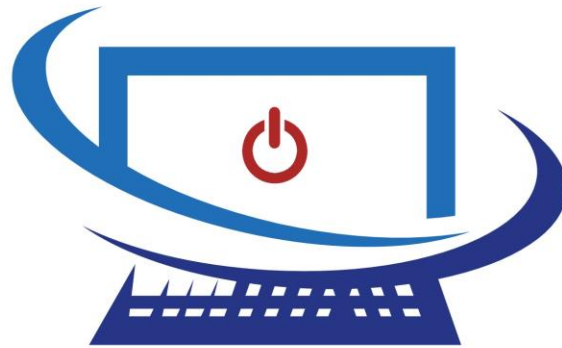


TUTORIAL PACKET NO. 500

**LEVEL: INTERMEDIATE**

4" CLAMP ASSEMBLY



# SOMAR TECHNICAL

## Software Training

LET'S GO  
DESIGN



CREATED BY:  
HECTOR R.



## INFORMATION ABOUT OUR TUTORIALS.

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### TO THE CUSTOMER

Thank you for your interested in Somar Technical. We strive to provide our customers with full knowledge on the most common and essential software used in today's work place. Most people only scratch the surface of these popular software. Here at Somar Technical, we understand the importance and positive impact that truly knowing a software can have at work and/or your personal tasks. This is why we focus on teaching, helping, and providing you with the tools and knowledge to utilize everyday software to its full potential!

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### INSTRUCTIONS

After this intro page, you will find several drawings. The mission, if you choose to accept it, is to recreate the 3D model in SolidWorks on your own. It doesn't matter which version of SolidWork you have, all versions are capable of modeling each of the following components. Once you have completed the model you can confirm the accuracy of your model by determining the weight of the final model you created and compare it to the weight listed on the title block of the tutorial. The acceptable range for the accuracy of the weight is to be either 1% under or over the weight provided. See our free YouTube videos on how to read our title blocks if needed.

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### CLASSES

If you are interested in taking our in-person classes, please refer to our website to view our available classes. All classes are held in Houston, Texas. We also provide on-line video tutorials to help with the content of this packet.

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### ON-LINE TUTORIALS

If there is a Tutorial No. that you can't complete. You can proceed to our website and select the Videos button. A sign-up page will pop up, we use this to create a customer list for future newsletters and notifications. You will need to sign up to get access to our video library. Once in the library you can search for the corresponding video that you are looking for. Each video is labeled exactly as the Tutorial No. for easy searching. The purchase of the video will walk you every step of the way to complete the model.

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### CONTACT US

If you have any questions or comments, please visit our website or drop us a line at [info@somartech.com](mailto:info@somartech.com). Thanks again for your interest in Somar Technicial.

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# NOW LET'S GET TO WORK!

[www.SomarTech.com](http://www.SomarTech.com)

# LET'S COMPARE RESULTS!

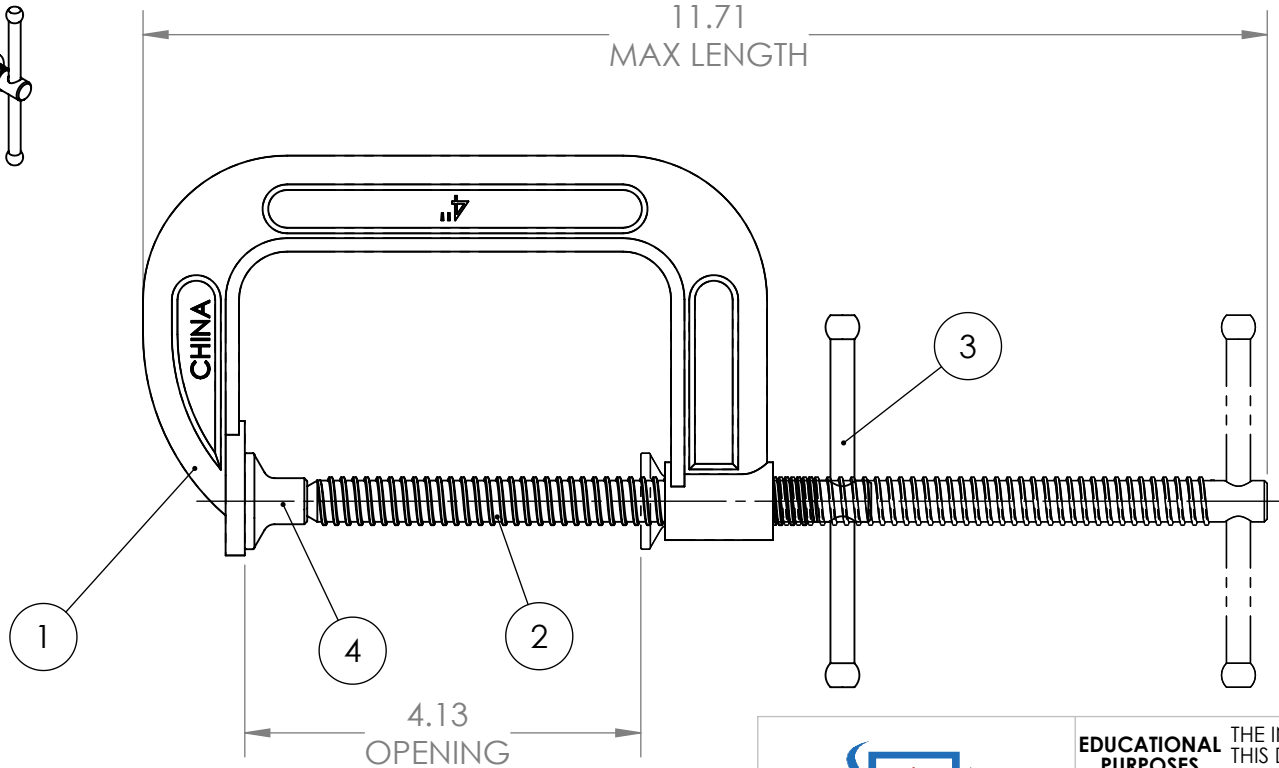
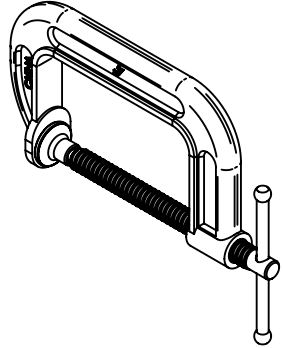

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## COMPARE YOUR RESULTS

Make sure you have updated the material and are working in the proper units for each component. The titleblock for each component will have the material listed, units being used, and the final weight. Below is the acceptable range in weight for each component.

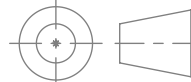
TUTORIAL NO.	Minimum (lbs)	Nominal (lbs)	Maximum (lbs)
500	1.96	1.98	2.00
501	1.58	1.60	1.62
502	0.05	0.06	0.07
503	0.26	0.27	0.28
504	0.04	0.05	0.06

ITEM NO.	PART NUMBER	DESCRIPTION	Default/ QTY.	Material
1	501	4" CLAMP BODY	1	Cast Carbon Steel
2	503	0.500-8 ACME THREADED SHAFT	1	AISI 1020
3	502	1/4" BAR X 4" LG	1	AISI 1020
4	504	SWIVEL END	1	AISI 1020

**SOMAR TECHNICAL**  
Software Training

MATERIAL  
REFER TO BOM



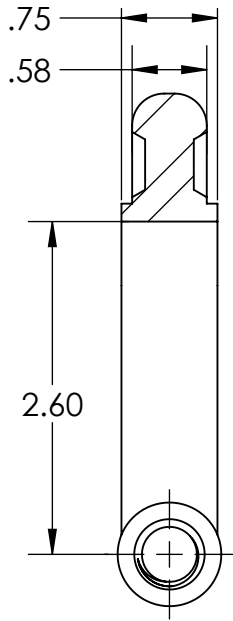
DIMENSIONS ARE IN INCHES

**EDUCATIONAL PURPOSES ONLY** THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.

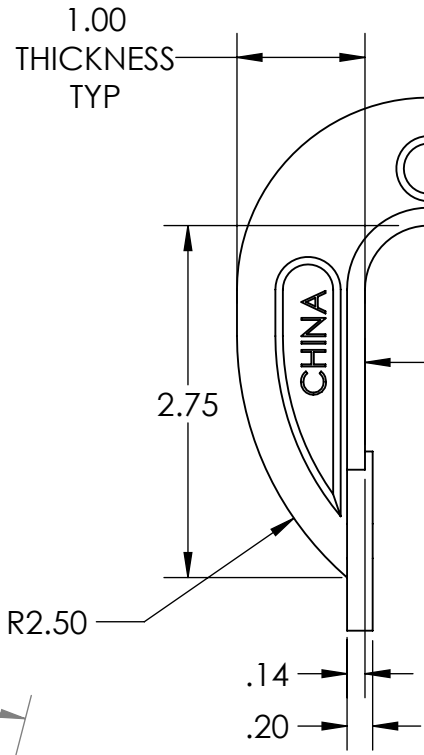
TITLE:  
**4" CLAMP ASSEMBLY**

SIZE <b>A</b>	TUTORIAL NO. <b>500</b>	REV <b>A</b>
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SCALE: 1:2    WEIGHT: 1.98    SHEET 1 OF 1



SECTION D-D



R2.50

1.00  
THICKNESS  
TYP

2.75

4.50

.14

.20

CHINA

C

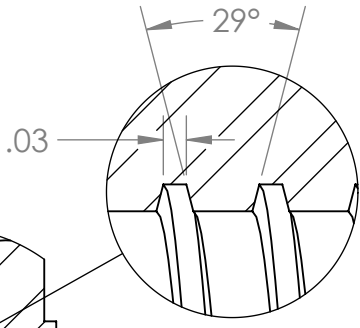
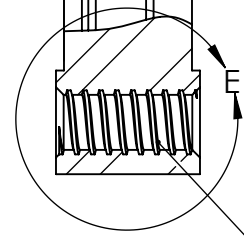
C

D

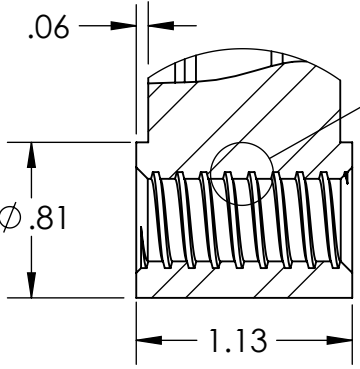
(R1.50)

R.50

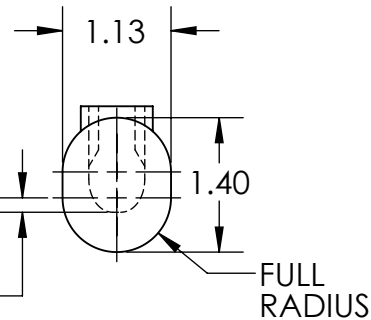
0.500-8 ACME THREAD  
MINOR DIAMETER:  $\phi$ .43  
MAJOR DIAMETER:  $\phi$ .50



DETAIL H  
SCALE 4 : 1




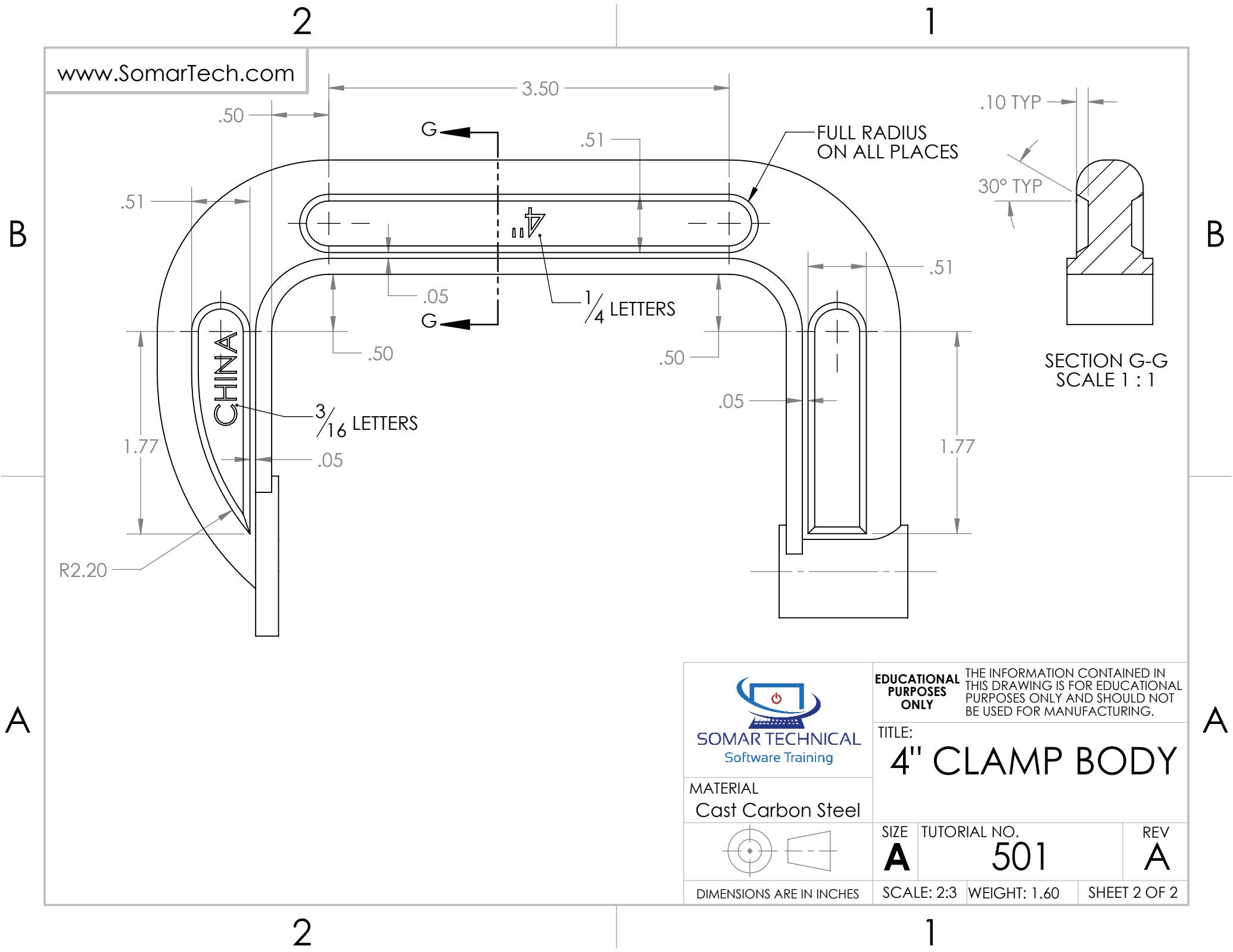
DETAIL E  
SCALE 1 : 1



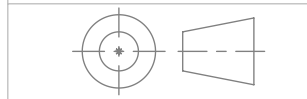
SECTION C-C  
SCALE 1 : 2

FULL  
RADIUS  
TYP

 <b>SOMAR TECHNICAL</b> Software Training		<b>EDUCATIONAL PURPOSES ONLY</b> THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.		
		TITLE: <h1>4" CLAMP BODY</h1>		
MATERIAL Cast Carbon Steel		SIZE <b>A</b>	TUTORIAL NO. <b>501</b>	REV <b>A</b>
DIMENSIONS ARE IN INCHES		SCALE: 2:3	WEIGHT: 1.60	SHEET 1 OF 2



MATERIAL  
Cast Carbon Steel



DIMENSIONS ARE IN INCHES

**EDUCATIONAL PURPOSES ONLY** THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.

TITLE:  
**4" CLAMP BODY**

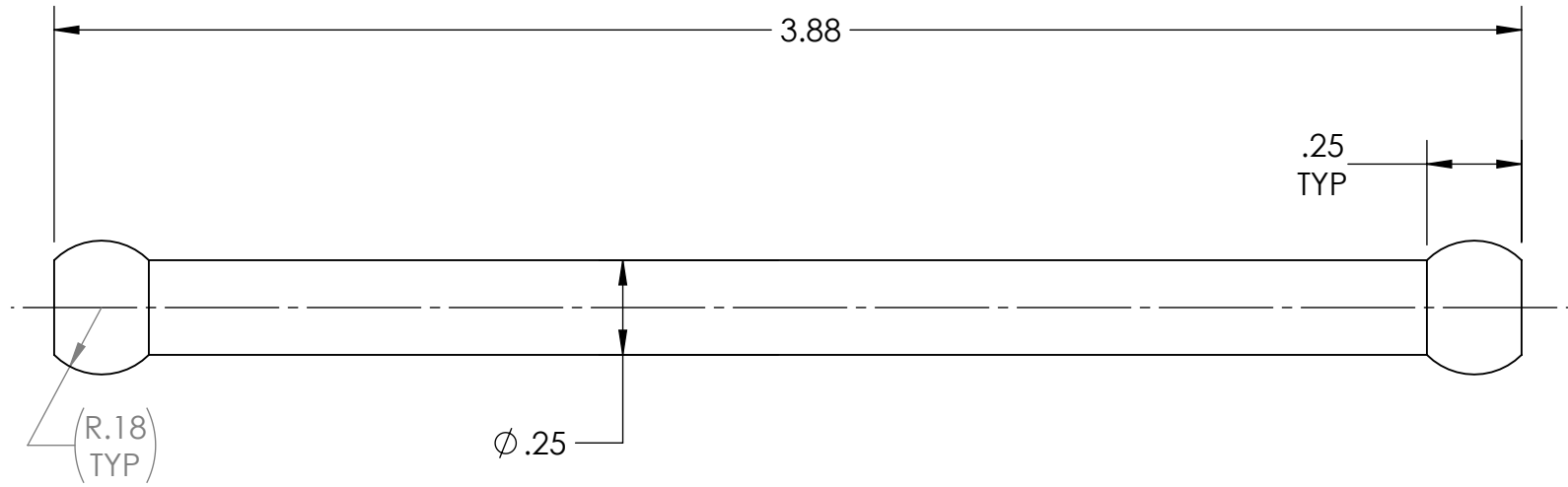
SIZE TUTORIAL NO. REV

**A** **501** **A**

SCALE: 2:3 WEIGHT: 1.60 SHEET 2 OF 2


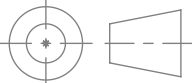
B

B



A

A

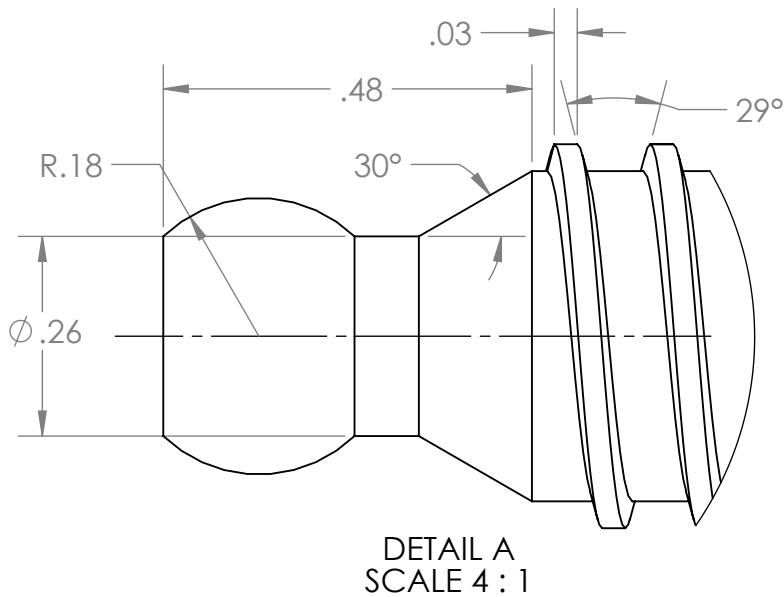
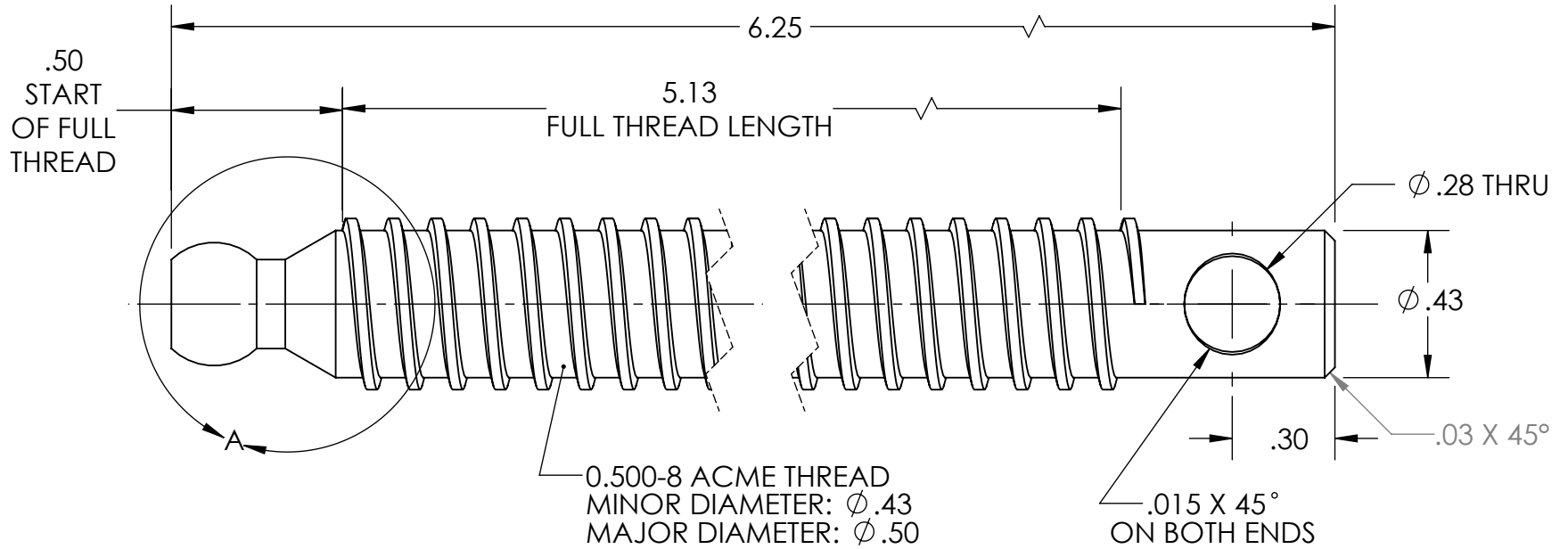
 <b>SOMAR TECHNICAL</b> Software Training	<b>EDUCATIONAL PURPOSES ONLY</b>		THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.
	TITLE: <b>1/4" BAR X 4" LG</b>		
MATERIAL AISI 1020	SIZE <b>A</b>	TUTORIAL NO. <b>502</b>	REV <b>A</b>
	DIMENSIONS ARE IN INCHES	SCALE: 2:1	WEIGHT: 0.06
		SHEET 1 OF 1	


2

1

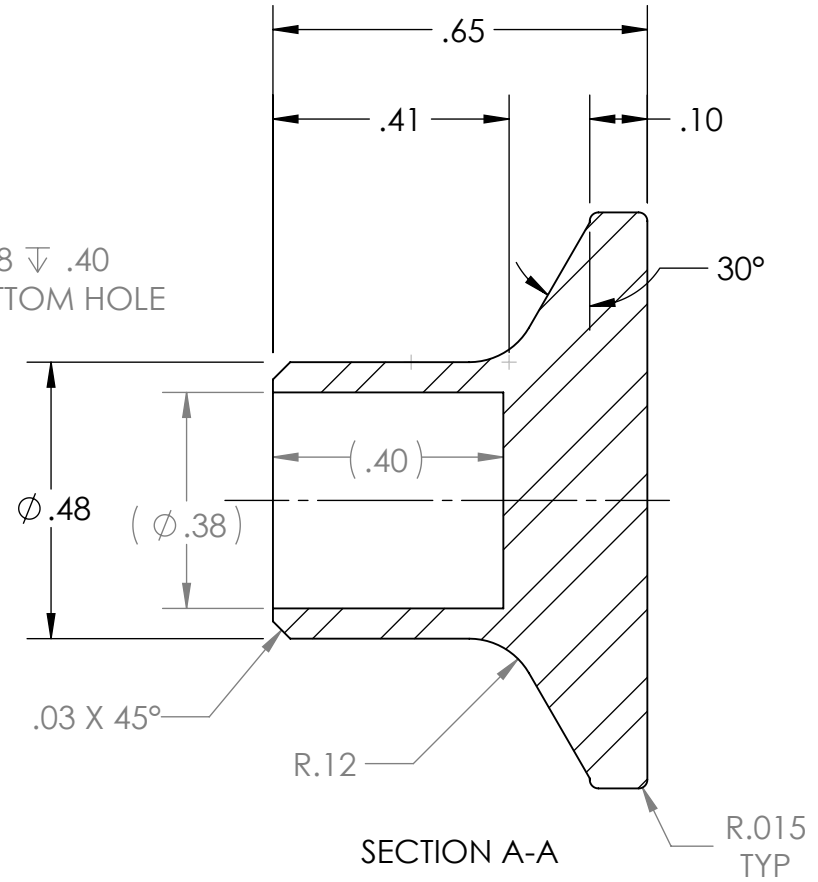
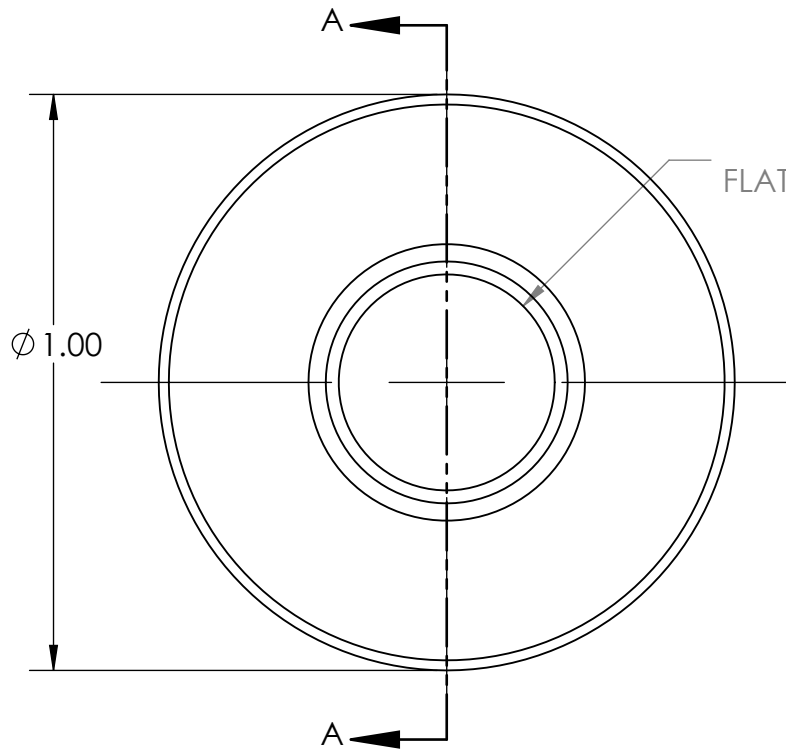
2

1

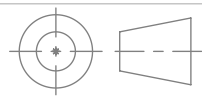


 <b>SOMAR TECHNICAL</b> Software Training	<b>EDUCATIONAL PURPOSES ONLY</b> THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.		
	TITLE: <b>0.500-8 ACME THREADED SHAFT</b>		
MATERIAL AISI 1020	SIZE <b>A</b>	TUTORIAL NO. <b>503</b>	REV <b>A</b>
DIMENSIONS ARE IN INCHES		SCALE: 2:1	WEIGHT: 0.27
		SHEET 1 OF 1	





MATERIAL  
AISI 1020



DIMENSIONS ARE IN INCHES

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TITLE:  
**SWIVEL END**

SIZE <b>A</b>	TUTORIAL NO. <b>504</b>	REV <b>A</b>
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SCALE: 3:1    WEIGHT: 0.05    SHEET 1 OF 1