

# EMA 569 - Refueling Spacecraft - Drawing Packet

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May 1, 2023



## Table of Part Numbers

Table 1: Part Numbers.

Subassembly	Sub-subassembly	Filename	Part Number
Spacecraft Assembly			001
Propulsion			
		MONARC-90LT	104
		MONARC-90LT (Mirrored)	105
		MONARC-445 Nozzle	101
		MONARC-445 Injector	102
		RCS Base	108
		RCS Subassembly	109
Tank Assembly			200
		Hydrazine Tank	201
		Pressurant Tank	202
		Hydrazome Tank Plate	203
		Pressurant Tank Plate	204
		Connecting Valve	205
		4289T212 Valve	206
GNC Pack			300
		Flight Computer	301
		IMU	302
		SPOThermal	303
		Avionics Plate	304
		Avionics Pack	305
		CMG	306
		Star Tracker	307
Structure			400
	Vertical Bar Assembly		401
		Vertical Bar	422
		Vertical Bar Caps	423
		Tapered Beam	402
		Payload Adapter Attachment	403
		Payload Adapter	404
		Top Plate	405
		Top Plate with RCS Cutout	406
		Bottom Plate	420
		Top Central Plate	421
		Bottom Tapered Plate	424
	Cross Section		407
		Inside Bar	408
		Outside Bar	409
		Cross Bar	410
	Cross Section Bottom		411
		Inside Bar	408

Table 2: Part Numbers Continued.

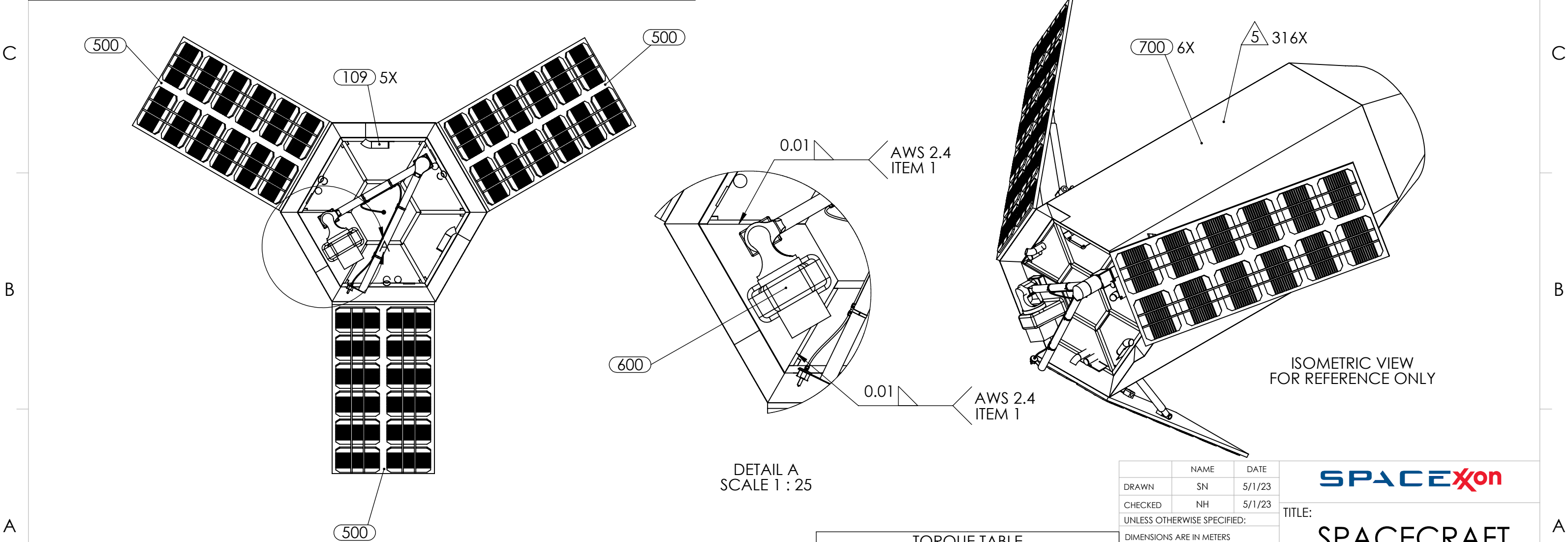
Subassembly	Sub-subassembly	Filename	Part Number
	Plate assembly		412
		Plate divider	413
		Outside Bar	409
		Brackets	414
		Top Hex Slice Plate	430
Solar Panels			500
		Solar Panel	501
		Solar Panel Actuator	502
		Solar Panel Actuator Female	503
		Solar Panel Actuator Mount Bar	504
		4668K261 - Ball Bearing	505
		40mm Shaft	506
		1828A57 - Heavy Duty Hinge	507
Robotic Arm			600
	Arm Base		601
		Base Attachment	610
		Base	611
		Servo Motor	612
		Shoulder	602
		Humerus	603
		Radius	604
		RAFTI Valve	605
		Connector RAFTI	606
		Bottom Pipe Clamp	607
		Top Pipe Clamp	608
		Tubing	609
Whipple Shielding (Side)			700
		Whipple Front Plate	701
		Whipple Aluminium Foam	702
		Whipple Back Foam	703
Whipple Shielding (Bottom)			800

D

6		5		4	
USED ON	PART NUMBER	TITLE		QTY.	
001	104	MONARC-90LT		6	
001	109	VERTICAL BAR ASSEMBLY		5	
001	300	GNC PACK		1	
001	306	CMG		2	
001	307	STAR TRACKER		3	
001	400	STRUCTURE		1	
001	500	SOLAR PANEL		3	
001	600	ROBOTIC ARM		1	
001	700	WHIPPLE SIDE		6	
001	800	WHIPPLE BOTTOM		6	

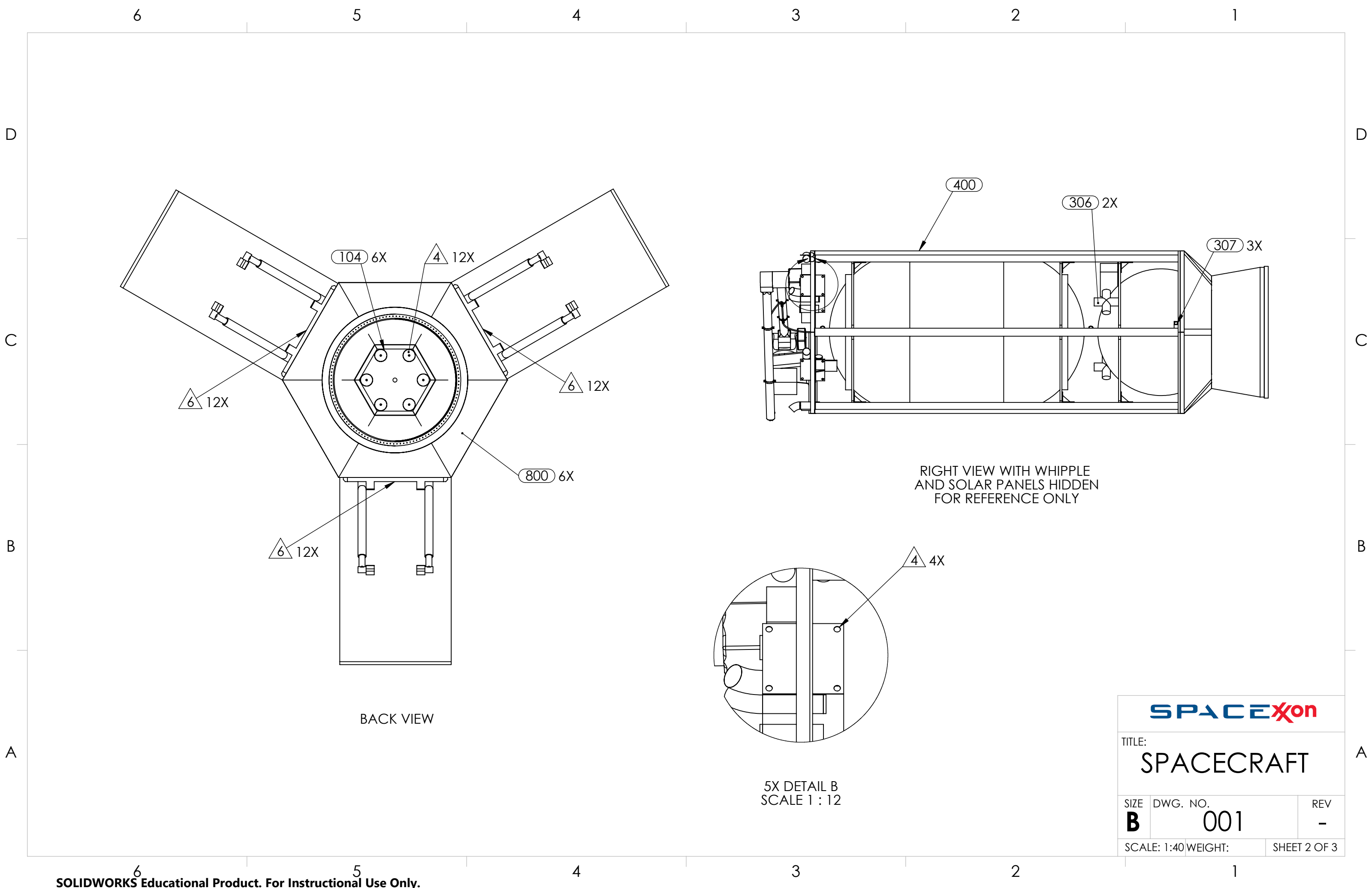
2					1	
REVISIONS						
ZONE	REV.	DESCRIPTION		DATE	APPROVED	
NOTES: 1. BREAK ALL SHARP EDGES 2. PART TO BE FREE OF ANY DIRT AND DEBRIS 3. TANGENT EDGES REMOVED 4. MAIN AND RCS THRUSTERS TO BE ATTACHED WITH 3/8" BOLTS 5. ALL WHIPPLE SHIELDING TO BE ATTACHED WITH 3/8" RIVETS 6. SOLAR PANLES TO BE ATTACHED WITH M14 NUT AND BOLT 7. GNC PACK TO BE ATTACHED WITH M6 NUT AND BOLT 8. ALL WELDS ACCORDING TO WELD TABLE						

D

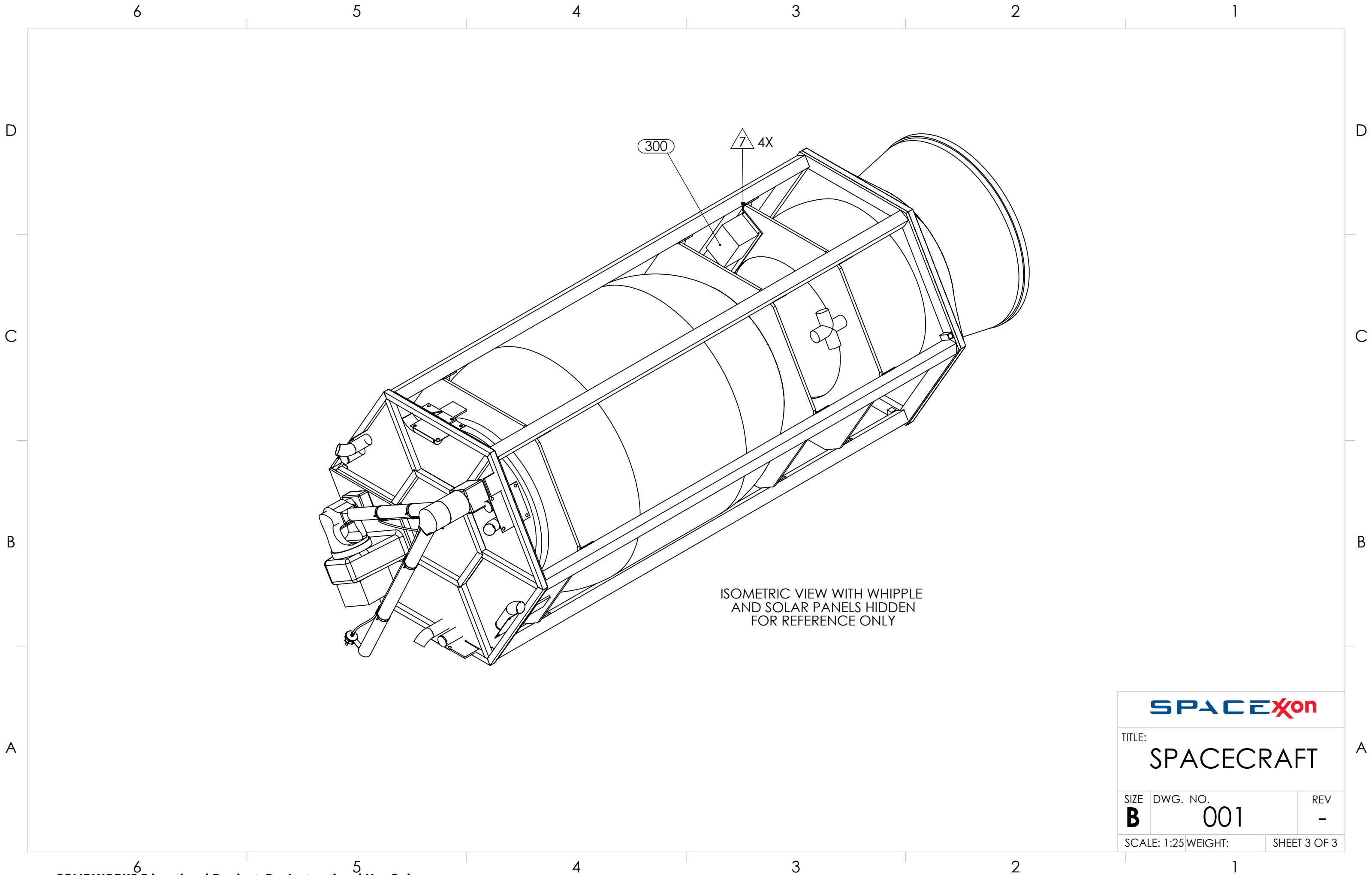


A	6		5		4		3		2		1	
	ITEM NO.	WELD SIZE	SYMBOL	WELD LENGTH	WELD MATERIAL	QTY.	TORQUE TABLE		DRAWN		NAME	DATE
	1	0.01		28.18	TI-6Al-4V	2	PART NUMBER	TORQUE (N-M)	CHECKED	NH	5/1/23	5/1/23
							104	45.0	UNLESS OTHERWISE SPECIFIED:			
							109	45.0	DIMENSIONS ARE IN METERS			

TITLE:		SPACECRAFT	
SIZE	DWG. NO.	REV	
B	001	-	
SCALE: 1:50		WEIGHT:	SHEET 1 OF 3



SPACExon		
TITLE: SPACECRAFT		
SIZE B	DWG. NO. 001	REV -
SCALE: 1:40 WEIGHT:		SHEET 2 OF 3



SPACExon

TITLE:  
SPACECRAFT

SIZE	DWG. NO.	REV
<b>B</b>	001	-

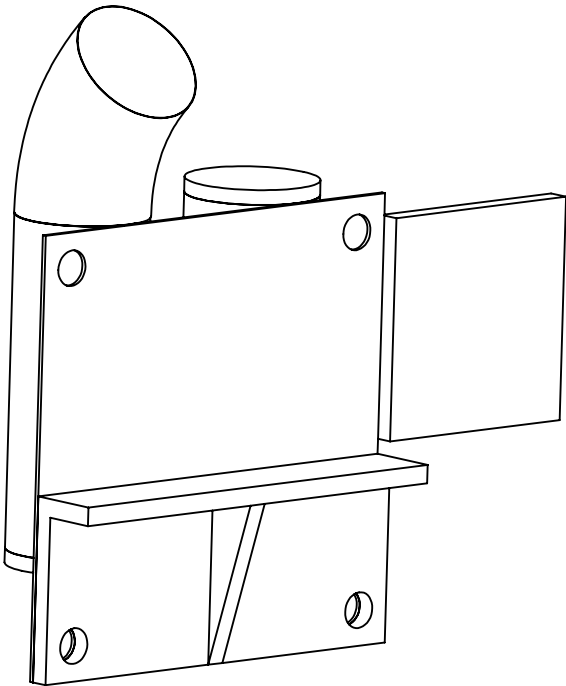
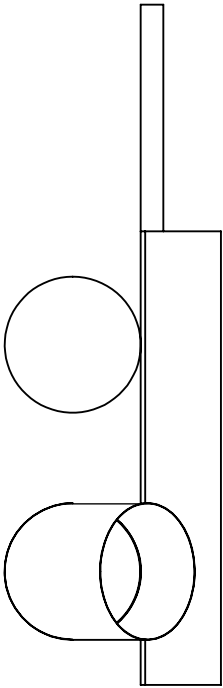
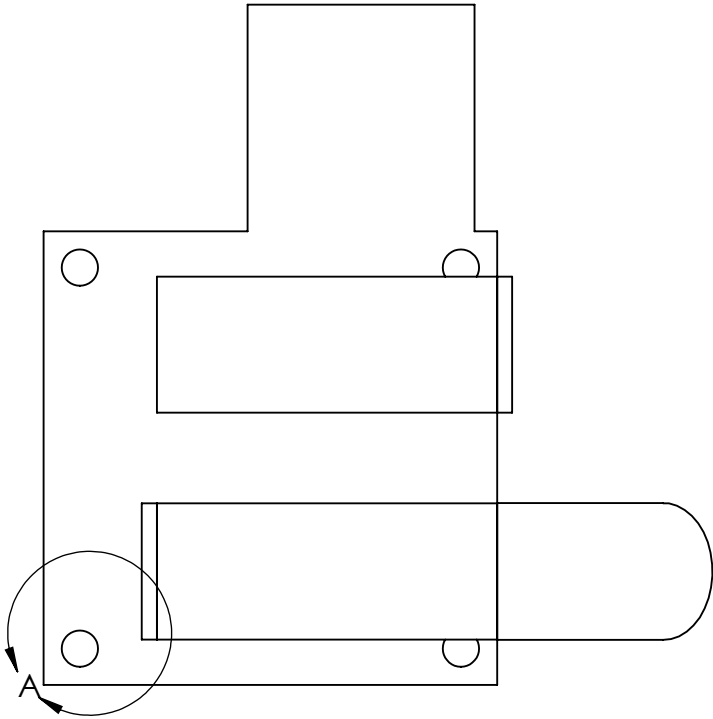
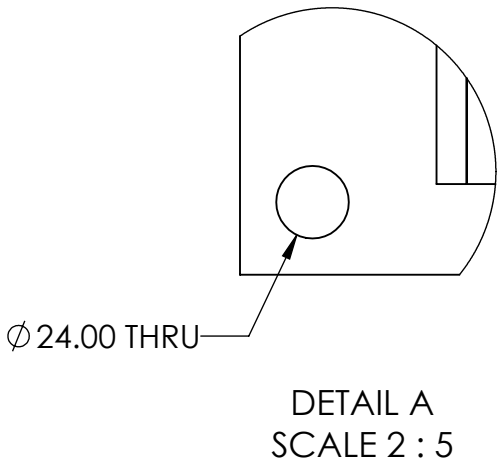
SCALE: 1:25	WEIGHT:	SHEET 3 OF 3
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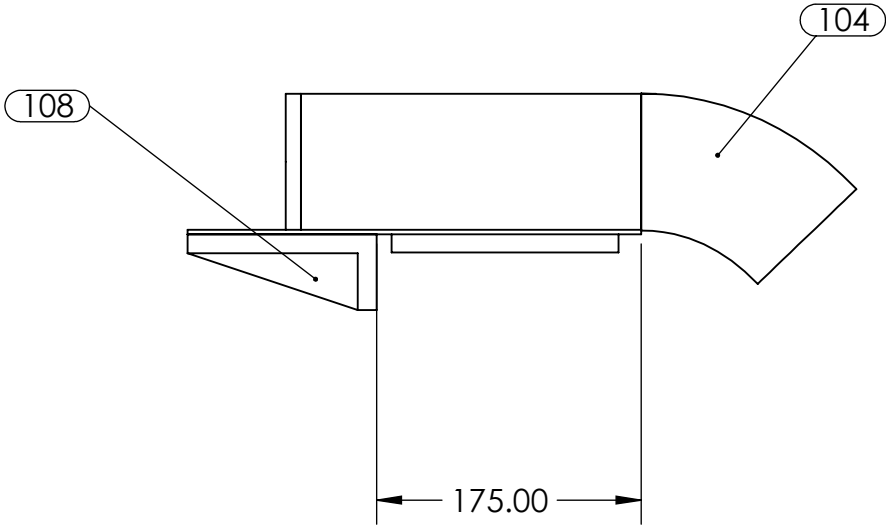
USED ON	PART NUMBER	TITLE	QTY.
109	104	MONARC90-LT THRUSTER	1
109	108	RCS BASE	1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

- NOTES:
- 1. HIDDEN LINES NOT SHOWN
  - 2. BREAK ALL SHARP EDGES TO 0.01 UNLESS OTHERWISE SPECIFIED
  - 3. PART TO BE FREE OF DIRT, OIL, AND DEBRIS
  - 4. PARTS FASTENED TOGETHER AT HOLE CALLOUT

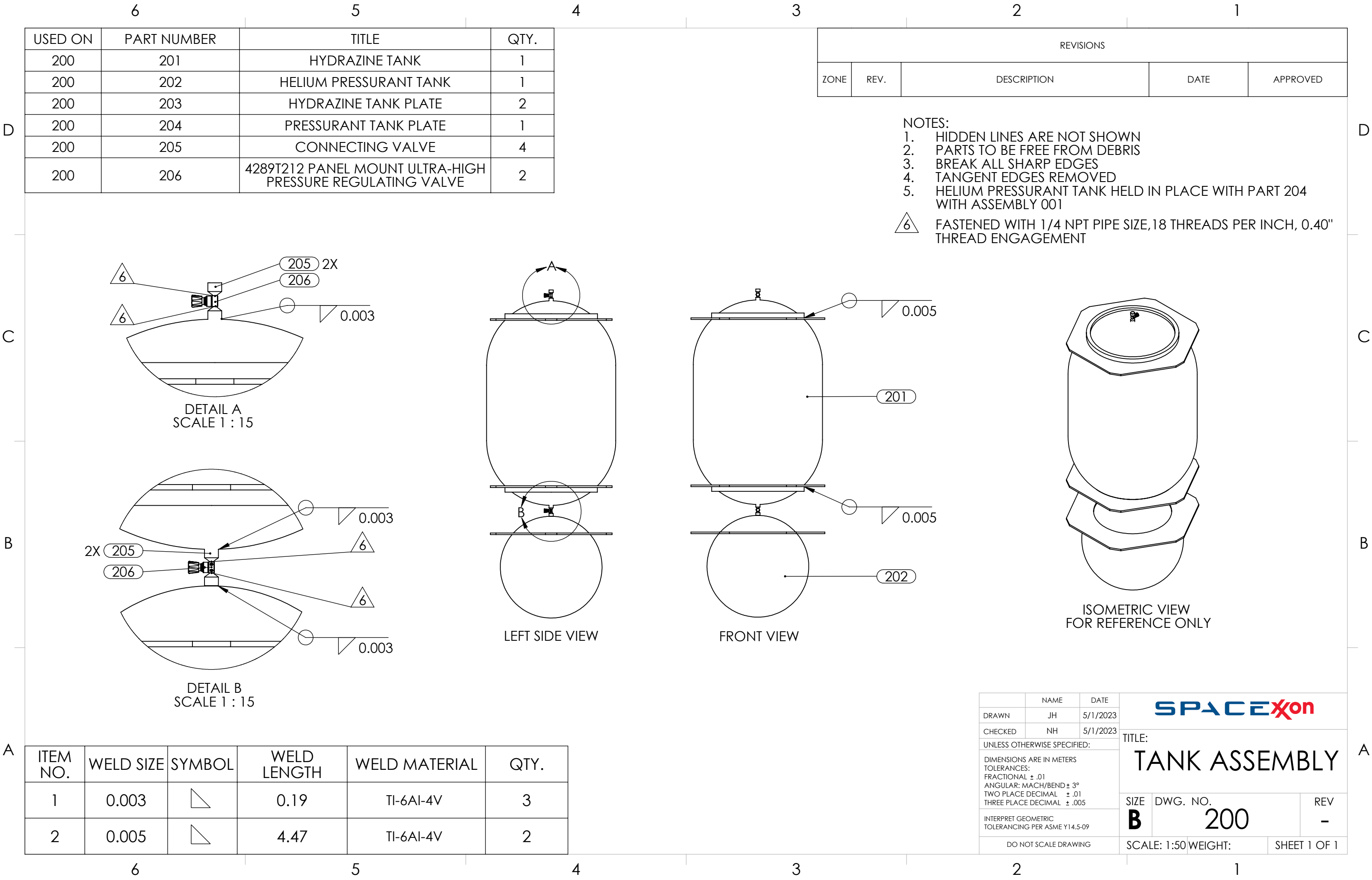


ISOMETRIC VIEW  
FOR REFERENCE ONLY



	NAME	DATE	<b>SPACExon</b>		
DRAWN	AB	4/28/23			
CHECKED	SN	4/30/23	TITLE:		
UNLESS OTHERWISE SPECIFIED:			RCS SUBASSEMBLY		
DIMENSIONS ARE IN MILLIMETERS TOLERANCES: FRACTIONAL ± .01 ANGULAR: MACH/BEND ± 3° TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005			SIZE	DWG. NO.	REV
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09			<b>B</b>	109	-
DO NOT SCALE DRAWING			SCALE: 1:5	WEIGHT:	SHEET 1 OF 1

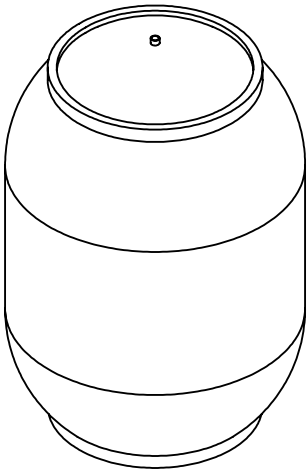
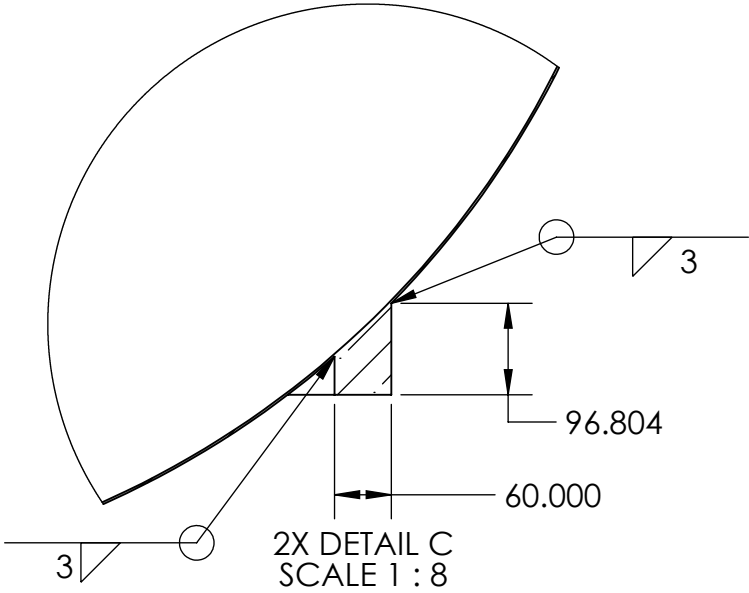
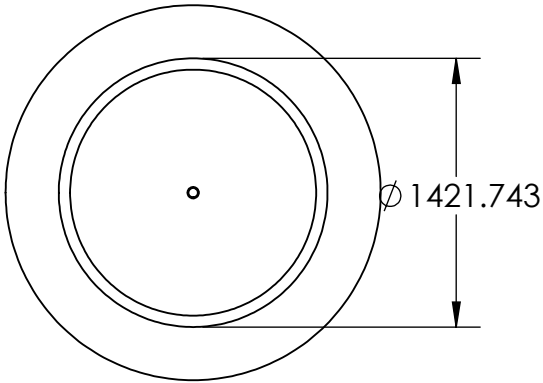




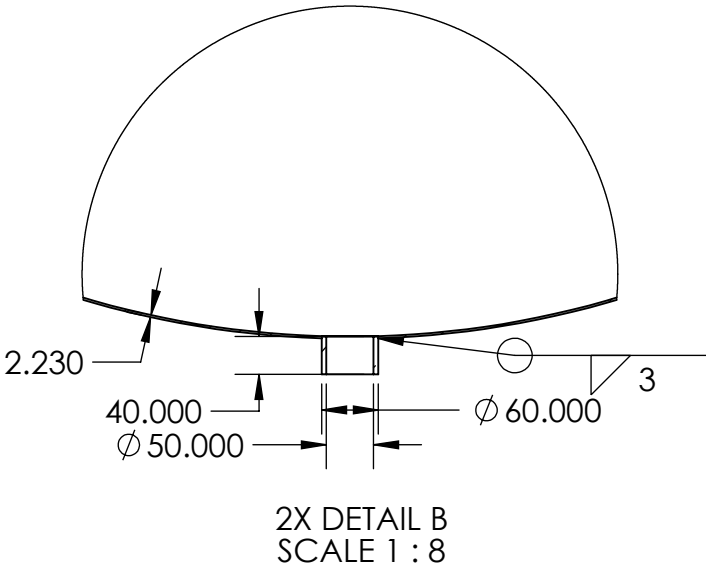
USED ON	PART NUMBER	MATERIAL	SPECIFICATION	QTY.
200	202	TI-6Al-4V	B381-21	1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

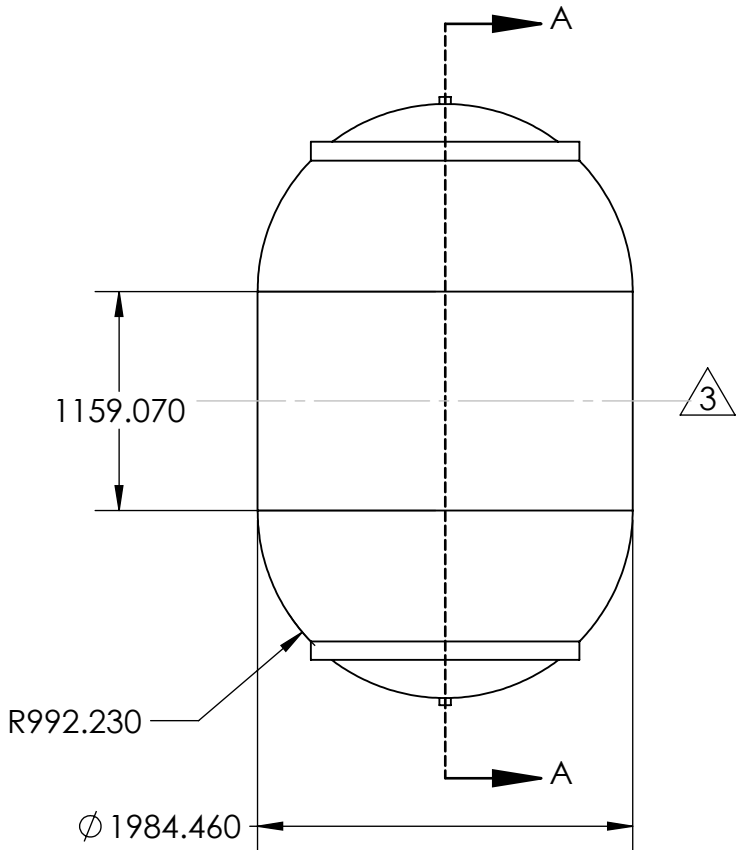
- NOTES:
- HIDDEN LINES ARE NOT SHOWN
  - PARTS TO BE FREE FROM DEBRIS
  - TANK SYMMETRIC ABOUT
  - BREAK ALL SHARP EDGES



ISOMETRIC VIEW  
FOR REFERENCE ONLY  
SCALE 1:50



SECTION A-A  
SCALE 1 : 40



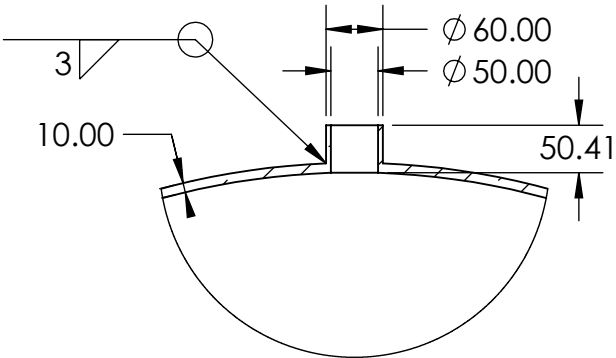
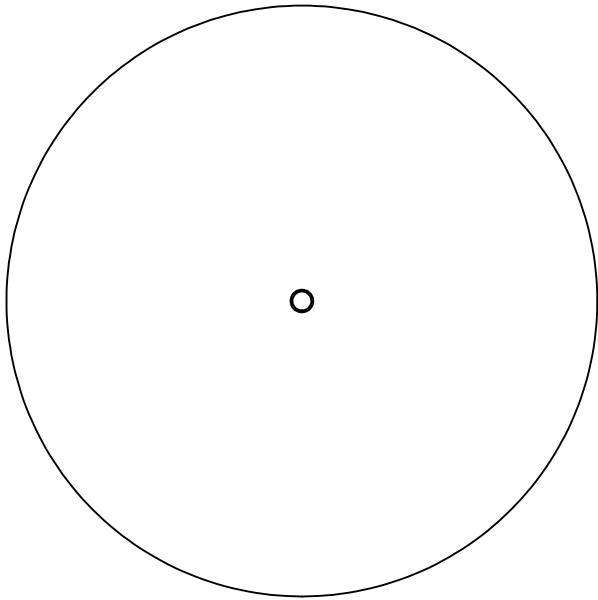
ITEM NO.	WELD SIZE	SYMBOL	WELD LENGTH	WELD MATERIAL	QTY.
1	3		4460.62	TI-6Al-4V	1
2	3		188.5	TI-6Al-4V	1

	NAME	DATE			
DRAWN	JH	5/1/2023			
CHECKED	WD	5/1/2023	TITLE:		
UNLESS OTHERWISE SPECIFIED:			HYDRAZINE TANK		
DIMENSIONS ARE IN MILLIMETERS TOLERANCES: FRACTIONAL ± .01 ANGULAR: MACH/BEND ± 3° TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005			SIZE	DWG. NO.	REV
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09			B	201	-
DO NOT SCALE DRAWING			SCALE: 1:40 WEIGHT:		SHEET 1 OF 1

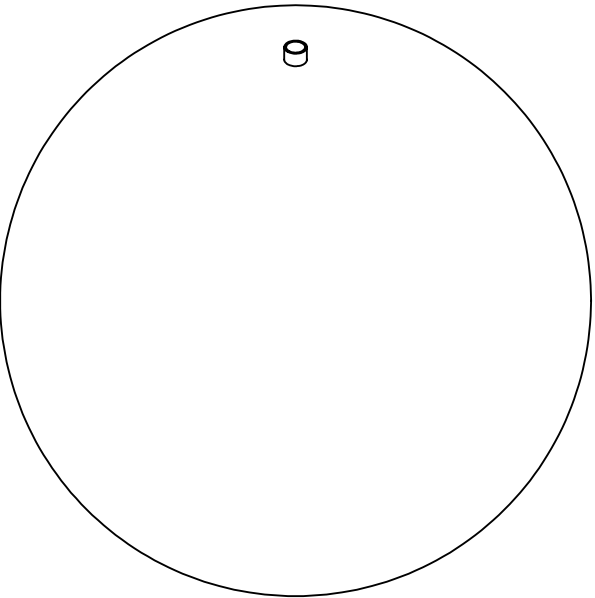
USED ON	PART NUMBER	MATERIAL	SPECIFICATION	QTY.
200	201	Ti-6Al-4V	B381-21	1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

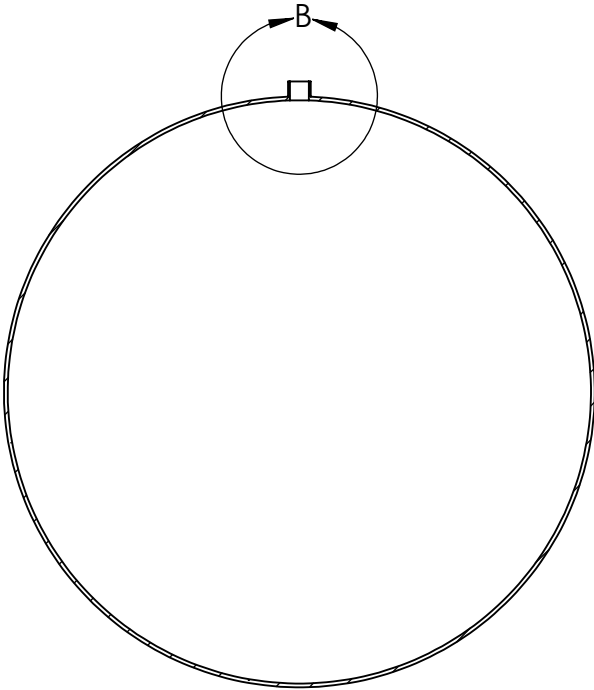
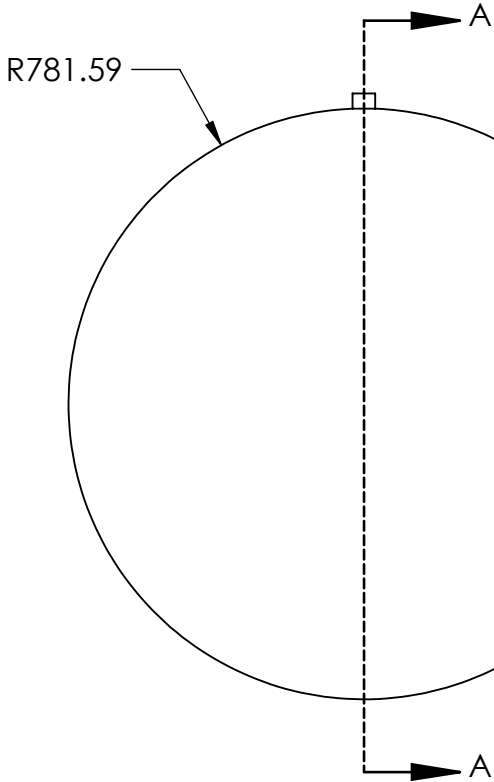
- NOTES:
- HIDDEN LINES ARE NOT SHOWN
  - PARTS TO BE FREE FROM DIRT AND DEBRIS
  - BREAK ALL SHARP EDGES



DETAIL B  
SCALE 1 : 8




ISOMETRIC VIEW  
FOR REFERENCE ONLY



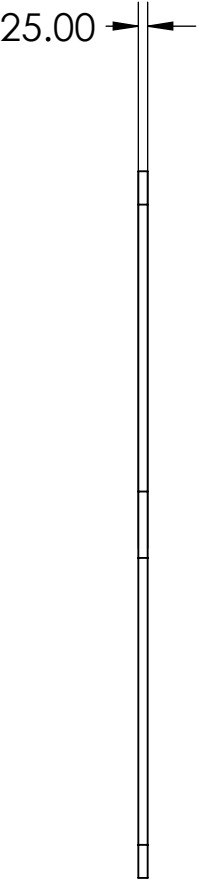
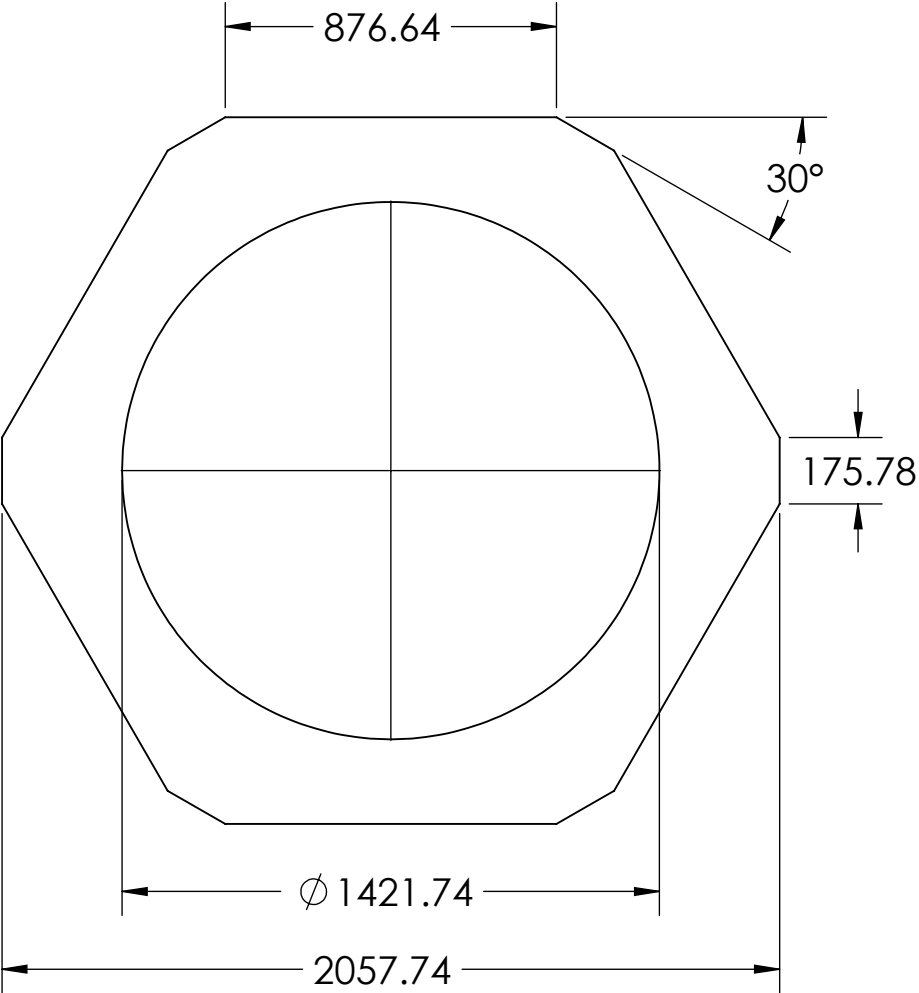
SECTION A-A  
SCALE 1 : 20

ITEM NO.	WELD SIZE	SYMBOL	WELD LENGTH	WELD MATERIAL	QTY.
1	3		188.5	Ti-6Al-4V	1

	NAME	DATE				
DRAWN	JH	5/1/2023				
CHECKED	SN	5/1/2023	TITLE:  HELIUM PRESSURANT TANK			
UNLESS OTHERWISE SPECIFIED:						
DIMENSIONS ARE IN MILLIMETERS TOLERANCES: FRACTIONAL ± .01 ANGULAR: MACH/BEND ± 3° TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005			SIZE <b>B</b>  DWG. NO. <b>202</b>  REV <b>-</b>			
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09						
DO NOT SCALE DRAWING			SCALE: 1:20		WEIGHT:	SHEET 1 OF 1

USED ON	PART NUMBER	MATERIAL	SPECIFICATION	QTY.
200	204	TI-6AL-4V	ASTM B381 – 21	1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED



- NOTES:
- BREAK ALL SHARP EDGES
  - HIDDEN LINES NOT SHOWN
  - PART TO BE FREE OF ANY DIRT AND DEBRIS
  - PART TO BE MACHINED OR LASER CUT

		NAME	DATE	<div>SPACExon</div> <div>TITLE:</div> <div>TANK PLATE</div>		
DRAWN		SN	5/1/23			
CHECKED		AB	5/1/23			
UNLESS OTHERWISE SPECIFIED:				<div>SIZE</div> <div>DWG. NO.</div> <div>REV</div>		
DIMENSIONS ARE IN MILLIMETERS						
TOLERANCES:						
FRACTIONAL ± .01						
ANGULAR: MACH/BEND± 3°						
TWO PLACE DECIMAL ± .01				<div>B</div> <div>204</div> <div>-</div>		
THREE PLACE DECIMAL ± .005						
INTERPRET GEOMETRIC						
TOLERANCING PER ASME Y14.5-09				<div>SCALE: 1:20</div> <div>WEIGHT:</div> <div>SHEET 1 OF 1</div>		
DO NOT SCALE DRAWING						

6

5

4

3

2

1

USED ON	PART NUMBER	TITLE	QTY.
400	200	TANK ASSEMBLY	1
400	401	VERTICAL BAR ASSEMBLY	6
400	402	TAPERED BEAM	6
400	403	PAYLOAD ADAPTER ATTACHMENT	1
400	404	PAYLOAD ADAPTER	1
400	405	TOP PLATE	2
400	406	TOP PLATE WITH RCS CUTOUT	3
400	407	CROSS SECTION	1
400	408	BOTTOM CROSS SECTION	1
400	412	PLATE ASSEMBLY	1
400	414	BRACKETS	18
400	420	BOTTOM PLATE	1
400	421	TOP CENTRAL PLATE	1
400	424	BOTTOM TAPERED PLATE	6

REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
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NOTES:

1. BREAK ALL SHARP EDGES

2. PART TO BE FREE OF ANY DIRT AND DEBRIS

3. TANGENT EDGES REMOVED

4. WELDS SHOWN FOR ONE SECTION REPEAT FOR QUANTITY IN WELD TABLE ON SHEET 2

5. ALL WELDS ACCORDING TO WELD TABLE ON SHEET 2

406

405

407

406

421

405

406

AWS 2.4 ITEM 2

0.005

0.005

0.005

AWS 2.4 ITEM 1

AWS 2.4 ITEM 3

404

420

408

0.005

AWS 2.4 ITEM 10

402 6X

0.005

AWS 2.4 ITEM 9

0.005

AWS 2.4 ITEM 11

424 6x

BACK VIEW

	NAME	DATE
DRAWN	SN	5/1/23
CHECKED	WD	5/1/23
UNLESS OTHERWISE SPECIFIED:		
DIMENSIONS ARE IN METERS		
TOLERANCES:		
FRACTIONAL ± .01		
ANGULAR: MACH/BEND ± 3°		
TWO PLACE DECIMAL ± .01		
THREE PLACE DECIMAL ± .005		
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09		
DO NOT SCALE DRAWING		

TITLE:

STRUCTURE

SIZE

B

DWG. NO.

400

REV

-

SCALE: 1:20

WEIGHT:

SHEET 1 OF 2

6

5

4

3

2

1

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654321

D

C

B

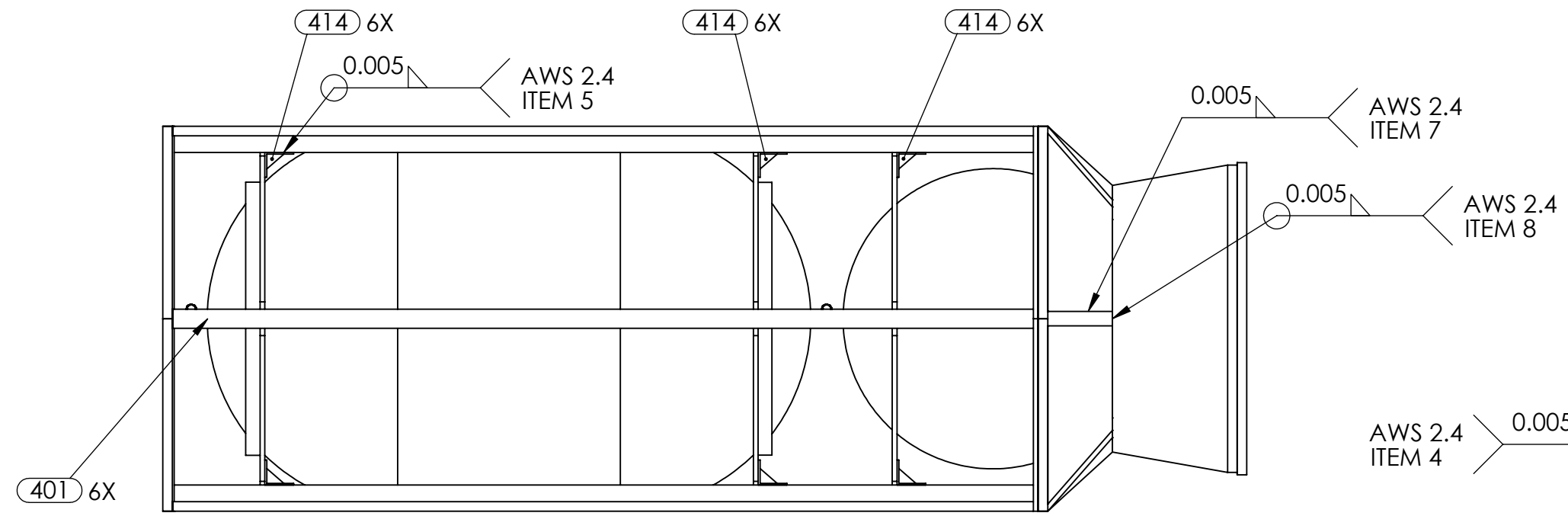
A

D

C

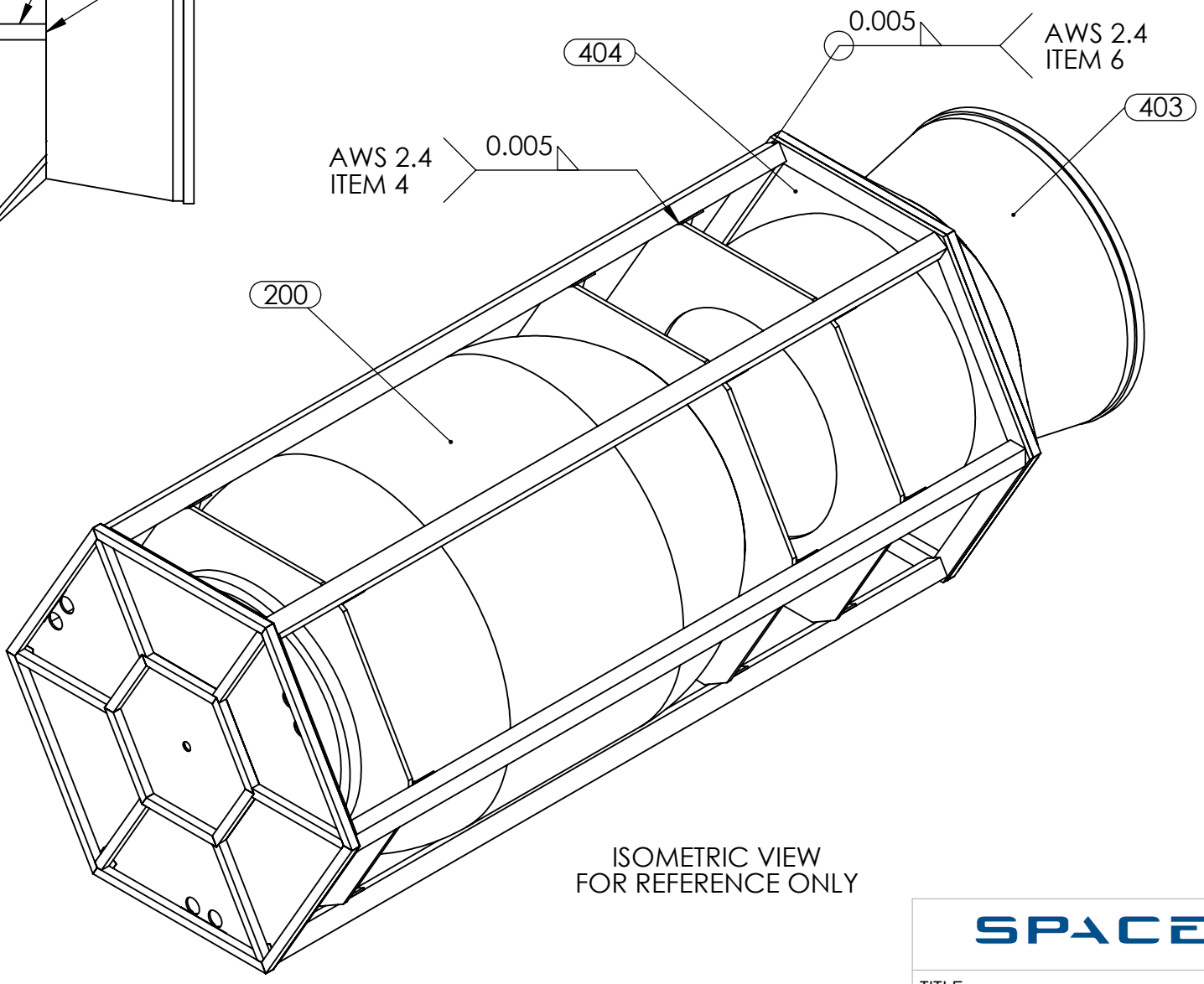
B

A



RIGHT VIEW

ITEM NO.	WELD SIZE	SYMBOL	WELD LENGTH	WELD MATERIAL	QTY.
1	0.005		2.9	TI-6AL-4V	5
2	0.005		0.15	TI-6AL-4V	6
3	0.005		0.12	TI-6AL-4V	6
4	0.005		0.18	TI-6AL-4V	18
5	0.005		0.5	TI-6AL-4V	18
6	0.005		0.4	TI-6AL-4V	6
7	0.005		0.63	TI-6AL-4V	12
8	0.005		0.33	TI-6AL-4V	6
9	0.005		0.23	TI-6AL-4V	6
10	0.005		3.0	TI-6AL-4V	1
11	0.005		0.22	TI-6AL-4V	6



ISOMETRIC VIEW  
FOR REFERENCE ONLY

TITLE:  
**STRUCTURE**

SIZE  
**B**

DWG. NO.  
**400**

REV  
**-**

SCALE: 1:30WEIGHT:

SHEET 2 OF 2

USED ON	PART NUMBER	MATERIAL	SPECIFICATION	QTY.
400	402	Ti-6-Al-4V	B381-21	6

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

- NOTES:
- 1. HIDDEN LINES NOT SHOWN
  - 2. BREAK ALL SHARP EDGES TO 0.01 UNLESS OTHERWISE SPECIFIED
  - 3. PART TO BE FREE OF DIRT, OIL, AND DEBRIS
  - 4. CROSS-SECTION IS SQUARE
  - 5. TANGENT LINES NOT SHOWN
  - 6. SURFACE FINISH  $\sqrt{125}$

D

D

C

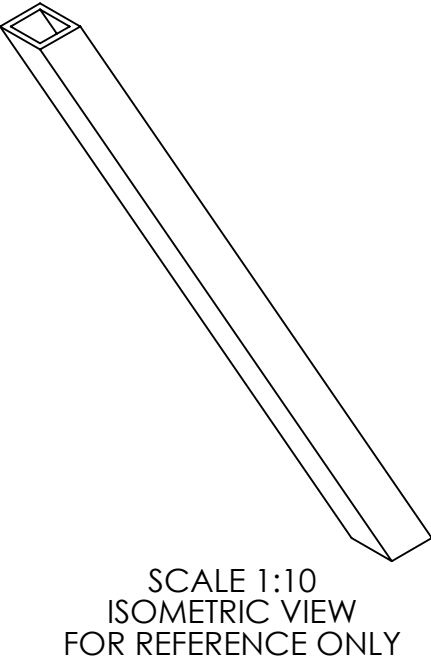
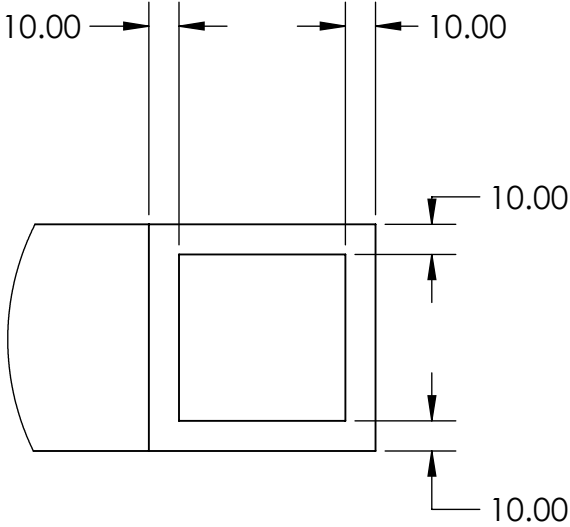
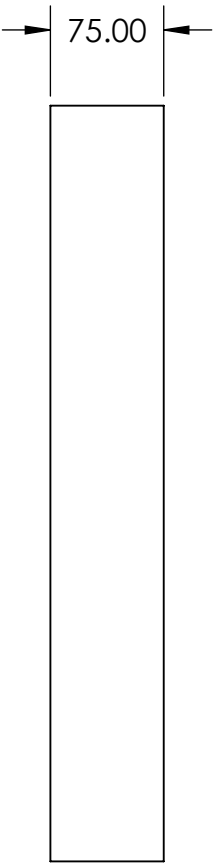
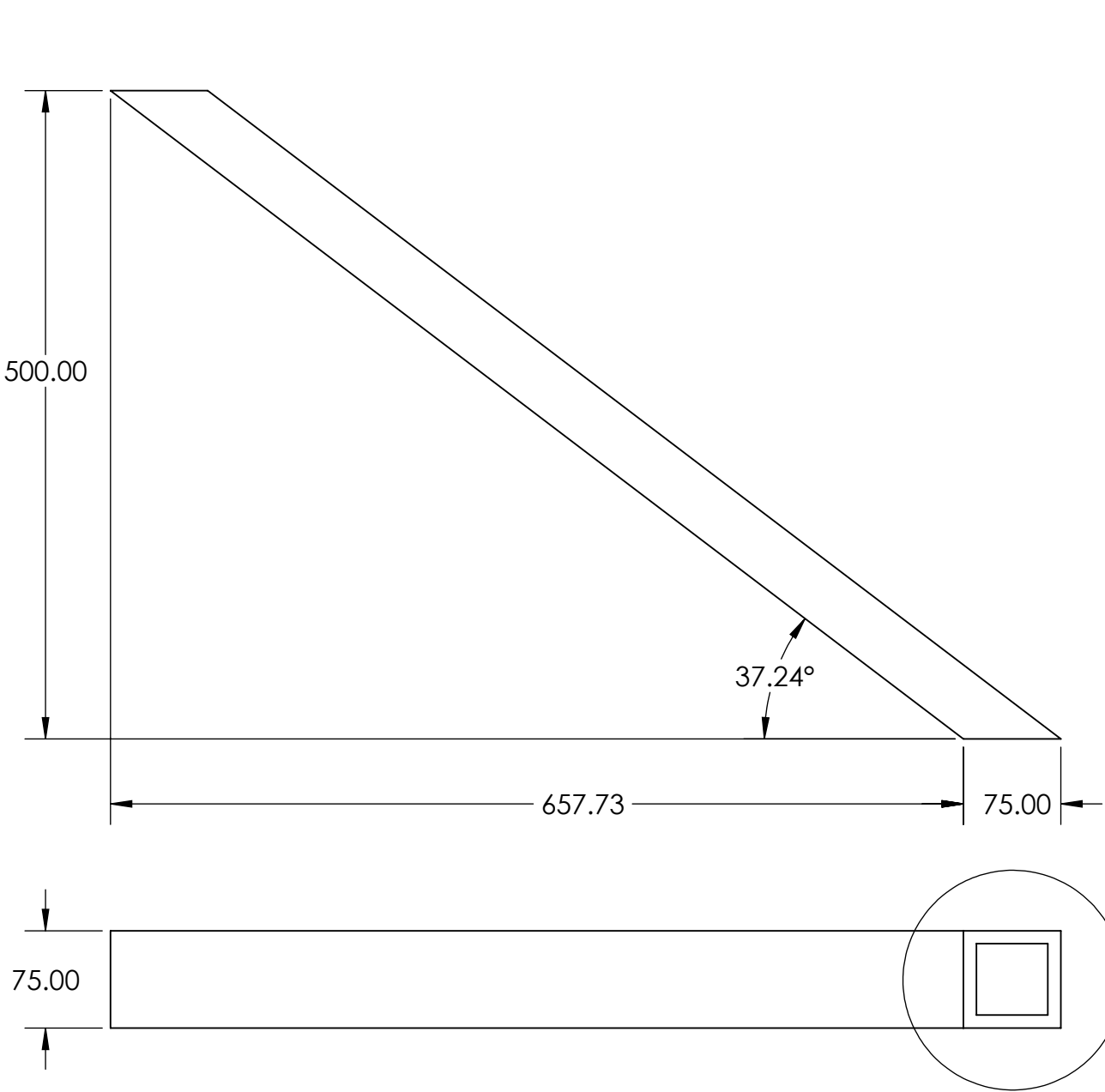
C


B

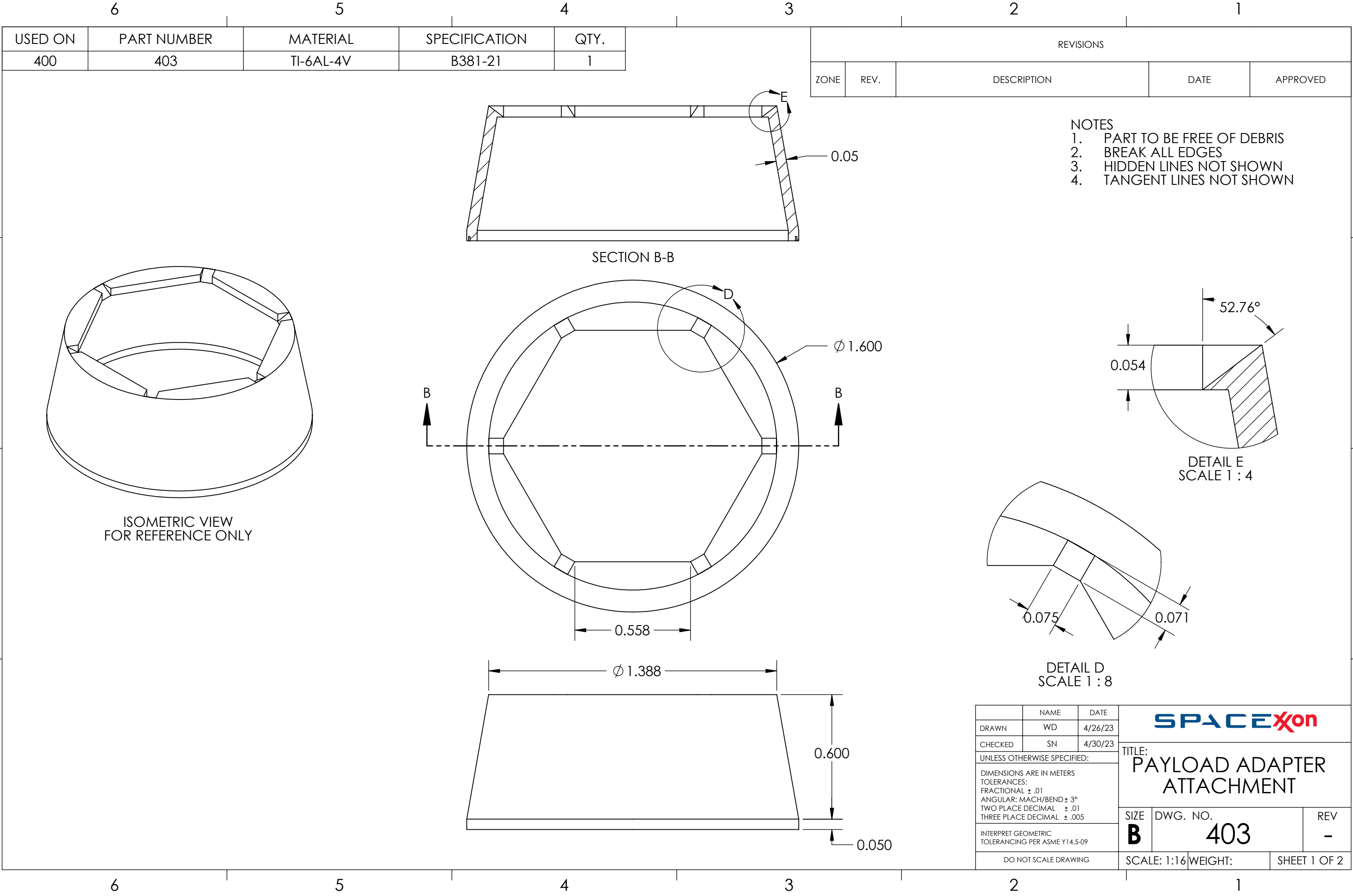
B

A

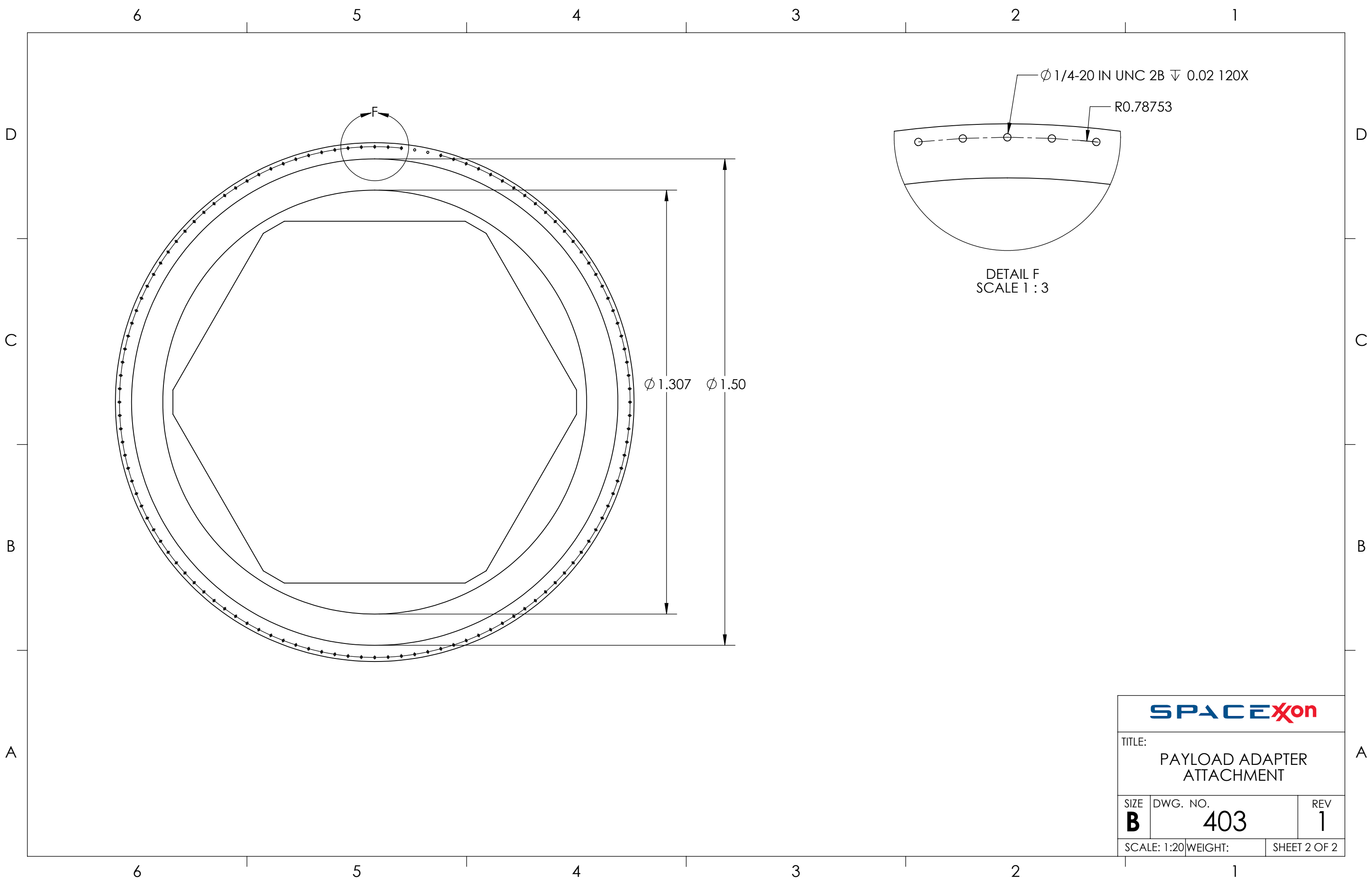
A



	NAME	DATE			
DRAWN	AB	4/28/23	TITLE: <b>TAPERED BEAM</b>		
CHECKED	NH	4/30/23			
UNLESS OTHERWISE SPECIFIED:			SIZE	DWG. NO.	REV
DIMENSIONS ARE IN MILLIMETERS			<b>B</b>	<b>402</b>	-
TOLERANCES:					
FRACTIONAL ± .01					
ANGULAR: MACH/BEND ± 3°					
TWO PLACE DECIMAL ± .01					
THREE PLACE DECIMAL ± .005					
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09					
DO NOT SCALE DRAWING			SCALE: 1:5	WEIGHT:	SHEET 1 OF 1







**SPACExon**

TITLE:  
PAYLOAD ADAPTER  
ATTACHMENT

SIZE <b>B</b>	DWG. NO. <b>403</b>	REV <b>1</b>
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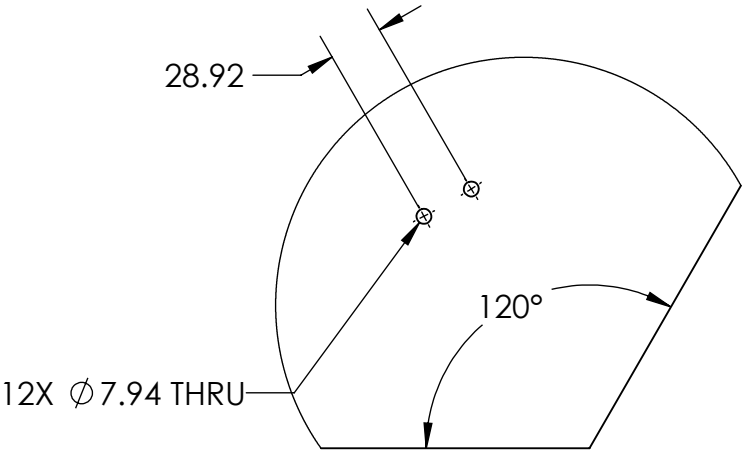
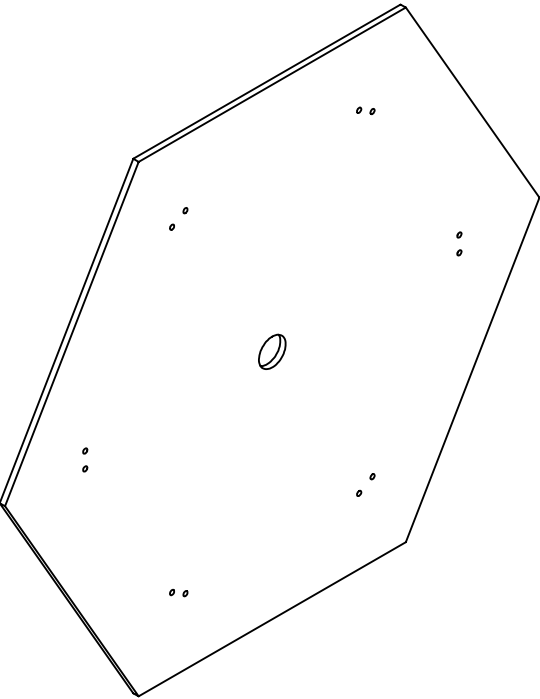
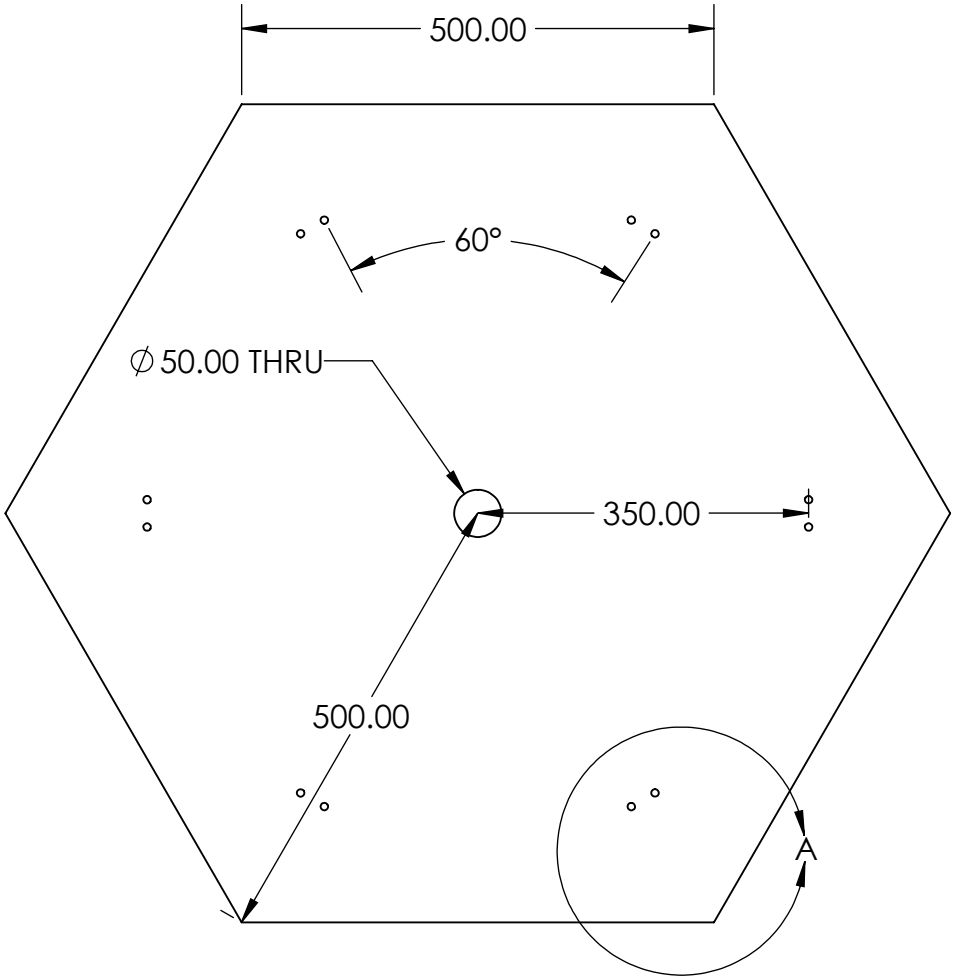
SCALE: 1:20	WEIGHT:	SHEET 2 OF 2
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USED ON	PART NUMBER	MATERIAL	SPECIFICATION	QTY.
400	420	Ti-6-Al-4V	B381-21	1


REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

NOTES:

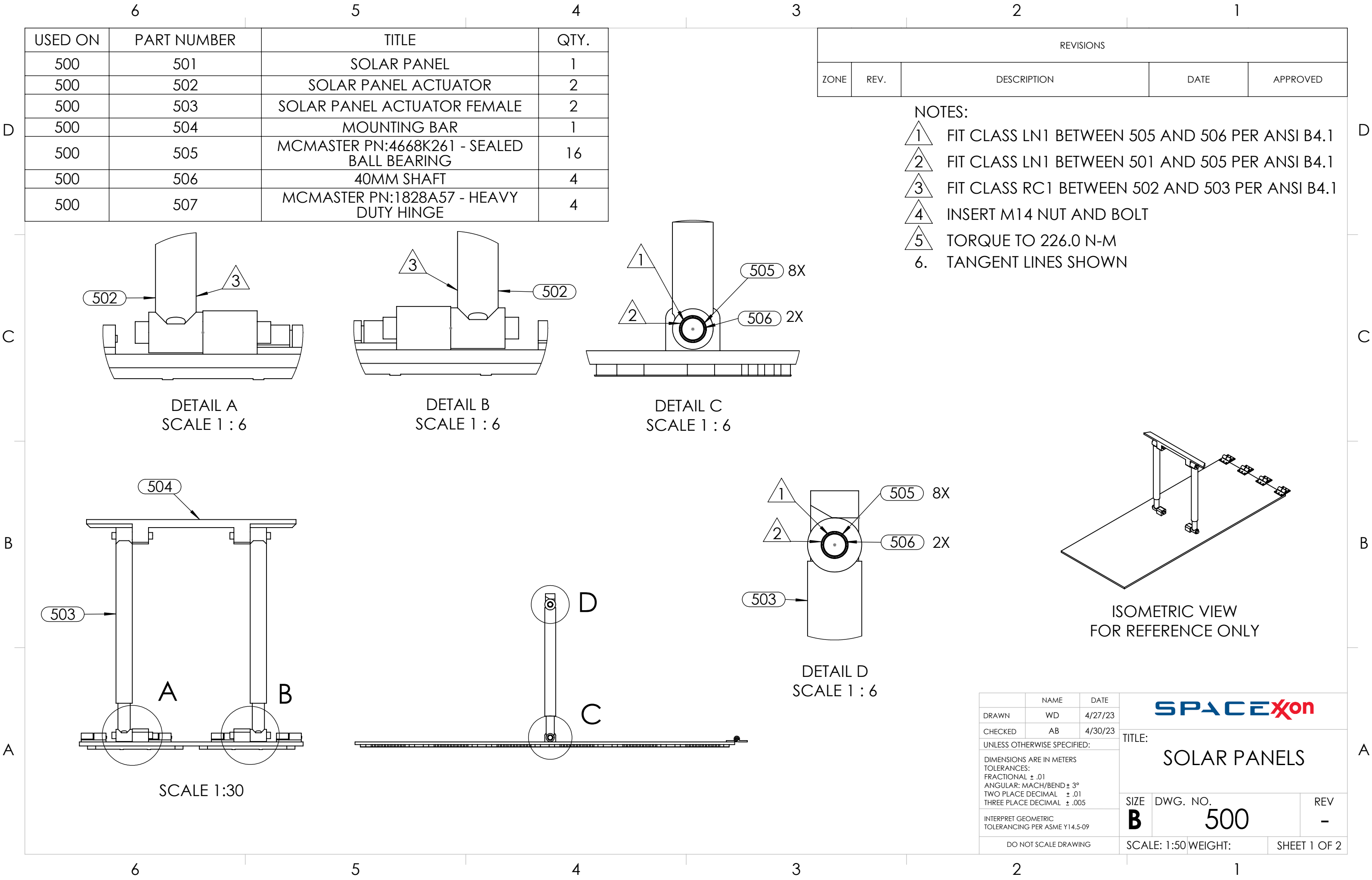
1. HIDDEN LINES NOT SHOWN
2. BREAK ALL SHARP EDGES TO 0.01 UNLESS OTHERWISE SPECIFIED
3. PART TO BE FREE OF DIRT, OIL, AND DEBRIS
4. PLATE IS 10 MM THICK
5. PLATE IS STANDARD HEXAGON

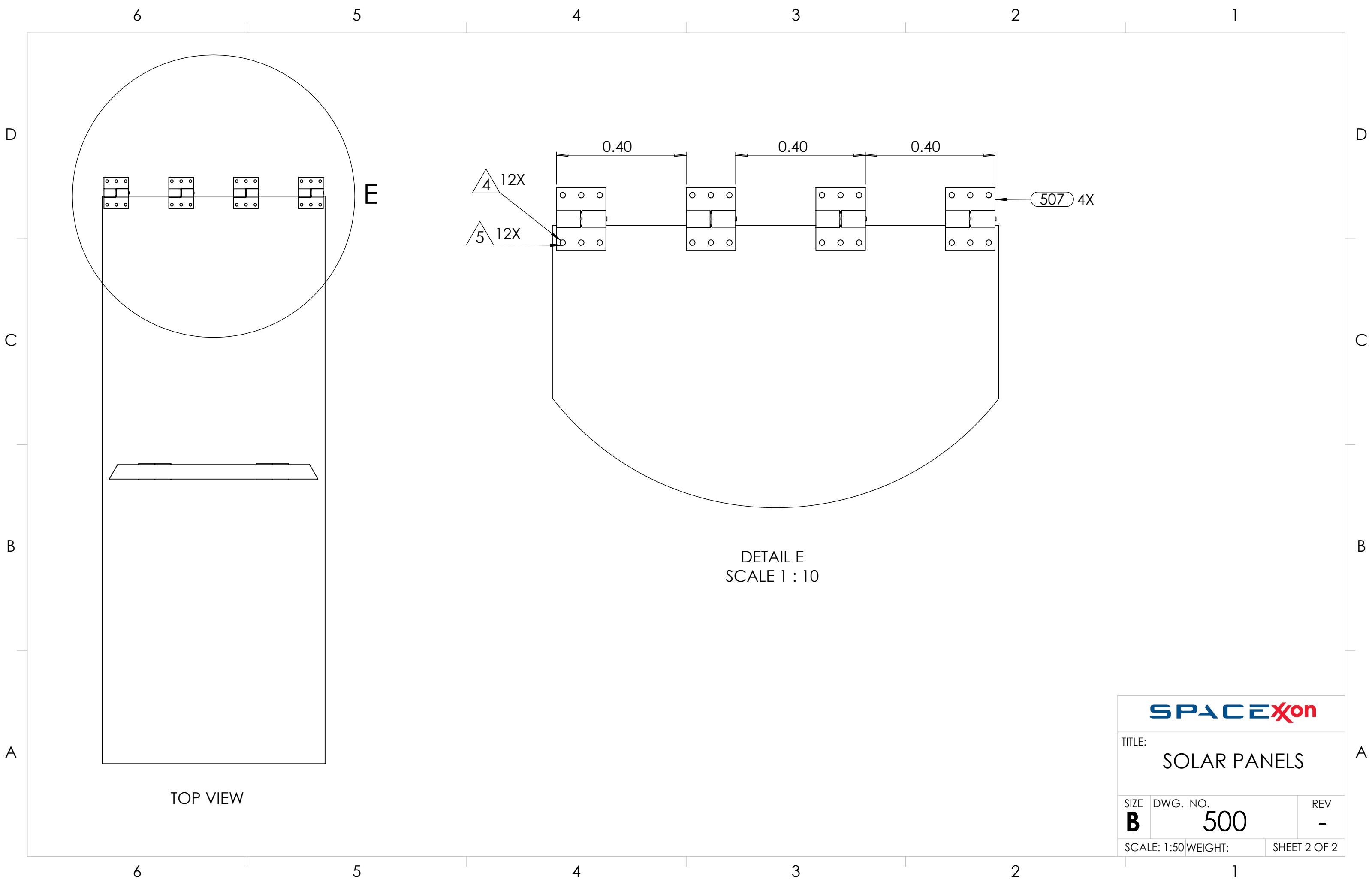


DETAIL A  
SCALE 1 : 4

	NAME	DATE			
DRAWN	AB	4/28/23			
CHECKED	JH	4/30/23	TITLE:		
UNLESS OTHERWISE SPECIFIED:			HEX PLATE (PROPULSION)		
DIMENSIONS ARE IN MILLIMETERS TOLERANCES: FRACTIONAL ± .01 ANGULAR: MACH/BEND ± 3° TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005					
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09			SIZE <b>B</b>	DWG. NO. <b>420</b>	REV <b>-</b>
DO NOT SCALE DRAWING			SCALE: 1:8	WEIGHT:	SHEET 1 OF 1







SPACExon

TITLE:  
SOLAR PANELS

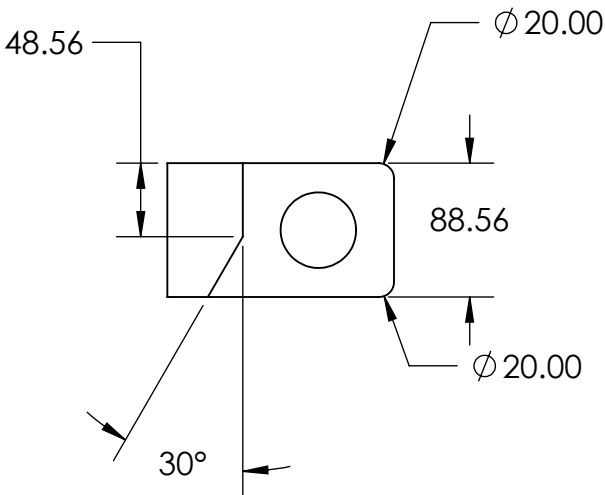
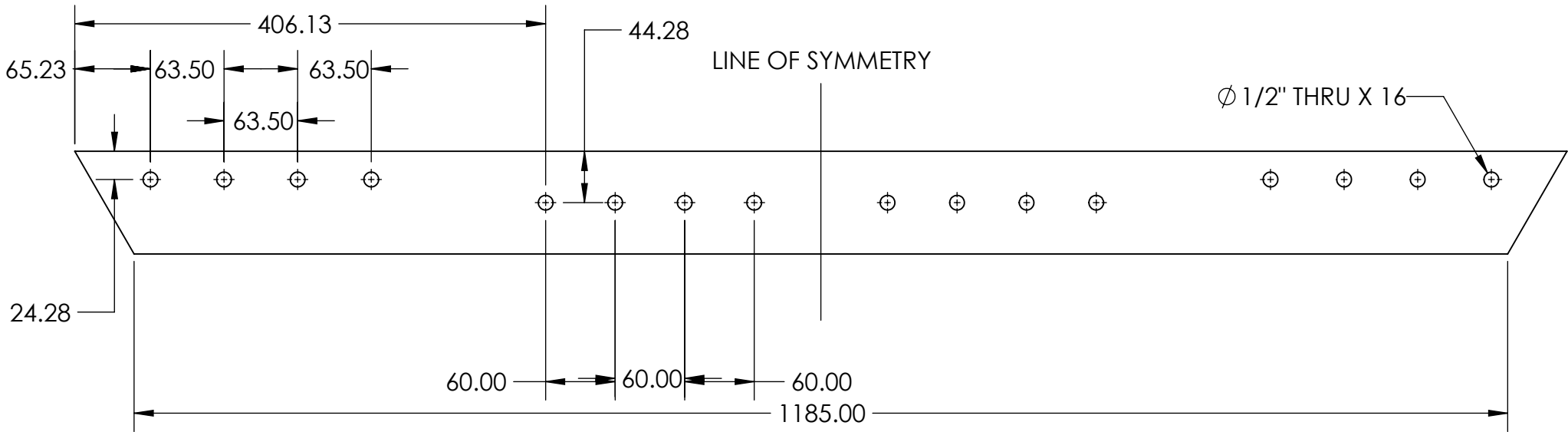
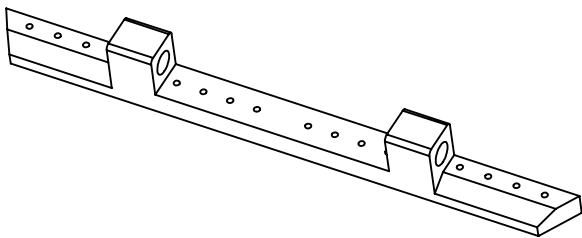
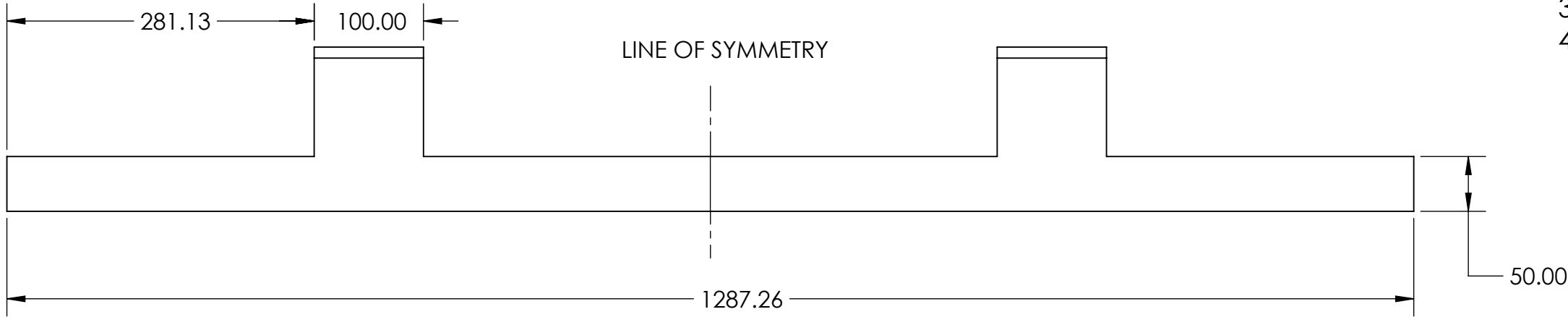
SIZE <b>B</b>	DWG. NO. <b>500</b>	REV <b>-</b>
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SCALE: 1:50	WEIGHT:	SHEET 2 OF 2
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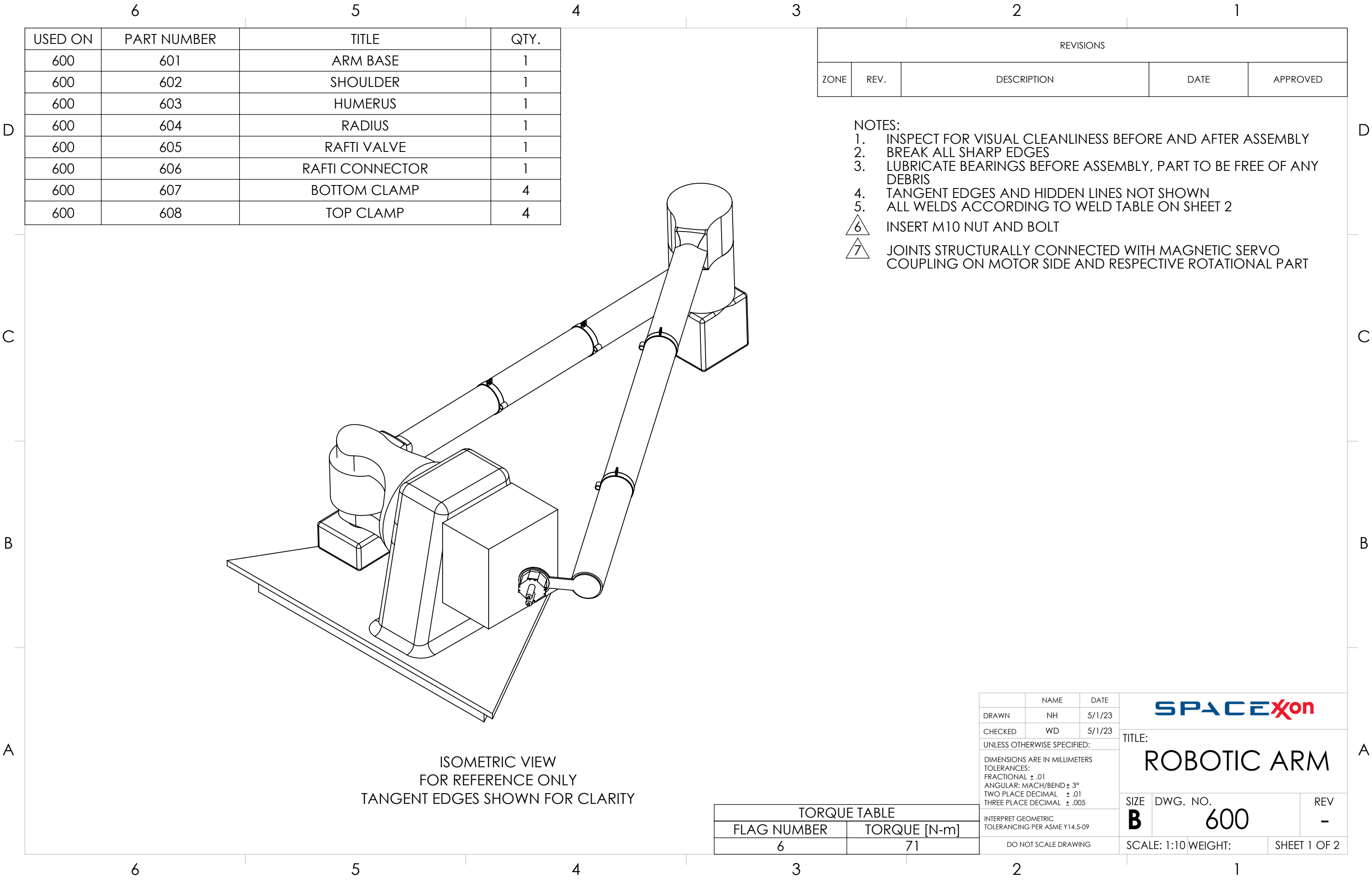
USED ON	PART NUMBER	MATERIAL	SPECIFICATION	QTY.
500	504	TI-6AL-4V	B381-21	1

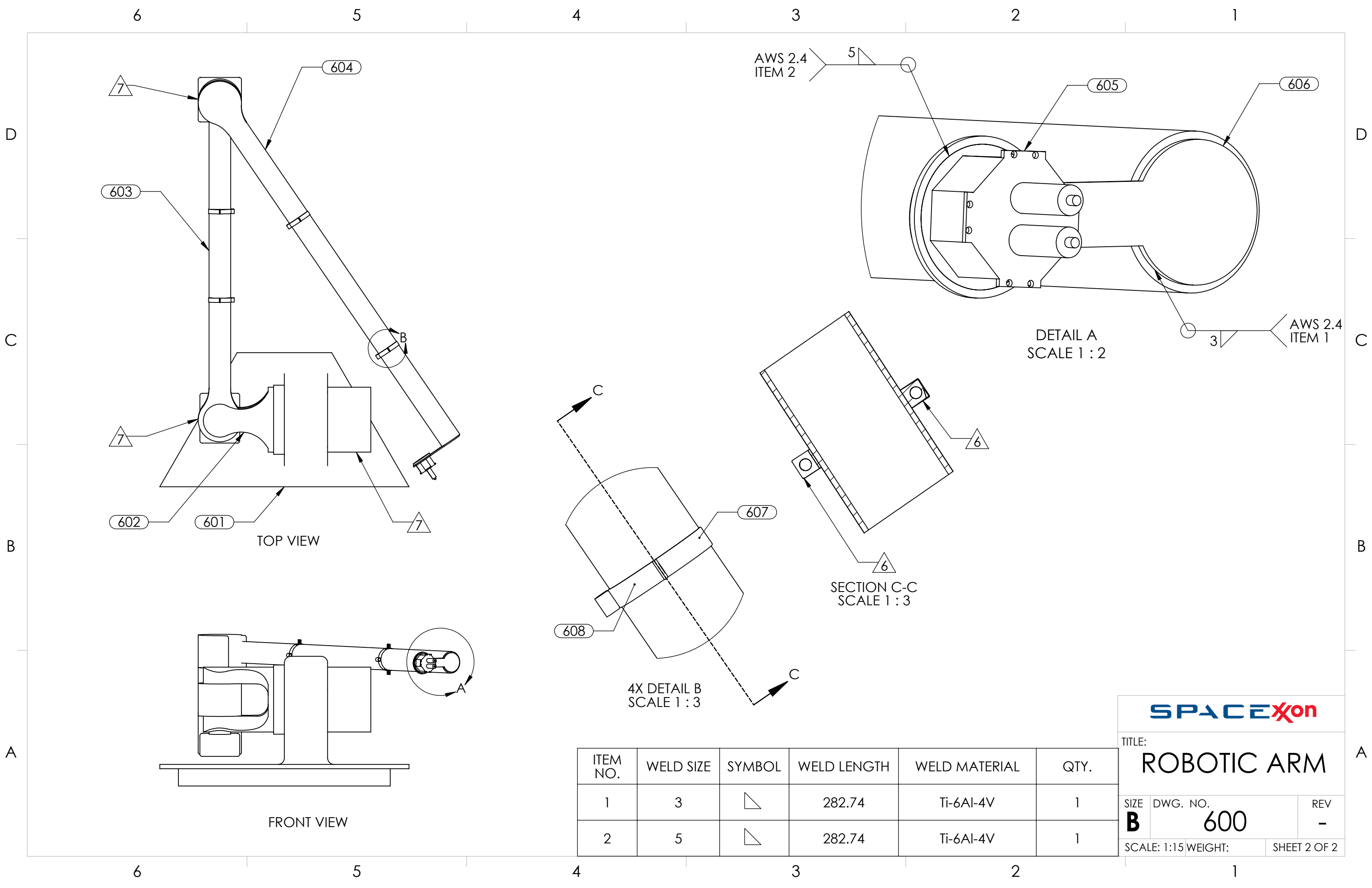
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

- NOTES
- 1. BREAK ALL SHARP EDGES
  - 2. HIDDEN LINES NOT SHOWN
  - 3. PART TO BE FREE OF DUST AND DEBRIS
  - 4. TANGENT LINES SHOWN FOR CLARITY



	NAME	DATE	SPACExon		
DRAWN	WD	4/28/23			
CHECKED	JH	4/30/23	TITLE:		
UNLESS OTHERWISE SPECIFIED:			MOUNTING BAR		
DIMENSIONS ARE IN METERS TOLERANCES: FRACTIONAL $\pm .01$ ANGULAR: MACH/BEND $\pm 3^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$			SIZE	DWG. NO.	REV
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09			B	504	-
DO NOT SCALE DRAWING			SCALE: 1:10	WEIGHT:	SHEET 1 OF 1





ITEM NO.	WELD SIZE	SYMBOL	WELD LENGTH	WELD MATERIAL	QTY.
1	3		282.74	Ti-6Al-4V	1
2	5		282.74	Ti-6Al-4V	1

TITLE:  
**ROBOTIC ARM**

SIZE  
**B**

DWG. NO.  
**600**

REV  
**-**

SCALE: 1:15

WEIGHT:

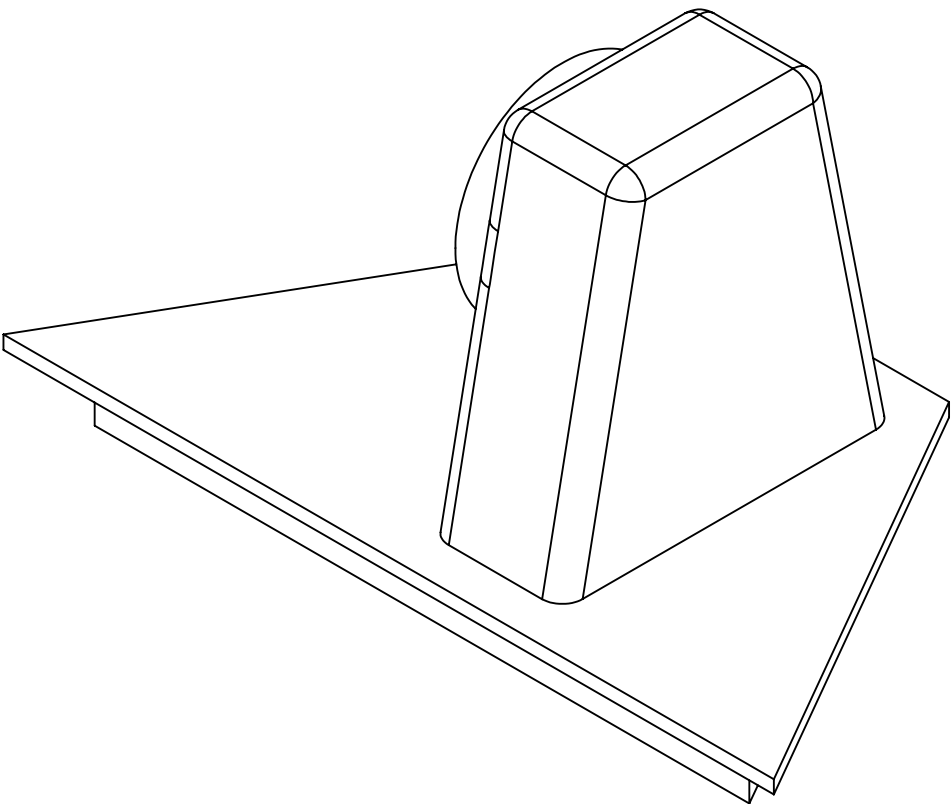
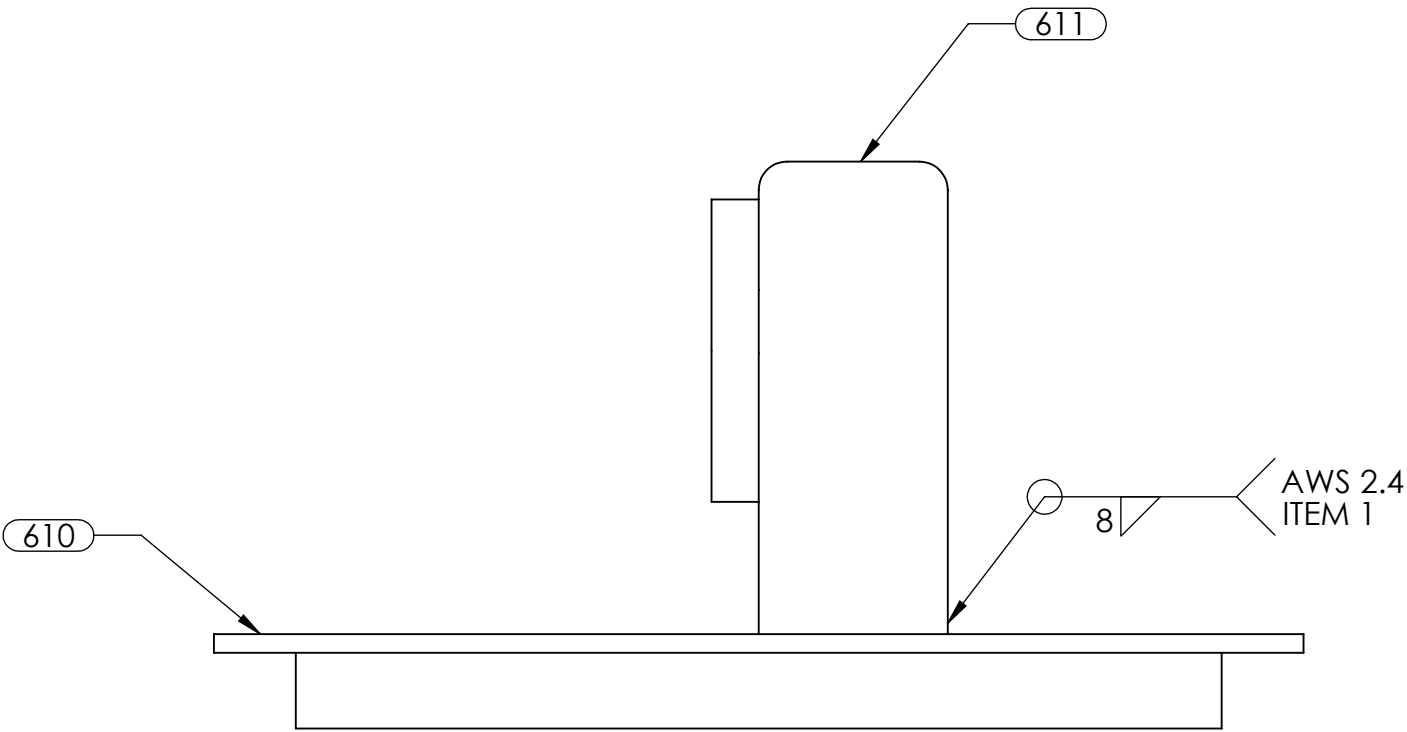
SHEET 2 OF 2



USED ON	PART NUMBER	TITLE	QTY.
601	610	BASE ATTACHMENT	1
601	611	STAND	1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

- NOTES:
- 1. PART TO BE FREE OF ANY DEBRIS BEFORE AND AFTER ASSEMBLY
  - 2. TANGENT EDGES AND HIDDEN LINES NOT SHOWN
  - 3. BREAK ALL SHARP EDGES
  - 4. ALL WELDS ACCORDING TO WELD TABLE



ISOMETRIC VIEW  
FOR REFERENCE ONLY  
TANGENT EDGES SHOWN FOR CLARITY

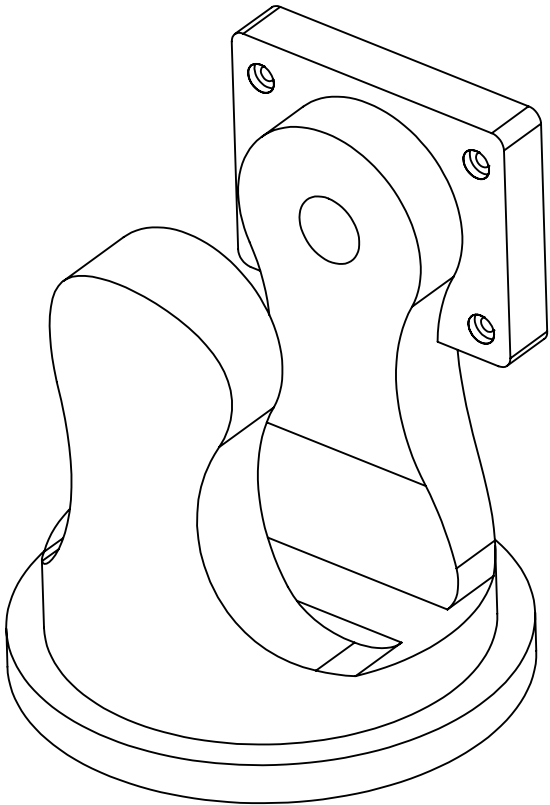
ITEM NO.	WELD SIZE	SYMBOL	WELD LENGTH	WELD MATERIAL	QTY.
1	8		1514.36	Ti-6Al-4V	1

	NAME	DATE	<div>SPACExon</div> <div>TITLE:</div> <div>ARM BASE</div> <div>SIZE DWG. NO. REV</div> <div>B601-</div> <div>SCALE: 1:8 WEIGHT: SHEET 1 OF 1</div>		
DRAWN	NH	5/1/23			
CHECKED	SN	5/1/23			
UNLESS OTHERWISE SPECIFIED:					
DIMENSIONS ARE IN MILLIMETERS TOLERANCES: FRACTIONAL ± .01 ANGULAR: MACH/BEND ± 3° TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005					
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09					
DO NOT SCALE DRAWING					

USED ON	PART NUMBER	MATERIAL	SPECIFICATION	QTY.
600	602	TI-6AL-4V	B381-21	1

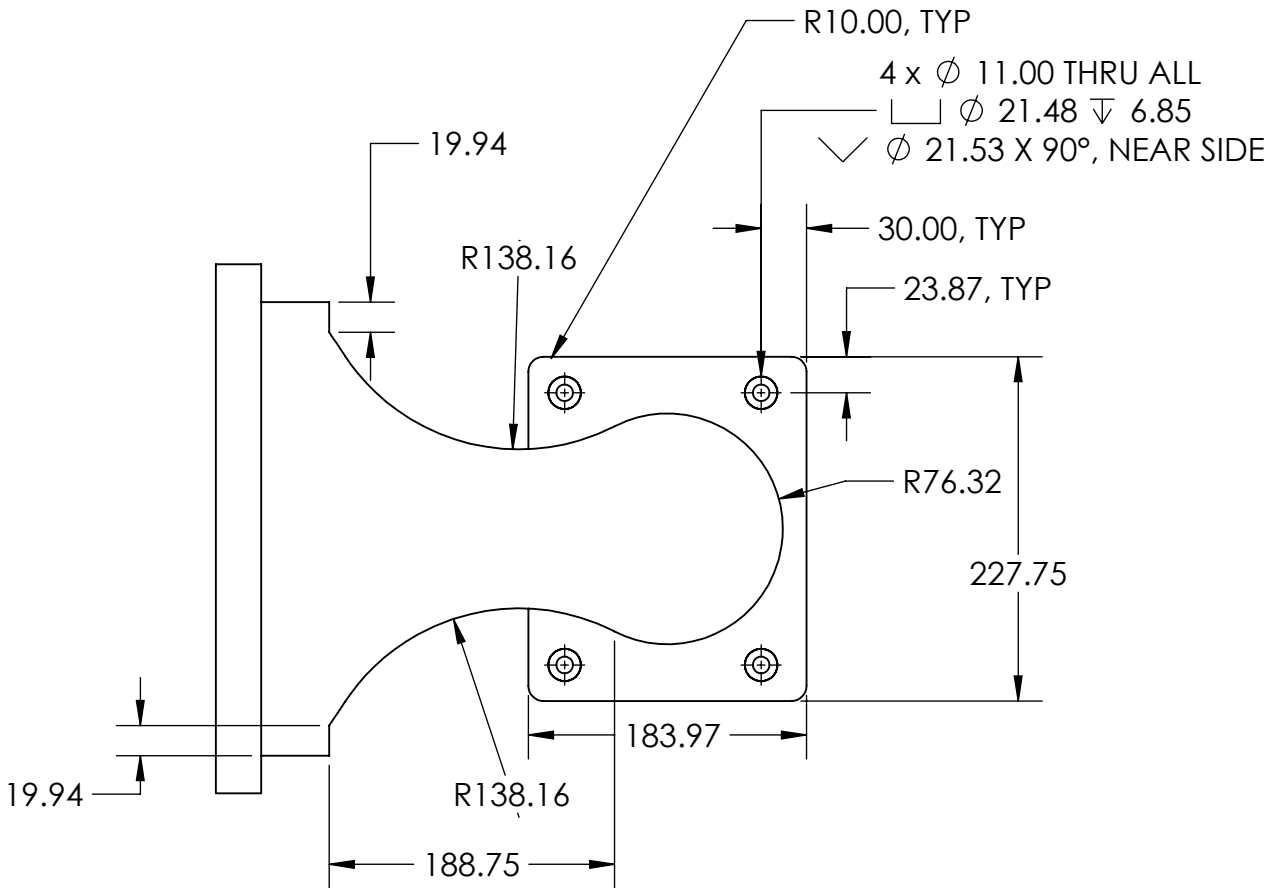
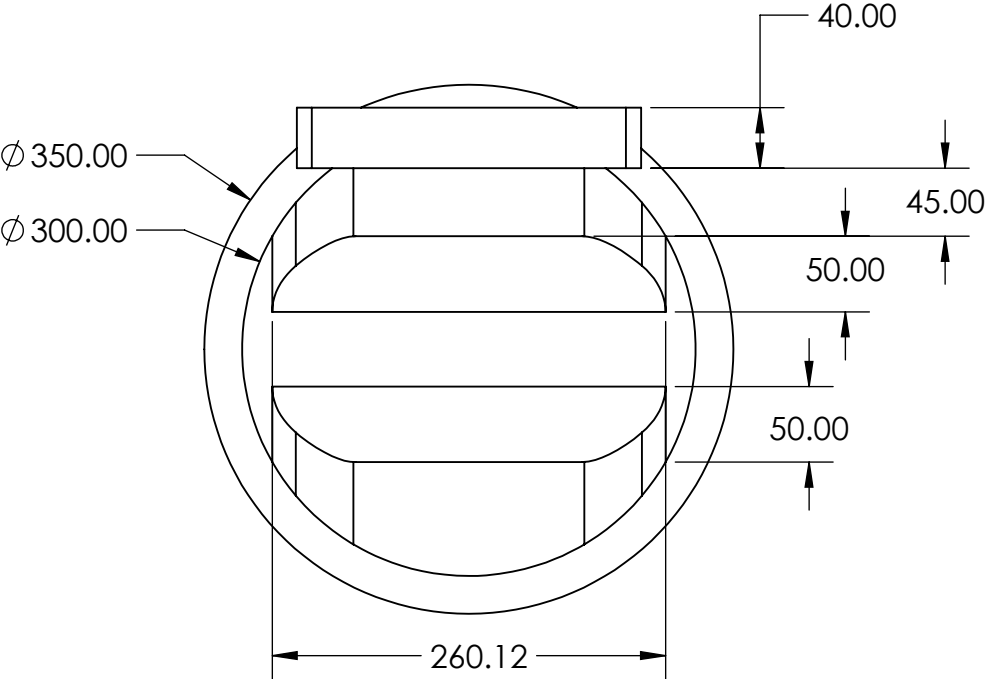
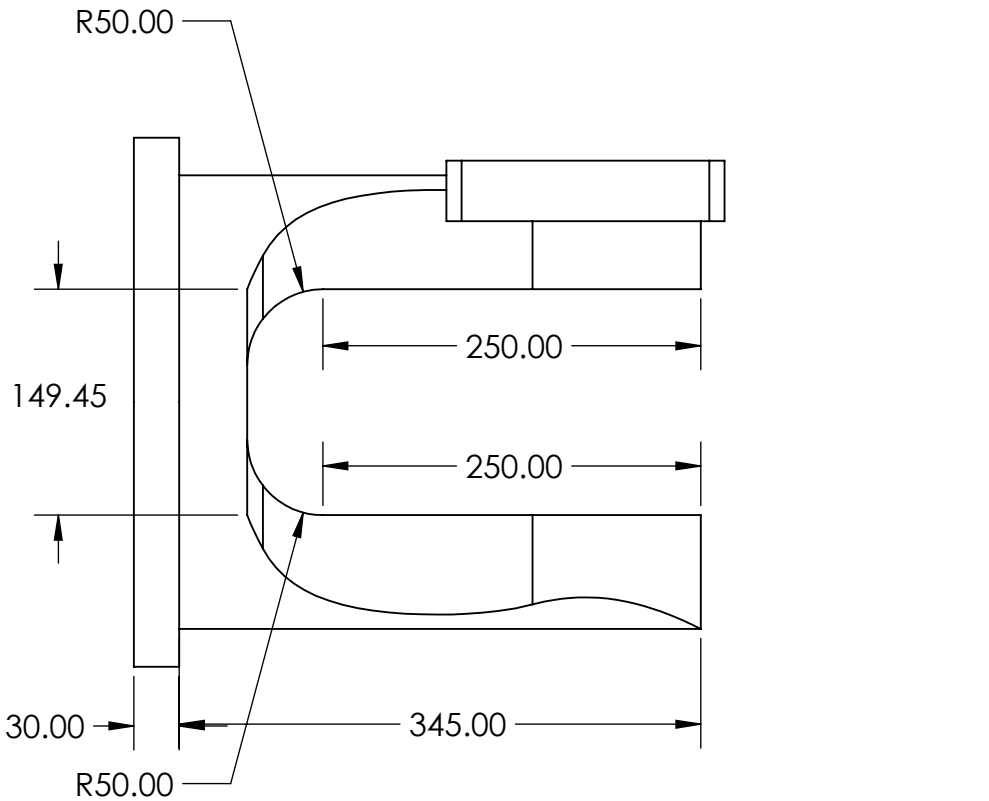
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

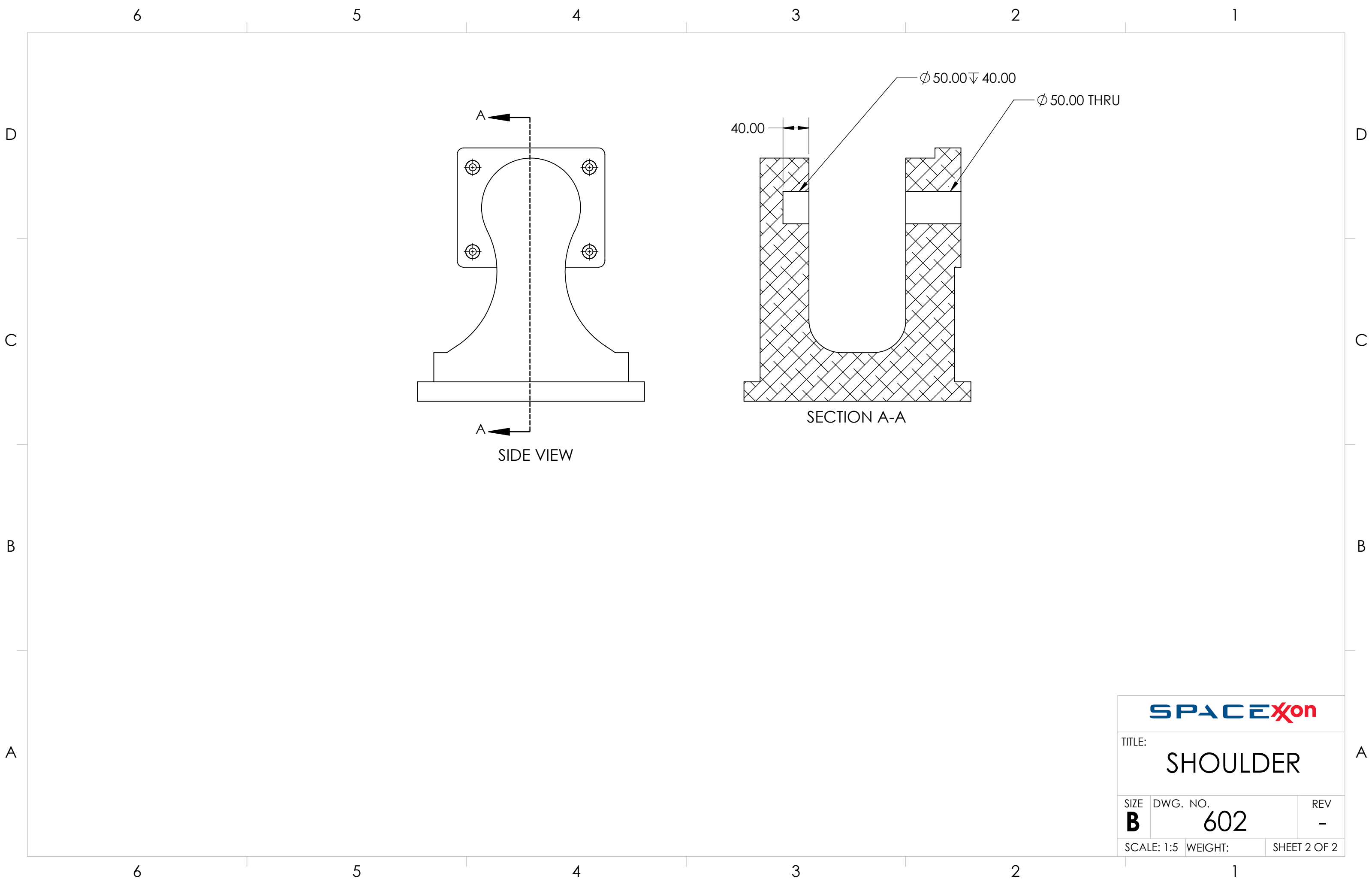
- NOTES
- BREAK ALL EDGES
  - HIDDEN LINES NOT SHOWN
  - CLEAR PART OF DUST AND DEBRIS
  - TANGENT LINES SHOWN FOR CLARITY



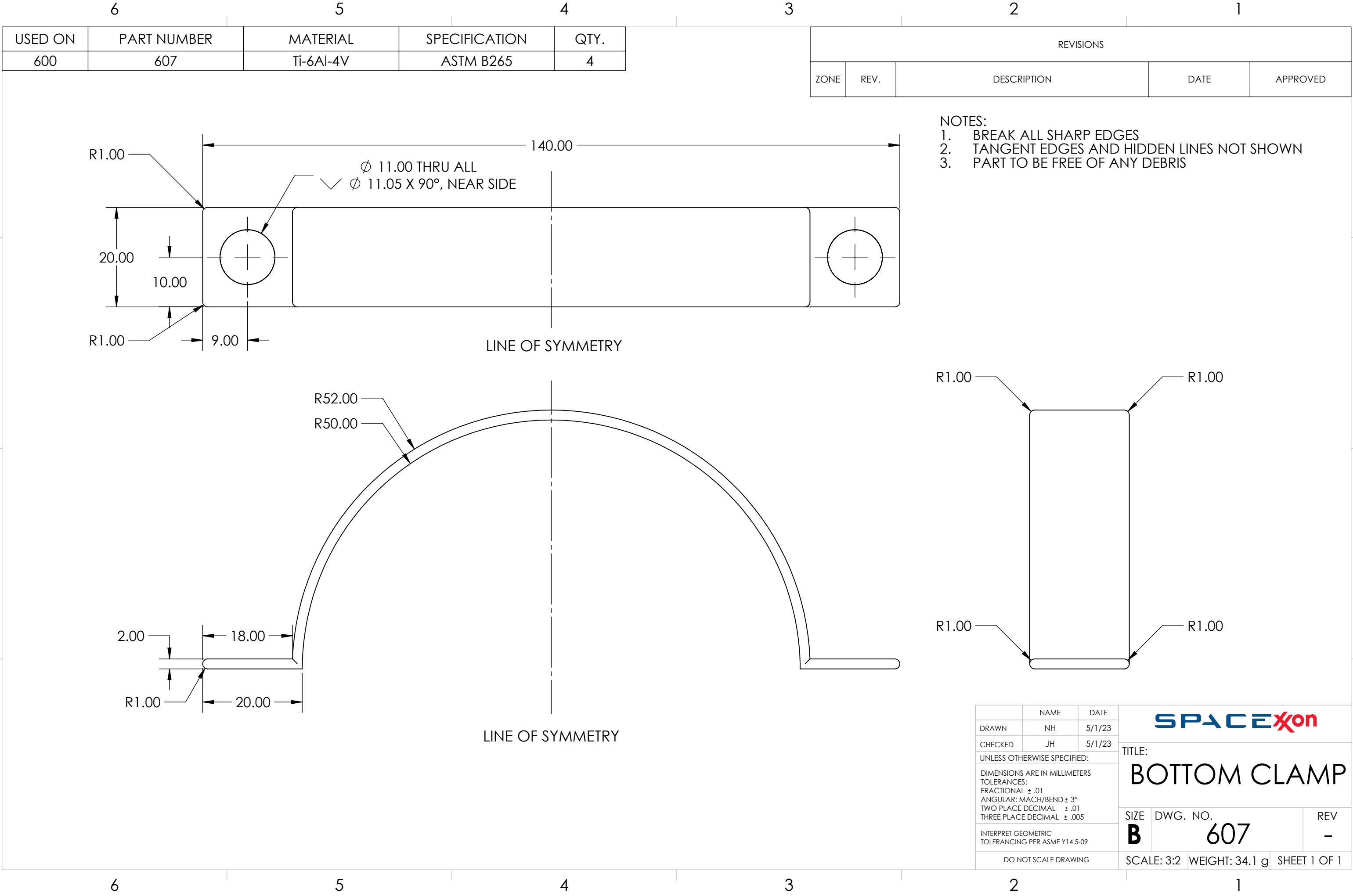
ISOMETRIC VIEW  
FOR REFERENCE ONLY

	NAME	DATE	<b>SPACExon</b>		
DRAWN	WD	4/28/23			
CHECKED	NH	4/30/23	TITLE:		
UNLESS OTHERWISE SPECIFIED:			SHOULDER		
DIMENSIONS ARE IN MILLIMETERS			SIZE	DWG. NO.	REV
TOLERANCES:			<b>B</b>	<b>602</b>	-
FRACTIONAL ± .01					
ANGULAR: MACH/BEND ± 3°					
TWO PLACE DECIMAL ± .01					
THREE PLACE DECIMAL ± .005					
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09					
DO NOT SCALE DRAWING			SCALE: 1:5	WEIGHT:	SHEET 1 OF 2





SPACExon		
TITLE: SHOULDER		
SIZE B	DWG. NO. 602	REV -
SCALE: 1:5	WEIGHT:	SHEET 2 OF 2



	NAME	DATE	SPACExon		
DRAWN	NH	5/1/23			
CHECKED	JH	5/1/23	TITLE:		
UNLESS OTHERWISE SPECIFIED:			BOTTOM CLAMP		
DIMENSIONS ARE IN MILLIMETERS			SIZE	DWG. NO.	REV
TOLERANCES:			B	607	-
FRACTIONAL ± .01					
ANGULAR: MACH/BEND ± 3°					
TWO PLACE DECIMAL ± .01					
THREE PLACE DECIMAL ± .005					
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09					
DO NOT SCALE DRAWING			SCALE: 3:2	WEIGHT: 34.1 g	SHEET 1 OF 1



USED ON	PART NUMBER	TITLE	QTY.
700	701	INNER WHIPPLE PLATE	1
700	702	ALUMINUM FOAM INSERT	1
700	703	OUTTER WHIPPLE PLATE	1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

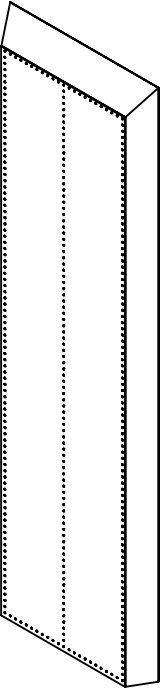
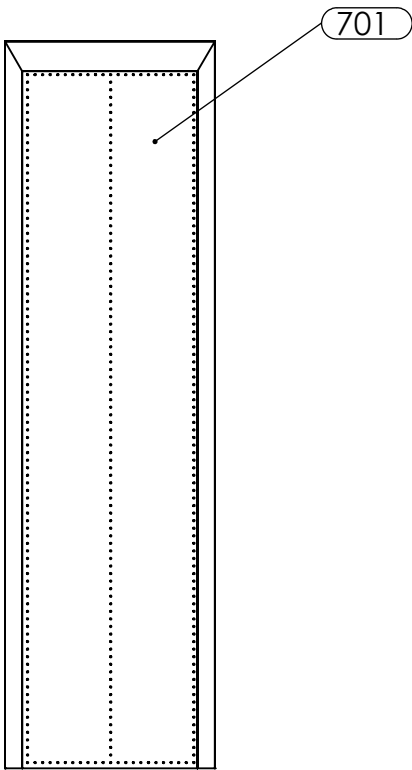
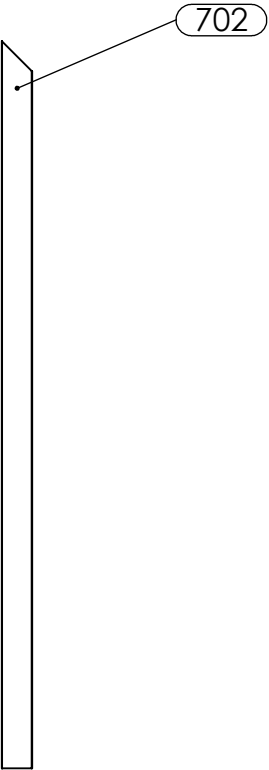
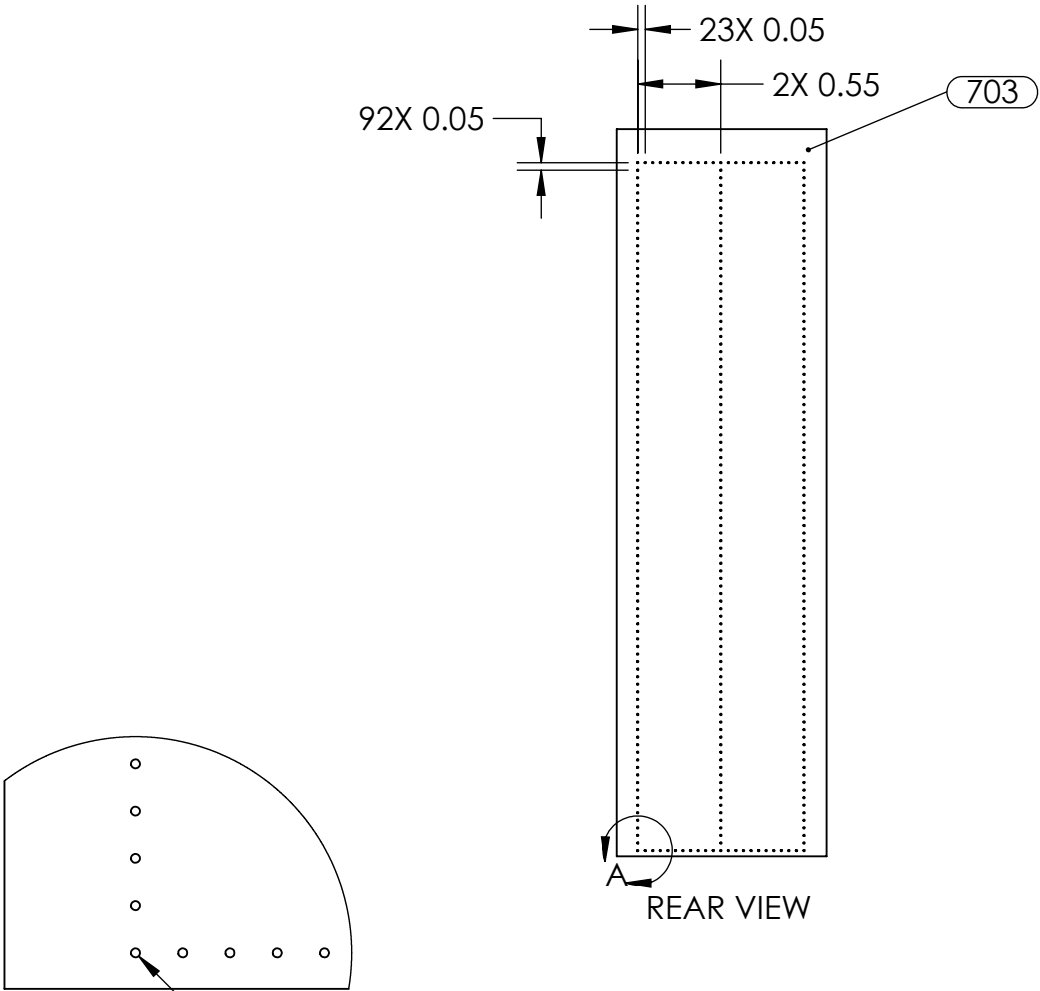
- NOTES:
- 1. HIDDEN LINES ARE NOT SHOWN
  - 2. PARTS TO BE FREE FROM DEBRIS
  - 3. BREAK ALL SHARP EDGES
  - 4. HOLES SHOWN IN DETAIL A TO BE DRILLED AND RIVETED ON-SITE

D

C

B

A



ISOMETRIC VIEW  
FOR REFERENCE ONLY

D

C

B

A

	NAME	DATE	<div>SPACExon</div>	
DRAWN	JH	5/1/2023		
CHECKED	AB	5/1/2023		
UNLESS OTHERWISE SPECIFIED:			TITLE:	
DIMENSIONS ARE IN METERS TOLERANCES: FRACTIONAL ± .01 ANGULAR: MACH/BEND ± 3° TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .005  INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5-09			WHIPPLE SHIELDING SIDE PANEL ASSEMBLY	
			SIZE	DWG. NO.
			<b>B</b>	700
				REV -
DO NOT SCALE DRAWING			SCALE: 1:50	WEIGHT: SHEET 1 OF 1