

**Specification for Tender No. IADD/AA/2017/OPA/4887 due on 16/02/2018.**

**Date: 04 /01/2018**

**To,**

**Subject:** Minor fabrication of Wall Current Monitor for LEHIPA  
Dear Sir,

Kindly let us have your competitive rate for minor fabrication of Wall Current Monitor for LEHIPA section as per the following details:

1. The Wall Current Monitor must be fabricated as per drawing provided and material mentioned. The *ports and flanges* must be aligned with high degree of precision. The component must be manufactured exactly as per the specifications given in the drawing.
2. The supplier shall prepare the detailed fabrication drawings and must submit the drawing to undersigned for scrutiny before starting the fabrication. A copy of approved drawings in pdf and suitable CAD format like IGES shall be supplied to indenter
3. The material used to fabricate Wall Current Monitor should be free from any internal voids or defects. Also the material should meet all the standard physical, mechanical, electrical and thermal properties as applicable.
4. Supplier shall prepare a table showing his compliance statement against each & every point of the specification and submit it with the offer. The table shall clearly point out the expected deviations/ relaxations desired by the supplier. Alternatives, if any, shall be proposed by the supplier. Indenter may allow the relaxations based on its criticality. Necessary action will be taken if any undisclosed deviations are found on the later stages.
5. The surface roughness of all vacuum side should be less than 0.8 micron.
6. The manufacturer should preferably have previous experience in successfully

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Ion Accelerator Development Division

fabricating wave guide components for BARC or other DAE units.

**Rights and Privileges:**

Indenter reserves the right to inspect any machinery or material or equipment furnished or used by vendor or to reject any, which is found defective in workmanship, quality, and design or otherwise unsuitable for use which is not in accordance with the specification.

**Note: In case any further clarification is required, the bidders may contact the undersigned at phone no. 022-2559-3787.**

Your quotation duly filled in the prescribed format, addressed to “Head, IADD, Van-de-Graff Bldg, BARC, Trombay, Mumbai – 400085” in a sealed envelope quoting tender number and due date, must reach on or before **16/02/2018** date by 5 PM. On top of envelop it must also be written that “kind attention to Arun Agarwal, IADD”.

Arun Agarwal  
SO/G, IADD

**Enclosures:**

**Technical specifications (Annexure I)**  
**Drawing details (Annexure II)**  
**Form of Quotation**

**Annexure I**

**Technical Specification for Tender No. IADD/AA/2017/ OPA/4887**

**Wall Current Monitor**

Sr. No	Parameter	Description
	<b>General:</b>	
1.	Equipment name	Wall Current Monitor
2.	To be used in	LEHIPA
3.	Purpose	Measurement of Bunch shape and width
4.	<b>Details:</b>	
5.	(a) Entry, Exit port	35 CFF (Rotatable/non rotatable) as per drawings
	(b) Main Flanges	100 CFF
	(c) Copper electrodes	As per drawing supplied
	(d) Ferrite rings	As per drawing supplied
	(e) RF Connectors	SMA connector as per drawing supplied
	(f) Tantalum Plates for ionizer	As per drawings supplied
6.	<b>Vacuum Testing:</b>	
	Type of leak test for vacuum	Helium leak test as per standard vacuum practice
	Leak Rate for vacuum	Less than $10^{-10}$ Torr-liter/sec
7.	<b>Surface Roughness:</b>	
	(a) Vacuum side internal Surface	Less than 0.8 micron. Internal surfaces shall be Degreased, Electro polished, UHV compatible
	(b) External Surface	Bright Finish (Buffed)

**Imp Note:**

Post supply inspection by the supplier in respect of supplies made is not permitted. Any offer containing the condition of post supply inspection will be out-rightly rejected. It is therefore, mandatory for the bidders, while quoting, to indicate in clear terms the requirement of post supply inspection by any outside agency.

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Ion Accelerator Development Division

**Format of Quotation for Tender No. IADD/AA/2017/ OPA/4887**

<b>Items</b>	<b>Quantity</b>	<b>Cost/Remark</b>
Wall Current Monitor	1 no	
Taxes		
Delivery Charges, if any		
Delivery Schedule		
Documents Required, if Any		
Validity		
Remarks		
GST No.		
PAN No.		

**(Vendors Name)**  
**Authorised Signatories & Company Seal**

**Note: The quotation must be sent by speed post only. Quotations sent by courier service shall not be considered**

## Annexure -II

## List of drawings

Sr. No	Drawing Name	Drawing Number
1	WCM ASSEMBLY	WCM-100
2	WCM BODY WITH FERRITE RINGS	WCM-100-1
3	CF 100 FLANGE WITH FEEDTHRUS	WCM-100-2
4	WCM BODY PART 1	WCM-100-11
5	WCM BODY PORT	WCM-100-12
6	ELECTRODE WITH FERRITE	WCM-100-13
7	COPPER PLATE-2 FOR WCM	WCM-100-14
8	CF 100 CUSTOM FLANGE	WCM-100-21
9	CF 35 PORT (WCM-100-22)	WCM-100-22
10	COPPER ELECTRODE	WCM-100-23
11	COPPER PIN	WCM-100-23A
12	COPPER ELECTRODE (SLOTTED )	WCM-100-23-SLOTTED
13	FERRITE RING	FRR-5943011101
14	HELICOFLEX SEAL	HELICOFLEX SEAL

## NOTE:

Vendors may note that these drawings are conceptual drawings. Vendors are required to prepare final fabrication drawings based on these conceptual drawings. Vendors are required to submit the final fabrication drawings for approval of the purchaser prior to fabrication.

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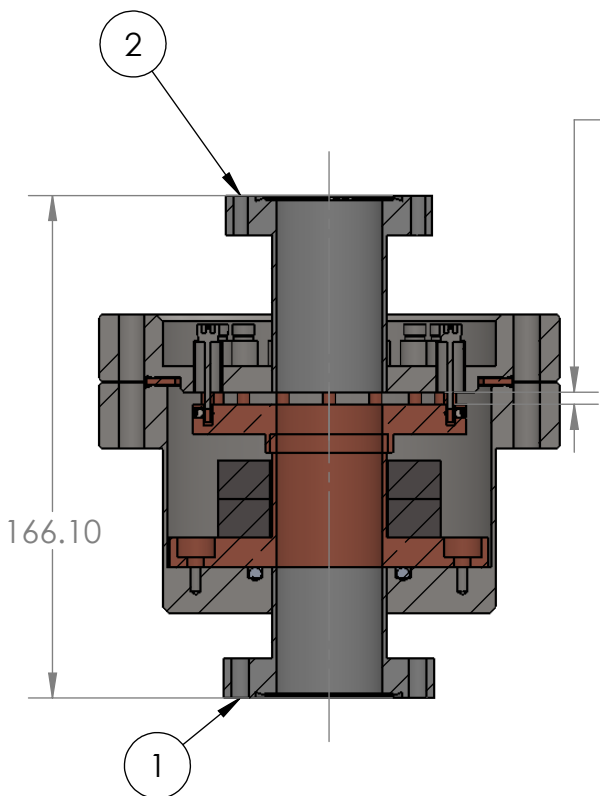
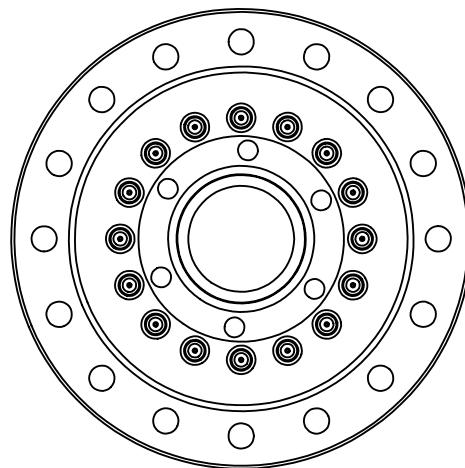
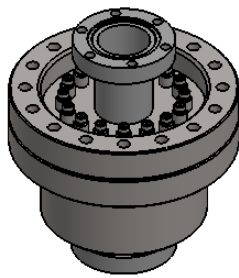
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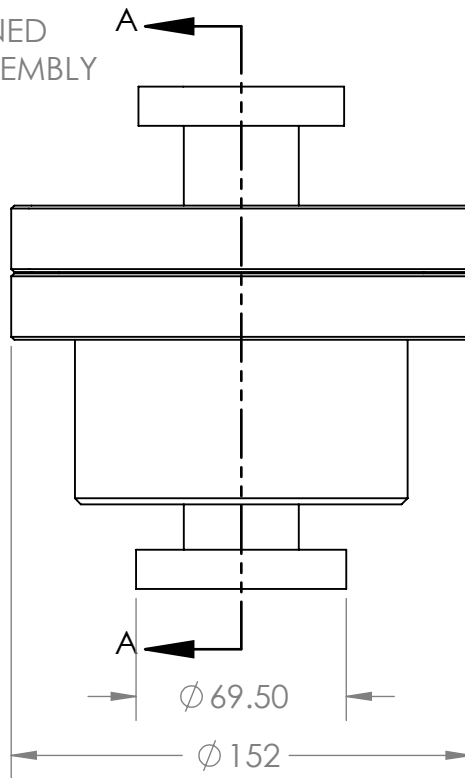
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TO BE  
MAINTAINED  
AFTER ASSEMBLY



SECTION A-A  
SCALE 1 : 2.5

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	WCM-100-1	WCM BODY WITH FERRITE RINGS	1
2	WCM-100-2	CF 100 Flange with Feedthrus	1

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS  
SURFACE FINISH:  
TOLERANCES:  
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FINISH:

DEBURR AND  
BREAK SHARP  
EDGES

DO NOT SCALE DRAWING

REVISION

NAME	SIGNATURE	DATE
DRAWN		
CHK'D		
APPV'D		
MFG		
Q.A		

TITLE:

WCM ASSEMBLY

DWG NO.

WCM-100

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WEIGHT:

SCALE:1:5

SHEET 1 OF 1

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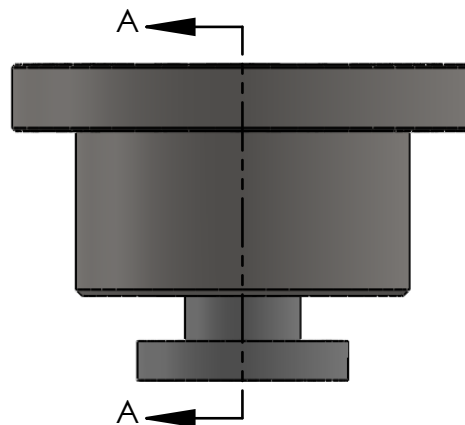
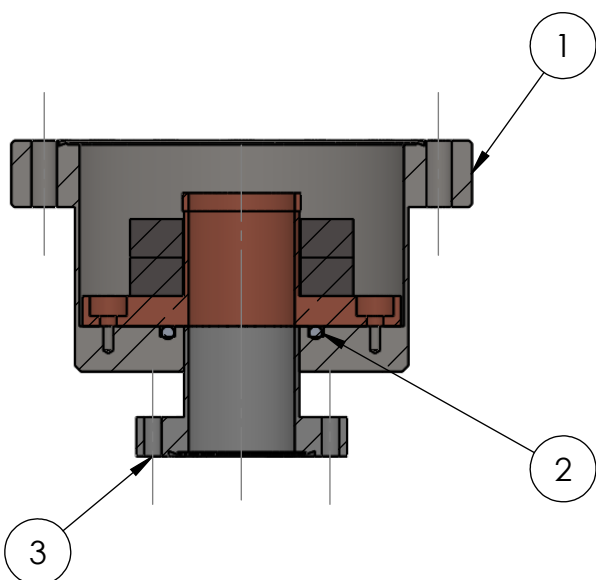
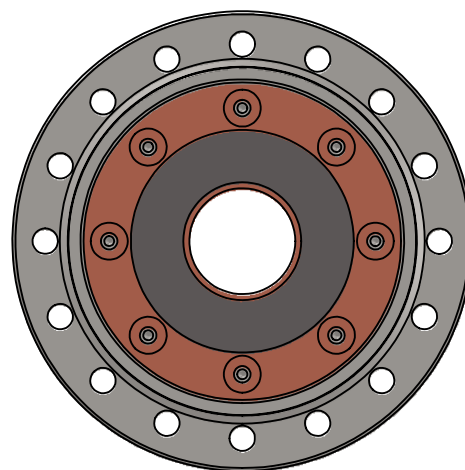
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SECTION A-A  
SCALE 1 : 2.5

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	WCM_100-11	WCM BODY PART 1	1
2	WCM-100-13	ELECTRODE WITH FERRITE	1
3	WCM-100-12	WCM BODY CF PORT	1

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:			FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION
NAME	SIGNATURE	DATE	TITLE: <b>WCM BODY WITH FERRITE RINGS</b>			
DRAWN			DWG NO. <b>WCM-100-1</b>			
CHK'D			A4			
APPV'D			SCALE:1:5			
MFG			SHEET 1 OF 1			
Q.A			MATERIAL:			
			WEIGHT:			

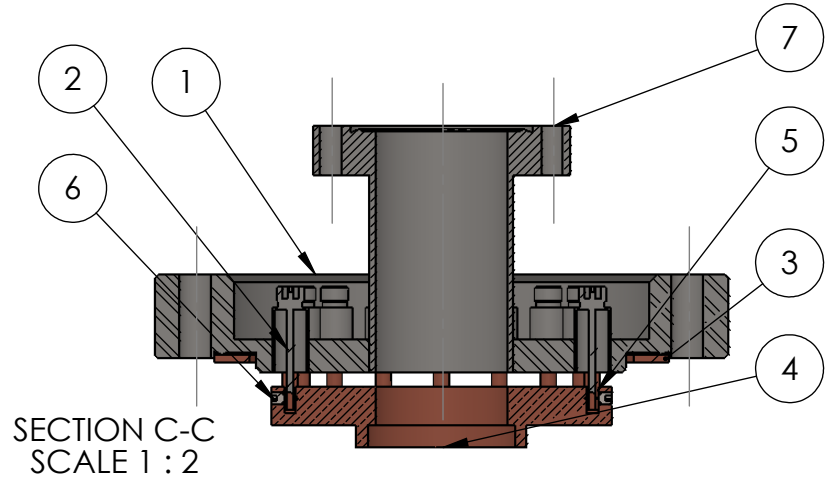
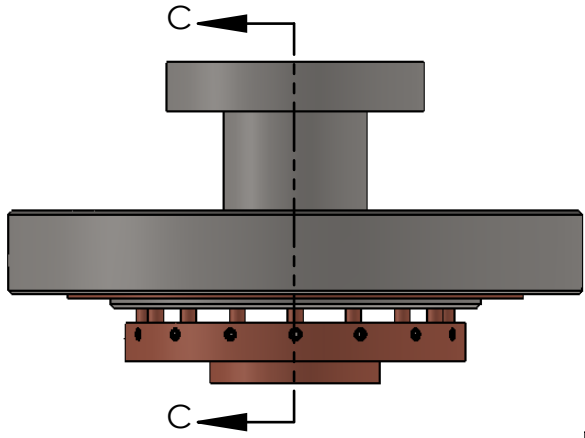
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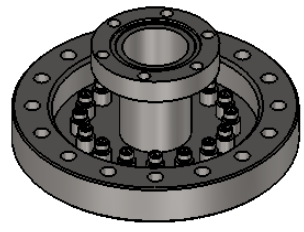
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SECTION C-C  
SCALE 1 : 2



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	WCM-100-21	CF100 CUSTOM FLANGE	1
2	242-SMA50	SMA 242-50-CF16 FEED THRU	16
3	CF100 Gasket	CF 100 COPPER GASKET (STD.)B6	1
4	WCM-100-23	COPPER ELECTRODE	1
5	WCM-100-23A	COPPER PIN	16
6	socket set screw cone point_am	M3 GRUB SCREW	16
7	WCM-100-22	CF 35 PORT(WCM-100-22)	1

NOTE:  
 (1) ITEM NO-2 IS STANDARD SMA CONNECTOR of Alectra make Vacuum compatible ,weldable  
 (2) ITEM NO-3 IS STD. PART.  
 (3) ITEM NO 6 IS STD PART.

**ALL THESE PART TO BE PURCHASED BY VENDOR FOR USE IN ASSEMBLY**

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:		FINISH:		DEBURR AND BREAK SHARP EDGES		DO NOT SCALE DRAWING		REVISION	
DRAWN	NAME	SIGNATURE	DATE			TITLE: <b>CF 100 Flange with Feedthrus</b>			
CHK'D									
APPV'D									
MFG									
Q.A									
				MATERIAL:		DWG NO.		A4	
				WEIGHT:		SCALE:1:5		SHEET 1 OF 1	

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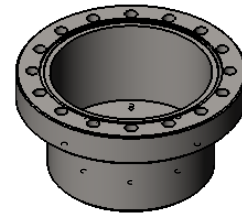
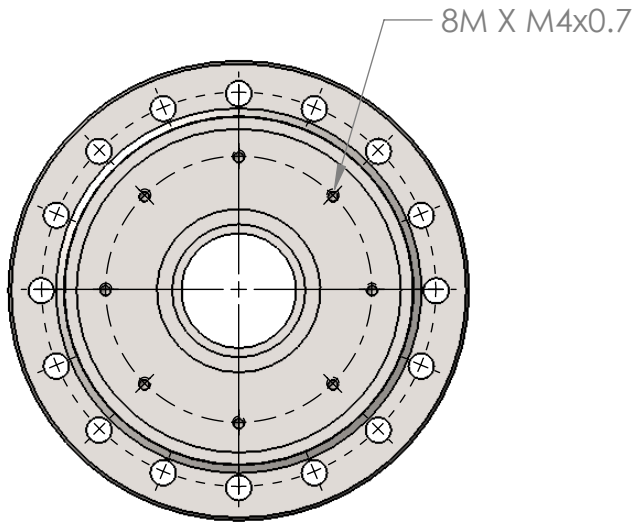
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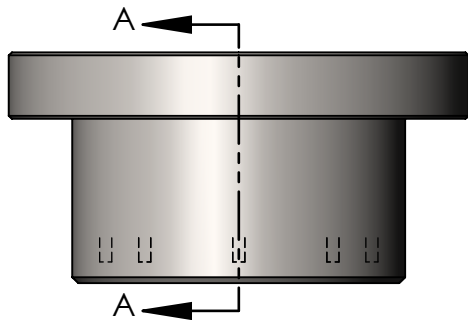


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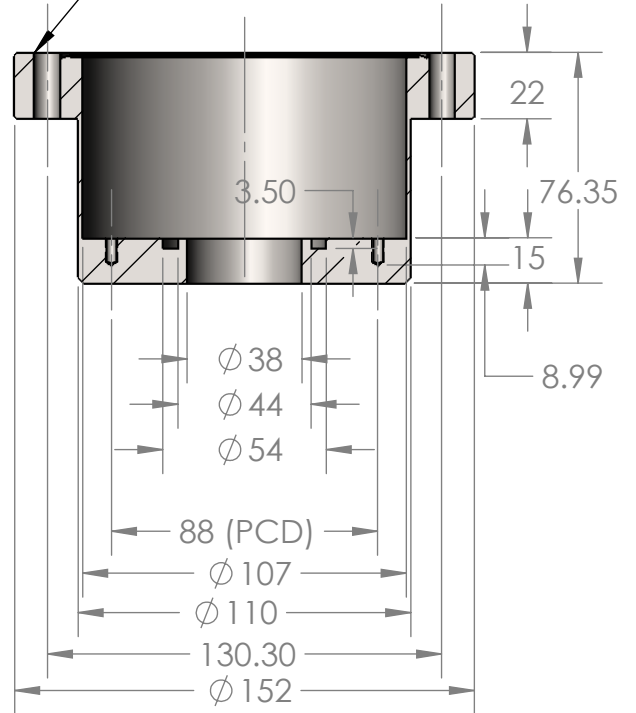
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CF 100 ROTATABLE TYPE  
FLANGE



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SECTION A-A  
SCALE 1 : 2.5

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DRAWN						TITLE: <b>WCM BODY PART 1</b>					
CHK'D											
APPV'D											
MFG											
Q.A											
MATERIAL: <b>SS 304L</b>						DWG NO. <b>WCM_100-11</b>				A4	
WEIGHT:						SCALE:1:5				SHEET 1 OF 1	

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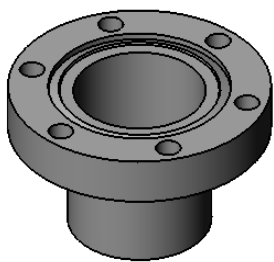
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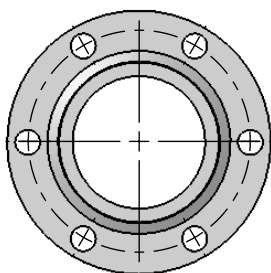
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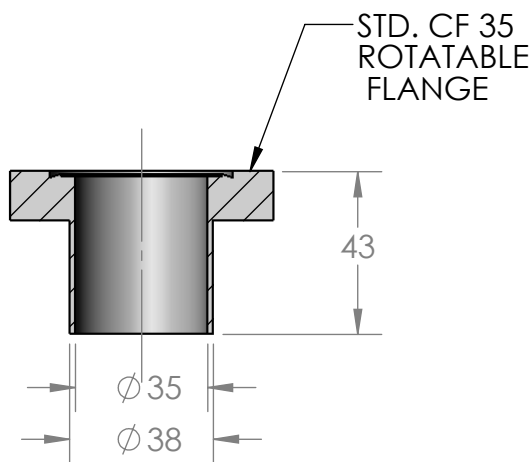
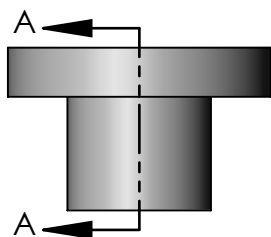
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SECTION A-A

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			MATERIAL:	
				SS 304L
			WEIGHT:	

TITLE:  
**WCM BODY CF  
 PORT**

DWG NO.  
**WCM-100-12**

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SCALE:1:2

SHEET 1 OF 1

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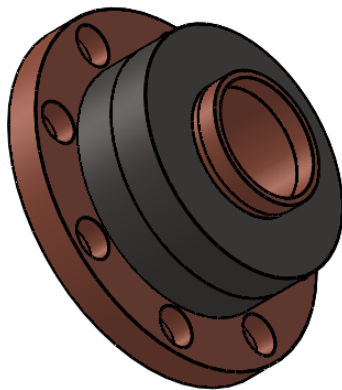
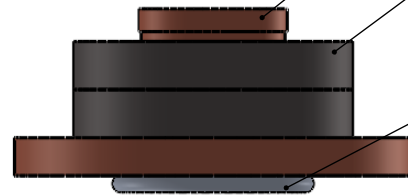
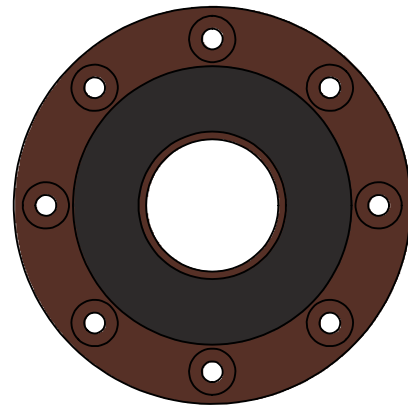
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	WCM-100-14	COPPER PLATE -2 FOR WCM	1
2	FRR-5943011101	FERRITE RING	2
3	Helicoflex Seal	HELICOFLEX SEAL	1

UNLESS OTHERWISE SPECIFIED:  
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DO NOT SCALE DRAWING  
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	NAME	SIGNATURE	DATE		
DRAWN					
CHK'D					
APPV'D					
MFG					
Q.A					

TITLE:  
**ELECTRODE WITH FERRITE**

DWG NO.  
**WCM-100-13**

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 SHEET 1 OF 1

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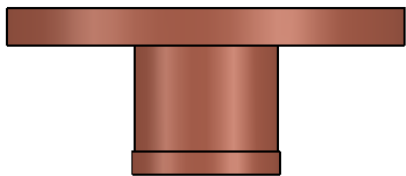
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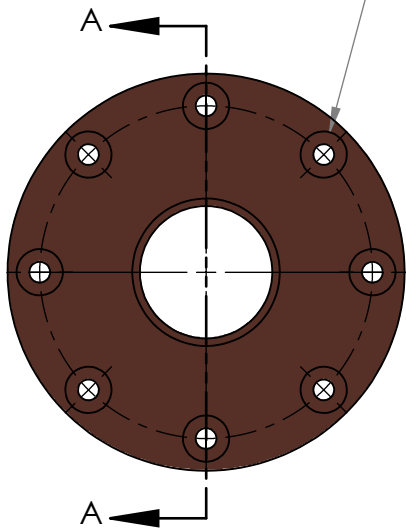
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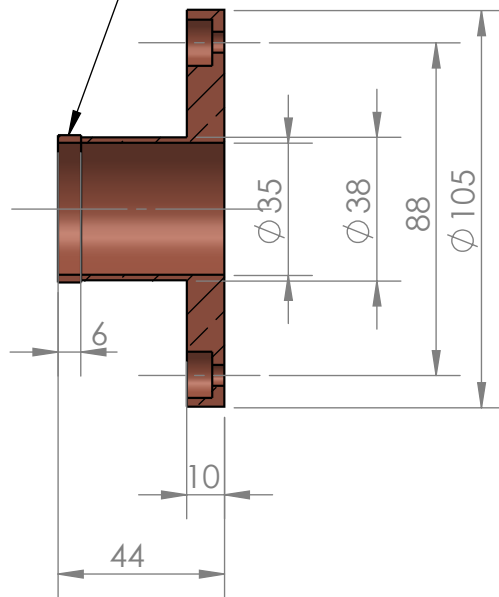
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M39X1MM PITCH  
 EXTERNAL THREAD



SECTION A-A

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 DIMENSIONS ARE IN MILLIMETERS  
 SURFACE FINISH:  
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DEBURR AND  
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DO NOT SCALE DRAWING

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	NAME	SIGNATURE	DATE	
DRAWN				
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APPV'D				
MFG				
Q.A				
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			ETP COPPER	
			WEIGHT:	

TITLE:  
**COPPER PLATE -2  
 FOR WCM**

DWG NO.  
**WCM\_100-14**

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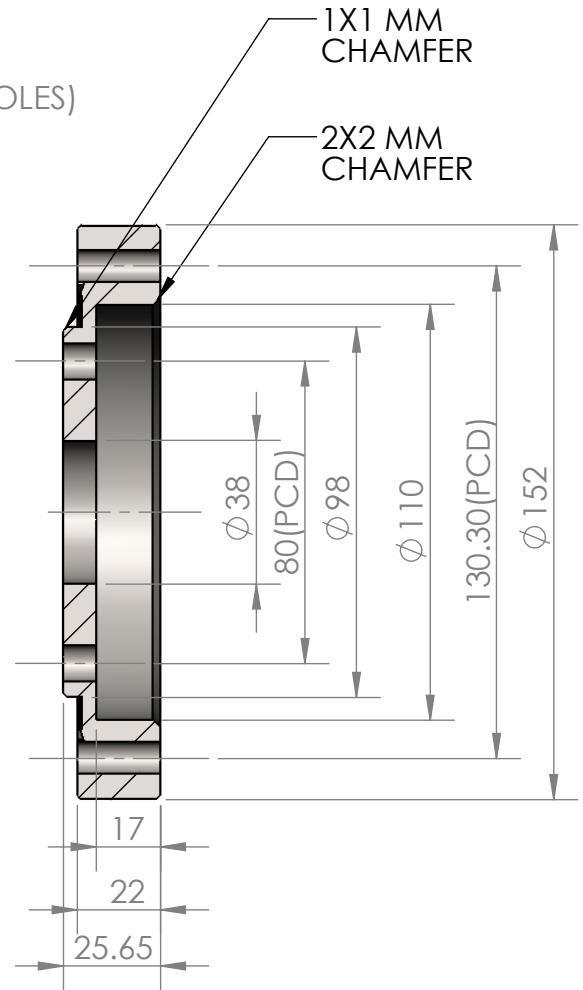
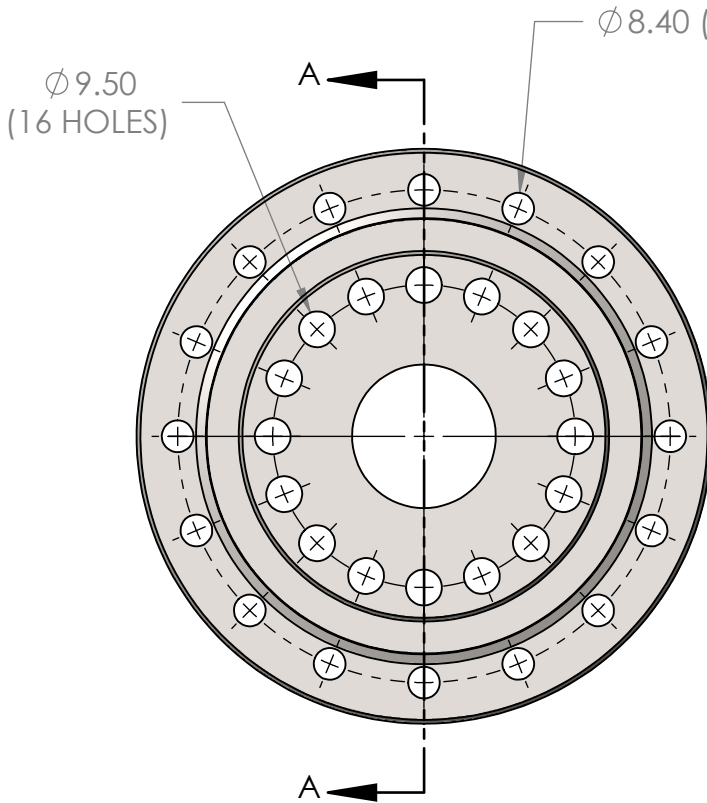
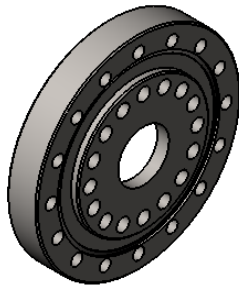
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SECTION A-A

UNLESS OTHERWISE SPECIFIED:  
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FINISH:

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EDGES

DO NOT SCALE DRAWING

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	NAME	SIGNATURE	DATE	
DRAWN				
CHK'D				
APPV'D				
MFG				
Q.A				
			MATERIAL:	
				SS 304L
			WEIGHT:	

TITLE:		<b>CF100 CUSTOM FLANGE</b>	
DWG NO.			
		<b>WCM-100-21</b>	
SCALE: 1:2		SHEET 1 OF 1	

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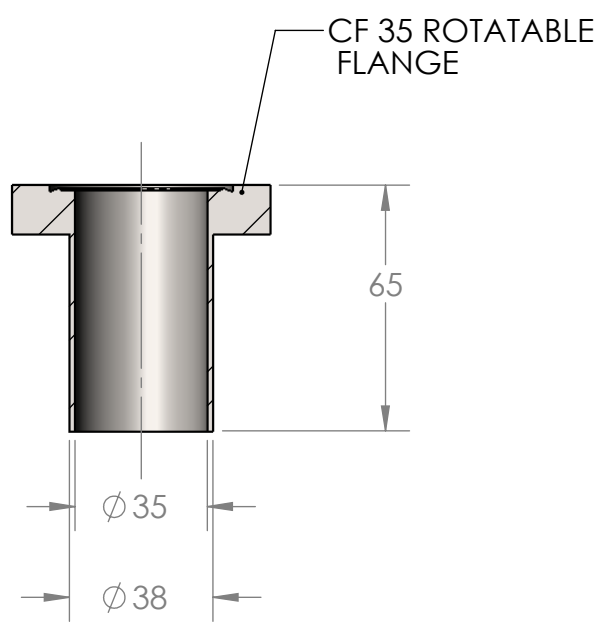
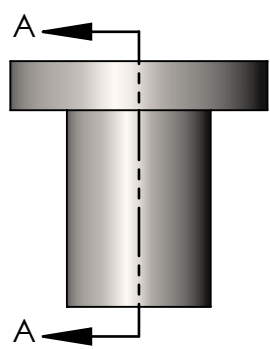
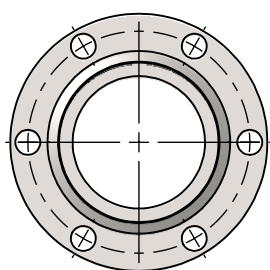
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SECTION A-A

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:			FINISH:		DEBURR AND BREAK SHARP EDGES		DO NOT SCALE DRAWING		REVISION		
DRAWN			SIGNATURE		DATE		TITLE: <b>CF 35 PORT(WCM-100-22)</b>				
CHK'D											
APPV'D											
MFG											
Q.A											
			MATERIAL:		AISI 304		DWG NO.		WCM-100-22		
			WEIGHT:				SCALE:1:2		SHEET 1 OF 1		
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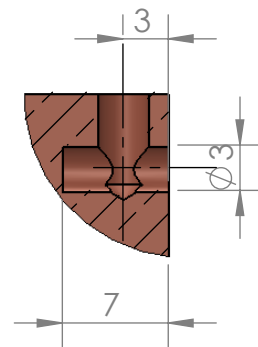
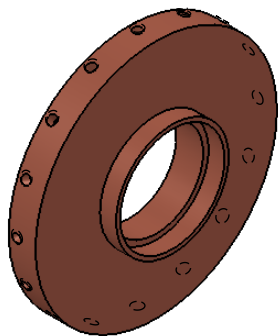
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DETAIL B  
SCALE 2 : 1

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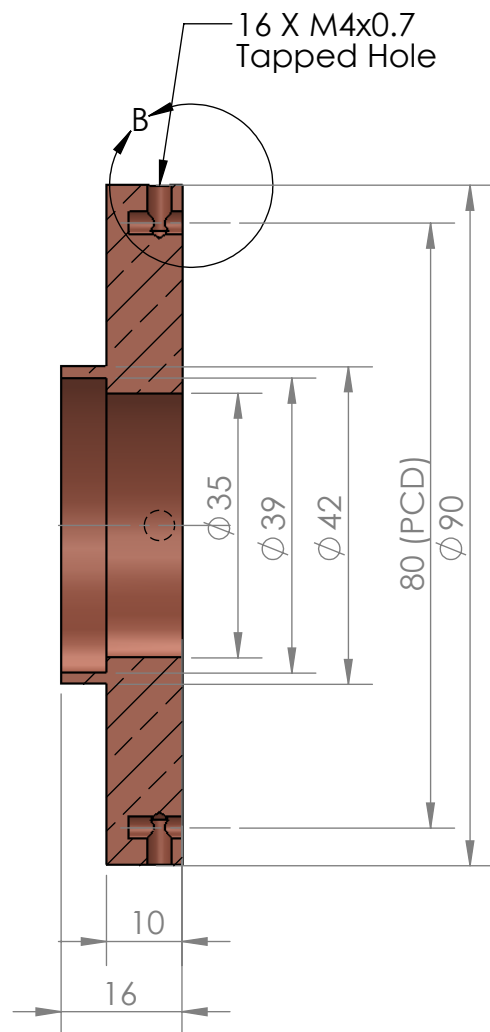
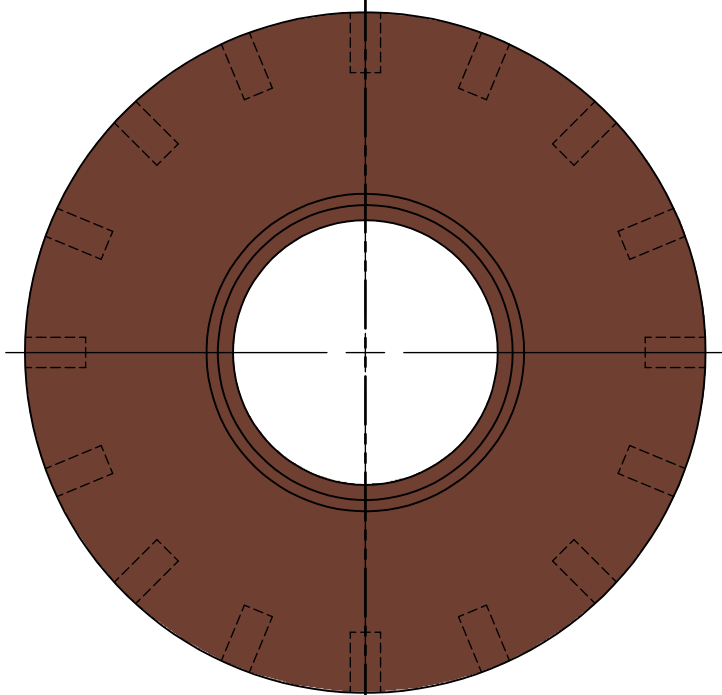
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SECTION A-A

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UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS  
SURFACE FINISH:  
TOLERANCES:  
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FINISH:

DEBURR AND  
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DO NOT SCALE DRAWING

REVISION

	NAME	SIGNATURE	DATE		
DRAWN					
CHK'D					
APPV'D					
MFG					
Q.A					
			MATERIAL: ETP COPPER		
			WEIGHT:		

TITLE:

COPPER  
ELECTRODE

DWG NO.

WCM-100-23

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SCALE:1:1

SHEET 1 OF 1

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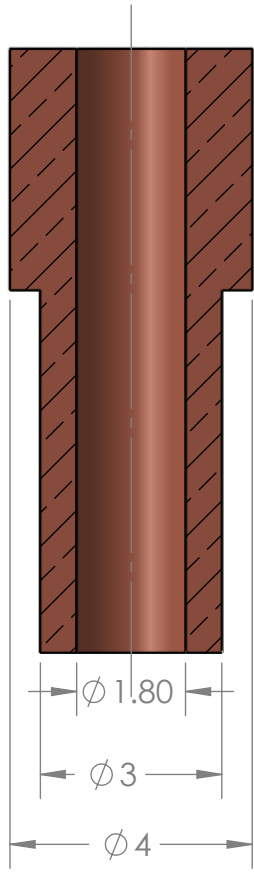
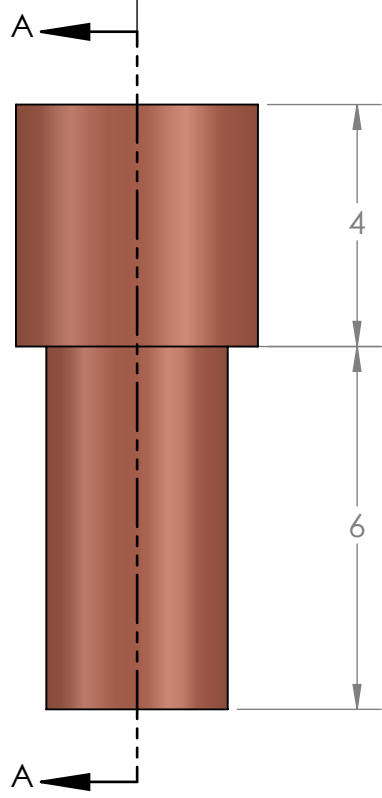
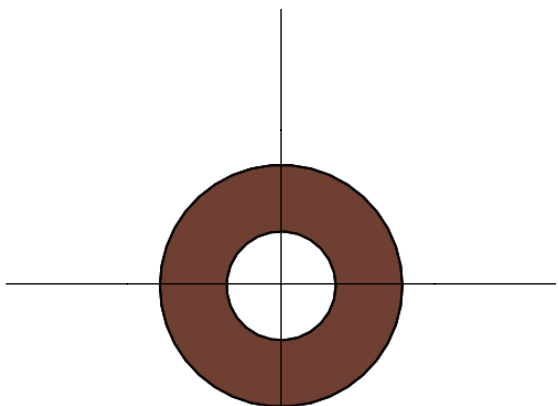
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SECTION A-A  
SCALE 8 : 1

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:			FINISH:		DEBURR AND BREAK SHARP EDGES		DO NOT SCALE DRAWING		REVISION		
DRAWN						TITLE: <b>COPPER PIN</b>					
CHK'D											
APPV'D											
MFG											
Q.A											
MATERIAL: ETP COPPER						DWG NO. <b>WCM-100-23A</b>			A4		
WEIGHT:						SCALE:10:1			SHEET 1 OF 1		

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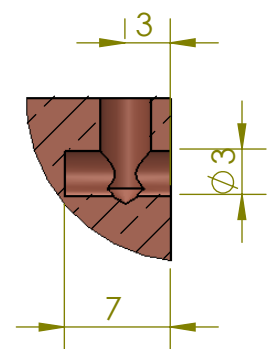
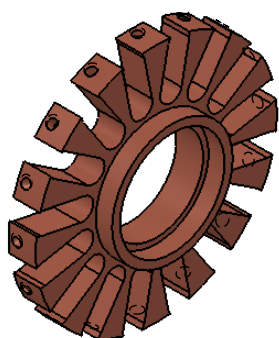
3

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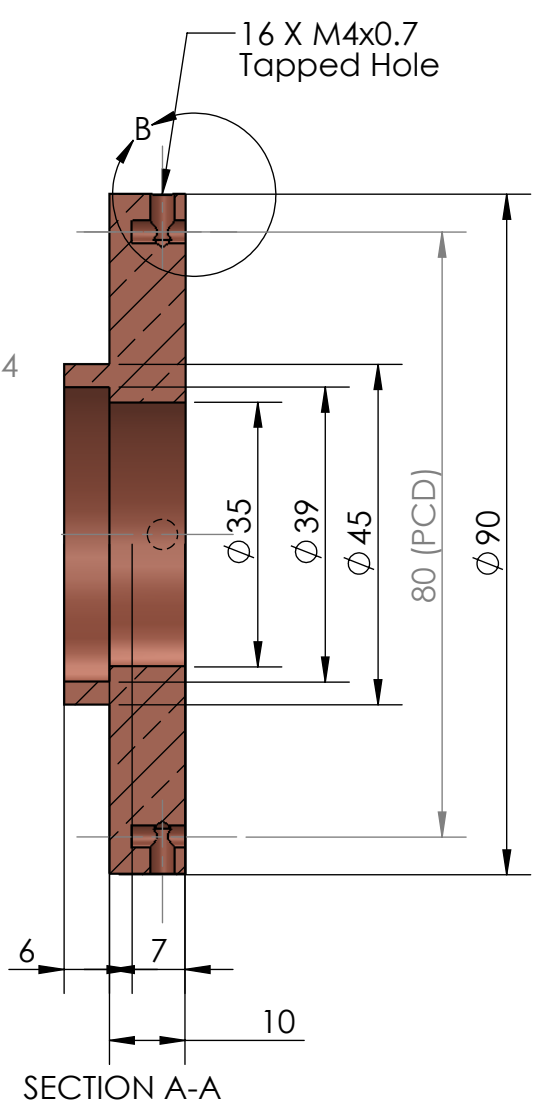
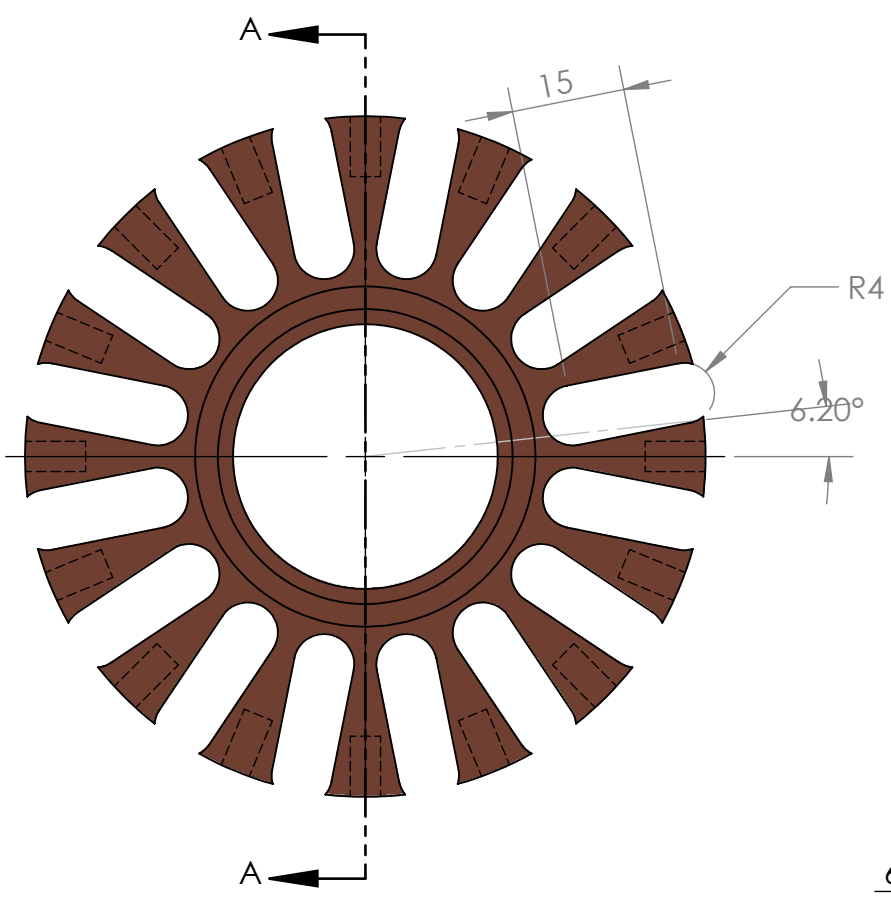
DETAIL B  
SCALE 2 : 1

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SECTION A-A

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C

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:			FINISH:		DEBURR AND BREAK SHARP EDGES		DO NOT SCALE DRAWING		REVISION		
DRAWN			SIGNATURE		DATE		TITLE: <b>COPPER ELECTRODE</b>				
CHK'D							DWG NO. <b>WCM-100-23-Slotted</b>				
APPV'D											
MFG											
Q.A							MATERIAL: ETP COPPER		SCALE:1:1		
							WEIGHT:		SHEET 1 OF 1		

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C

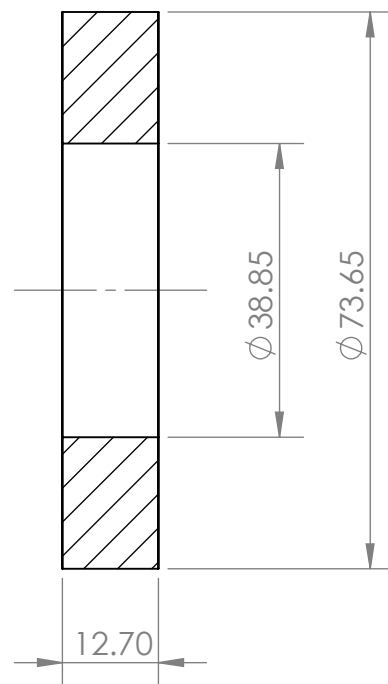
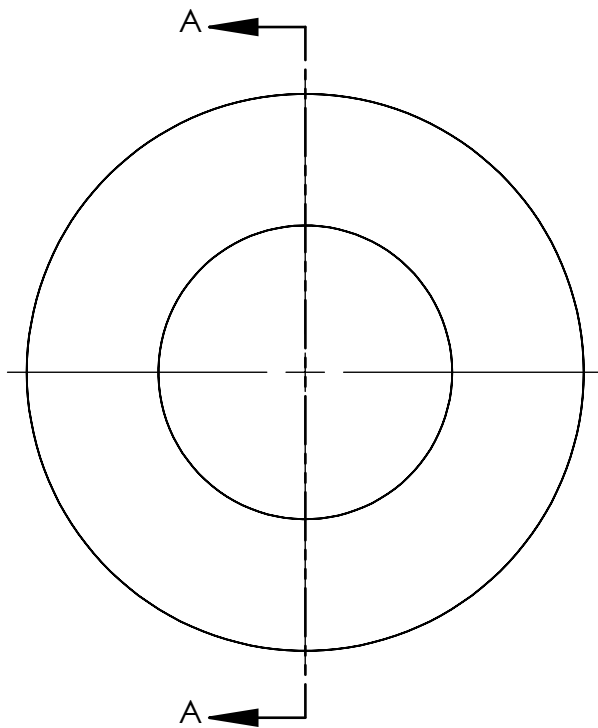
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SECTION A-A

NOTE: THIS IS AN OFF THE SHELF ITEM AVAILABLE.  
 TO BE PURCHASED BY VENDOR.  
**NOT TO BE MANUFACTURED.**

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:		FINISH:		DEBURR AND BREAK SHARP EDGES		DO NOT SCALE DRAWING		REVISION	
DRAWN		SIGNATURE		DATE		TITLE: <b>FERRITE RING</b>			
CHK'D									
APPV'D									
MFG									
Q.A									
				MATERIAL: Ferrite		DWG NO. <b>FRR-5943011101</b>		A4	
				WEIGHT: 285.07		SCALE: 1:1		SHEET 1 OF 1	

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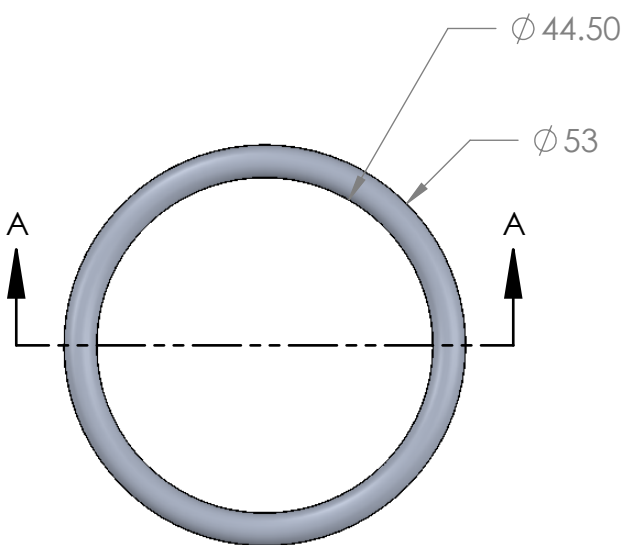
B

A

A



SECTION A-A



UNLESS OTHERWISE SPECIFIED:  
 DIMENSIONS ARE IN MILLIMETERS  
 SURFACE FINISH:  
 TOLERANCES:  
 LINEAR:  
 ANGULAR:

FINISH:

DEBURR AND  
 BREAK SHARP  
 EDGES

DO NOT SCALE DRAWING

REVISION

	NAME	SIGNATURE	DATE		
DRAWN					
CHK'D					
APPV'D					
MFG					
Q.A					
				MATERIAL:	
				WEIGHT:	

TITLE:

HELICOFLEX SEAL

DWG NO.

Helicoflex Seal

A4

SCALE:1:1

SHEET 1 OF 1

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