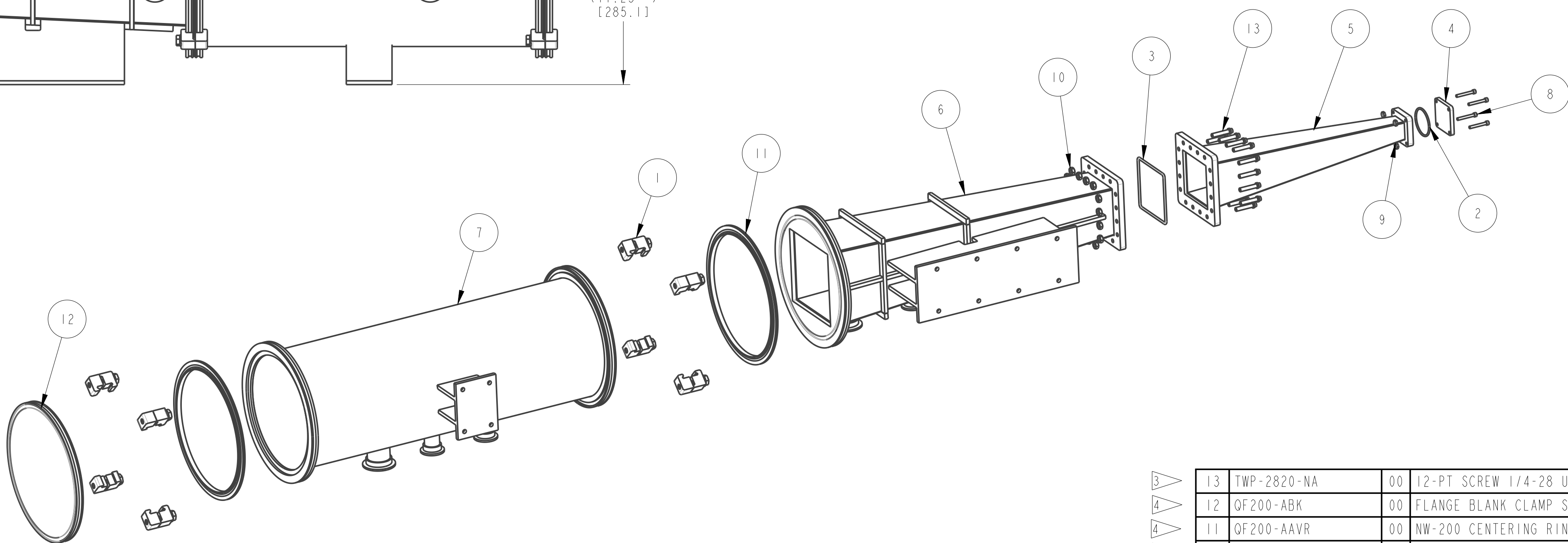
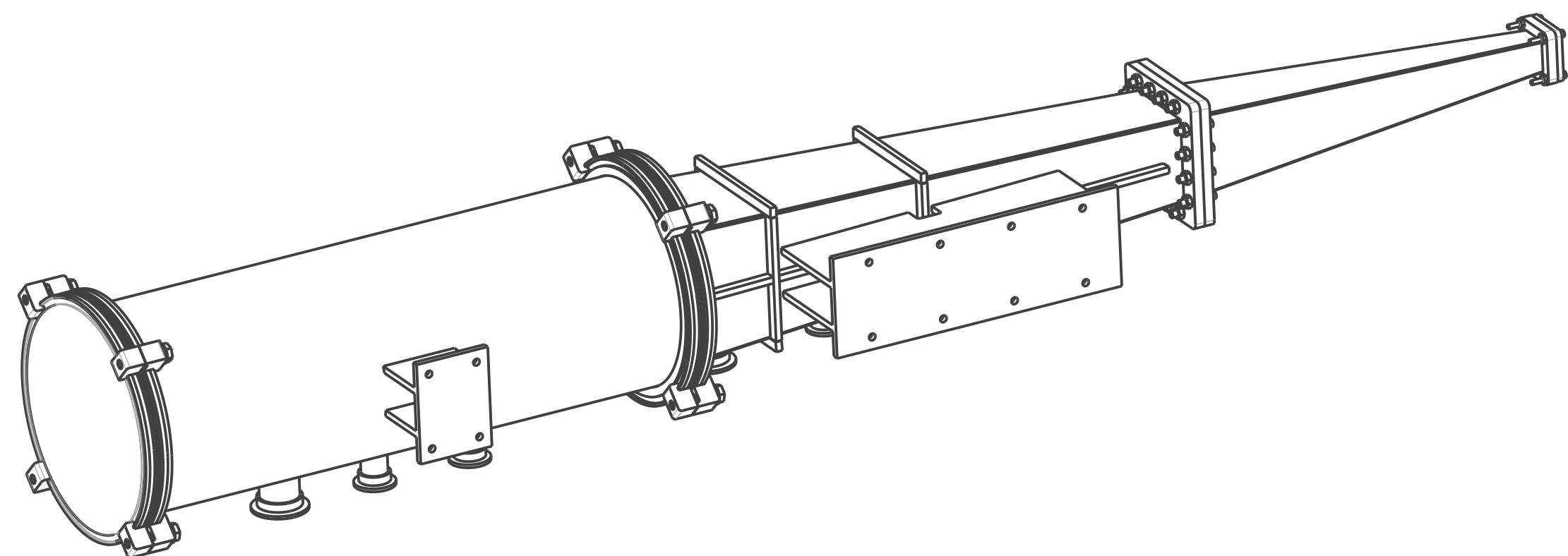
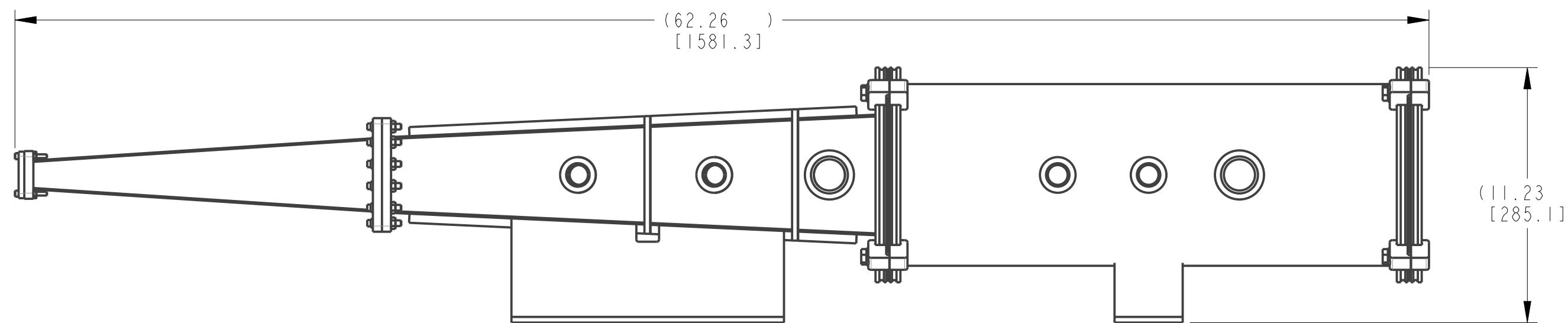
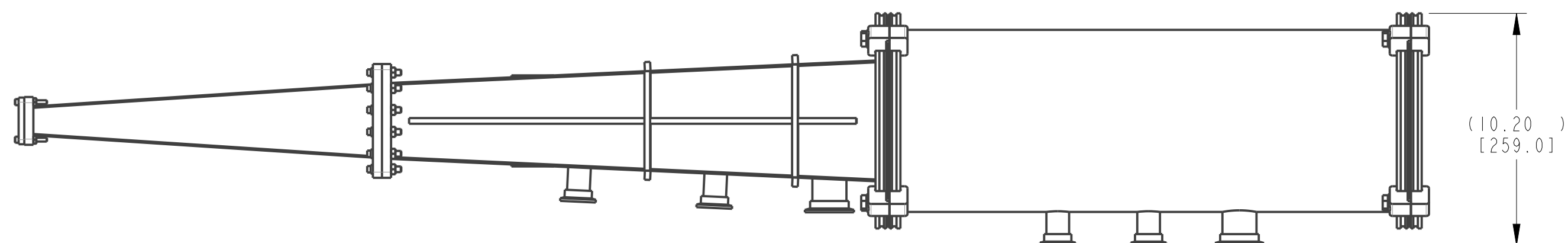


REVISIONS					
ZONE	REV	DESCRIPTION	BY	APPROVED	DATE



- 1 SOURCE OR EQUIVALENT
VACUUM ONE (MDC/ISI)
2502 NORTH CLARK STREET
CHICAGO, IL 60614
773-244-3102
- 2 SOURCE OR EQUIVALENT
McMASTER-CARR
P.O. BOX 4355
CHICAGO, IL 60680-4355
630-833-0300
- 3 SOURCE OR EQUIVALENT
U-C COMPONENTS, INC.
18700 ADAMS CT
MORGAN HILLS, CA 95037
888-483-6833
- 4 SOURCE OR EQUIVALENT
KURT J. LESKER
P.O. BOX 10
CLARTON, PA 15025-3681
800-245-1656

NOTES:

1. THIS CHAMBER IS INTENDED FOR ROUGH VACUUM SERVICE. HOWEVER, TO ENSURE THAT THE CHAMBER DOES NOT CONTAMINATE NEIGHBORING COMPONENTS, AND TO MAINTAIN CONSISTENT CLEANLINESS STANDARDS AT THE BEAMLINE, THE DESIGN, FABRICATION, AND CLEANING PROCEDURES SHALL BE CHOSEN AS IF IT IS INTENDED FOR UHV SERVICE.
2. VENDOR IS RESPONSIBLE FOR LEAK CHECKING CHAMBER ASSEMBLY TO VERIFY LEAK RATE IS $<1.0E-9$ STANDARD CC/SEC DURING HELIUM LEAK TEST.
3. VENDOR IS RESPONSIBLE FOR PROVIDING ALL COMPONENTS LISTED IN THE BILL OF MATERIAL. IN ADDITION, VENDOR MUST PROVIDE A SPARE SET OF ORINGS.
4. PROTECT ALL FLANGE SEALING SURFACES DURING MACHINING AND HANDLING. ANY NICKS OR SCRATCHES TO A SEALING SURFACE WILL RENDER THE PART UNACCEPTABLE.

3

4

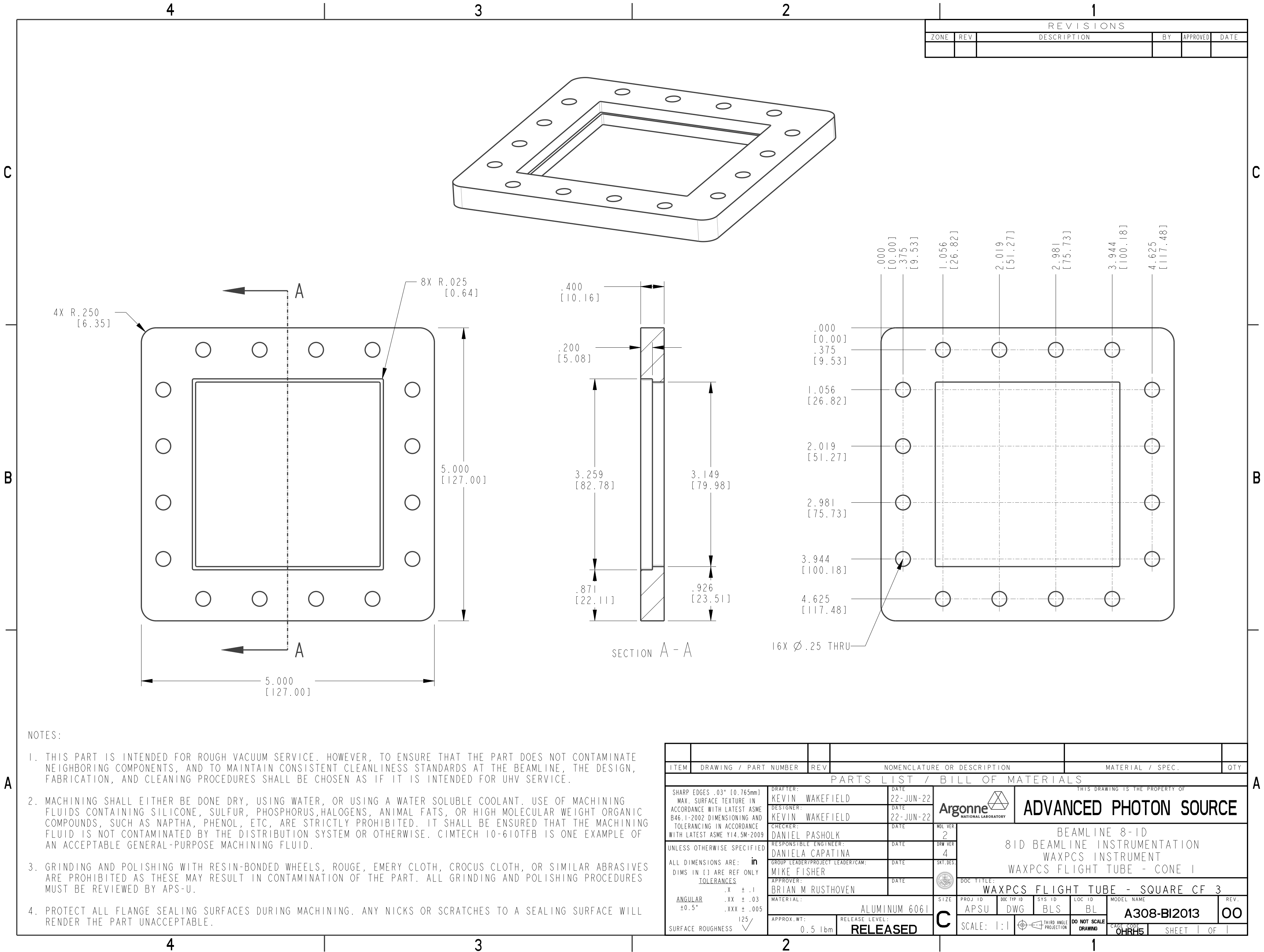
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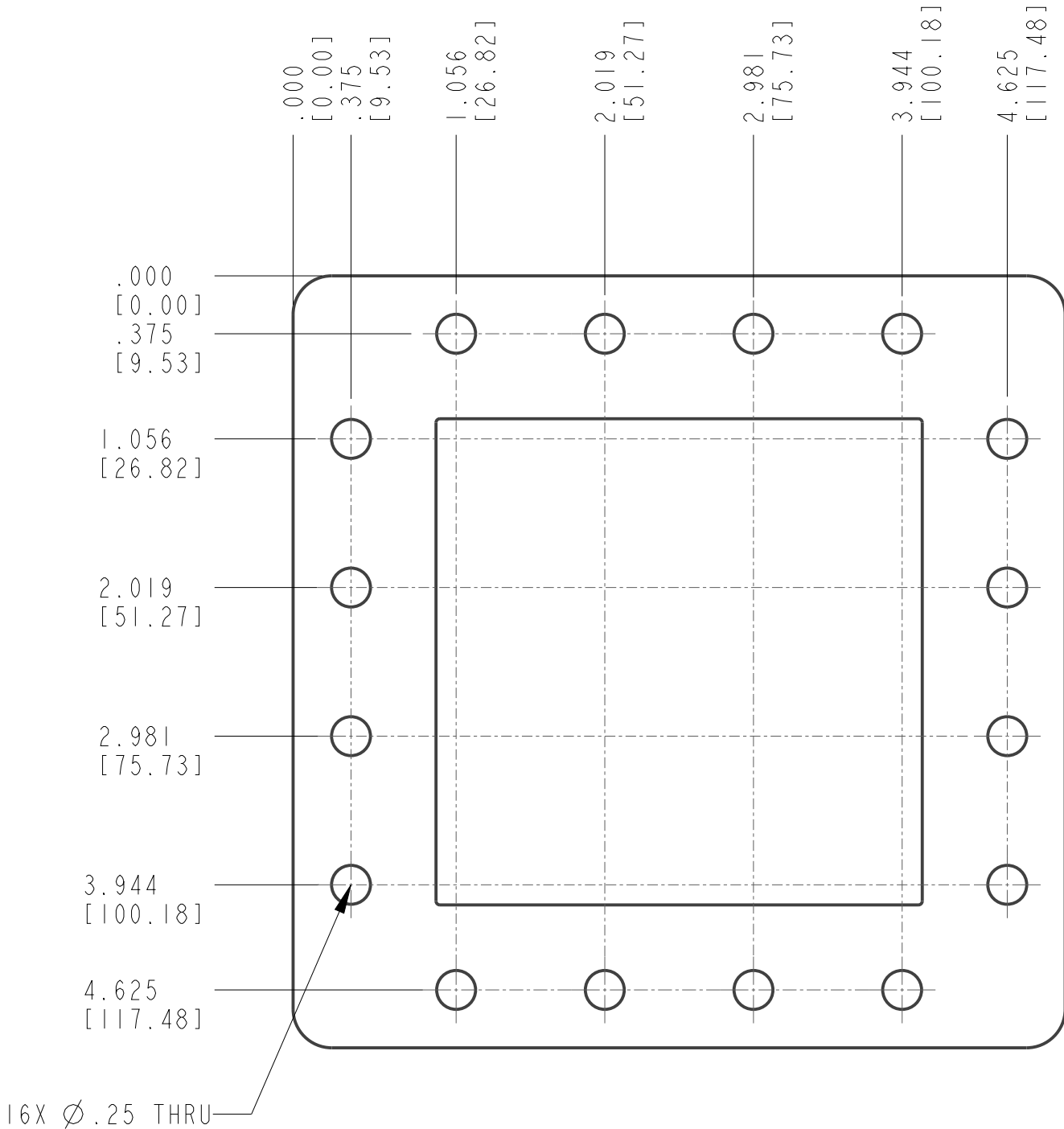
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3

13	1WP-2820-NA	00	12-PT SCREW 1/4-28 UNF-2A 1.25 LG	704 SST SILVER PLATED	16						
12	QF200-ABK	00	FLANGE BLANK CLAMP STYLE	ALUMINUM 6061-T6	1						
11	QF200-AAVR	00	NW-200 CENTERING RING	ALUMINUM	2						
10	N-2528-A	00	NUT HEX 1/4-28 UNC-2B	Ag-PLATED 18-8 SST	16						
9	N-832-A	00	NUT HEX NO. 8(.164)-32 UNC-2B	Ag-PLATED 18-8 SST	4						
8	C-820-NA	00	SHCS NO.8-32 X 1.25" LG	18-8 SST Ag-PLTD	4						
7	A308-B12120	00	WAXPCS FLIGHT TUBE - EXTENSION	SEE PARTS LIST	1						
6	A308-B12110	00	WAXPCS FLIGHT TUBE - CONE 2	SEE PARTS LIST	1						
5	A308-B12010	00	WAXPCS FLIGHT TUBE - CONE 1	SEE PARTS LIST	1						
4	A308-B12005	00	WAXPCS FLIGHT TUBE - WINDOW PLATE	ALUMINUM 6061-T6	1						
3	9452KI95.SQUARE	00	OIL RESISTANT O-RING 4.64 OD X 4.36" ID	BUNA-N RUBBER	1						
2	9452KI137	00	OIL RESISTANT O-RING 1.94 OD X 1.74" ID	BUNA-N RUBBER	1						
1	802002	00	CLAMP DOUBLE CLAW	ALUMINUM/304 SST	8						
ITEM		DRAWING / PART NUMBER		REV	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC.	QTY				
PARTS LIST / BILL OF MATERIALS											
<div>SHARP EDGES .03" (0.765mm) MAX. SURFACE TEXTURE IN ACCORDANCE WITH LATEST ASME B46.1-2002 DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH LATEST ASME Y14.5M-2009</div> <div>UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE in DIMS IN 13 ARE REF ONLY TOLERANCES</div> <div>.X ± .1</div> <div>ANGULAR .XX ± .03 ±0.5° .XX ± .005</div> <div>SURFACE ROUGHNESS 125 ✓</div>				<div>DRAWY TEL: KEVIN WAKEFIELD DATE: 31-JUL-22</div> <div>DESIGNER: KEVIN WAKEFIELD DATE: 31-JUL-22</div> <div>CHECKER: DANIEL PASHOLK DATE: 6</div> <div>RESPONSIBLE ENGINEER: DANIELA CAPATINA DATE: 6</div> <div>GROUP LEAD/PROJECT LEADER/CN: MIKE FISHER DATE: 6</div> <div>APPROVER: BRIAN M RUSTOVEN DATE: 6</div> <div>MATERIAL: SEE PARTS LIST</div>				<div>THIS DRAWING IS THE PROPERTY OF</div> <div><div>Argonne</div><div>NATIONAL LABORATORY</div></div> <div>ADVANCED PHOTON SOURCE</div> <div>BEAMLINE 8-ID</div> <div>8ID BEAMLINE INSTRUMENTATION</div> <div>WAXPCS INSTRUMENT</div> <div>VACUUM CHAMBERS</div> <div>WAXPCS FLIGHT TUBE - VERTICAL</div>			
SIZE		PROJ 1D	DOC TYP 13	SYS 10	LOC 10	MODEL NAME	REV.				
D		APSU	DWG	BLS	BL	A308-B12100	00				
APPROX. WT: 28 lbm		RELEASE LEVEL: RELEADED		SCALE: 1:5		DO NOT SCALE DRAWING					
				THIRD ANGLE PROJECTION		CRRHS SHEET 1 OF 1					

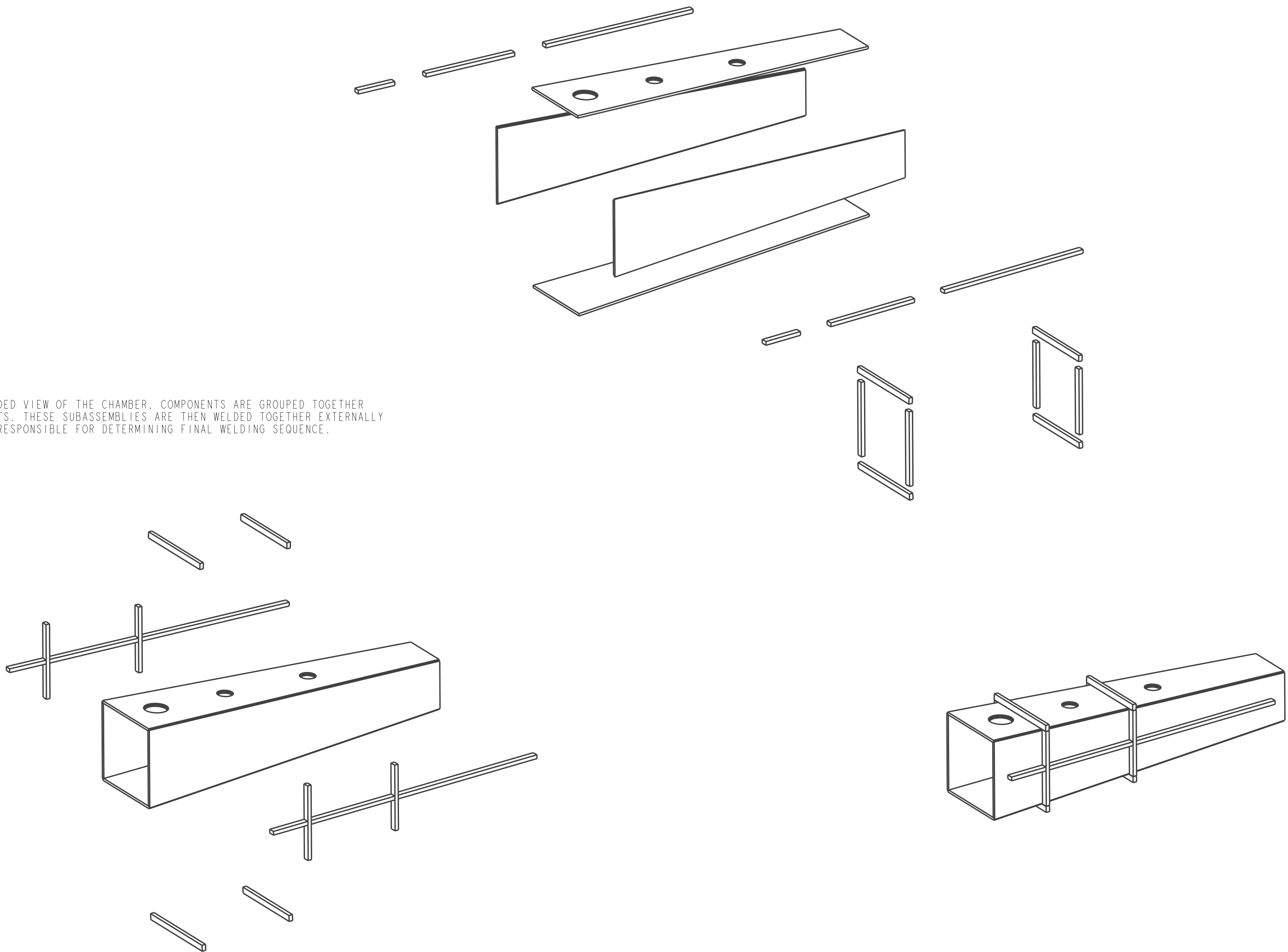


REVISIONS					
ZONE	REV	DESCRIPTION		BY	APPROVED



ITEM	DRAWING / PART NUMBER	REV	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC.	QTY
PARTS LIST / BILL OF MATERIALS					
SHARP EDGES .03" [0.765mm] MAX. SURFACE TEXTURE IN ACCORDANCE WITH LATEST ASME B46.1-2002 DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH LATEST ASME Y14.5M-2009			DRAFTER: KEVIN WAKEFIELD DESIGNER: KEVIN WAKEFIELD CHECKER: DANIEL PASHOLK RESPONSIBLE ENGINEER: DANIELA CAPATINA GROUP LEADER/PROJECT LEADER/CAM: MIKE FISHER APPROVER: BRIAN M RUSTHOVEN	DATE: 22-JUN-22 DATE: 22-JUN-22 DATE: DATE: DATE: DATE:	MDL. VER. 2 DRW. VER. 4 SKT. DES. DATE:
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE: in DIMS IN [] ARE REF ONLY TOLERANCES ANGULAR ±0.5° SURFACE ROUGHNESS			THIS DRAWING IS THE PROPERTY OF Argonne NATIONAL LABORATORY ADVANCED PHOTON SOURCE BEAMLINE 8-ID 8ID BEAMLINE INSTRUMENTATION WAXPCS INSTRUMENT WAXPCS FLIGHT TUBE - CONE 1 DOC TITLE: WAXPCS FLIGHT TUBE - SQUARE CF 3 SCALE: 1:1 THIRD ANGLE PROJECTION DO NOT SCALE DRAWING CASE CODE: OHRH5		
APPROX. WT: 0.5 lbm			RELEASE LEVEL: RELEASED		
SIZE C			PROJ. ID APSU	DOC. TYP. ID DWG	SYS. ID BLS
			LOC. ID BL	MODEL NAME A308-BI2013	REV. 00

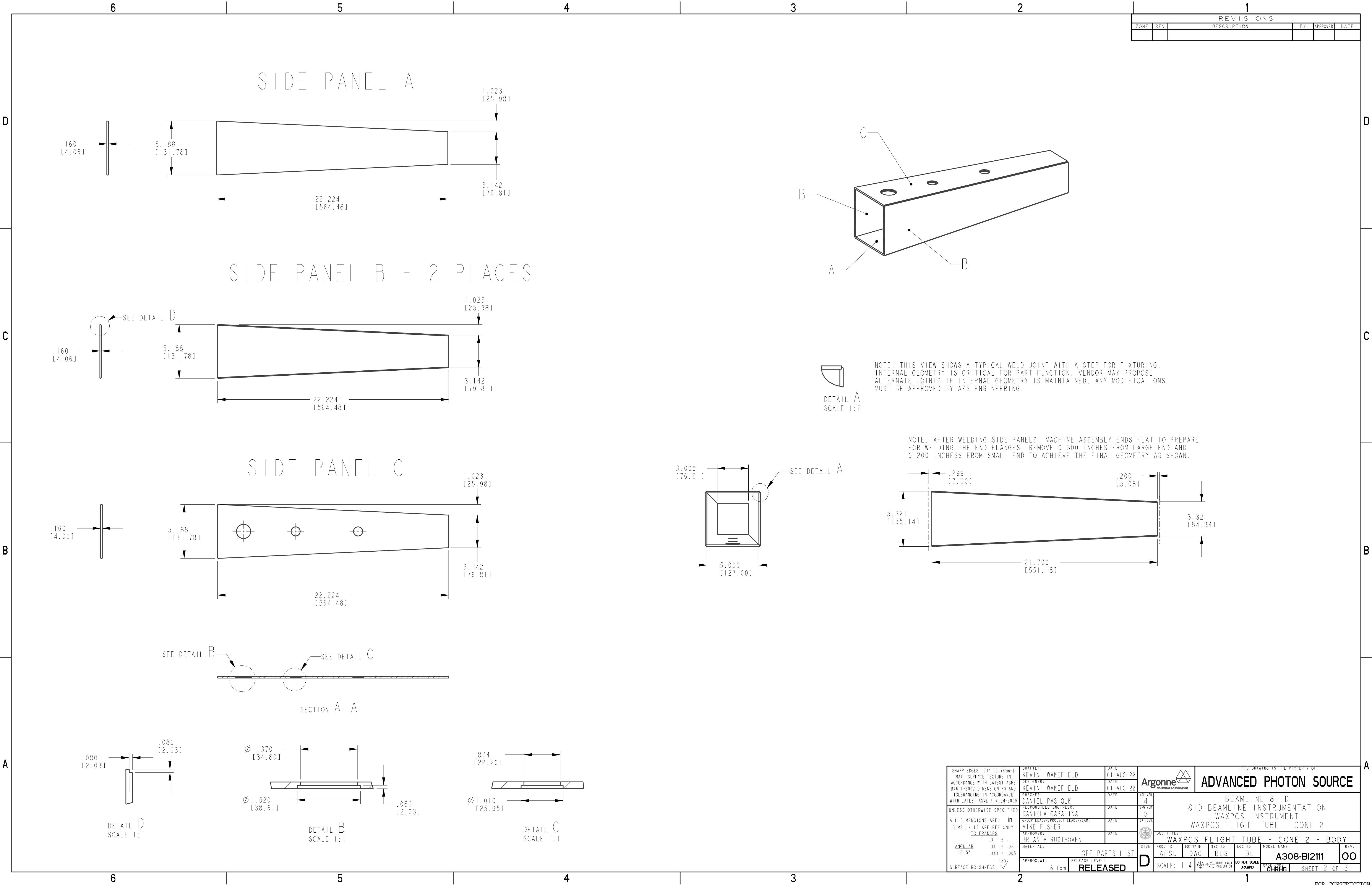
REVISIONS					
ZONE	REV	DESCRIPTION	BY	APPROVED	DATE

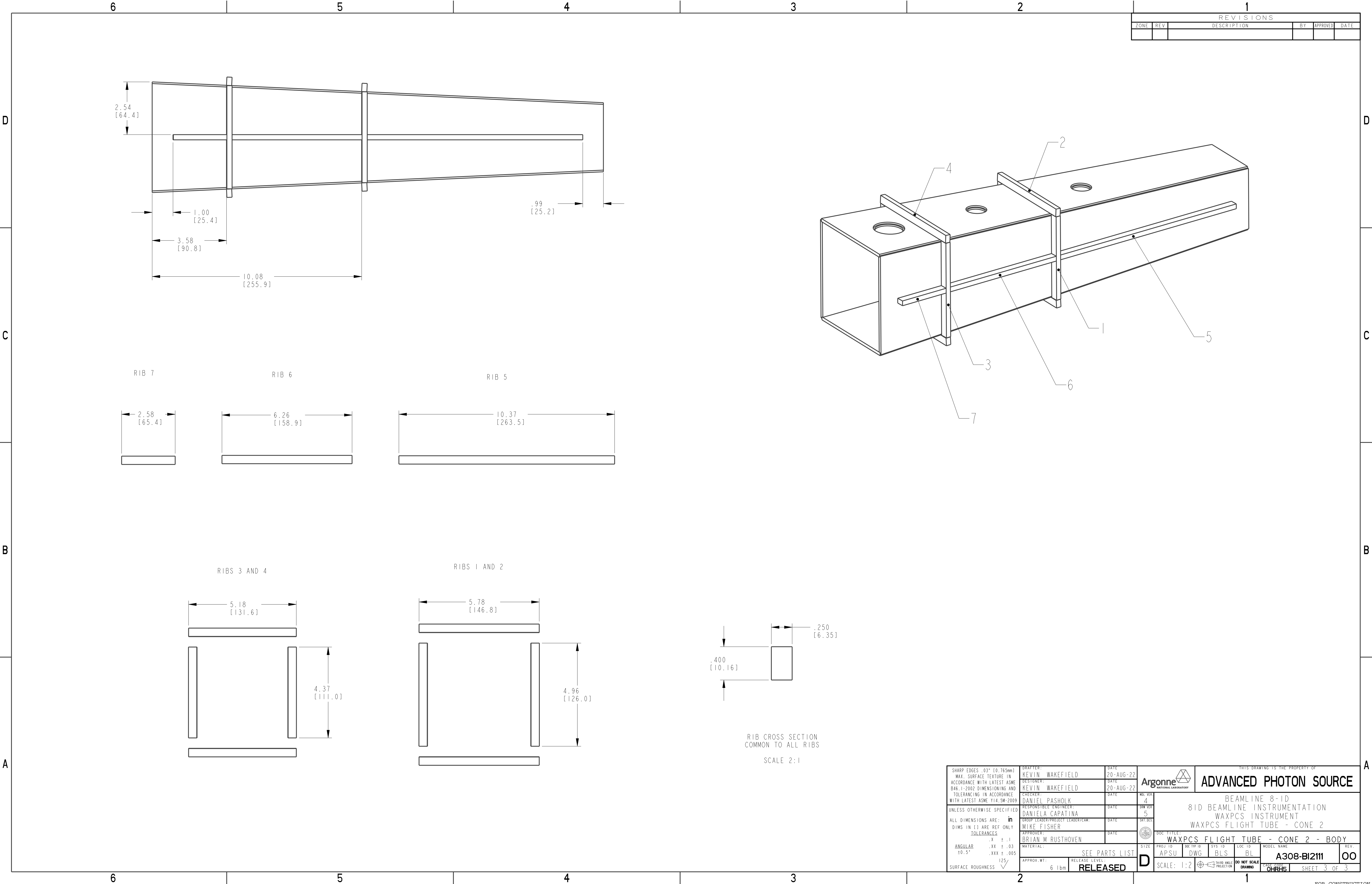


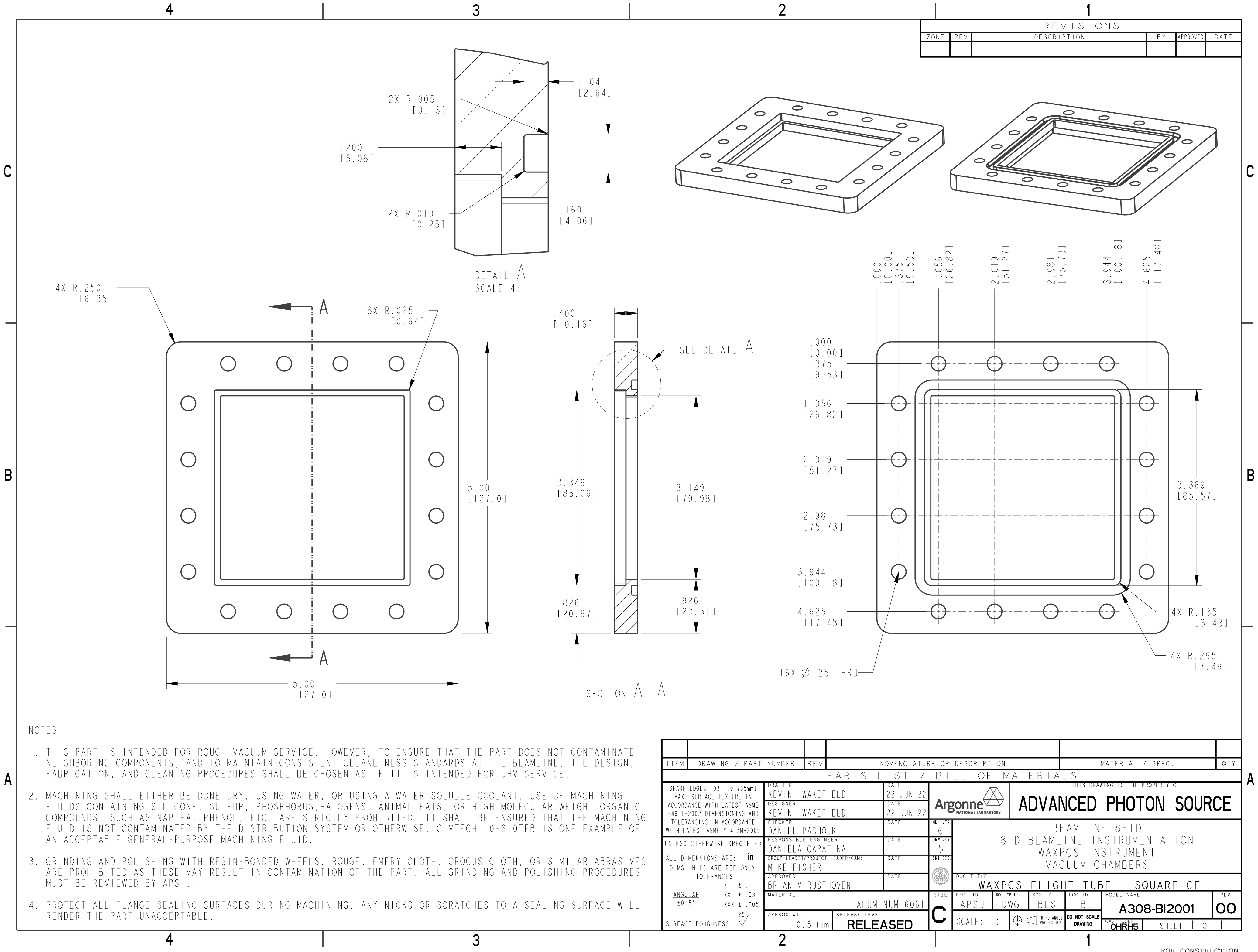
NOTES:

1. VENDOR MAY CHOOSE TO WELD COMPONENTS WITH OUTSIDE OR INSIDE WELDS. WELDING METHOD AND ORDER MUST BE CHOSEN APPROPRIATELY TO FORM A LEAK TIGHT ASSEMBLY.
2. CONTINUOUS WELDS FOR VACUUM JOINTS ARE TO BE LEAK TIGHT SUCH THAT A HELIUM LEAK TEST VERIFIES THE CHAMBER TO HAVE A LEAK RATE $<1.0\text{E-}9$ STANDARD CC/SEC. THIS CAN BE DONE AS PART OF THE OVERALL CHAMBER ASSEMBLY LEAK CHECK. STRUCTURAL SKIP WELDS ARE ACCEPTABLE FOR RIBS AND MOUNTING BRACKETS.
3. THIS CHAMBER IS INTENDED FOR ROUGH VACUUM SERVICE. HOWEVER, TO ENSURE THAT THE CHAMBER DOES NOT CONTAMINATE NEIGHBORING COMPONENTS, AND TO MAINTAIN CONSISTENT CLEANLINESS STANDARDS AT THE BEAMLINE, THE DESIGN, FABRICATION, AND CLEANING PROCEDURES SHALL BE CHOSEN AS IF IT IS INTENDED FOR UHV SERVICE.
4. MACHINING SHALL EITHER BE DONE DRY, USING WATER, OR USING A WATER SOLUBLE COOLANT. USE OF MACHINING FLUIDS CONTAINING SILICONE, SULFUR, PHOSPHORUS, HALOGENS, ANIMAL FATS, OR HIGH MOLECULAR WEIGHT ORGANIC COMPOUNDS, SUCH AS NAPHTHA, PHENOL, ETC, ARE STRICTLY PROHIBITED. IT SHALL BE ENSURED THAT THE MACHINING FLUID IS NOT CONTAMINATED BY THE DISTRIBUTION SYSTEM OR OTHERWISE. CIMTECH 10-610TFB IS ONE EXAMPLE OF AN ACCEPTABLE GENERAL-PURPOSE MACHINING FLUID.
5. GRINDING AND POLISHING WITH RESIN-BONDED WHEELS, ROUGE, EMERY CLOTH, CROCUS CLOTH, OR SIMILAR ABRASIVES ARE PROHIBITED AS THESE MAY RESULT IN CONTAMINATION OF THE PART. ALL GRINDING AND POLISHING PROCEDURES MUST BE REVIEWED BY APS-U.

6	5	4	3	2	1
					FOR CONSTRUCTION

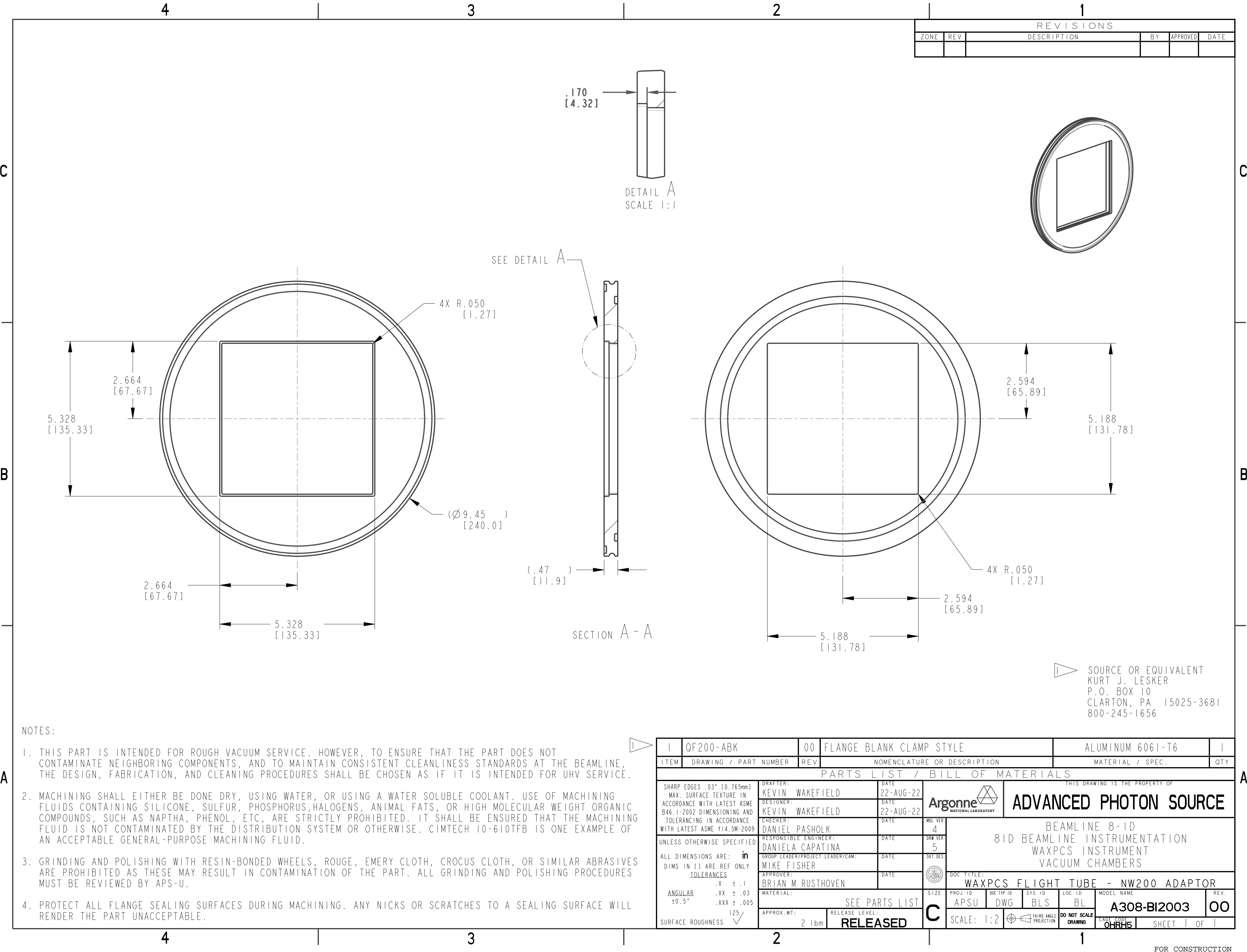






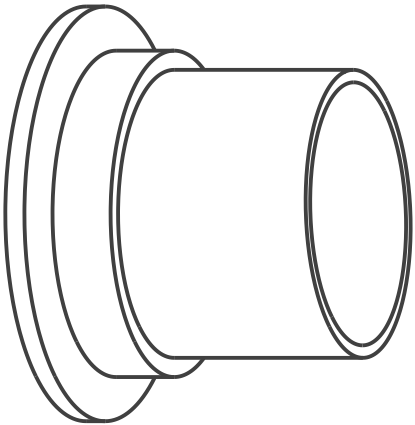
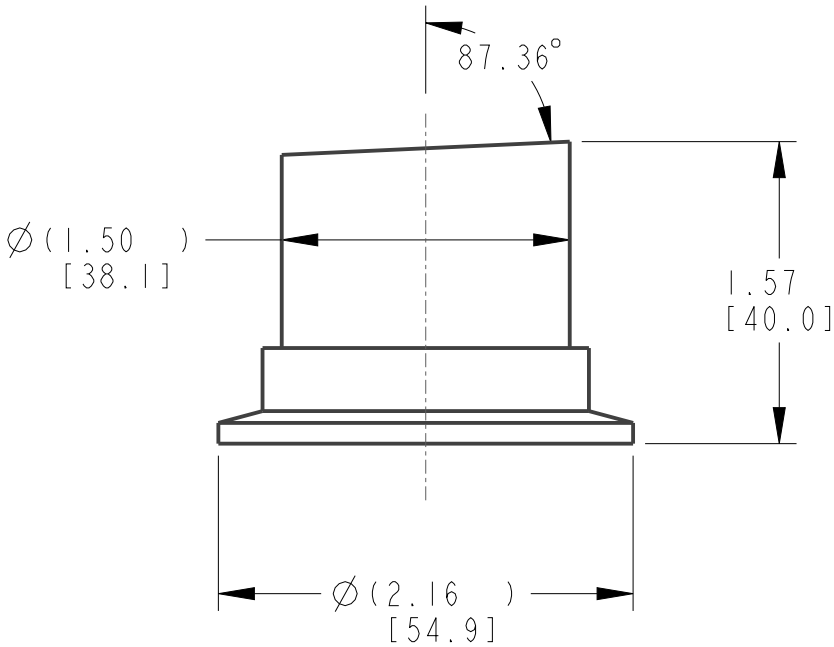
- NOTES:
- THIS PART IS INTENDED FOR ROUGH VACUUM SERVICE. HOWEVER, TO ENSURE THAT THE PART DOES NOT CONTAMINATE NEIGHBORING COMPONENTS, AND TO MAINTAIN CONSISTENT CLEANLINESS STANDARDS AT THE BEAMLINE, THE DESIGN, FABRICATION, AND CLEANING PROCEDURES SHALL BE CHOSEN AS IF IT IS INTENDED FOR UHV SERVICE.
 - MACHINING SHALL EITHER BE DONE DRY, USING WATER, OR USING A WATER SOLUBLE COOLANT. USE OF MACHINING FLUIDS CONTAINING SILICONE, SULFUR, PHOSPHORUS, HALOGENS, ANIMAL FATS, OR HIGH MOLECULAR WEIGHT ORGANIC COMPOUNDS, SUCH AS NAPHTHA, PHENOL, ETC, ARE STRICTLY PROHIBITED. IT SHALL BE ENSURED THAT THE MACHINING FLUID IS NOT CONTAMINATED BY THE DISTRIBUTION SYSTEM OR OTHERWISE. CIMTECH 10-610TFB IS ONE EXAMPLE OF AN ACCEPTABLE GENERAL-PURPOSE MACHINING FLUID.
 - GRINDING AND POLISHING WITH RESIN-BONDED WHEELS, ROUGE, EMERY CLOTH, CROCUS CLOTH, OR SIMILAR ABRASIVES ARE PROHIBITED AS THESE MAY RESULT IN CONTAMINATION OF THE PART. ALL GRINDING AND POLISHING PROCEDURES MUST BE REVIEWED BY APS-U.
 - PROTECT ALL FLANGE SEALING SURFACES DURING MACHINING. ANY NICKS OR SCRATCHES TO A SEALING SURFACE WILL RENDER THE PART UNACCEPTABLE.

ITEM		DRAWING / PART NUMBER		REV	NOMENCLATURE OR DESCRIPTION		MATERIAL / SPEC.		QTY
PARTS LIST / BILL OF MATERIALS									
SHARP EDGES .03" [0.765mm]		DRAFTER:		DATE		THIS DRAWING IS THE PROPERTY OF			
MAX. SURFACE TEXTURE IN		KEVIN WAKEFIELD		22-JUN-22		Argonne NATIONAL LABORATORY		ADVANCED PHOTON SOURCE	
ACCORDANCE WITH LATEST ASME		DESIGNER:		DATE					
B46.1-2002 DIMENSIONING AND		KEVIN WAKEFIELD		22-JUN-22					
TOLERANCING IN ACCORDANCE		CHECKER:		DATE					
WITH LATEST ASME Y14.5M-2009		DANIEL PASHOLK							
UNLESS OTHERWISE SPECIFIED		RESPONSIBLE ENGINEER:		DATE					
ALL DIMENSIONS ARE: in		DANIELA CAPATINA							
DIMS IN () ARE REF ONLY		GROUP LEADER/PROJECT LEADER/CAM:		DATE					
TOLERANCES		MIKE FISHER							
ANGULAR .XX ± .03		APPROVER:		DATE					
±0.5° .XXX ± .005		BRIAN M RUSTHOVEN							
SURFACE ROUGHNESS 125 ✓		MATERIAL:		DATE					
		ALUMINUM 6061							
		APPROX. WT:		RELEASE LEVEL:					
		0.5 lbm		RELEASED					
		SCALE: 1:1		THIRD ANGLE PROJECTION					
		DO NOT SCALE DRAWING		C					
		PROJ ID		DOC TYP ID		SYS ID		LOC ID	
		APS		DWG		BLS		BL	
		MODEL NAME		REV.					
		A308-BI2001		OO					
		CASE CODE		SHEET 1 OF 1					
		OHRH5							



REVISIONS					
ZONE	REV	DESCRIPTION	BY	APPROVED	DATE

REMOVE MATERIAL FROM END OF WELD STUB TO
CREATE AN ANGLE THAT MATCHES THE SLOPE OF
THE CHAMBER SIDE WALL.

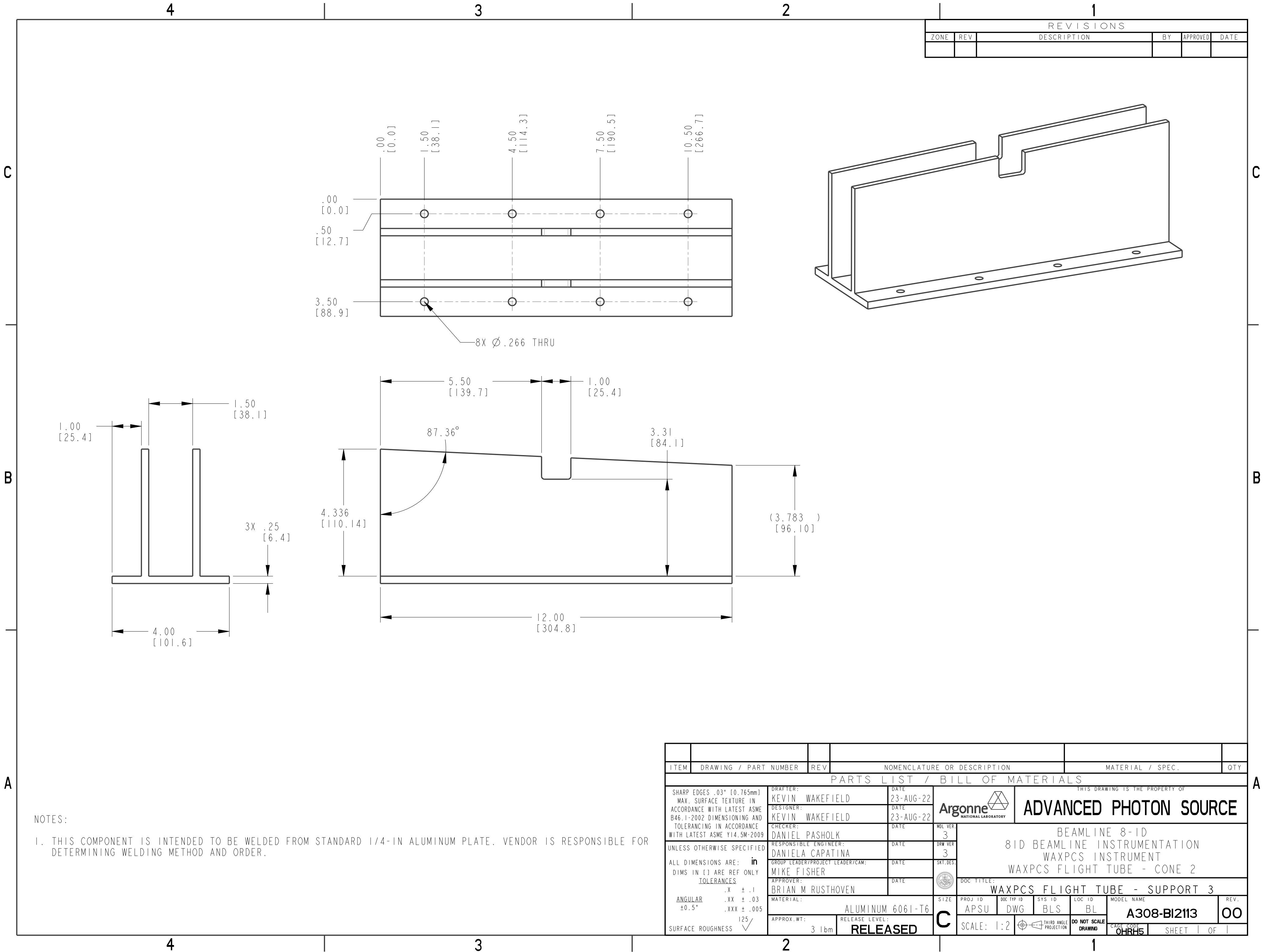


NOTES:

1. THIS PART IS INTENDED FOR ROUGH VACUUM SERVICE. HOWEVER, TO ENSURE THAT THE PART DOES NOT CONTAMINATE NEIGHBORING COMPONENTS, AND TO MAINTAIN CONSISTENT CLEANLINESS STANDARDS AT THE BEAMLINE, THE DESIGN, FABRICATION, AND CLEANING PROCEDURES SHALL BE CHOSEN AS IF IT IS INTENDED FOR UHV SERVICE.
2. MACHINING SHALL EITHER BE DONE DRY, USING WATER, OR USING A WATER SOLUBLE COOLANT. USE OF MACHINING FLUIDS CONTAINING SILICONE, SULFUR, PHOSPHORUS, HALOGENS, ANIMAL FATS, OR HIGH MOLECULAR WEIGHT ORGANIC COMPOUNDS, SUCH AS NAPTHA, PHENOL, ETC, ARE STRICTLY PROHIBITED. IT SHALL BE ENSURED THAT THE MACHINING FLUID IS NOT CONTAMINATED BY THE DISTRIBUTION SYSTEM OR OTHERWISE. CIMTECH 10-610TFB IS ONE EXAMPLE OF AN ACCEPTABLE GENERAL-PURPOSE MACHINING FLUID.
3. GRINDING AND POLISHING WITH RESIN-BONDED WHEELS, ROUGE, EMERY CLOTH, CROCUS CLOTH, OR SIMILAR ABRASIVES ARE PROHIBITED AS THESE MAY RESULT IN CONTAMINATION OF THE PART. ALL GRINDING AND POLISHING PROCEDURES MUST BE REVIEWED BY APS-U.
4. PROTECT ALL FLANGE SEALING SURFACES DURING MACHINING. ANY NICKS OR SCRATCHES TO A SEALING SURFACE WILL RENDER THE PART UNACCEPTABLE.




SOURCE OR EQUIVALENT
VACUUM ONE (MDC/ISI)
2502 NORTH CLARK STREET
CHICAGO, IL 60614
773-244-3102

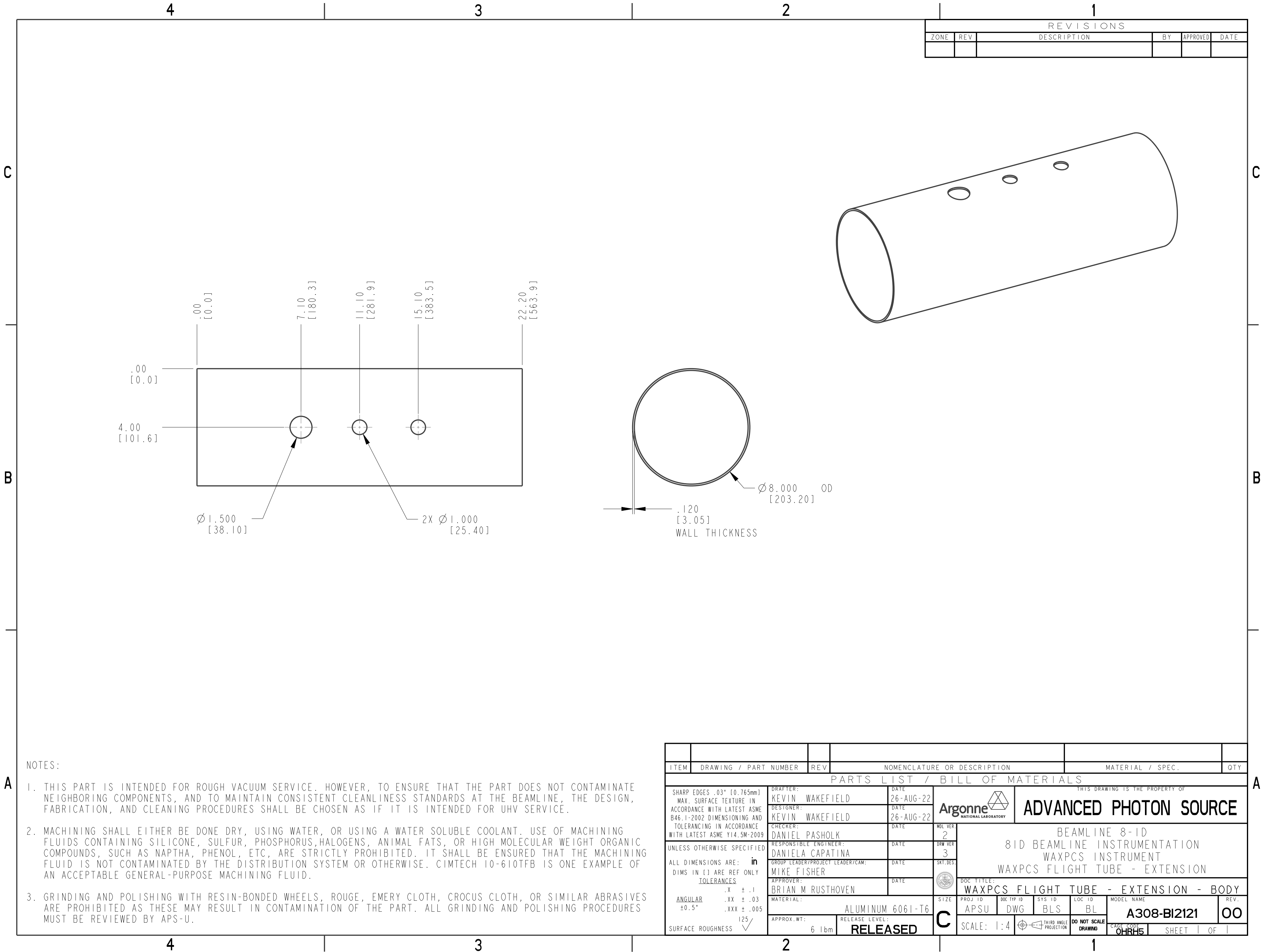
1	715112	00	WELD STUB NW40 ISO KF 1.58" LG	ALUMINUM 6061-T6	1
ITEM	DRAWING / PART NUMBER	REV	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC.	QTY
PARTS LIST / BILL OF MATERIALS					
SHARP EDGES .03" [0.765mm] MAX. SURFACE TEXTURE IN ACCORDANCE WITH LATEST ASME B46.1-2002 DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH LATEST ASME Y14.5M-2009		DRAFTER:	KEVIN WAKEFIELD	DATE	23-AUG-22
		DESIGNER:	KEVIN WAKEFIELD	DATE	23-AUG-22
		CHECKER:	DANIEL PASHOLK	DATE	
		RESPONSIBLE ENGINEER:	DANIELA CAPATINA	DATE	
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE: in DIMS IN [] ARE REF ONLY TOLERANCES ANGULAR .XX ± .03 ±0.5° .XXX ± .005 SURFACE ROUGHNESS 125 ✓		GROUP LEADER/PROJECT LEADER/CAM:	MIKE FISHER	DATE	
		APPROVER:	BRIAN M RUSTHOVEN	DATE	
		MATERIAL:	SEE PARTS LIST	SIZE	B
		APPROX. WT:	0.08 lbm	RELEASE LEVEL:	RELEASED
THIS DRAWING IS THE PROPERTY OF Argonne NATIONAL LABORATORY		MDL VER.	3	ADVANCED PHOTON SOURCE BEAMLINE 8-ID 8ID BEAMLINE INSTRUMENTATION WAXPCS INSTRUMENT WAXPCS FLIGHT TUBE - CONE 2 DOC TITLE: HALF NIPPLE, NW40, 1.5" TUBE - MOD	
		DRW VER	4		
		SKT. DES.			
DO NOT SCALE DRAWING		PROJ ID	APSU	DOC TYP ID	DWG
		SYS ID	BLS	LOC ID	BL
		MODEL NAME	A308-BI2112	REV.	00
		CAGE CODE	OHRH5	SHEET 1 OF 1	FOR CONSTRUCTION







NOTES:

1. THIS COMPONENT IS INTENDED TO BE WELDED FROM STANDARD 1/4-IN ALUMINUM PLATE. VENDOR IS RESPONSIBLE FOR DETERMINING WELDING METHOD AND ORDER.

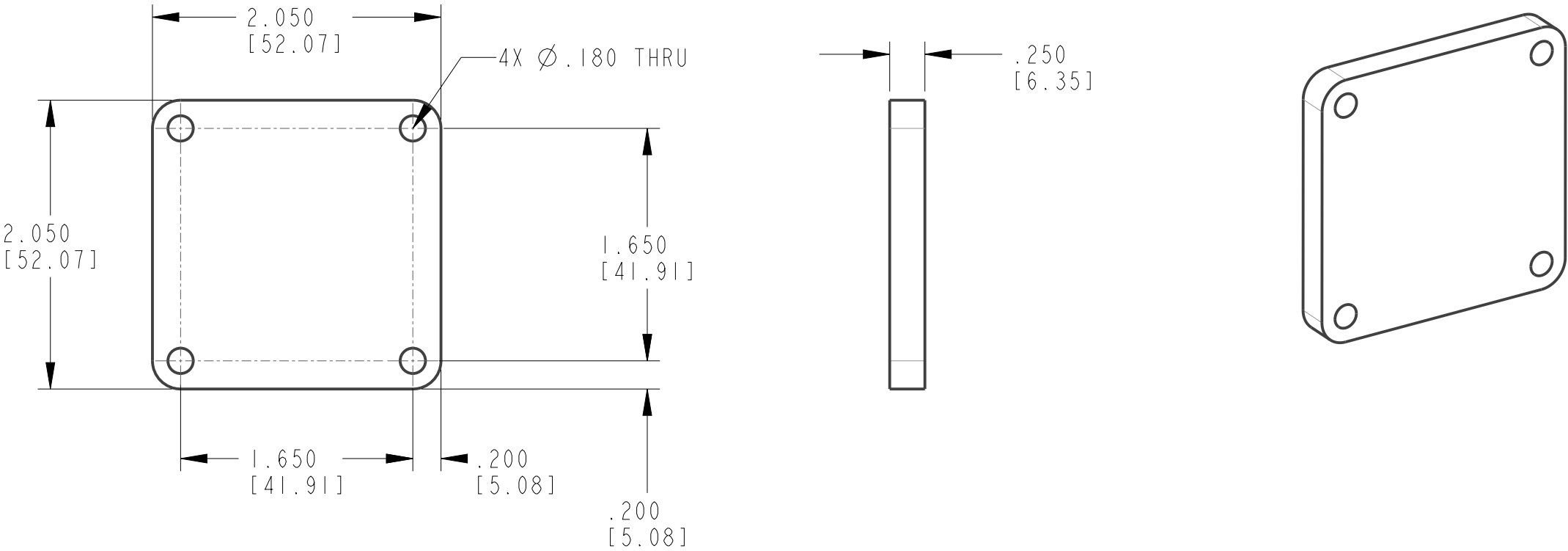
ITEM	DRAWING / PART NUMBER		REV	NOMENCLATURE OR DESCRIPTION				MATERIAL / SPEC.			QTY						
PARTS LIST / BILL OF MATERIALS																	
SHARP EDGES .03" [0.765mm] MAX. SURFACE TEXTURE IN ACCORDANCE WITH LATEST ASME B46.1-2002 DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH LATEST ASME Y14.5M-2009		DRAFTER: KEVIN WAKEFIELD		DATE 23-AUG-22		 Argonne NATIONAL LABORATORY		THIS DRAWING IS THE PROPERTY OF ADVANCED PHOTON SOURCE									
		DESIGNER: KEVIN WAKEFIELD		DATE 23-AUG-22													
		CHECKER: DANIEL PASHOLK		DATE		MDL VER. 3		BEAMLINE 8-ID 8ID BEAMLINE INSTRUMENTATION WAXPCS INSTRUMENT WAXPCS FLIGHT TUBE - CONE 2									
		RESPONSIBLE ENGINEER: DANIELA CAPATINA		DATE		DRW VER 3											
		GROUP LEADER/PROJECT LEADER/CAM: MIKE FISHER		DATE		SKT.DES.											
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE: in DIMS IN [] ARE REF ONLY TOLERANCES ANGULAR ±0.5° SURFACE ROUGHNESS		APPROVER: BRIAN M RUSTHOVEN		DATE				DOC TITLE: WAXPCS FLIGHT TUBE - SUPPORT 3									
		MATERIAL: ALUMINUM 6061-T6		SIZE C		PROJ ID APSU		DOC TYP ID DWG		SYS ID BLS		LOC ID BL		MODEL NAME A308-BI2113		REV. 00	
		APPROX. WT: 3 lbm		RELEASE LEVEL: RELEASED		SCALE: 1:2		 THIRD ANGLE PROJECTION		DO NOT SCALE DRAWING		CAGE CODE OHRH5		SHEET		OF	



- NOTES:
1. THIS PART IS INTENDED FOR ROUGH VACUUM SERVICE. HOWEVER, TO ENSURE THAT THE PART DOES NOT CONTAMINATE NEIGHBORING COMPONENTS, AND TO MAINTAIN CONSISTENT CLEANLINESS STANDARDS AT THE BEAMLINE, THE DESIGN, FABRICATION, AND CLEANING PROCEDURES SHALL BE CHOSEN AS IF IT IS INTENDED FOR UHV SERVICE.
 2. MACHINING SHALL EITHER BE DONE DRY, USING WATER, OR USING A WATER SOLUBLE COOLANT. USE OF MACHINING FLUIDS CONTAINING SILICONE, SULFUR, PHOSPHORUS, HALOGENS, ANIMAL FATS, OR HIGH MOLECULAR WEIGHT ORGANIC COMPOUNDS, SUCH AS NAPTHA, PHENOL, ETC, ARE STRICTLY PROHIBITED. IT SHALL BE ENSURED THAT THE MACHINING FLUID IS NOT CONTAMINATED BY THE DISTRIBUTION SYSTEM OR OTHERWISE. CIMTECH 10-610TFB IS ONE EXAMPLE OF AN ACCEPTABLE GENERAL-PURPOSE MACHINING FLUID.
 3. GRINDING AND POLISHING WITH RESIN-BONDED WHEELS, ROUGE, EMERY CLOTH, CROCUS CLOTH, OR SIMILAR ABRASIVES ARE PROHIBITED AS THESE MAY RESULT IN CONTAMINATION OF THE PART. ALL GRINDING AND POLISHING PROCEDURES MUST BE REVIEWED BY APS-U.

ITEM	DRAWING / PART NUMBER	REV	NOMENCLATURE OR DESCRIPTION				MATERIAL / SPEC.			QTY		
PARTS LIST / BILL OF MATERIALS												
SHARP EDGES .03" [0.765mm] MAX. SURFACE TEXTURE IN ACCORDANCE WITH LATEST ASME B46.1-2002 DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH LATEST ASME Y14.5M-2009			DRAFTER: KEVIN WAKEFIELD		DATE 26-AUG-22	 Argonne NATIONAL LABORATORY	THIS DRAWING IS THE PROPERTY OF ADVANCED PHOTON SOURCE					
			DESIGNER: KEVIN WAKEFIELD		DATE 26-AUG-22							
			CHECKER: DANIEL PASHOLK		DATE							
			RESPONSIBLE ENGINEER: DANIELA CAPATINA		DATE							
			GROUP LEADER/PROJECT LEADER/CAM: MIKE FISHER		DATE							
UNLESS OTHERWISE SPECIFIED			APPROVER: BRIAN M RUSTHOVEN		DATE		BEAMLINE 8-ID 8ID BEAMLINE INSTRUMENTATION WAXPCS INSTRUMENT WAXPCS FLIGHT TUBE - EXTENSION					
			MATERIAL: ALUMINUM 6061-T6		DATE							
ALL DIMENSIONS ARE: in DIMS IN [] ARE REF ONLY TOLERANCES ANGULAR ±0.5° XXX ± .005			APPROX. WT: 6 lbm		RELEASE LEVEL: RELEASED	C	SIZE APSU	DOC TYP ID DWG	SYS ID BLS	LOC ID BL	MODEL NAME A308-BI2121	REV. OO
							SCALE: 1:4		THIRD ANGLE PROJECTION	DO NOT SCALE DRAWING	CAGE CODE OHRH5	SHEET 1 OF 1
SURFACE ROUGHNESS			125									

REVISIONS					
ZONE	REV	DESCRIPTION	BY	APPROVED	DATE



- NOTES:
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 - 2. MACHINING SHALL EITHER BE DONE DRY, USING WATER, OR USING A WATER SOLUBLE COOLANT. USE OF MACHINING FLUIDS CONTAINING SILICONE, SULFUR, PHOSPHORUS, HALOGENS, ANIMAL FATS, OR HIGH MOLECULAR WEIGHT ORGANIC COMPOUNDS, SUCH AS NAPTHA, PHENOL, ETC, ARE STRICTLY PROHIBITED. IT SHALL BE ENSURED THAT THE MACHINING FLUID IS NOT CONTAMINATED BY THE DISTRIBUTION SYSTEM OR OTHERWISE. CIMTECH 10-610TFB IS ONE EXAMPLE OF AN ACCEPTABLE GENERAL-PURPOSE MACHINING FLUID.
 - 3. GRINDING AND POLISHING WITH RESIN-BONDED WHEELS, ROUGE, EMERY CLOTH, CROCUS CLOTH, OR SIMILAR ABRASIVES ARE PROHIBITED AS THESE MAY RESULT IN CONTAMINATION OF THE PART. ALL GRINDING AND POLISHING PROCEDURES MUST BE REVIEWED BY APS-U.

ITEM		DRAWING / PART NUMBER	REV	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC.	QTY
PARTS LIST / BILL OF MATERIALS						
SHARP EDGES .03" [0.765mm] MAX. SURFACE TEXTURE IN ACCORDANCE WITH LATEST ASME B46.1-2002 DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH LATEST ASME Y14.5M-2009		DRAFTER:	KEVIN WAKEFIELD	DATE	23-AUG-22	<div>Argonne NATIONAL LABORATORY</div> <div>THIS DRAWING IS THE PROPERTY OF ADVANCED PHOTON SOURCE</div> <div>BEAMLINE 8-ID 8ID BEAMLINE INSTRUMENTATION WAXPCS INSTRUMENT VACUUM CHAMBERS</div> <div>DOC TITLE: WAXPCS FLIGHT TUBE - WINDOW PLATE</div>
		DESIGNER:	KEVIN WAKEFIELD	DATE	23-AUG-22	
		CHECKER:	DANIEL PASHOLK	DATE		
		RESPONSIBLE ENGINEER:	DANIELA CAPATINA	DATE		
		GROUP LEADER/PROJECT LEADER/CAM:	MIKE FISHER	DATE		
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE: in DIMS IN [] ARE REF ONLY TOLERANCES ANGULAR ±0.5° SURFACE ROUGHNESS 125 ✓		APPROVER:	BRIAN M RUSTHOVEN	DATE		<div>SIZE: B</div> <div>PROJ ID: APSU</div> <div>DOC TYP ID: DWG</div> <div>SYS ID: BLS</div> <div>LOC ID: BL</div> <div>MODEL NAME: A308-BI2005</div> <div>REV.: 00</div> <div>SCALE: 1:1</div> <div>THIRD ANGLE PROJECTION</div> <div>DO NOT SCALE DRAWING</div> <div>CAGE CODE: 0HRH5</div> <div>SHEET 1 OF 1</div> <div>FOR CONSTRUCTION</div>
		MATERIAL:	ALUMINUM 6061-T6	DATE		
		APPROX. WT:	0.10 lbm	RELEASE LEVEL:	RELEASED	