

# **TENDER DOCUMENT**

For

## **Procurement of Vertical Machining Centre**

**NATIONAL SMALL INDUSTRIES CORPORATION LTD  
TECHNICAL SERVICES CENTRE**

**A-1, Industrial Estate, Aligarh 202001 (U P)**

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[www.nsic.co.in](http://www.nsic.co.in)

*Cost of Tender Document Rs 1000/-*

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# TENDER NOTICE

**NSIC-TECHNICAL SERVICES CENTRE**  
**A-1, Industrial Estate, Aligarh- 202001 (U P)**  
**Ph 0571 -2400364, 2403552**  
[www.nsic.co.in](http://www.nsic.co.in)

On behalf of Chairman-Cum-Managing Director, NSIC Ltd, separate sealed tenders are invited from reputed manufacturers/ authorized Dealers/suppliers for supply of Vertical Machining Centre (VMC) in TWO BID system, viz. (1) Technical & Commercial Bid and (2) Financial Bid for NSIC-TSC, Aligarh. The tender document containing details of the machine specifications and terms and conditions can be obtained from Dy. General Manager , NSIC-TSC, A-1, Industrial Estate, Aligarh-202001 by paying fee of Rs. 1000/- in the form of Demand Draft favoring “**National Small Industries Corporation Ltd**” **Payable at Aligarh**. The tender document can also be down loaded from our Web site: [www.nsic.co.in](http://www.nsic.co.in). The tender fee can be enclosed along with tender document in a separate cover by clearly mentioning on the envelope “**Tender Fee**”. Completed tender forms can be submitted to: Dy. General Manager, **NSIC-TSC, A-1, Industrial Estate, Aligarh-202001**” by **12.00 AM on 7 Feb 2013**. Technical bids will be opened in the presence of tenderer representative on the same day at **2.00 PM**.

## 2. Covering Letter

**TENDER NO: NSIC-TSC(A)/VMC/TENDER/01/12-13**

**DATE:**

To,

Dy. General Manager

NSIC-TSC, A-1, Industrial Estate,

Aligarh -202001.

Ref: - Your Advertisement in \_\_\_\_\_ Dated \_\_\_\_\_

Sub: - Sealed Tender offered for the supply of **Vertical Machining Centre**.

Dear Sir,

With reference to your above referred advertisement, we are herewith submitting our offer for the above said **Vertical Machining Centre**. We have gone through the general terms & conditions of this tender as attached and we fully agreed to abide by the same.

We would like to inform you that the VALIDITY of THIS OFFER IS **60** DAYS from the date of closing of the tender (refer Clause 8 of tender) AND CAN NOT BE EXTENDED on request, if required.

Thanking you,

Yours truly,

Authorized Signatory

PLACE \_\_\_\_\_

NAME \_\_\_\_\_

DATE \_\_\_\_\_

DESIGNATION \_\_\_\_\_

Official Seal

### 3. Machinery

#### SCHEDULE OF REQUIREMENT

Description Machinery	Quantity	EMD (Rs)
Vertical Machining Centre	01	1,00,000/- (One Lac only )

[Machine, necessary Tooling and Standard accessories]

#### TERMS OF DELIVERY

The machine shall be delivered **within 60 days** from the date of issue of award letter at: NSIC, A-1, Industrial Estate, Aligarh.

The installation & commissioning work is scheduled to commence **within 4 Weeks** of date of receipt of the equipment at NSIC–Technical Services Centre, A-1, industrial Estate, Aligarh.

## 4. Machine Specification

### ITEM- Vertical Machining Centre

#### SPECIFICATIONS:

The Vertical Machining Centre will meet the requirements of cutting the precision components. The versatile Vertical Machining Centre provides cost effective solutions for production of general engineering components, tools & dies and auto components.

#### Required Technical Specifications

S No	Specification	unit	Dimensions Range
1.	Table Size ( L X B )	mm	800x400 or more
2.	Load on Table	Kg	400 or more
3.	Traverse axis - X	mm	550 or more
4.	Traverse axis - Y	mm	400 or more
5.	Traverse axis - Z	mm	450 or more
6.	Feed rate x, y, & z axis	mm/min	1-10,000
7.	Power (Continuous duty)/30 Min rating	KW	7/12
8.	Spindle Nose taper		BT-40/SK-40/HSK 63A/ST40
9.	Rapid Traverse x/y/z axes	mm/min	20000 or more
10.	Distance of spindle face from table (Minimum / Maximum)	mm	100-600 or more
11.	Spindle speed range	rpm	6000-10000
12.	Auto Tool Changer	Nos	20 or more
13.	Maximum Tool Diameter	mm	80/125 all Pocket full/empty
14.	Maximum Tool Length	mm	300
15.	Maximum Tool Weight	Kg	8
16.	Accuracy		
16(i)	Positioning Accuracy	mm	+0.005 -
16(ii)	Repeatability Accuracy	mm	+0.003 -
17.	CNC System		Siemens / Mitsubishi / Fanuc

**Concomitant Accessories:**

The machine shall be supplied with following concomitant Accessories whose cost shall be included in the basic price of the machine. Their cost shall be given separately also.

- a. Rigid Tapping
- b. PCMCIA Memory Card.
- c. Operation and Maintenance Manuals - Two sets.
- d. Software and Hardware for Interfacing PLC Control Indexer
- e. Linear glass scale feed back in lieu of encoder.
- f. Edge finder
- g. Coolant gun.
- h. Air gun.
- i. A/c unit for Electrical Cabinet.
- j. Electrical equipment & controls, Isolation & Servo Stabilizer etc - One set
- k. Maintenance and spare parts - 2 sets each
- l. Electrical cable to connect to the mains - 5 Meters.
- m. The electronic temperature sensor should be provided for Z-Axis to compensate for geometric changes occurring due to heat increase at the VMC spindle. Permanent monitoring and control should be done by machine control.
- n. Service Tool Kit - One set
- o. Built in work light
- p. 3D Graphic Simulation
- q. Chiller unit for integral spindle
- r. Electronic Hand wheel
- s. Essential Software needed to run/working the Machine on Job.

Any other concomitant accessories required to make machine fully operational on installation when connected to power source shall be indicated in the scope of supply and the cost of such accessories shall be included in the basic price of the machine.

**Essential Feature of CNC System :**

- |                            |   |   |
|----------------------------|---|---|
| (i) Controller             | : | Siemens / Mitsubishi / Fanuc                              |
| (ii) Screen                | : | 15" TFT color flat screen<br>Resolution 1024 x 768 pixels |
| (iii) Keyboard             | : | Alpha-numeric keyboard with soft<br>keys                  |
| (iv) Block processing time | : | ≤ 4 ms  |

- (v) Look ahead function : More than 99 NC blocks (for contour) and 250 blocks for straight traverses.
- (vi) Straight : 3 NC axis  
Feed speed is to be automatically Controlled.
- (vii) Circle : 2 NC axis circular interpolating  
3 NC axis with swivel plane
- (viii) Helical : Overlapping of circle and straight line
- (ix) Data Memory : More than 512 MB

( x ) **TCPM** : Tool center point management. The displacement of the swivel axis should be compensated so that the position of the tool axis should be maintained relative to the contour. Tool length should be compensated in direction of the tool axis and the radius in direction of the normal vector.

(xi) Real time graphic display should be available

(xii) The system should be provided with the facility of linking to CAM system.

(xiii) It should be possible to upload / download the CNC program through a RS232 / USB port and Ethernet interface.

(xiv) Direct circle, radius programming and polar coordinate programming should be possible.

(xv) Canned cycle for drilling, tapping, pocket milling and reaming and peck drilling should be available.

(xvi) It should be possible to conduct dry run of the program at the time of proving out new programs. The real time graphic should be possible.

(xvii) Application tuning cycles (for surface finish / accuracy / cycle time)

(xviii) I-side display, 3-side display, three-dimensional presentation, simultaneous display during machining.

**Optional Accessories:**

The bidder shall also quote these accessories as optional which can be useful for better uses of machine in training as well as manufacturing and



their prices shall be indicated separately and should not be included in the basic Price of machine.

The Bidder should submit technical literature of the optional accessories.

- Power Clamping System
- 4<sup>th</sup> axis CNC Rotary Table
- Spindle Mounted Touch probe OMP 60
- Flush Card
- Start up toolkit

### **Programme Features**

- Menu driven graphic Programming CAD Tool
- Comprehensive Geometry definition
- Transformations
- Powerful Editing
- DXF Interface
- Inbuilt functions: move, copy, rotate, mirror, scale etc.
- 32bit CPU Architecture for MMI

### **Power Transmission**

- The power transmission system should be trouble free and smooth in working.

### **Safety Features**

- Safety precautions to be taken to protect the operator.
- All controls and knobs shall be located for easy convenience of operator.
- Lockable main switch.
- Axis over travel limit switches.
- Emergency stop button.
- Safety Alarm

### **Special features**

- The bidder clearly indicating the advantages of these features shall indicate special features incorporated into the machine, if any, separately.
- Minimum two weeks training on same machine to be provided by supplier to purchaser's officers & technicians at NSIC, Aligarh.

### **Supervision Services-Joint Inspection, Installation, Commissioning and Proving Tests**

The supplier or his agent would be required to carry out a joint inspection at the consignee's end along with the consignee before unpacking is done to avoid subsequent complaints regarding short shipment or transit damages. It is necessary that consignee to avoid commissioning delays due to Shortages/Transit damages do this joint inspection immediately on receipt of the machine.

The supplier shall arrange demonstration/commissioning of the machine after installation is done under the supervision/direction of the firm's engineers. Adequate number of teams of technical experts will be made available so that the commissioning delays are eliminated. These personnel will be required to be present as soon as the foundation is ready and machine is located at the site.

The supplier or his agent shall demonstrate/commission the machine within 4 weeks from the date of intimation by the consignee in respect of readiness of the foundation and installation of the machine.

The supplier or his agent shall demonstrate the machine performance as per technical specification in the contract after successful commissioning at the consignee's works. Thereafter the consignee shall use the machine intensively for 2 working days, and performance is watched before the final proving test certificate.

#### **Painting & Color**

The machine and its accessories shall be painted in appropriate aesthetic color and shade taking due care for its protection from corrosion in tropical climate. The Light gray/green color is preferable.

## 5. GENERAL TERMS & CONDITIONS

1/3

**TENDER NO: NSIC-TSC(A)/VMC/TENDER/01/12-13**

### **TENDER FOR: Vertical Machining Centre**

1. Separate sealed tender should be submitted for each equipment under two bid systems.
2. Tenderers should set their quotations in firm figures. Each figure stated should be repeated in words also. In the event of any discrepancy between the amount stated in figures and words, the rate quoted in the words shall be deemed to be the final quotation. Tenders with qualifying term such, as "SUBJECT TO A MINIMUM ACCEPTANCE or SUBJECT TO PRIOR SALE" etc shall be liable to disqualification. Technical & Commercial bid is to be submitted as per our specifications in the following format.

#### **Format for Technical & Commercial Bid**

##### **Name of Equipment:**

<b>Sl no</b>	<b>Specification of machine as per Tender</b>		<b>Specification of machine as quoted</b>		<b>Remark</b>
	<b>Description</b>	<b>Accessories</b>	<b>Description</b>	<b>Accessories</b>	

3. The Financial bid should be submitted along with Technical Bid in a separate sealed cover.
4. The technical & commercial bid will be opened first and the technical suitability will be analyzed. The Financial bid of those bidders who are technically considered fit will be opened later. The date and time of opening of the financial bid will be intimated to the successful technical bidders in advance.
5. Tenderer must furnish illustrative literatures, catalogues and complete technical details for the item quoted by them with brand names / model etc. and the same should be contained in 'Technical Bid'. If the tenderer is a wholesale / authorized / sole dealer of the items quoted, current valid certificate of the principal must be enclosed invariably without which tender is liable to be rejected.
6. Tenderer along with the 'Technical Bid' shall submit USER'S LIST showing name & addresses with phone nos. of at least 5 parties to whom they have supplied machines of similar specifications.
7. Last date of the receipt of this tender is **7 Feb 2013 up to 12.00 AM**. Tenders received after this date will not be entertained. Technical bids will be opened on the same day at **2.00 PM**.

8. The tender should be valid for acceptance for a minimum period of **60 DAYS FROM THE DATE OF CLOSING OF THE TENDER**. However if bidders desirous of quoting shorter validity period, it should be specifically mentioned in the tender. No mention of validity period by the bidders will be assumed as having validity of 60 days and Tenderer will be liable to supply the Machine/ materials if orders are placed.
9. All tenders must accompany EMD as mentioned in the tender document by way of Demand draft favoring “**National Small Industries Corporation Ltd.**” payable at **Aligarh**. EMD will be returned to unsuccessful Tenderer within 90 days after the finalization of the contract OR within 180 days after the last date of the closing of this tender whichever is earlier.

**Tenderer must explicitly specify the followings:**

- a. DELIVERY PERIOD OFFERED: Expected within 30 days after placement of order.
- b. PRICES QUOTED: F.O.R Destination (at our works) with packing, forwarding charges, Taxes, Duties, Govt. Levies, etc mentioned clearly if applicable.
- c. PAYMENT TERMS(Indian Bidder):
  - I. 80% of the total cost will be released after receipt of equipment in good condition and successfully installation & training provided to our staff.
  - II. 20% will be released after satisfying all the conditions as per the tender terms and conditions and satisfactory functioning of the equipment supplied.
- d. PAYMENT TERMS(FOB Suppliers):
  - I. 80% of the total cost by Letter of credit valid for 90days against shipment documents.
  - II. 20% will be released after satisfying commissioning and stationing.
- d. Technical bid should contain the details of Guarantee / Warrantee offered for each equipment /component of equipments having multiple components. All non standard components should be covered under the guarantee period invariably. Minimum guarantee / warrantee required is ONE-YEAR from the date of successful commissioning of the equipment.
- e. The Bidder should furnish performance guarantee for all the equipments supplied under this Tender.
- f. The suppliers also indicate/quote for AMC separately.
- g. Free of cost, on site two weeks training for operating the equipment to our officials is must.
- h. Successful Tenderer will have to submit trace ability to the National /International standards applicable and calibration certificate of the entire

items at the time of delivery of the items ordered. No separate charge will be paid for this purpose.

- i. In case of equipments having multiple components, cost of individual item should be mentioned while mention the total cost of the equipment.
10. The Centre means NSIC -Technical Services Centre, Aligarh.
11. The Centre reserves all rights to accept / reject or prefers any tender without assigning any reasons what so ever reason. Likewise the centre may at its discretion accept or reject any tender in parts.
12. The centre will not be held liable for any postal delays or any other reasons beyond its control in any of the Communication in respect of this tender.
13. The Tenderer must ensure that the price quoted shall not be higher than those quoted to any other government department for the same item in the last **one year** from the date of submitting this offer.
14. Tenderer must invariably indicate their full address, telephone, email ID, Fax numbers, website etc in the tender.
15. **REJECTION OF ITEM / ITEMS:** All the liabilities on account of rejection of the items supplied, short packing defects, transit damages and losses etc will be on the supplier's account and this centre will not be liable in any manner on this account.
16. The delivery time being of utmost essence, the contract / order shall stand terminated and the EMD will be forfeited if it is not executed within the stipulated delivery schedule, prescribed in the order / tender to compensate for the damages to the centre unless and otherwise prior consent on the extension of the delivery period is granted by the center.
17. Competent Authority reserves the right to accept or reject any or all the tenders without assigning any reasons thereof.
18. The authorized person of the bidder with official seal should sign all pages of the tender document and also enclosed copy of Board's resolution Authorizing him to sign tender document or related papers (in case of Pvt. Ltd / Ltd company) or Authorization letter (in case of Partnership firm).
19. Any legal proceeding arising out of this contract shall be instituted at ALIGARH jurisdiction only.

All the following four covers should be sealed and put into separate cover.

**Cover (I):** Technical & commercial bid in a separately sealed cover.

No Financial terms should be mentioned directly or indirectly in the Technical & Commercial bid.

**Cover (II) :** Financial Bid in a separately sealed cover.

**Cover (III): EMD (should be paid as mentioned in the tender documents)**

**Cover (IV):** Tender Fee (in case of using down loaded Tender form)

## 6. Financial bid

(To be enclosed in a separately sealed cover superscripting Financial bid)

- 1 Vender's / Bidder's Name :  
2 Address :  
3 Tender no. : TENDER NO: NSIC-TSC(A)/VMC/TENDER/01/12-13  
4 Items : Vertical machining Centre  
5 Model :  
6 Basic price Rs. :  
(Mention the individual item cost of multi -component equipments)  
7 Excise Duty Rs. :  
8 Ed. Cess in Rs :  
9 Sales tax Rs.(if No C Form will be supplied/if supplied) :  
10 Packing / Forwarding charges :  
11 Transportation charges :  
12 Insurance charges :  
13 Installation & Demonstration Charges :  
14 Octroi Rs. :  
15 Total Price :  
16 Discount if any :  
17 Landed Price at NSIC-TSEC: Aligarh (Appx.) :  
18 Delivery Point : NSIC-TSC, A-1,Industrial Estate,Aligarh  
19 Delivery Period : (within 60 days from the date of issue of award Letter)  
20 Payment Terms:  
(80% of the total cost will be released after receipt of equipment in good condition and successfully installation & training provided to our staff & 20% will be released after satisfying all the conditions as per the tender terms and conditions and satisfactory functioning of the equipment supplied)  
21 Validity of Offer : (60 Days from the date of closing of the tender.)  
22 EMD : Rs.-----  
(As mentioned in the tender document) DD no. -----Date:  
Drawn on bank-----at ALIGARH.  
23 Any other details :  
(Pl. specify)

Tenderer's sign & date

Seal