INSTITUTE FOR PLASMA RESEARCH

An Aided institute of department of Atomic Energy, Govt. of India)
Near Indira Bridge, Bhat. DIST.GANDHINAGAR - 382 428 (INDIA)
PHONE :(079-2396 2000),FAX :91-079-23962277
Web : www.ipr.res.in

MINOR FABRICATION WORKS
ENQUIRY

Office Copy

ENQUIRY NO :IPR/MFW/21-22/109
Date : 13-09-2021
Due Date : 30-09-2021 13:00 IST

Please send your offer in sealed envelope specifying Inquiry No, Date & Due Date, ALONG WITH your credentials for the following items:

Important Note:

Please note that e-mail quotations are not acceptable however you may send your queries (if any) to **sunilg@ipr.res.in**

Please Ensure that your sealed quotation reaches this office not later than above mentioned due date and time.

Kindly go through the following document properly before Quoting which are available on the IPR web portal i.e., http://www.ipr.res.in/documents/tenders.html/ attached here with.

1. Technical specification as enclosed.
2. Instruction to the bidders & terms and Condition (refer Form NO:**IPR-MFW-01-V1**)
3. Bidding format(refer Biddingformat MFW-Bid.pdf)

GST fro Goods and Services (IGST/CGST/SGST TAX BENEFITS): PLEASE REFER clause no:8 of Form No:**IPR-MFW-01-V1**

QUOTATION SHOULD BE ADDRESSED TO **SUNIL KUMAR** ONLY.

Sr.No.	Description	Quantity	Rate
1	Various UHV CF flanges and Components as per drawing	1	No.

Free Issue Material

Sr.No.	Description	Quantity	Unit	Value

Note : Please quote with complete technical details (Technical Compliance sheet and product data sheet)

Encl:As per attachment

Sd/-

AKumar

Technical specifications of various UHV CF flanges and Components as per drawing

Table-1: List of Components and quantity

Sr. No.	Component Code	Description of the component	Corresponding Drawing name and part number	Quantity
1	VS1	SS304L pipe with two CF flanges	Drawing Page-1, part all	1
2	VS2_DCB	SS304L CF flanges type -1 and 2	Page-2, part 1 & 2	1
3	VS3	SS304L pipe with two CF flanges	Page-3, part all	1
4	VS4	SS304L CF flanges type -1 and 2	Page-4, part 1 & 2	1
5	RFOC1	SS304L pipe with two circular flanges	Page-7, part 1 & 5	1
6	RFOC2	SS304L pipe with two circular flanges	Page-7, part 2, 3, 3A, 4	1
7	RFIC	SS304L pipe with one circular flange	Page-5 & 6, part 1 & 2	1
8	ICJ_1 & 2	SS304L Two part IC joint	Page-5 & 6, part 4 & 5	1
9	IC_RDC	SS304L reducer pipe	Page-5 & 6, part 6	1
10	OC_RDC	SS304L reducer pipe with two circular flanges	Page-8, part all	1
11	VS2_ DCB_ BUSH	Teflon Bush + Teflon Washer	Page-2, part 3 & 4	50
12	Aluminium CF gasket type-1	Aluminum OD=191.7mm, ID=172.7mm, thickness=3mm	xx	20
13	Aluminium CF gasket type-2	Aluminum OD=222mm, ID=203mm, thickness=3mm	xx	20
14	Antenna	SS304L curved geometrical component as per drawing	Page 9 & 10, all parts	1
15	Swagelok Connector	A 4mm dia hole to be made on part-1 of page-10&11 at midplane and at +/- 39 degrees from midplane. Four Swagelok ¼ inch SS316L connector to be supplied.	Page 9 & 10 part-1	4
16	IC Joint	Aluminum IC joint as per drawing	Page-11	1
17	VV-RP	Radial port: NOT TO BE MADE. Given for reference in the drawing	Page-1	xx

Table-2: Following should be executed only for components Sr. no. 1 to 10

1	Material	As mentioned in the table-1: 1. SS304L non-magnetic, UHV compatible , without defects, porosity, impurities etc. 2. Aluminum 3. Teflon
2	Pipe	Seamless
3	End flanges	Standard and non-standard CF type as per indicative drawing of CF knife edge as attached (page no. 9).
4	Welding	All flange joints shall be argon arc welding (TIG) welded from inside. They shall be machined and polished for the smoothness. Trapped volume should be avoided. Full penetration welds shall be employed.
5	Smooth transition	No sharp edges and abrupt transitions are acceptable. All sharp edges and weld joints to be rounded off and smoothed.
6	Electro-polish and Ultrasonic cleaning	Standard procedure for UHV with EP and UC to be followed
7	Packing	All the components should be properly packed with protection cover for CF knife edge and sent to IPR
8	Tests to be done at Factory by Vendor	1. Individual components shall be tested for dimensional checks. The acceptable tolerances are as per drawing. **2. Relative Magnetic permeability test < 1.05 (μ/μ_0).** **3. Components Sr. no. 1 to 4 having CF joints shall be tested for He leak rate less than $1x10^{-9}$ mbar.l/s for all CF joints, weld joints and body.** 4. Component Sr. no. 10 would be tested for 3bar dry air pressurization test by soap bubble method.
9	Tests to be done at IPR	1. Individual components shall be tested for dimensional checks. The acceptable tolerances are as per drawing. 2. Relative Magnetic permeability test < 1.05 (μ/μ_0). 3. Components Sr. no. 1 to 4 having CF joints shall be tested for He leak rate less than $1x10^{-9}$ mbar.l/s for all CF joints, weld joints and body. 4. Component Sr. no. 10 would be tested for 3bar dry air pressurization test by soap bubble method.
10	Acceptance Criteria	All the components shall be tested at IPR as per the list above. The **vendor has to take all corrective measures in case any of the components do not qualify the tests.** The vendor shall bear all the cost towards transportation, insurance and other charges for correcting the components.
11	Warranty/Guarantee	The vendor shall guarantee the quality of material and workmanship for a period of **ONE year from the date of acceptance**.

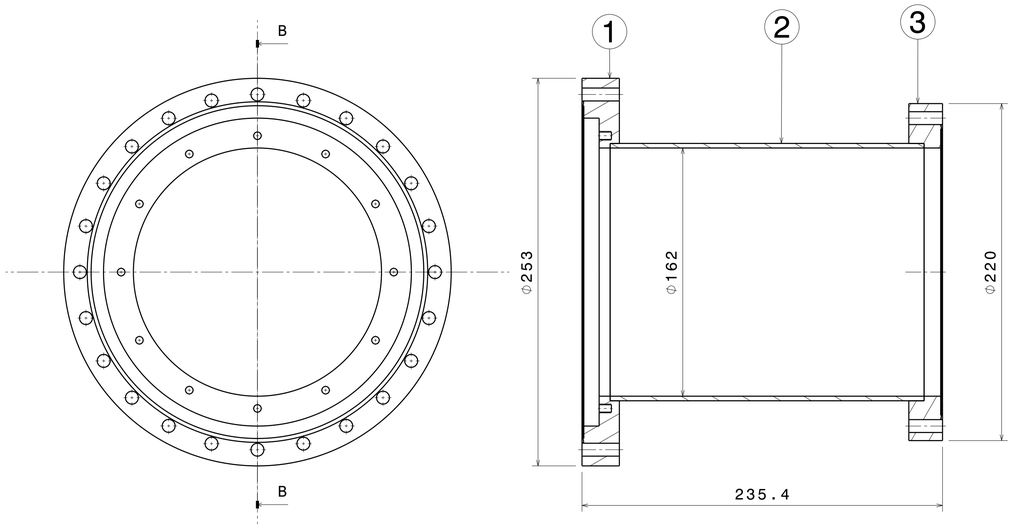
Compliance sheet

(To be filled by the vendor and to be sent along with the quotation)

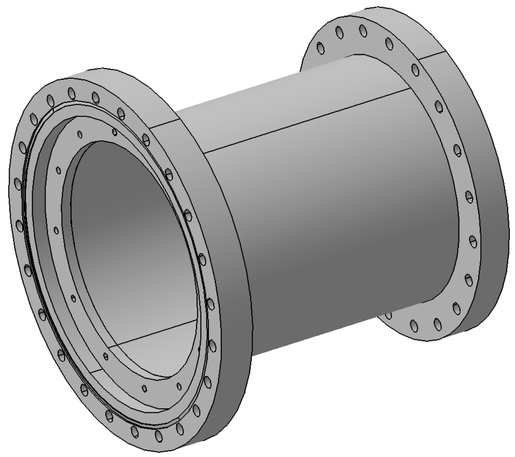
Vendors are requested to fill if they accept/fulfill the specifications/requirement. Any deviation/ suggestion **MUST clearly be mentioned** here vis-à-vis our specifications. Extra sheet may be used if required.

Sr.	Specifications	Required by IPR	Vendor's Specification
1	Material	SS304L non-magnetic, UHV compatible , without defects, porosity, impurities etc.	
2	Pipe	Seamless	
3	End flanges	Standard and non-standard CF type as per drawing.	
4	Welding	All flange joints shall be argon arc welding (TIG) welded from inside. They shall be machined and polished for the smoothness. Trapped volume should be avoided. Full penetration welds shall be employed.	
5	Smooth transition	No sharp edges and abrupt transitions are acceptable. All sharp edges and weld joints to be rounded off and smoothed.	
6	Electro-polish and Ultrasonic cleaning	Standard procedure for UHV to be followed	
7	Packing	All the components should be properly packed with protection cover for CF knife edge and sent to IPR	
8	Tests to be done at Factory by the vendor	1. Individual components shall be tested for dimensional checks. The acceptable tolerances are as per drawing. **2. Relative Magnetic permeability test < 1.05 (μ/μ_0).** **3.** Components Sr. no. 1 to 4 having CF joints shall be **tested for He leak rate Less than $1x10^{-9}$ mbar.l/s**	

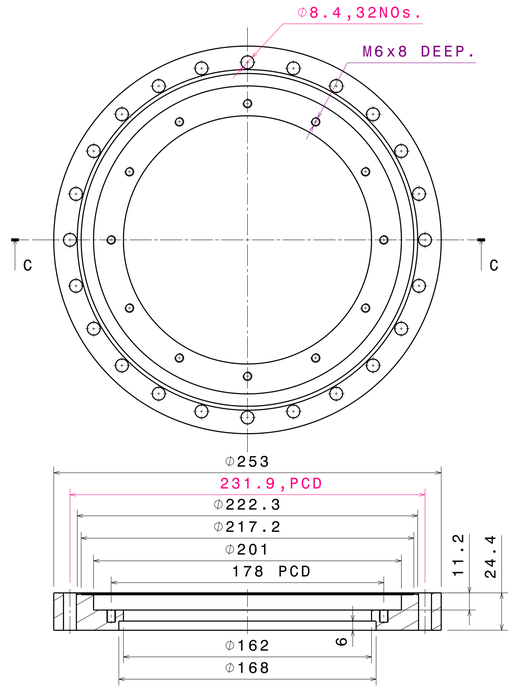
		for all CF joints, weld joints and body. 4. Component Sr. no. 10 would be tested for 3bar dry air pressurization test by soap bubble method.	
9	Tests to be done at IPR	1. Individual components shall be tested for dimensional checks. The acceptable tolerances are as per drawing. **2. Relative Magnetic permeability test < 1.05 (μ/μ_0).** 3. Components Sr. no. 1 to 4 having CF joints shall be tested for He leak rate Less than $1x10^{-9}$ mbar.l/s for all CF joints, weld joints and body. 4. Component Sr. no. 10 would be tested for 3bar dry air pressurization test by soap bubble method.	
10	Acceptance Criteria	All the components shall be tested at IPR as per the list above. The vendor has to take all corrective measures in case any of the components do not qualify the tests. The vendor shall bear all the cost towards transportation, insurance and other charges for correcting the components.	
11	Warranty/Guarantee	The vendor shall guarantee the quality of material and workmanship for a period of **ONE year from the date of acceptance**.	



VS1 (VACUUM SECTION-1)



Isometric view
Scale: 1:2



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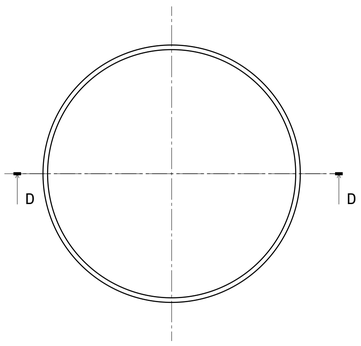

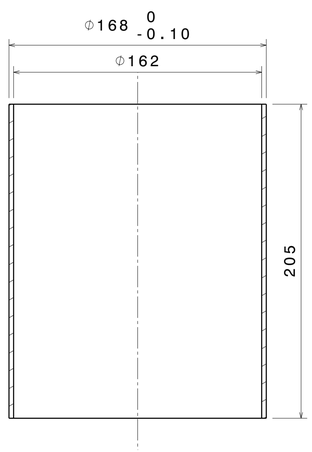

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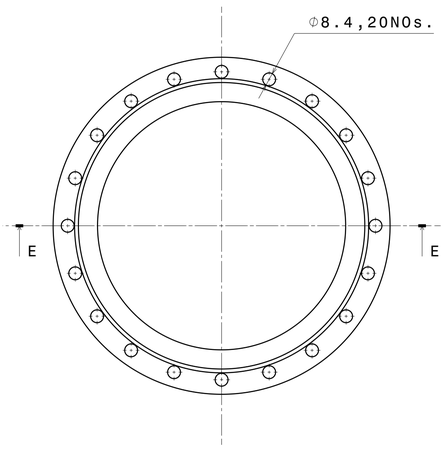
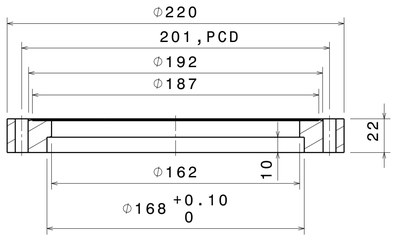




3

Item No.	Part Name	Qty.	Material	Weight	Revision
3	VTL-01_OUT_FL2	1	SS 304L	2.62kg	-
2	VTL-01_OUT_PIPE	1	SS 304L	2.506kg	-
1	VTL-01_OUT_200CF	1	SS 304L	4.302kg	-

DRG.NO | ▽ 8-25 | ▽▽ 1.6-8 | ▽▽▽ 0.025-1.6 | ▽▽▽▽ < 0.025

CO-ORDINATED 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
UPTO 10	10-50	50-120	OVER 120-400					
±1°	±0°-30'	±0°-20'	±0°-10'		±0.1	±0.2	±0.3	±0.5

REVISION COLUMN

REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY

ASS'Y GROUP: | SIZE A1

ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED

INSTITUTE FOR PLASMA RESEARCH
BHAT, GANDHINAGAR-382 428.

SCALE - | DATE

TITLE: VACUUM SECTION (VS1)

THIRD ANGLE PROJECTION

DRAWN VRP 27-02-2019

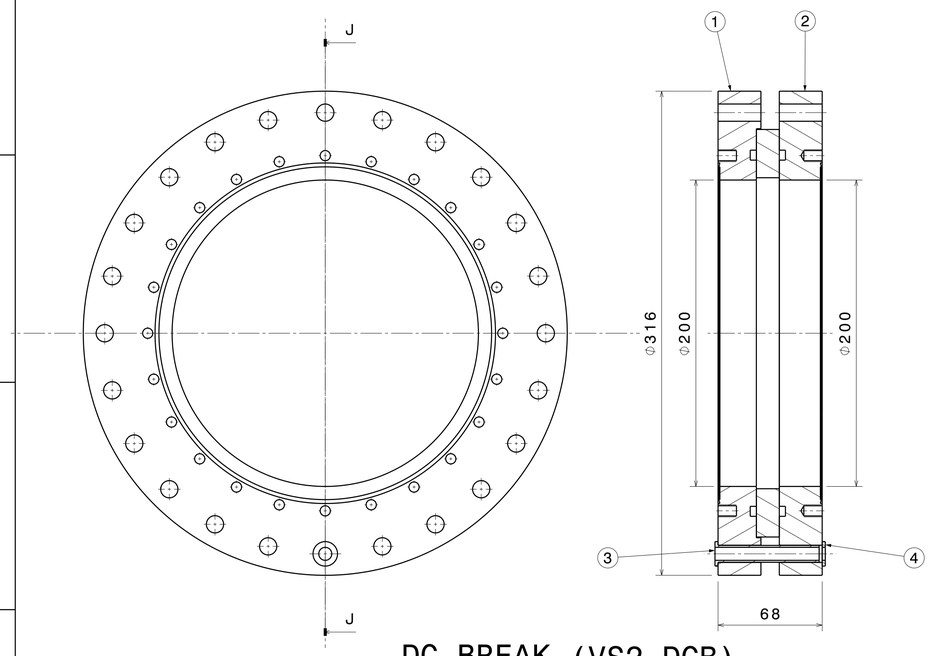
DESIGNED DRI/KKM

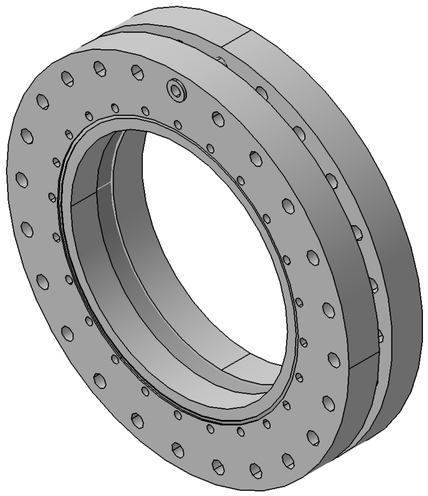
APPROVED

REF DRG NO: A1 | REV R0

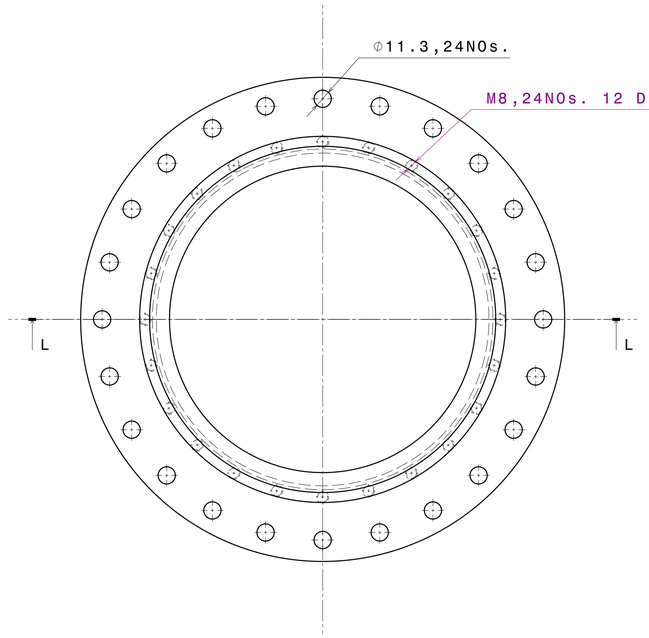
DRG.NO IPR/VTL/A1/16/4026 | SHEET 02 OF 12

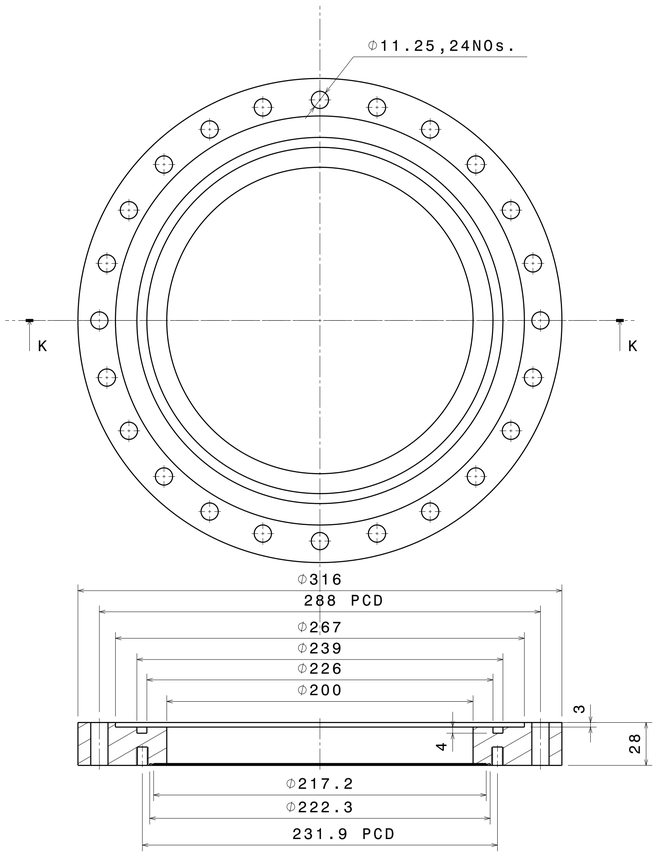
DC BREAK (VS2_DCB)





Isometric view
Scale: 1:2





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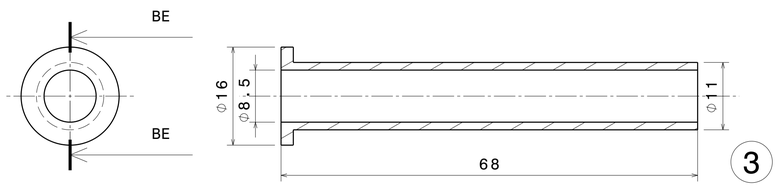

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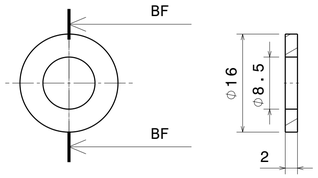

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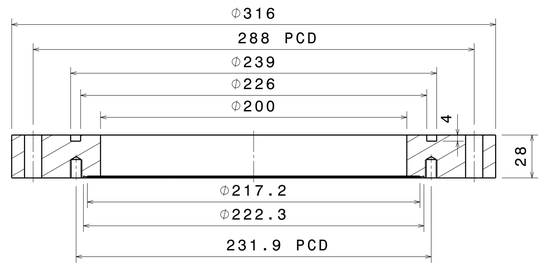


2

Item No.	Part Name	Qty.	Weight	Revision	Material	Revision
4	VTL-03_WASHER	1	NYLON	0kg	-	
3	VTL-03_BUSH	1	NYLON	0kg	-	
2	VTL-03_DC_02	1	SS 304L	9.589kg		
1	VTL-03_DC_01	1	SS 304L	8.948kg		

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
CO-ORDINATED 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
UPTO 10	10-50	50-120	OVER 120-400					
±1°	±0°-30'	±0°-20'	±0°-10'		±0.1	±0.2	±0.3	±0.5

REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY

REVISION COLUMN

ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED

ASS'Y GROUP: | SIZE A1

INSTITUTE FOR PLASMA RESEARCH
BHAT, GANDHINAGAR-382 428.

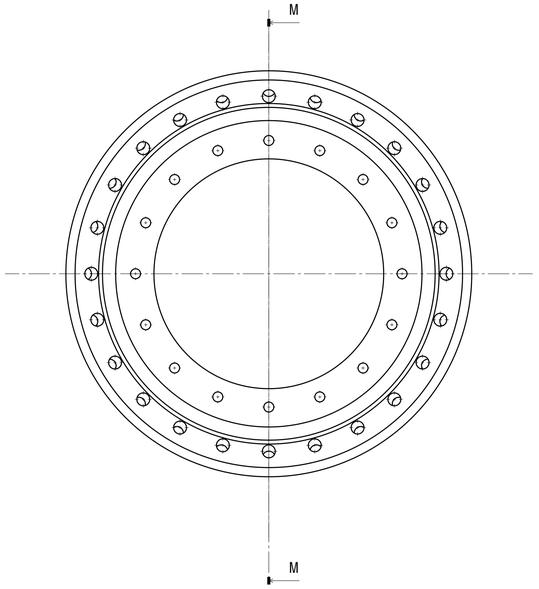
SCALE	-	DATE
DRAWN	VRP	
DESIGNED	DRI/KKM	
APPROVED		

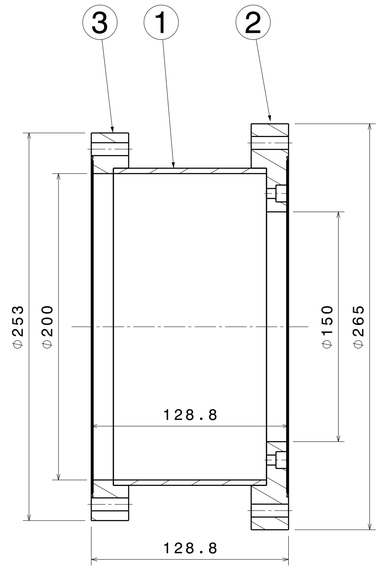
THIRD ANGLE PROJECTION

TITLE: DC BREAK (VS2_DCB)

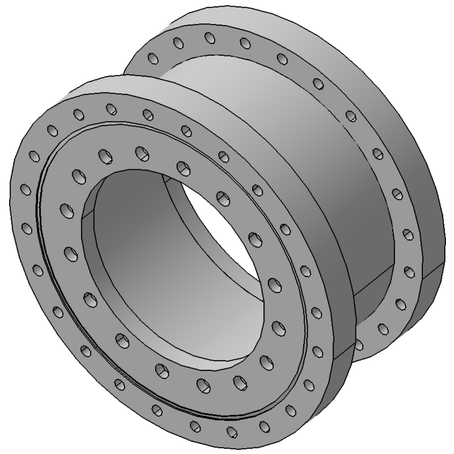
REF DRG NO: A1 | REV R0

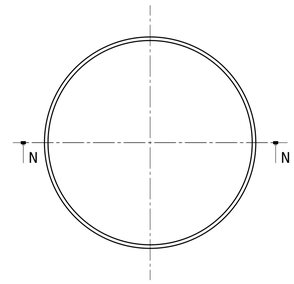
DRG.NO: IPR/VTL/A1/16/4026 | SHEET 04 OF 12

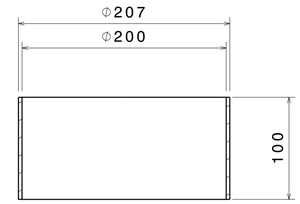




VS3 (VACUUM SECTION3)







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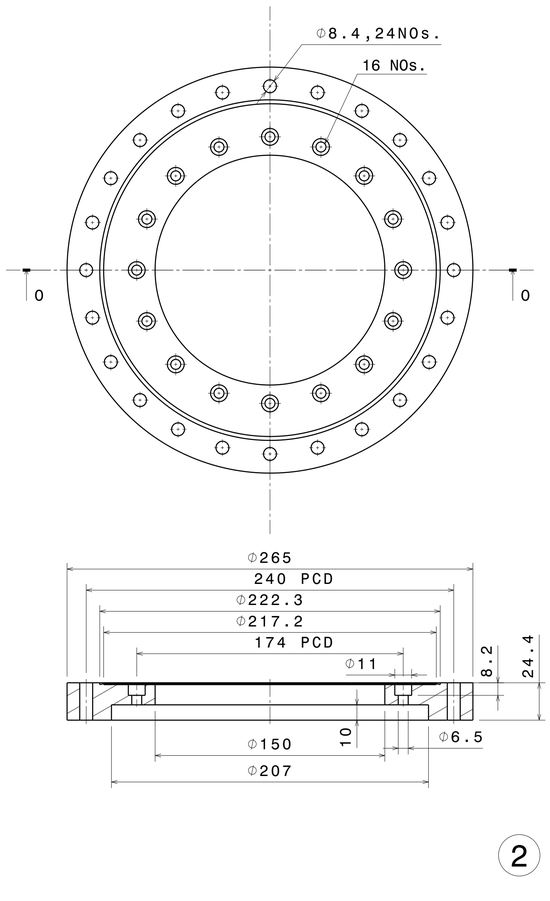

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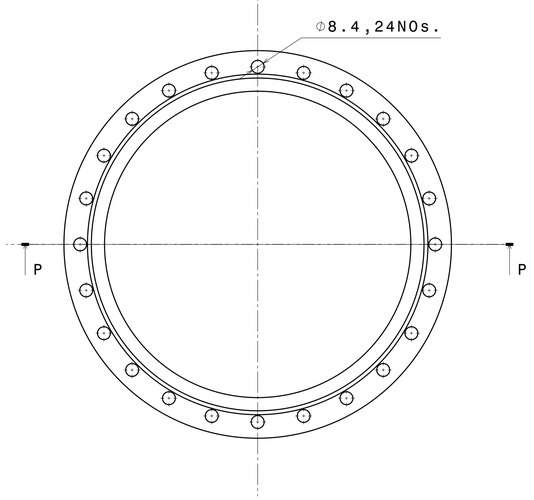
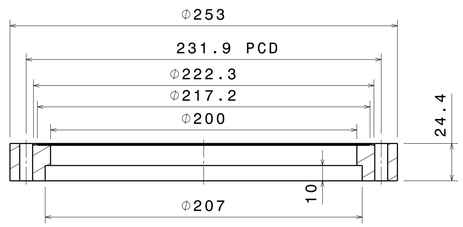




3

Item No.	Part Name	Material	Qty.	Weight
3	VTL-04_OUT_FL4_200CF	SS 304L	1	-3.118kg
2	VTL-04_OUT_FL1	SS 304L	1	-5.371kg
1	VTL-04_OUT_PI1	SS 304L	1	-1.759kg

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
CO-ORDINATED 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
UPTO 10	10-50	50-120	OVER 120-400					
±1'	±0'-30'	±0'-20'	±0'-10'		±0.1	±0.2	±0.3	±0.5

REVISION COLUMN					
REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY

ASS'Y GROUP:		SIZE	A1
ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			
SCALE	-	DATE	
DRAWN	VRP		
DESIGNED	KKM		
APPROVED			

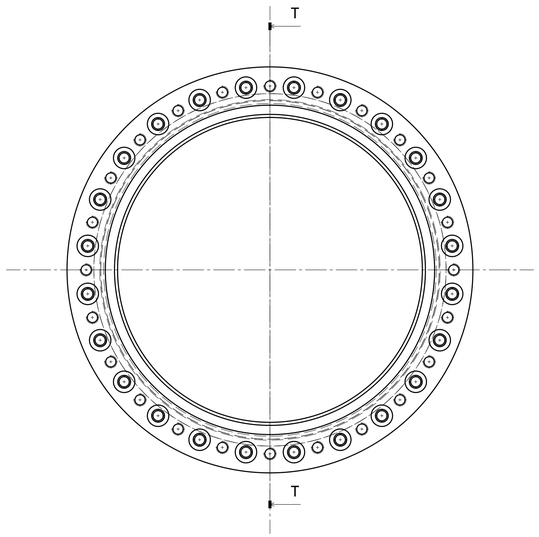
INSTITUTE FOR PLASMA RESEARCH
BHAT, GANDHINAGAR-382 428.

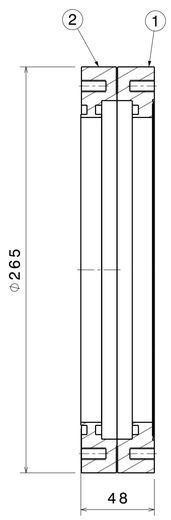
THIRD ANGLE PROJECTION

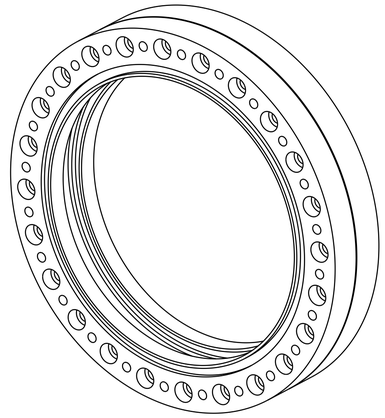
TITLE: VACUUM SECTION3 (VS3)

REF DRG NO: A1 | REV R0

DRG.NO: IPR/VTL/A1/16/4026 | SHEET 05 OF 12







Isometric view
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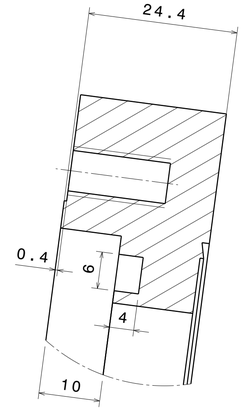
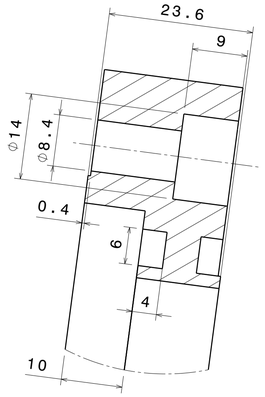


Detail R
Scale: 2:1



Detail S
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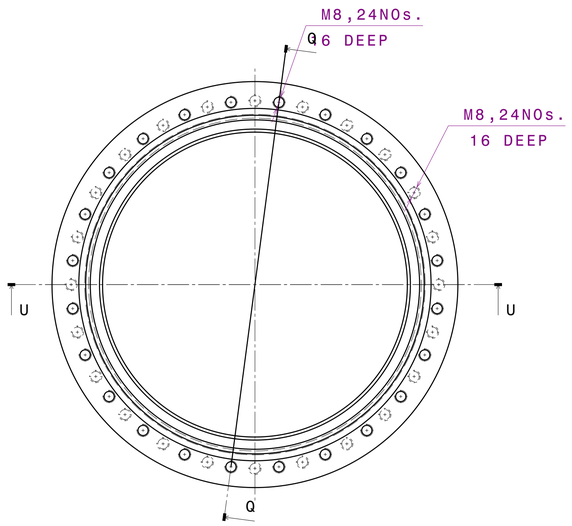
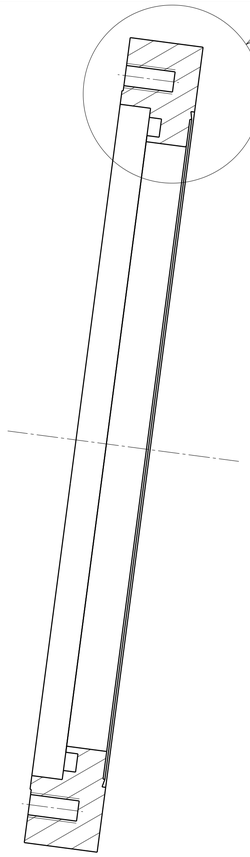
VS4_R VW (VACUUM WINDOW)

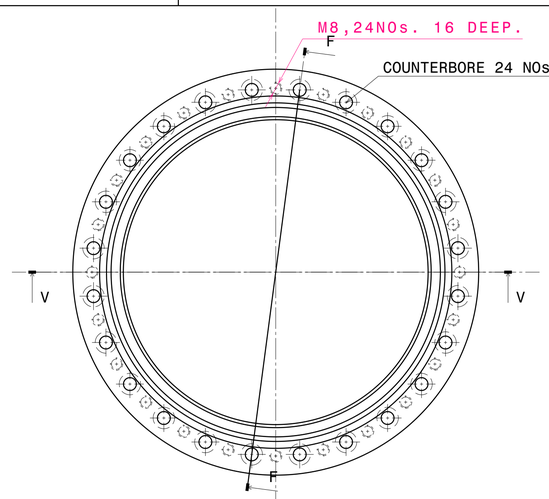


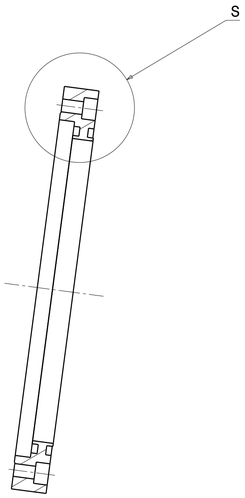


Section view Q-Q
Scale: 1:1

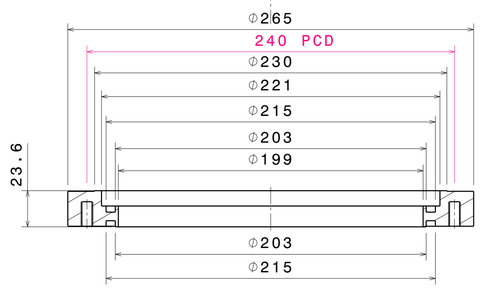
1

ALTERNATE DRILL ON FLANGE





Section view F-F
Scale: 1:2



2

Item No.	Part Name	Quantity	Material	Weight	Revision
1	VTL-05_VW_01	1	SS 304L	-3.598kg	
2	VTL-05_VW_02	1	SS 304L	-3.031kg	

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN						ASS'Y GROUP:
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 - DATE
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRAWN VRP 27-02-2019
UPTO 10	10-50	50-120	OVER 120-400								DESIGNED KKM
±1'	+0'-30'	+0'-20'	+0'-10'		±0.1	±0.2	±0.3	±0.5			APPROVED

SIZE A1

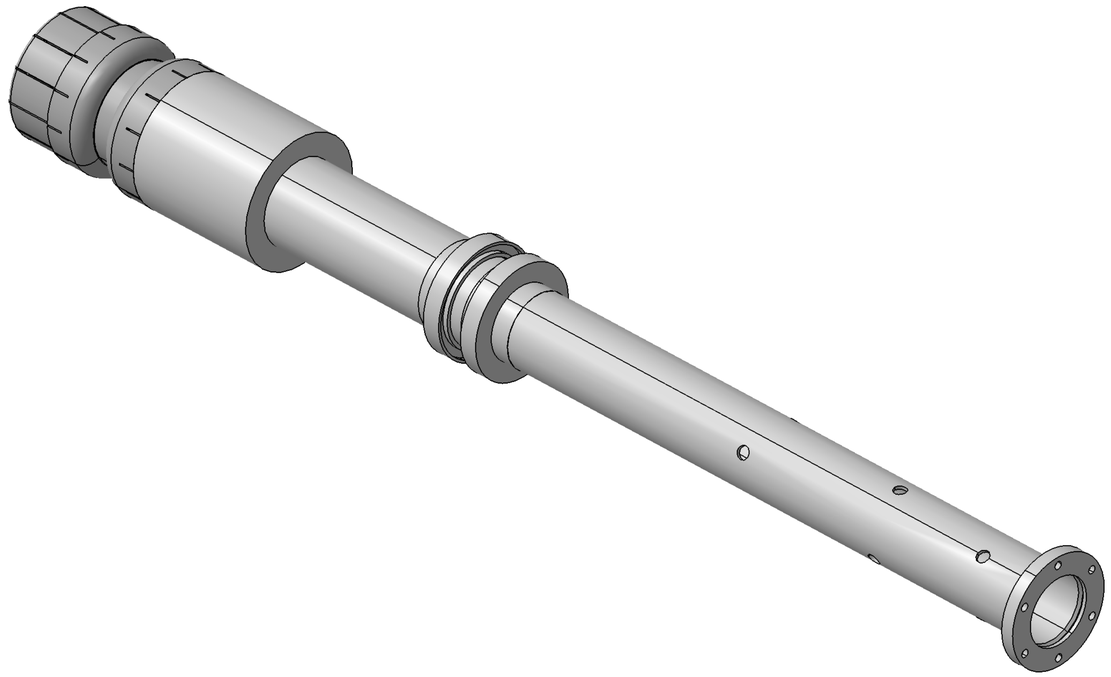
INSTITUTE FOR PLASMA RESEARCH
BHAT, GANDHINAGAR-382 428.

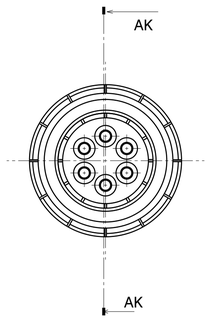
TITLE: VACUUM WINDOW (VS4_VW)

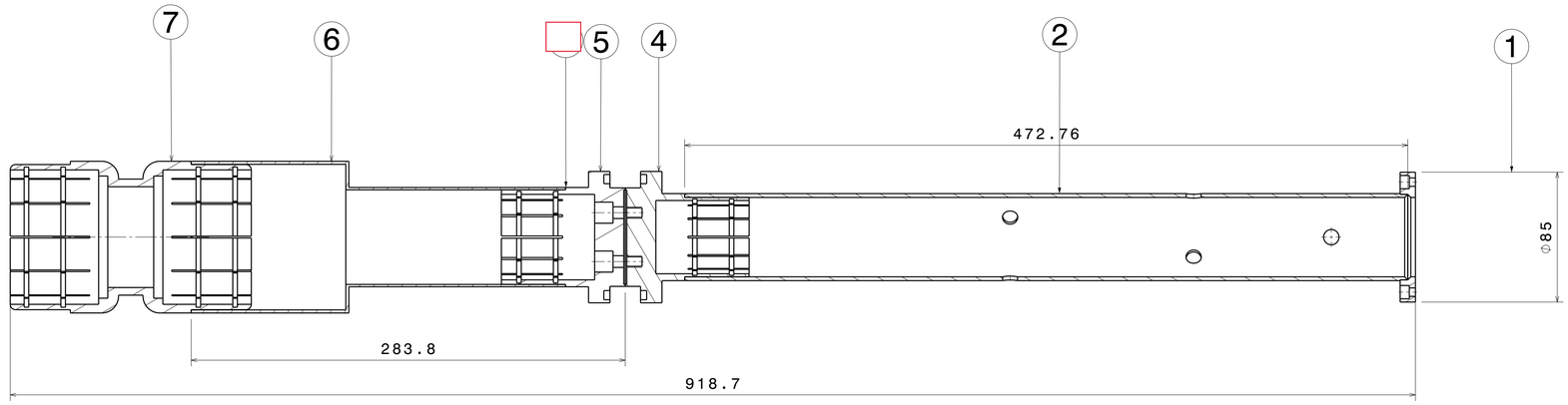
THIRD ANGLE PROJECTION

REF DRG NO: A1 REV R0

DRG.NO IPR/VTL/A1/16/4026 SHEET 06 OF 12







RF_IC

Item No.	Part Name	Material	Quantity	Weight	Revision
7	VTL-IC_01_ICJ3	Aluminum	1	-4.276kg	
6	VTL-IC_01_PI3	SS 304L	1	-0.893kg	
5	VTL-IC_01_ICJ2	SS 304L	1	-0.898kg	
4	VTL-IC_01_ICJ1	SS 304L	1	-0.929kg	
3					
2	VTL-IC_01_PI1	SS 304L	1	-1.57kg	
1	VTL-IC_01_FL	SS 304L	1	-0.24kg	

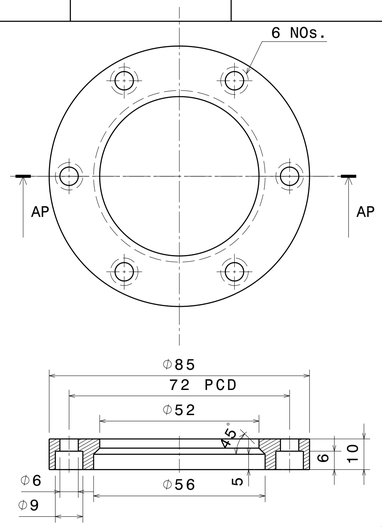
DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
CO-ORDINATED BY				

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
UPTO 10	10-50	50-120	OVER 120-400					
±1°	±0°-30'	±0°-20'	±0°-10'		±0.1	±0.2	±0.3	±0.5

REVISION COLUMN					
REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY

ASS'Y GROUP:		SIZE A1	INSTITUTE FOR PLASMA RESEARCH
ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			BHAT, GANDHINAGAR-382 428.
SCALE	-	DATE	TITLE: NNER CONDUCTOR ASSY (RF_IC)
DRAWN	VRP	-	THIRD ANGLE PROJECTION
DESIGNED	DRI/KKM		REF DRG NO: A1 — REV R0
APPROVED			DRG.NO IPR/VTL/A1/16/4026 — SHEET 09 OF 12



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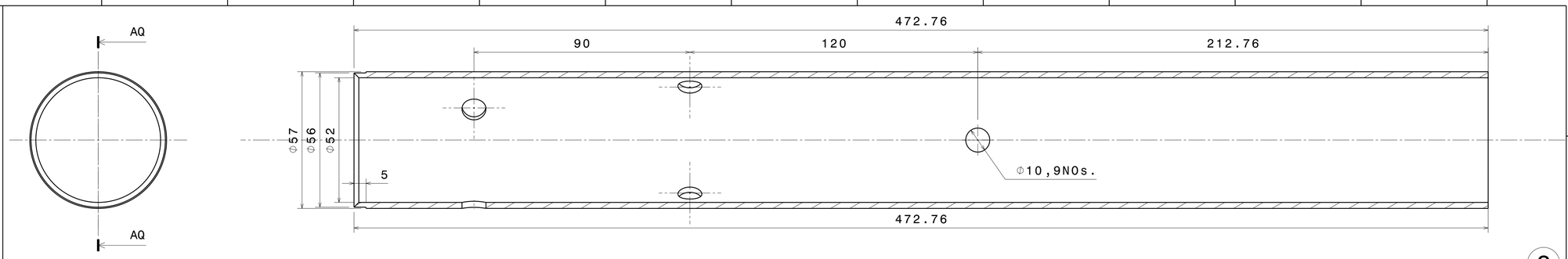

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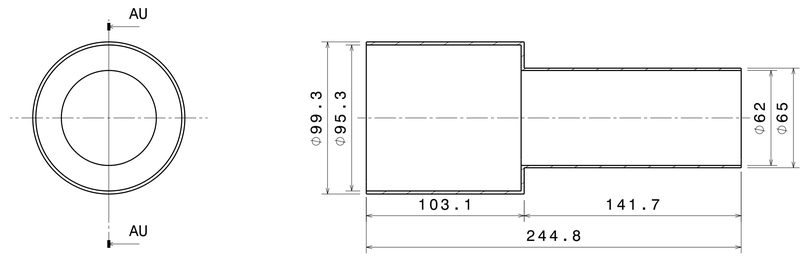

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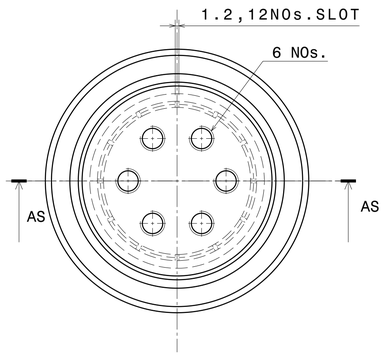

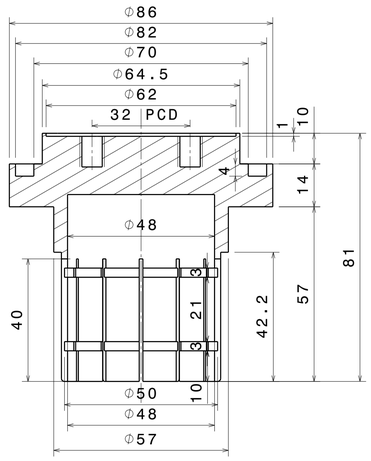

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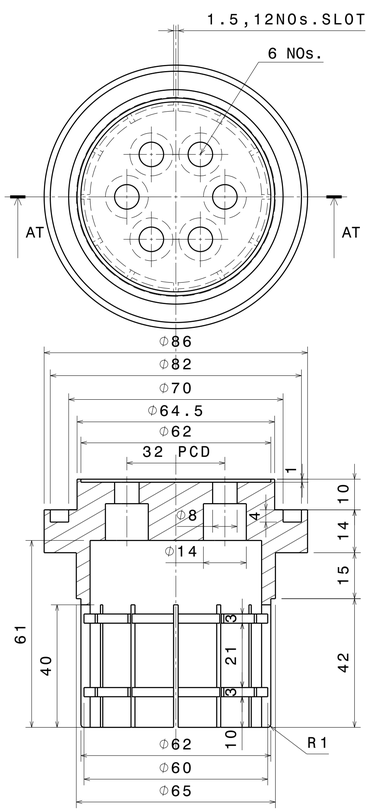
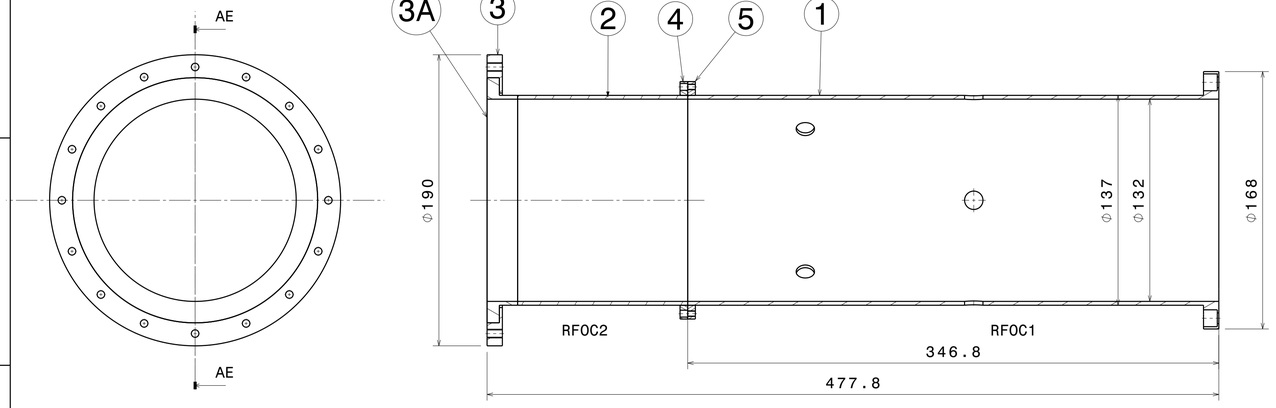
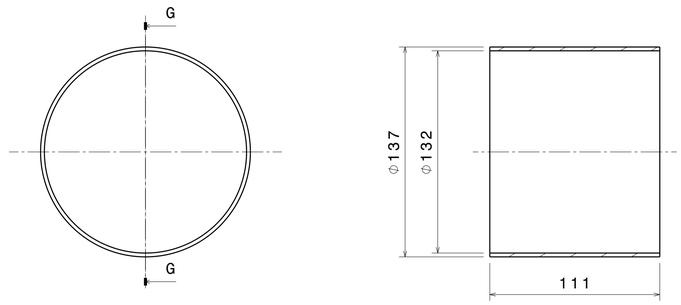


5

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	REVISION COLUMN						ASS'Y GROUP:	SIZE A1	INSTITUTE FOR PLASMA RESEARCH						
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											SCALE	-	DATE						
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315			DRAWN	VRP		THIRD ANGLE PROJECTION	TITLE	INNER CONDUCTOR DETAILS (RFIC)			
UPTO 10	10-50	50-120	OVER 120-400								DESIGNED	DRI/KKM							
±1'	±0°-30'	±0°-20'	±0°-10'		±0.1	±0.2	±0.3	±0.5			APPROVED				REF DRG NO: A1			REV R0	
															DRG.NO	IPR/VTL/A1/16/4026		SHEET 10 OF 12	

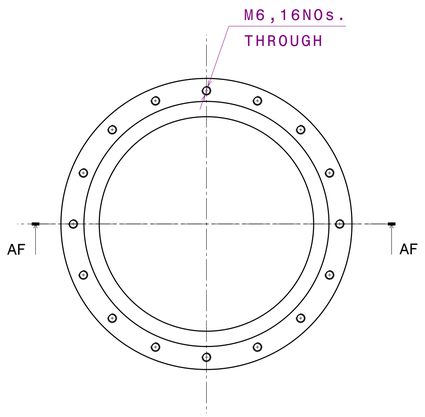


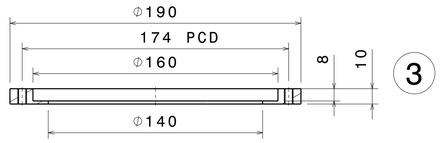
RFOC1/2



Front view
Scale: 1:2

2





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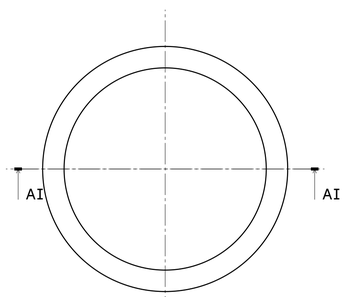
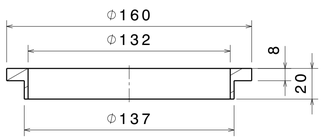
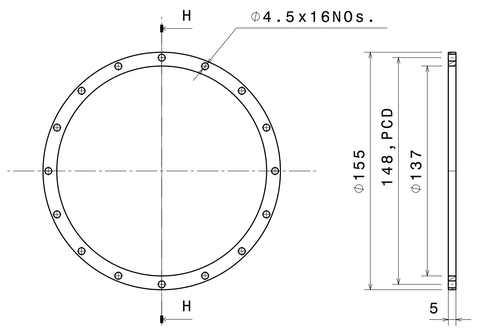


Front view
Scale: 1:2



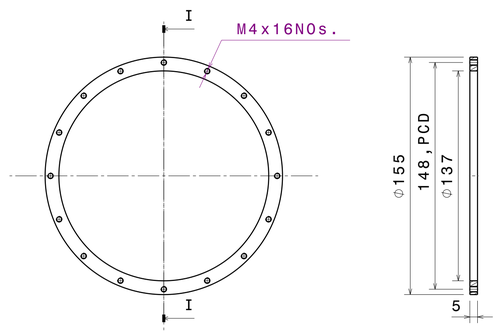
Section view AI-AI
Scale: 1:2

3A



Front view
Scale: 1:2

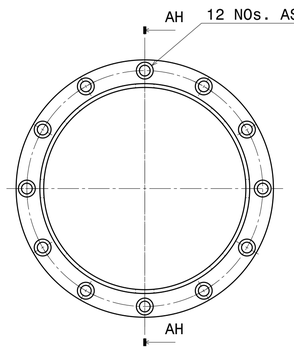
4

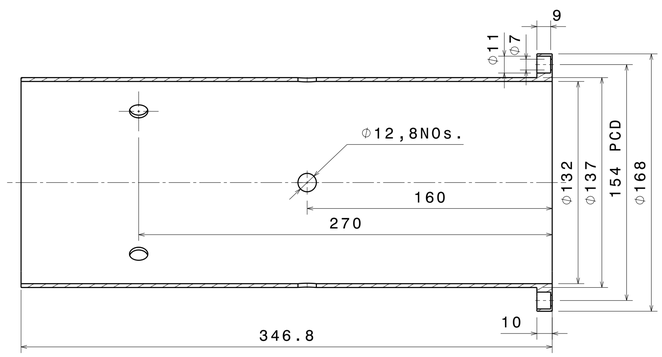


Front view
Scale: 1:2

Section view I-I
Scale: 1:2

5





1

3A	01V072792_G	-	1	0kg	-
5	VTL 01 OC4	STEEL	1	0.152kg	-
4	VTL 01 OC3	STEEL	1	0.157kg	-
3	VTL 01 OCF	STEEL	-	0.157 kg	-
2	VTL 01 OC2	STEEL	1	0.698kg	-
1	VTL 01 OC1	STEEL	1	3.361kg	-

Item No.	Part Number	Material	Quantity	Weight	Revision

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025	
CO-ORDINATED 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
UPTO 10	10-50	50-120	OVER 120-400					
±1°	±0°-30'	±0°-20'	±0°-10'		±0.1	±0.2	±0.3	±0.5

REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY

REVISION TABLE

ANGULAR DIMENSIONS ARE IN DEGREES
ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED

INSTITUTE FOR PLASMA RESEARCH
BHAT, GANDHINAGAR-382 428.

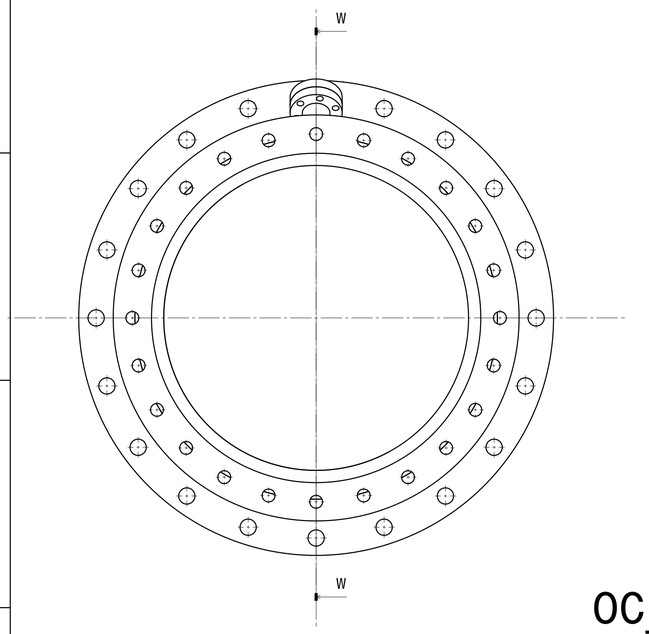
SCALE	-	DATE	
DRAWN	VRP	27-02-2019	
DESIGNED	KKM		
APPROVED			

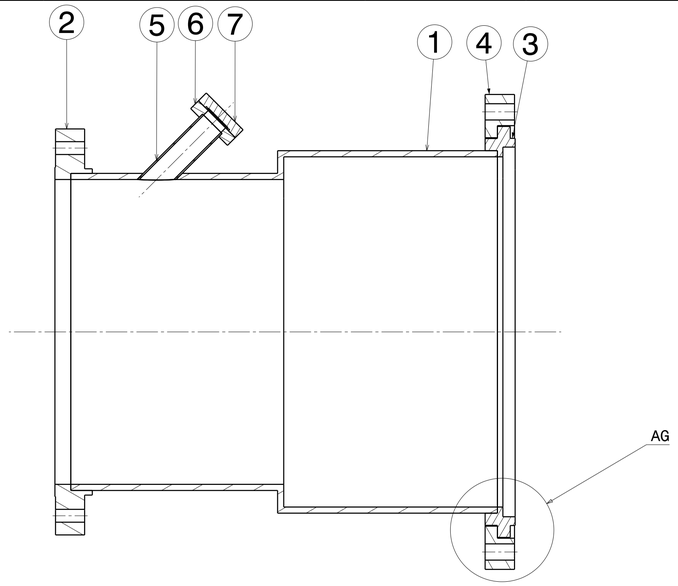
THIRD ANGLE PROJECTION

TITLE: OUTER CONDUCTOR RF_OC1

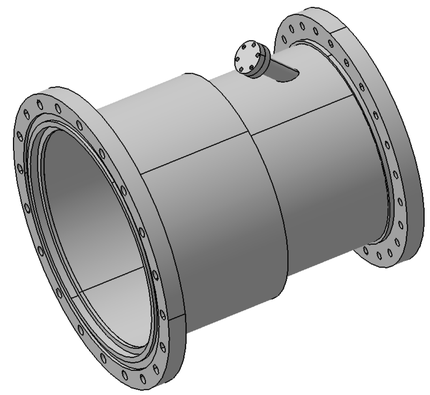
REF DRG NO: A1 — REV R0

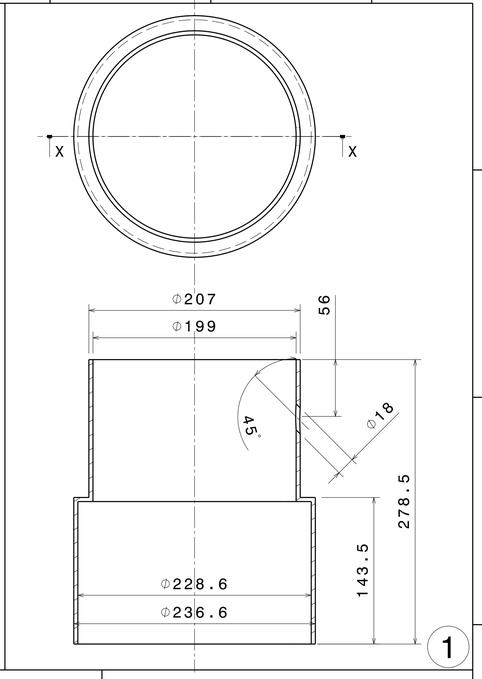
DRG.NO: IPR/VTL/A1/16/4026 — SHEET 08 OF 12

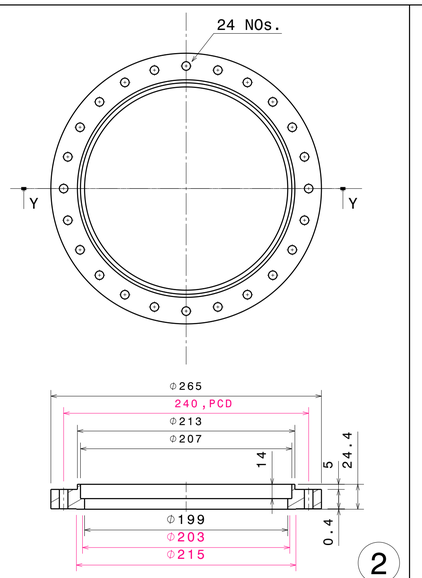


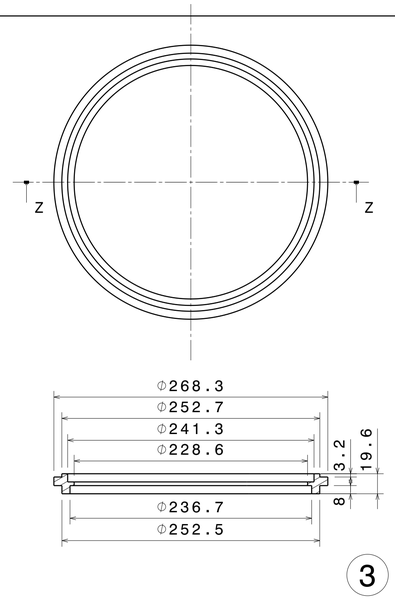


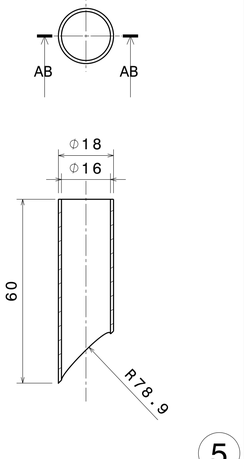
OC_RDC (REDUCER)

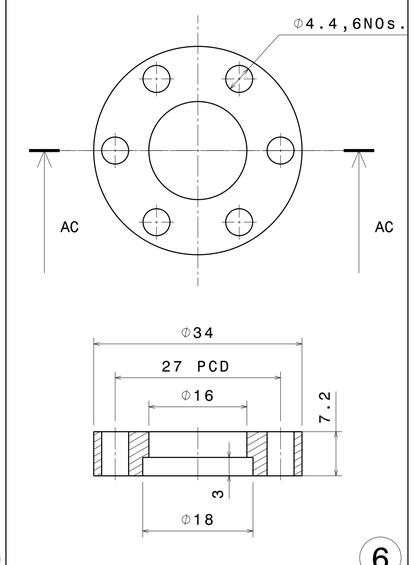


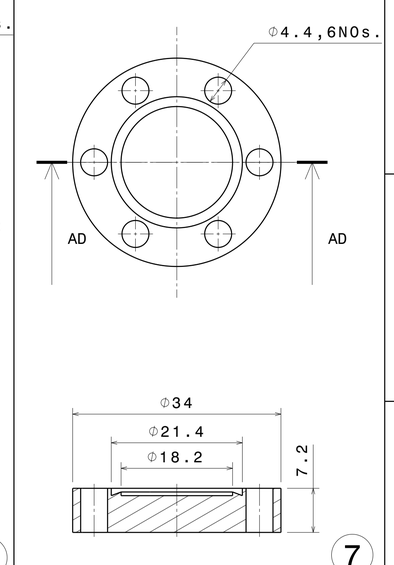


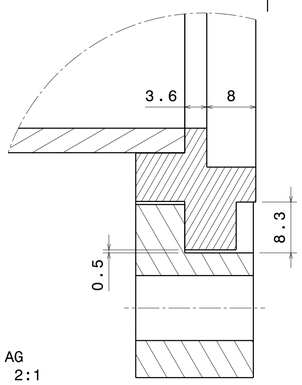












Item No.	Part Name	Material	Qty.	Weight	Revision
7	VTL-06_OC_FL5	SS 304L	1	-0.043kg	
6	VTL-06_OC_FL4	SS 304L	1	-0.034kg	
5	VTL-06_OC_PI2	SS 304L	1	-0.022kg	
4	VTL-06_OC_FL3	SS 304L	1	-2.936kg	
3	VTL-06_OC_FL2	SS 304L	1	-1.339kg	
2	VTL-06_OC_FL1	SS 304L	1	-3.307kg	
1	VTL-06_OC_PI1	SS 304L	1	-6.305kg	

DRG.NO | ▽ 8-25 | ▽▽ 1.6-8 | ▽▽▽ 0.025-1.6 | ▽▽▽▽ < 0.025

CO-ORDINATED 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
UPTO 10	10-50	50-120	OVER 120-400					
±1°	±0°-30'	±0°-20'	±0°-10'		±0.1	±0.2	±0.3	±0.5

REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY

REVISION COLUMN

ASS'Y GROUP: | SIZE A1

ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED

INSTITUTE FOR PLASMA RESEARCH
BHAT, GANDHINAGAR-382 428.

SCALE - | DATE

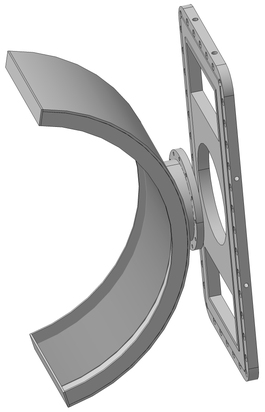
THIRD ANGLE PROJECTION

TITLE: VTL OUTER CONDUCTOR OC_RDC

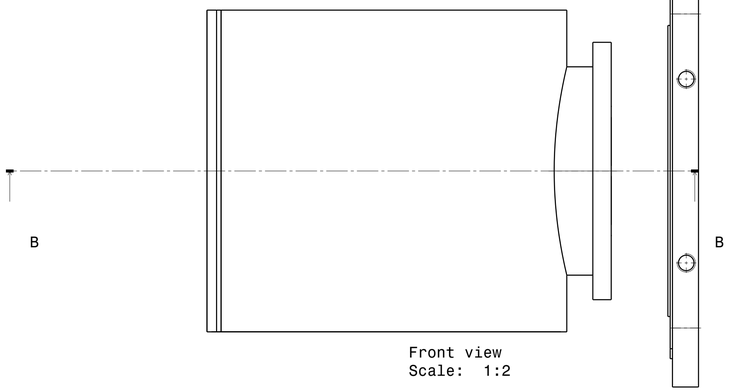
DRAWN VRP | DESIGNED DRI/KKM | APPROVED

REF DRG NO: A1 | REV R0

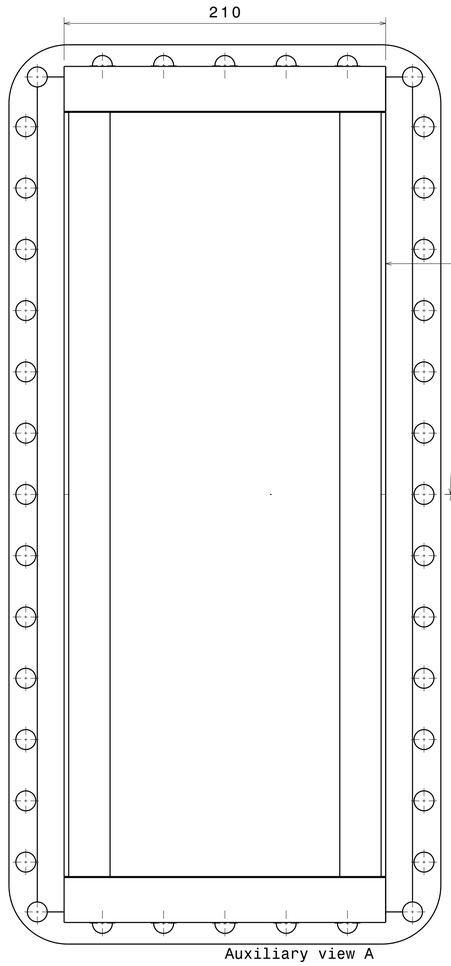
DRG.NO IPR/VTL/A1/16/4026 | SHEET 07 OF 12



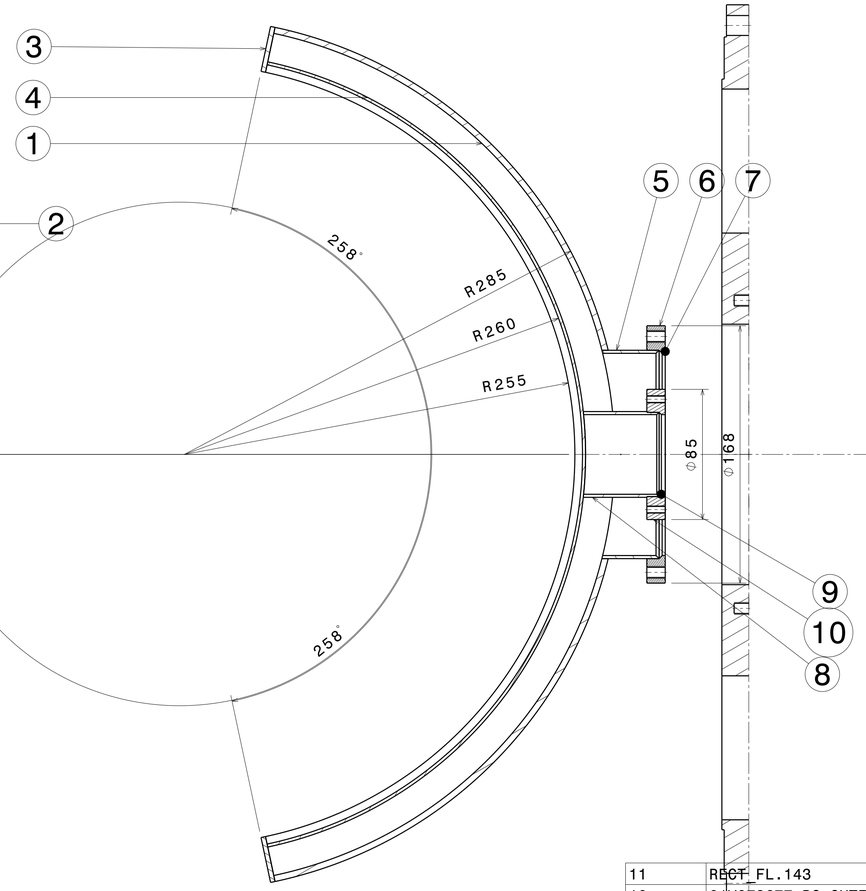
Isometric view
Scale: 1:5



Front view
Scale: 1:2



Auxiliary view A
Scale: 1:2



Section view B-B
Scale: 1:2

Item No	Part Number	Material	Quantity	Revision
11	RECT_FL.143	Steel	1	-
10	01V073677_RO_OUTER_FL	-	1	-
9	-	-	-	-
8	01V073678_IC2_PIPE	-	1	-
7	-	-	-	-
6	01V073673_RO_OUTER_FL	-	1	-
5	01V073672_PIPE	-	1	-
4	01V73666_REAR_PLATE	-	1	-
3	01V73665_TOP_PLATE	-	2	-
2	01V073663_SIDE_PLATE	-	2	-
1	01V73660_BACK_PLATE	-	1	-

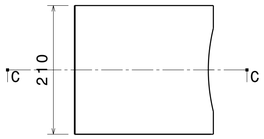
DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
CO-ORDINATED BY				

MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS

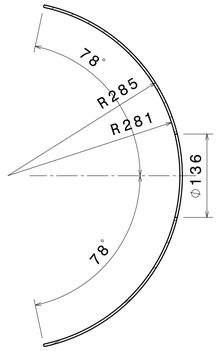
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315
UPTO 10	10-50	50-120	OVER 120-400					
±1°	±0°-30'	±0°-20'	±0°-10'		±0.1	±0.2	±0.3	±0.5

REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY

ASS'Y GROUP:		SIZE A1	INSTITUTE FOR PLASMA RESEARCH
ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			BHAT, GANDHINAGAR-382 428.
SCALE	-	DATE	TITLE: ADITYA U RADIAL PORT 20 ANTENNA
DRAWN	VRP	-	THIRD ANGLE PROJECTION
DESIGNED	K.MISHRA		REF DRG NO: A1 — REV R0
APPROVED	K.MISHRA		DRG.NO: IPR-21-A3-ANT-8977 — SHEET 01 OF 02



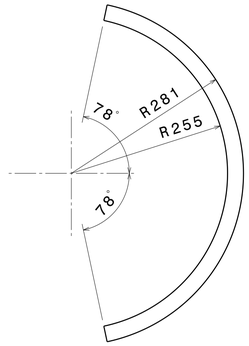
Front view
Scale: 1:5



Section view C-C
Scale: 1:5

01

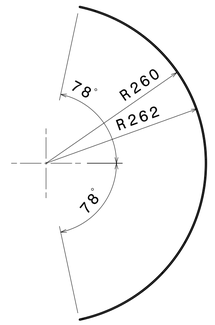
Front view
Scale: 1:5



Bottom view
Scale: 1:5

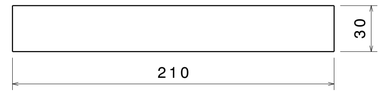
02

Front view
Scale: 1:5

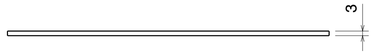


Section view D-D
Scale: 1:5

04

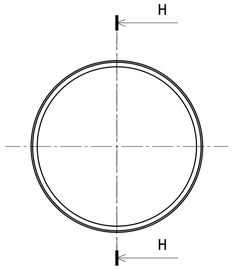


Front view
Scale: 1:2

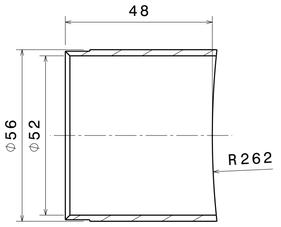


Bottom view
Scale: 1:2

03

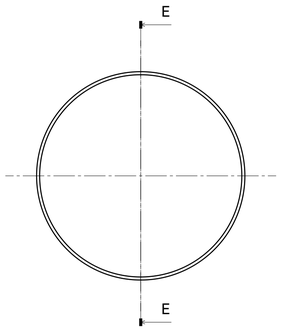


Front view
Scale: 1:1

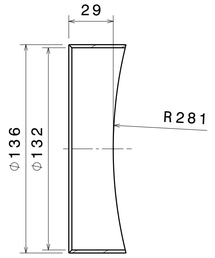


Section view H-H
Scale: 1:1

08

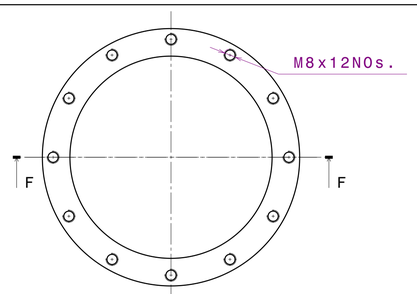


Front view
Scale: 1:2

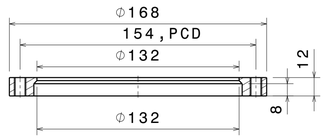


Section view E-E
Scale: 1:2

05

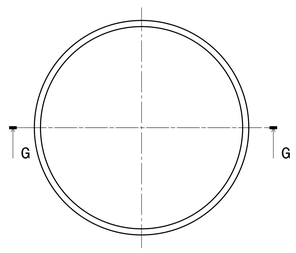


Front view
Scale: 1:2

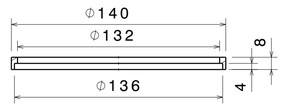


Section view F-F
Scale: 1:2

06

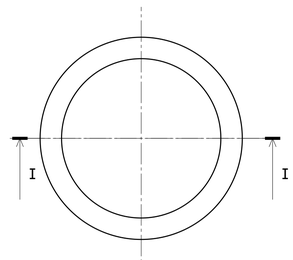


Front view
Scale: 1:2

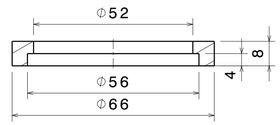


Section view G-G
Scale: 1:2

07

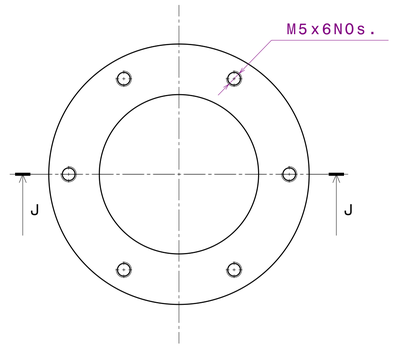


Front view
Scale: 1:1

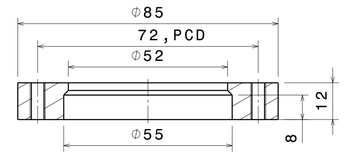


Section view I-I
Scale: 1:1

09



Front view
Scale: 1:1



Section view J-J
Scale: 1:1

10

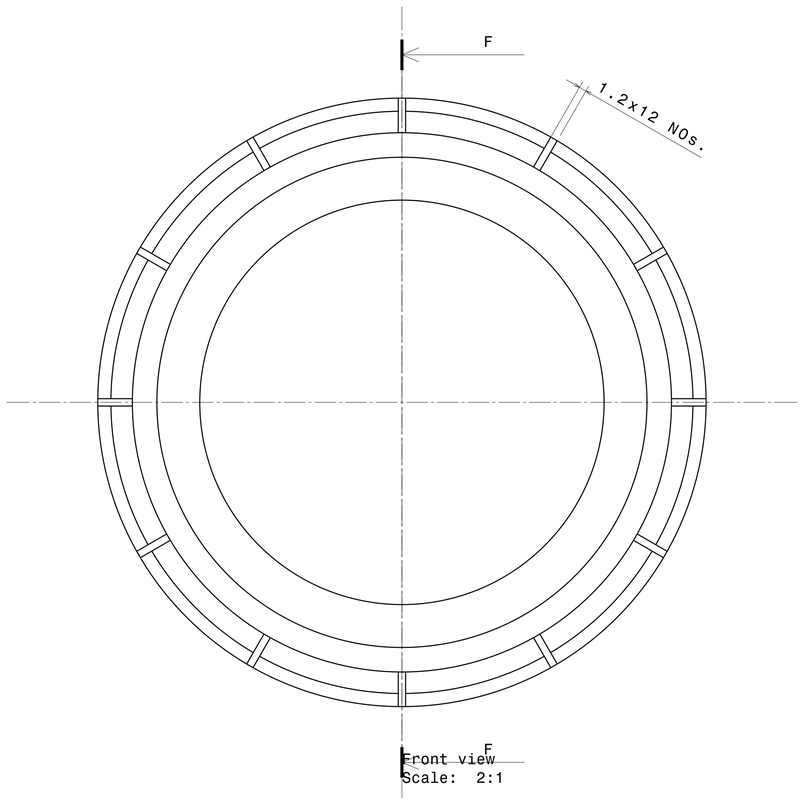
DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025
CO-ORDINATED BY				

MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS

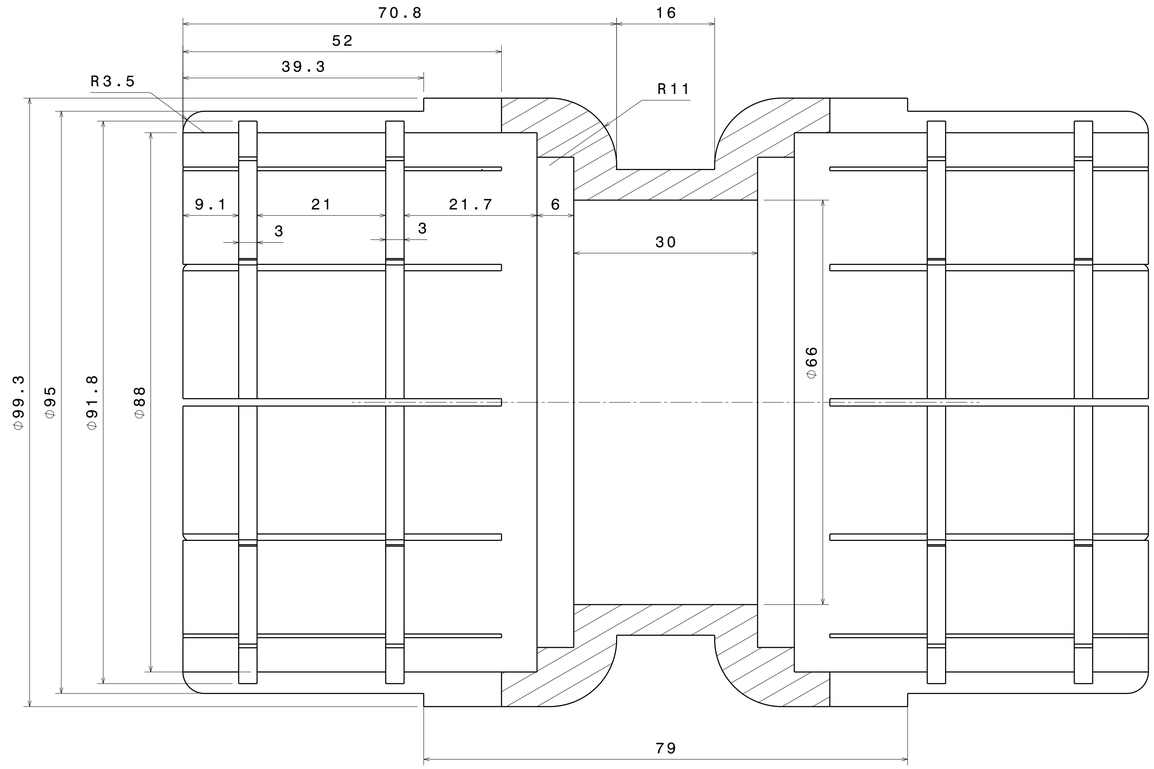
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315
UPTO 10	10-50	50-120	OVER 120-400					
±1°	±0°-30'	±0°-20'	±0°-10'		±0.1	±0.2	±0.3	±0.5

REVISION COLUMN					
REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY

ASS'Y GROUP:		SIZE A1	INSTITUTE FOR PLASMA RESEARCH
ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED			BHAT, GANDHINAGAR-382 428.
SCALE	-	DATE	TITLE: ADITYA U RADIAL PORT 20 ANTENNA
DRAWN	VRP		THIRD ANGLE PROJECTION
DESIGNED	K.MISHARA		REF DRG NO: A1 — REV R0
APPROVED	K.MISHARA		DRG.NO: IPR-21-A3-ANT-8977 — SHEET 02 OF 02



Front view
Scale: 2:1



Section view F-F
Scale: 2:1

DRG.NO	▽ 8-25	▽▽ 1.6-8	▽▽▽ 0.025-1.6	▽▽▽▽ < 0.025				REVISION COLUMN						ASS'Y GROUP:		SIZE A1	INSTITUTE FOR PLASMA RESEARCH	
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														SCALE	-	DATE	TITLE	
LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6-30	30-120	120-315						DRAWN	VRP	25-02-2019	IC JOINT	
UPTO 10	10-50	50-120	OVER 120-400		±0.1	±0.2	±0.3	±0.5						DESIGNED	KKM		REF DRG NO: A1	REV R0
±1°	±0°-30'	±0°-20'	±0°-10'											APPROVED	-		DRG.NO IPR/ICJ_KM/A1/	SHEET 1 OF 1

Form No: IPR-MFW-01.V1

INSTRUCTIONS TO BIDDERS AND TERMS AND CONDITIONS

1. The Quotation and any order resulting from this enquiry shall be governed by our Conditions of Work Order and Contractor quoting this enquiry shall be deemed to have read and understood the same completely.
2. Where counter terms and conditions have been offered by the Tenderer, the same shall not be deemed to have been accepted by IPR unless our specific written acceptance thereof is obtained.
3. **Quotation:** Quotation should be submitted in the prescribed QUOTATION FORMAT attached with this Enquiry and the same should be submitted in a sealed envelope super-scribing the same with our enquiry No., date, due date and brief description of item on or before the due date. Late/delayed/incomplete/unsigned quotations will not be considered. Envelopes received without Enquiry number, date, due date and brief description of item may be rejected. The quoted prices should be firm for a period of 90 days from due date for placing order. IPR is not bound to accept lowest rate/s. IPR reserves the right to place on one or more parties. The scope of supply includes insurance by the Contractor.
4. **Specifications:** Goods should be offered strictly confirming to our specifications/drawings. Deviation, if any, should be clearly indicated by the contractor in their quotation. The Tenderer should also indicate the Make/Type number of the goods offered and catalogues, technical literature and samples, wherever necessary should accompany the quotation. Clarification/s on drawings should be obtained before submitting quotation.
5. **Terms of Prices:** Quotation should be submitted on door delivery basis without extra charge wherever possible. For quotations on Ex-Works, Ex-godown basis the approximate packing and forwarding charges should be indicated by the contractor. In the case of local contractors, the goods are to be delivered at our stores free of charge.

5.1 In respect of tenders on Ex-works basis, in case the tenderer has not mentioned in the offer packing, forwarding and transportation charges for safe delivery up to Purchaser's site, 2% of the price quoted towards packing (in respect of both local and outstation firms), 1% of the basic price quoted towards safe delivery charges in respect of local tenderer and 3% of the basic price quoted towards safe delivery charges in respect of outstation firm will be added for comparison of offers on safe door delivery at Purchaser's site.

5.2 Prices are required to be quoted according to the units indicated in the tender form/Enquiry. When Quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished

6. Tender should be free from Correction and Erasures. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail. Unsigned quotations will summarily be rejected. If there is a discrepancy between the unit price and total price, unit price shall prevail.
7. IPR shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the tenderers shall supply the same at the rate quoted.
8. **Goods & Services Tax (GST):** The details of Taxes/GST and other levies legally applicable and intended to be claimed should be clearly indicated in the tender. Where this is not done, no claim on these accounts would be admissible later.

   a) GST for Goods (IGST/CGST/SGST TAX BENEFITS):

   IPR is entitled to avail tax benefit as per the following notifications issued by Ministry of Finance, Department of Revenue, Government of India:

   (1) No: 47/2017-INTEGRATED TAX (RATE) DATED 14/11/17 for IGST
   (2) No: 45/2017-CENTRAL TAX (RATE) DATED 14/11/17 for CGST

   And,

   IPR is entitled to avail tax benefit as per the following notifications issued by Finance Department, Government of Gujarat:

   (1) No. 45/2017-STATE TAX (RATE) DATED 15/11/17 for SGST

   As per above notifications IPR will bear only 5% IGST for procurement of goods from outside Gujarat & 2.5% CGST and 2.5% SGST (total 5%) for procurement of goods within Gujarat. Vendors are required to charge tax as per these notifications while quoting/supplying the goods. Deviations, (if any) should be clearly mentioned in the quotation/offer.

   Please specify the HSN codes while quoting.

   b) GST for Services:

   As applicable. **Specify the SAC codes wherever services are involved**.

9. **Delivery Date:** Delivery period is essence of the Contract. Contractor must indicate the firm delivery date by which the goods will be dispatched or delivered by them from the date of our order. Delivery period shall be clearly indicated against each item separately.
10. **Price/ Purchase Preference:** Purchase/Price preference to industries will be given as per the policy of the Government of India in force at the time of evaluation provided their offer is in compliance with the conditions of the policy.

11. **Liquidated Damages:** The successful Vendor/Bidder should pay liquidated damages @ ½% (half percent) of the total work order value for the delay of each week in the scheduled date of completion of the work envisaged in the Work Order subject to a maximum of 5% (Five percent) of the total Work Order value.
12. **Inspection**: Goods on its arrival at IPR will be inspected by Stores, and his decision in the matter will be final. However, where the items are required to be inspected at the Contractors Premises, Contractor has to give advance notice regarding readiness of the Goods to enable us to depute our representative for inspection.
13. **Payment**: Payment will be arranged for accepted goods only within 30 days from the date of receipt of goods at IPR and bills in our accounts section, completed in all respects.
14. No correspondence will be entertained within 30 days from the date of receipt of good and bills, whichever is later.
15. **Guarantee**: The Stores offered should be guaranteed for a minimum period of twelve months, from that date of acceptance, against defective Goods, design, workmanship, operation or manufacture. For defects noticed and communicated during the Guarantee period, replacement/rectification should be arranged free of cost within a reasonable period of such notifications. In case where our specifications call for a guarantee period more than 12 months specifically, then such a period shall apply.
16. **Performance Bank Guarantee**: If demanded by IPR, the successful bidder will have to furnish Performance Bank Guarantee for 10% of the order value (basic price) from a Nationalized/Scheduled Bank/State Bank of India, valid throughout the Guarantee/Warranty period. The scheduled banks approved by IPR are Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank. Bank Guarantees submitted other than from banks approved by IPR will not be accepted.
17. **Security Deposit:** If demanded the successful Bidder will have to furnish to the Purchaser an interest free security deposit for 10% (Ten percent) of the order value in the form of Bank Guarantee of an equivalent amount from a nationalized/ scheduled Bank/State Bank of India within 15 days from the date of work order and the said Guarantee should be valid till the goods are accepted by IPR. The scheduled banks approved by IPR are Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank. Bank Guarantees submitted other than from banks approved by IPR will not be accepted. The Security deposit shall be forfeited in case the selected Bidder does not start the work within the time limit specified or fail to complete the work within the stipulated delivery period or fail to comply with any of the terms and conditions in the work order. On successful completion of scope of work and its acceptance by IPR, Contractor should send a letter requesting return of the original BG.
18. The Contractor shall at all times indemnify the purchase against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of design or Trade Mark and shall take all risk of accidents or damage, which may cause failure of supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfilment of the contract.
19. **Free Issue Material (FIM):** Successful tenderer will have to arrange insurance showing beneficiary as “Institute for Plasma Research” at their risk and cost towards adequate security for the materials/property provided/issued by the Purchaser as Free Issue Material for the due execution of the contract.
20. The Director, IPR reserves the right to accept or reject any quotations fully or partly or to cancel the enquiry without assigning any reason.
21. **Jurisdiction**: The contract shall be governed by the Laws of India for the time being in force. The Courts of Gandhinagar only shall have jurisdiction to deal with and decide any legal or dispute arising out of this Contract.

(This need to be printed in Bidders letter head)

1. Please quote with complete technical details along with technical compliance sheet.
2. Quotation should be submitted in the format given below, else IPR shall not consider the offer by the vendor.

NAME OF PARTY : _____

ENQUIRY NO: _____

QUOTATION No. & DATE : _____

Currency of Quotation: **Indian Rupees**

Sr. No.	Item Description	HSN/SAC Code	Quantity	Unit Rate (Basic)	Packaging & forwarding (P&F)	Applicable GST	Rate (incl P&F and GST)	Total Value
			a	b	c	d	e = b + c + d	f = a * e
1								
2								
3								
4								
5								
6								

Sr. No.	Particular	Remarks
I.	Ex-works / FOR Destination	
II.	Freight	
III.	Insurance	
IV.	Delivery Period	
V.	Payment (IPR terms will apply)	
VI.	Guarantee / Warrantee	
VII.	Validity Period	
VIII.	Discount (if any)	
IX.	Remarks	

Place: Authority Signatory

Date: Company Seal

Note:

1. **Bidder should submit the copy of GSTIN / ARN Certificate along with the offer**
2. **Bidder should specify the SUPPLY and SERVICE rates/ charges separately wherever applicable**