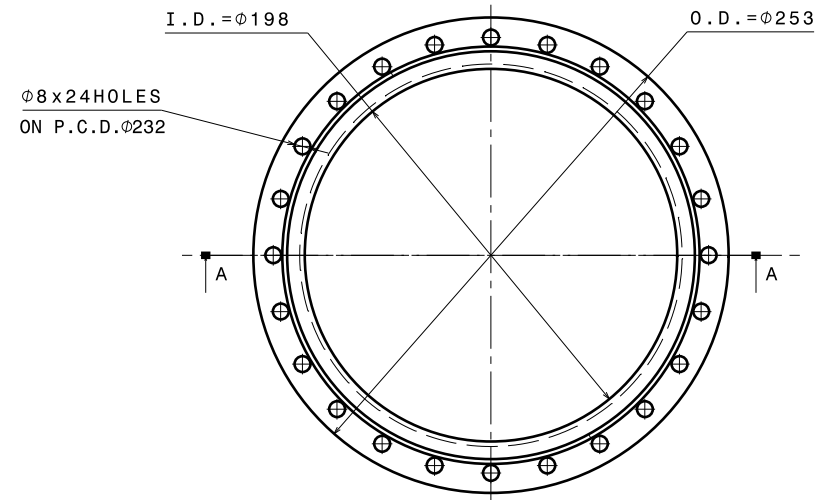
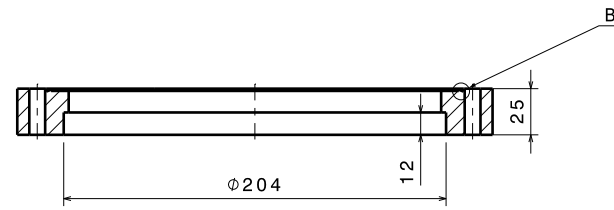


This file has been cleaned of potential threats.

To view the reconstructed contents, please SCROLL DOWN to next page.

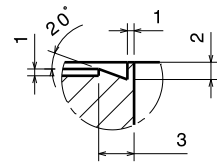


FRONT VIEW

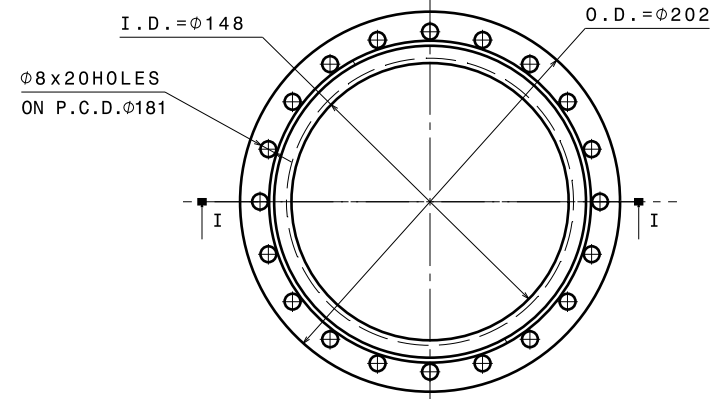


SECTION A-A

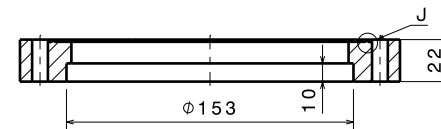
DN 200CF BLANK FLANGE



DETAIL VIEW-B  
SCALE-3:1

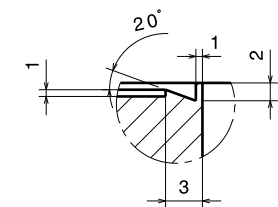


FRONT VIEW

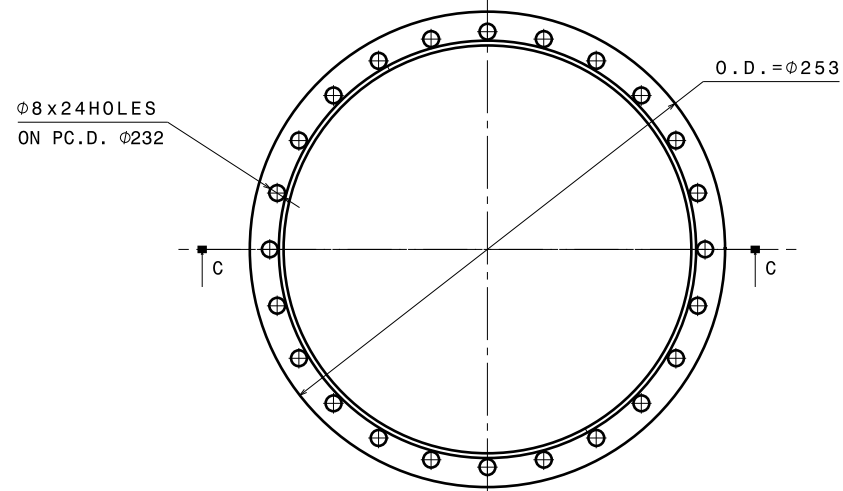


SECTION I-I

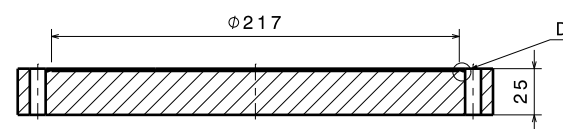
DN 160CF BLANK FLANGE



DETAIL VIEW-J  
SCALE-3:1

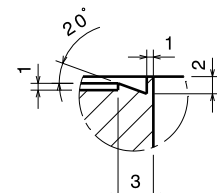


FRONT VIEW

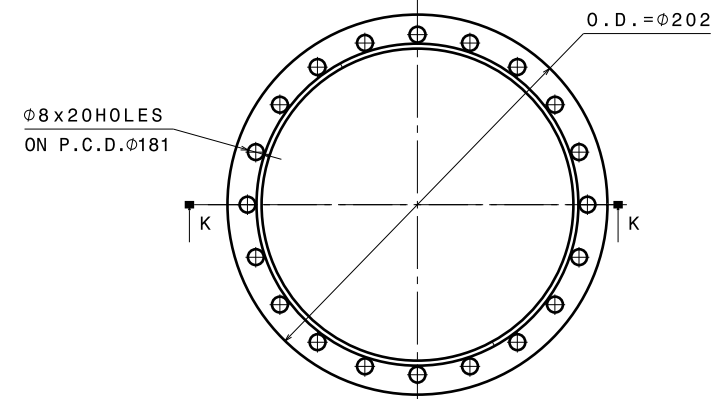


SECTION C-C

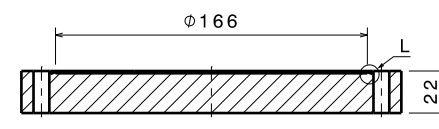
DN 200CF COVER FLANGE



DETAIL VIEW-D  
SCALE-3:1

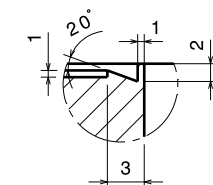


FRONT VIEW



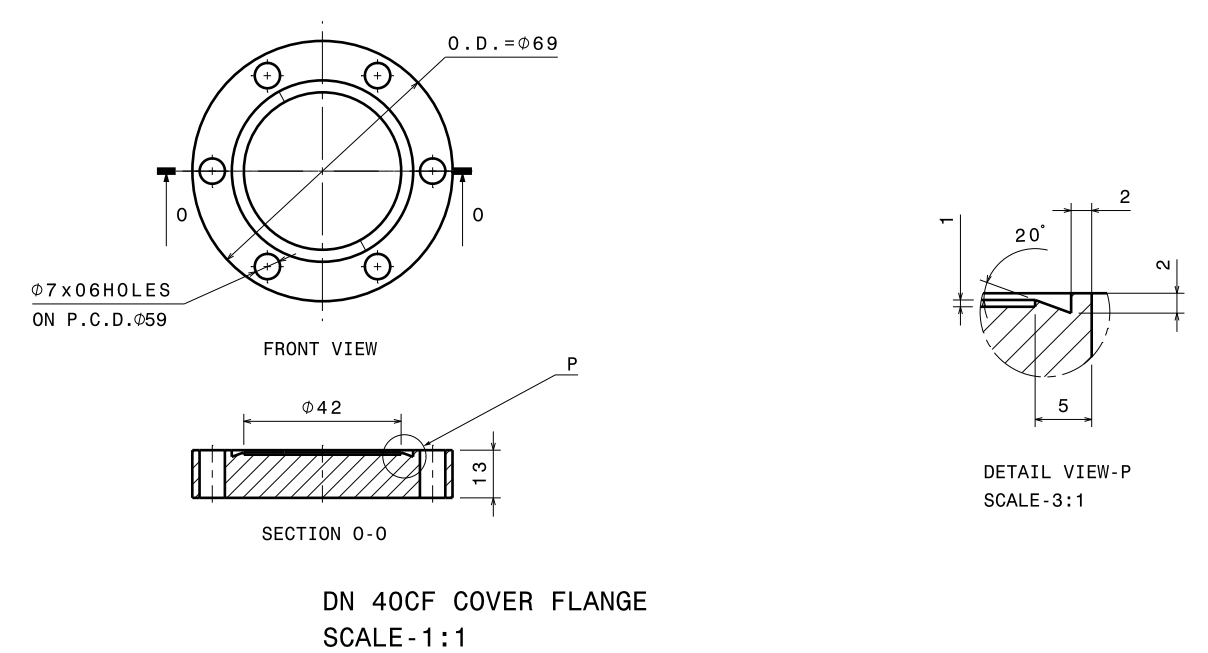
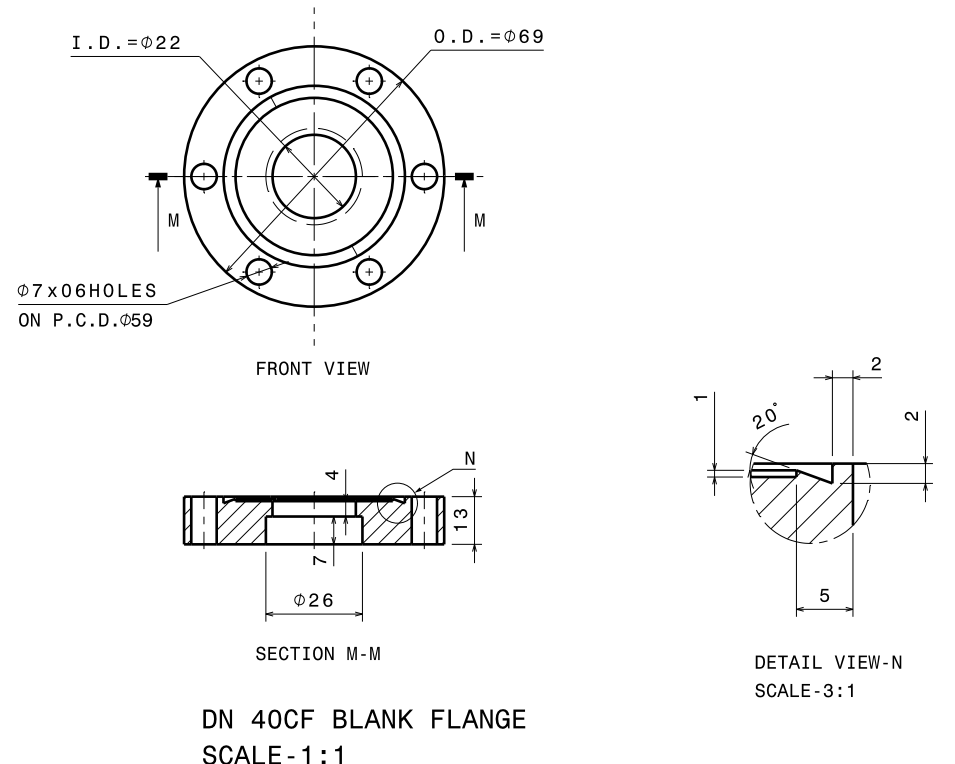
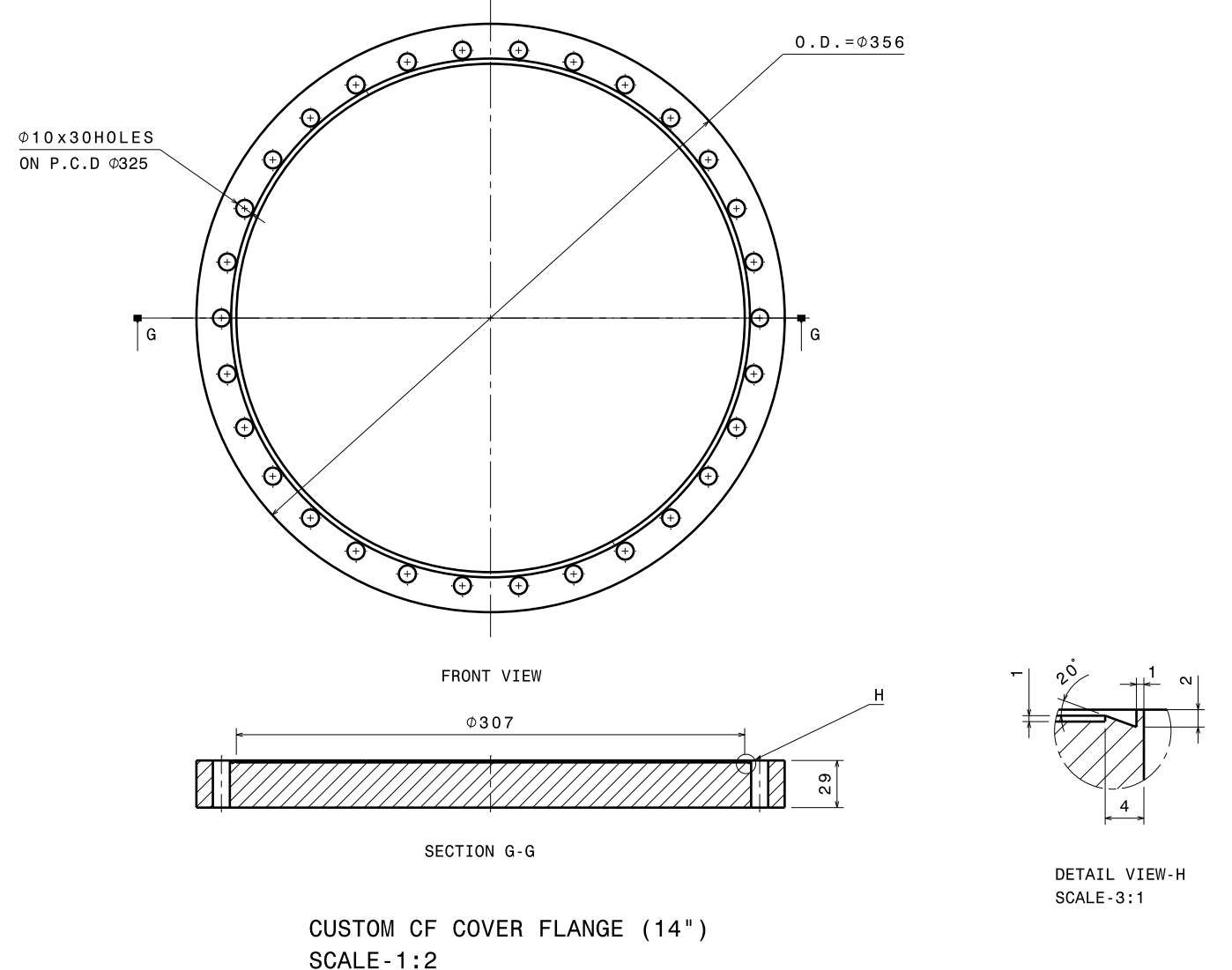
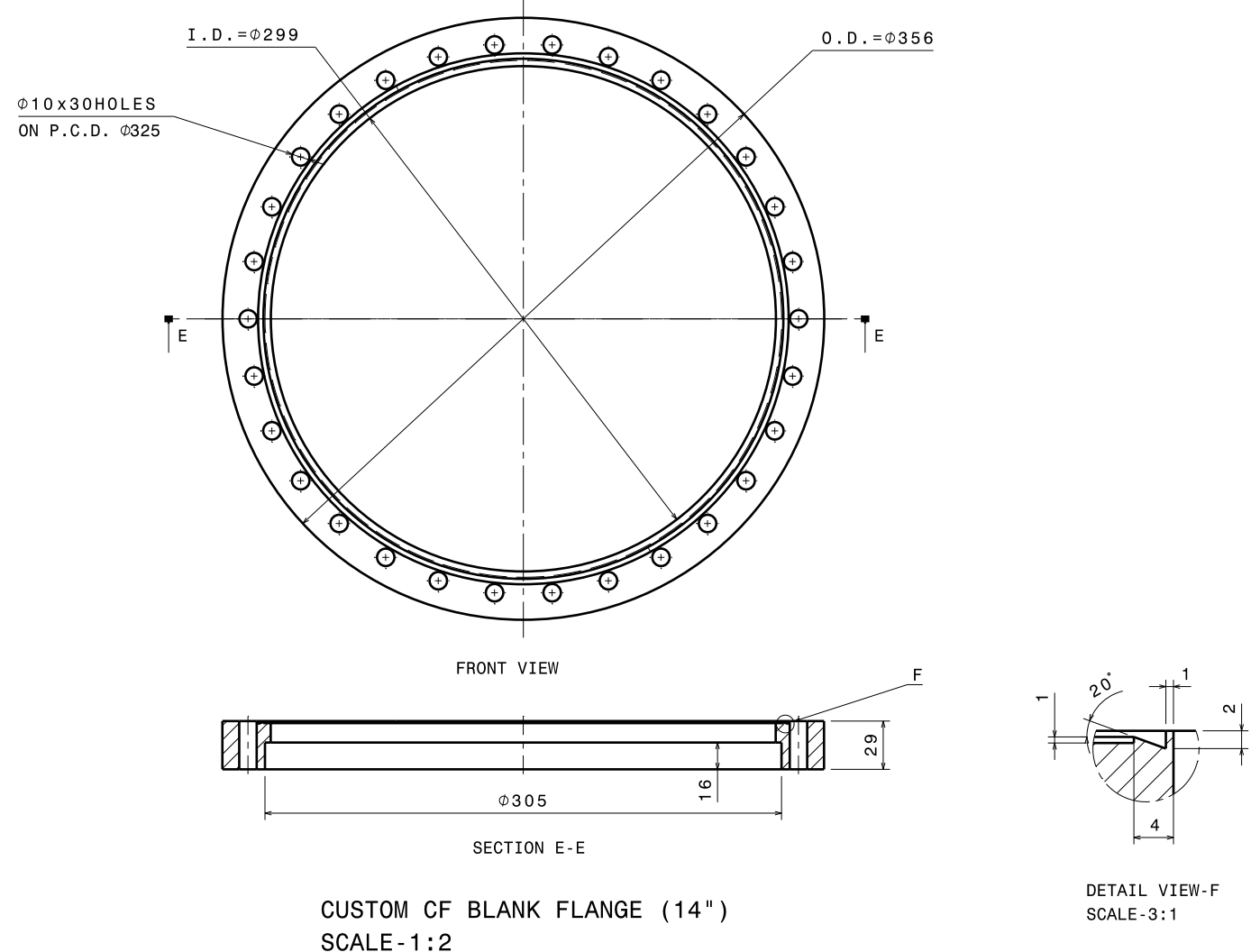
SECTION K-K

DN 160CF COVER FLANGE

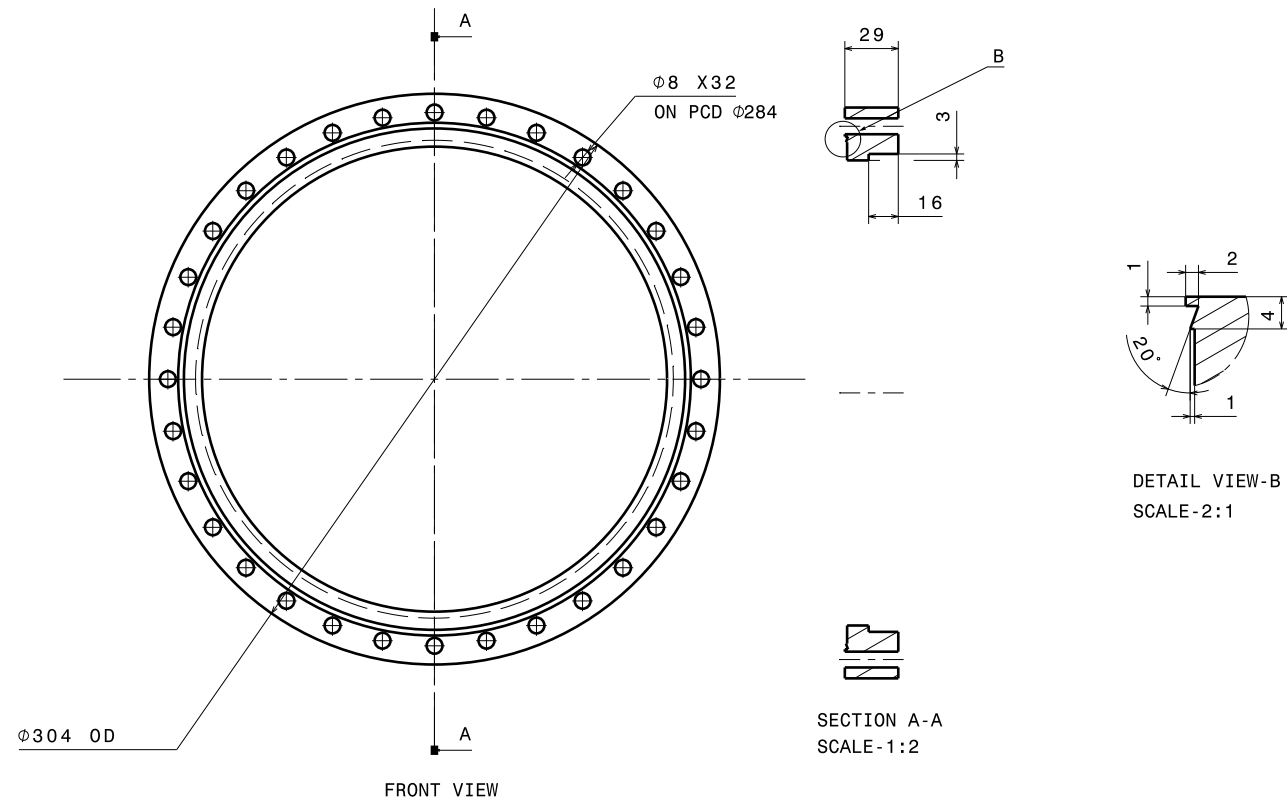


DETAIL VIEW-L  
SCALE-3:1

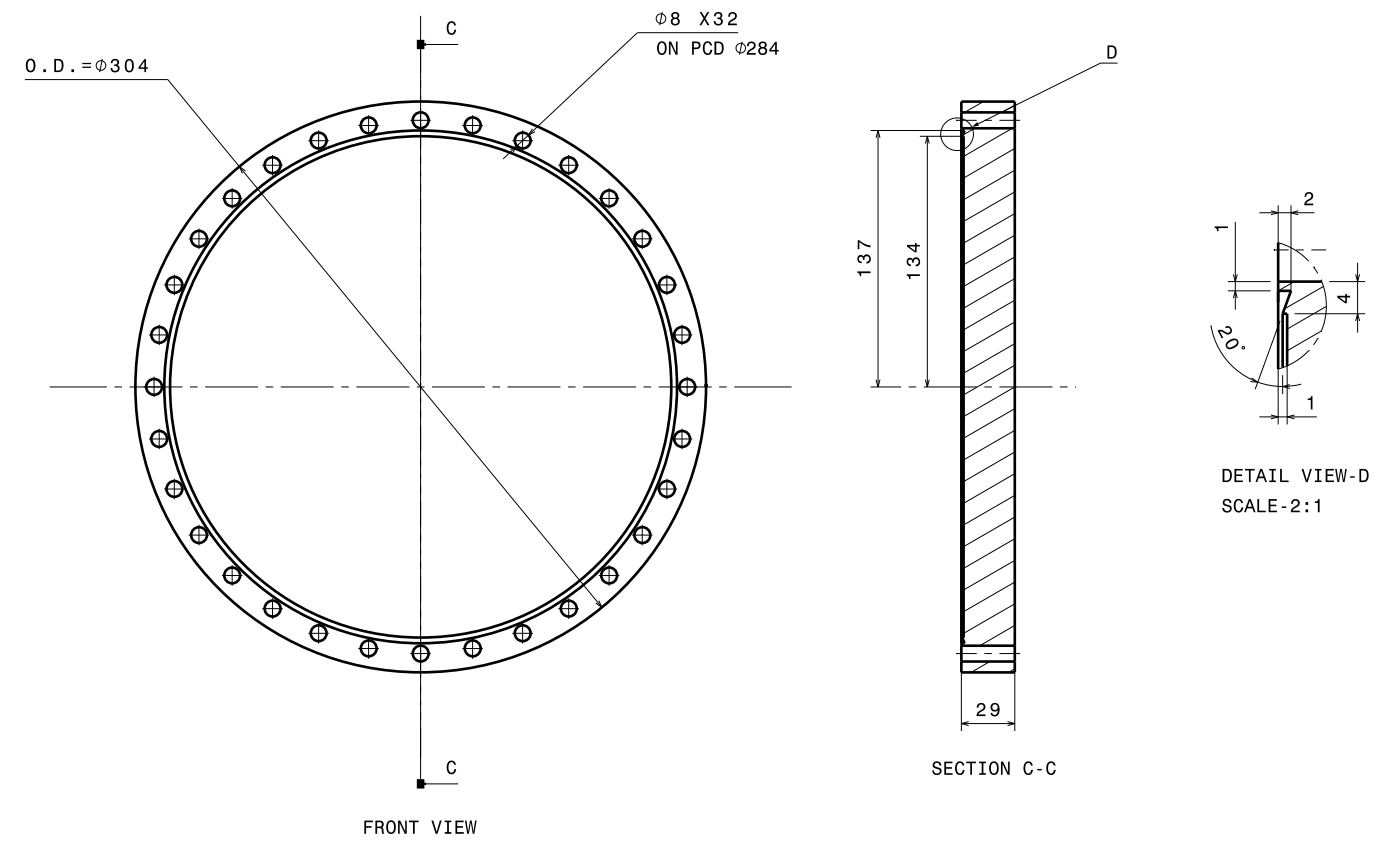
MATERIAL:	8-25	1.6-8	0.025-1.6	< 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.						
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED.						
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	1:2	DATE	TITLE STANDARD FLANGES			
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				DRAWN	A.N.N.	04/06/2014	REF DRG NO:	NA	REV RO
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5			CHECKED	R.K.		DRG. NO	V001-001-RO	SHEET 01 OF 05	
±1°	±0°-30'	±0°-20'	±0°-10'								APPROVED	M.K.G.					



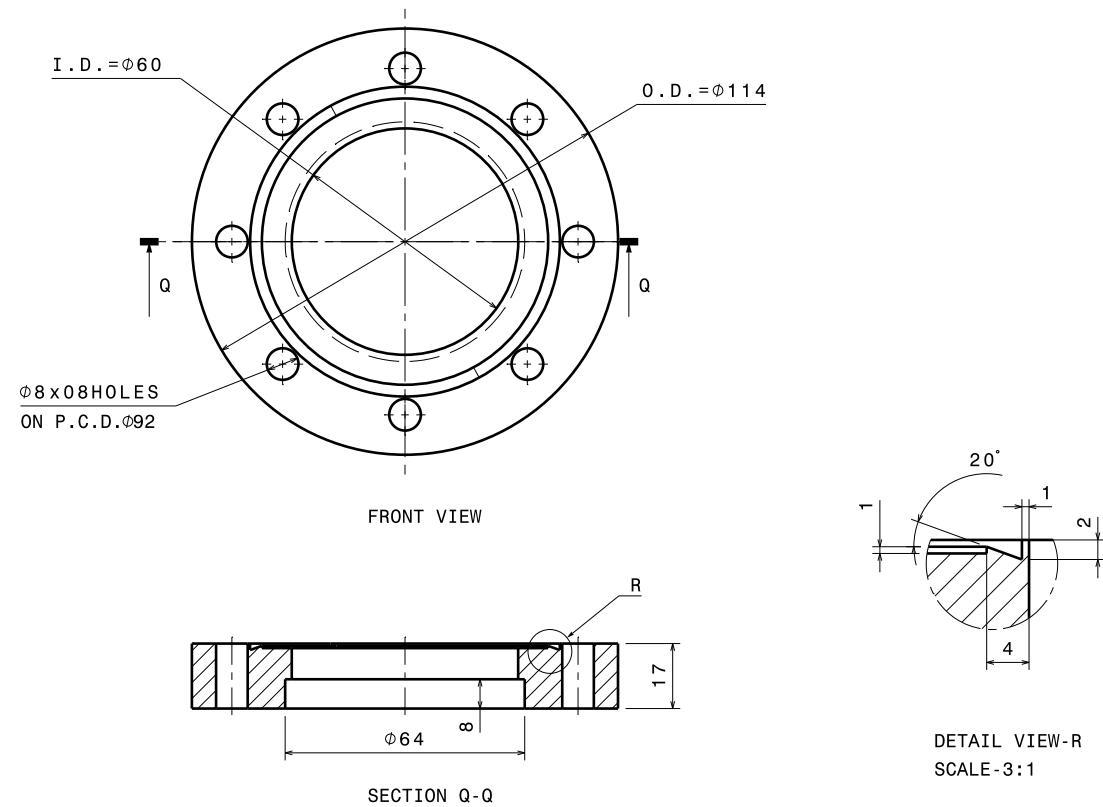
MATERIAL:		8-25	1.6-8	0.025-1.6	< 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)			
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED			
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS															
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315							
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5							
±1°	+0°-30'	+0°-20'	+0°-10'								SCALE	AS NOTED	DATE	TITLE	
											DRAWN	A.N.N.	04/06/2014	STANDARD FLANGES	
											CHECKED	R.K.	REF DRG NO:	NA	REV RO
											APPROVED	M.K.G.	DRG. NO	V001-001-RO	SHEET 02 OF 05



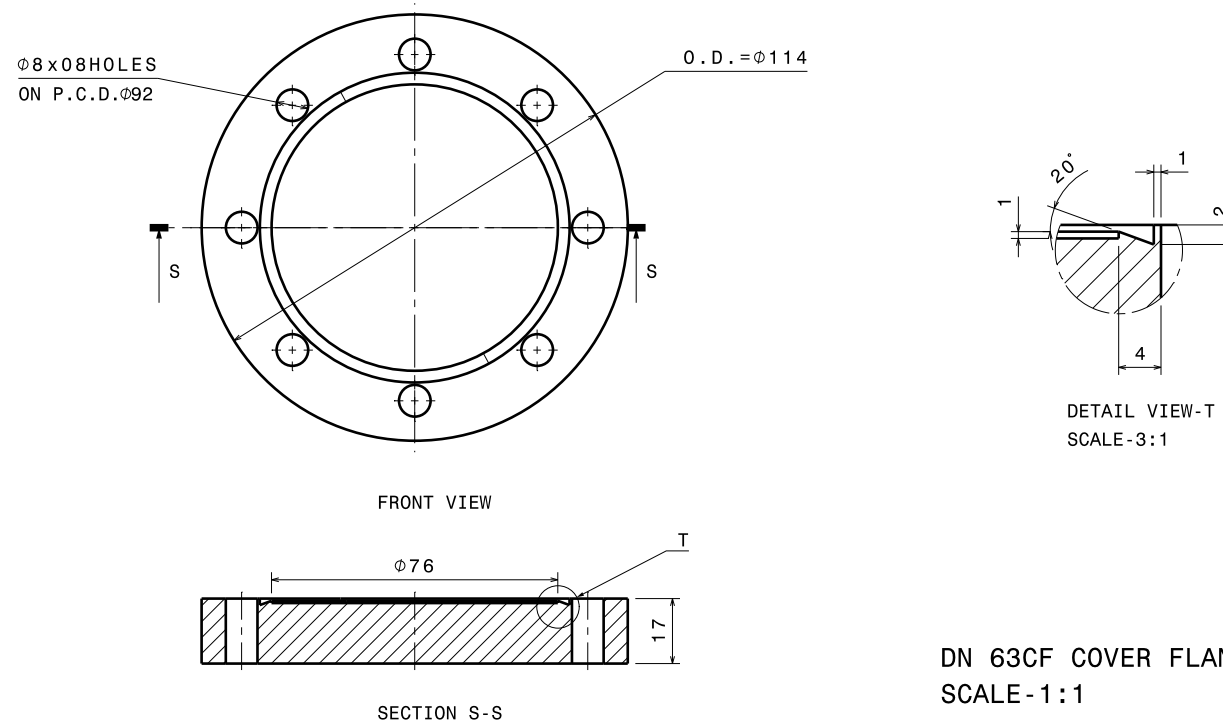
DN 250CF BLANK FLANGE  
SCALE-1:2



DN 250CF COVER FLANGE  
SCALE-1:2

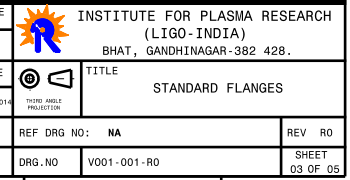


DN 63CF BLANK FLANGE  
SCALE-1:1



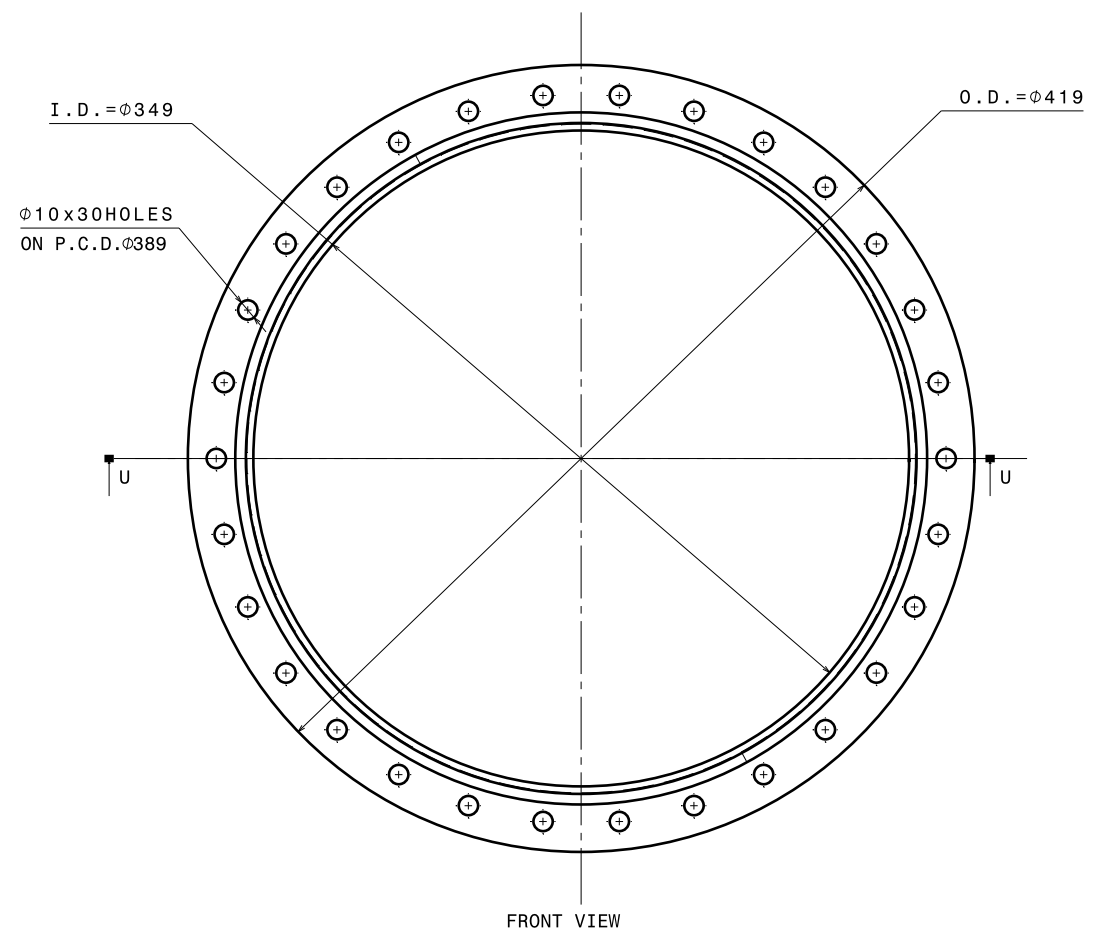
DN 63CF COVER FLANGE  
SCALE-1:1

MATERIAL:	8-25	1.6-8	0.025-1.6	< 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)		
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED	BHAT, GANDHINAGAR-382 428.	
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											TITLE	STANDARD FLANGES	
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			SCALE	AS NOTED	DATE
UPTO 10	10-50	50-120	OVER 120-400								DRAWN	A.N.N.	04/06/2014
±1°	+0°-30'	+0°-20'	+0°-10'								CHECKED	R.K.	
											APPROVED	M.K.G.	
											REF DRG NO:	NA	REV RO
											DRG. NO	V001-001-RO	SHEET 03 OF 05

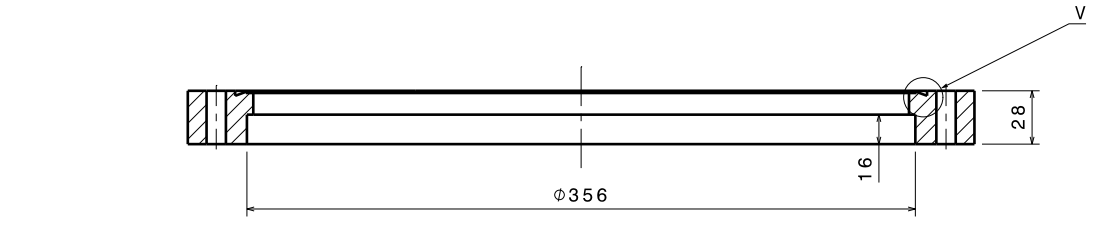


P O N M L K J I H G F E D C B A

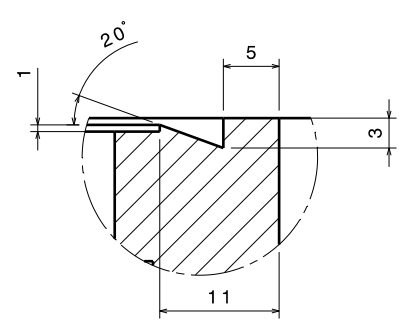
8 7 6 5 4 3 2 1



FRONT VIEW

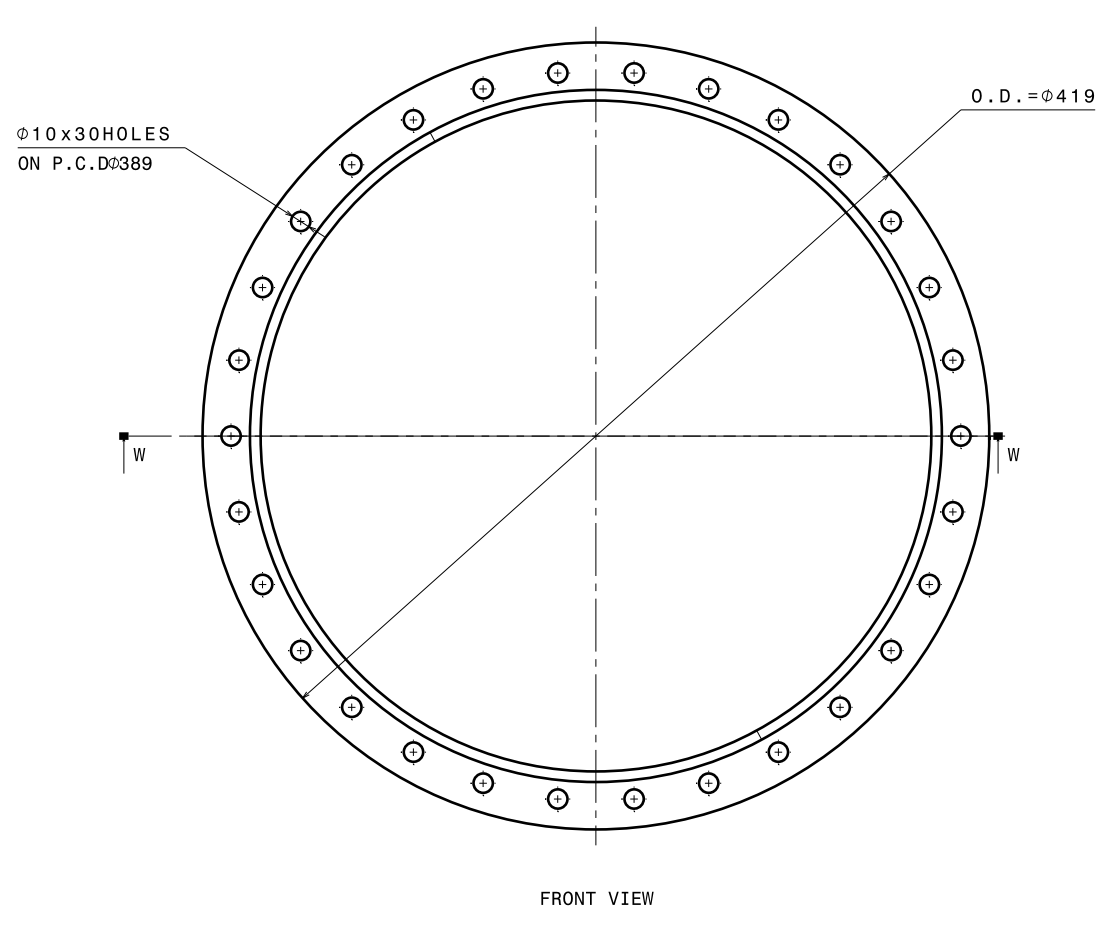


SECTION U-U

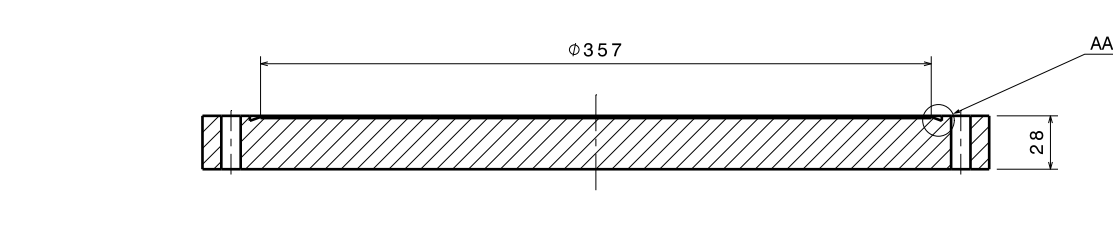


DETAIL VIEW-V  
SCALE-3:1

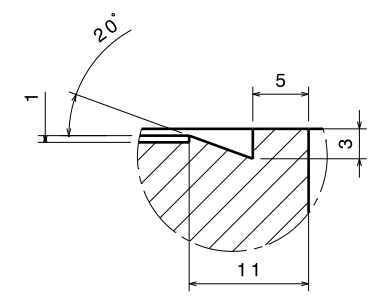
CUSTOM CF BLANK FLANGE (16 1/2")



FRONT VIEW



SECTION W-W

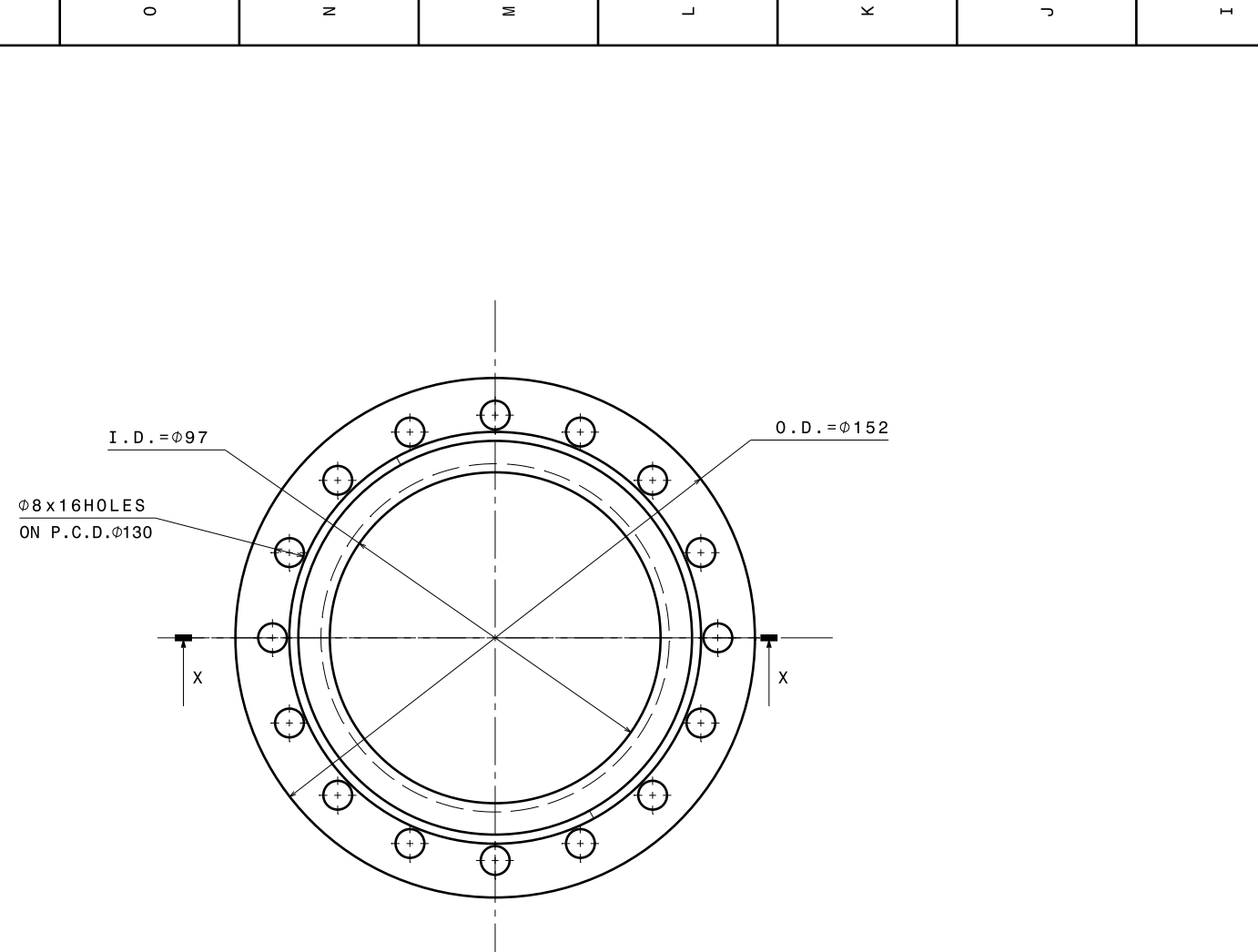


DETAIL VIEW-AA  
SCALE-3:1

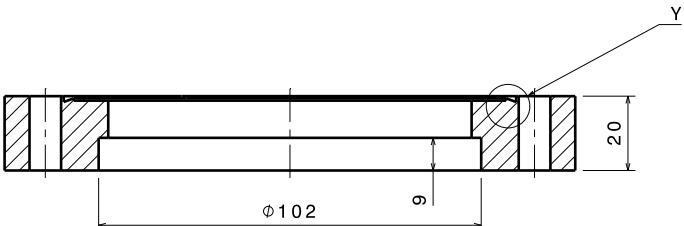
CUSTOM CF COVER FLANGE (16 1/2")

MATERIAL:		8-25	1.6-8	0.025-1.6	< 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.			
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	SCALE 1:2	DATE 04/06/2014	TITLE STANDARD FLANGES	
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS															
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315							
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5							
±1°	±0°-30'	±0°-20'	±0°-10'												
CHECKED R.K.											REF DRG NO: NA	REV RO			
APPROVED M.K.G.											DRG. NO V001-001-R0	SHEET 04 OF 05			

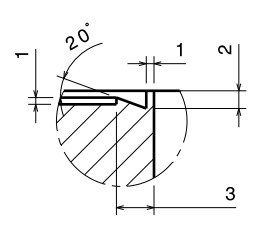
P O N M L K J I H G F E D C B A



FRONT VIEW

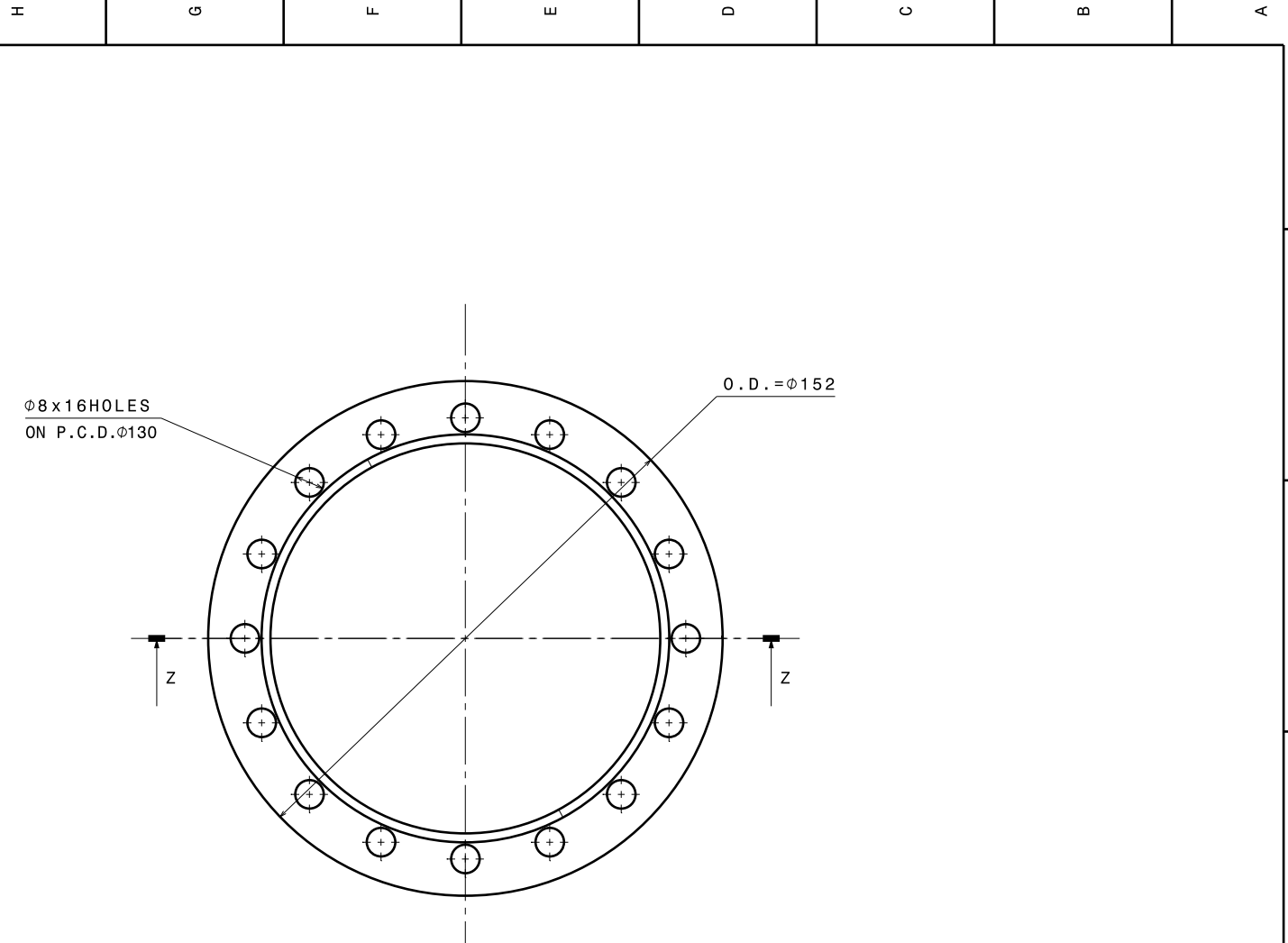


SECTION X-X

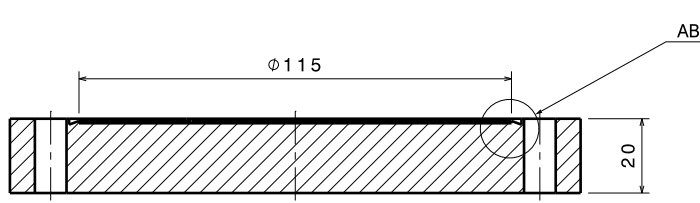


DETAIL VIEW-Y  
SCALE-3:1

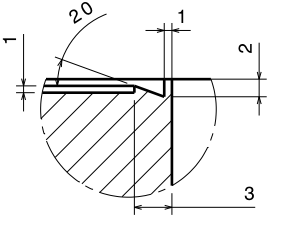
DN 100CF BLANK FLANGE



FRONT VIEW



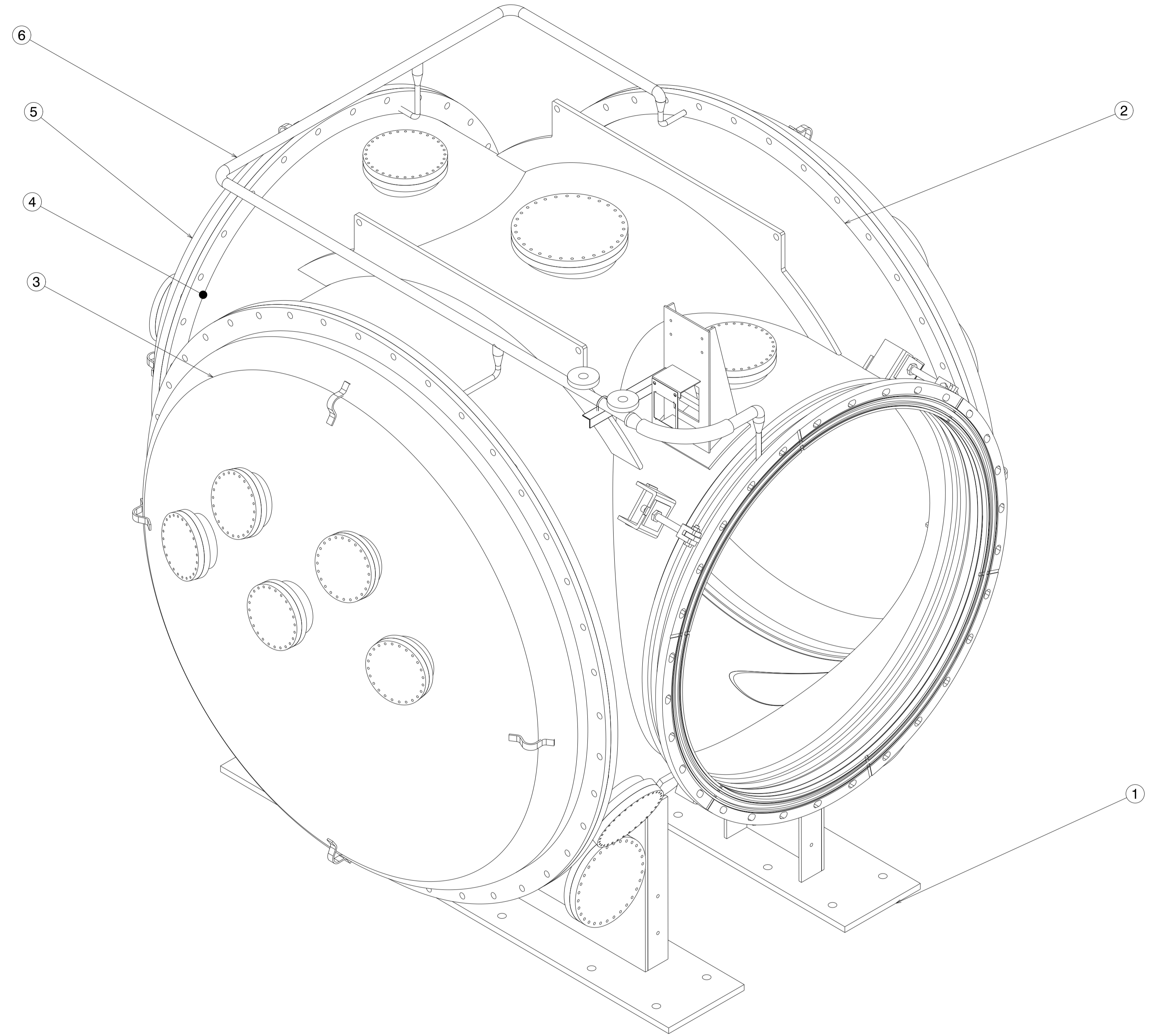
SECTION Z-Z



DETAIL VIEW-AB  
SCALE-3:1

DN 100CF COVER FLANGE

MATERIAL:		8-25	1.6-8	0.025-1.6	< 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.		
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS														
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315						
UPTO 10	10-50	50-120	OVER 120-400		+0.1	+0.2	+0.3	+0.5						
±1°	+0°-30°	+0°-20°	+0°-10°											
DRAWN A.N.N. 04/06/2014											TITLE	STANDARD FLANGES		
CHECKED R.K.											REF DRG NO:	NA	REV RO	
APPROVED M.K.G.											DRG. NO	V001-001-RO	SHEET 05 OF 05	

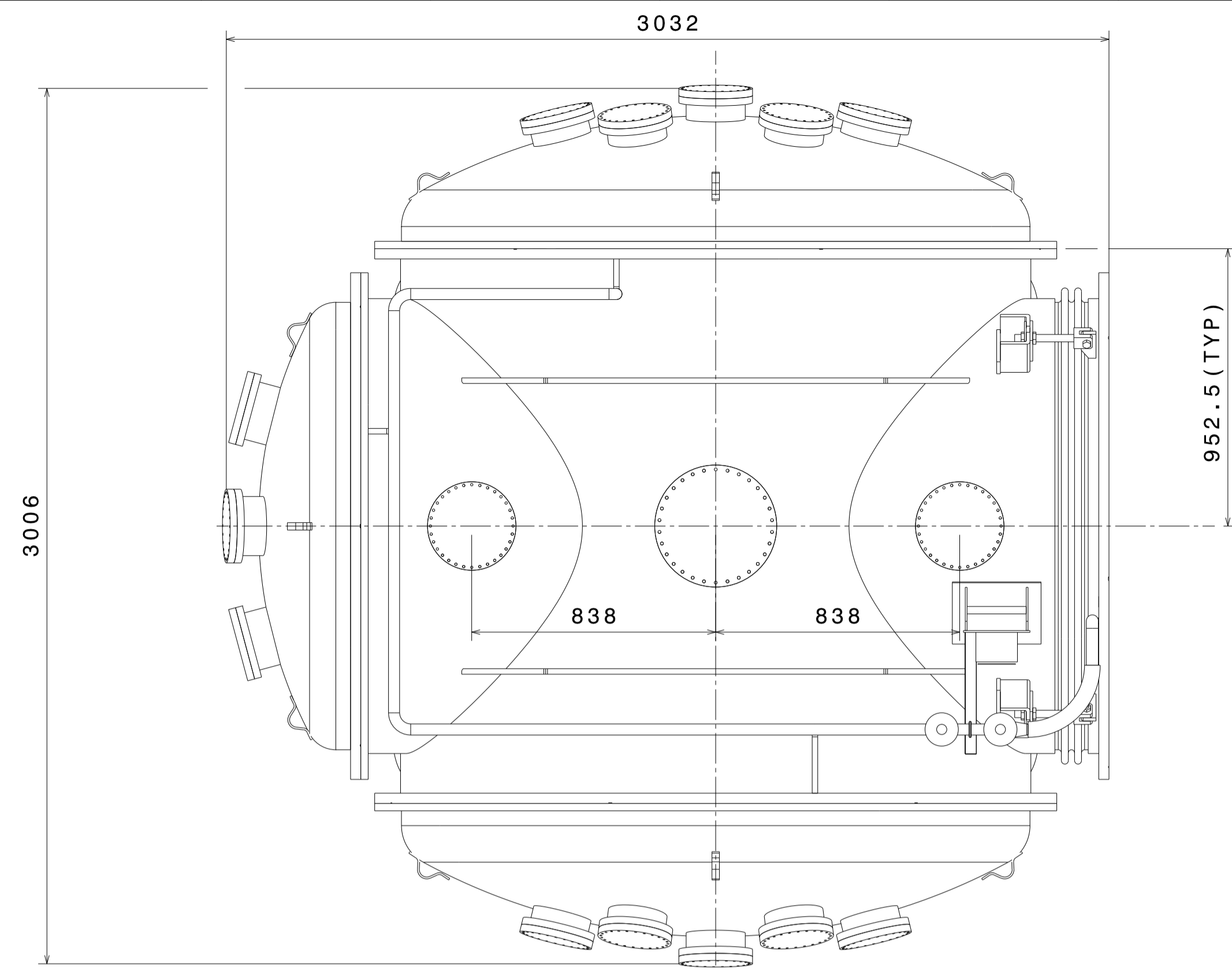


HORIZONTAL ACCESS MODULE

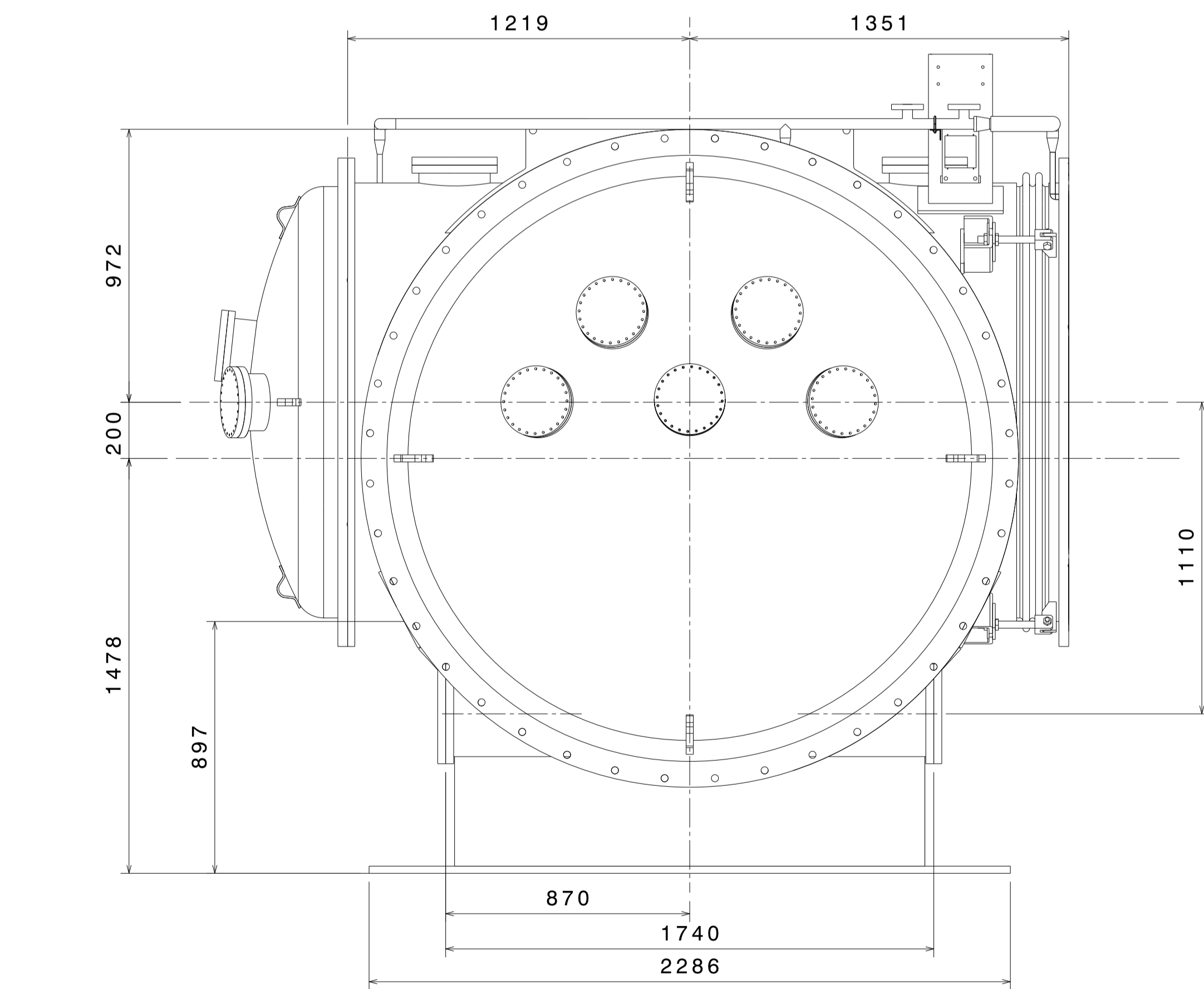
PART NO.	QUANTITY	PART NAME	MATERIAL	REF. DWG. NO.	REMARK
6	01	ANNULUS TUBING ASSEMBLY	SS304L	VH01-007-R1	-
5	01	END COVER SMALL	SS304L	VH01-006-R1	-
4	01	CYLINDRICAL PART (DIA 60.5" ID)	SS304L	VH01-005-R1	-
3	02	END COVER BIG	SS304L	VH01-004-R1	-
2	01	CYLINDRICAL PART (DIA 84.25" ID)	SS304L	VH01-003-R1	-
1	02	VESSEL SUPPORT	CARBON STEEL	VH01-002-R1	-

MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN					MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.		
CO-ORDINATED BY	REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	SCALE	1:10	DATE	TITLE	HORIZONTAL ACCESS MODULE				
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS													REF DRG NO: NA		REV R1
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315	SCALE	1:10	DATE	TITLE		REF DRG NO: NA	REV R1		
UPTO 10	10-50	50-120	OVER 120-400	±0.1	±0.2	±0.3	±0.5	CHECKED	R.K.	DRG. NO	VH01-001-R1	SHEET 01 OF 03			
+1'	+0'-30'	+0'-20'	+0'-10'					APPROVED	M.K.G.						

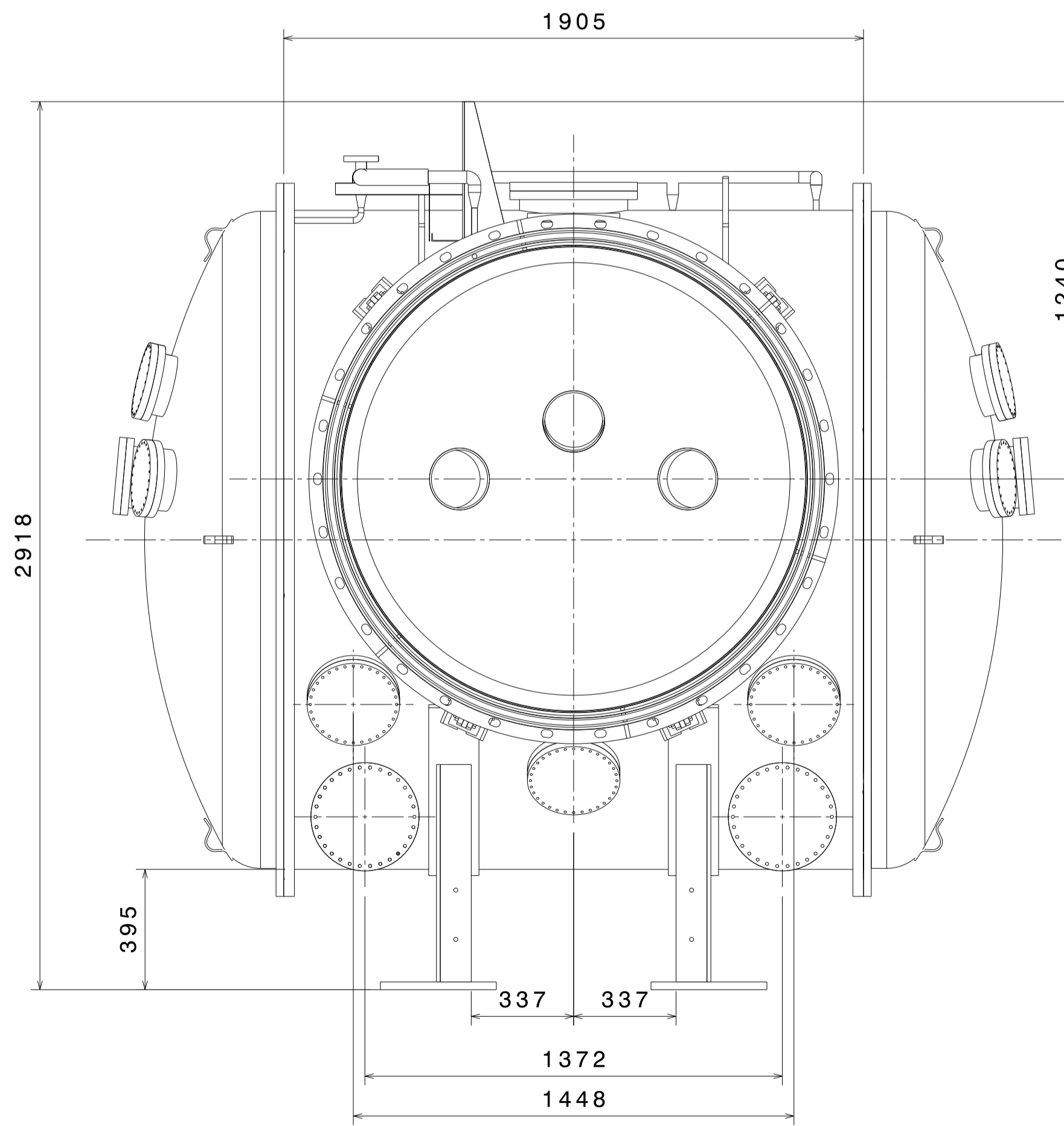
INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)  
BHAT, GANDHINAGAR-382 428.



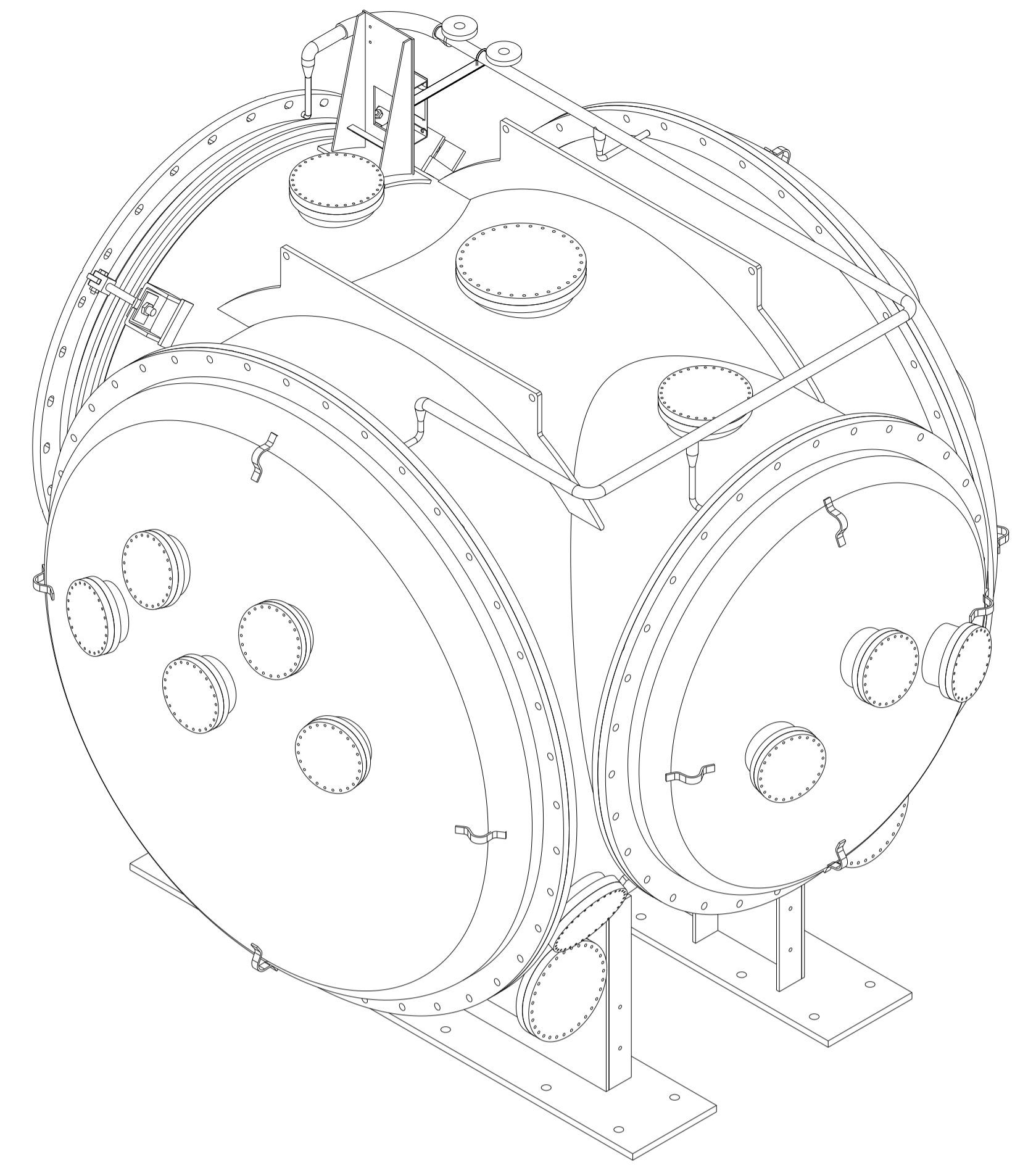
TOP VIEW



FRONT VIEW



SIDE VIEW

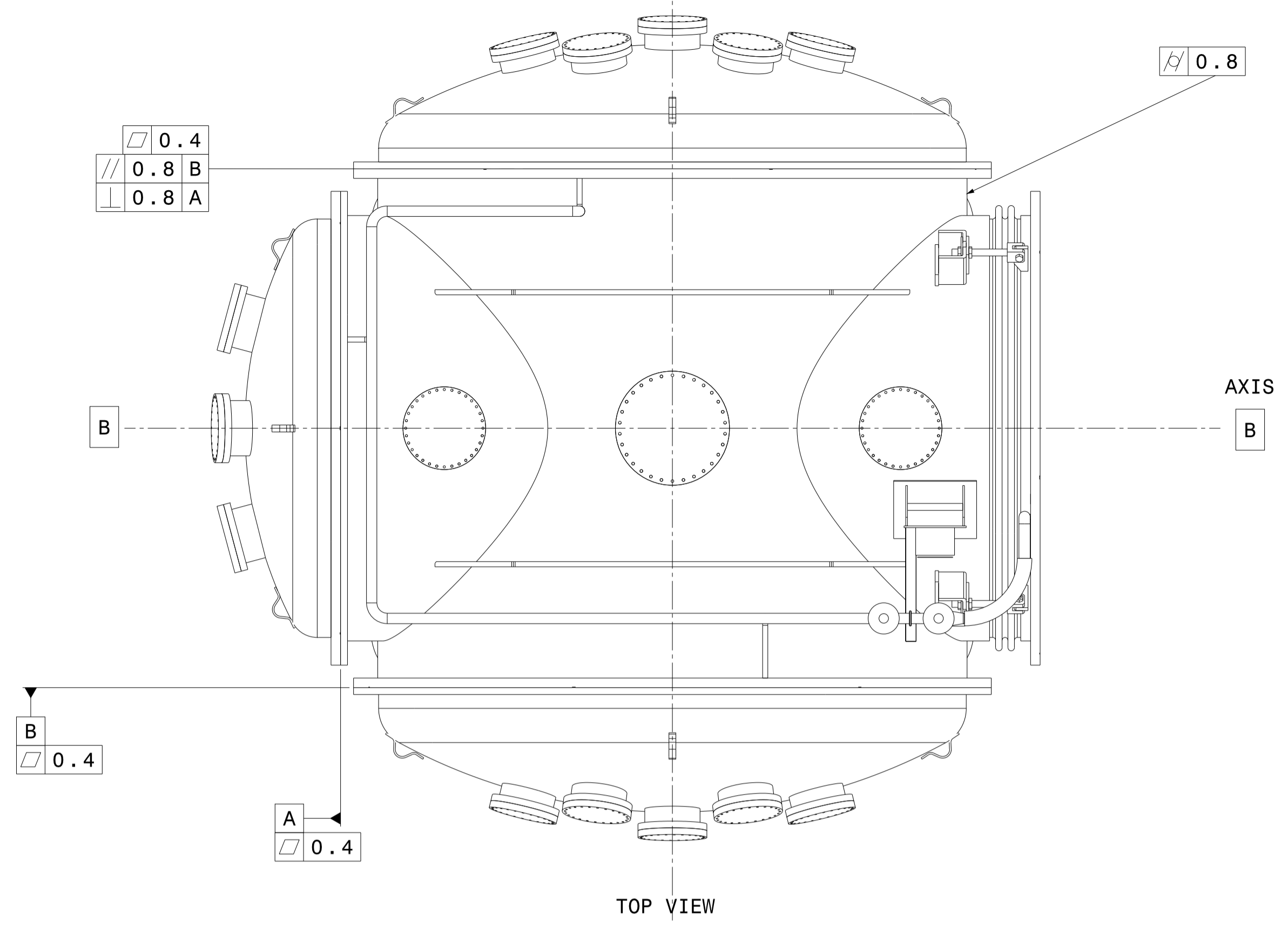


ISOMETRIC VIEW

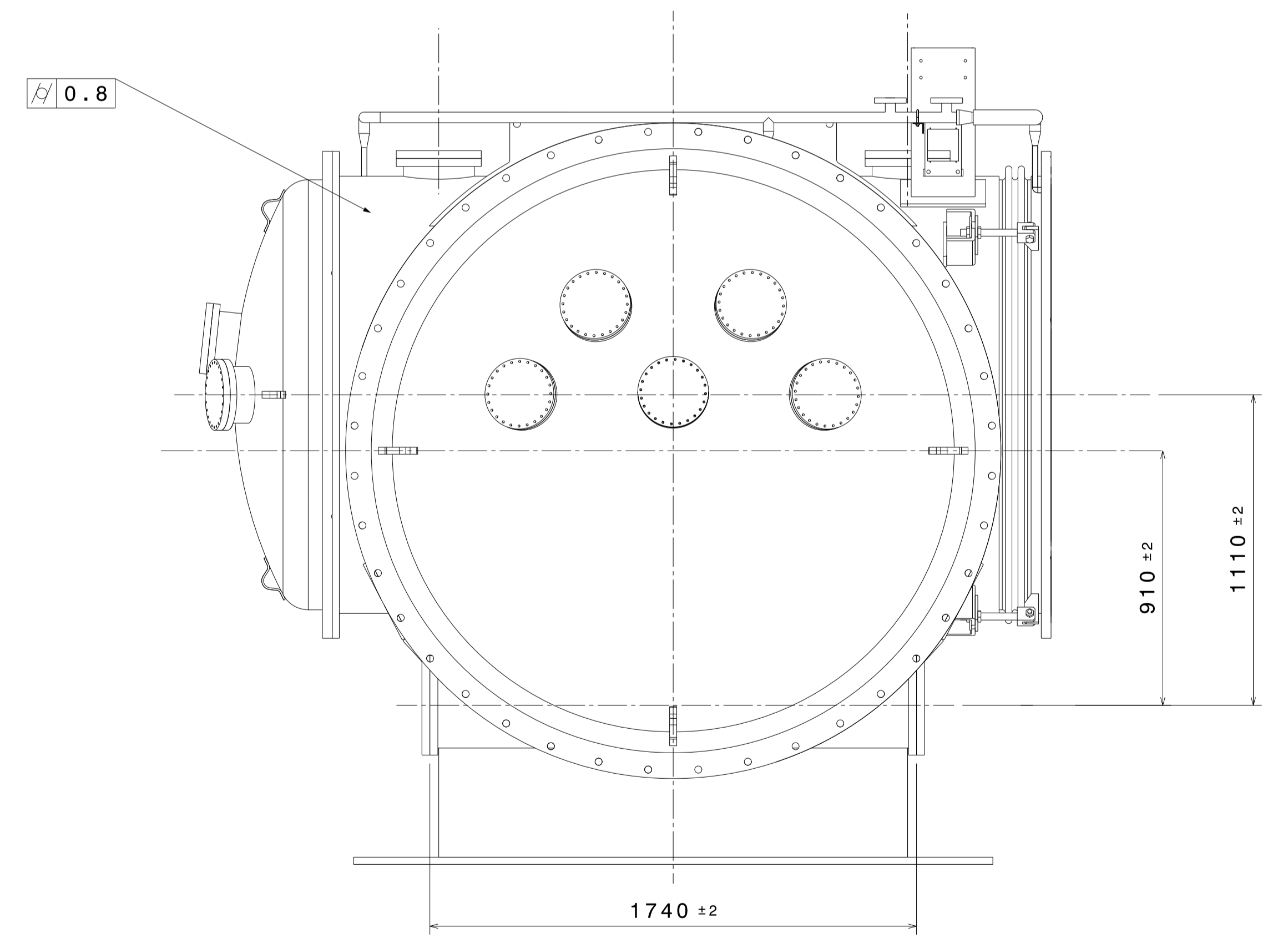
HORIZONTAL ACCESS MODULE

MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.			
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED			
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	1:15	DATE	TITLE
LENGTH IN mm OF SHORTER SIDE OF ANGLES												DRAWN	A.N.N.	26/07/2015	HORIZONTAL ACCESS MODULE
UPTO 10				10-50	50-120	OVER 120-400	LENGTH OR DIA	UPTO 6	6-30	30-120	120-315	CHECKED	R.K.	REF DRG NO: NA	REV R1
+1'				+0'-30'	+0'-20'	+0'-10'		+0.1	+0.2	+0.3	+0.5	APPROVED	M.K.G.	DRG. NO	VH01-001-R1
												SHEET 02 OF 03			

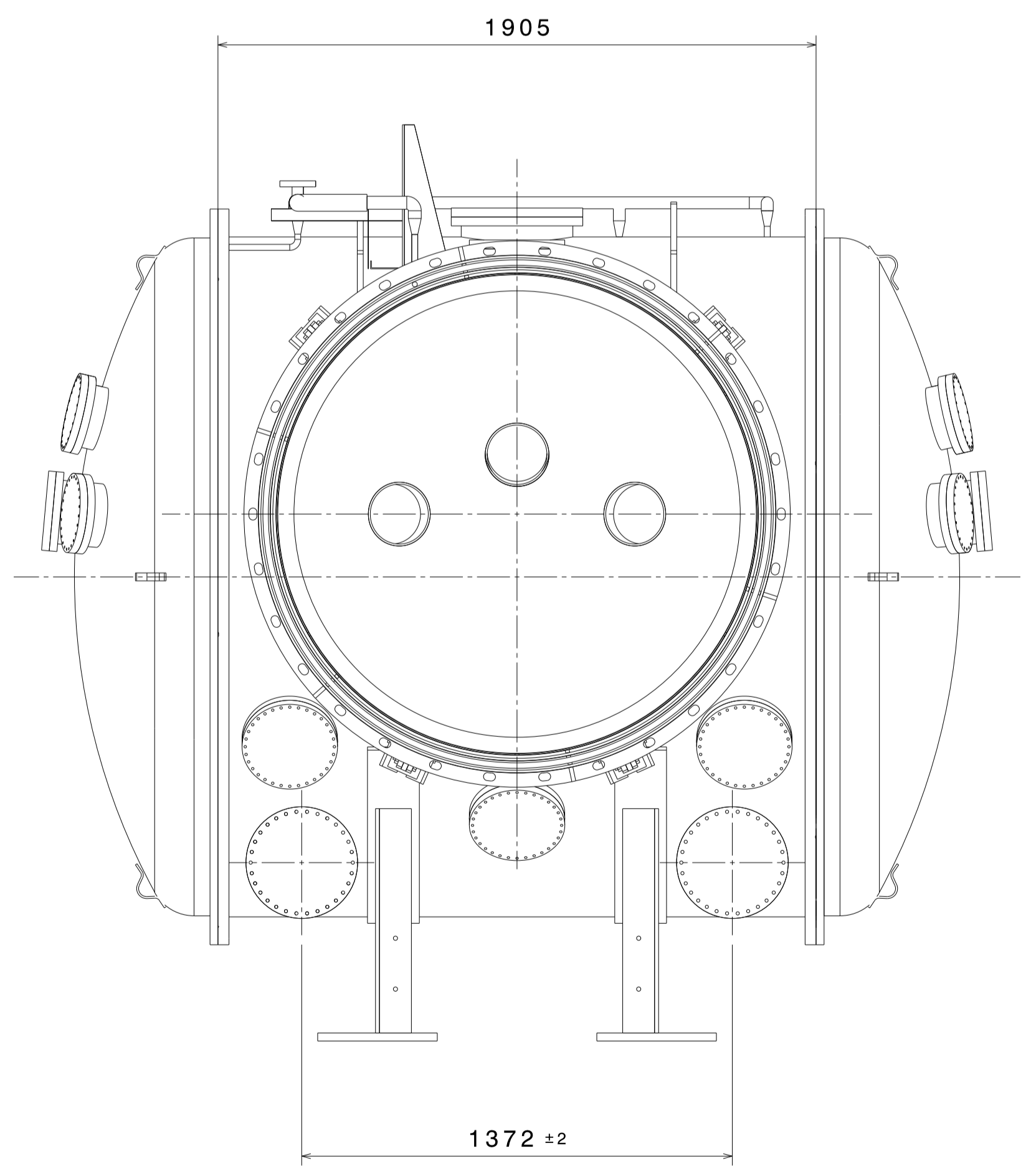




TOP VIEW

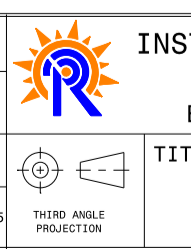


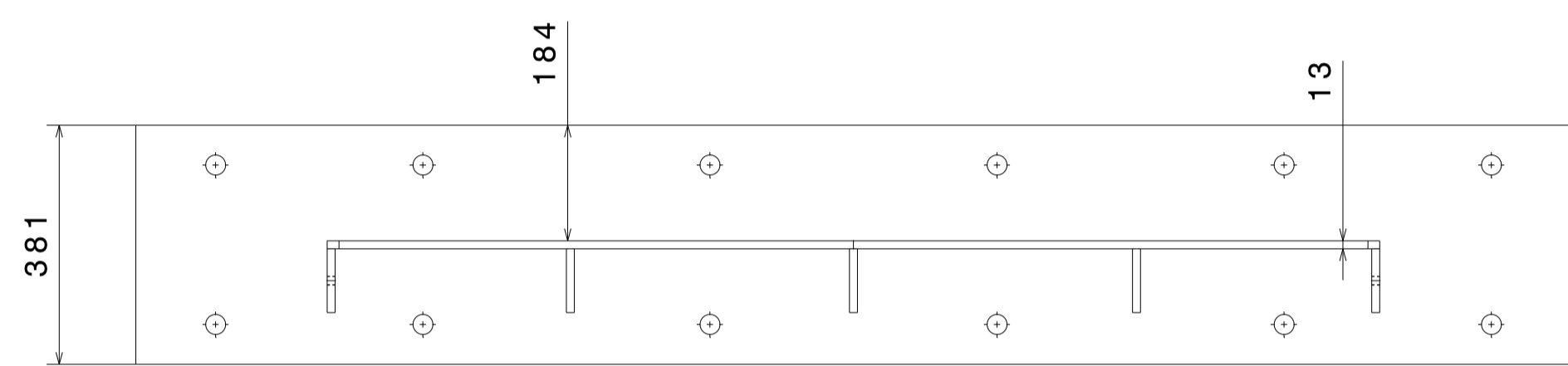
FRONT VIEW  
HORIZONTAL ACCESS MODULE



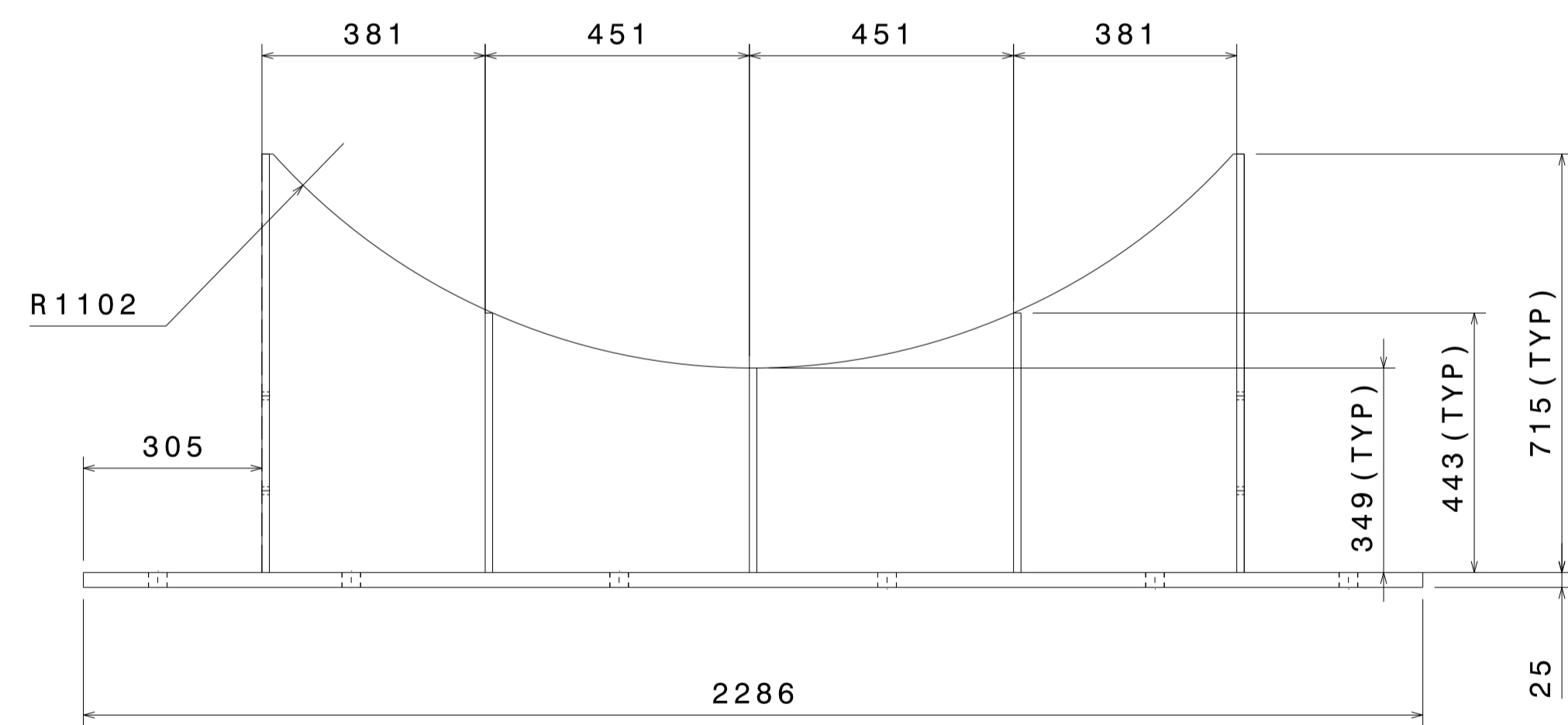
SIDE VIEW

MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.			
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED			
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	1:10	DATE	TITLE
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRAWN	A.N.N.	26/07/2015	HORIZONTAL ACCESS MODULE	
UPTO 10	10-50	50-120	OVER 120-400		±0.1	±0.2	±0.3	±0.5			CHECKED	R.K.	REF DRG NO: NA	REV R1	
+1'	+0'-30'	+0'-20'	+0'-10'								APPROVED	M.K.G.	DRG. NO	VH01-001-R1	
												SHEET 03 OF 03			

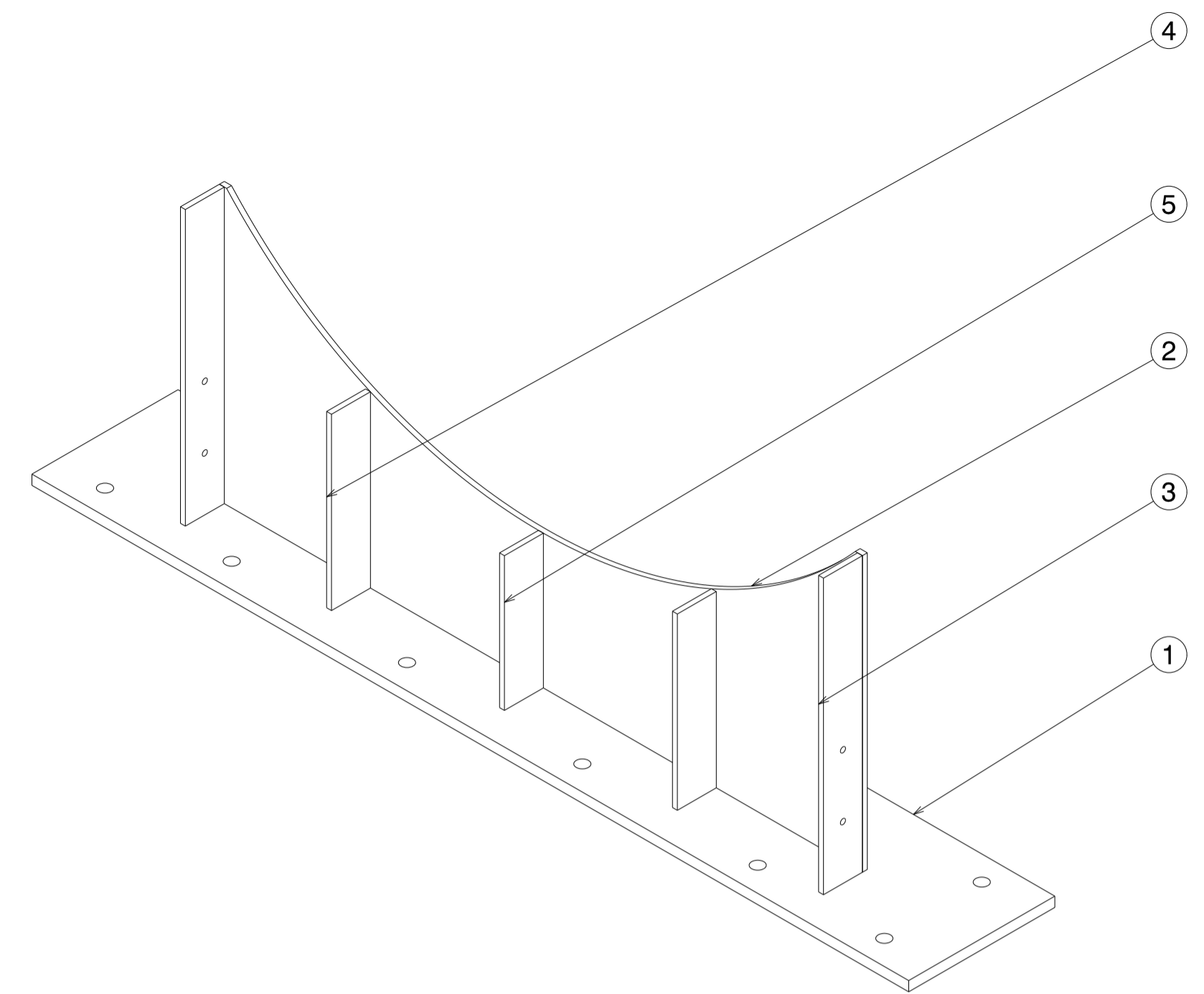




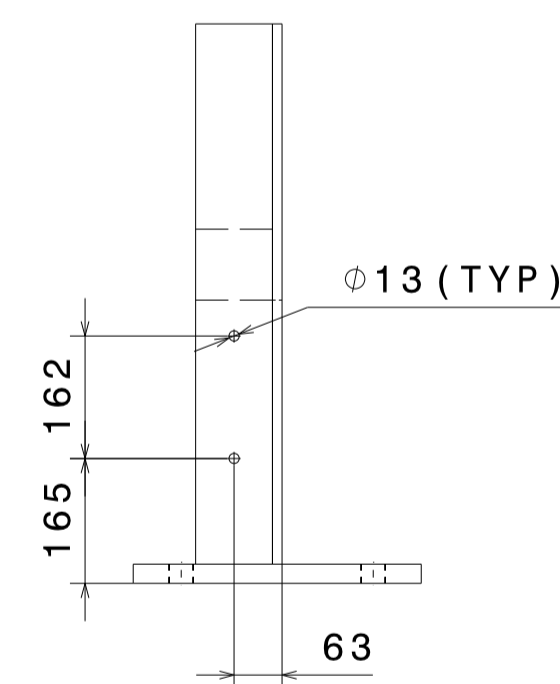
TOP VIEW



FRONT VIEW



ISOMETRIC VIEW

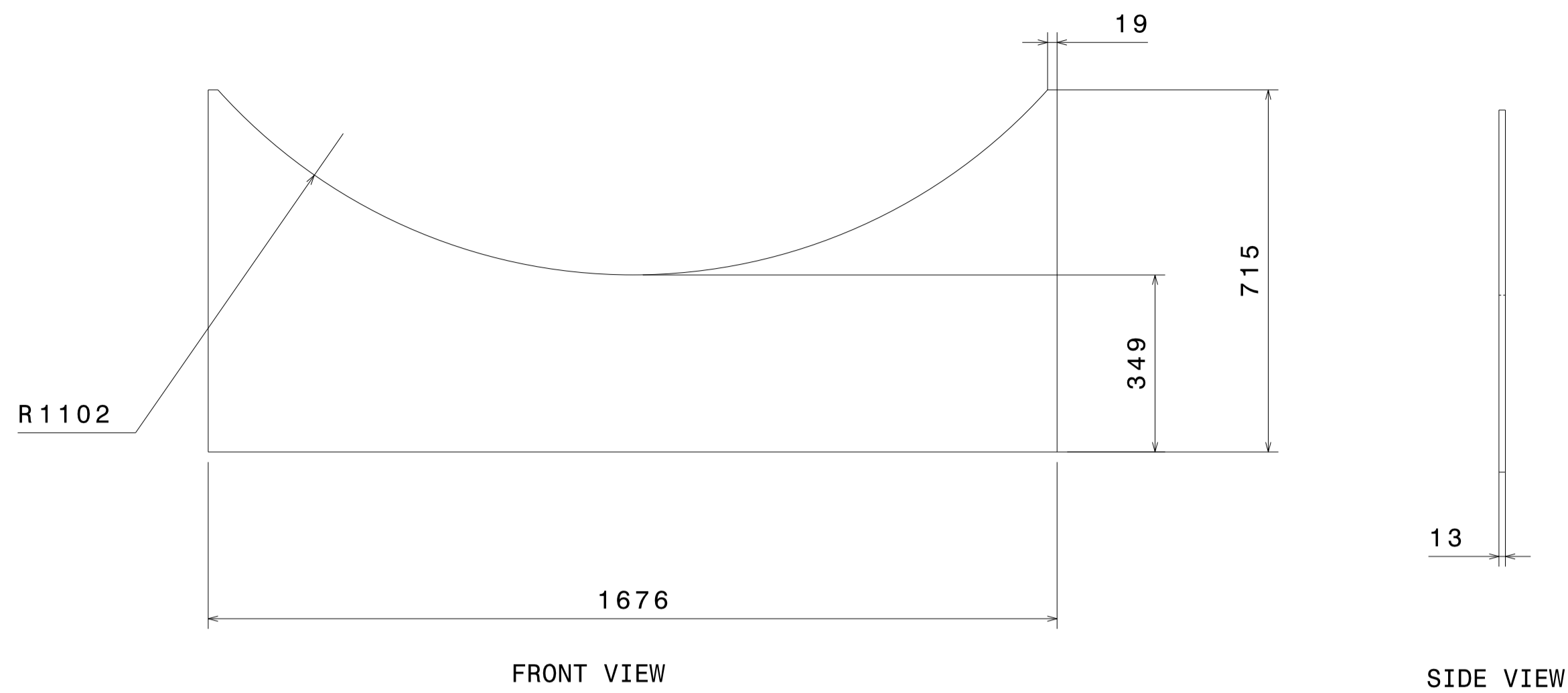


SIDE VIEW

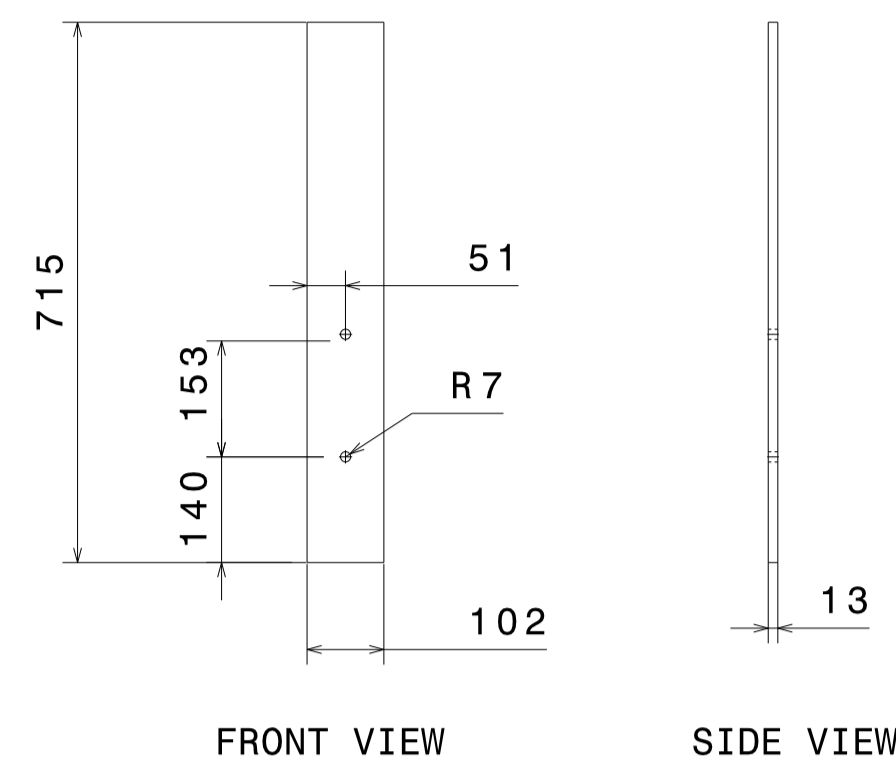
① VESSEL SUPPORT

PART NO.	QUANTITY	PART NAME	MATERIAL	REF. DWG. NO.	REMARK
5	01	RECTANGULAR PLATE-3	CARBON STEEL	VH01-002-R1/SHEET 02	-
4	02	RECTANGULAR PLATE-2	CARBON STEEL	VH01-002-R1/SHEET 02	-
3	02	RECTANGULAR PLATE-1	CARBON STEEL	VH01-002-R1/SHEET 02	-
2	01	RECTANGULAR PLATE (CIRCULAR CUTTED SECTION)	CARBON STEEL	VH01-002-R1/SHEET 02	-
1	01	BASE PLATE	CARBON STEEL	VH01-002-R1/SHEET 02	-

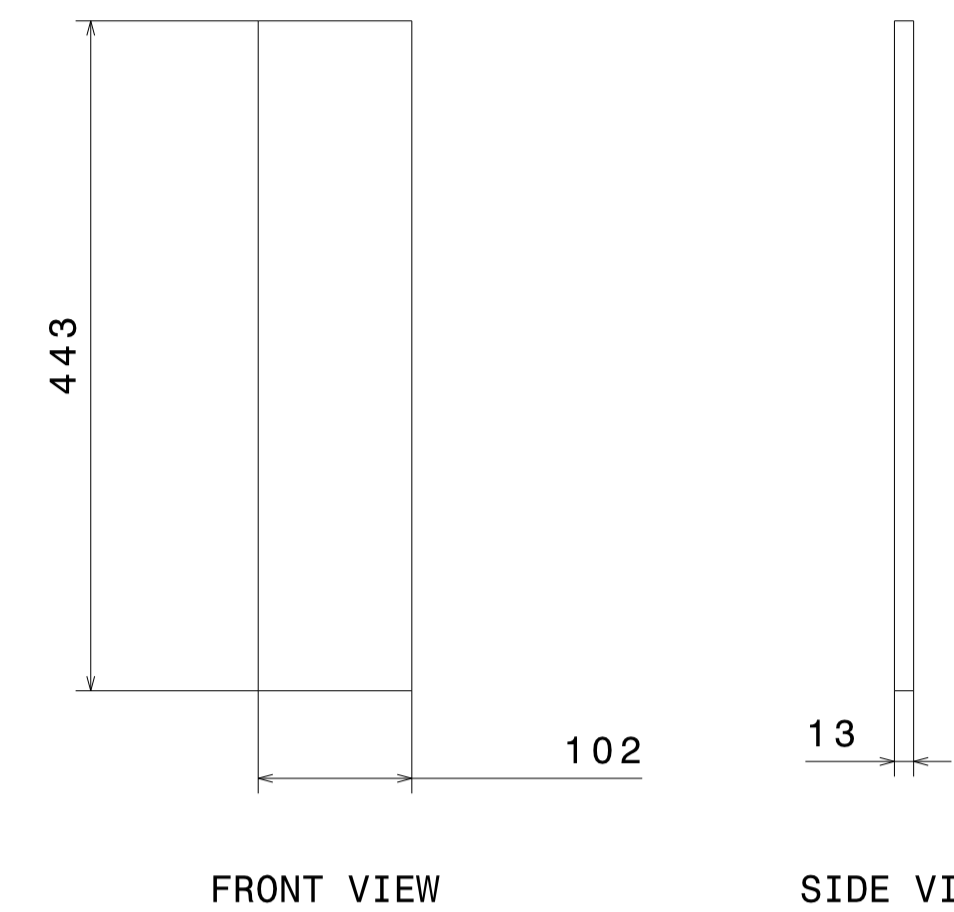
MATERIAL:		REVISION COLUMN				MED		SIZE	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)	
CO-ORDINATED BY		REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	A1	BHAT, GANDHINAGAR-382 428.	
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS										
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315	SCALE	1:10	DATE	TITLE
UPTO 10	10-50	50-120	OVER 120-400	+0.1	+0.2	+0.3	DRAWN	A.N.N.	26/07/2019	VESSEL SUPPORT
+1'	+0'-30'	+0'-20'	+0'-10'				CHECKED	R.K.	REF DRG NO:	VH01-001-R1
							APPROVED	M.K.G.	DRG. NO	VH01-002-R1
									REV	R1
									SHEET 01 OF 02	



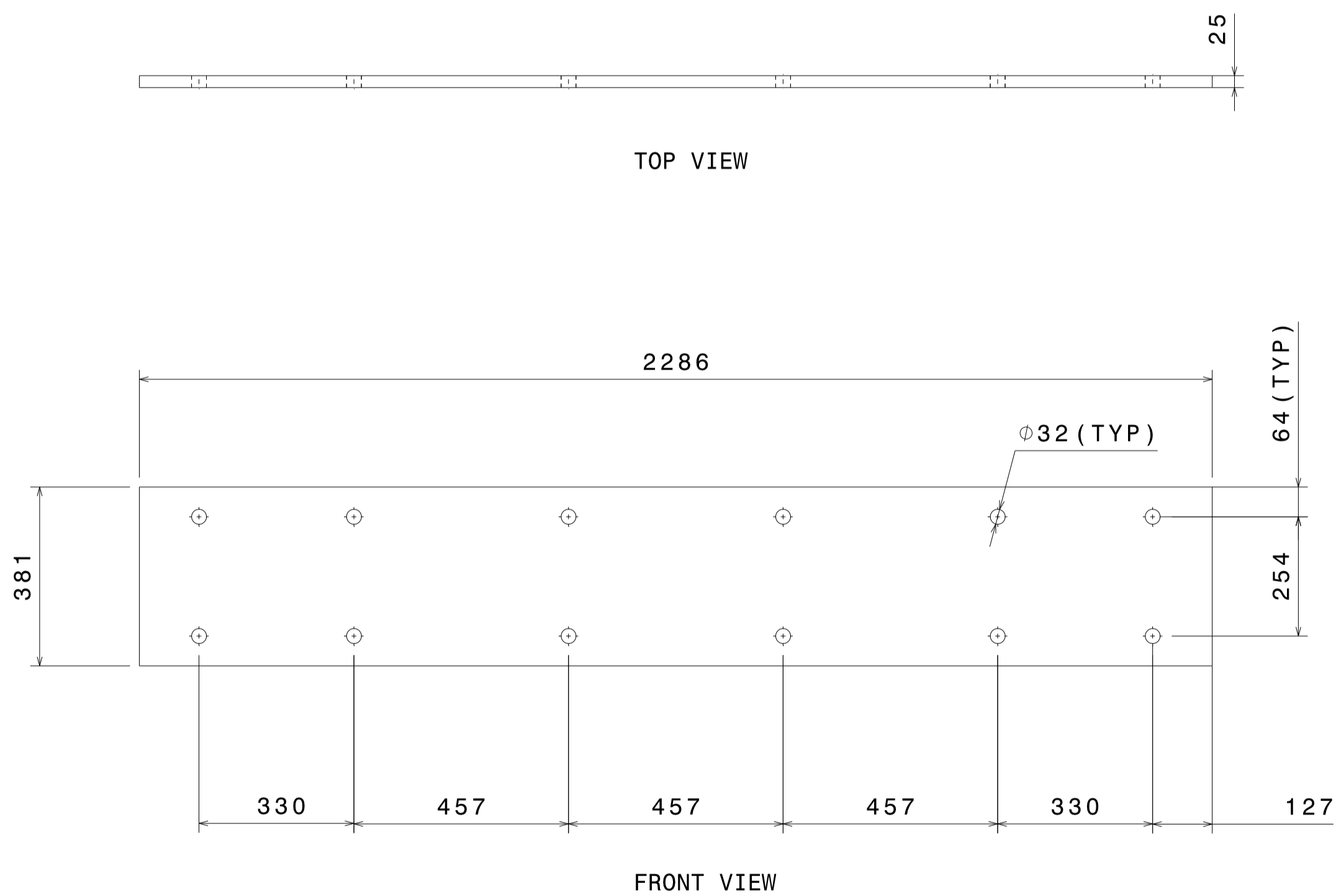
② RECTANGULAR PLATE (CIRCULAR CUTTED SECTION)  
SCALE-1:10



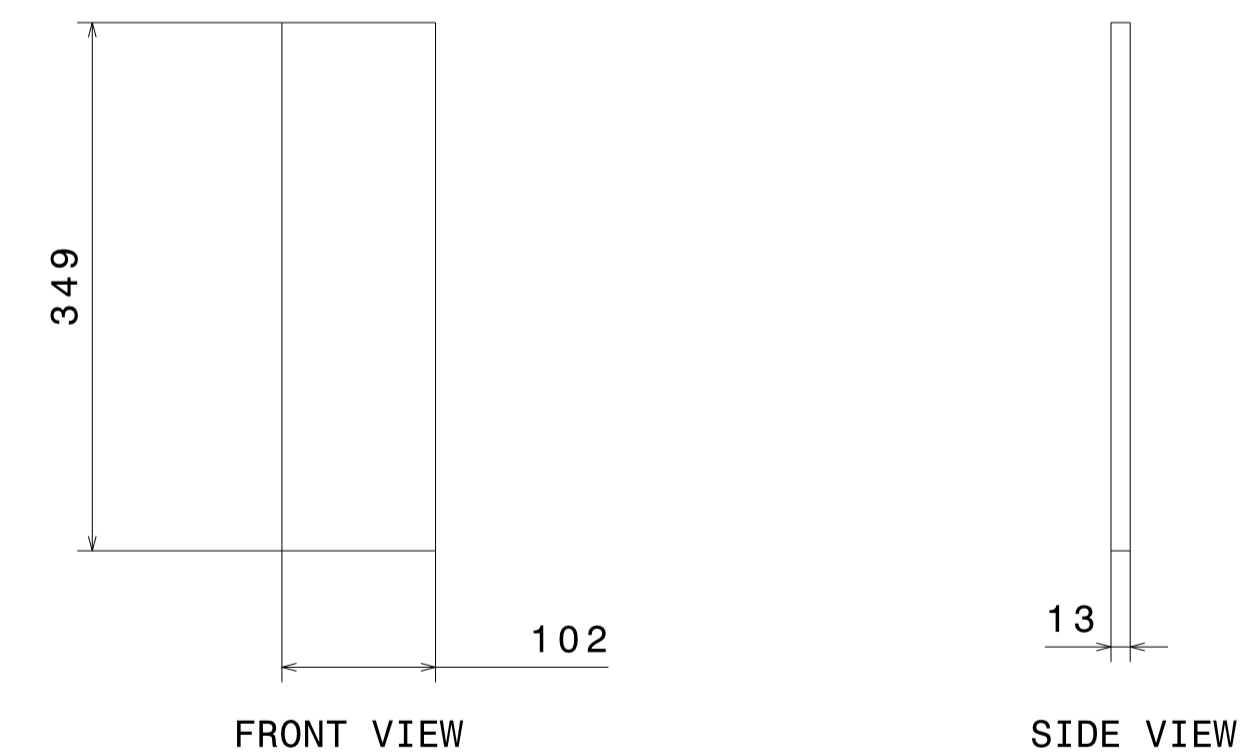
③ RECTANGULAR PLATE-1  
SCALE-1:10



④ RECTANGULAR PLATE-2  
SCALE-1:5

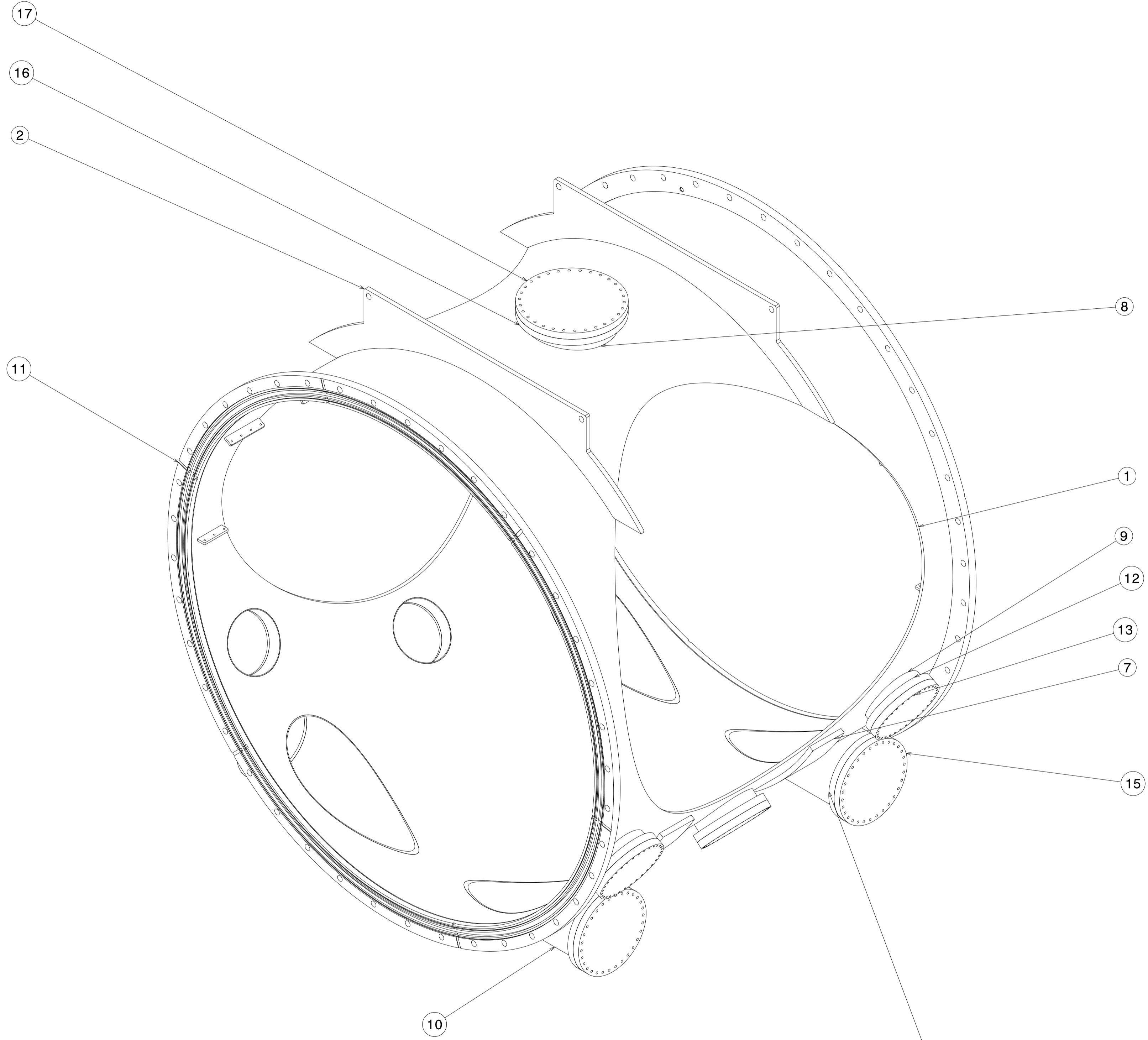


① BASE PLATE  
SCALE-1:10

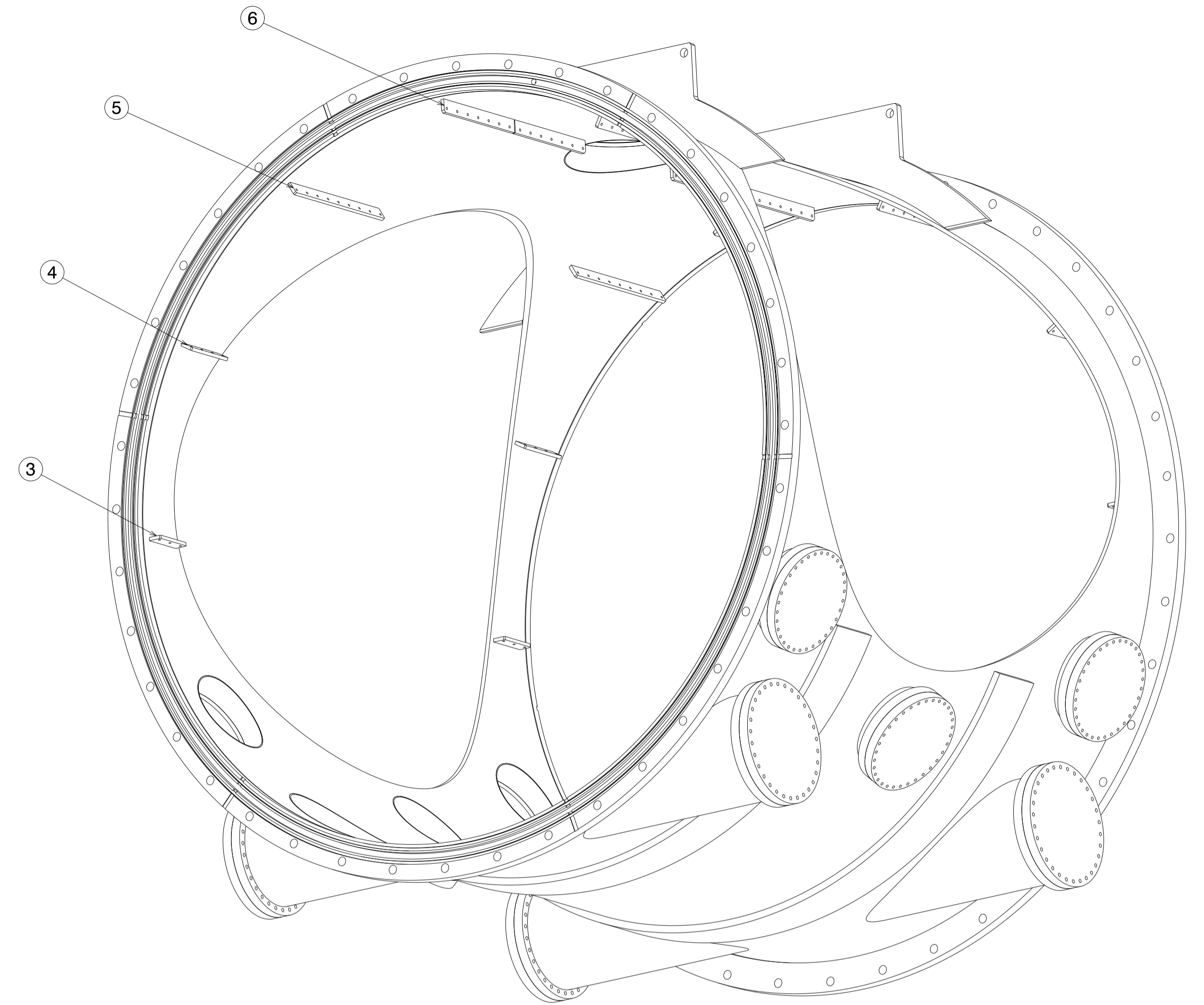


⑤ RECTANGULAR PLATE-3  
SCALE-1:5

MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.						
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED						
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS													SCALE		AS NOTED	DATE	TITLE	
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA		UPTO 6	6-30	30-120	120-315					DRAWN	A. N. N.	26/07/2015	VESSEL SUPPORT			
UPTO 10	10-50	50-120	OVER 120-400		±0.1	±0.2	±0.3	±0.5					CHECKED	R. K.	REF DRG NO:	VH01-001-R1	REV R1	
±1'	+0'-30'	+0'-20'	+0'-10'										APPROVED	M. K. G.	DRG. NO	VH01-002-R1	SHEET 02 OF 02	

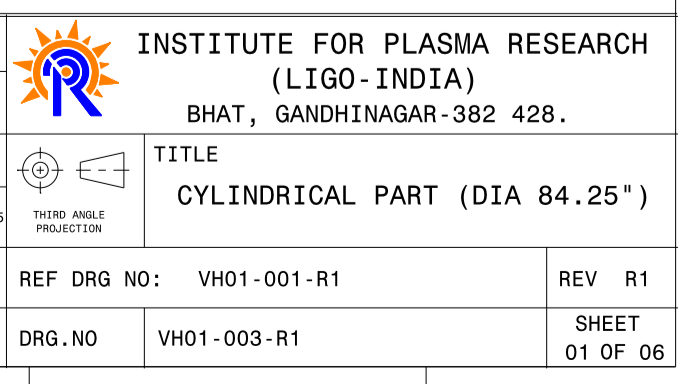


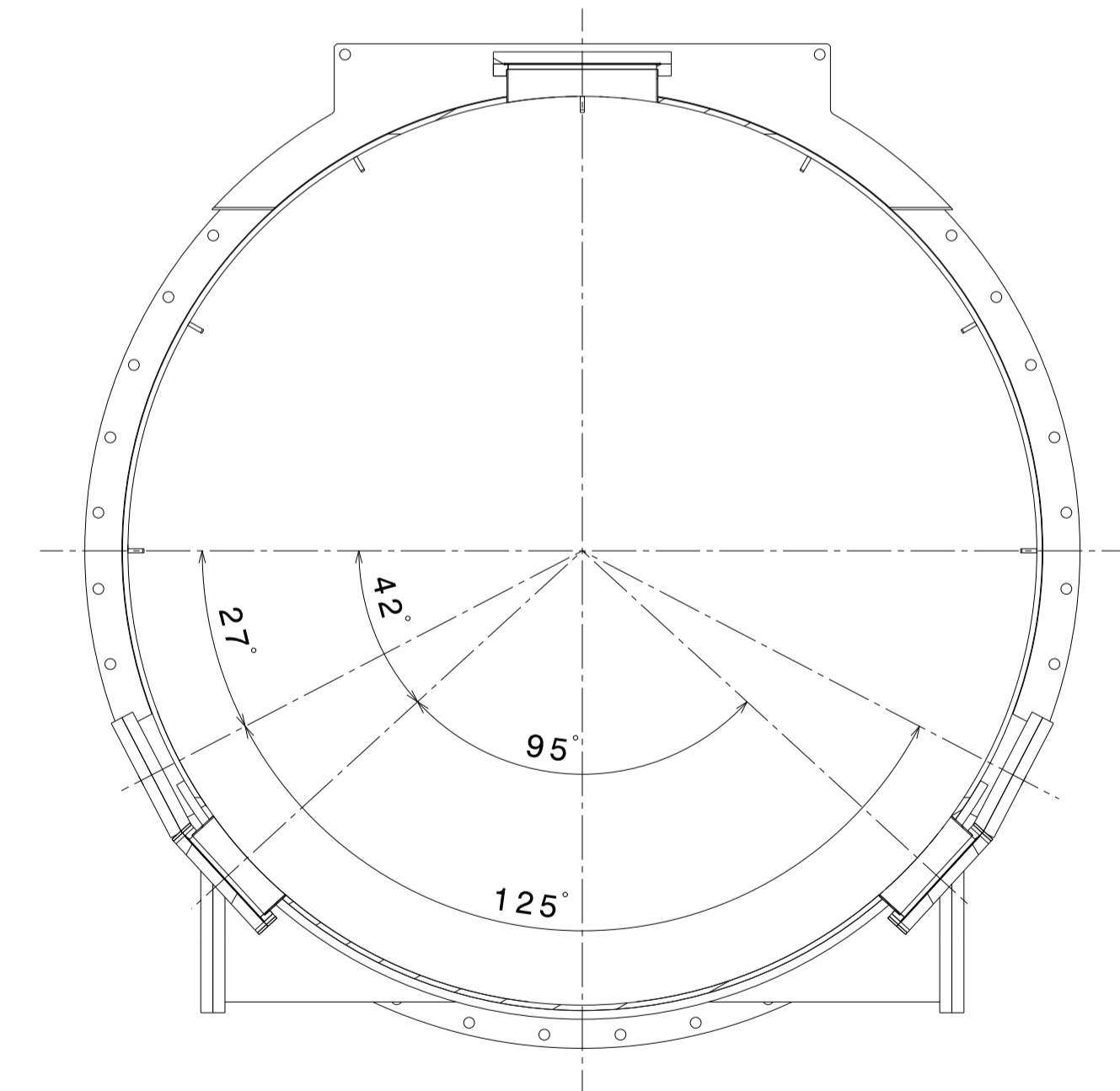
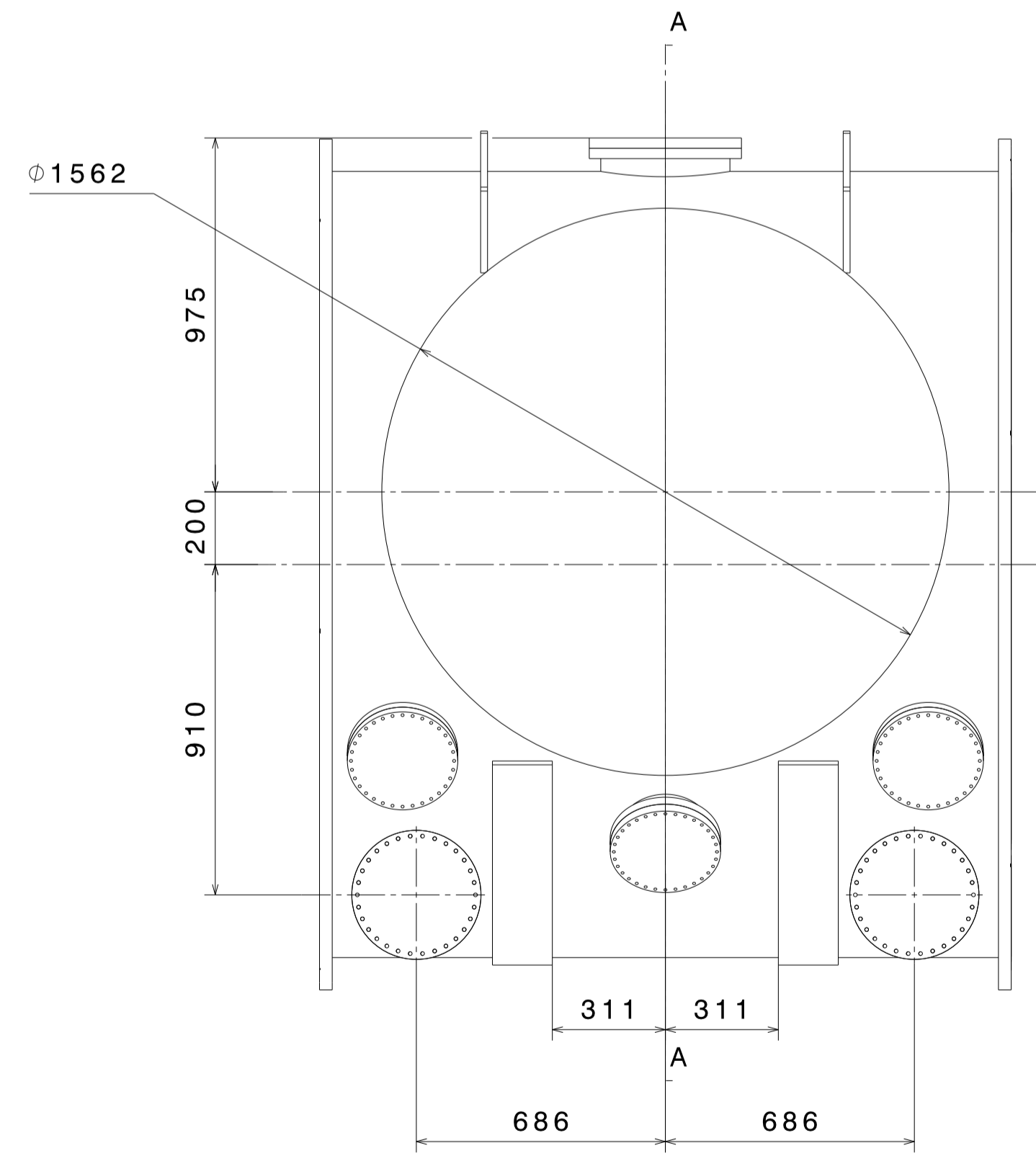
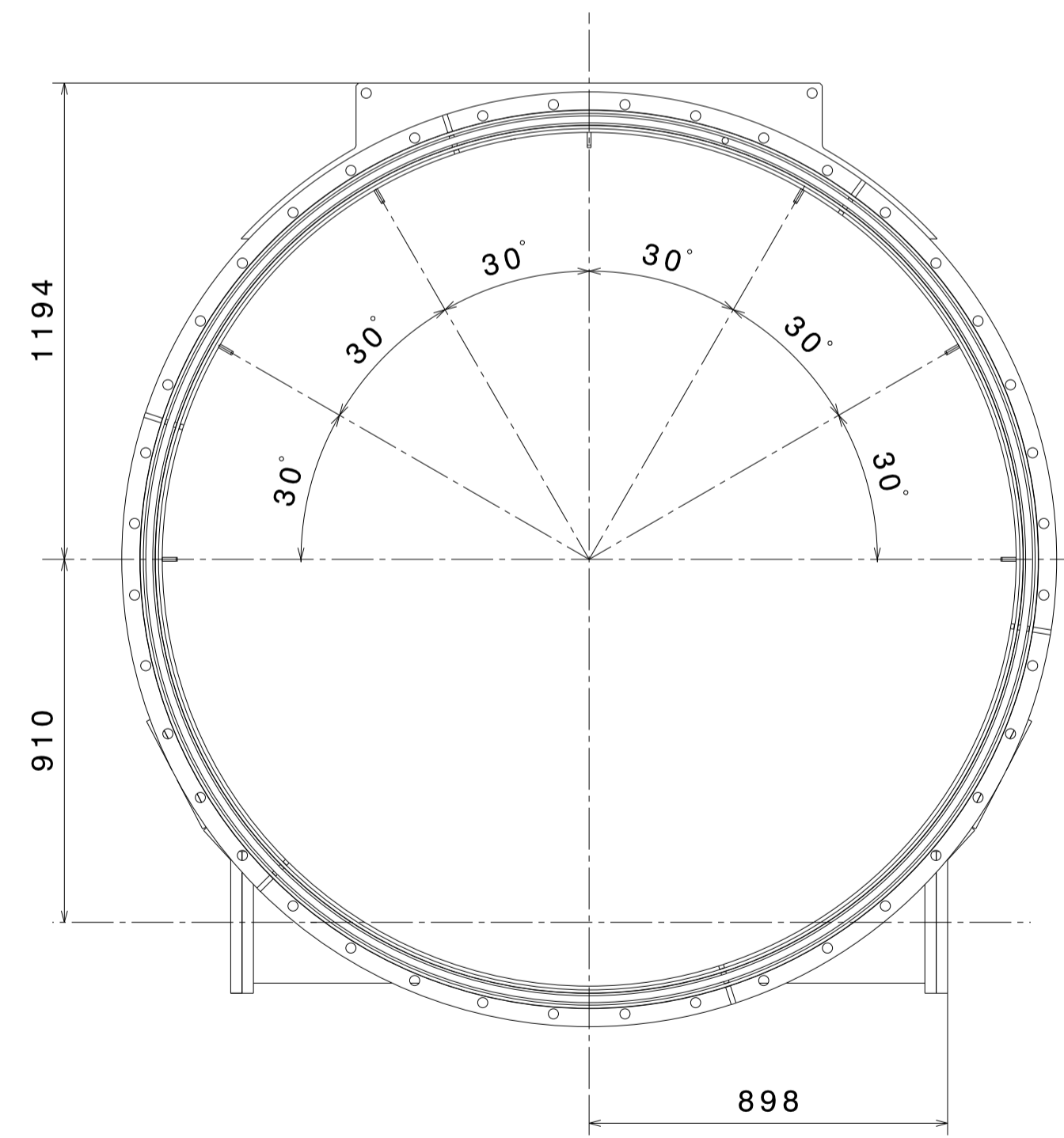
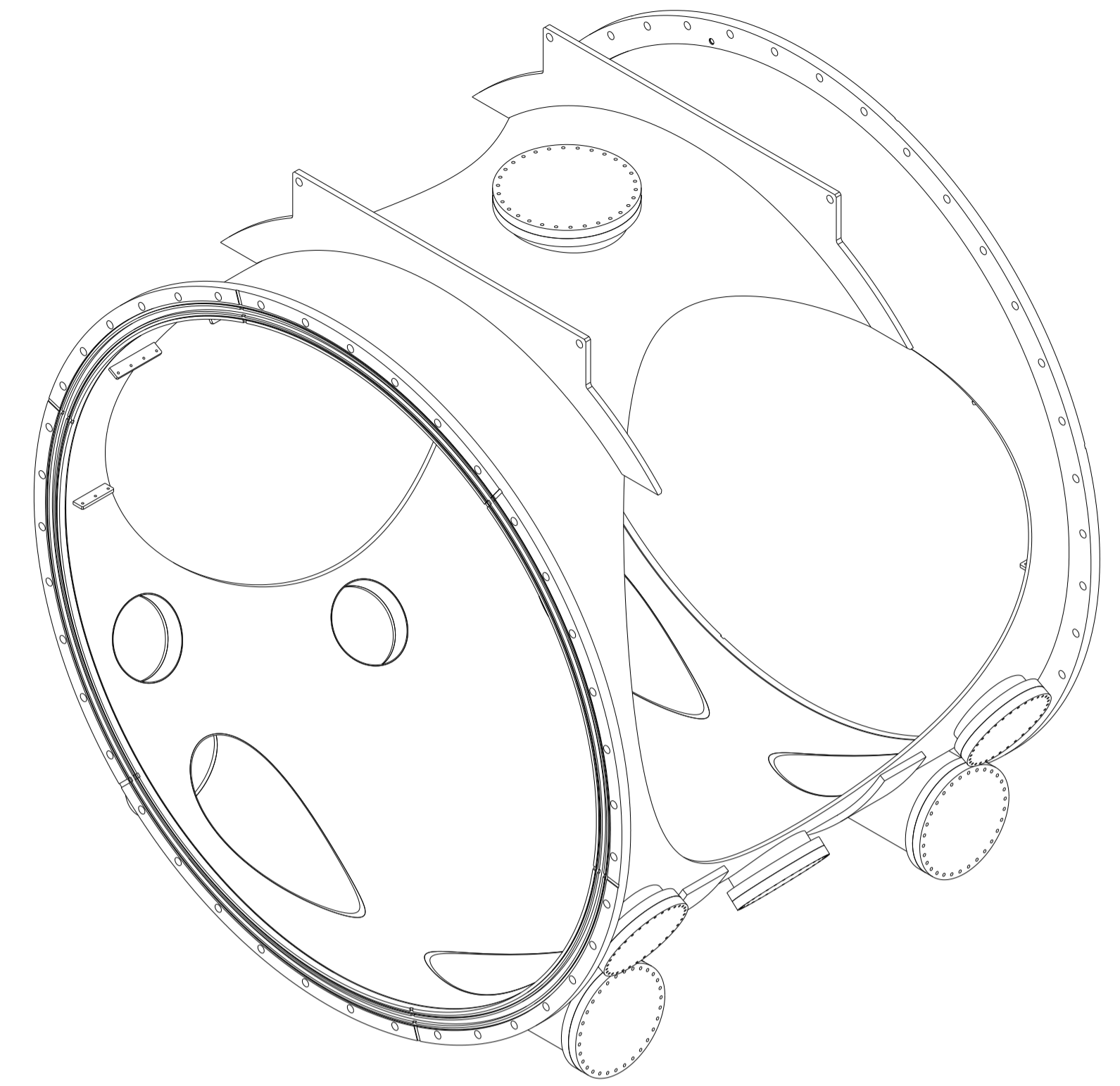
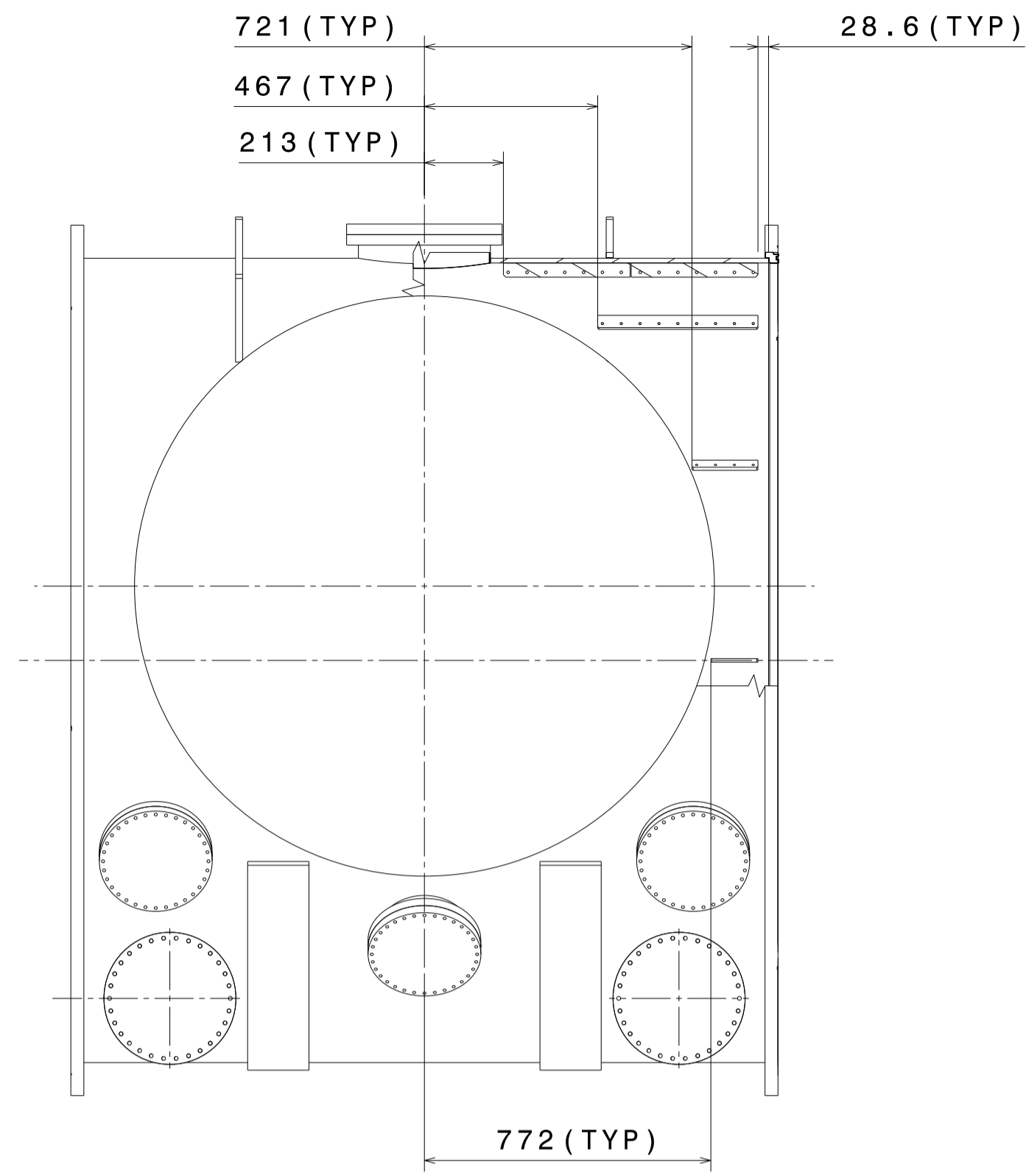
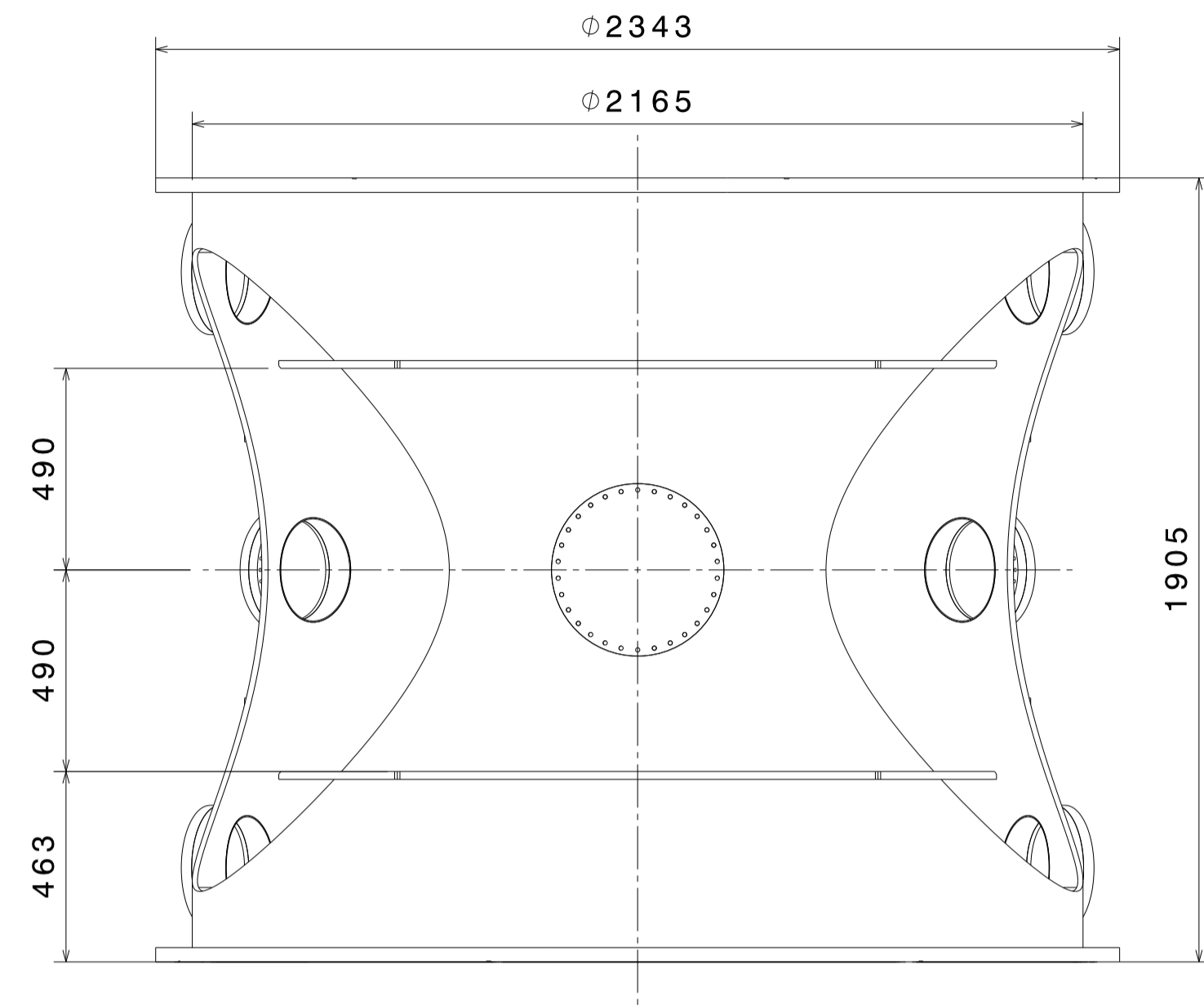
② CYLINDRICAL PART (DIA 84.25")



PART NO.	QUANTITY	PART NAME	MATERIAL	REF. DWG. NO.	REMARK
17	01	CUSTOM CF COVER FLANGE (16 1/2")	SS304L	V001-001-R0/SHEET 04	-
16	01	CUSTOM CF BLANK FLANGE (16 1/2")	SS304L	V001-001-R0/SHEET 04	-
15	04	CUSTOM CF COVER FLANGE (14")	SS304L	V001-001-R0/SHEET 02	-
14	04	CUSTOM CF BLANK FLANGE (14")	SS304L	V001-001-R0/SHEET 02	-
13	06	DN 250CF COVER FLANGE	SS304L	V001-001-R0/SHEET 04	-
12	06	DN 250CF BLANK FLANGE	SS304L	V001-001-R0/SHEET 04	-
11	02	FLANGE GROOVED (84.25" ID)	SS304L	VH01-003-R1/SHEET 06	-
10	04	PORT E NOZZLE	SS304L	VH01-003-R1/SHEET 05	-
9	06	PORT D NOZZLE	SS304L	VH01-003-R1/SHEET 05	-
8	01	PORT C NOZZLE	SS304L	VH01-003-R1/SHEET 05	-
7	02	SADDLE ATTACHMENT	SS304L	VH01-003-R1/SHEET 05	-
6	02	INTERNAL ATTACHMENT BRACKET 13D	SS304L	VH01-003-R1/SHEET 04	-
5	04	INTERNAL ATTACHMENT BRACKET 13C	SS304L	VH01-003-R1/SHEET 04	-
4	04	INTERNAL ATTACHMENT BRACKET 13B	SS304L	VH01-003-R1/SHEET 04	-
3	04	INTERNAL ATTACHMENT BRACKET 13A	SS304L	VH01-003-R1/SHEET 04	-
2	02	LIFTING RING & LUGS	SS304L	VH01-003-R1/SHEET 04	-
1	01	CYLINDRICAL SHELL	SS304L	VH01-003-R1/SHEET 03	-

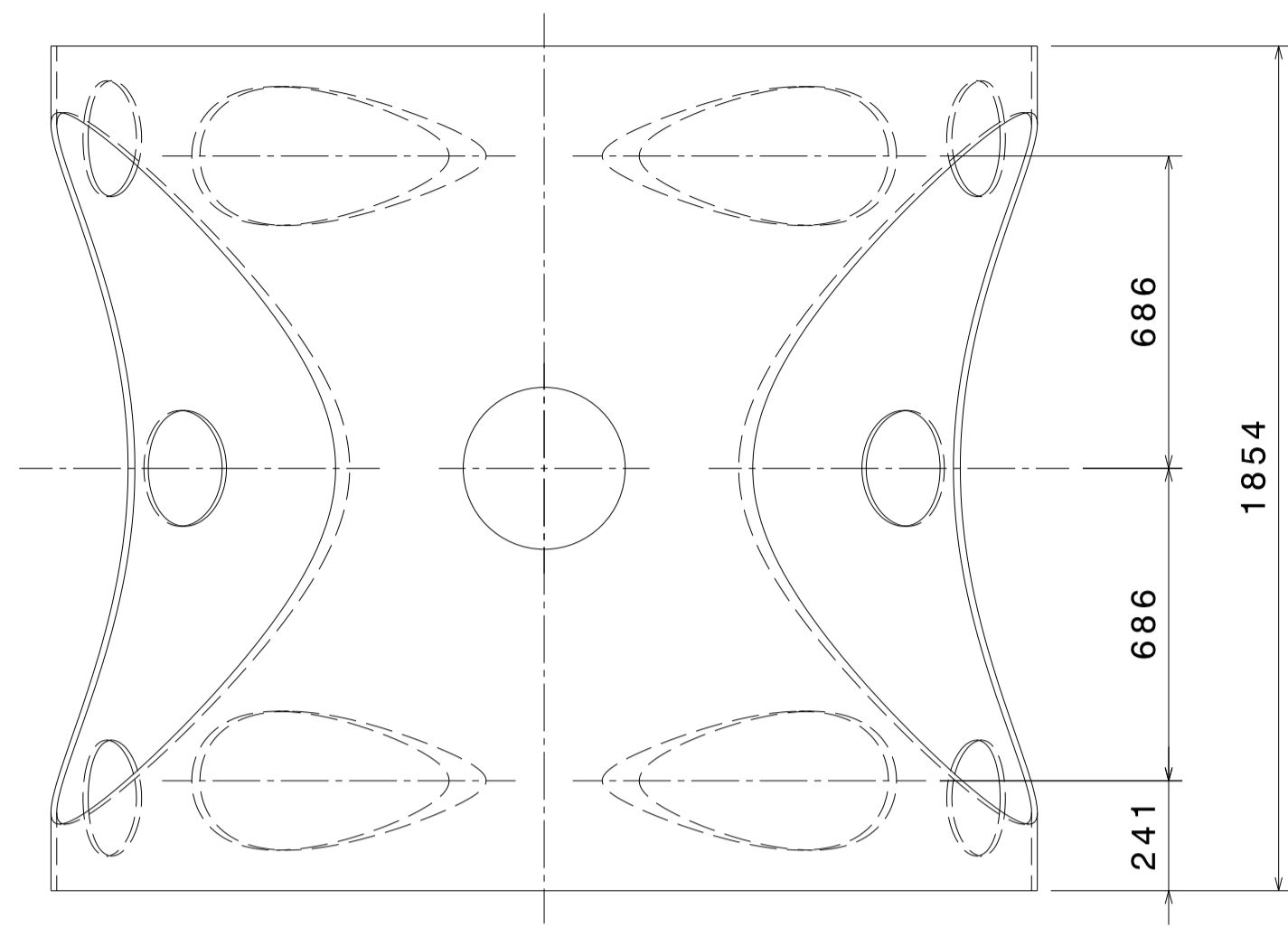
MATERIAL:		MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS				REVISION COLUMN					MED		INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)			
CO-ORDINATED BY		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	SCALE	DATE	TITLE	BHAT, GANDHINAGAR-382 428.	
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS																
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA		UPTO 6	6-30	30-120	120-315									
UPTO 10	10-50	50-120	OVER 120-400		±0.1	±0.2	±0.3	±0.5								
±1'	±0'-30'	±0'-20'	±0'-10'													
												DRAWN	A. N. N.	28/07/2015	CYLINDRICAL PART (DIA 84.25")	
												CHECKED	R. K.	REF DRG NO:	VH01-001-R1	REV R1
												APPROVED	M. K. G.	DRG. NO	VH01-003-R1	SHEET 01 OF 06



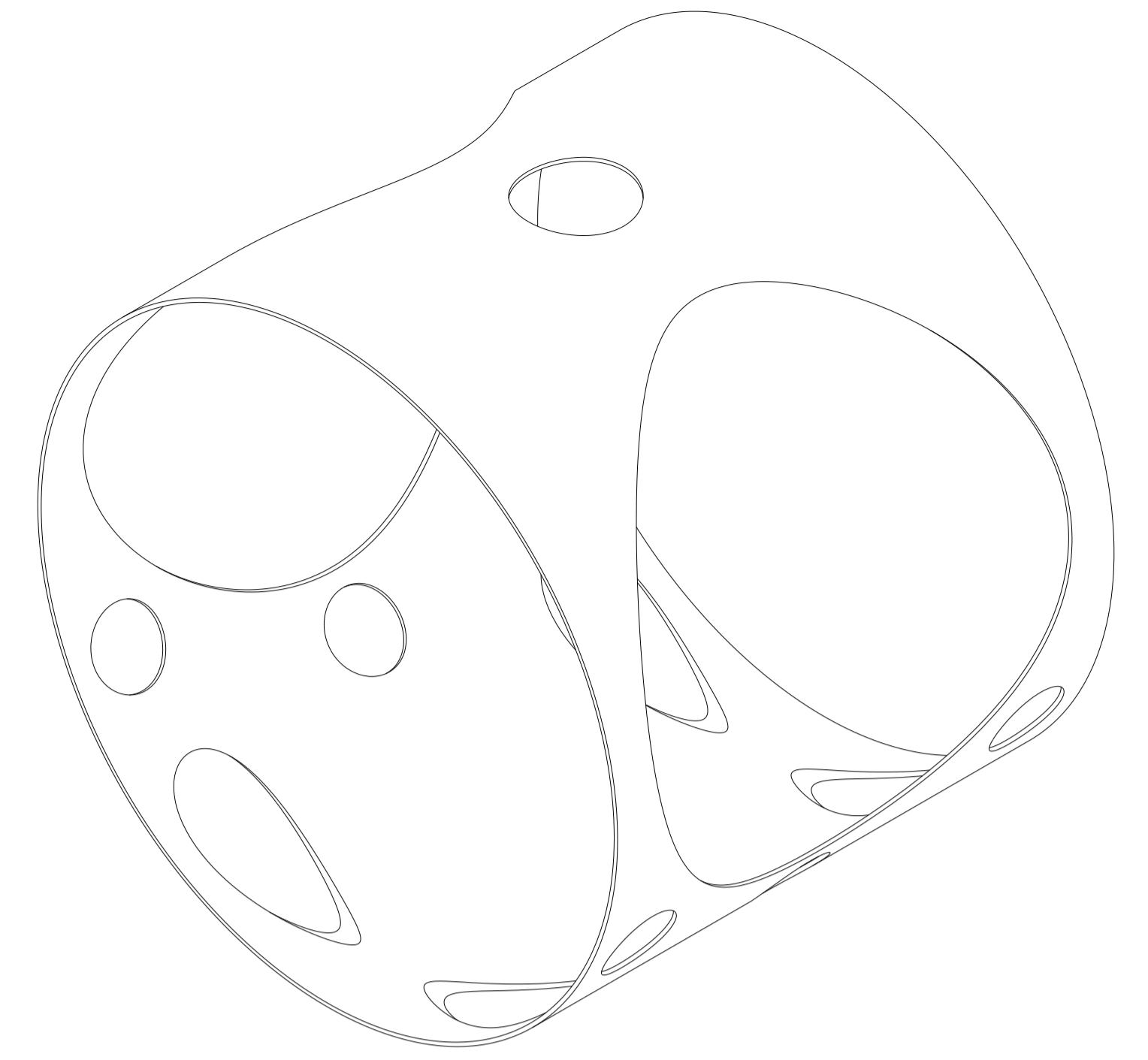


2 CYLINDRICAL PART (DIA 84.25")

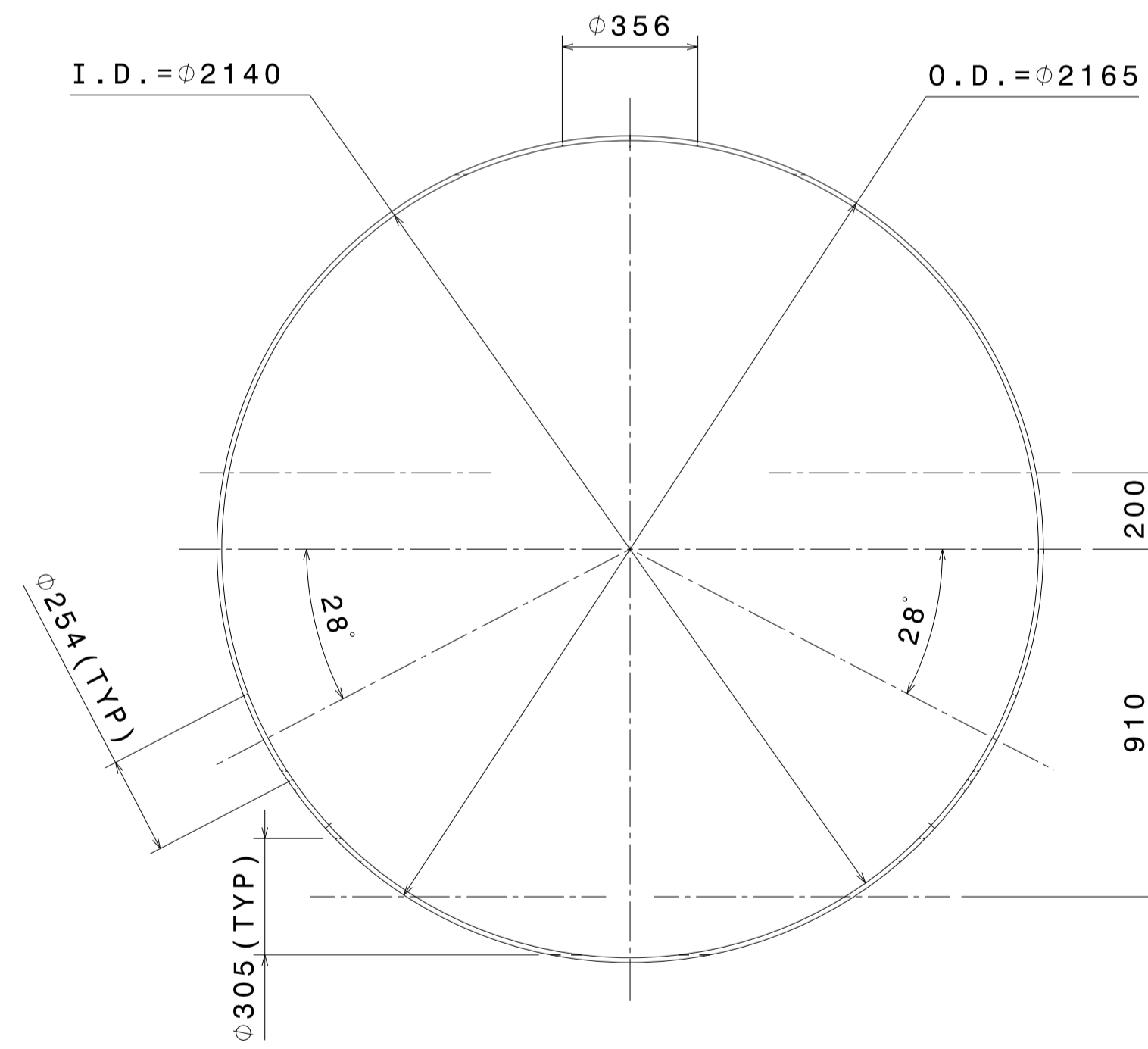
MATERIAL:		REVISION COLUMN				MED	SIZE	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)		
CO-ORDINATED BY		REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	Bhat, Gandhinagar-382 428.		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS										
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315	SCALE	DATE	TITLE	
UPTO 10	10-50	50-120	OVER 120-400				1:15	28/07/2015	CYLINDRICAL PART (DIA 84.25")	
+1'	+0'-30'	+0'-20'	+0'-10'				CHECKED	R.K.	REF DRG NO:	VH01-001-R1
							APPROVED	M.K.G.	DRG. NO	VH01-003-R1
									REV	R1
									SHEET 02 OF 06	



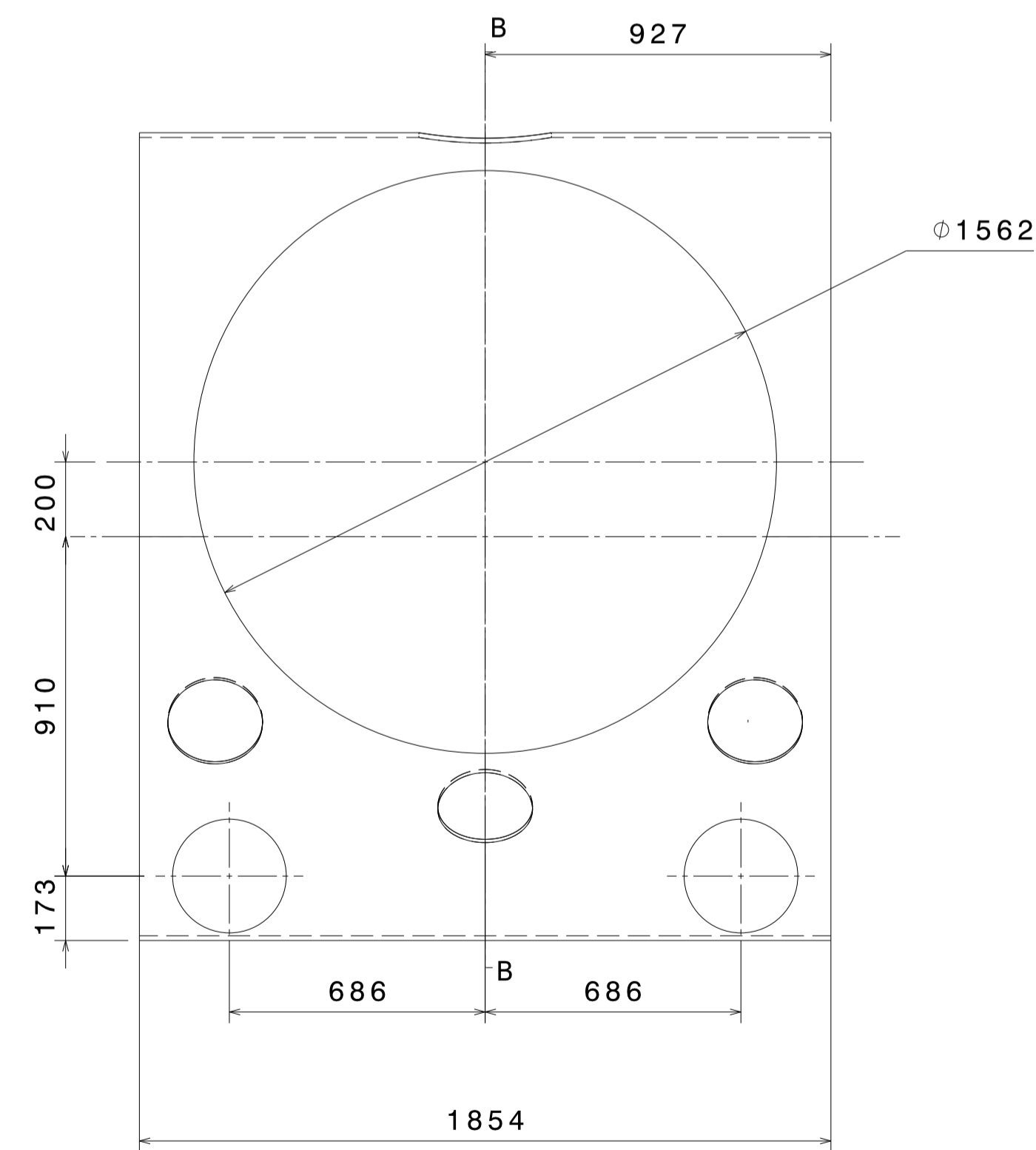
TOP VIEW



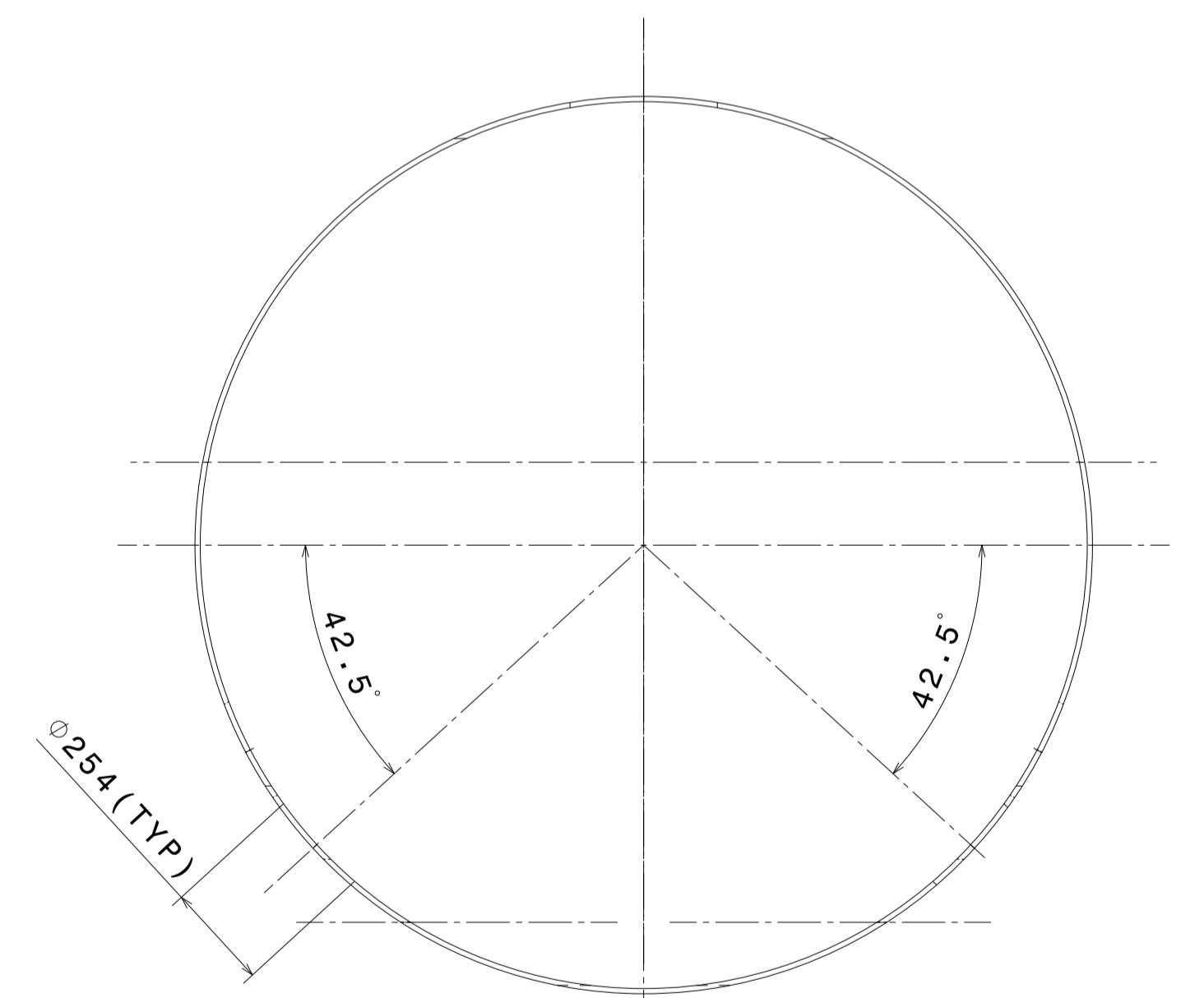
ISOMETRIC VIEW



FRONT VIEW



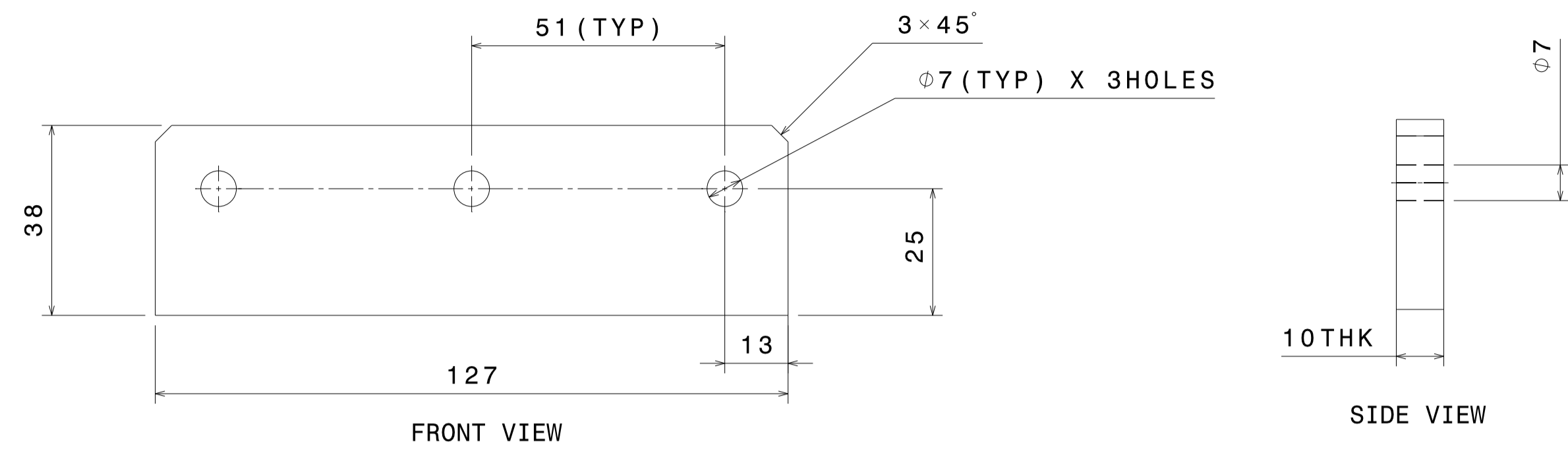
SIDE VIEW



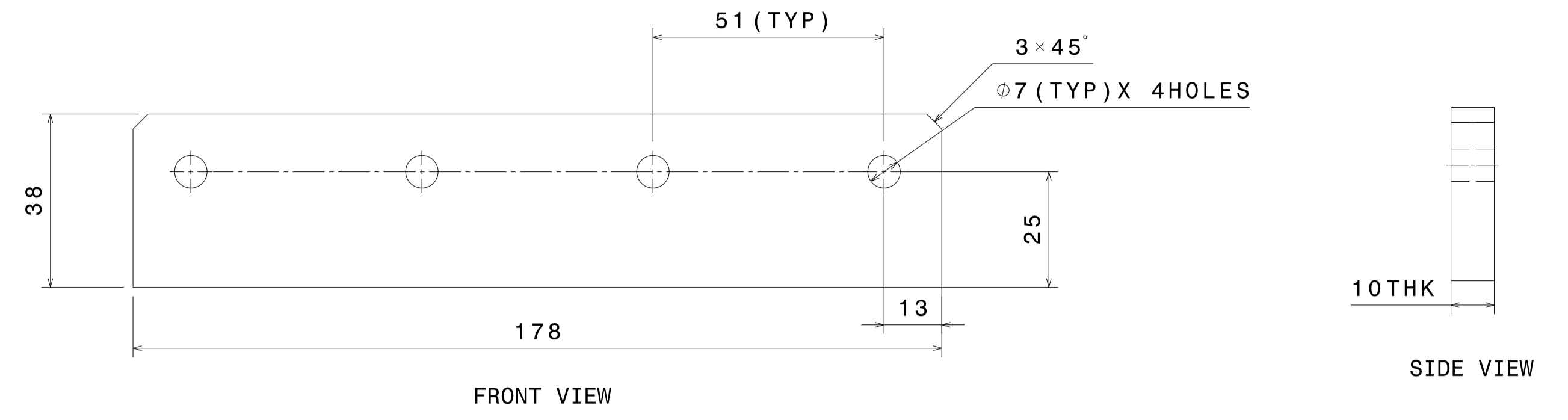
SECTION B-B

1 CYLINDRICAL SHELL

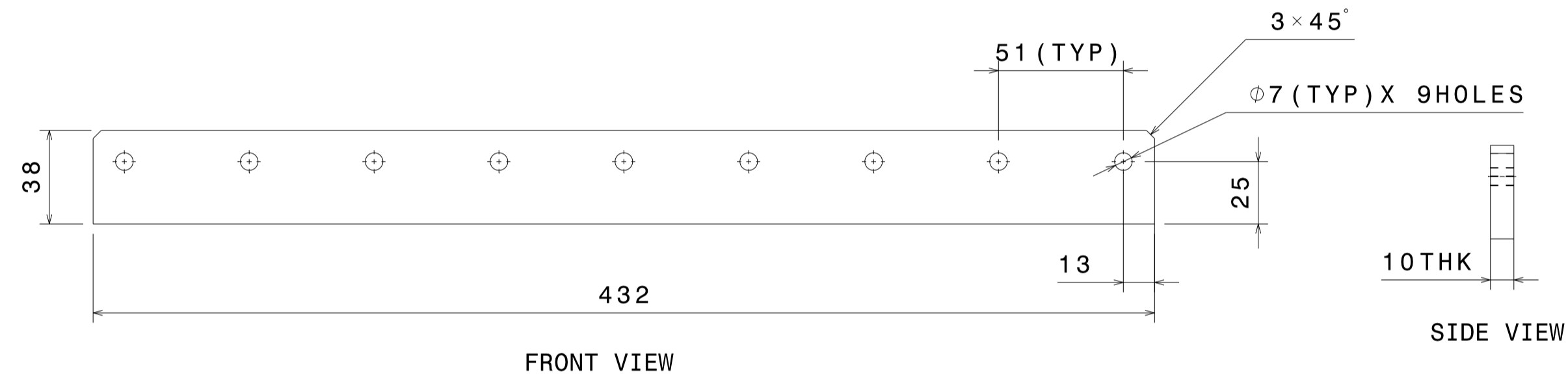
MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.					
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED					
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS													SCALE	1:15	DATE	TITLE	
LENGTH IN mm OF SHORTER SIDE OF ANGLES													DRAWN	A.N.N.	28/07/2015	CYLINDRICAL PART (DIA 84.25")	
LENGTH UPTO 10		10-50	50-120	OVER 120-400	LENGTH OR DIA	UPTO 6	6-30	30-120	120-315	CHECKED		R.K.	REF DRG NO:	VH01-001-R1	REV	R1	
+1'		+0'-30'	+0'-20'	+0'-10'		+0.1	+0.2	+0.3	+0.5	APPROVED		M.K.G.	DRG. NO	VH01-003-R1	SHEET 03 OF 06		



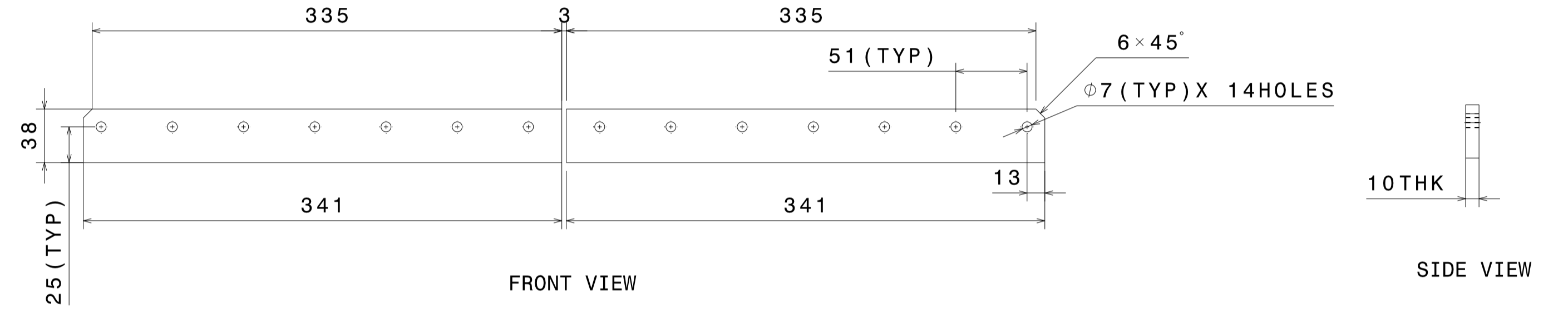
③ INTERNAL ATTACHMENT BRACKET 13A  
SCALE-1:1



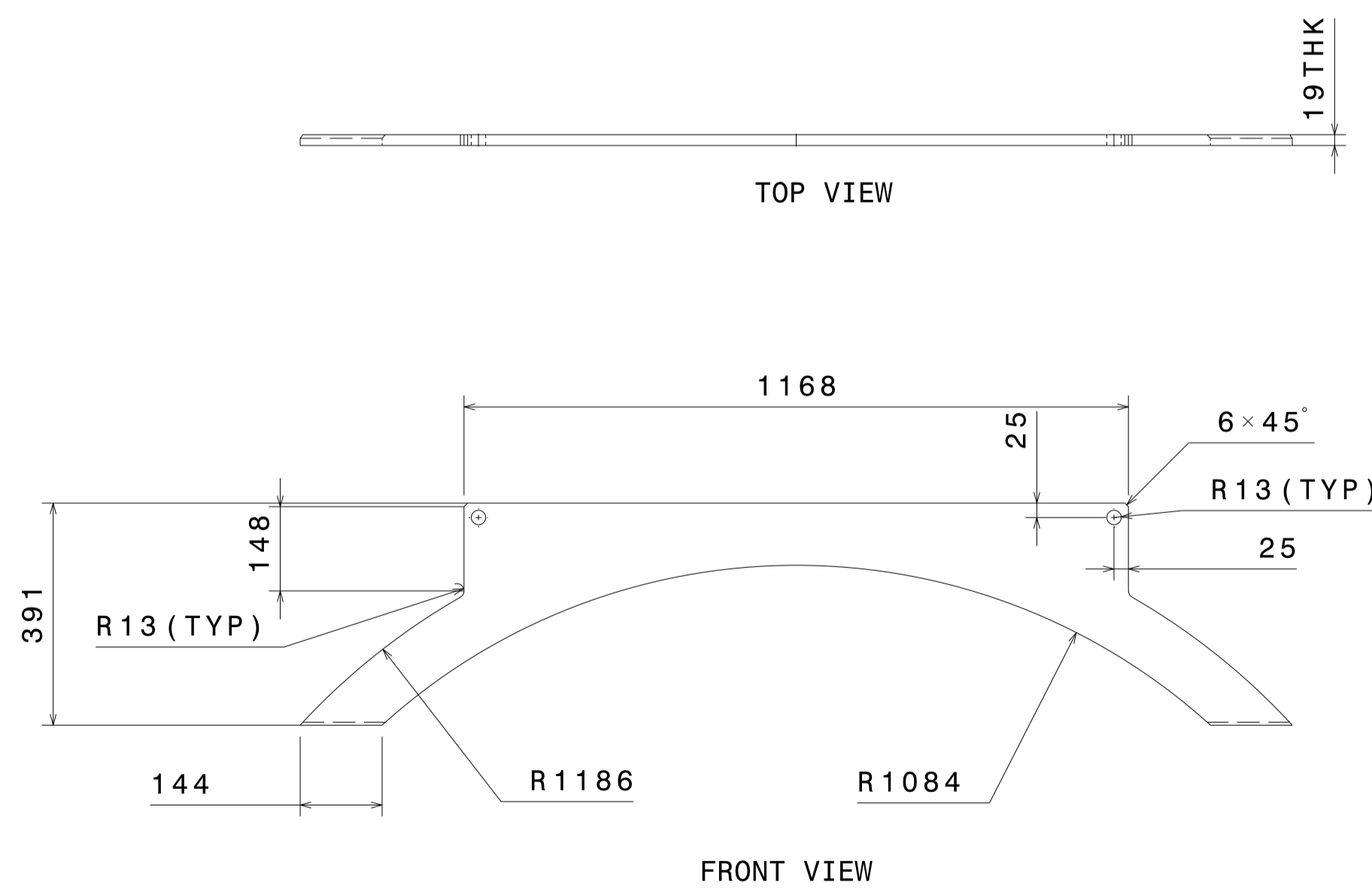
④ INTERNAL ATTACHMENT BRACKET 13B  
SCALE-1:1



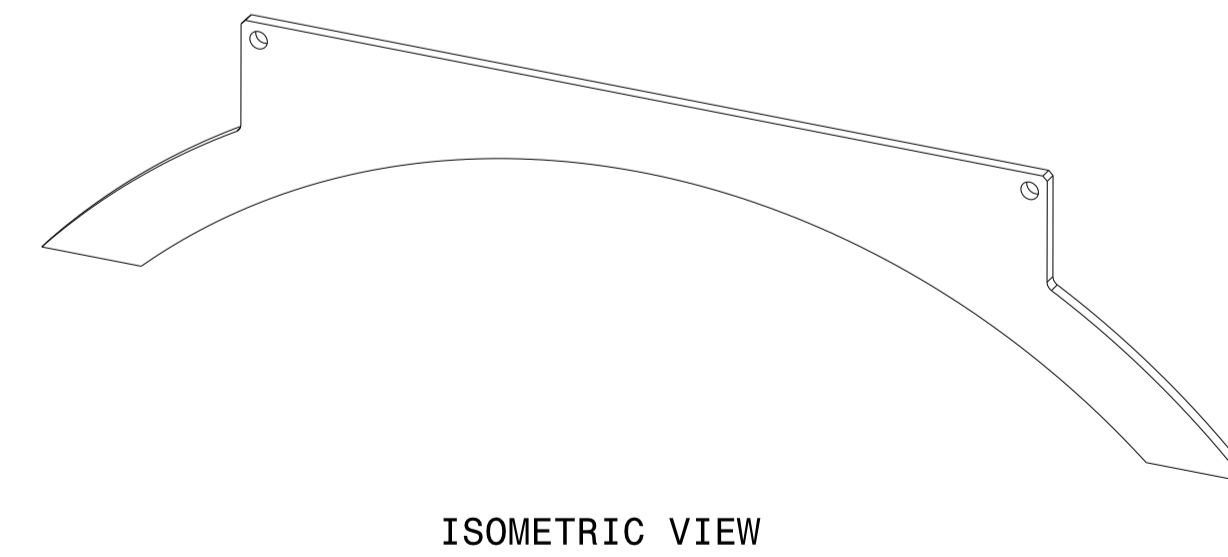
⑤ INTERNAL ATTACHMENT BRACKET 13C  
SCALE-1:2



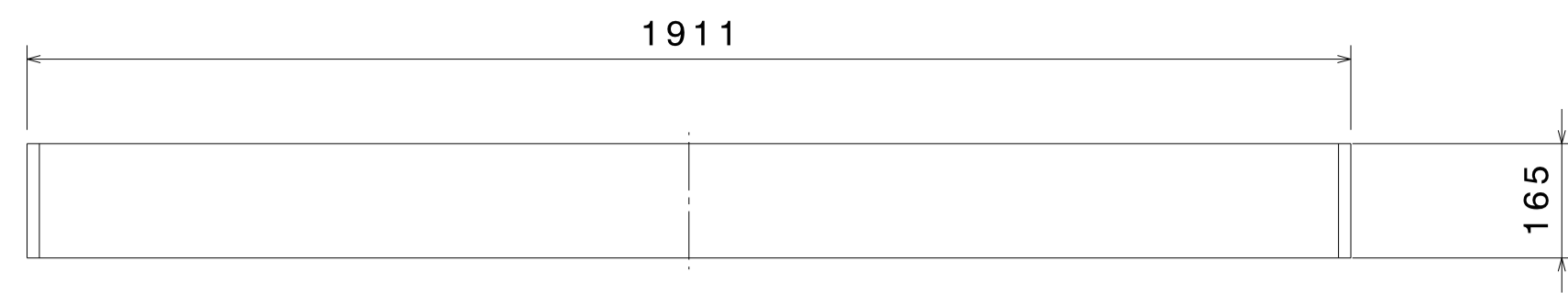
⑥ INTERNAL ATTACHMENT BRACKET 13D  
SCALE-1:3



② LIFTING RING & LUGS  
SCALE-1:10



MATERIAL:	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.	
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED	
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS					SCALE	AS NOTED	DATE	TITLED CYLINDRICAL PART (DIA 84.25")		REF DRG NO: VH01-001-R1		
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				CHECKED	R.K.	REV R1
UPTO 10	10-50	50-120	OVER 120-400	±0.1	±0.2	±0.3	±0.5			APPROVED	M.K.G.	SHEET 04 OF 06
±1'	+0'-30'	+0'-20'	+0'-10'							DRG. NO	VH01-003-R1	

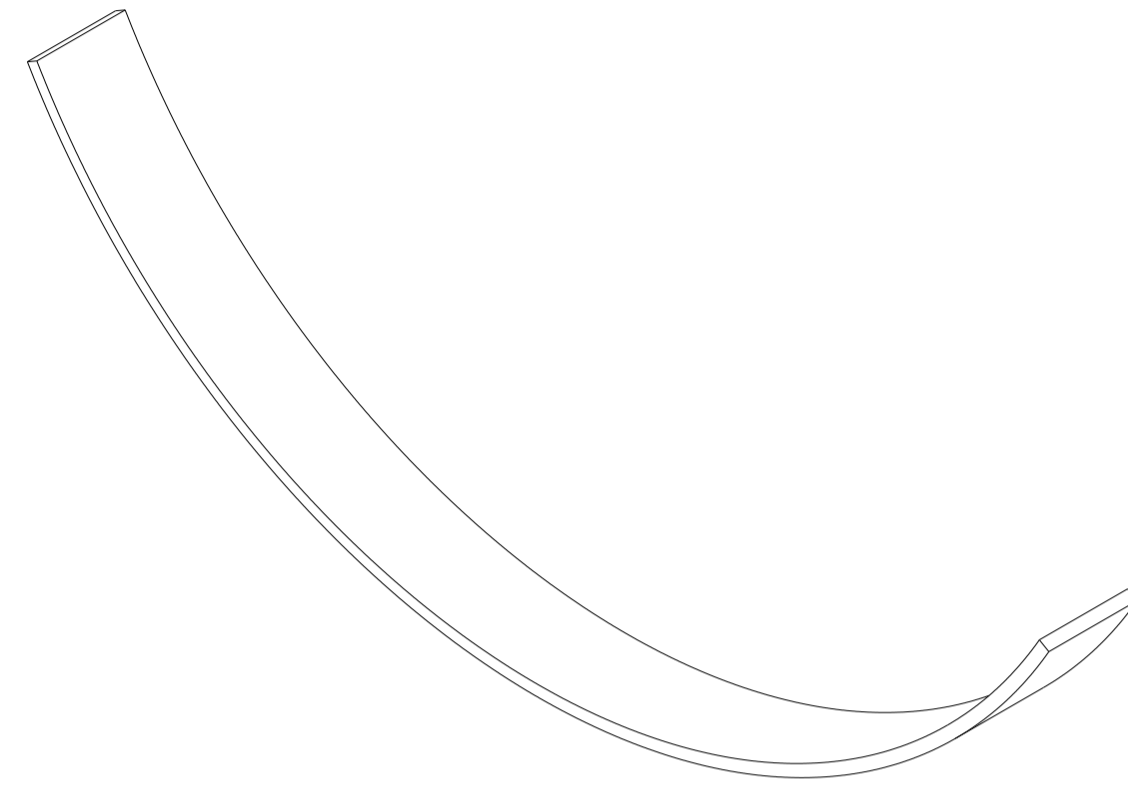


TOP VIEW

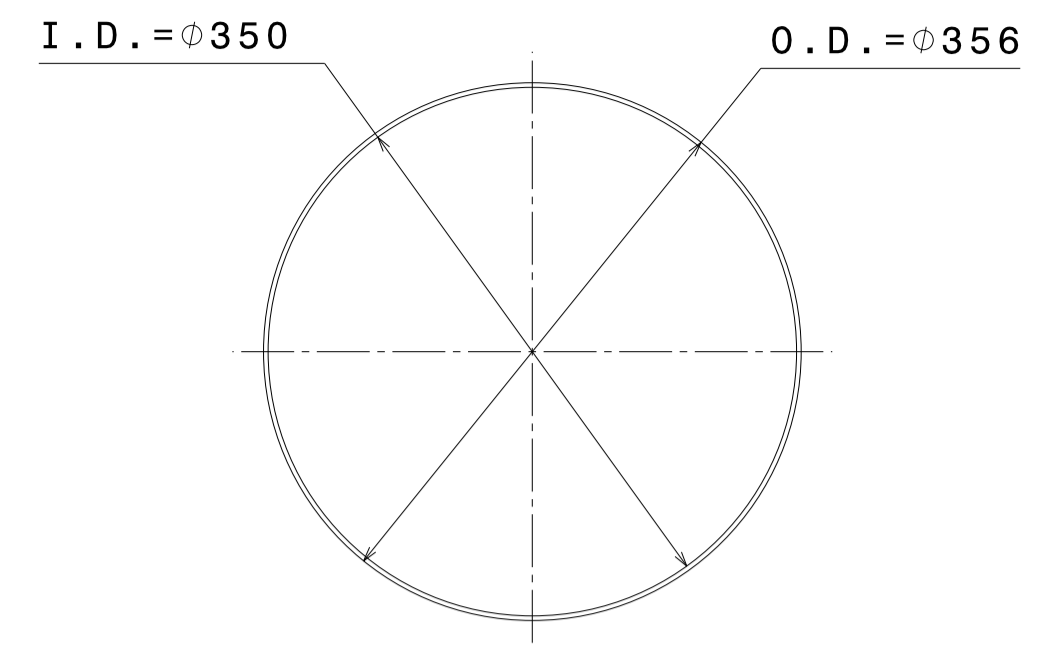


FRONT VIEW

7 SADDLE ATTACHMENT  
SCALE-1:10

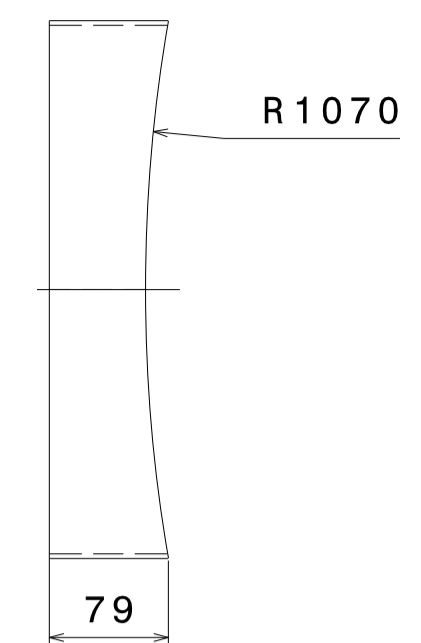


ISOMETRIC VIEW

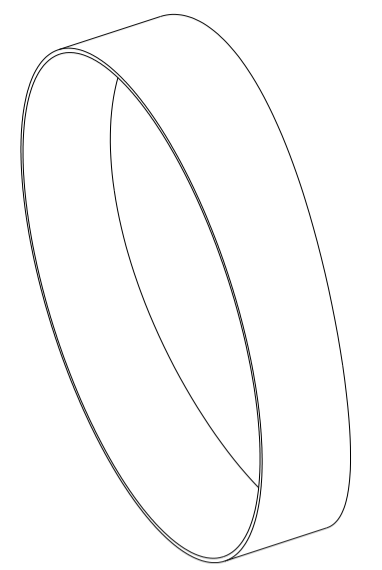


FRONT VIEW

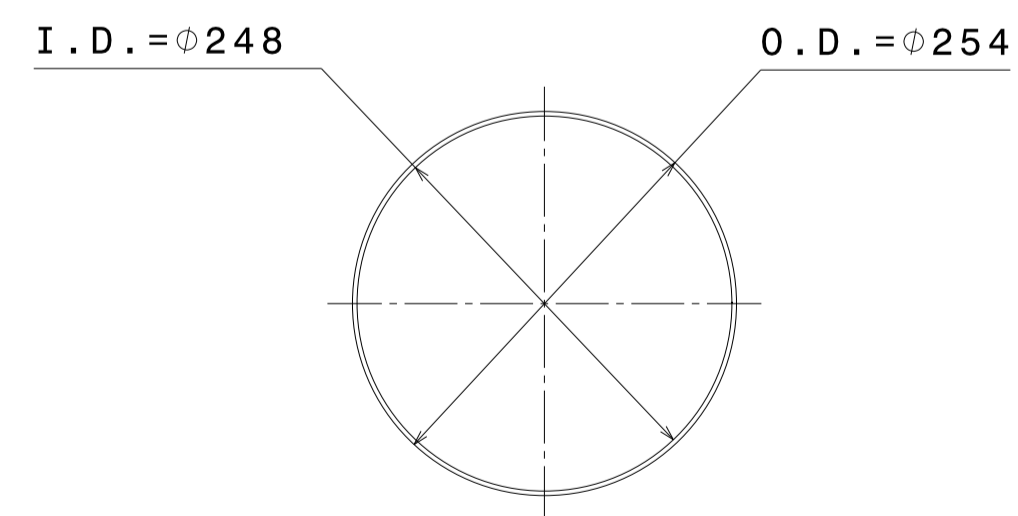
8 PORT C NOZZLE  
SCALE-1:5



SIDE VIEW

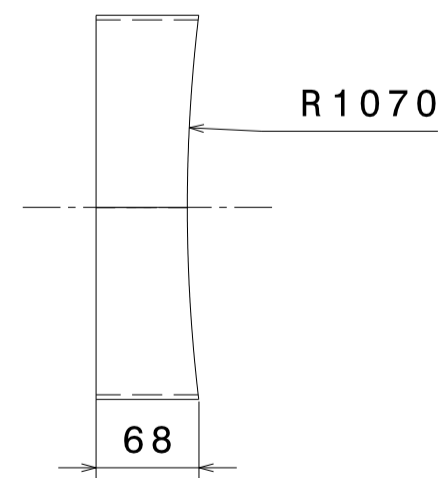


ISOMETRIC VIEW

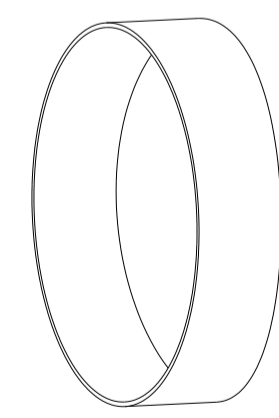


FRONT VIEW

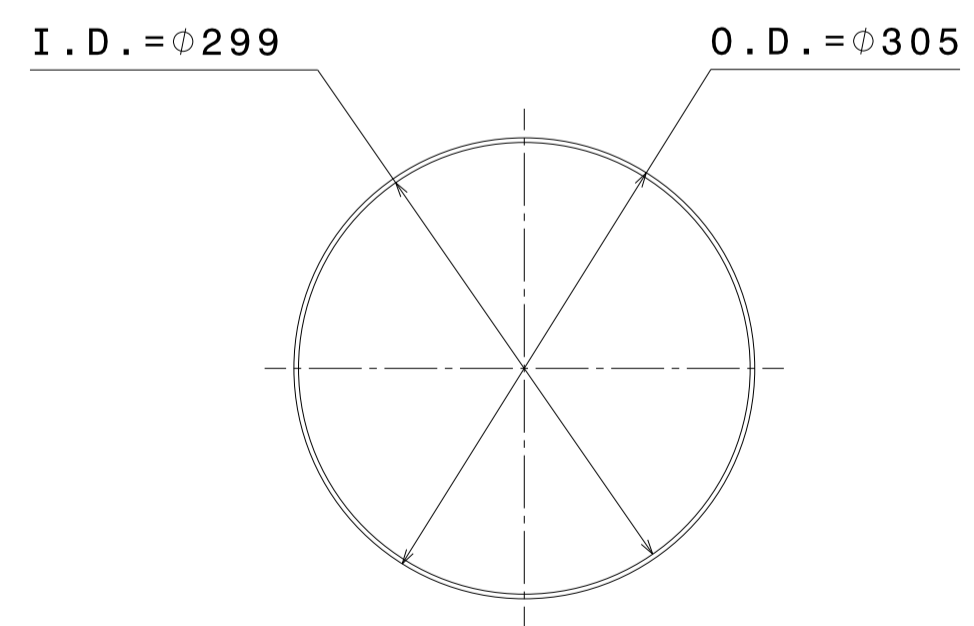
9 PORT D NOZZLE  
SCALE-1:5



SIDE VIEW

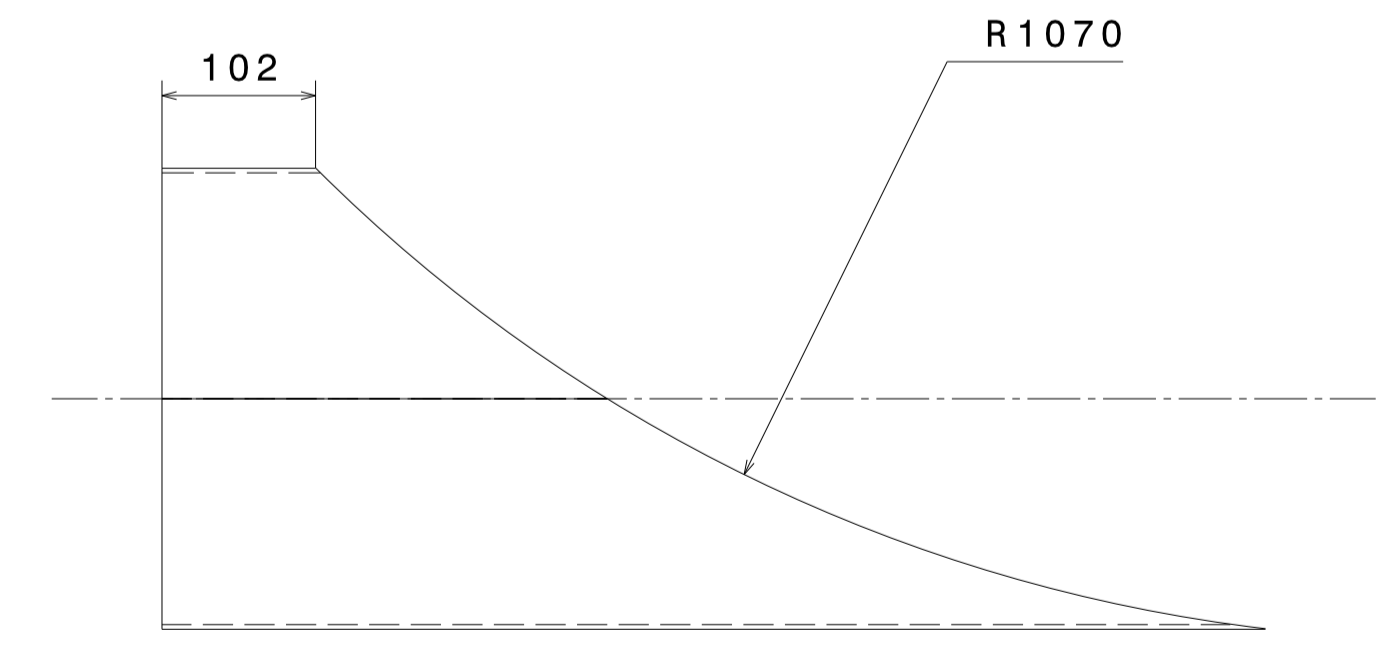


ISOMETRIC VIEW

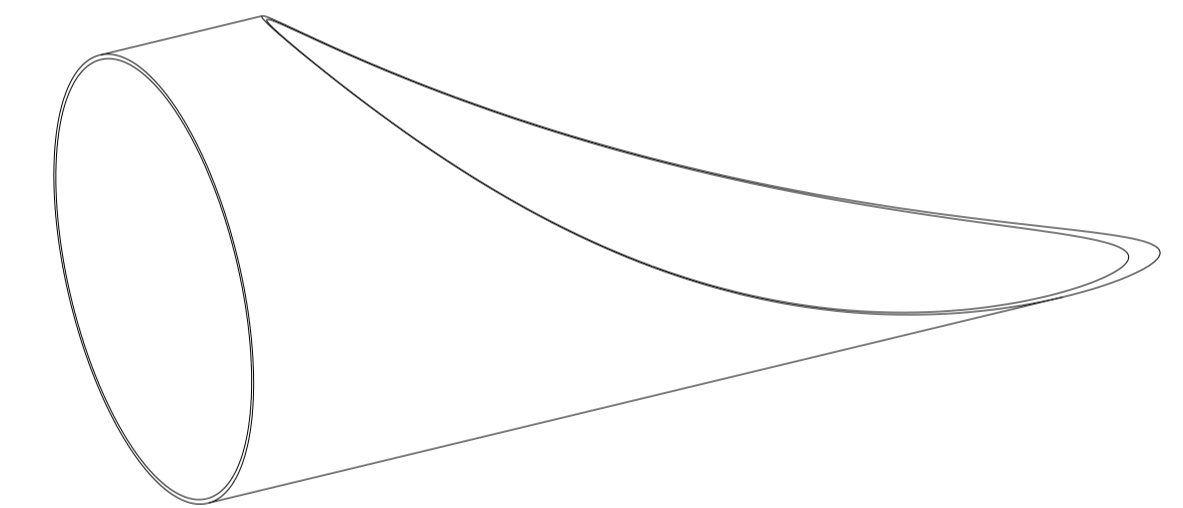


FRONT VIEW

10 PORT E NOZZLE  
SCALE-1:5



SIDE VIEW

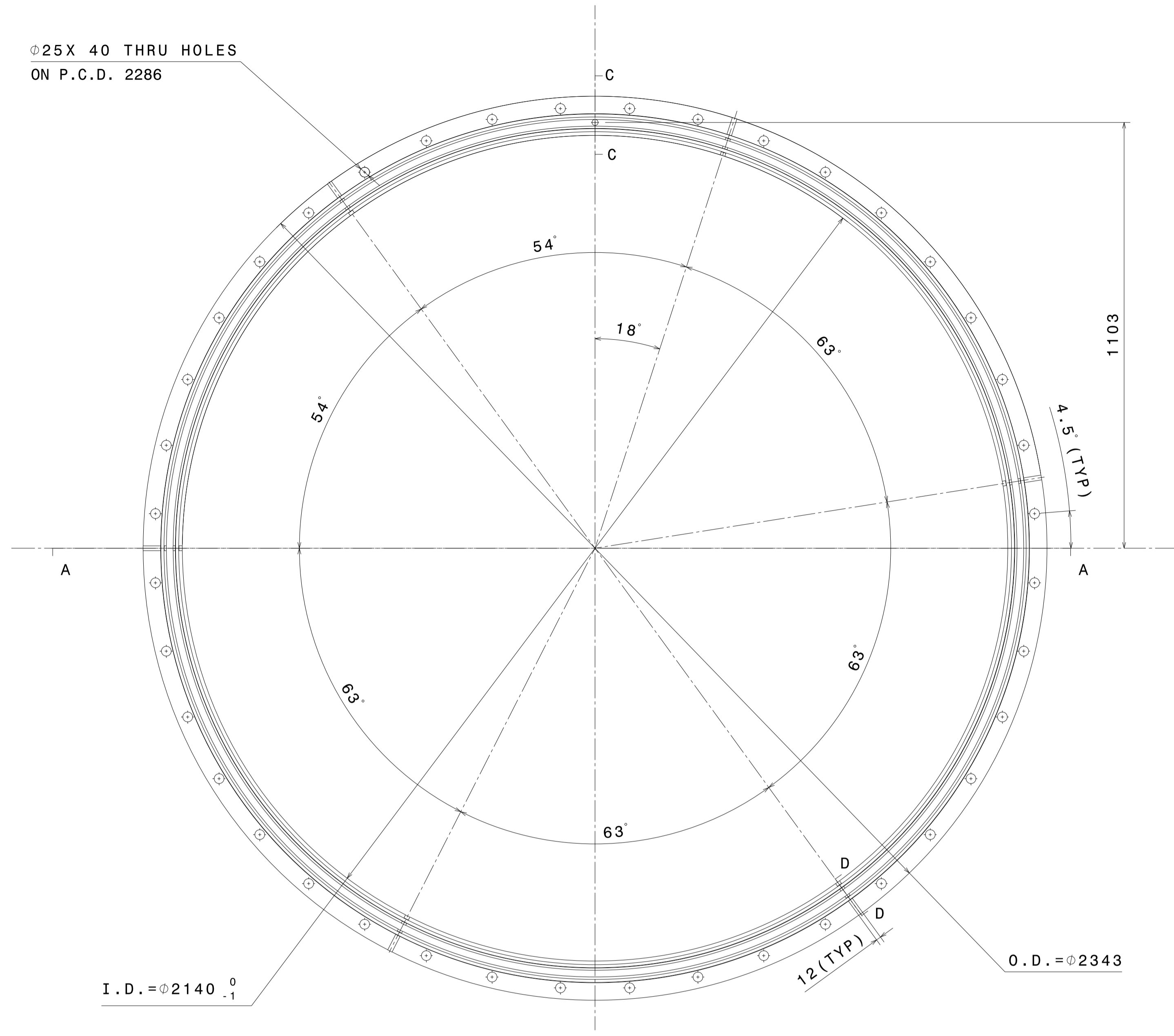


ISOMETRIC VIEW

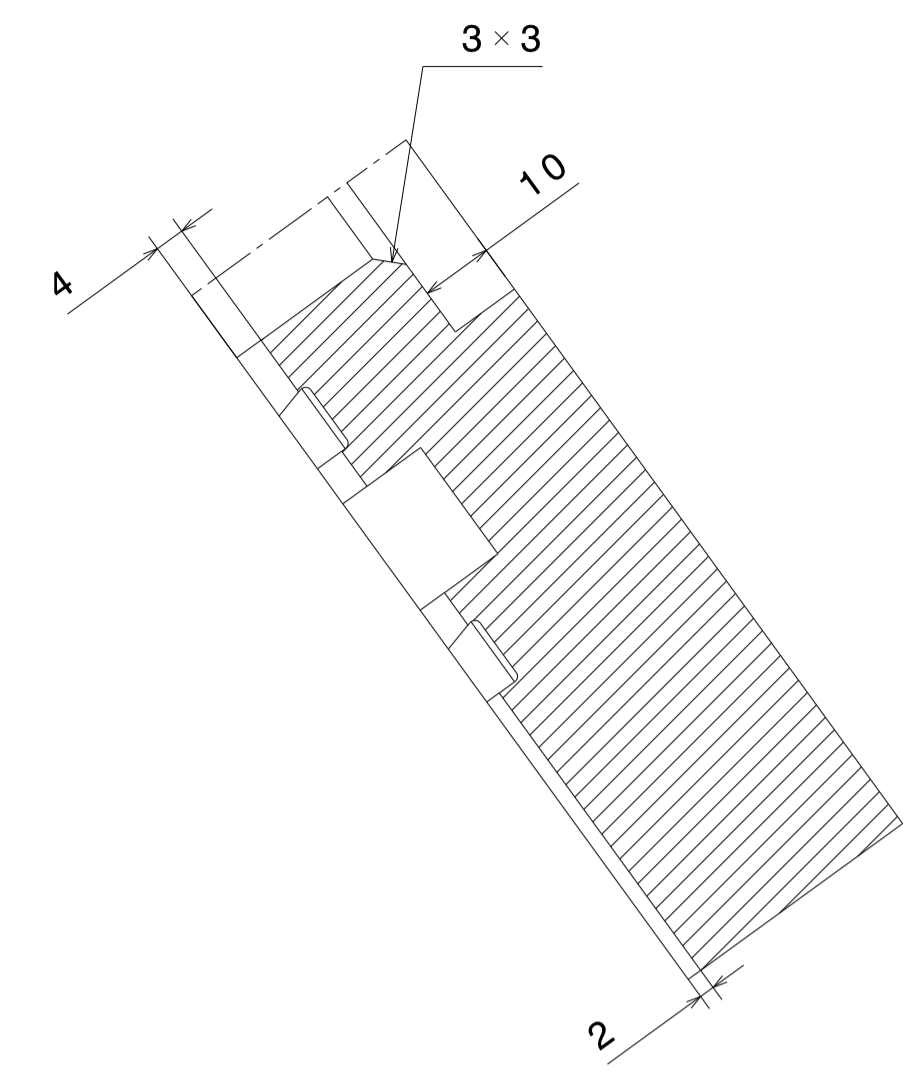
MATERIAL:	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.		
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS					SCALE	AS NOTED	DATE	TITLED CYLINDRICAL PART (DIA 84.25")		REF DRG NO: VH01-001-R1			
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			CHECKED	R.K.	REF DRG NO: VH01-003-R1
UPTO 10	10-50	50-120	OVER 120-400		±0.1	±0.2	±0.3	±0.5			APPROVED	M.K.G.	DRG. NO VH01-003-R1
+1'	+0'-30'	+0'-20'	+0'-10'										REV R1 SHEET 05 OF 06



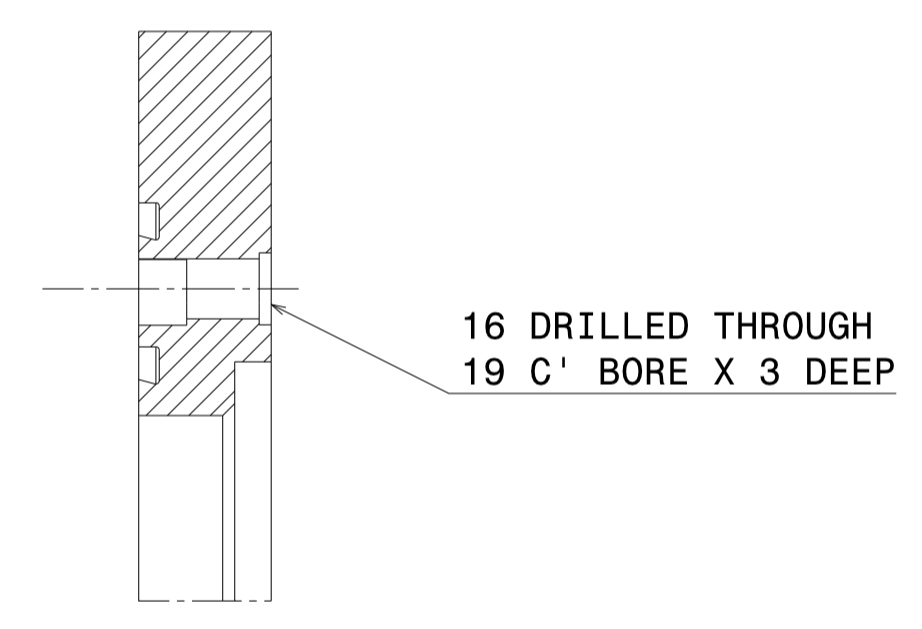
Φ25X 40 THRU HOLES  
ON P.C.D. 2286



FRONT VIEW



SECTION D-D  
SCALE-1:1



SECTION C-C  
SCALE-1:2

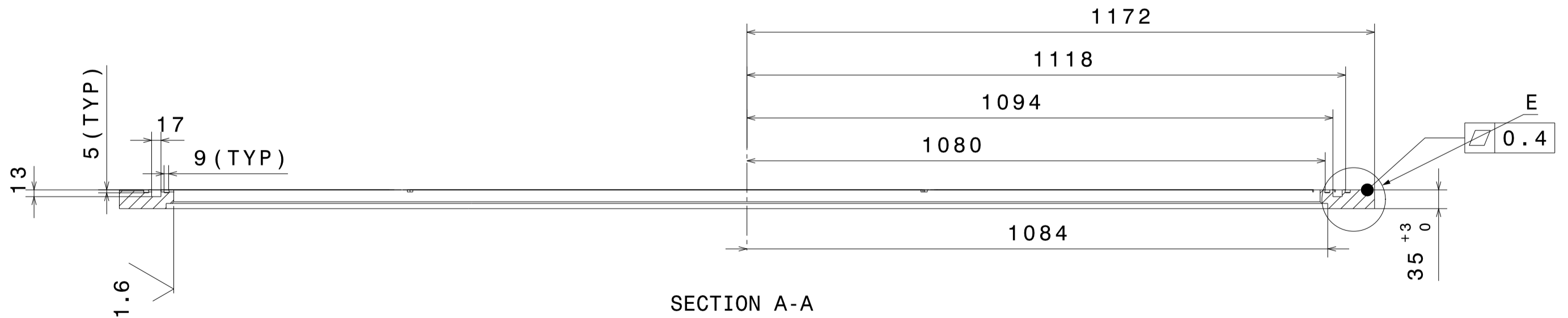
I. D. = Φ2140<sup>+0</sup><sub>-0.1</sub>

O. D. = Φ2343

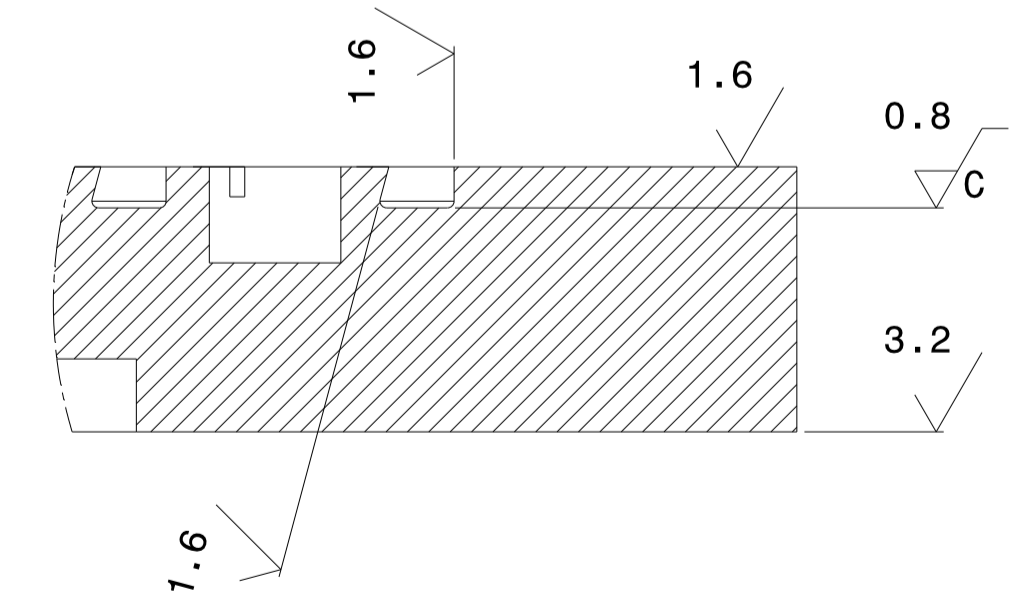
12 (TYP)

4.5 (TYP)

1103



SECTION A-A

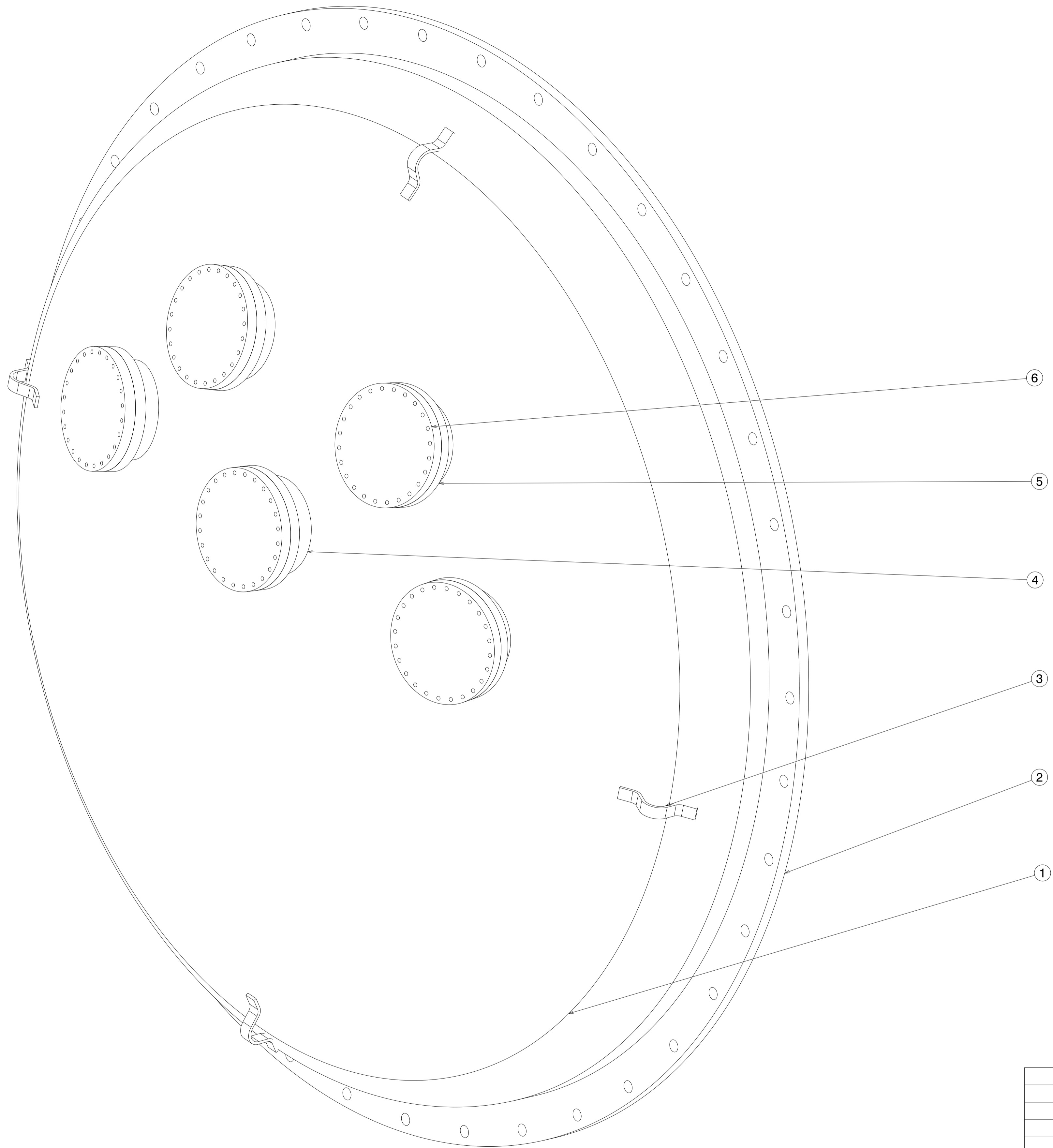


SURFACE ROUGHNESS VALUE

ALL SURFACE ROUGHNESS VALUES  
ARE IN RA MICRIMETER

11 FLANGE GROOVED (84.25" ID)  
SCALE-1:8

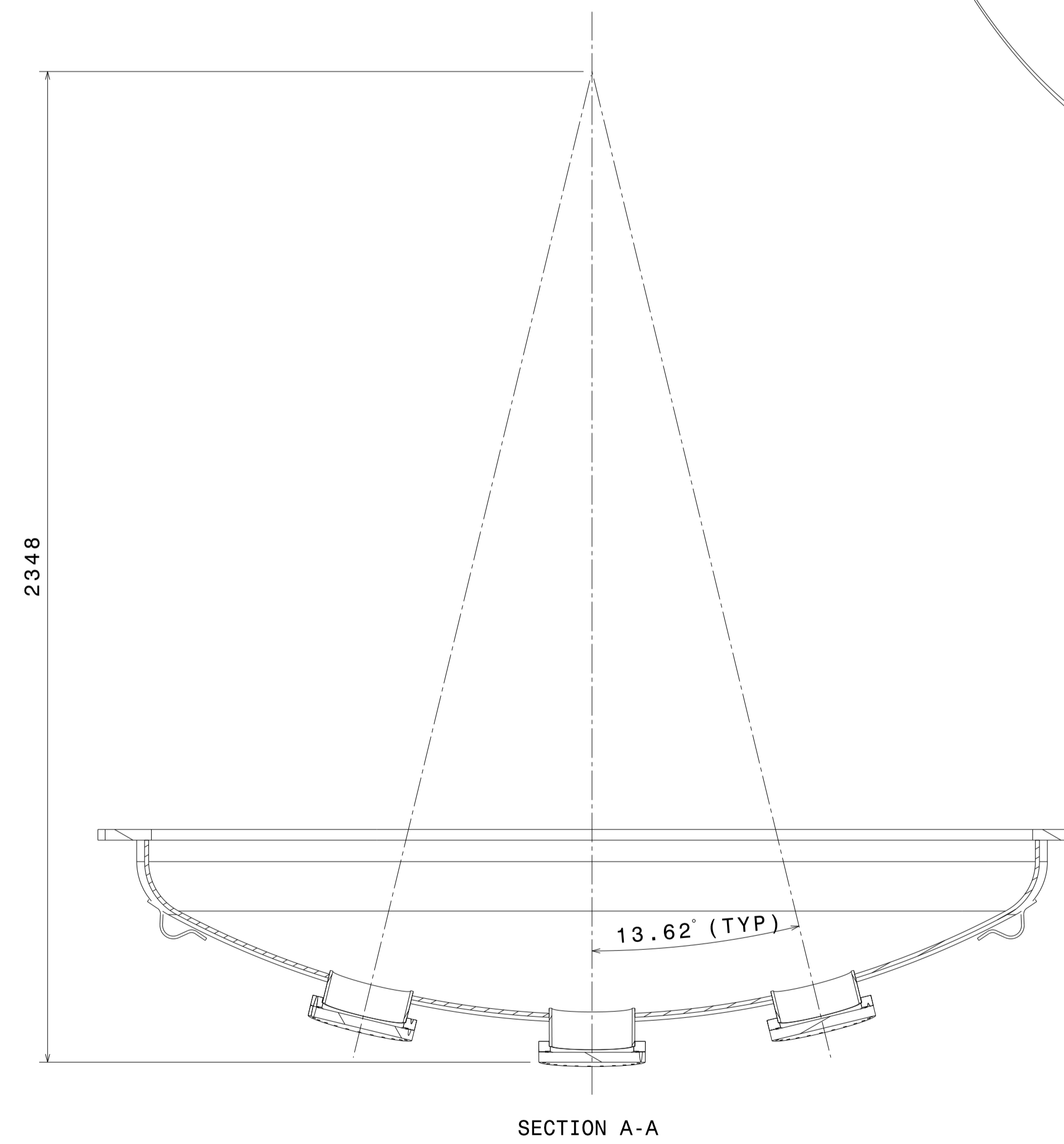
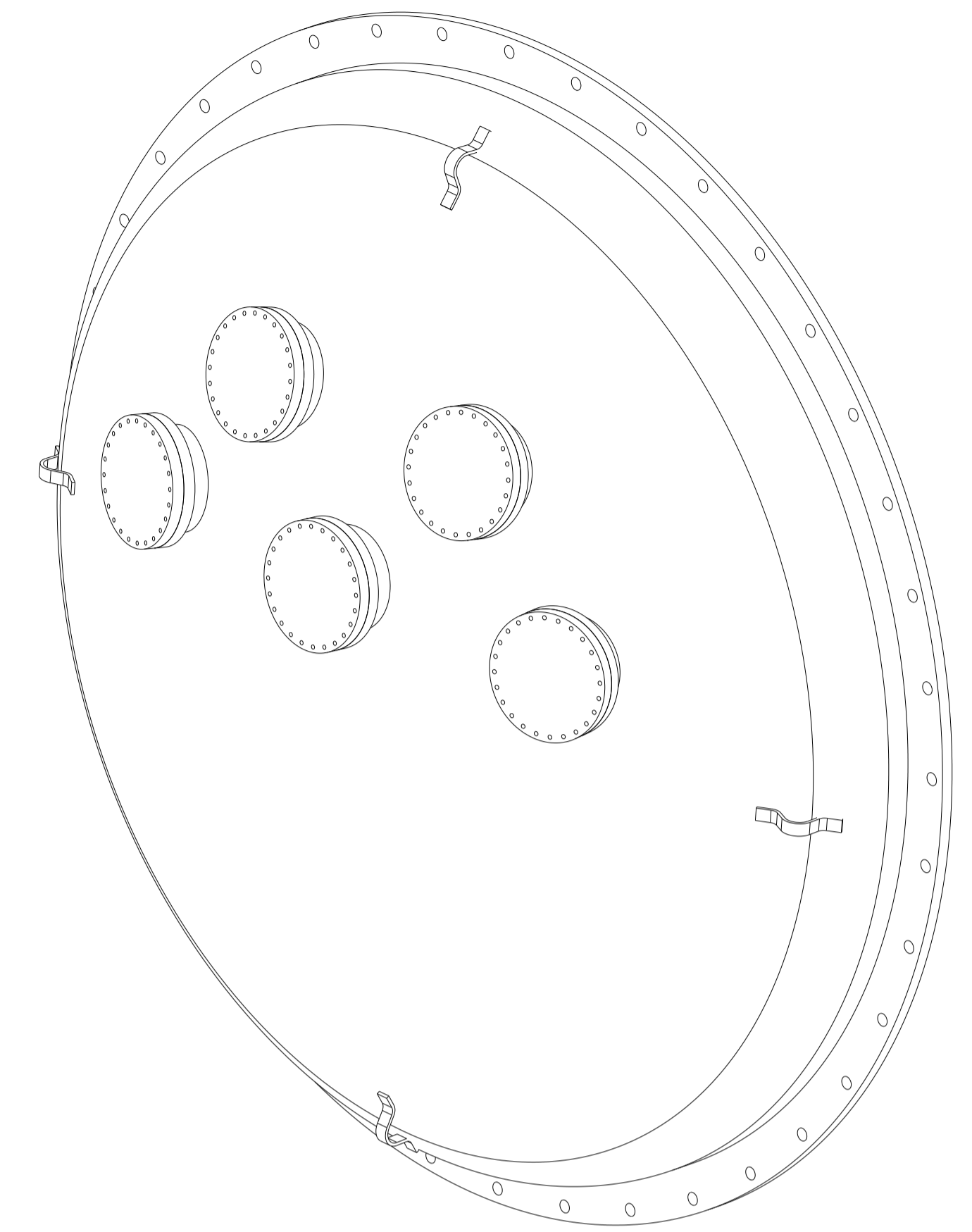
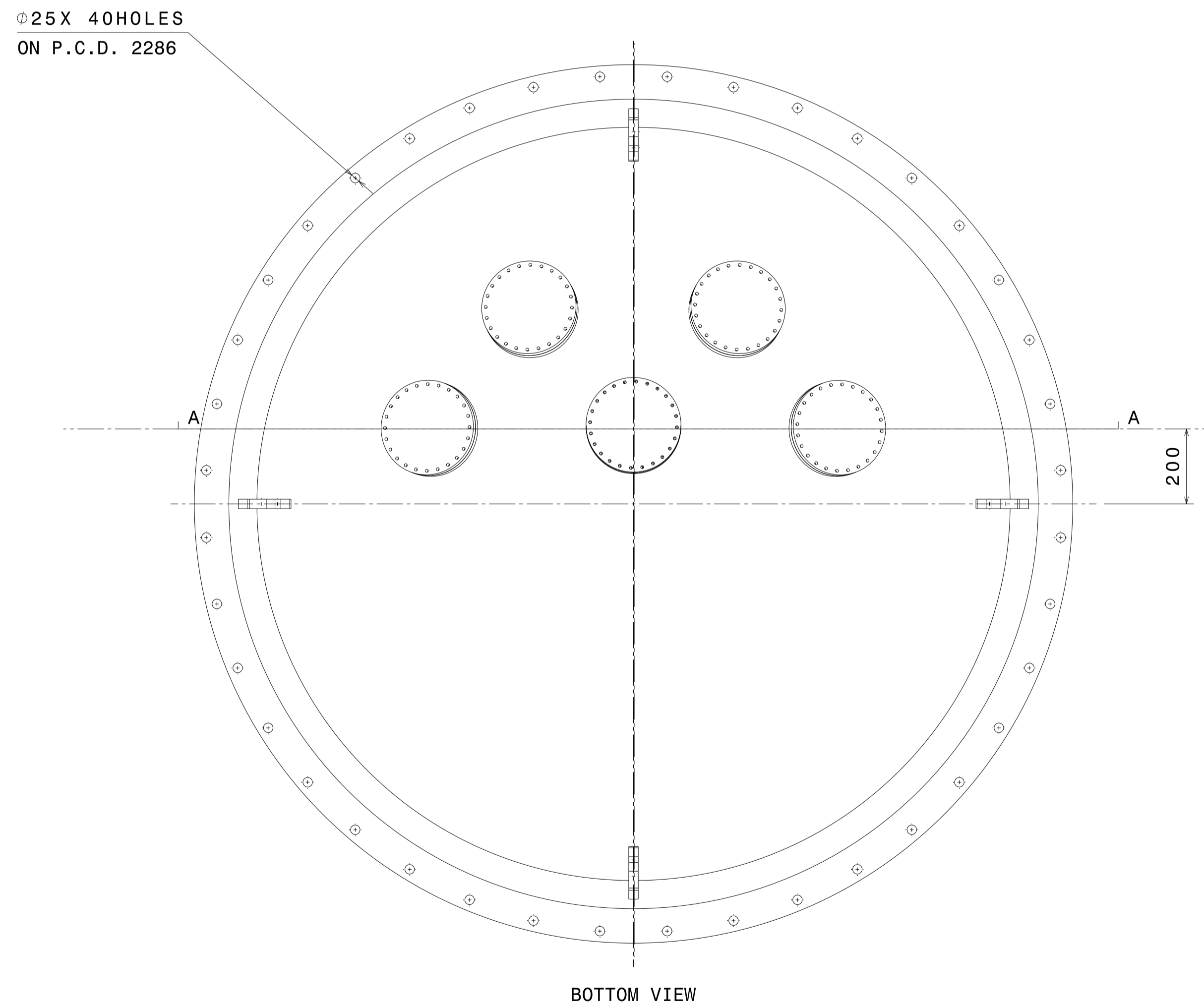
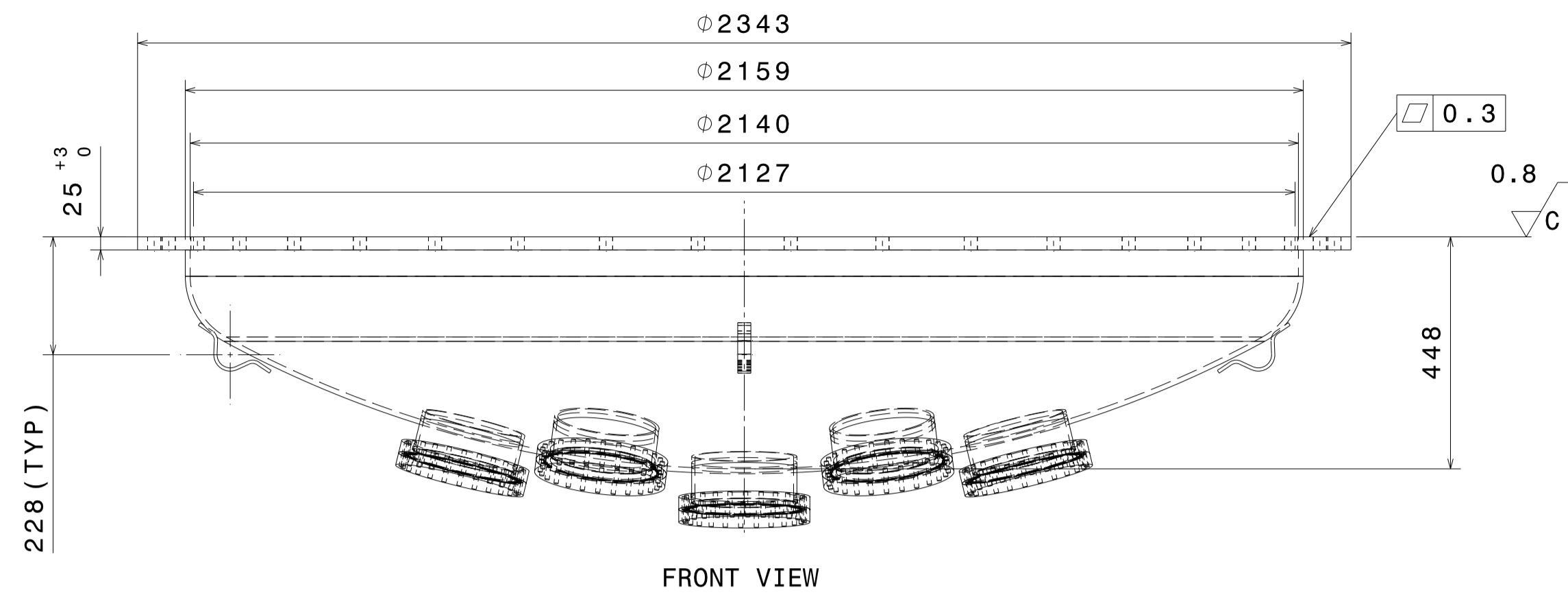
MATERIAL:	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.	
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED	
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS					SCALE	AS NOTED	DATE	TITLED CYLINDRICAL PART (DIA 84.25")		REF DRG NO: VHO1-001-R1		
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				CHECKED	R.K.	REV R1
UPTO 10	10-50	50-120	OVER 120-400	±0.1	±0.2	±0.3	±0.5			APPROVED	M.K.G.	SHEET 06 OF 06
±1'	+0'-30'	+0'-20'	+0'-10'							DRG. NO	VHO1-003-R1	



PART NO.	QUANTITY	PART NAME	MATERIAL	REF. DWG. NO.	REMARK
6	05	DN 200CF COVER FLANGE	SS304L	V001-001-R0/SHEET 01	-
5	05	DN 200CF BLANK FLANGE	SS304L	V001-001-R0/SHEET 01	-
4	05	PORT NOZZLE	SS304L	VH01-004-R1/SHEET 04	-
3	04	LIFTING LUG	SS304L	VH01-004-R1/SHEET 04	-
2	01	FLANGE FLAT (84.25" ID)	SS304L	VH01-004-R1/SHEET 04	-
1	01	F & D HEAD	SS304L	VH01-004-R1/SHEET 03	-

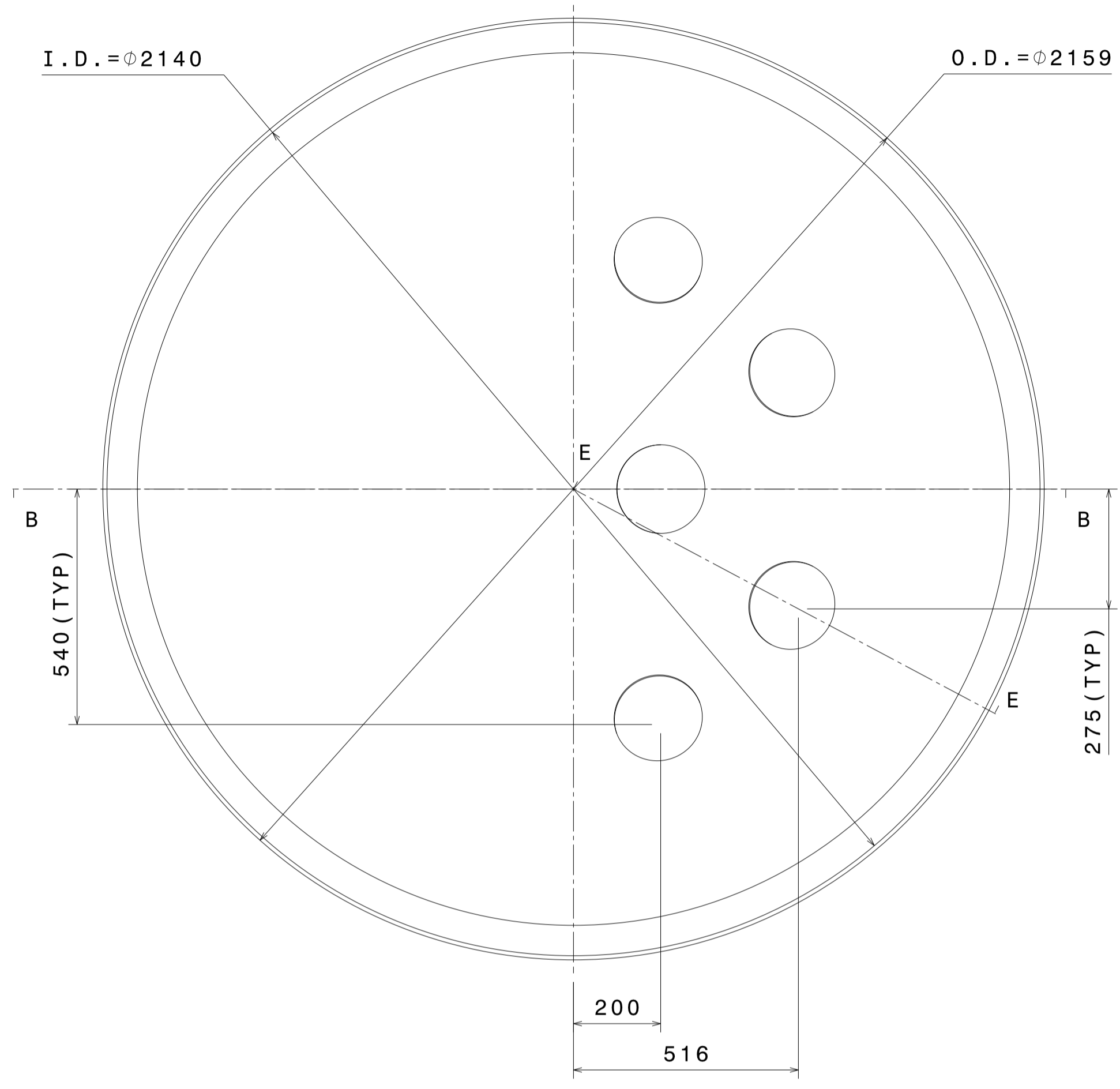
③ END COVER BIG

MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.	
CO-ORDINATED BY	REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	SCALE	1:5	DATE	TITLE	END COVER BIG		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS													
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315							
UPTO 10	10-50	50-120	OVER 120-400	±0.1	±0.2	±0.3	±0.5						
+1'	+0'-30'	+0'-20'	+0'-10'										
DRAWN A. N. N. 29/07/2015											REF DRG NO: VH01-001-R1	REV R1	
CHECKED R. K.											DRG. NO	VH01-004-R1	SHEET 01 OF 04
APPROVED M. K. G.													

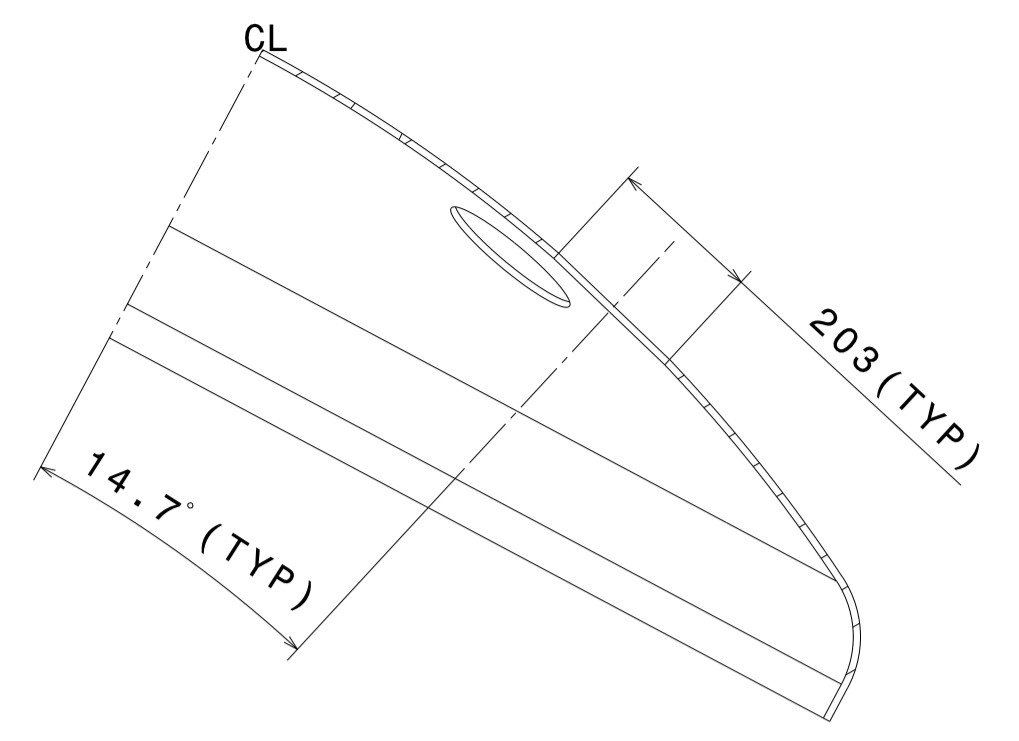


3 END COVER BIG

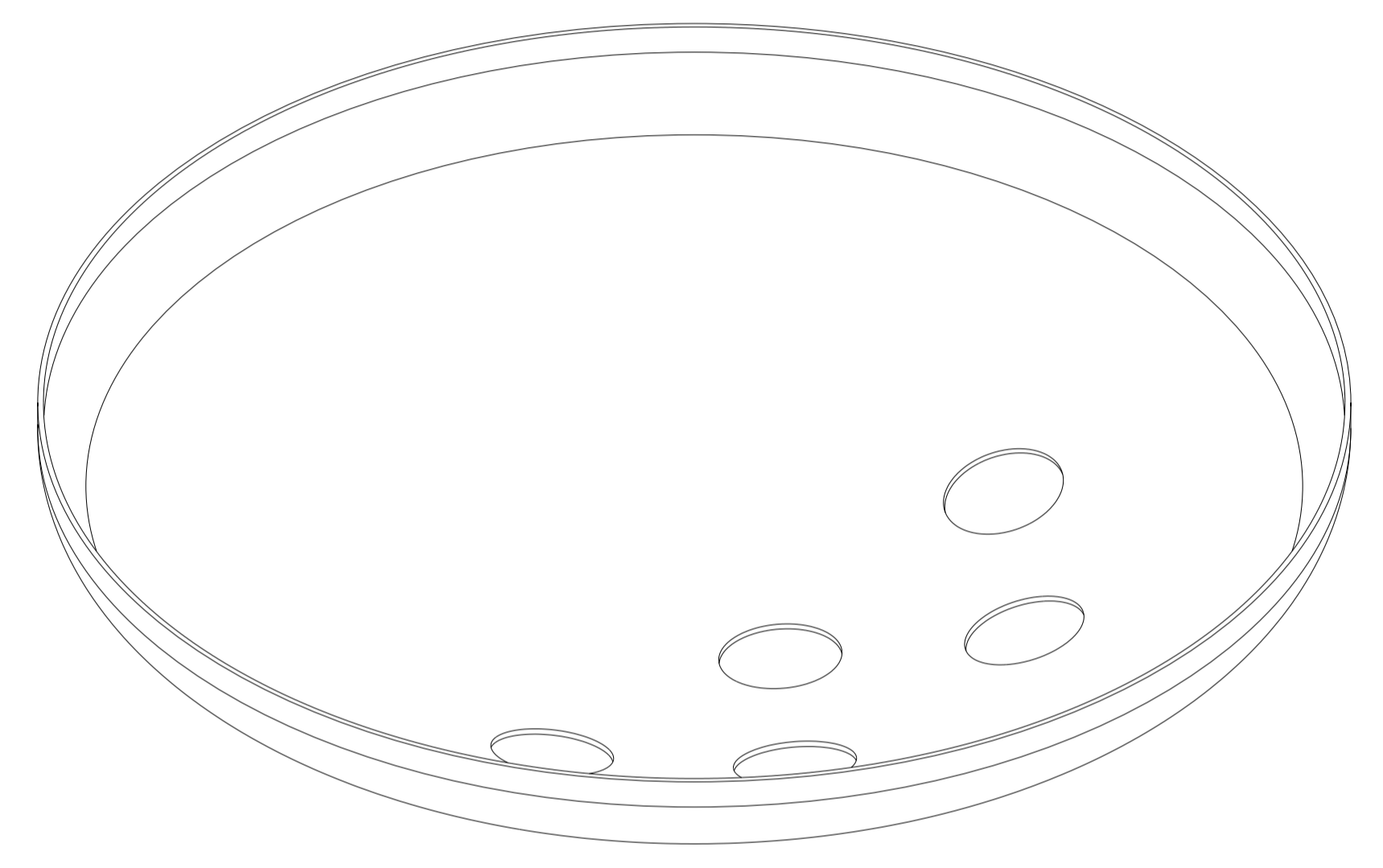
MATERIAL:		REVISION COLUMN				MED	SIZE	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)							
CO-ORDINATED BY	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED	DATE	TITLE	BHAT, GANDHINAGAR-382 428.	
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS											SCALE	1:10	END COVER BIG		
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315					DRAWN	A. N. N.	29/07/2015	REF DRG NO: VH01-001-R1	REV R1
UPTO 10	10-50	50-120	OVER 120-400	±0.1	±0.2	±0.3	±0.5			CHECKED		R. K.	DRG. NO	VH01-004-R1	SHEET 02 OF 04
±1'	±0'-30'	±0'-20'	±0'-10'							APPROVED		M. K. G.			



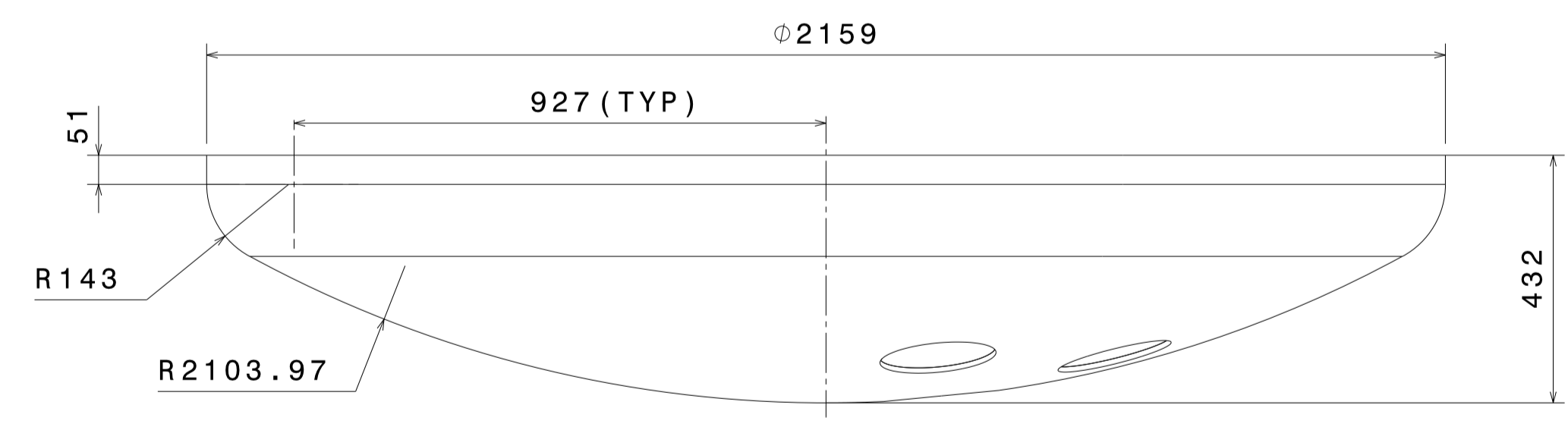
TOP VIEW



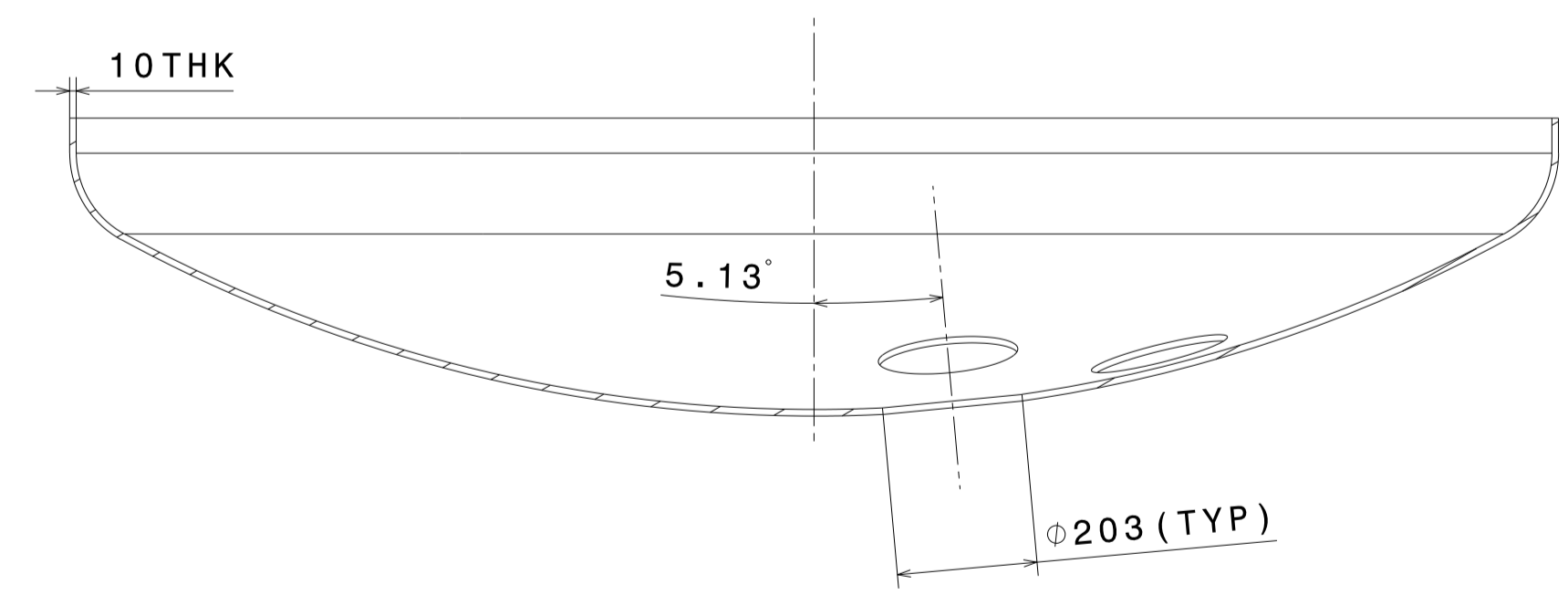
SECTION E-E



ISOMETRIC VIEW



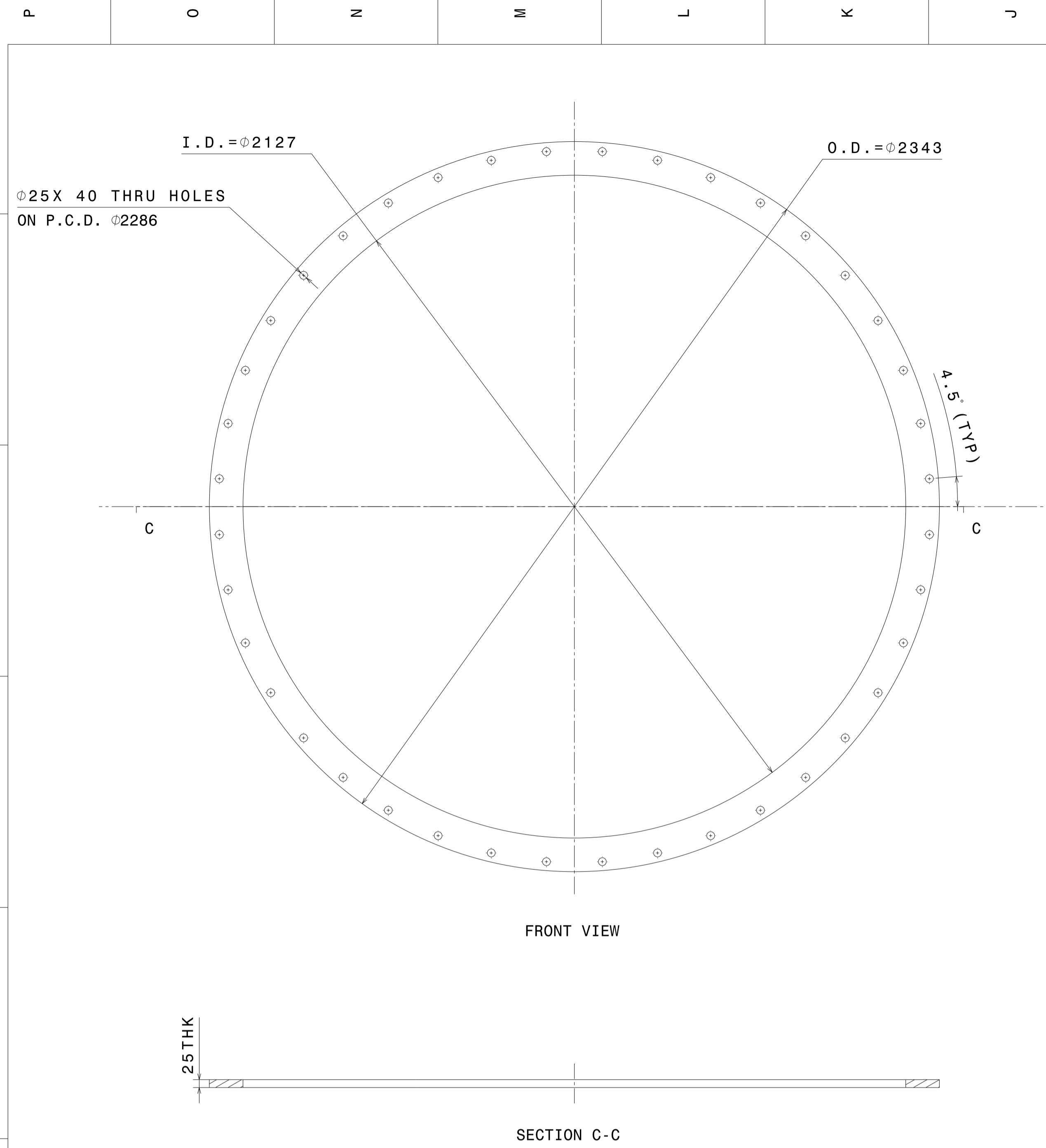
FRONT VIEW



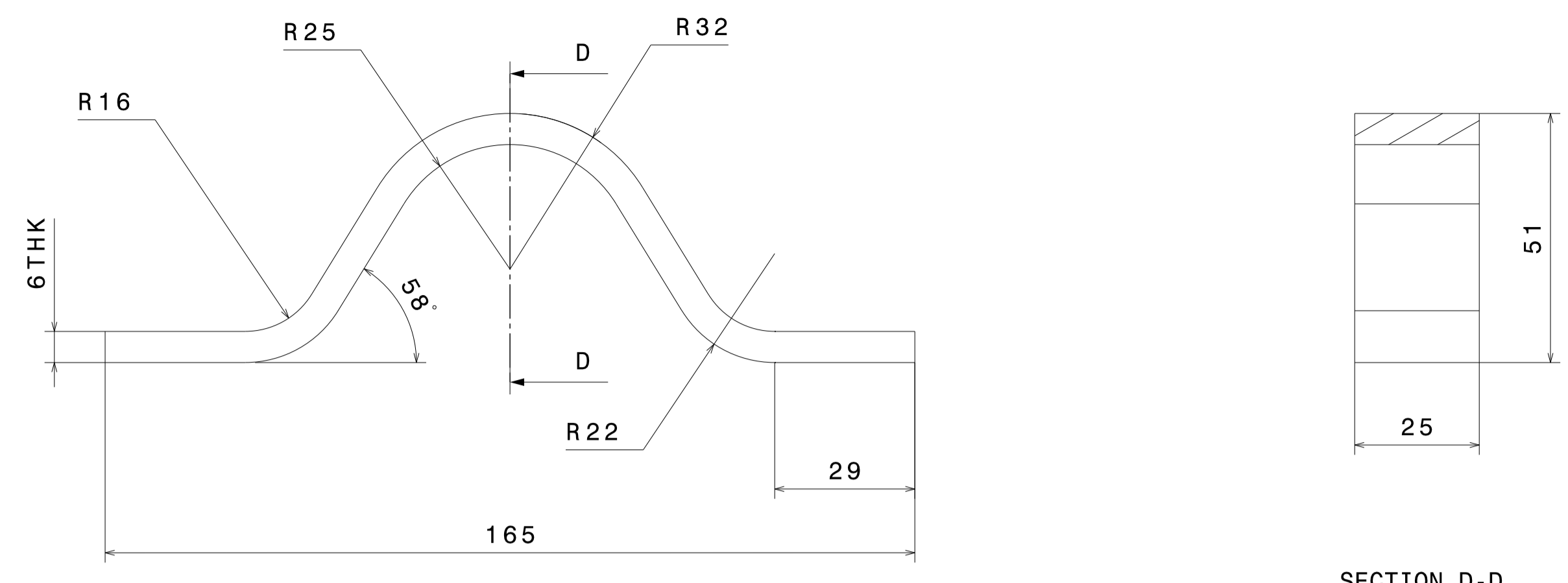
SECTION B-B

① F & D HEAD

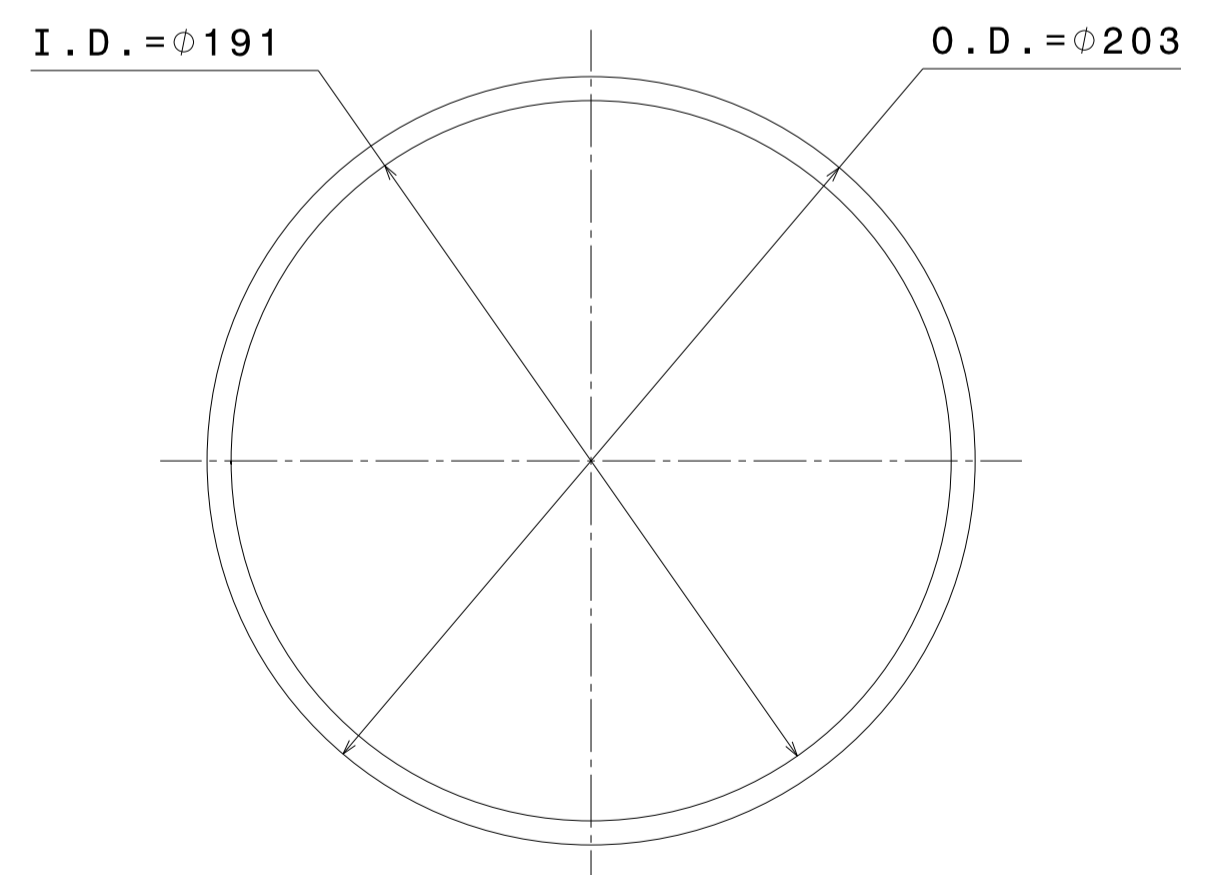
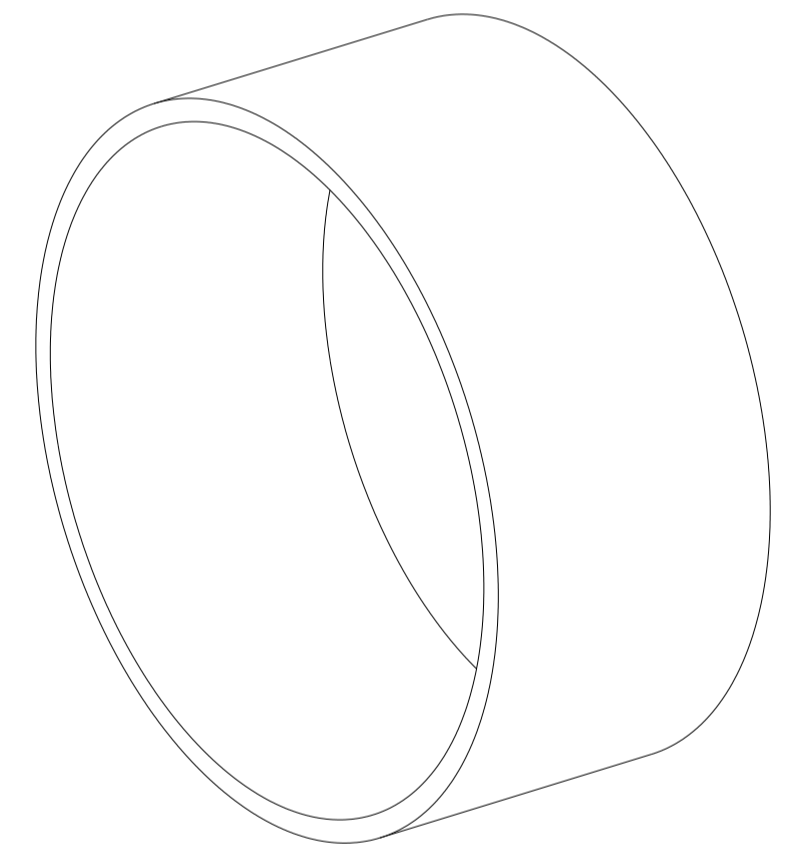
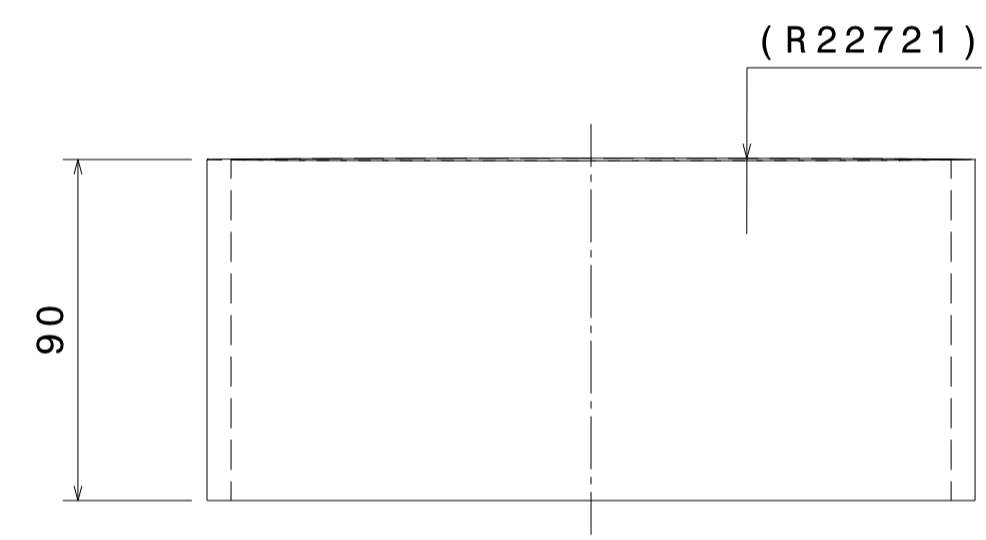
MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.					
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED					
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	1:10	DATE	TITLE		
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA		UPTO 6	6-30	30-120	120-315					DRAWN	A.N.N.	29/07/2019	END COVER BIG		
UPTO 10	10-50	50-120	OVER 120-400		±0.1	±0.2	±0.3	±0.5					CHECKED	R.K.	REF DRG NO: VH01-001-R1	REV R1	
+1'	+0'-30'	+0'-20'	+0'-10'										APPROVED	M.K.G.	DRG. NO	VH01-004-R1	SHEET 03 OF 04



② FLANGE FLAT (84.25" ID)  
 SCALE-1:10



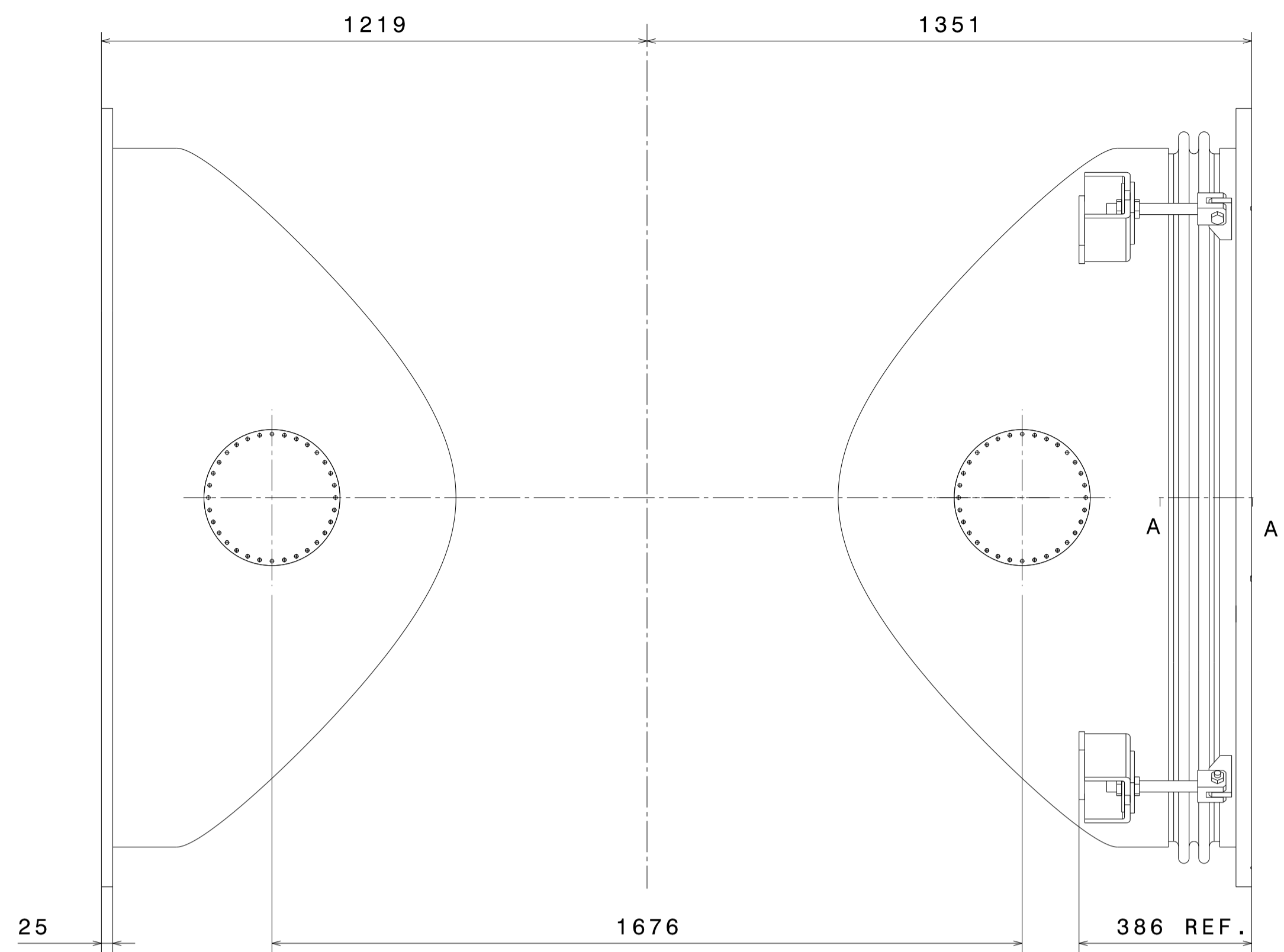
③ LIFTING LUG  
 SCALE-1:1



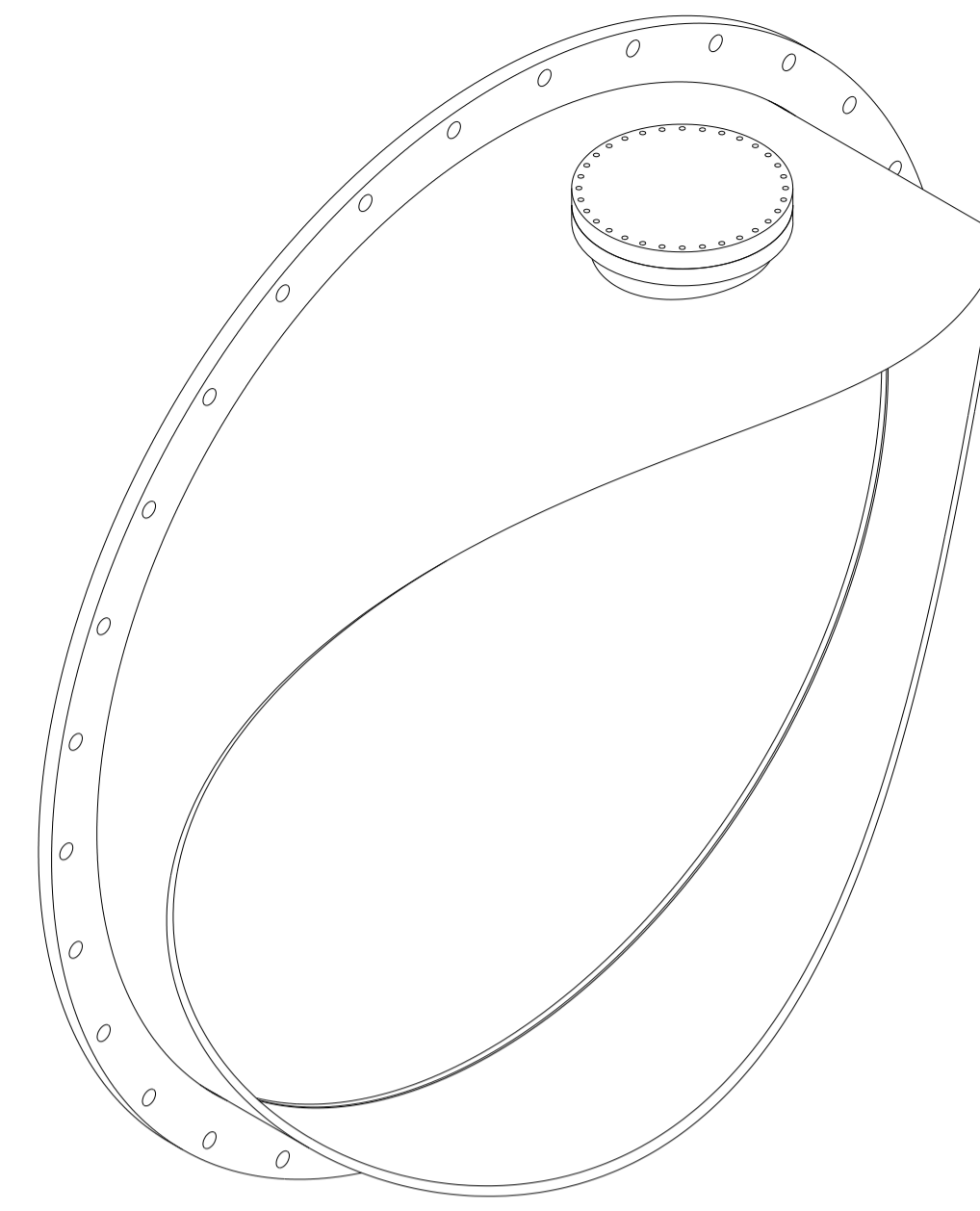
④ PORT NOZZLE  
 SCALE-1:2

MATERIAL:		$\nabla$ 8-25	$\nabla\nabla$ 1.6-8	$\nabla\nabla\nabla$ 0.025-1.6	$\nabla\nabla\nabla\nabla$ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.					
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED					
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	AS NOTED	DATE	TITLE		
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA		UPTO 6	6-30	30-120	120-315					DRAWN	A. N. N.	29/07/2019	END COVER BIG		
UPTO 10	10-50	50-120	OVER 120-400		$\pm 0.1$	$\pm 0.2$	$\pm 0.3$	$\pm 0.5$					CHECKED	R. K.	REF DRG NO: VH01-001-R1	REV R1	
$\pm 1'$	$\pm 0'-30'$	$\pm 0'-20'$	$\pm 0'-10'$										APPROVED	M. K. G.	DRG. NO	VH01-004-R1	SHEET 04 OF 04

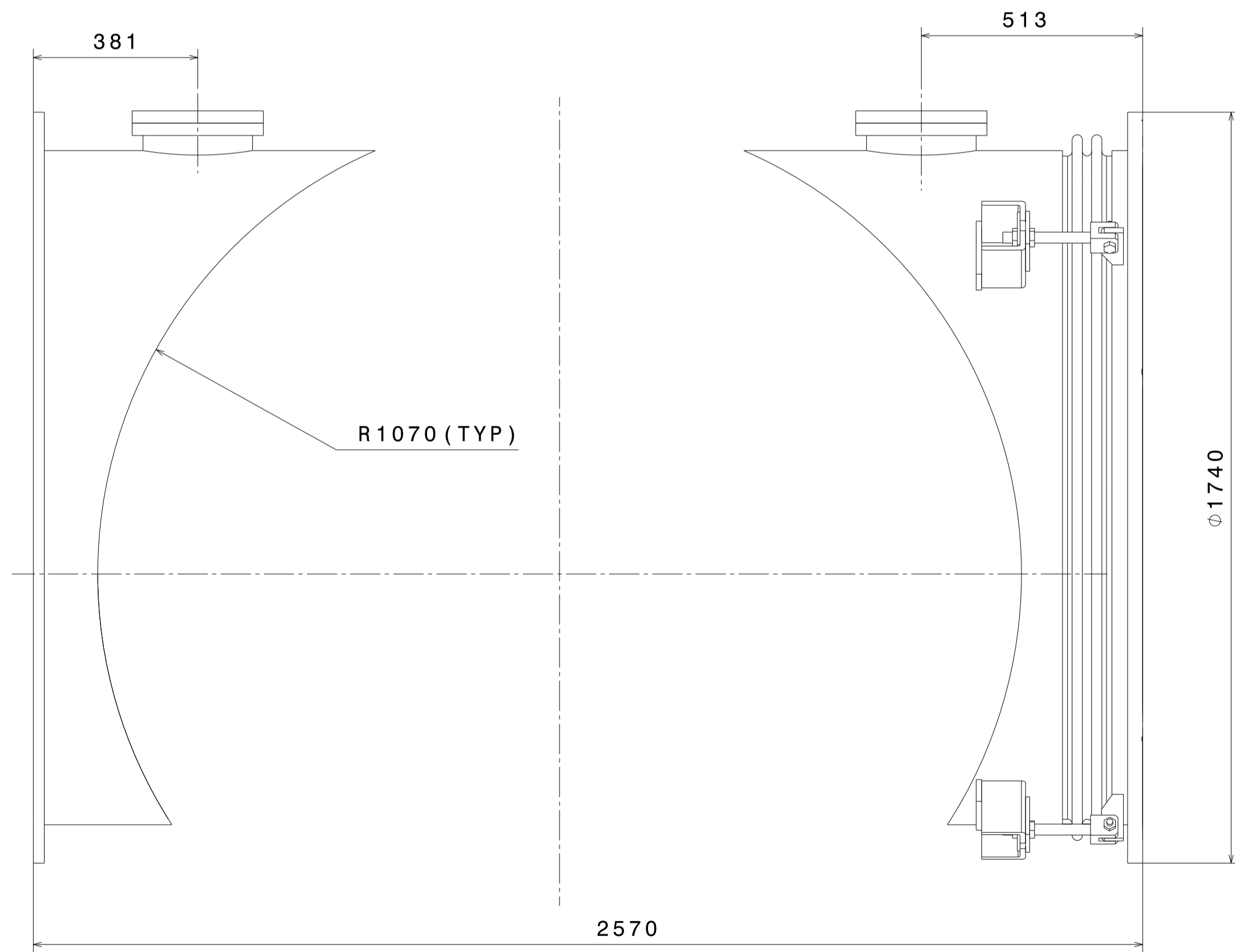
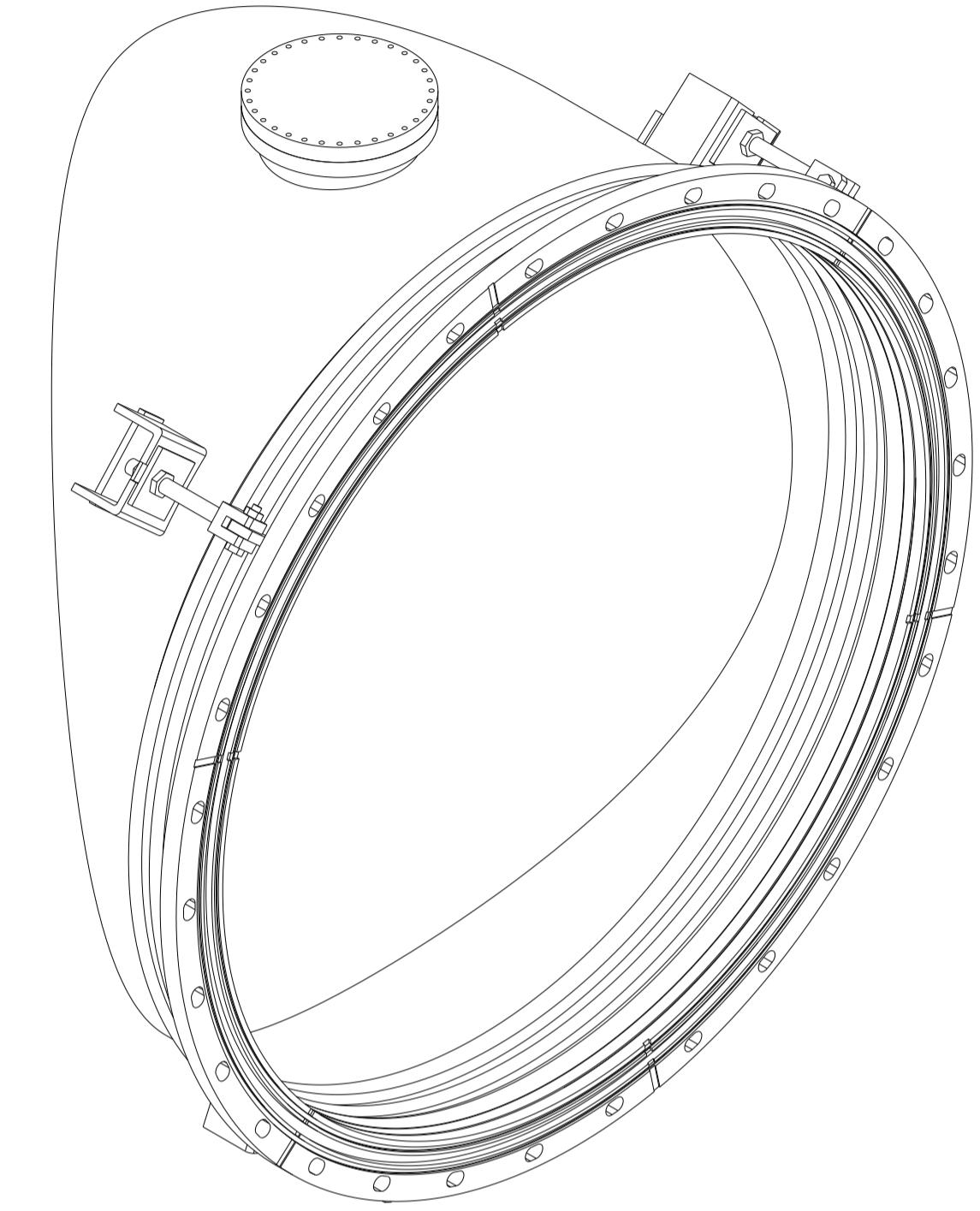




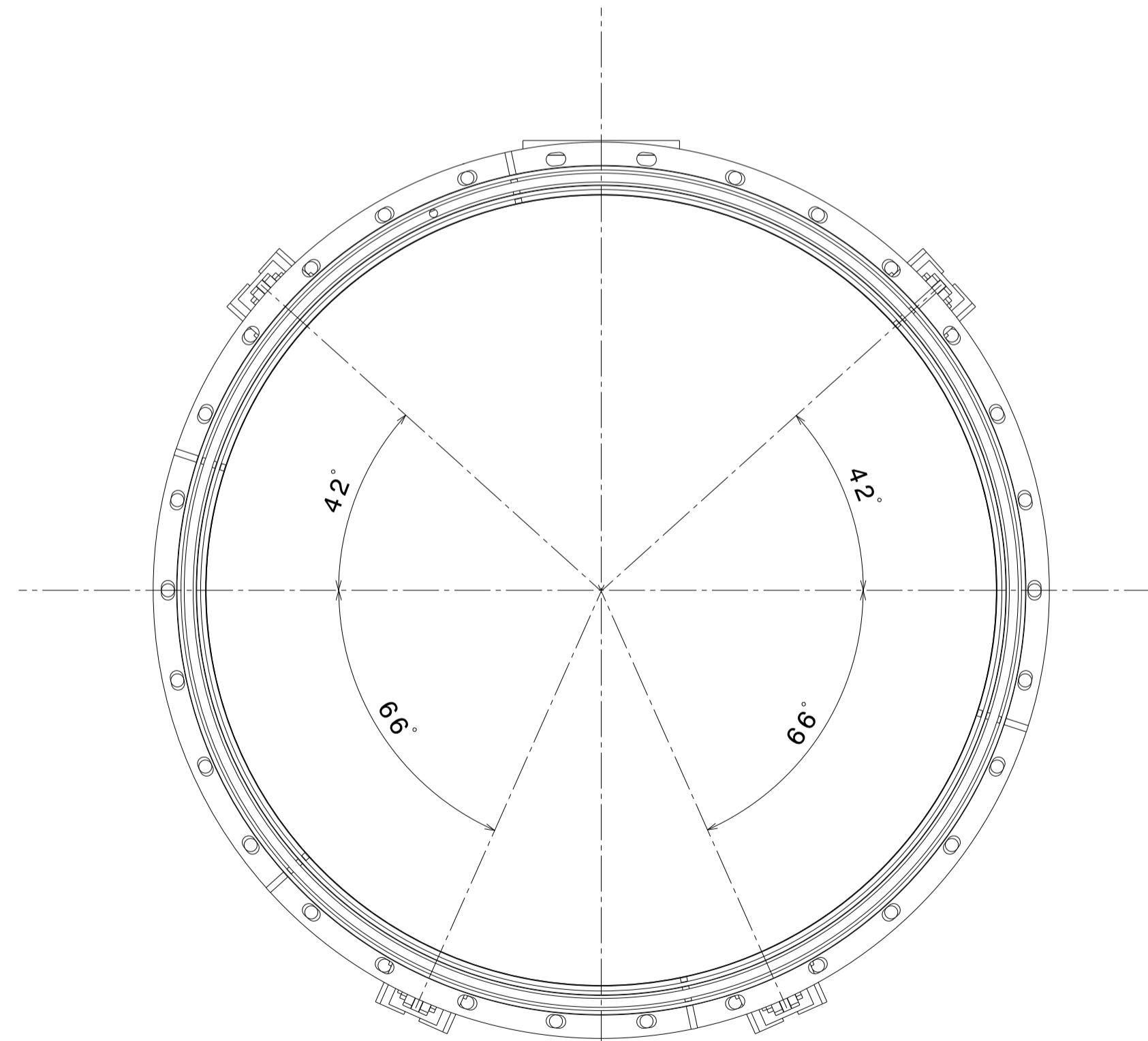
TOP VIEW



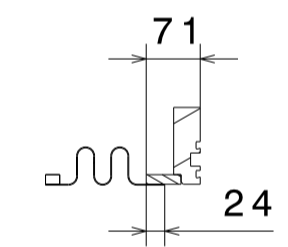
ISOMETRIC VIEW



FRONT VIEW



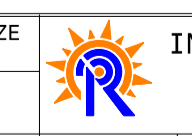
SIDE VIEW

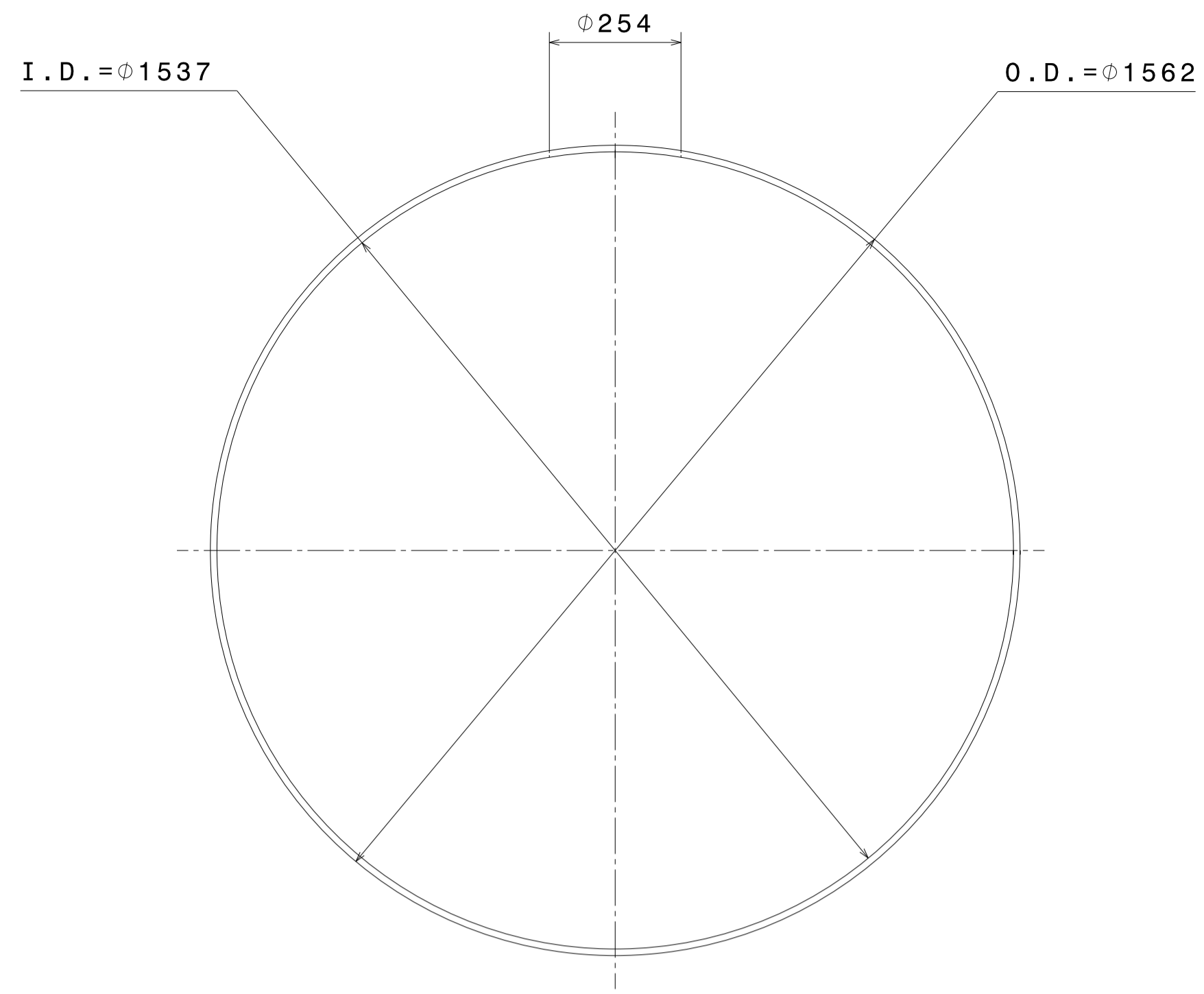


SECTION A-A

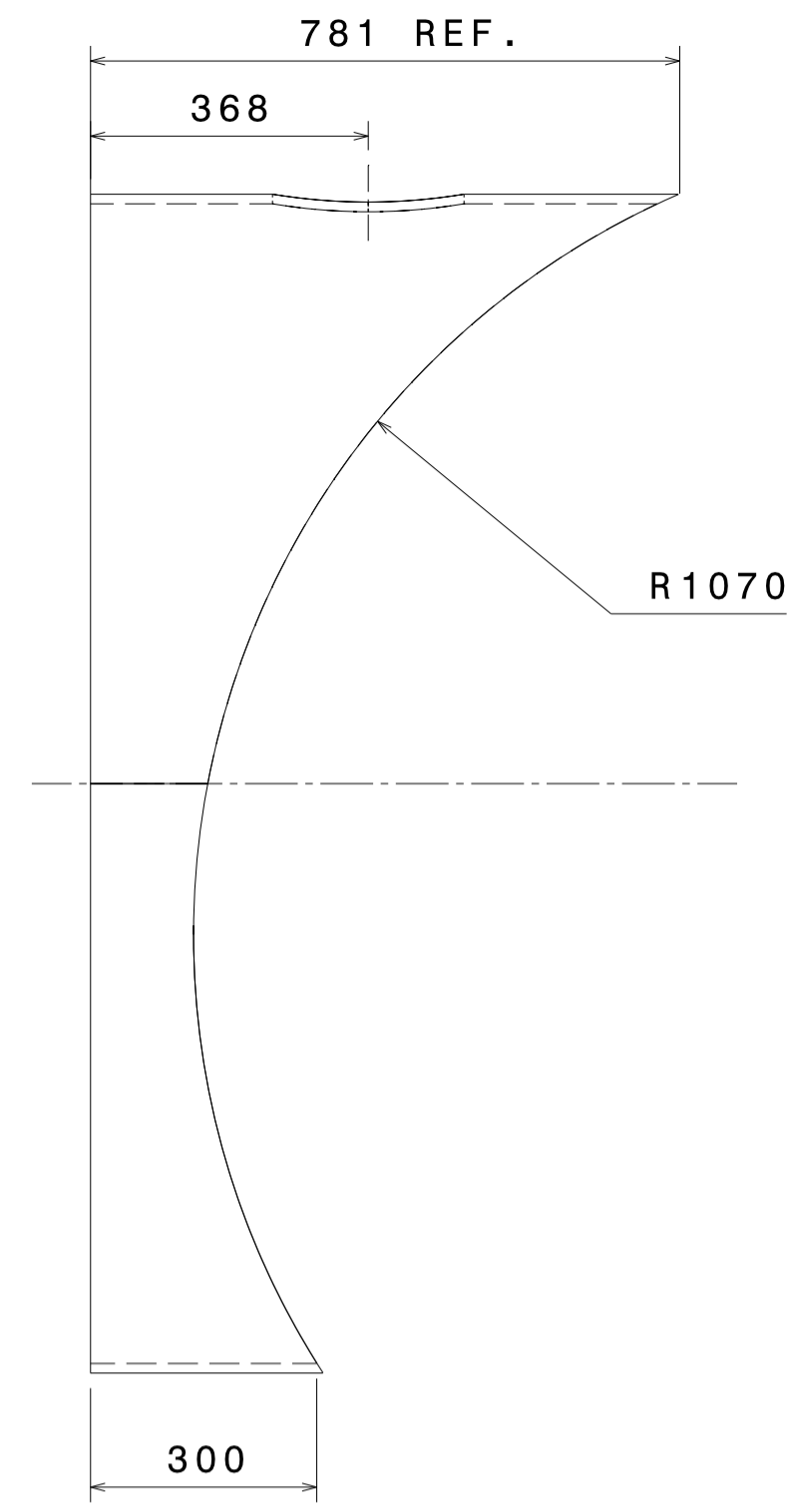
④ CYLINDRICAL PART DIA (60.5" ID)

MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.					
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED					
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	1:10	DATE	TITLE		
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA		UPTO 6	6-30	30-120	120-315					DRAWN	A. N. N.	30/07/2015	CYLINDRICAL PART (DIA 60.5" ID)		
UPTO 10	10-50	50-120	OVER 120-400		±0.1	±0.2	±0.3	±0.5					CHECKED	R. K.	REF DRG NO: VH01-001-R1	REV R1	
+1'	+0'-30'	+0'-20'	+0'-10'										APPROVED	M. K. G.	DRG. NO	VH01-005-R1	SHEET 02 OF 08

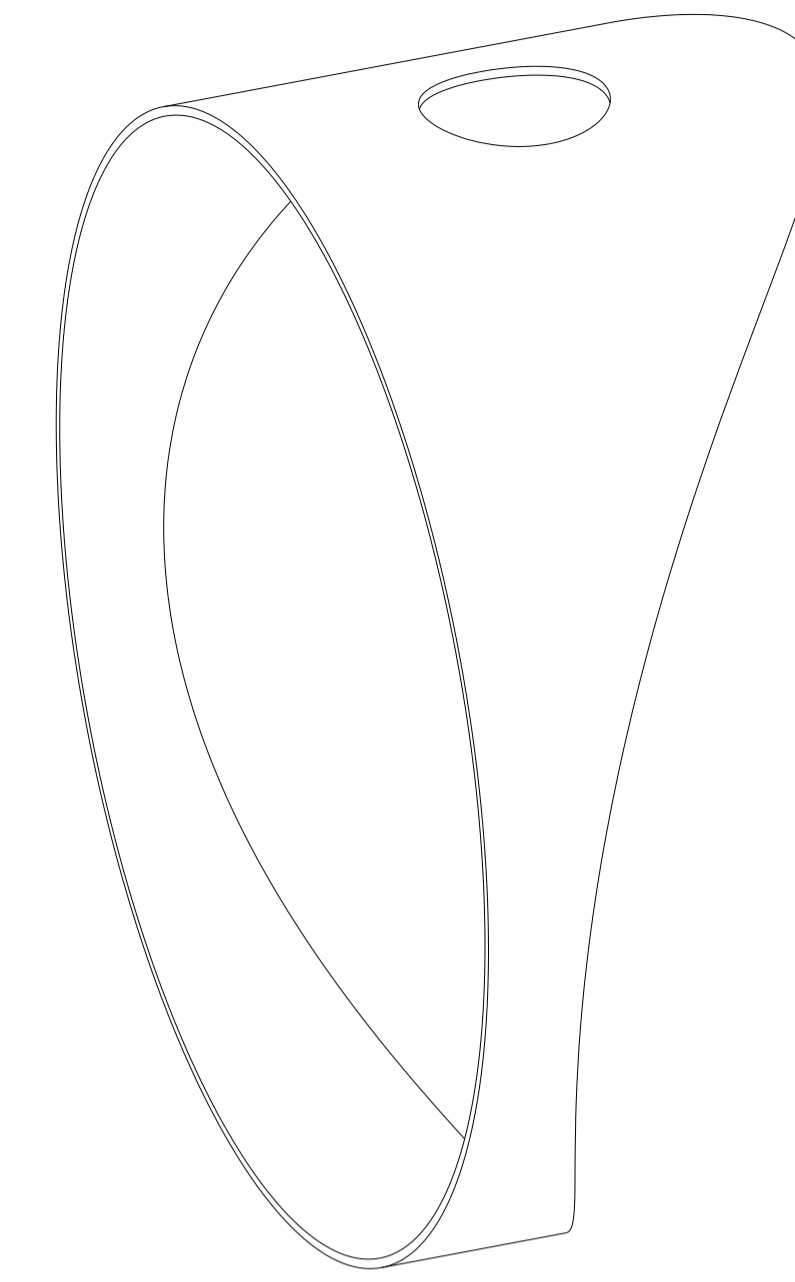




FRONT VIEW

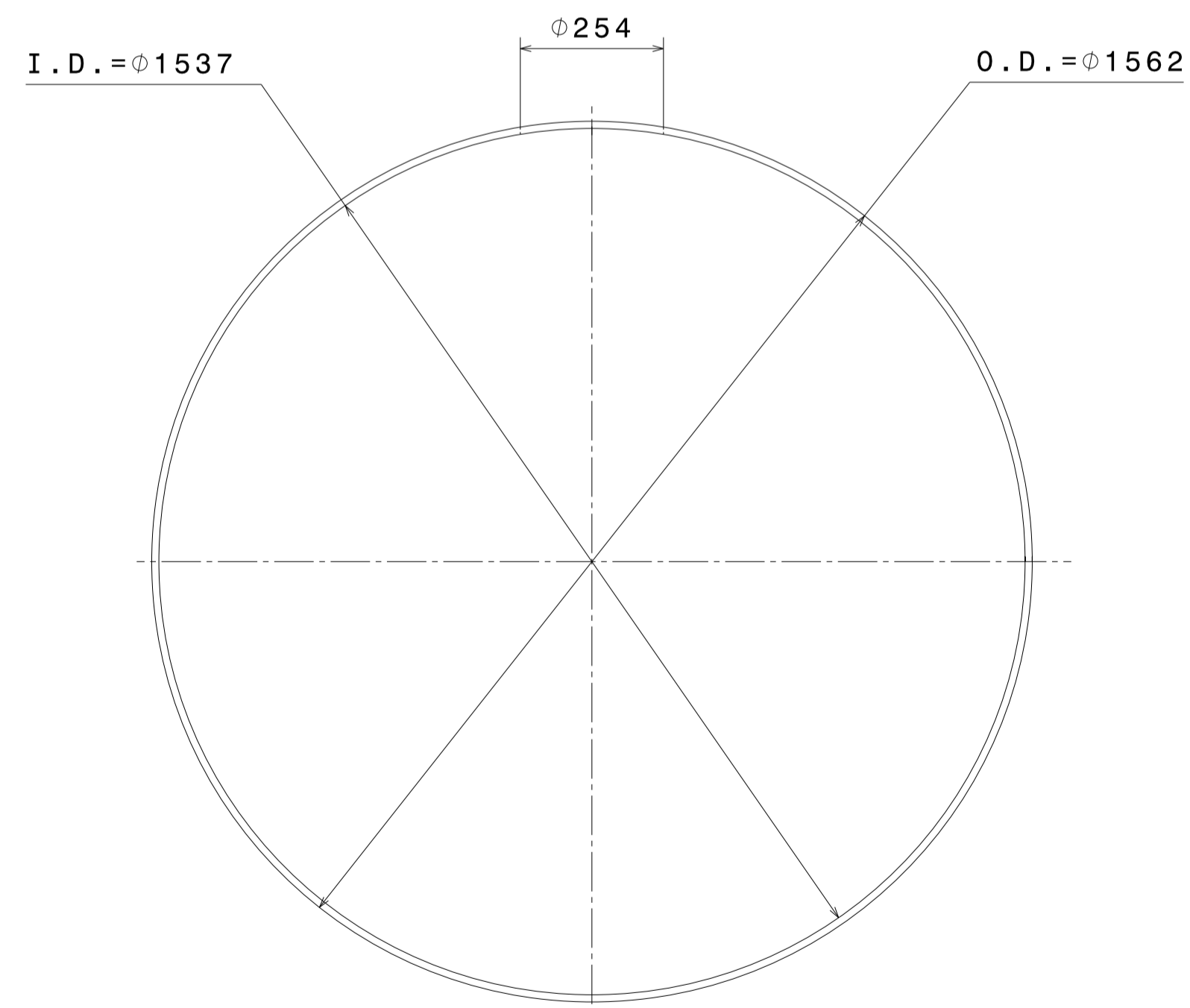


SIDE VIEW

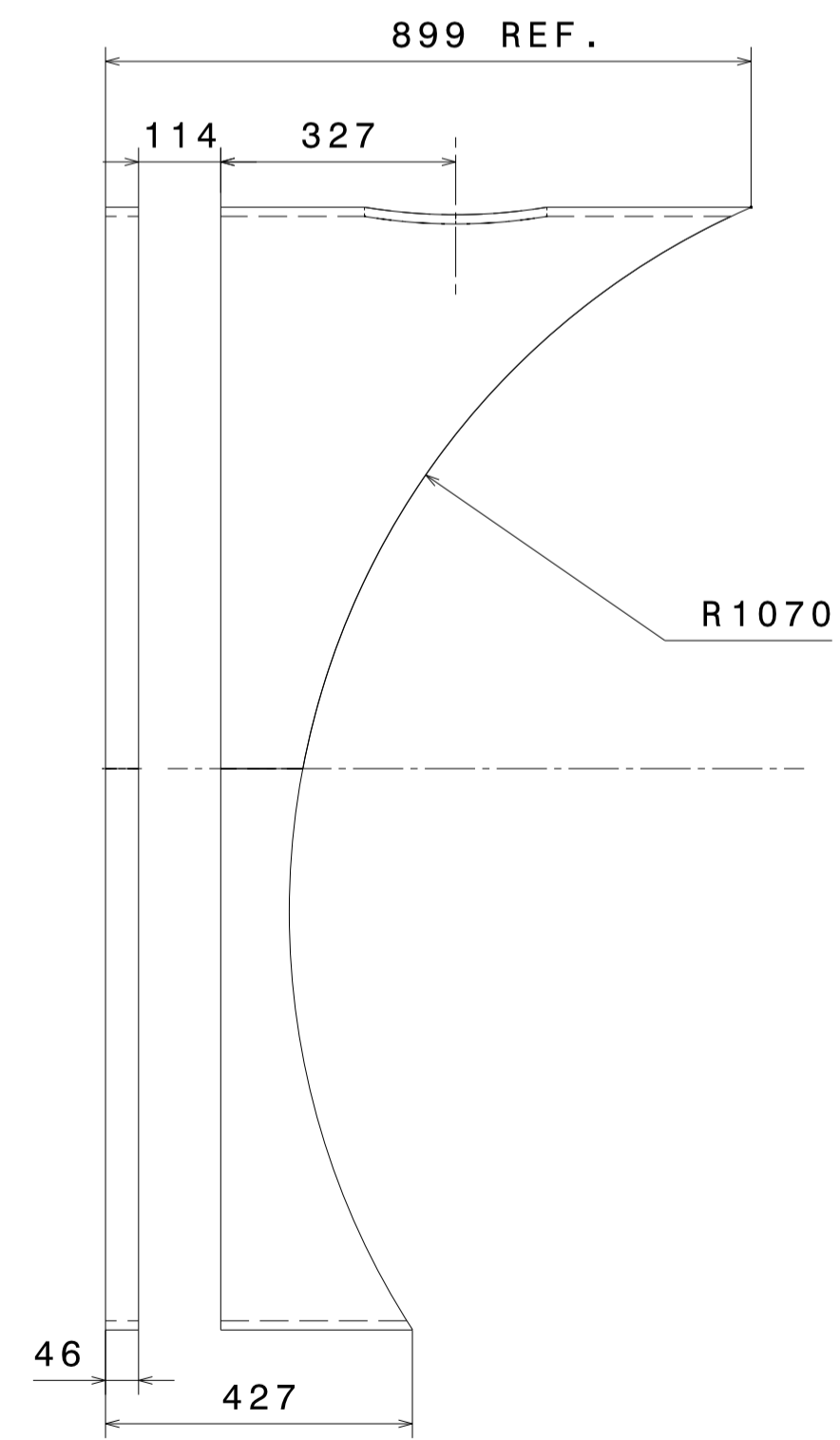


ISOMETRIC VIEW

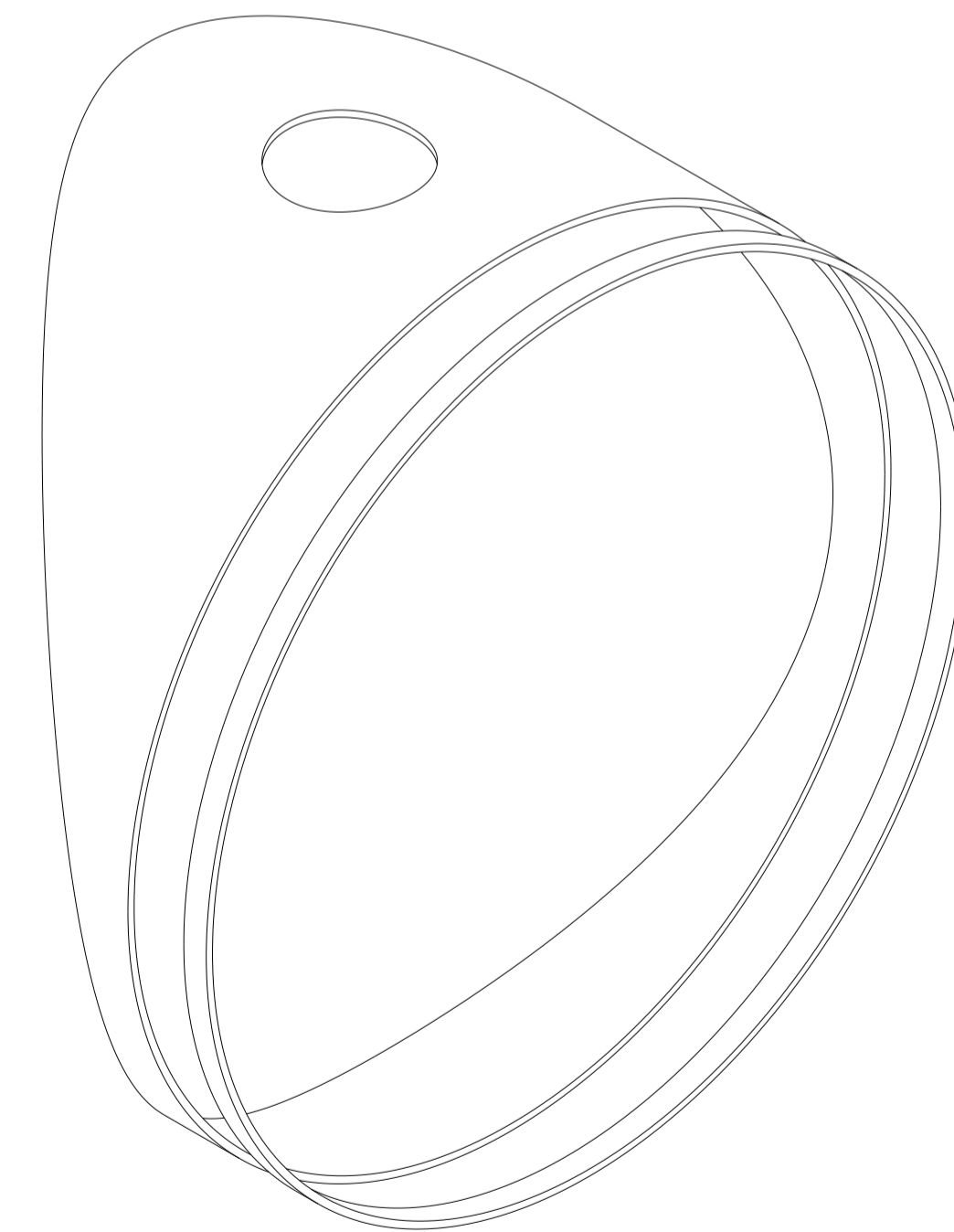
① CYLINDRICAL SHELL-1



FRONT VIEW



SIDE VIEW

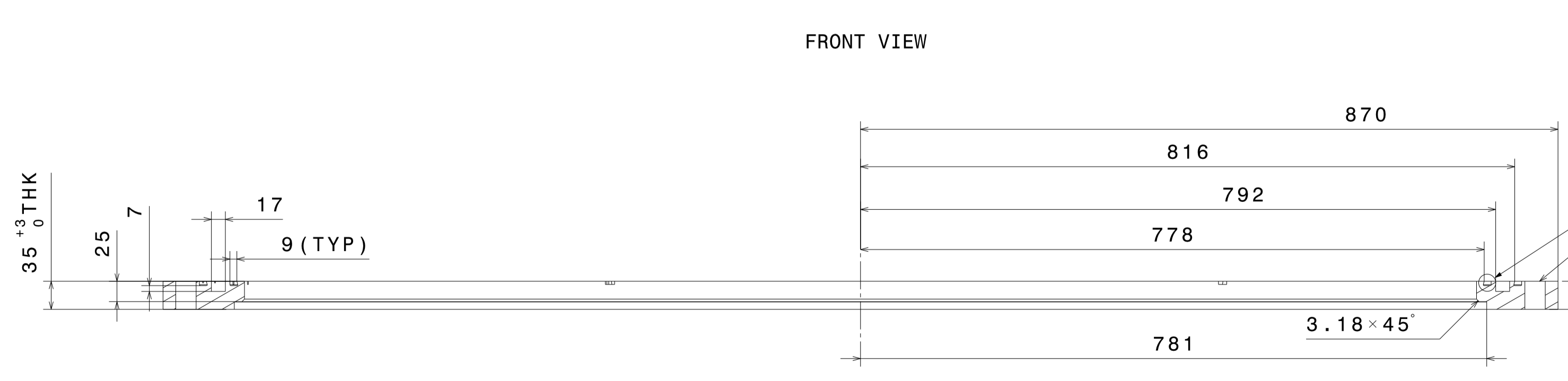
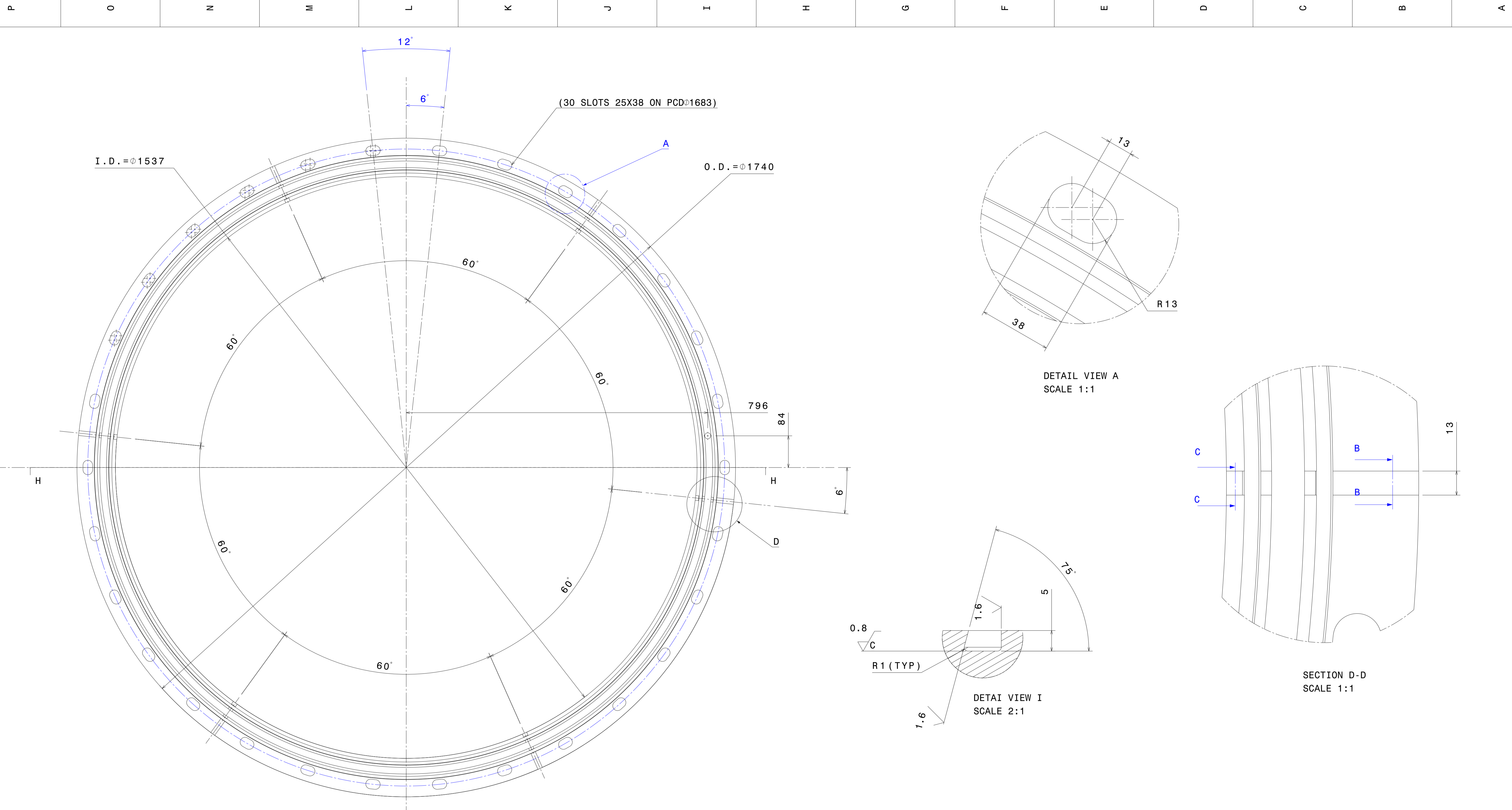


ISOMETRIC VIEW

② CYLINDRICAL SHELL-2

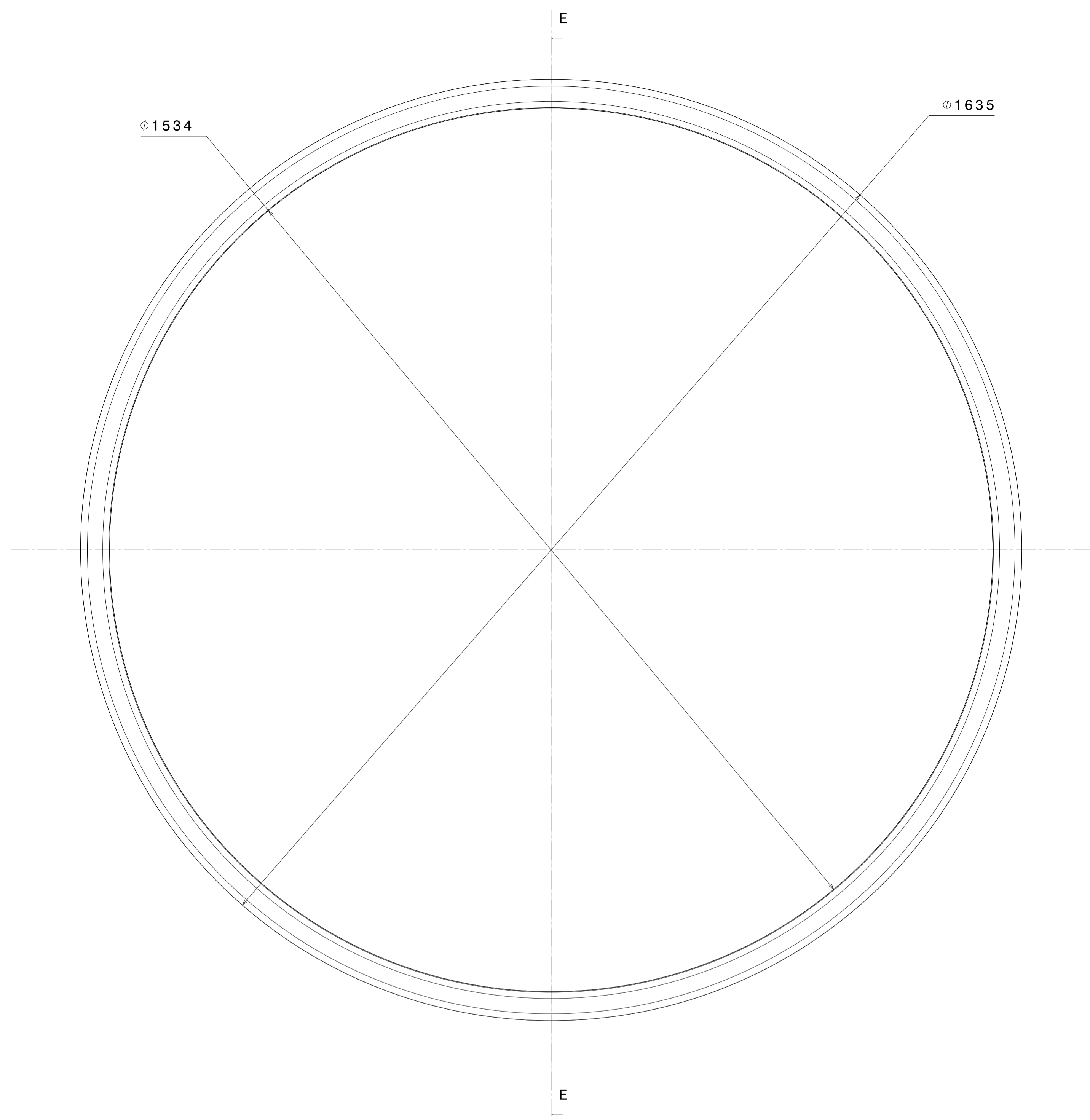
MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.				
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED				
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	1:10	DATE	TITLE	
LENGTH IN mm OF SHORTER SIDE OF ANGLES												DRAWN	A.N.N.	30/07/2015	CYLINDRICAL PART (DIA 60.5° ID)	
UPTO 10	10-50	50-120	OVER 120-400	LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			CHECKED	R.K.	REF DRG NO:	VH01-001-R1	REV	R1
+1'	+0'-30'	+0'-20'	+0'-10'		+0.1	+0.2	+0.3	+0.5			APPROVED	M.K.G.	DRG. NO	VH01-005-R1	SHEET 03 OF 08	



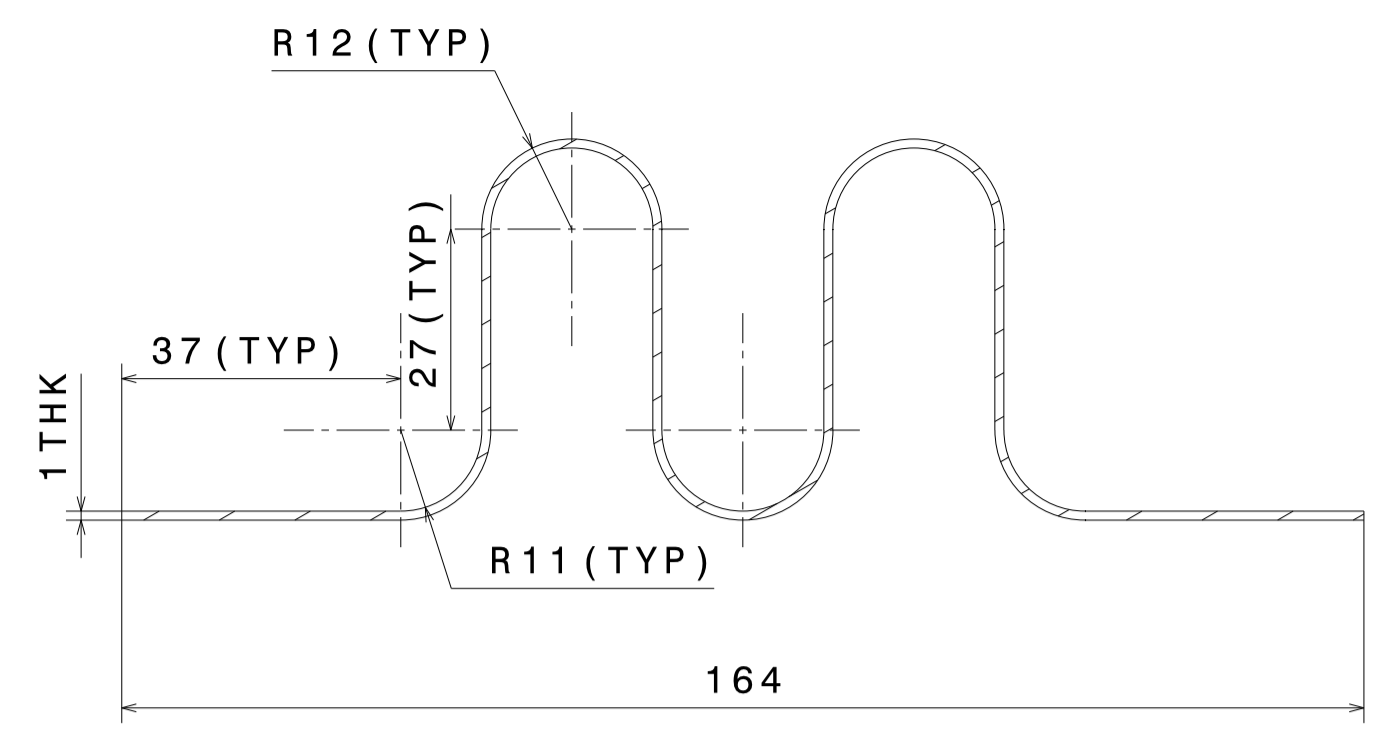
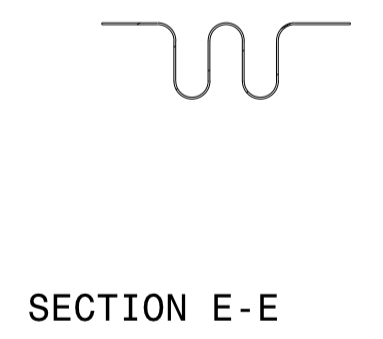
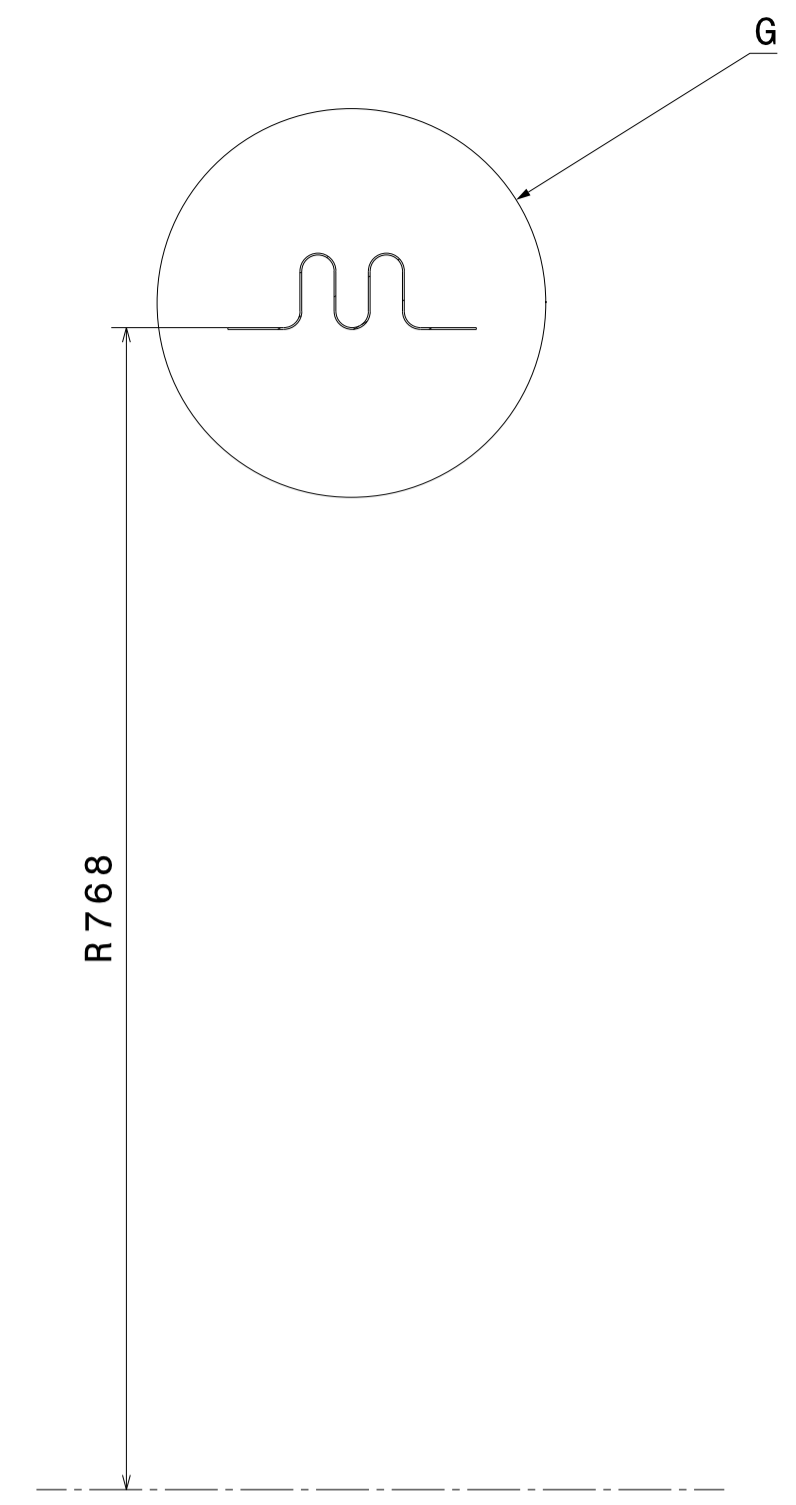


③ FLANGE GROOVED (60.5" ID)  
SCALE - 1:5

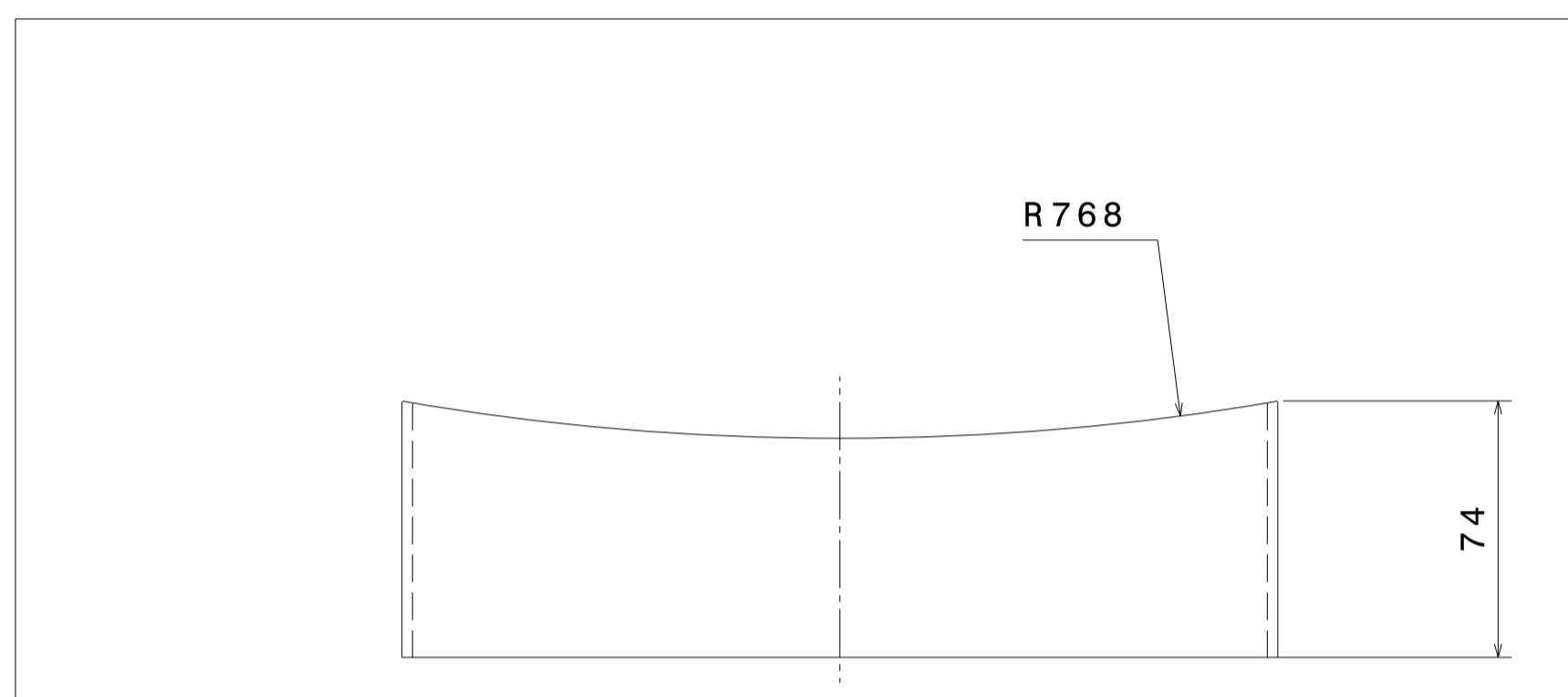
MATERIAL:		$\nabla$ 8-25	$\nabla\nabla$ 1.6-8	$\nabla\nabla\nabla$ 0.025-1.6	$\nabla\nabla\nabla\nabla$ < 0.025	REVISION COLUMN					MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)				
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED		BHAT, GANDHINAGAR-382 428.			
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS													TITLE				
LENGTH IN mm OF SHORTER SIDE OF ANGLES					LENGTH OR DIA	UPTO 6	6-30	30-120	120-315				SCALE	AS NOTED	DATE	REF DRG NO: VHO1-001-R1	REV R1
UPTO 10	10-50	50-120	OVER 120-400									DRAWN	A. N. N.	30/07/2015	DRG. NO	VHO1-005-R1	SHEET 04 OF 08
+1'	+0'-30'	+0'-20'	+0'-10'			+0.1	+0.2	+0.3	+0.5			CHECKED	R. K.				
											APPROVED	M. K. G.					



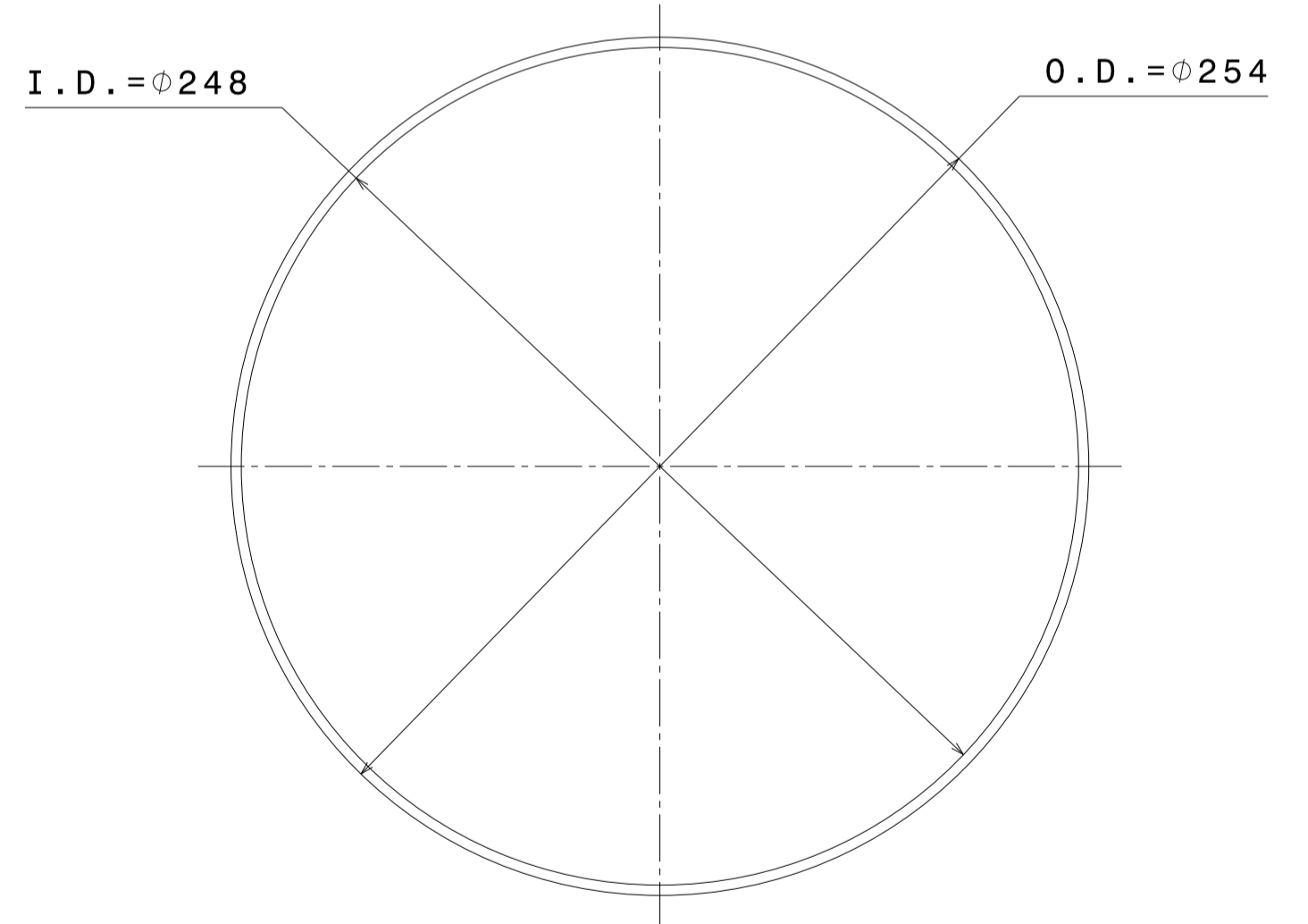
5 BELLOW  
SCALE - 1:5



DETAIL VIEW-G  
SCALE - 1:1

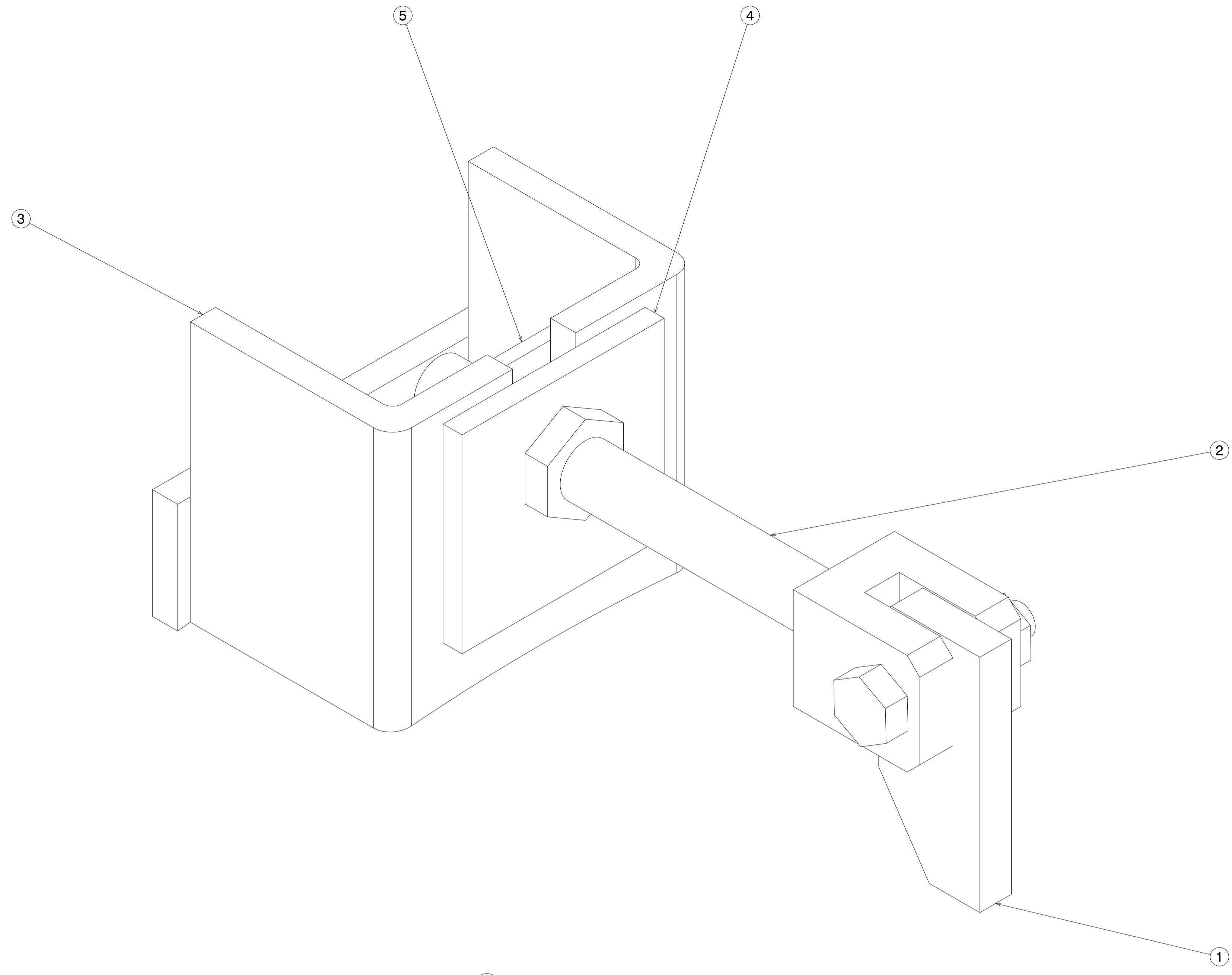


TOP VIEW



4 PORT D NOZZLE  
SCALE - 1:2

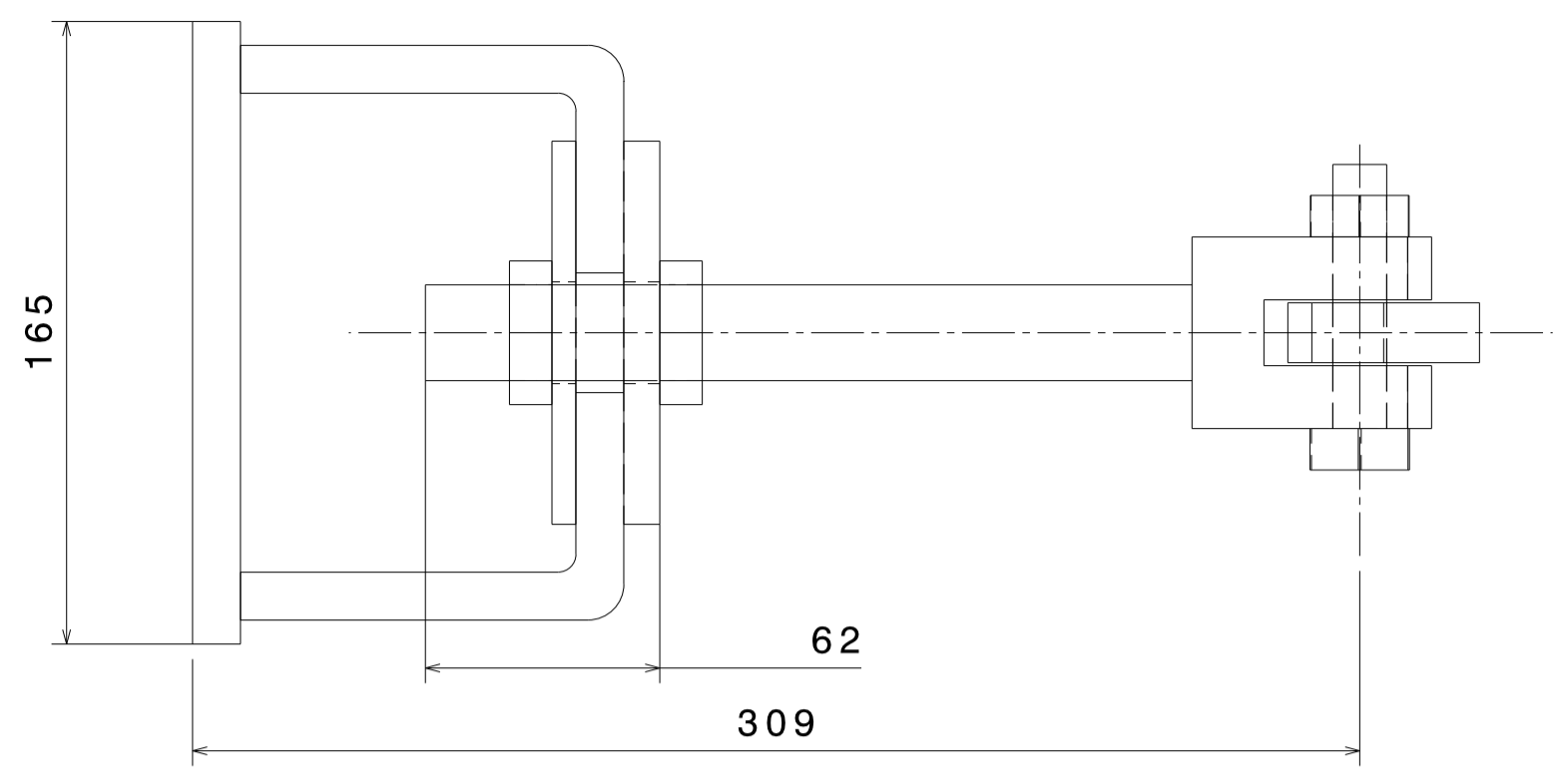
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CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED					
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE		AS NOTED	DATE	TITLE	
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRAWN	A. N. N.	30/07/2015	CYLINDRICAL PART (DIA 60.5" ID)			
UPTO 10	10-50	50-120	OVER 120-400		$\pm 0.1$	$\pm 0.2$	$\pm 0.3$	$\pm 0.5$			CHECKED	R. K.	REF DRG NO:	VH01-001-R1	REV R1		
$\pm 1'$	$\pm 0'-30'$	$\pm 0'-20'$	$\pm 0'-10'$								APPROVED	M. K. G.	DRG. NO	VH01-005-R1	SHEET 05 OF 08		



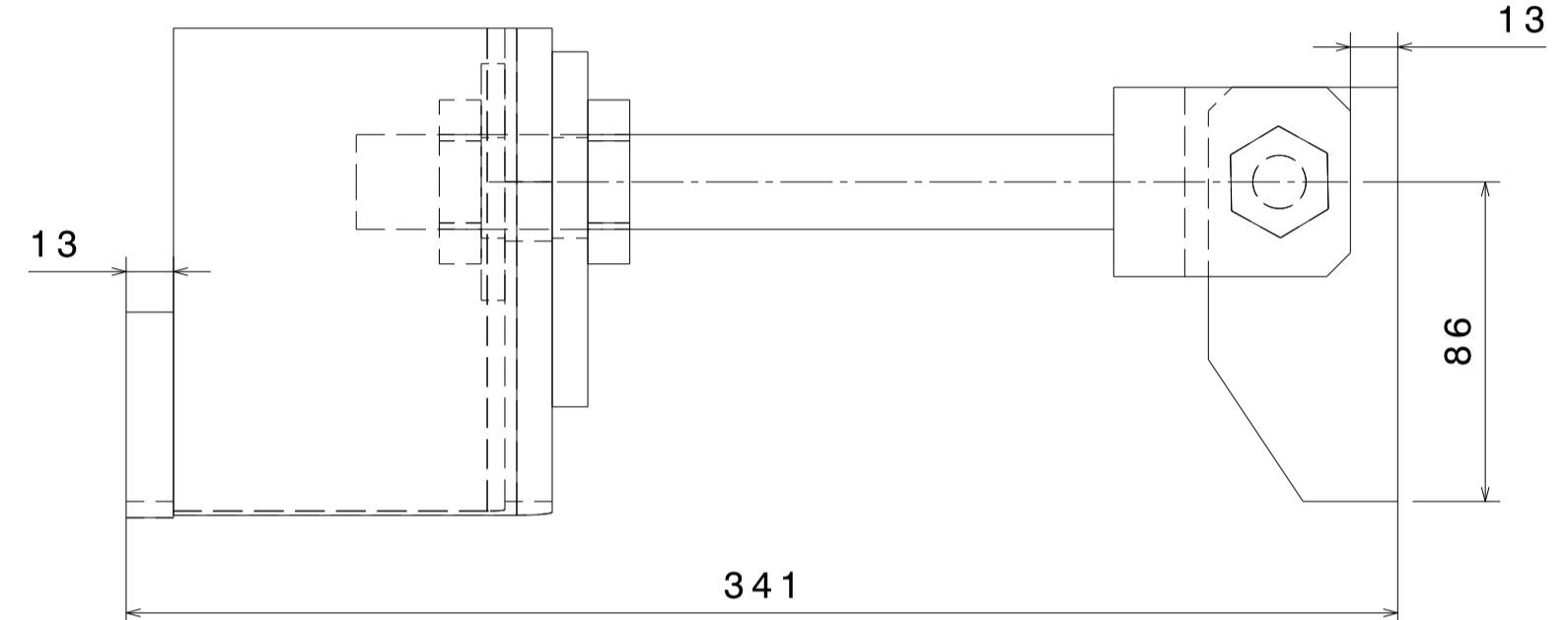
⑥ BELLOW TIE ROD ASSEMBLY

PART NO.	QUANTITY	PART NAME	MATERIAL	REF. DWG. NO.	REMARK
5	01	PLATE -3	SS304L	VH01 -005 -R1/SHEET 07	-
4	01	PLATE -2	SS304L	VH01 -005 -R1/SHEET 07	-
3	01	BRACKET	SS304L	VH01 -005 -R1/SHEET 07	-
2	01	ROD	SS304L	VH01 -005 -R1/SHEET 07	-
1	01	PLATE -1	SS304L	VH01 -005 -R1/SHEET 07	-

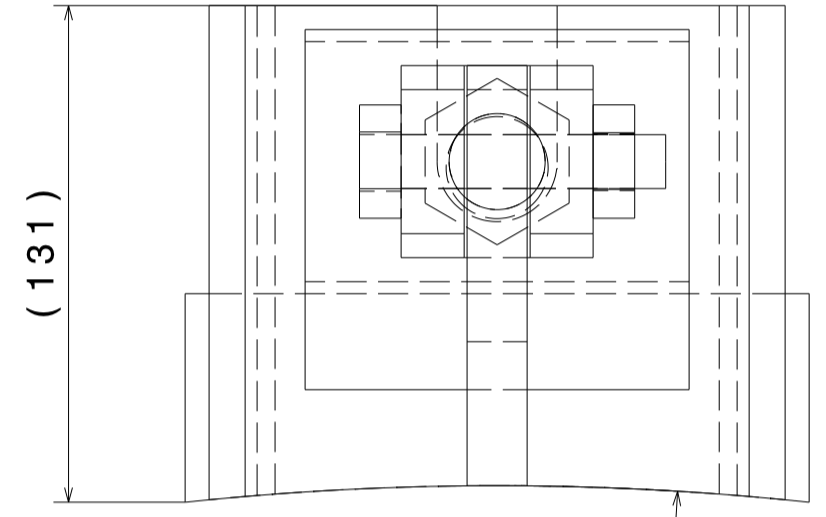
MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.	
CO-ORDINATED BY	REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	SCALE	1:1	DATE	TITLE	CYLINDRICAL PART (DIA 60.5*ID)		
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS													
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315	SCALE	1:1	DATE	TITLE	CYLINDRICAL PART (DIA 60.5*ID)		
UPTO 10	10-50	50-120	OVER 120-400	±0.1	±0.2	±0.3	±0.5	DRAWN	A.N.N.	30/07/2019	REF DRG NO:	VH01-001-R1	REV R1
±1'	±0'-30'	±0'-20'	±0'-10'					CHECKED	R.K.		DRG. NO	VH01-005-R1	SHEET 06 OF 08
								APPROVED	M.K.G.				



TOP VIEW

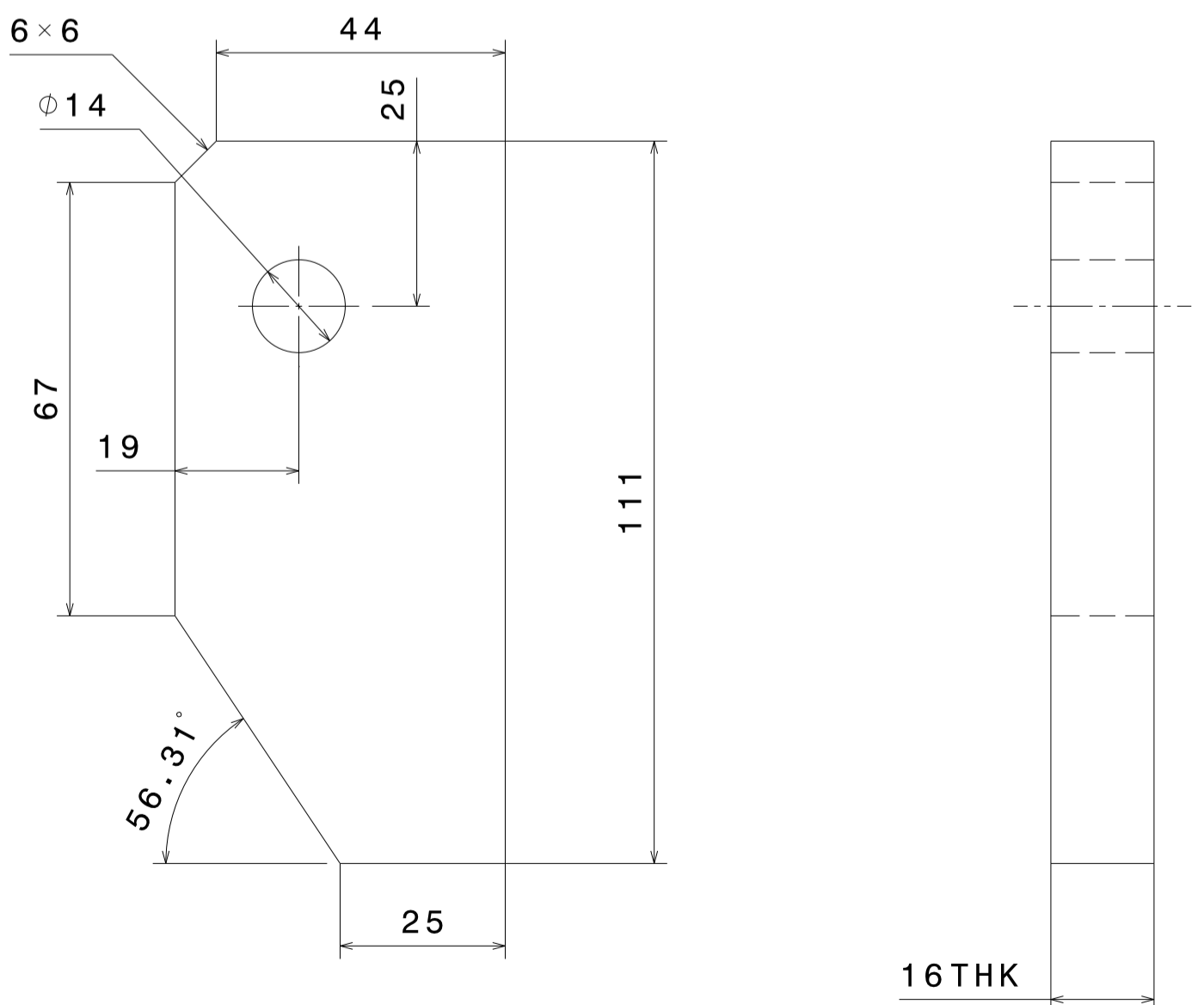


FRONT VIEW



SIDE VIEW

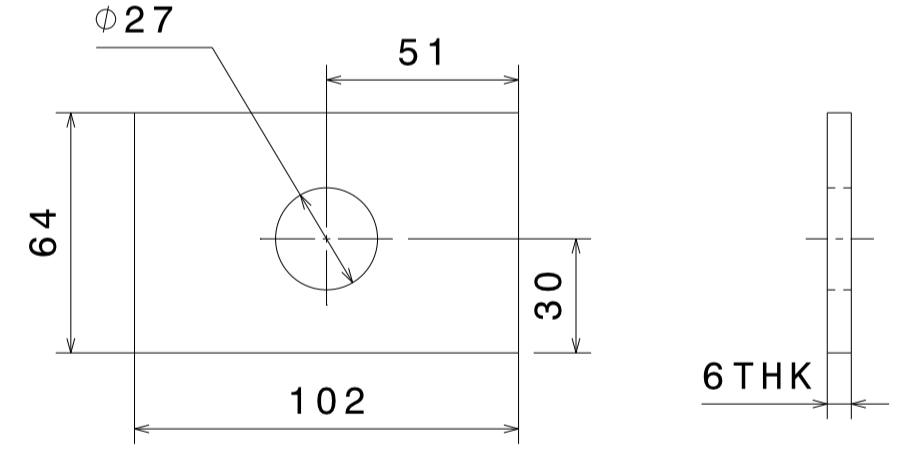
ASSEMBLY DIMENSIONS  
SCALE - 1:2



FRONT VIEW

SIDE VIEW

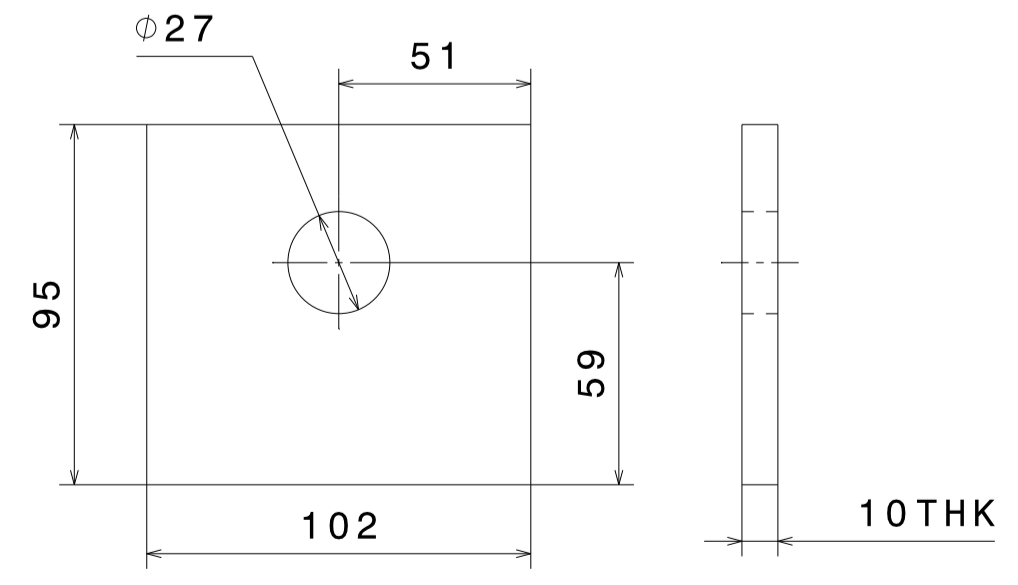
① PLATE-1  
SCALE - 1:1



FRONT VIEW

SIDE VIEW

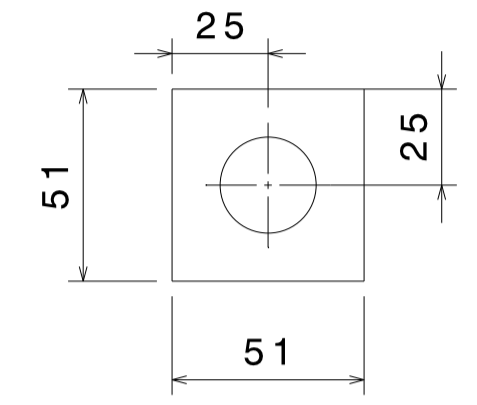
⑤ PLATE-3  
SCALE - 1:2



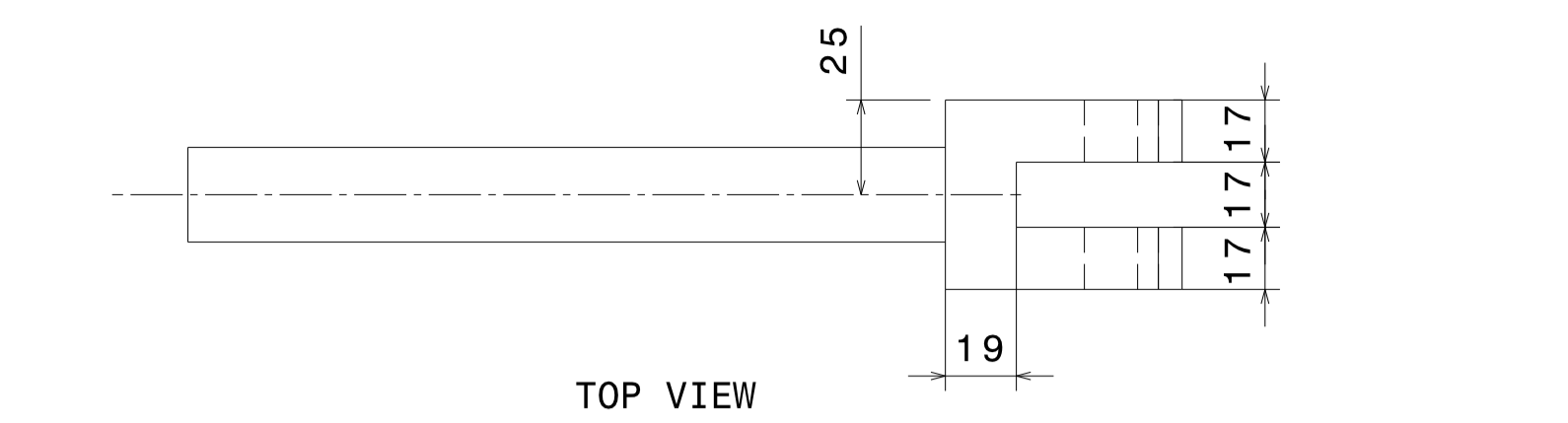
FRONT VIEW

SIDE VIEW

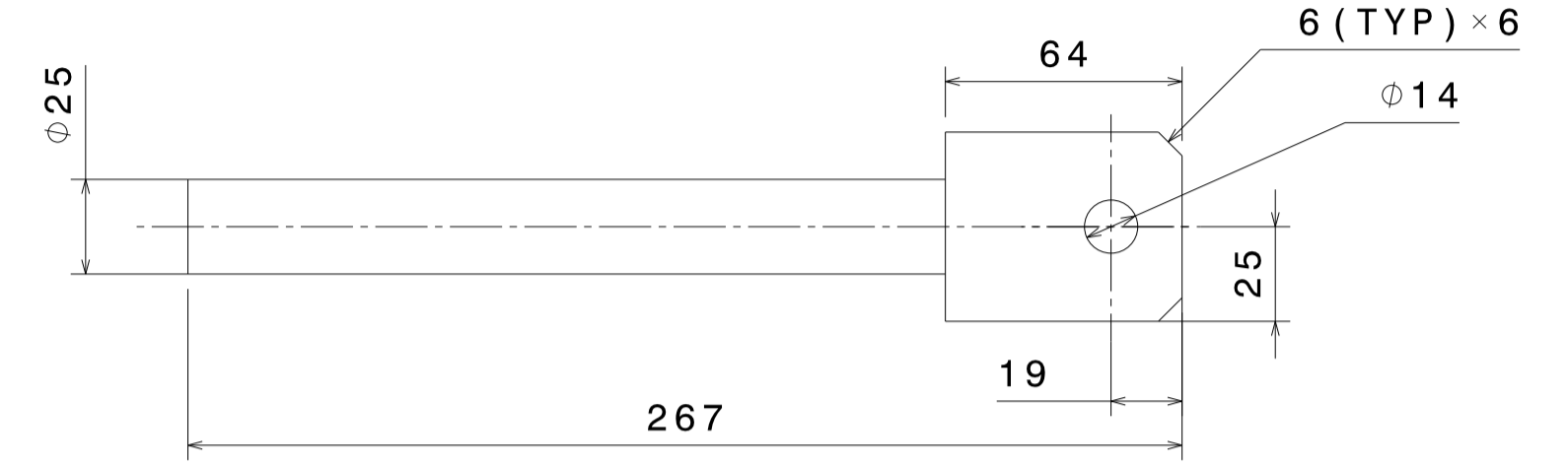
④ PLATE-2  
SCALE - 1:2



SIDE VIEW

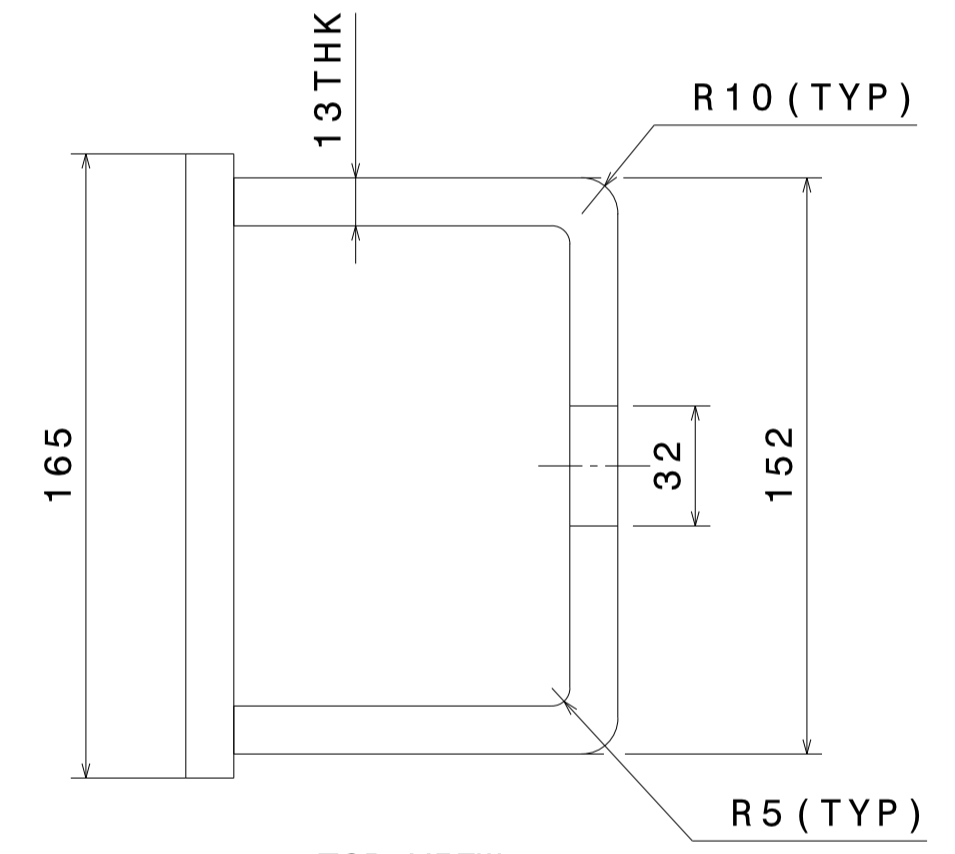


TOP VIEW

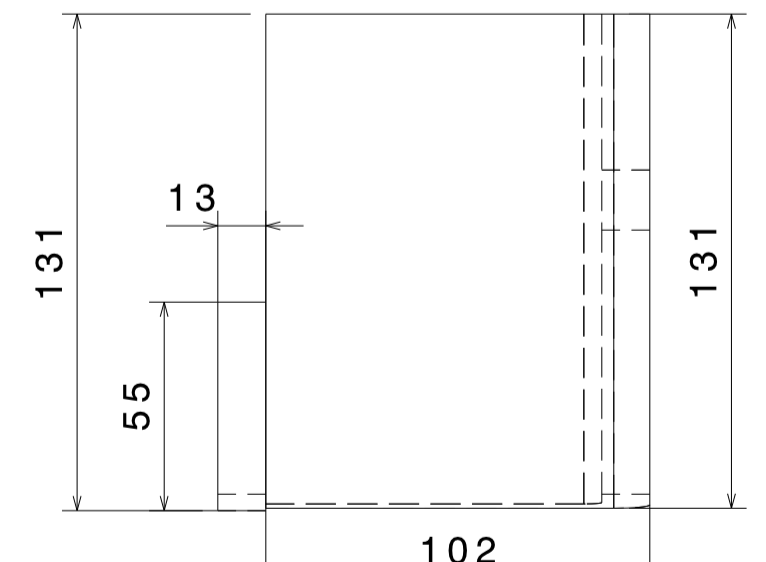


FRONT VIEW

② ROD  
SCALE - 1:2

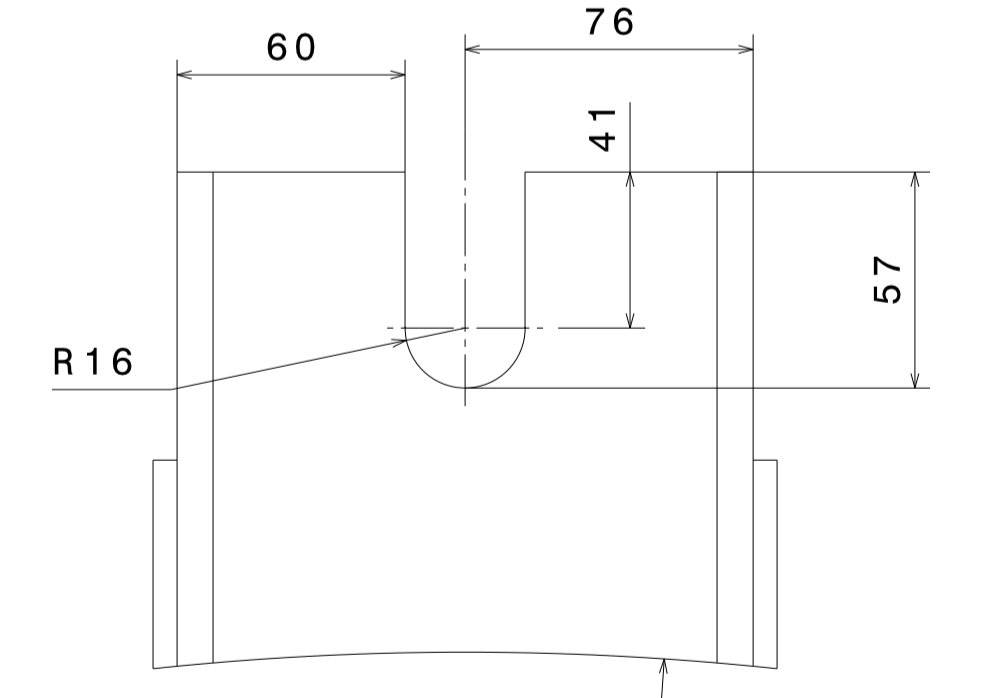


TOP VIEW



FRONT VIEW

③ BRACKET  
SCALE - 1:2



SIDE VIEW

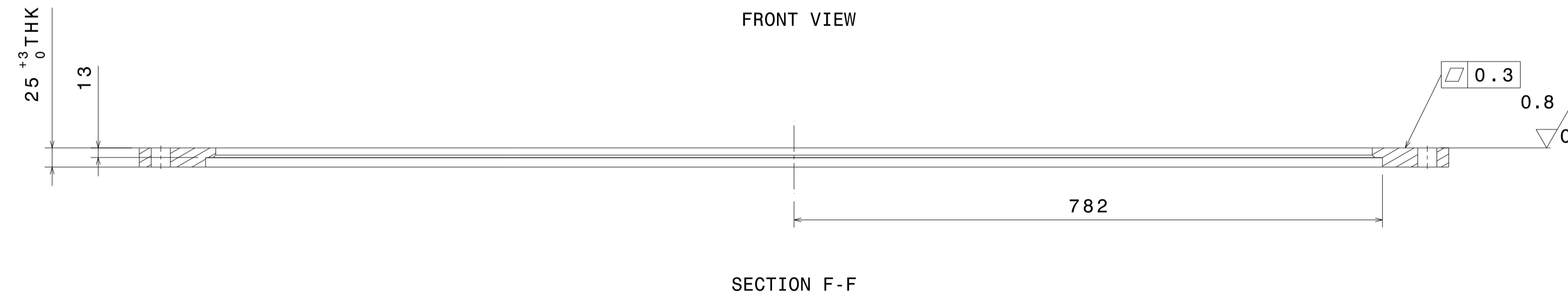
MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.					
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED					
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	AS NOTED	DATE	TITLE		
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315						DRAWN	A. N. N.	30/07/2015	CYLINDRICAL PART (DIA 60.5 ID)		
UPTO 10	10-50	50-120	OVER 120-400				+0.1	+0.2	+0.3	+0.5			CHECKED	R.K.	REF DRG NO: VH01-001-R1	REV R1	
+1'	+0'-30'	+0'-20'	+0'-10'										APPROVED	M.K.G.	DRG. NO	VH01-005-R1	SHEET 07 OF 08

Ø25.4 X 30 THRU HOLES  
ON P.C.D. Ø1683

I.D. = Ø1537

O.D. = Ø1740

1.2 (TYP)



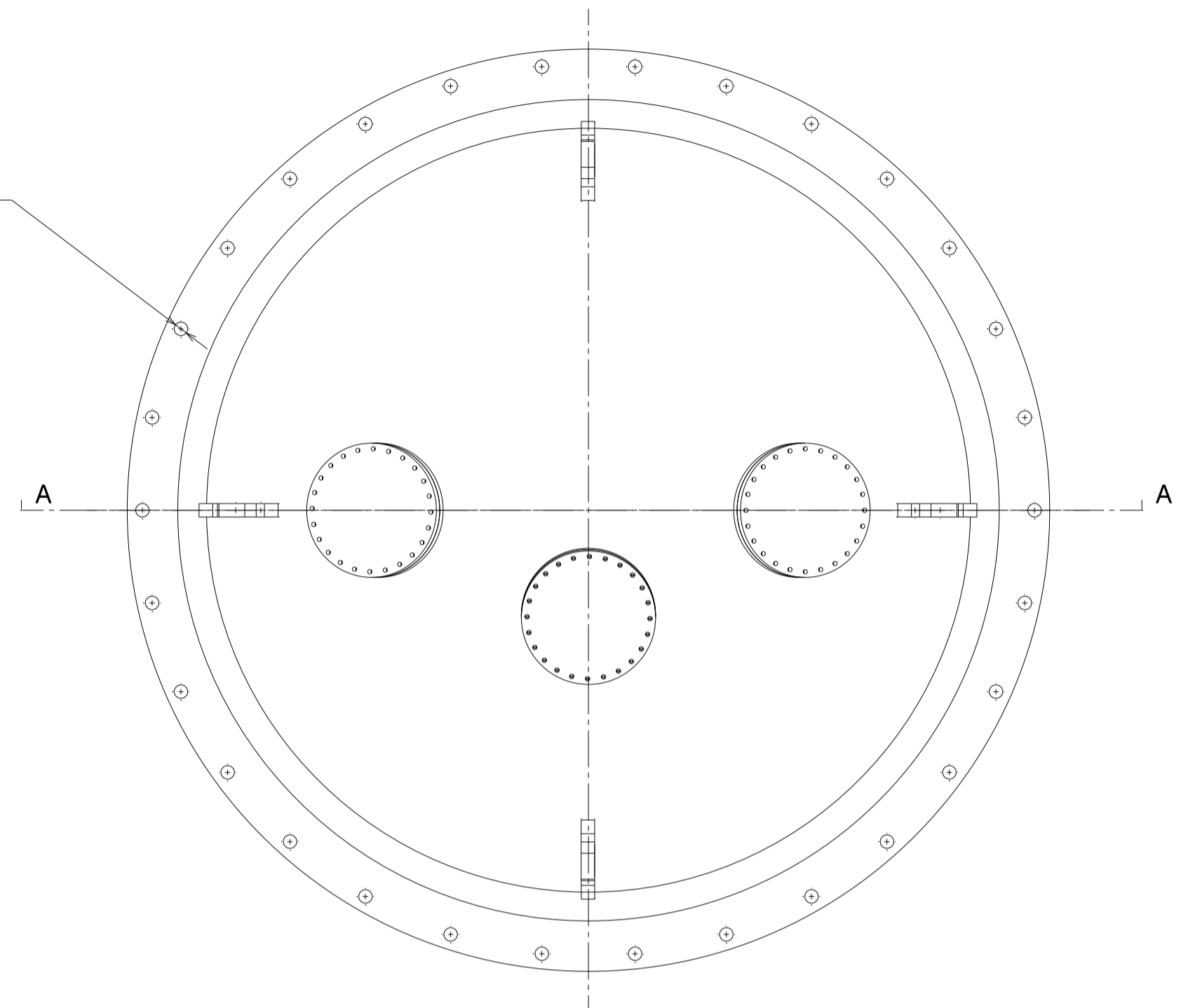
FRONT VIEW

SECTION F-F

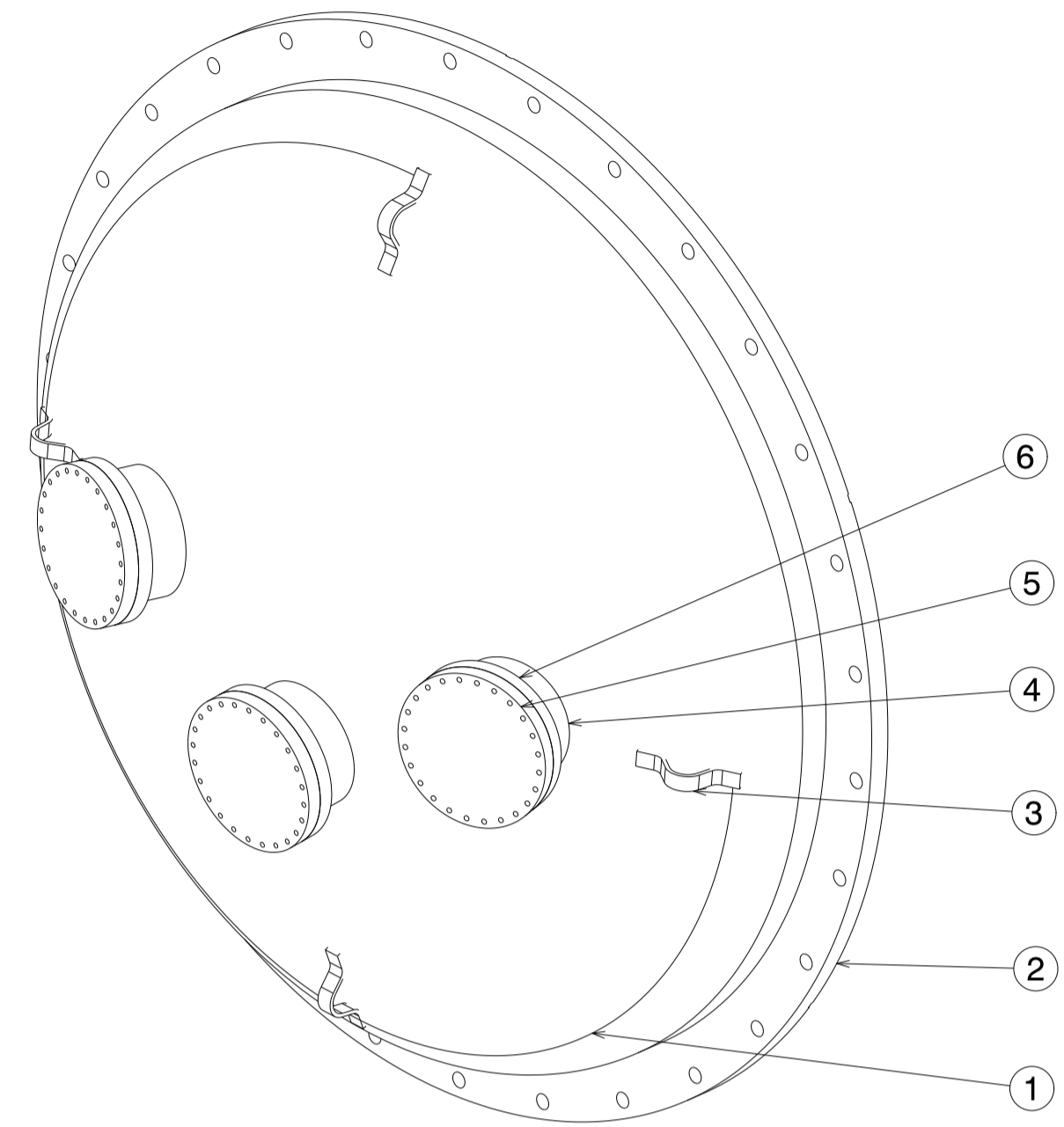
9 FLANGE FLAT (60.5" ID)  
SCALE 1:5

MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN					MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.				
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED		TITLE			
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	1:5	DATE	CYLINDRICAL PART (DIA 60.5" ID)		
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA		UPTO 6	6-30	30-120	120-315					DRAWN	A.N.N.	30/07/2015	REF DRG NO: VH01-001-R1	REV R1	
UPTO 10	10-50	50-120	OVER 120-400		±0.1	±0.2	±0.3	±0.5					CHECKED	R.K.	DRG. NO	VH01-005-R1	SHEET 08 OF 08
±1'	±0'-30'	±0'-20'	±0'-10'										APPROVED	M.K.G.			

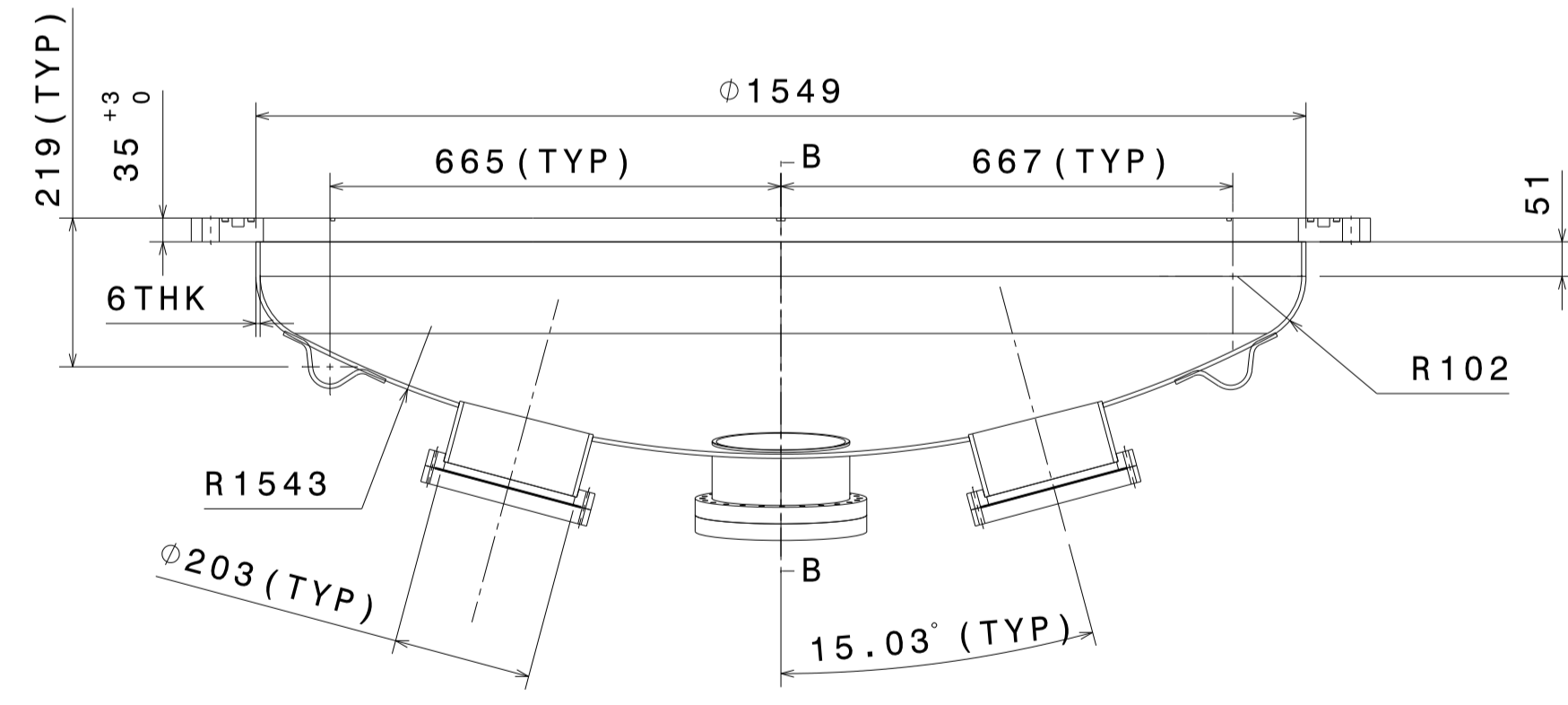
Ø25x30HOLES  
ON P.C.D. Ø1683



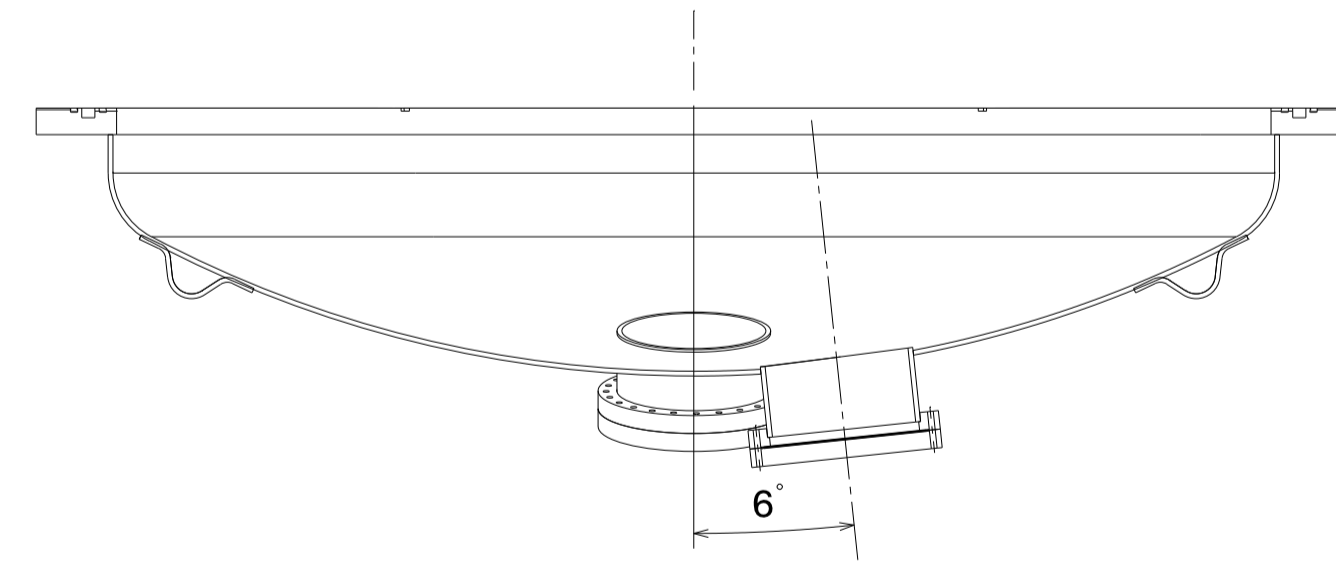
FRONT VIEW



ISOMETRIC VIEW



SECTION A-A



SECTION B-B

5 END COVER SMALL

PART NO.	QUANTITY	PART NAME	MATERIAL	REF. DWG. NO.	REMARK
6	03	DN 200CF BLANK FLANGE	SS304L	V001-001-R0/SHEET 01	-
5	03	DN 200CF COVER FLANGE	SS304L	V001-001-R0/SHEET 01	-
4	03	PORT NOZZLE	SS304L	VH01-006-R1/SHEET 02	-
3	04	LIFTING LUG	SS304L	VH01-006-R1/SHEET 02	-
2	01	FLANGE GROOVED (60.5" ID)	SS304L	VH01-006-R1/SHEET 03	-
1	01	F & D HEAD	SS304L	VH01-006-R1/SHEET 02	-

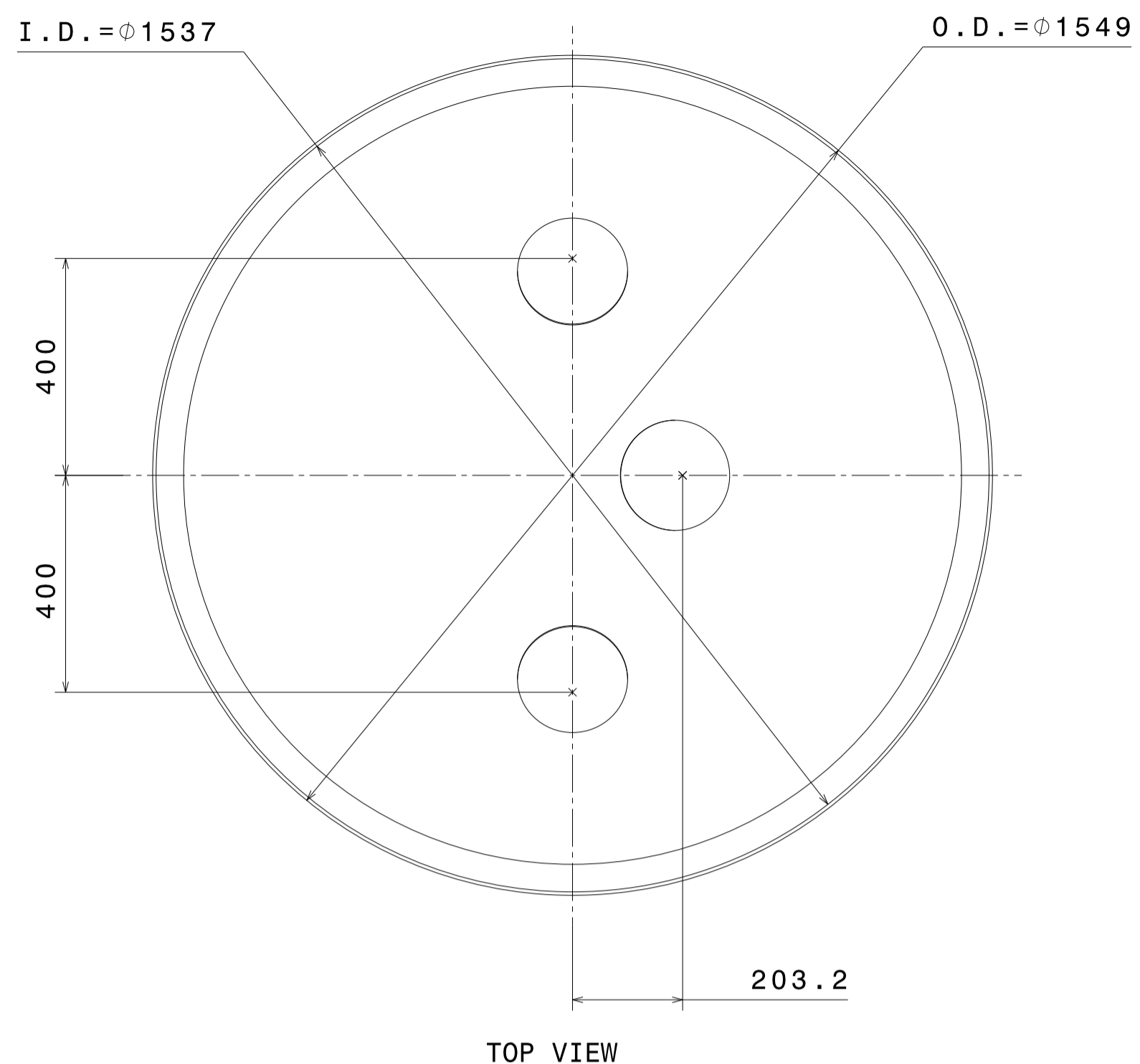
MATERIAL:		REVISION COLUMN				MED	SIZE	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)		
▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS										
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315	SCALE	DATE
UPTO 10	10-50	50-120	OVER 120-400						DRAWN	A. N. N.
+1'	+0'-30'	+0'-20'	+0'-10'						CHECKED	R. K.
									APPROVED	M. K. G.

INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)  
BHAT, GANDHINAGAR-382 428.

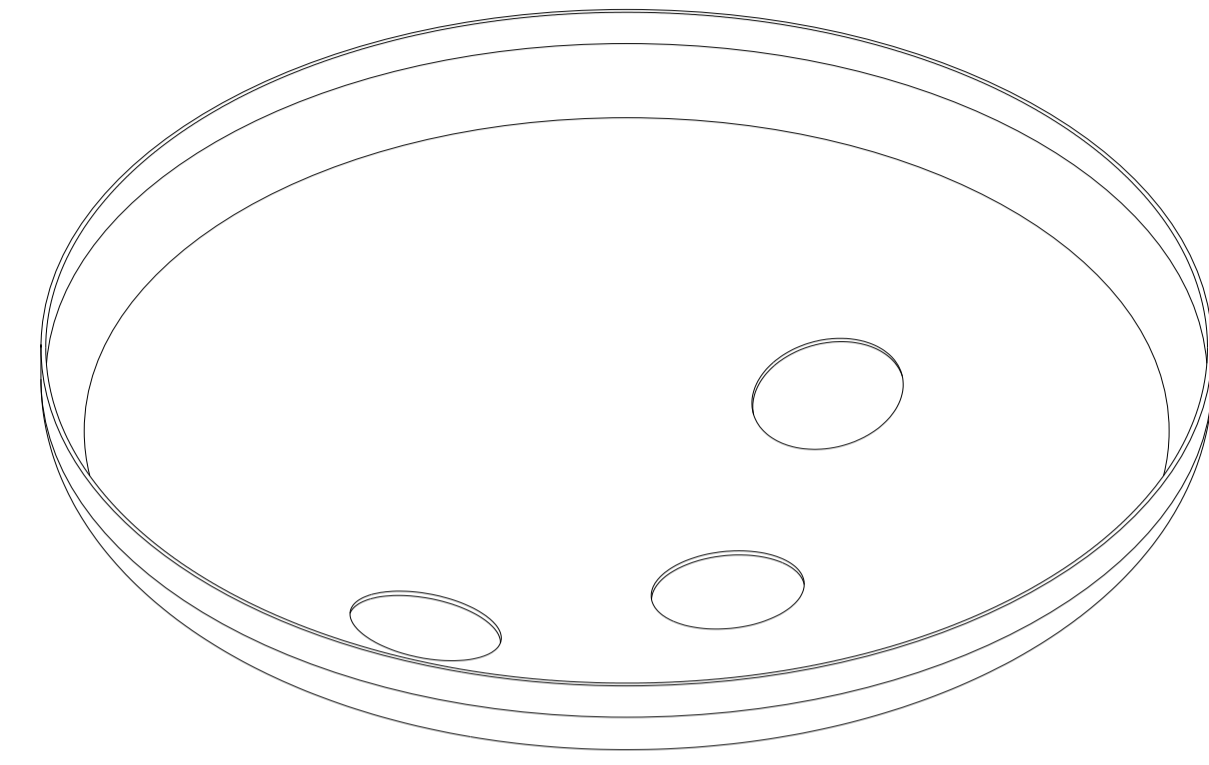
END COVER SMALL

REF DRG NO: VH01-001-R1  
VH01-006-R1

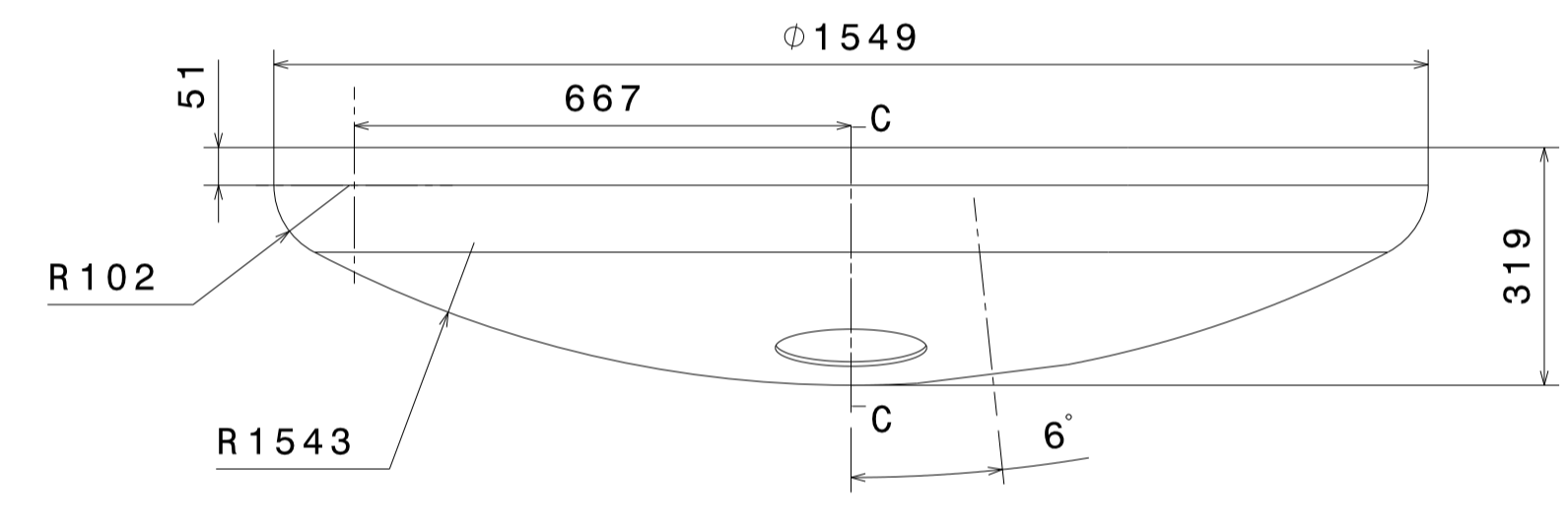
REV R1  
SHEET 01 OF 03



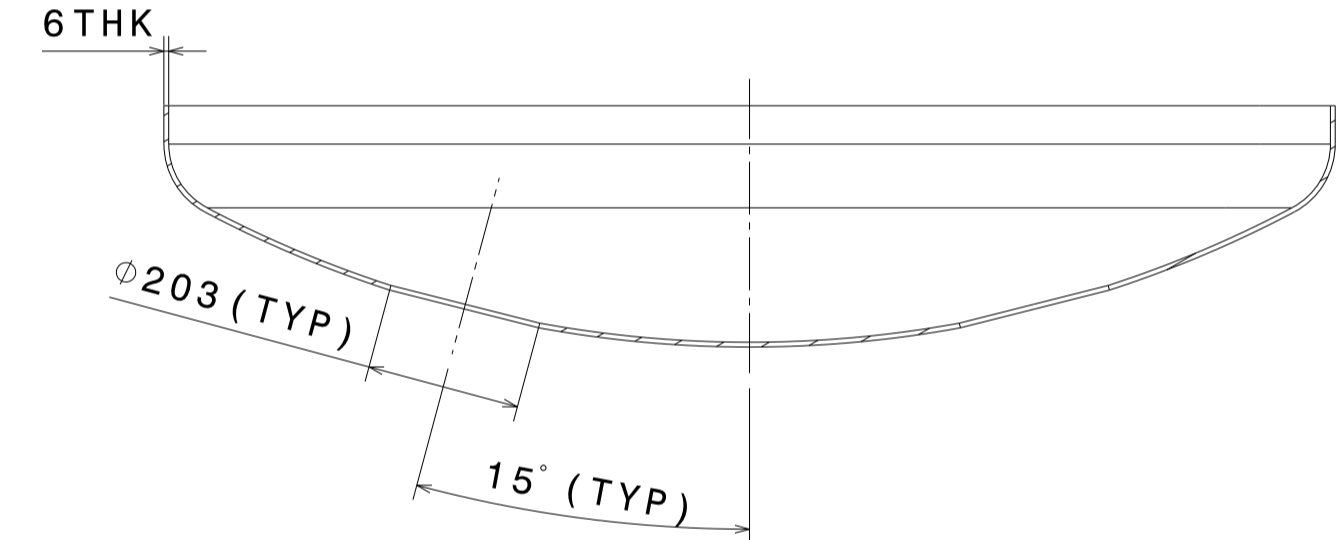
TOP VIEW



ISOMETRIC VIEW

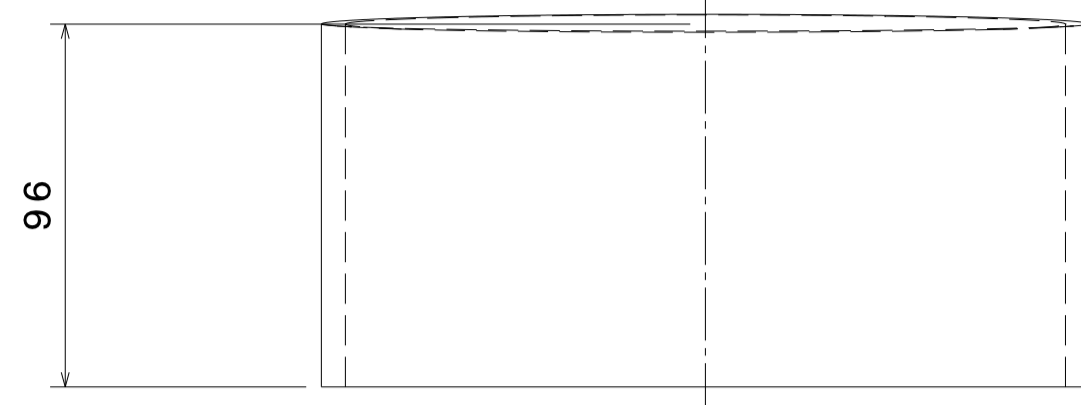


FRONT VIEW

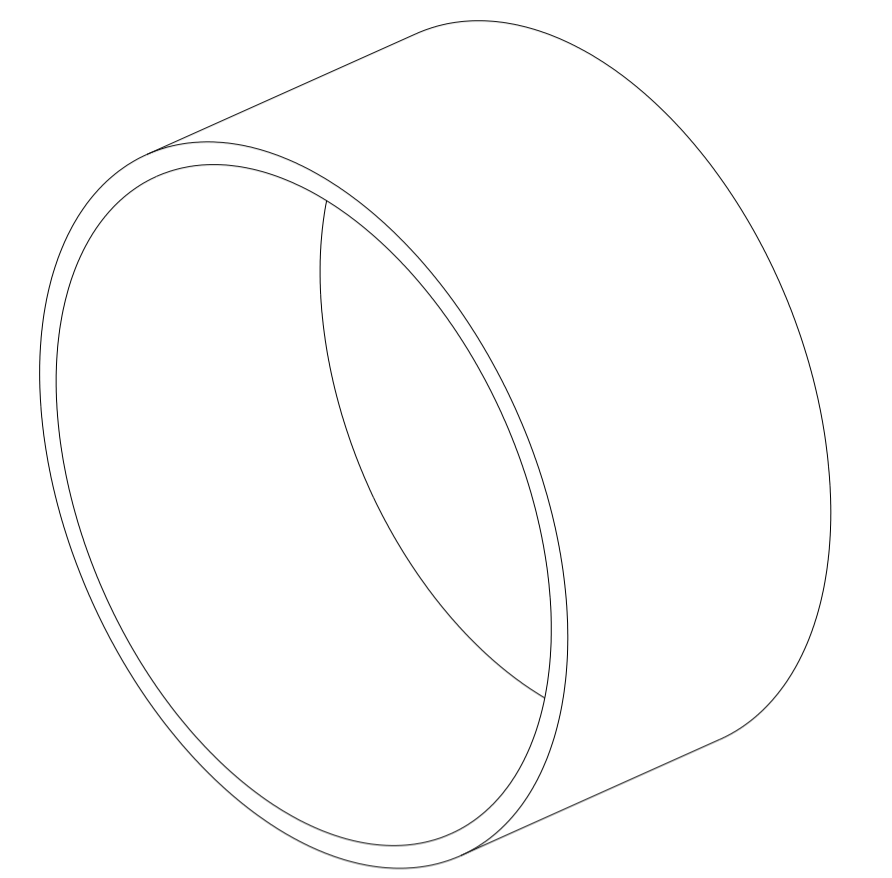


SECTION C-C

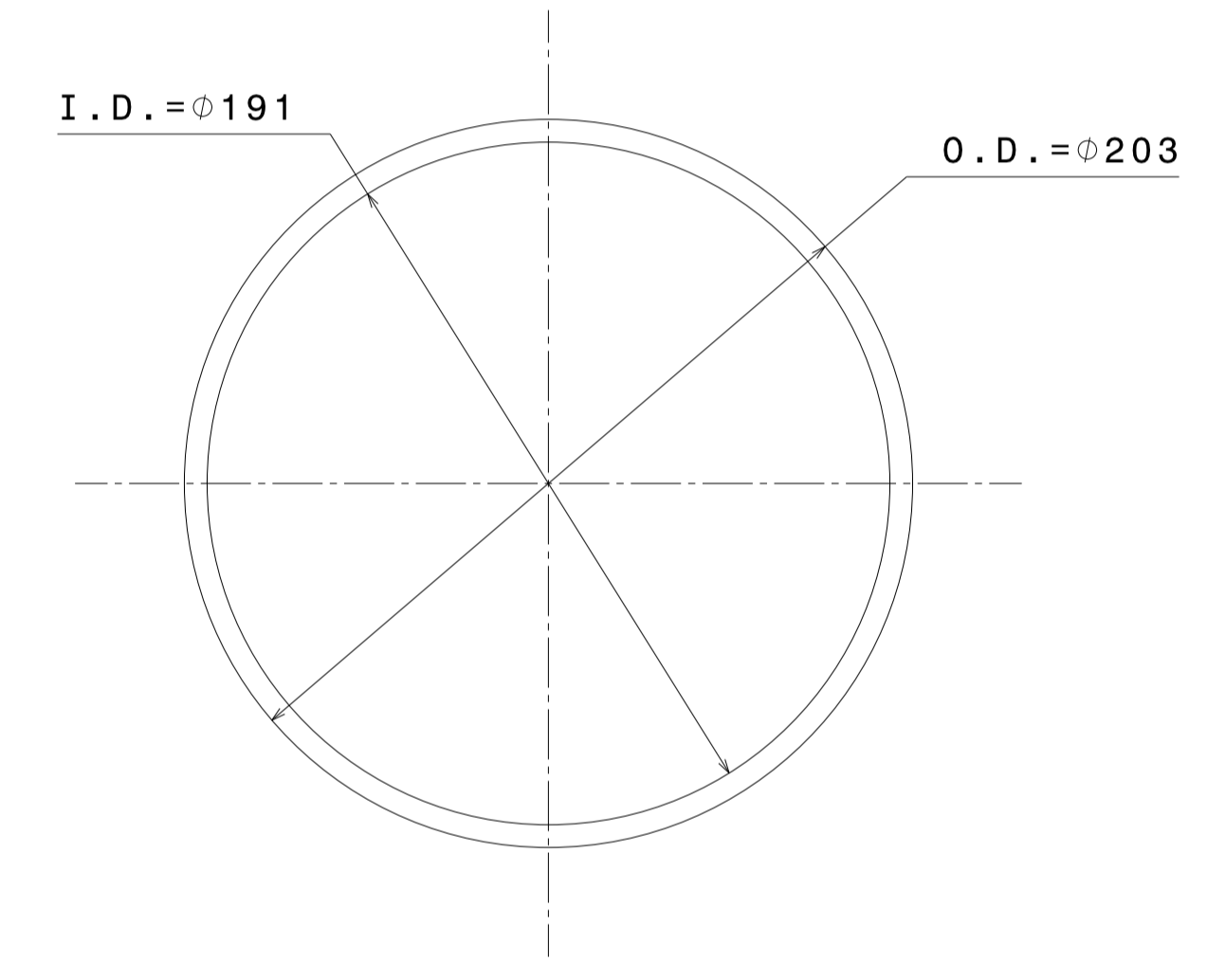
① F & D HEAD  
SCALE-1:10



TOP VIEW

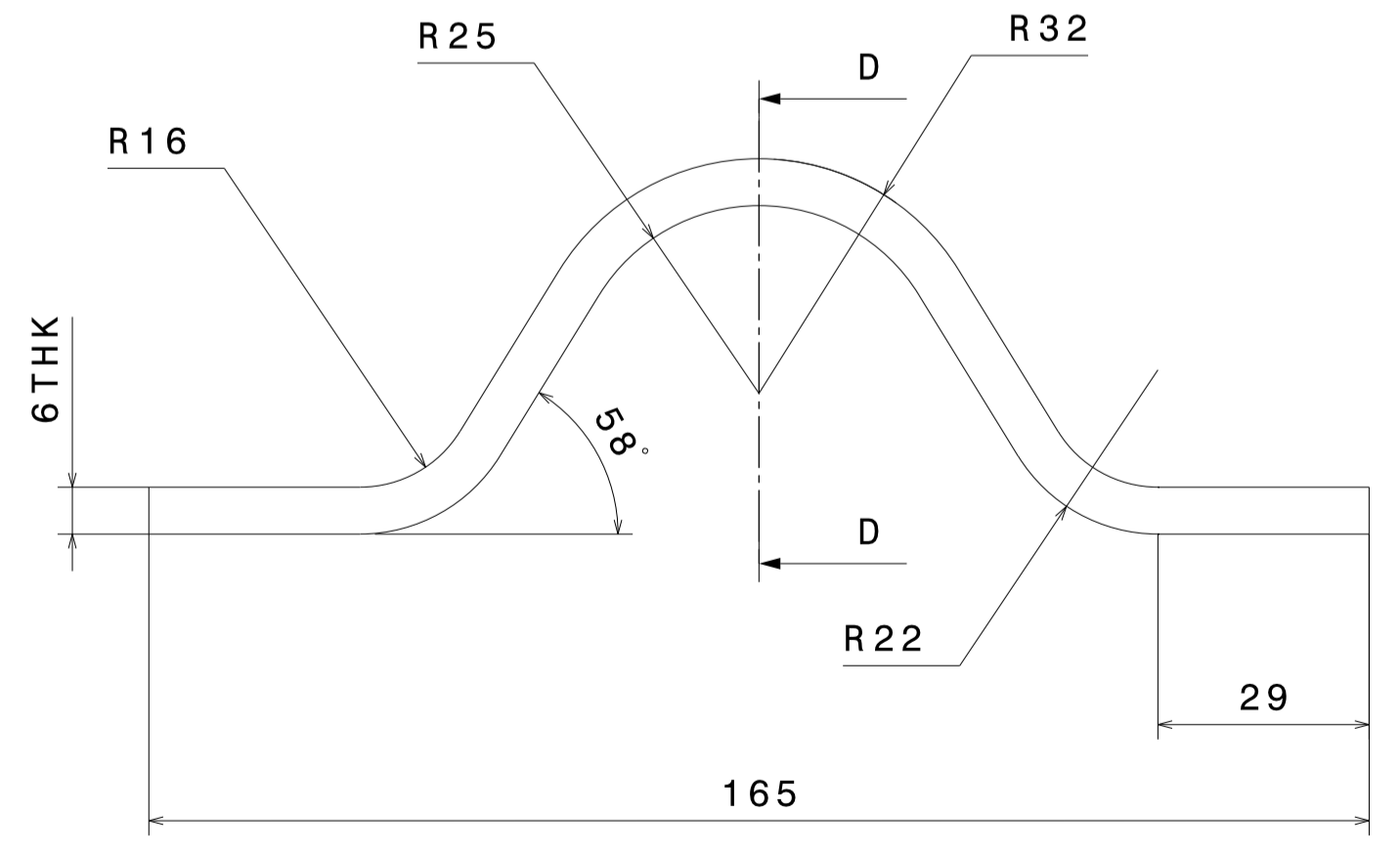


ISOMETRIC VIEW

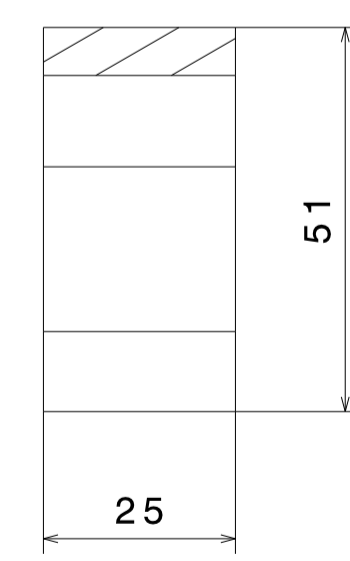


FRONT VIEW

④ PORT NOZZLE  
SCALE-1:2



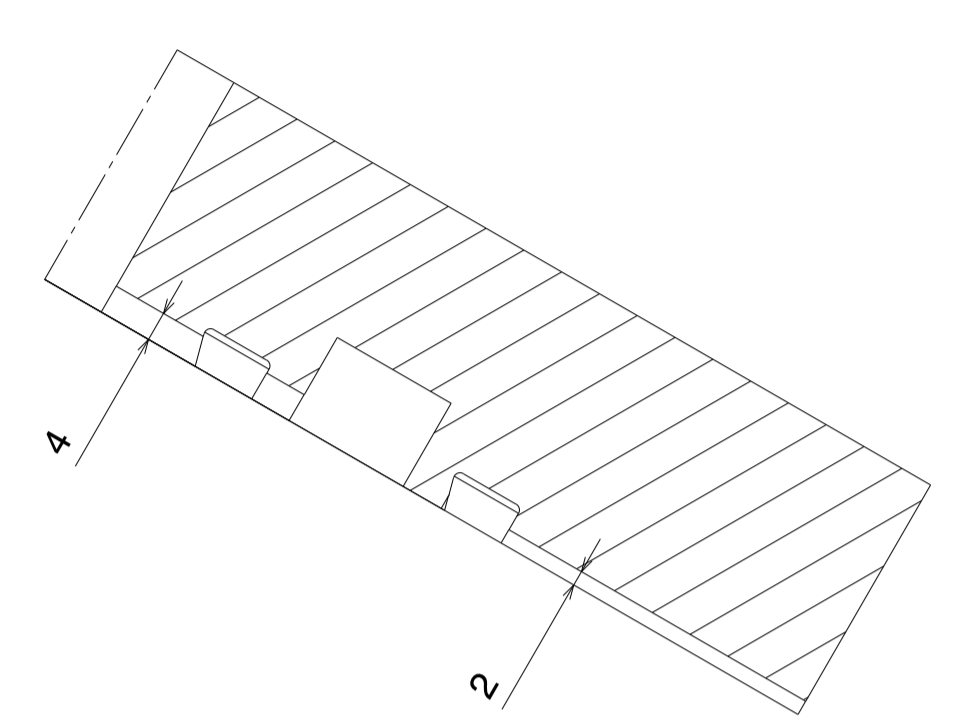
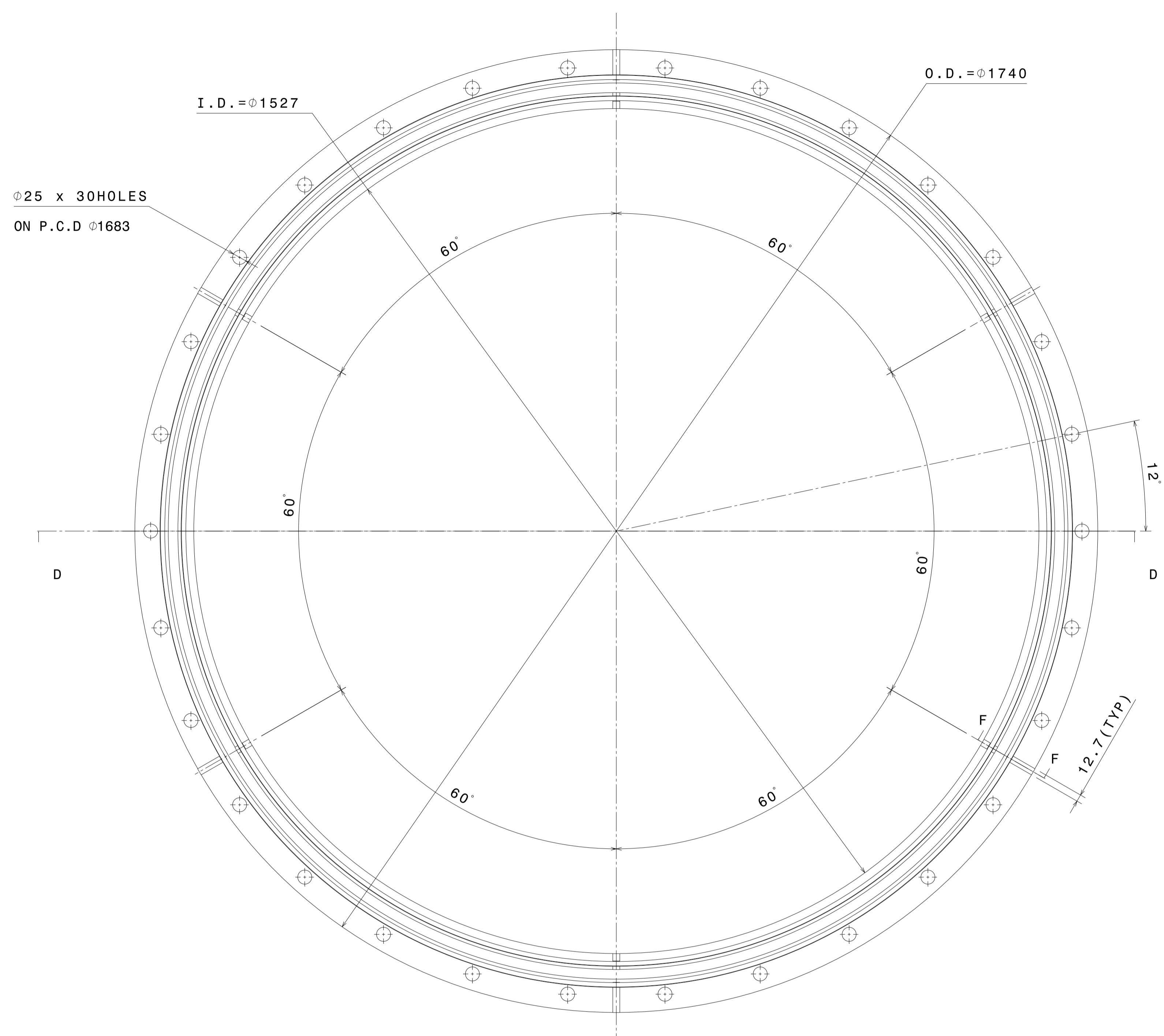
FRONT VIEW



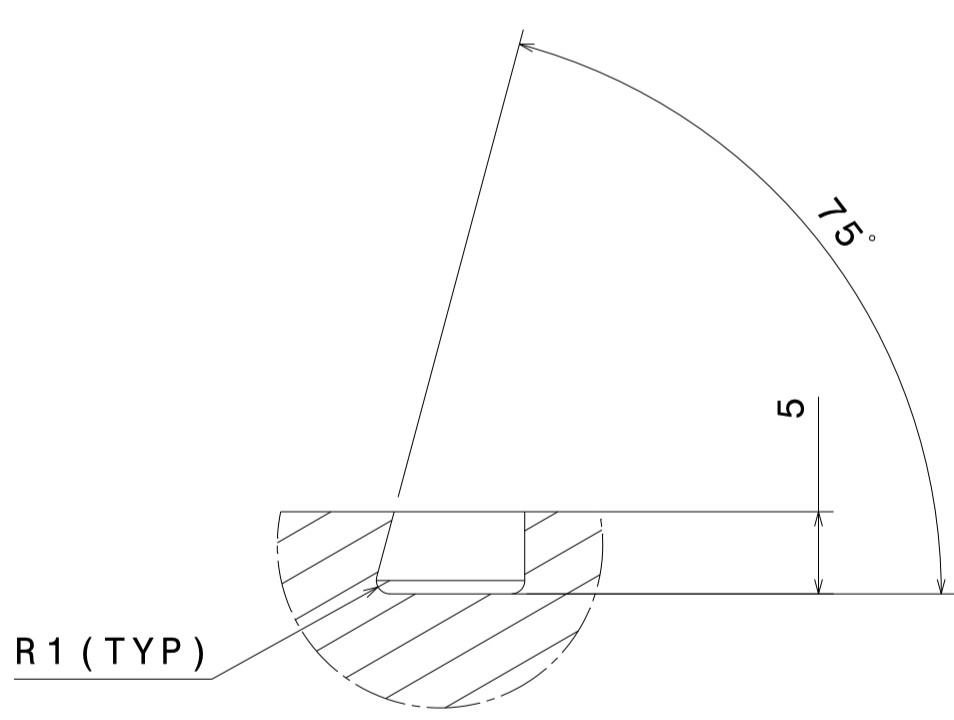
SECTION D-D

③ LIFTING LUG  
SCALE-1:1

MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.				
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED				
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	AS NOTED	DATE	TITLE	
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA		UPTO 6	6-30	30-120	120-315					DRAWN	A. N. N.	31/07/2015	END COVER SMALL	
UPTO 10	10-50	50-120	OVER 120-400	±0.1	±0.2	±0.3	±0.5					CHECKED	R. K.	REF DRG NO: VH01-001-R1	REV R1	
+1'	+0'-30'	+0'-20'	+0'-10'									APPROVED	M. K. G.	DRG. NO	VH01-006-R1	SHEET 02 OF 03

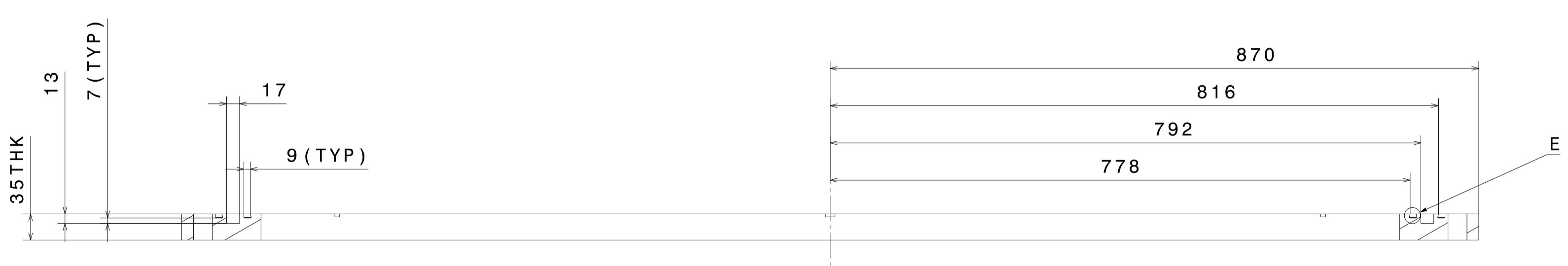


SECTION F-F  
SCALE 1:1



DETAIL VIEW-E  
SCALE 2:1

ALL THE TOLERANCES AND ROUGHNESS OF THIS FLANGE ARE SIMILAR TO GROOVED FLANGE OF DRAWING NO VH01-004-R1

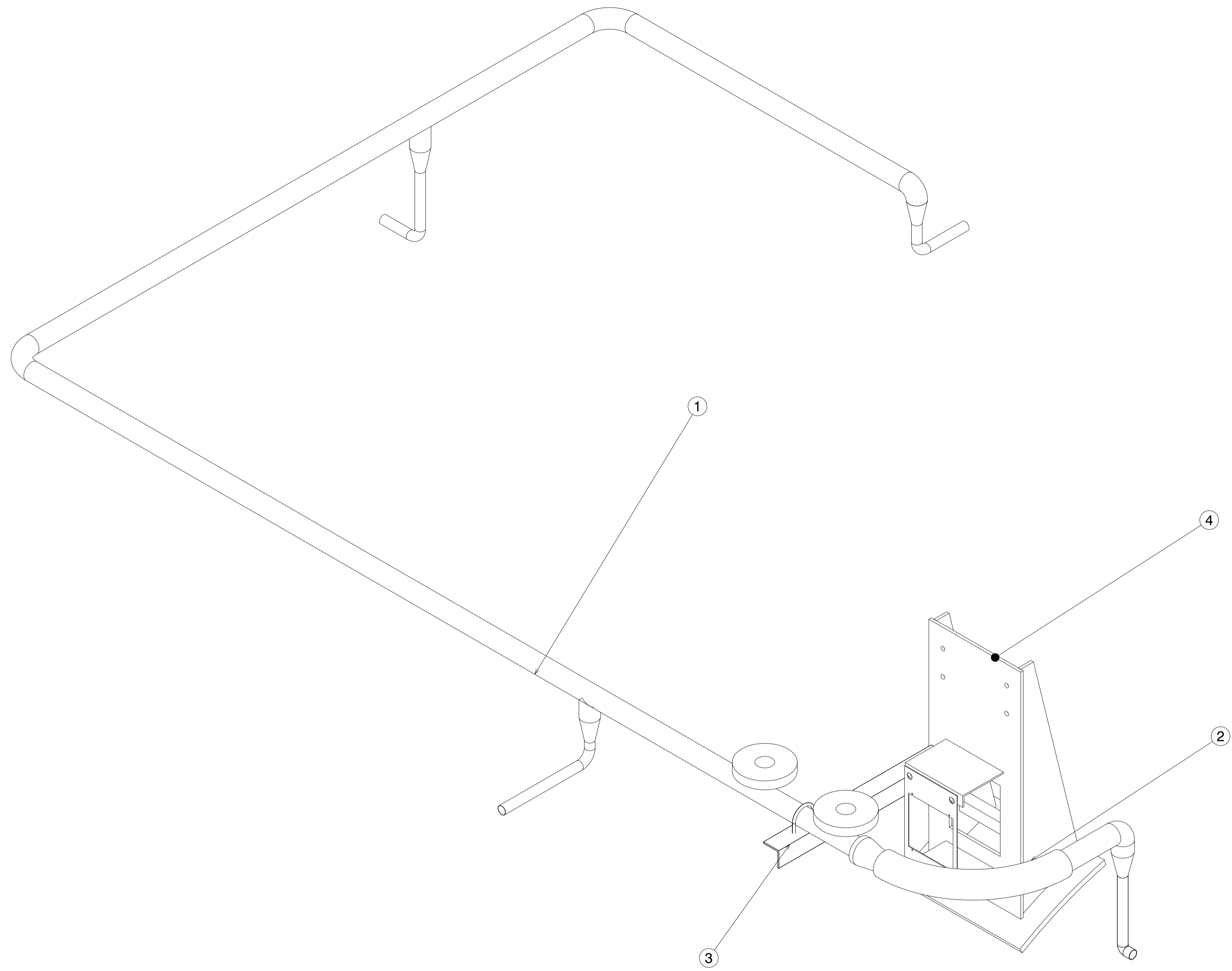


SECTION D-D

② FLANGE GROOVED (60.5" ID)  
SCALE - 1:5

MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.					
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED					
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE 1:5		DATE	TITLE		
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA		UPTO 6	6-30	30-120	120-315					DRAWN	A.N.N.	31/07/2015	END COVER SMALL		
UPTO 10	10-50	50-120	OVER 120-400		±0.1	±0.2	±0.3	±0.5					CHECKED	R.K.	REF DRG NO: VH01-001-R1	REV R1	
+1'	+0'-30'	+0'-20'	+0'-10'										APPROVED	M.K.G.	DRG. NO	VH01-006-R1	SHEET 03 OF 03

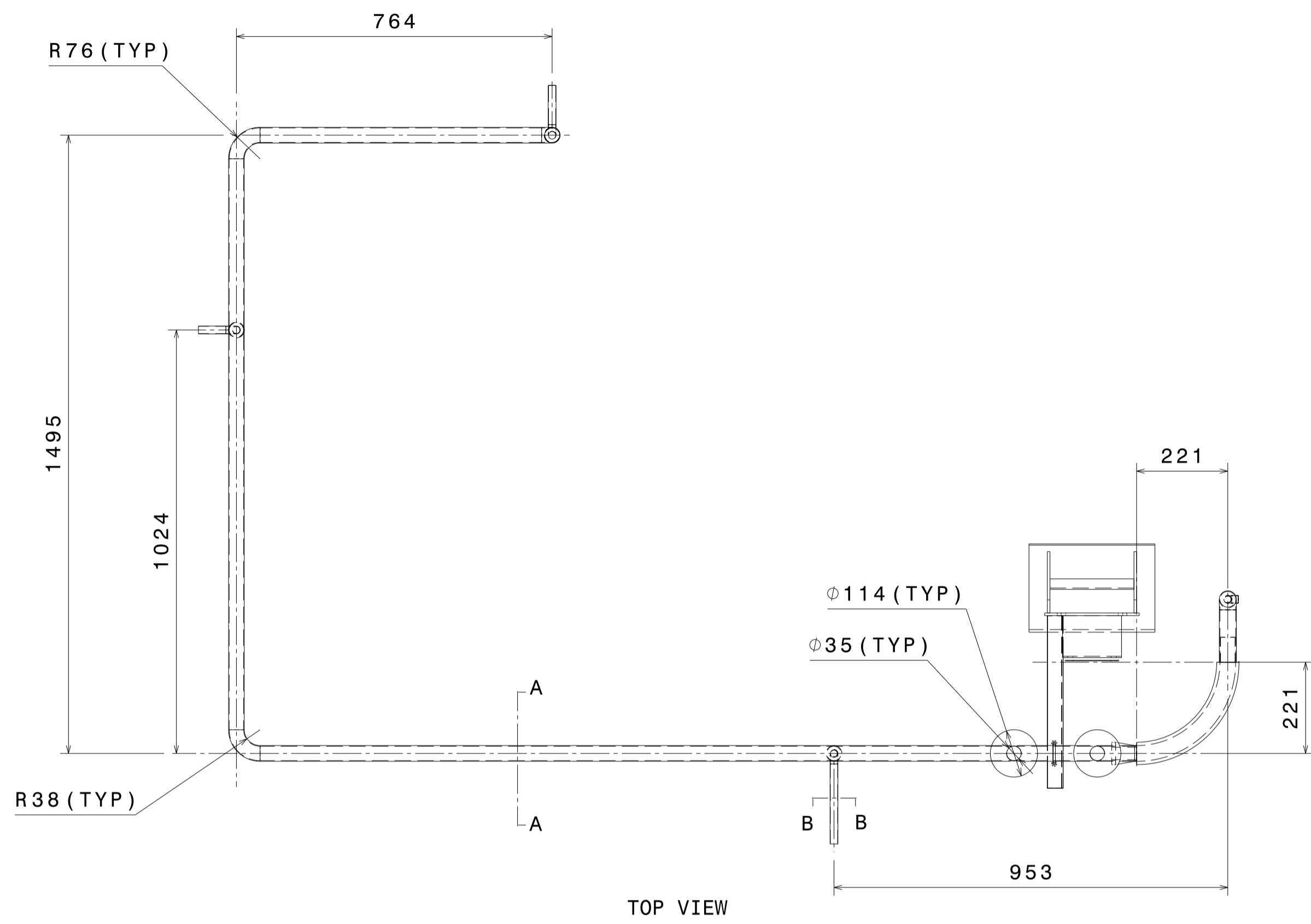




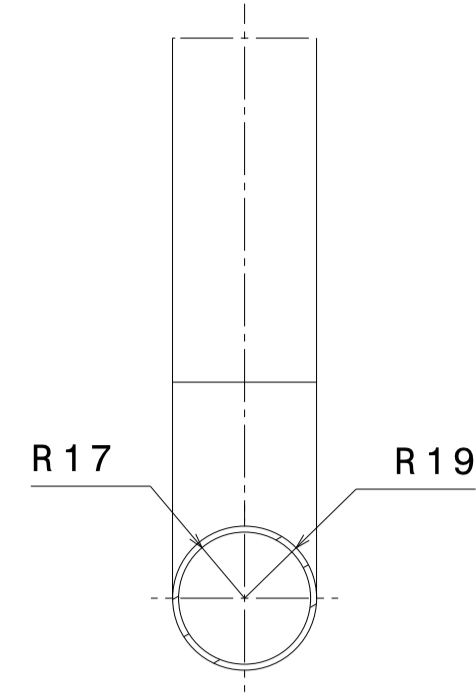
⑥ ANNULUS TUBING ASSEMBLY

PART NO.	QUANTITY	PART NAME	MATERIAL	REF. DWG. NO.	REMARK
4	01	75 I/S ION PUMP SUPPORT	SS304L	VH01-007-R1/SHEET 03/04	-
3	01	ANNULUS TUBE SHIPPING SUPPORT	SS304L	VH01-007-R1/SHEET 03	-
2	01	ANNULUS FLEX HOSE	SS304L	VH01-007-R1/SHEET 02	-
1	01	TUBING ASSEMBLY	SS304L	VH01-007-R1/SHEET 02	-

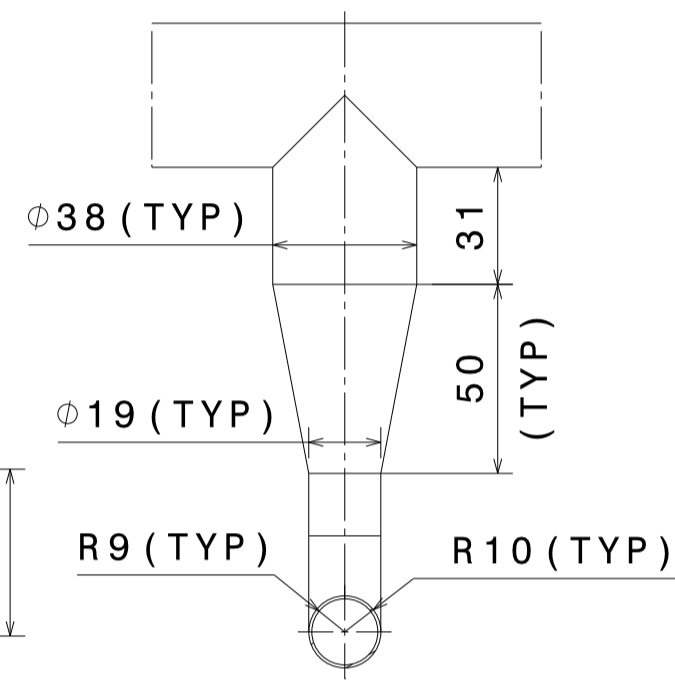
MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.					
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED					
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	1:10	DATE	TITLE		
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315					DRAWN	A. N. N.	01/08/2015	ANNULUS TUBING ASSEMBLY	
UPTO 10	10-50	50-120	OVER 120-400										CHECKED	R.K.	REF DRG NO: VH01-001-R1	REV R1	
+1'	+0'-30'	+0'-20'	+0'-10'		+0.1	+0.2	+0.3	+0.5					APPROVED	M.K.G.	DRG. NO	VH01-007-R1	SHEET 01 OF 04



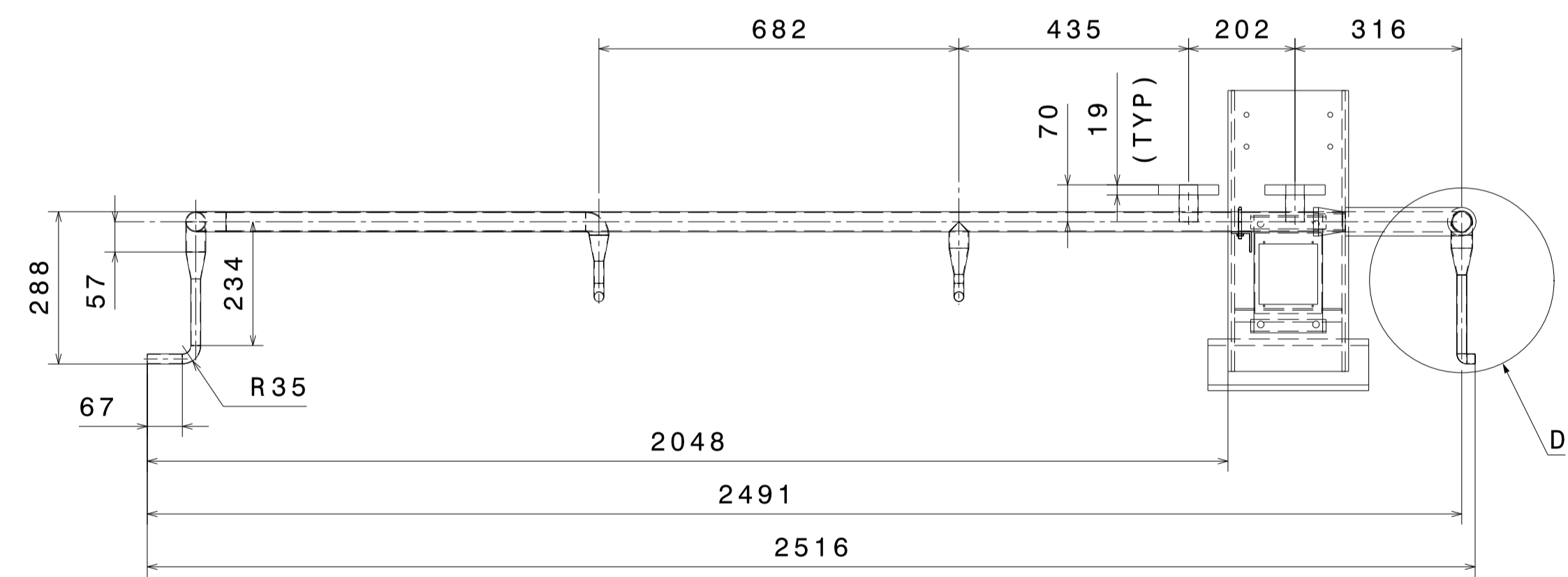
TOP VIEW



SECTION A-A  
SCALE-1:2

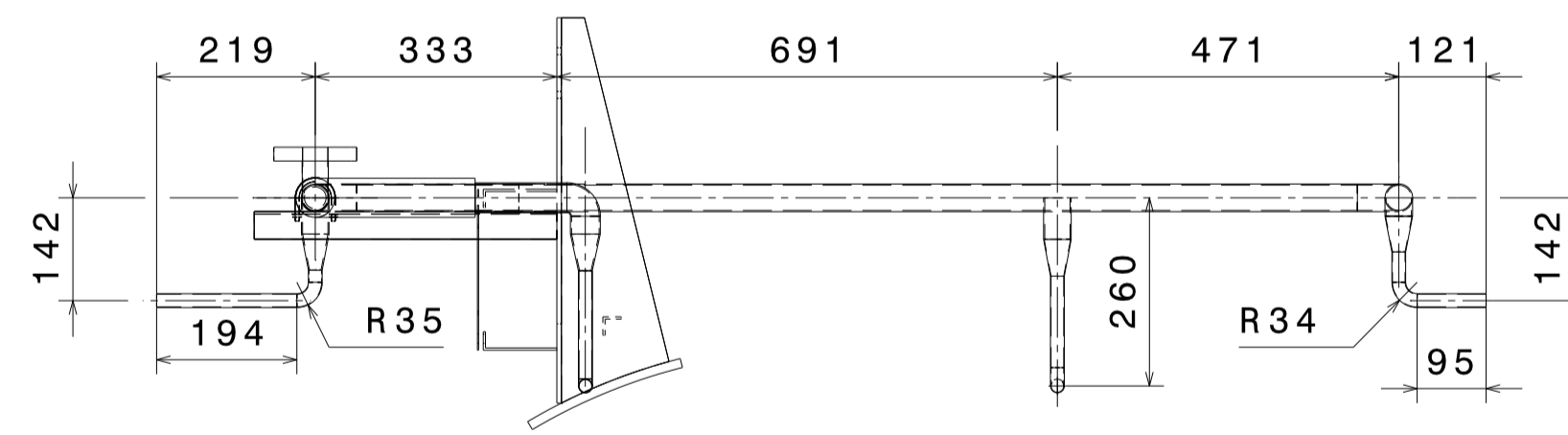


SECTION B-B  
SCALE-1:2

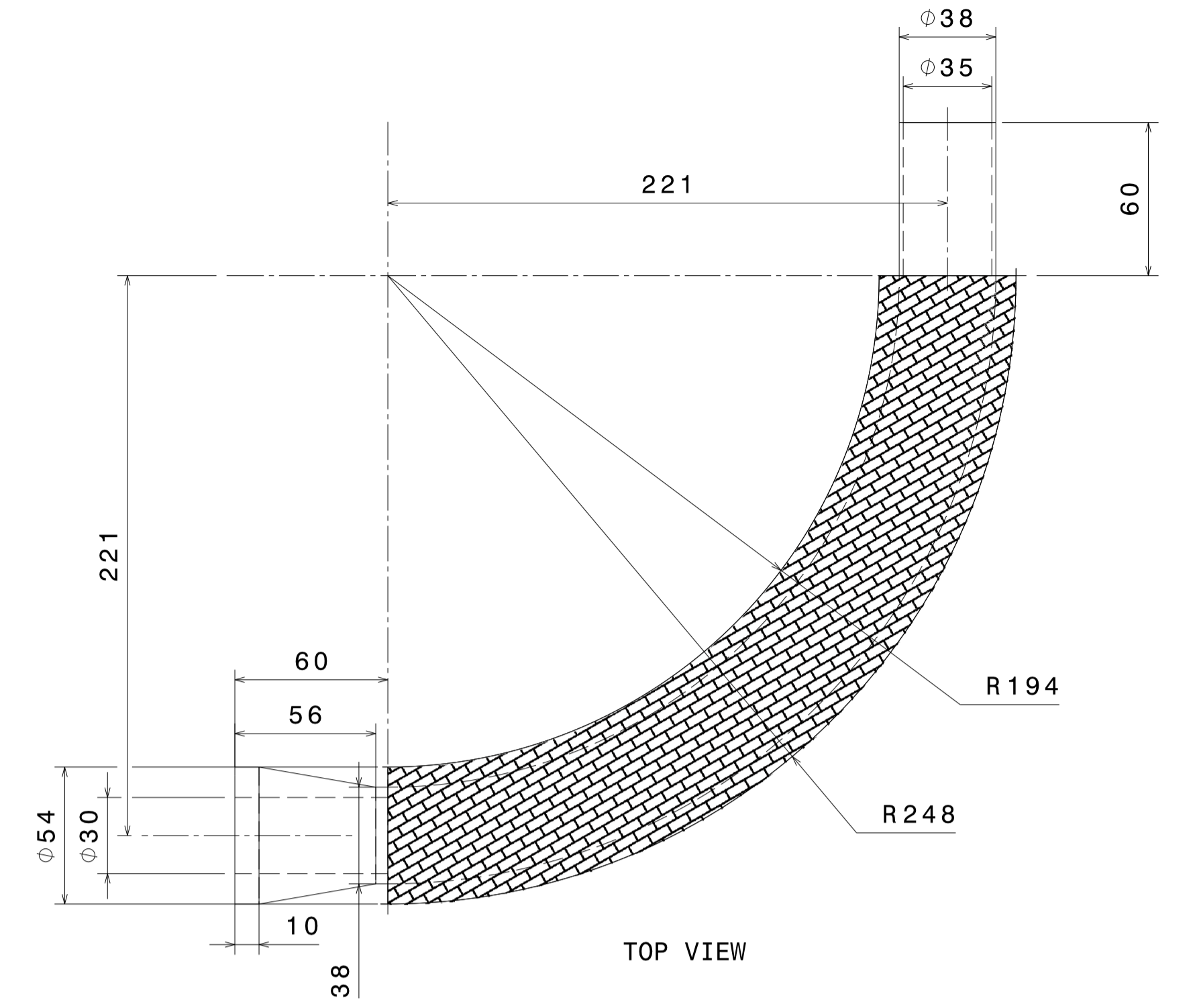


FRONT VIEW

① TUBING ASSEMBLY  
SCALE-1:10

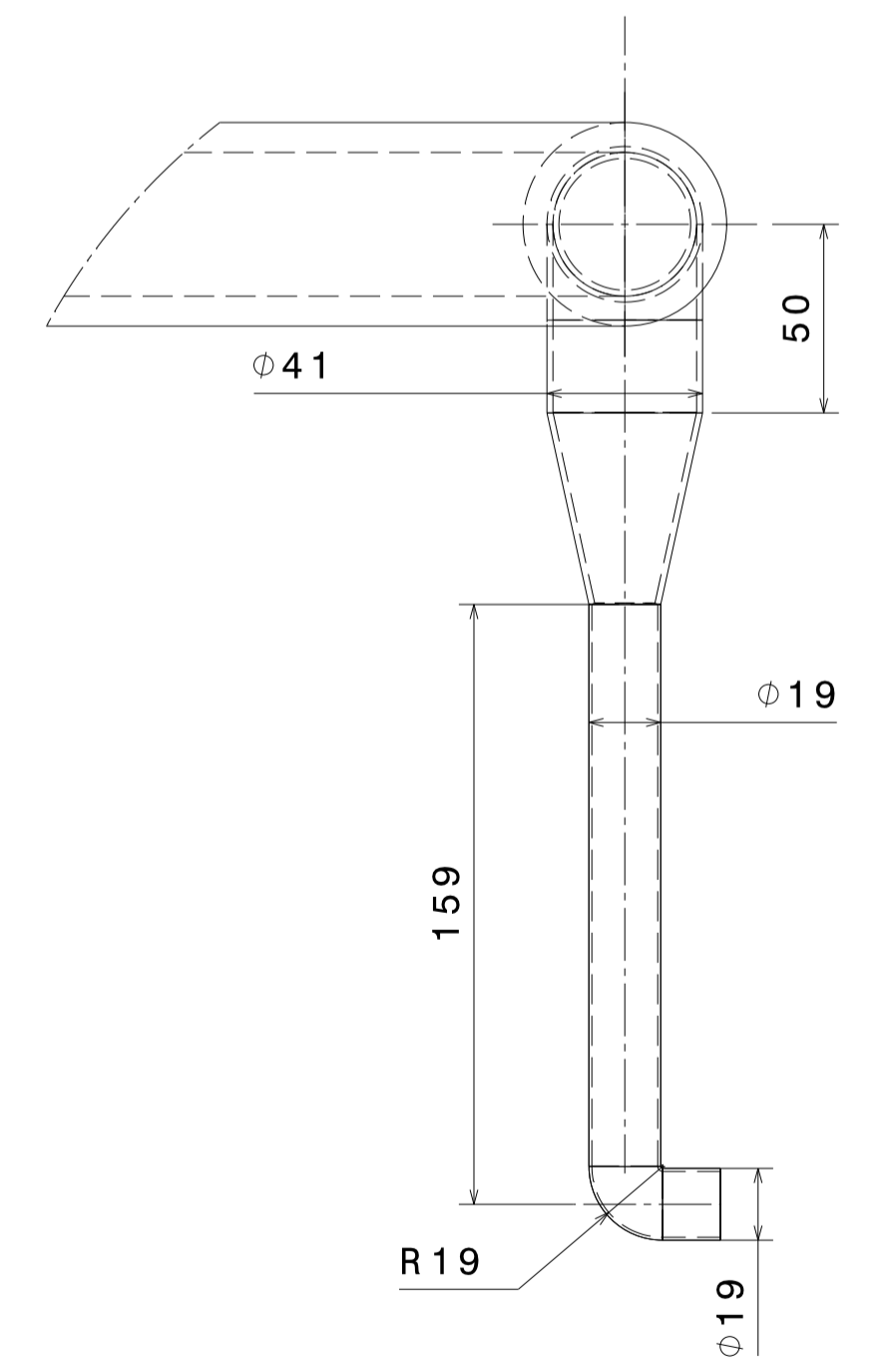


SIDE VIEW



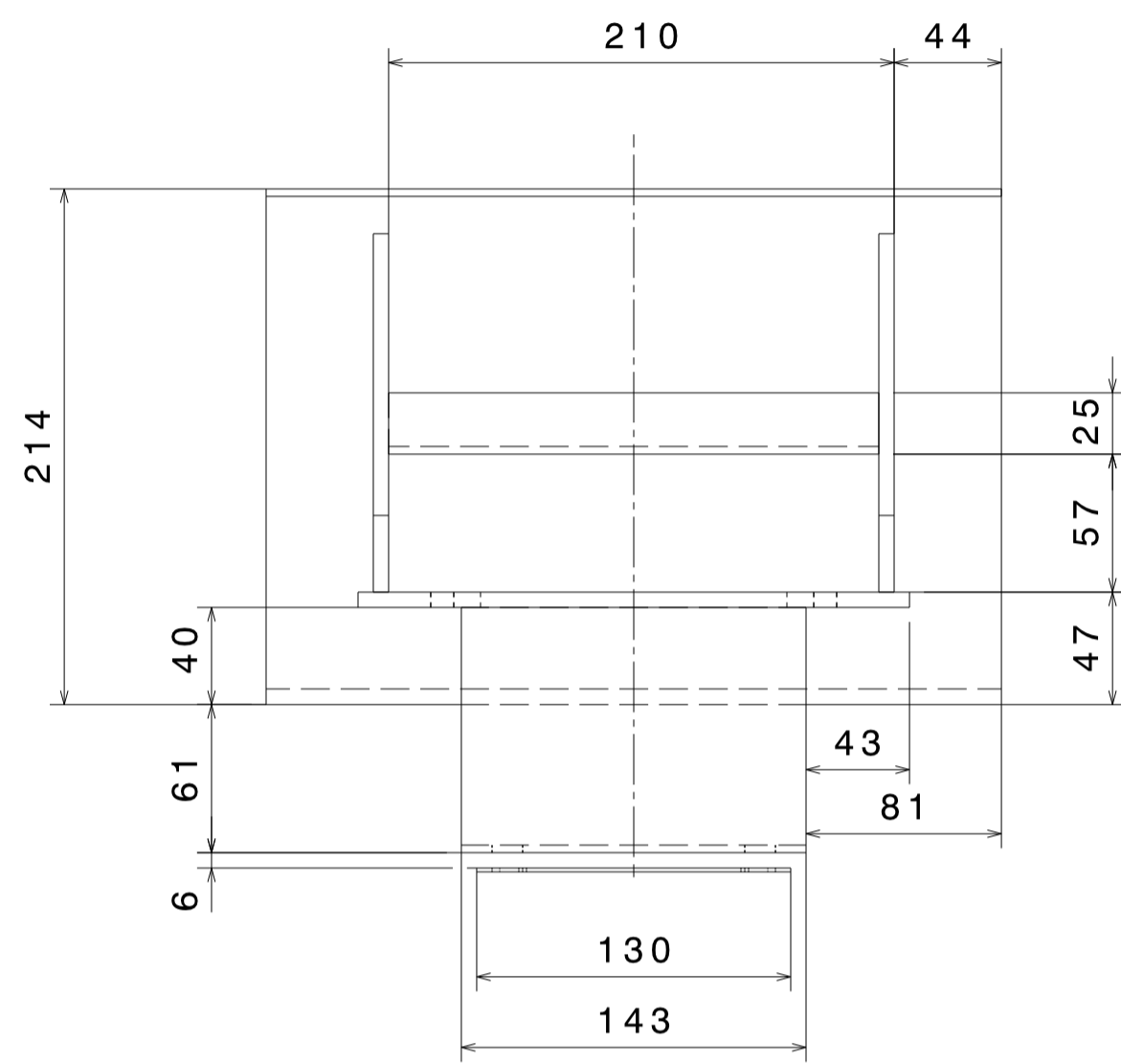
TOP VIEW

② ANNULUS FLEX HOSE  
SCALE-1:2

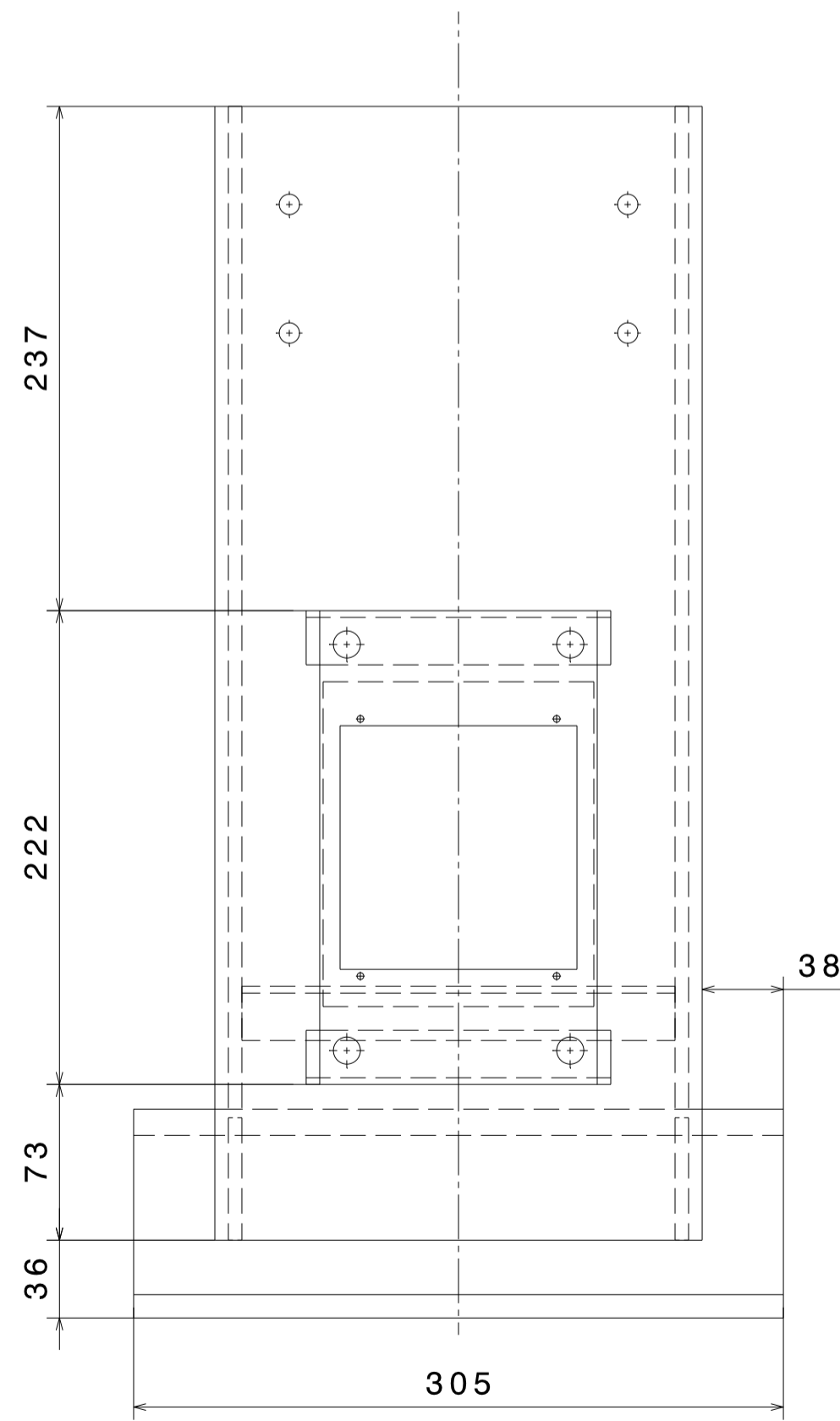


DETAIL VIEW-D  
SCALE-1:2

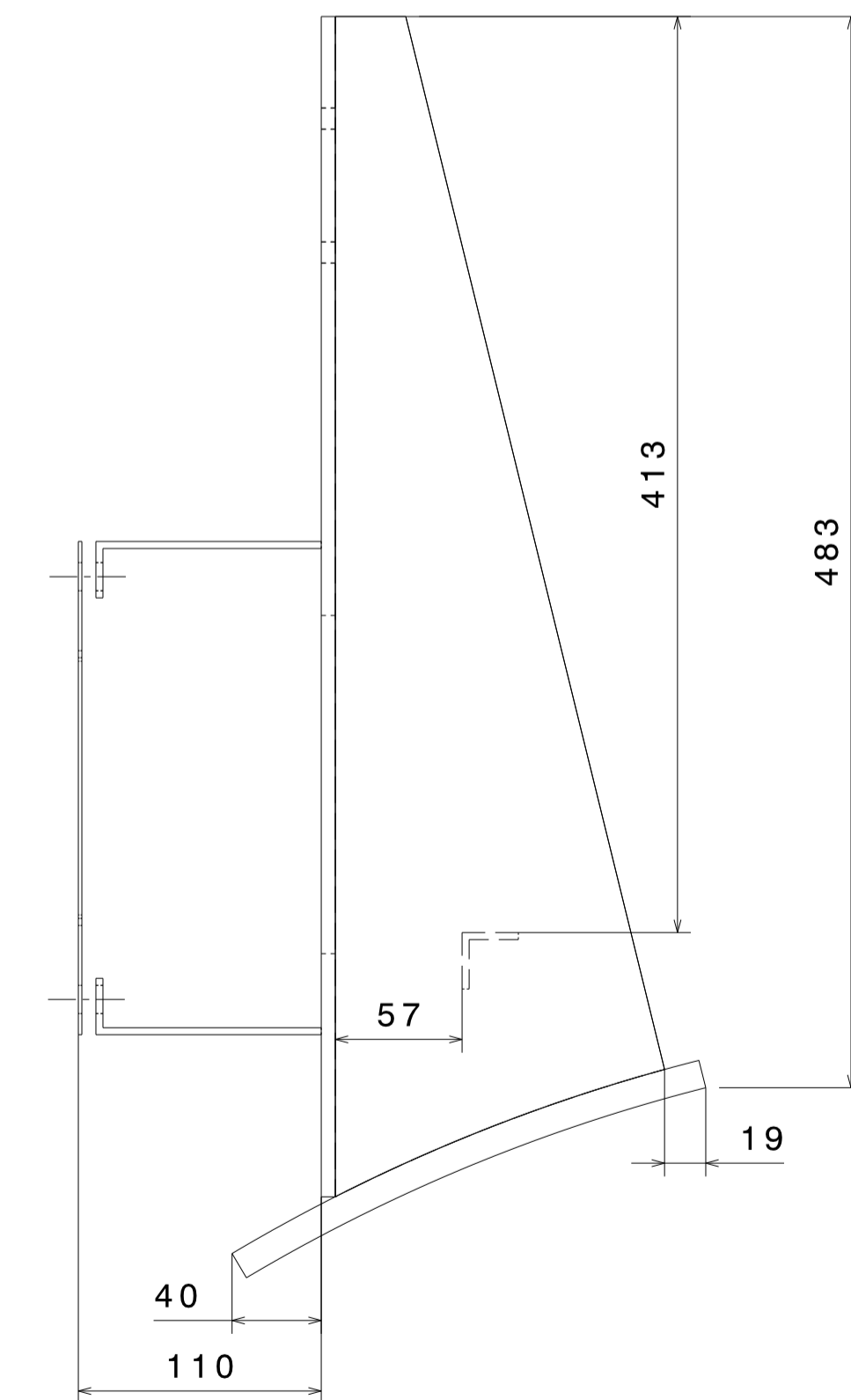
MATERIAL:		REVISION COLUMN				MED		SIZE	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)	
CO-ORDINATED BY		REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	A1	BHAT, GANDHINAGAR-382 428.	
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS										
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315	SCALE		TITLE	
UPTO 10	10-50	50-120	OVER 120-400	+0.1	+0.2	+0.3	+0.5	AS NOTED	DATE	ANNULUS TUBING ASSEMBLY
+1'	+0'-30'	+0'-20'	+0'-10'					DRAWN	A. N. N.	01/08/2015
								CHECKED	R. K.	REF DRG NO: VH01-001-R1
								APPROVED	M. K. G.	DRG. NO
										VH01-007-R1
										REV R1
										SHEET 02 OF 04



TOP VIEW

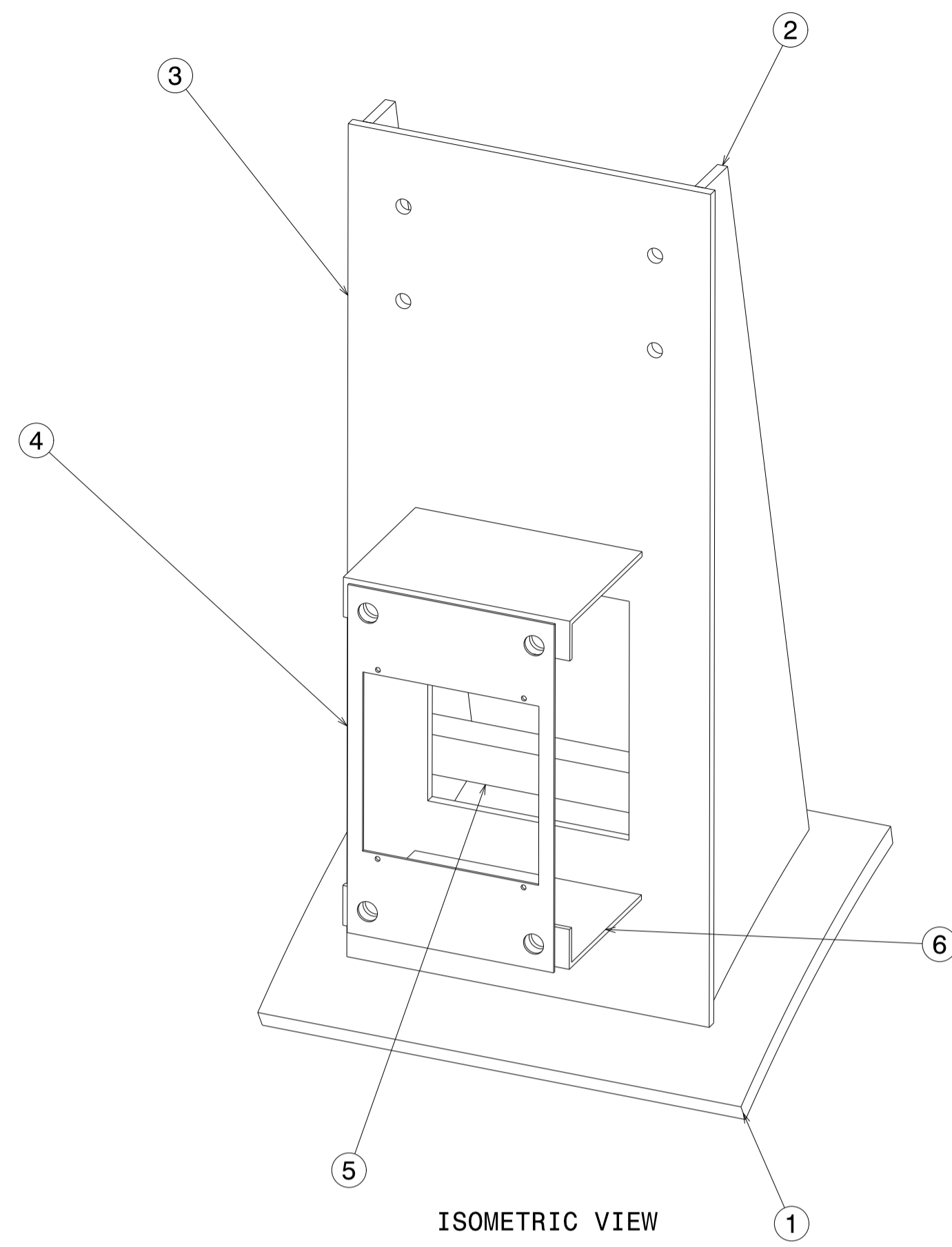


FRONT VIEW

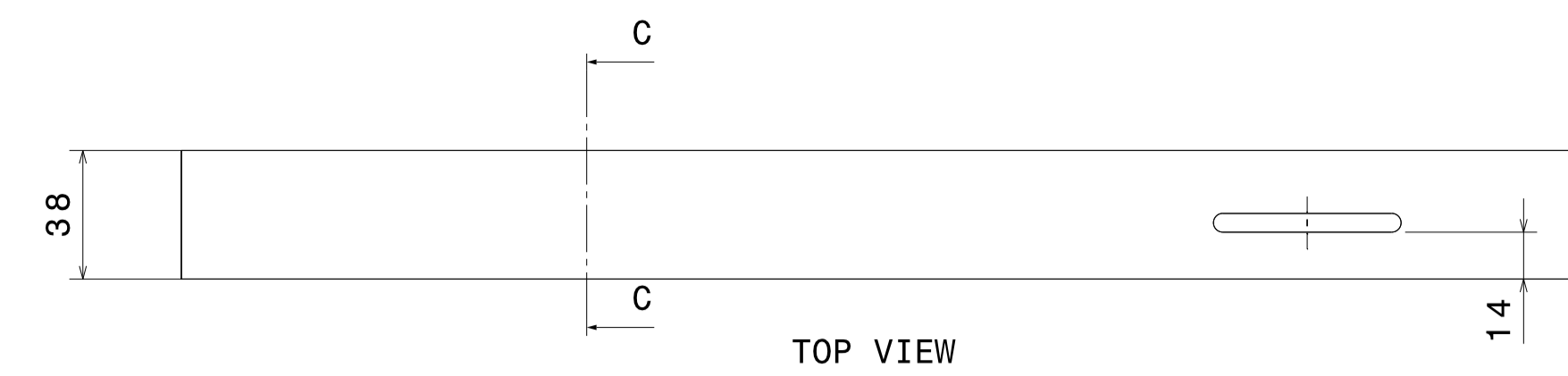


SIDE VIEW

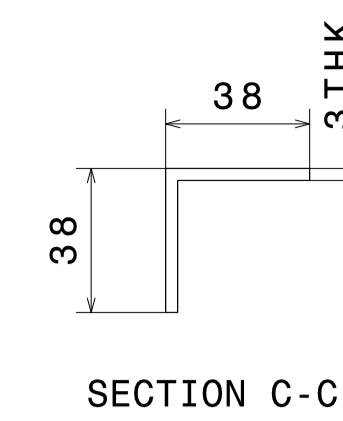
④ 75 I/S ION PUMP SUPPORT  
SCALE - 1:3



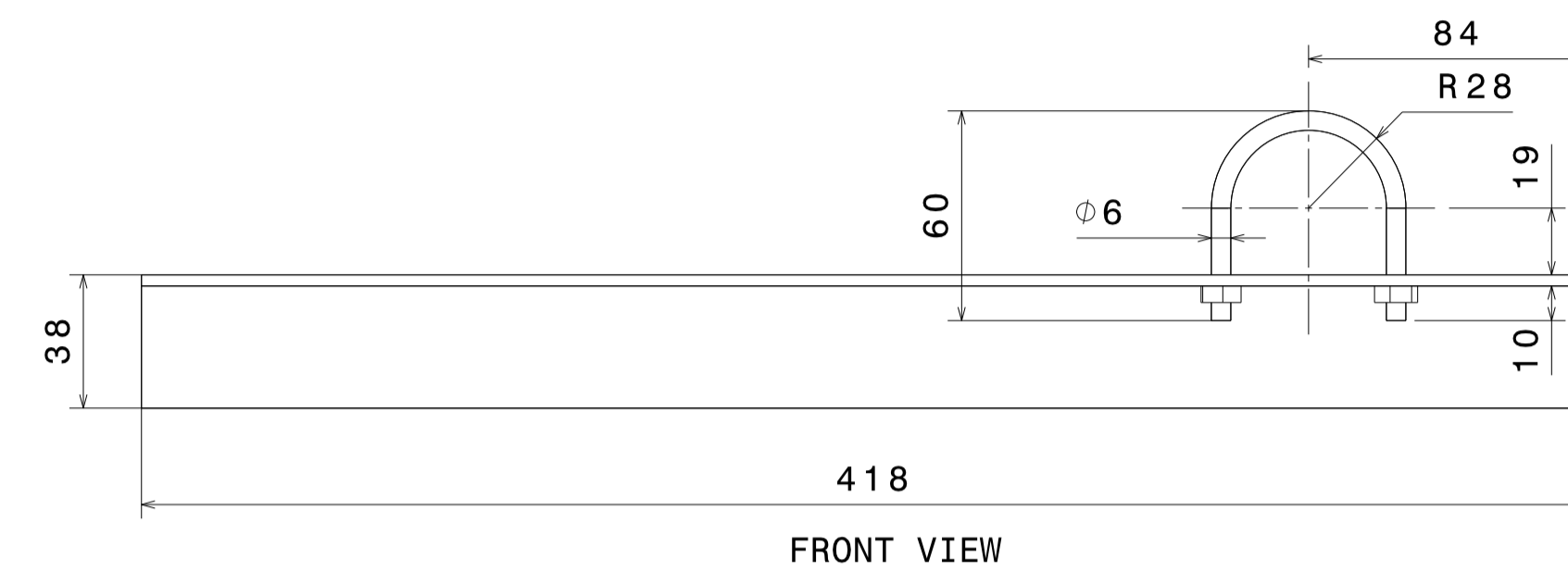
ISOMETRIC VIEW



TOP VIEW



SECTION C-C



FRONT VIEW

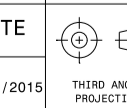
③ ANNULUS TUBE SHIPPING SUPPORT  
SCALE - 1:2

PART NO.	QUANTITY	PART NAME	MATERIAL	REF. DWG. NO.	REMARK
6	02	L - PLATE	SS304L	VH01 - 007 - R1 / SHEET 04	-
5	01	L - CHANNEL	SS304L	VH01 - 007 - R1 / SHEET 04	-
4	01	PLATE - 4	SS304L	VH01 - 007 - R1 / SHEET 04	-
3	01	PLATE - 3	SS304L	VH01 - 007 - R1 / SHEET 04	-
2	02	PLATE - 2	SS304L	VH01 - 007 - R1 / SHEET 04	-
1	01	PLATE - 1	SS304L	VH01 - 007 - R1 / SHEET 04	-

MATERIAL:		REVISION COLUMN				MED	SIZE	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)							
▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED	DATE	TITLE	REF. DWG. NO.	REV	REMARK
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS										SCALE	1:5	ANNULUS TUBING ASSEMBLY	VH01-001-R1	R1	
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRAWN	A. N. N.	01/08/2015	ANNULUS TUBING ASSEMBLY	VH01-001-R1	R1	
UPTO 10	10-50	50-120	OVER 120-400	±0.1	±0.2	±0.3	±0.5	CHECKED		R. K.			VH01-001-R1	R1	
+1'	+0'-30'	+0'-20'	+0'-10'					APPROVED		M. K. G.			VH01-007-R1		



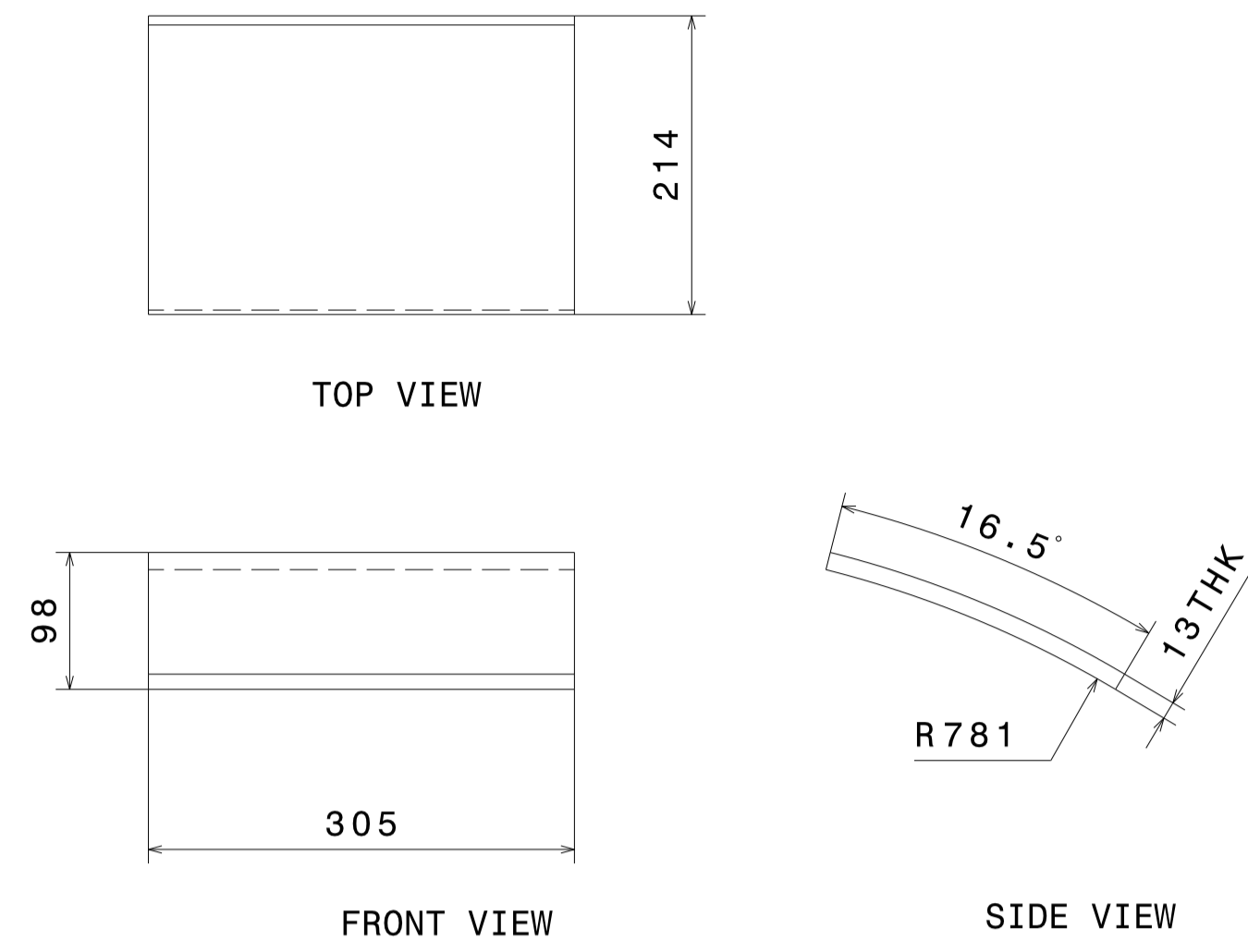
INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA)  
BHAT, GANDHINAGAR-382 428.



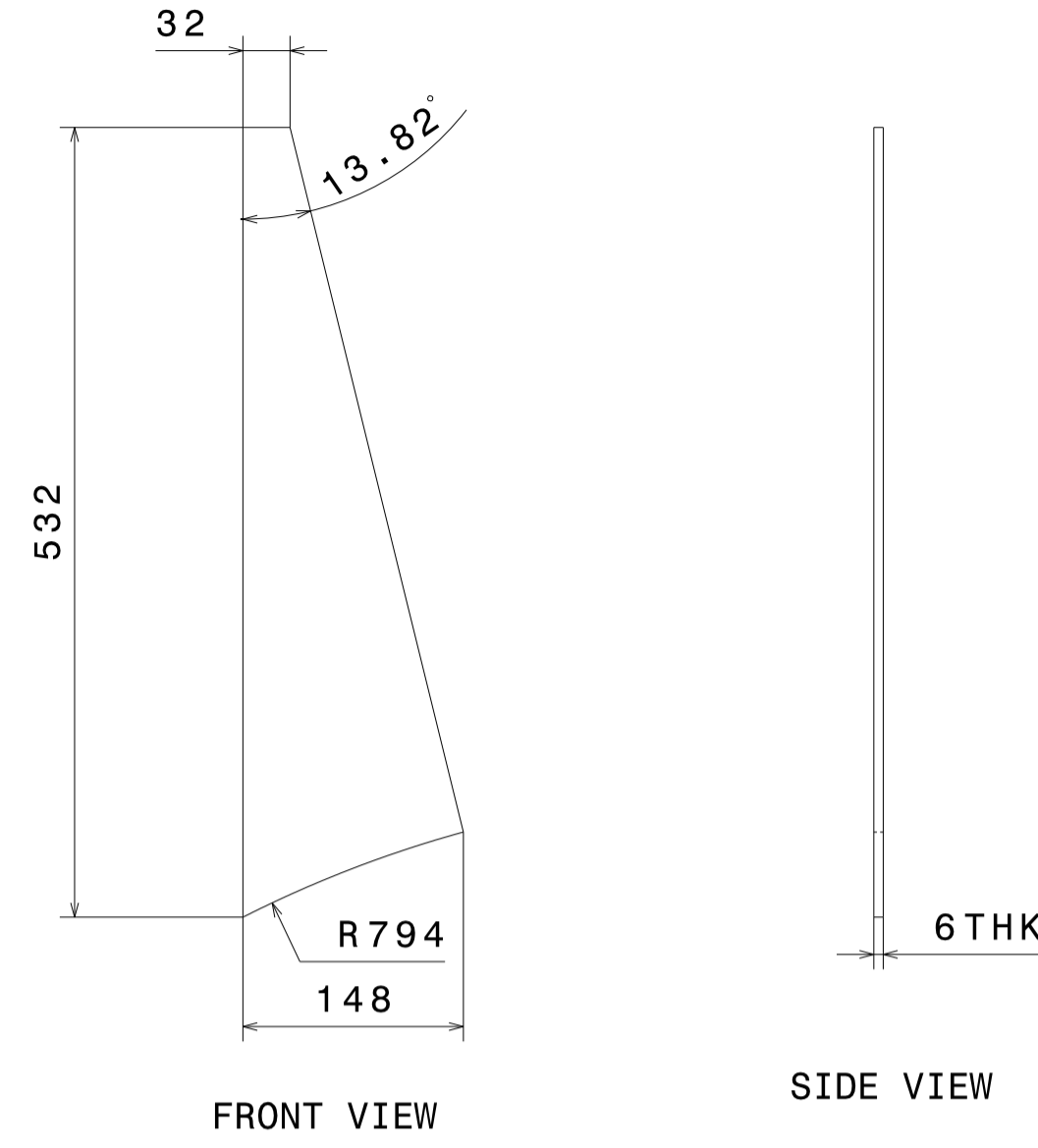
ANNULUS TUBING ASSEMBLY

REF. DWG. NO. VH01-001-R1

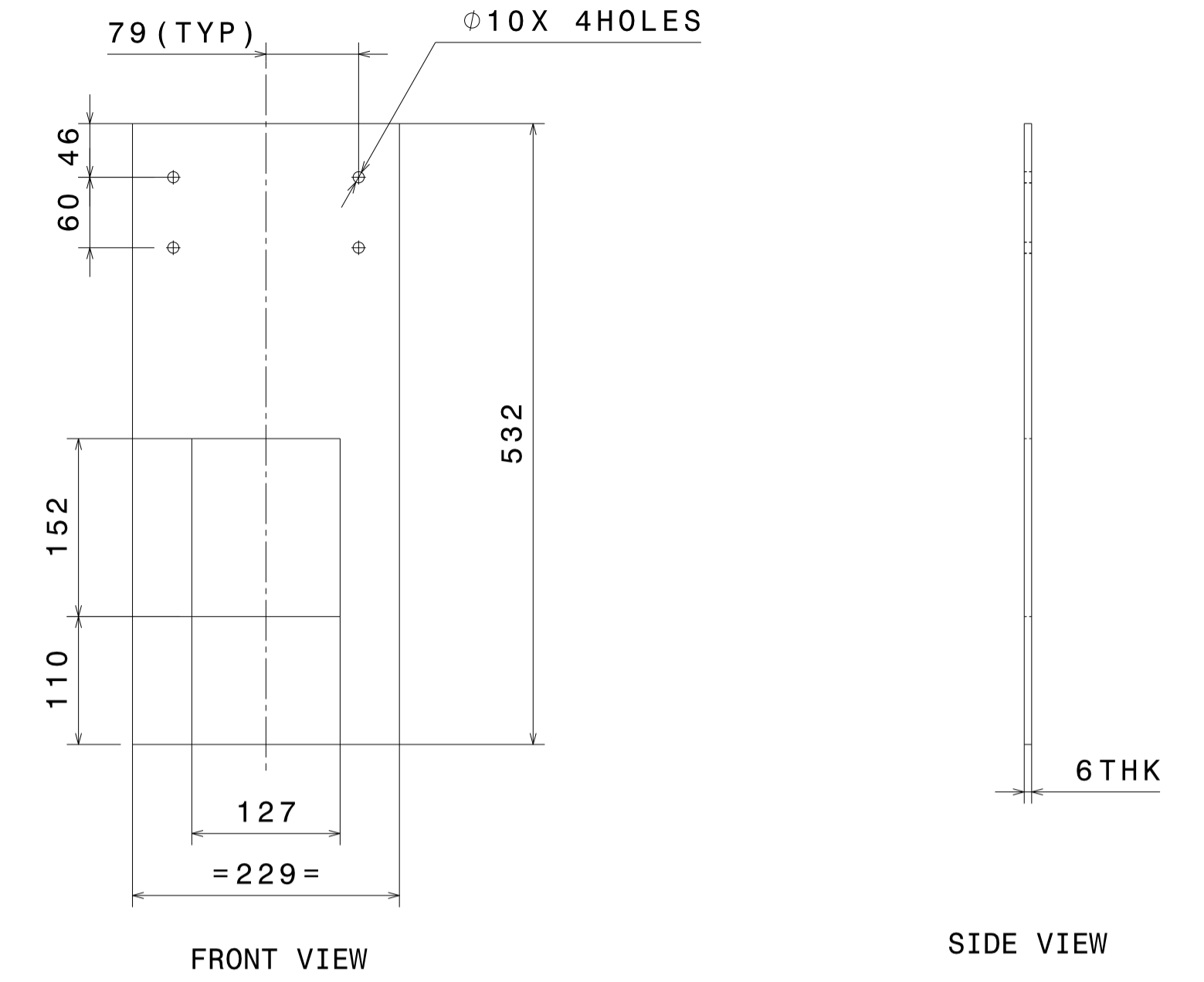
REV R1  
SHEET 03 OF 04



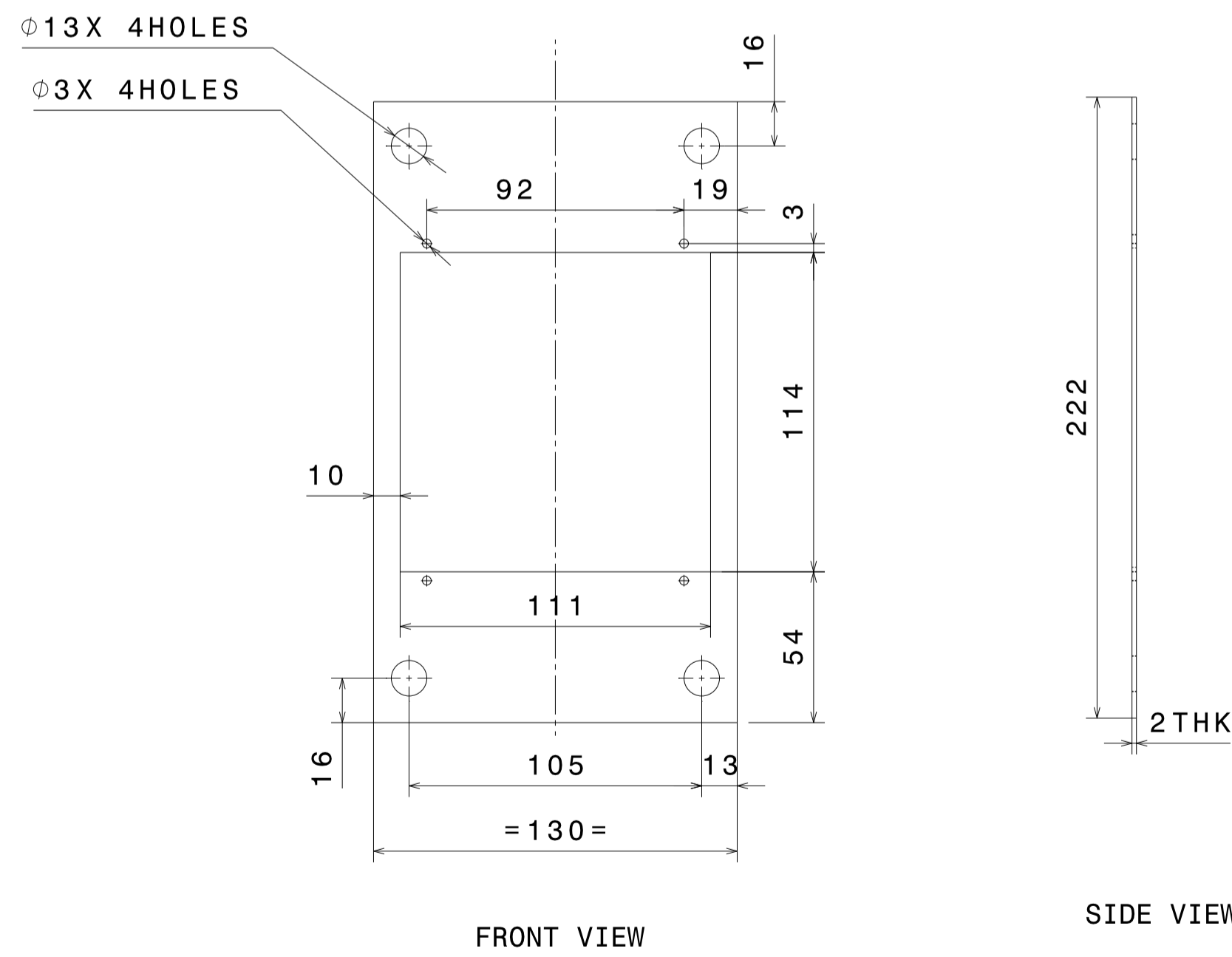
① PLATE-1  
SCALE - 1:5



② PLATE-2  
SCALE - 1:5



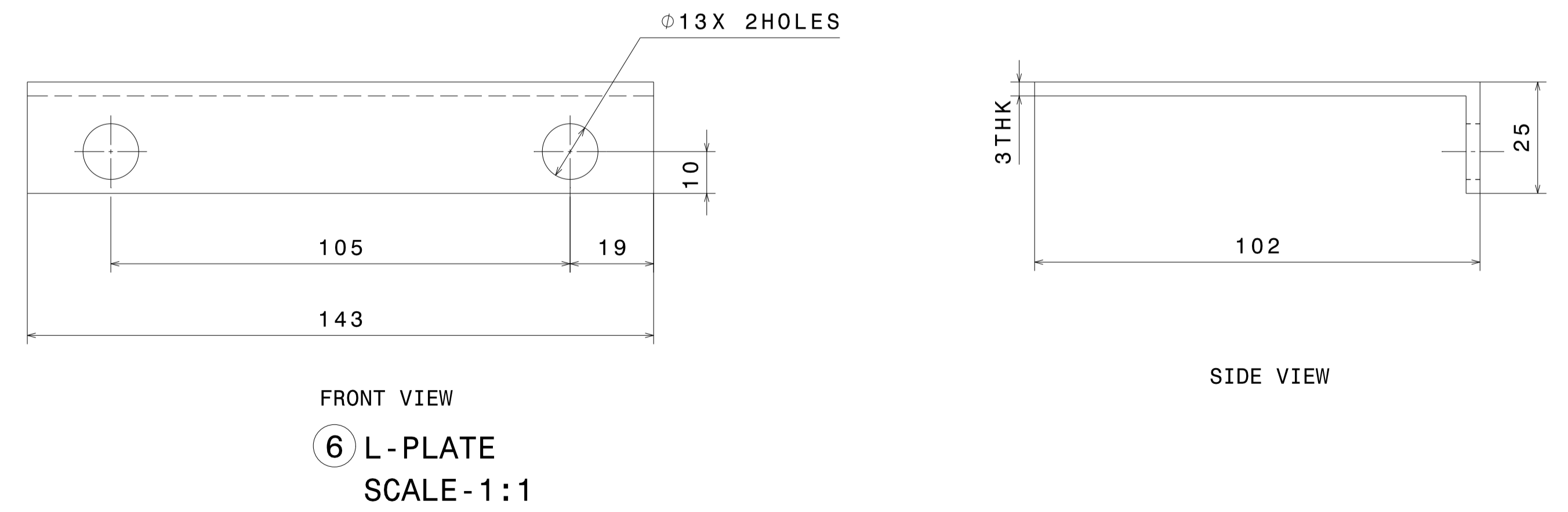
③ PLATE-3  
SCALE - 1:5



④ PLATE-4  
SCALE - 1:2



⑤ L-CHANNEL  
SCALE - 1:1



⑥ L-PLATE  
SCALE - 1:1

MATERIAL:		▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN				MED	SIZE A1	INSTITUTE FOR PLASMA RESEARCH (LIGO-INDIA) BHAT, GANDHINAGAR-382 428.			
CO-ORDINATED BY						REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN "mm" UNLESS OTHERWISE STATED			
MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS												SCALE	AS NOTED	DATE	TITLE
LENGTH IN mm OF SHORTER SIDE OF ANGLES		LENGTH OR DIA	UPTO 6	6-30	30-120	120-315						DRAWN	A. N. N.	01/08/2015	ANNULUS TUBING ASSEMBLY
UPTO 10	10-50	50-120	OVER 120-400								CHECKED	R. K.	REF DRG NO:	VH01-001-R1	REV R1
+1'	+0'-30'	+0'-20'	+0'-10'								APPROVED	M. K. G.	DRG. NO	VH01-007-R1	SHEET 04 OF 04