

SPEED POST

Ref: SROL/3:4:1

11 August 2006

**SUB: QUOTATIONS FOR ANNEALING FURNACE / MELTING
FURNACE / CUPELLATION FURNACE**

Dear Sir(s),

Quotation(s) is/are invited for the purchase of the item(s) goods / stores listed in the attached schedule (Annexure I to III) as per terms and conditions noted hereunder:

1. Quotation(s) in a sealed cover superscribing "**Quotation(s) for ANNEALING FURNACE / MELTING FURNACE / CUPELLATION FURNACE**" should reach the undersigned latest by 1300 h on 07 September 2006. The Quotations shall consist of two parts:

- a) Technical bid consisting of all technical details alongwith commercial terms and conditions; and
- b) Financial bid indicating item-wise price for the items mentioned in the technical bid.

The technical bid and the financial bid should be sealed by the bidder in separate covers duly superscribed and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed.

The technical bids will be opened by the purchasing Ministry or Department at the first instance and evaluated by a competent committee or authority. At the second stage financial bids of only the technically acceptable offers will be opened for further evaluation and ranking before awarding the contract.

2. The quotation(s) shall be opened at 1500 h on 07 September 2006 in the presence of such tenderers or their duly authorized representatives as may care to attend.

3. Unless stated otherwise, quotation(s) shall be deemed to be for delivery at the address given above.
4. The Bureau gives first preference in its purchases to goods certified by National / International Certifying Bodies and second reference to those which conform to the National /International Standards.
5. The delivery of stores is required within 30 days of receipt of order. If however, it is not possible for you to effect delivery during working hours by that date, you should specify the date by which you can guarantee delivery of the stores. Quotation(s) qualified by such vague and indefinite expressions as "Subject to immediate acceptance", "Subject to prior sale" etc., and in complete quotation(s) is / are liable to be summarily rejected.
6. All quotation(s) shall remain open for acceptance for a period of 120 days from the date of opening of quotation(s) specified in para 2 above.
7. An Earnest Money Deposit of **Rs. 2,000/-** for Annealing Furnace, **Rs. 1,500/-** for Melting Furnace and **Rs.3,000/-** for Cupellation Furnace shall be deposited along with the tender by way of Demand Draft in favour of **Bureau of Indian Standards** payable at Chennai and shall be valid for a period of Six months. It shall be refunded to the unsuccessful bidders on or before the 30th day after the award of Contract to the successful bidder. The EMD amount shall be deposited along with the technical bid.
8. Where the value of the order exceeds Rs. 2,00,000/-, the successful tenderer shall be required to deposit 5% of total value of the order by way of an Account Payee Demand Draft, Fixed Deposit Receipt from a Commercial Bank, Bank Guarantee from a Commercial Bank in an acceptable form in favour of Bureau of Indian Standards, Chennai. It shall remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligations.
9. The rates quoted shall include all charges such as packing and forwarding, freight, insurance, octroi etc.
10. If the rates quoted do not include sales tax, excise duty or any other taxes / charges, the same should be specifically stated. In the absence of any such stipulation, it will be presumed that the prices include all such charges and landing cost at our site and no claim for the same shall be entertained.
11. **Place of Delivery** - In case your quotation is accepted and a firm order is issued to you, you shall arrange to deliver the goods during working hours on all working days at:

Bureau of Indian Standards,
Southern Regional Office Laboratory
CIT Campus, IV Cross Road,
Chennai - 600 113.

12. **Payment** - 90% payment shall be made on receipt of goods in satisfactory condition and after preliminary inspection and commissioning. The balance amount shall be released not later than 60 days thereafter. Any preparation to be made by us for immediate commissioning of the equipment after inspection and acceptance shall be informed to us soon after receiving the order.
13. All goods shall be received subject to approval on inspection. The decision of our Inspecting Officer shall be binding. Rejected items / goods / stores shall be removed by the supplier at his own cost and risk, within 30 days of receipt of notice for the removal of such goods, and no liability, whatsoever, on the Bureau shall be attached for the rejected / disapproved goods / items / stores.
14. The Bureau reserves the right to accept or reject summarily any or all quotation(s) in whole or in part without assigning any reason whatsoever.
15. The Bureau reserves the right to accept or reject summarily any or all quotation(s) after despatch.
16. The Bureau takes no responsibility for delay, loss or non-receipt of quotation(s) after despatch.
17. In case of non-compliance with the contract, the Bureau reserves its rights to:
- a. cancel / rescind / revoke the order; and
 - b. impose penalty up to 5 percent of the total value of the order.
18. All questions, disputes or differences arising under, out of or in connection with the order once placed shall be subject to the exclusive jurisdiction of Chennai Courts.
19. Tender is also posted in our Website - www.bis.org.in

Yours faithfully,

(J.T.DAVIDSON)
Sc. F' & Head (SROL)

Encl : Annexure I to III

BUREAU OF INDIAN STANDARDS
(Southern Regional Office Laboratory)

SCHEDULE TO QUOTATION(S)

TIME & DATE OF OPENING OF QUOTATION(S): 1500 h on 07 September 2006

The quotation(s) may remain open for acceptance for a maximum period of 120 days from the date of opening of quotation(s).

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| 1. | Name of the Equipment | ANNEALING FURNACE | | |
| 2. | Application | For 'Fire Assay' of Gold Alloys and Gold Jewellery / Artifacts. | | |
| 3. | Relevant Indian Standard | As prescribed in IS 1418:1999 | | |
| 4. | Specification | a. | Temperature Range | Upto 850 °C |
| | | b. | Working Temperature Range | 600 to 800 °C |
| | | c. | Heating Time to uniformly heat upto 800 °C | To be specified by the supplier |
| | | d. | Internal Dimension | 200mmx200mmx250mm (Height x width x Depth) |
| | | e. | Readability of Temperature Indicator / Least Count | 1 °C |
| | | f. | Accuracy of the Temperature Indicator | ±5 °C |
| 4.1. | Construction/Design Features required: | The Furnace shall have the following features: | | |
| | i) | The Muffle shall be made of high quality ceramic bricks and its repair and replacement shall be possible without difficulty. | | |
| | ii) | Method of mounting the heating elements shall be described. The heating elements shall be distributed in such a way to give uniform temperature inside the furnace and protected. Kamthal APM heating elements shall be used. Distribution of heating elements shall be described. | | |
| | iii) | The control panel shall have pilot lamps, ammeter, voltmeter, on-off switches, protective devices and digital type temperature indicator. Details of these | | |

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| | devices shall be provided. |
| iv) | The door of the furnace shall be hinged type, manually operated and counter balanced. The door shall have necessary locking and sealing arrangements and also bricks and ceramic fibre lining. It shall be provided with a peep-hole with lid. |
| v) | The thermocouple / sensor used shall be Cr./Al. |
| vi) | The temperature shall be controlled by using thyrister to control the voltage and firing angle by automatic adjustment. |
| vii) | The material used for the casing & frame and their Gauge shall be specified. |
| viii) | The type of insulating materials used and their insulating properties shall be specified. |
| 4.2 | The following information shall also be provided along with the quotation. |
| a. | The input power supply required |
| b. | The power feeding arrangement to the heaters |
| c. | Full details on safety measures provided |
| d. | The details about painting to withstand high temperature |
| e. | Dimensional details of the furnace |
| f. | Temperature Indicator shall have a calibration certificate by an NABL accredited calibration laboratory. It shall cover 700 °C, 750 °C, 800 & 850 °C, indicated by the temperature indicator |
| g. | The warranty and after sales service provided, the AMC charges after warranty period with terms and conditions, if any. AMC charges for three years shall be quoted. |
| h. | Minimum time required to attend repair work. |
| 4.3 | Accessories Quotation for essential accessories and optional accessories if required. |
| 4.4 | Salient Features You shall provide one paragraph write-up about the salient features of your 'Annealing Furnace' and how you achieve uniform temperature in the Furnace and within what variation. |
| 4.5 | Testimonies You shall provide testimonies from atleast three of your reputed customers preferably from South India about the performance of your product. |

NOTE: Please note that your quotation shall give clear reply to all requirements of our specification and other information/ details asked by us.

ANNEXURE-II

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| 1. | Name of the Equipment | MELTING FURNACE | | |
| 2. | Application | To melt gold samples to obtain their homogeneity. | | |
| 3. | Relevant Indian Standard | As prescribed in IS 1418:1999 | | |
| 4. | Specification | a. | Temperature Range | Upto 1200 °C |
| | | b. | Working Temperature Range | 800 to 1150 °C |
| | | c. | Heating Time to uniformly heat upto 800 °C | To be specified by the supplier |
| | | d. | Internal Dimension | 100mmx150mmx200mm (Height x width x Depth) |
| | | e. | Readability of Temperature Indicator / Least Count | 1 °C |
| | | f. | Accuracy of the Temperature Indicator | ±5 °C |
| 4.1. | Construction/Design Features required: | The Furnace shall have the following features: | | |
| | i) | The Muffle shall be made of high quality ceramic bricks and its repair and replacement shall be possible without difficulty. | | |
| | ii) | Method of mounting the heating elements shall be described. The heating elements shall be distributed in such a way to give uniform temperature inside and protected. Kamthal APM heating elements shall be used. Distribution of heating elements shall be described. | | |
| | iii) | The control panel shall have piloted lamps, ammeter, voltmeter, on-off switches, protective devices and digital type temperature indicator. Details of these devices shall be provided. | | |
| | iv) | The door of the furnace shall be hinged type, manually operated and counter balanced. The door shall have necessary locking and sealing arrangements and also bricks and ceramic fibre lining. It shall be provided with a peep-hole with lid. | | |
| | v) | The thermocouple / sensor used shall be Pt/Pt Rh. | | |
| | vi) | The temperature shall be controlled by using thyristor to control the voltage and firing angle by automatic adjustment. | | |
| | vii) | The material used for the casing & frame and their Gauge shall be specified. | | |

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| viii) | The type of insulating materials used and their insulating properties shall be specified. | |
| 4.2 | The following information shall be provided along with the quotation. | |
| | a. | The input power supply required |
| | b. | The power feeding arrangement to the heaters |
| | c. | Full details on safety measures provided |
| | d. | The details about painting to withstand high temperature. |
| | e. | Dimensional details of the furnace |
| | f. | Temperature Indicator shall have a calibration certificate by an NABL accredited calibration laboratory. It shall cover 850 °C, 900 °C, 1000 °C, 1050 °C, 1100 °C, & 1150 °C indicated by the temperature indicator |
| | g. | The warranty and after sales service provided, the AMC charges after warranty period with terms and conditions, if any. AMC charges for three years shall be quoted. |
| | h. | Minimum time required to attend repair work. |
| 4.3 | Accessories | Quotation for essential accessories and optional accessories if required. |
| 4.4 | Salient Features | You shall provide one paragraph write-up about the salient features of your 'Melting Furnace' and how you achieve uniform temperature in the Furnace and within what variation. |
| 4.5 | Testimonies | You shall provide testimonies from atleast three of your reputed customers about the performance of your product. |

NOTE: Please note that your quotation shall give clear reply to all requirements of our specification and other information/ details asked by us.

ANNEXURE-III

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| 1. | Name of the Equipment | CUPELLATION FURNACE | | |
| 2. | Application | For 'Fire Assay' of Gold Alloys and Gold Jewellery / Artefacts. | | |
| 3. | Relevant Indian Standard | As prescribed in IS 1418:1999 | | |
| 4. | Specification | a. | Temperature Range | Upto 1200 °C |
| | | b. | Working Temperature Range | 800 to 1150 °C |
| | | c. | Heating Time to uniformly heat upto 1150 °C | To be specified by the supplier |
| | | d. | Internal Dimension | 200mmx200mmx250mm (Height x width x Depth) |
| | | e. | Readability of Temperature Indicator / Least Count | 1 °C |
| | | f. | Accuracy of the Temperature Indicator | ±5 °C |
| 4.1. | Construction/Design Features required: | The Furnace shall have the following features: | | |
| | i) | The Muffle shall be made of high quality ceramic bricks and its repair and replacement shall be possible without difficulty. | | |
| | ii) | Inlets and outlets for air in order to maintain consistently uniform oxidizing atmosphere during the operation. Small blower may be provided to augment the oxidation. | | |
| | iii) | Method of mounting the heating elements shall be described. The heating elements shall be distributed in such a way to give uniform temperature inside and protected. Kamthal APM heating elements shall be used. Distribution of heating elements shall be described. | | |
| | iv) | The control panel shall have pilot lamps, ammeter, voltmeter, on-off switches, protective devices and digital type temperature indicator. Details of these devices shall be provided. | | |
| | v) | The door of the furnace shall be hinged type, manually operated and counter balanced. The door shall have necessary locking and sealing arrangements and also bricks and ceramic fibre lining. It shall be provided with a peep-hole | | |

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| | with lid. |
| vi) | The thermocouple / sensor used shall be Pt/Pt Rh. |
| vii) | The temperature shall be controlled by using thyrister to control the voltage and firing angle by automatic adjustment. |
| viii) | The material used for the casing & frame and their Gauge shall be specified. |
| ix) | The type of insulating materials used and their insulating properties shall be specified. |
| 4.2 | The following information shall be provided along with the quotation. |
| a. | The input power supply required |
| b. | The power feeding arrangement to the heaters |
| c. | Full details on safety measures provided |
| d. | The details about painting to withstand high temperature. |
| e. | Dimensional details of the furnace |
| f. | Temperature Indicator shall have a calibration certificate by an NABL accredited calibration laboratory. It shall cover 800 °C, 850 °C, 1000 °C, 1050 °C, 1100 °C, & 1150 °C indicated by the temperature indicator |
| g. | The warranty and after sales service provided, the AMC charges after warranty period with terms and conditions, if any. AMC charges for three years shall be quoted. |
| h. | Minimum time required to attend repair work. |
| 4.3 | Accessories Quotation for essential accessories and optional accessories if required. |
| 4.4 | Salient Features You shall provide one paragraph write-up about the salient features of your 'Cupellation Furnace' and how you achieve uniform temperature in the Furnace and within what variation. |
| 4.5 | Testimonies You shall provide testimonies from atleast three of your reputed customers preferably in South India about the performance of your product. |

NOTE: Please note that your quotation shall give clear reply to all requirements of our specification and other information/ details asked by us.

