

Title	GeM Bid for “Supply of fabricated PEEK Material Disk/Flange, Washer, Bush, Rod, Sheet/Plate”
Sub Title	Scope of Supply, work, technical specifications and drawings

ITER-India, Institute for Plasma Research

Block A, Sangath Skyz, Bhat-Motera Road, Koteswar,

Ahmedabad 380005, Gujarat, India

<http://www.iterindia.in>

Technical Specifications of the PEEK Materials

1. Scope of Work

- Supply of fabricated PEEK sheets/rods, isolation disks and washers as per the material specifications, drawings and Bill of Quantity
- Submit the Material test certificate of PEEK as per Sr.2
- Submission of dimension report (for major items except washers)
- Delivery of the items as per Sr.2, Sr.3, Sr.4 and Sr.5.

2. Material Specifications

Table 2.1 of PEEK material specifications is given below. Test certificate (duly signed and stamped with date) with traceability of material to be provided before the commencement of manufacturing/fabrication with no extra cost on the purchaser.

Table 2.1

Description	Unit	Values
Specific Gravity/Density	gm/cm ³	1.4 ± 10%
Water absorption	%	Less than 0.6%
Dielectric Strength/Electric Strength	kV/mm	Equal or more than 16
Flexural strength	MPa	Equal or more than 150
Compressive Strength	MPa	Equal or more than 120

Recommended brands of PEEK: GEHR, Roechling/Rochling, Mitsubishi, Victrex

3. Bill of Quantity (BOQ)

3(a) 3-5mm thickness- Group A

S. No.	Item	Total quantity to be procured (Nos)
1	WASHER_1	48
2	WASHER_2	128
3	WASHER_3	96
4	WASHER_CRYOCOOLER	300
5	WASHER_CRYOLINE	200
6	ISOLATION PLATE	05
7	ISOLATION WASHER 3mm thick	10
8	M8_WASHER_PEEK	90
9	M12_WASHER_PEEK	150

3(b) 10-12 mm thickness – Group B

S. No.	Item	Total quantity to be procured (Nos)
1	ISOLATION_DISK_NB_80	6
2	ISOLATION_DISK_NB_100	3
3	ISOLATION_DISK_NB_200	3
4	ISOLATION_DISK_NB_300	2
5	CRYOCOOLER ISOLATION DISK	36
6	CRYOLINE ISOLATION DISK – 1	6
7	CRYOLINE ISOLATION DISK – 2	6
8	ISO_100F_FLANGE (12mm thick)	4

3(c) 30mm thickness – Group C

S. No.	Item	Total quantity to be procured (Nos)
1	ISO_500F_FLANGE	06

3(d) PEEK Rods – Group D

S. No.	Item	Total quantity to be procured (Nos)
1	PEEK Rod (Dia : 100mm and Length:1m)	3
2	PEEK Rod (Dia : 40mm and Length:1m)	10
3	ISOLATION BUSH 1	32
4	ISOLATION BUSH 2	10

3(e) PEEK sheets – Group E

S. No.	Item	Total quantity to be procured (Nos)
1	PEEK Sheet: 1000mmx 610mm x 12 or 12.5 mm(thickness)	2
2	PEEK Sheet:(610mm x 1000mm x 10mm)	6
3	Sheet : 1000mm x 610mm x 5mm	27

Note: Please ignore the quantities mentioned in the drawings. Consider only the quantities mentioned in the BOQ/BOM.

4. Fabrication Drawings

As per attached APPENDIX-2

5. Packaging

Items mentioned in the Sr.3 of the Bill of Quantity shall be packed properly and labeled individually with relevant drawing/item number.

Each fabricated material shall be packed in the group. For e.g. all items of 3(a) 3-5mm thickness shall be packed together and labelled as "3-5mm thickness". All material of the Bill of Quantity shall be packed properly in the box such that no damage occurs in the transportation.

If any damage is found in any item, at the delivery site; supplier shall replace the damaged item with new item at no extra cost on the purchaser.

6. Factory Acceptance Test (FAT) / Pre-despatch Inspection (PDI)

FAT / PDI includes verification of material test certificate (TC), visual and dimensional inspection of ordered items. Supplier shall send the detailed dimension report of each component as per drawings.

7. Site Acceptance Test (SAT)

Upon receipt of material at the delivery site, SAT will be performed which includes verification of material TC, visual and dimensional inspection. Dimensional inspection (random or complete lot) can be done at site at purchaser's discretion.

Appendix-1

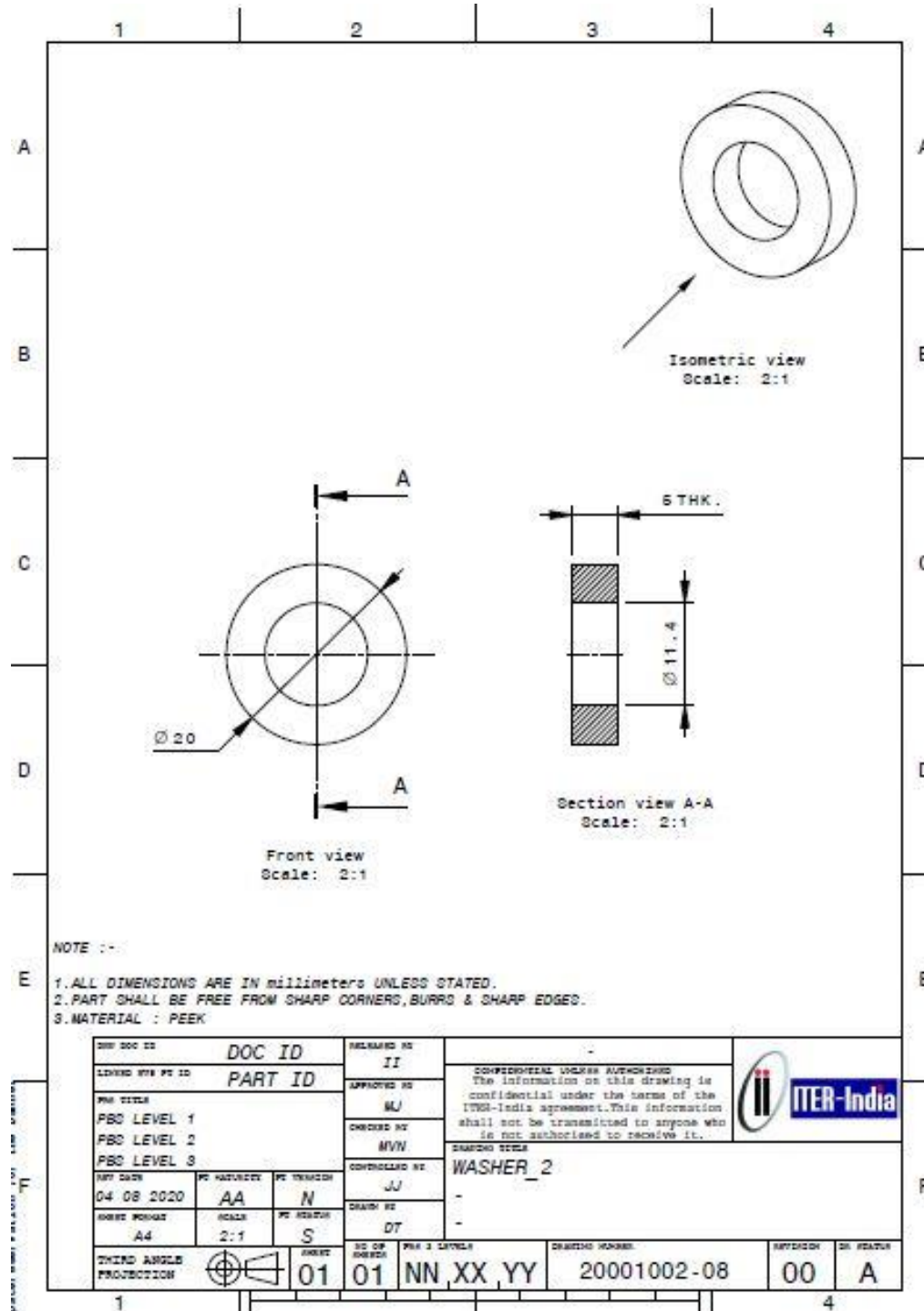
Technical Compliance Sheet

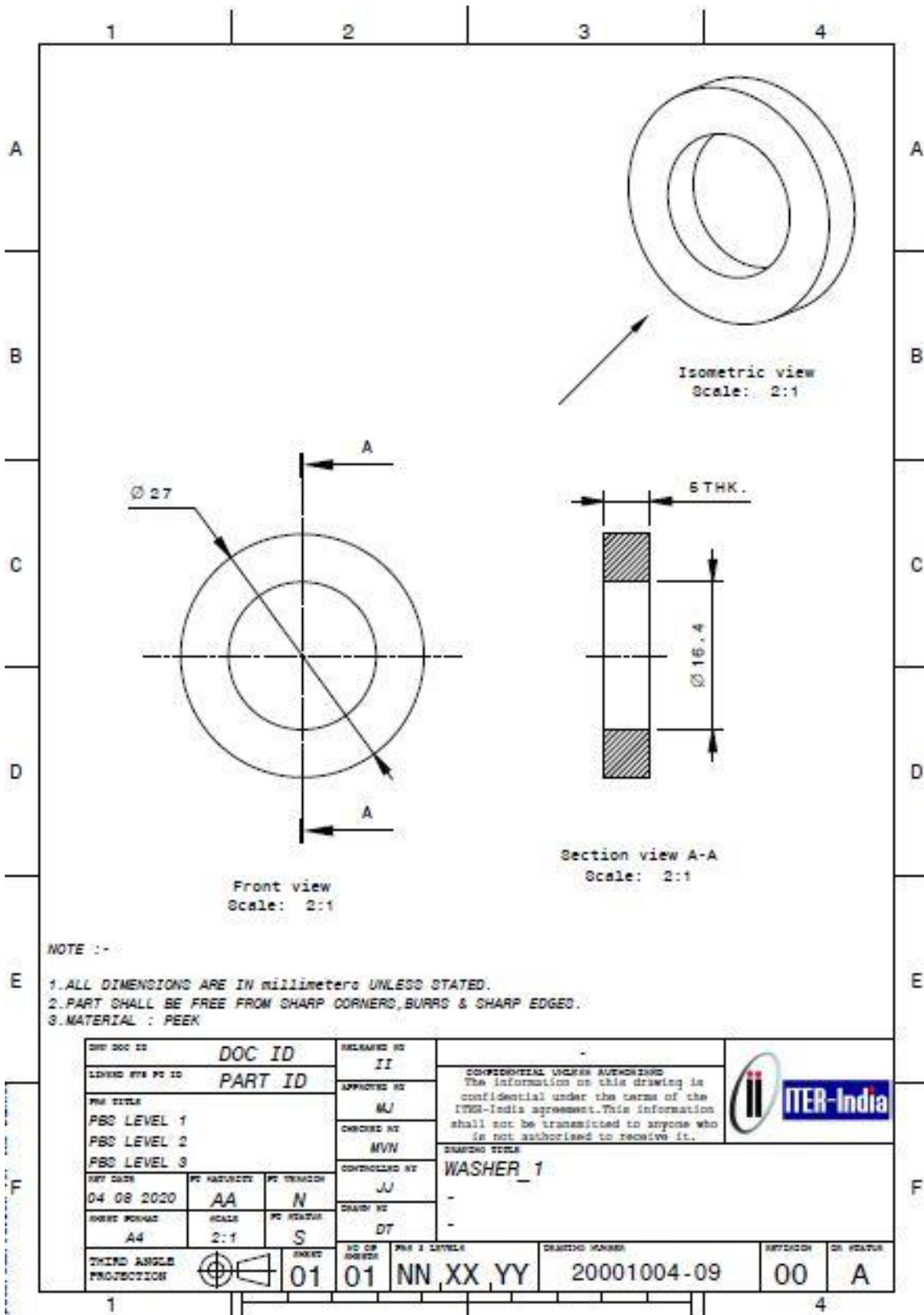
Sr. No.	Description	Units	Specification required by ITER-India	Specification offered by M/s _____
1	Specific Gravity/Density	gm/cm ³	1.4 ± 10%	
2	Water absorption	%	Less than 0.6%	
3	Dielectric Strength/Electric strength	kV/mm	Equal or more than 16	
4	Flexural strength	MPa	Equal or more than 150	
5	Compressive Strength	MPa	Equal or more than 120	
6	Bidder have read and understood the tender document completely. Bidder comply with all the requirements mentioned from Sr.1 to Sr.7? (Yes/No)			
7	Bidder have received, understood and checked drawings & dimensions in Appendix-2? (Yes/No)			
8	Confirm brand of offered PEEK material from recommended brands GEHR, Roechling/Rochling, Mitsubishi, Victrex			

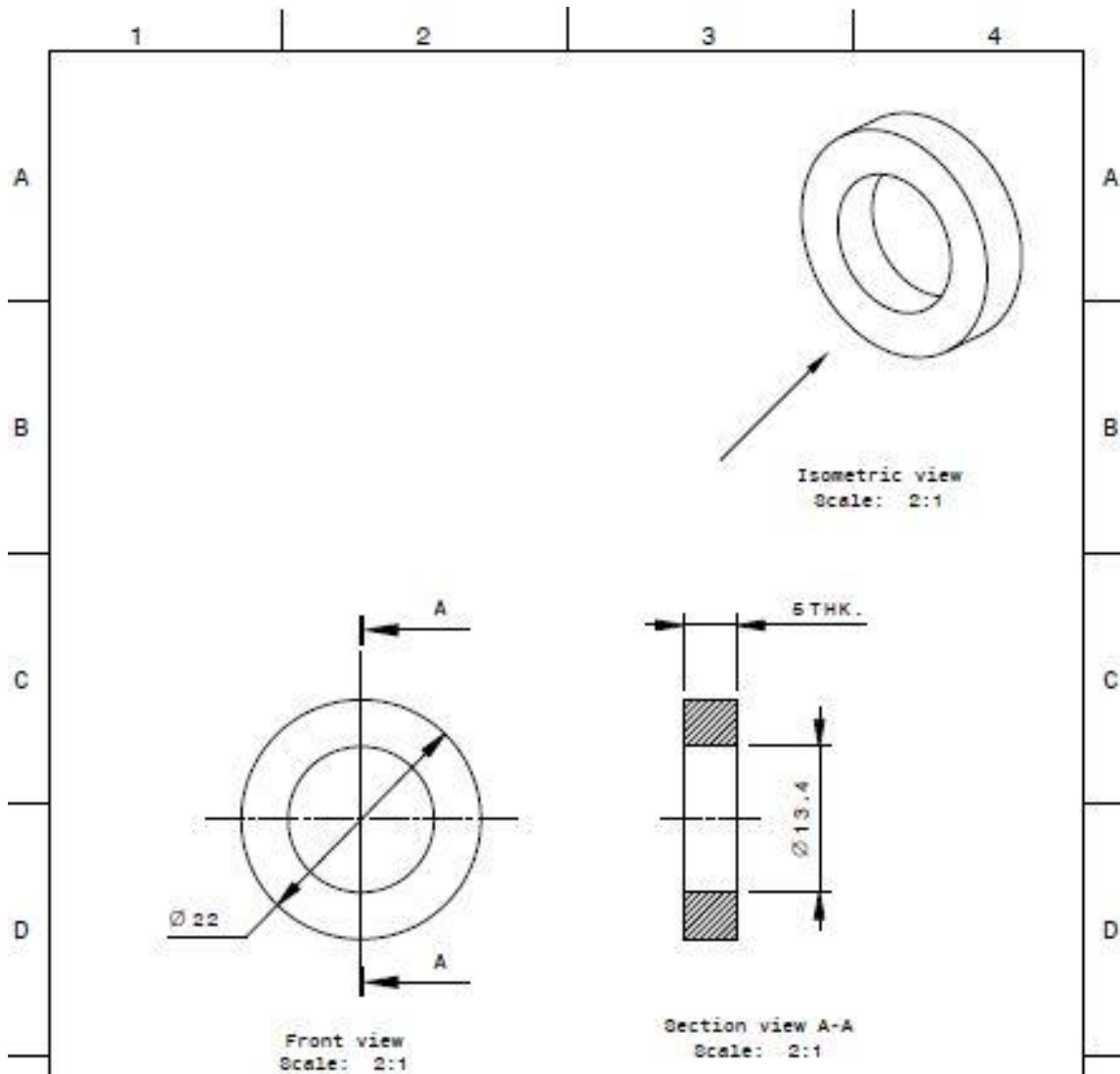
Bidder's Signed and Stamped with Date

Appendix-2

3(a) 3-5mm thickness





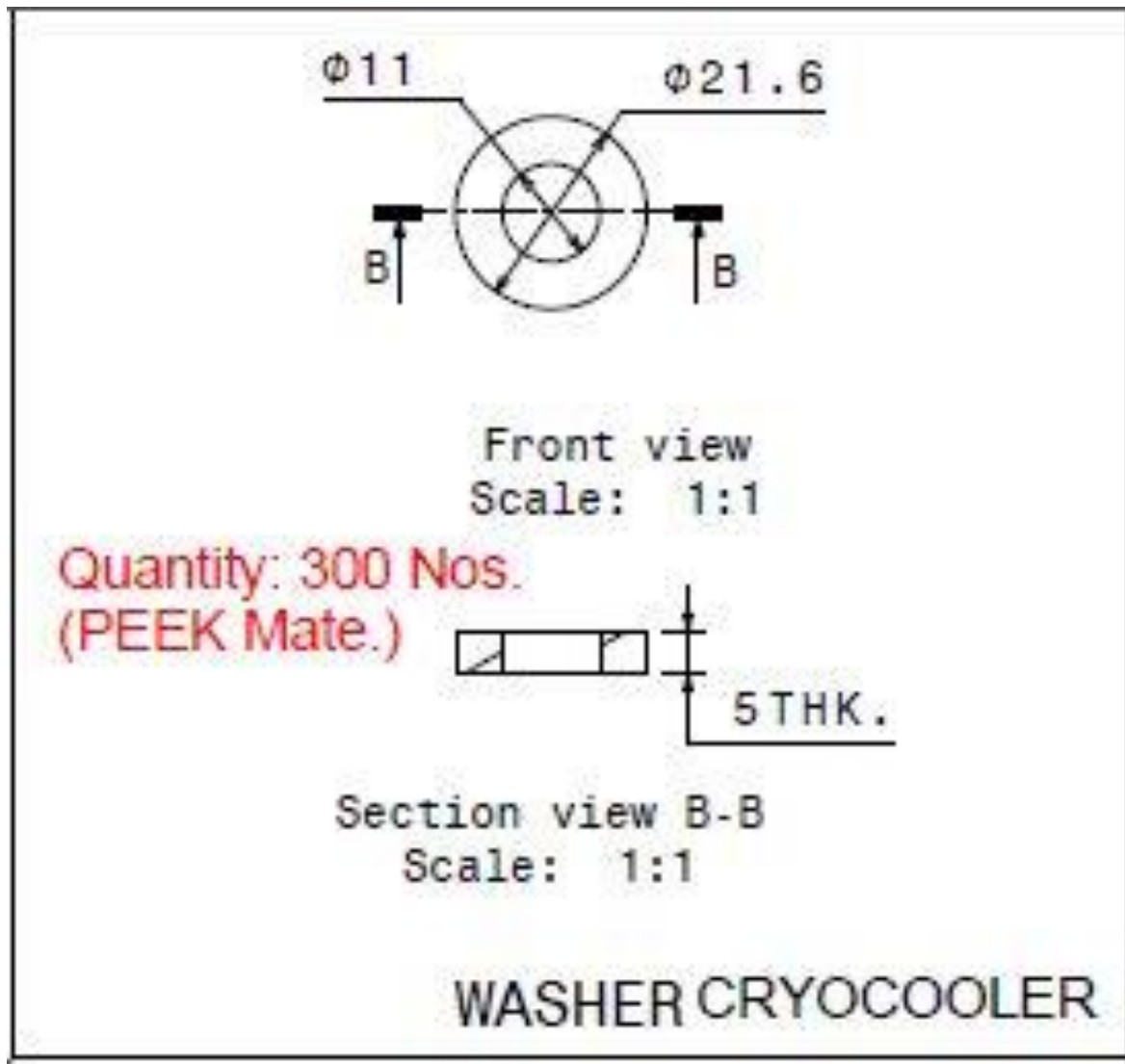


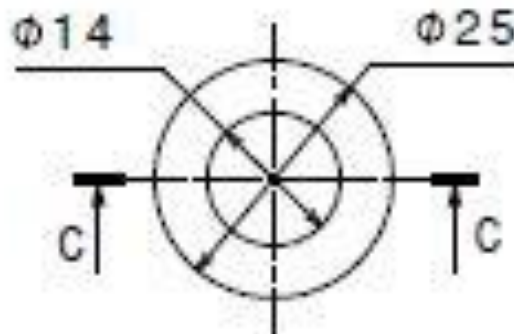


NOTE :-

1. ALL DIMENSIONS ARE IN millimeters UNLESS STATED.
2. PART SHALL BE FREE FROM SHARP CORNERS, BURRS & SHARP EDGES.
3. MATERIAL : PEEK

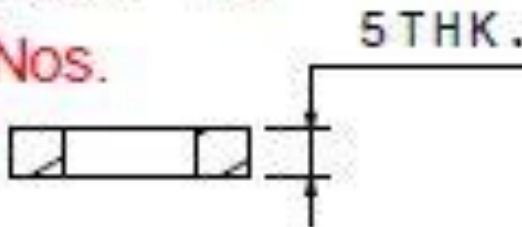
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PIR TITLE PBS LEVEL 1 PBS LEVEL 2 PBS LEVEL 3				CHECKED BY MVN		DRAWING TITLE WASHER_3	
DATE		SCALE		CONTROLLED BY JJ			
04 08 2020		AA		N		DRAWN BY DT	
SHEET NO		SCALE		STATUS			
A4		2:1		S			
THIRD ANGLE PROJECTION				NO OF SHEETS 01		PIR & LEVEL NN, XX, YY	
				DRAWING NUMBER 20001003-08		REVISION 00	
						IN REVISION A	





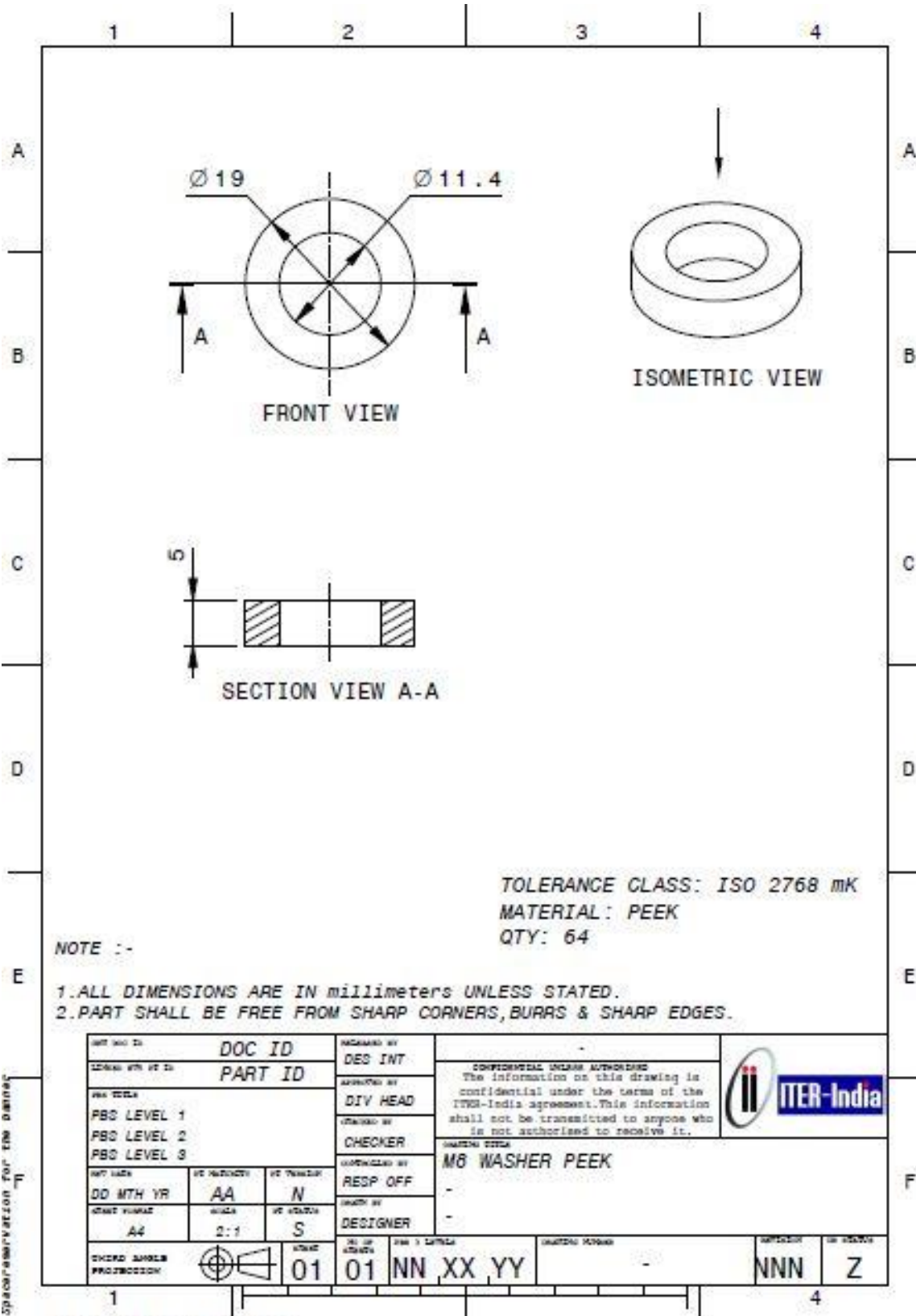
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Scale: 1:1

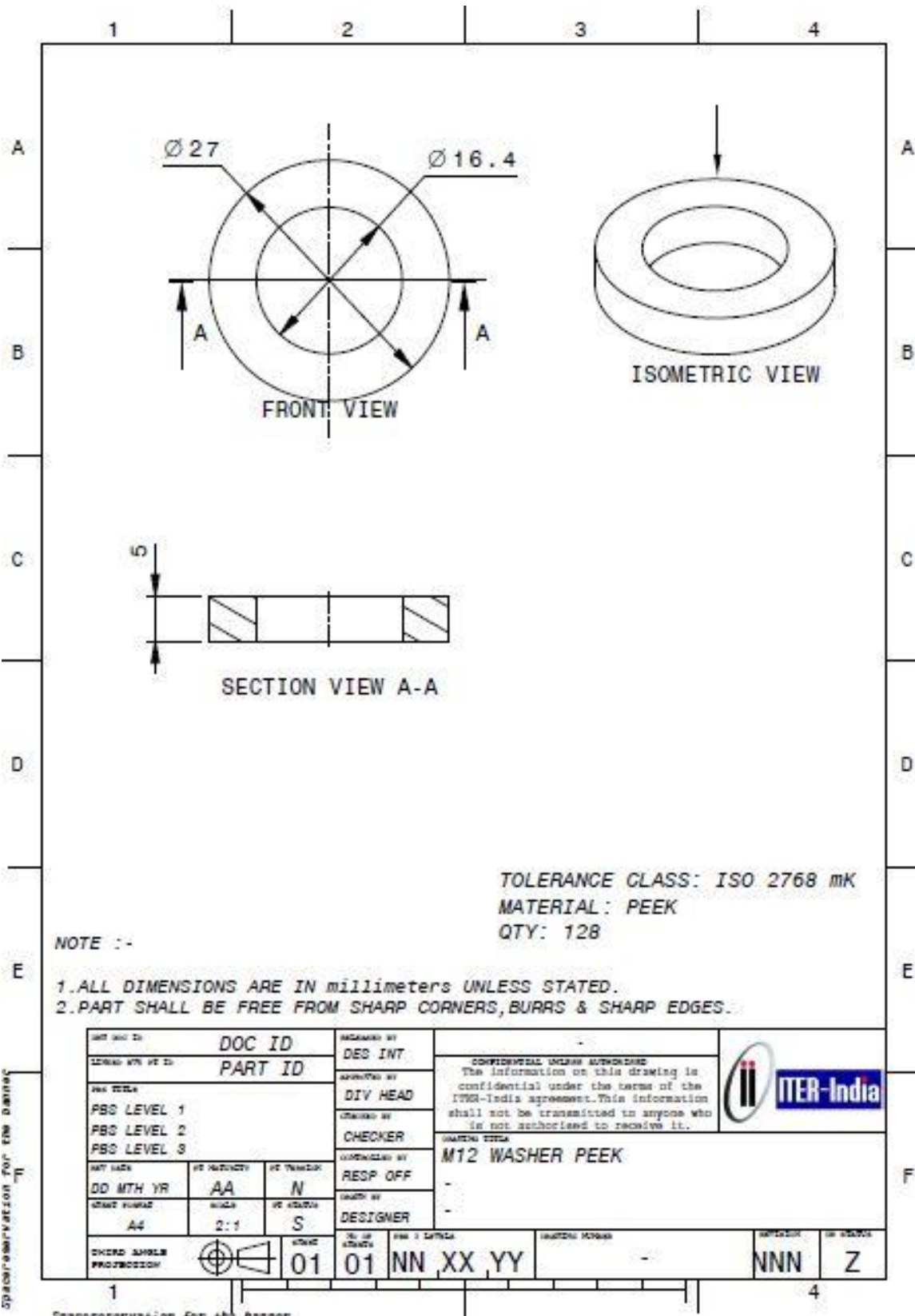
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(PEEK Mate.)



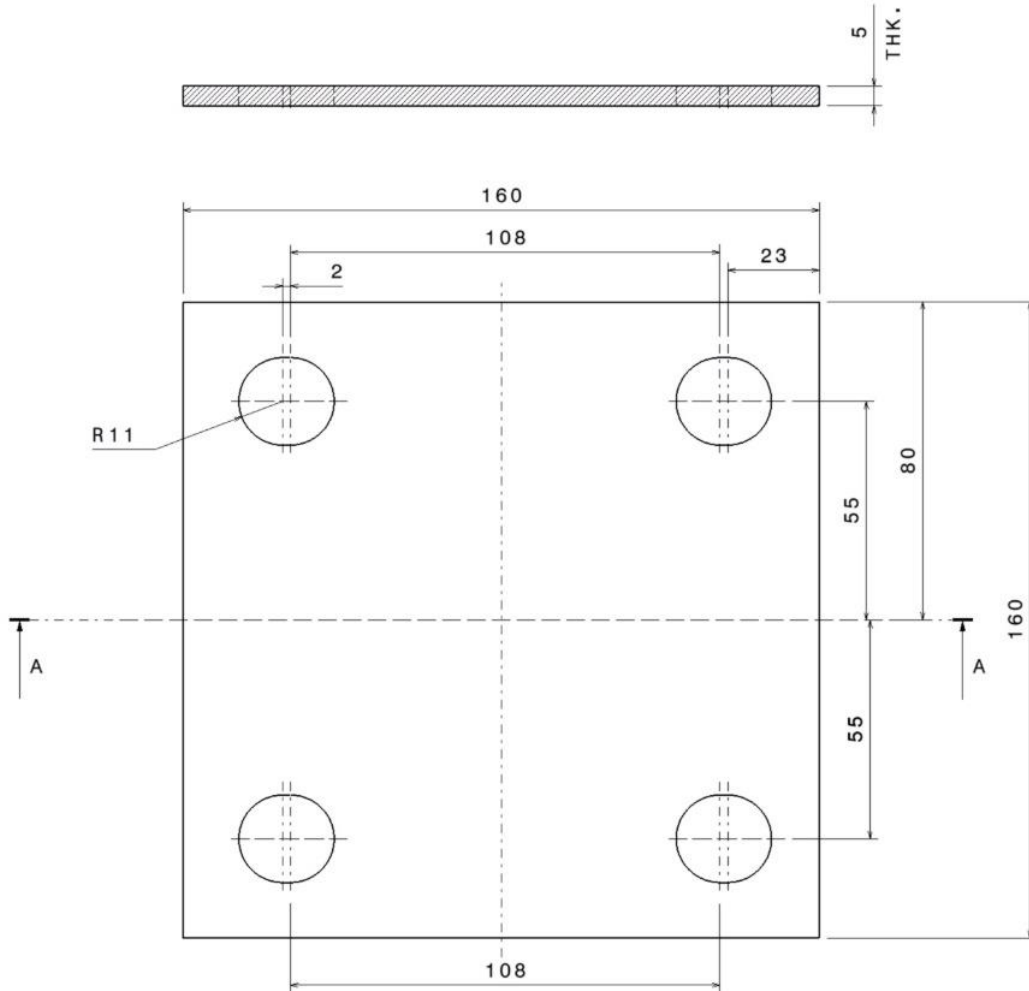
Section view C-C
Scale: 1:1

WASHER CRYOLINE

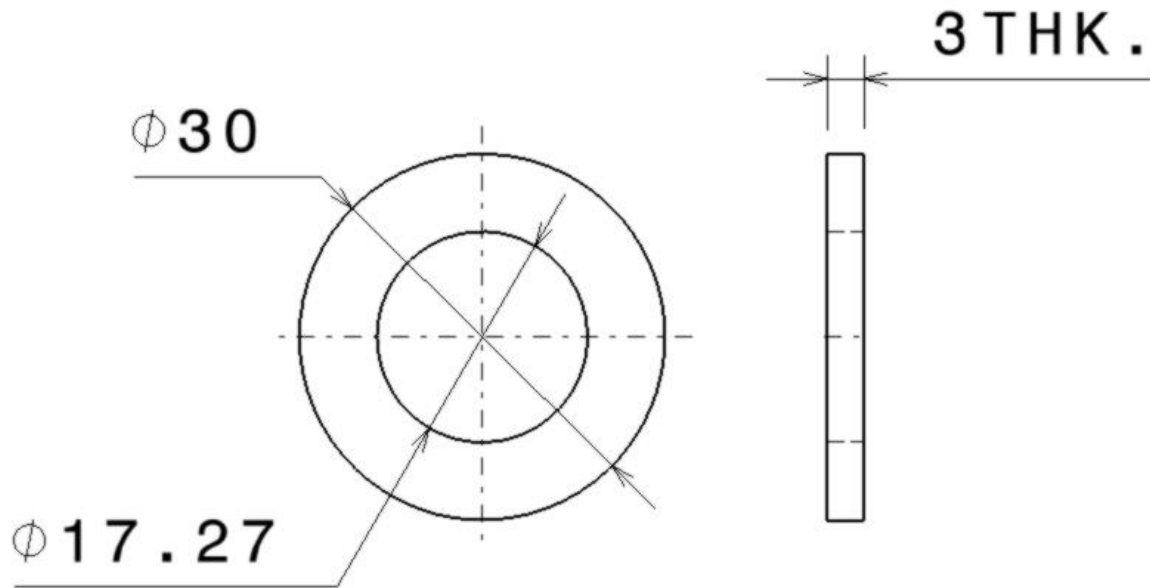




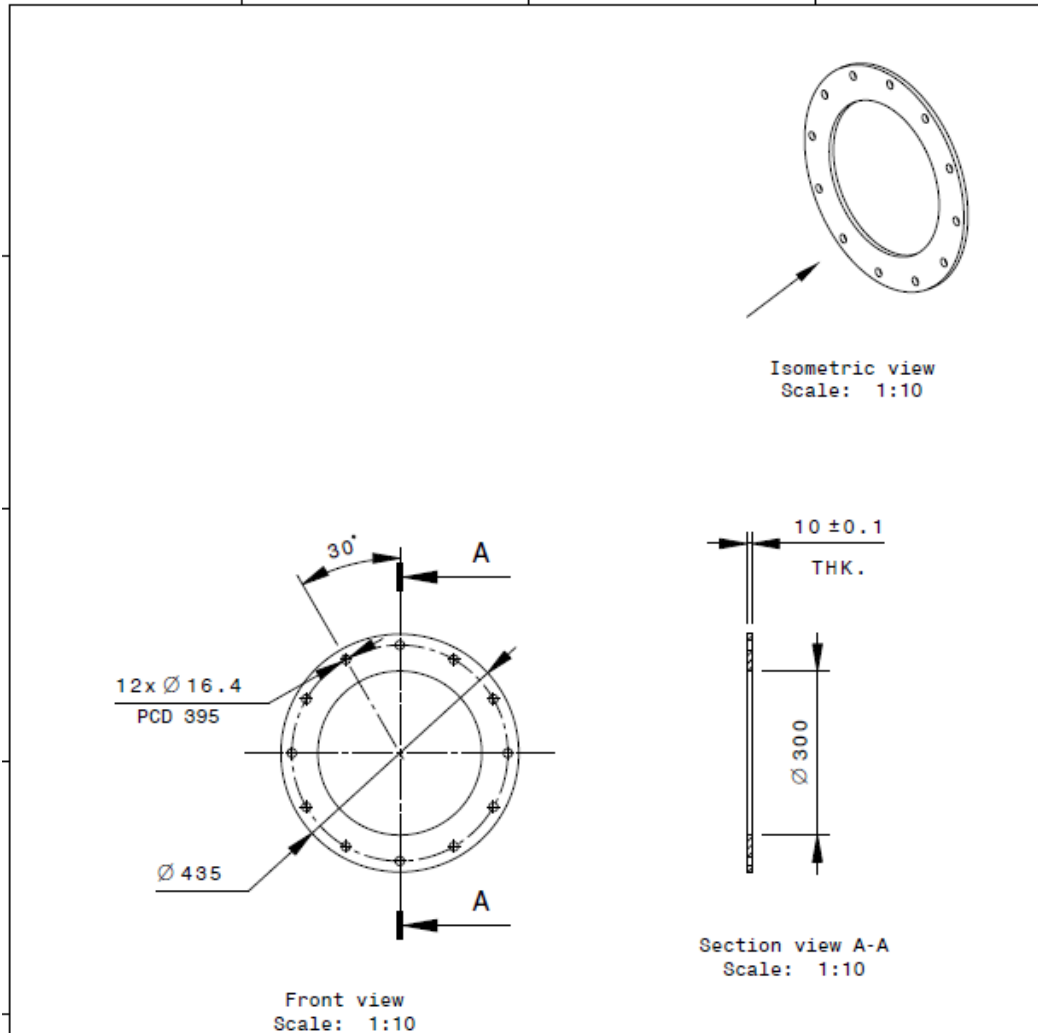
ISOLATION PLATE



ISOLATION WASHER





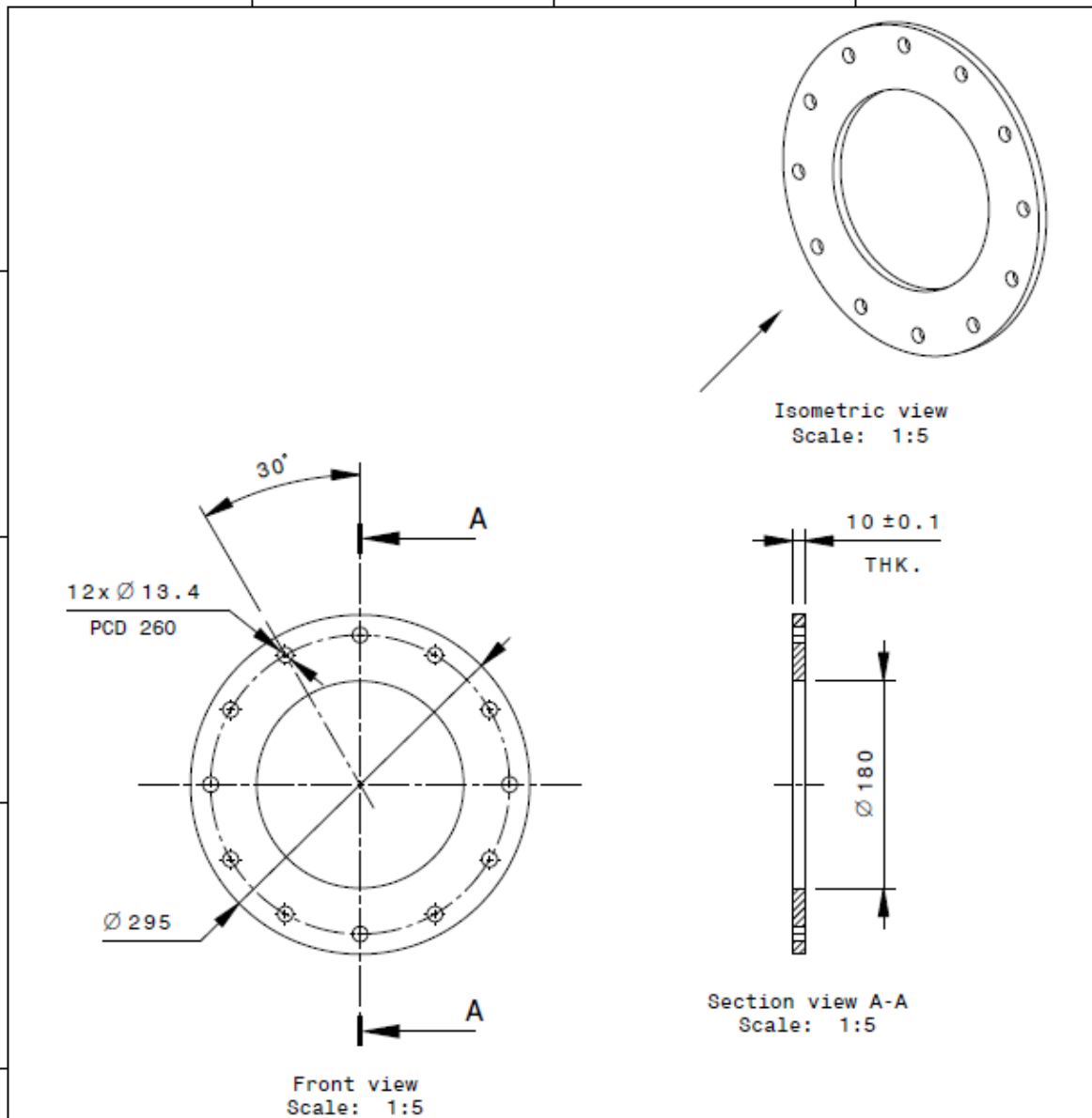
3(b) 10-12mm thickness



NOTE :-


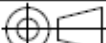
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2. PART SHALL BE FREE FROM SHARP CORNERS, BURRS & SHARP EDGES.
3. MATERIAL : PEEK

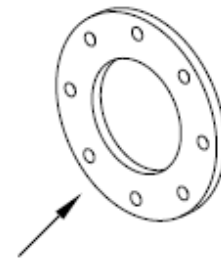
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PBS TITLE					APPROVED BY		DRAWING TITLE ISOLATION_DISK_NB300 - -							
PBS LEVEL 1					MJ									
PBS LEVEL 2					MVN									
PBS LEVEL 3					CONTROLLED BY									
REV DATE					JJ									
04 08 2020			PT MATURITY		N									
SHEET FORMAT			SCALE		PT STATUS		DRAWN BY							
A4			1:10		S		DT							
THIRD ANGLE PROJECTION			SHEET		NO OF SHEETS		PBS 3 LEVELS		DRAWING NUMBER		REVISION		OR STATUS	
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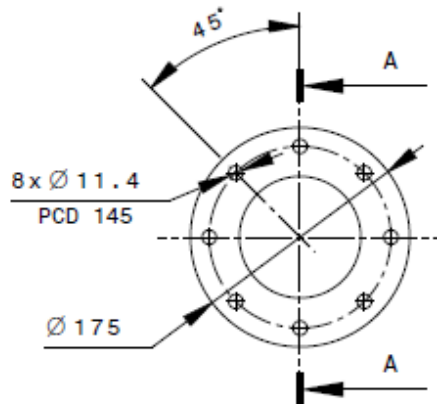
NOTE :-

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2. PART SHALL BE FREE FROM SHARP CORNERS, BURRS & SHARP EDGES.
3. MATERIAL : PEEK

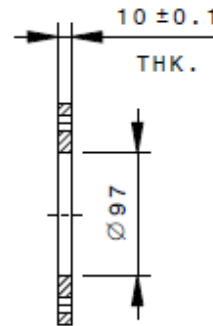
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PBS TITLE					APPROVED BY					
PBS LEVEL 1					MJ					
PBS LEVEL 2					CHECKED BY					
PBS LEVEL 3					MVN					
REV DATE			PT MATURITY	PT VERSION	CONTROLLED BY		DRAWING TITLE			
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A4			1:5	S	DT		-			
THIRD ANGLE PROJECTION				NO OF SHEETS		PBS 3 LEVELS		DRAWING NUMBER	REVISION	OR STATUS
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Isometric view
Scale: 1:5




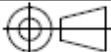
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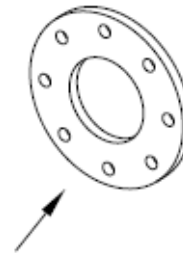


Section view A-A
Scale: 1:5

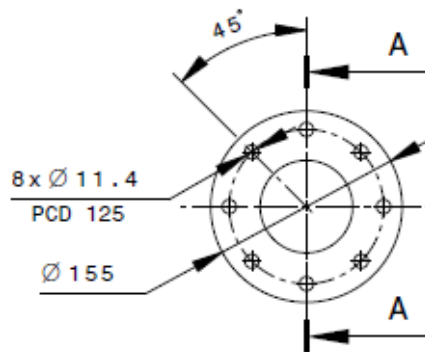
NOTE :-

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3. MATERIAL : PEEK

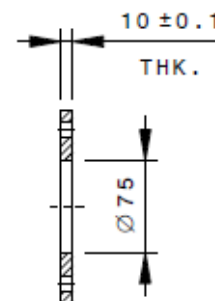
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									REVISION	
									00	
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Isometric view
Scale: 1:5




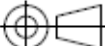
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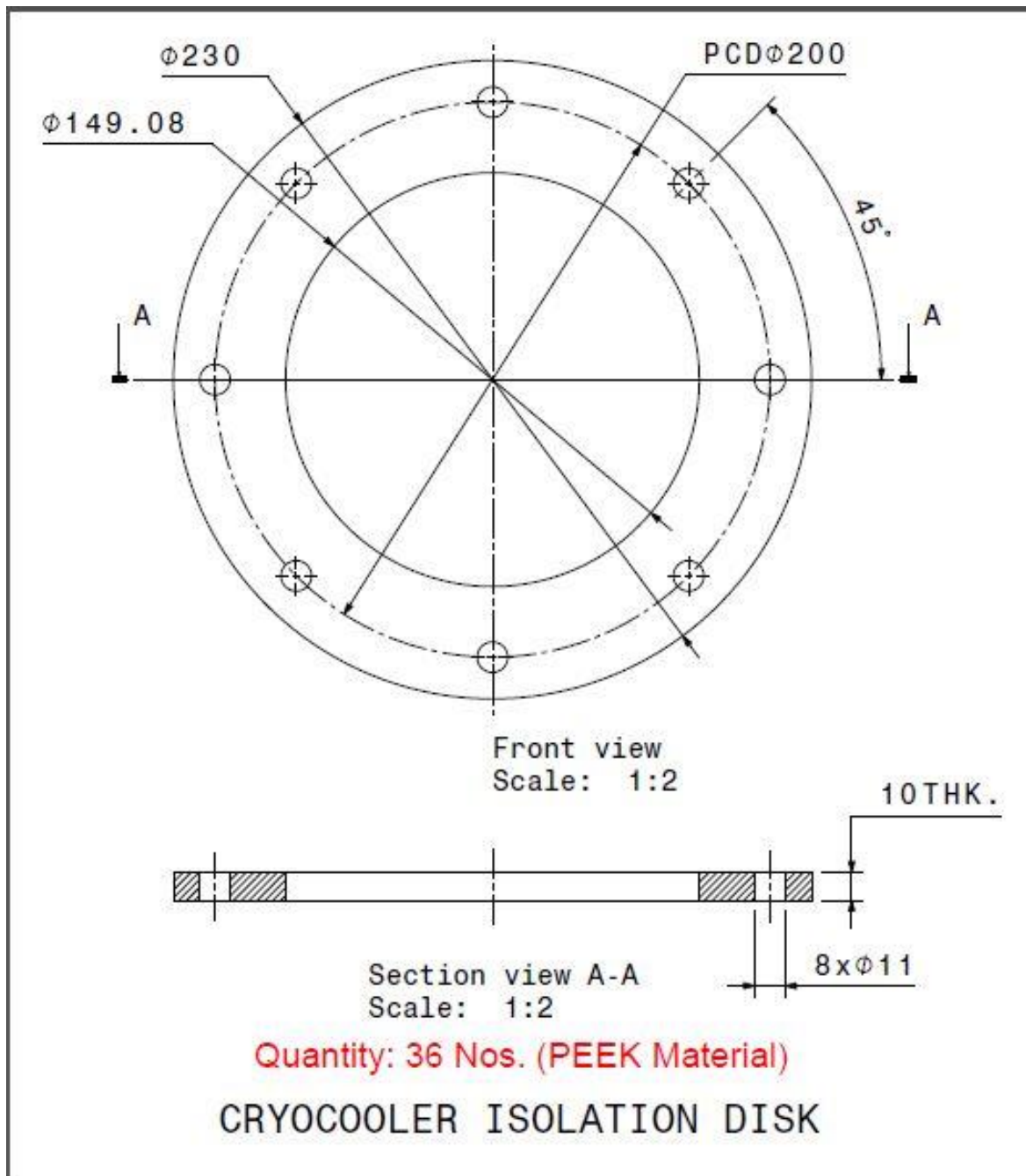


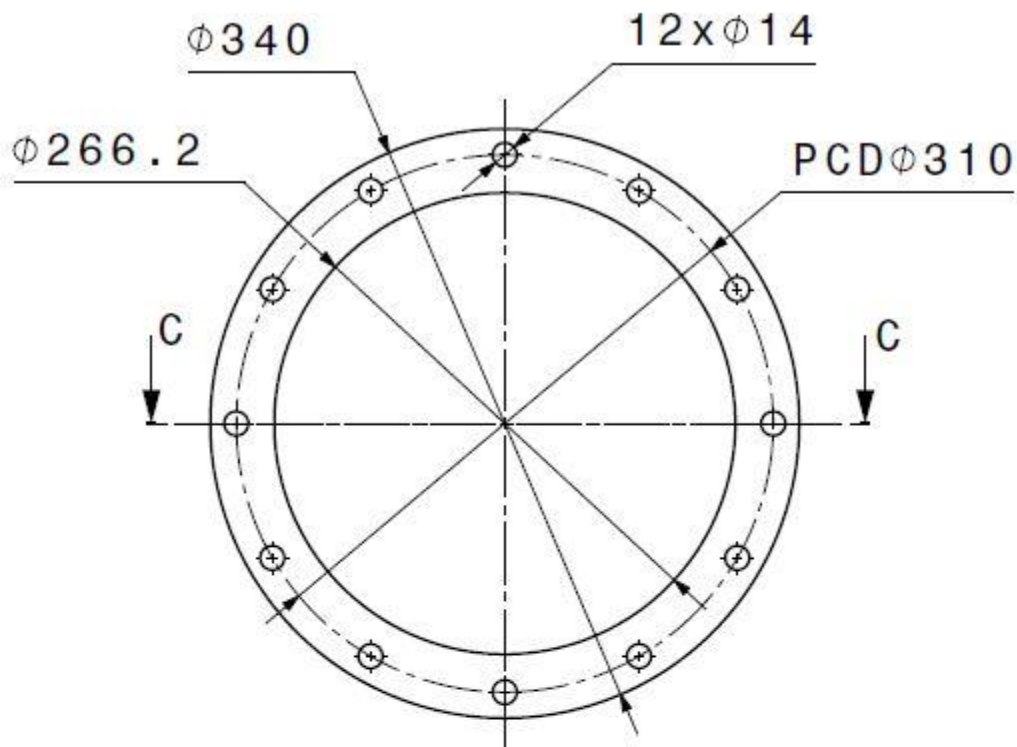
Section view A-A
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NOTE :-

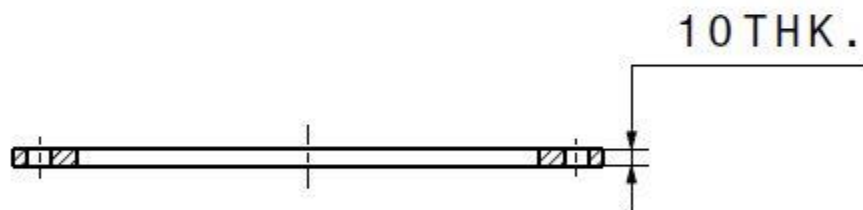
- 1.ALL DIMENSIONS ARE IN millimeters UNLESS STATED.
- 2.PART SHALL BE FREE FROM SHARP CORNERS,BURRS & SHARP EDGES.
- 3.MATERIAL : PEEK

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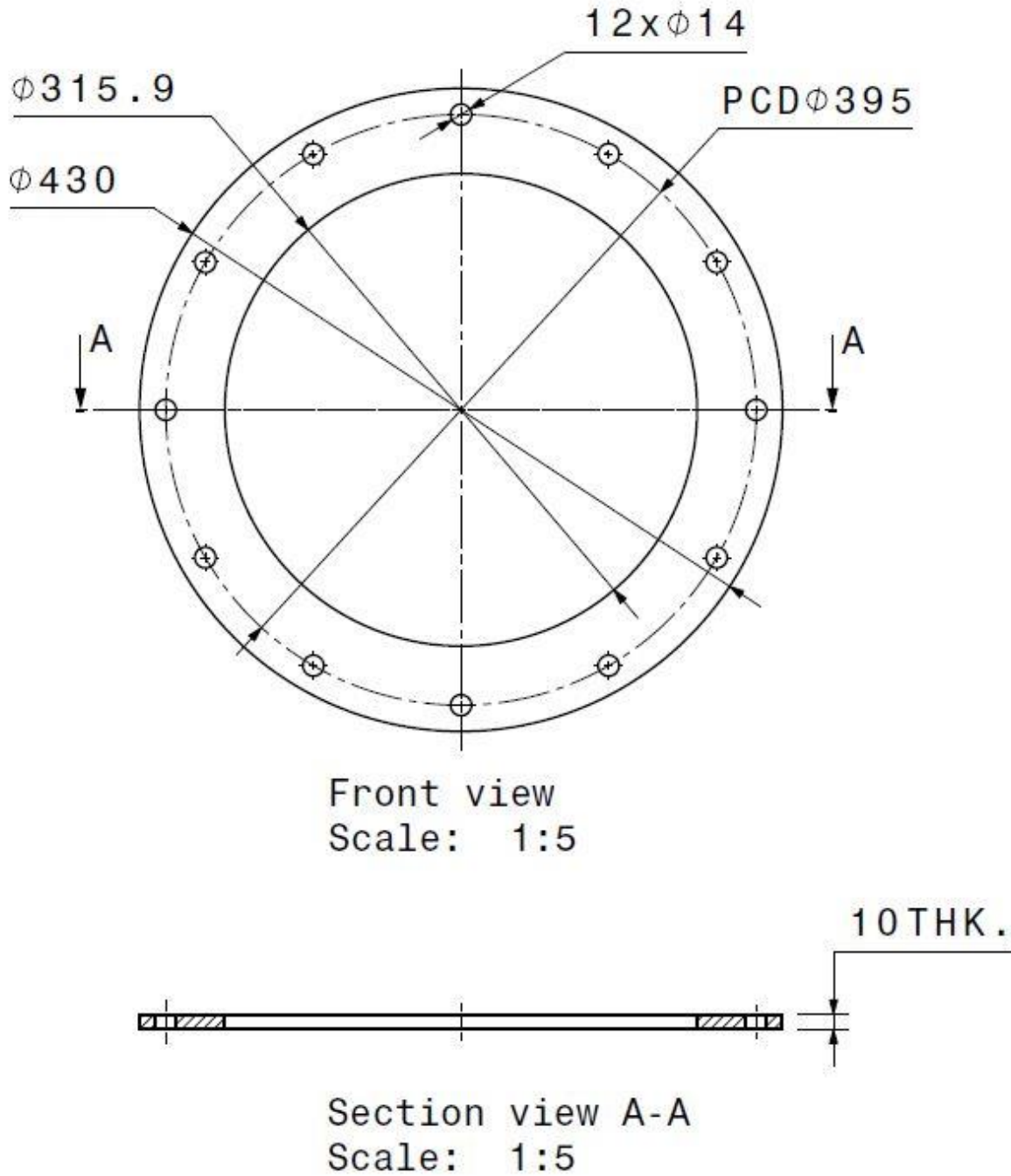


Front view
Scale: 1:5



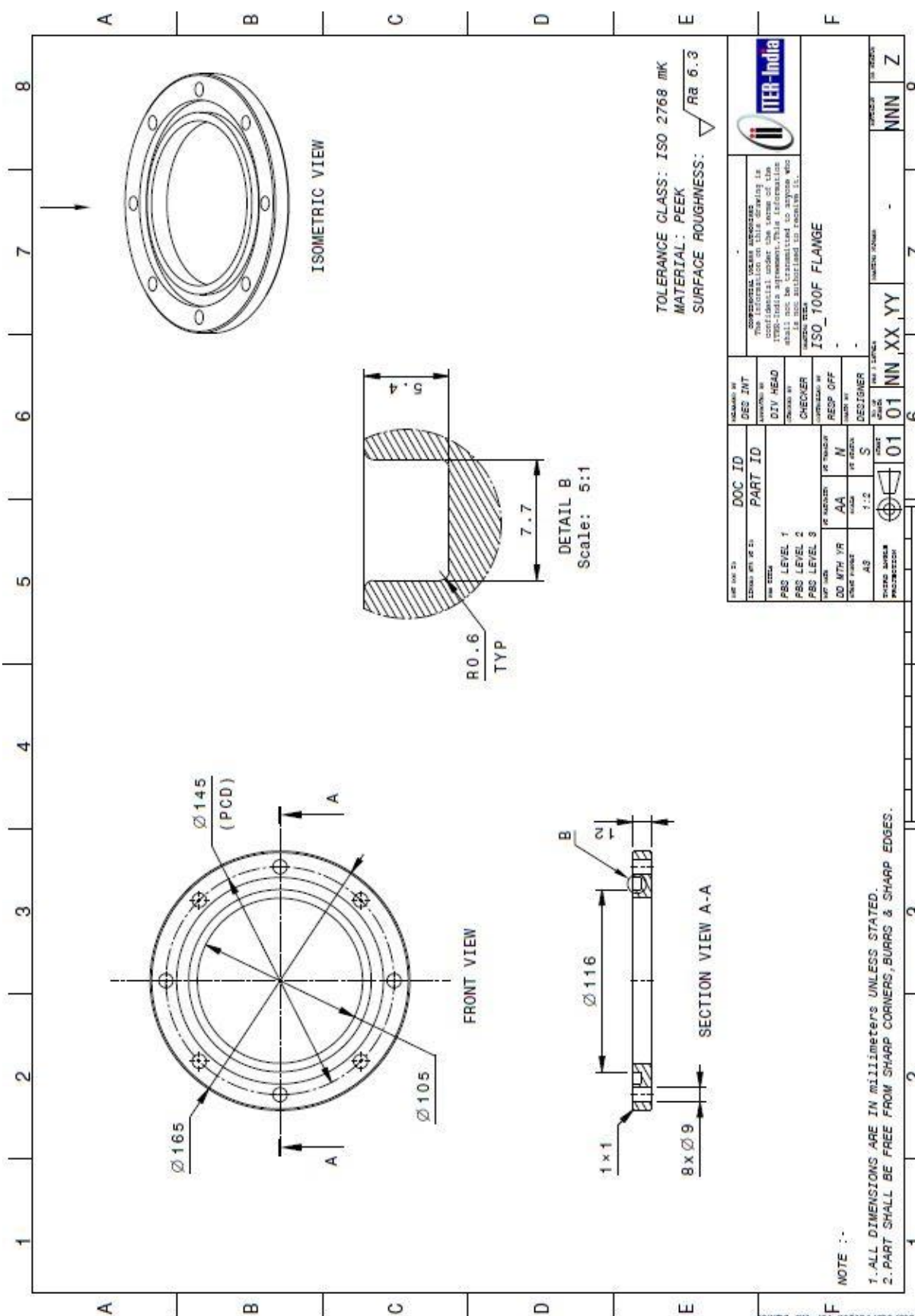
Section view C-C
Scale: 1:5

CRYOLINE ISOLATION DISK - 1
Quantity - 6 Nos. (PEEK Material)

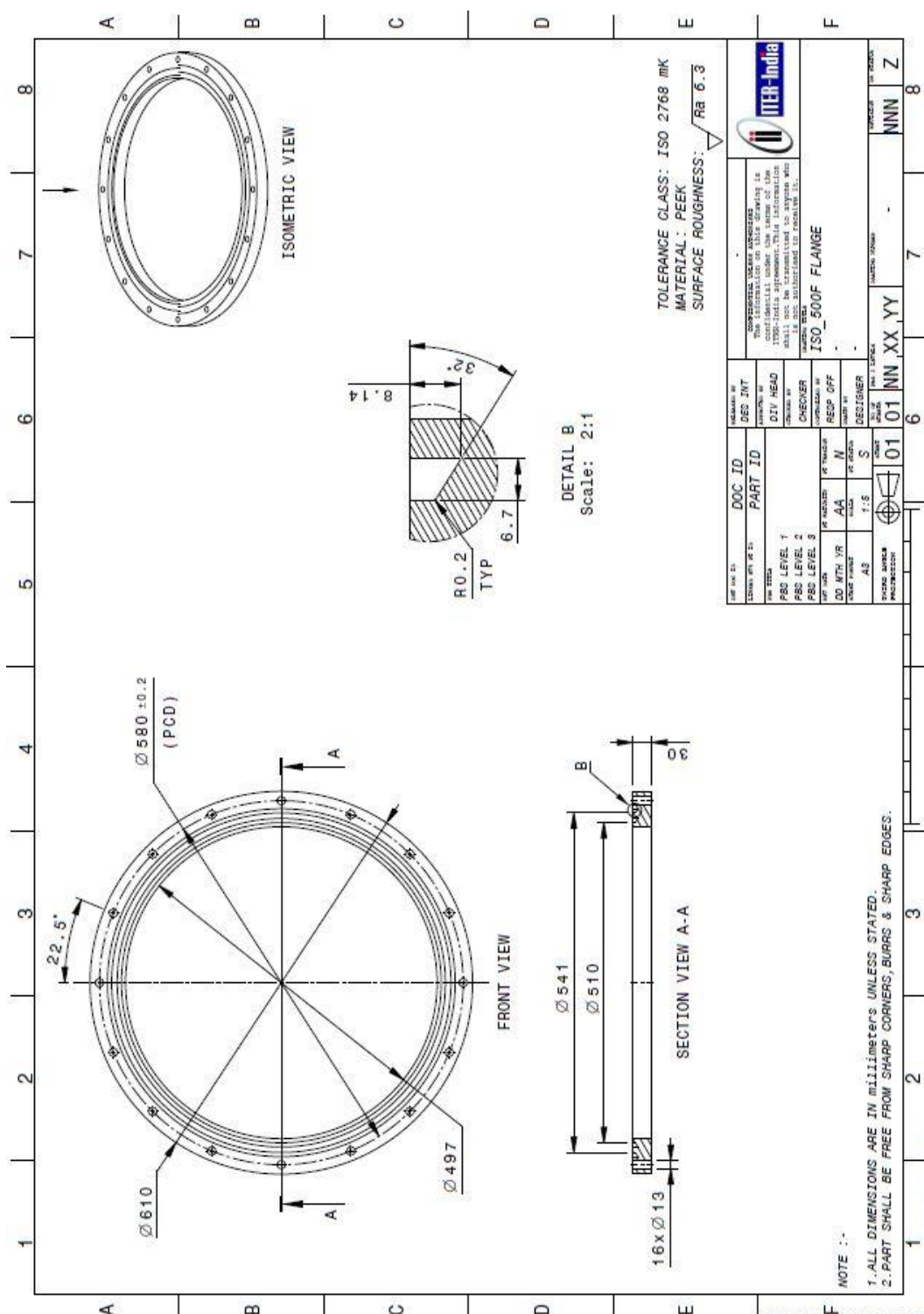


CRYOLINE ISOLATION DISK - 2

Quantity - 6 Nos. (PEEK Material)

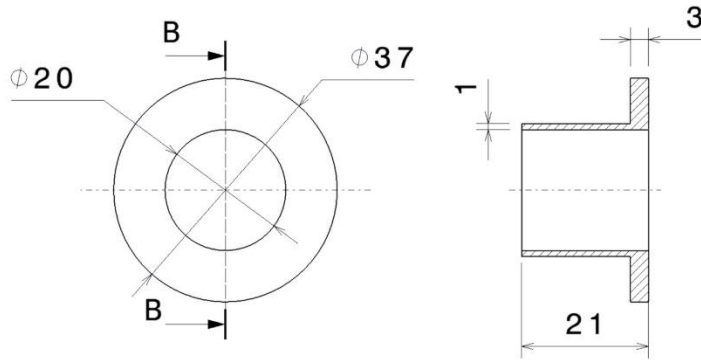


3(c) 30mm thickness



3(d) PEEK RODS

ISOLATION_BUSH_1



ISOLATION_BUSH_2

