

**GOVERNMENT OF INDIA  
BHABHA ATOMIC RESEARCH CENTRE  
SOLID STATE PHYSICS DIVISION**

Ref: BARC/ SSPD/ 2018/244

January 24, 2018

**Sub: Minor fabrication: Invitation for quotations for Fabrication and installation of neutron collimators and detector nose on Powder diffractometer-I at Dhruva reactor, BARC.**

Quotations are invited for materials as given in attached specification sheet.

Kindly submit your offers along with detailed terms and conditions to **Head, Solid State Physics Division, BARC, Mumbai-400085** on or before **19th February 2018** in a sealed envelope super scribed with the above reference number and due date given above by Indian post only.

**The address on the envelope should read: Head, Solid State Physics Division, BARC, Mumbai-400085. Attn: Dr. A. K. Bera**

**Terms and conditions:**

- 1) The items should be delivered only after pre-despatch inspection carried out to the users' satisfaction for acceptance and for certification of the completion of this order, in all respects.
- 2) **Delivery:** This work order shall be executed within three months from the date of its receipt; the work order may please be acknowledged. **Material is to be delivered to North Gate, BARC, Mumbai - 400085.**
- 3) **Guarantee:** Items supplied/work executed shall be guaranteed against quality material/workmanship for satisfactory intended operation, for a period of 12 months from the date of execution of this order.
- 4) Taxes and excise duties shall be quoted separately.
- 5) **Payment terms:**  
Payment in general is made within 30 days of the completion of the order and on production of bill in triplicate along with an advanced stamp receipt for the bill amount and guarantee certificate referred to (3) above.
- 6) Head, SSPD reserves the right to accept /reject any or all quotations without giving any reason.
- 7) **Confidentiality & Publicity 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-contractor, consultants, advisers or employees engaged by a party with equal force.
- 8) **"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.
- 9) **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 media like Press, Radio, T.V or Internet without the prior written approval of BARC.

**Enclosed:** Specifications of material and drawing of detector nose and collimator.

Head

Solid State Physics Division

*Md. Junaid 24.1.18*  
डॉ. एस.एम. यूसुफ / Dr. S. M. Yusuf  
अध्यक्ष, एस.एस.पी.डी. / Head, SSPD  
भारत सरकार, भा.प.अ.केंद्र / Govt of India, BARC  
ट्रॉम्बे, मुंबई ४०००८५ / Trombay, Mumbai 400085

Annexure  
Specification for neutron beam collimators and detector  
nose for powder diffractometer 1, Dhruva, BARC

Details of the component (specifications and drawings are attached)

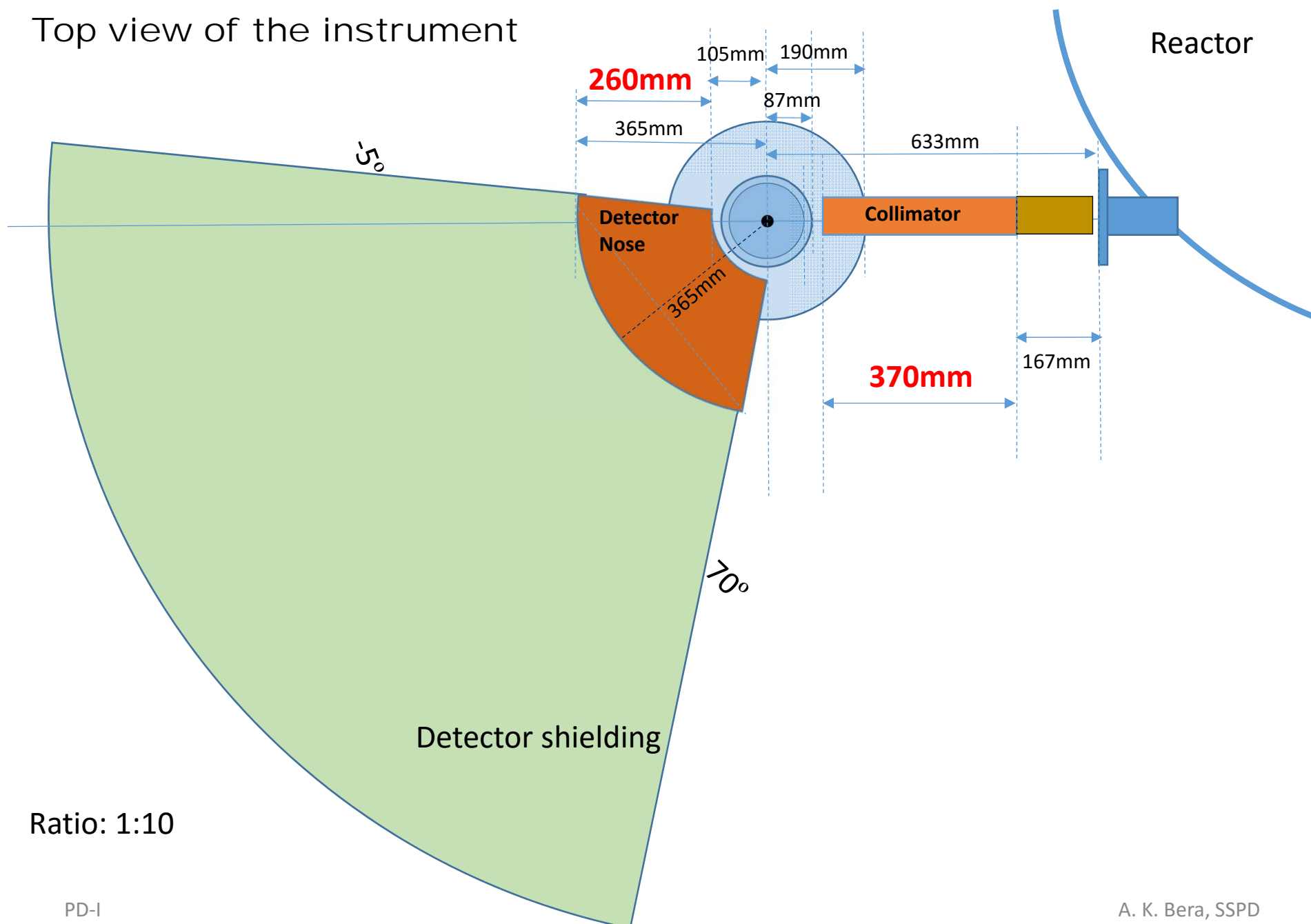
- |  |       |
|--|-------|
| 1. Detector Nose                           | No.1  |
| 2. Neutron beam Collimator-1 (SS sheet)    | No. 1 |
| 3. Neutron beam collimator-2 (Kapton foil) | No. 1 |

For details and clarification please contact

Dr. A. K. Bera, SSPD, BARC  
Phone: 022 25594292  
Email: akbera@barc.gov.in

# Specification for Neutron beam collimator and detector Nose for PD 1

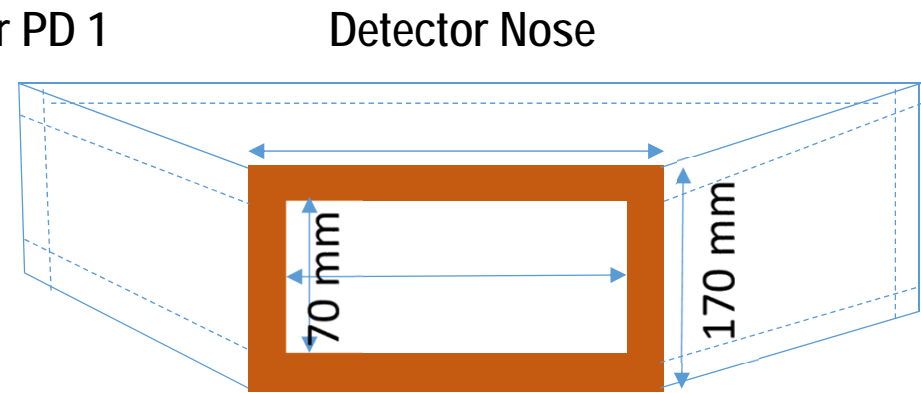
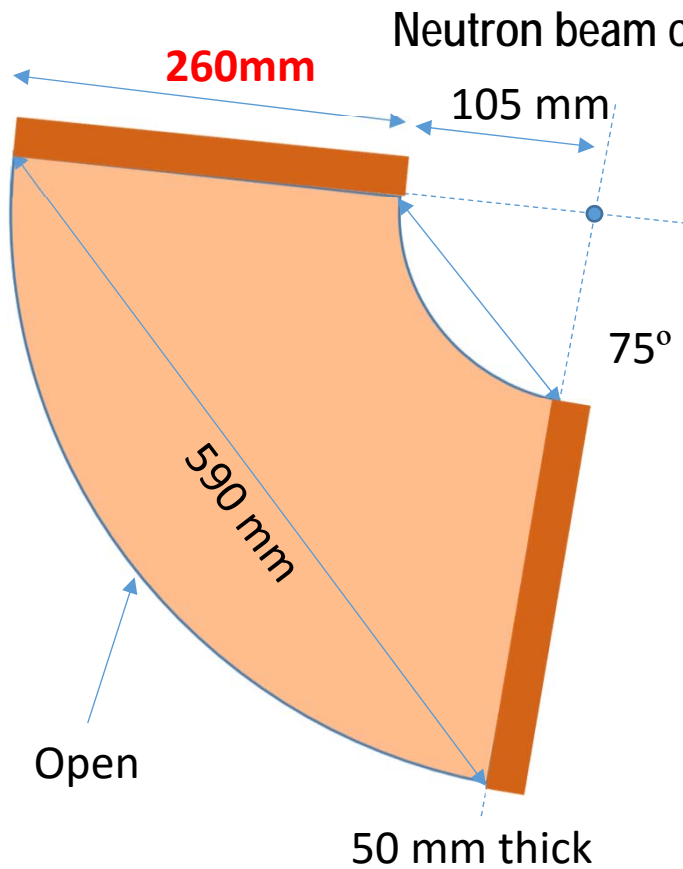
Top view of the instrument



Ratio: 1:10



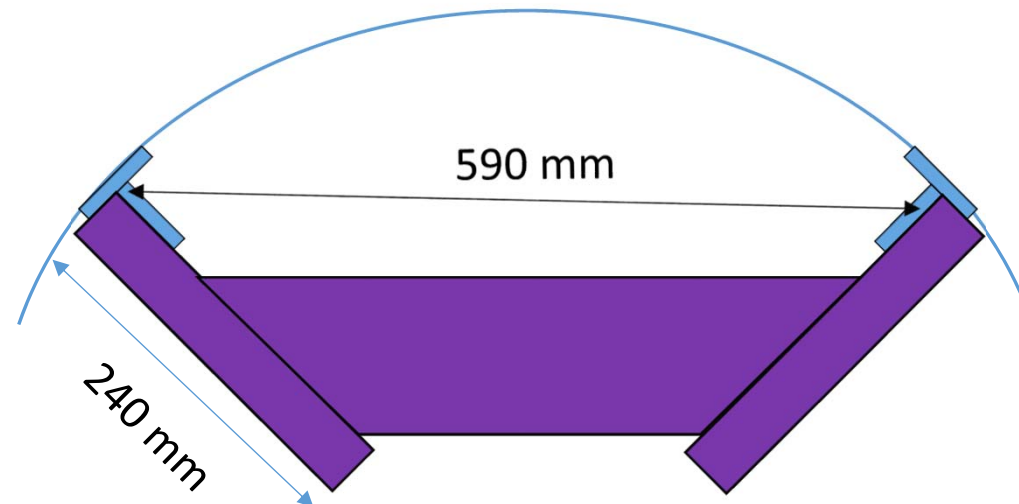
# Specification for Neutron beam collimator and detector Nose for PD 1



**Material: Borated Polyethylene (boron 30 % or above)**

Detector Nose should be made inside a chrome polished SS304L case

**Top view of Stand**

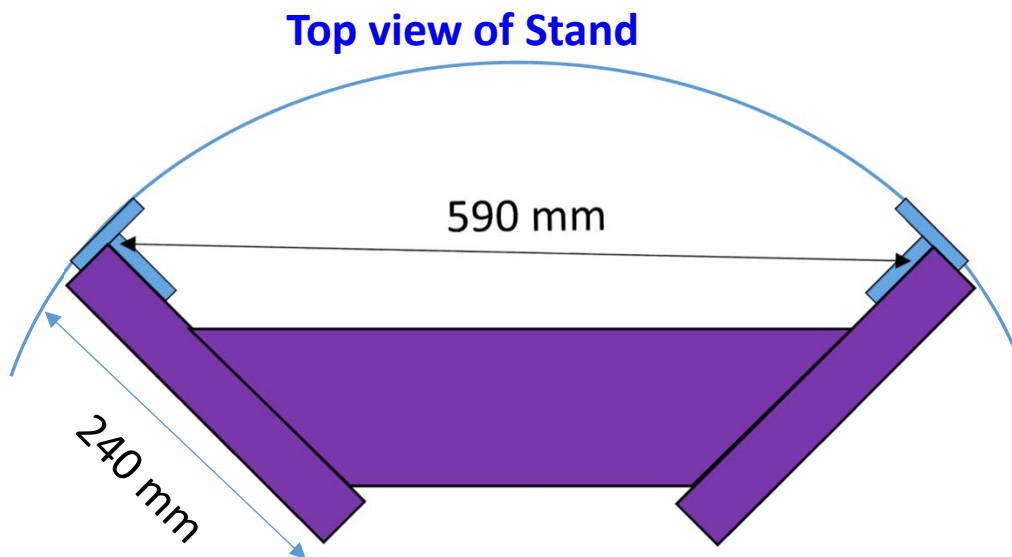


**Stand Material: SS304L**

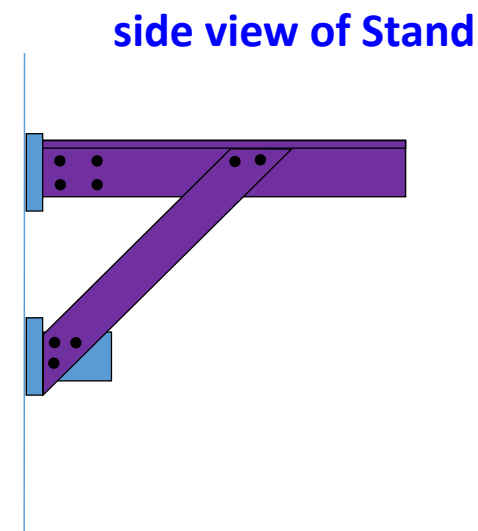
A. K. Bera, SSPD

# Specification for Neutron beam collimator and detector Nose for PD 1

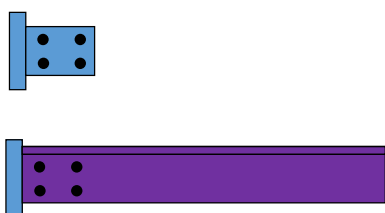
Neutron beam collimator for PD 1



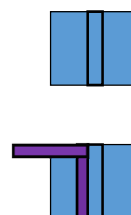
Detector Nose stand



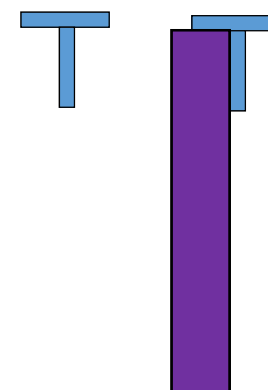
**Side view**



**Front view**

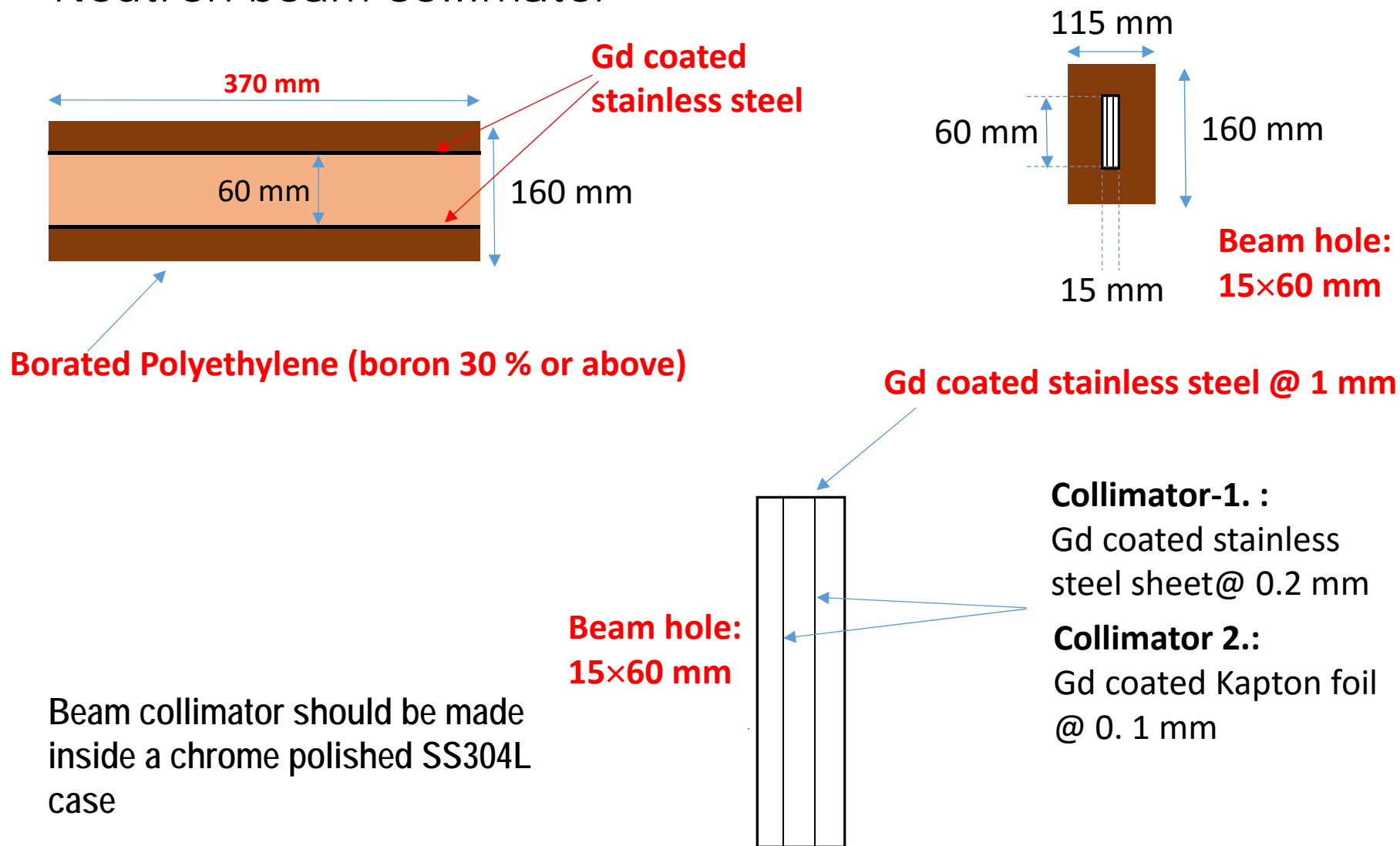


**Top view**



# Specification for Neutron beam collimator and detector Nose for PD 1

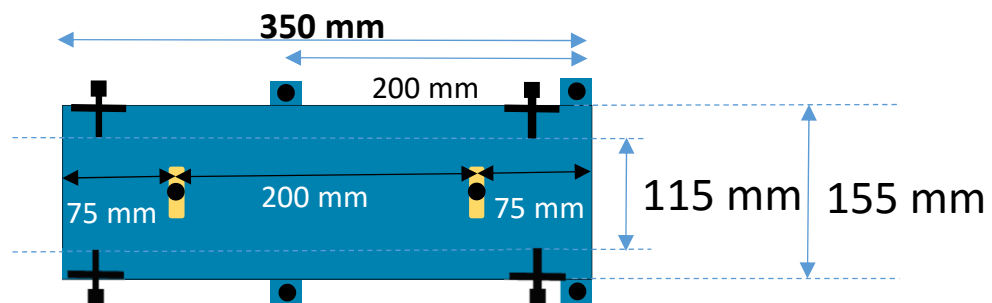
## Neutron beam collimator



# Specification for Neutron beam collimator and detector Nose for PD 1

## Neutron beam collimator for PD 1

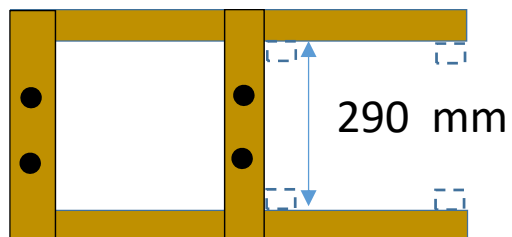
**Top view of Stand**



**side view of Stand**



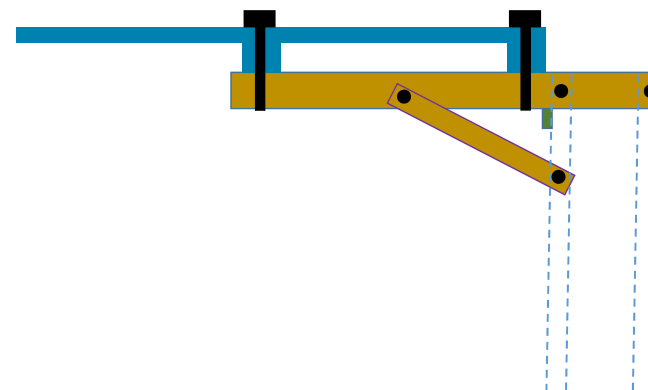
**Top view: Attachment with beam stopper stand**



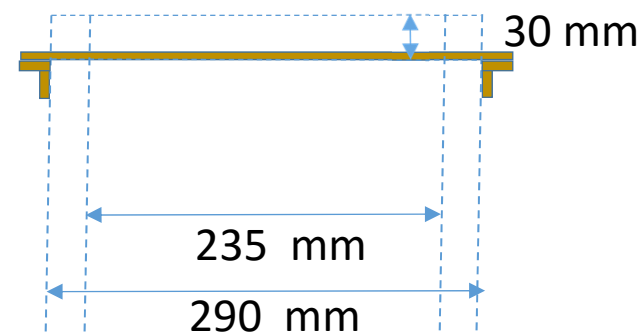
PD-I

## Collimator stand

**Side view: Attachment with beam stopper stand**



**Front view: Attachment with beam stopper stand**



**Stand Material: SS304L**

A. K. Bera, SSPD

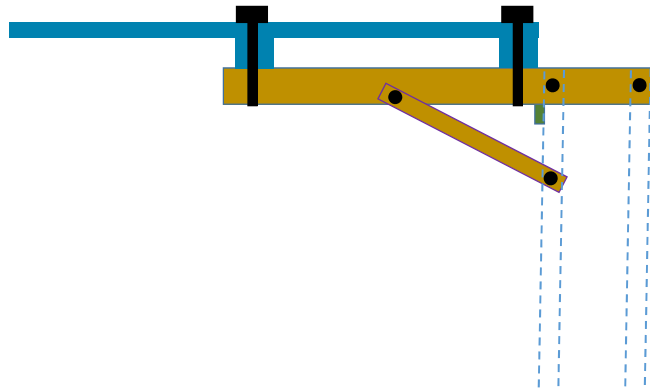


# Specification for Neutron beam collimator and detector Nose for PD 1

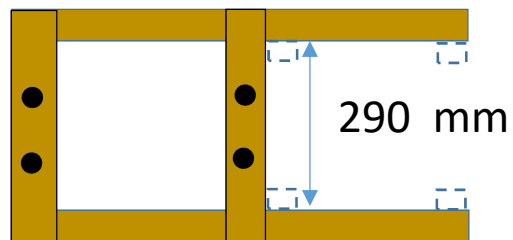
Neutron beam collimator for PD 1

Collimator stand

**Side view: Attachment with beam stopper stand**



**Top view: Attachment with beam stopper stand**



**Front view: Attachment with beam stopper stand**

