



GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
BHABHA ATOMIC RESEARCH CENTRE  
VISAKHAPATNAM



Computational Analysis Division

Ref: CAD/HEDM/WO/IND/22-23/04

Date: 12/05/2022

**Sub: Notice inviting tender for “Fabrication and Supply of Shafts, Projectiles, Stoppers, Target Plates, Adapters and Supporting Posts”**

**1. Scope : Fabrication and Supply of Shafts, Projectiles, Stoppers, Target Plates, Adapters and Supporting Posts  
( Details: Annexure I, II, III)**

Note: The items are for delivery and testing at BARC Facilities, Atchutapuram, Visakhapatnam-531011.

**2. General guidelines for submitting tender**

- You shall send your offer in a **sealed envelope** indicating delivery period, price inclusive of taxes and other relevant information by speed post/Courier to:

Head,  
Computational Analysis Division  
Bhabha Atomic Research Centre  
Anu Vihar, Mekarasi Hill, Village: Maduturu,  
Near Nagaravarm-Atchutapuram Highway  
Visakhapatnam 531011  
(Kind Attention : Shri. Subhrajit Guin, SO/D, Mob: 9007295617)

- Quotation shall reach us on or before **22/05/2022** by **Speed Post/Courier Only**
- On top left corner of the envelope please indicate  
**Quotation For – Fabrication and Supply of Shafts, Projectiles, Stoppers, Target Plates, Adapters and Supporting Posts: Due Date 22/05/2022**
- Price to be specified strictly as per template provided in Annexure-II.
- Overwriting, scratching etc. must be avoided in the quotation. Rewriting the whole figure shall carry out any alteration in the figure. The authorised person from the firm shall countersign such figure.
- The delivery period mentioned in the quotation shall be strictly adhered to. If the contractor fails to supply and secure extension of delivery date before effecting delivery of the supply against the contract, acceptance of such item by the purchaser will in no way prejudice the right of the purchaser to levy liquidated damage nor will it be entitled to the contractor for payment of statutory levies that comes into force after the expiry of the delivery date.
- Minimum Guarantee / Warranty period** of the material shall be **one year**.
- Supplier shall mention clearly the PAN /TAN no. on quotation.**
- GST number shall be clearly mentioned on Quotation**
- All the charges and taxes shall be mentioned clearly.  
**Please note that BARC being an R&D institution, GST rates are as follows**
  - **For Intra-state Supply of Goods: @ 2.5% SGST + 2.5% CGST**
  - **For Inter-state Supply of Goods: @ 5.0% IGST**
  - **GST exemption certificate shall be issued to the supplier.**

(This is as per Office Order No. BARC/GST/12/2017 dt. 27.12.2017)

**3. PLACE OF DELIVERY AND TESTING: BARC Facilities, Atchutapuram, Visakhapatnam-531011**

The inspected and accepted components shall be delivered to:

**The Stores Officer.  
Bhabha Atomic Research Centre  
Main Campus (North Gate), PEB-4, Village: Maduturu,  
Near Nagaravarm-Atchutapuram Highway  
Visakhapatnam 531011**

**4. PAYMENT TERMS:**

- a) Part payment/Advance or against delivery cannot be made.
- b) Payment will be made only after satisfactory completion of work and on production of (along with Delivery Challan):
  - i. Bill/Invoice containing Location of supply, separate tax components along with PAN and GSTN numbers
  - ii. Advance Stamped Receipt
  - iii. Bank Account No, Bank and Branch name with IFSC code.
  - iv. Undertaking stating that GST has been promptly deposited with the authorities
- c) It may be noted that:
  - i. Income tax @2% will be deducted from your bill.
  - ii. TDS(under GST) will be deducted as applicable from your bill of taxable goods and/or services, where the total value of such supply exceeds 2.50lakh.

**5. CONFIDENTIALITY CLAUSE :**

No party shall disclose any information to any third party, concerning the matters under this contract generally. In particular, any information identified as "Proprietary" in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party.

This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by a party with equal force. "Restricted information" categories under section 18 of the Atomic Energy Act,1962 and "Official Secrets" under section 5 of the official secrets act, 1923;-

Any contravention of the above-mentioned provisions by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.

Prohibition against use of BARC's name without permission for publicity purposes:-The contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC's name for any publicity purpose through any public medial like press, radio, T.V. or Internet without the prior written approval of BARC.

6. You may contact us for any clarification before 22/05/2022 (Shri Subhrajit Guin, 0891-283-2144, sguin@barc.gov.in)



(Subhrajit Guin)  
SO/D, CAD

## Scope of work

### Fabrication and Supply of Shafts, Projectiles, Stoppers, Target Plates, Adapters and Supporting Posts

The following components are to be supplied:

- 1.1 Shafts AI-7075: Dia 65mm x Length 1m: **10 Nos.**
- 1.2 Viton O-Ring Box: 70 Shore A 400Nos (Sizes up to ID 44mm x 4mm): **01 Set.**

The following components are to be fabricated:

- 2 IPI Projectile: **10 Nos.** (Drawing No: 2)
- 3 B Projectile: **15 Nos.** (Drawing Nos: 3.1 to 3.8)
- 4 Support Plate: **01 No.** (Drawing No: 4)
- 5 Support with Wedge (Left): **01 No.** (Drawing No: 5)
- 6 Support with Wedge (Right): **01 No.** (Drawing No: 6)
- 7 Stopper Version 7: **02 Nos.** (Drawing No: 7)
- 8 Stopper Version 8: **03 Nos.** (Drawing No: 8)
- 9 Knife Edge Adapter: **01 No.** (Drawing No: 9)
- 10 Knife Edge Adapter with Sloping Edge: **01 No.** (Drawing No: 10)
- 11 Knife Edge Adapter with Matching Edge: **01 No.** (Drawing No: 11)
- 12 Vacuum 110PCD to 25KF Adapter: **02 Nos.** (Drawing No: 12)

**Note: Except Drawing Number 5 and 6 (Support with Wedge), all the components are to be fabricated in Single-Piece only.**

### General requirements:

1. The entire assembly of the functional unit is within the scope of work of the vendor.
2. In case of any clarifications regarding the internal circuit / other queries, please contact the undersigned.
3. One-Year (or more) Standard Warranty has to be provided.
4. The vendors are encouraged to hold prior discussions with the indenter for any clarifications or suggestions.



Subhrajit Guin  
SO/D, CAD  
Indenting Officer

### Contact Persons :

1. **Shri Subhrajit Guin (Indenting Officer)**  
SO/D, Computational Analysis Division  
BARC Visakhapatnam  
Ph: 0891-283-2144  
Email: [sguin@barc.gov.in](mailto:sguin@barc.gov.in)
2. **Shri Rahulnath PP**  
SO/D, Computational Analysis Division  
BARC Visakhapatnam  
Ph: 0891-283-2141  
Email: [rahulnathpp@barc.gov.in](mailto:rahulnathpp@barc.gov.in)

**COMMERCIAL QUOTE : TEMPLATE OF PRICE BREAKUP**

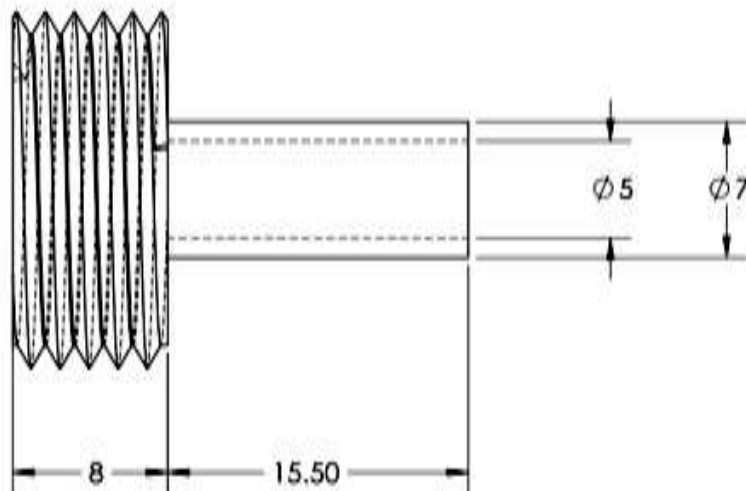
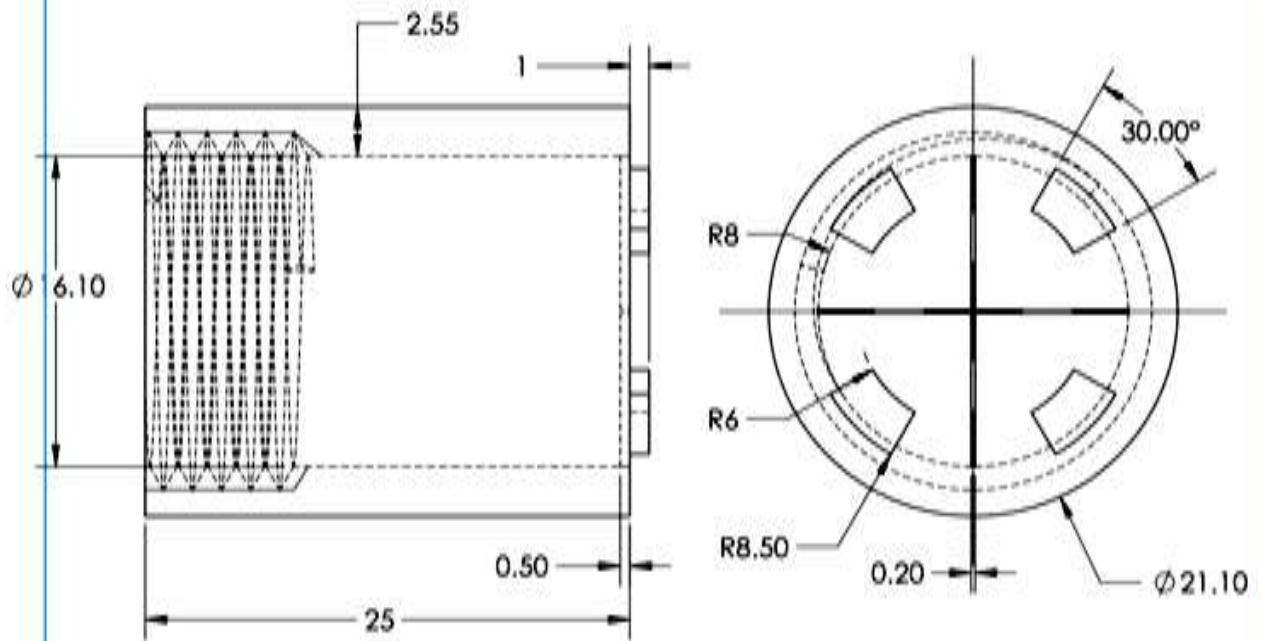
Prices should be stated strictly as per below template.

<b>S. No</b>	<b>System</b>	<b>Price</b>
	<i>Shafts, Projectiles, Stoppers, Target Plates, Adapters and Supporting Posts</i>	
1.1	Shafts: 10 Nos.	-
1.2	Viton Oring Box: 70 Shore A 400Nos: 01 Set.	-
2	IPI Projectile: 10 Nos.	-
3	B Projectile: 15 Nos.	-
4	Support Plate: 01 No.	-
5 and 6	Support With Wedge (Left and Right): Total 01 + 01 Nos.	-
7 and 8	Stopper version 7 and 8 : Total 03 + 02 Nos.	-
9, 10 and 11	Knife Edge Adapters: Total 01 + 01 + 01 Nos.	-
12	Vacuum 110PCD to 25KF Adapter: 02 Nos.	-
	Total	-
	Misc Charges (Freight etc)—if any	-
	Tax	-
	<b>Total (with Tax)</b>	-

Please note that BARC being an R&D institution, GST rates are as follows

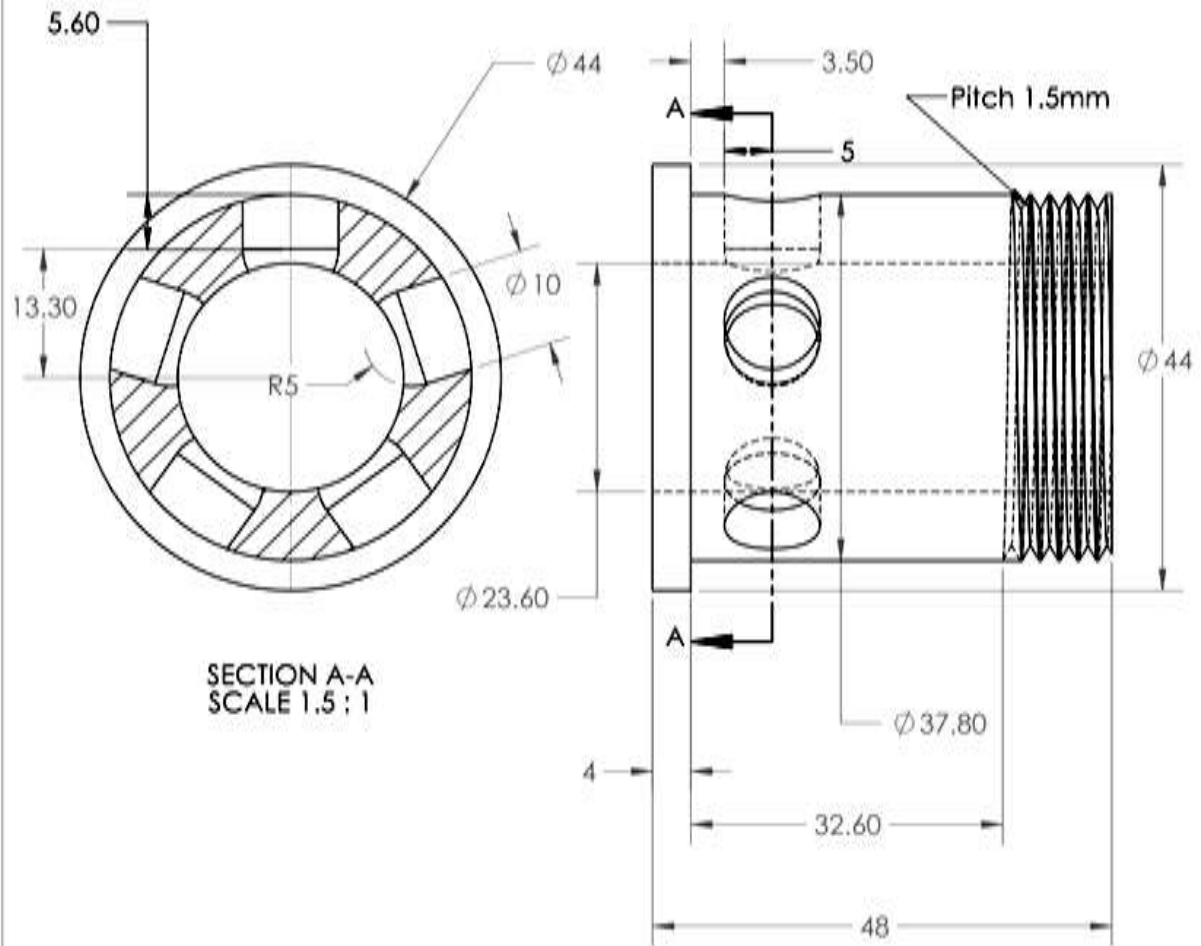
- For Intra-state Supply of Goods: @ 2.5% SGST + 2.5% CGST
- For Inter-state Supply of Goods: @ 5.0% IGST
- **GST exemption certificate shall be issued to the supplier.**

(This is as per Office Order No. BARC/GST/12/2017 dt. 27.12.2017)



		Title: <b>IPI Projectile-21 mm</b>	
DRG. No.: 2	All dimensions are in mm	Tolerance:	
Quantity: 10 Nos.	Material: Al7075-T6	Scale: 2:1	
DATE: 09.05.2022	Drawn: Rahulnath	Approved: Rahulnath	

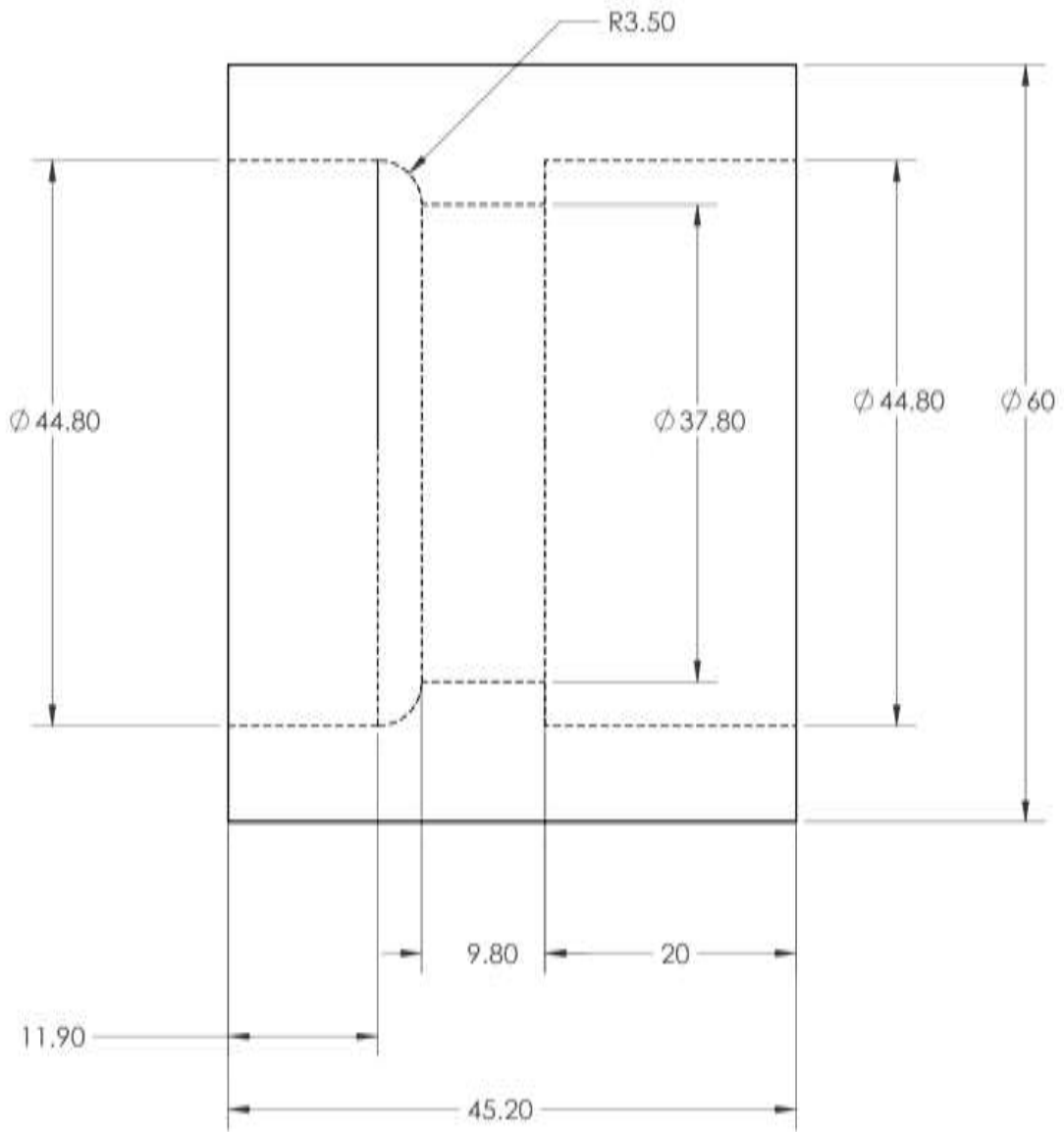
*Rahulnath Gevin*



All dimensions are in mm

		Title: <b>Bearing Part</b>	
DRG. No.: 3.1	All dimensions are in mm	Tolerance:	
Quantity: 15 Nos.	Material: Al7075-T6	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

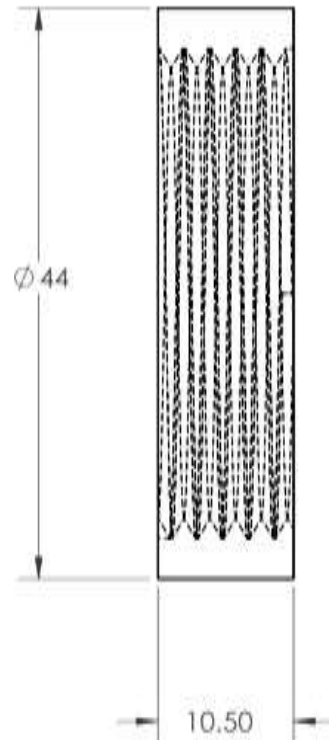
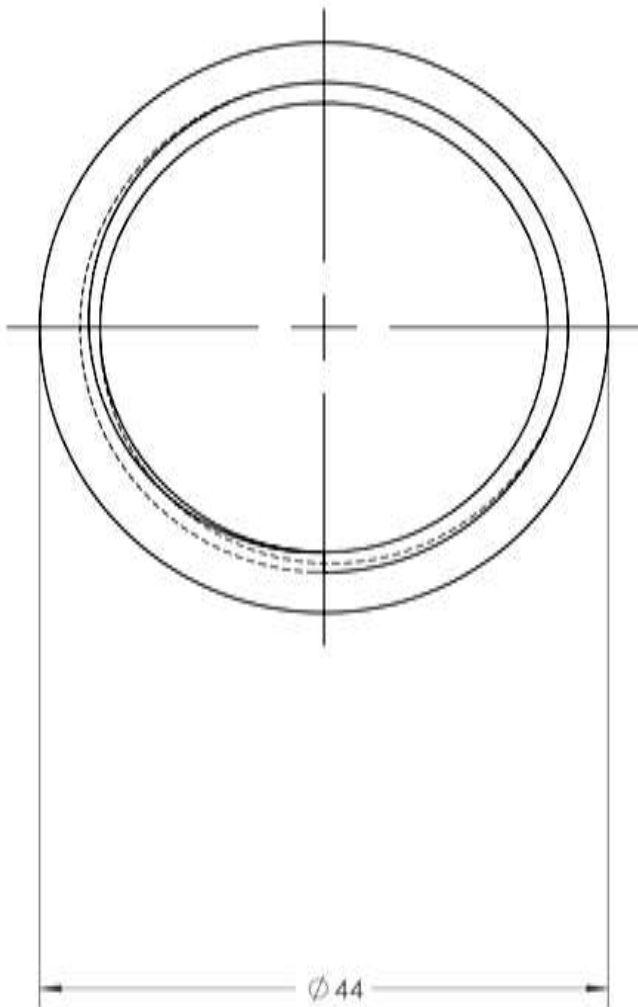
*Rahulnath Gevin*



All dimensions are in mm

		Title: <b>Outer Shield</b>	
DRG. No.: 3.2	All dimensions are in mm	Tolerance:	
Quantity: 15 Nos.	Material: Al7075-T6	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

*Rahulnath Jain*

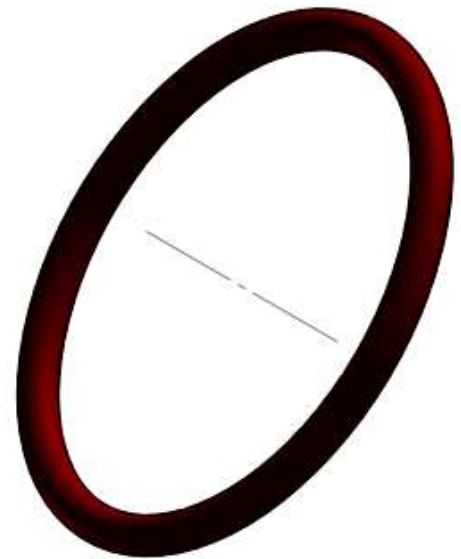
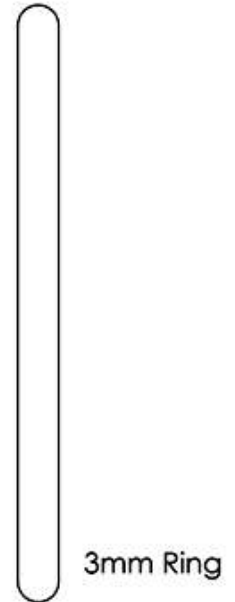
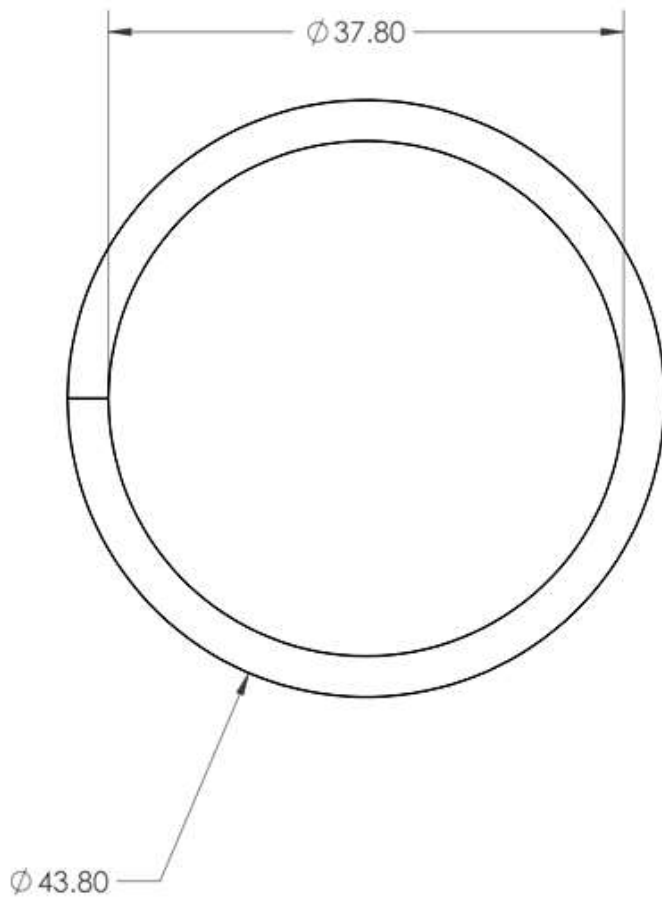


All dimensions are in mm

		Title: <b>Stopper</b>	
DRG. No.: 3.3	All dimensions are in mm	Tolerance:	
Quantity: 15 Nos.	Material: Al7075-T6	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

*Rahulnath Gevin*

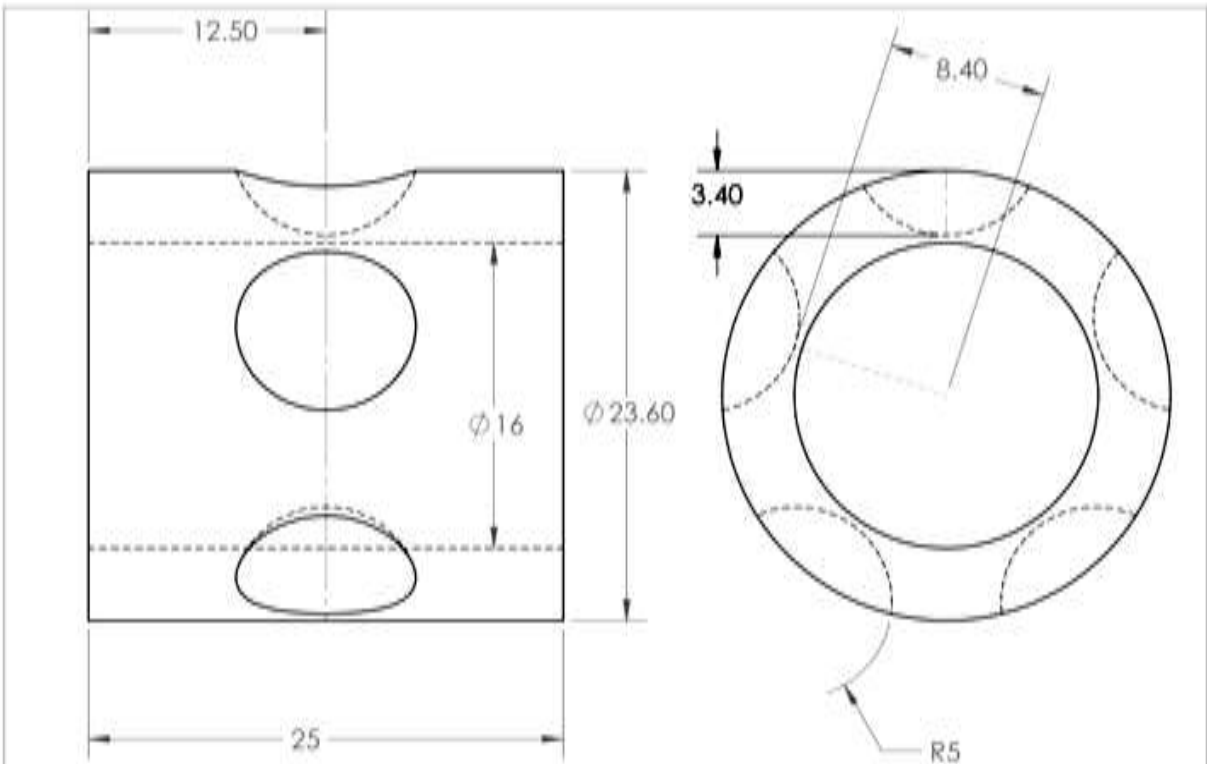




All dimensions are in mm

		Title: <b>Retaining ring</b>	
DRG. No.: 3.4	All dimensions are in mm	Tolerance:	
Quantity: 15 Nos.	Material: MS	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

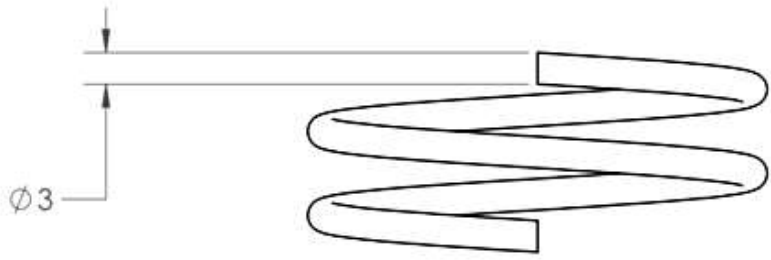
*Rahulnath Jain*



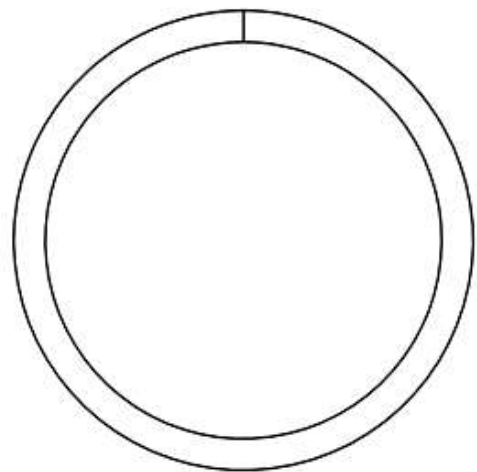
All dimensions are in mm

		Title: <b>Projectile</b>	
DRG. No.: 3.5	All dimensions are in mm	Tolerance:	
Quantity: 15 Nos.	Material: Al7075-T6	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

*Rahulnath Gevin*



Pitch:8mm  
Revolution:2

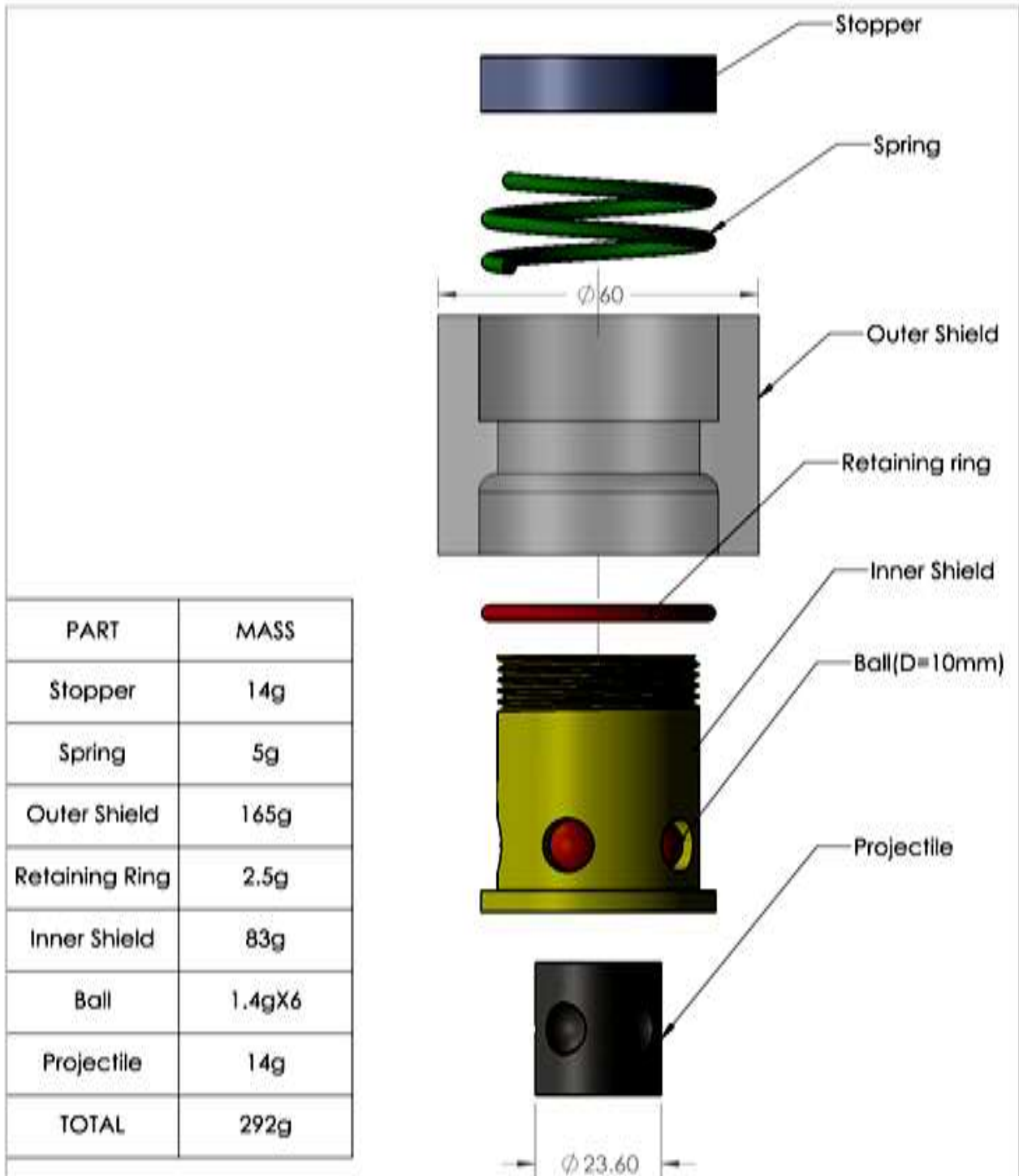


Pich Diameter:40.8mm  
Inner diameter:37.8mm  
Outer Diameter:43.8mm

All dimensions are in mm

		Title: <b>Spring</b>	
DRG. No.: 3.6	All dimensions are in mm	Tolerance:	
Quantity:15 Nos.	Material:MS	Scale:2:1	
DATE: 09.03.2022	Drawn:Rahulnath	Approved:Rahulnath	

*Subhrajit Guin*

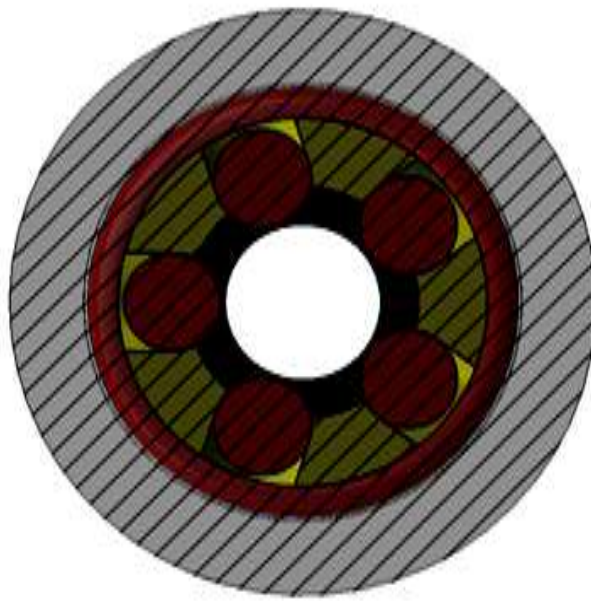
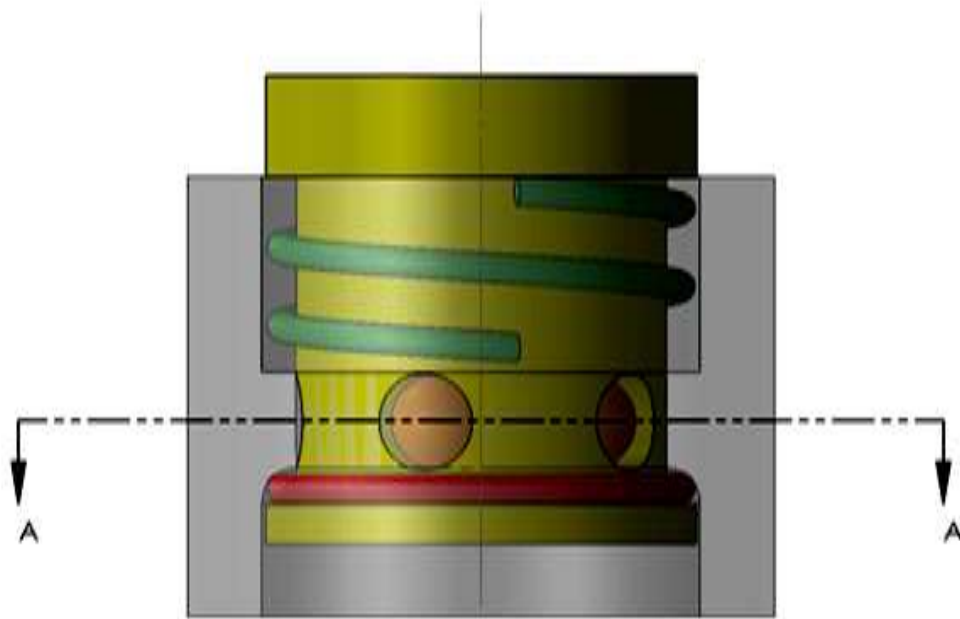


PART	MASS
Stopper	14g
Spring	5g
Outer Shield	165g
Retaining Ring	2.5g
Inner Shield	83g
Ball	1.4gX6
Projectile	14g
TOTAL	292g

All dimensions are in mm

		Title: <b>B</b> <b>Assembly Projectile</b>	
DRG. No.: 3.7	All dimensions are in mm	Tolerance:	
Quantity: 15 Nos.	Material:	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

*Rahulnath Jain*

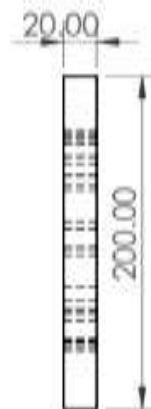
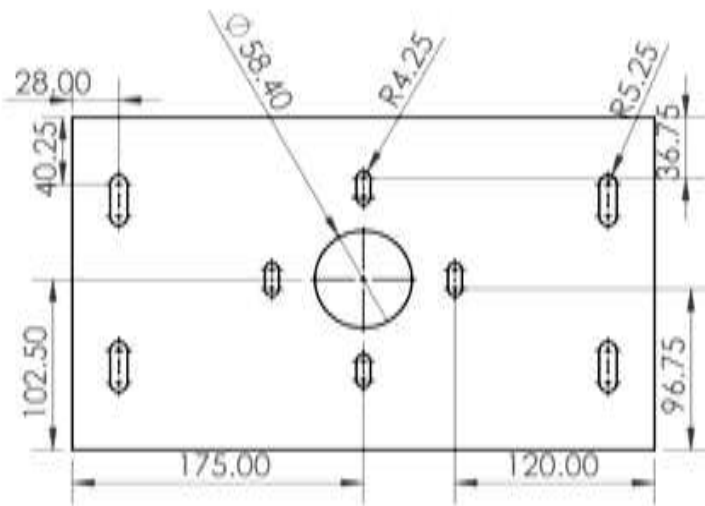
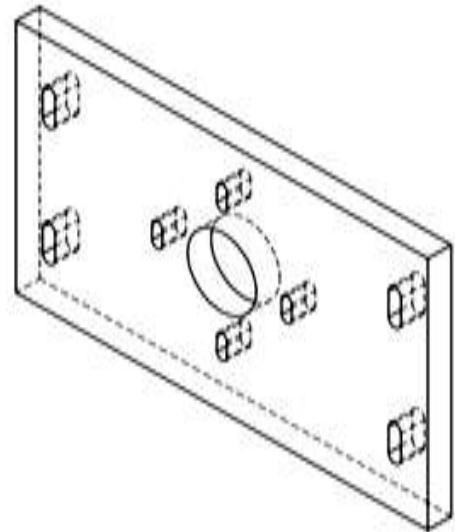
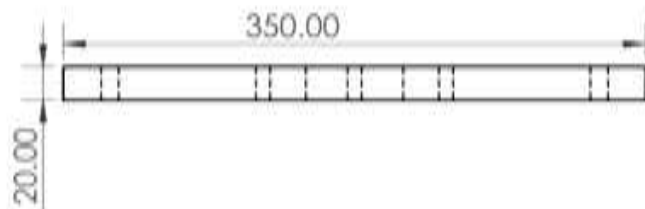


SECTION A-A  
SCALE 1.5 : 1

All dimensions are in mm

		Title: <b>Assembly arrangement</b>	
DRG. No.: 3.8	All dimensions are in mm	Tolerance:	
Quantity: 15 Nos.	Material:	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

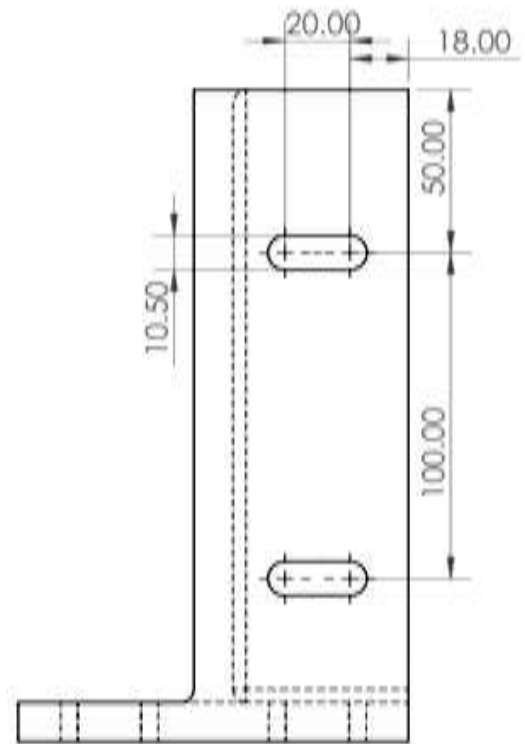
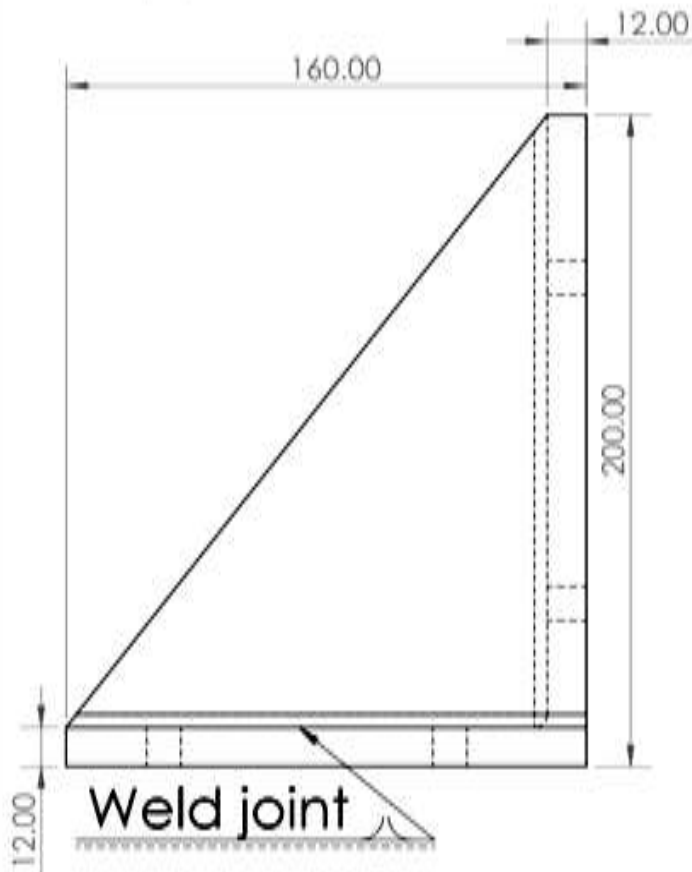
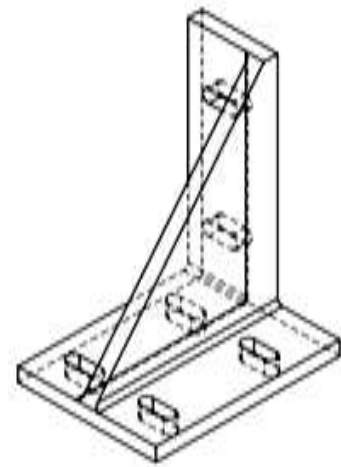
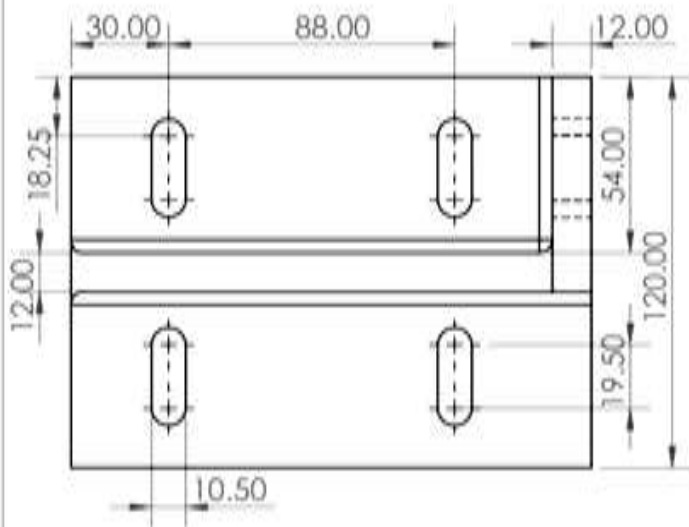
*Rahulnath Gevin*



All dimensions are in mm

		Title: <b>SUPPORT PLATE</b>	
DRG. No.: 4	All dimensions are in mm	Tolerance:	
Quantity: 1 Nos.	Material: MS	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

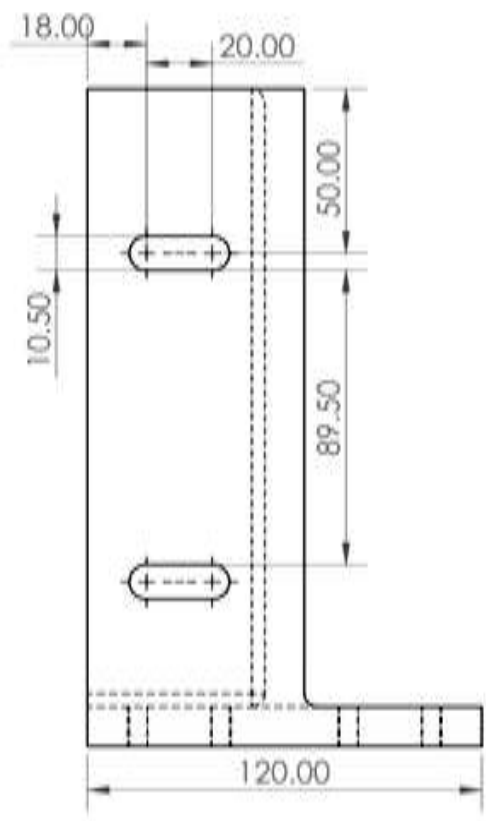
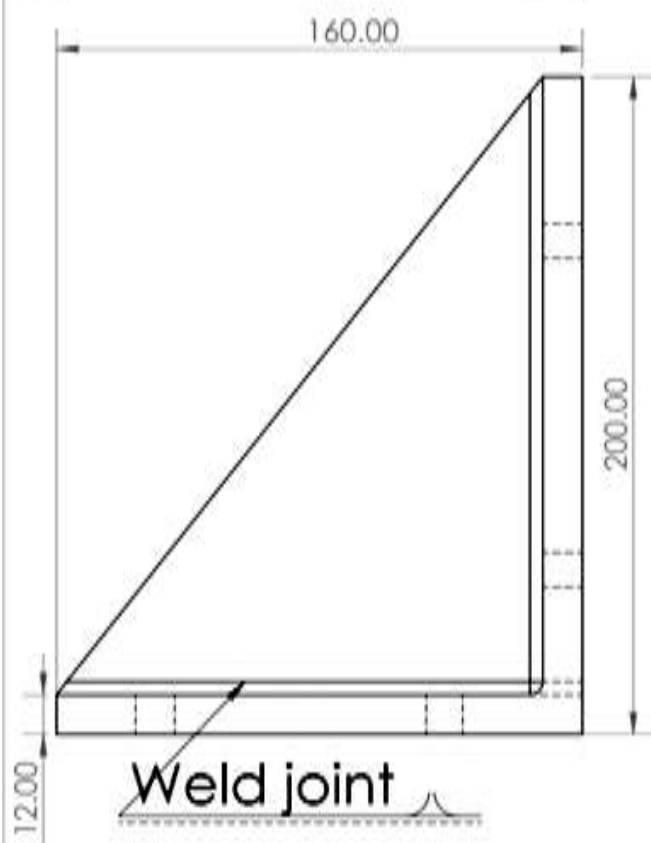
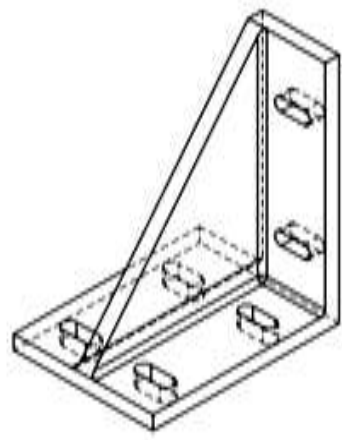
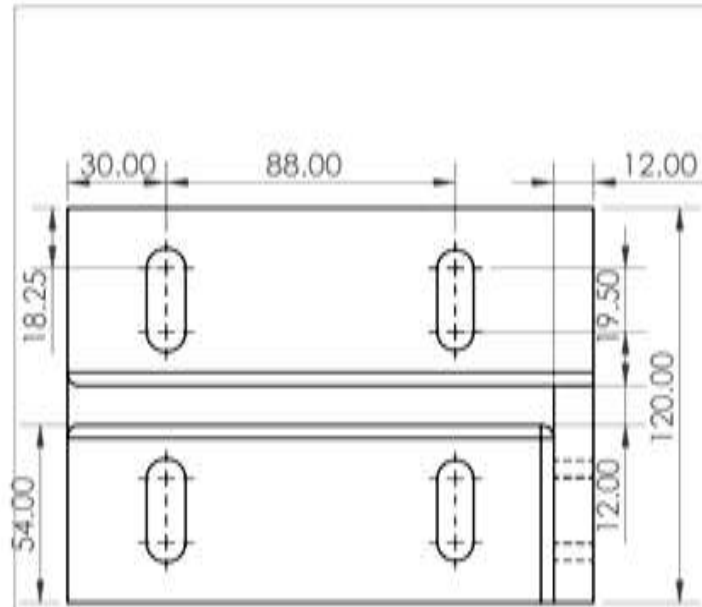
*Rahulnath Guin*



All dimensions are in mm

		Title: <b>Support with wedge (left)</b>	
DRG. No.: 5	All dimensions are in mm	Tolerance:	
Quantity: 1 Nos.	Material: MS	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

*Rahulnath Gevin*



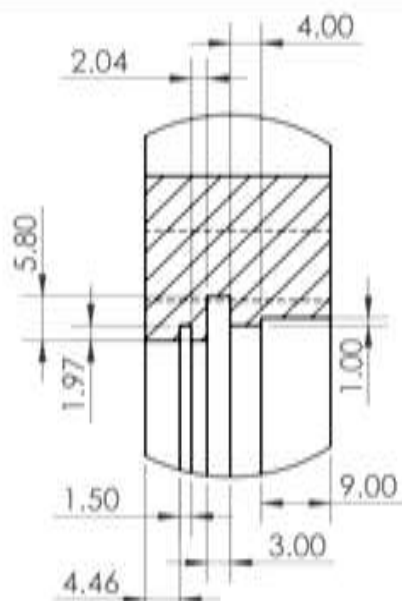
All dimensions are in mm

		Title: <b>Support with wedge (right)</b>
DRG. No.: 6	All dimensions are in mm	Tolerance:
Quantity: 1 Nos.	Material: MS	Scale: 2:1
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath

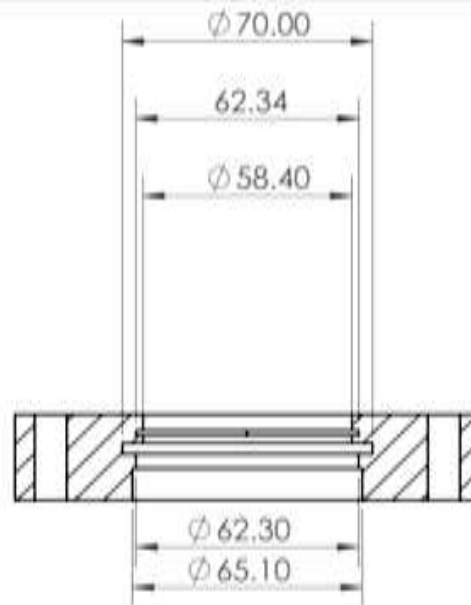


*Rahulnath Jain*

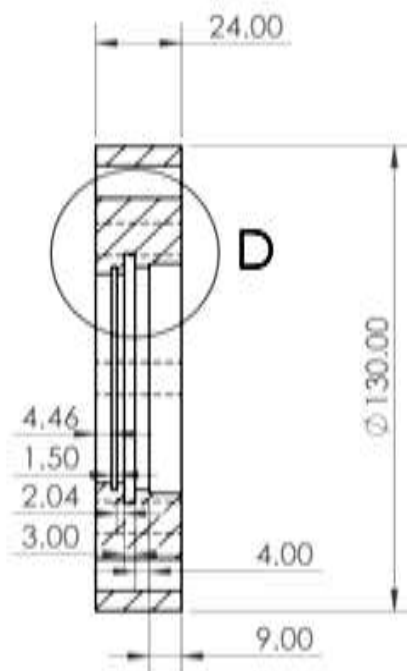




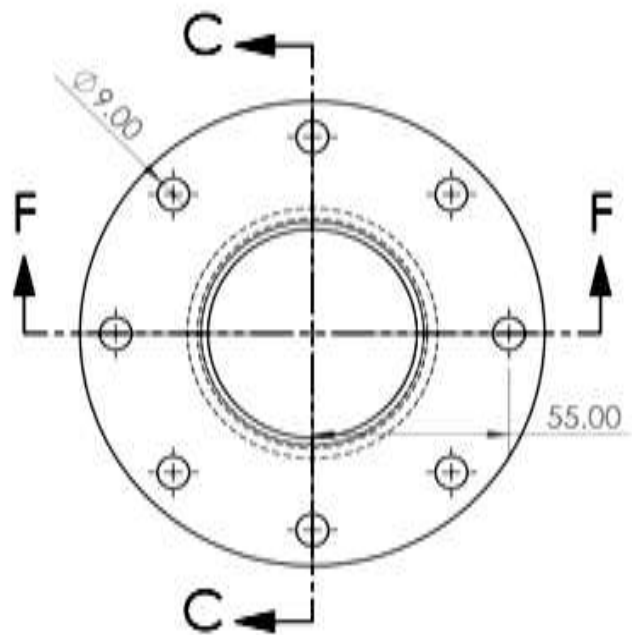
**DETAIL D**



**SECTION F-F**



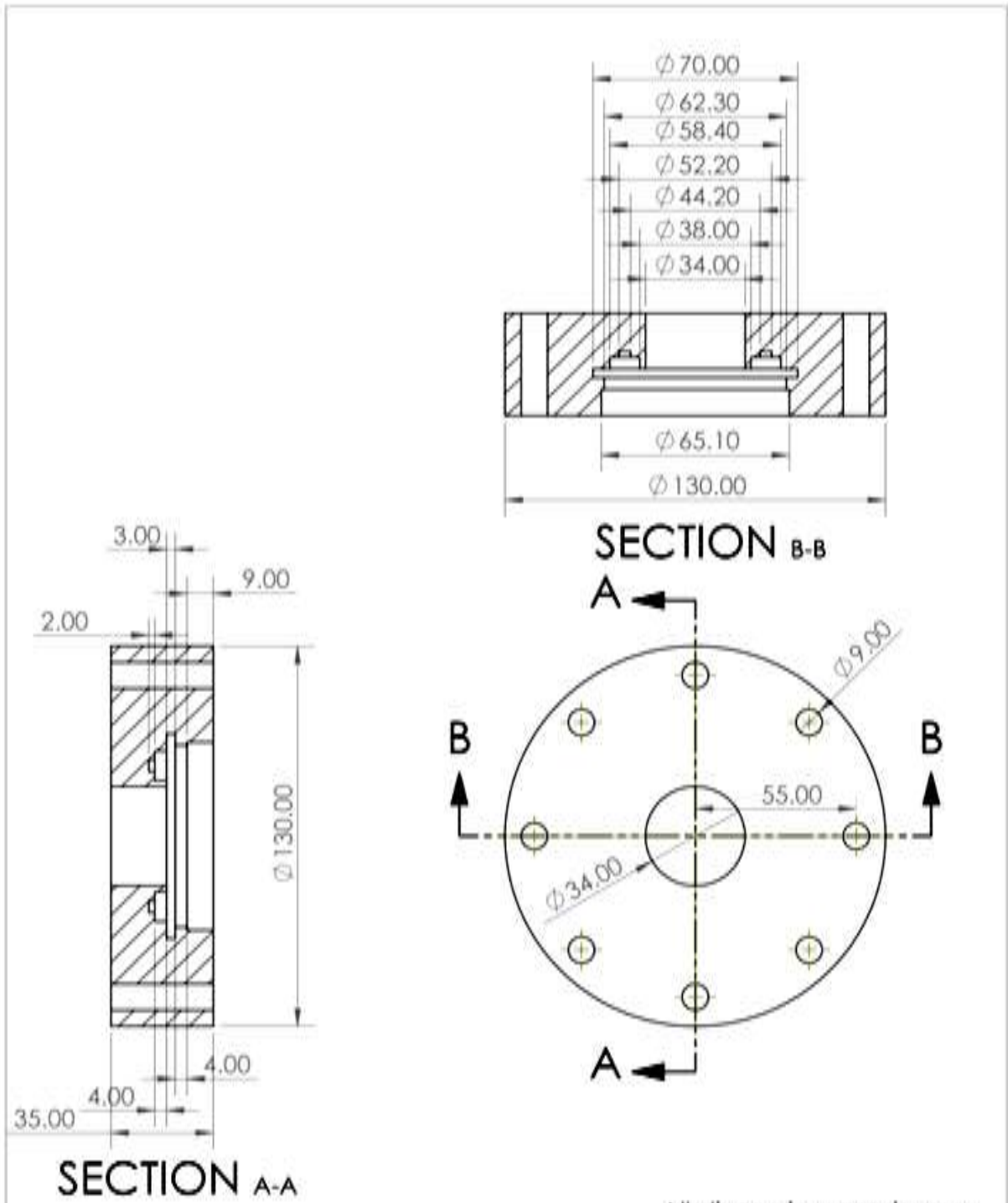
**SECTION C-C**



All dimensions are in mm

		Title: <b>Stopper Version 7 (With Notch)</b>	
DRG. No.: 7	All dimensions are in mm	Tolerance:	
Quantity: 2 Nos.	Material: EN24	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

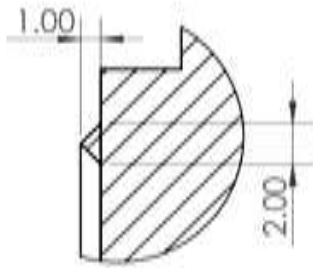
*Rahulnath Guin*



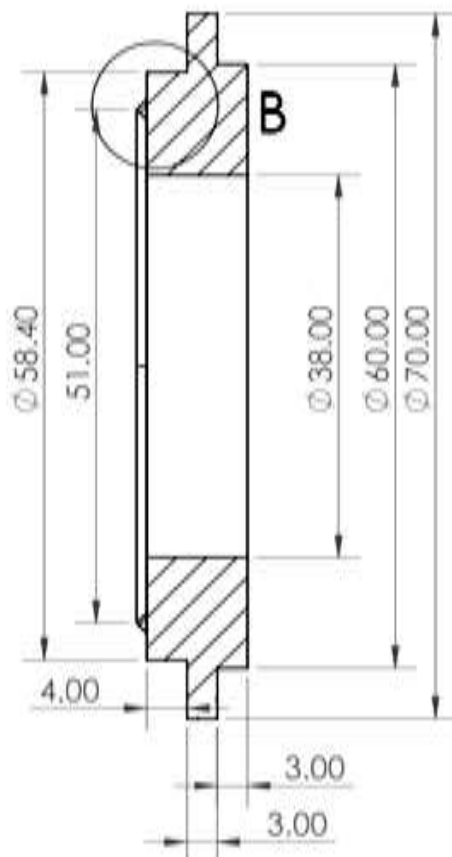
All dimensions are in mm

		Title: <b>Stopper Ver 8 With Recess</b>	
DRG. No.: 8	All dimensions are in mm	Tolerance:	
Quantity: 3 Nos.	Material: EN24	Scale: 2:1	
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath	

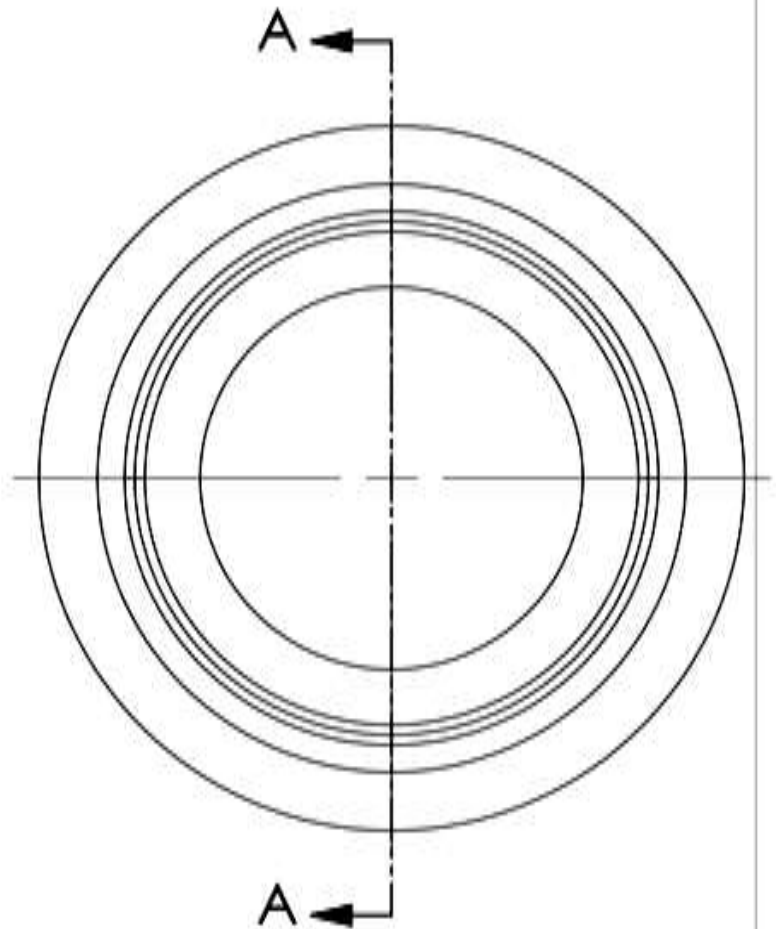
*Rahulnath Gevin*




DETAIL B



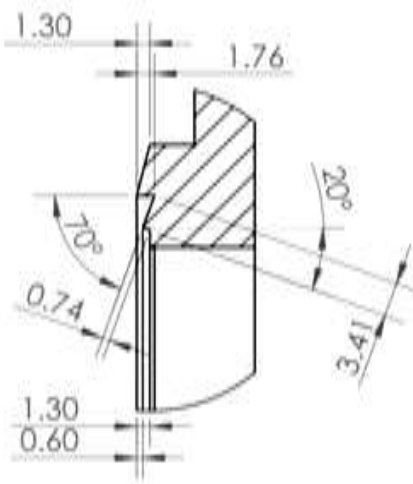
SECTION A-A



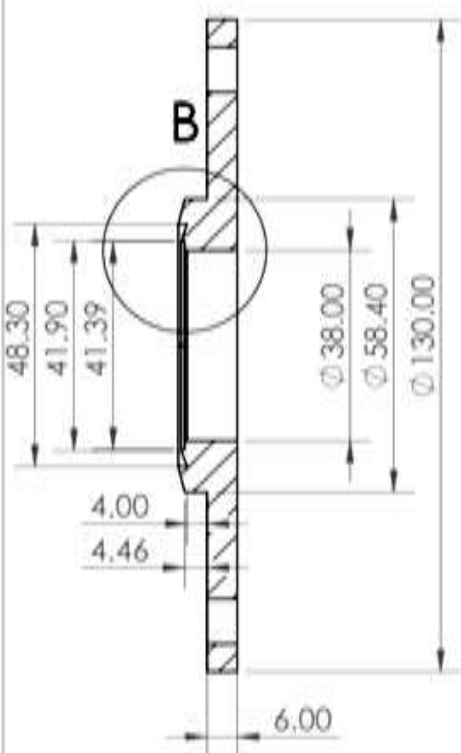
All dimensions are in mm

		Title: <b>Knife Edge Adaptor</b>
DRG. No.: 9	All dimensions are in mm	Tolerance: 
Quantity: 1 Nos.	Material: SS	Scale: 2:1
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath

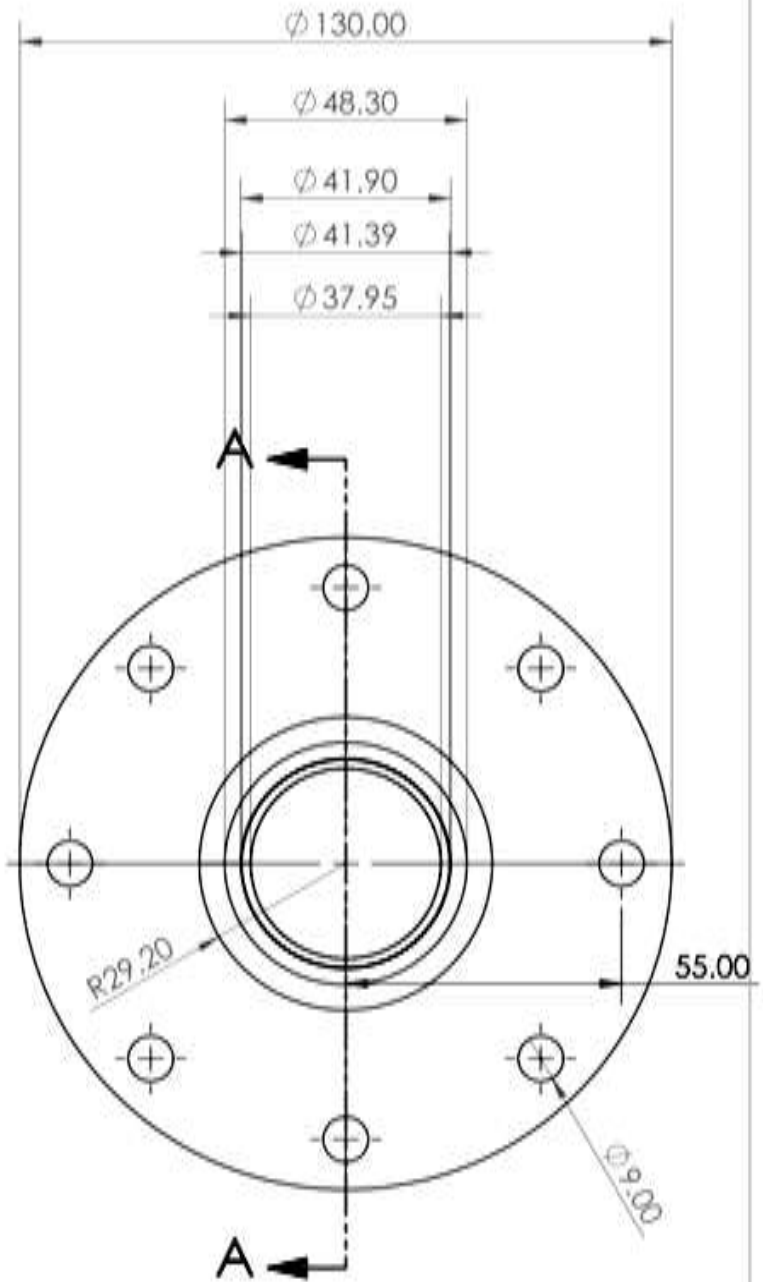
*Rahulnath Jain*



**DETAIL B**



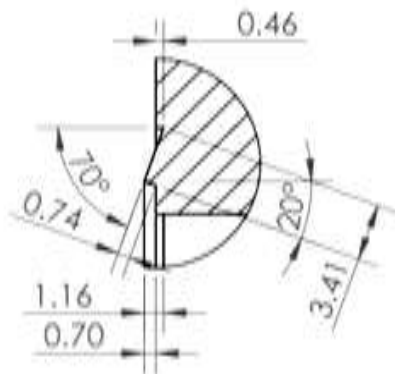
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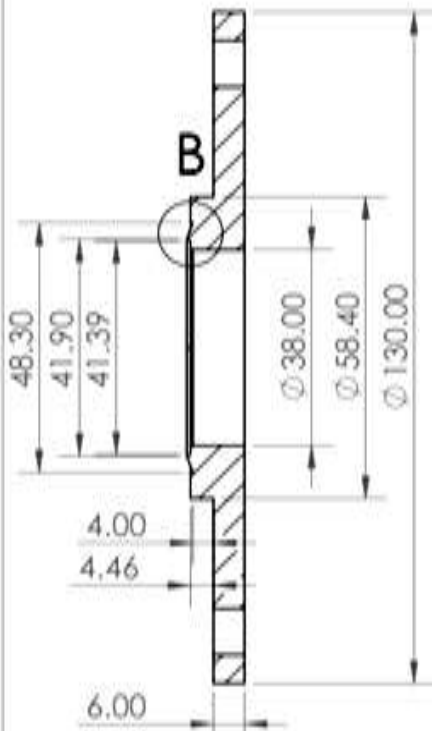
All dimensions are in mm

		Title: <b>Knife Edge Adaptor With Sloping Edge</b>
DRG. No.: 10	All dimensions are in mm	Tolerance:
Quantity: 1 Nos.	Material: EN24	Scale: 2:1
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath

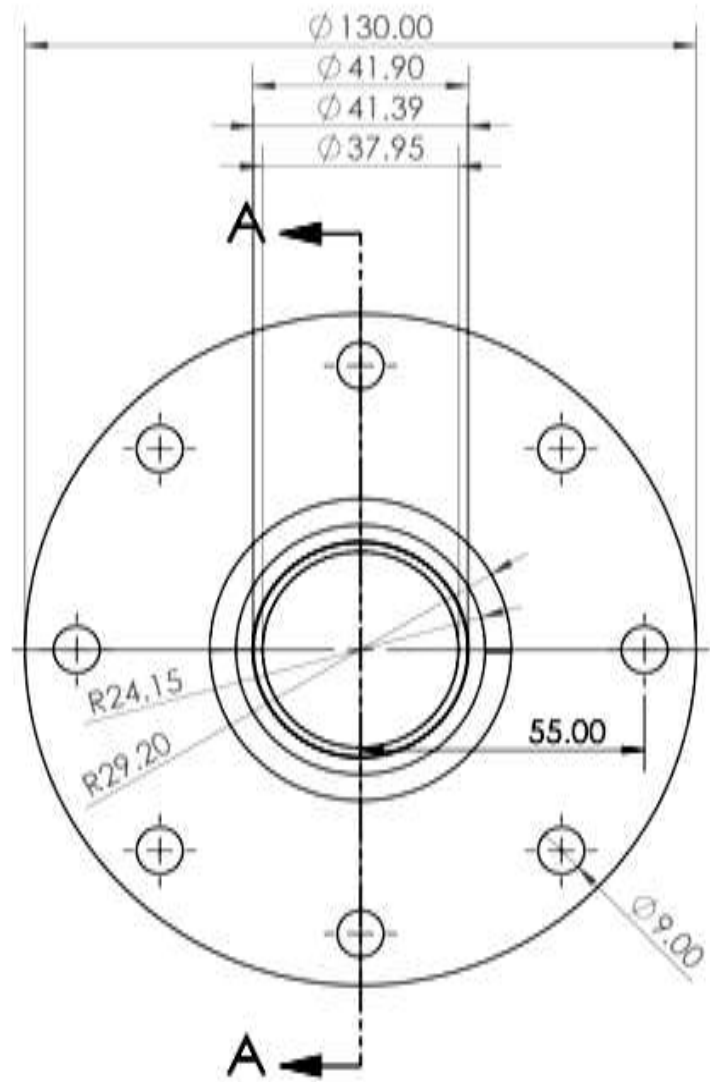
*Rahulnath Gevin*



**DETAIL B**



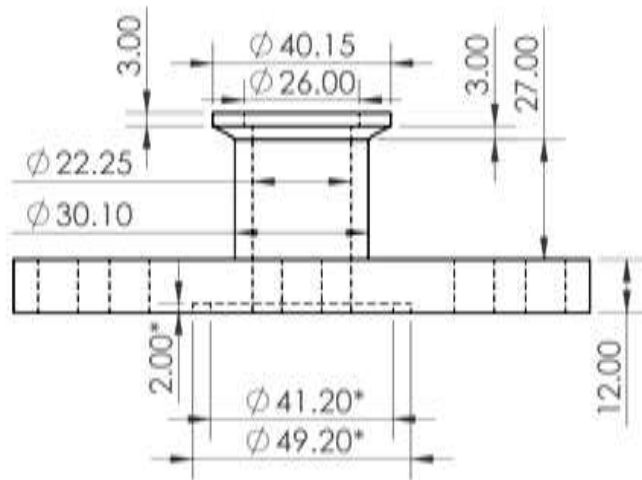
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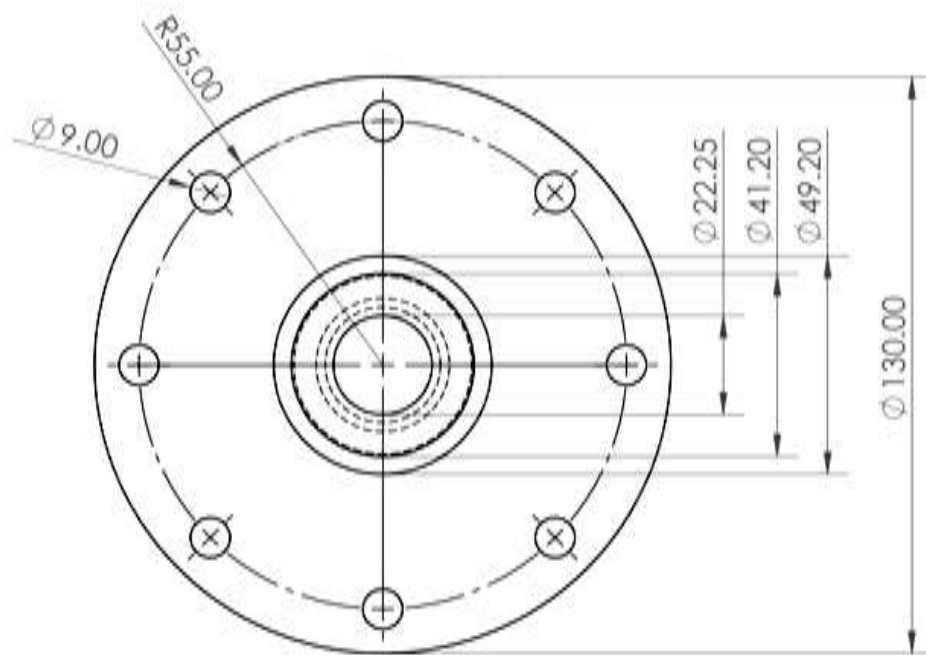
All dimensions are in mm

		Title: <b>Knife Edge Adaptor With Matching Edge</b>
DRG. No.: 11	All dimensions are in mm	Tolerance:
Quantity: 1 Nos.	Material: EN24	Scale: 2:1
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath


*Rahulnath Jain*



\* = Groove Dimensions



All dimensions are in mm

		Title: <b>Vaccum I I0PCD to 25KF Adapter</b>
DRG. No.: 12	All dimensions are in mm	Tolerance: 
Quantity: 2 Nos.	Material: SS	Scale: 2:1
DATE: 09.03.2022	Drawn: Rahulnath	Approved: Rahulnath

*Rahulnath Geem*