TENDER DOCUMENT


Name of the component : Stir Casting Unit with Bottom Pouring Setup
Quantity required : 1 No.
EMD Amount : Rs. 4,000/-
Delivery : 6 to10 Weeks after placing the purchase order
Last Date of submission of Tender : 24.6.2009 upto 3.00 p.m.
Address for submission of Tender : Mr. S. Jerome,
                                Dept. of Metallurgical and Materials Engineering
                                National Institute of Technology
                                Tiruchirappalli – 620 015
                                E-mail: jerome@nitt.edu
                                Phone No: 0431- 25013465
                                Mobile: 9443022544

Date of opening of bid : 24.6.2009 at 3.30 p.m.
NOTICE INVITING TENDER

The National Institute of Technology, Tiruchirappalli (NITT) is an autonomous body under MHRD, GOI, imparting Technical Education and engaged in Research Activities. It is proposed to procure the following component for the departmental academic/research activities.

Sealed Quotations are invited for the following component subject to the following terms and conditions, from the reputed manufacturers or their authorized dealers so as to reach this office on or before scheduled date and time. The quotations will be opened on the next day in the presence of bidders or their authorized agents who may choose to be present.

Name of the component : Stir Casting Unit with Bottom Pouring Setup
Quantity required : 1 No.
EMD : Rs. 4,000/-
Time for completion of supply after placing purchase order : 6 to 10 Weeks after placing the purchase order
Last Date of submission of Tender : 24.6.2009 upto 3.00 p.m.

Tender to be submitted at the following address :
Mr. S. Jerome,
Dept. of Metallurgical and Materials Engg.
National Institute of Technology
Tiruchirappalli – 620 015
E-mail: jerome@nitt.edu
Phone No: 0431- 25013463
Mobile: 9443022544

Place, Date and time of opening of bid :
Date: 24.6.2009 Time: 3.30 p.m Venue: Central Stores, NITT

Note : The Institute shall not be responsible for any postal delay about non-receipt / non delivery of the bids or due to wrong addressee.
SECTION: 1 INSTRUCTION TO BIDDER

1. The bidders should provide list of customers of previous supply of similar items to Universities, Institutes or Government Departments/Undertakings/public sectors with contact details. The details of the bidder/profile should be furnished along with the copy of all related documents.

1.1 Documents to be submitted in the Bid:

(i) The bidder should furnish copy of licence certificate for manufacture/supply of the item.
(ii) The bidder should furnish Income Tax PAN number
(iii) Catalogue of the product with detailed product specifications
(iv) Shelf-life of the chemicals offered for supply is to be specified.
(v) EMD, if applicable, by Demand draft drawn on any scheduled bank in favour of “The Director, NIT, Trichy” payable at Trichy should be submitted. EMD shall bear no interest. Any bid not accompanying with EMD is liable to be treated as non-responsive and rejected.

2. The bidder should submit their rate as per the format given in Section 4 of the Notice Quotation in this cover. Rate should be quoted in Indian Rupee. The rate should be quoted both in words and figures. All the pages of the bid should be signed affixing the seal. All corrections and overwriting should be initialed.

The bid cover should be duly superscribed with the following details.
(1) Quotation Notification Number (2) Quotation for the supply of ................. (3) Date of opening ............... 
Mention “Kind Attention: Contact’s person’s name and phone number”, and submit at the address given in the quotation Notice.

3. The quotation will be acceptable only from the manufacturers or its authorized supplier.

4. The bid shall be in the format of price schedule given in Section 4. The contract form as per format given in section 5 shall be submitted. Incomplete or conditional quotation will be rejected.

5. Details of quantity and the specifications are mentioned in Section 3 appended to this quotation Notice.

6. The item to be used is strictly according to the specification and subject to test by the Institute/concerned authorities.

7. The Institute reserves the right to cancel or reduce the quantity included in the schedule of requirements at any time after acceptance of the quotation with a notice. The Contractor/Supplier shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the work/supply in full but he did not derive in consequence of the foreclosure of
the whole or part of the works.

8. 5% of the supply value will be retained by the Institute towards Performance Security and will be returned to the supplier after the period of warranty.

9. **Release of EMD**: The EMD shall be released after receipt of performance security from successful bidder.

10. **Validity of bids**: The rate quote should be valid for a minimum of 60 days. No claim for escalation of rate will be considered after opening the Quotation.

11. **Imports**: In case, goods are to be imported, the Indian agent should furnish authorization certificate by the principles abroad for submission of the bid in response to this Quotation Notice.

12. **Clarification of Quotation Document**: A prospective bidder requiring any clarification of the Quotation document may communicate to the contact person given in this notice inviting quotation.

13. **Amendment of quotation document**: At any time prior to the last date of receipt of bids, Institute may for any reason, whether at its own initiative or in response to a clarification requested by prospective bidder, modify the Quotation document by an amendment.

14. **The Institute may at its own discretion extend the last date for the receipt of bids.**

15. The bids shall be written in English language and any information printed in other language shall be accompanied by an English translation, in which case for the purpose of interpretation of the bid, the English translation shall govern.

16. The Institute reserves the right of accepting any bid other than the lowest or even rejecting all the bids. The decision of the Institute Purchase Committee is final in all matters of quotation and purchase.

17. The bidder should give the following declaration while submitting the Quotation.
DECLARATION

I/we have not tampered/modified the quotation forms in any manner. In case, if the same is found to be tampered/modified, I/we understand that my/our quotation will be summarily rejected and full Earnest Money Deposit (EMD) will be forfeited and I/we am/are liable to be banned from doing business with NIT, Trichy and/or prosecuted.

Signature of the Bidder : …………………………………………………………………

Name and Designation : …………………………………………………………………

Business Address : …………………………………………………………………
………………………………………………………………
………………………………………………………………

Place :
Date :

Seal of the Bidder’s Firm

18. Any other details required may be obtained from the contact person given in the notice inviting quotation during the office hours.
1. The rates should be quoted in Indian Rupee FOR NIT, Trichy for supply within India.

2. In case of import both CIF and / or FOB rate should be quoted. All components of expenditure to arrive at Chennai need to be explicitly specified.

3. The bidder shall indicate the excise duty exemption for the goods if applicable

4. The Institute is eligible for customs duty and excise duty exemption.

5. The rate quoted should be on unit basis. Taxes and other charges should be quoted separately, considering exemptions if any.

6. Rate quoted should be inclusive of Testing, commissioning and installation of equipment and training.

7. **Payment**: No advance payment will be made. Payment will be made only after the supply of the item in good and satisfactory condition and receipt of performance security by supplier. In case of imports, the payment will be made through LC after installation and performance security need to be submitted at the time of LC commitment.

8. Guarantee and Warrantee period should be specified for the complete period conforming to the section 3 of this quotation document.

9. Period required for the supply and installation of item should be specified conforming to the section 3 of this quotation document.

10. In case of dispute, the matter will be subject to Tiruchirappalli, Tamil Nadu Jurisdiction only.
Name of the Component to be procured: Stir Casting Unit Setup with Bottom Pouring

### Technical Specification

#### 1. FURNACE STRUCTURE

<table>
<thead>
<tr>
<th>No.</th>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>General sketch</td>
<td>Metal melting furnace with vacuum</td>
</tr>
<tr>
<td>2.</td>
<td>Outer shell size</td>
<td>≈600 x 600 x 600 mm</td>
</tr>
<tr>
<td>3.</td>
<td>Useful volume</td>
<td>Crucible inner dimension 200mm dia x 300 mm height with conical bottom of 50mm dia</td>
</tr>
<tr>
<td>4.</td>
<td>Shell Construction</td>
<td>M. S. Body and M. S. Angle’s structure with proper stiffeners and neat powder coat painting</td>
</tr>
<tr>
<td>5.</td>
<td>Furnace stands &amp; panel box</td>
<td>Control panel box with a door coupled with furnace stand to a height of 0.75 meter</td>
</tr>
<tr>
<td>6.</td>
<td>Crucible material</td>
<td>Stainless steel AISI 310 or 316 grade</td>
</tr>
<tr>
<td>7.</td>
<td>Stirrer</td>
<td>High speed stirrer with various speed 300 to 500 RPM</td>
</tr>
<tr>
<td>8.</td>
<td>Stirrer material</td>
<td>Made with mild steel with zirconia coated (300 micron thickness)</td>
</tr>
<tr>
<td>10.</td>
<td>Controlled atmosphere</td>
<td>Crucible portion is suitably sealed to have a controlled atmosphere</td>
</tr>
<tr>
<td>11.</td>
<td>Fittings for controlled atm</td>
<td>Stainless steel ports should be provided.</td>
</tr>
<tr>
<td>12.</td>
<td>Melt discharge system</td>
<td>Manual mechanism provided at the bottom of the crucible arranged along with the suitable pipe line.</td>
</tr>
<tr>
<td>13.</td>
<td>Mould</td>
<td>Necessary 3 numbers steel split type moulds are to be supplied to shape the melt along with the vacuum connection. Min 40 mm dia moulds are required.</td>
</tr>
<tr>
<td>14.</td>
<td>Material input</td>
<td>2 Kg</td>
</tr>
</tbody>
</table>

#### 2. HEATING SYSTEM

<table>
<thead>
<tr>
<th>No.</th>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Heating elements</td>
<td>Heating element which can generate 1300-1400°C</td>
</tr>
<tr>
<td>2.</td>
<td>Operation</td>
<td>THREE PHASE / AC /230V</td>
</tr>
<tr>
<td>3.</td>
<td>Power</td>
<td>6 kW</td>
</tr>
<tr>
<td>4.</td>
<td>Maximum temperature</td>
<td>1000°C (molten metal temperature)</td>
</tr>
<tr>
<td>5.</td>
<td>Working temperature</td>
<td>990 ±0.1°C (molten metal temperature)</td>
</tr>
</tbody>
</table>
### 3. CONTROL SYSTEM

1. **Temperature control**: 16 segment PiD programmer cum Digital Temperature controller cum Indicator
2. **Temperature sensor**: K type thermocouple
3. **Accuracy**: ±0.1°C
4. **Power control**: Through the phase angle controlled thyristor
5. **Indications**: a) Ammeter b) Mains Indicator c) Out put Indicator
6. **Control switches**: Mains on, Furnace on, melt discharge on, melt discharge off
7. **Safety**: Input, out put fuses

### 4. VACUUM PUMP

1. **Model**: Rotary
2. **Vacuum**: $10^{-2}$ torr

<table>
<thead>
<tr>
<th>Quantity</th>
<th>One</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any other details/requirement</td>
<td>Nil</td>
</tr>
<tr>
<td>Warranty period required</td>
<td>Two years</td>
</tr>
<tr>
<td>Delivery schedule expected after release of purchase order (in weeks)</td>
<td>6-10 weeks</td>
</tr>
<tr>
<td>EMD (in Rupees)</td>
<td>Rs. 4,000/-</td>
</tr>
</tbody>
</table>

Performance Security to be given by Successful bidder after release of purchase order (in Rupees):
SECTION: 4 PRICE SCHEDULE
[To be used by the bidder for submission of the bid]

1. Component Name :

2. Specifications (confirming to Section 3 of Quotation document-enclose additional sheets if necessary) :

3. Currency and Unit Price :

4. Quantity :

5. Item cost (Sl.No.3 & Sl.No.4) (in Indian Rupee) :

6. Taxes and other charges :
   (i) Specify the type of taxes and duties in percentages and also in figures
   (ii) Specify other charges in figures :

7. Warranty period (confirming to the Section 3 of Quotation document. This should be mentioned in Technical bid also in order to get qualified for Financial bid) :

8. Delivery Schedule (confirming to the Section 3 of Quotation document) :

9. Name and address of the firm for placing purchase order :

10. Name and address of Indian authorized agent (in case of imports only) :

Signature of the Bidder : .................................................................................

Name and Designation : .................................................................................

Business Address : .........................................................................................
   .........................................................................................
   .........................................................................................

Place :

Date : Seal of the Bidder’s Firm
SECTION : 5 CONTRACT FORM
[ To be provided by the bidder in the business letter head ]

1. (Name of the Supplier’s Firm) hereby abide to deliver the .................................. by the delivery schedule mentioned in the Section 3 quotation document for supply of the items if the purchase order is awarded.

2. The item will be supplied conforming to the specifications stated in the quotation document without any defect and deviations.

3. Warranty will be given for the period mentioned in the quotation document and service will be rendered to the satisfaction of NIT, Trichy during this period.

Signature of the Bidder : .................................................................

Name and Designation : .................................................................

Business Address :
.................................................................
.................................................................
.................................................................

Place :

Date :

Seal of the Bidder’s Firm