

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI - 620015**  
**DEPARTMENT OF PRODUCTION ENGINEERING**

**Date: 10.03.2010**

**Tender for Equipment – NITT/ Prod/L-RDM**

**Specifications for Lathe**

1. **Distances between centers:** 750-1000 mm
2. **Height of the centre:** 170 -180 mm
3. **Spindle bore:** 40-50 mm
4. **Spindle speed range:** 60 – 2000 rpm
5. **Swing over bed:** 350mm
6. **Swing over cross-slide:** 250 mm
7. **Movement of cross slide:** 180 mm
8. **Spindle diameter:** 50 mm
9. **No. of speeds:** 8
10. **Feed range**
  - Longitudinal: 0.05 – 2 mm/rev
  - Transverse: 0.02 – 1.2 mm/rev
11. **Thread cutting:** Half nut mechanism
12. **Coolant System:** Flood coolant
13. **Extra accessories required for the operation of the lathe:**

Standard accessories to be supplied with the lathe: Vendor to specify

Extra accessories with individual cost
14. **Spares:**

Recommended spares for two years of operation and price for each item to be indicated
15. **Manual:**

To be supplied with the machine
16. **Erection and Commissioning:**

By the supplier

## Specifications for Radial Drilling Machine

### 1. Capacity

Drilling in Steel,	mm	50
Drilling in Cast Iron,	mm	60
Tapping in steel – metric fine threads		M56 x 2.5

### 2. Drill Head

Taper in spindle		MT5
Number of spindle speeds		12
Speed range,	rpm	25 – 2000
Number of feeds		Not less than 6
Feed range,	mm/rev	0.125 to 1.25

### 3. Working Range

Column sleeve diameter,	mm	350
Drilling radius, maximum,	mm	1500
Drilling radius, minimum,	mm	550
Quill traverse,	mm	Min 320
Base plate to spindle:		
Maximum,	mm	1400
Minimum,	mm	360
Drilling head traverse,	mm	Min 950
Arm traverse,	mm	Min 725

### 4. Power

Power, main motor	kW	3.0
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### 5. Motor

Spindle motor power not less than 3.6 kW

### 6. Base Plate

Size around 1500 X 900 mm, with 'T' slots

### 7. Locking Mechanism for Column and Sleeve, Arm Locking and Drill Head Locking

Vendor to specify

### 8. Coolant System

Flood coolant

**9. Clamping:**

Manual

**10. Extra Accessories required for the operation of the Radial Drilling Machine:**

Standard accessories to be supplied with the radial drilling machine: Vendor to specify  
Extra accessories with individual cost.

**11. Spares:**

Recommended spares for two years operation and price for each item to be indicated

**12. Manual:**

To be supplied with the machine

**13. Vendor to give the following:**

1. GA drawing with major and critical dimensions
2. Sub assembly drawings for the following mechanisms:
  - Arm movement and locking
  - Spindle head movement and locking
  - Quill movement

**14. Erection and Commissioning:**

By the supplier

Last date of the tender: **21<sup>st</sup> April, 2010**

Time: **2:00 pm**

Contact Address:  
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