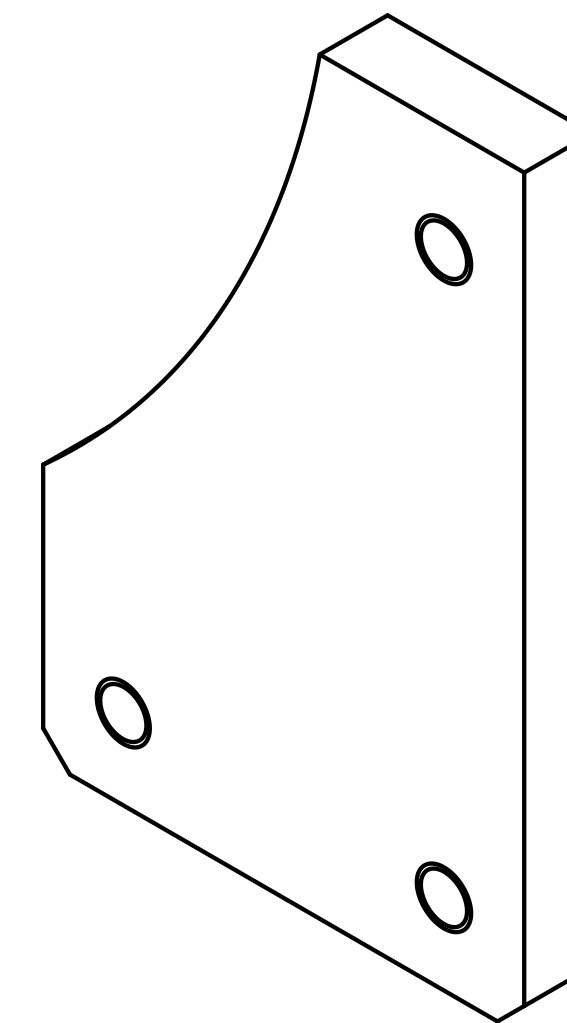
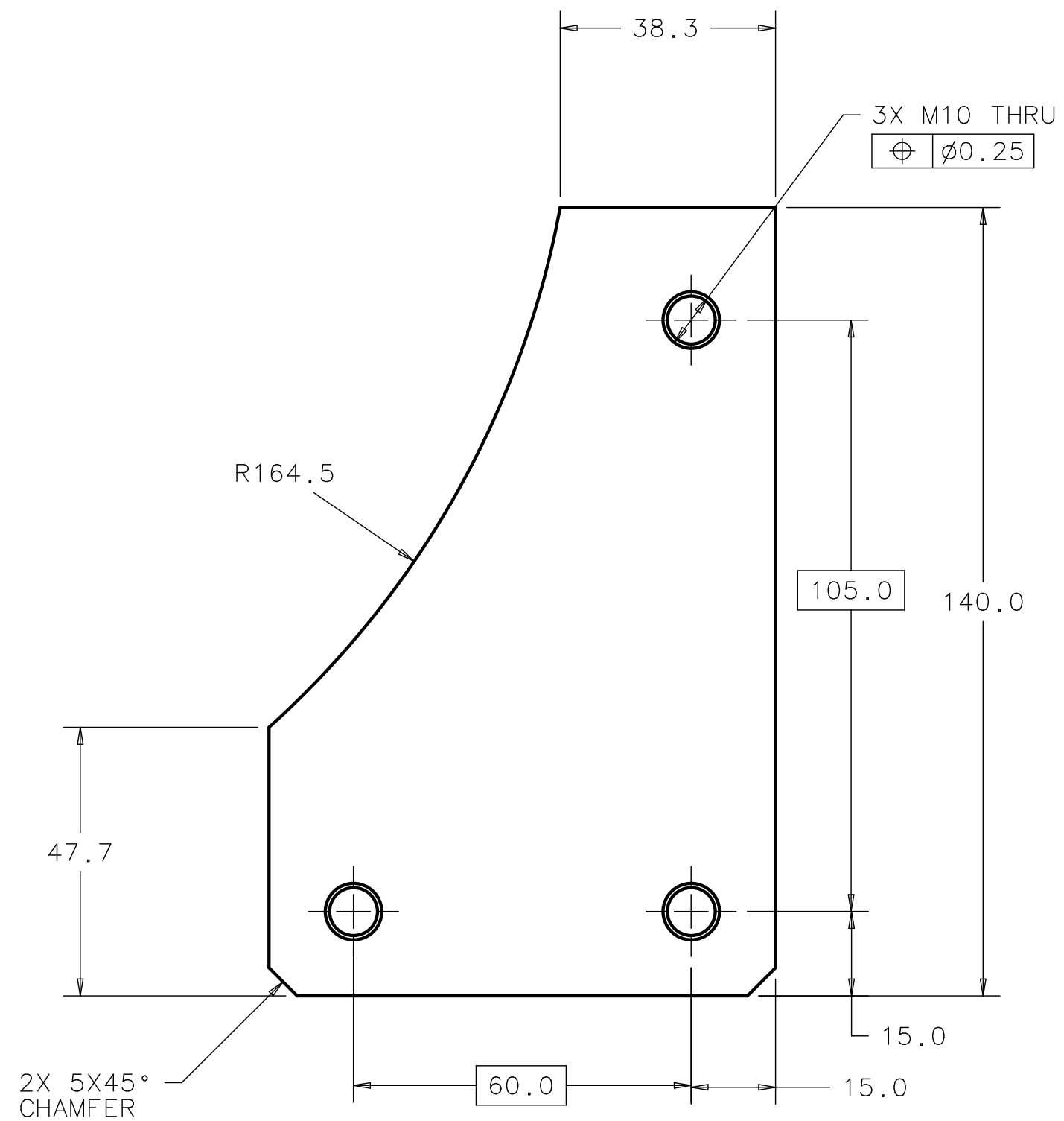
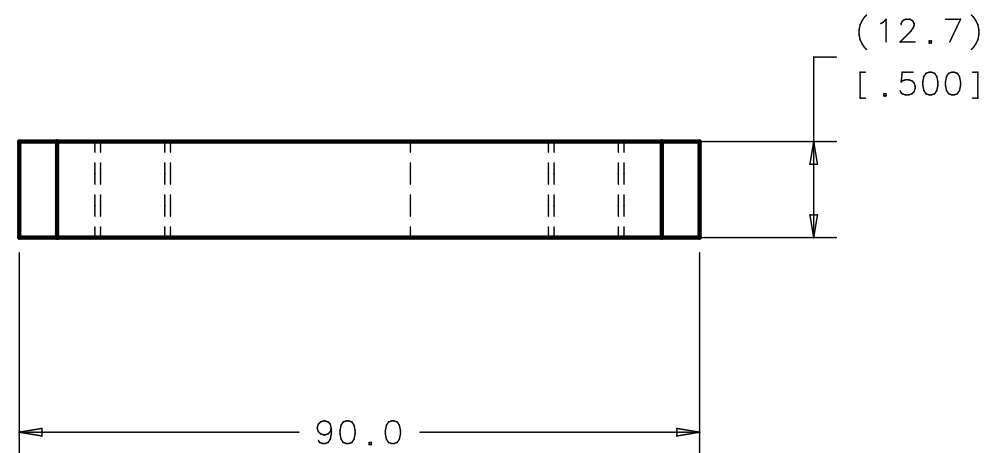


REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



ISOMETRIC VIEW



NOTES:

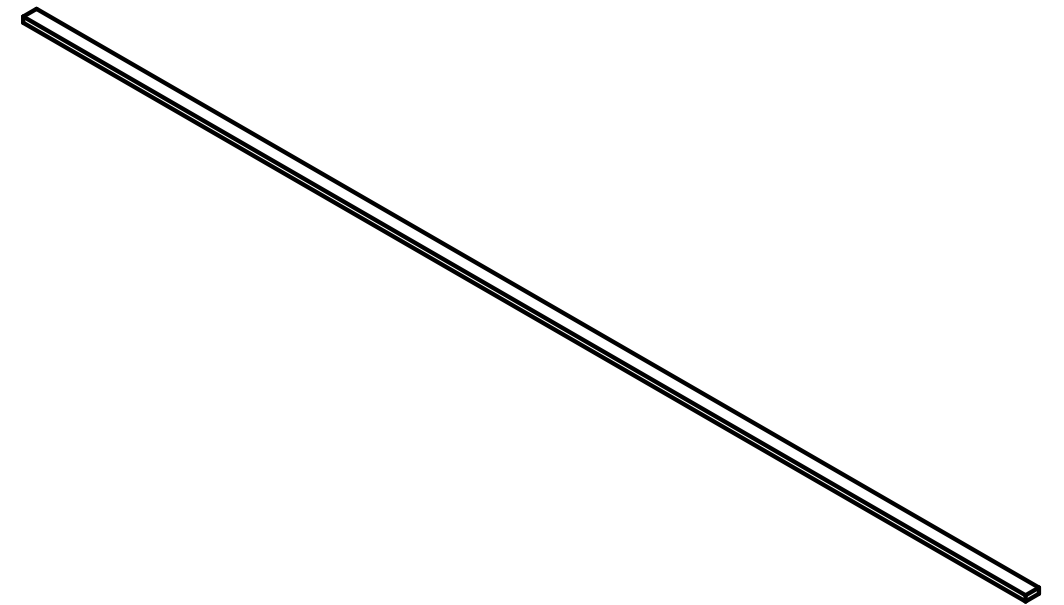
DIMENSION WITH SQUARE BRACKETS ARE IN INCH.

ITEM	P. I. N.	DESCRIPTION	QTY																
PARTS LIST																			
FINISH		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75" MAX. ALL MACH. SURFACES 3.2" MAX.																	
MATERIAL		STEEL PLATE 1/2" THK ASTM 516 GR 70																	
TOLERANCES		X ± 2 .X ± 0.8 .XX ± ANGLE ±																	
THIRD ANGLE PROJECTION																			
DRAWN BY Y. ORLOV		DATE 12DEC06																	
CHECKED BY		DATE																	
ENGINEERED BY		DATE																	
DATABASE DESY EDMS		TEAM/GROUP																	
CAD I-DEAS		SOLID MODEL NO. N/A																	
<table border="1"> <tr> <td colspan="4"> FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500 </td> </tr> <tr> <td colspan="4" style="text-align: center;"> TITLE ILC, T4 CRYOMODULE PLATE MC MOUNT VESSEL_PLATE_MC_MOUNT_COLD_MACH </td> </tr> <tr> <td>SIZE A2</td> <td>CAGE CODE OU5R6</td> <td>DWG NO. D0000000781961</td> <td>REV A</td> </tr> <tr> <td>SCALE 1:1</td> <td>DO NOT SCALE DWG</td> <td colspan="2">SHEET 1 OF 1</td> </tr> </table>				FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500				TITLE ILC, T4 CRYOMODULE PLATE MC MOUNT VESSEL_PLATE_MC_MOUNT_COLD_MACH				SIZE A2	CAGE CODE OU5R6	DWG NO. D0000000781961	REV A	SCALE 1:1	DO NOT SCALE DWG	SHEET 1 OF 1	
FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500																			
TITLE ILC, T4 CRYOMODULE PLATE MC MOUNT VESSEL_PLATE_MC_MOUNT_COLD_MACH																			
SIZE A2	CAGE CODE OU5R6	DWG NO. D0000000781961	REV A																
SCALE 1:1	DO NOT SCALE DWG	SHEET 1 OF 1																	

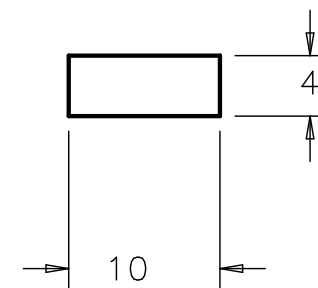
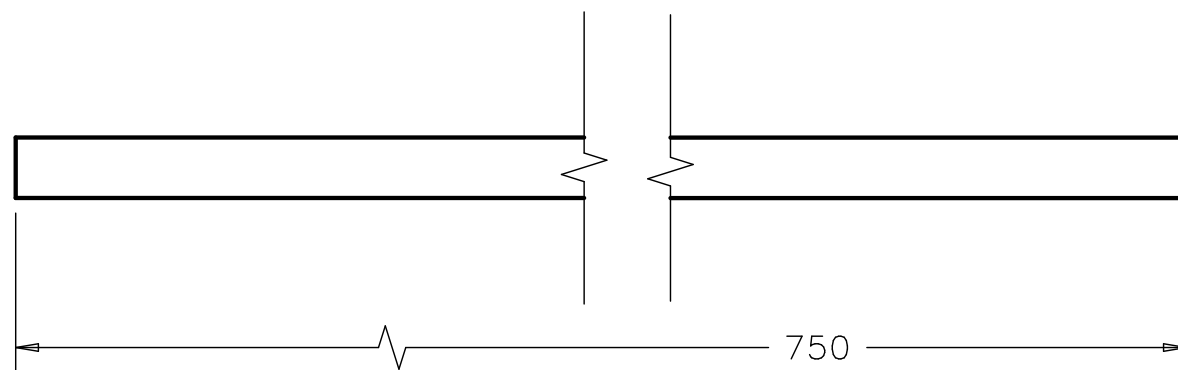
REVISION HISTORY


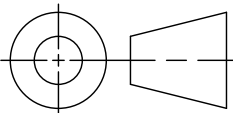
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE, ER#		



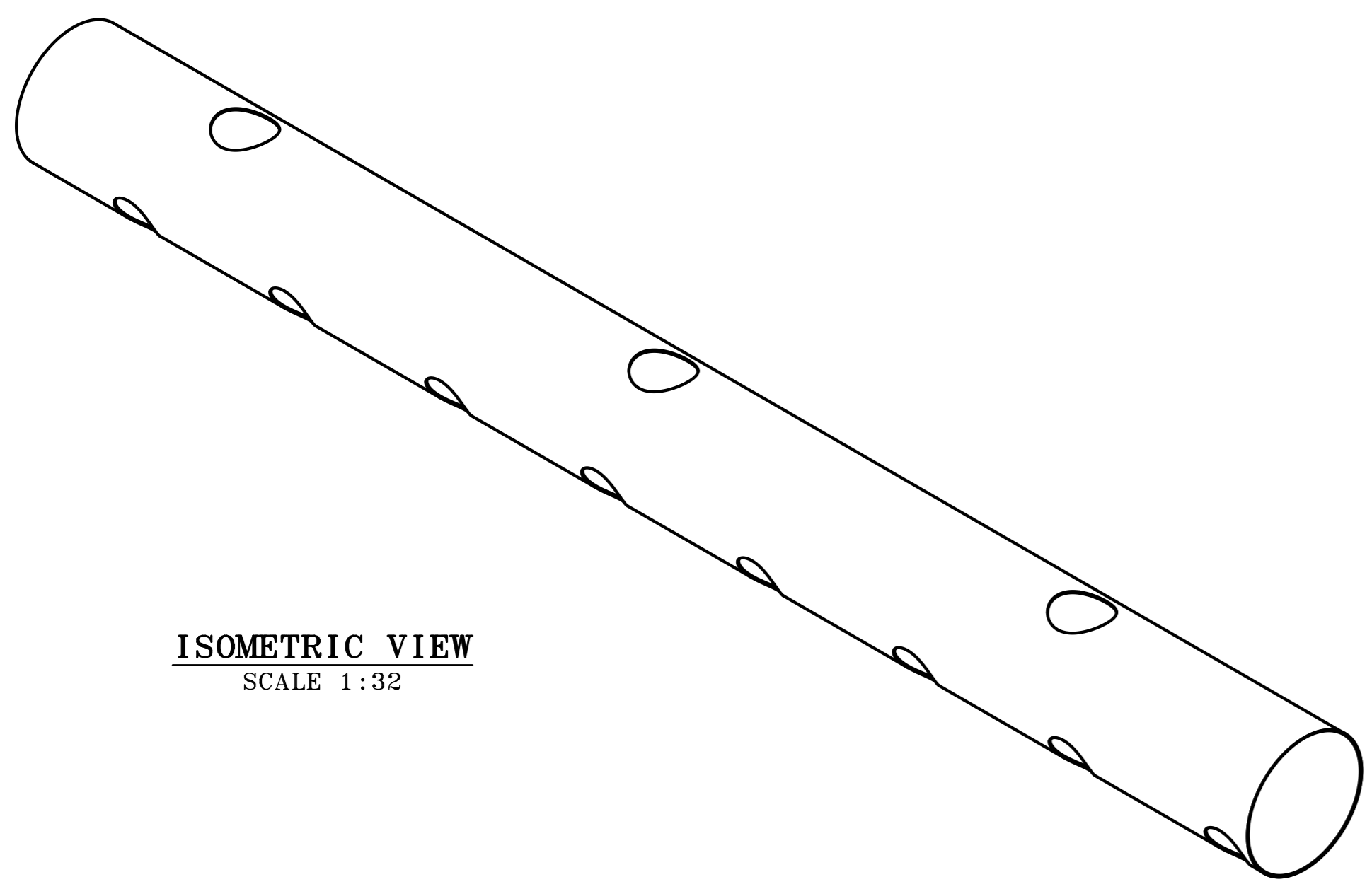
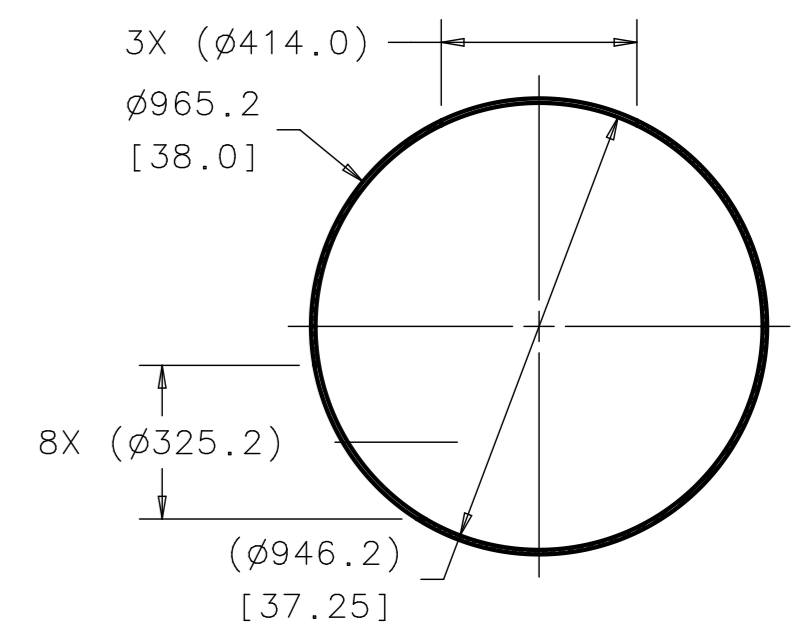
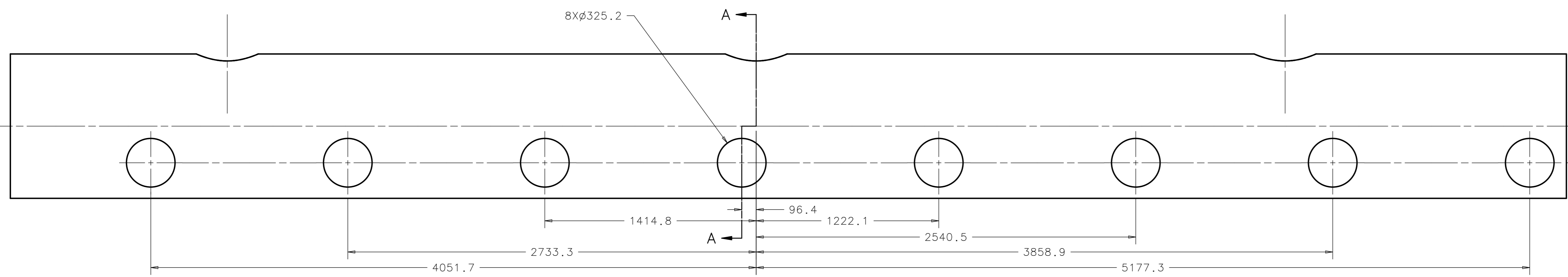
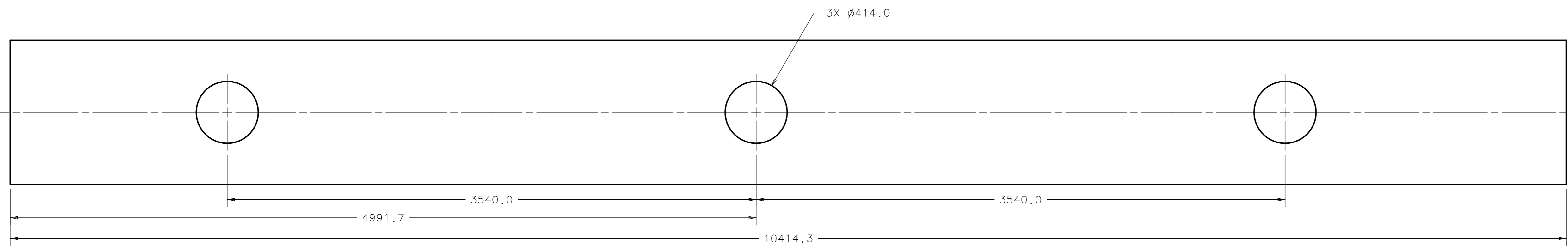
ISOMETRIC VIEW
SCALE 1/4



FINISH N/A		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2/ MAX.		DRAWN BY L ROSINE		DATE 07JUL06		 FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500							
MATERIAL STEEL ASTM A516 GR 70		TOLERANCES X ± 2 .X ± .XX ± ANGLE ±		THIRD ANGLE PROJECTION 		CHECKED BY						DATE		TITLE ILC, TYPE 4 CRYOMODULE RAIL SLIDING VESSEL_RAIL_FOR_SLIDING_FLANGE	
				ENGINEERED BY		DATE		SIZE A3		CAGE CODE OU5R6		DWG NO. D00000000756701		REV A	
				DATABASE DESY EDMS		TEAM/GROUP T4CM DESIGN		SCALE 2:1		DO NOT SCALE DWG		SHEET OF 1			
				CAD I-DEAS		SOLID MODEL NO. D00000000618362									

12 11 10 9 8 7 6 5 4 3 2 1

REVISION HISTORY			
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.			
ZONE	REV	DESCRIPTION	DATE
	A	INITIAL RELEASE	

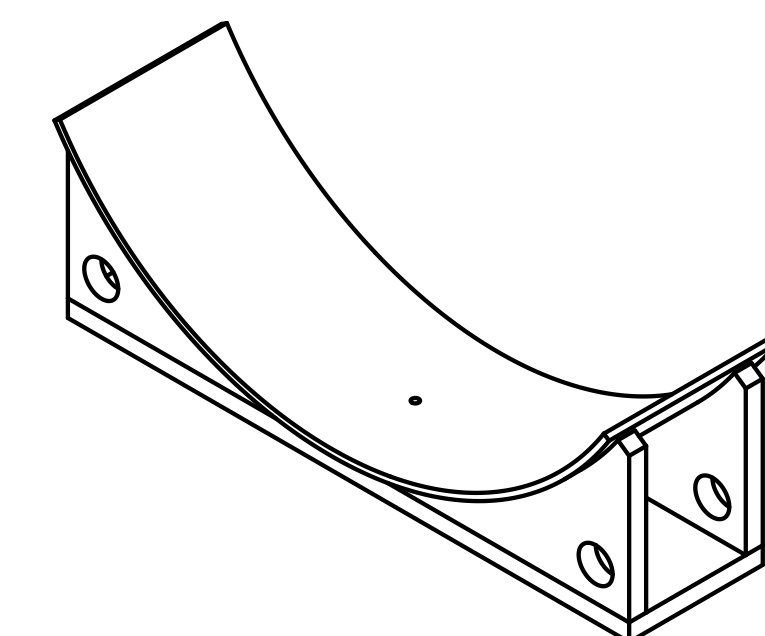


NOTE:
DIMENSION WITH SQUARE BRACKETS ARE IN INCH

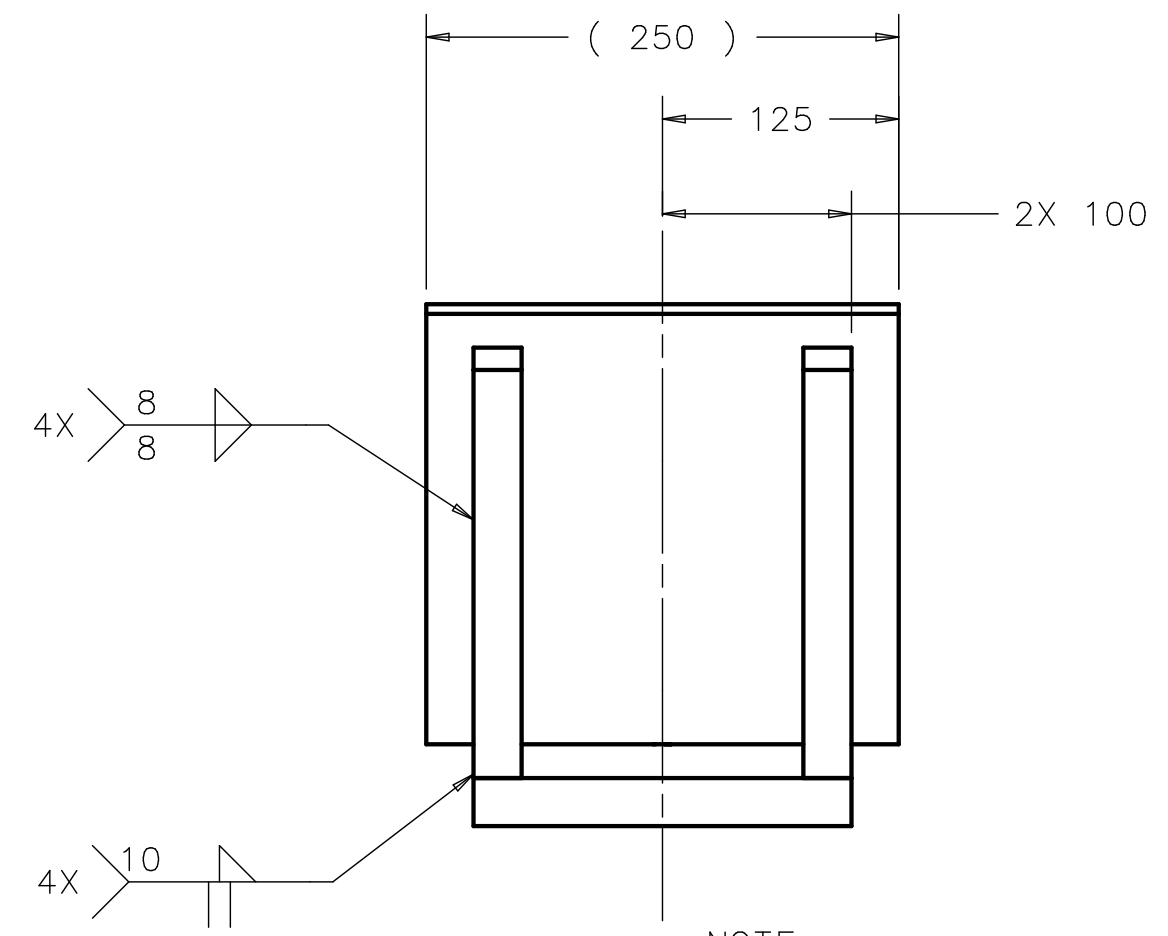
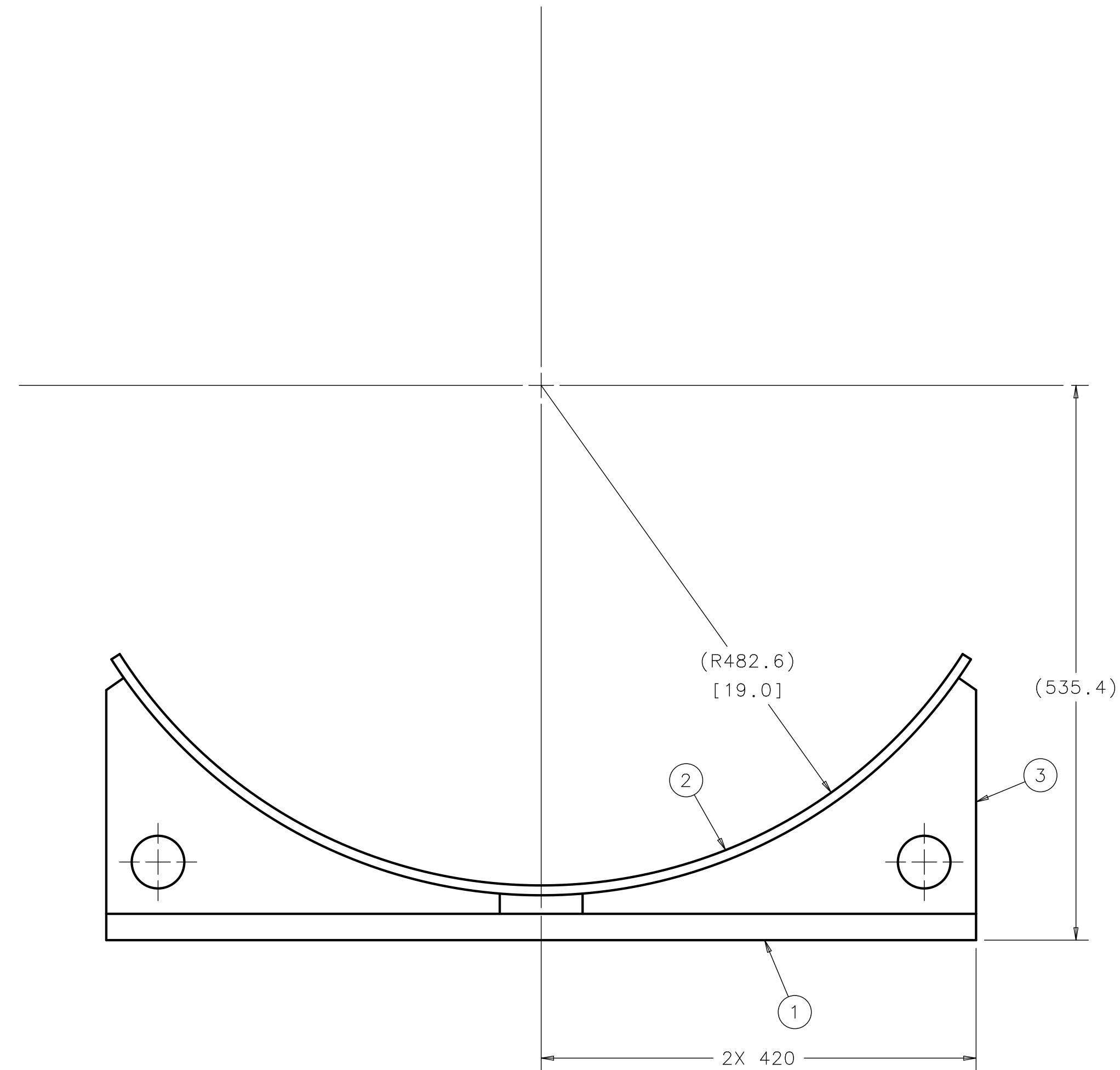
FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.	DRAWN BY L ROSINE	DATE 06NOV06	<p>FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500</p>
MATERIAL 3/8" WALL 39" O.D. TUBING SS ASTM A182-F304L	TOLERANCES X ± 2 .X ± 0.5 .XX ± - ANGLE ± -	CHECKED BY	DATE	
THIRD ANGLE PROJECTION		ENGINEERED BY	DATE	TITLE ILC, TYPE 4 CRYOMODULE T4CM TUBE CRYOSTAT-NO MAG TUBE_CRYOSTAT_VESSEL_T4CM_NO-MAGN
NEXT ASSY USED ON APPLICATION		DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN	SIZE A1
		CAD I-DEAS	SOLID MODEL NO. D00000000653282	CAGE CODE OU5R6
		SCALE 1:16		DWG NO. D00000000756321
		DO NOT SCALE DRAWING		REV A
		SHEET 1 OF 1		

H G F E D C B A

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



ISOMETRIC VIEW
SCALE 1/8



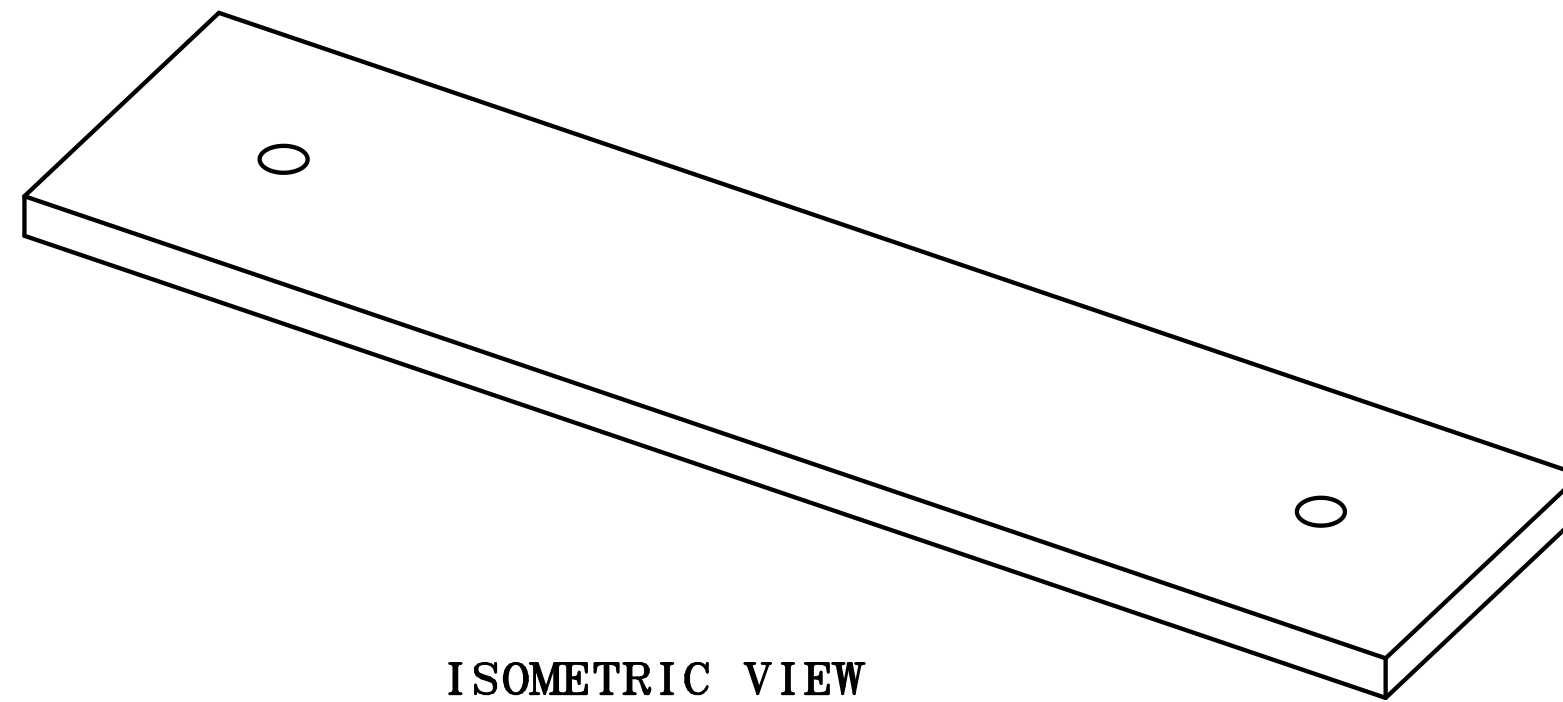
NOTE:
1. DIMENSION WITH SQUARE BRACKET ARE IN INCH.
2. ALL FILLET WELDS TO BE SMOOTH FOR COSMETIC APPEARANCE.

ITEM	P. I. N.	DESCRIPTION	QTY
3	A3-755981	VESSEL SUPPORT PLATE	4
2	A2-755991	VESSEL SUPPORT PAD	1
1	A2-7560001	VESSEL SUPPORT H-PLATE	1

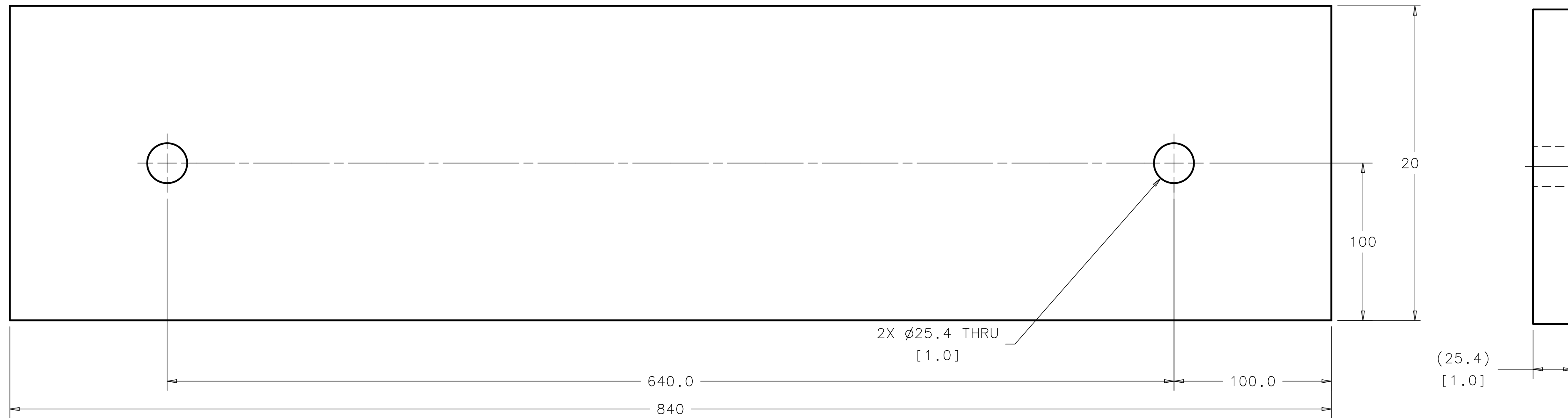
PARTS LIST

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L ROSINE	DATE 06NOV06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
	MATERIAL AS NOTED ABOVE	TOLERANCES	THIRD ANGLE PROJECTION	CHECKED BY	
X ± 2 .X ± 0.8 .XX ± - ANGLE ± -			DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN	TITLE ILC, TYPE 4 CRYOMODULE VESSEL SUPPORT WELDMENT VESSEL_SUPPORT_WLDMT
		CAD I-DEAS	SOLID MODEL NO. D0000000566203	SCALE 1:4	DO NOT SCALE DWG SHEET 1 OF 1

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



ISOMETRIC VIEW
SCALE 1/4

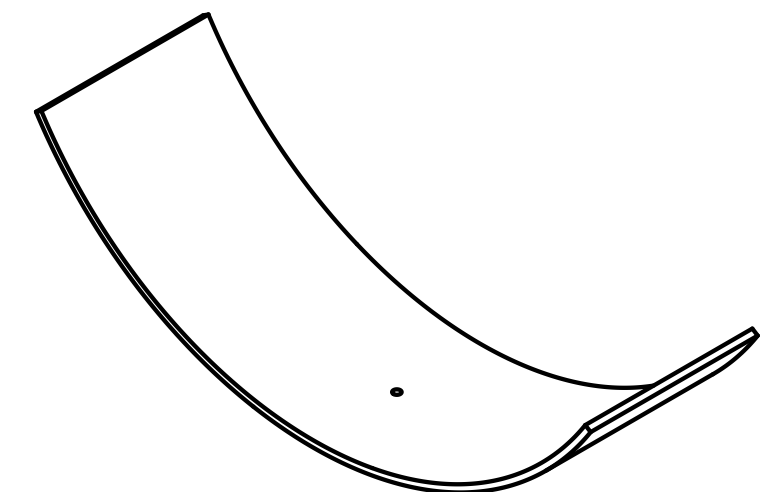


NOTE :
DIMENSION WITH SQUARE BRACKETS ARE IN INCHES.

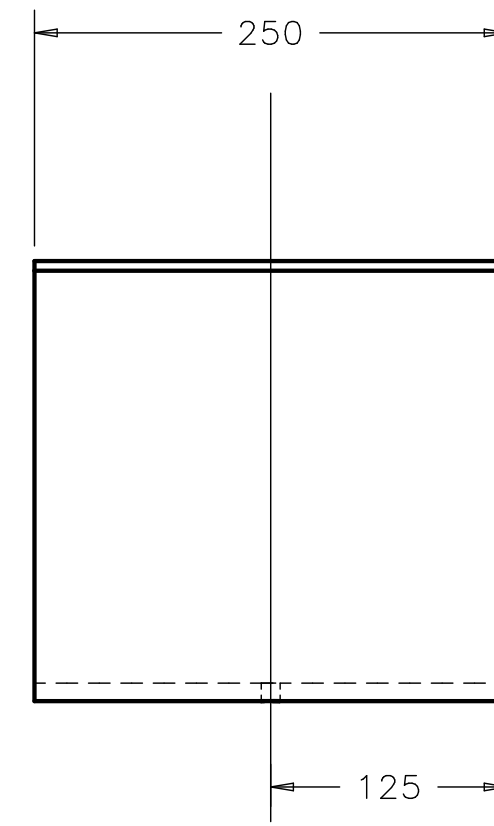
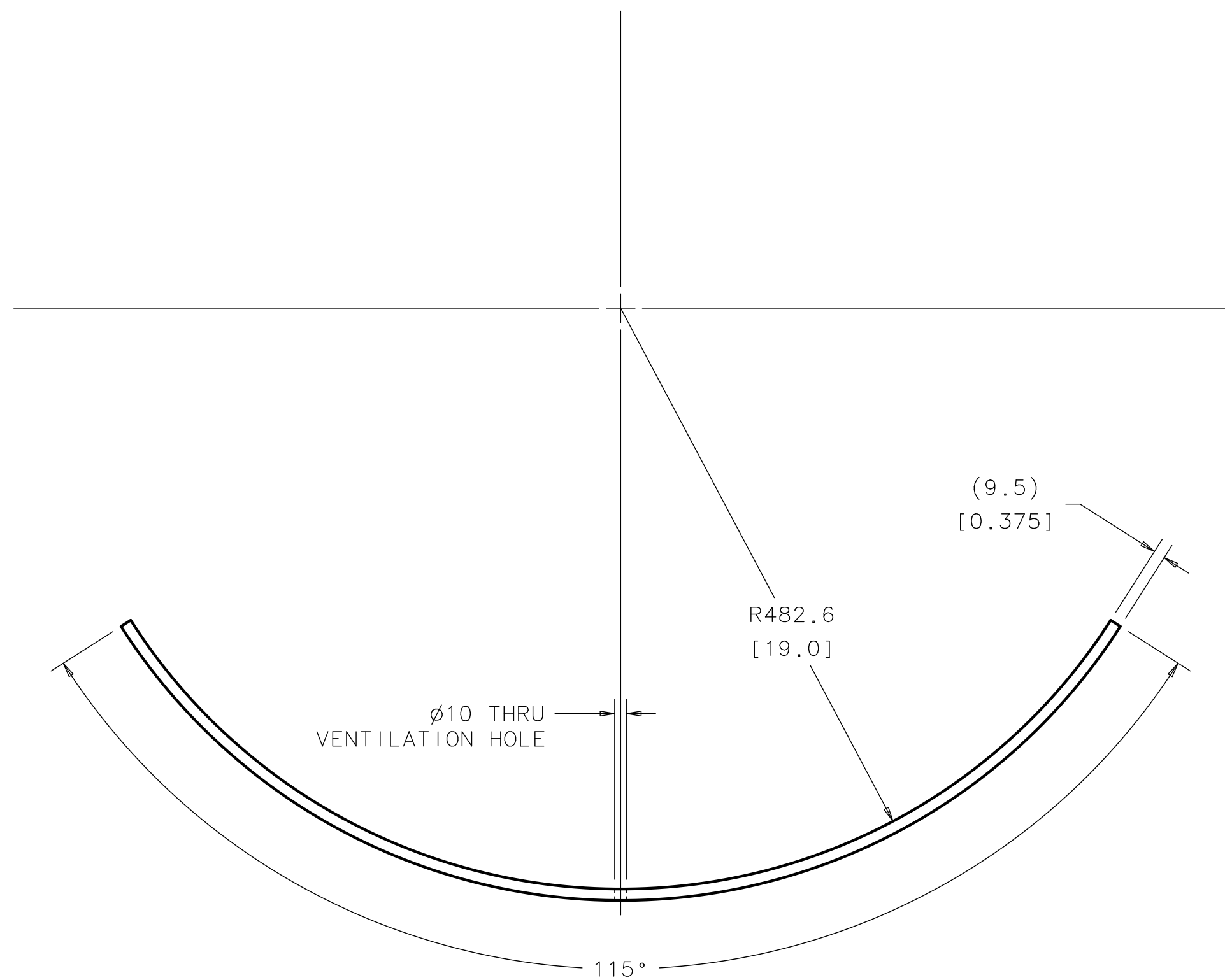
A2-756311	T4CM CROMODULES
NEXT ASSY	USED ON
APPLICATION	

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.	DRAWN BY L ROSINE	DATE 06NOV06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500			
		CHECKED BY	DATE				
MATERIAL 1" STEEL PLATE ASTM A516 GR 70	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ±	THIRD ANGLE PROJECTION		TITLE ILC, TYPE 4 CRYOMODULE VESSEL SUPPORT H-PLATE VESSEL_SUPPORT_H-PLATE			
			DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN	SIZE A2	CAGE CODE OU5R6	DWG NO. D0000000756001
CAD I-DEAS		SOLID MODEL NO. D0000000665302		SCALE 1:2	DO NOT SCALE DWG	SHEET 1 OF 1	

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



ISOMETRIC VIEW
SCALE 1/8



NOTE:
DIMENSION WITH SQUARE BRACKETS ARE IN INCH.

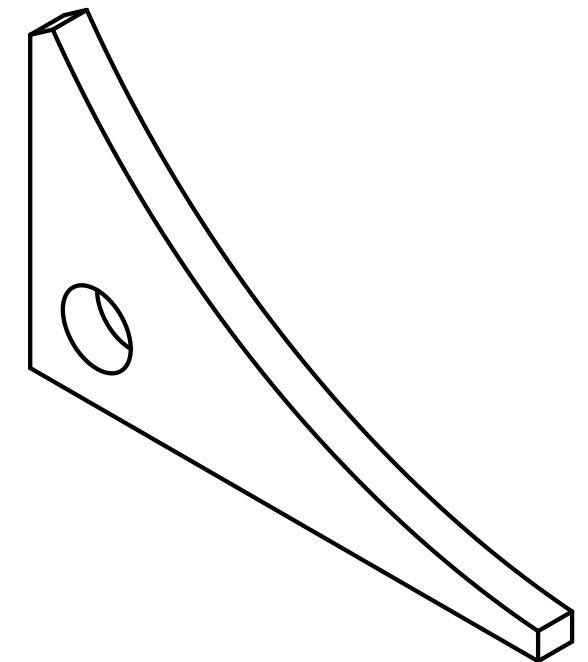
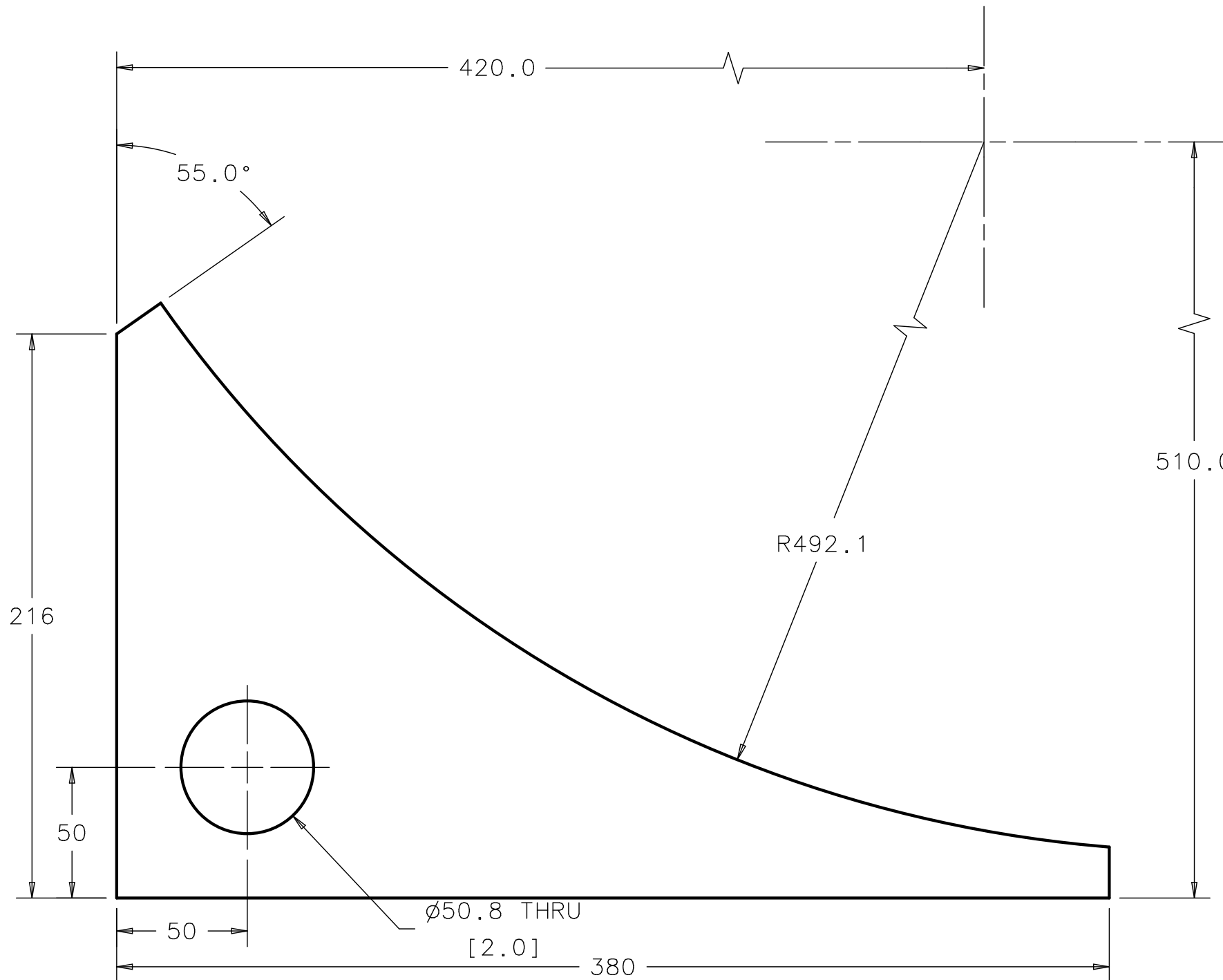
A2-756311	T4CM CRYOMODULES
NEXT ASSY	USED ON
APPLICATION	

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.	DRAWN BY L ROSINE	DATE 06NOV06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
		CHECKED BY	DATE	
MATERIAL .375" STEEL PLATE ASTM A516 GR 70	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ± 1°	THIRD ANGLE PROJECTION 	ENGINEERED BY	TITLE ILC, TYPE 4 CRYOMODULE VESSEL SUPPORT PLATE VESSEL_SUPPORT_PAD
			DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN
			CAD I-DEAS	SOLID MODEL NO. D00000000665322
				SIZE A2
				CAGE CODE OU5R6
				DWG NO. D00000000755991
				REV A
				SCALE 1:4
				DO NOT SCALE DWG
				SHEET 1 OF 1

REVISION HISTORY

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.


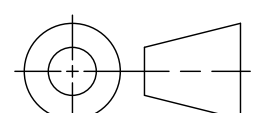
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



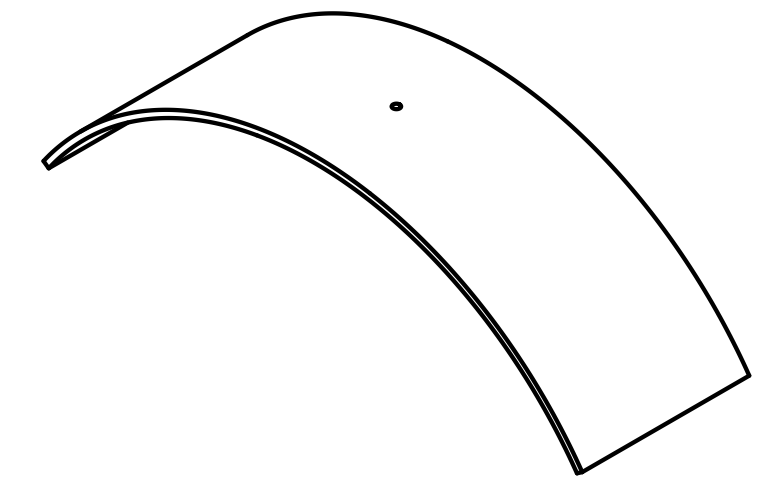
ISOMETRIC VIEW
SCALE 1/4

NOTE:

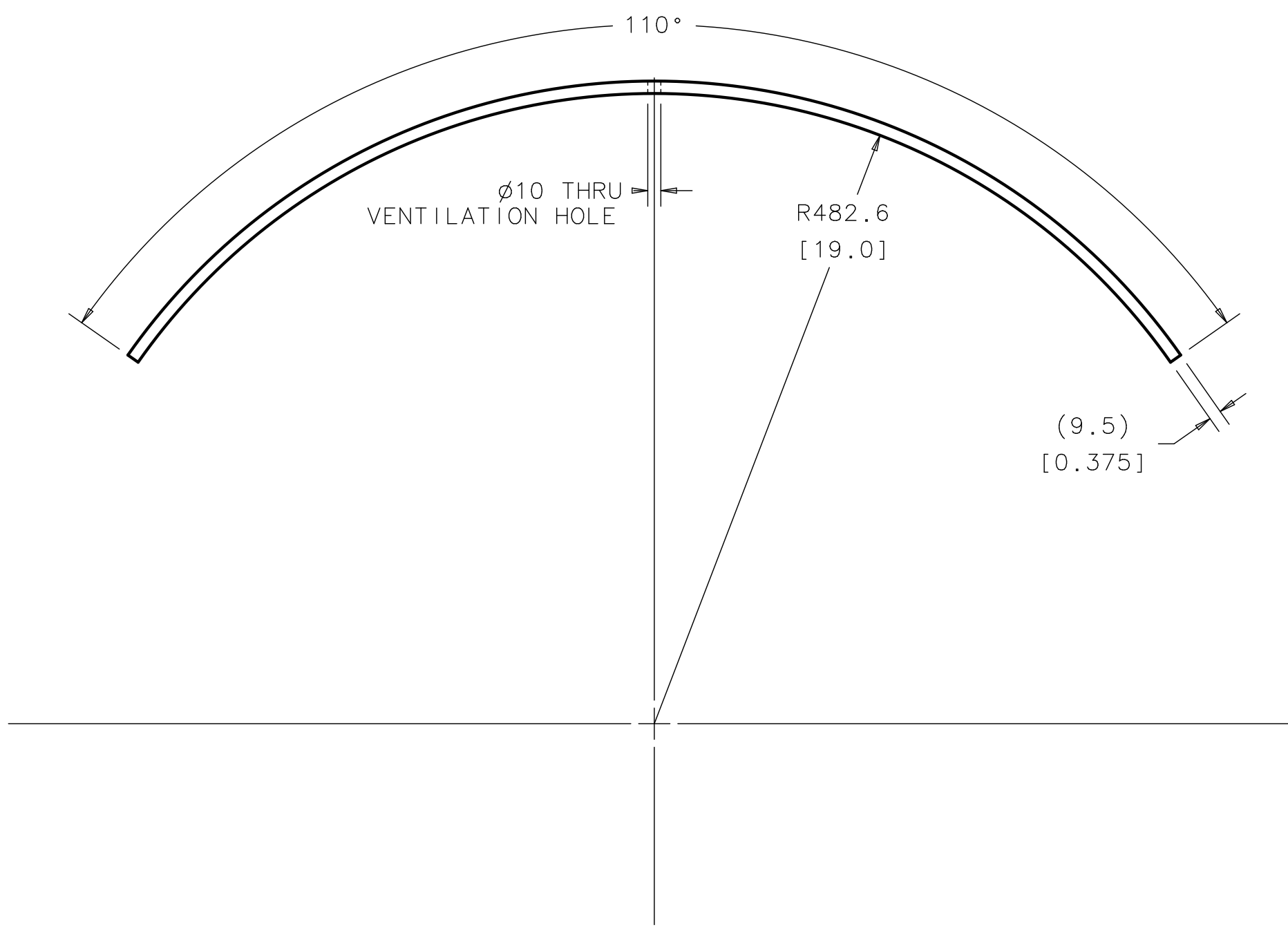
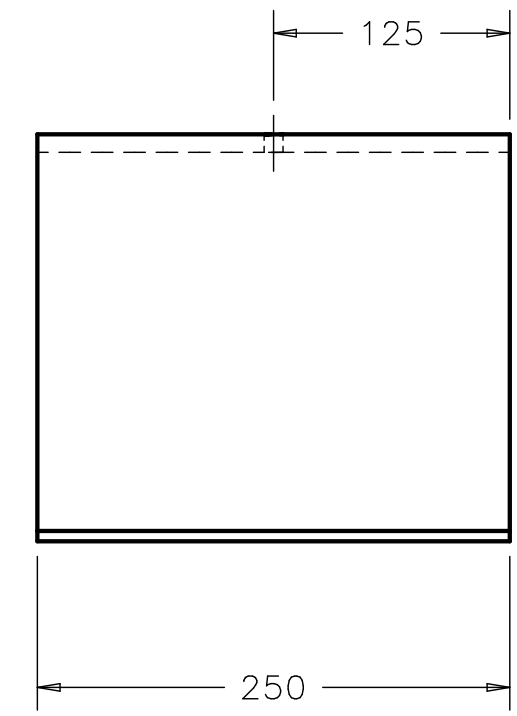
DIMENSION WITH SQUARE BRACKET ARE IN INCH.

FINISH N/A		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2/ MAX.		DRAWN BY L ROSINE		DATE 06NOV06		 FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500			
MATERIAL 1.0" STEEL PLATE ASTM A516 GR 70		TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ± 1°		THIRD ANGLE PROJECTION 		CHECKED BY				DATE	
APPLICATION A2-756311 T4CM CRYOMODULES NEXT ASSY USED ON						ENGINEERED BY		DATE		TITLE ILC, TYPE 4 CRYOMODULE VESSEL SUPPORT PLATE VESSEL_SUPPORT_V-PLATE	
						DATABASE DESY EDMS		TEAM/GROUP T4CM DESIGN		SIZE A3	
						CAD I-DEAS		SOLID MODEL NO. D00000000665312		CAGE CODE OU5R6	
								DWG NO. D00000000755981		REV A	
								SCALE 1:2		DO NOT SCALE DWG	
										SHEET 1 OF 1	

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



ISOMETRIC VIEW
SCALE 1/8

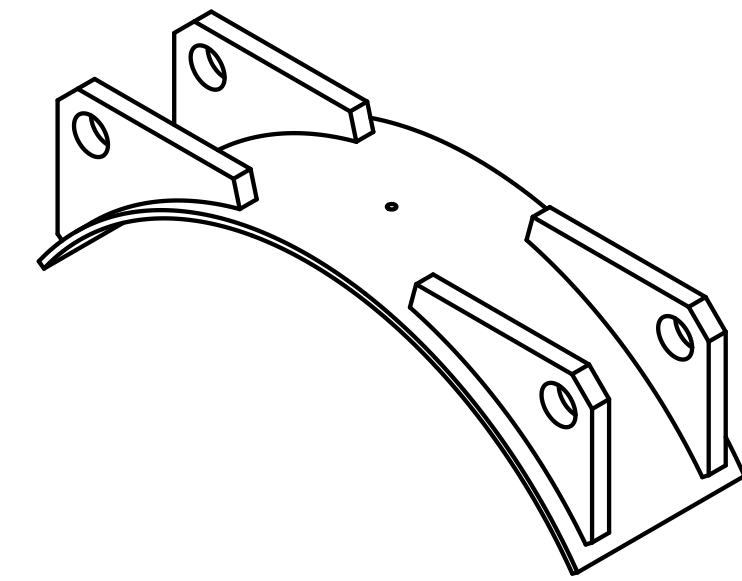
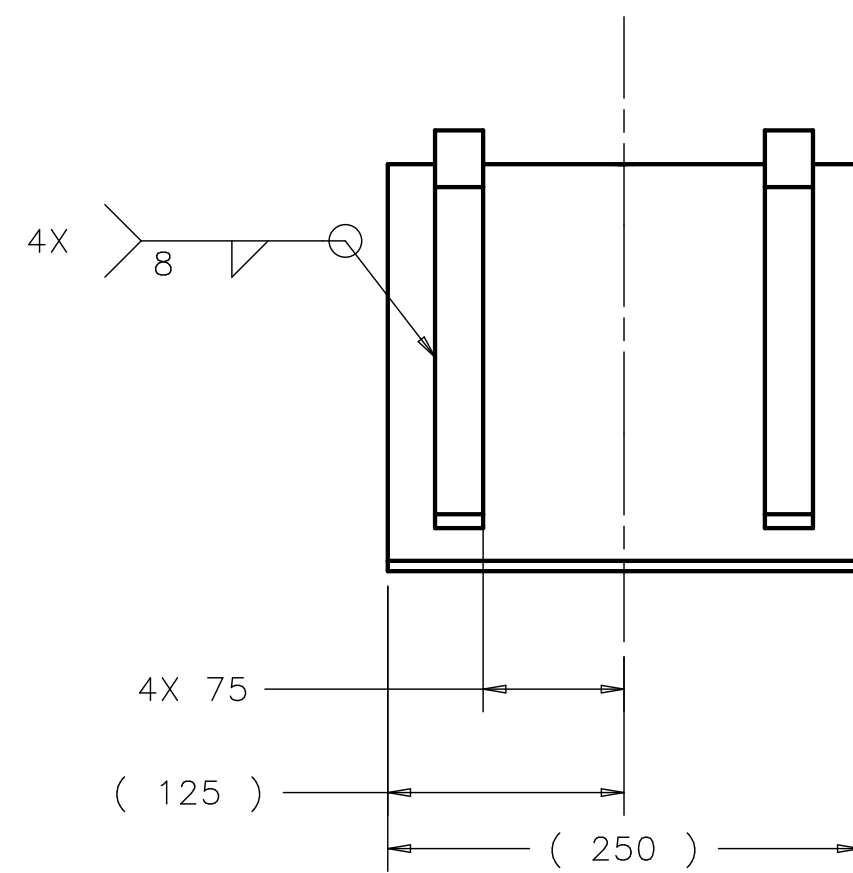
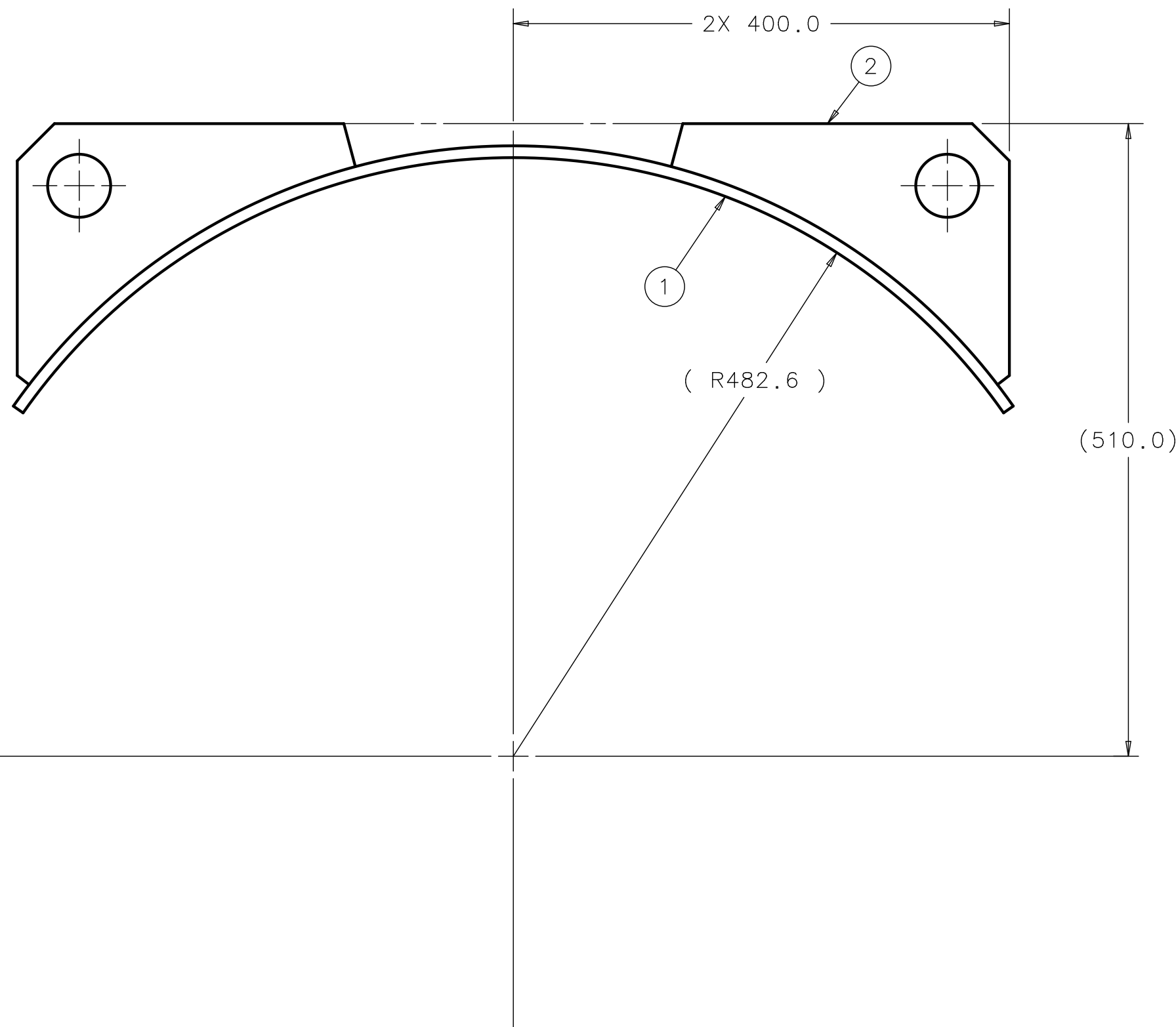


NOTE:
DIMENSION WITH SQUARE BRACKETS ARE IN INCH.

A2-755951	T4CM CRYOMODULES
NEXT ASSY	USED ON
APPLICATION	

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.	DRAWN BY L ROSINE	DATE 06NOV06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
		CHECKED BY	DATE	
MATERIAL .375" STEEL PLATE ASTM A516 GR 70	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ± 1°	THIRD ANGLE PROJECTION		TITLE ILC, TYPE 4 CRYOMODULE PICKUP PAD VESSEL_PICKUP_PAD
			DRAWN BY L ROSINE CHECKED BY ENGINEERED BY DATE	DATE DATE DATE
MATERIAL .375" STEEL PLATE ASTM A516 GR 70		DATABASE DESY EDMS CAD I-DEAS	TEAM/GROUP T4CM DESIGN SOLID MODEL NO. D00000000665342	SIZE A2 CAGE CODE OU5R6 DWG NO. D00000000755961 REV A
APPLICATION		SCALE 1:4 DO NOT SCALE DWG SHEET 1 OF 1		

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



ISOMETRIC VIEW
SCALE 1/8

NOTE:
ALL FILLET WELDS TO BE SMOOTH FOR COSMETIC APPEARANCE.

ITEM	P.I.N.	DESCRIPTION	QTY
2	A3-755851	PICKUP PLATE	4
1	A2-755961	PICKUP PAD	1

PARTS LIST

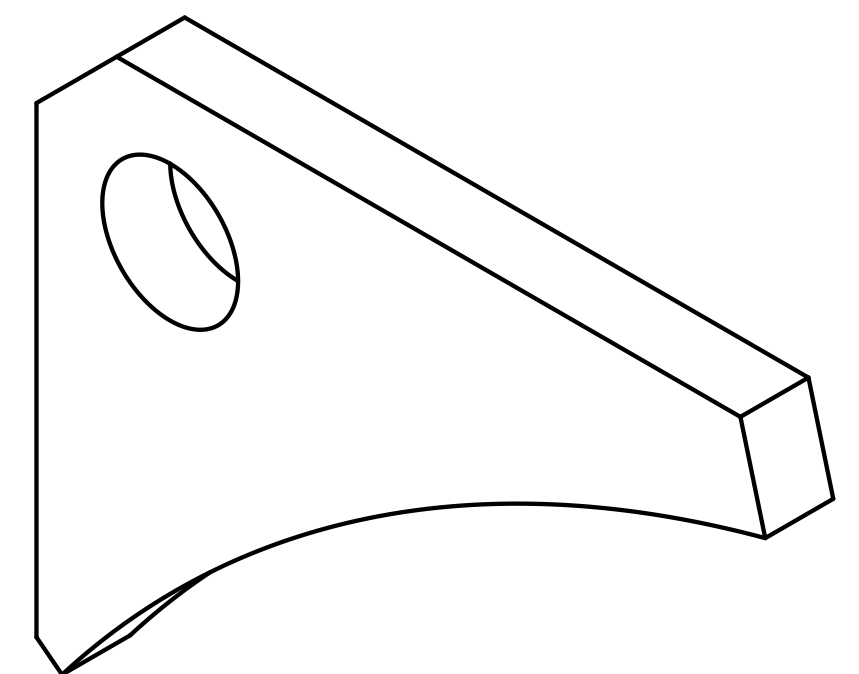
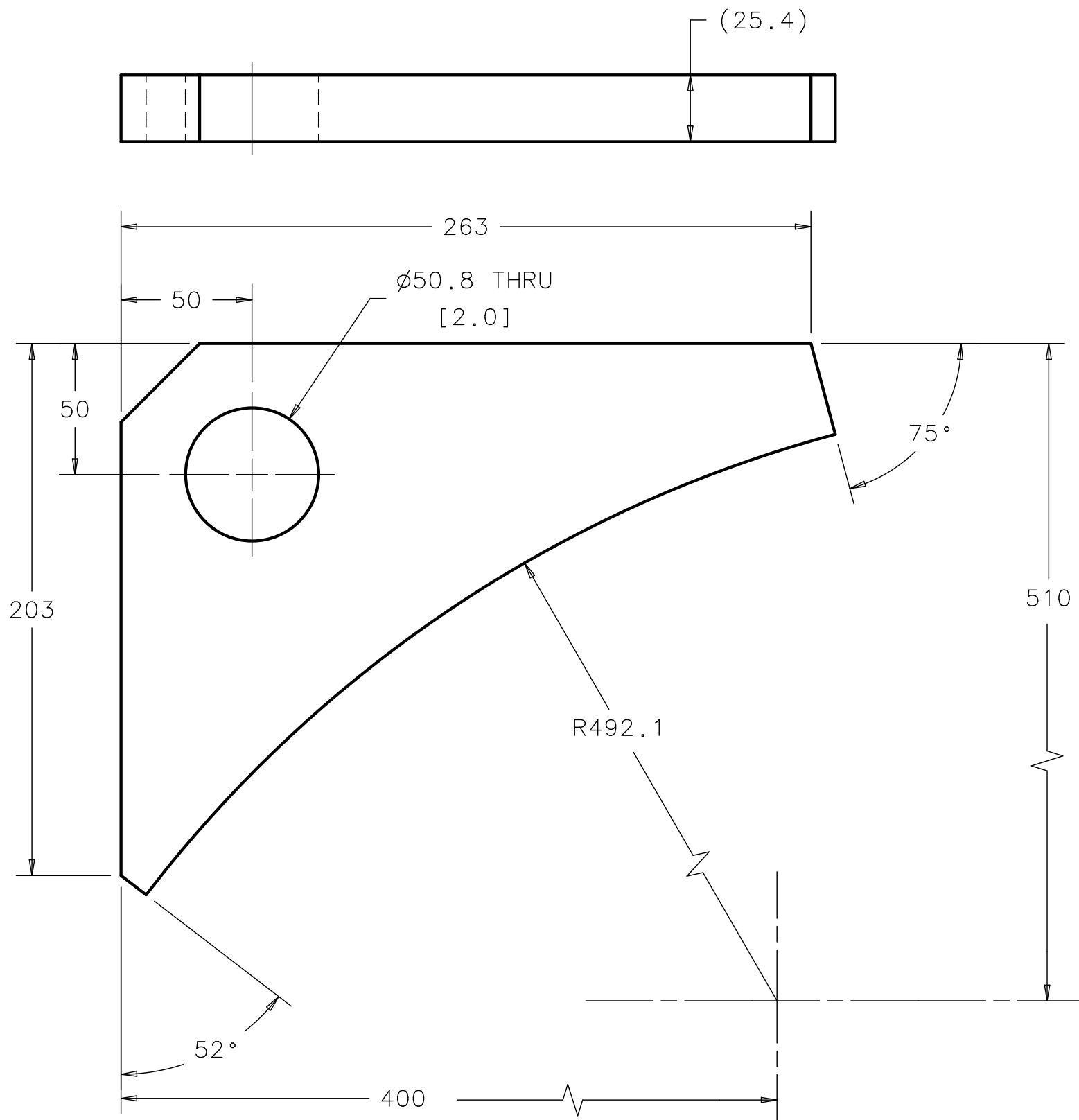
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	MATERIAL AS NOTED ABOVE	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ± 1°	THIRD ANGLE PROJECTION 	CHECKED BY	
APPLICATION		DATABASE DESY EDMS CAD I-DEAS		TEAM/GROUP T4CM DESIGN SOLID MODEL NO. D00000000566213	TITLE ILC, TYPE 4 CRYOMODULE VESSE PICKUP WELDMNT VESSEL_PICKUP_WLDMT
				SIZE A2	CAGE CODE OU5R6
				DWG NO. D00000000755951	REV A
				SCALE 1:4	DO NOT SCALE DWG
				SHEET 1 OF 1	

-	T4CM CRYOMODULES
NEXT ASSY	USED ON
APPLICATION	

REVISION HISTORY

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		

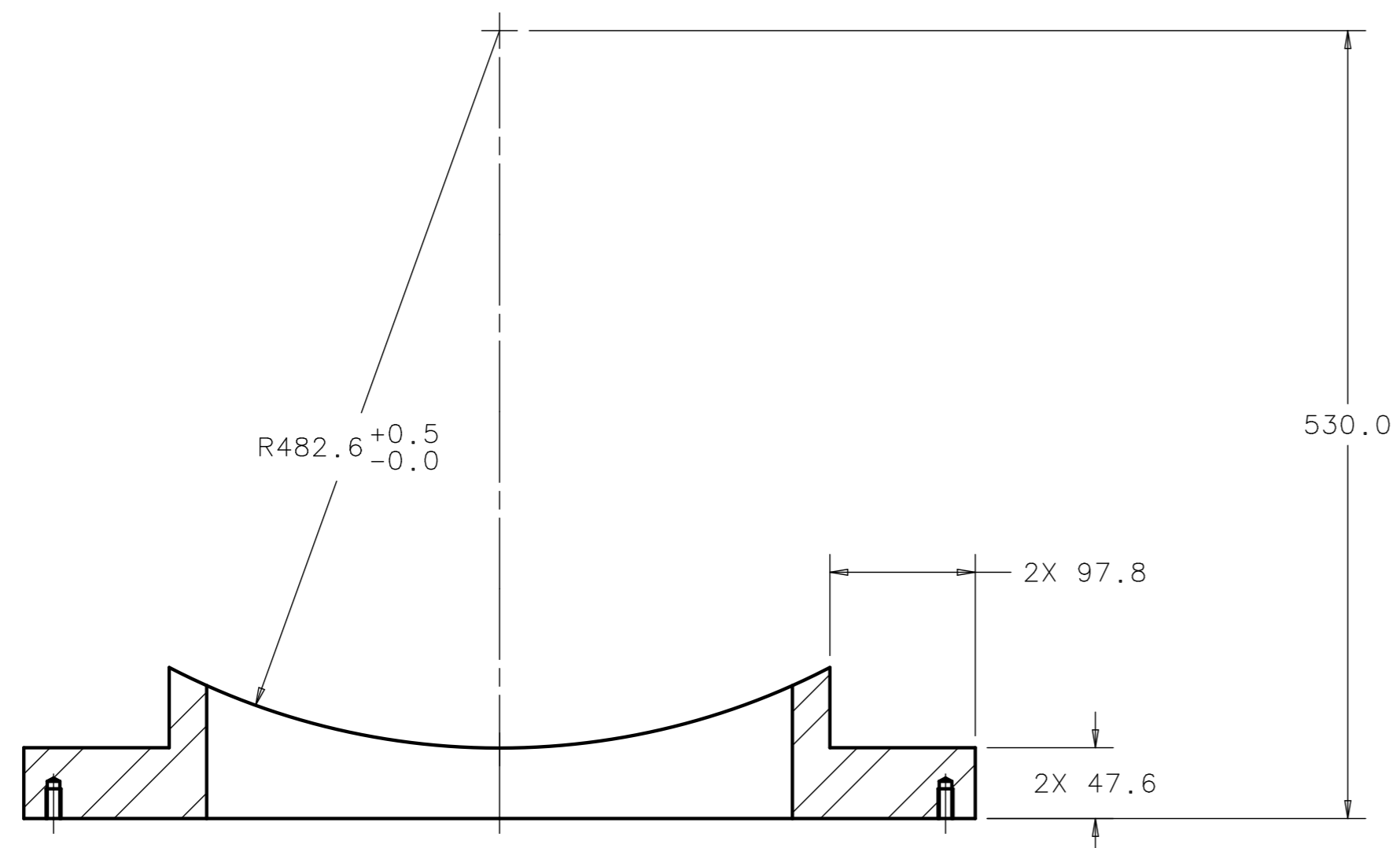


ISOMETRIC VIEW

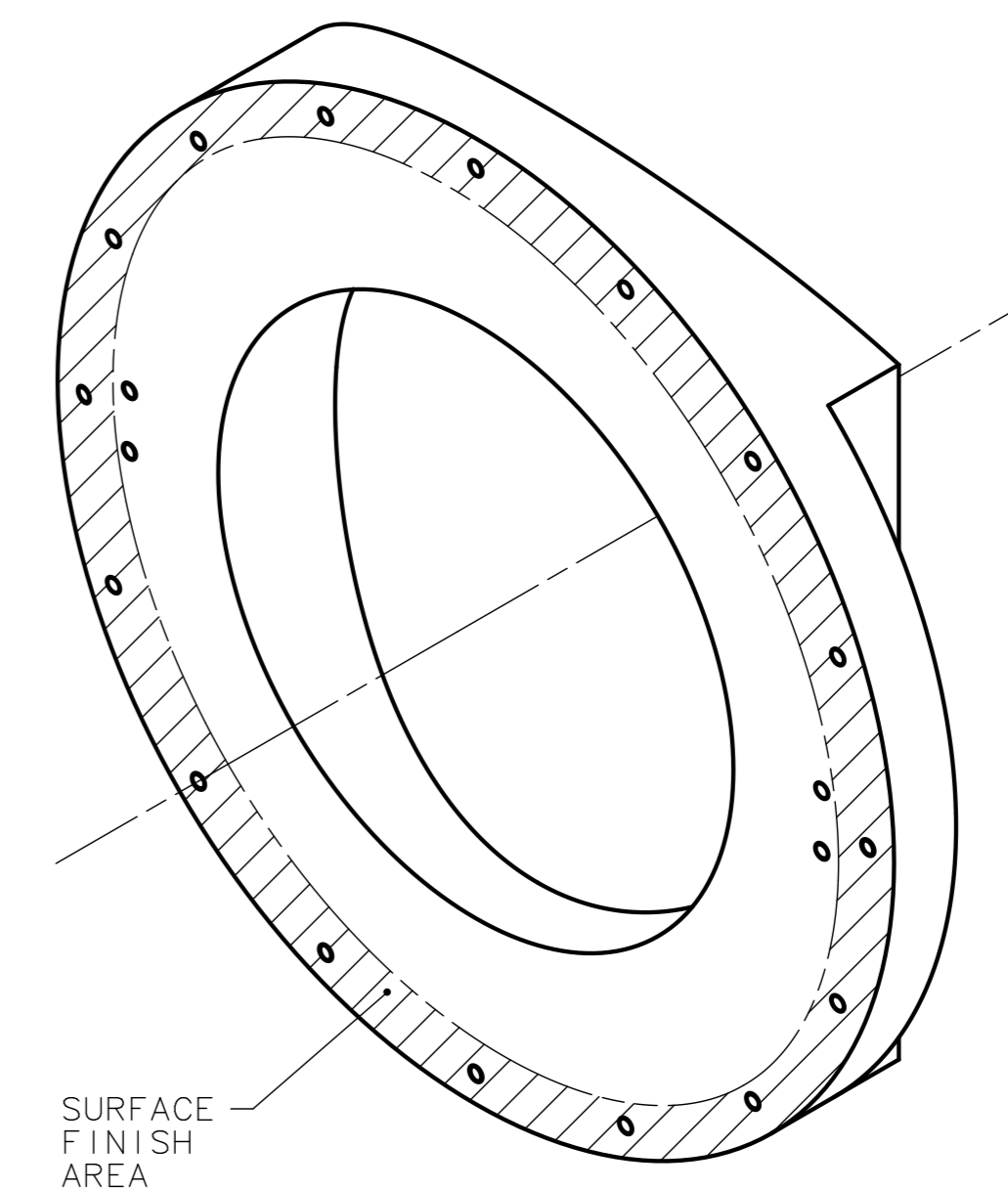
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MATERIAL 1" STEEL PLATE ASTM A516 GR 70	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ± 1°	THIRD ANGLE PROJECTION 	CHECKED BY	DATE
A2-755951 T4CM CRYOMODULES			ENGINEERED BY	DATE
NEXT ASSY USED ON			DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN
APPLICATION			CAD I-DEAS	SOLID MODEL NO. D00000000665332

FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500			
TITLE ILC, TYPE4 CRYOMODULE PICKUP PLATE VESSEL_PICKUP_V-PLATE			
SIZE A3	CAGE CODE OU5R6	DWG NO. D00000000755851	REV A
SCALE 1:2	DO NOT SCALE DWG	SHEET 1 OF 1	

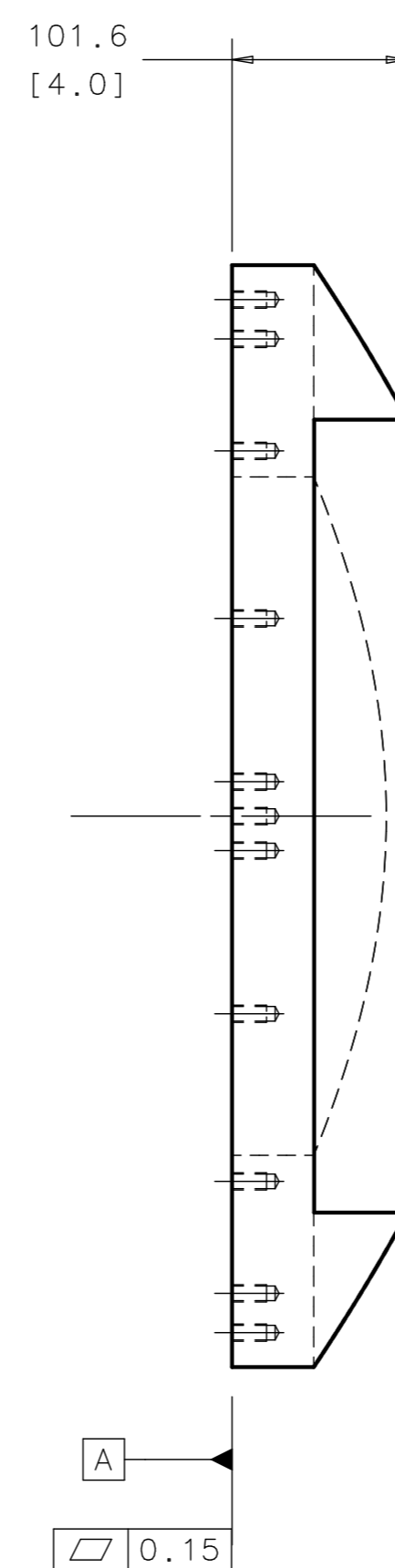
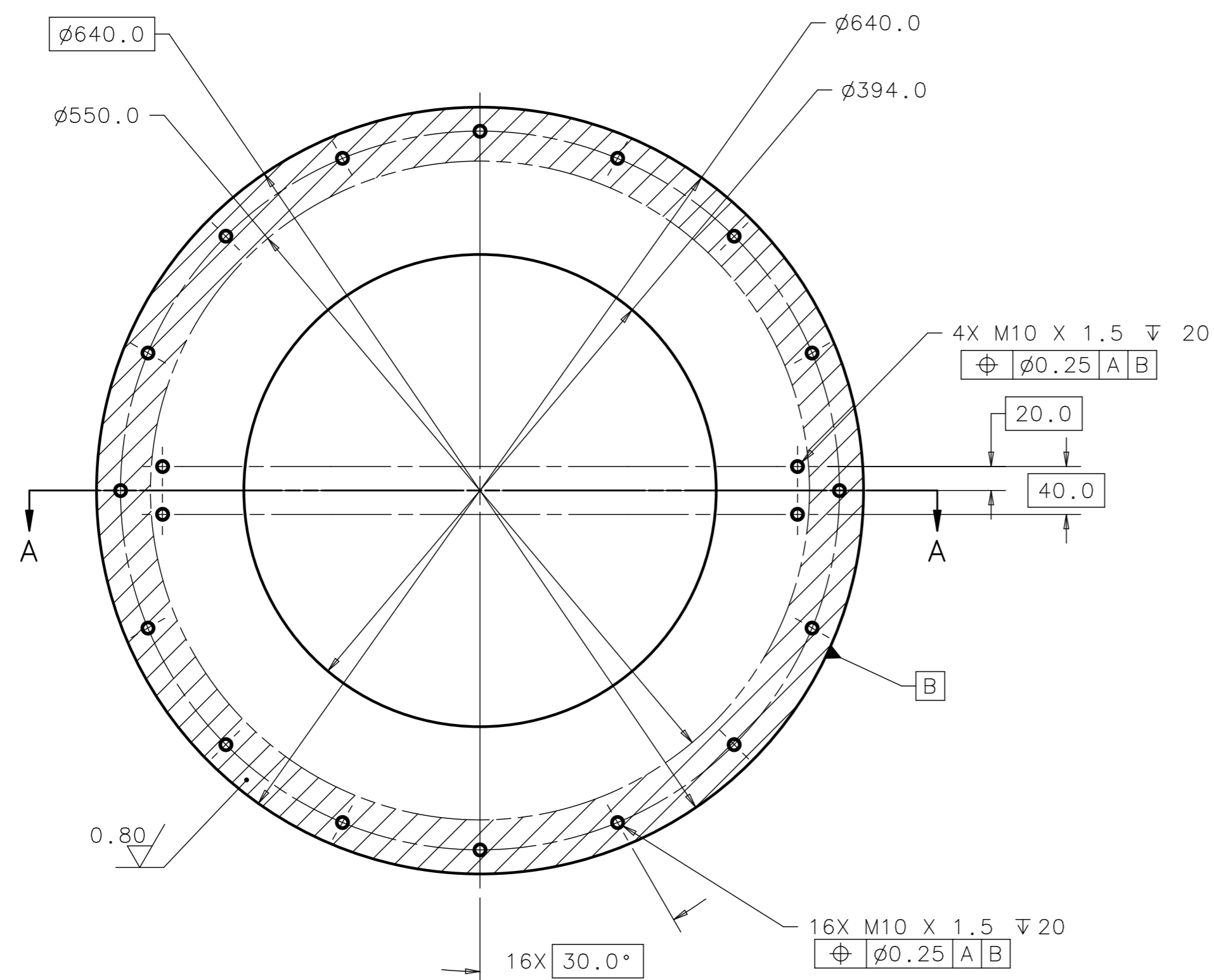
REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



SECTION A-A



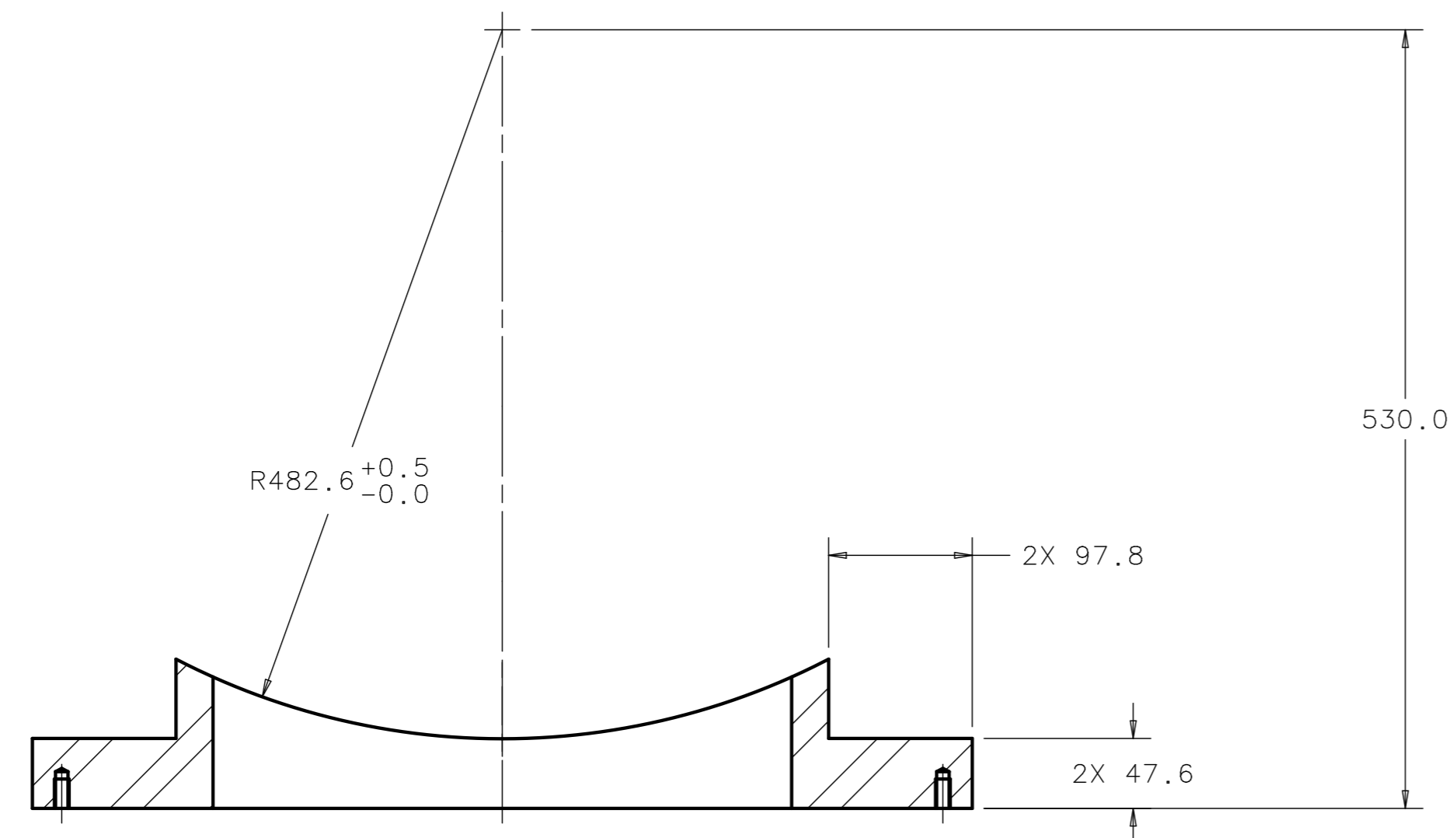
ISOMETRIC VIEW



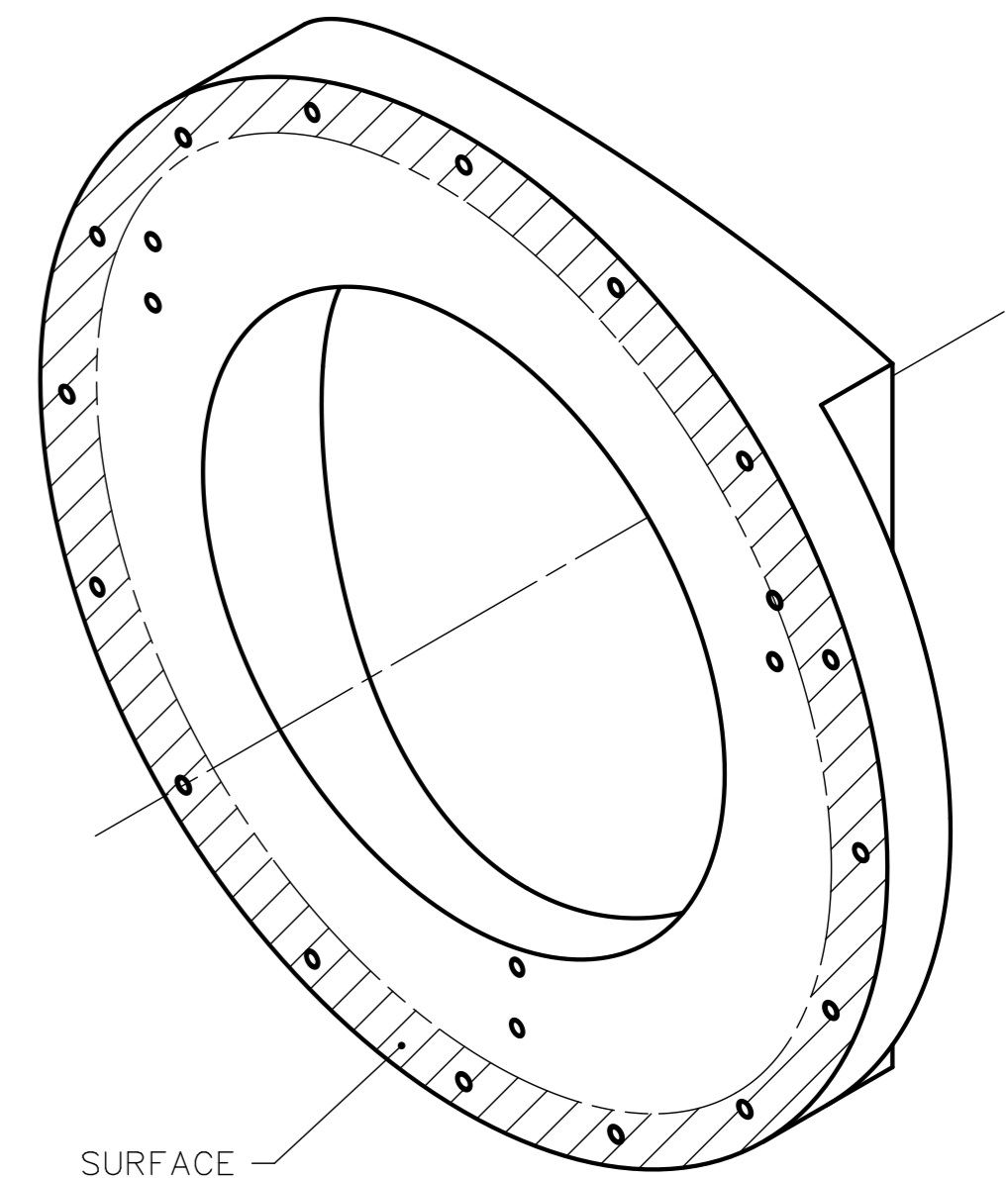
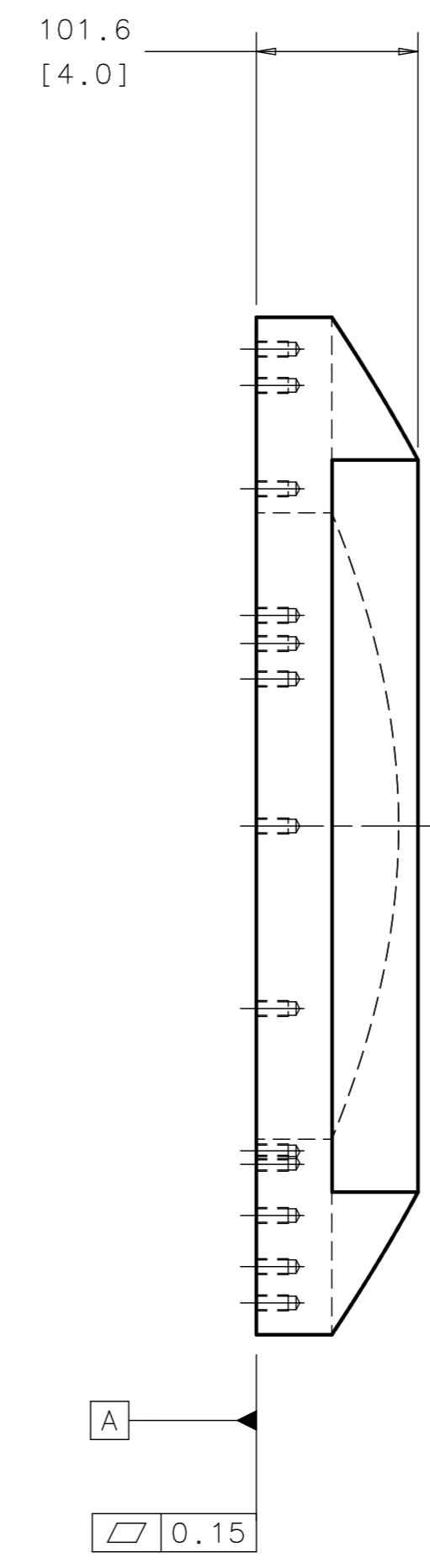
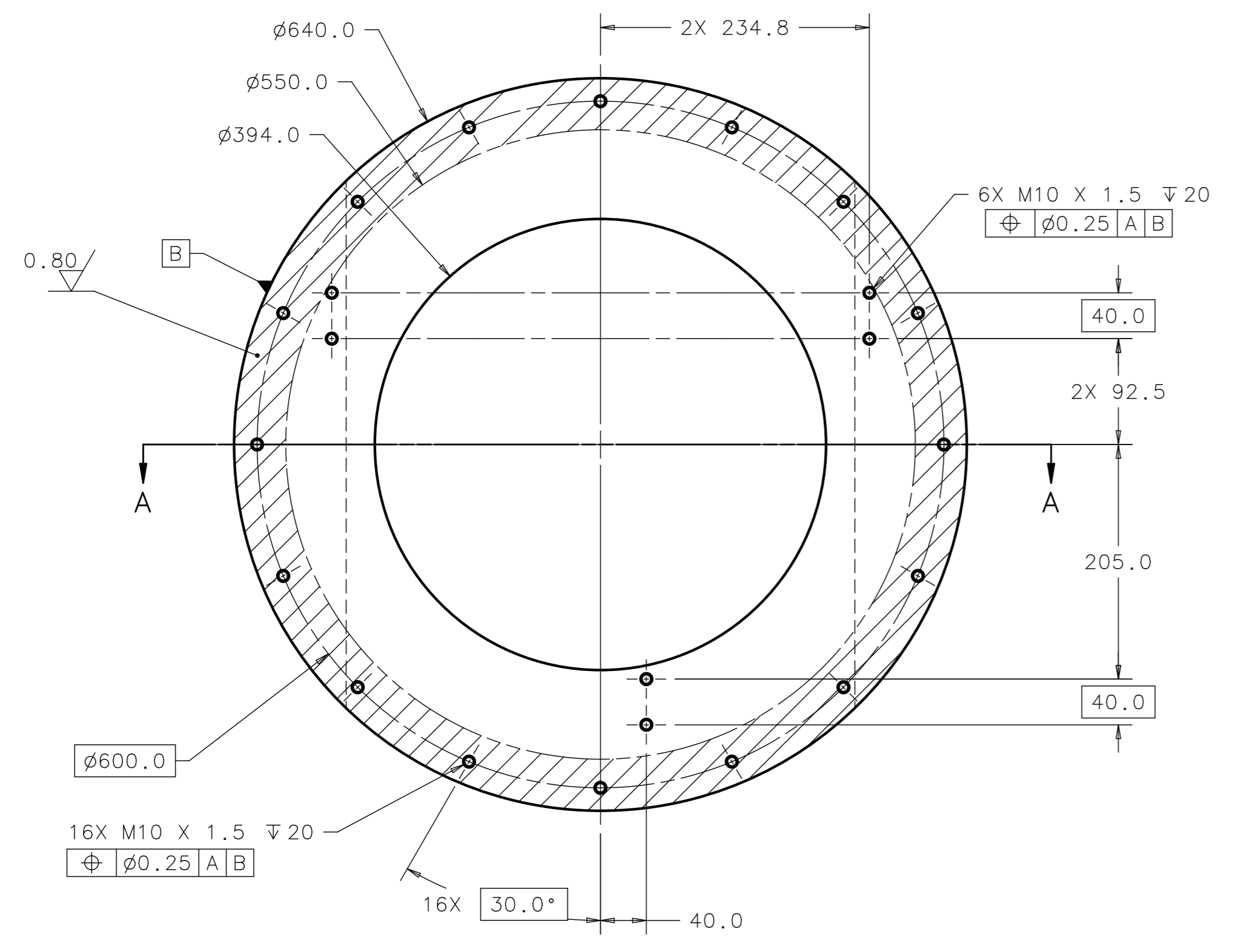
NOTE:
DIMENSION WITH SQUARE BRACKETS ARE IN INCH.

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L ROSINE	DATE 03NOV06	 FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500	
	MATERIAL STAINLESS STEEL ASTM A182-F304L	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ± 1°	THIRD ANGLE PROJECTION 	CHECKED BY		DATE
			DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN	ENGINEERED BY	SIZE A1
			CAD I-DEAS	SOLID MODEL NO. D00000000618512	CAGE CODE OU5R6	DWG NO. D00000000755831
					SCALE 1:4	DO NOT SCALE DRAWING
					SHEET 1	OF 1

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



SECTION A-A

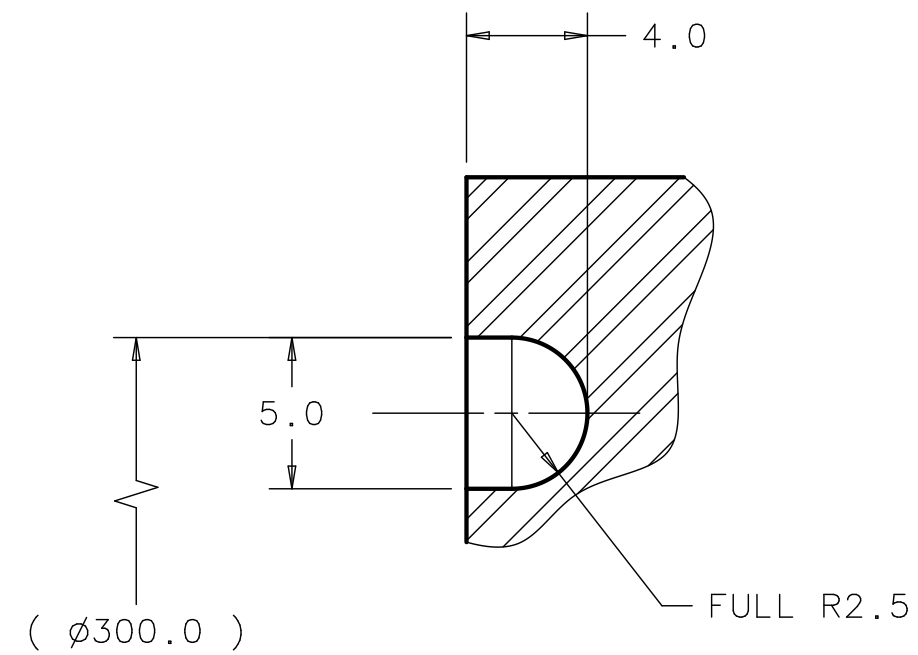


ISOMETRIC VIEW

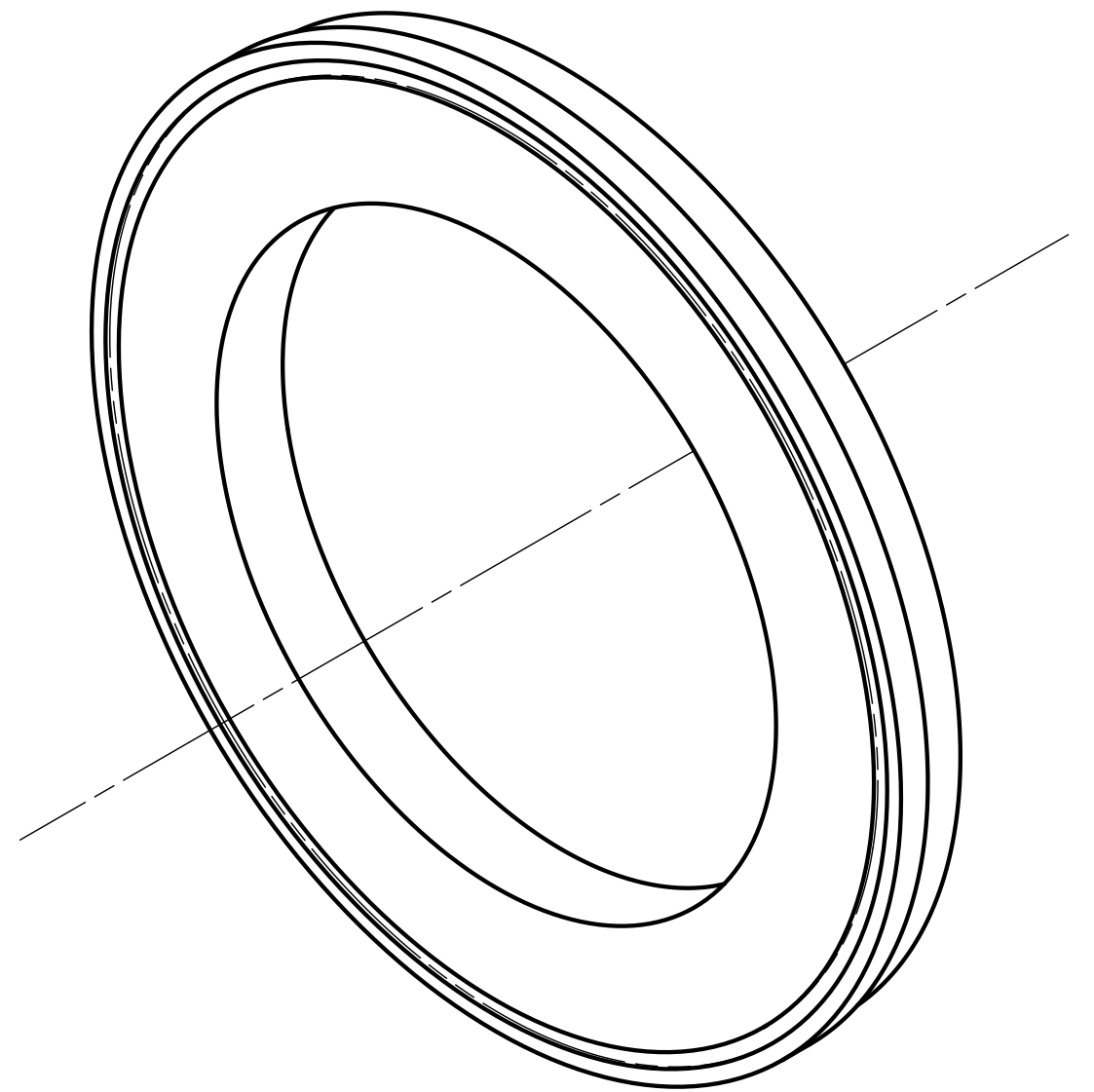
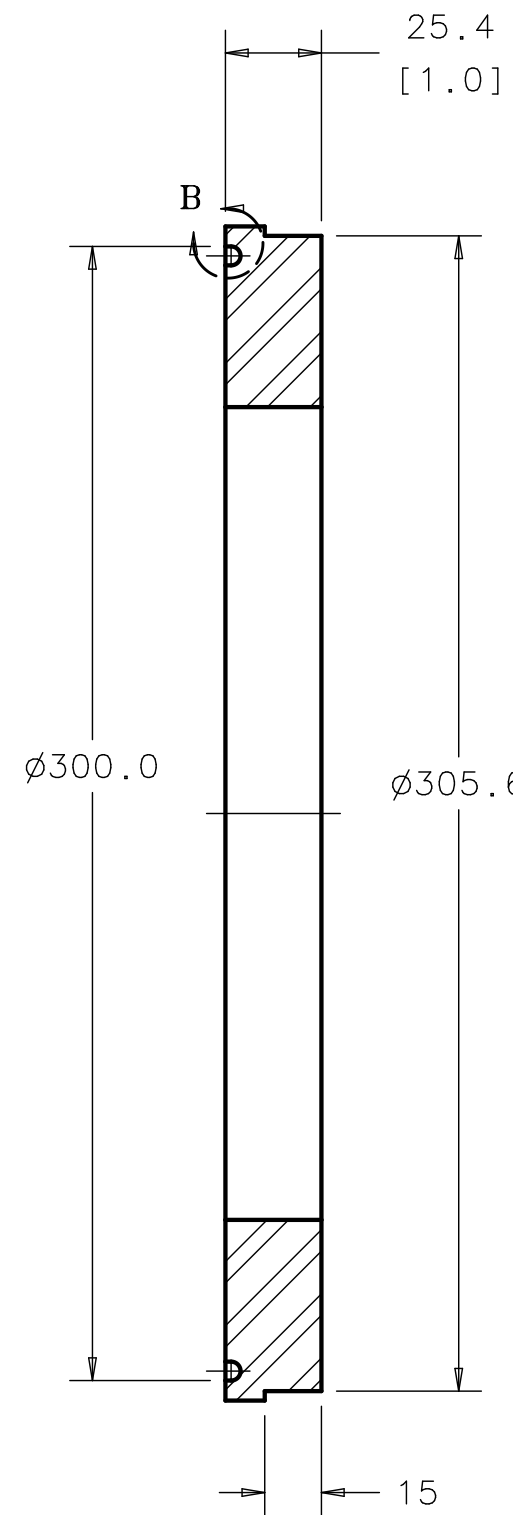
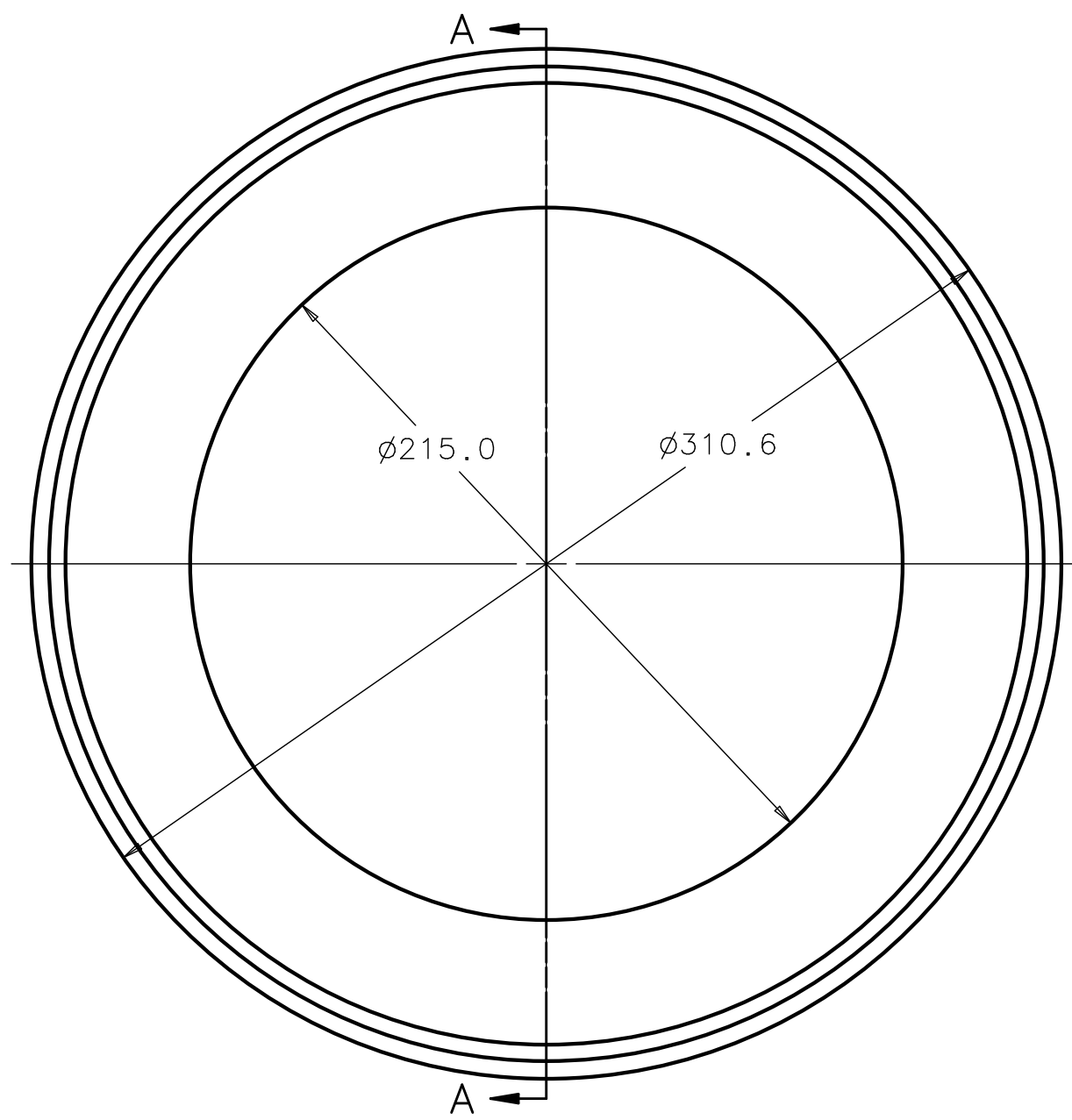
NOTE:
DIMENSION WITH SQUARE BRACKETS ARE IN INCH.

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L. ROSINE	DATE 03NOV06	FERMILAB UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
	MATERIAL STAINLESS STEEL ASTM A182-F304L	TOLERANCES	THIRD ANGLE PROJECTION	CHECKED BY	
X ± 2 .X ± 0.8 .XX ± ANGLE ± 1°			DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN	ENGINEERED BY
		CAD I-DEAS	SOLID MODEL NO. D00000000618522		SIZE A1
					CAGE CODE OU5R6
					DWG NO. D00000000755821
					REV A
					SCALE 1:4
					DO NOT SCALE DRAWING
					SHEET 1 OF 1

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



DETAIL B
SCALE 4/1

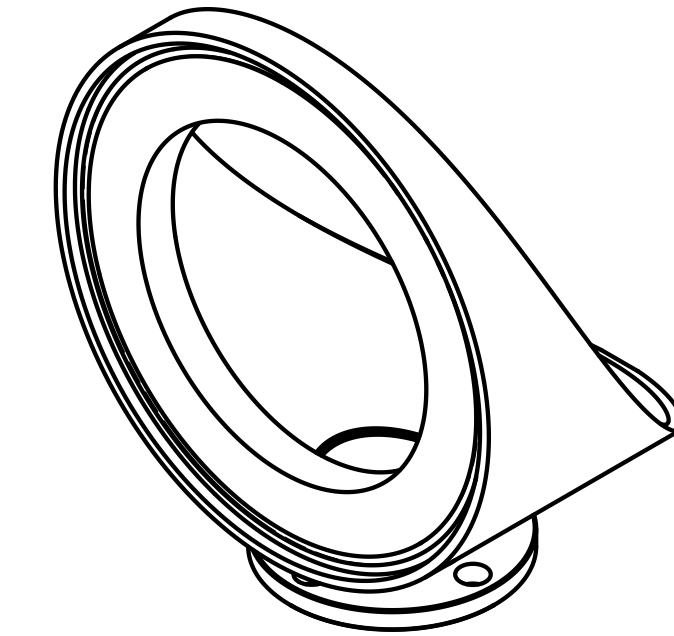
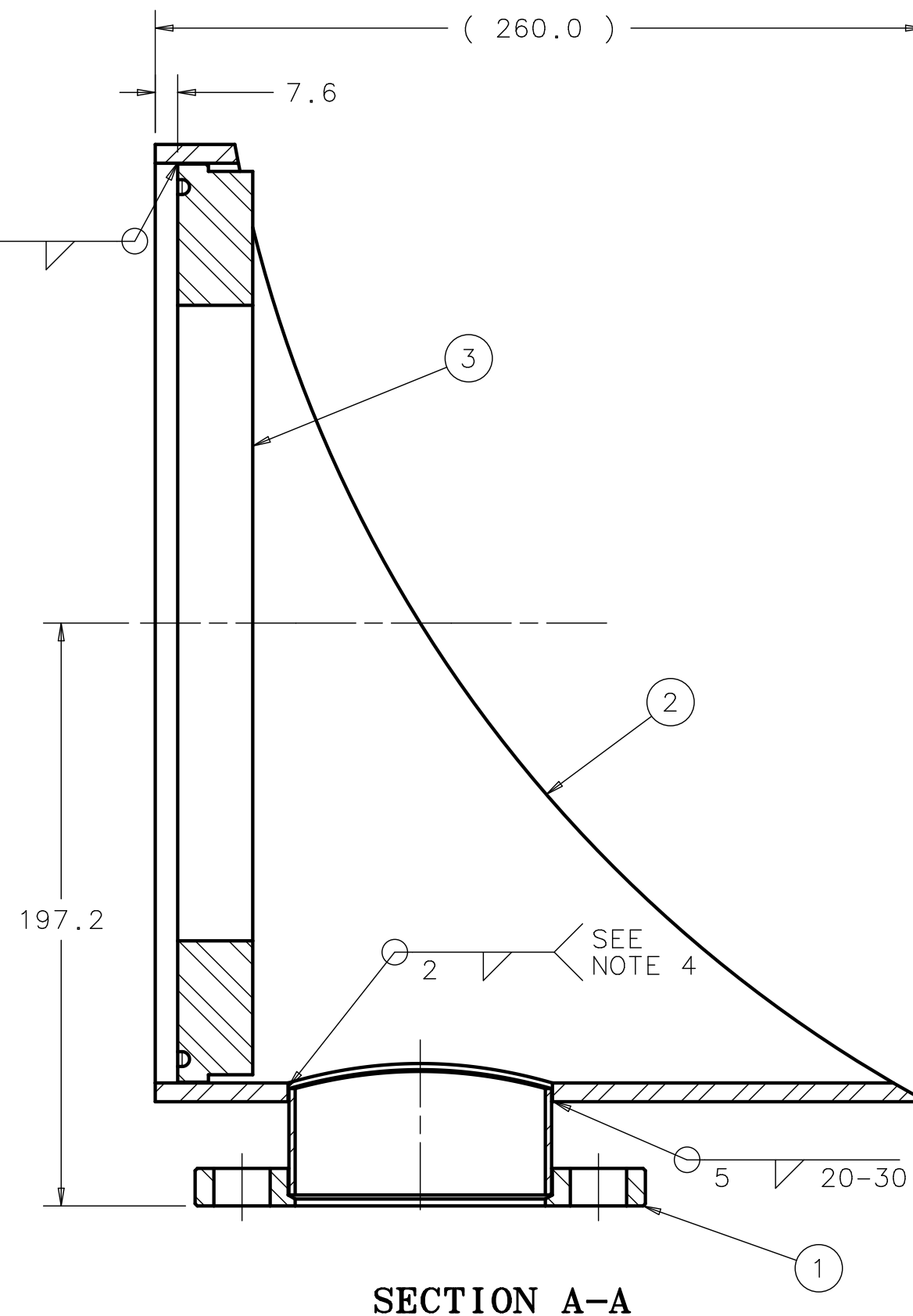
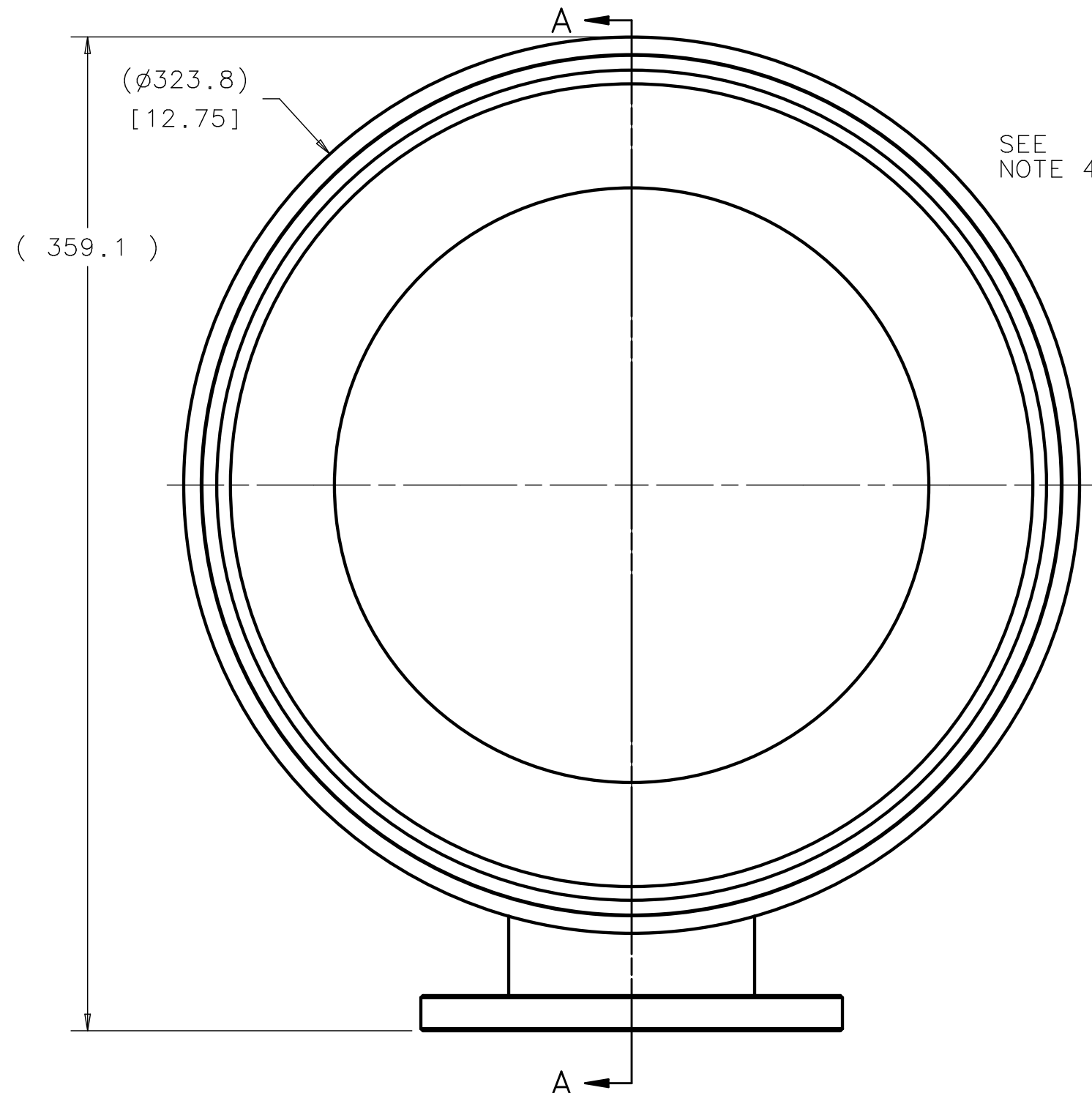


ISOMETRIC VIEW

NOTE:
DIMENSION WITH SQUARE BRACKETS ARE IN INCN

A2-755111	VESSEL WLDMTS
NEXT ASSY	USED ON
APPLICATION	

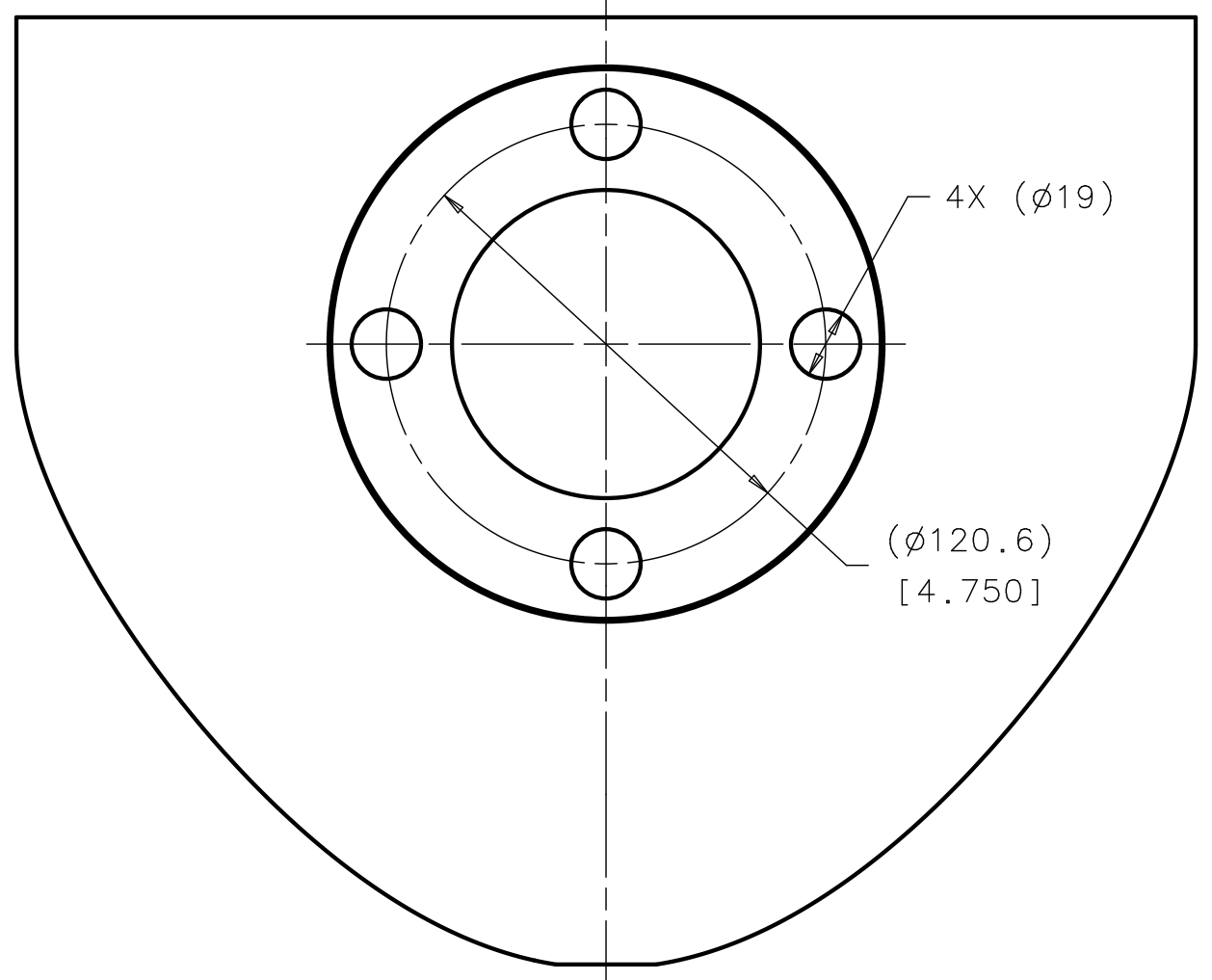
FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.	DRAWN BY L ROSINE	DATE 02NOV06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
		CHECKED BY	DATE	
MATERIAL 1" STAINLESS STEEL ASTM A182-F304L	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ±	THIRD ANGLE PROJECTION 		TITLE ILC, T4CM CRYOMODULE MC PORT FLANGE VESSEL_MC_PORT_FLANGE_WELDED
		ENGINEERED BY	DATE	SIZE A2 CAGE CODE OU5R6 DWG NO. D0000000755121 REV A
DATABASE DESY EDMS CAD I-DEAS		TEAM/GROUP T4CM DESIGN SOLID MODEL NO. D00000000667752		SCALE 1:2 DO NOT SCALE DWG SHEET 1 OF 1



ISOMETRIC VIEW
SCALE 1/4

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL DIMENSIONS ARE IN MILLIMETERS; DIMENSIONS IN [.XX] ARE IN INCHES.
2. ALL FILLET WELDS TO BE SMOOTH FOR COSMETIC APPEARANCE.
3. STEEL WELDS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF ANSI/AWSD1.1, STRUCTURAL WELDING CODE STEEL.
 - 3-1. THE WELDS SHALL HAVE NO CRACKS, THOROUGH FUSION, AND PROPER PROFILES. THE UNDERRUN, UNDERCUT, AND POROSITY OF THE WELDS MUST CONFORM TO THE CODE. ALL OF THE ABOVE PROPERTIES SHALL BE VISUALLY INSPECTED PER THE ACCEPTANCE CRITERIA IN AWS D1.1, TABLE 6.1.(REVISION 98).
 - 3-2. WELD REPAIRS AND WELDMENT STRAIGHTENING MAY BE PERFORMED PER AWS D1.1: 5.26. ENGINEERING APPROVAL MAY BE REQUIRED PER 5.26.3. (SECTION NUMBERS TAKEN FROM REVISION 98).
4. ALL WELDS TO BE VACUUM TIGHT. NO LEAK SHALL BE DETECTABLE ON THE MOST SENSITIVE SCALE OF A HELIUM DETECTOR WITH A MINIMUM SENSITIVITY OF 2 x 10⁻¹⁰ ATM, CC/SEC PER FERMILAB SPECIFICATION #1620-ES-187240.
5. INTERIOR WELDS TO BE AS SMOOTH AS POSSIBLE, FINISH GRIND SMOOTH MAY BE REQUIRED TO OBTAIN A SMOOTH TRANSITION.

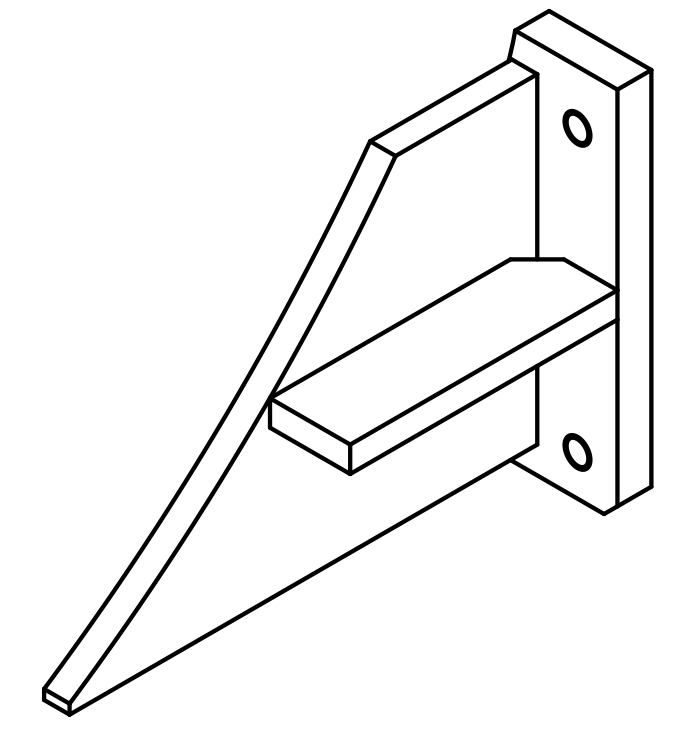
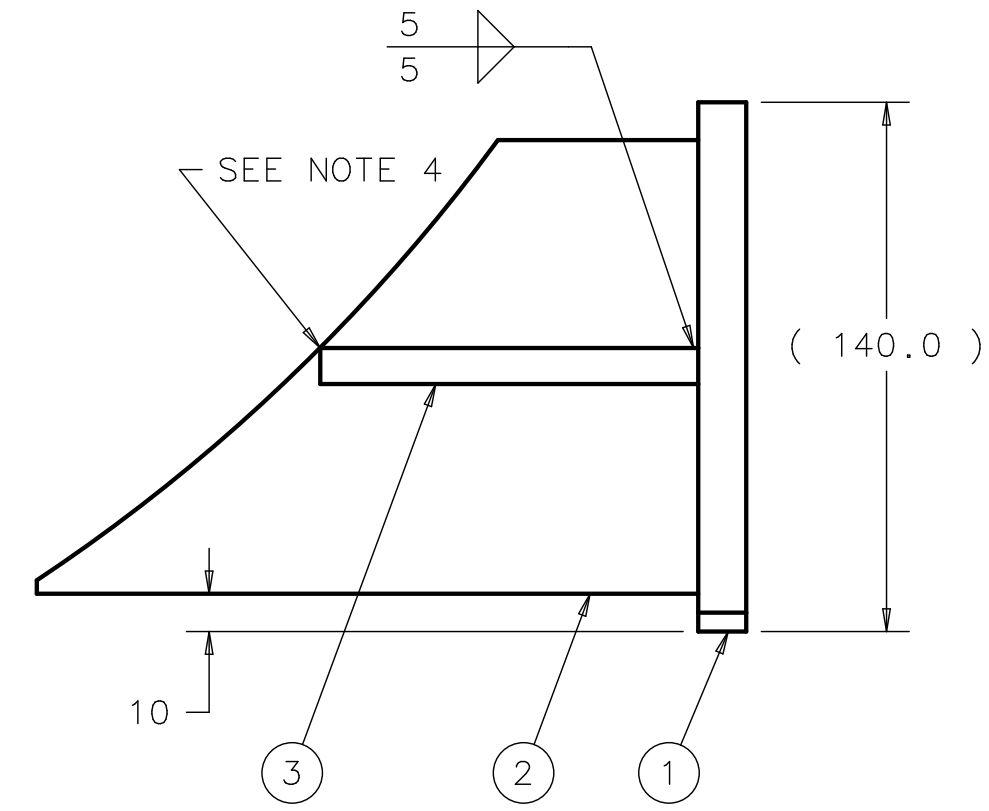
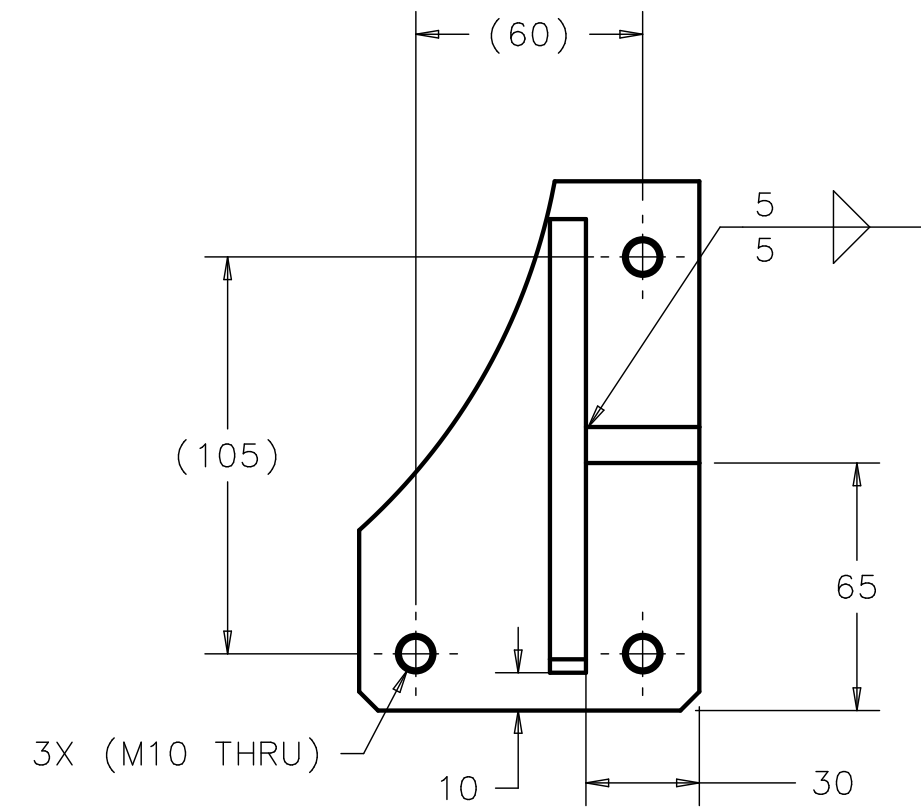
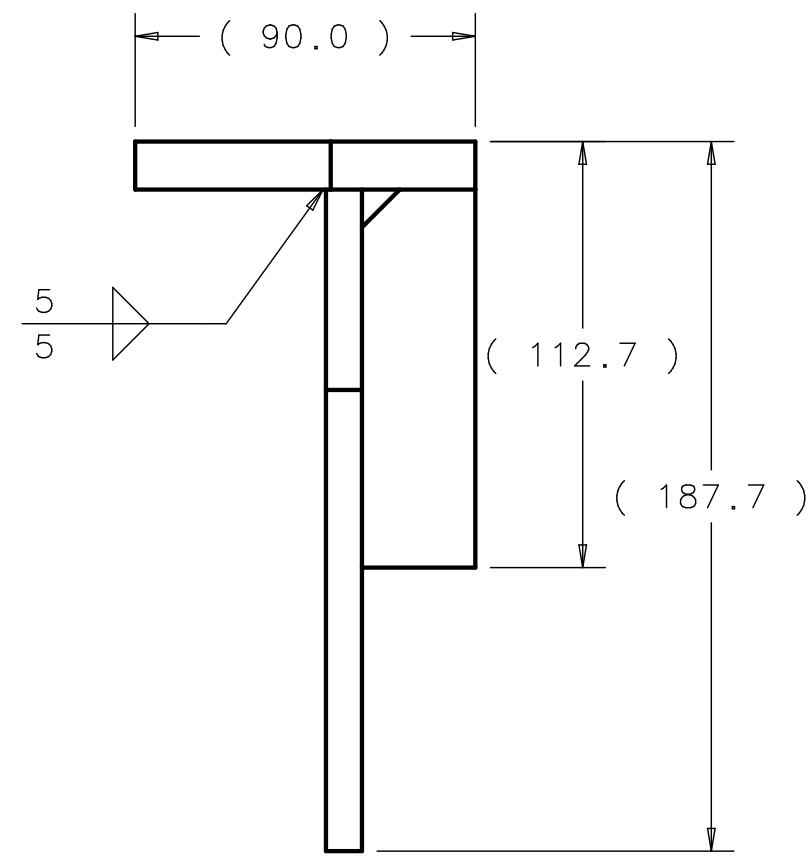


ITEM	P. I. N.	DESCRIPTION	QTY
1	A2-755121	MC PORT FLANGE	1
1	A2-755021	MC PORT PIPE	1
1	A2-755001	PORT INSTRUMENTATION WELDMENT	1

PARTS LIST			
FINISH	N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.	DRAWN BY L ROSINE CHECKED BY DATE ENGINEERED BY DATE
MATERIAL	AS NOTED ABOVE	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ±	DATE 02NOV06
APPLICATION		THIRD ANGLE PROJECTION	DATE
VESSEL WLDMTS	T4CM	DATABASE DESJ EDMS	TEAM/GROUP T4CM DESIGN
NEXT ASSY	USED ON	CAD I-DEAS	SOLID MODEL NO. D00000000555513
TITLE		SIZE A2	CAGE CODE 0U5R6
FERMILAB		DWG NO. D00000000755111	REV A
ILC, TYPE 4 CRYOMODULE MC PORT WELDMENT VESSEL_MC_PORT_WELDMENT		SCALE 1:2	DO NOT SCALE DWG
SHEET 1 OF 1		REV A	

VESEL WLDMTS	T4CM
NEXT ASSY	USED ON
APPLICATION	

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



ISOMETRIC VIEW

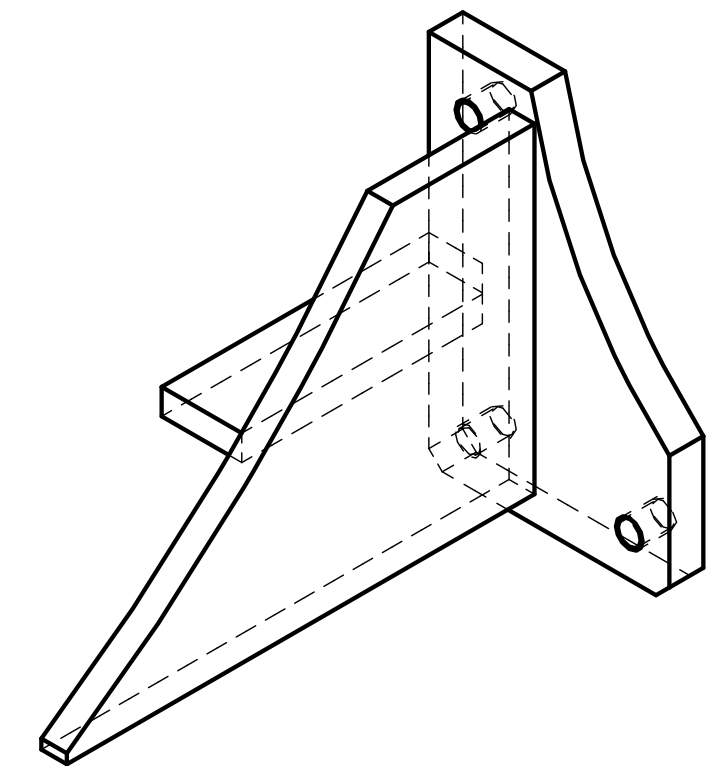
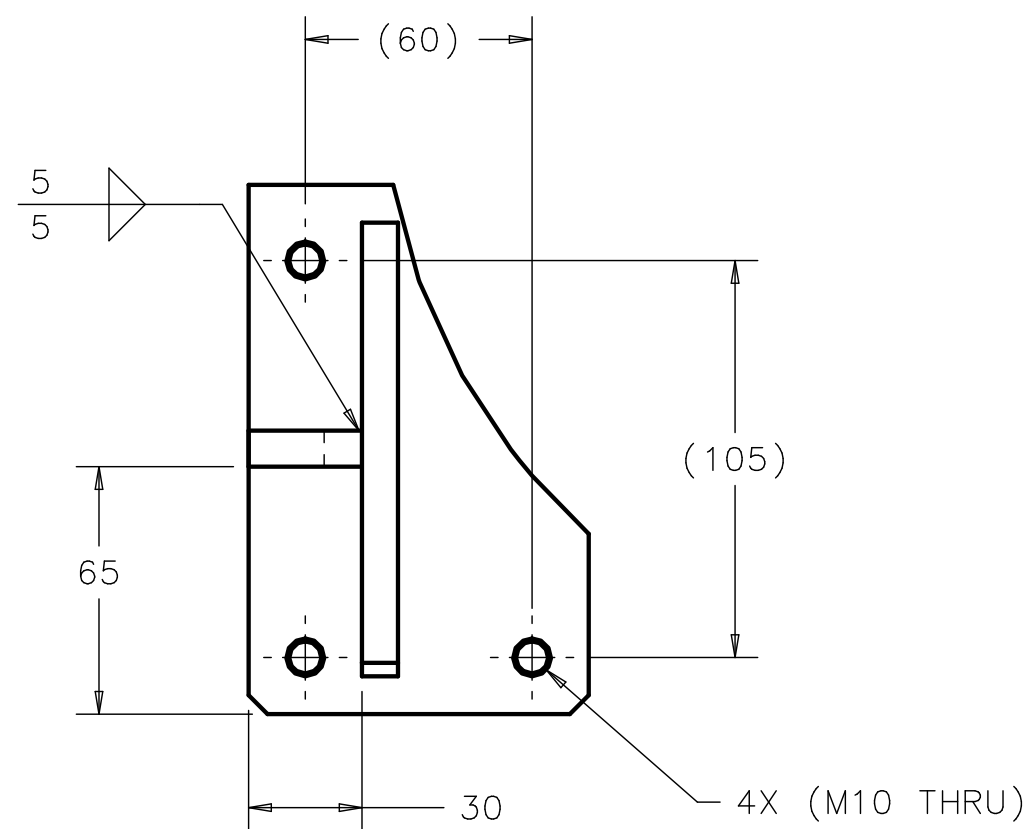
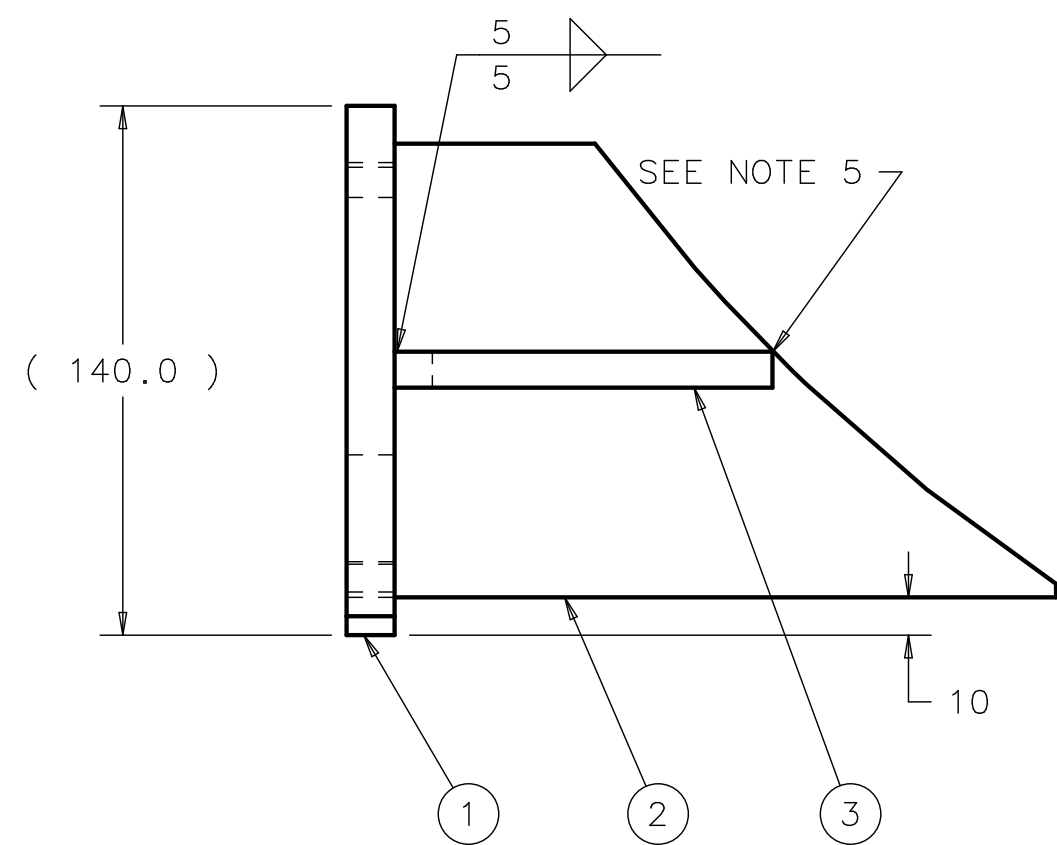
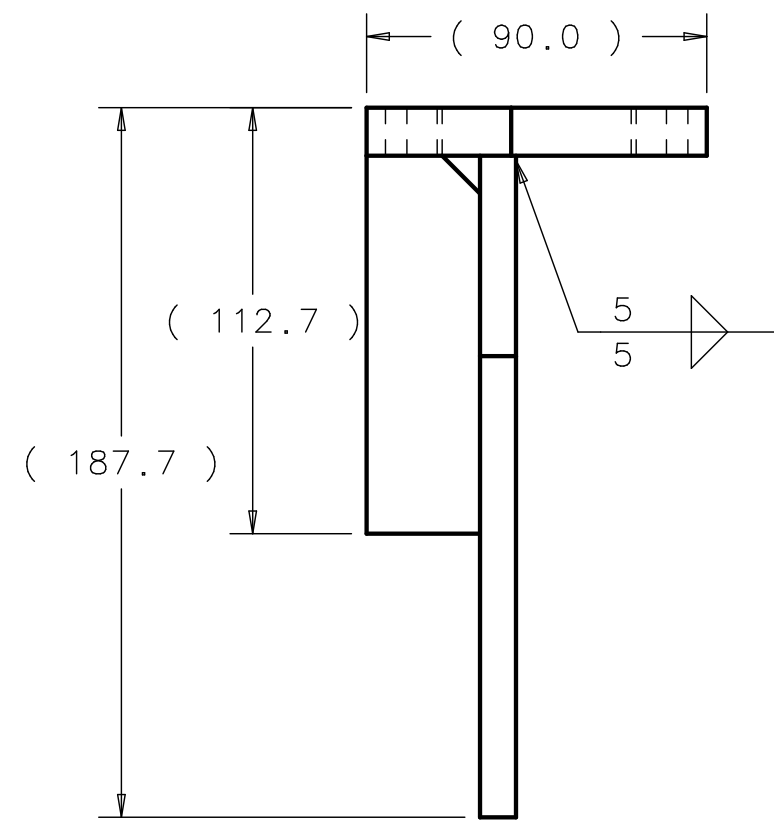
NOTES (UNLESS OTHERWISE SPECIFIED):

- ALL DIMENSIONS ARE IN MILLIMETERS; DIMENSIONS IN [.XX] ARE IN INCHES.
- ALL FILLET WELDS TO BE SMOOTH FOR COSMETIC APPEARANCE.
- STEEL WELDS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF ANSI/AWS D1.1, STRUCTURAL WELDING CODE STEEL.
 - THE WELDS SHALL HAVE NO CRACKS, THOROUGH FUSION, AND PROPER PROFILES. THE UNDERRUN, UNDERCUT, AND POROSITY OF THE WELDS MUST CONFORM TO THE CODE. ALL OF THE ABOVE PROPERTIES SHALL BE VISUALLY INSPECTED PER THE ACCEPTANCE CRITERIA IN AWS D1.1, TABLE 6.1. (REVISION 98).
 - WELD REPAIRS AND WELDMENT STRAIGHTENING MAY BE PREFORMED PER AWS D1.1: 5.26. ENGINEERING APPROVAL MAY BE REQUIRED PER 5.26.3. (SECTION NUMBERS TAKEN FROM REVISION 98).
- EDGE OF ITEM 3 MUST NOT PROTRUDE BEYOND CONTOUR OF ITEM 2.

ITEM	P. I. N.	DESCRIPTION	QTY
3	A3-755011	PLATE GUSSET MC MOUNT	1
2	A2-754821	PLATE SUPPORT MC MOUNT	1
1	A2-755091	PLATE MC MOUNT	1

PARTS LIST									
FINISH		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L ROSINE		DATE 02NOV06		FERMILAB	
MATERIAL		TOLERANCES		THIRD ANGLE PROJECTION		CHECKED BY		TITLE	
AS NOTED ABOVE		X ± 2 .X ± 0.8 .XX ± ANGLE ±				ENGINEERED BY		I LC, TYPE 4 CRYOMODULE MC BRACKET WELDMENT LH VESSEL_MC_BRACKET_WLDMT_COLD_LH	
				DATABASE DESY EDMS		TEAM/GROUP T4CM DESIGN		SIZE A2	
				CAD I-DEAS		SOLID MODEL NO. D00000000555683		CAGE CODE OU5R6	
								DWG NO. D00000000755101	
								REV A	
								SCALE 1:2	
								DO NOT SCALE DWG	
								SHEET 1 OF 1	

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



ISOMETRIC VIEW

NOTES (UNLESS OTHERWISE SPECIFIED):

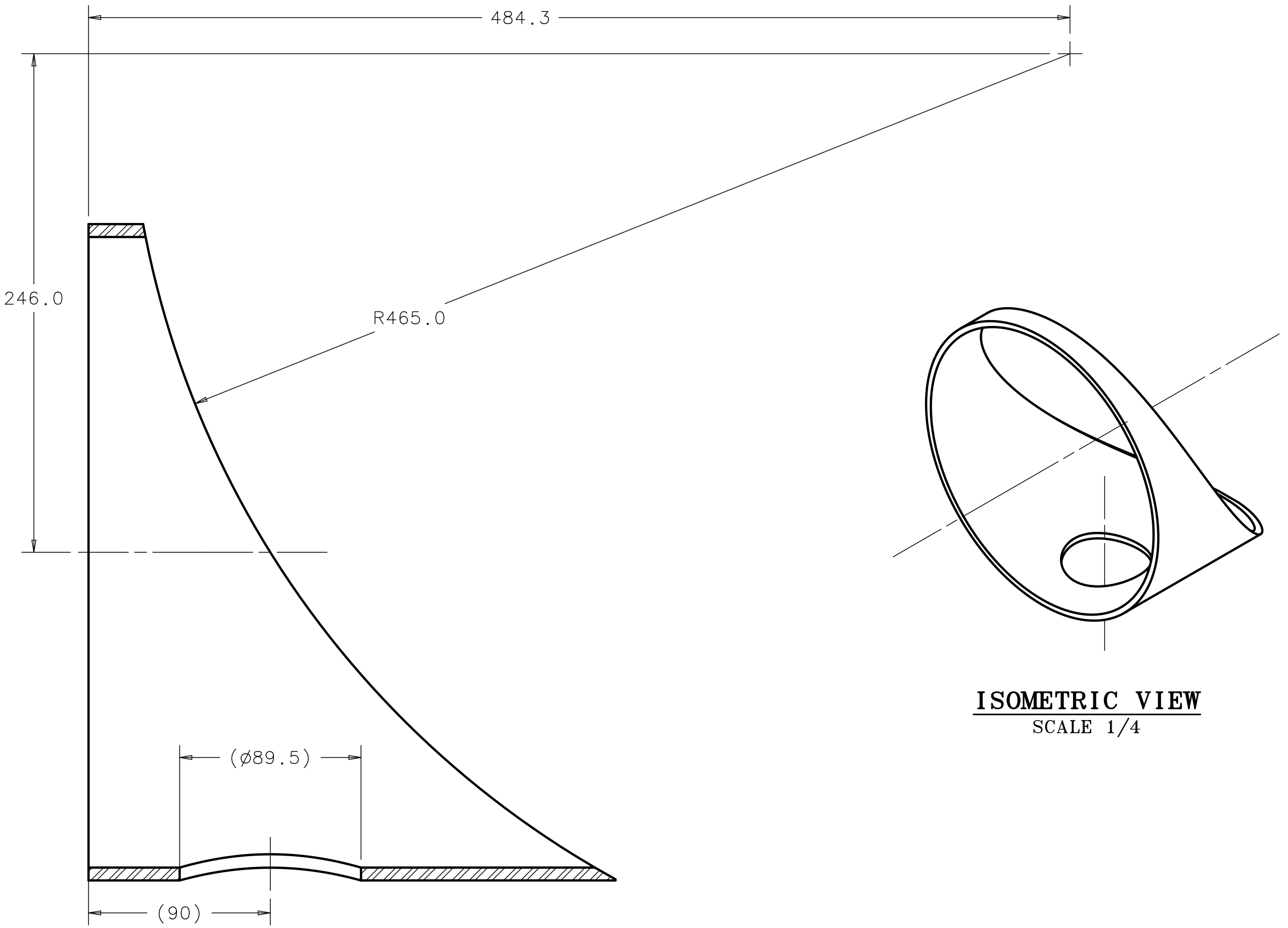
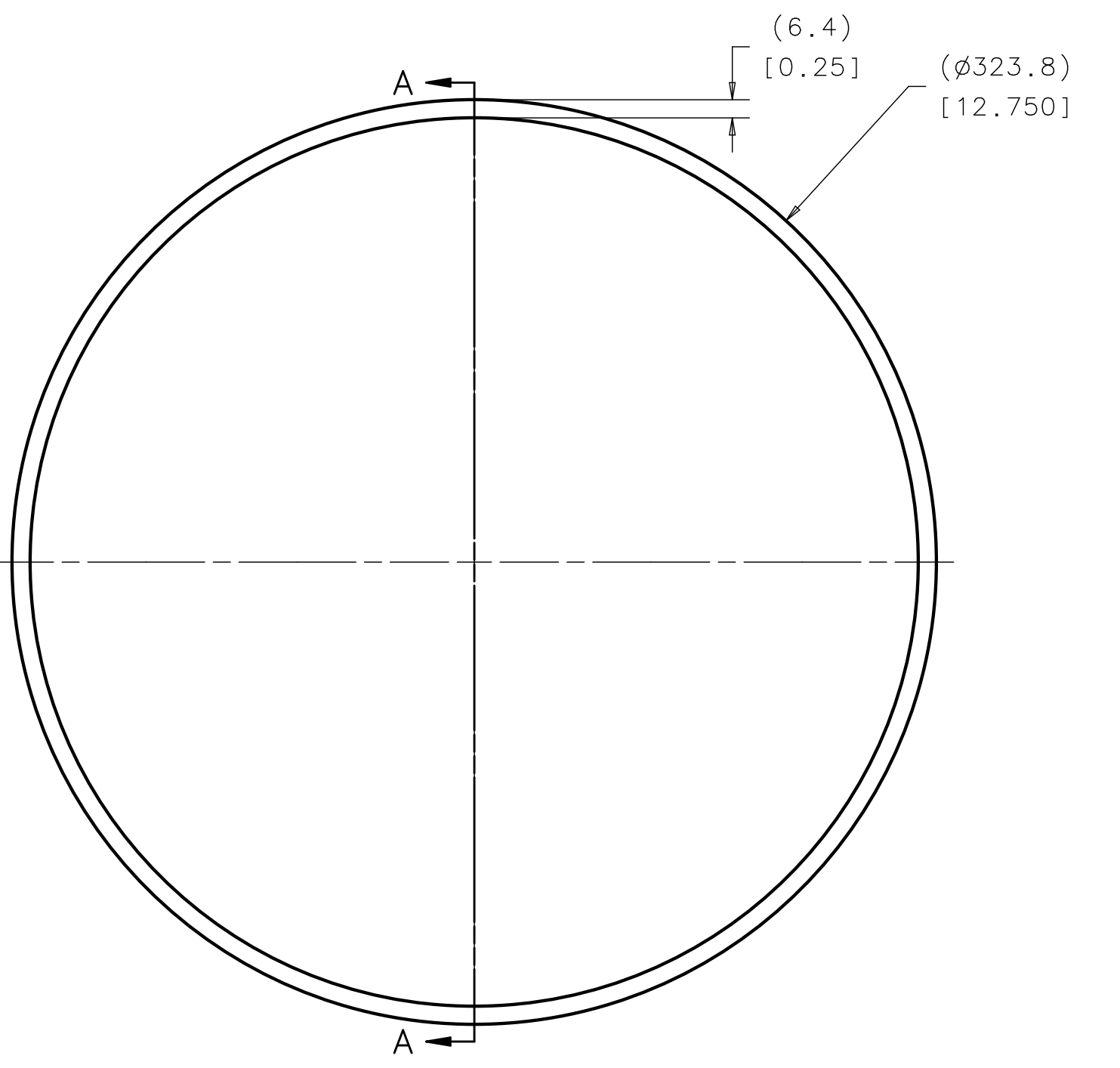
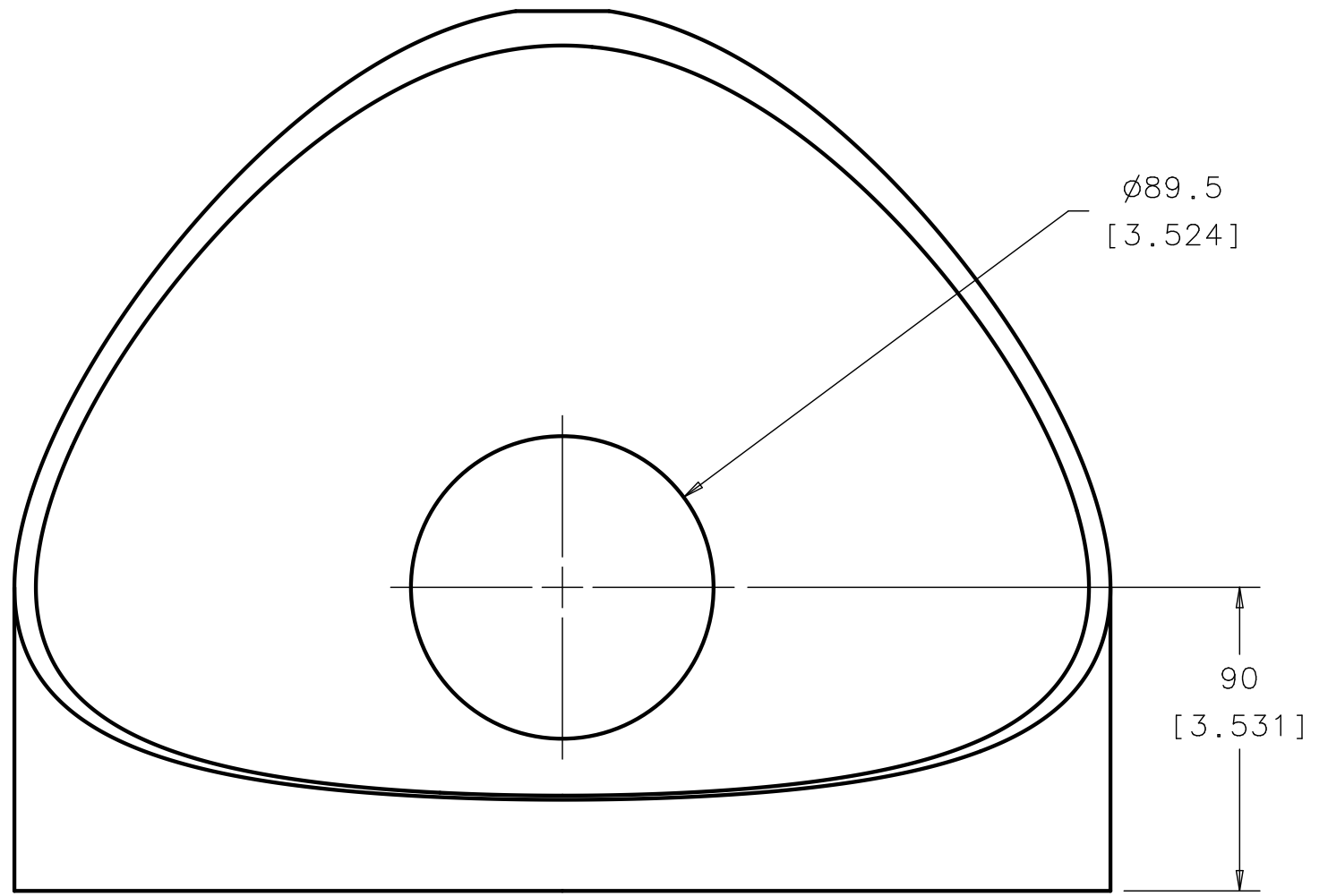
- ALL DIMENSIONS ARE IN MILLIMETERS; DIMENSIONS IN [.XX] ARE IN INCHES.
- ALL FILLET WELDS TO BE SMOOTH FOR COSMETIC APPEARANCE.
- STEEL WELDS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF ANSI/AWS D1.1, STRUCTURAL WELDING CODE STEEL.
 - THE WELDS SHALL HAVE NO CRACKS, THOROUGH FUSION, AND PROPER PROFILES. THE UNDERRUN, UNDERCUT, AND POROSITY OF THE WELDS MUST CONFORM TO THE CODE. ALL OF THE ABOVE PROPERTIES SHALL BE VISUALLY INSPECTED PER THE ACCEPTANCE CRITERIA IN AWS D1.1, TABLE 6.1. (REVISION 98).
 - WELD REPAIRS AND WELDMENT STRAIGHTENING MAY BE PERFORMED PER AWS D1.1: 5.26. ENGINEERING APPROVAL MAY BE REQUIRED PER 5.26.3. (SECTION NUMBERS TAKEN FROM REVISION 98).
- MACHINING MAY BE PERFORMED PRIOR TO WELDING.
- EDGE OF ITEM 3 MUST NOT PROTRUDE BEYOND CONTOUR OF ITEM 2.

ITEM	P. I. N.	DESCRIPTION	QTY
3	A3-755011	PLATE GUSSET MC MOUNT	1
2	A2-754821	PLATE SUPPORT MC MOUNT	1
1	A2-755091	PLATE MC MOUNT	1

PARTS LIST

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.	DRAWN BY L ROSINE	DATE 02NOV06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
		CHECKED BY	DATE	
MATERIAL AS NOTED ABOVE	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ±	ENGINEERED BY	DATE	TITLE ILC, TYPE 4 CRYOMODULE MC BRACKET WELDMENT RH VESSEL_MC_BRACKET_WLDMT_COLD_RH
		DATABASE DESY EDMS CAD I-DEAS	TEAM/GROUP T4CM DESIGN SOLID MODEL NO. D00000000555673	SIZE A2 SCALE 1:2 DO NOT SCALE DWG

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE, ER #		



ISOMETRIC VIEW
SCALE 1/4

SECTION A-A

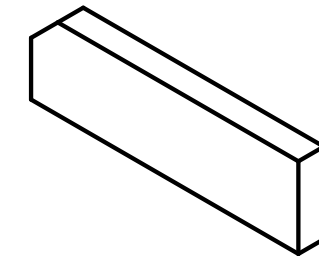
NOTE:
DIMENSION WITH SQUARE BRACKETS ARE IN INCH.

FINISH ASTM A182-F304L	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.	DRAWN BY L ROSINE	DATE 26JUL06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
		CHECKED BY	DATE	
MATERIAL 12.3/4" OD, 1/4" WALL PIPE ASTM A312 304 S.S.	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ±	THIRD ANGLE PROJECTION		TITLE ILC, TYPE 4 CRYOMODULE MC PORT PIPE VESSEL_MC_PORT_PIPE
			DATABASE DESY EDMS CAD I-DEAS	TEAM/GROUP T4CM SOLID MODEL NO. D00000000626812
		ENGINEERED BY	DATE	SIZE A2 SCALE 1:2 DO NOT SCALE DWG
				DWG NO. D00000000755021 REV A SHEET OF 1

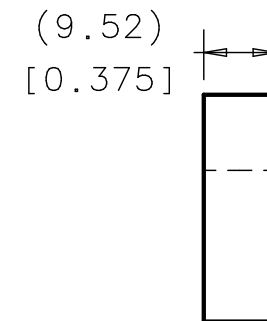
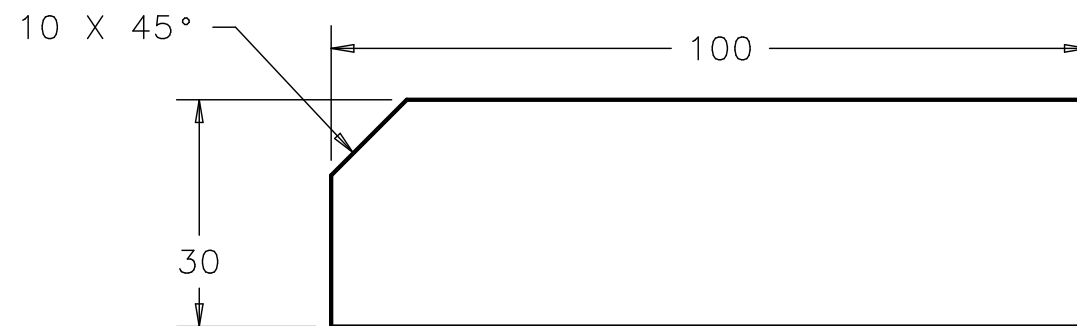
REVISION HISTORY

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE, ER#		



ISOMETRIC VIEW
SCALE 1/2

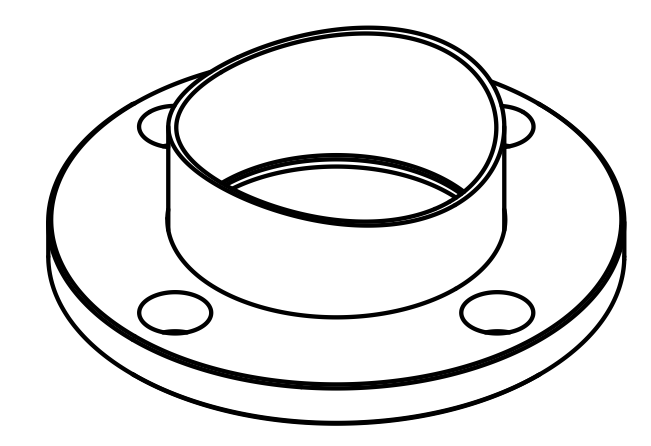
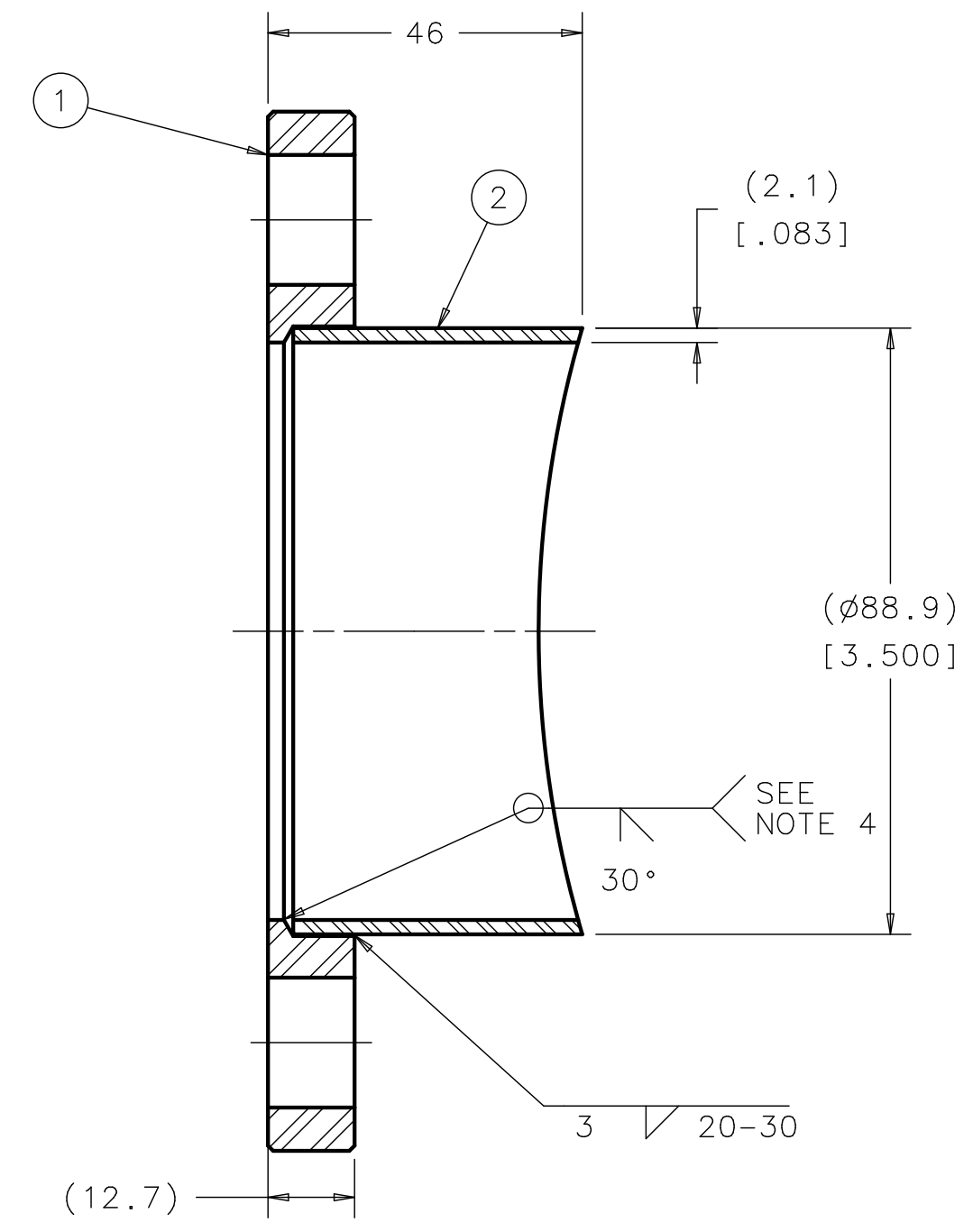
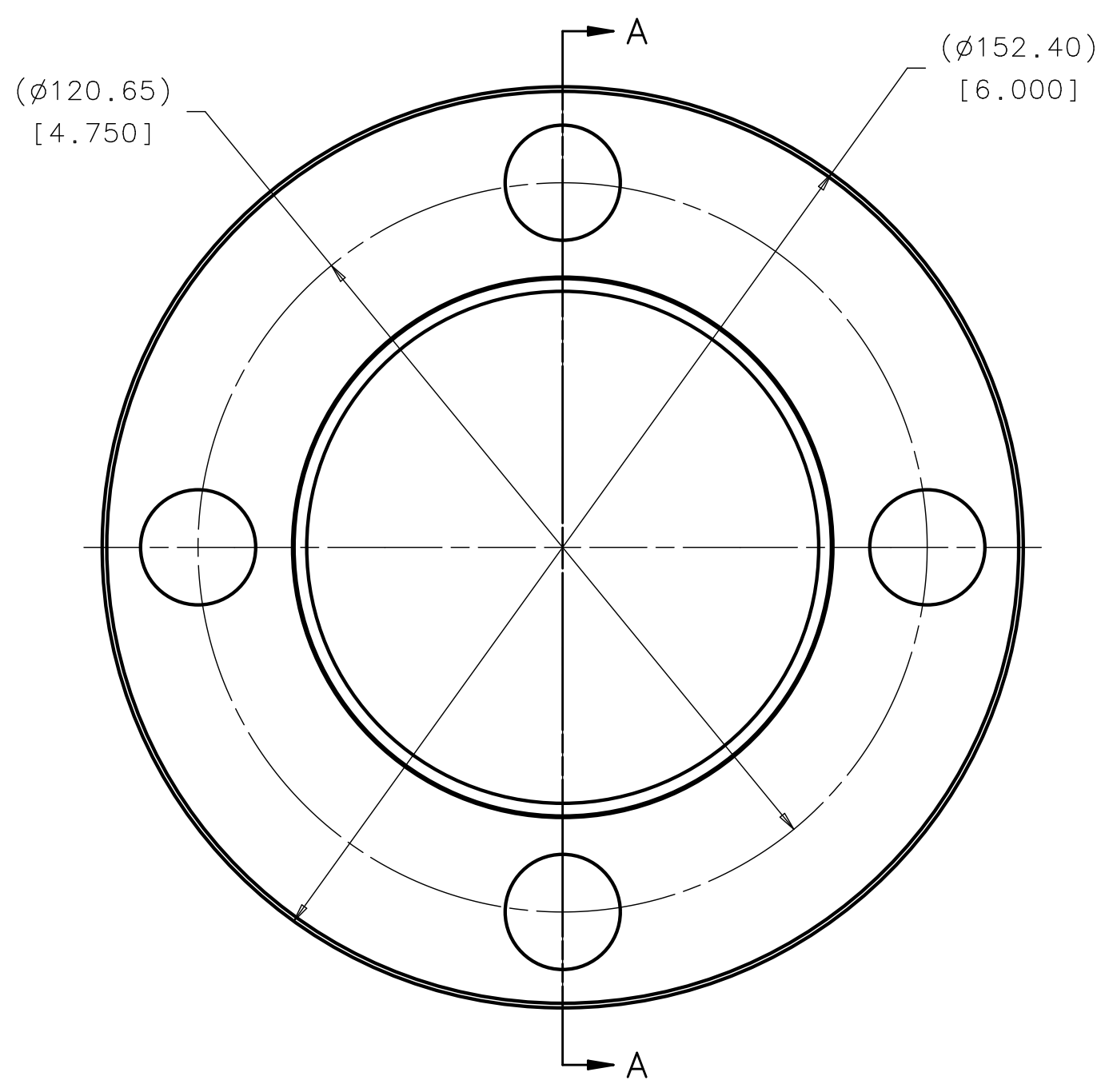


NOTES:

1. DIMENSIONS WITH SQUARE BRACKETS ARE IN INCH.

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2/ MAX.		DRAWN BY L ROSINE	DATE 25JUL06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
			CHECKED BY	DATE	
MATERIAL STEEL PLATE .375" THK ASTM A516 GR 70	TOLERANCES	THIRD ANGLE PROJECTION	ENGINEERED BY	DATE	
	X ± 2 .X ± .XX ± ANGLE ± 1°		DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN	
			CAD I-DEAS	SOLID MODEL NO. D00000000627962	SIZE A3
					CAGE CODE OU5R6
					DWG NO. D00000000755011
					REV A
					SCALE 1:1 DO NOT SCALE DWG SHEET OF 1

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE, ER #		



ISOMETRIC VIEW
SCALE 1/2

NOTES (UNLESS OTHERWISE SPECIFIED):

- ALL DIMENSIONS ARE IN MILLIMETERS; DIMENSIONS IN [.XX] ARE IN INCHES.
- ALL FILLET WELDS TO BE SMOOTH FOR COSMETIC APPEARANCE.
- STEEL WELDS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF ANSI/AWS D1.1, STRUCTURAL WELDING CODE STEEL.
 - THE WELDS SHALL HAVE NO CRACKS, THOROUGH FUSION, AND PROPER PROFILES. THE UNDERRUN, UNDERCUT, AND POROSITY OF THE WELDS MUST CONFORM TO THE CODE. ALL OF THE ABOVE PROPERTIES SHALL BE VISUALLY INSPECTED PER THE ACCEPTANCE CRITERIA IN AWS D1.1, TABLE 6.1. (REVISION 98).
 - WELD REPAIRS AND WELDMENT STRAIGHTENING MAY BE PERFORMED PER AWS D1.1: 5.26. ENGINEERING APPROVAL MAY BE REQUIRED PER 5.26.3. (SECTION NUMBERS TAKEN FROM REVISION 98).
- ALL WELDS TO BE VACUUM TIGHT. NO LEAK SHALL BE DETECTABLE ON THE MOST SENSITIVE SCALE OF A HELIUM DETECTOR WITH A MINIMUM SENSITIVITY OF 2×10^{-10} ATM, CC/SEC PER FERMI LAB SPECIFICATION #1620-ES-187240.
- INTERIOR WELDS TO BE AS SMOOTH AS POSSIBLE. FINISH GRIND SMOOTH MAY BE REQUIRED TO OBTAIN A SMOOTH TRANSITION.

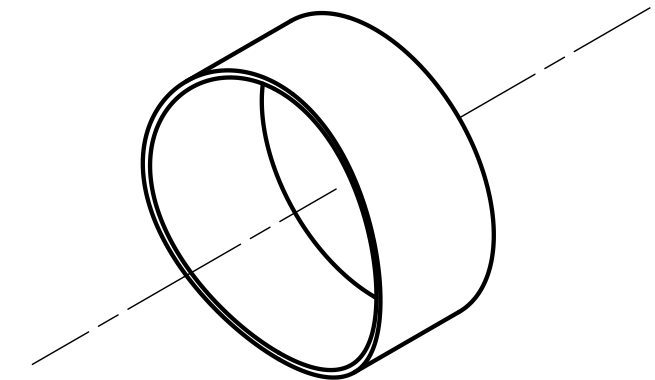
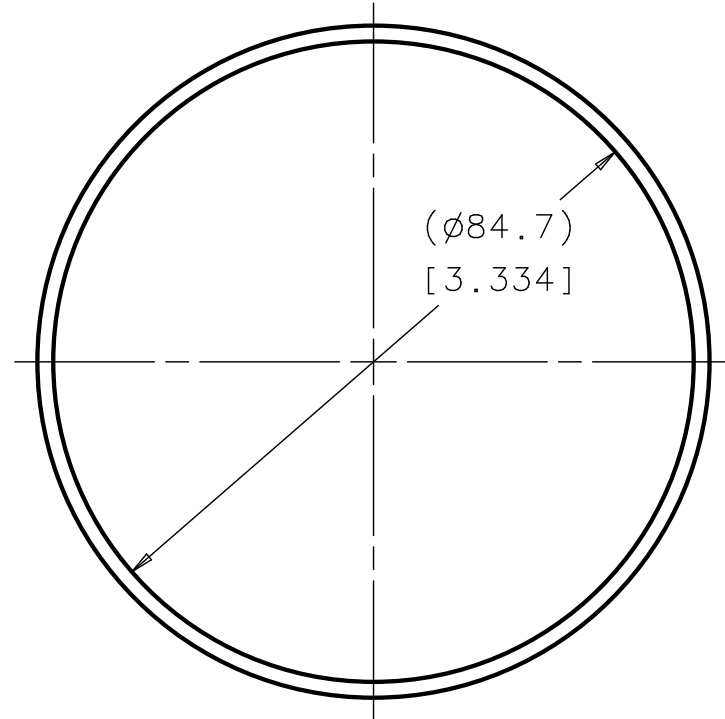
ITEM	P. I. N.	DESCRIPTION	QTY
2	A3-754991	TUBE INSTRUMENTATION	1
1	A3-754981	FLANGE INSTRUMENTATION	1

PARTS LIST									
FINISH		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L ROSNE		DATE 26JUL06		FERMILAB UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500	
MATERIAL		TOLERANCES		THIRD ANGLE PROJECTION		CHECKED BY		TITLE	
AS NOTED ABOVE		X ± 2 .X ± 0.8 .XX ± ANGLE ±				ENGINEERED BY		ILC, TYPE 4 CRYOMODULE PORT INSTRUMENTATION WELDMENT VESSEL_MC_INSTRUM_PORT_WELDMENT	
				DATABASE DESY EDMS		TEAM/GROUP T4CM		SIZE A2	
				CAD I-DEAS		SOLID MODEL NO. D00000000555523		CAGE CODE 0U5R6	
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								REV A	
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								SHEET OF 1	

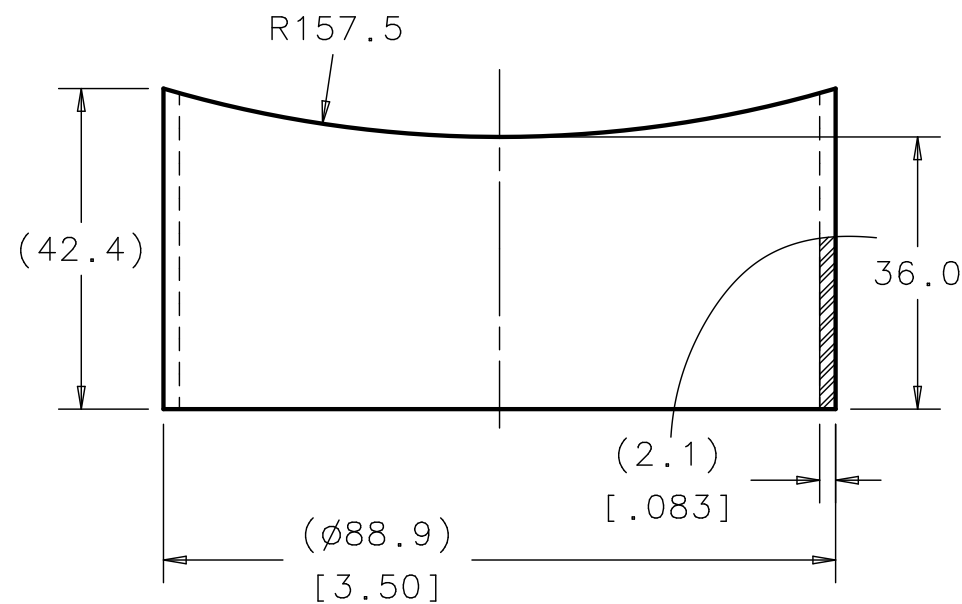
REVISION HISTORY

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE, ER#		


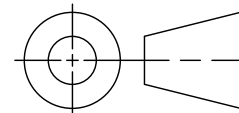


ISOMETRIC VIEW



NOTES:

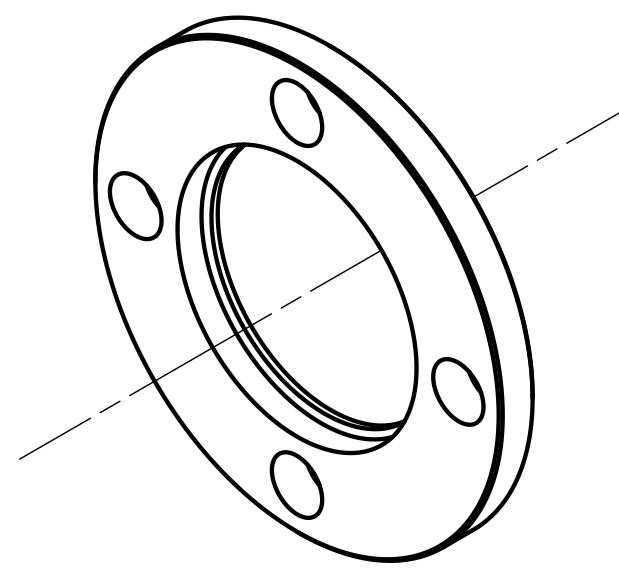
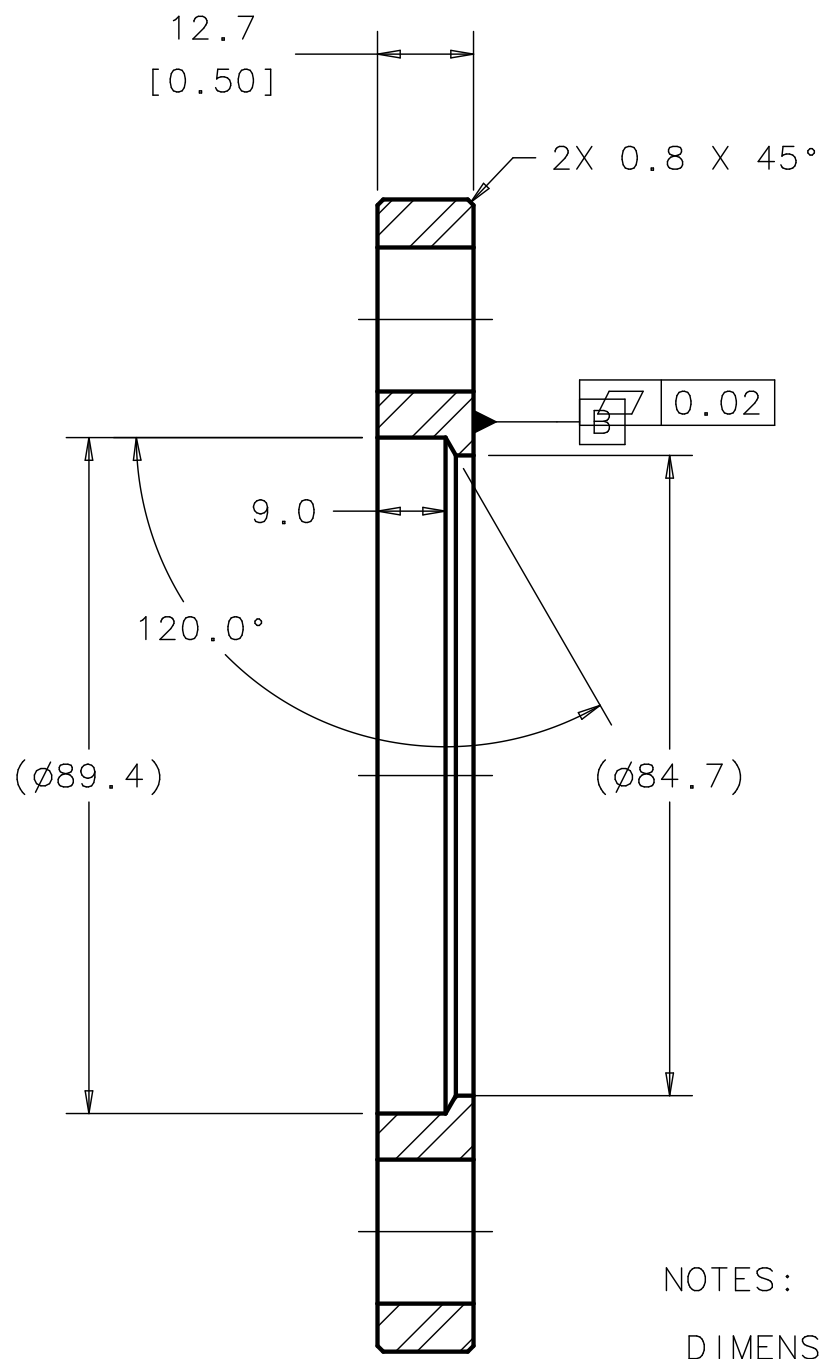
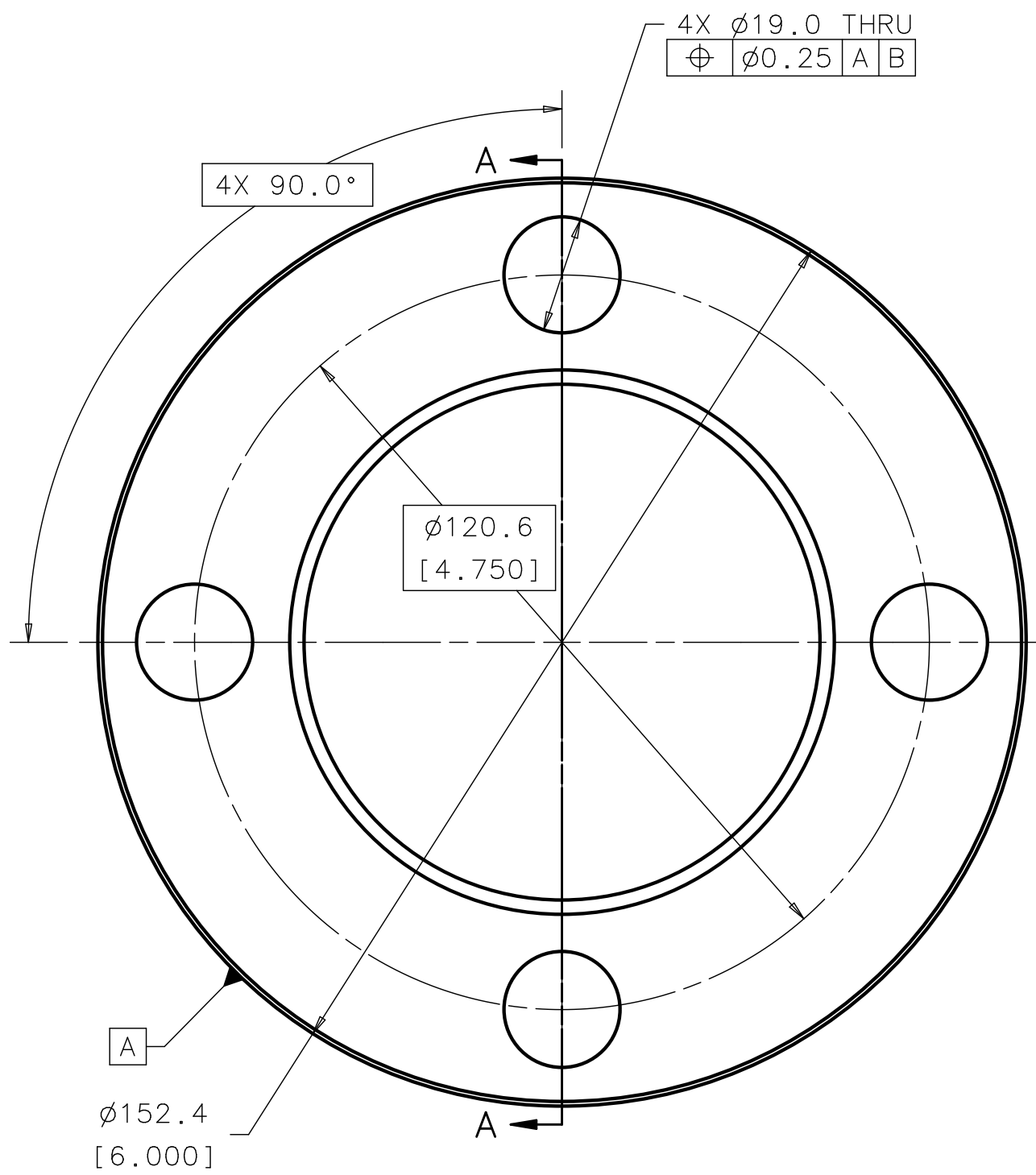
DIMENSION IN SQUARE BRACKETS ARE IN INCH.

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 / MAX.		DRAWN BY L ROSINE	DATE 26JUL06	 FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
			CHECKED BY	DATE	
MATERIAL 3.5" OD, .083" WALL PIPE ASTM A312 304 S.S.	TOLERANCES	THIRD ANGLE PROJECTION	ENGINEERED BY	DATE	
	X ± 2 .X ± 0.8 .XX ± ANGLE ±		DATABASE DESY EDMS	TEAM/GROUP T4CM	
			CAD I-DEAS	SOLID MODEL NO. D00000000626802	TITLE ILC, TYPE 4 CRYOMODULE TUBE INSTRUMENTATION VESSEL_MC_INSTRUMENTATION_TUBE
					SIZE A3 CAGE CODE OU5R6 DWG NO. D00000000754991 REV A SCALE 1:1 DO NOT SCALE DWG SHEET OF 1

REVISION HISTORY

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE, ER#		

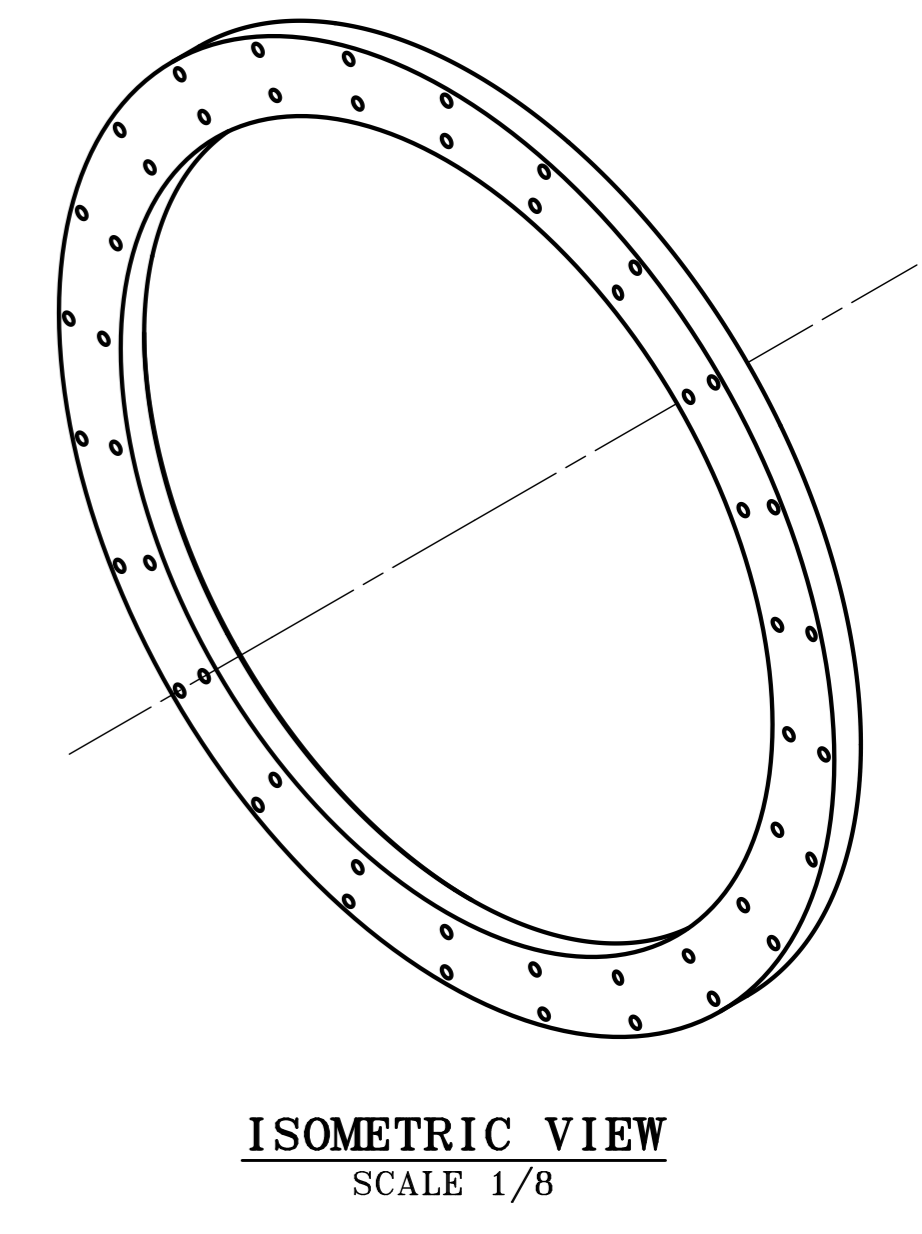
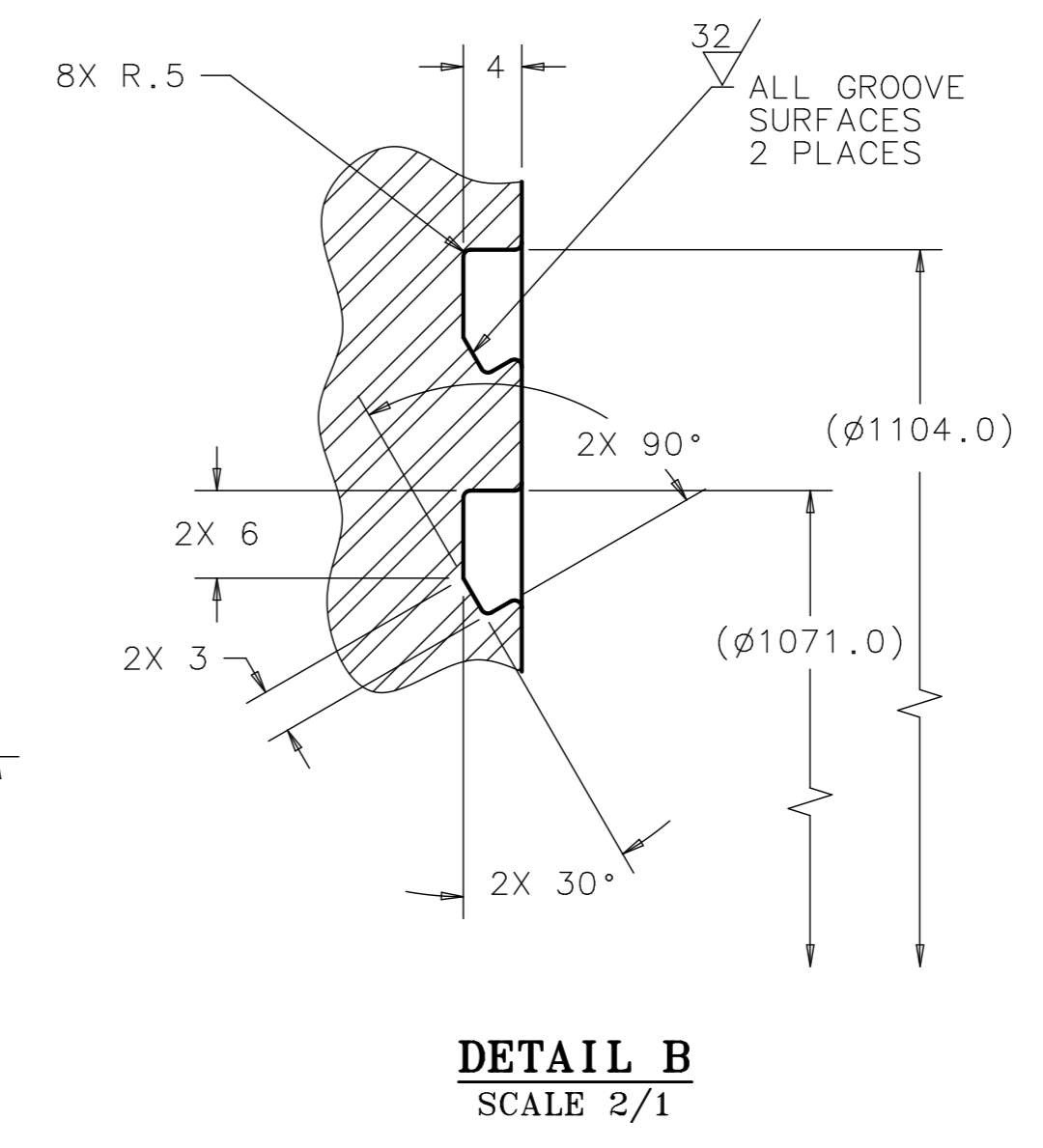
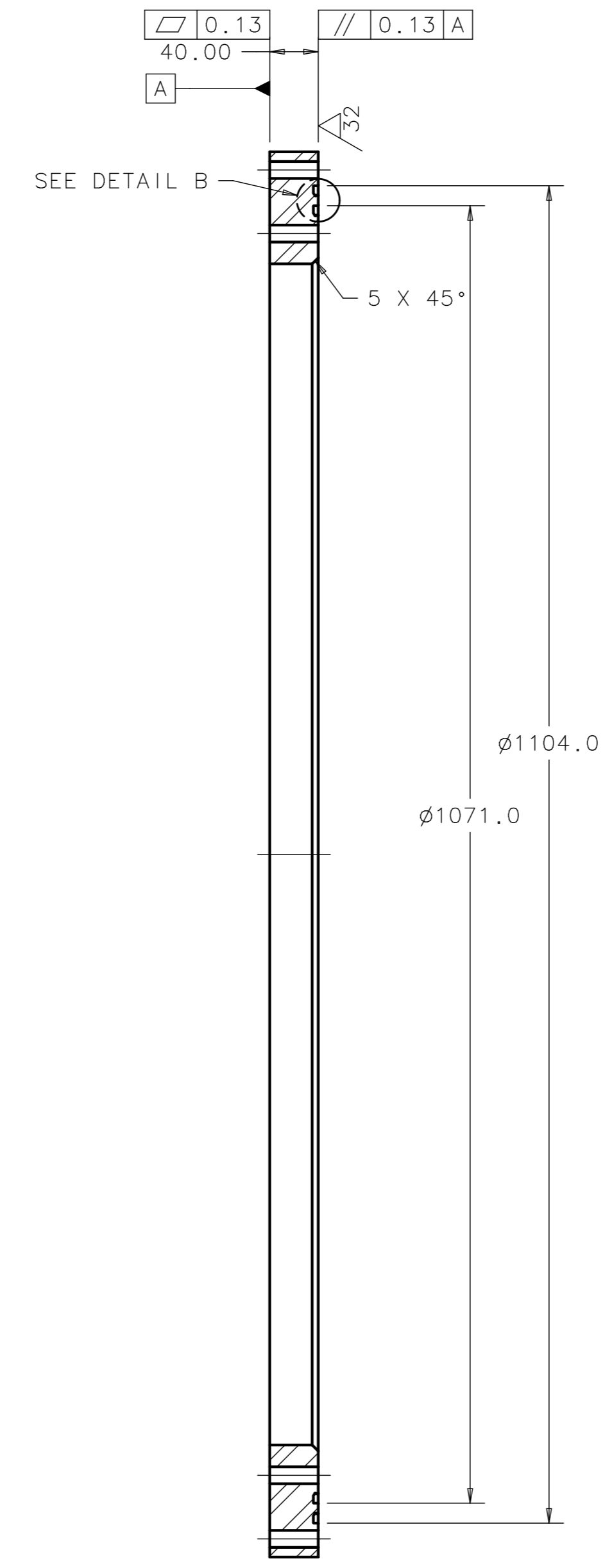
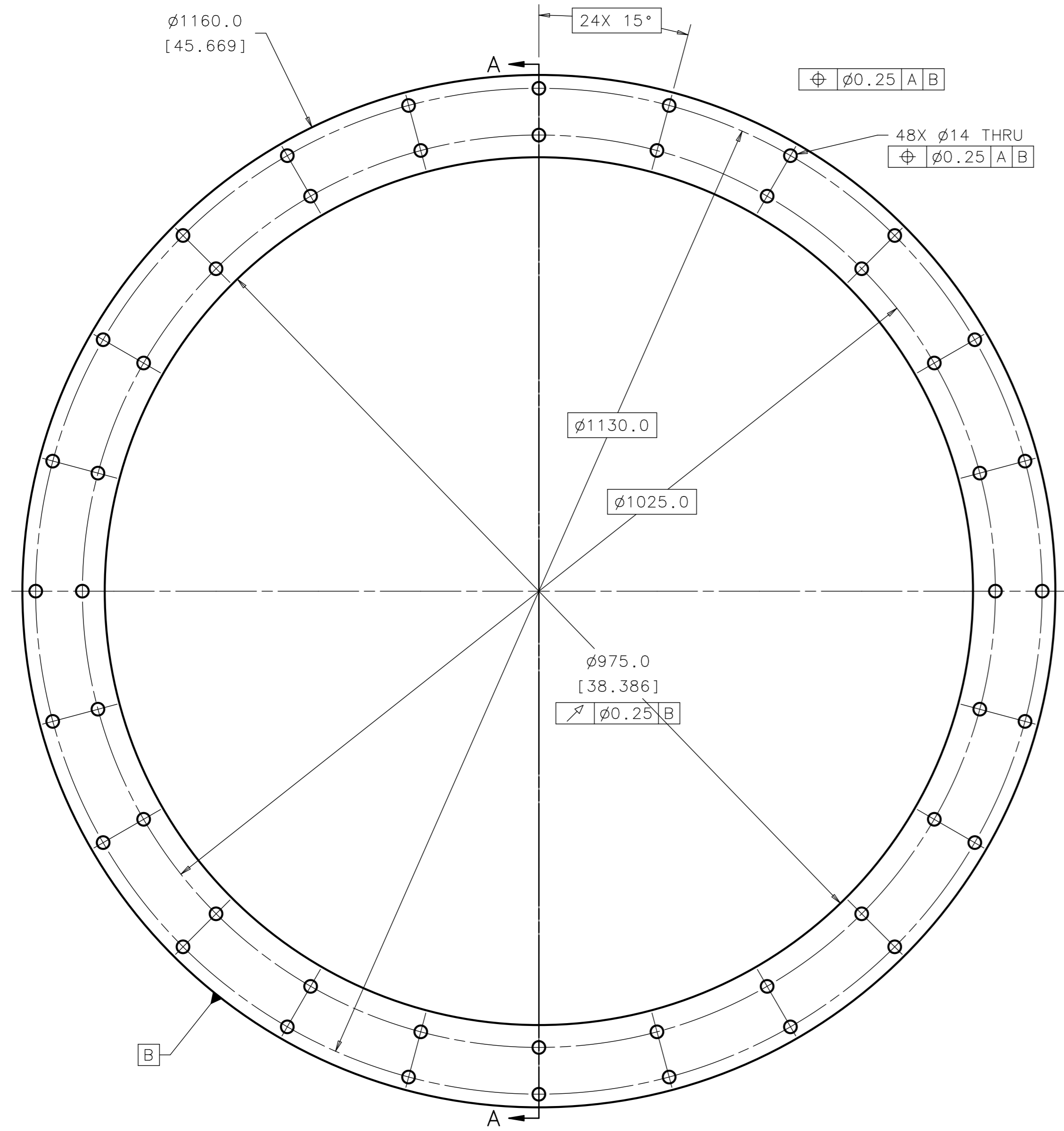


ISOMETRIC VIEW
 SCALE 1/2

SECTION A-A

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2/ MAX.		DRAWN BY L ROSINE	DATE 26JUL06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
	MATERIAL STAINLESS STEEL ASTM A182-F304L	TOLERANCES X ± 2 .X ± 0.8 .XX \pm ANGLE $\pm 1^\circ$	THIRD ANGLE PROJECTION 	CHECKED BY	
			ENGINEERED BY	DATE	TITLE ILC, TYPE 4 CRYMODULE FLANGE INSTRUMENTATION VESSEL_MC_INSTRUMENTATION_FLANGE
			DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN	SIZE A3
			CAD I-DEAS	SOLID MODEL NO. D00000000626792	CAGE CODE OU5R6
					DWG NO. D00000000754981
					REV A
					SCALE 1:1 DO NOT SCALE DWG SHEET OF 1

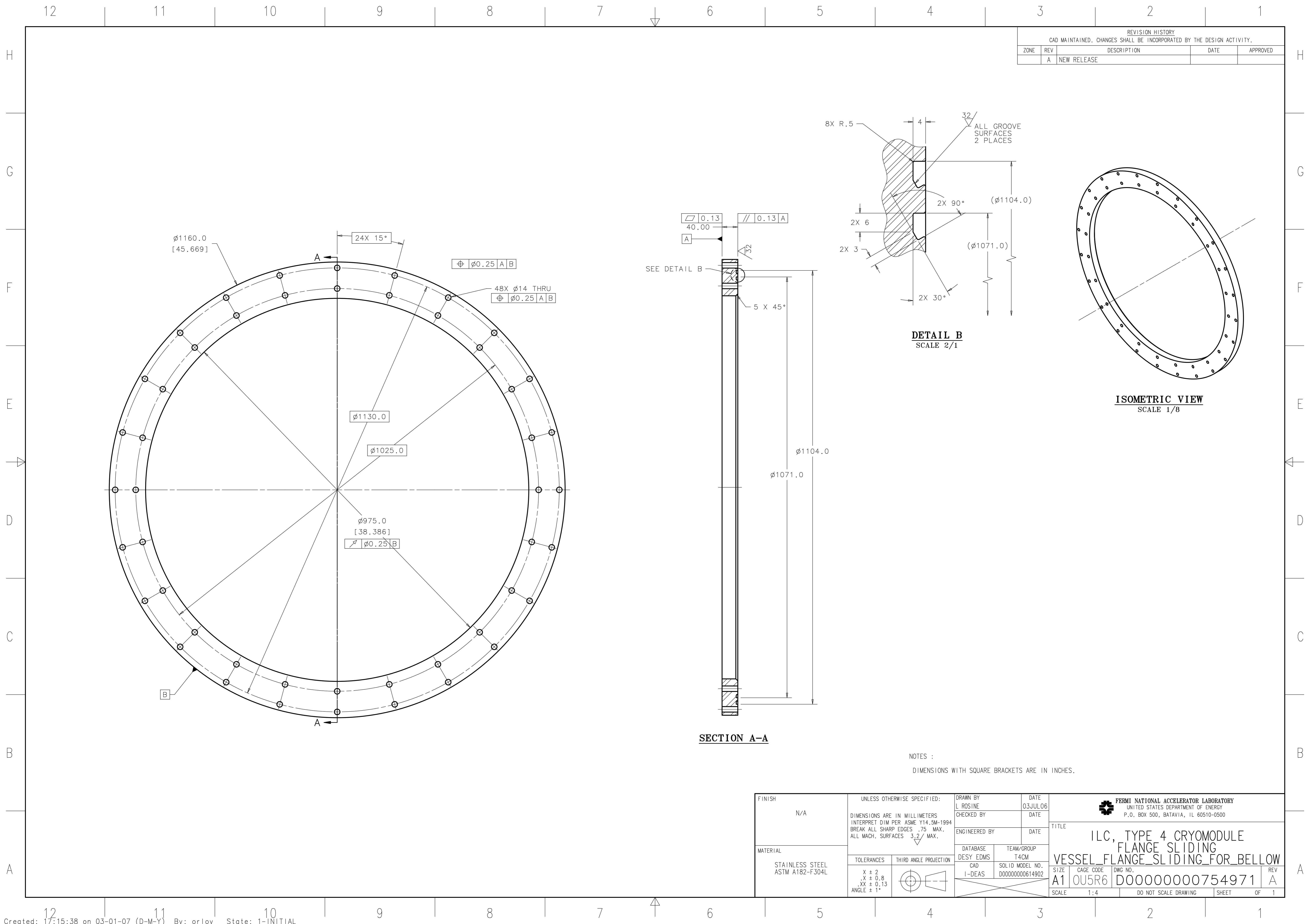
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE		



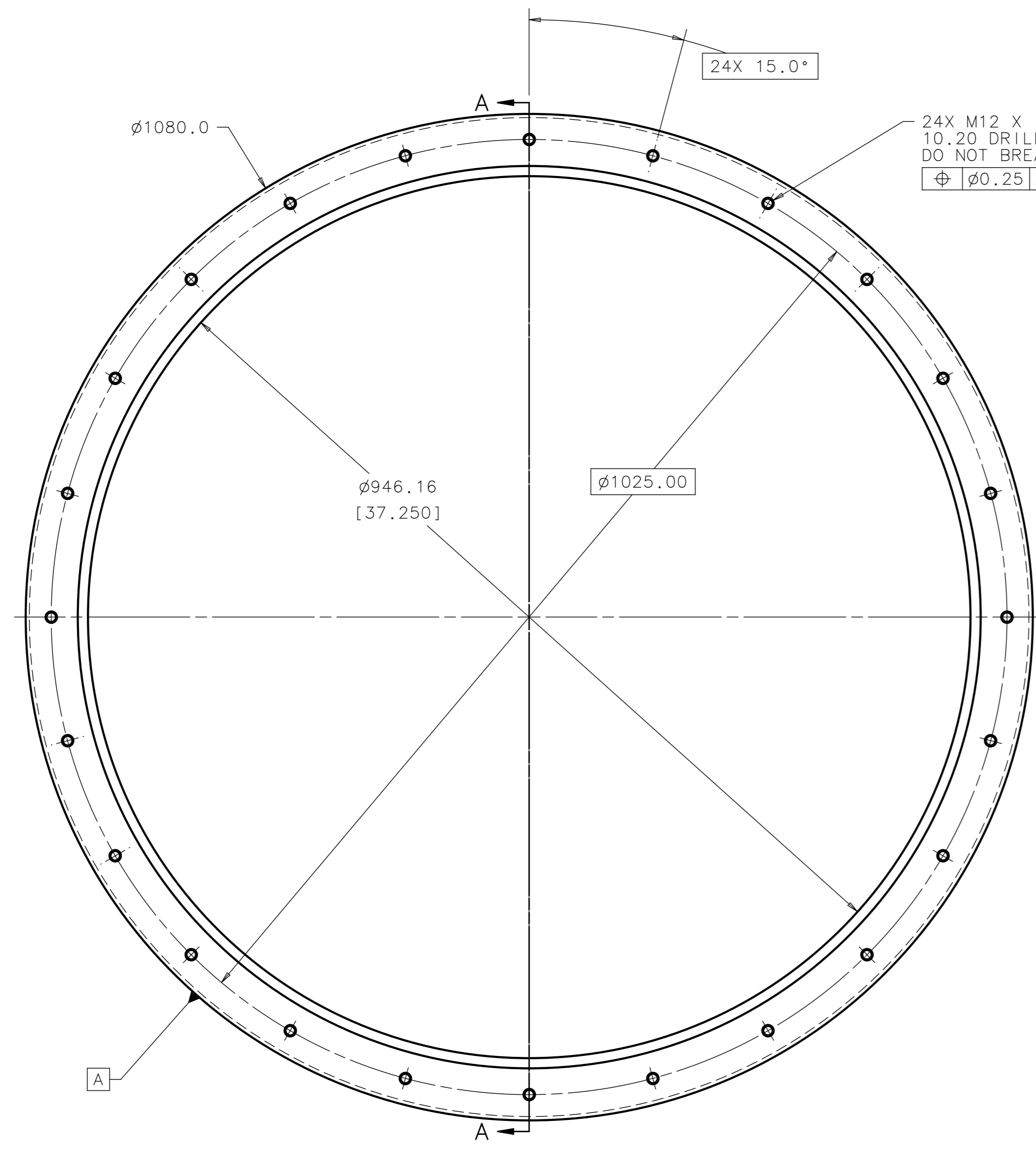
SECTION A-A

NOTES :
DIMENSIONS WITH SQUARE BRACKETS ARE IN INCHES.

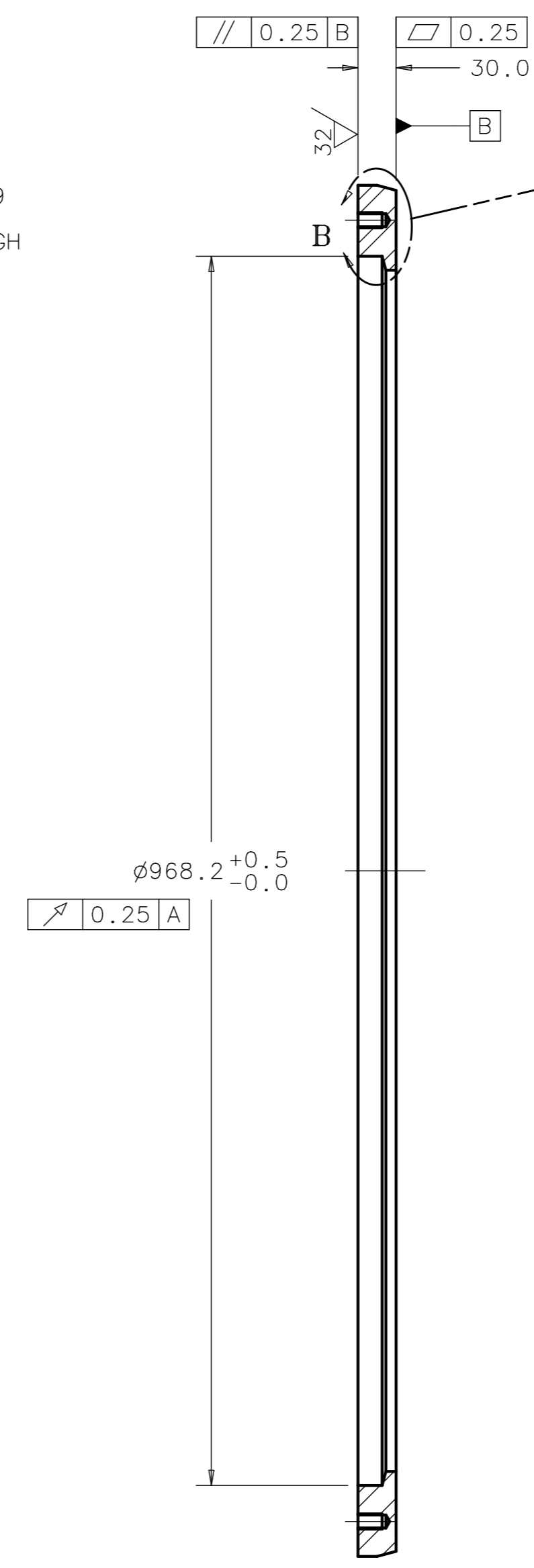
FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2/ MAX.	DRAWN BY L. ROSINE	DATE 03JUL06	FERMIONATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
		CHECKED BY	DATE	
MATERIAL STAINLESS STEEL ASTM A182-F304L	TOLERANCES X ± 2 .X ± 0.8 .XX ± 0.13 ANGLE ± 1°	ENGINEERED BY	DATE	TITLE ILC, TYPE 4 CRYOMODULE FLANGE SLIDING VESSEL FLANGE SLIDING FOR BELLOW
		DATABASE DESY EDMS	TEAM/GROUP T4CM	
		CAD I-DEAS	SOLID MODEL NO. D00000000614902	
THIRD ANGLE PROJECTION				SIZE A1
		DWG NO. D00000000754971		SHEET OF 1
		SCALE 1:4		DO NOT SCALE DRAWING



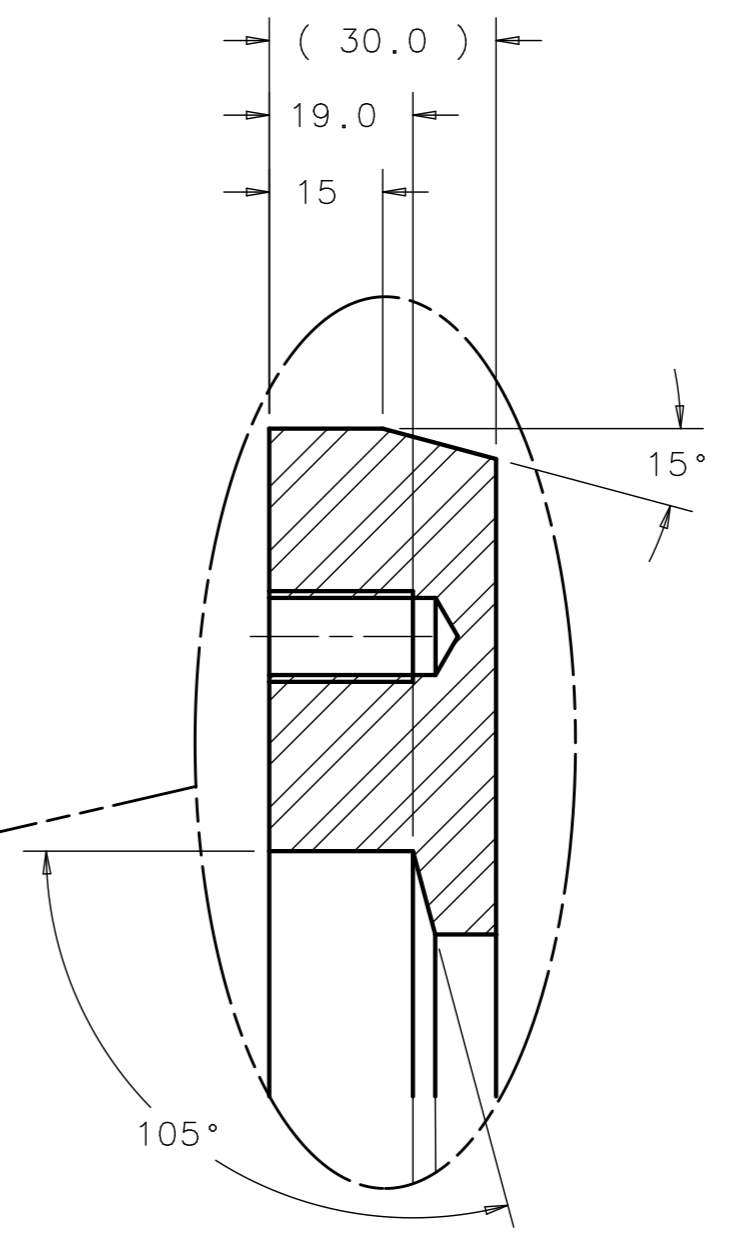
REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE		



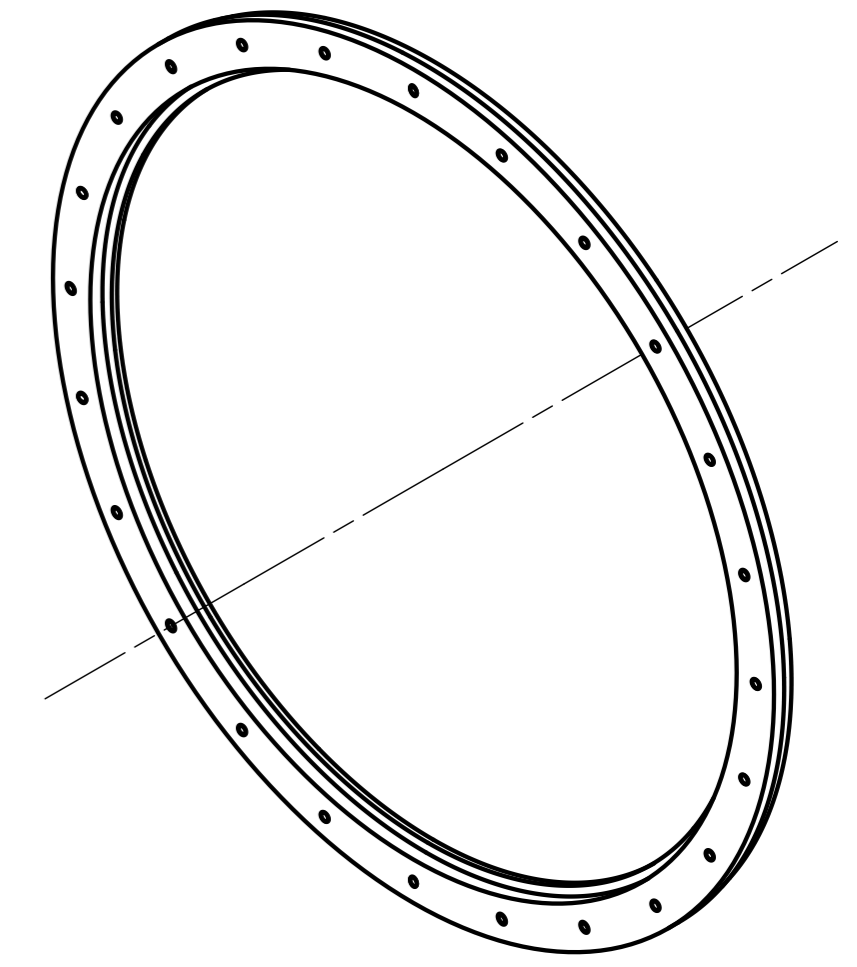
24X M12 X 1.75 ∇ 19
 10.20 DRILL ∇ 22
 DO NOT BREAK THROUGH
 $\phi \pm 0.25$ A|B



SECTION A-A



DETAIL B
SCALE 1/1

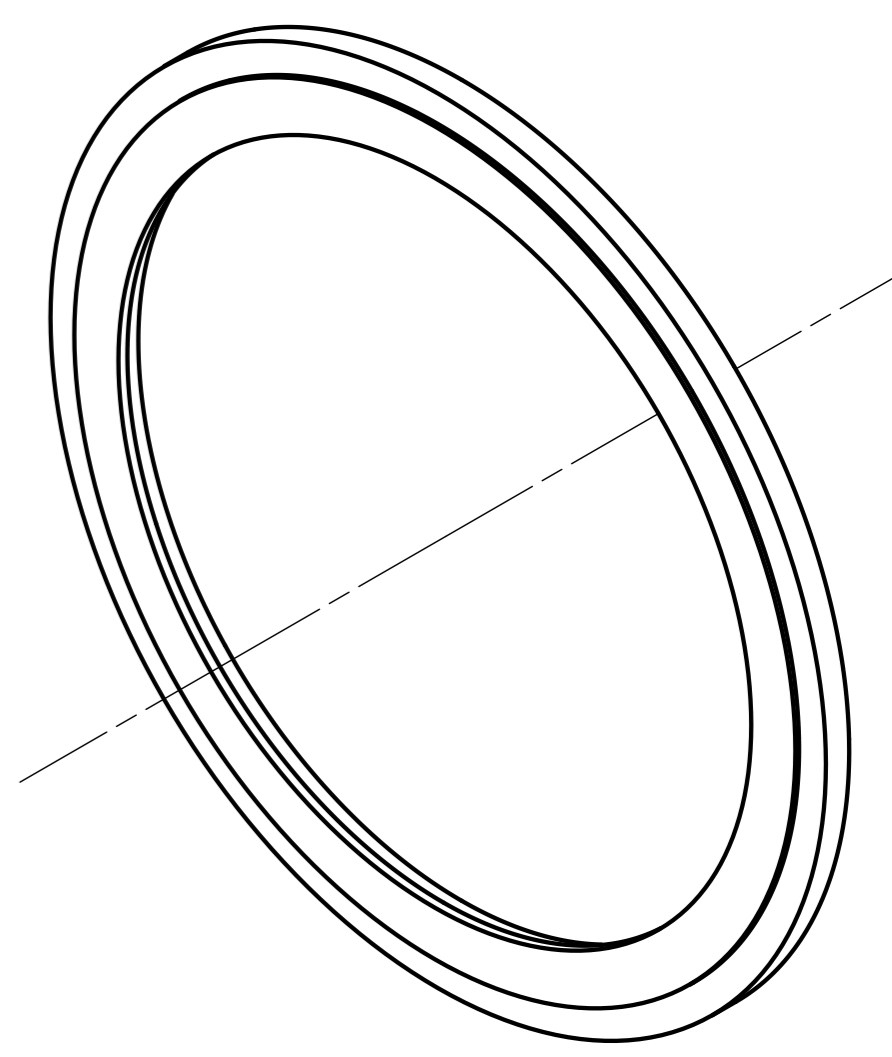
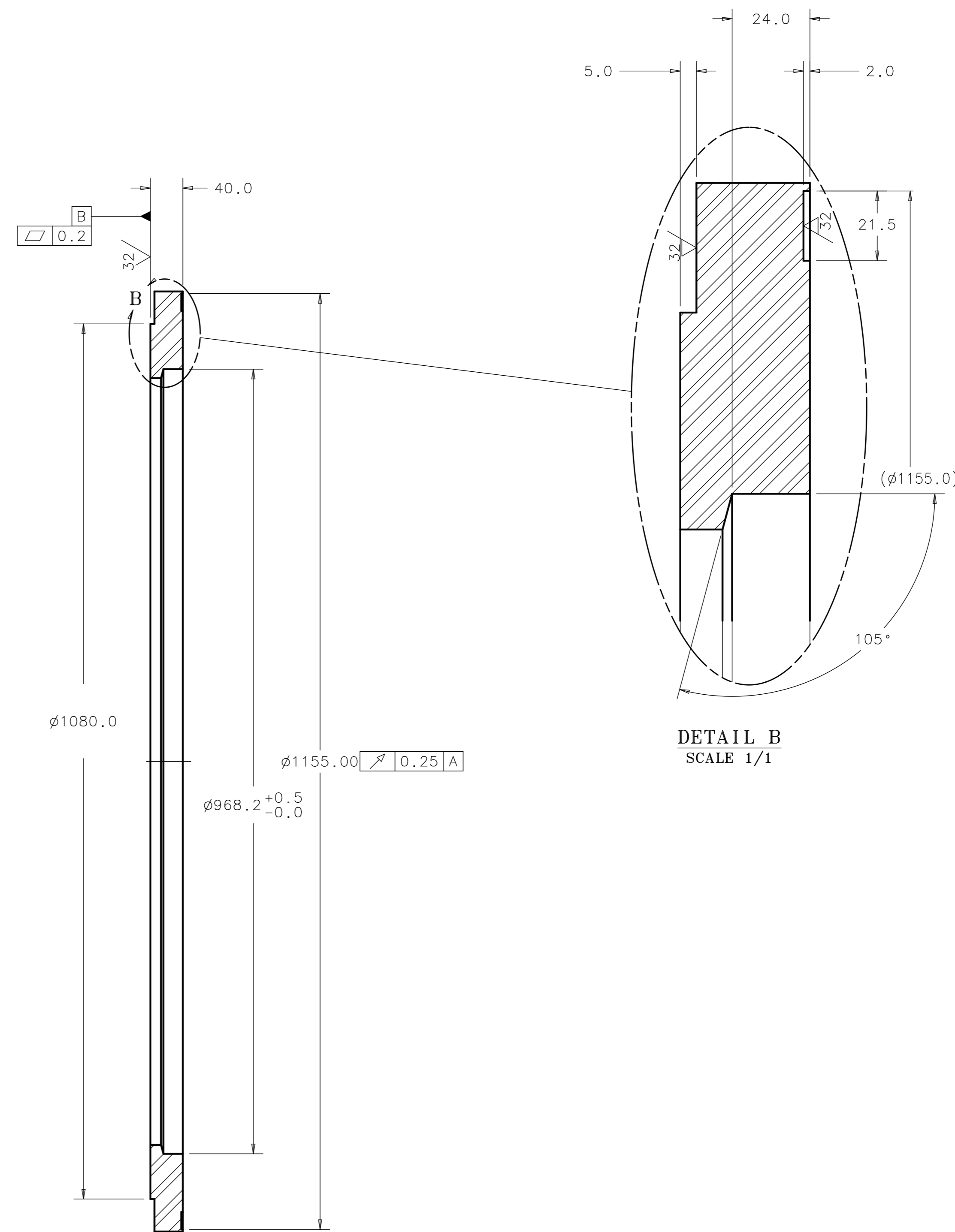
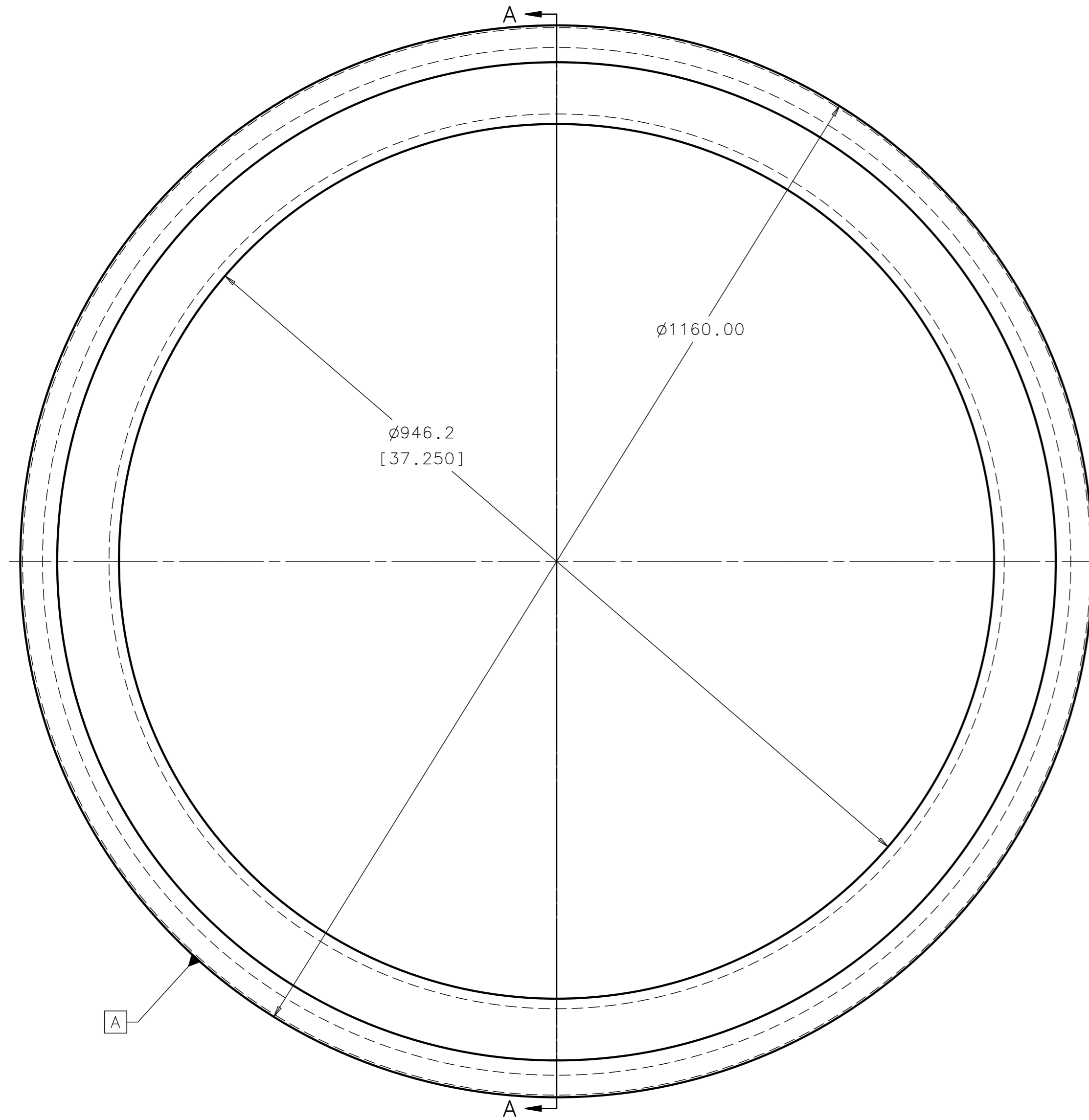


ISOMETRIC VIEW
SCALE 1/8

NOTES:
 DIMENSION WITH SQUARE BRACKETS ARE IN INCHES.

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L. ROSINE	DATE 03JUL06	FERMION NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
	MATERIAL STAINLESS STEEL ASTM A182-F304L	TOLERANCES	THIRD ANGLE PROJECTION	CHECKED BY	
X \pm 2 .X \pm 0.8 .XX \pm 0.13 ANGLE \pm 1°			ENGINEERED BY	DATE	TITLE ILC, TYPE 4 CRYOMODULE FLANGE FIXED UPSTREAM VESSEL FLANGE FIXED UPSTREAM
			DATABASE DESY EDMS	TEAM/GROUP T4CM	SIZE A1
			CAD I-DEAS	SOLID MODEL NO. D00000000615352	CAGE CODE OU5R6
					DWG NO. D00000000754961
					REV A
					SCALE 1:4
					DO NOT SCALE DRAWING
					SHEET OF 1

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE		



ISOMETRIC VIEW
SCALE 1/8

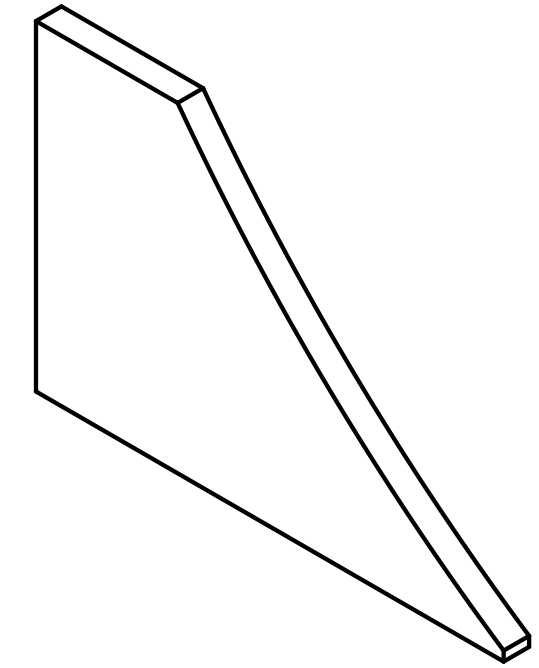
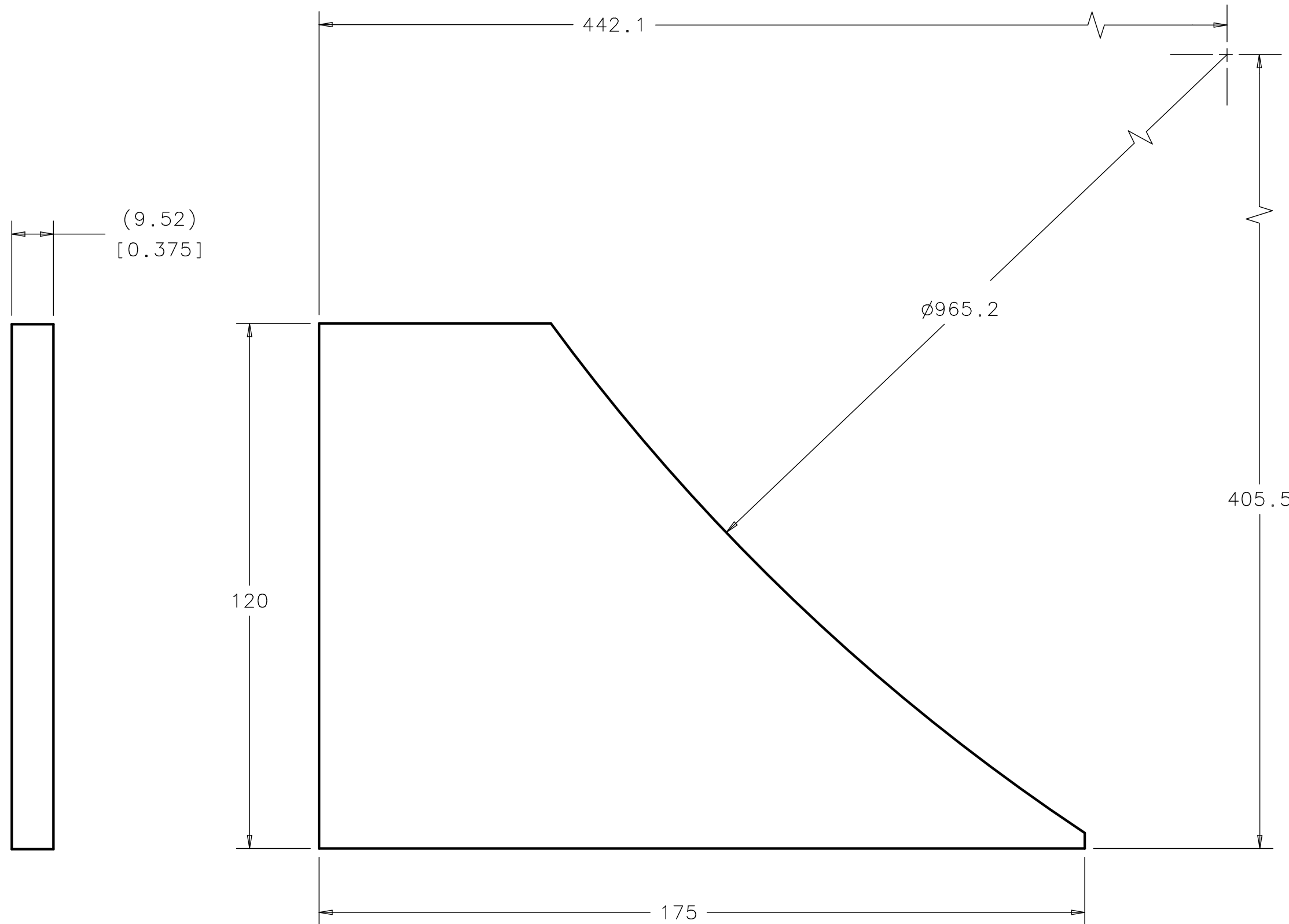
DETAIL B
SCALE 1/1

SECTION A-A

NOTES:
DIMENSION WITH SQUARE BRACKET ARE IN INCHES.

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L ROSINE	DATE 03JUL06	FERMIONATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
	MATERIAL STAINLESS STEEL ASTM A182-F304L	TOLERANCES X ± 2 .X ± 0.8 .XX ± 0.13 ANGLE ± 1°	THIRD ANGLE PROJECTION 	CHECKED BY	
		ENGINEERED BY	DATE	TITLE ILC, TYPE 4 CRYOMODULE FLANGE FIXED DOWNSTREAM VESSEL FLANGE FIXED DOWNSTREAM	
		DATABASE DESY EDMS	TEAM/GROUP T4CM	SIZE A1	CAGE CODE OU5R6
		CAD I-DEAS	SOLID MODEL NO. D00000000615342	DWG NO. D00000000754951	REV A
		SCALE 1:4		DO NOT SCALE DRAWING SHEET OF 1	

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE		



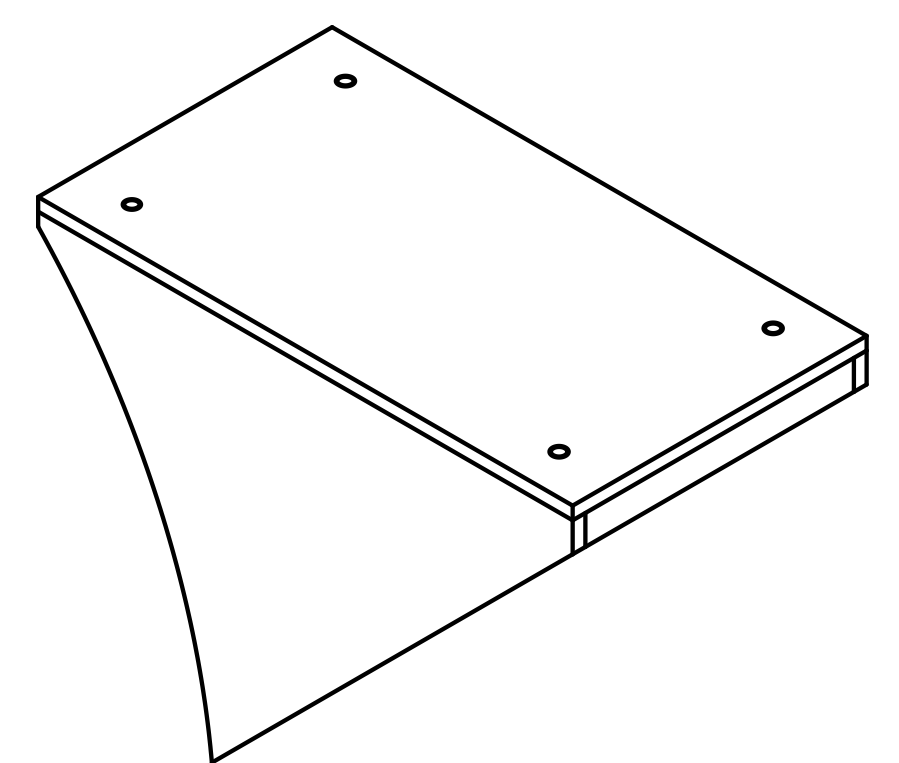
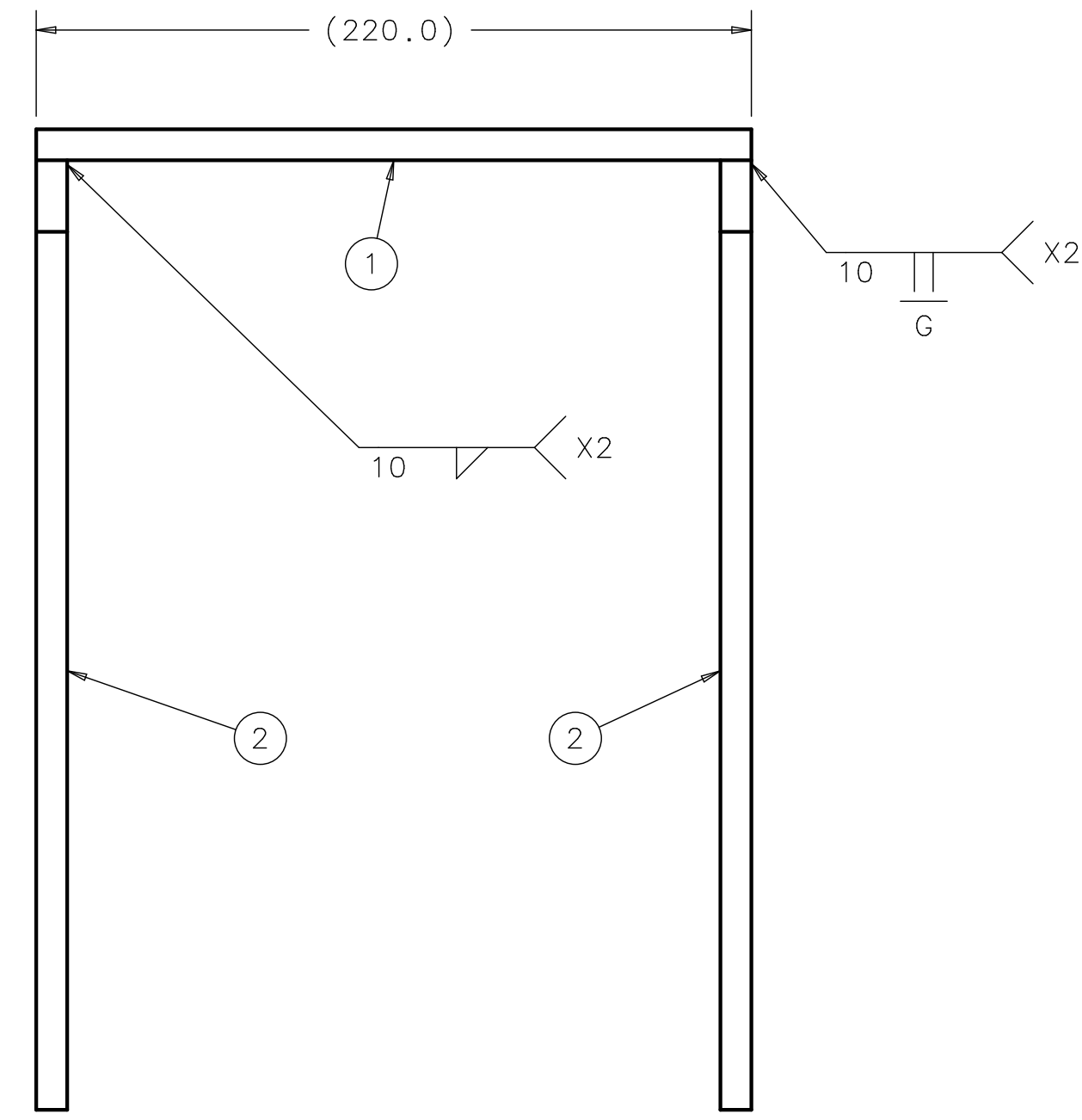
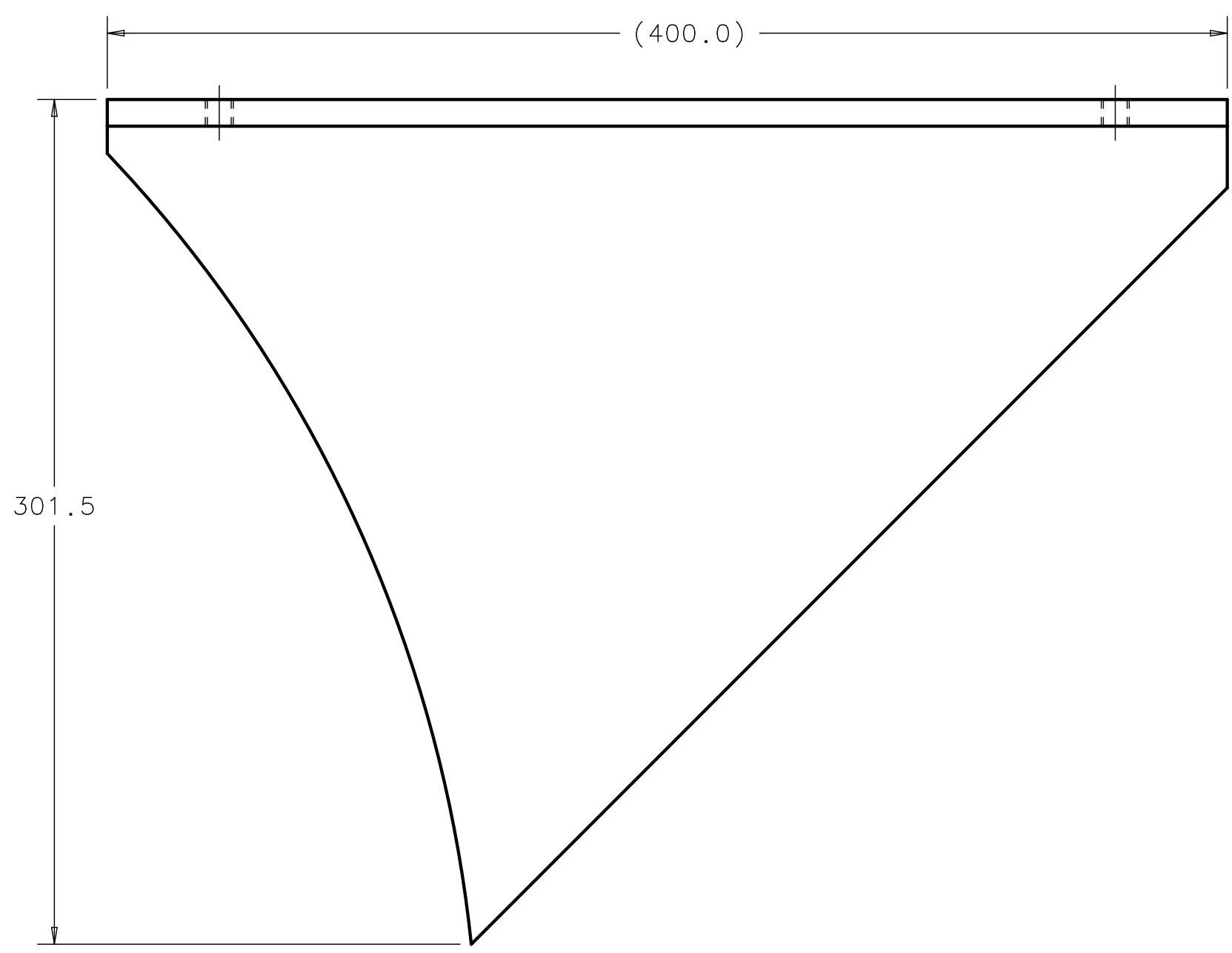
ISOMETRIC VIEW
SCALE 1/2

NOTES:

1. DIMENSIONS WITH SQUARE BRACKETS ARE IN INCH.

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L ROSINE	DATE 25JUL06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500			
	MATERIAL ST. STEEL PLATE 3/8" THK ASTM A516 GR 70	TOLERANCES X ± 2 .X ± 0.8 .XX ± ANGLE ±	THIRD ANGLE PROJECTION 	CHECKED BY				
			ENGINEERED BY	DATE	SIZE A2	CAGE CODE OU5R6	DWG NO. D00000000754821	REV A
			DATABASE DESY EDMS	TEAM/GROUP T4CM	SCALE 1:1	DO NOT SCALE DWG	SHEET OF 1	
			CAD I-DEAS	SOLID MODEL NO. D00000000627952				

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE		



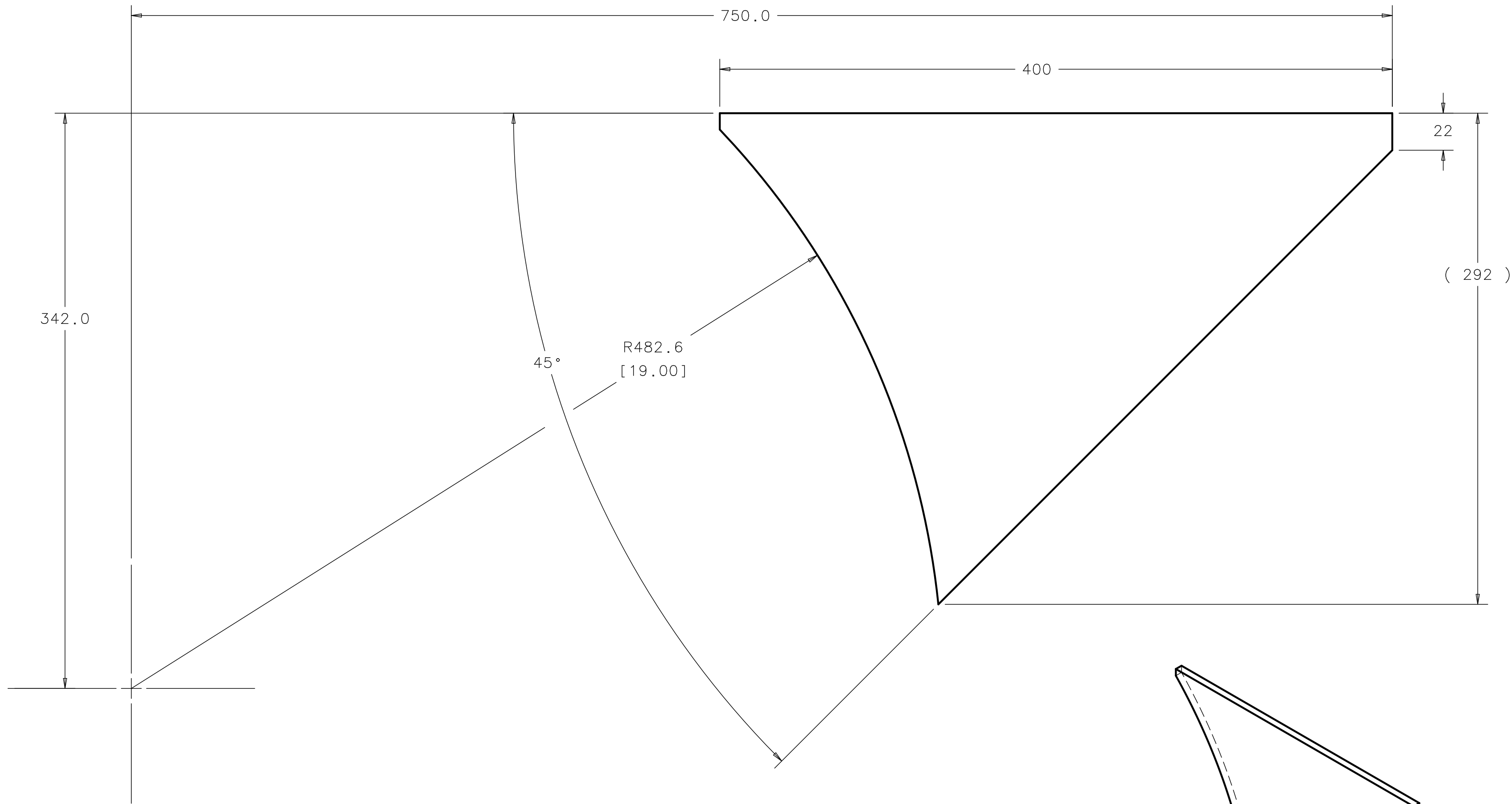
ISOMETRIC VIEW
SCALE 1/4

- NOTES (UNLESS OTHERWISE SPECIFIED):
- DIMENSION WITH SQUARE BRACKETS ARE IN INCH.
 - ALL FILLET WELDS TO BE SMOOTH FOR COSMETIC APPEARANCE.

ITEM	P. I. N.	DESCRIPTION	QTY
2	A2-754761	GUSSET OUTRIGGER	2
1	A2-754751	PLATE OUTRIGGER	1

PARTS LIST									
FINISH		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L ROSINE		DATE 26JUL06		FERMILAB UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500	
MATERIAL		TOLERANCES		THIRD ANGLE PROJECTION		CHECKED BY		TITLE	
AS NOTED ABOVE		X ± 2 .X ± 0.8 .XX ± 0.13 ANGLE ± 1°				ENGINEERED BY		ILC, TYPE 4 CRYOMODULE OUTRIGGER WELDMENT VESSEL_OUTRIGGER_WELDMENT	
				DATABASE DESY EDMS		TEAM/GROUP T4CM		SIZE A2	
				CAD I-DEAS		SOLID MODEL NO. D00000000552733		CAGE CODE OU5R6	
								DWG NO. D00000000754771	
								REV A	
								SCALE 1:2	
								DO NOT SCALE DWG	
								SHEET OF 1	

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE		

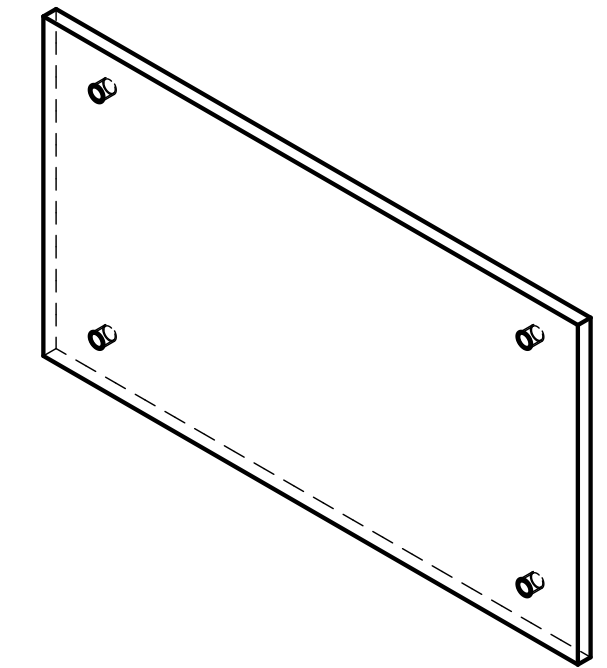
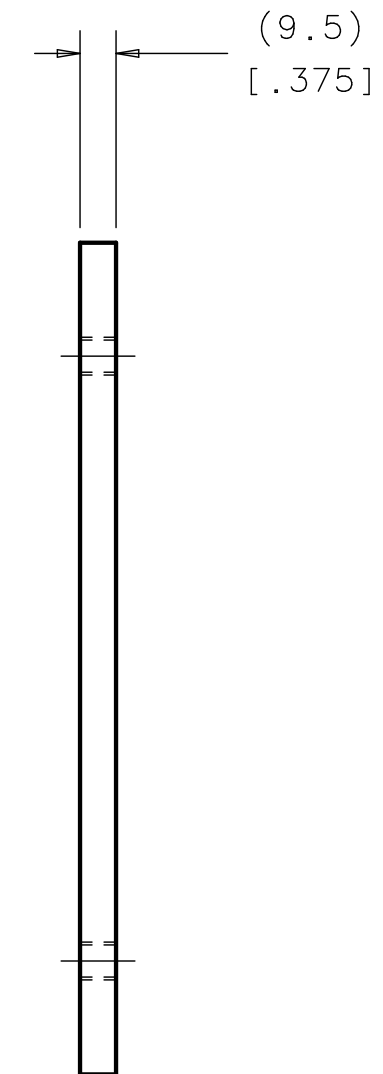
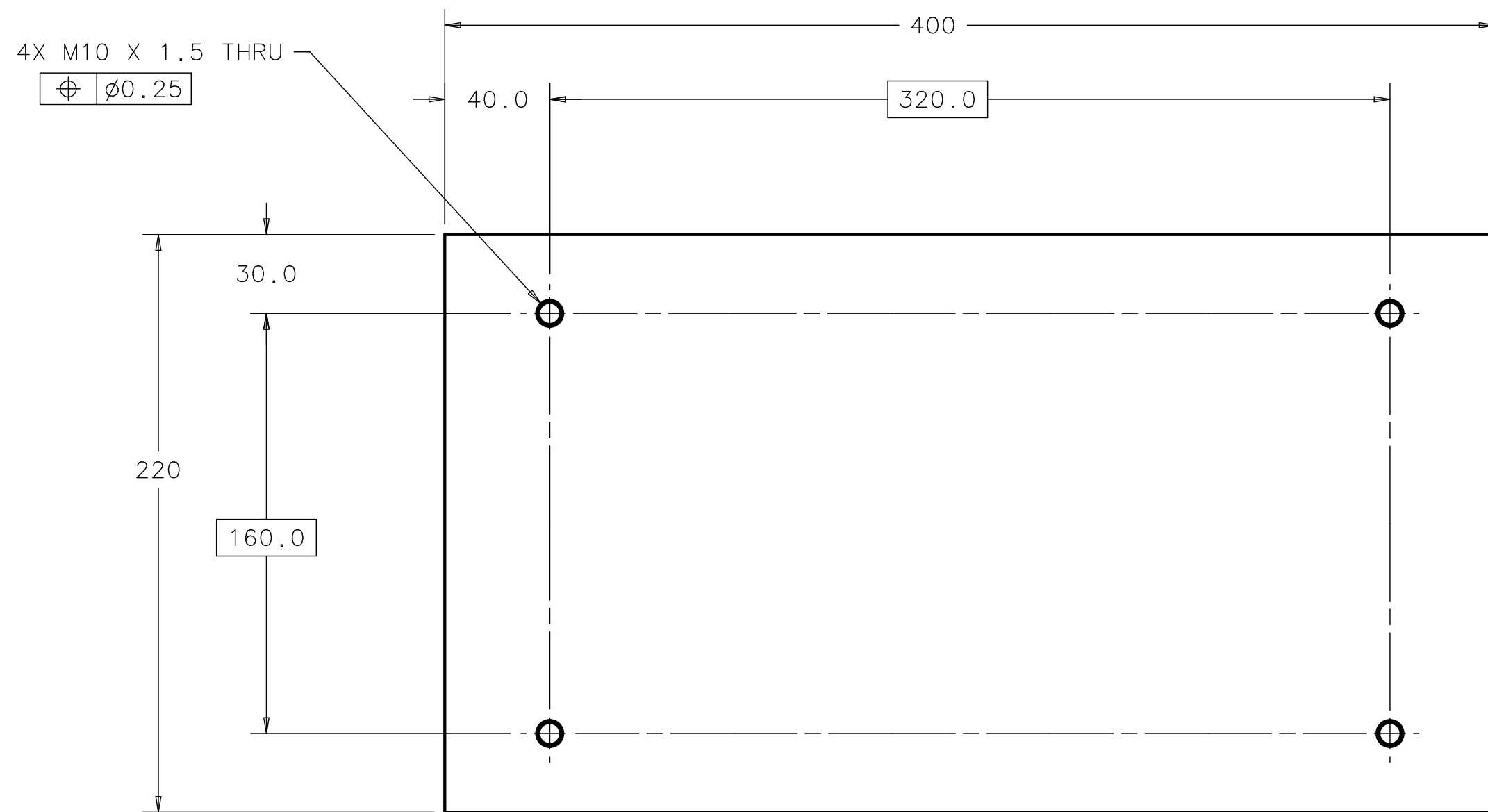


ISOMETRIC VIEW
SCALE 1/4

NOTES:
DIMENSION WITH SQUARE BRACKETS ARE IN INCHES.

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L ROSINE	DATE 01NOV06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500			
	MATERIAL 3/8" STEEL PLATE ASTM A516 GR 70	TOLERANCES X ± 2 .X ± 0.8 .XX ± 0.13 ANGLE ± 1°	THIRD ANGLE PROJECTION 	CHECKED BY				
			ENGINEERED BY	DATE	SIZE A2	CAGE CODE OU5R6	DWG NO. D00000000754761	REV A
			DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN	SCALE 1:2	DO NOT SCALE DWG	SHEET OF 1	

REVISION HISTORY				
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	NEW RELEASE		



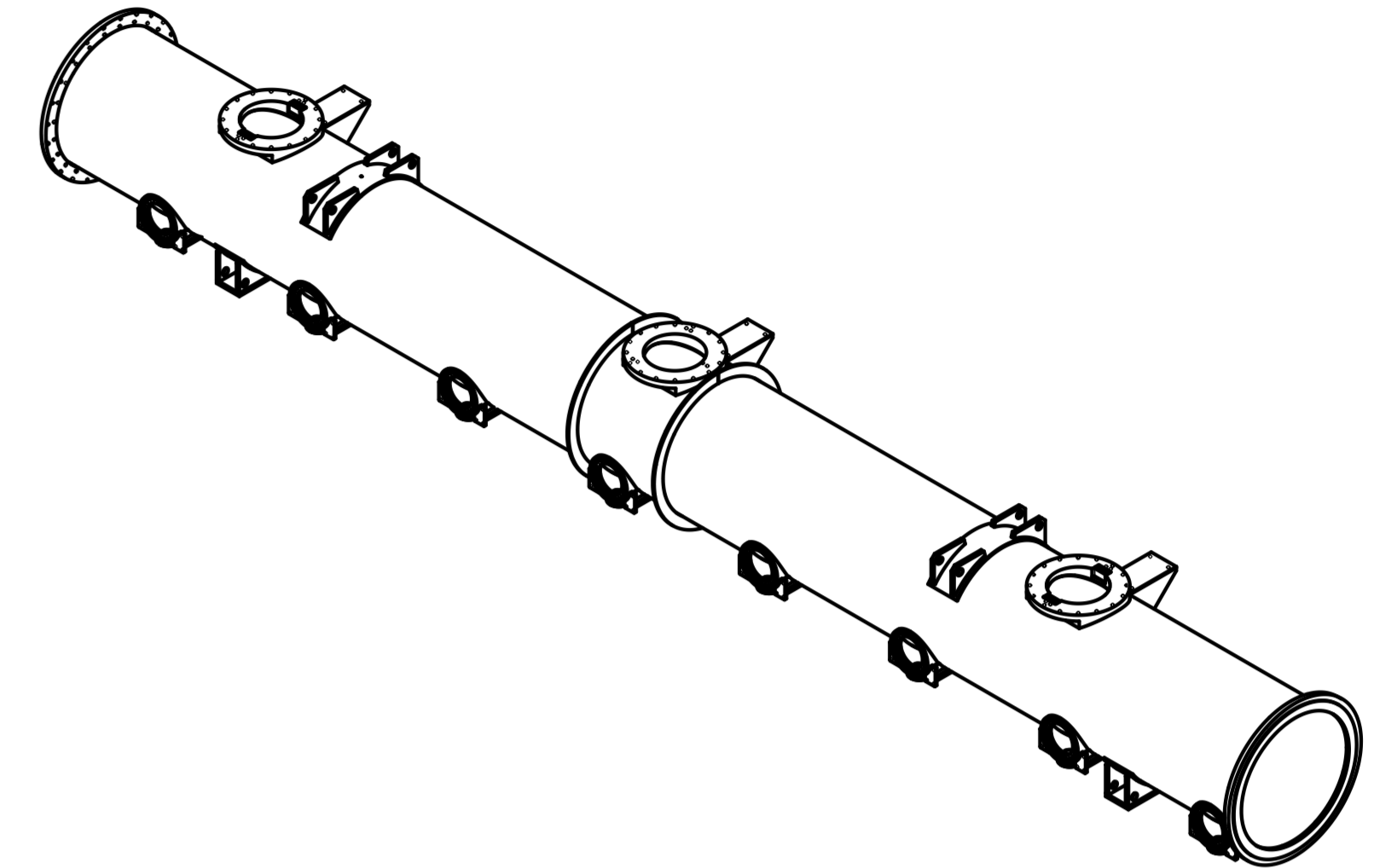
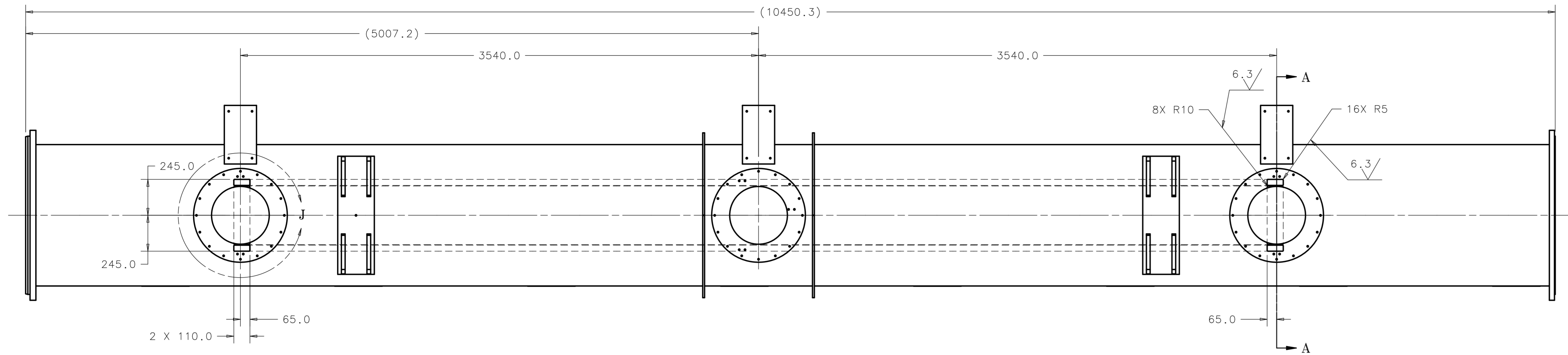
ISOMETRIC VIEW
 SCALE 1/4

NOTES:

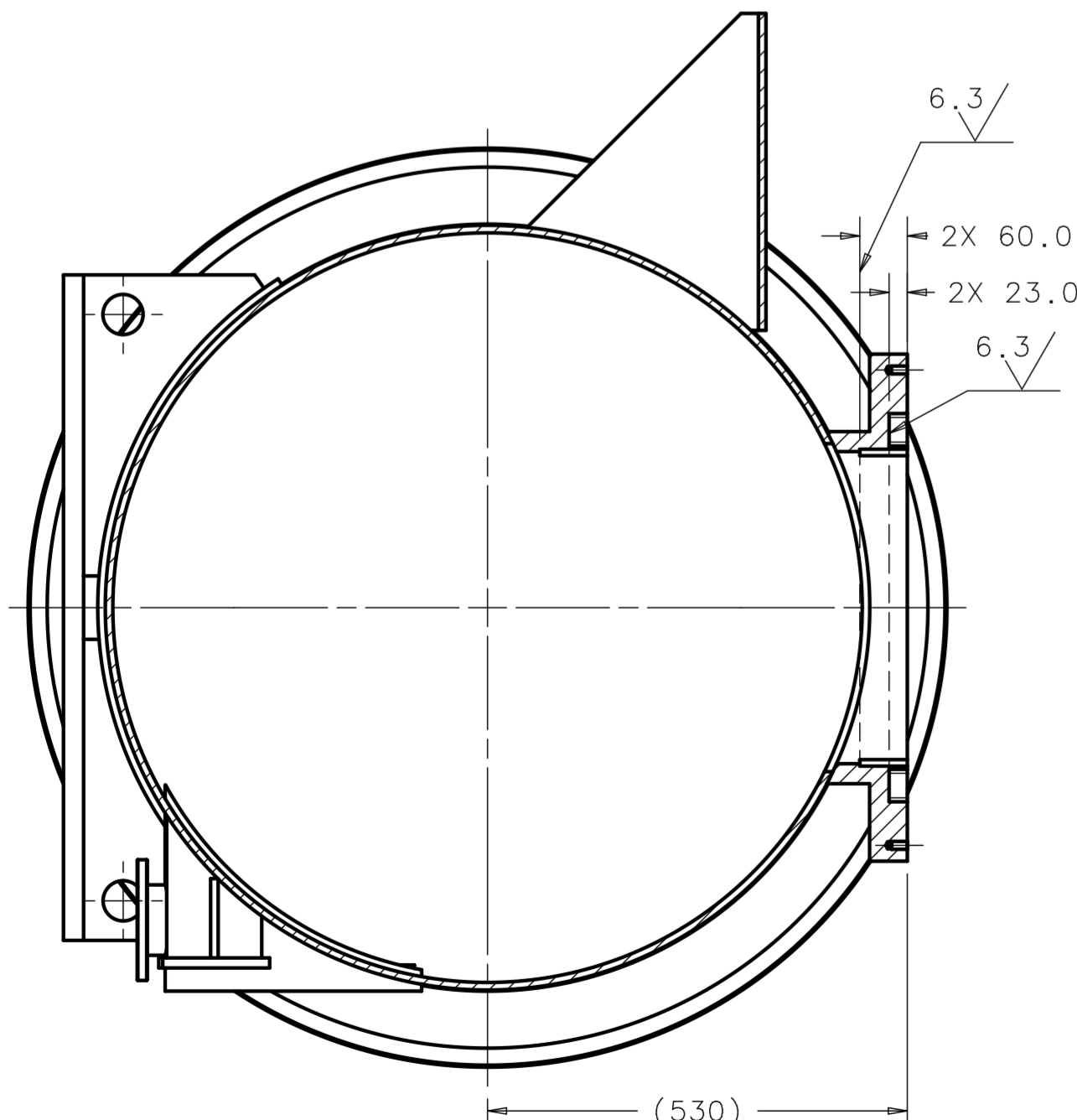
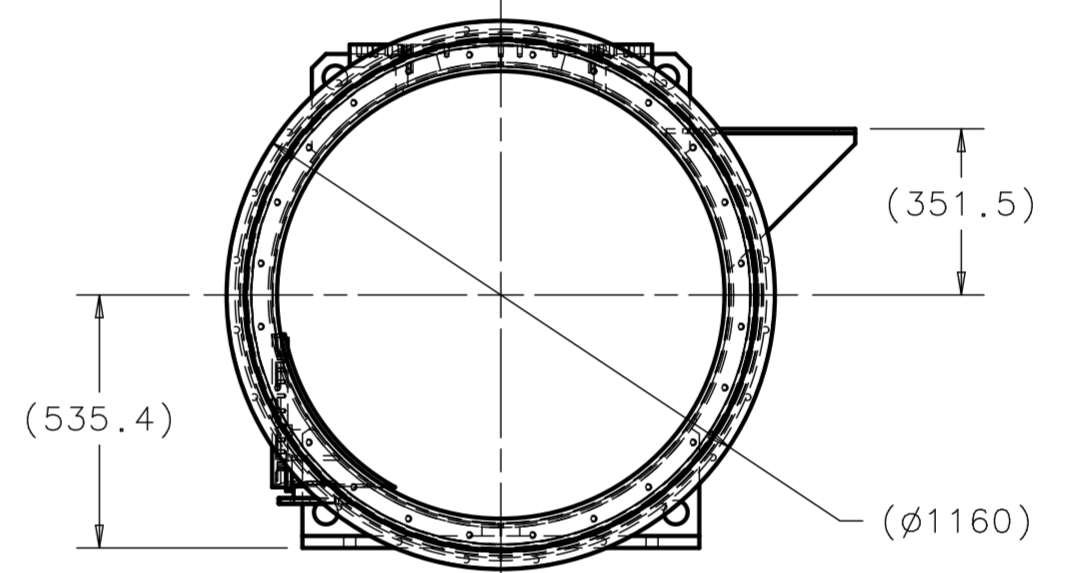
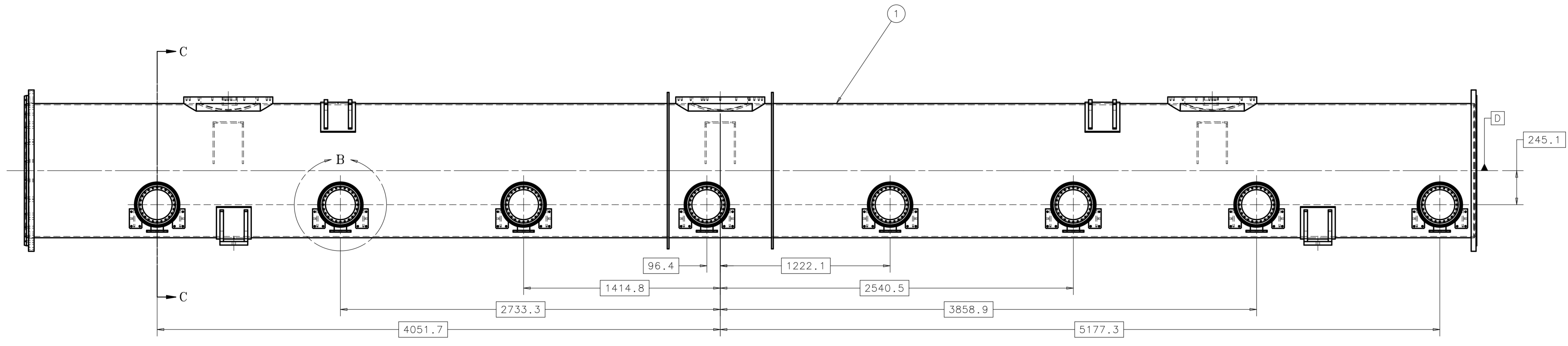
DIMENSION WITH SQUARE BRACKETS ARE IN INCH.

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2 MAX.		DRAWN BY L ROSINE	DATE 01NOV06	FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY P.O. BOX 500, BATAVIA, IL 60510-0500
			CHECKED BY	DATE	
MATERIAL 3/8" STEEL PLATE ASTM A516 GR 70	TOLERANCES	THIRD ANGLE PROJECTION	ENGINEERED BY	DATE	TITLE ILC, TYPE 4 CRYOMODULE PLATE OUTRIGGER VESSEL_OUTRIGGER_PLATE
	X ± 2 .X ± 0.8 .XX ± 0.13 ANGLE ± 1°		DATABASE DESY EDMS	TEAM/GROUP T4CM DESIGN	SIZE A2
			CAD I-DEAS	SOLID MODEL NO. D00000000618382	CAGE CODE OU5R6
					DWG NO. D00000000754751
					REV A
					SCALE 1:2
					DO NOT SCALE DWG
					SHEET OF 1

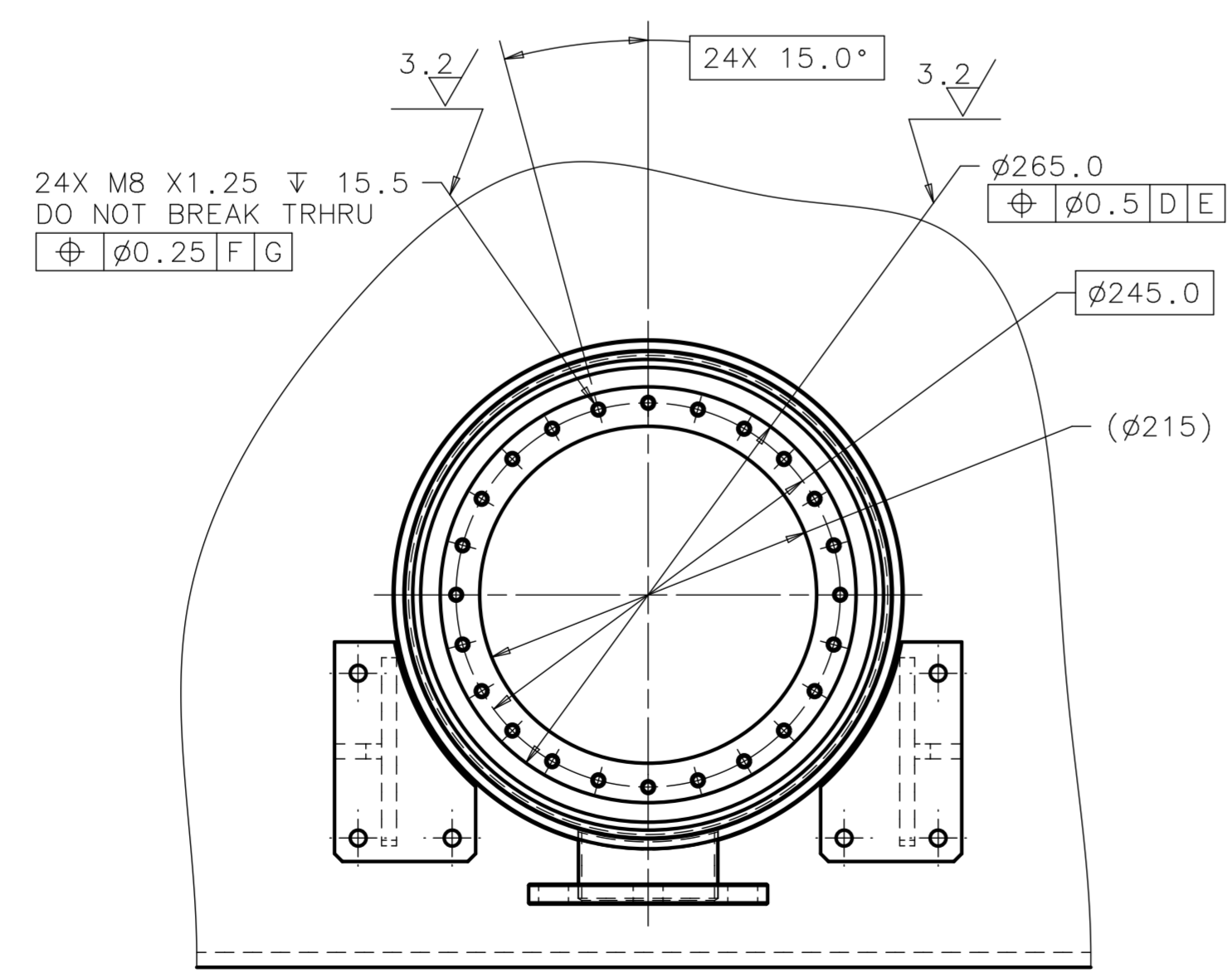
REVISION HISTORY					
ZONE	REV	DESCRIPTION	DATE	CHECKED	APPROVED
A	INITIAL	RELEASE			



ISOMETRIC VIEW
SCALE 1:40

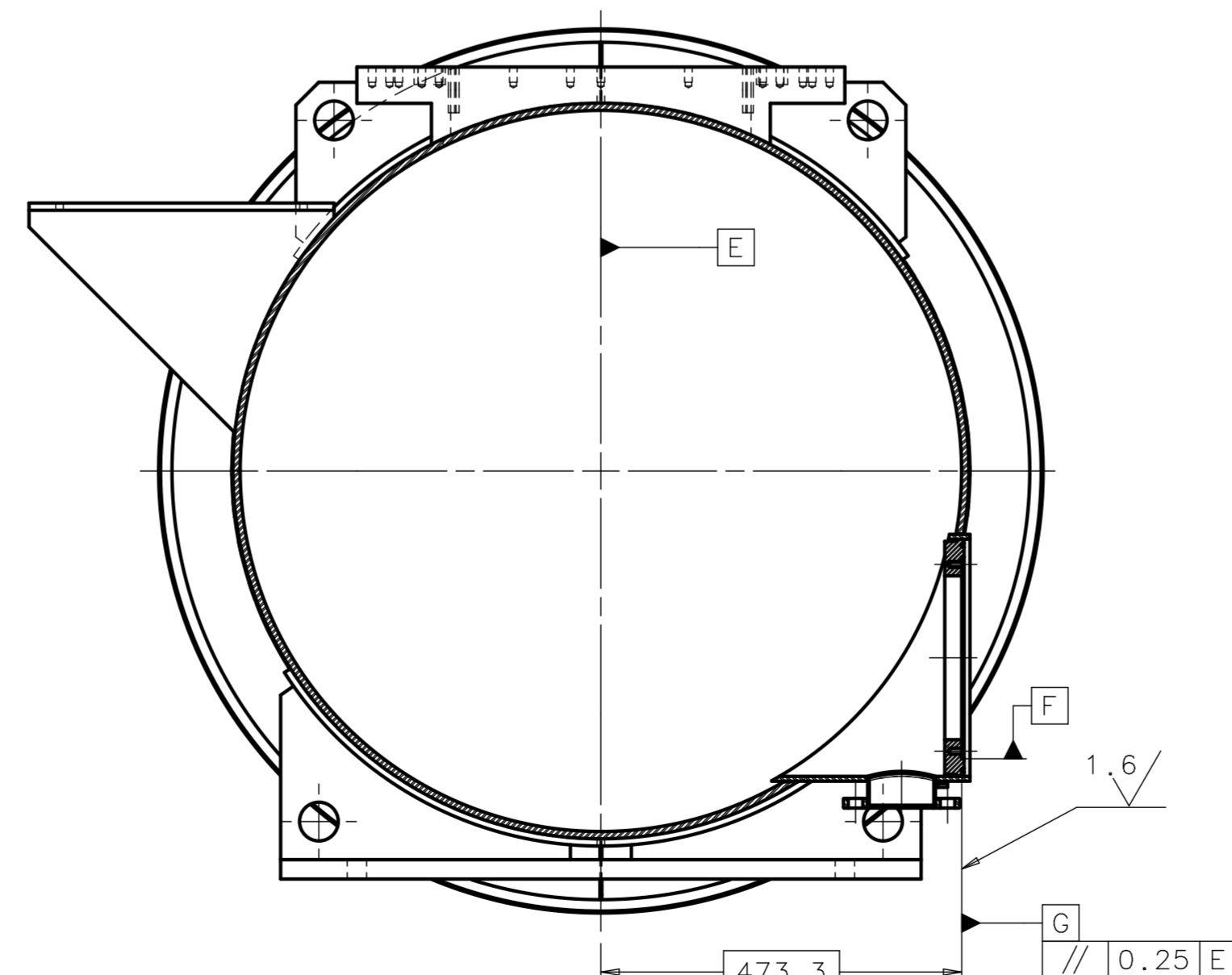


SECTION A-A
SCALE 1:8

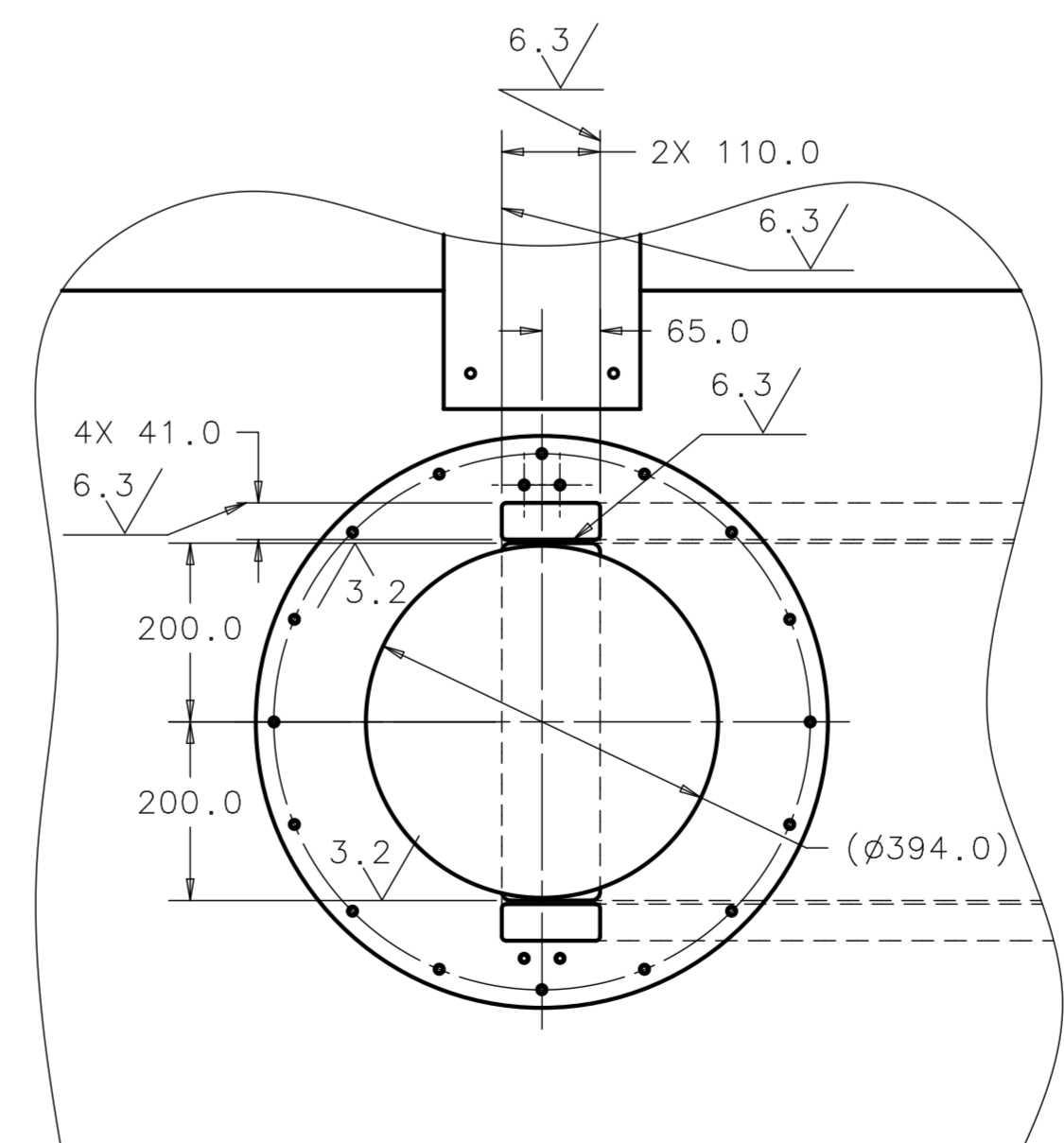


DETAIL B
SCALE 1:4

(MACHINE SURFACES AND DRILL AND TAP HOLES FOR ALL 8 PORTS)



SECTION C-C
SCALE 1:8



DETAIL J
SCALE 1:8

- NOTES (UNLESS OTHERWISE SPECIFIED)
1. ALL MACHINING TO BE DONE AFTER ALL WELDING HAS BEEN COMPLETED.
 2. ALL EXTERIOR, CARBON STEEL SURFACES SHALL BE PAINTED WITH A RUST PREVENTATIVE PRIMER.
 3. ONCE COMPLETED AND CLEANED, THE VESSEL IS TO REMAIN DRY AT ALL TIME.
 4. COVER OR CAP ALL PARTS WHEN SHIPPING.

ITEM	P. I. N.	DESCRIPTION	QTY
1	A0-563473	VESSEL CRYOSTAT-NO MAG-WLDMT	1

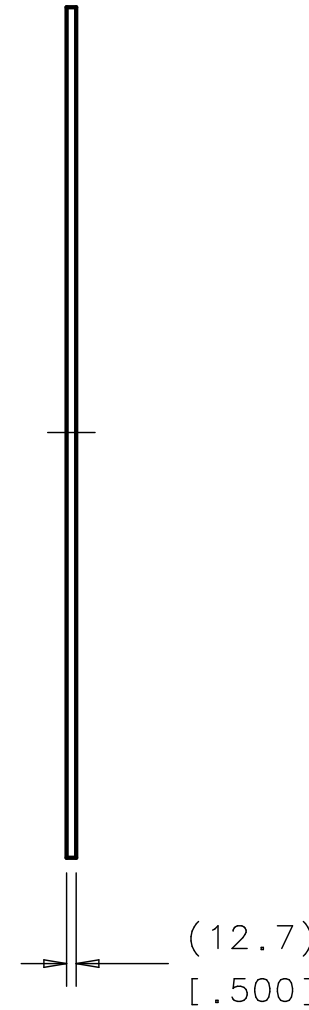
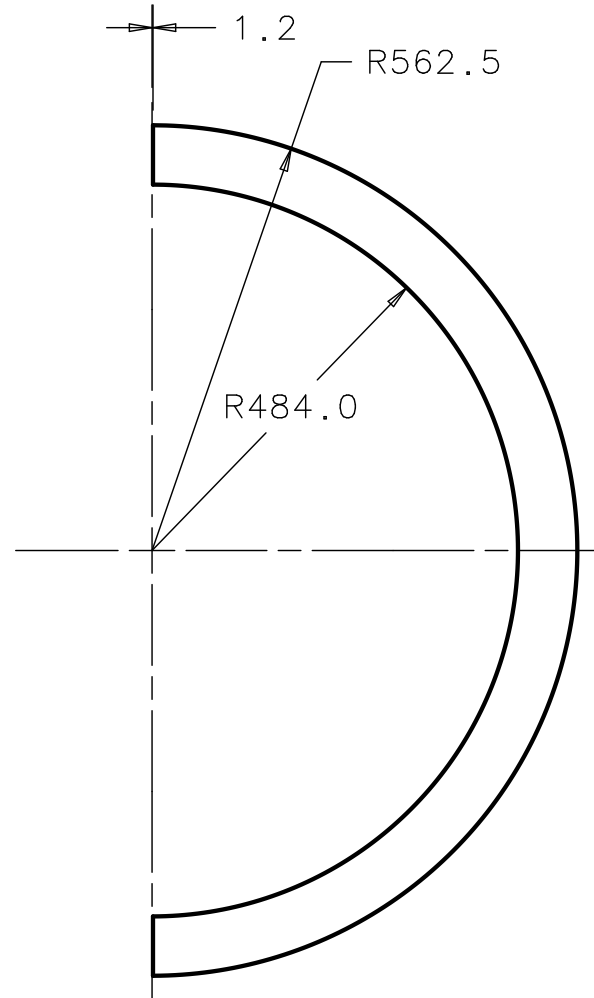
PARTS LIST

FINISH	N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES .75 MAX.	DRAWN BY Y. ORLOV	DATE 12DEC06	TITLE ILC, TYPE 4 CRYOMODULE VESSEL, CRYOSTAT-NO MAG-MACH VESSEL_CRYO_T4CM_NO-MAG_MACH-ASC
MATERIAL	AS NOTED ABOVE	TOLERANCES X ± .2 .X ± 0.8 XX ± 0.13 ANGLE ± 1°	ENGINEERED BY DESJ. EDMS	DATE	REV A
		THIRD ANGLE PROJECTION	DATABASE CAD	TEAM/GROUP I-DEAS	SCALE 1:16
			SOLID MODEL NO. N/A	DO NOT SCALE DRAWING	SHEET 1 OF 1

REVISION HISTORY

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	INITIAL RELEASE		



ISOMETRIC VIEW

NOTE:

DIMENSION WITH SQUARE BRACKETS ARE IN INCHES.

ITEM	P.I.N.	DESCRIPTION	QTY
PARTS LIST			

FINISH N/A	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS INTERPRET DIM PER ASME Y14.5M-1994 BREAK ALL SHARP EDGES .75 MAX. ALL MACH. SURFACES 3.2/ MAX.		DRAWN BY Y. ORLOV	DATE 02JAN07
MATERIAL STEEL PLATE, 1/2 THK ASTM A516 GR 70	TOLERANCES X ± 2 .X ± 0.8 .XX ± - ANGLE ± -	THIRD ANGLE PROJECTION 	CHECKED BY	DATE
			ENGINEERED BY	DATE
			DATABASE DESY EDMS	TEAM/GROUP
			CAD I-DEAS	SOLID MODEL NO. N/A

FERMI NATIONAL ACCELERATOR LABORATORY
UNITED STATES DEPARTMENT OF ENERGY
P.O. BOX 500, BATAVIA, IL 60510-0500

TITLE
**ILC, TYPE 4 CRIOMODULE
VESSEL OUTER HALF RING
VESSEL_OUTER_HALF_RING**

SIZE A3	CAGE CODE OU5R6	DWG NO. D0000000782051	REV A
SCALE 1:10	DO NOT SCALE DWG	SHEET 1 OF 1	

-	563473
NEXT ASSY	USED ON
APPLICATION	