

**Central Electronics Engineering Research Institute
Pilani (Rajasthan)-333 031**

Fax : 01596 - 242135

Phone : 01596 - 242135

Gram : "ELECTRONIC" Pilani

Ref / Tender No. 613/MWT/NWP-24/9-Pur/2008/T-176

Date 1.12.2008

TENDER DOCUMENTS FOR LIMITED TENDER

M/s. _____

Sub: Supply of Gyrotron Cathode with Potted heater & Gyrotron cathode pellet.

Dear Sirs,

The Director, Central Electronics Engineering Research Institute (CEERI), Pilani – 333 031, invites you to quote for the stores as per the **SCHEDULE OF REQUIREMENT ANNEXURE-I ON FIXED PRICE BASIS**. Sealed quotation must be submitted on the specified date & time. **THE QUOTATIONS RECEIVED THROUGH FAX/E-MAIL/TELEGRAM/TELEX in open condition will not be considered.**

2. Quotation duly completed in all respects must reach **THE STORES & PURCHASE OFFICER, CEERI, PILANI NOT LATER THAN 2.30 P.M. ON 21.1.2009 AND THE SAME WILL BE OPENED ON 21.1.2009 AT 3.30 PM.** The Due Date & Time and Opening Date & Time will not be extended at all.

YOU ARE ADVISED TO GO THROUGH THIS DOCUMENT CAREFULLY TO COMPLY WITH ALL THE REQUIREMENTS OF THIS DOCUMENT.

1. The technical details and specifications of the items must be indicated clearly point by point conforming to the description of the item/specifications enclosed to this tender Annexure - I along with Commercial terms & conditions such as payment terms, delivery date, applicable packing, Forwarding, Freight, Insurance, taxes and duties. **WHERE THERE IS NO MENTION OF THE ABOVE TERMS & CONDITIONS SUCH QUOTATIONS SHALL BE REJECTED AS INCOMPLETE.**
2. A letter on your letter head confirming your capacity to supply the stores as per our tender specifications.

3. Our tender specifications duly stamped and signed by your authorized signatory on all pages in token of acceptance of our tender specifications/ technical requirement and terms & conditions.
4. EMD in the form of Bank Guarantee for **Rs. 40,000=00 OR equivalent in respective Foreign Currency** in favour of Director, CEERI valid up to 6 months + 45 days from the date of opening of tenders. The proforma for Bank Guarantee is enclosed Annexure-V.
5. Document in support of previous orders executed and list of valuable customers.
6. Financial status of the bidder certified by bidder's bank for previous 3 years.

TERMS AND CONDITIONS

1. **PRICE (A) In case of Import of goods :- The price must be quoted on FOB/FCA value up to under mentioned international Shipping Airport of the Exporting country showing ex-works prices, packing, forwarding, documentation, Bank charges outside India inland freight charges separately.** The Vague terms mentioned in the quotation like "packing, forwarding charges etc. extra" without mentioning the amounts of these charges will not be accepted. The airfreight and insurance shall be arranged and paid directly by us in Indian Rupee at our end.
Desired Port of shipments :- U.S.A. – New York, Los Angeles, Chicago, Boston, San Francisco, Dallas, Atlanta, U.K. – Heathrow, Germany – Frankfurt, Japan – Tokyo, Netherland – Amsterdam, France – Paris, Canada – Montera, Singapore – Singapore, Switzerland – Zurich, Italy – Milan, Hong Kong – Hong Kong, Swedan – Stockholm, Australia – Melbourn, Austria- Vienna, Belgium – Brussels, Denmark – Copenhegan, Taiwan – Taipai, Malaysia Kulwalmpur, Korea – Seoul, Russia – Moscow, China – Beijing.

(B) In case of Indigenous Supplies :- For Indigenous supplies, the prices should be FOR CEERI inclusive of packing, forwarding, installation and commissioning, freight and insurance charges. In case of Ex-Works Prices, The Packing, Forwarding, Freight, Insurance, Installation/Commissioning charges must be clearly quoted in your quotation. No other charges than those mentioned in the quotation will be paid.

(C) Excise Duty :- We are exempted from the payment of Excise Duty under notification number 10/97. Hence E.D. if any, should be shown separately for which excise exemption certificate will be issued.

(D) Custom Duty :- We are registered with Department of Scientific and Industrial Research (DSIR) vide TU/VIRG-CDE(39)/2001 dated September 25, 2001 for availing customs duty exemptions under Government Notification No. 51/96 Custom dated 23 July, 1996. We shall pay only 5% custom duty and Educational sess.

(E) Sales Tax :- The percentage of Sales tax as applicable should also be specified clearly in the quotation. However concessional Sales Tax is allowed by states to R&D units against concessional / Sales Tax Certificate which will be issued along with order. We are not eligible to issue Form 'C' or 'D'.

WHERE THERE IS NO MENTION OF THE ABOVE TERMS & CONDITIONS SUCH QUOTATIONS SHALL BE REJECTED AS INCOMPLETE.

2. **PACKING :-** The goods must be packed by standard packing material and standard export / import packing material in case of import failing which supplier will only be responsible for any damages / discrepancies to the consignment due to poor packing of goods.

3. **PERIOD OF DELIVERY :-** The goods must be delivered within 90 days from the date of firm order positively. However if this delivery period is not acceptable to you, please quote your fixed date of delivery.

(A) Mode of Delivery :- The mode of delivery may be specifically be quoted in your quotation which will be adopted by you for the supply of goods. Tentative size and weight of consignment may please be indicated in the quotation.

4. **VALIDITY OF OFFER :-** The prices must be valid for a period of **six months** from the date of opening of the quotation. No upward changes in prices will be acceptable in any condition after opening of tender.

5. **INDIAN AGENTS :-**

(a) **Authorized Agent Certificate of his principal must be submitted by Indian Agent along with his quotation.**

(b) **The Indian Agents Commission must be declared by the Foreign Supplier / Indian Agent in the quotation which will be paid in Indian Currency after satisfactory installation & commissioning / functioning of the equipment.**

6. **FOREIGN SUPPLIER :-** Foreign supplier / manufacturer are required to submit their quotation directly to C.E.E.R.I. with in due date and time. In case foreign supplier / manufacturer are willing to submit their quotation through his authorized agent in India, The Indian Agent can submit his quotation along with Foreign Supplier authorization Certificate.

7. **PAYMENTS :- A. FOR IMPORTS :**

Through Letter of Credit :- L/C will be opened for 100% FOB value after receipt of acceptance of order from the successful tenderer. The 90% amount of L/C shall be released on presentation of complete shipping documents. Balance 10% of order value shall be released after receipt of the material at CEERI, Pilani in good conditions.

BANK CHARGES: The bank charges out side India will be to the account of supplier.

B. FOR INDIGENEOUS : The payment will be made against bill only after supply of goods in good conditions.

C. No advance payment will be made to any supplier.

8. **INSPECTION :-** The consignment shall be opened in the presence of firm's representative and inspection of the goods will be done by our technical expert/scientist in the presence of firms representative at CEERI. In case firms representative is not available, the inspection will be done by CEERI. The discrepancies will be intimated to supplier accordingly. All short supplies will be arranged by supplier on FOR/CIF CEERI basis. In case of receipt of the material in, damaged or defective condition the supplier will have to arrange the replacement of goods free of cost pending the settlement of the insurance case wherever applicable.
9. **USERS LIST :-** The list of users of the quoted item along with the name, address & contact numbers of the user organization/persons may be submitted with the quotation. If the identical or similar equipment have been supplied to other CSIR Laboratory/Institute, the details of such supplies for the preceding three years must be given together with the prices eventually or finally paid.
10. **EMD :- EMD OF RS. 40,000=00 OR equivalent in respective Foreign Currency TOWARDS EARNEST MONEY ONLY IN THE FORM OF BANK GUARANTEE** valid for SIX MONTHS + 45 DAYS from the date of opening of the tender must be submitted along with the quotation (techno-commercial quotation in case of two bid system), otherwise quotation will not be considered. The firms, if registered with DGS&D/NSIC for supply of the same item for which the party is submitting the quotation, will be exempted from submission of EMD. These parties will have to submit registration certificate along with their quotations. EMD of the un-successful bidders shall be refunded at the earliest after finalizing the purchase of the concerned item. The parties must, therefore, submit a pre-receipted Receipt along with the quotation to enable us to refund their EMD. In case the tenderer is failed to accept our order or failed to execute our order the EMD will be forfeited. **BID(s) NOT ACCOMPANIED WITH AN EMD IS/ARE LIABLE TO BE REJECTED.**
11. **PENALTY :-** In case the delivery of goods is not made on or before the prescribed date of delivery or the installation & commissioning is not completed within stipulated period by the supplier a penalty @ 0.5% per day of order value will be charged to a maximum of 5% from the successful tenderer.
12. **DELETION OF NAMES OF DEFAULTING PARTIES :-** Names of parties backing out/defaulting after opening of tenders will be recommended for deletion from the list of suppliers in addition to forfeiture of EMD submitted by the party. Those firms have already been Black listed by CSIR / Govt. of India, need not apply / quote.

13. **UNSOLICITED QUOTATION/LATE QUOTATION :-** Unsolicited quotation / incomplete quotations / late or delayed tenders shall not be considered at all. Post tender revisions/corrections shall also render their tender liable for rejection. It is the responsibility of the bidder to ensure that the bid complete in all respect is received in CEERI before the last date of receipt of tenders. CEERI will not be responsible for the loss/delay in transit of any bid.

14. FORCE MAJEURE

Neither of the Parties hereto shall be liable for damage or have the right cancel for any delay or default in performing it's control including but not limited to Fire. Storm, Floods, Earthquakes, acts of God, government restrictions, continuing domestic or international problems (such as wars, rebellion, insurrections, strikes, riots, work stoppages, labour dispute) or delay as to ancillary materials, which affect the dates of fulfillment of any obligations as per the Purchase Order. Such dates will be respectively postponed for the period of continuance of such force majeure circumstances and the other party can suspend the performance of it's obligations correlated to the postponed obligation of the affected party.

The obligation thus postponed shall be resumed after the force majeure circumstances have ceased. At the beginning, during and at the pre-visible end of the force majeure circumstances the parties shall promptly consult with each other about appropriate counter measures to be taken.

If the performance of obligations of any party should be delayed more than six (06) months by reasons of force majeure circumstances mentioned above, the parties shall mutually consult about subsequent performance of obligations.

15. CANCELLATION OF ORDER

In the event of vendor's failure to execute the order as per terms and conditions mentioned therein, CEERI reserves the right to cancel the Purchase Order without any obligation. The Bidder may also specify obligations if CEERI decides to cancel the Purchase Order for reasons attributable to CEERI.

16. **ARBITRATION :-** All disputes or differences arising under and out of, or in connection with the contract, if concluded, shall be referred to the sole arbitration by an arbitrator appointed under the provisions of Indian Arbitration Act.1940 by CSIR/CEERI. The same shall be binding on both the parties.

17. **ACCEPTANCE OF OFFER :-** The Director, CEERI reserves the right to accept or reject any quotation / tender in part or full without assigning any reason thereof. No interim inquiries will be attended to.

18. **FALL CLAUSE :** The supplier shall certify that if the prices go downwards before execution of our order than the quoted prices, the benefit in this situation shall be allowed to CEERI/CSIR by the supplier. The supplier shall certify that the equipment/ material shall not be supplied to anyone less than the contract price during the period of execution of CEERI/CSIR order.

. STORES & PURCHASE OFFICER.

SCHEDULE OF REQUIREMENT

Tender No. 613/MWT/NWP-24/9-Pur/2008/T-176

Date : 1.12.2008

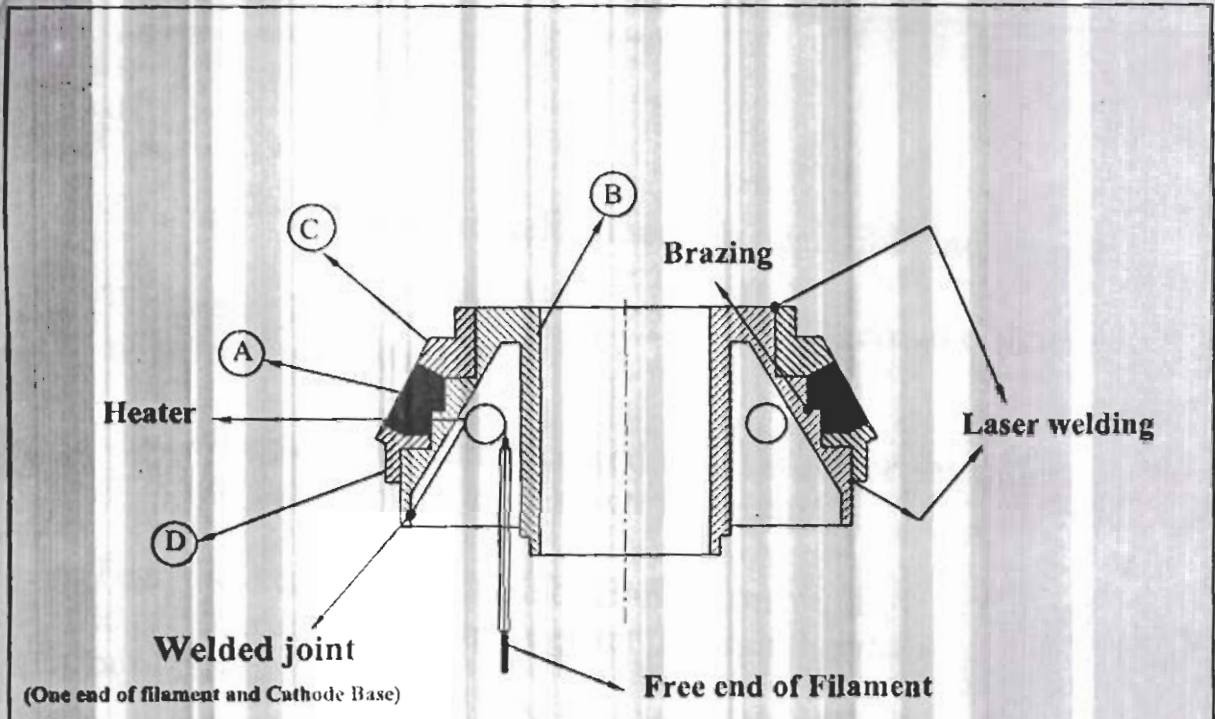
Last Date & Time for receipt of Tenders 21.1.2009 at 2.30 PM

Date & Time of Opening 21.1.2009 at 3.30 PM

Sl. No.	Description of Stores	Qty.
1.	Gyrotron Cathode with potted heater (Fig.1) As per drawing attached	4 Nos.
2.	Gyrotron Cathode Pellet (Fig. 1A) As per drawing attached	5 Nos.

STORES & PURCHASE OFFICER

Fig.1: Gyrotron cathode with potted heater



"Type M Dispenser cathode with potted heater" for Gyrotron.

Specifications:-

- * Current density > 10 A/cm² at an operating temperature of 1000°C
- * Heater voltage (ac) 12 V max (variable from 4 to 12V)
- * Heater wattage < 200W (Preferred)
- * Life > one yr (under good vacuum condition)

Date-17/11/08

D	1	Cathode Support Lower	Moly	
C	1	Cathode Support Upper	Moly	
B	1	Cathode Base	Moly	
A	1	Cathode Pellet	Tungsten (W)	
P.No.	No.off	Description	Material	Reference

CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE. PILANI. (Raj.)

1st Application | 2nd Application | 3rd Application | 4th Application

Dimensions in	Gen. Tolerance	Material	
mm/inches	±0.05mm		
Designed by	Udaybir	Title	
Drn. by	Narendra	Gyrotron Cathode with Potted Heater	
Chd. by	R S Raju		
Appd. by	AK Sinha	Part No.	Drg. No. Gy-Gun-Co-Assy

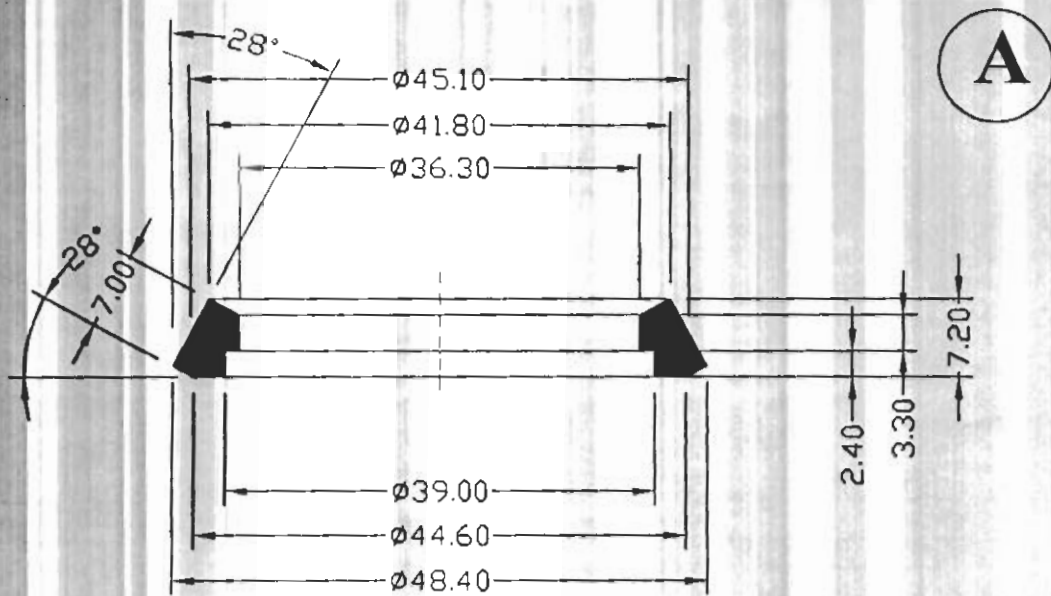
Notes:-

- * The heater may be toroidal shape with negligible inductance.
- * The heater is potted with alumina for good thermal efficiency and mechanical strength.
- * The pellet surface outer is coated with Os-Ru or any other suitable material to minimize work function.
- * To avoid excess deposition of Barium on anode, it is desired to remove the excess impregnant through thermal pre-activation.
- * The emission should be uniform across the cross section (preferably <math><0.1\text{eV}</math> spread in work function).
- * The cathodes are to be supplied in Glass vials under vacuum or under inert gas atmosphere.
- * The surface plane of part A, part C and part D should be on same plane keeping the outer dimensions of Gyrotron cathode pellet (Fig.1A) as per drawing.
- * Minor dimensional changes of piece parts are acceptable for ease of proper alignment/joining at interfacing positions.

4th Application
 3rd Application
 2nd Application
 1st Application

P.No.	No.off	Description	Material	Reference	
© CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE. PILANI. (Raj.) CSIR					
Dimensions in		Gen. Tolerance	Material		
mm/inches		±0.05mm			
Designed	Udaybir		Title Gyrotron Cathode with Potted Heater (Continue)	Coating	
Drn. by	Narendna				
Chd. by	RS Raju			Drg. No.	
Appd. by	AK Sinha			Part No.	

**Assembly part of Fig.1.
(Fig.1A - Gyrotron Cathode Pellet)**



"Type M Dispenser Cathode Pellet" for use in Gyrotron cathode assembly

Notes: -

- I. The pellet is made out of porous W into which Ba- Ca- Aluminates are impregnated.
- II. The pellet surface is coated with Os-Ru or any other suitable alloy to minimize work function.
- III. Typical operating temperature is 1000°C at which the emission should be better than 10 A/cm² under temperature limited region.
- IV. The emission should be uniform across the cross section (< 0.1 eV spread in work function).
- V. The cathodes are to be supplied in glass vials under vacuum or under inert gas atmosphere.

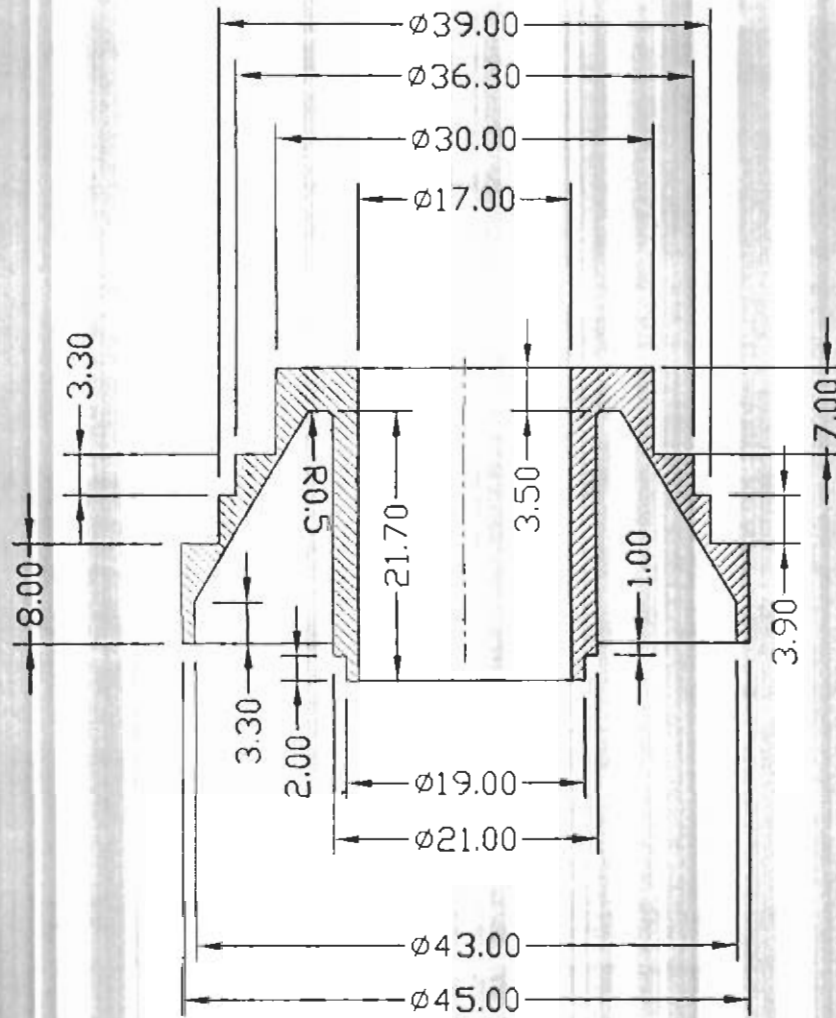
Date-17/11/08

1st Application 2nd Application 3rd Application 4th Application

A	1	Gyrotron Cathode Pellet	Tungsten (W)	
P.No.	No.off	Description	Material	Reference
© CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE. PILANI. (Raj.) CSIR				
Dimensions in		Gen. Tolerance	Material	
mm/inches		±0.05mm	Tungsten (W)	
Designed	Udaybir		Title	
Drn. by	Narendra		Gyrotron Cathode Pellet	
Chd. by	AK Sinha			Drng. No.
Appd. by	R S Raju		Part No. A	Gy-Gun-Ca-1

Assembly part of Fig.1.
(Fig.1B - Gyrotron Cathode Base)

B



Date-17/11/08

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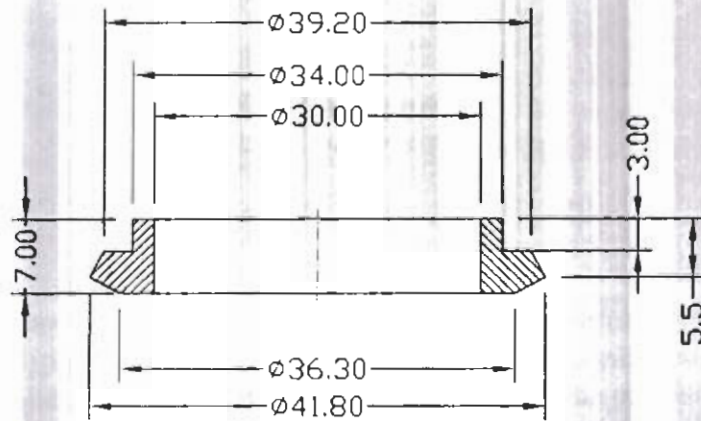
B	1	Gyrotron Cathode Base	Moly		
P.No.	No.off	Description	Material	Reference	
© CSIR CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE. PILANI. (Raj.)					
Dimensions in mm/inches		Gen. Tolerance $\pm 0.05\text{mm}$	Material Moly	Scale NTS	
Designed: Udaybir		Title Gyrotron Cathode Base	Sheet No. 01	Qty. 01	
Drn. by: Narendra			Coating	Sheets 01	
Chd. by: AK Sinha			Drg. No. Gy-Gun-Ca-2		
Appd. by: RS Raju					

Assembly parts of Fig.1.

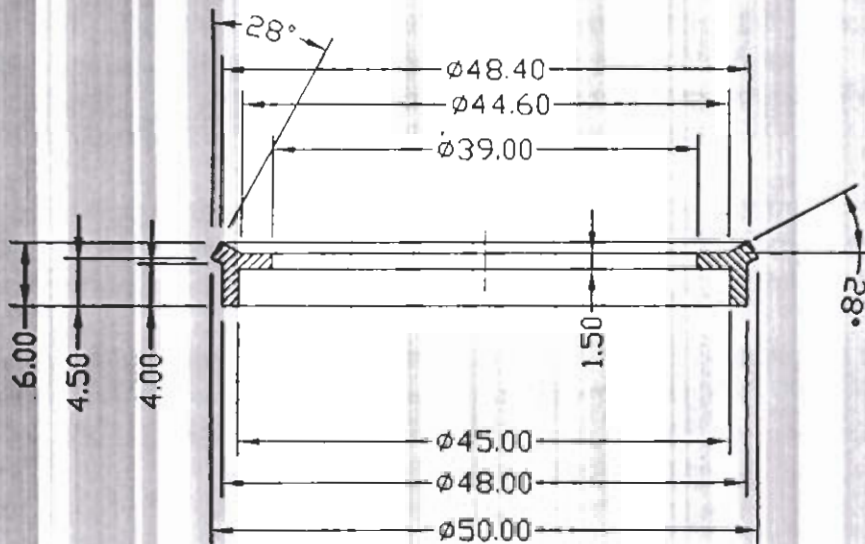
(Fig.1C - Gyrotron Cathode Upper support)

(Fig.1D - Gyrotron Cathode Lower Support)

C



D



Date-17/11/08

1st Application 2nd Application 3rd Application 4th Application

D	1	Gyrotron cathode support lower	Moly	
C	1	Gyrotron cathode support upper	Moly	
P.No.	No.off	Description	Material	Reference
© CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE. PILANI. (Raj.) CSIR				
Dimensions in mm/inches		Gen. Tolerance ±0.05mm	Material Moly	
Designed	Udaybir	Title	Coating	
Drn. by	Narendra	D-Gyrotron Cathode Support Lower		
Chd. by	R S Raju	C- Gyrotron Cathode Support Upper	Drig. No.	
Appd. by	AK Sinha	Part No. C&D	Gy-Gun-Ca-3	

LETTER OF QUOTATION

Quotation No. .

Quotation For:-

To

The Director
CEERI
Pilani (Raj.) 333 031

Sir,

I/We the undersigned hereby offer to supply “ _____ ”
at the rates stated in the attached Schedule (Annexure-I). I/We have carefully gone through and have understood the instructions as contained in the invitation to quote and instructions to Contractors and the Specifications/Drawings enclosed therewith and agree to be bound by the provisions contained therein.

2. I/We agree to hold this offer open up to _____ and not to withdraw, amend or modify the same during the said period. I/We shall be bound by a communication of acceptance dispatched within the prescribed time. The Earnest Money in the form of Bank Guarantee for Rs. _____ in favour of Director, CEERI is enclosed herewith. I/We have understood that the quotation documents have been issued to me/us and I/We am/are permitted to quote in consideration of the stipulation on my/or our part after submitting the quotation. I/We will not resite from this offer or modify the terms and conditions thereof till _____; In case I/We fail to observe to comply with the foregoing stipulation, the Earnest Money shall be forfeited to the CEERI.

3. I/We agree that in the event of failure on my/our part to commence the work under the contract, if awarded, within 15 days from the date of receipt of contract, the Earnest Money shall be forfeited to the Government without prejudice to either rights of the Government under the Contract.

4. The copy of the Specifications/Drawings and all other related documents received alongwith the invitation to quote and Instructions to Contractors are returned herewith duly signed and stamped as a token of acceptance.

Thanking you,

Yours sincerely

Signature of the tenderer and the
capacity in which he signs i.e. sole
proprietor etc.

Date:

Address: _____

Telegraphic Address _____

1. Schedule to Tender No. :
2. Name of the Tenderer :
3. Time & Date of Receipt of Tender :
4. Opening date of Tender :

5. The tender shall remain valid for acceptance for 120 days from the date of opening of the tender

TERMS & CONDITIONS :

1	EMD in the form of Bank Guarantee for Rs _____ in favour of Director, CEERI, Pilani (Raj.)	
2.	Packing	
3.	Forwarding	
4.	Sales Tax	
5.	Excise Duty	
6.	Freight	
7.	Insurance	
8.	Validity of quotation	
9.	Delivery Period	
10.	Mode of Delivery/Shipment	
11.	Indian Agent's Commission	
12.	Payment	
13.	Inspection	
14.	Penalty	
15.	User's List.	

STATION:

DATE:

(Signature of the Supplier with Office Stamp).

Address:
Tel. Address

BID SECURITY FORM

Whereas (hereinafter called "the Bidder") has submitted its bid dated (date of submission of bid) for the supply of (name and/or description of the goods) (hereinafter called "the Bid")

KNOW ALL PEOPLE by these presents that WE (name of bank) of(name of country), having our registered office at(address of bank) (hereinafter called "the Bank"), are bound unto(name of Purchaser) (hereinafter called "the Purchaser") in the sum of for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this day of20

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form, or
2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity :
 - (a) fails or refuses to execute the Contract Form if required; or
 - (b) fails or refuses to furnish the performance security, in accordance with the instruction to bidders.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee shall remain in force up to and including forty five (45) days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the Bank)

Name of Bidder