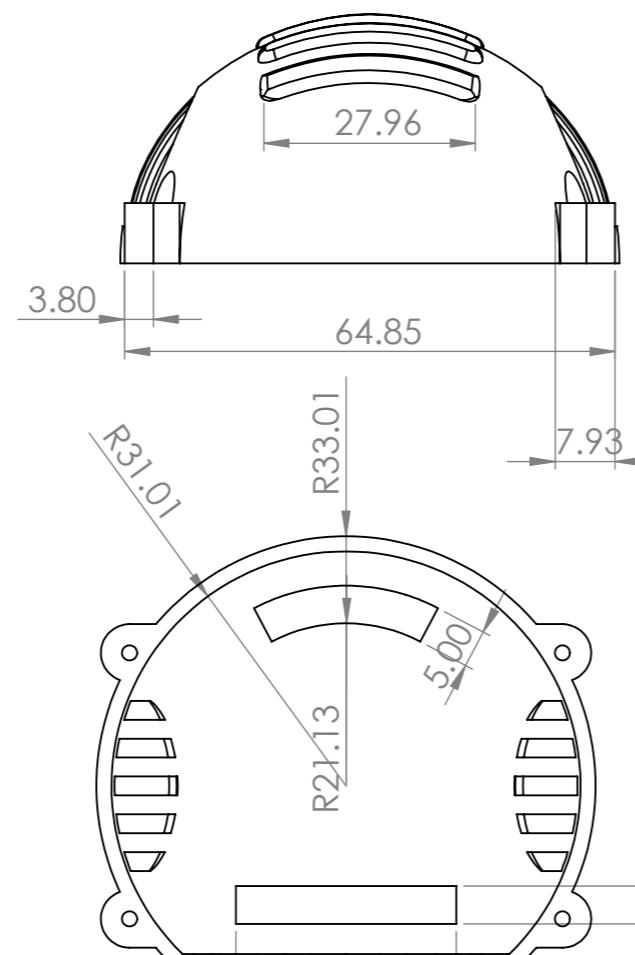
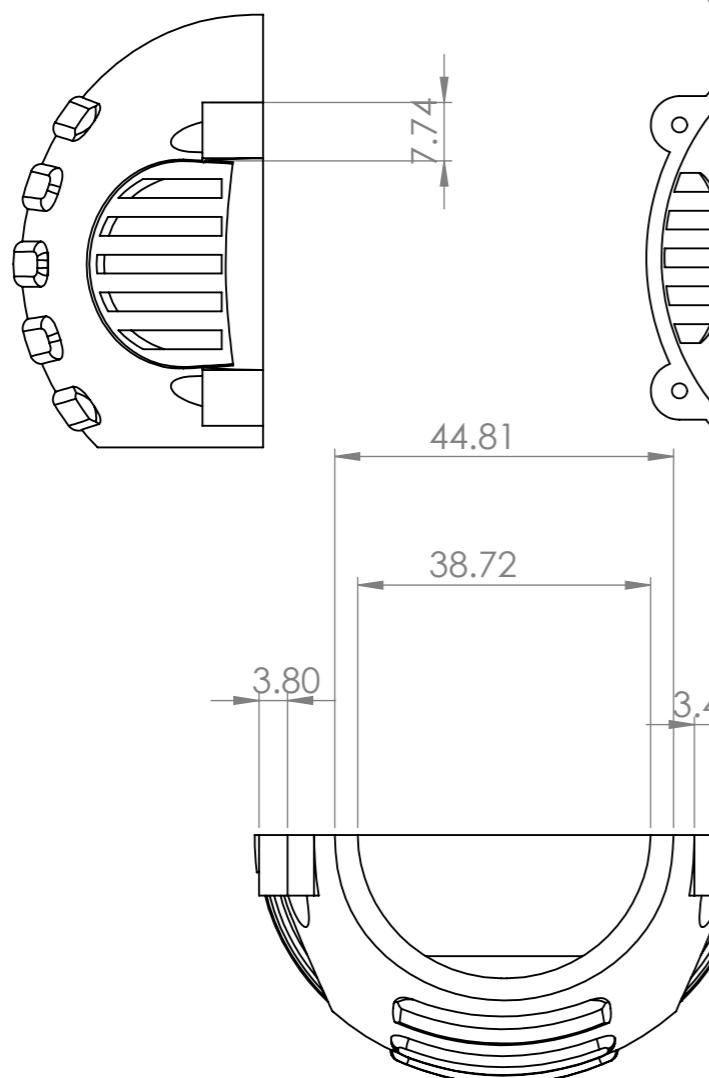
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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH: MIXED
TOLERANCES:
LINEAR: + - 0.05
ANGULAR: + - 0.05

FINISH:
MIXED SATIN YELLOW/BLACK

DEBURR AND
BREAK SHARP
EDGES

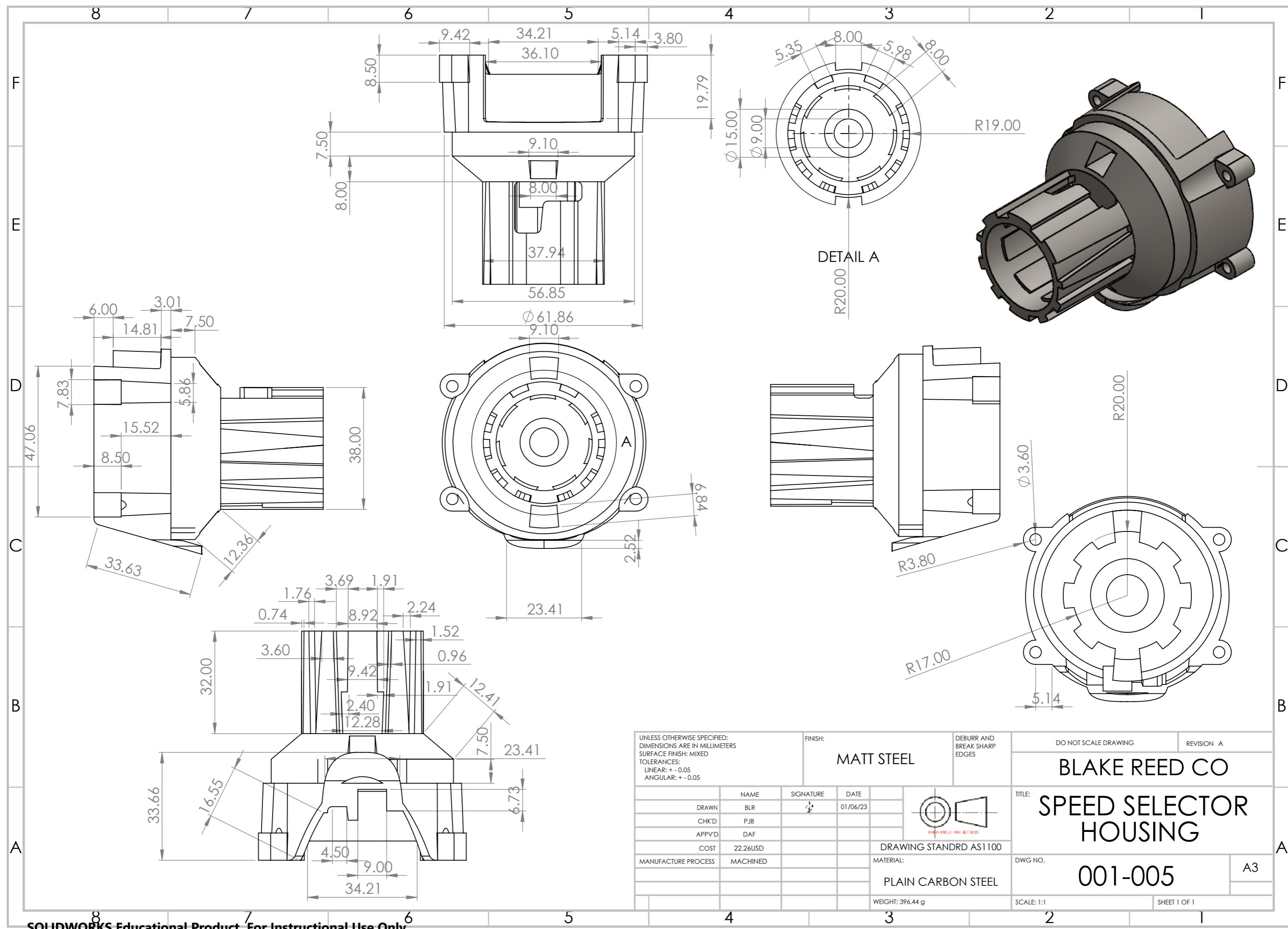
DO NOT SCALE DRAWING

REVISION A

BLAKE REED CO

DRILL BODY REAR

DRAWN	NAME	SIGNATURE	DATE
CHK'D	PJB		
APP'D	DAF		
MOULD COST	50USD		
MANUFACTURE PROCESS	INJECTION		
MANUFACTURE COST	3.67USD		
MATERIAL COST	0.03USD		
			DRAWING STANDRD AS1100
			MATERIAL: ABS
			WEIGHT: 17.25 g
			DWG NO. 001-004
			SCALE: 1:1
			A3
			SHEET 1 OF 1



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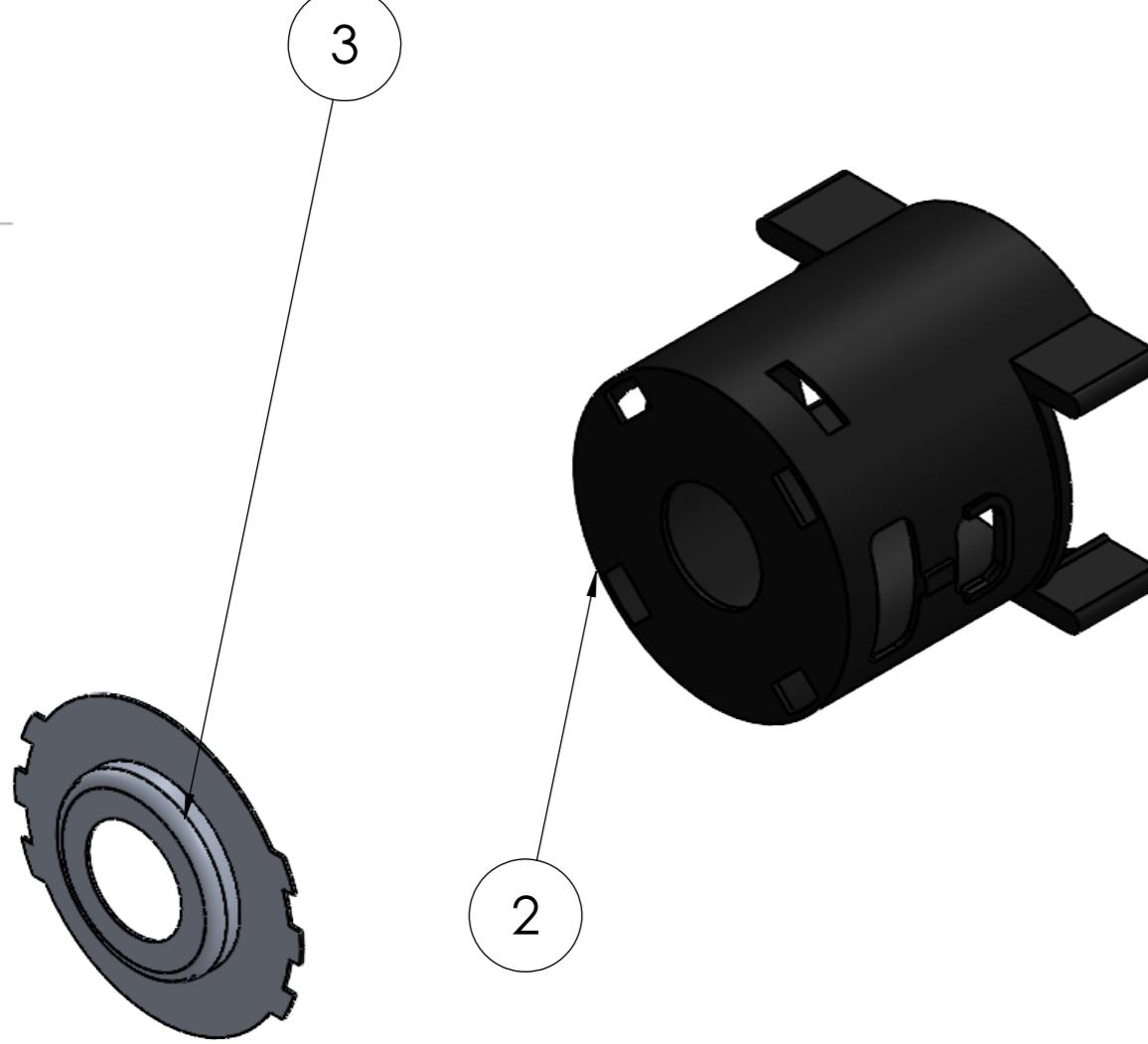
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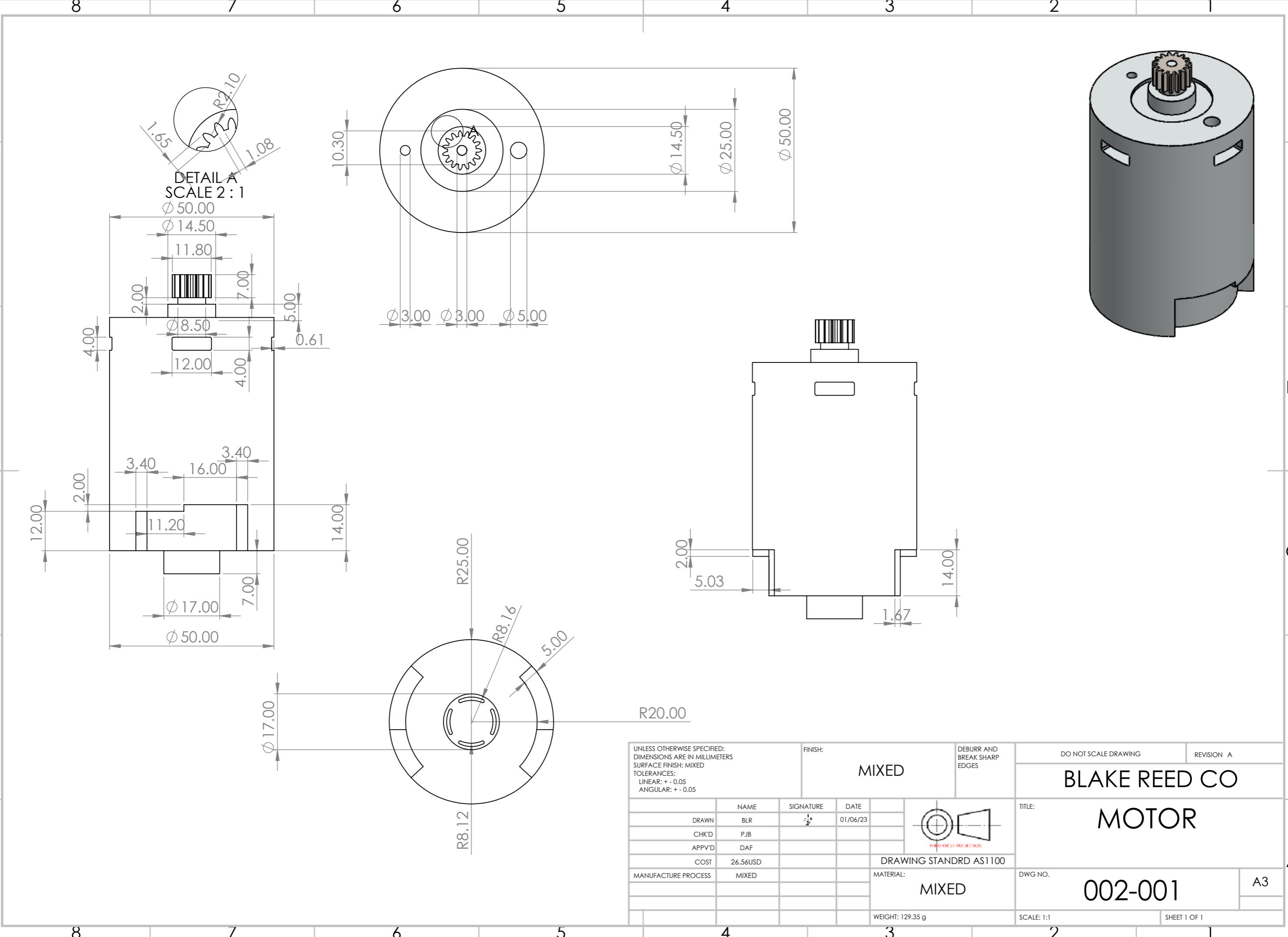
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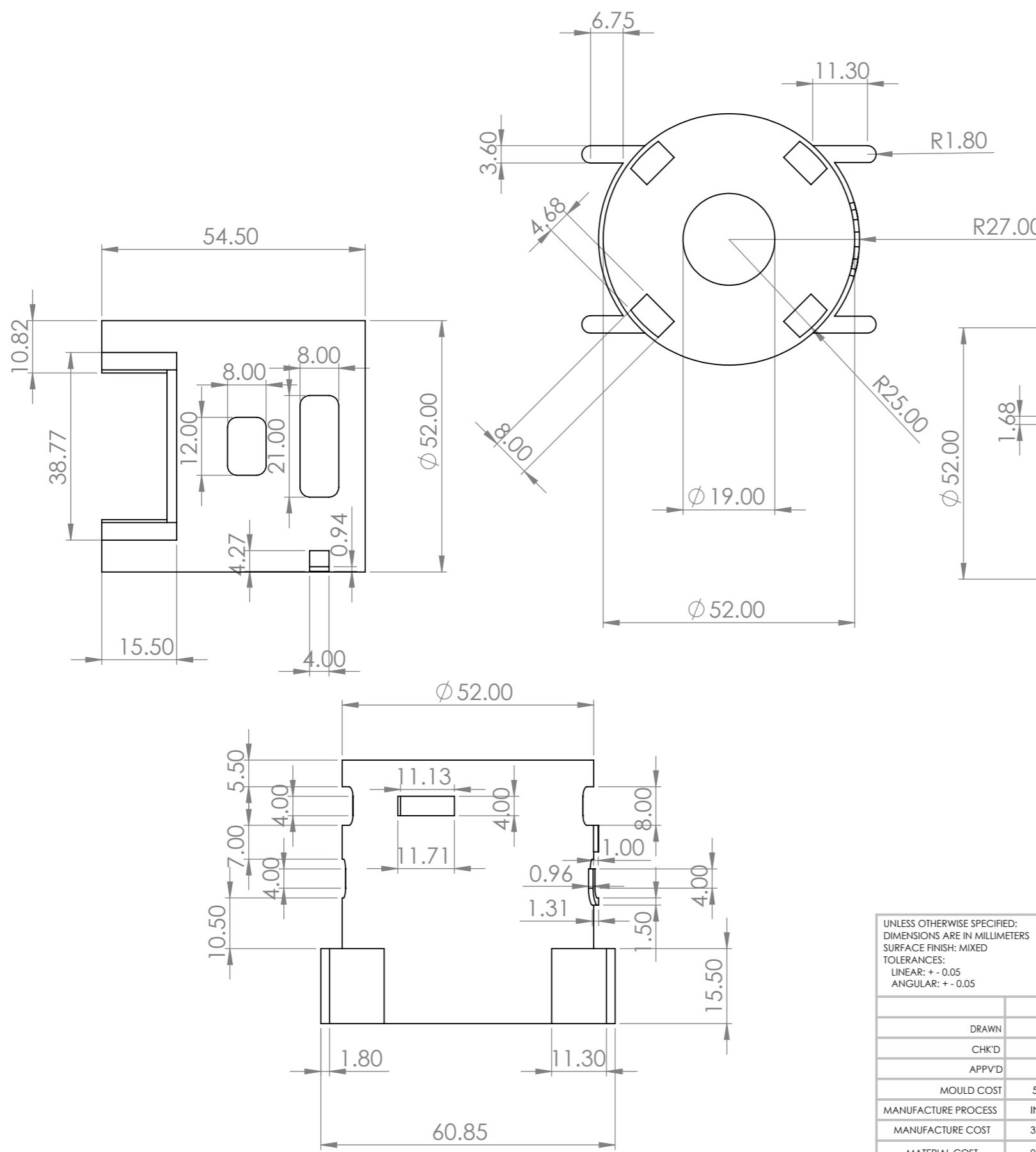
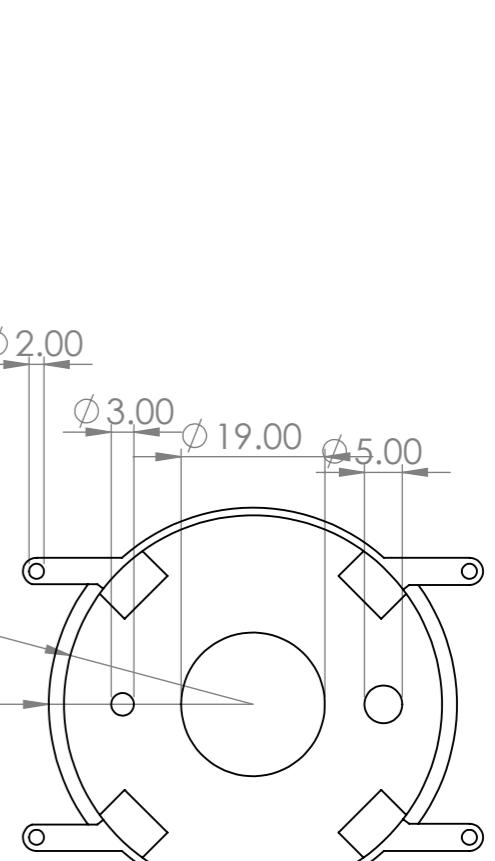
A



ITEM NO.	PART NO.	DESCRIPTION	QTY.	PROCESS	MATERIAL
1	002-001	MOTOR	1	MIXED	MIXED
2	002-002	MOTOR ASSEMBLY	1	INJECTION	PBS
3	002-003	MOTOR SPACER	1	PRESS	ALUMINIUM
4	002-004	MOTOR GEAR	1	MACHINED	

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: MIXED TOLERANCES: LINEAR: + - 0.05 ANGULAR: + - 0.05			FINISH: MIXED	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING		REVISION A		
BLAKE REED CO									
MOTOR ASSEMBLY									
DRAWN	NAME	SIGNATURE	DATE			TITLE:			
BLR			01/06/23			<small>DRAWING STANDRD AS1100</small> <small>MATERIAL: MIXED</small> <small>WEIGHT: 163.76 g</small> <small>SCALE: 1:1</small>			
CHK'D	PJB								
APP'D	DAF								
						DWG NO.	3		
						A3			
						SHEET 1 OF 1			





UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETER
SURFACE FINISH: MIXED
TOLERANCES:
NEAR: + 0.05
ANGULAR: +/- 0.25

H: SATIN BLACK

DEBURR AND
BREAK SHARP
EDGES

O NOT SCALE DRAWING REVISION A

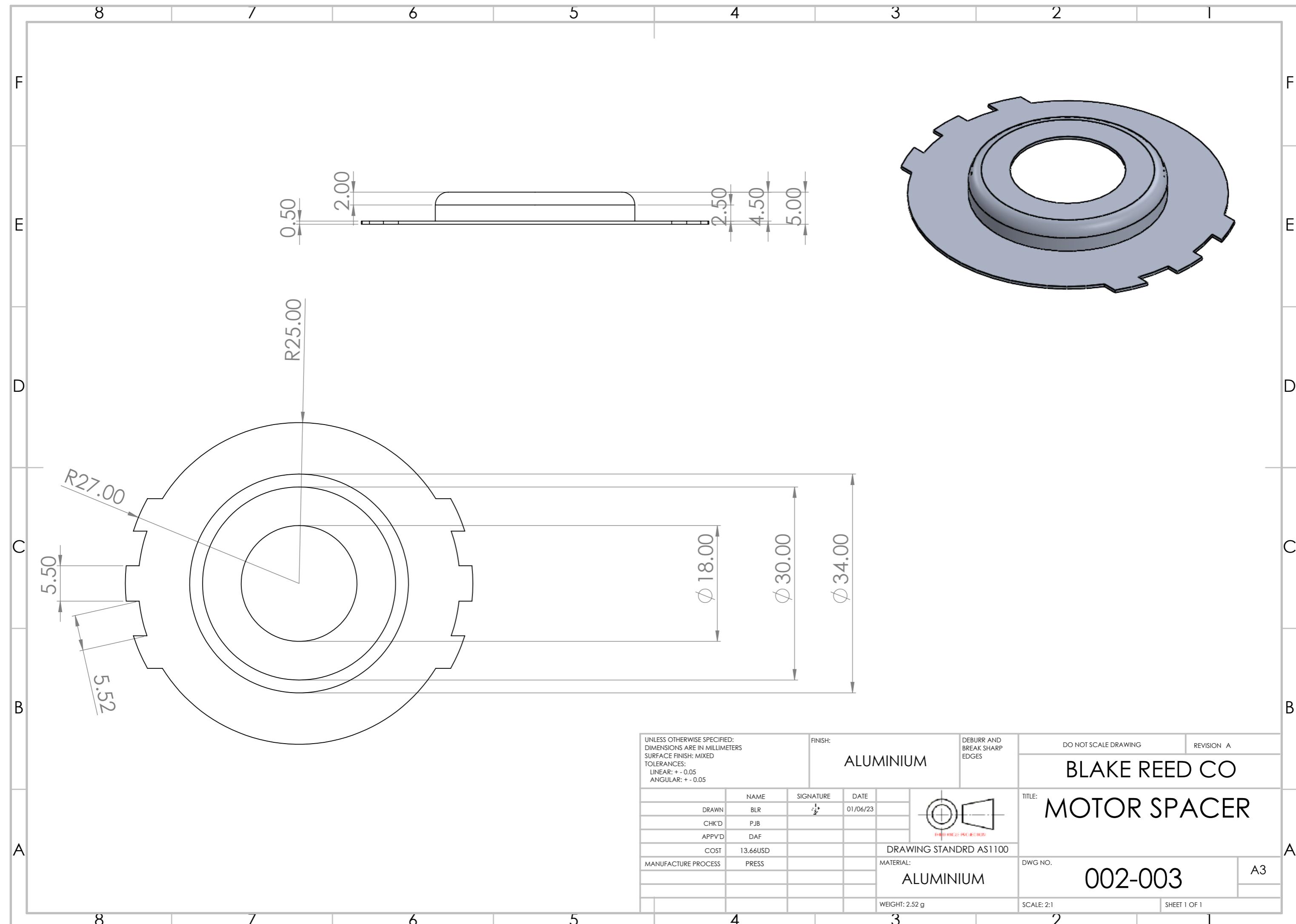
BLAKE REED CO

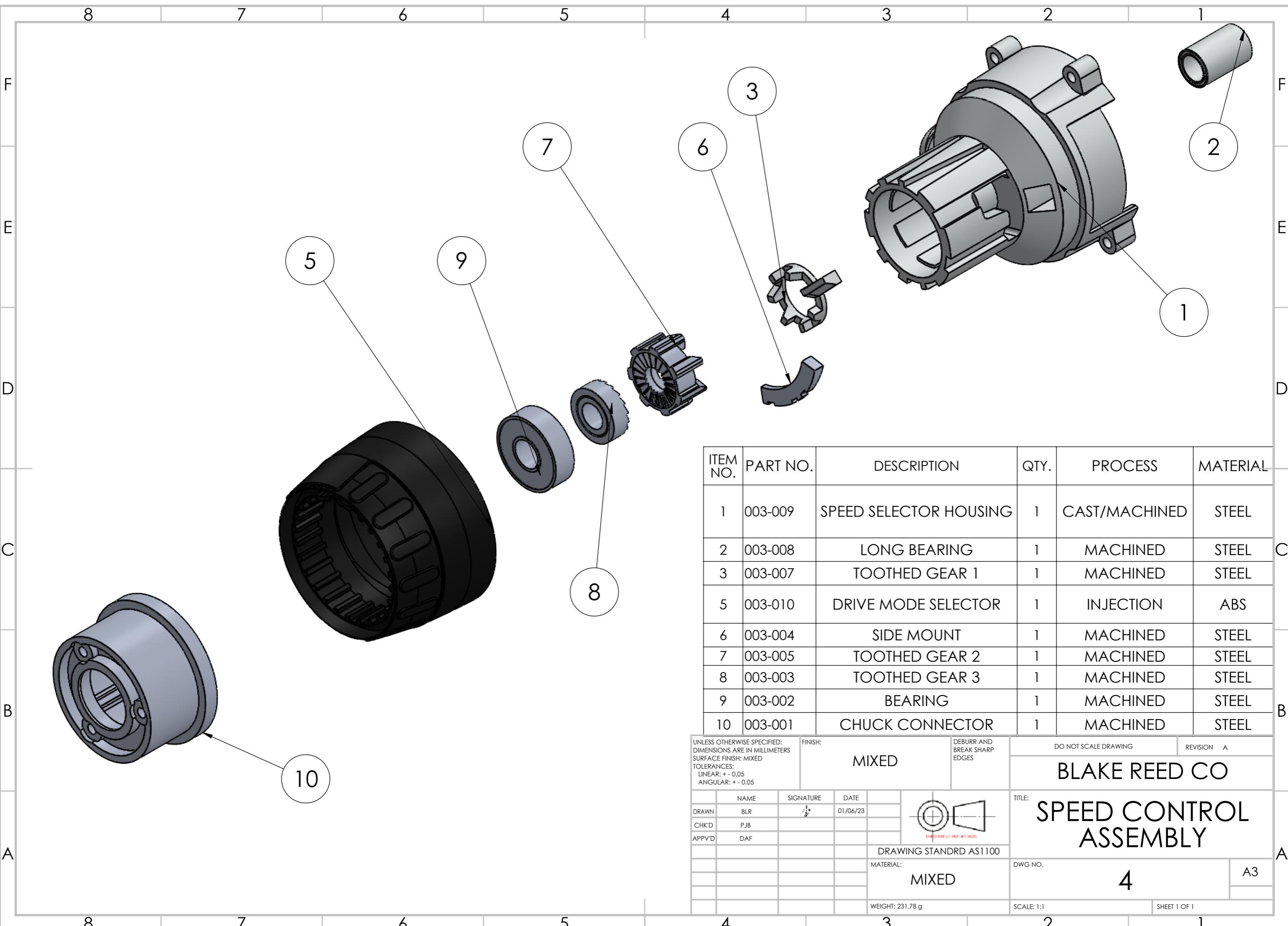
ANGULAR: + - 0.05			
	NAME	SIGNATURE	DATE
DRAWN	BLR		01/06/23
CHK'D	PJB		
APP'V'D	DAF		
MOULD COST	50USD		DRAWING STANDRD AS110
MANUFACTURE PROCESS	INJECTION		MATERIAL:
MANUFACTURE COST	3.67USD		
MATERIAL COST	0.03USD		
			WEIGHT: 14.65 g

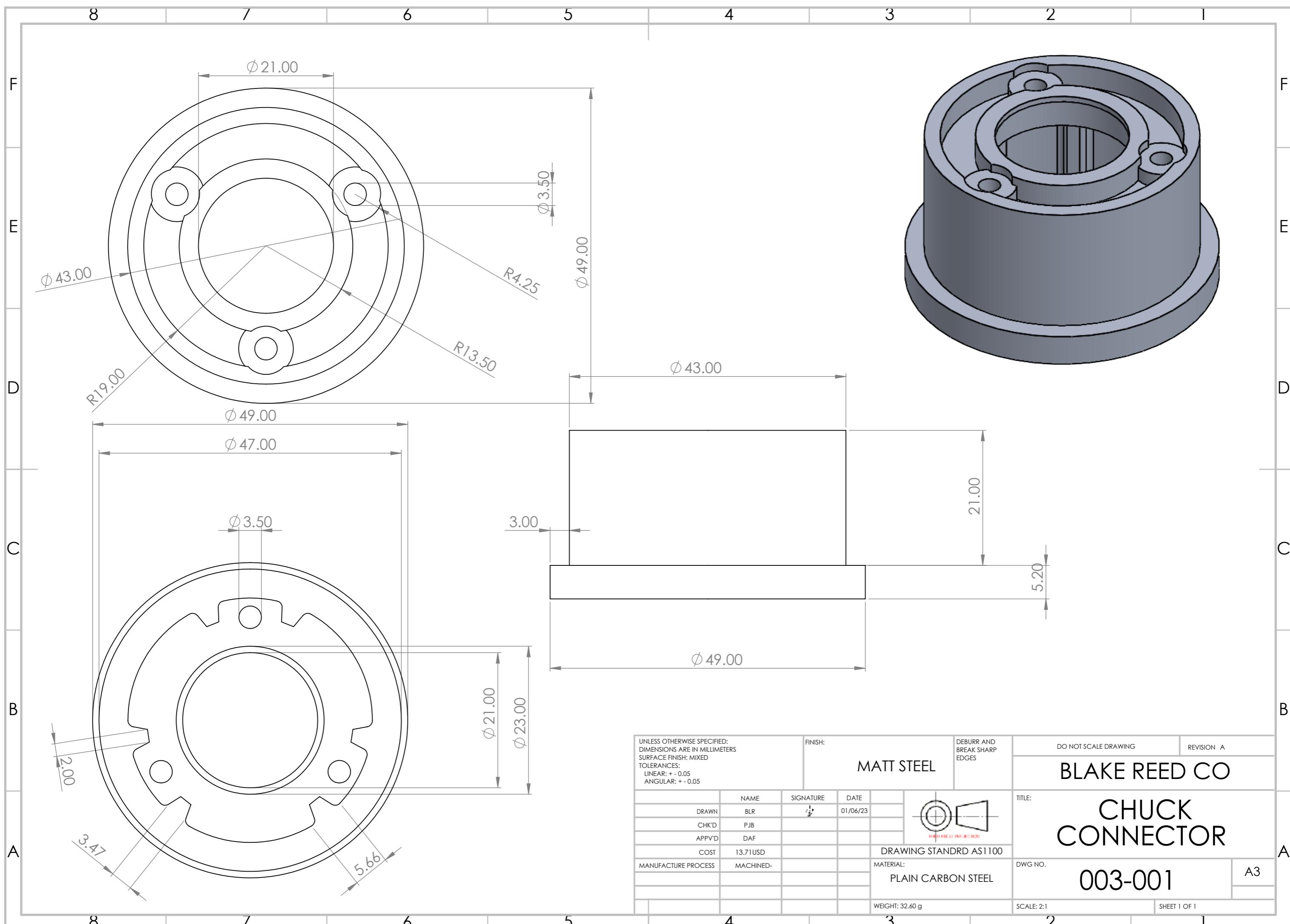
TITLE: MOTOR ASSEMBLY

DWG NO. 002-002 SHEET 1 OF 1 A3

SCALE: 1:1







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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 TOLERANCES:
 LINEAR: ± 0.05
 ANGULAR: ± 0.05

FINISH:

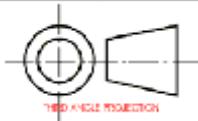
MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	BLR	SIGNATURE	DATE	
CHK'D	PJB		02/06/23	
APP'D	DAF			
COST	11.45USD			
PROCESS	MACHINED			



TITLE:

BEARING

MATERIAL:
 PLAIN CARBON STEEL

DWG NO.

003-002

A4

WEIGHT: 9.15 g

SCALE: 2:1

SHEET 1 OF 1

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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 TOLERANCES:
 LINEAR: ± 0.05
 ANGULAR: ± 0.05

FINISH:

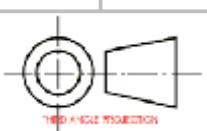
MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	NAME	SIGNATURE	DATE	
BLR		QR	02/06/23	
CHK'D	PJB			
APP'D	DAF			
COST	5.67USD			
PROCESS	MACHINED			



TITLE:

TOOTHED GEAR 3

MATERIAL:
 PLAIN CARBON STEEL

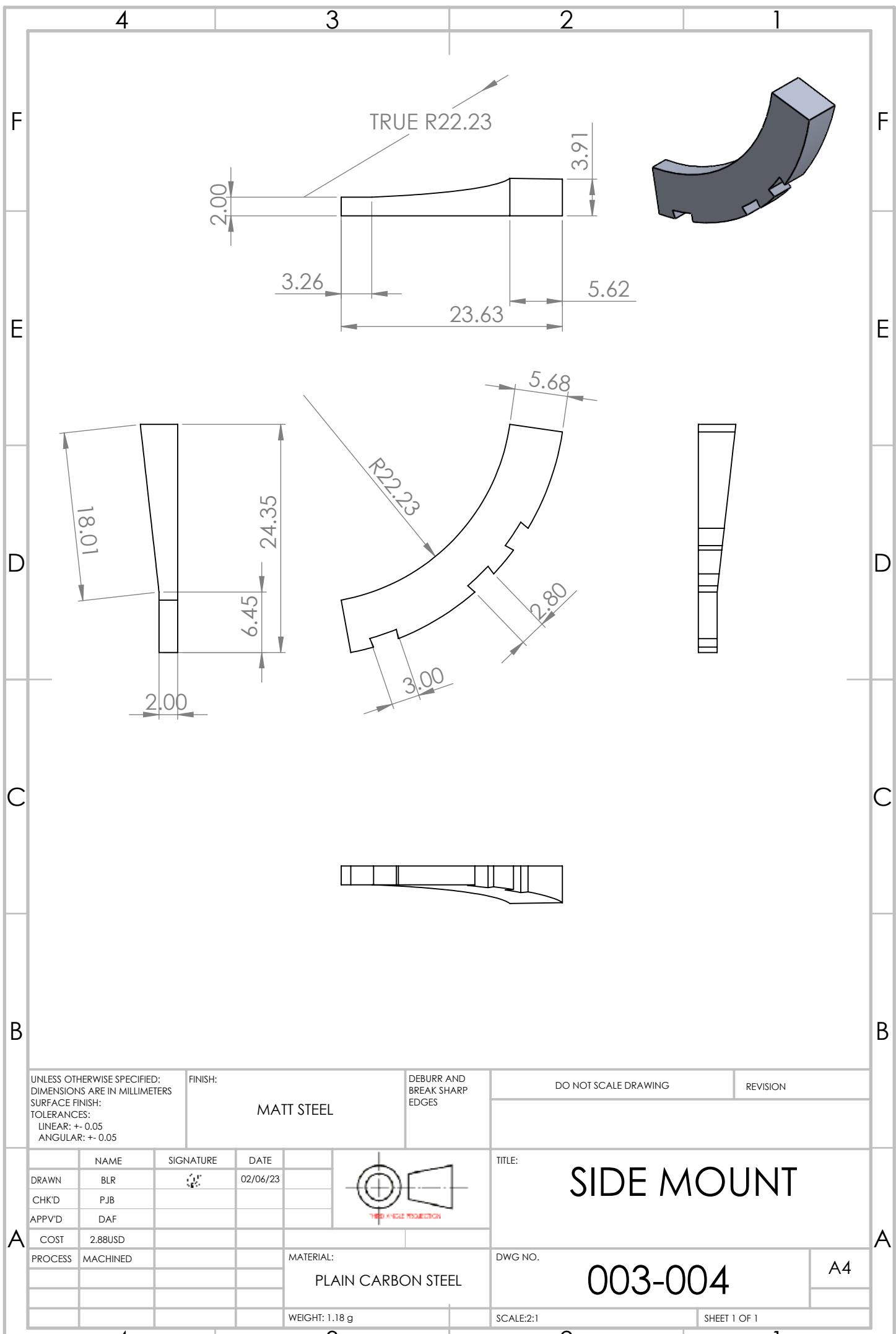
DWG NO.

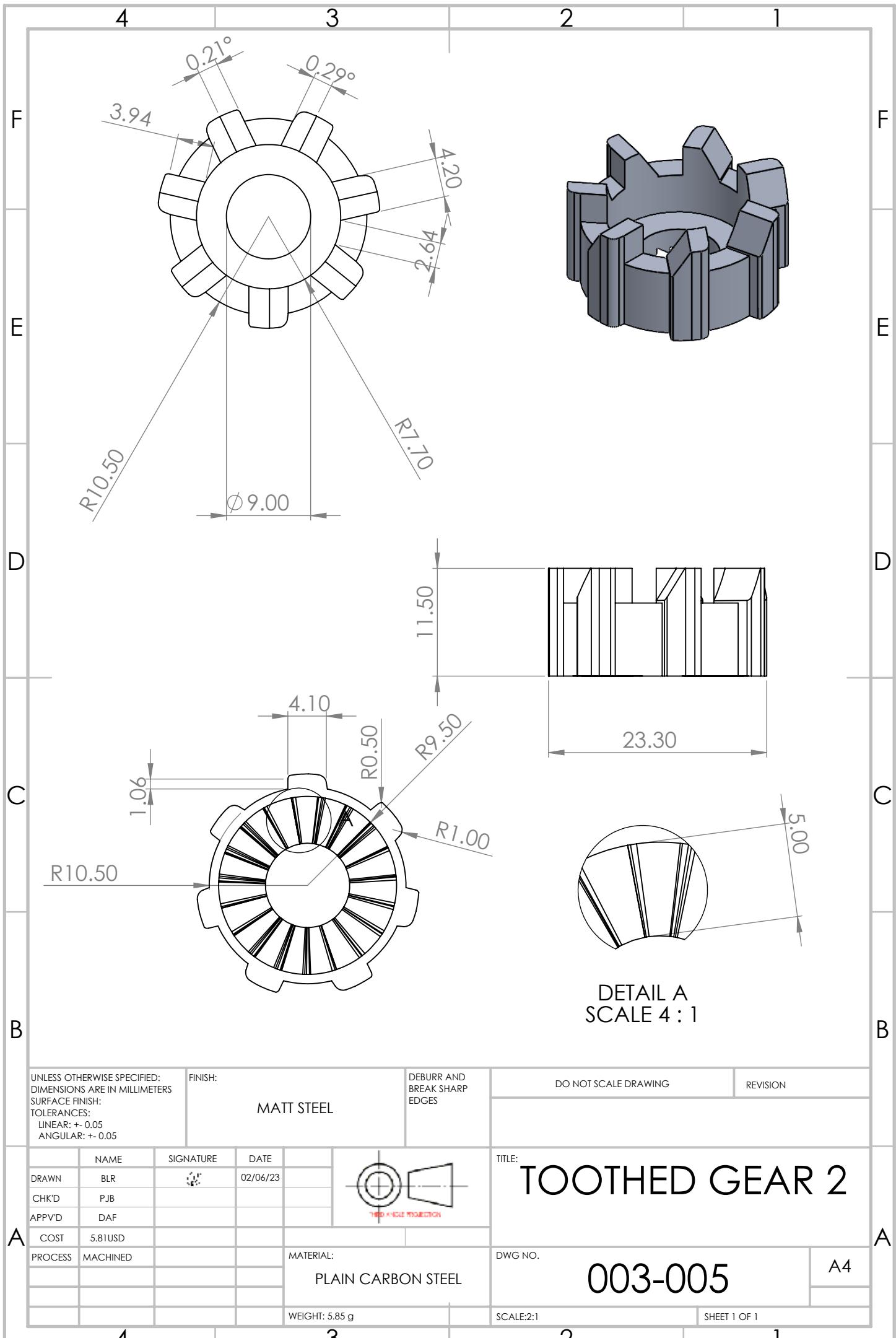
003-003

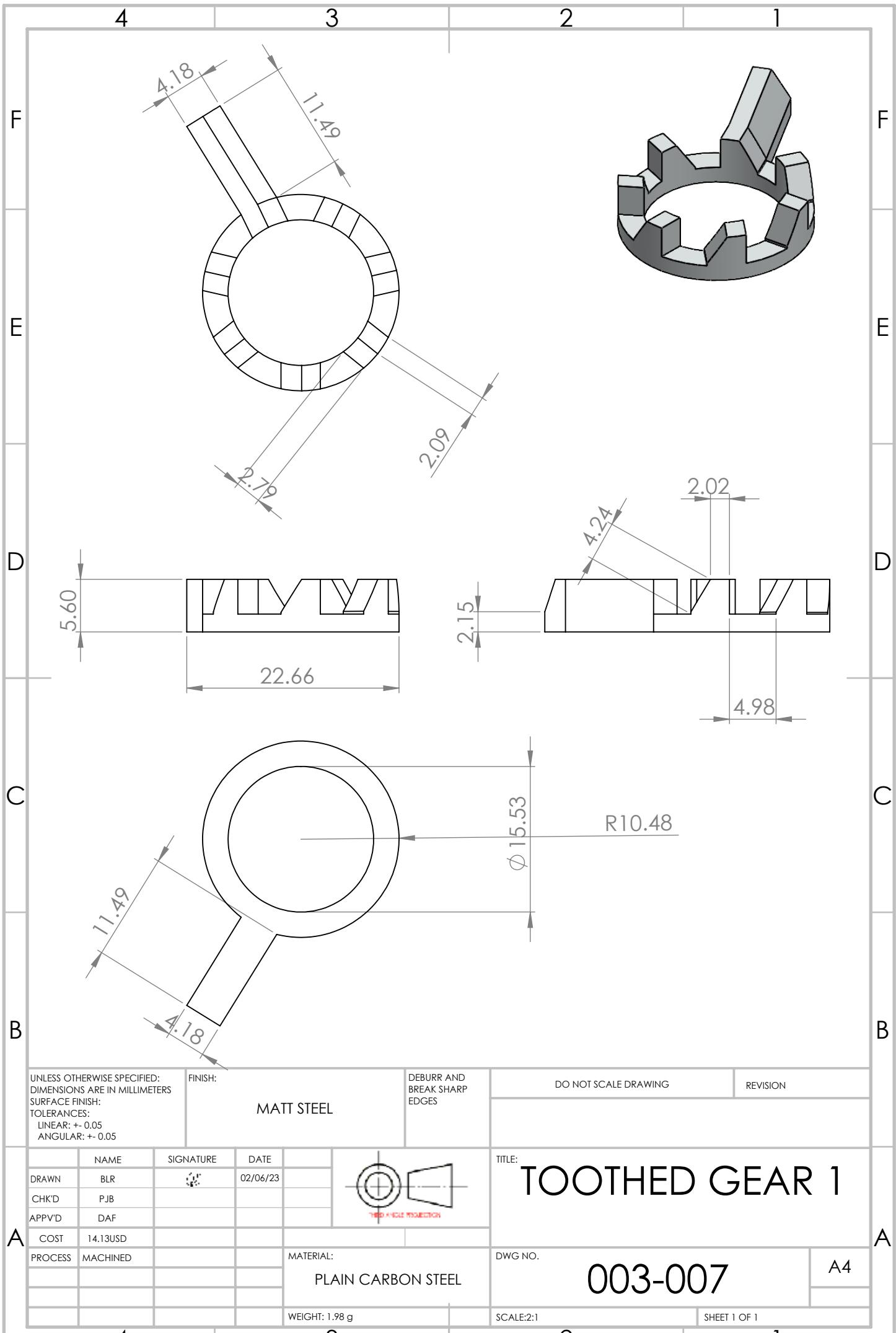
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SCALE:2:1

SHEET 1 OF 1







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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 TOLERANCES:
 LINEAR: ± 0.05
 ANGULAR: ± 0.05

FINISH:

MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	BLR	SIGNATURE	DATE	
CHK'D	PJB		02/06/23	
APP'D	DAF			
COST	11.53USD			
PROCESS	MACHINED			



TITLE:

LONG BEARING

MATERIAL:
 PLAIN CARBON STEEL

DWG NO.

003-008

A4

WEIGHT: 3.52 g

SCALE: 2:1

SHEET 1 OF 1

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ITEM NO.	PART NO.	DESCRIPTION	QTY.	PROCESS	MATERIAL
1	004-001	CHUCK	1	MIXED	MIXED
2	004-002	CHUCK-DRIVE CONNECTOR	1	MACHINED	STEEL

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH: MIXED
 TOLERANCES:
 LINEAR: + - 0.05
 ANGULAR: + - 0.05

FINISH:

MIXED

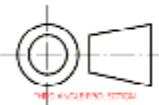
DEBURR AND
 BREAK SHARP
 EDGES

DO NOT SCALE DRAWING

REVISION A

BLAKE REED CO

	NAME	SIGNATURE	DATE	
DRAWN	BLR		01/06/23	
CHK'D	PJB			
APPV'D	DAF			
COST				



DRAWING STANDRD AS1100

MATERIAL:

MIXED

TITLE:

CHUCK ASSEMBLY

DWG NO.

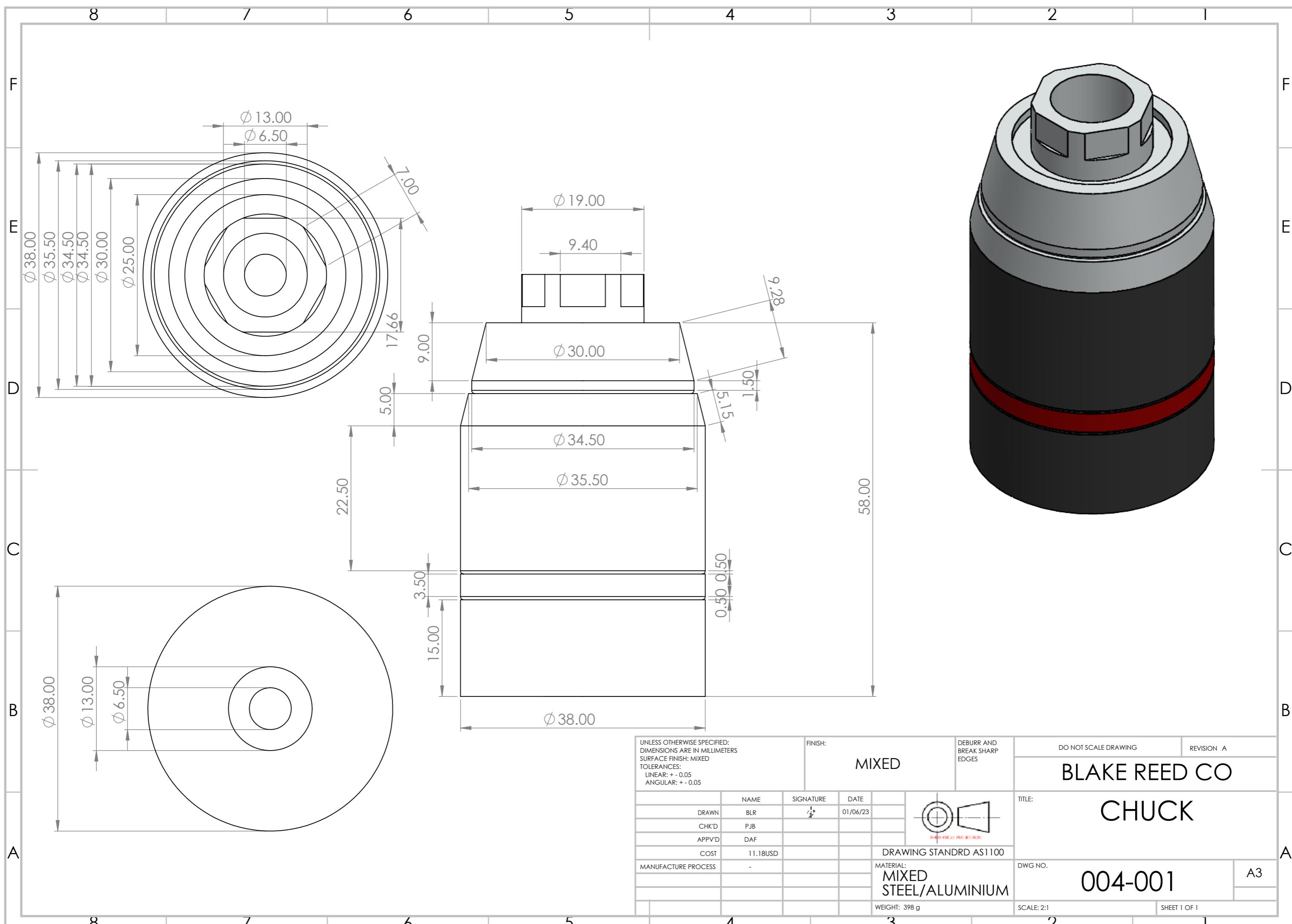
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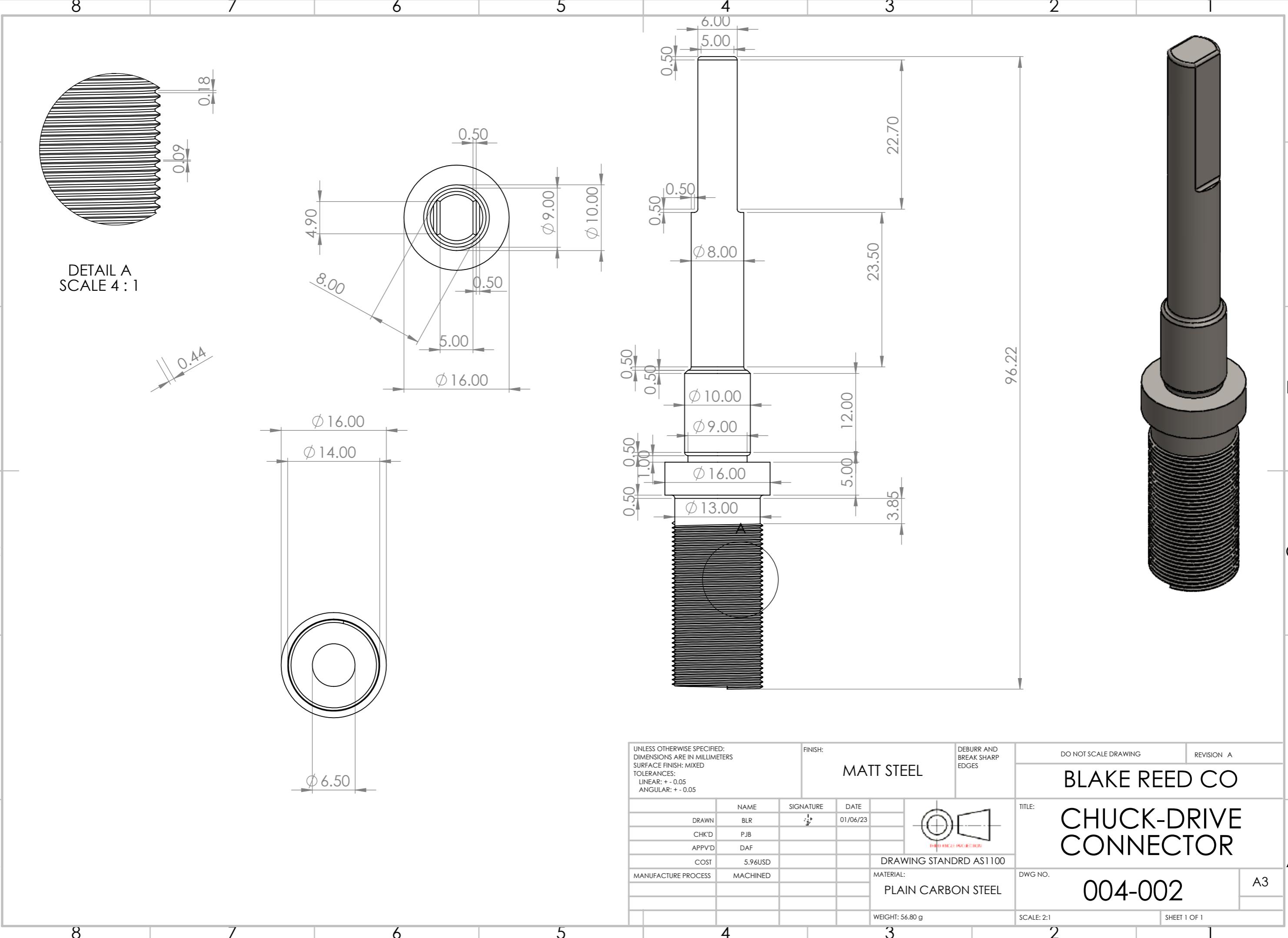
A4

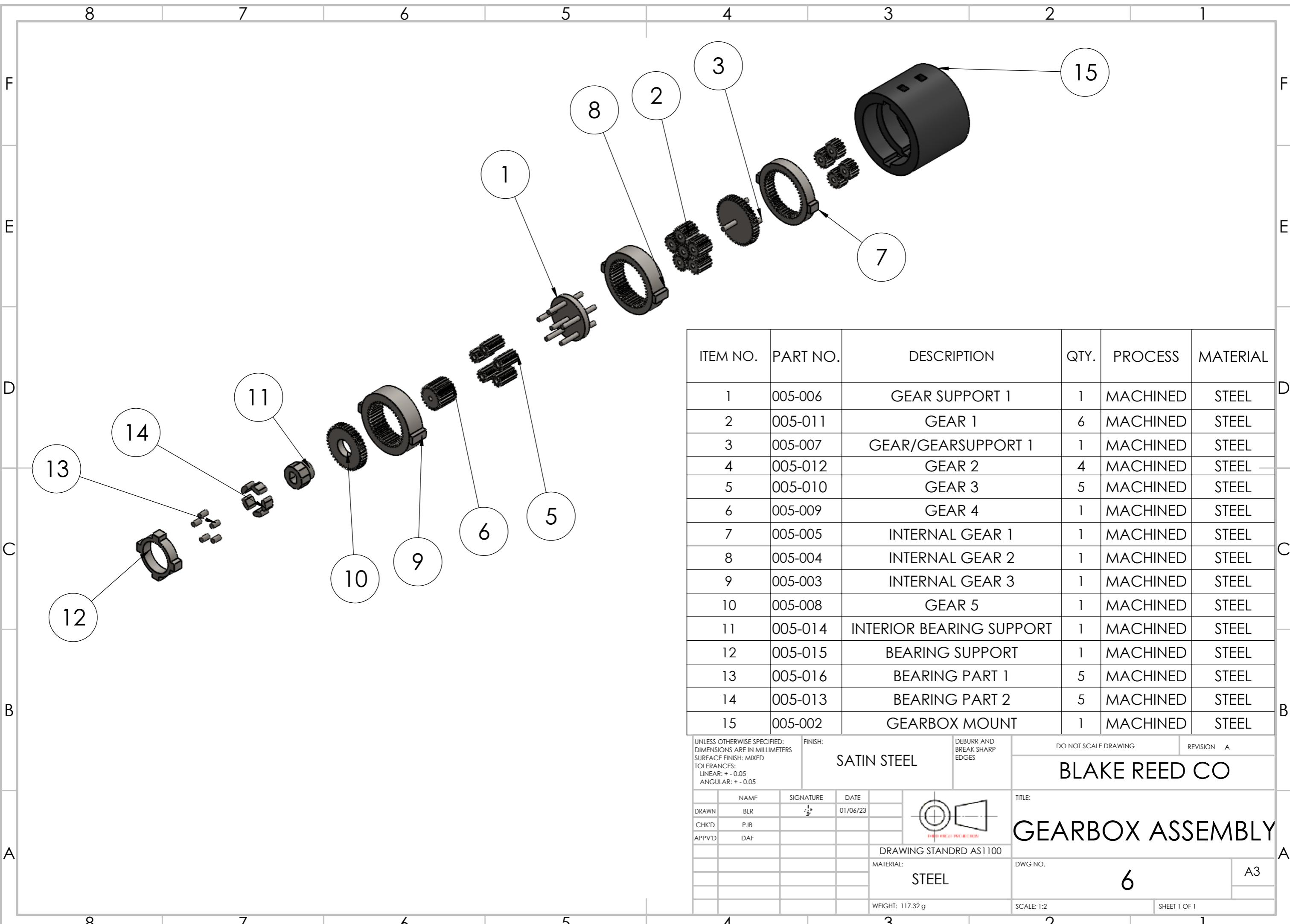
WEIGHT: 454.80 g

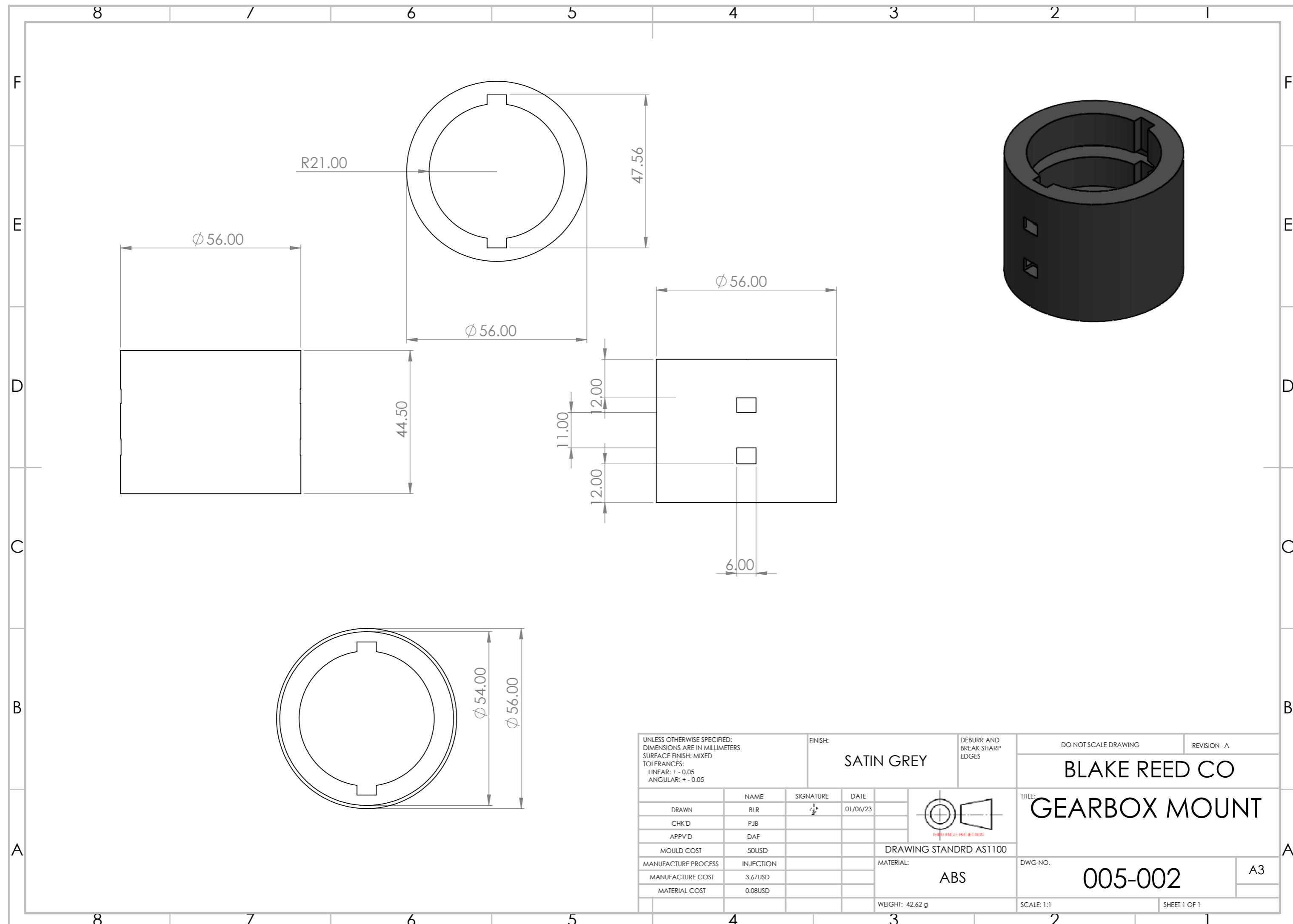
SCALE: 1:1

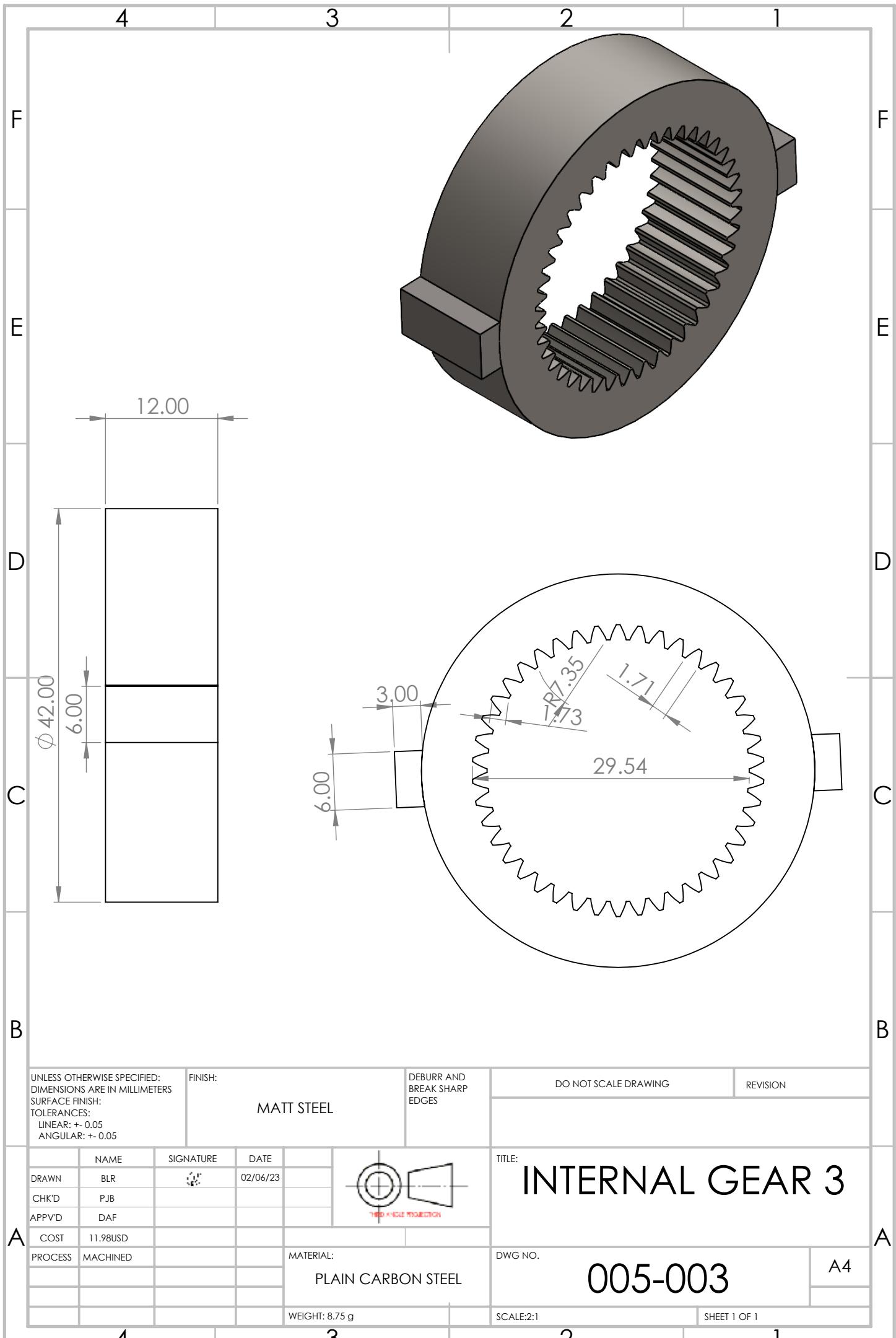
SHEET 1 OF 1

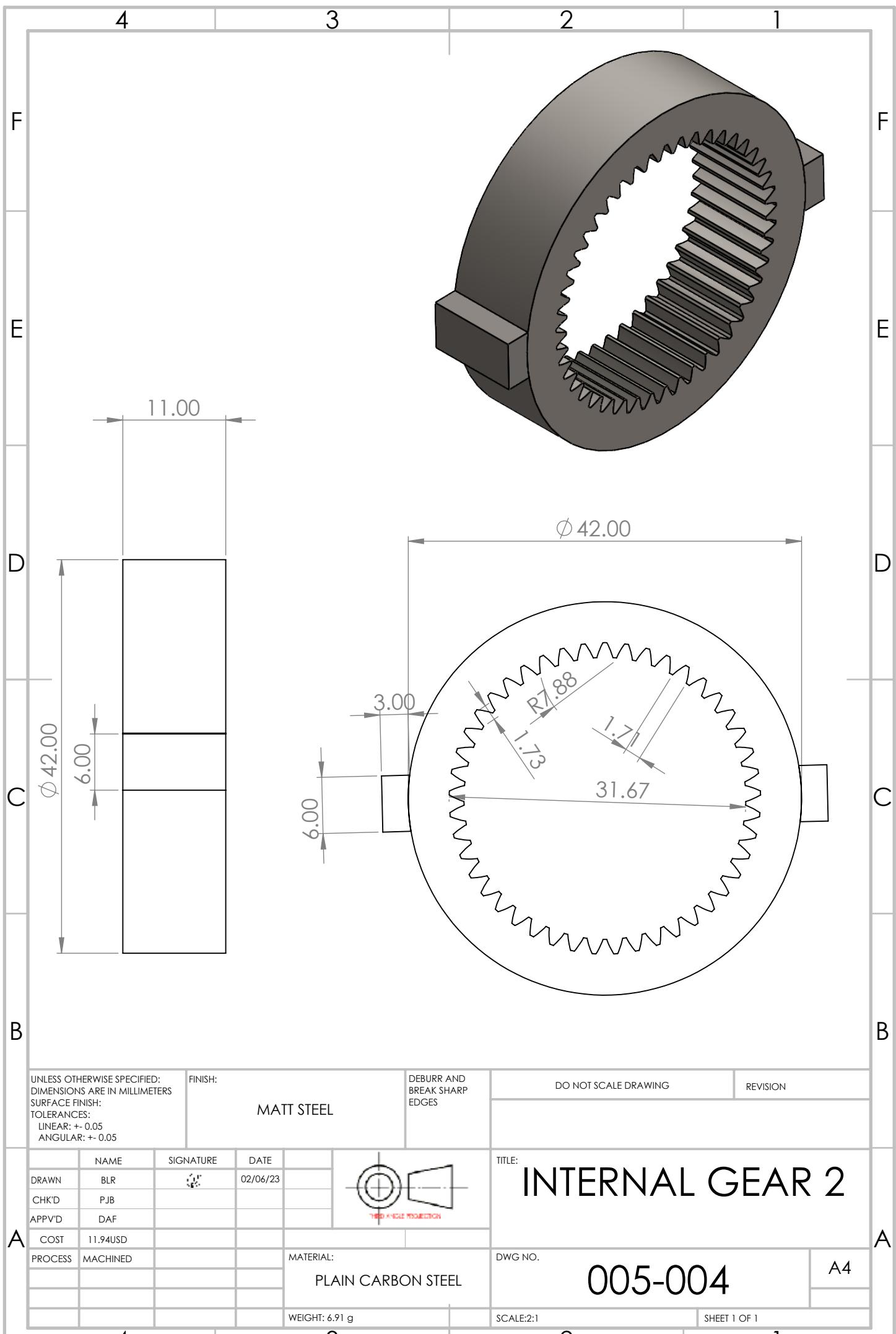












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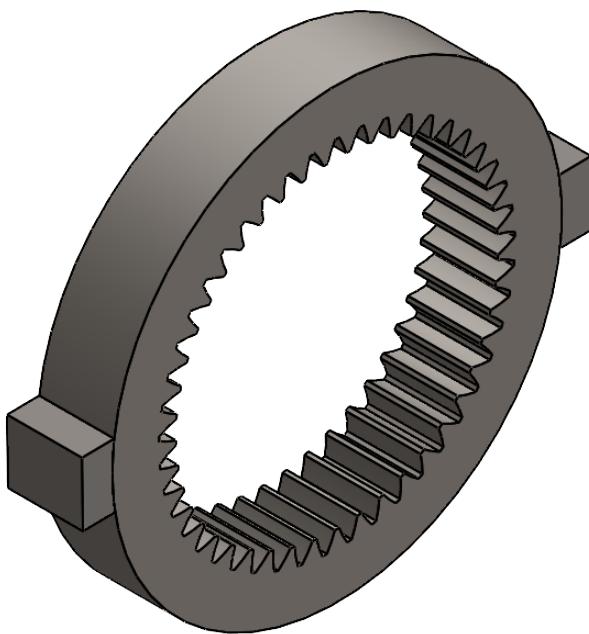
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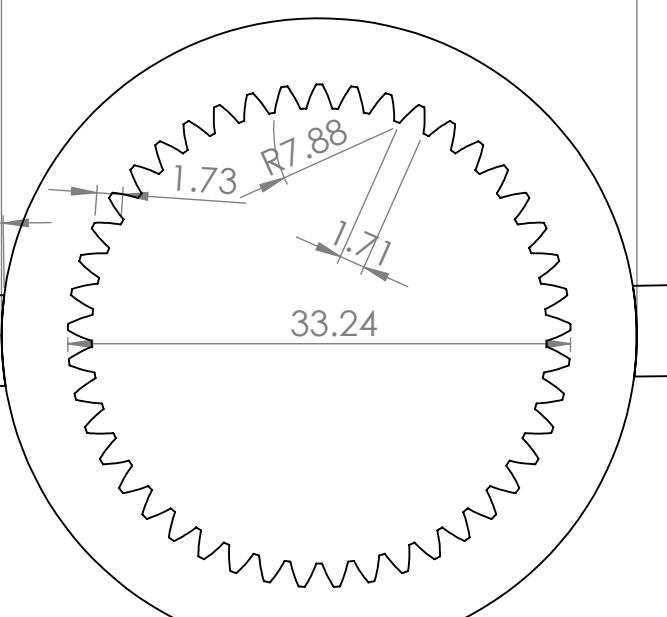
 $\phi 42.00$ $\phi 42.00$

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3.00

6.00

33.24



UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR: ± 0.05
ANGULAR: ± 0.05

FINISH:

MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	BLR	SIGNATURE	DATE	
CHK'D	PJB		02/06/23	
APP'D	DAF			
COST	11.71USD			
PROCESS	MACHINED			



TITLE:

INTERNAL GEAR 1

MATERIAL:
PLAIN CARBON STEEL

DWG NO.

005-005

A4

WEIGHT: 4.40 g

SCALE: 2:1

SHEET 1 OF 1

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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 TOLERANCES:
 LINEAR: ± 0.05
 ANGULAR: ± 0.05

FINISH:

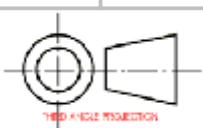
MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	BLR	SIGNATURE	DATE	02/06/23
CHK'D	PJB			
APP'D	DAF			
COST	12.18USD			
PROCESS	MACHINED			



THREE ANGLE PROJECTION

MATERIAL:
 PLAIN CARBON STEEL

WEIGHT: 3.83 g

TITLE:

GEAR SUPPORT 1

DWG NO.

005-006

A4

SCALE:2:1

SHEET 1 OF 1

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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 TOLERANCES:
 LINEAR: ± 0.05
 ANGULAR: ± 0.05

FINISH:

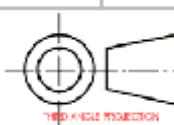
MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	NAME	SIGNATURE	DATE
BLR	QF		02/06/23
CHK'D	PJB		
APP'D	DAF		
COST	17.07USD		
PROCESS	MACHINED		



TITLE:

GEAR/GEAR SUPPORT

1

005-007

A4

SCALE: 2:1

SHEET 1 OF 1

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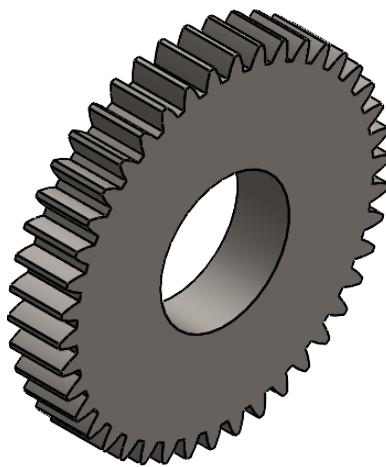
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R5.88

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR: ± 0.05
ANGULAR: ± 0.05

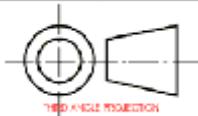
FINISH:

MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION



TITLE:

GEAR 5

DRAWN	NAME	SIGNATURE	DATE	
CHK'D	PJB			
APP'D	DAF			
COST	5.8USD			
PROCESS	MACHINED			

MATERIAL:
PLAIN CARBON STEEL

DWG NO.

005-008

A4

WEIGHT: 2.66 g

SCALE: 2:1

SHEET 1 OF 1

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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 TOLERANCES:
 LINEAR: ± 0.05
 ANGULAR: ± 0.05

FINISH:

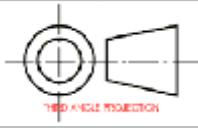
MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	NAME	SIGNATURE	DATE		
BLR	QF		02/06/23		
CHK'D	PJB				
APP'D	DAF				
COST	8.64USD				
PROCESS	MACHINED				



TITLE:

GEAR 4

MATERIAL:
 PLAIN CARBON STEEL

DWG NO.

005-009

A4

WEIGHT: 2.53 g

SCALE: 5:1

SHEET 1 OF 1

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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 TOLERANCES:
 LINEAR: ± 0.05
 ANGULAR: ± 0.05

FINISH:

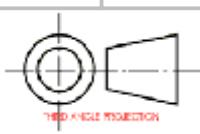
MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	NAME	SIGNATURE	DATE	
CHK'D	PJB			
APP'D	DAF			
COST	8.55USD			
PROCESS	MACHINED			



TITLE:

GEAR 3

MATERIAL:
 PLAIN CARBON STEEL

DWG NO.

005-0010

A4

WEIGHT: 0.41 g

SCALE: 5:1

SHEET 1 OF 1

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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 TOLERANCES:
 LINEAR: ± 0.05
 ANGULAR: ± 0.05

FINISH:

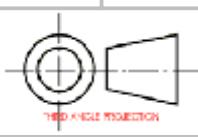
MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	NAME	SIGNATURE	DATE	
CHK'D	PJB			
APP'D	DAF			
COST	8.54USD			
PROCESS	MACHINED			



MATERIAL:

PLAIN CARBON STEEL

TITLE:
GEAR 1

DWG NO.

005-011

A4

SCALE: 5:1

SHEET 1 OF 1

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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 TOLERANCES:
 LINEAR: ± 0.05
 ANGULAR: ± 0.05

FINISH:

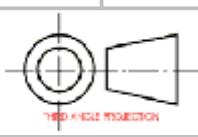
MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	NAME	SIGNATURE	DATE	
CHK'D	PJB			
APP'D	DAF			
COST	8.49USD			
PROCESS	MACHINED			



TITLE:

GEAR 2

MATERIAL:
 PLAIN CARBON STEEL

DWG NO.

005-012

A4

WEIGHT: 0.53 g

SCALE: 5:1

SHEET 1 OF 1

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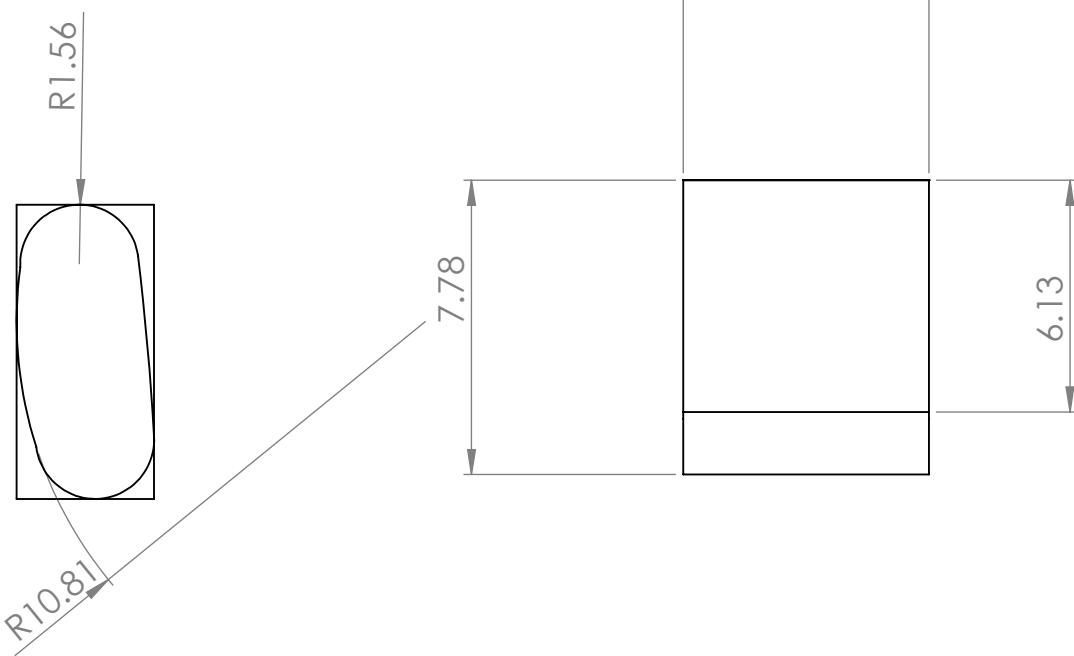
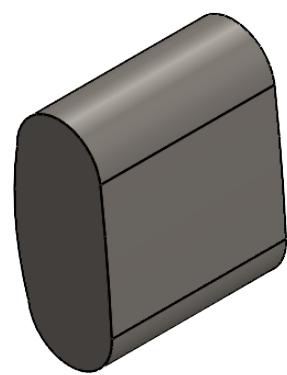
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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR: ± 0.05
ANGULAR: ± 0.05

FINISH:

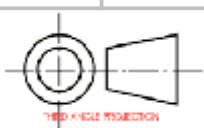
MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	BLR	SIGNATURE	DATE	02/06/23
CHK'D	PJB			
APP'D	DAF			
COST	2.80USD			
PROCESS	MACHINED			



TITLE:	BEARING PART 2	DWG NO.
MATERIAL:	PLAIN CARBON STEEL	005-013
WEIGHT: 1.18 g	SCALE: 1:1	A4
		SHEET 1 OF 1

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UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 TOLERANCES:
 LINEAR: ± 0.05
 ANGULAR: ± 0.05

FINISH:

MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	NAME	SIGNATURE	DATE	
CHK'D	PJB			
APP'D	DAF			
COST	5.69USD			
PROCESS	MACHINED			



THIRD ANGLE PROJECTION

MATERIAL:
PLAIN CARBON STEEL

WEIGHT: 10.84 g

TITLE:

INTERIOR BEARING SUPPORT

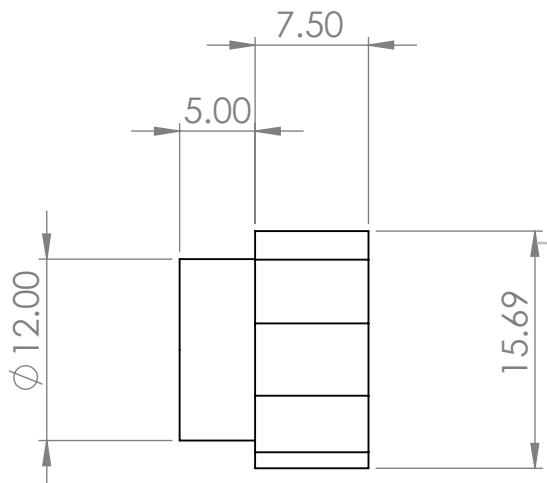
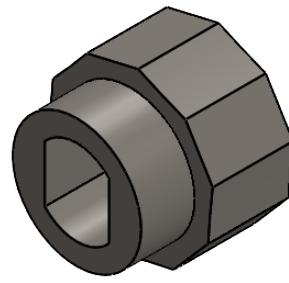
DWG NO.

005-014

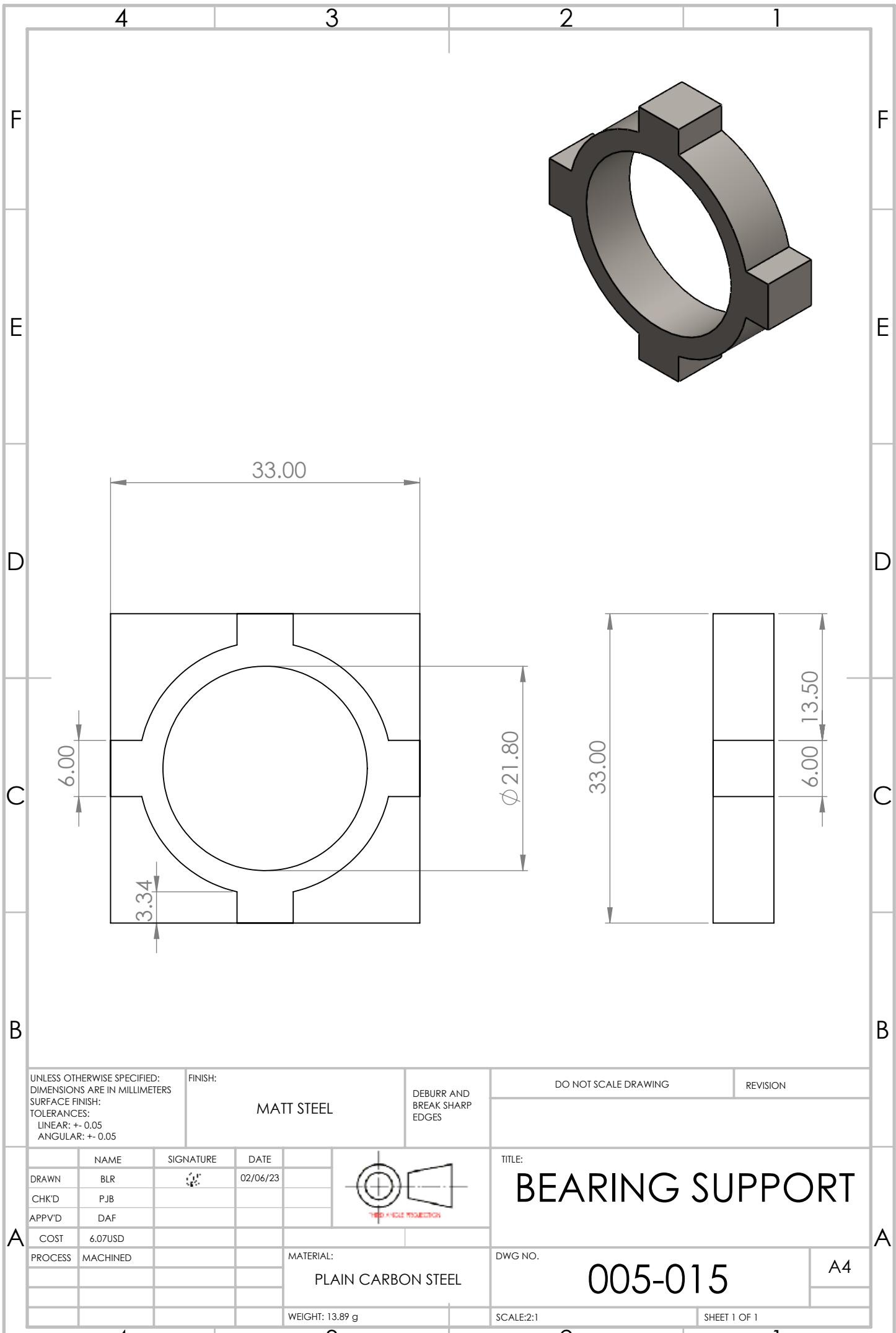
A4

SCALE:2:1

SHEET 1 OF 1



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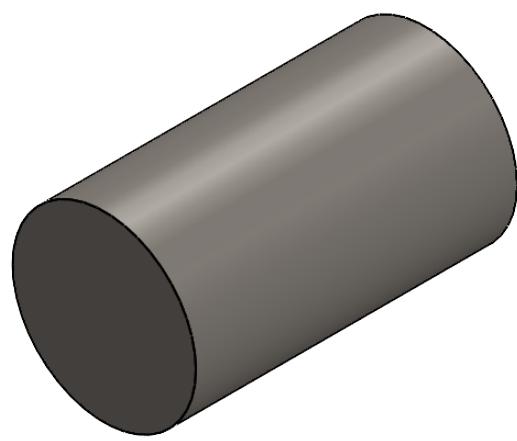
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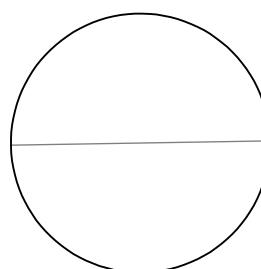
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 $\phi 3.42$  $\phi 3.42$

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR: ± 0.05
ANGULAR: ± 0.05

FINISH:

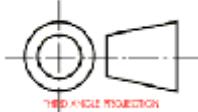
MATT STEEL

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	BLR	SIGNATURE	DATE	
CHK'D	PJB		02/06/23	
APP'D	DAF			
COST	2.80USD			
PROCESS	MACHINED			



TITLE:	BEARING PART 1	
DWG NO.	005-016	A4
SCALE:10:1		
SHEET 1 OF 1		

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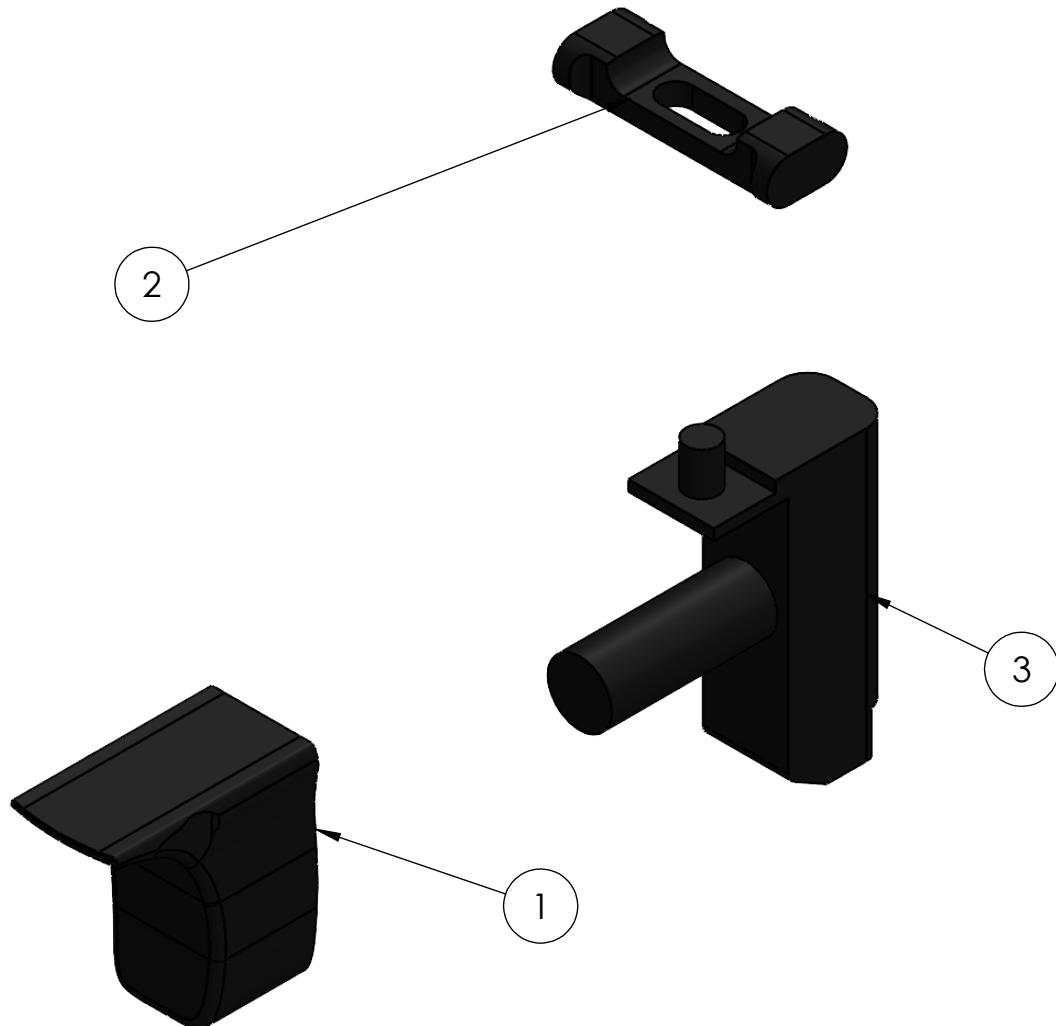
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ITEM NO.	PART NO.	DESCRIPTION	QTY.	PROCESS	MATERIAL
1	006-001	TRIGGER	1	INJECTION	ABS
2	006-002	DRIVE SELECTOR	1	INJECTION	ABS
3	006-003	TRIGGER MOUNT	1	INJECTION	ABS

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH: MIXED
TOLERANCES:
LINEAR: + - 0.05
ANGULAR: + - 0.05

FINISH:

SATIN BLACK

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION A

BLAKE REED CO

NAME

SIGNATURE

DATE



TITLE:

TRIGGER
ASSEMBLY

DRAWN

BLR

01/06/23

CHK'D

PJB

APP'D

DAF

DRAWING STANDRD AS1100

MATERIAL:

ABS

DWG NO.

7

A4

WEIGHT: 37.45 g

SCALE: 1:3

SHEET 1 OF 1

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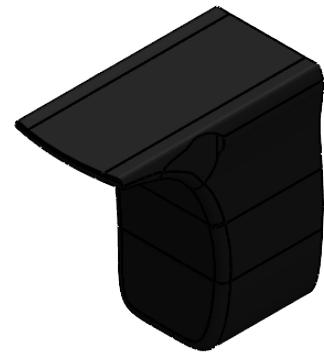
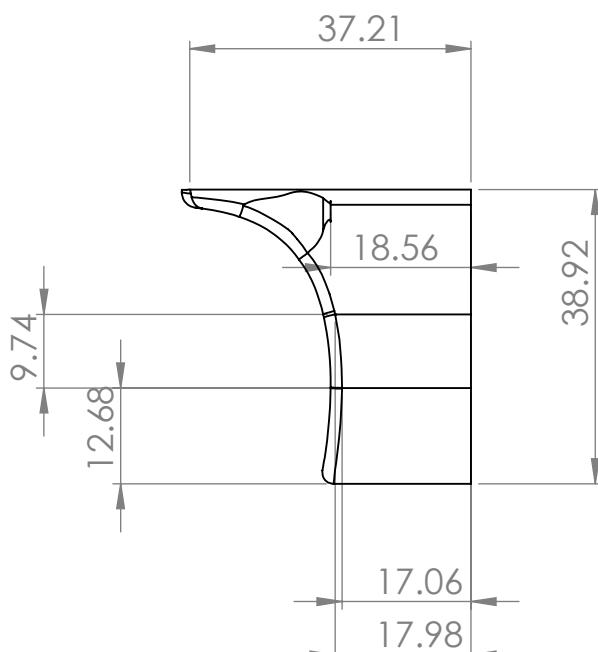
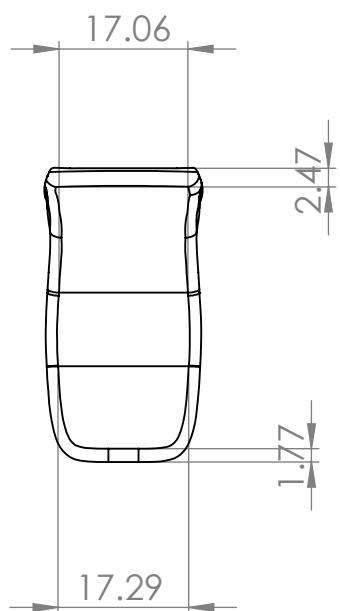
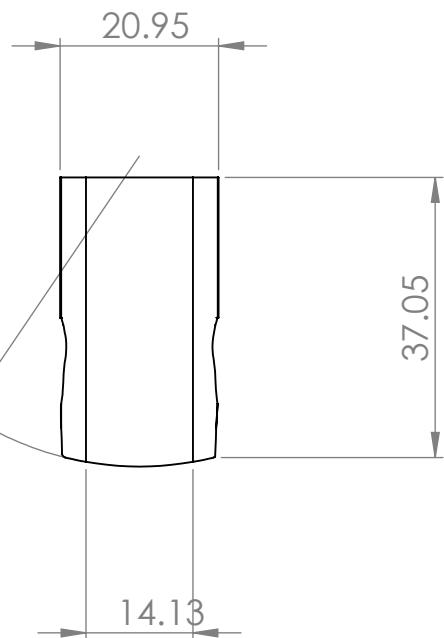
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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR: ± 0.05
ANGULAR: ± 0.05

FINISH:

SATIN BLACK

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	BLR	SIGNATURE	DATE	
CHK'D	PJB			
APP'D	DAF			
MOULD COST	50USD			
PROCESS	INJECTION			MATERIAL:
MANUFACTURE COST	3.67USD			ABS
MATERIAL COST	0.05USD			WEIGHT: 25.94 g
				SCALE: 1:1

TITLE:

TRIGGER

DWG NO.

006-001

A4

SHEET 1 OF 1

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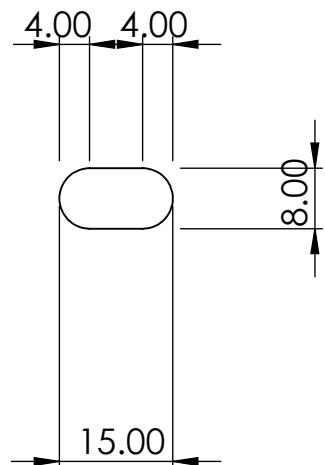
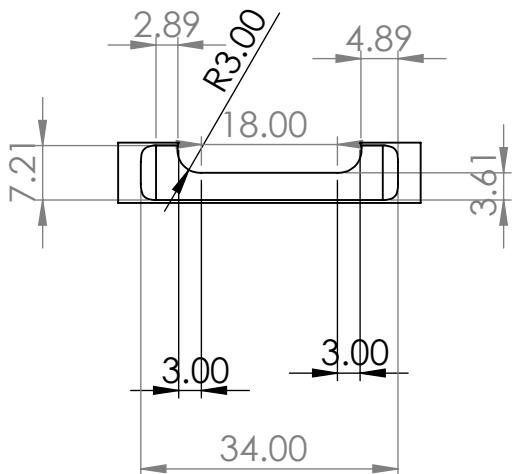
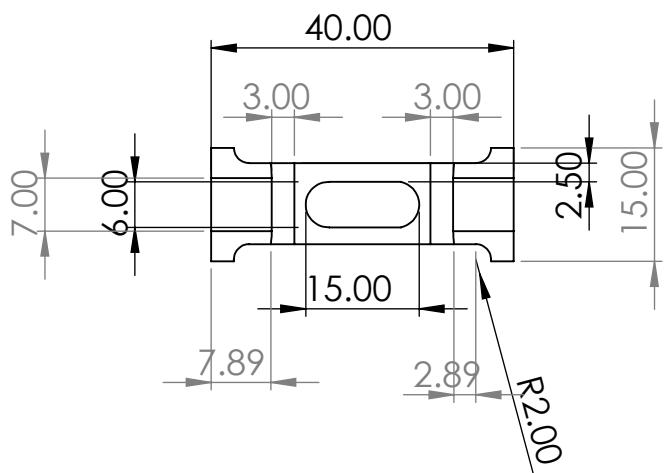
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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR: ± 0.05
ANGULAR: ± 0.05

FINISH:

SATIN BLACK

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

DRAWN	NAME	SIGNATURE	DATE	 THIRD ANGLE PROJECTION
CHK'D	PJB		02/06/23	
APP'D	DAF			
MOULD COST	50USD			
PROCESS	INJECTION			MATERIAL:
MANUFACTURE COST	3.67USD			ABS
MATERIAL COST	0.01USD			WEIGHT: 2.89 g
				SCALE:1:1

TITLE:

DRIVE SELECTOR

DWG NO.

006-002

A4

SHEET 1 OF 1

