
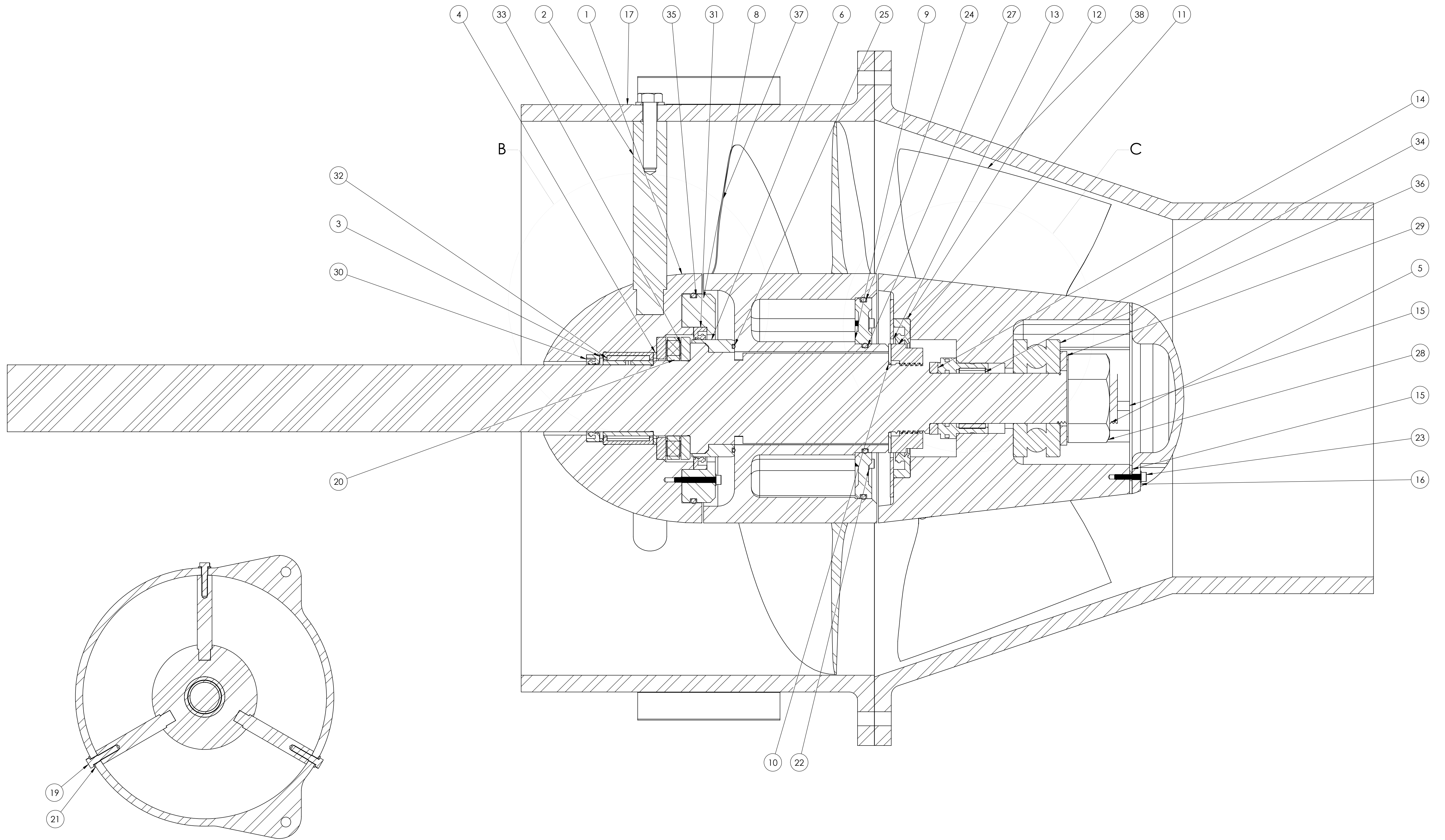


ISOMETRIC VIEW

**QUOTATION PURPOSE ONLY
NOT FOR MANUFACTURING
DIMENSIONS MAYBE SUBJECTED TO CHANGE**


										 Department of Ocean Engineering, IIT Madras	
										TITLE: PROPULSION SYSTEM	
Rev. DESCRIPTION DATE BY										DWG NO. PS-ASM-01	
Linear Dimensions Tolerances		Over 0.5 to 6 ±0.1	Over 6 to 30 ±0.2	Over 30 to 120 ±0.3	Over 120 to 315 ±0.5	TOLERANCES IN METRIC ANGULAR ±0.1°	APPVD. CHK'D.			MASS: 77.12 Kg's	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		HEAT TREATMENT:				DRAWN:				REFER BOM	
UNLESS SPECIFIED ALL MACHINE SURFACES		UNLESS SPECIFIED CORNER RADIUS 0.25 mm	DEBUR AND BREAK SHARP EDGES		AUTHORITY SIGN DATE		QTY:		Scale : NTS	REV :	SHEET 1 OF 4 A2



SECTION G-G
SCALE 1 : 2.5

REFER SHEET 4 OF 4 FOR BOM LIST

QUOTATION PURPOSE ONLY
NOT FOR MANUFACTURING
DIMENSIONS MAYBE SUBJECTED TO CHANGE

 Department of Ocean Engineering, IIT Madras		TITLE: PROPULSION SYSTEM	
DWG NO. PS-ASM-01		MASS: 77.12 Kg's	
Material: REFER BOM		Scale : NTS REV : SHEET 2 OF 4 A1	
QTY:		AUTHORITY:	
DATE:		SIGN:	
HEAT TREATMENT:		DRAWN:	
DIMENSIONS ARE IN MILLIMETRES		CHECKD:	
UNLESS OTHERWISE SPECIFIED		APPVD:	
UNLESS SPECIFIED ALL MACHINERY SURFACES		MFG:	
UNLESS SPECIFIED ALL DIMENSIONS ARE IN MILLIMETRES		QA:	
UNLESS SPECIFIED ALL DIMENSIONS ARE IN MILLIMETRES		DATE:	
UNLESS SPECIFIED ALL DIMENSIONS ARE IN MILLIMETRES		BY:	
UNLESS SPECIFIED ALL DIMENSIONS ARE IN MILLIMETRES		DESCRIPTION:	
UNLESS SPECIFIED ALL DIMENSIONS ARE IN MILLIMETRES		PROPRIETARY AND CONFIDENTIAL	
UNLESS SPECIFIED ALL DIMENSIONS ARE IN MILLIMETRES		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ANY REPRODUCING IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.	


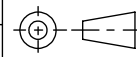

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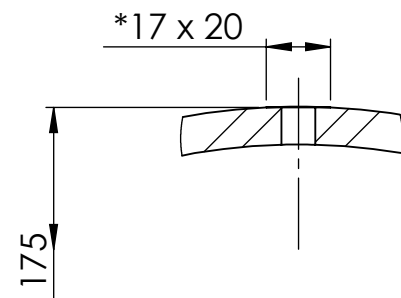
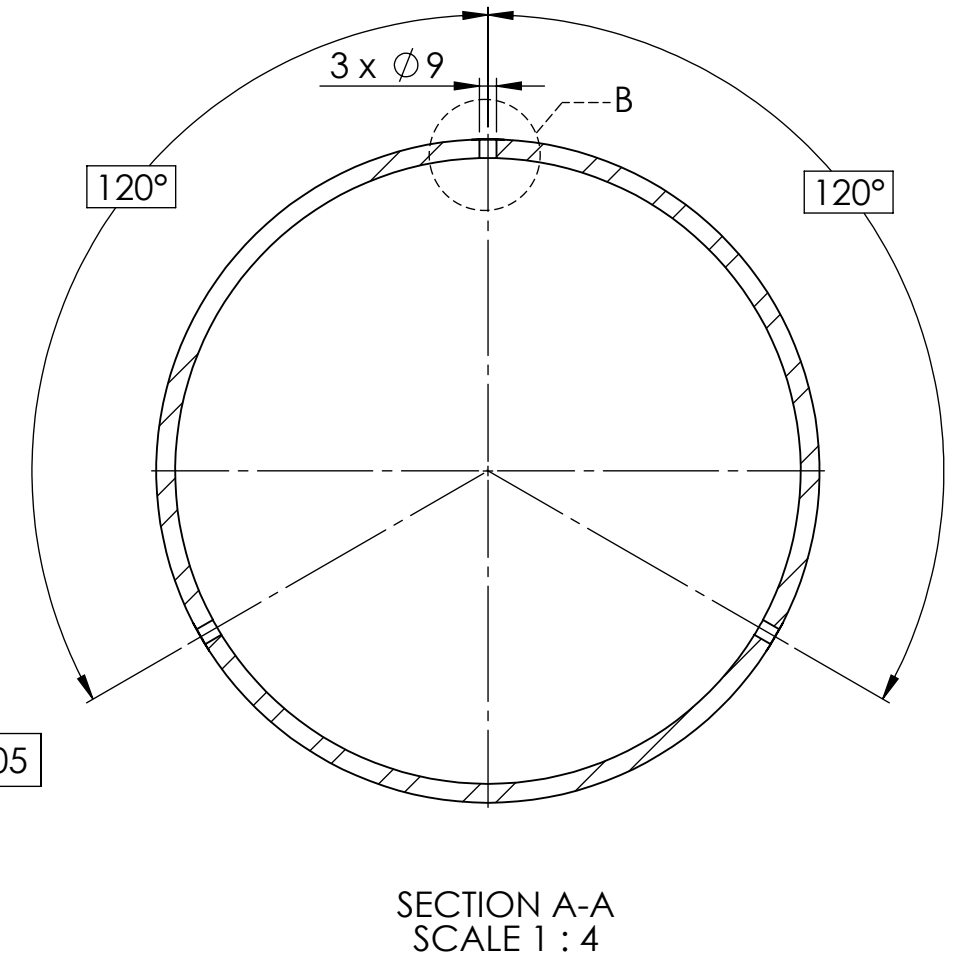
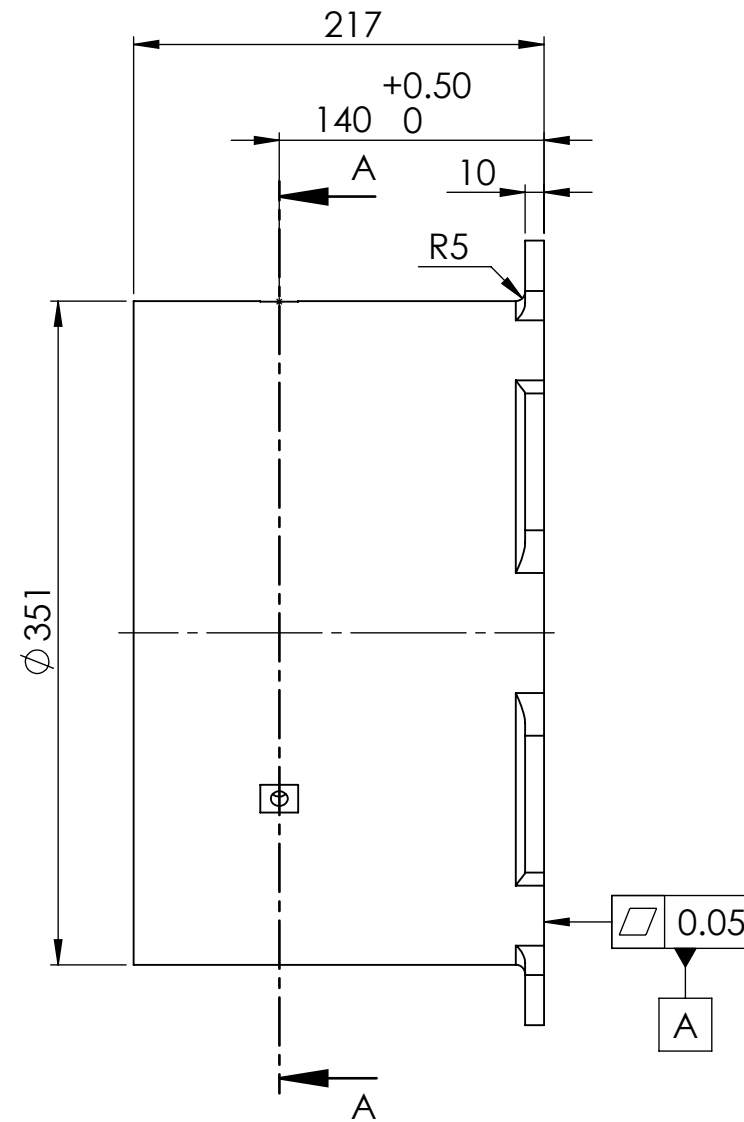
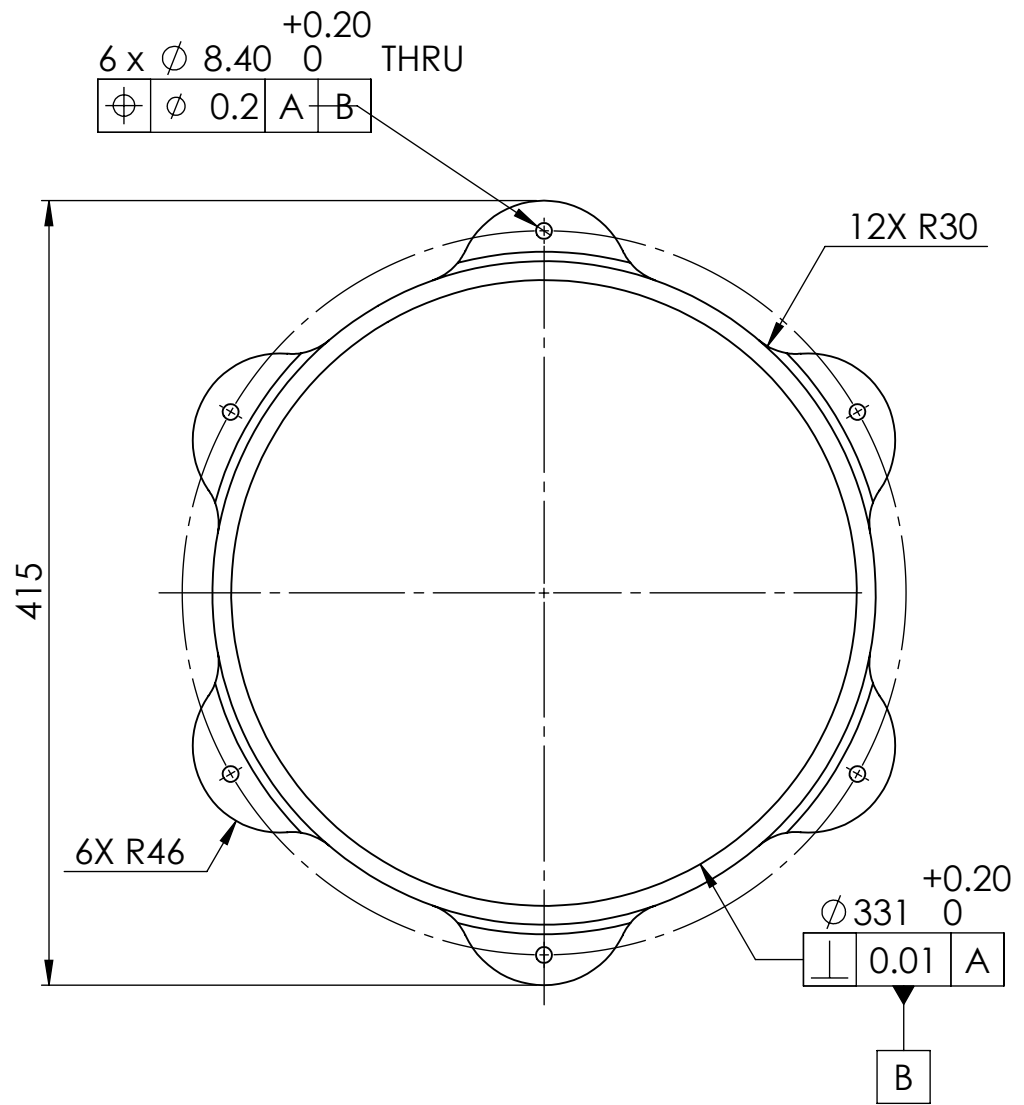
OVERALL PART LIST

ITEM NO.	DRAWING NUMBER	TITLE	MATERIAL	QTY.
1	PS-PRT-01	NOSE	SS2205	1
2	PS-PRT-02	SUPPORTING ROD	SS2205	3
3	PS-PRT-03	SPACER - 1	PTFE (general)	1
4	PS-PRT-04	SPACER -2	PTFE (general)	1
5	PS-PRT-05	SHAFT	SS2205	1
6	PS-PRT-06	SLEEVE-PROPULSION SYSTEM	AISI 316 Annealed Stainless Steel Bar (SS)	1
7	PS-PRT-07	SEAL HOUSING	AISI 316 Annealed Stainless Steel Bar (SS)	1
8	PS-PRT-08	HUB	SS2205	1
9	PS-PRT-09	O-RING PLATE	AISI 316 Annealed Stainless Steel Bar (SS)	1
10	PS-PRT-10	GASKET (LOCKNUT)	NEOPRENE	1
11	PS-PRT-11	LOCKNUT	AISI 316 Stainless Steel Sheet (SS)	1
12	PS-PRT-12	STATOR- REAR	AISI 316 Annealed Stainless Steel Bar (SS)	1
13	PS-PRT-13	COVER PLATE-REAR	AISI 316 Stainless Steel Sheet (SS)	1
14	PS-PRT-14	Washer	AISI 316 Stainless Steel Sheet (SS)	1
15	PS-PRT-15	GASKET (END CAP)	NEOPRENE	1
16	PS-PRT-16	END CAP	AISI 316 Stainless Steel Sheet (SS)	1
17	PS-PRT-17	CASING-FRONT	AISI 316 Annealed Stainless Steel Bar (SS)	1
18	PS-PRT-18	CASING-REAR	AISI 316 Annealed Stainless Steel Bar (SS)	1

ITEM NO.	DRAWING NUMBER	TITLE	MATERIAL	QTY.
19	STD PART	IS1364-M8x40x22-N12	STD PART	3
20	STD PART	IS 2269 - M3X20	STD PART	3
21	STD PART	IS 2016 A-9	STD PART	3
22	STD PART	IS 2016 - A- 3.4	STD PART	19
23	STD PART	IS 2269 - M3X16-S	STD PART	16
24	STD PART	O-RING-115X3	STD PART	1
25	STD PART	O-RING-60X2	STD PART	1
35	STD PART	O-RING-120X3	STD PART	1
27	STD PART	O-RING-65X2	STD PART	1
28	STD PART	M30-W-N : IS 1364 (PART 3)	STD PART	1
29	STD PART	IS 2016 A-33	STD PART	1
30	SKF	40x52x8 HMSA10 RG	STD PART	1
31	SKF	70x85x8 HMSA10 V	STD PART	1
32	SKF	NKI 40/30-TN	STD PART	1
33	SKF	81209-TN	STD PART	1
34	SKF	NKXR-30-Z	STD PART	1
35	SKF	65x95x10 HMSA10 RG	STD PART	1
36	SKF	SKF-51406-8,SI,NC,8_68	STD PART	1
37		BLADE - IMPELLER	SS2205	4
38		STATOR - VANE	SS2205	1

**QUOTATION PURPOSE ONLY
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DIMENSIONS MAYBE SUBJECTED TO CHANGE**


										 Department of Ocean Engineering, IIT Madras	
										TITLE: PROPULSION SYSTEM	
Rev. DESCRIPTION DATE BY PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.										Q.A MFG	
Linear Dimensions Over 0.5 to 6 Over 6 to 30 Over 30 to 120 Over 120 to 315					TOLERANCES IN METRIC ANGULAR ±0.1°		 DWG NO. PS-ASM-01		MASS: 77.12 Kg's Material. REFER BOM		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS					HEAT TREATMENT: UNLESS SPECIFIED CORNER RADIUS 0.25 mm		DRAWN. DEBUR AND BREAK SHARP EDGES		AUTHORITY SIGN DATE.		
UNLESS SPECIFIED ALL MACHINE SURFACES					 UNLESS SPECIFIED CORNER RADIUS 0.25 mm		QTY:		Scale : NTS REV : SHEET 4 OF 4 A3		

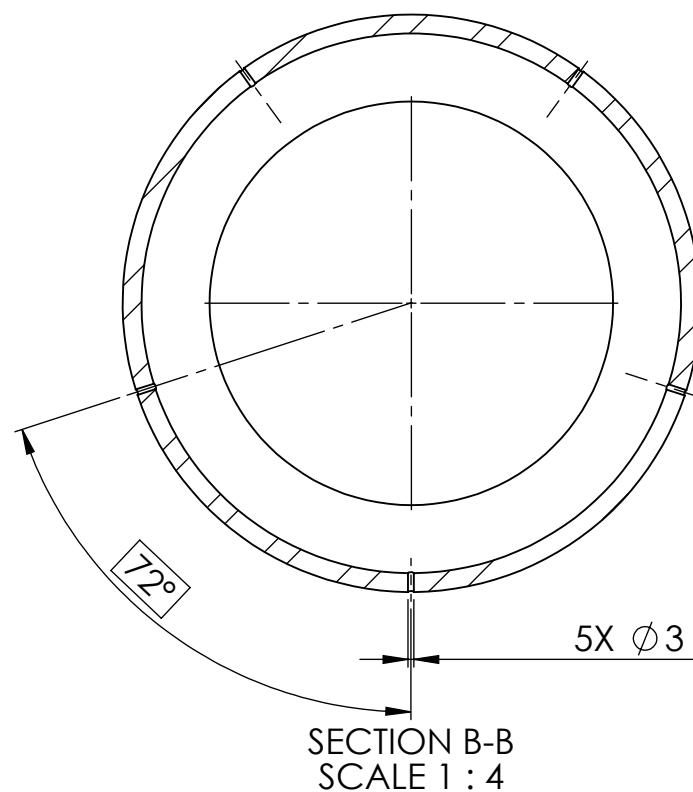
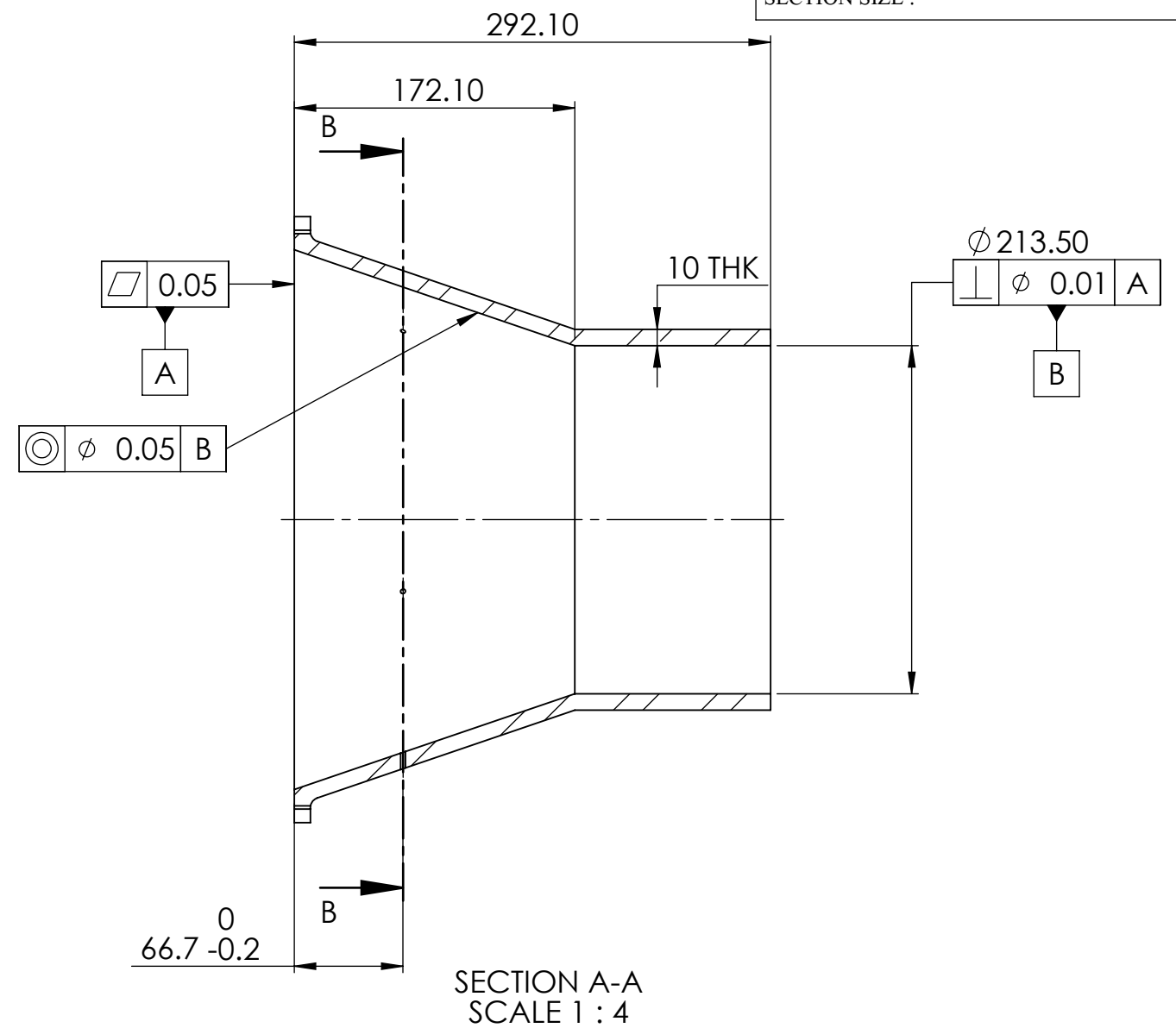
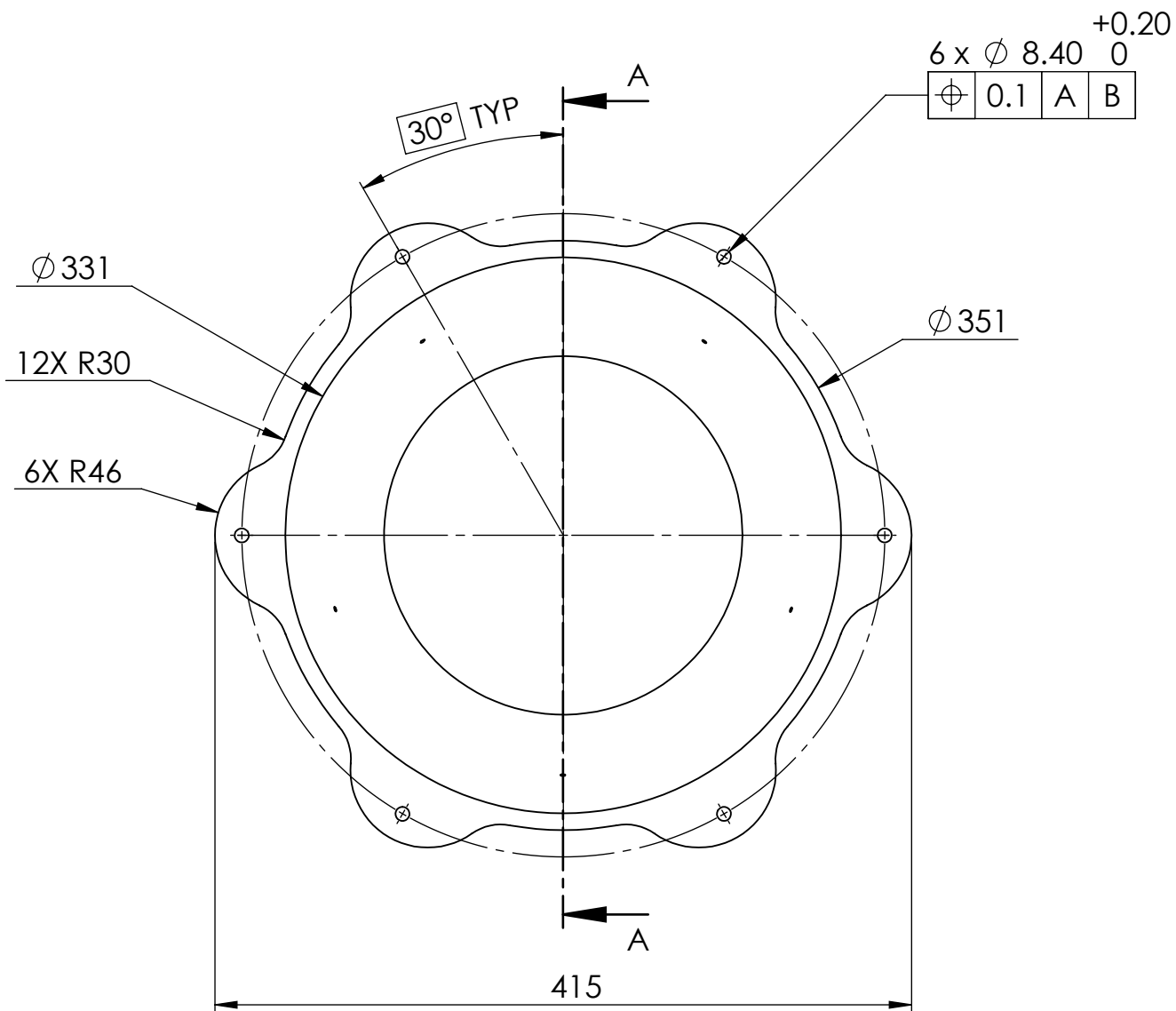


DETAIL B
SCALE 1 : 2


* Flat machining of 17x20 to be given for washer seating.

QUOTATION PURPOSE ONLY
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DIMENSIONS MAYBE SUBJECTED TO CHANGE

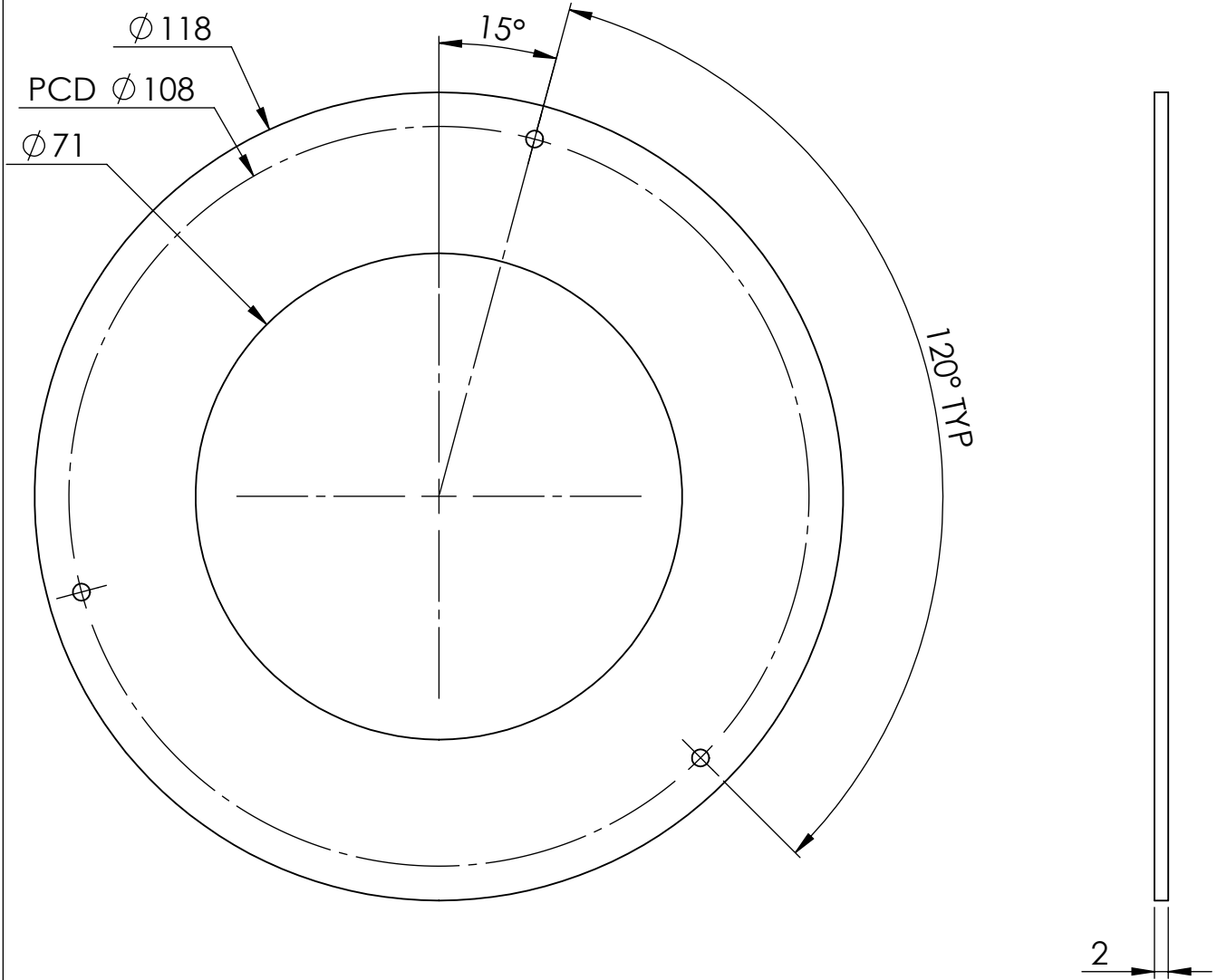
						 Department of Ocean Engineering, IIT Madras	
						TITLE: CASING-FRONT	
Rev. DESCRIPTION DATE BY PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						Q.A MFG APPV'D. CHK'D. DRAWN. 17.12.2019 AUTHORITY SIGN DATE.	
Linear Dimensions Linear Tolerances		Over 0.5 to 6 ± 0.1	Over 6 to 30 ± 0.2	Over 30 to 120 ± 0.3	Over 120 to 315 ± 0.5	TOLERANCES IN METRIC ANGULAR $\pm 0.1^\circ$	DWG NO. : PS-PRT-17 MASS: 19.688 Kg's Material: AISI 316 Annealed Stainless Steel Bar (SS)
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED ALL MACHINE SURFACES		HEAT TREATMENT: UNLESS SPECIFIED CORNER RADIUS 0.25 mm		DEBUR AND BREAK SHARP EDGES		QTY: 01 Scale : NTS REV : 00 SHEET 1 OF 1	




**QUOTATION PURPOSE ONLY
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DIMENSIONS MAYBE SUBJECTED TO CHANGE**

						 Department of Ocean Engineering, IIT Madras	
						TITLE:	
						CASING-REAR	
Rev. DESCRIPTION DATE BY PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						Q.A MFG APPV'D. CHK'D. DRAWN. 17.12.2019 AUTHORITY SIGN DATE.	
Linear Dimensions Linear Tolerances		Over 0.5 to 6 ± 0.1	Over 6 to 30 ± 0.2	Over 30 to 120 ± 0.3	Over 120 to 315 ± 0.5	TOLERANCES IN METRIC ANGULAR $\pm 0.1^\circ$	DWG NO. : PS-PRT-18 MASS: 20.19 Kg's Material: AISI 316 Annealed Stainless Steel Bar (SS)
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED ALL MACHINE SURFACES		HEAT TREATMENT: UNLESS SPECIFIED CORNER RADIUS 0.25 mm		DEBUR AND BREAK SHARP EDGES		QTY: 01 Scale : NTS REV : 00 SHEET 1 OF 1	

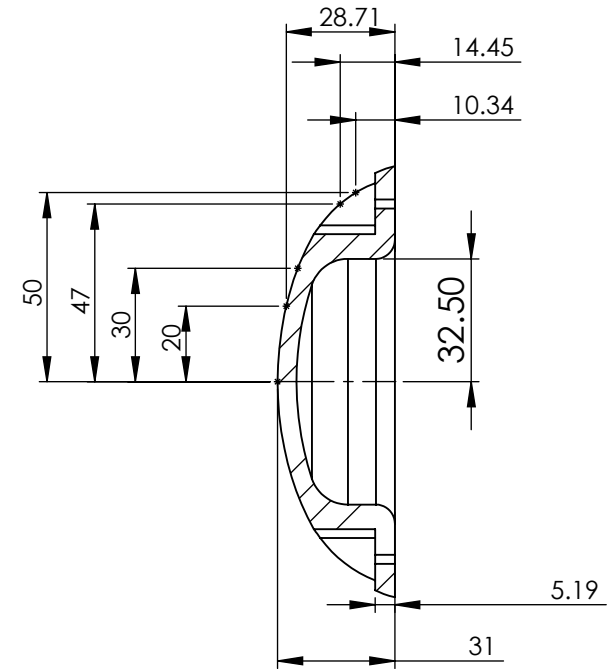
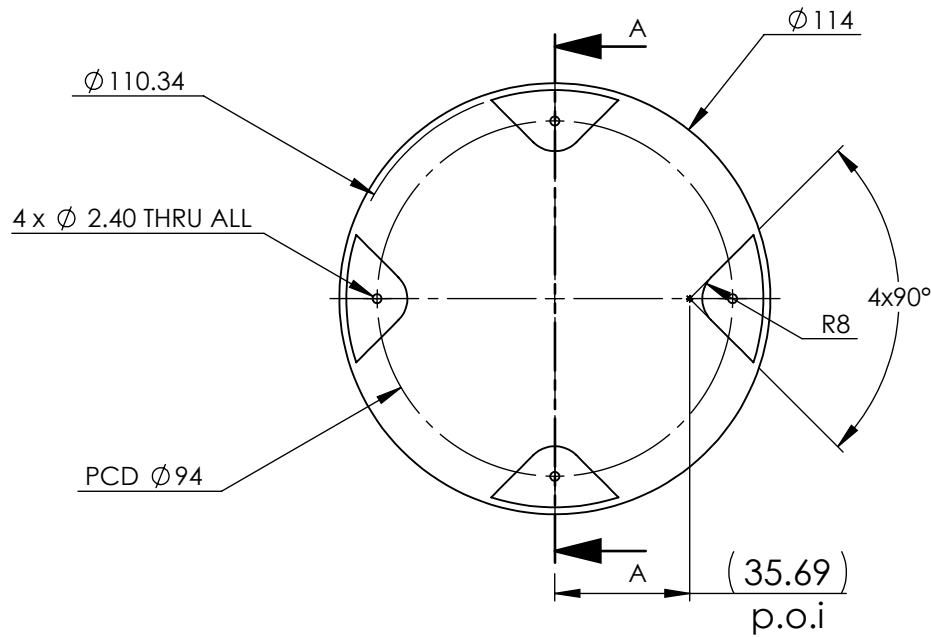
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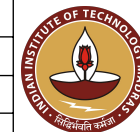
**QUOTATION PURPOSE ONLY
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DIMENSIONS MAYBE SUBJECTED TO CHANGE**

						 Department of Ocean Engineering, IIT Madras	
						TITLE:	
						COVER PLATE-REAR	
Rev. DESCRIPTION DATE BY						DWG NO. :	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						QA	
						MFG	
Linear Dimensions	Over 0.5 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 315	TOLERANCES IN METRIC	APPV'D.	
Linear Tolerances	±0.1	±0.2	±0.3	±0.5	ANGULAR ±0.1°	CHK'D.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		HEAT TREATMENT:			DRAWN.		
UNLESS SPECIFIED ALL MACHINE SURFACES		UNLESS SPECIFIED CORNER RADIUS 0.25 mm	DEBUR AND BREAK SHARP EDGES		AUTHORITY	SIGN	DATE.
						0.11 Kg's	Material. Plain Carbon Steel
QTY:						Scale : NTS	REV : 00
						SHEET 1 OF 1	A4

SECTION SIZE :



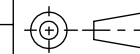
SECTION A-A
SCALE 1 : 2



Department of Ocean Engineering,
IIT Madras

TITLE:

STATOR VANE



DWG NO. :

MASS:

Material.

0.88 Kg's

SS2205

QTY:

Scale : NTS

REV : 00

SHEET 1 OF 1

A4

Rev.	DESCRIPTION					DATE	BY
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.							
						Q.A	
						MFG	
						APPV'D.	
						CHK'D.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		HEAT TREATMENT:			DRAWN.		
UNLESS SPECIFIED ALL MACHINE SURFACES		UNLESS SPECIFIED CORNER RADIUS 0.25 mm		DEBUR AND BREAK SHARP EDGES		AUTHORITY	SIGN
						DATE.	

**QUOTATION PURPOSE ONLY
NOT FOR MANUFACTURING
DIMENSIONS MAYBE SUBJECTED TO
CHANGE**

SECTION SIZE :

1.50 (COMPRESSED STATE)

Ø 114

Ø 94 PCD


4X Ø 3.40 Thru All

90° TYP

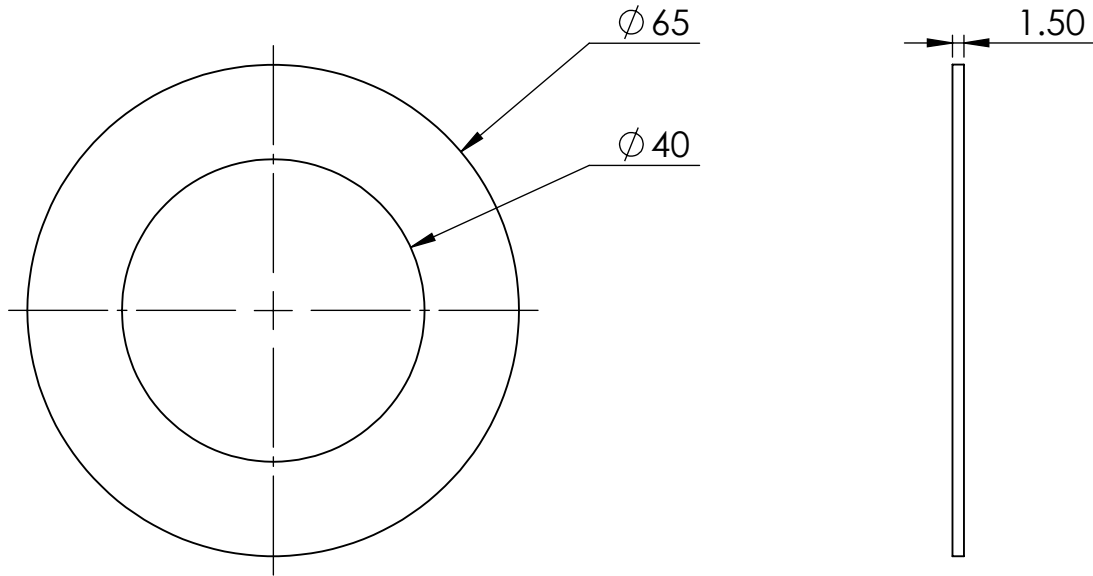
NOTE :

ORIGINAL THICKNESS OF THE GASKET IS 3mm.


**QUOTATION PURPOSE ONLY
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DIMENSIONS MAY BE SUBJECTED TO CHANGE**

						 Department of Ocean Engineering, IIT Madras	
						TITLE:	
						GASKET (END CAP)	
Rev.						DATE	
DESCRIPTION						BY	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						QA	
						MFG	
Linear Dimensions Over 0.5 to 6 Over 6 to 30 Over 30 to 120 Over 120 to 315 TOLERANCES IN METRIC ANGULAR ±0.1°						APPV'D.	
Linear Tolerances ±0.1 ±0.2 ±0.3 ±0.5						CHK'D.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS						DRAWN.	
HEAT TREATMENT:						0.01 Kg's	
UNLESS SPECIFIED ALL MACHINE SURFACES						Material. Rubber	
UNLESS SPECIFIED ALL MACHINE SURFACES UNLESS SPECIFIED CORNER RADIUS 0.25 mm DEBUR AND BREAK SHARP EDGES						QTY: 1	
AUTHORITY						Scale : NTS	
SIGN						REV : 00	
DATE.						SHEET 1 OF 1	
						A4	

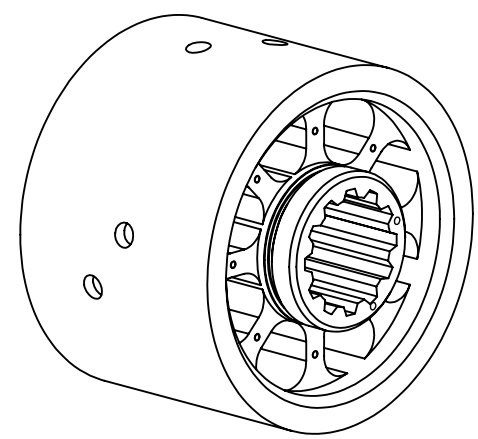
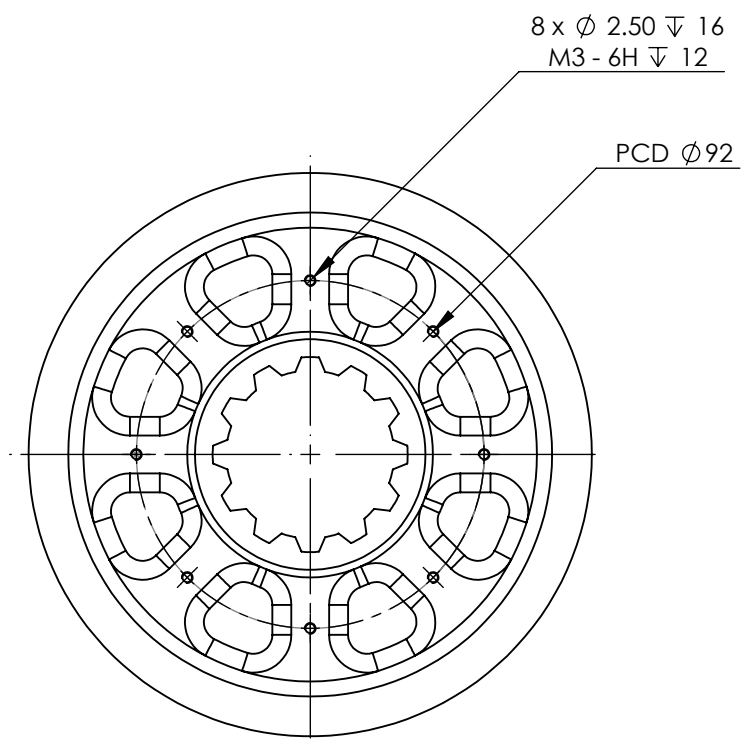
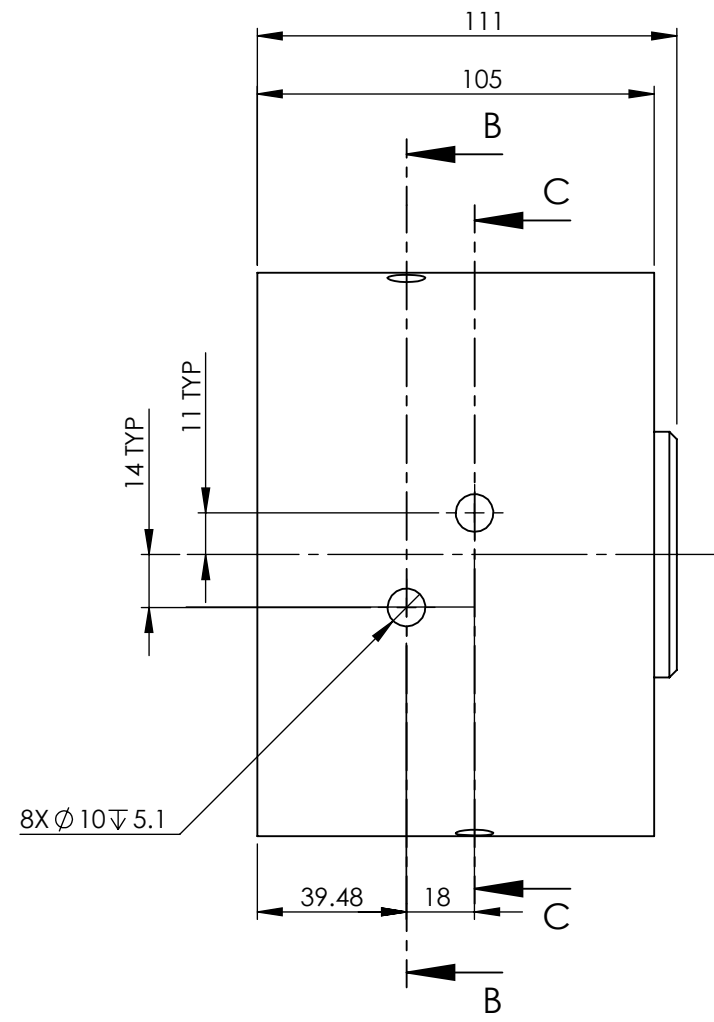
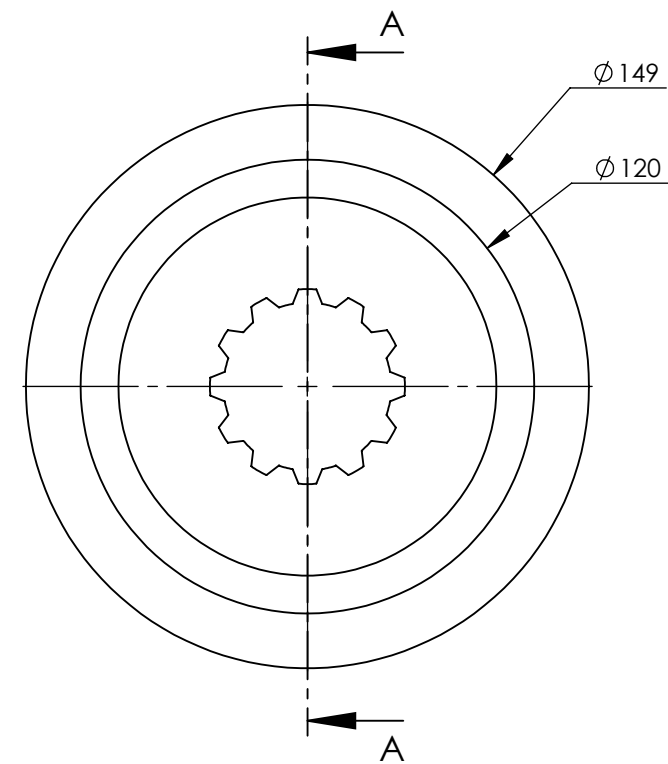
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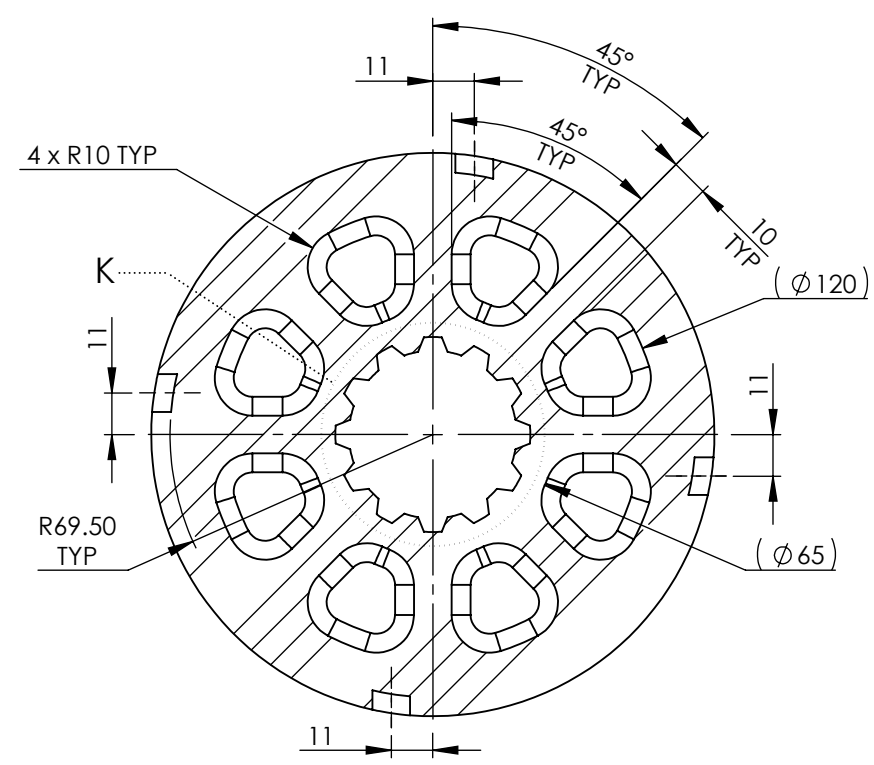
**QUOTATION PURPOSE ONLY
NOT FOR MANUFACTURING
DIMENSIONS MAY BE SUBJECTED TO CHANGE**

						 Department of Ocean Engineering, IIT Madras	
						TITLE:	
						GASKET (LOCKNUT)	
Rev.						DATE	
DESCRIPTION						BY	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						QA	
						MFG	
Linear Dimensions Over 0.5 to 6 Over 6 to 30 Over 30 to 120 Over 120 to 315 TOLERANCES IN METRIC ANGULAR $\pm 0.1^\circ$						APPV'D.	
Linear Tolerances ± 0.1 ± 0.2 ± 0.3 ± 0.5						CHK'D.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS						DRAWN.	
HEAT TREATMENT:						MASS: 0.00 Kg's	
UNLESS SPECIFIED ALL MACHINE SURFACES						Material: Rubber	
UNLESS SPECIFIED ALL MACHINE SURFACES $\frac{\mu m}{1:6}$ UNLESS SPECIFIED CORNER RADIUS 0.25 mm DEBUR AND BREAK SHARP EDGES						QTY: Scale : NTS REV : 00 SHEET 1 OF 1 A4	
AUTHORITY						SIGN	
DATE.							

SECTION SIZE :




ISOMETRIC VIEW

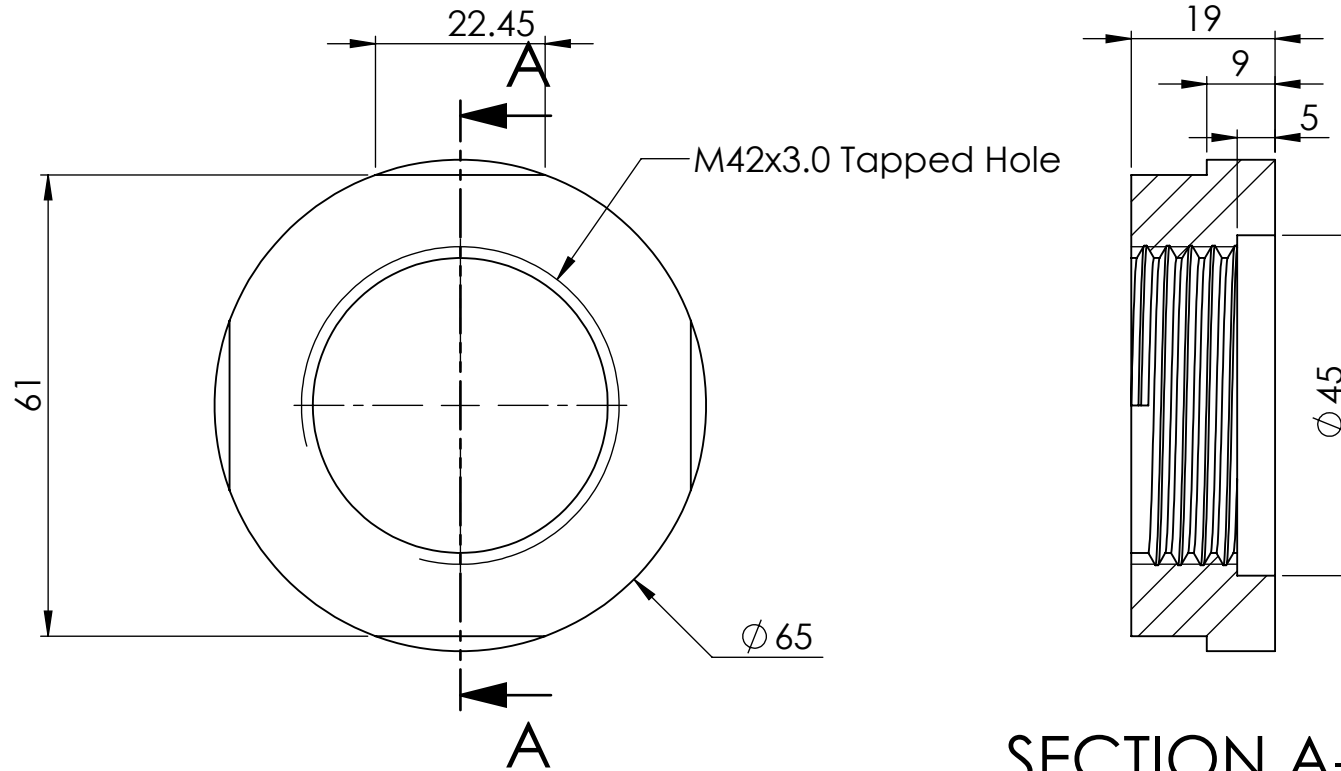


SECTION C-C
SCALE 1 : 2

**QUOTATION PURPOSE ONLY
NOT FOR MANUFACTURING
DIMENSIONS MAYBE SUBJECTED TO CHANGE**


 Department of Ocean Engineering, IIT Madras					
TITLE: HUB					
DWG NO. :					
Rev. DESCRIPTION DATE BY		Q.A MFG		APPV'D.	
Linear Dimensions Tolerances		TOLERANCES IN METRIC ANGULAR ±0.1°		CHK'D.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		HEAT TREATMENT:		DRAWN.	
UNLESS SPECIFIED ALL MACHINE SURFACES		UNLESS SPECIFIED CORNER RADIUS 0.25 mm		DEBUR AND BREAK SHARP EDGES	
MASS: 8.18 Kg's		Material: SS2205		QTY:	
Scale : NTS		REV : 00		SHEET 1 OF 2	
A3		A3		A3	

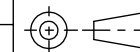
SECTION SIZE :



SECTION A-A

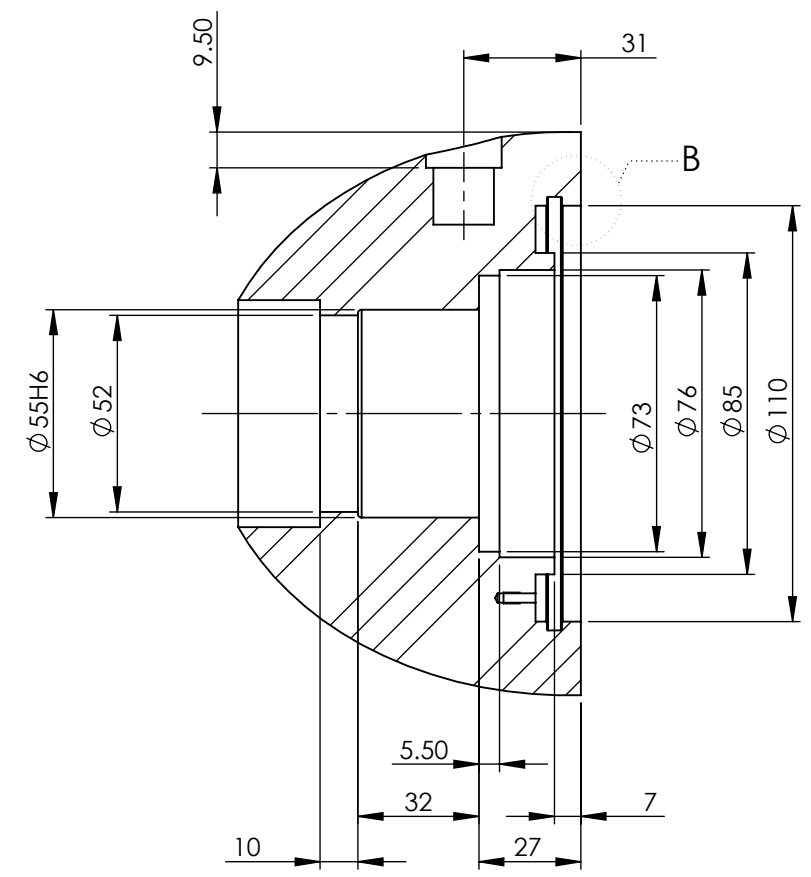
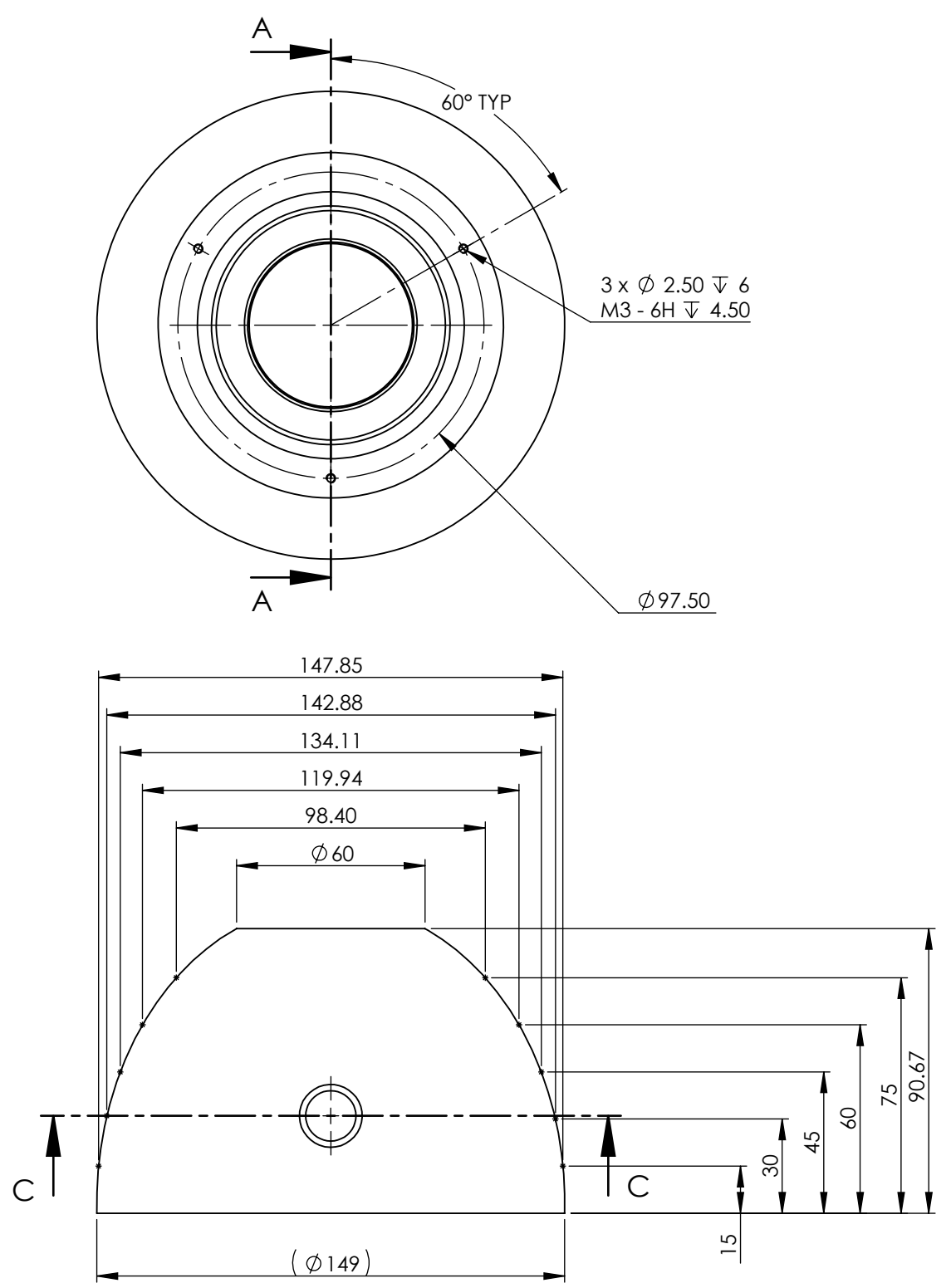
**QUOTATION PURPOSE ONLY
NOT FOR MANUFACTURING
DIMENSIONS MAY BE SUBJECTED TO CHANGE**

						 Department of Ocean Engineering, IIT Madras	
						TITLE: LOCKNUT	
						DWG NO. :	
Rev.	DESCRIPTION					DATE	BY
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						MFG	
Linear Dimensions	Over 0.5 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 315	TOLERANCES IN METRIC	APPV'D.	
Linear Tolerances	±0.1	±0.2	±0.3	±0.5	ANGULAR ±0.1°	CHK'D.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS			HEAT TREATMENT:			DRAWN.	
UNLESS SPECIFIED ALL MACHINE SURFACES			UNLESS SPECIFIED CORNER RADIUS 0.25 mm	DEBUR AND BREAK SHARP EDGES		AUTHORITY	SIGN
					DATE.	QTY:	Scale : NTS
						REV : 00	SHEET 1 OF 1
							A4



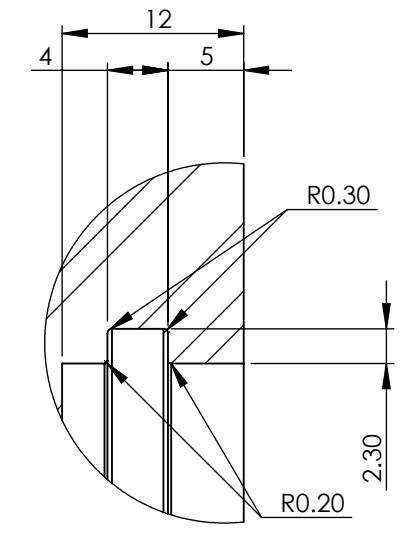
MASS:
0.04 Kg's

Material:
SS2205

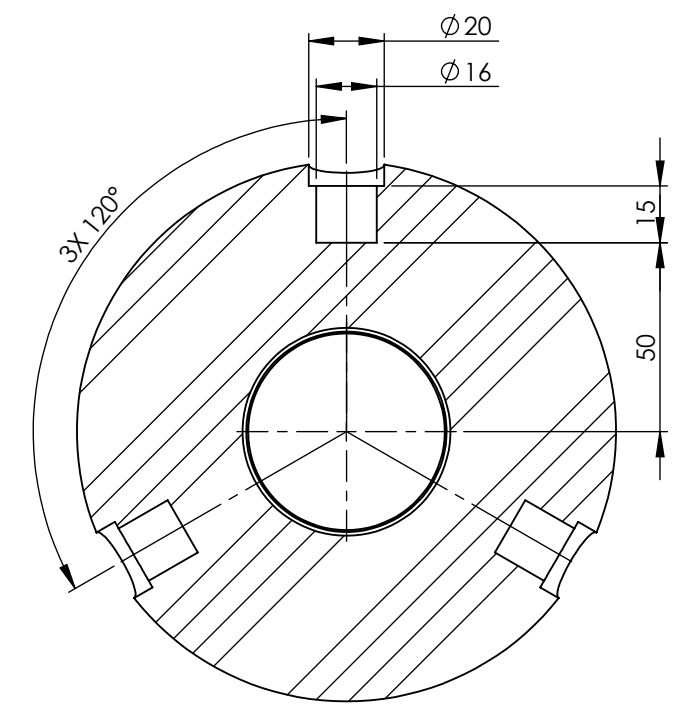


SECTION A-A
SCALE 1 : 2

SECTION SIZE :

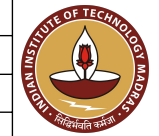


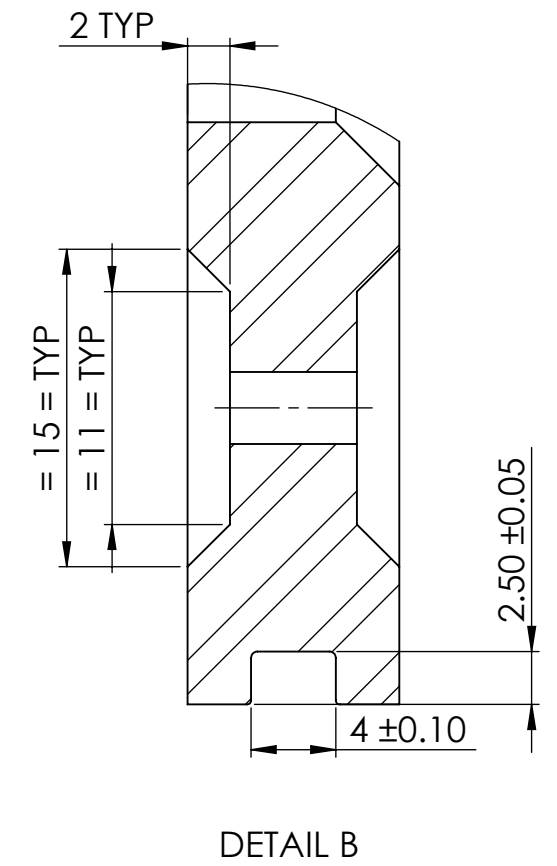
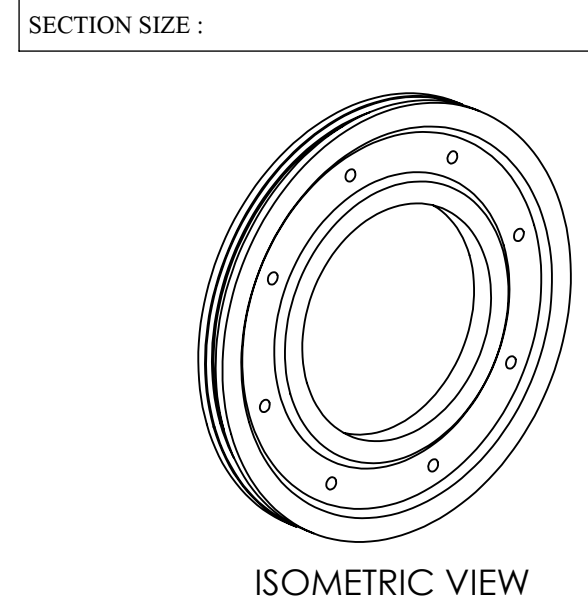
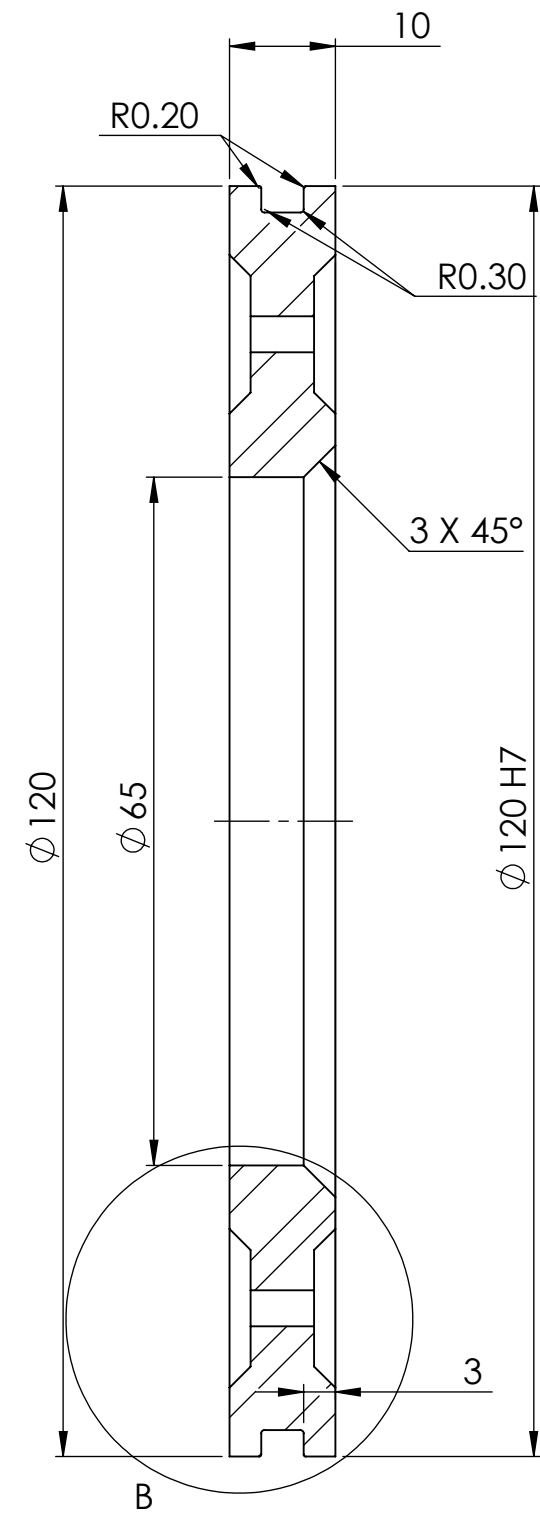
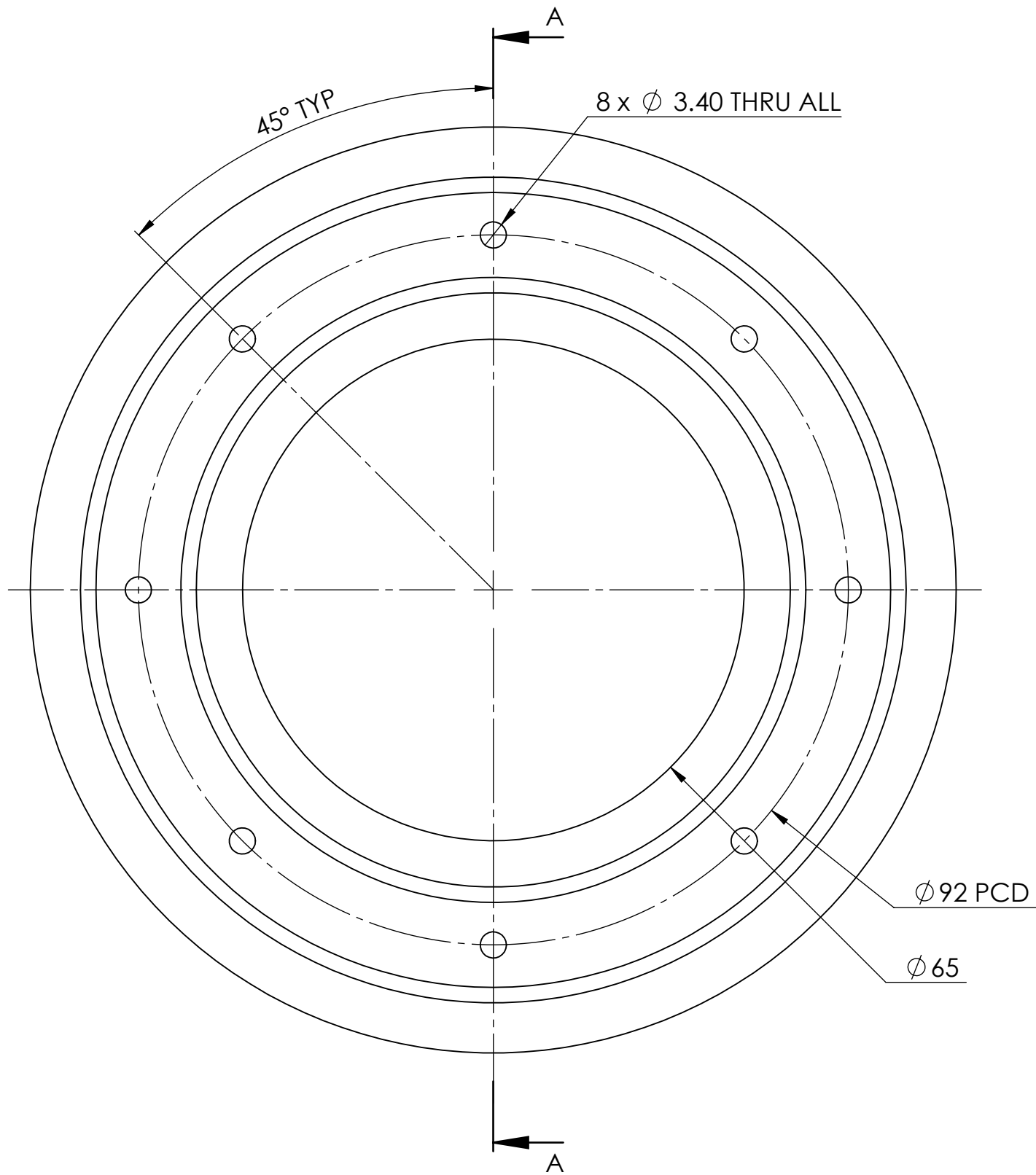
DETAIL B
SCALE 2 : 1




SECTION C-C
SCALE 1 : 2

**QUOTATION PURPOSE ONLY
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DIMENSIONS MAY BE SUBJECTED TO CHANGE**

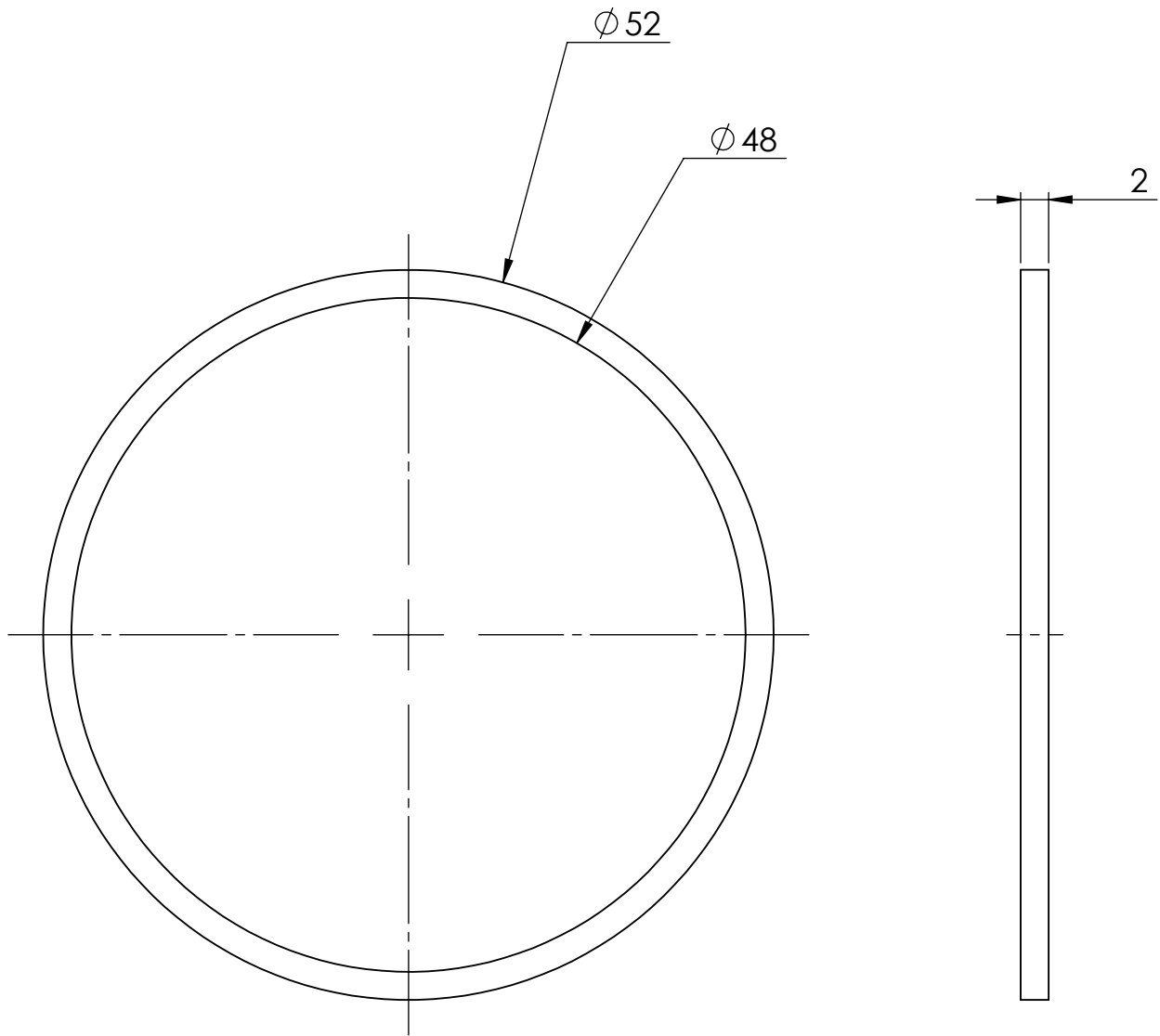
						 Department of Ocean Engineering, IIT Madras	
						TITLE:	
						NOSE	
Rev. DESCRIPTION DATE BY PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						Q.A	
						MFG	
Linear Dimensions Linear Tolerances						APPV'D.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS						CHK'D.	
UNLESS SPECIFIED ALL MACHINE SURFACES						DRAWN.	
HEAT TREATMENT: UNLESS SPECIFIED CORNER RADIUS 0.25 mm						AUTHORITY	
TOLERANCES IN METRIC ANGULAR $\pm 0.1^\circ$						SIGN DATE.	
UNLESS SPECIFIED ALL MACHINE SURFACES						DWG NO. : MASS: 6.30 Kg's Material: SS2205	
QTY:						Scale : NTS REV : 00 SHEET 1 OF 1 A3	




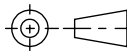

**QUOTATION PURPOSE ONLY
NOT FOR MANUFACTURING
DIMENSIONS MAY BE SUBJECTED TO CHANGE**

 Department of Ocean Engineering, IIT Madras						
TITLE: COVER PLATE REAR						
DWG NO.						
MASS: 0.48 Kg's						
Material: AISI 316 Annealed Stainless Steel Bar (SS)						
QTY: 1						
Scale : NTS						
REV : 00						
SHEET 1 OF 1						
A3						
Rev.	DESCRIPTION				DATE	BY
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						
					Q.A	
					MFG	
					APPV'D.	
					CHK'D.	
					DRAWN.	
					AUTHORITY	SIGN
					DATE.	
Linear Dimensions Linear Tolerances		Over 0.5 to 6 ±0.1	Over 6 to 30 ±0.2	Over 30 to 120 ±0.3	Over 120 to 315 ±0.5	TOLERANCES IN METRIC ANGULAR ±0.1°
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		HEAT TREATMENT:				DRAWN.
UNLESS SPECIFIED ALL MACHINE SURFACES		UNLESS SPECIFIED CORNER RADIUS 0.25 mm	DEBUR AND BREAK SHARP EDGES		AUTHORITY	SIGN

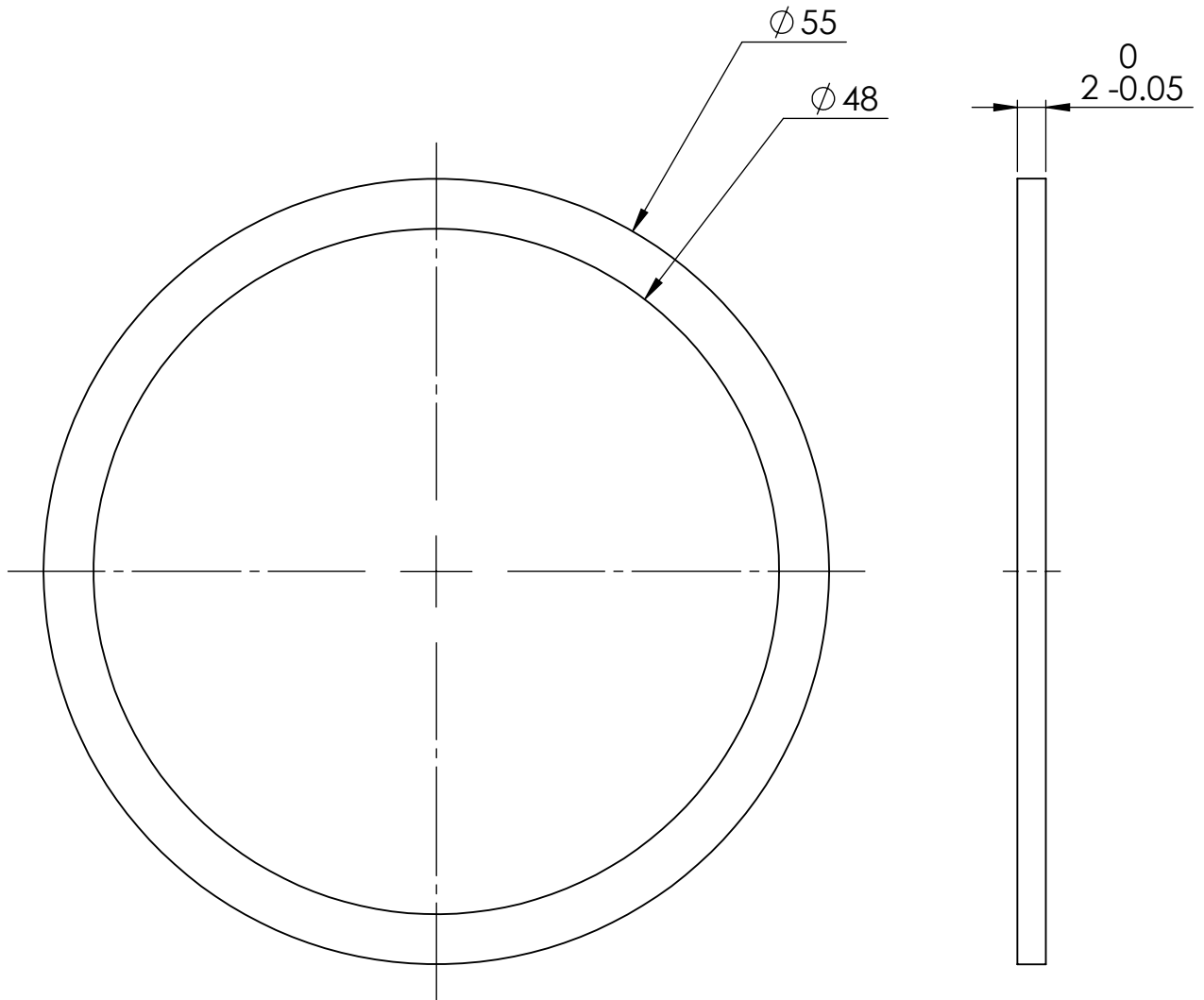
SECTION SIZE :




**QUOTATION PURPOSE ONLY
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DIMENSIONS MAY BE SUBJECTED TO CHANGE**

						 Department of Ocean Engineering, IIT Madras			
								TITLE:	
						SPACER - 1			
Rev.						DATE		BY	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						QA			
						MFG			
Linear Dimensions Over 0.5 to 6 Over 6 to 30 Over 30 to 120 Over 120 to 315 TOLERANCES IN METRIC ANGULAR ±0.1°						APPV'D.		 DWG NO.	
Linear Tolerances ±0.1 ±0.2 ±0.3 ±0.5						CHK'D.		MASS: Material. 0.00 Kg's PTFE (general)	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS						HEAT TREATMENT:		DRAWN.	
UNLESS SPECIFIED ALL MACHINE SURFACES						 UNLESS SPECIFIED CORNER RADIUS 0.25 mm		DEBUR AND BREAK SHARP EDGES	
AUTHORITY		SIGN		DATE.		QTY:		Scale : NTS	
						REV : 00		SHEET 1 OF 1	
								A4	

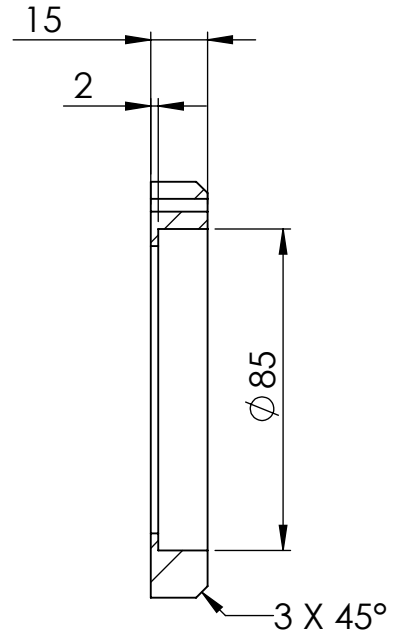
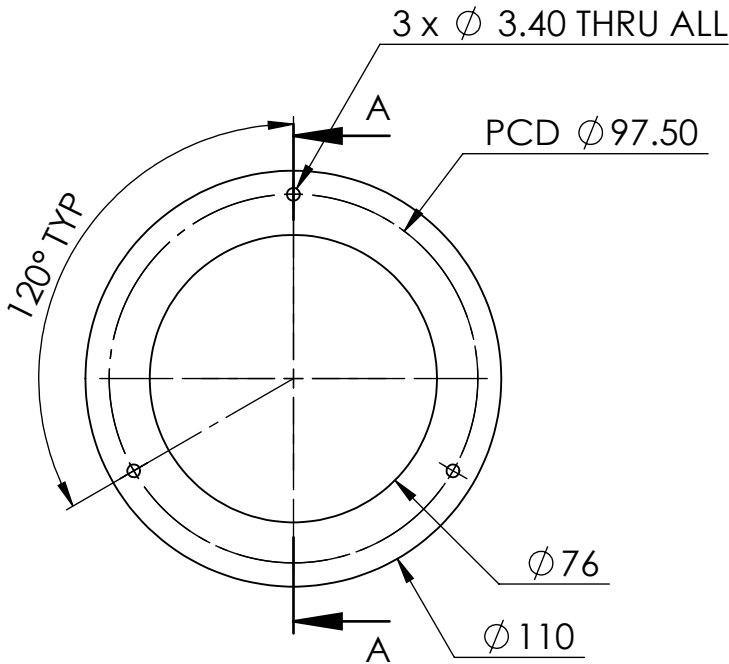
SECTION SIZE :



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NOT FOR MANUFACTURING
DIMENSIONS MAY BE SUBJECT TO CHANGE**


						 Department of Ocean Engineering, IIT Madras	
						TITLE:	
						SPACER -2	
Rev.						DATE BY	
DESCRIPTION						DWG NO.	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						QA	
						MFG	
Linear Dimensions	Over 0.5 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 315	TOLERANCES IN METRIC	APPV'D.	
Linear Tolerances	±0.1	±0.2	±0.3	±0.5	ANGULAR ±0.1°	CHK'D.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		HEAT TREATMENT:				DRAWN.	
UNLESS SPECIFIED ALL MACHINE SURFACES		μm 1:6	UNLESS SPECIFIED CORNER RADIUS 0.25 mm	DEBUR AND BREAK SHARP EDGES	AUTHORITY	SIGN	DATE.
QTY:		Scale : NTS		REV : 00	SHEET 1 OF 1		A4
0.00 Kg's		Material.		PTFE (general)			

SECTION SIZE :

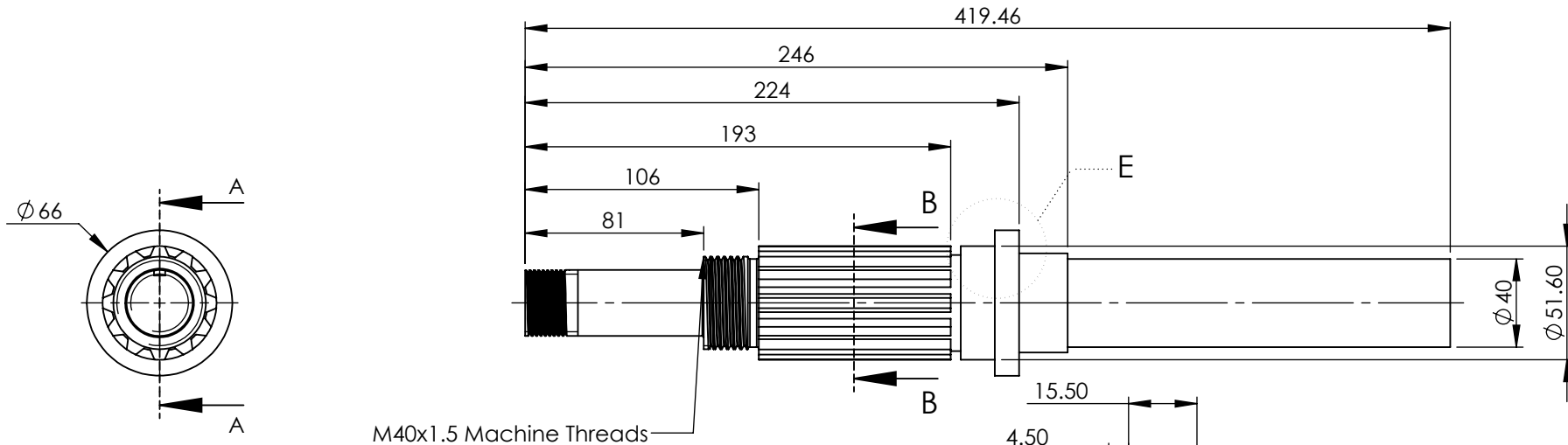


SECTION A-A

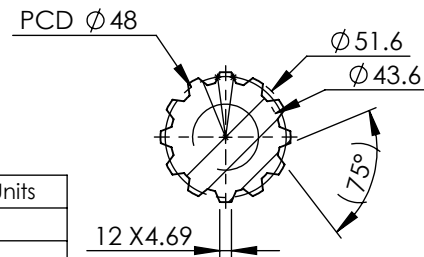
**QUOTATION PURPOSE ONLY
 NOT FOR MANUFACTURING
 DIMENSIONS MAY BE SUBJECTED TO CHANGE**

						 Department of Ocean Engineering, IIT Madras	
						TITLE: SEAL HOUSING	
Rev. DESCRIPTION DATE BY						DWG NO. :	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						MASS: Material. 0.46 Kg's AISI 316 Annealed Stainless Steel Bar (SS)	
Linear Dimensions Linear Tolerances		Over 0.5 to 6 ± 0.1	Over 6 to 30 ± 0.2	Over 30 to 120 ± 0.3	Over 120 to 315 ± 0.5	TOLERANCES IN METRIC ANGULAR $\pm 0.1^\circ$	APPV'D. CHK'D. DRAWN.
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		HEAT TREATMENT:				QTY:	
UNLESS SPECIFIED ALL MACHINE SURFACES		$\frac{\mu m}{1:6}$		UNLESS SPECIFIED CORNER RADIUS 0.25 mm		DEBUR AND BREAK SHARP EDGES	
AUTHORITY		SIGN		DATE.		Scale : NTS REV : 00 SHEET 1 OF 1 A4	

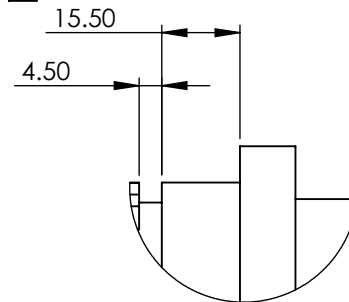
SECTION SIZE :



M40x1.5 Machine Threads



SECTION B-B
SCALE 1 : 3



DETAIL E
SCALE 2 : 3

POI - POINT OF INTERSECTION
PCD - PITCH CIRCLE DIAMETER

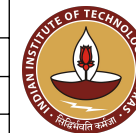
SPLINE DETAILS

Parameters		Values	Units
No of Teeth		12	
Module	m	4	
Pressure angle	a	30deg	
Pitch circle Diameter	ρ	48	mm
Major Diameter	Do	51.6	mm
	Dri	52.4	mm
Minor Diameter	Di	44.4	mm
	Dro	43.6	mm
Tooth Thickness External	t	6.283	mm
Gap between Space width and Tooth thickness		0.8	mm
Space width Internal	s	7.083	mm
Sleeve outside diameter	Doi	65	mm
Addendum		1.8	mm
Deddendum		2.2	mm
Length	L	87	mm

Note: Tolerances to be added

**QUOTATION PURPOSE ONLY
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DIMENSIONS MAY BE SUBJECT TO CHANGE**

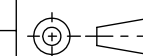
Rev.	DESCRIPTION	DATE	BY
	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.		
	Linear Dimensions	Over 0.5 to 6	Over 6 to 30
	Linear Tolerances	±0.1	±0.2
		Over 30 to 120	Over 120 to 315
		±0.3	±0.5
		TOLERANCES IN METRIC	
		ANGULAR ±0.1°	
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	HEAT TREATMENT:	
	UNLESS SPECIFIED ALL MACHINE SURFACES	UNLESS SPECIFIED CORNER RADIUS 0.25 mm	DEBUR AND BREAK SHARP EDGES
		AUTHORITY	SIGN
		DATE.	



Department of Ocean Engineering,
IIT Madras

TITLE:

SHAFT



DWG NO. :

MASS:

Material.

0.59 Kg's

SS2205

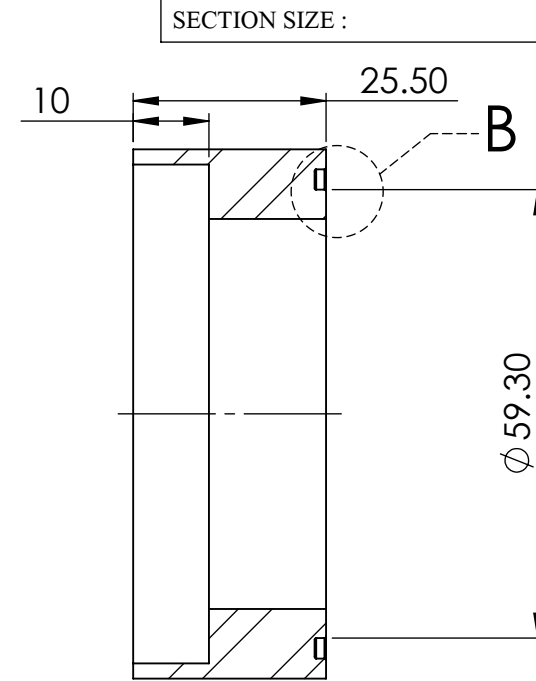
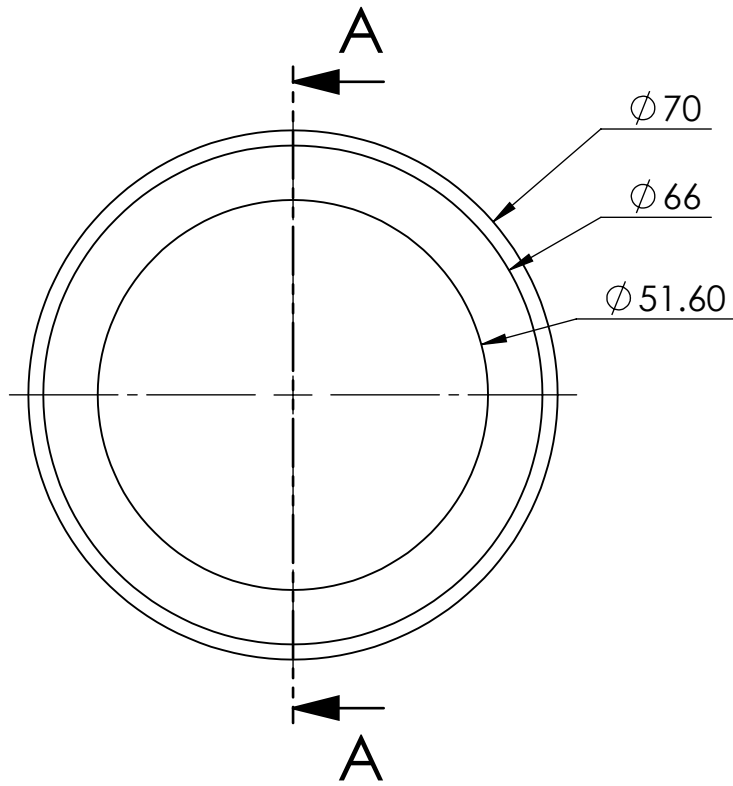
QTY:

Scale : NTS

REV :

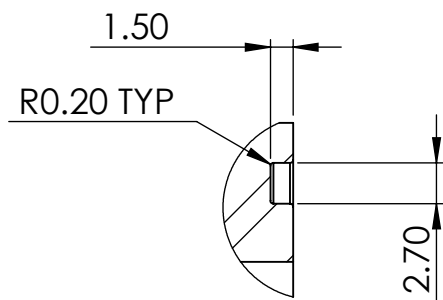
SHEET 1 OF 1

A4

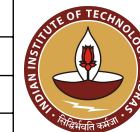


SECTION A-A

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DIMENSIONS MAY BE SUBJECTED TO CHANGE**



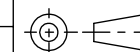
DETAIL B
SCALE 2 : 1



Department of Ocean Engineering,
IIT Madras

TITLE:

SLEEVE-PROPULSION SYSTEM



DWG NO. :

MASS:

Material.

0.25 Kg's

AISI 316 Annealed Stainless Steel Bar (SS)

QTY:

Scale : NTS

REV : 00

SHEET 1 OF 1

A4

Rev.	DESCRIPTION					DATE	BY
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						Q.A	
						MFG	
						APPV'D.	
						CHK'D.	
						DRAWN.	
						AUTHORITY	
						SIGN	
						DATE.	

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS

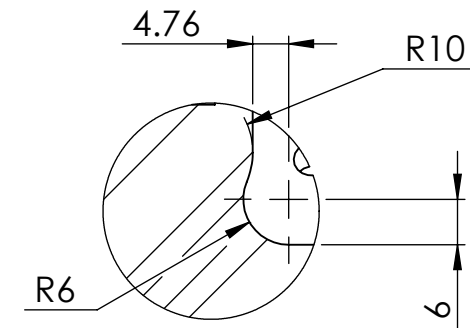
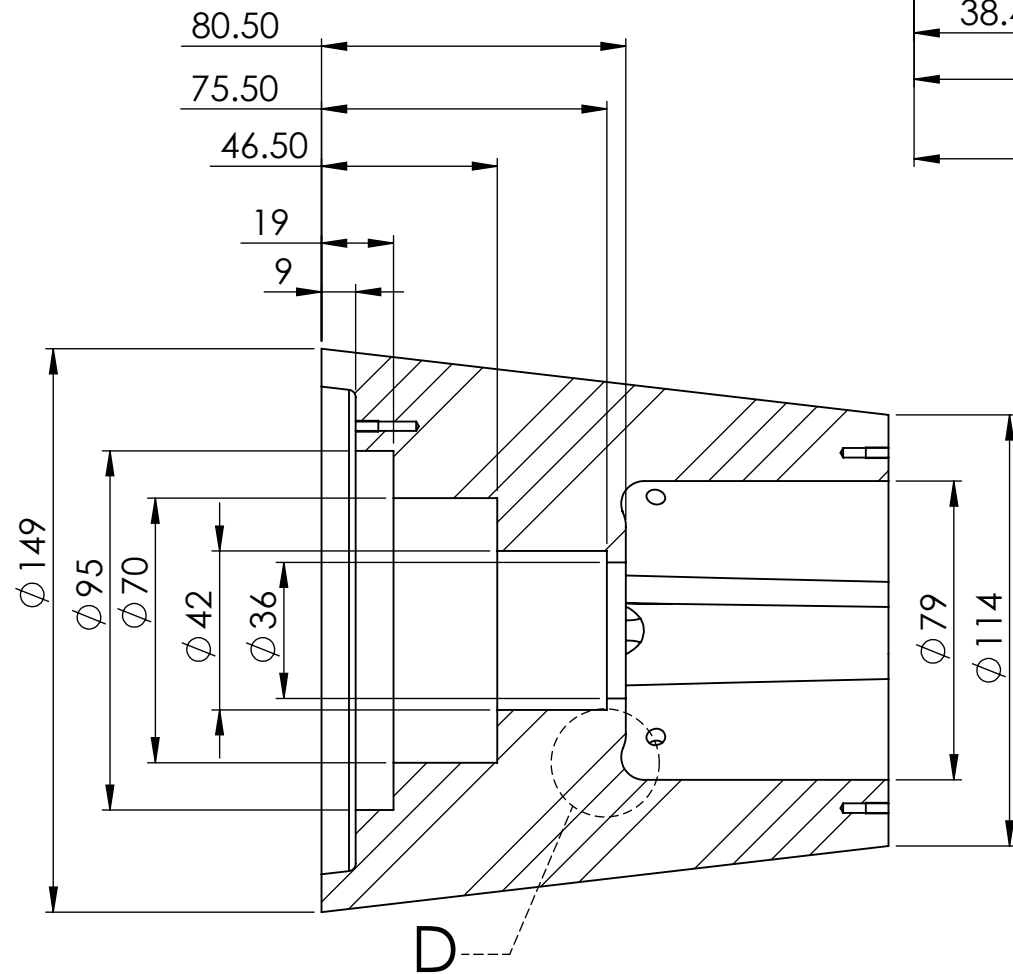
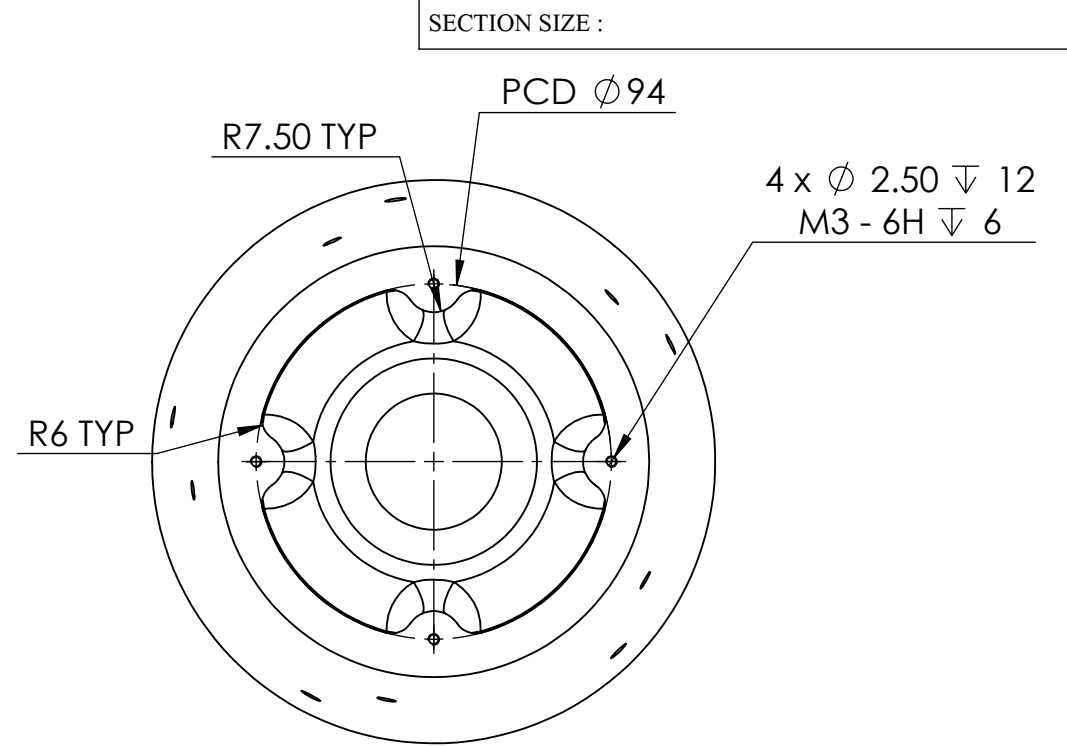
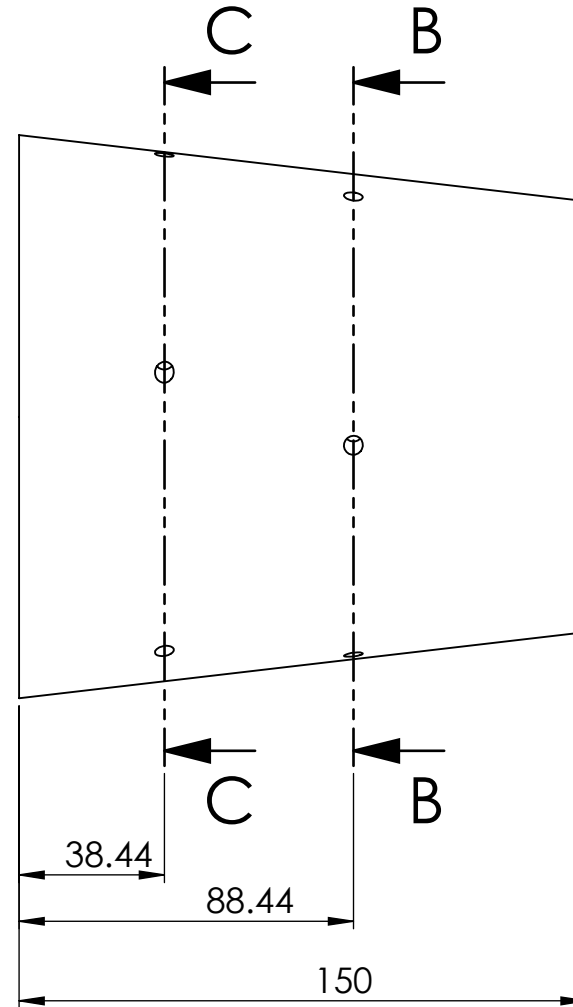
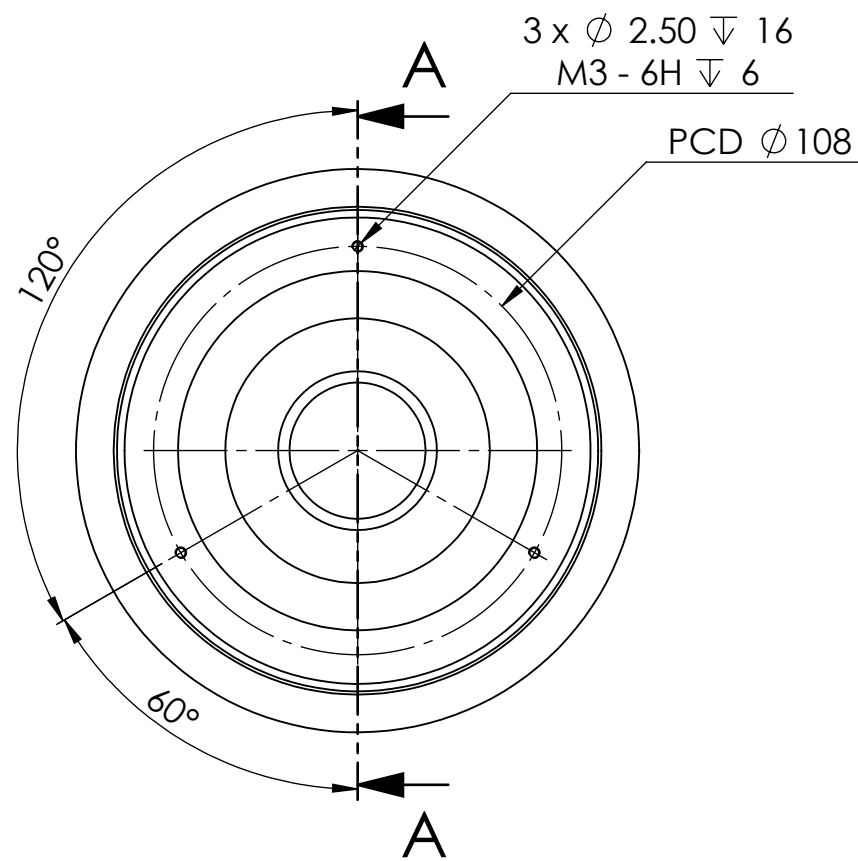
HEAT TREATMENT:

UNLESS SPECIFIED ALL MACHINE SURFACES

UNLESS SPECIFIED CORNER RADIUS 0.25 mm

DEBUR AND BREAK SHARP EDGES


Linear Dimensions	Over 0.5 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 315	TOLERANCES IN METRIC
Linear	±0.1	±0.2	±0.3	±0.5	ANGULAR ±0.1°



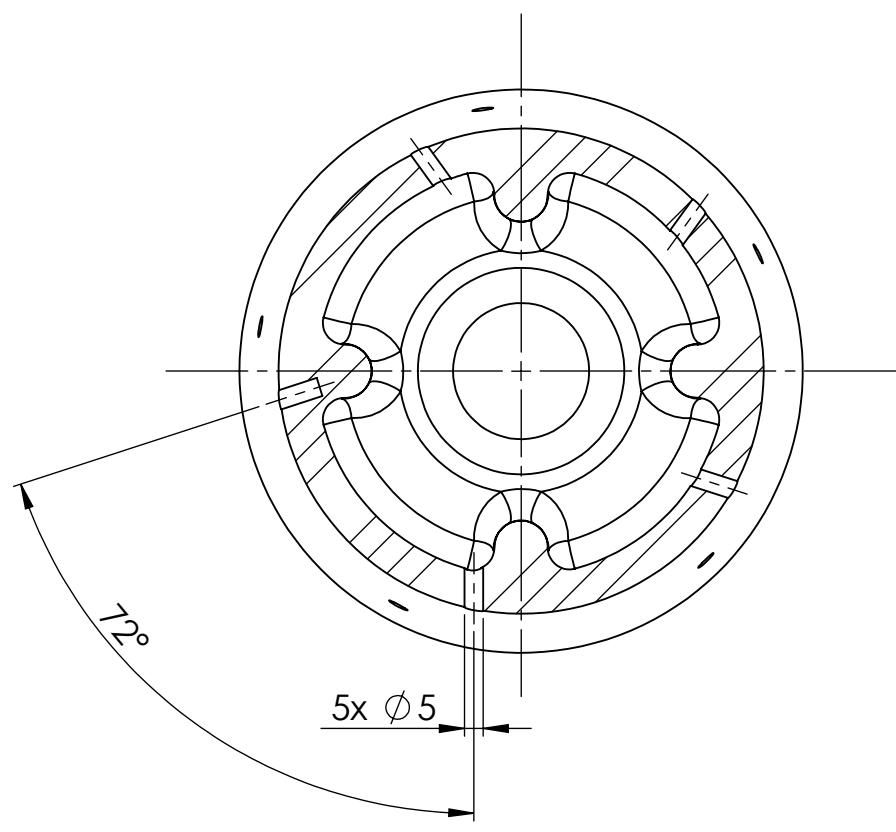
DETAIL D

SECTION A-A
SCALE 1 : 2

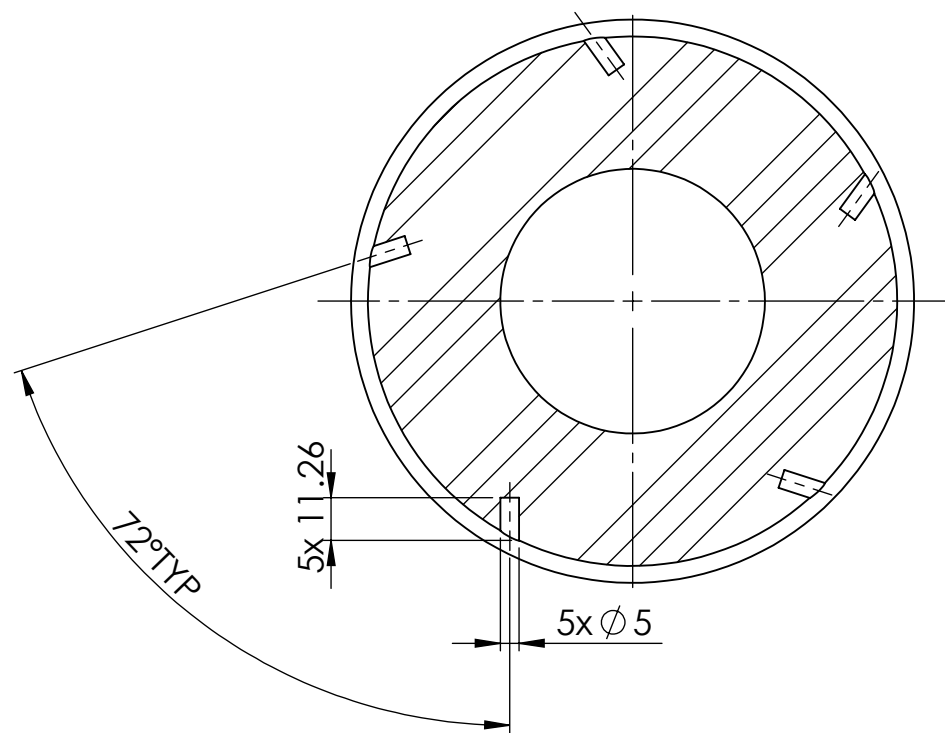
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						 Department of Ocean Engineering, IIT Madras	
						TITLE: HUB	
Rev. DESCRIPTION DATE BY PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						DWG NO. :	
Linear Dimensions Tolerances Over 0.5 to 6 ±0.1 Over 6 to 30 ±0.2 Over 30 to 120 ±0.3 Over 120 to 315 ±0.5 TOLERANCES IN METRIC ANGULAR ±0.1°						MASS: 8.96 Kg's Material: SS2205	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED ALL MACHINE SURFACES						HEAT TREATMENT: UNLESS SPECIFIED CORNER RADIUS 0.25 mm DEBUR AND BREAK SHARP EDGES	
APPV'D. MFG. CHK'D. DRAWN. AUTHORITY SIGN DATE.						QTY: Scale : NTS REV : 00 SHEET 1 OF 2 A3	

SECTION SIZE :


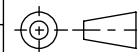


SECTION B-B
SCALE 1 : 2

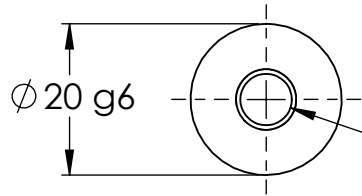


SECTION C-C
SCALE 1 : 2

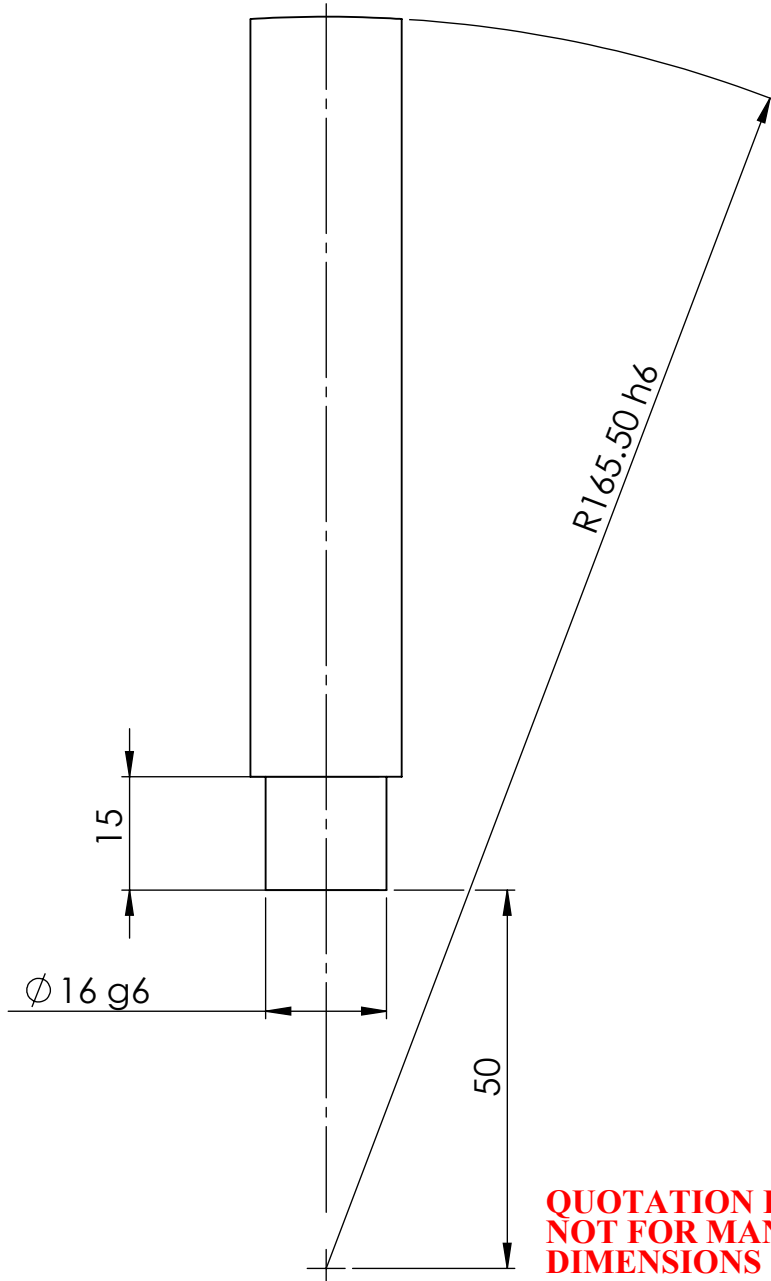
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						 Department of Ocean Engineering, IIT Madras	
						TITLE: HUB	
Rev. DESCRIPTION DATE BY PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						Q.A MFG APPV'D. CHK'D. DRAWN. AUTHORITY SIGN DATE.	
Linear Dimensions	Over 0.5 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 315	TOLERANCES IN METRIC	 DWG NO. :	
Linear Tolerances	±0.1	±0.2	±0.3	±0.5	ANGULAR ±0.1°	MASS: 8.96 Kg's Material: SS2205	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		HEAT TREATMENT:		DRAWN.		QTY:	
UNLESS SPECIFIED ALL MACHINE SURFACES		UNLESS SPECIFIED CORNER RADIUS 0.25 mm		DEBUR AND BREAK SHARP EDGES		Scale : NTS REV : 00 SHEET 2 OF 2 A3	


SECTION SIZE :



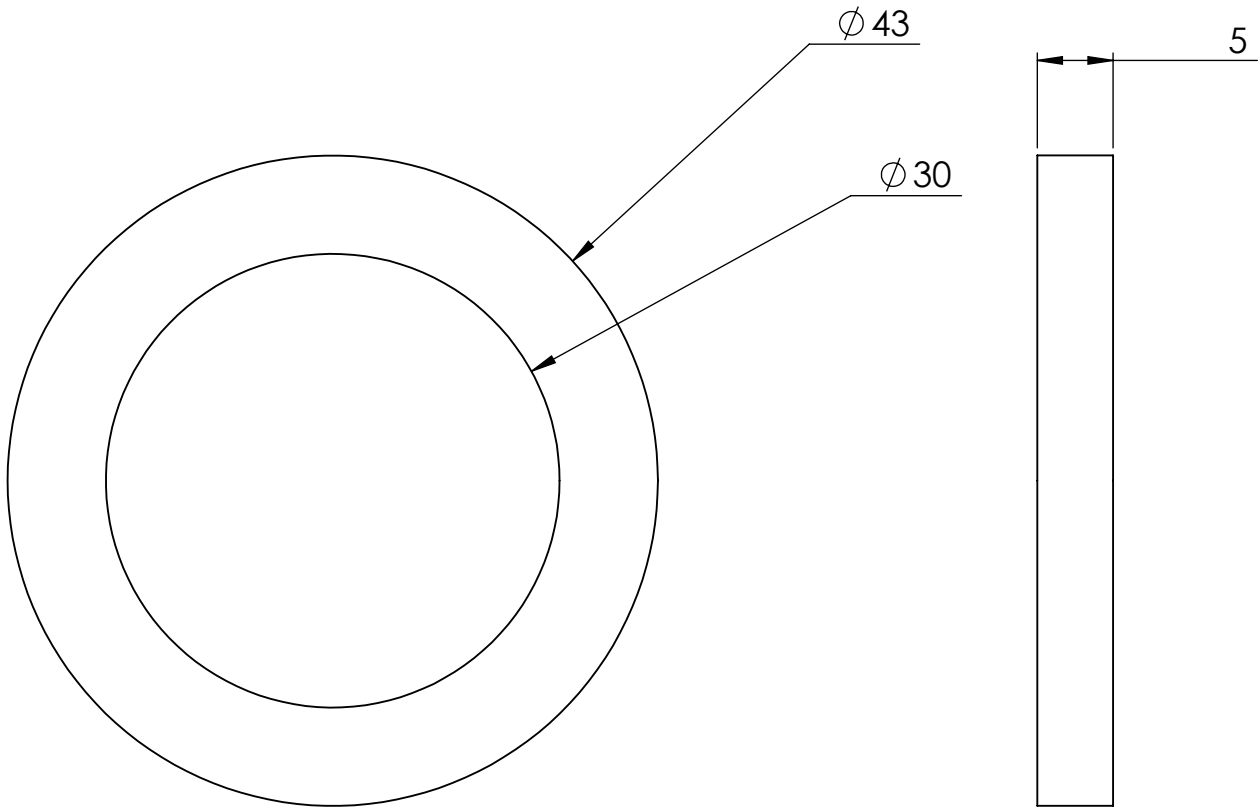
ϕ 6.80 ∇ 20
 M8 - 6H ∇ 16
 \surd ϕ 8.05 X 90°, Near Side




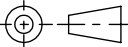

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						 Department of Ocean Engineering, IIT Madras	
						TITLE:	
						SUPPORTING ROD	
Rev. DESCRIPTION DATE BY						DWG NO. :	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF IS PROHIBITED.						APPV'D.	
Linear Dimensions Tolerances						MASS: 0.26 Kg's	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS						Material: SS2205	
UNLESS SPECIFIED ALL MACHINE SURFACES						QTY:	
HEAT TREATMENT:						Scale : NTS	
UNLESS SPECIFIED CORNER RADIUS 0.25 mm						REV : 00	
DEBUR AND BREAK SHARP EDGES						SHEET 1 OF 1	
AUTHORITY SIGN DATE.						A4	

SECTION SIZE :



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DIMENSIONS MAY BE SUBJECTED TO CHANGE**

						 Department of Ocean Engineering, IIT Madras	
						TITLE:	
						Washer	
Rev.	DESCRIPTION					DATE	BY
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						MFG	
Linear Dimensions	Over 0.5 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 315	TOLERANCES IN METRIC	APPV'D.	 DWG NO. :
Linear Tolerances	±0.1	±0.2	±0.3	±0.5	ANGULAR ±0.1°	CHK'D.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		HEAT TREATMENT:			DRAWN.		MASS: 0.00 Kg's Material <not specified>
UNLESS SPECIFIED ALL MACHINE SURFACES	 UNLESS SPECIFIED CORNER RADIUS 0.25 mm	DEBUR AND BREAK SHARP EDGES		AUTHORITY	SIGN	DATE.	QTY: Scale : NTS REV : 00 SHEET 1 OF 1 A4