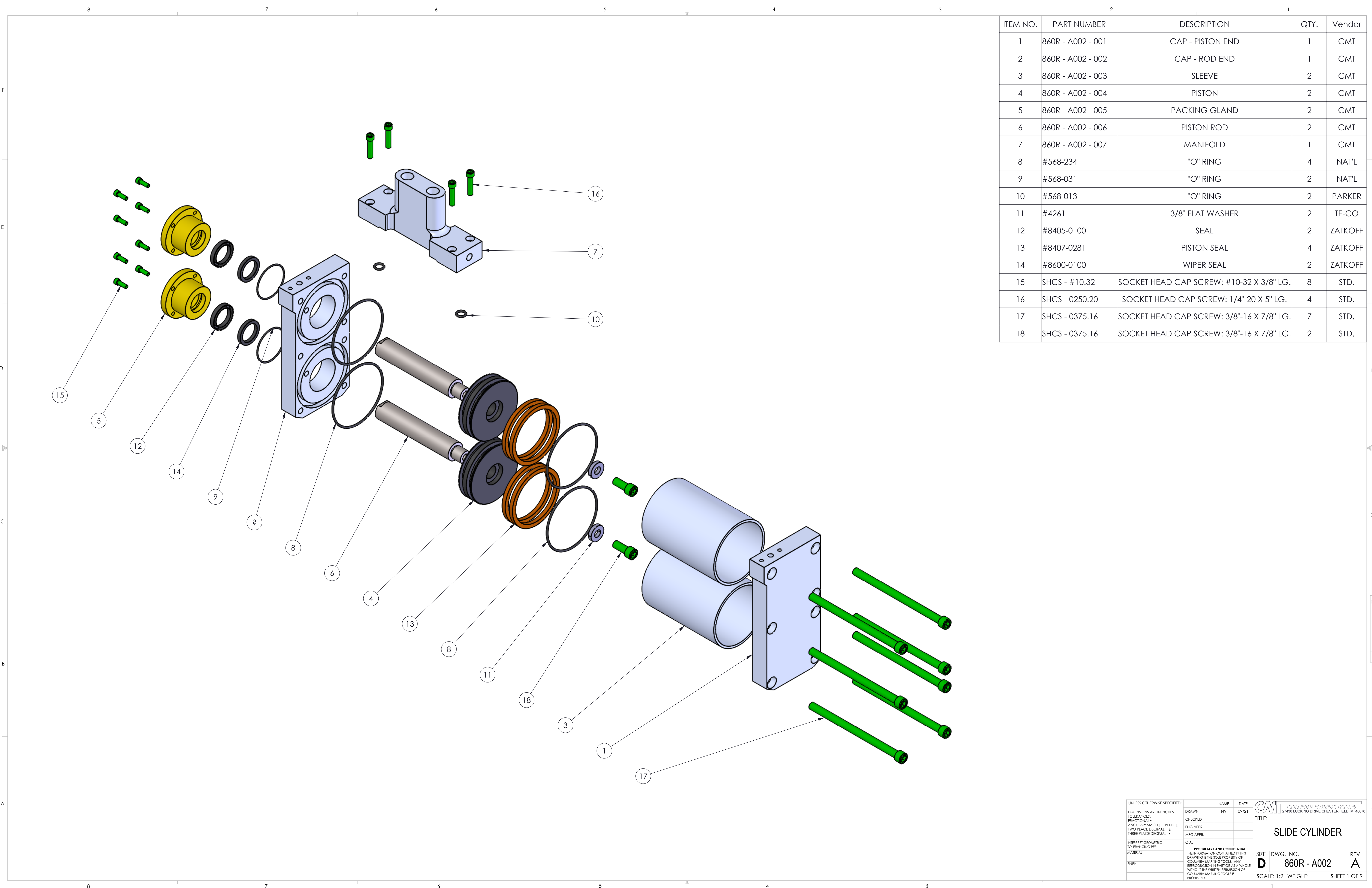




ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	Vendor
1	860R - A002 - 001	CAP - PISTON END	1	CMT
2	860R - A002 - 002	CAP - ROD END	1	CMT
3	860R - A002 - 003	SLEEVE	2	CMT
4	860R - A002 - 004	PISTON	2	CMT
5	860R - A002 - 005	PACKING GLAND	2	CMT
6	860R - A002 - 006	PISTON ROD	2	CMT
7	860R - A002 - 007	MANIFOLD	1	CMT
8	#568-234	"O" RING	4	NAT'L
9	#568-031	"O" RING	2	NAT'L
10	#568-013	"O" RING	2	PARKER
11	#4261	3/8" FLAT WASHER	2	TE-CO
12	#8405-0100	SEAL	2	ZATKOFF
13	#8407-0281	PISTON SEAL	4	ZATKOFF
14	#8600-0100	WIPER SEAL	2	ZATKOFF
15	SHCS - #10.32	SOCKET HEAD CAP SCREW: #10-32 X 3/8" LG.	8	STD.
16	SHCS - 0250.20	SOCKET HEAD CAP SCREW: 1/4"-20 X 5" LG.	4	STD.
17	SHCS - 0375.16	SOCKET HEAD CAP SCREW: 3/8"-16 X 7/8" LG.	7	STD.
18	SHCS - 0375.16	SOCKET HEAD CAP SCREW: 3/8"-16 X 7/8" LG.	2	STD.

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES

TOLERANCES:

FRACTIONAL ±

ANGULAR: MACH ±

TWO PLACE DECIMAL ±

THREE PLACE DECIMAL ±

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL:

FINISH:

DRAWN NV

CHECKED

ENG APPR:

MFG APPR:

Q.A.

PROPRIETARY AND CONFIDENTIAL

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NAME NV

DATE 09/21

CMT COLUMBIA MARKING TOOLS

27430 LUCKING DRIVE CHESTERFIELD, MI 48070

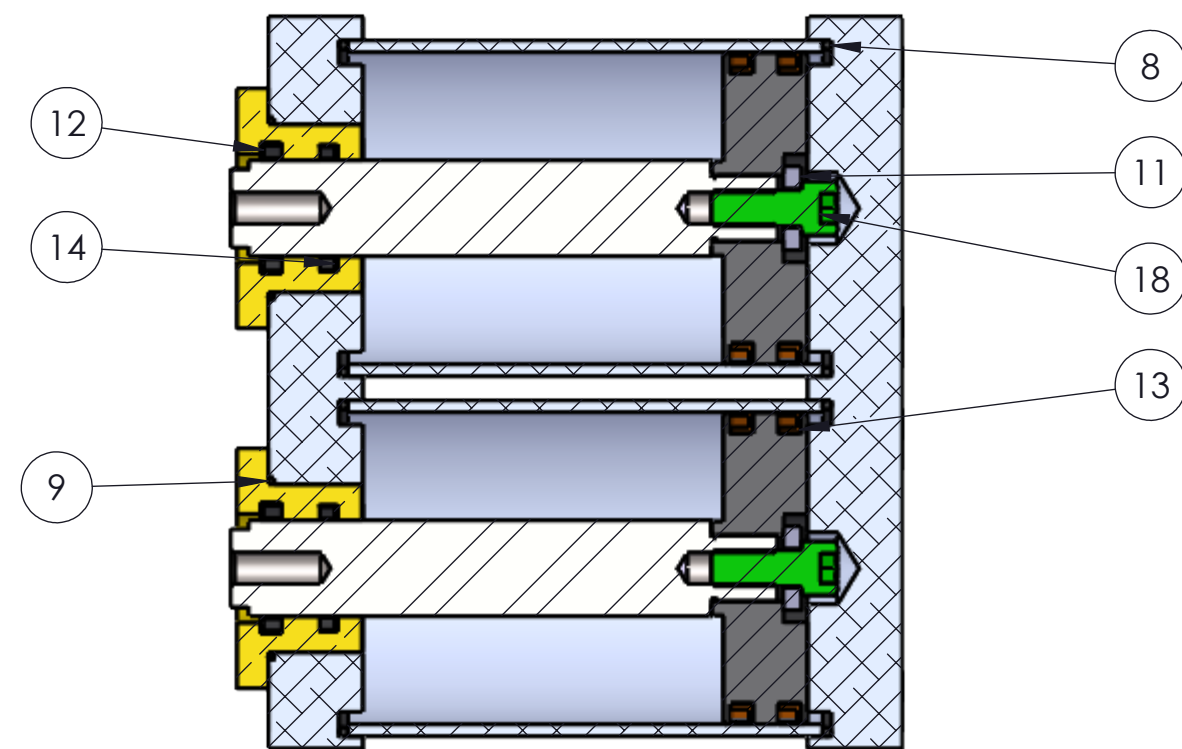
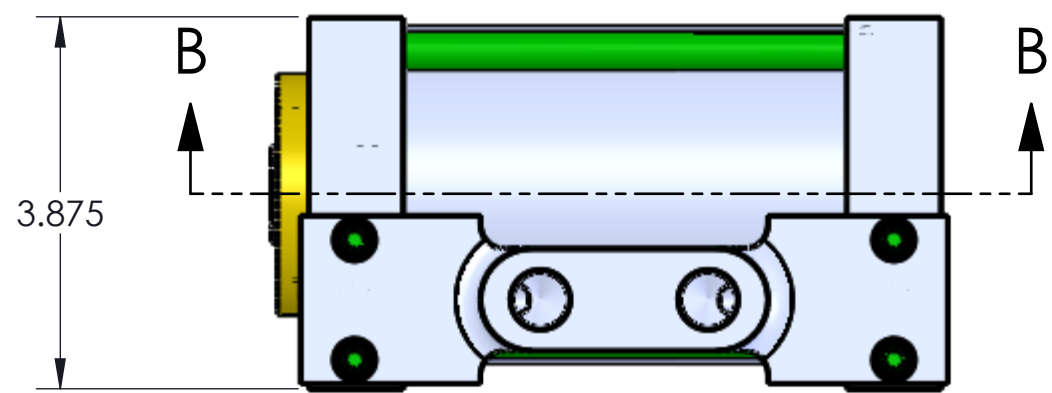
TITLE:

SLIDE CYLINDER

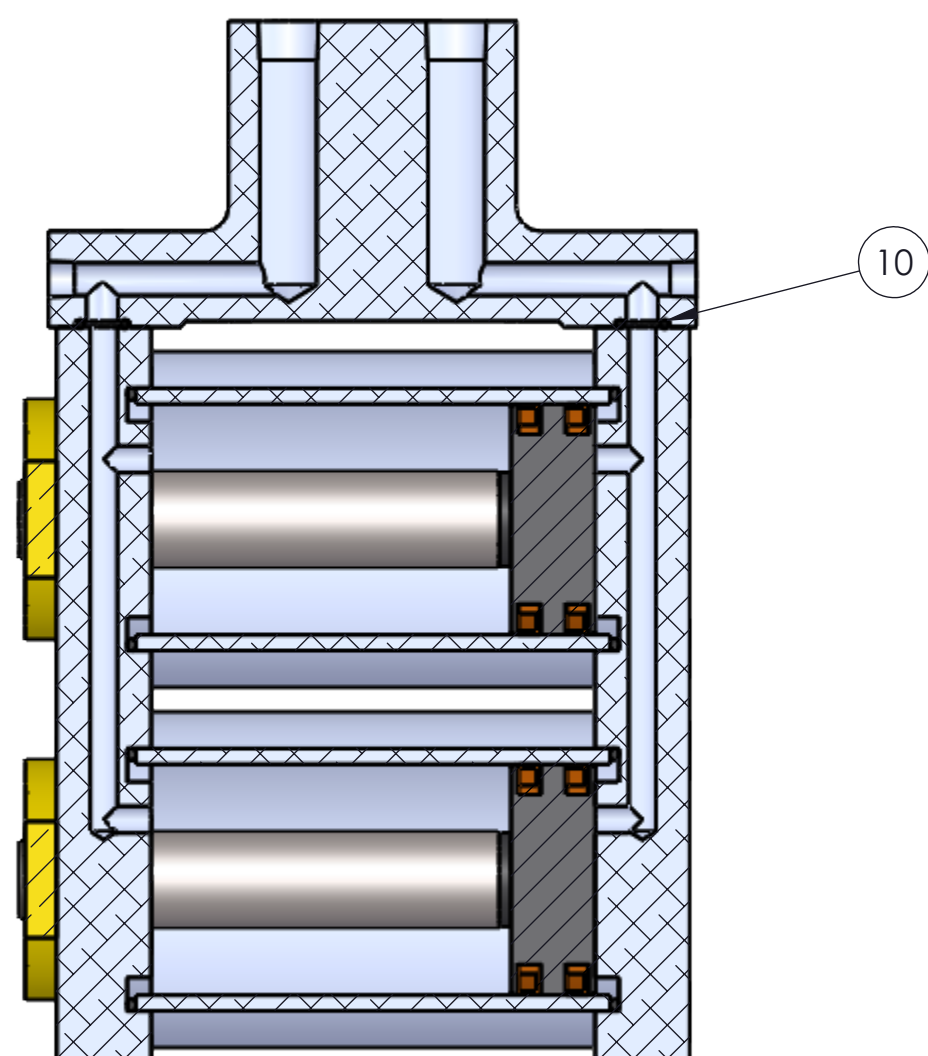
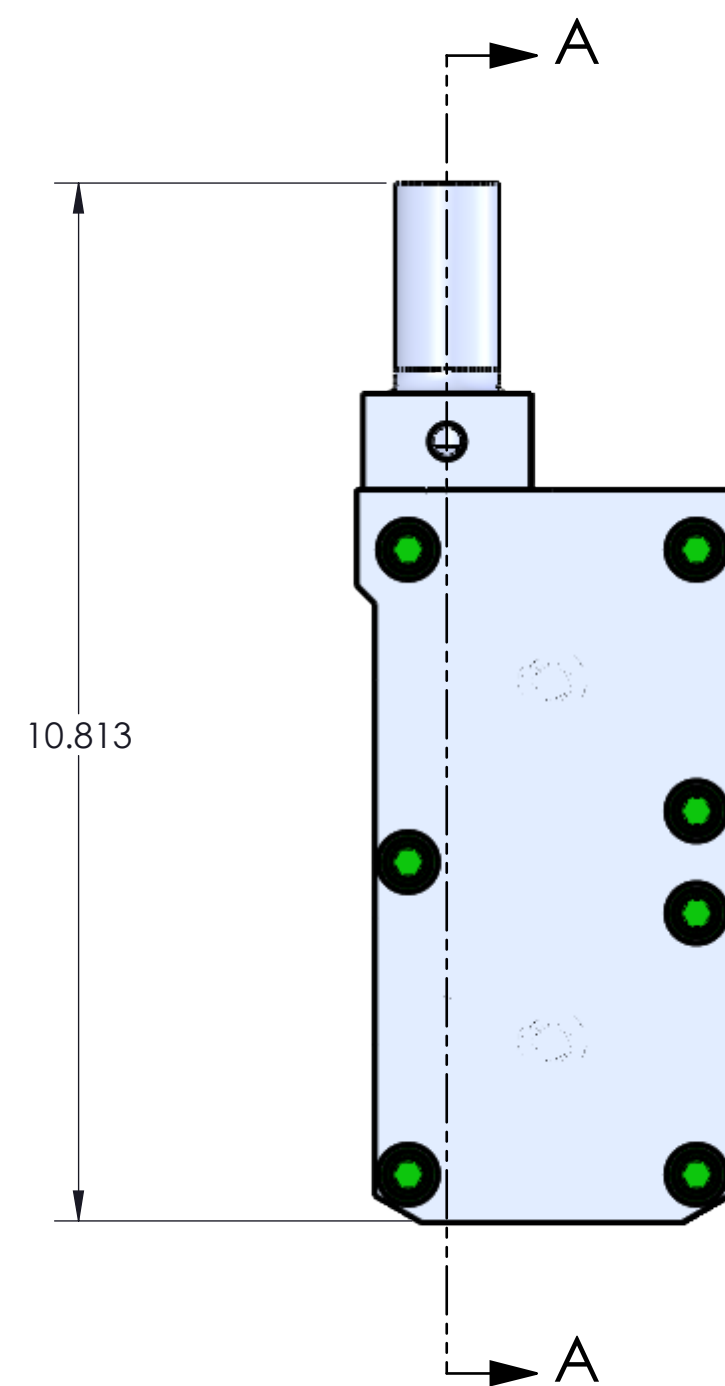
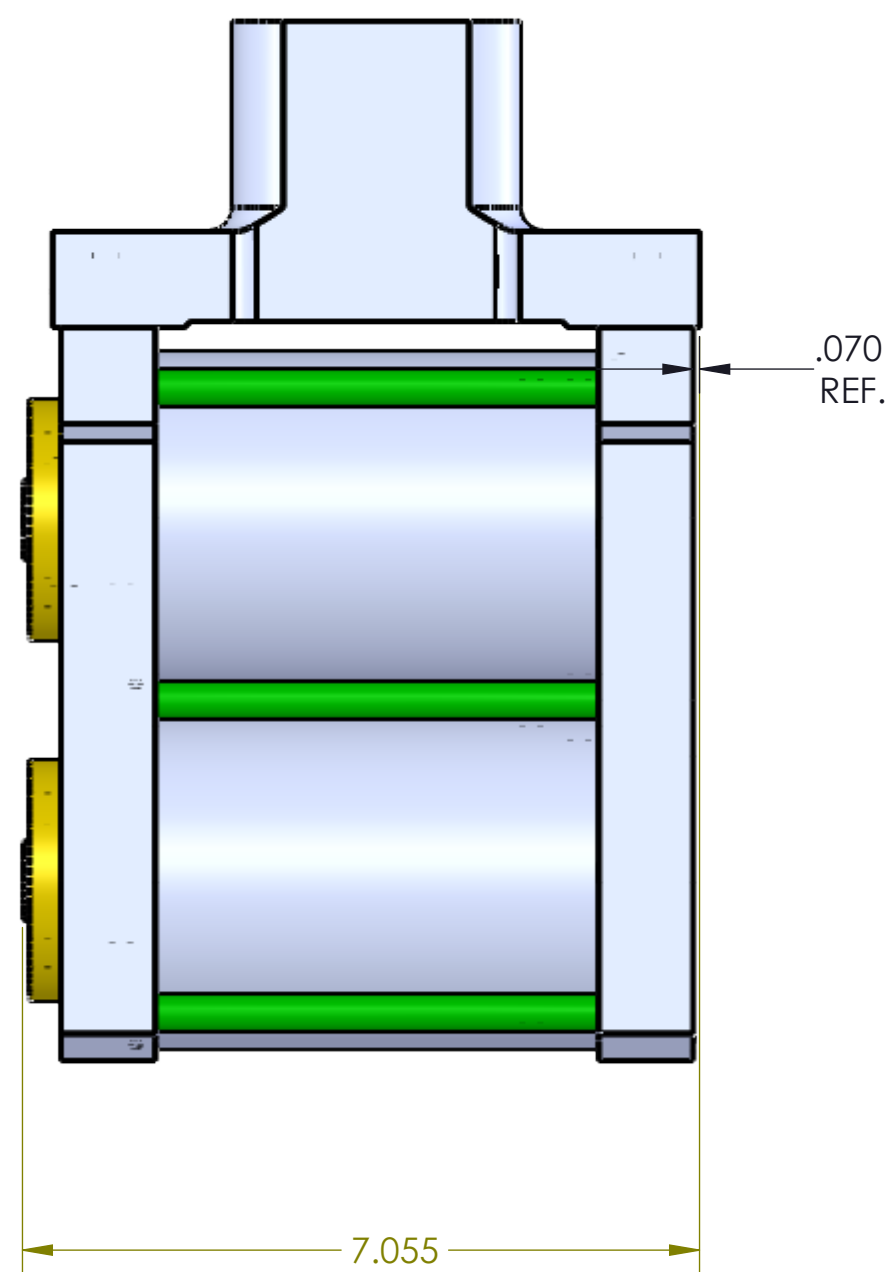
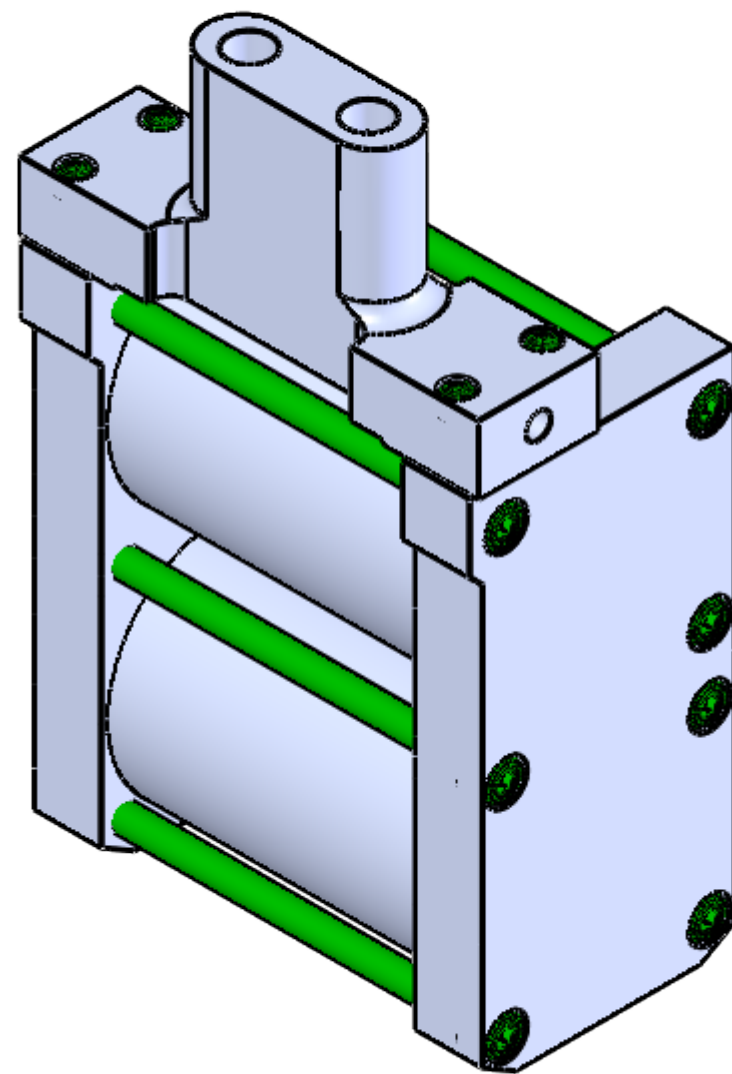
SIZE DWG. NO. 860R - A002

REV A

SCALE: 1:2 WEIGHT: SHEET 1 OF 9



SECTION B-B

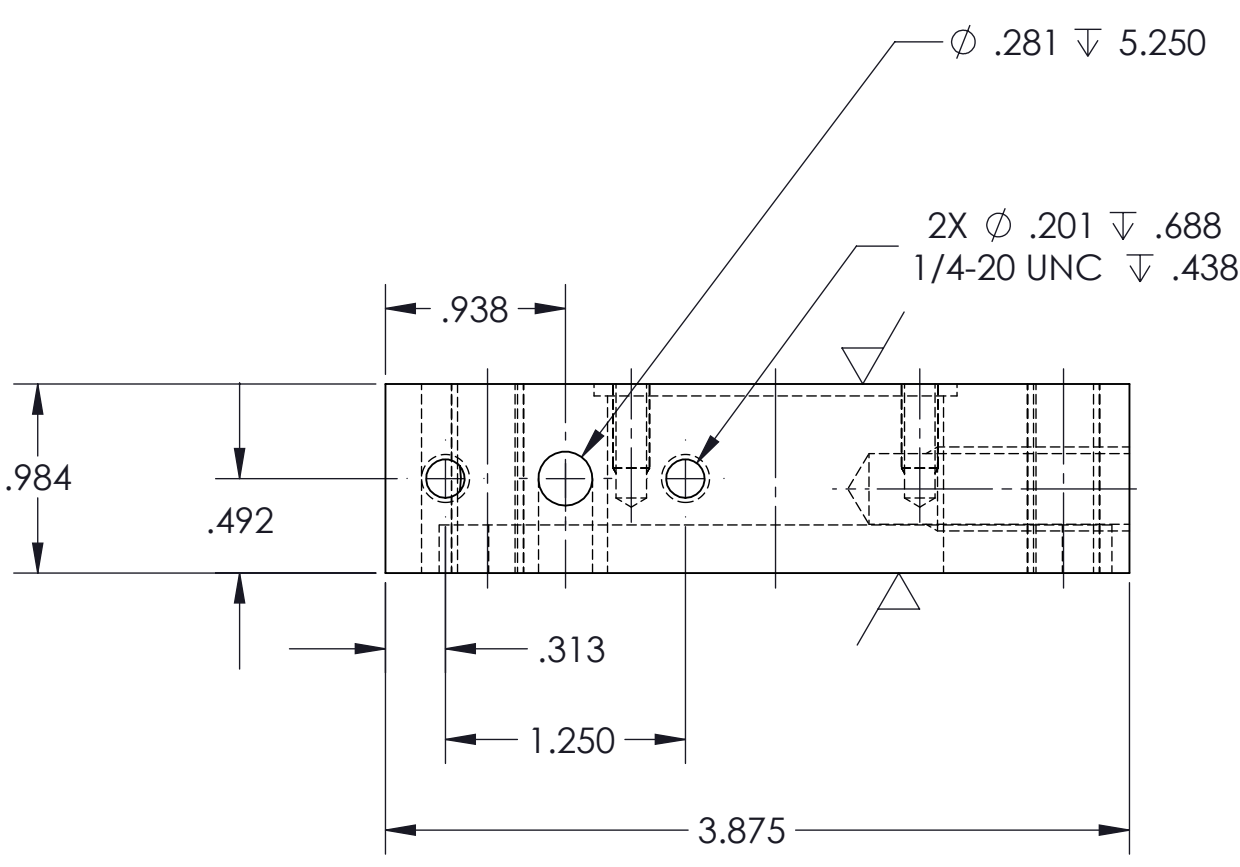


SECTION A-A

UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 COLUMBIA MARKING TOOLS 27430 LUCKING DRIVE CHESTERFIELD, MI 48070
DIMENSIONS ARE IN INCHES		DRAWN	NV	
TOLERANCES:		CHECKED		
FRACTIONAL ±		ENG APPR.		
ANGULAR: MACH ±		MFG APPR.		
BEND ±				
TWO PLACE DECIMAL ±				
THREE PLACE DECIMAL ±				
INTERPRET GEOMETRIC TOLERANCING PER:				
MATERIAL:				
FINISH:				
		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF COLUMBIA MARKING TOOLS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF COLUMBIA MARKING TOOLS IS PROHIBITED.		
TITLE:		SIZE	DWG. NO.	REV
SLIDE CYLINDER		D	860R - A002	A
SCALE: 1:2		WEIGHT:		SHEET 2 OF 9

F
E
D
C
B
A

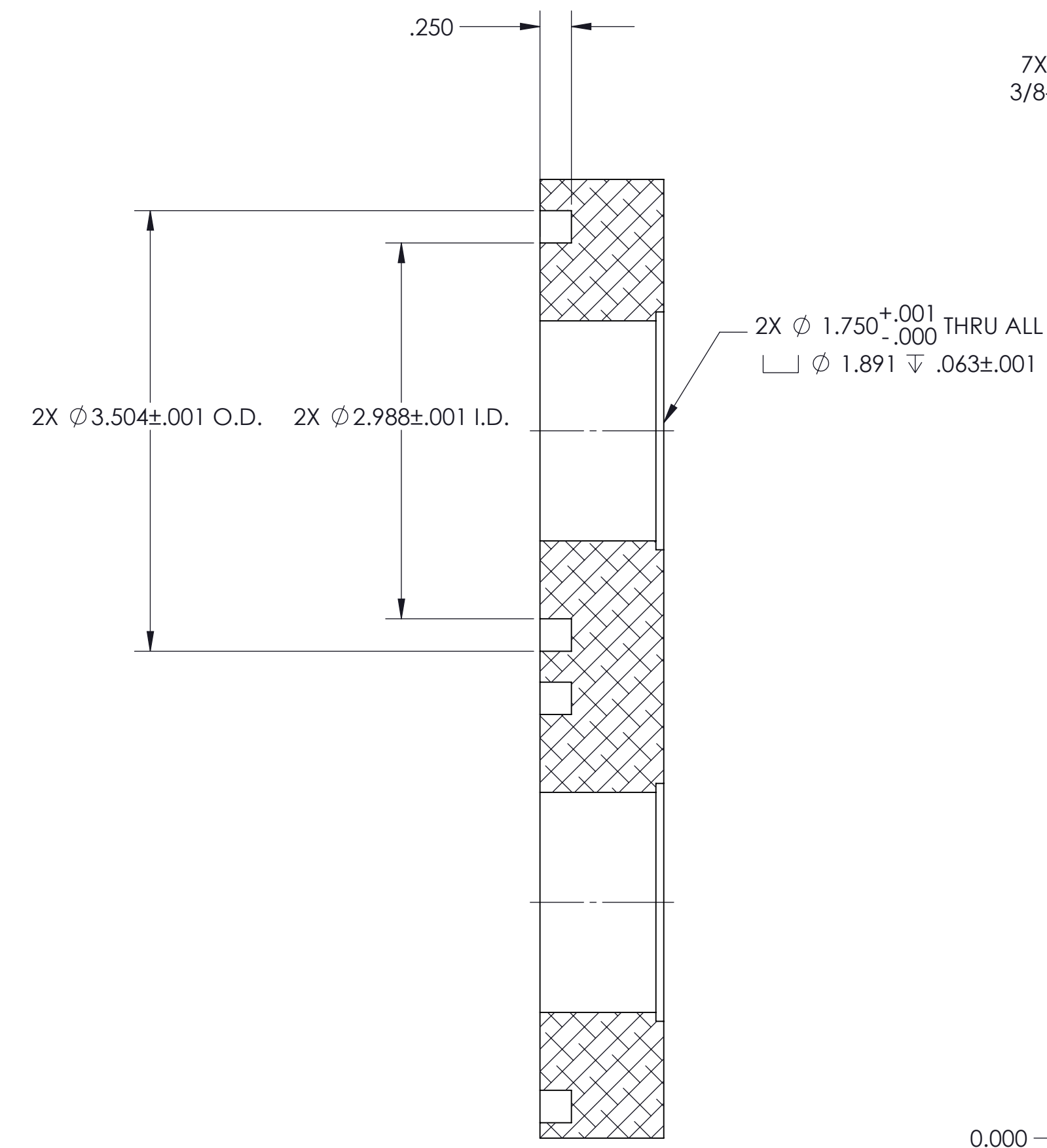
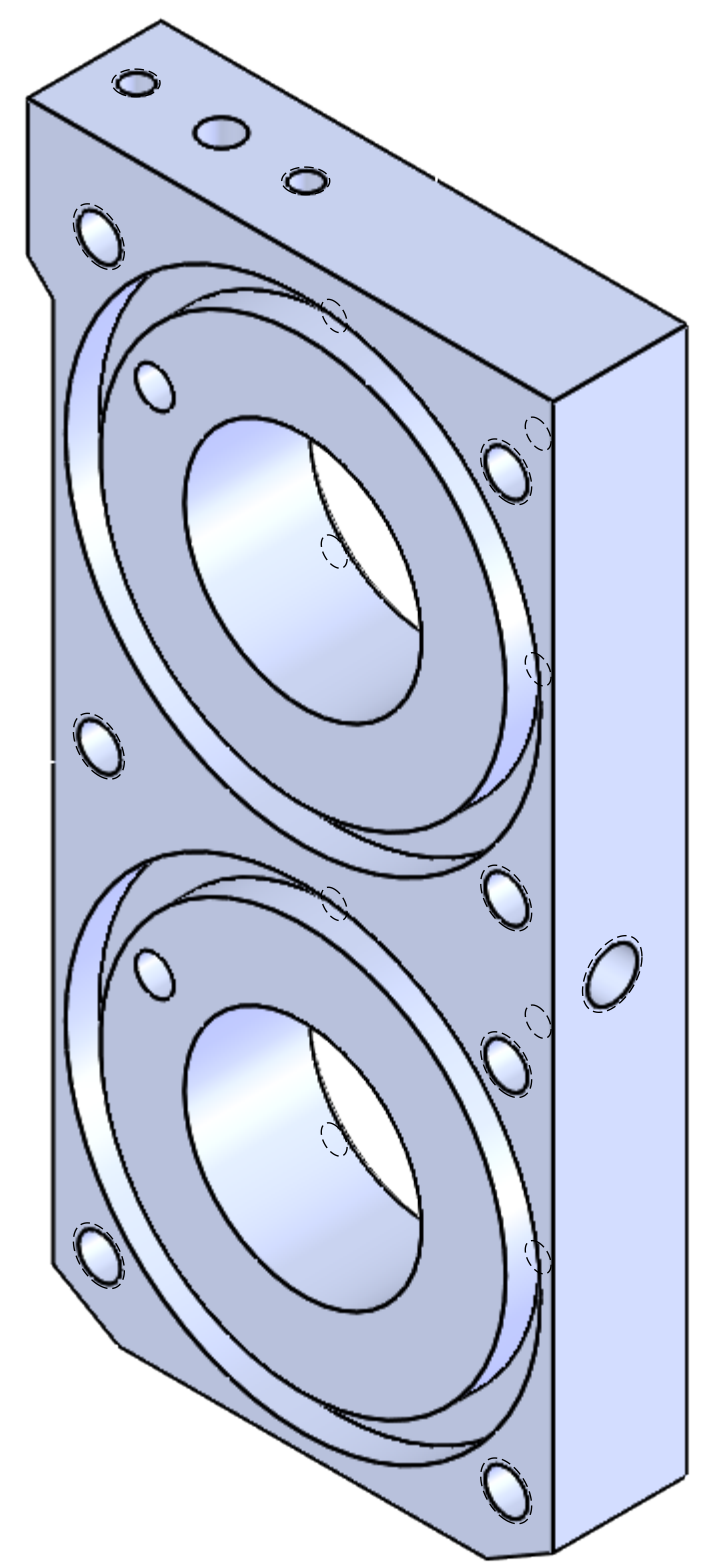
8 7 6 5 4 3 2 1



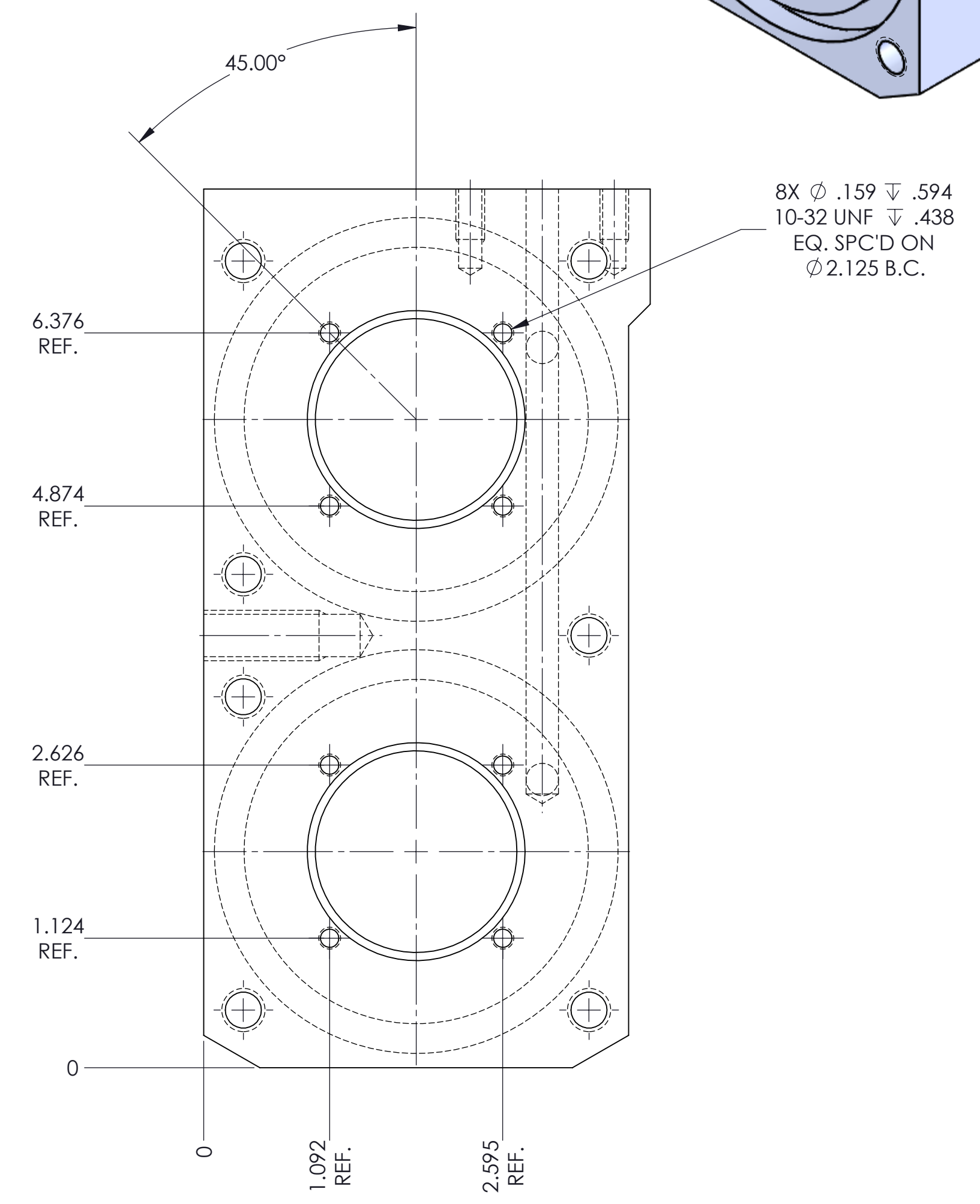
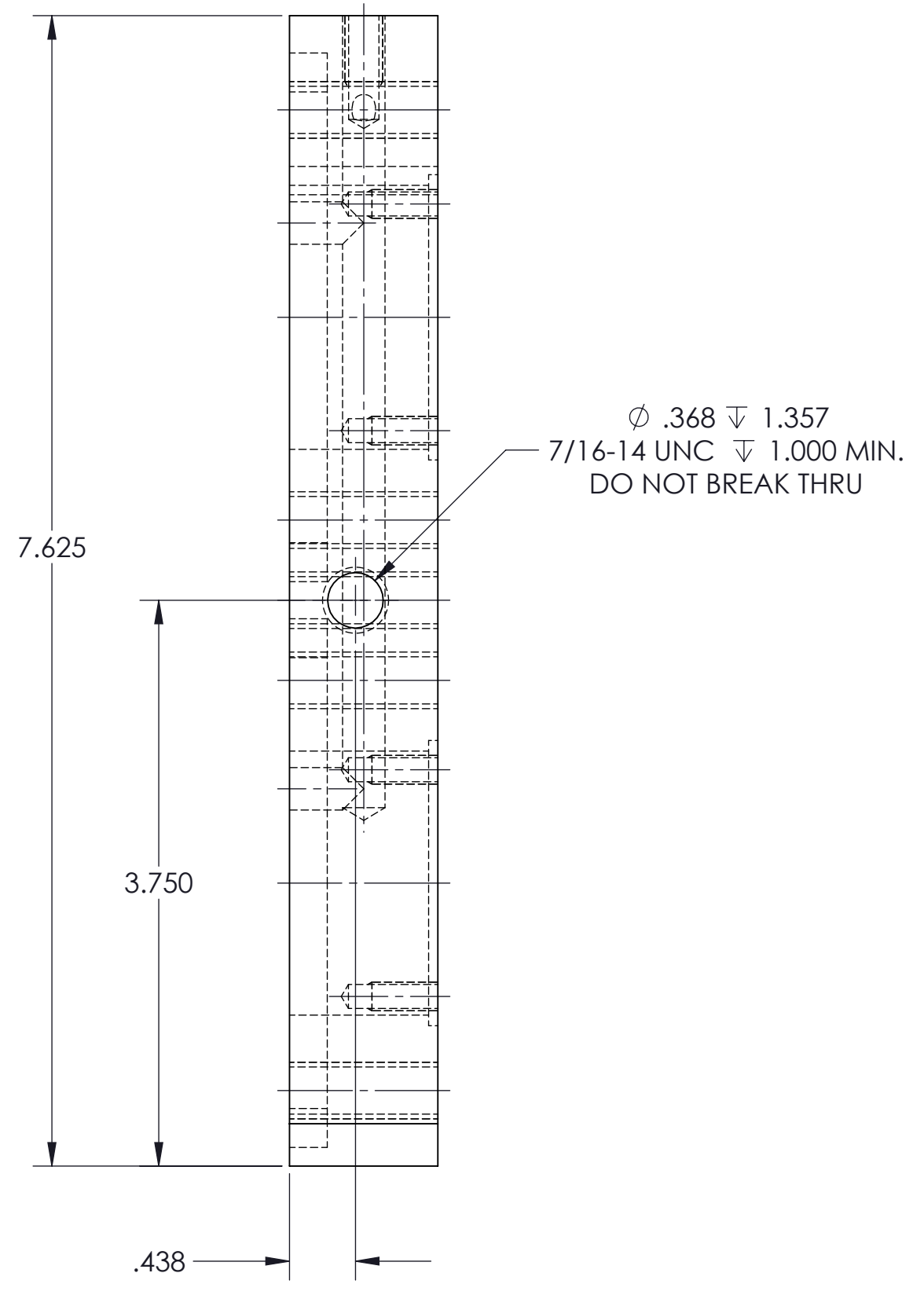
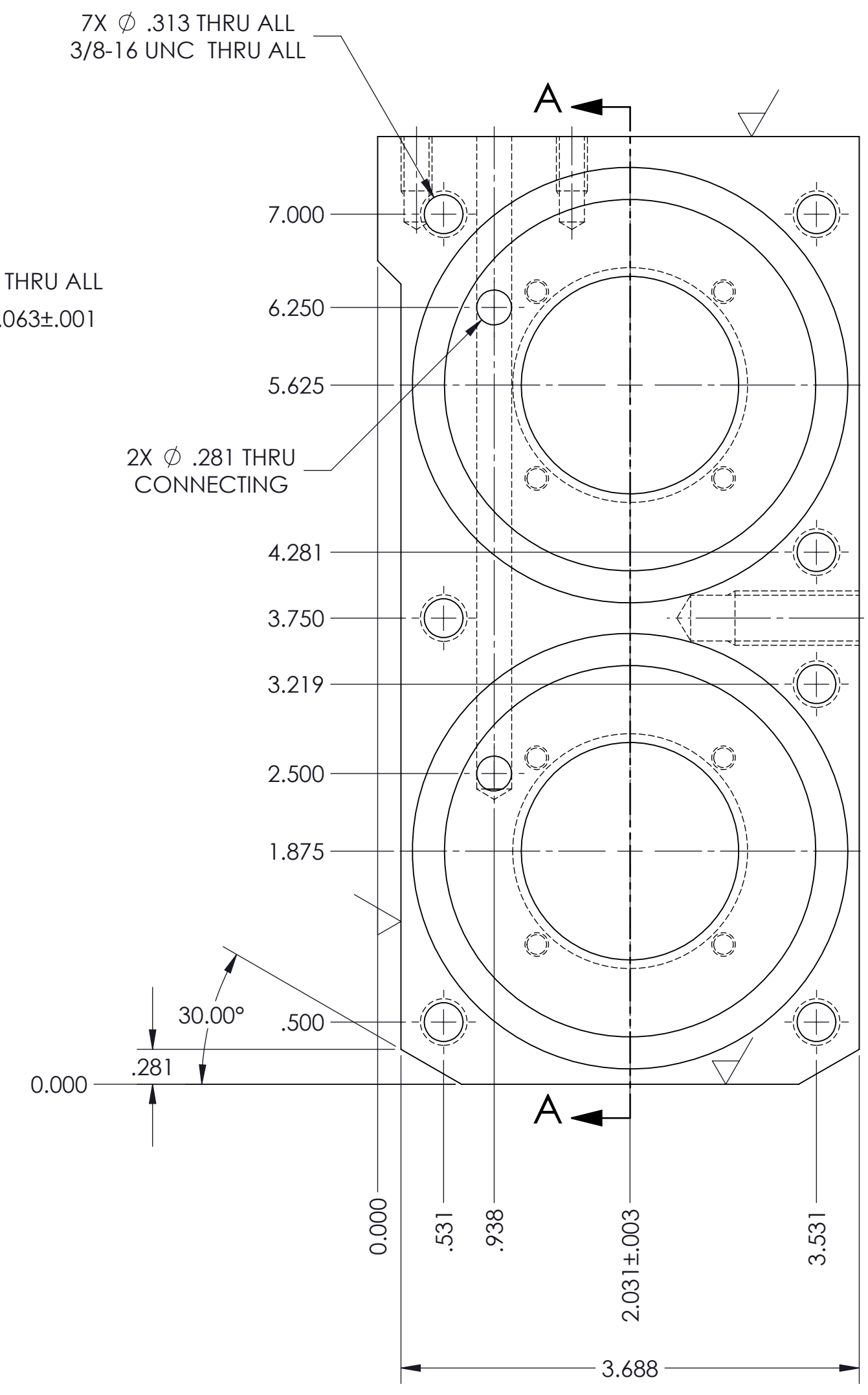
2

NAME:	CAP - ROD END
PART NO:	860R - A002 - 002
REF. JOB:	N/A
REF. DWG:	860R-19
MATERIAL:	6061-T6 (SS)
STOCKSIZE:	1" X 4" X 8" LG.
HEAT TREAT:	N/A
FINISH:	N/A
WEIGHT:	1.995
BOM QTY:	1

STAMP / ETCH DETAIL WITH PART NO.



SECTION A-A



M:\Product Data\CMT Standard Machines\860\860-Mechanical\860R\COMPONENTS\

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		NV	09/21
TOLERANCES:			
FRACTIONAL ±	CHECKED		
ANGULAR: MACH ±	ENG APPR.		
TWO PLACE DECIMAL ±	MFG APPR.		
THREE PLACE DECIMAL ±			
INTERPRET GEOMETRIC TOLERANCING PER:	G.A.		
MATERIAL:	PROPRIETARY AND CONFIDENTIAL		
FINISH:	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF COLUMBIA MARKING TOOLS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF COLUMBIA MARKING TOOLS IS PROHIBITED.		

COLUMBIA MARKING TOOLS
27430 LUCKING DRIVE CHESTERFIELD, MI 48070

TITLE: **SLIDE CYLCINDER**

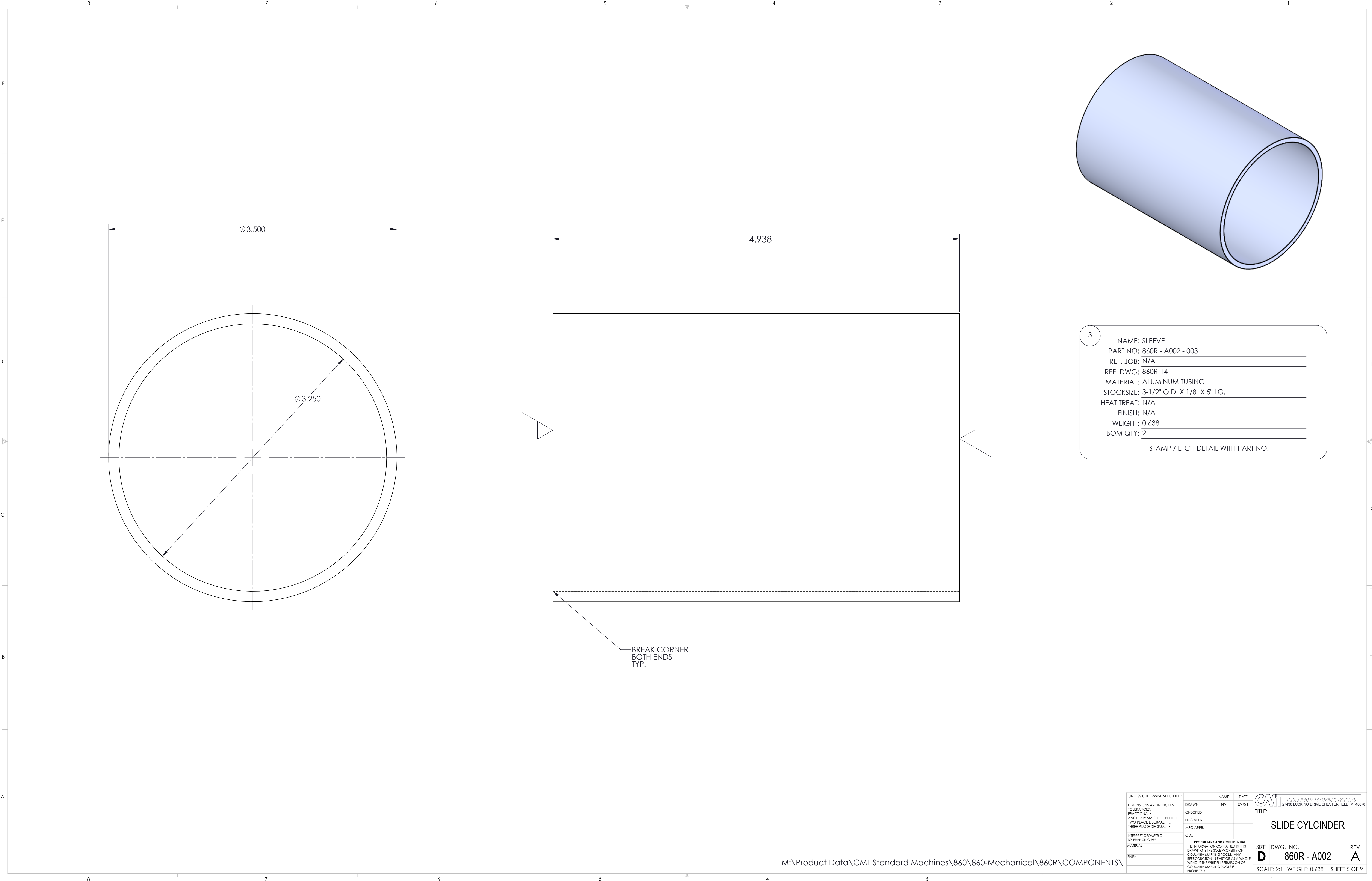
SIZE	DWG. NO.	REV
D	860R - A002	A

SCALE: 1:1 WEIGHT: 1.995 SHEET 4 OF 9

REV
D 860R - A002

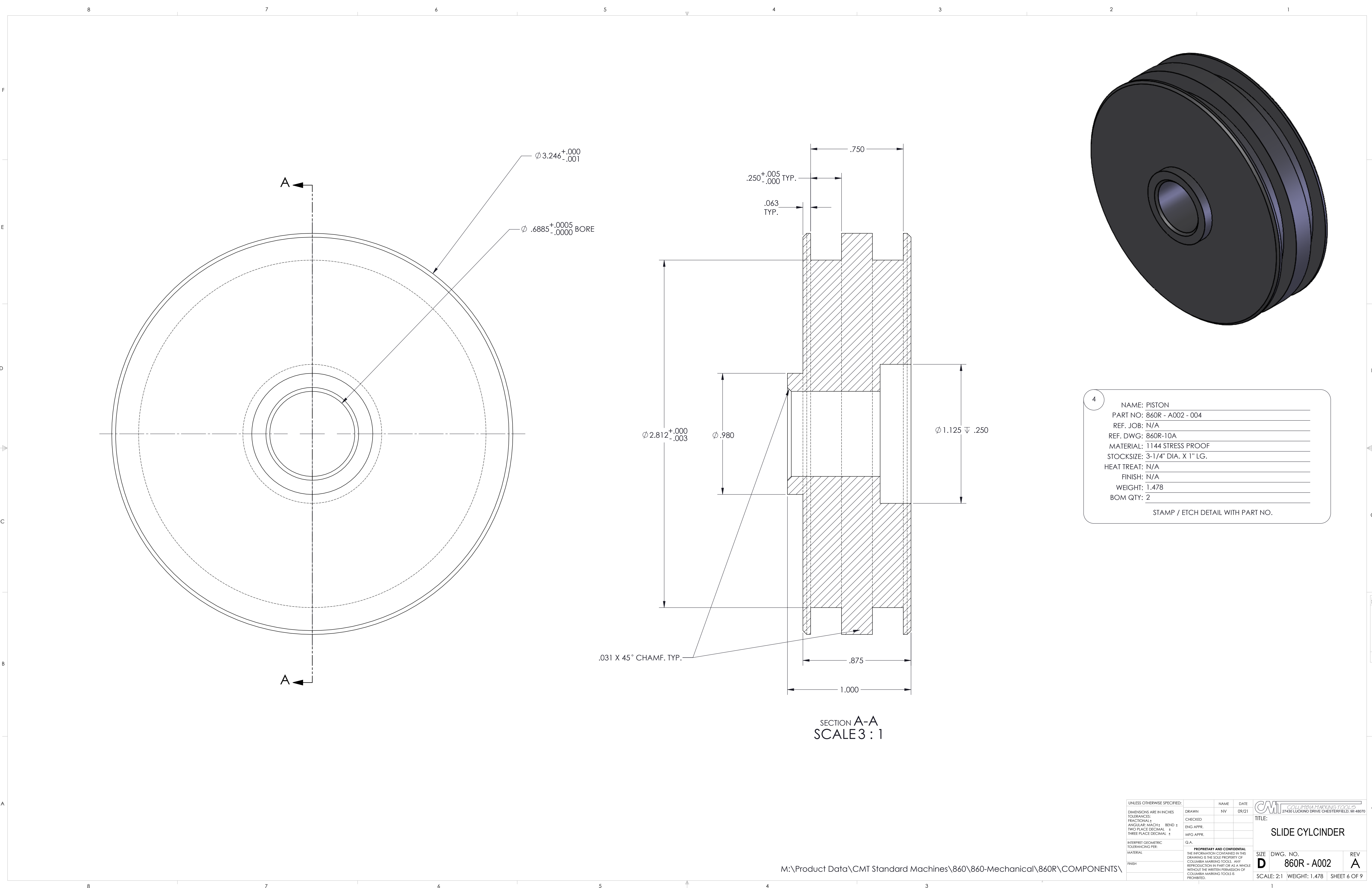
A

8 7 6 5 4 3 2 1



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		NV	09/21
TOLERANCES:		CHECKED	
FRACTIONAL: ±		ENG APPR.	
ANGULAR: MACH ±	BEND ±	MFG APPR.	
TWO PLACE DECIMAL ±			
THREE PLACE DECIMAL ±			
INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL:			
FINISH:			
		Q.A.	
		PROPRIETARY AND CONFIDENTIAL	
		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF COLUMBIA MARKING TOOLS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF COLUMBIA MARKING TOOLS IS PROHIBITED.	

CMT COLUMBIA MARKING TOOLS		27430 LUCKING DRIVE CHESTERFIELD, MI 48070	
TITLE: SLIDE CYLCINDER			
SIZE	DWG. NO.	REV	
D	860R - A002	A	
SCALE: 2:1		WEIGHT: 0.638	SHEET 5 OF 9



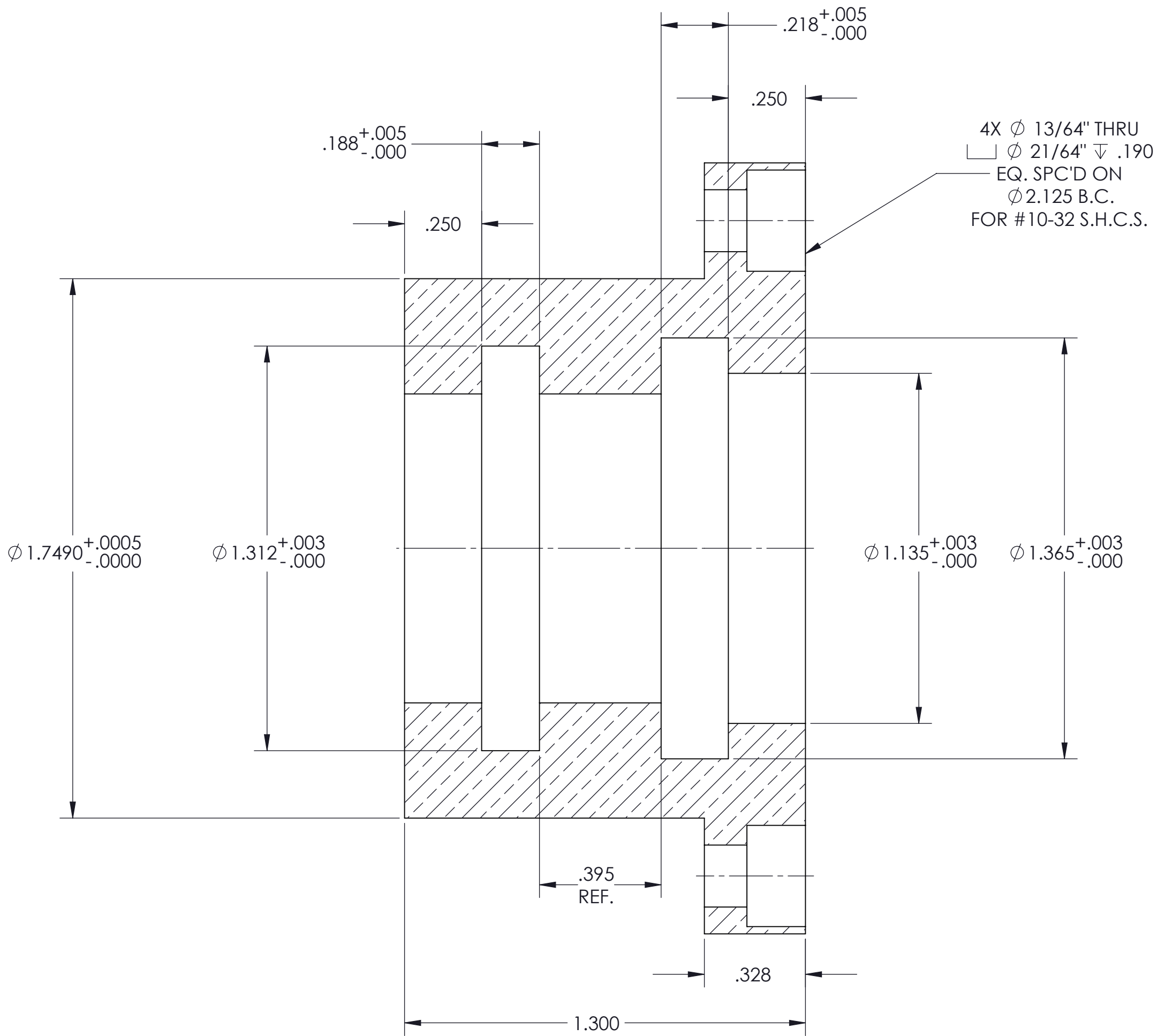
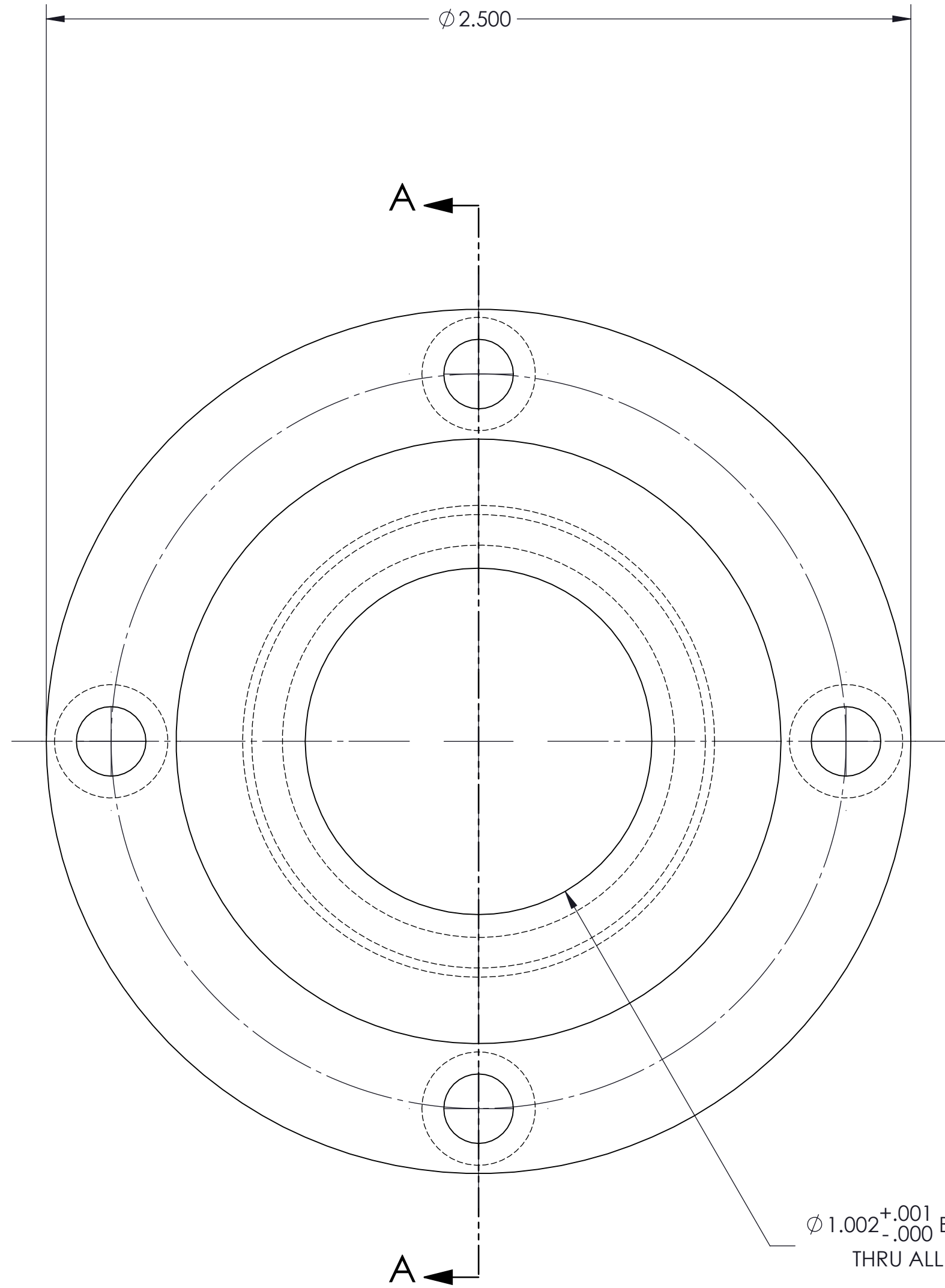
4

NAME:	PISTON
PART NO:	860R - A002 - 004
REF. JOB:	N/A
REF. DWG:	860R-10A
MATERIAL:	1144 STRESS PROOF
STOCKSIZE:	3-1/4" DIA. X 1" LG.
HEAT TREAT:	N/A
FINISH:	N/A
WEIGHT:	1.478
BOM QTY:	2

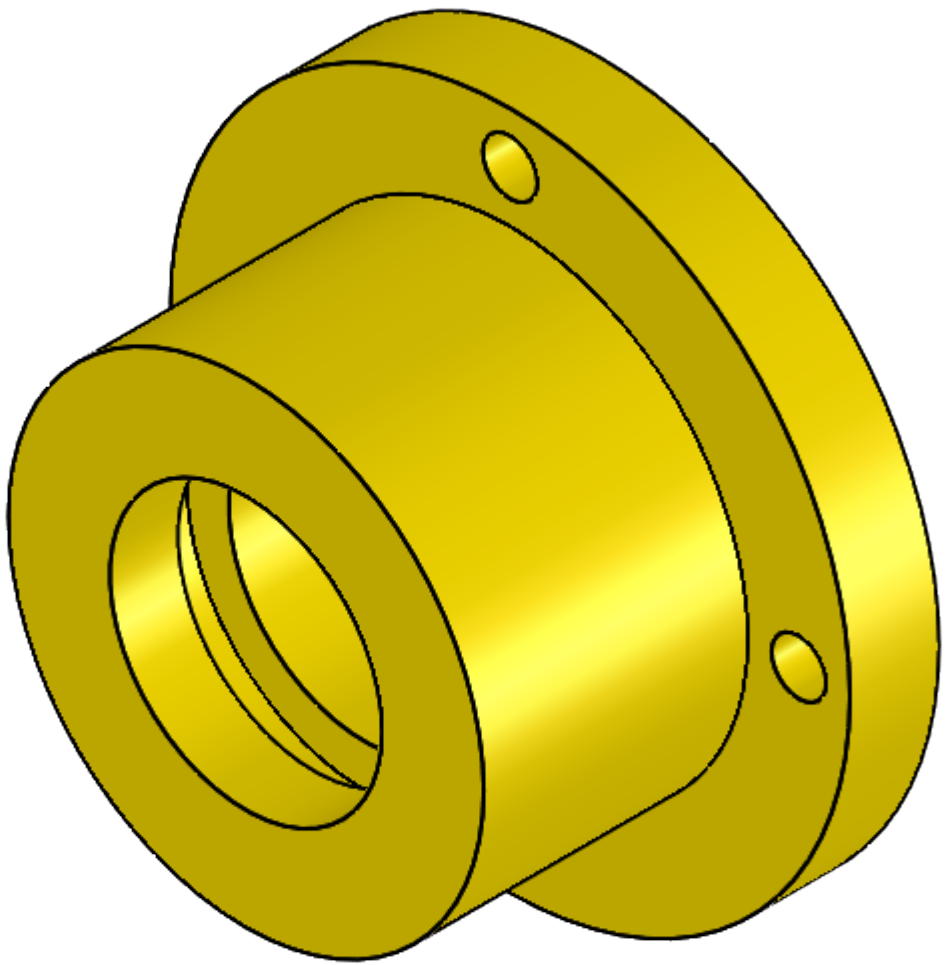
STAMP / ETCH DETAIL WITH PART NO.

UNLESS OTHERWISE SPECIFIED:		NAME	DATE	CMT COLUMBIA MARKING TOOLS 27430 LUCKING DRIVE CHESTERFIELD, MI 48070
DIMENSIONS ARE IN INCHES		DRAWN	NV	
TOLERANCES:		CHECKED		
FRACTIONAL ±		ENG APPR.		
ANGULAR: MATCH ±	BEND ±	MFG APPR.		
TWO PLACE DECIMAL ±				
THREE PLACE DECIMAL ±				
INTERPRET GEOMETRIC TOLERANCING PER:		Q.A.		
MATERIAL:		PROPRIETARY AND CONFIDENTIAL		
FINISH:		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF COLUMBIA MARKING TOOLS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF COLUMBIA MARKING TOOLS IS PROHIBITED.		

SIZE	DWG. NO.	REV
D	860R - A002	A
SCALE: 2:1 WEIGHT: 1.478 SHEET 6 OF 9		



SECTION A-A
SCALE 3 : 1



5

NAME: PACKING GLAND

PART NO: 860R - A002 - 005

REF. JOB: N/A

REF. DWG: 860R-24

MATERIAL: BRG. BRONZE

STOCKSIZE: 2-1/2" DIA. X 1-1/2" LG.

HEAT TREAT: N/A

FINISH: N/A

WEIGHT: 0.676

BOM QTY: 2

STAMP / ETCH DETAIL WITH PART NO.

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES

TOLERANCES:

FRACTIONAL ±

ANGULAR: MACH ±

TWO PLACE DECIMAL ±

THREE PLACE DECIMAL ±

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL:

FINISH:

DRAWN

CHECKED

ENG APPR.

MFG APPR.

Q.A.

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NAME

NV

DATE

09/21

CMT COLUMBIA MARKING TOOLS

27430 LUCKING DRIVE CHESTERFIELD, MI 48009

TITLE:

SLIDE CYLCINDER

SIZE

D

DWG. NO.

860R - A002

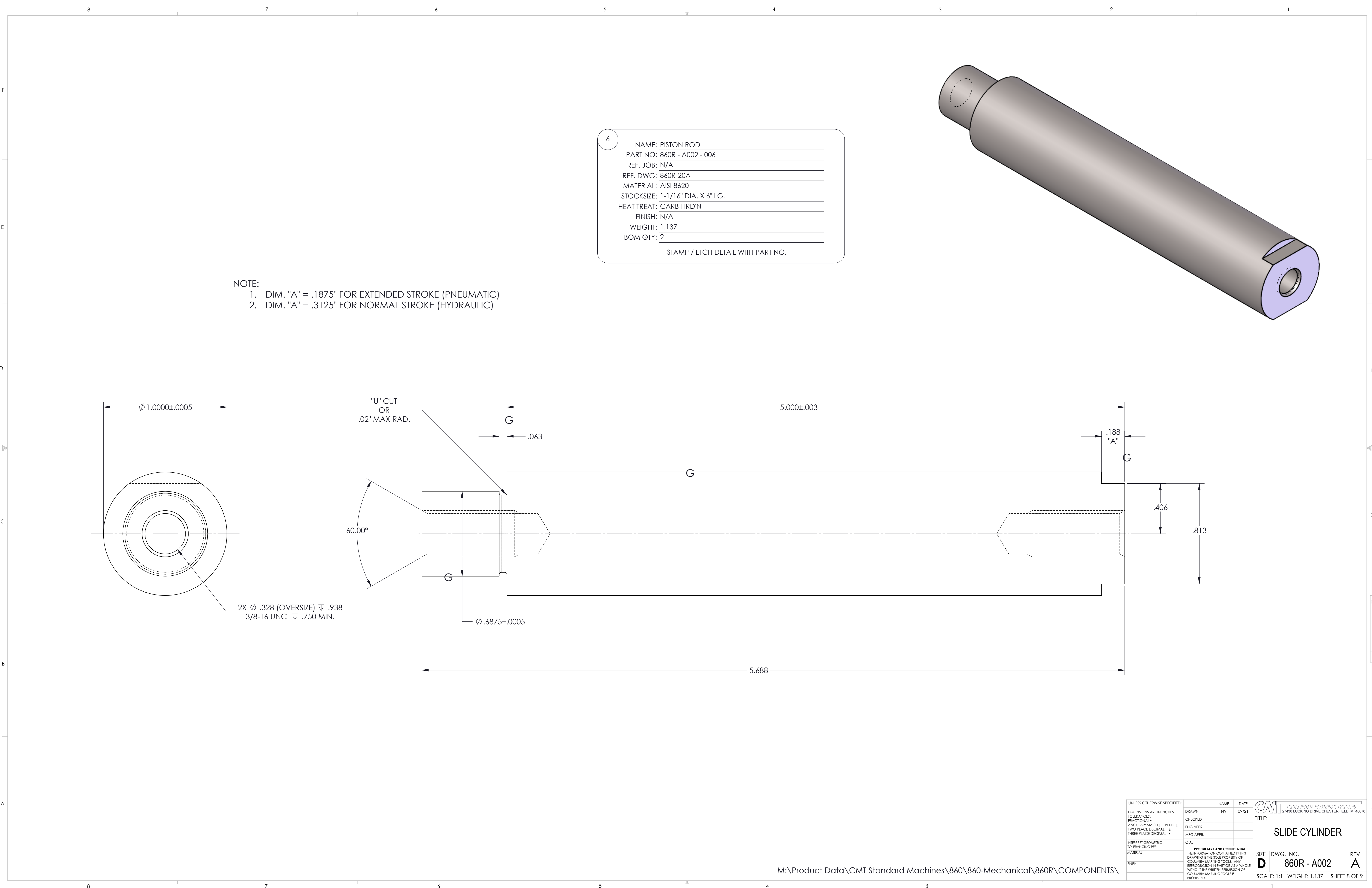
REV

A

SCALE: 1:1

WEIGHT: 0.676

SHEET 7 OF 9



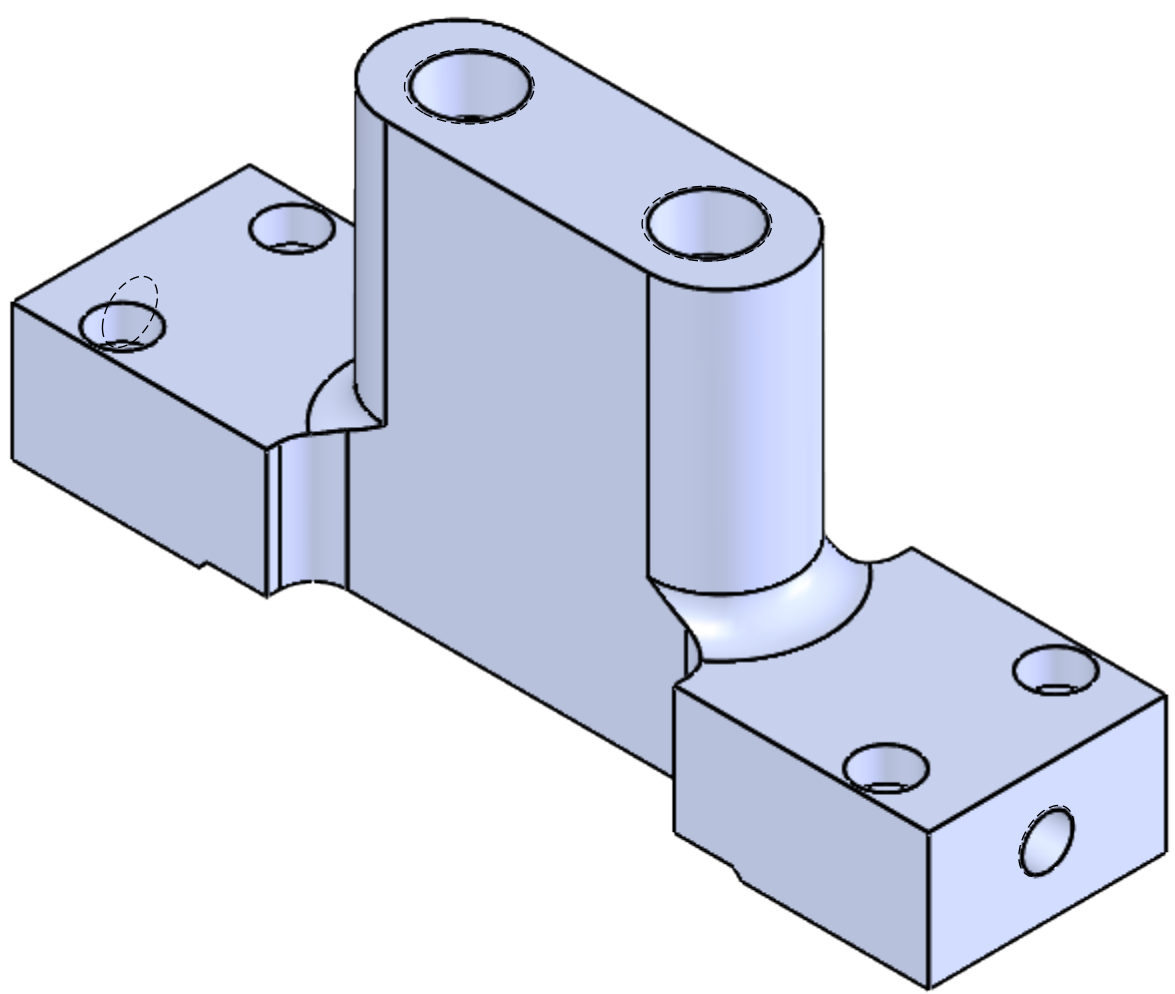
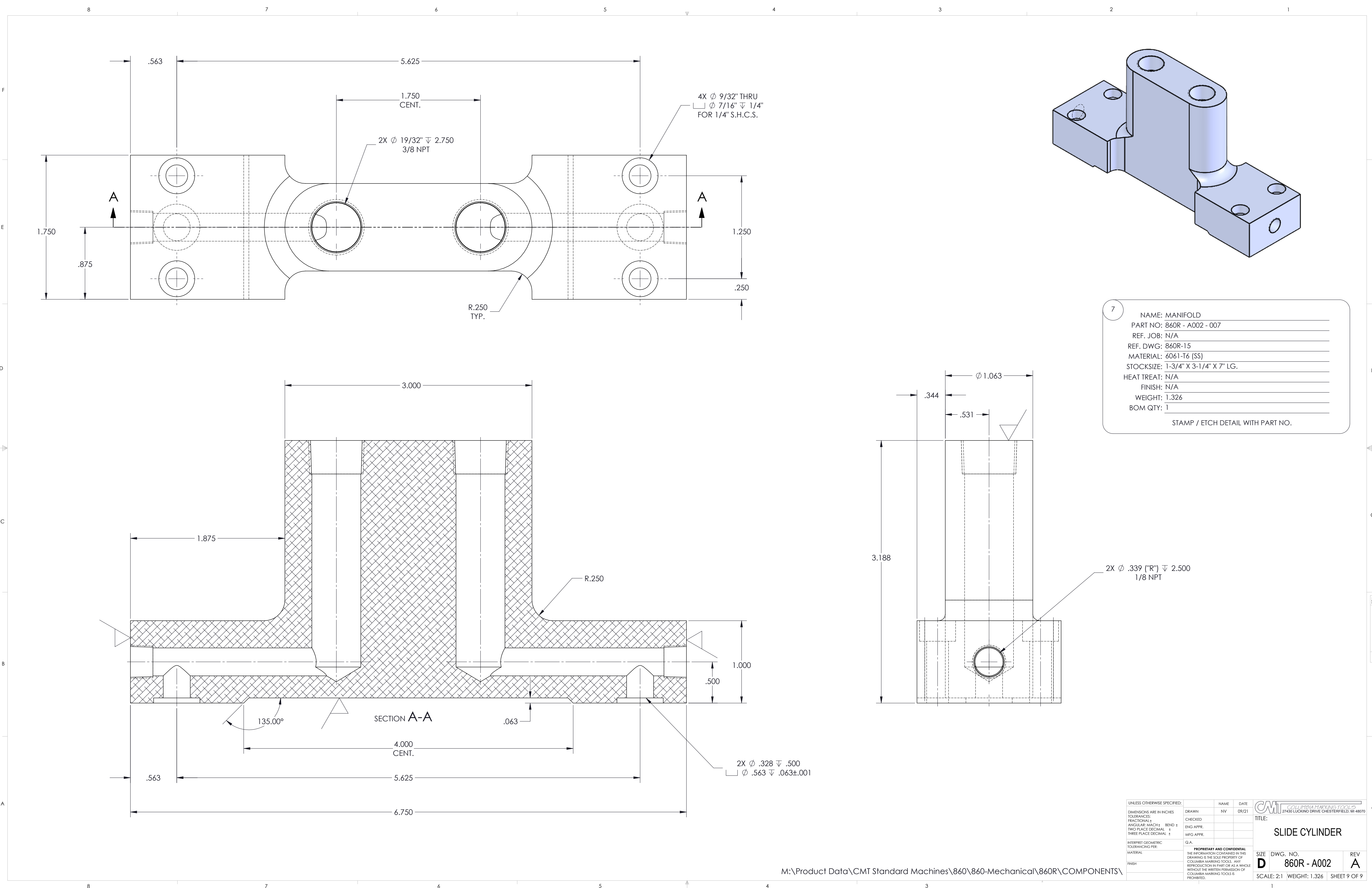
NOTE:
1. DIM. "A" = .1875" FOR EXTENDED STROKE (PNEUMATIC)
2. DIM. "A" = .3125" FOR NORMAL STROKE (HYDRAULIC)

6	NAME: PISTON ROD
	PART NO: 860R - A002 - 006
	REF. JOB: N/A
	REF. DWG: 860R-20A
	MATERIAL: AISI 8620
	STOCKSIZE: 1-1/16" DIA. X 6" LG.
	HEAT TREAT: CARB-HRD'N
	FINISH: N/A
	WEIGHT: 1.137
	BOM QTY: 2
	STAMP / ETCH DETAIL WITH PART NO.

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		NV	09/21
TOLERANCES:			
FRACTIONAL ±	CHECKED		
ANGULAR: MACH ±	ENG APPR.		
BEND ±	MFG APPR.		
TWO PLACE DECIMAL ±			
THREE PLACE DECIMAL ±			
INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.		
MATERIAL:	PROPRIETARY AND CONFIDENTIAL		
FINISH:	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF COLUMBIA MARKING TOOLS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF COLUMBIA MARKING TOOLS IS PROHIBITED.		

CMT COLUMBIA MARKING TOOLS		27430 LUCKING DRIVE CHESTERFIELD, MI 48070
TITLE:		SLIDE CYLINDER
SIZE	DWG. NO.	REV
D	860R - A002	A
SCALE: 1:1	WEIGHT: 1.137	SHEET 8 OF 9

M:\Product Data\CMT Standard Machines\860\860-Mechanical\860R\COMPONENTS\



7	NAME: MANIFOLD
	PART NO: 860R - A002 - 007
	REF. JOB: N/A
	REF. DWG: 860R-15
	MATERIAL: 6061-T6 (SS)
	STOCKSIZE: 1-3/4" X 3-1/4" X 7" LG.
	HEAT TREAT: N/A
	FINISH: N/A
	WEIGHT: 1.326
	BOM QTY: 1
	STAMP / ETCH DETAIL WITH PART NO.

UNLESS OTHERWISE SPECIFIED:	DRAWN	NAME	DATE	CMT COLUMBIA MARKING TOOLS 27430 LUCKING DRIVE CHESTERFIELD, MI 48070
DIMENSIONS ARE IN INCHES	NV	NV	09/21	
TOLERANCES:	CHECKED			
FRACTIONAL: $\pm$	ENG APPR.			
ANGULAR: MACH $\pm$ BEND $\pm$	MFG APPR.			
TWO PLACE DECIMAL $\pm$				
THREE PLACE DECIMAL $\pm$				
INTERPRET GEOMETRIC TOLERANCING PER:				
MATERIAL:				
FINISH:				

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SIZE	DWG. NO.	REV
D	860R - A002	A
SCALE: 2:1 WEIGHT: 1.326 SHEET 9 OF 9		