

# Indian Institute of Technology, Delhi

## Notice Inviting Quotation

Date: 30<sup>th</sup> January, 2013

Sealed quotations are invited for a “**Miscellaneous Power Tools and Machines**”. The quotations should be submitted in a sealed cover (separate bids: technical and commercial) to **Prof. Naresh Bhatnagar**, Head, Central Workshop, Indian Institute of Technology Delhi, Hauz Khas, New Delhi 110016 on or before 21.02.2013 (Thursday). Late submission will not be considered.

The sealed Quotations are to be submitted in one envelope having two separate envelopes for;

A- Technical Quote (Technical Specifications only)

B- Financial Quote (Technical & Financial)

Both the envelopes A & B should be enclosed in an outer envelope, which should be sealed and addressed to, clearly mentioned on top right of the envelope “Quotation for **Miscellaneous Power Tools and Machines**”. ”.

Institute reserves the right to accept or reject any of the offers without assigning any reasons. The detailed specifications of each individual component of the system are given below:

### Specifications of Miscellaneous Power Tools and Machines.

#### 1. CORE DRILLING AND CUTTER:

##### SPECIFICATIONS:

1	Core drill bit diameter	70- 80 mm
2	Twist drill diameter	upto 32 mm
3	Core drill drilling depth	upto 50 mm
4	Tapping diameter	M 10- M27
5	Countersinking diameter	upto 50 mm
6	Reaming diameter	upto 31 mm
7	Stroke	upto 145 mm
8	Output Speed without load rpm	Upto three speeds 100 to 600 overall
9	Power consumption	2000 - 2200 W

10.	Core Drill Holder	Quick In
11.	Magnetic Holding Power	17000- 18 000 N
12.	Control	Fully Automatic
13	Weight	24-28 Kg

QUANTITY :1

ACCESSORIES:

- 1) Core bits 50, 55, 60, 65,70,75,80 mm
- 2) Tapping Chuck
- 3) Tapping Inserts for Through Hole Size M10 , M22/M24
- 4) Tapping Inserts for Blind Hole Size M10 , M22/M24
- 5) Tap Set Size M10 , M22/M24

## 2. POWER SCREW DRIVER:

1	Screw diameter	6 to 8 mm
2	Type	Universal preferred
3	Rated torque	20 to 25 Nm
4	Torque settings	Selectable fixed torque preferred
5	Power input	600 to 800 W
6	No Load Speed Variable	0 to 2600 rpm
7	Weight	1.5 to 3 kg

QUANTITY: 1

ACCESSORIES:

- 1) Screwdriver Bits Ph 2, 25 mm long Qty 25 Nos
- 2) Screwdriver Bits Ph 1, 49 mm long Qty 15 Nos
- 3) Screwdriver Bits Ph 2, 49 mm long Qty 15 Nos
- 4) Screwdriver Bits Ph 2, 152 mm long Qty 05 Nos

## 3. NIBBLER FOR SHEET METAL CUTTING:

TECHNICAL SPECIFICATION:

1	Thickness	4-5 mm steel (400 N/mm <sup>2</sup> )
2	Input power	1200 to 1600 W
3	Cutting speed	1.2 to 1.7 m/min
4	Cutting width	14 to 17 mm
5	Weight	3 to 4 kg

QUANTITY: 1

ACCESSORIES

- 1) Die and punch Qty -01 Set
- 2) Cutting paste Qty -05 Nos
- 3) Chips Bag Qty -01 No

#### 4. TAPPER:

1	Tap sizes	Upto M 12
2	Power consumption	600 to 800 W
3	Speed	0 - 250 rpm
4	Weight	3 to 4 kg

QUANTITY: 1

ACCESSORIES

- 1) Tap Set Size M6,M8,M10 and M12
- 2) Clamping Chuck with Collet
- 3) Depth Stop

#### 5. SABRE SAW:

1	Cutting depth in metal pipes	Upto 20 mm
2	Cutting depth in wood	Upto 300 mm
3	Strokes	0- 2800 spm
4	Rated power input	1000 TO 1400 W
5	Weight	3 to 5 kg

QUANTITY: 1

ACCESSORIES

- 1) Sabre Saw Blades for Metal Qty- 25 Nos
- 2) Sabre Saw Blades for Wood Qty- 25 Nos
- 3) Sabre Saw Blades for Composite material Qty- 10 Nos

#### 6. MAGNETIC DRILL JIG:

1	Drill holding capacity	Upto 16 mm
2	Power consumption	50 to 70 W
3	Tapping capacity	Upto M12
4	Magnetic Holding Power	8000- 10000 N
5	Stroke	Upto 140 mm
6	Swivel range	Upto 350 degrees
7	Weight	7 to 10 kg

**QUANTITY: 1**

ACCESSORIES:

- 1) Reducing sleeves 43/33 mm dia
- 2) Reducing sleeves 43/38 mm dia
- 3) Pipe drilling device

#### 7. BELT SENDER:

1	Belt width	3- 20 mm
2	Input power	800 TO 1000 W
3	Belt speed	Upto 32 m/s
4	Speed	10000- 28000 rpm
5	Weight	2 to 3 kg

**QUANTITY: 1**

ACCESSORIES:

- 1) 3 grinding arms (1 each of 3/6 mm stepped, 6 mm straight, 20 mm straight)
- 2) 10 grinding belts, 3 mm (grit 120)
- 3) 10 grinding belts, 6 mm (grit 120)
- 4) 10 grinding belts, 20 mm (grit 120)
- 5) 5 fleece belts, 6 mm (medium)

### 8. HYDRAULIC PIPE BENDER:

1	Capacity (steel pipes)	½ to 3 inch
2	Pump fore	14 - 18 tons
3.	Weight	140-160 Kgs

Quantity: 1

### 9. ANGLE GRINDER

1	Disc diameter	180 to 200 mm
2	Input power	2200 to 2600 W
3	Speed	8000 to 9000 rpm
4	Weight	4 to 6 kg

QUANTITY: 1

ACCESSORIES:

- 1) Machine shop gloves Qty – 02 Nos
- 2) Grinding Disc – Qty – 10 Nos
- 3) Cutting Disc Qty – 10 Nos

### 10. LONG NECK ANGLE GRINDER

1	Disc diameter	125 – 150 mm
2	Disc Thickness	2-6 mm
3	Input power	800 to 1200 W
4	Speed	1300 to 4000 rpm
5	Weight	2 to 4 kg

QUANTITY: 1

ACCESSORIES

- 1) Medium fleece discs, diameter 150 mm, one 3 mm thick and one 6 mm thick
- 2) Fine fleece discs, diameter 150 mm, one 3 mm thick and one 6 mm thick
- 3) Profiling stone for profiling the fleece discs

### 11. CIRCULAR SAW:

Technical Specifications:

1	Blade diameter	180 to 200 mm
2	Power input	1000W- 1300W

3	Minimum cutting depth	Upto 50 mm
4	Minimum no load speed	3000 to 5000 rpm
5	Weight	6 to 10 kg

Quantity: 1

ACCESSORIES

- 1) Metal Cutting Blades Qty – 01 No

**12. JIG SAW:**

Technical Specifications:

1	Cutting capacity (stainless steel)	Upto 10 mm
2	Cutting capacity (aluminium)	Upto 20 mm
3	Cutting capacity (wood)	145-150 mm
4	Strokes	500- 3200 RPM
5	Power input	700 to 900 W
6	Weight	2 to 4 kg

Quantity: 1

ACCESSORIES:

- 1) Jig Saw Blades for Metal Qty- 25 Nos
- 2) Jig Saw Blades for Wood Qty- 25 Nos
- 3) Jig Saw Blades for Composite material Qty- 10 Nos

**13. CORDLESS IMPACT WRENCH:**

Technical specifications:

1	Bolt diameter range	M12-M 20
2	Tightening torque	600 To 800 Nm
3	Speed (no load)	0-2000 rpm
4	Type	Universal
5	Battery	18 V Li Ion
6	Number of impacts	0-2200 bpm
7	Weight	3 to 5 kg

QUANTITY: 1

ACCESSORIES:

1) Impact Sockets Size M-12 to M20 Qty - 01 Set

**14. ROTARY SANDER:**

Technical specifications:

1	Sanding disc diameter	100mm- 250mm
2	Power input	1000W-1200W
3	Speed	900 - 2500 RPM
4	Weight	1.5- 2.5 kg

QUANTITY:1

ACCESSORIES:

- 1) 1holder, rotating safety guard
- 2) 1 work arbor
- 3) 1 corrugated sanding fleece
- 4) 1 supporting plate with velcro adhesion section
- 5) 10 sanding fleeces with velcro (fine)
- 6) 1 elastic sanding roller (grain 60)
- 7) 1 lamella fleece cylinder (grain 180)

**15. PIPE SANDER:**

Technical specifications:

1	Pipes to be machined	8 - 80 mm
2	Power input	1000W-1400W
3	Speed	2500 TO 7000 RPM
4	Weight	3-5 kg

QUANTITY:1

ACCESSORIES:

- 1) 2 x 10 pcs polishing belts
- 2) 20 x 815 mm P120/P180
- 3) 2 x 10 Pcs polishing belts
- 4) 40 x 815 mm P120/P180

5) 5 fleece belts 20 x 820 mm very fine

## 16. ROTARY HAND DRILL:

### SPECIFICATIONS:

1	Drill diameter in steel	Up to 13 mm
2	Drill diameter in wood	Up to 32mm
3	Drill diameter in aluminum	Up to 20 mm
4	Operating speeds(no load)	At least 2 (550-1100rpm/ 1300-2000rpm)
5	Power consumption	500-800 W
6	Weight	1.5 to 5 kg

QUANTITY: 1

### ACCESSORIES:

1) Drill Bits Set upto 13 mm Metal/Wood Qty – 02 Set

## 17. DUST EXTRACTOR/ VACCUM CLEANER:

	Input power	1500 to 1800 W
	Air flow	3500 to 3800 l/m
	Maximum vacuum	0.1 to 0.3 bar
	Tank volume	35 to 45 L

QUANTITY: 1

ACCESSORIES: Supporting dust extraction accessories.

## 18. SLITTING SHEARS:

### SPECIFICATIONS

	Slitting sheet thickness	Upto 2mm
	Material to be machined	Steel - 400 to 800 N/mm <sup>2</sup>
	Slit width	5 to 10 mm
	Power consumption	350 to 450 W
	Strokes	2000 to 2500 strokes
	Cutting speed	2 to 4 m/min
	Weight	1.5 to 3 kg

QUANTITY: 1

### ACCESSORIES:

1) Cutter Blade Qty – 01 No

## 19. METAL SHEARS:

### SPECIFICATIONS:

	Sheet thickness	Max 3.5 mm
	Material to be machined	Steel - 400 to 800 N/mm <sup>2</sup>
	Power consumption	1000 to 1500 W
	Strokes	1400 to 2000 strokes
	Cutting speed	3 to 4 m/min
	Weight	4 to 6 kg

QUANTITY: 1

### ACCESSORIES:

1) 1 Pair of blades

## 20. SELF LEVELING ALIGNMENT LASER:

1	Minimum capabilities	Horizontal leveling, vertical alignment, squaring, Angle measurement with tripod stand
2	Working Range	75-100 m
3	Accuracy	$\pm 0.2$ mm/m
4	Operating Time in 1- line mode	20-25 h
5	Weight	0.6 to 0.8 Kg

## 21. LASER DISTANCE

1	Distance Range	0.05 -80 m
2	Accuracy	$\pm 1.5$ mm
3	Operating time continuous	4 – 7 h
4	Dust and splash protection	IP 54

## 22. ANGLE MEASURER

1	Measuring Range	0-360 Degree
2	Angle	$\pm 0.05$ Degree
3	Weight	0.6 – 0.8 Kg

### 23. MULTI CUTTER:

Technical specifications:

1	Sanding plate	75-100 mm
2	Power input	250W-350W
3	Oscillations	10000-22000 RPM
4	Weight	1 - 2.5 kg
5	Fitting	Quick in

QUANTITY:1

#### ACCESSORIES

- 1 sanding pad
- 5 sanding sheets each grit size 60, 80, 120, 180
- 1 Sanding plate with holes
- 5 sanding sheets perforated each grit size 60, 80, 120, 180
- 1 backing pad  $\varnothing$  115 mm, perforated
- Perforated sanding sheets, 2 each of grit 60, 80, 180
- 1 Universal E-Cut saw blade (44 mm)
- 1 standard E-Cut saw blade (65 mm)
- 1 M-Cut saw blade (30 mm)
- 1 HSS segment saw blade
- 1 carbide segment saw blade
- 1 carbide rasp (triangular), perforated
- 1 fixed scraper
- 1 profile grinding set
- 1 dust extraction device

### 24. CHAINSAW :

Technical specifications:

1	Guide Bar Length	380-420 mm
2	Power input	2000-2300 W
3.	Chain Gauge	1.2-1.4 mm
4	Chain Speed Under load	10-15 m/s
5	Weight	4- 5 kg

QUANTITY:1

- 1) ACCESSORIES: 2 Cutting Chains

## **Terms and Conditions**

**Envelope A: Technical Quote:** The following details are to be enclosed (Mention clearly on this envelope – Technical Quote)

1. Letter from the manufacturer specifically to quote for this tender is to be attached for the authenticity of dealership/ agency and the dealer should be an authorized service provider.
2. Technical brochures mentioning all details with complete address of the principals.
3. A compliance statement for required specifications should be attached.
4. Firm **MUST** provide a compliance statement vis-à-vis specifications in a “tabular form” clearly stating the compliance and giving justification, if any supported by technical literature with clear reference of page number, paragraph or lines. This statement must be signed, with the company seal, by the tenderer for its authenticity and acceptance that any incorrect or ambiguous information found submitted will result in disqualification of the tender. The quotation should be complete in all respects. (as per IIT-Delhi rules).
5. Any optional equipment / accessory advised to be included , if otherwise mentioned.
6. a) List and addresses of organizations [in India and abroad – with contact landline numbers] where the equipment has been supplied in last 3 years. b) Address in India where a live demonstration of the instrument can be arranged, if possible.
7. a) Details of similar equipment supplied to preferably Indian Institute of Technology/ National Institute of Technology/Indian Institute of Science, India specifying the Department/centre/lab to which the equipment was supplied, with references. b) Mention if the equipment is being maintained by your organization. Address of the technical office, in India, with telephone and FAX numbers. Please clarify the type of support available in India.
8. If quote is for imported equipment, Sole Agency-ship certificate on the letterhead of the principal company with current dates, if quotation is from an Indian Agent.
9. In the case the items are proprietary products of the company, a proprietary item certificate stating the same may be provided.
10. Specifications form should be similar to the given major specifications.

**Envelope B: Financial Quote:** The following details are to be enclosed/ ensured. (Mention clearly on this envelope – Financial Quote)

1. The quotations for the equipment in foreign exchange, if it is to be imported. The cost of spares and optional equipment are to be quoted separately. The cost should be based on FOB, Factory. If equipment is indigenous, the quote should be in INR.

2. Taxes, terms and conditions should be clearly mentioned.
3. Institute makes payment after delivery and successful installation. The payment is by RTGS for which NEFT form need to be duly filled and complied. In case the payment terms are different, it should be mentioned clearly. If equipment is to be imported, the address of the company in whose name the LC is to be opened should be stated.
4. Payment terms and conditions should be clearly mentioned. No advance payment is given by IIT Delhi for capital equipments.
5. Vendor should get a fresh certificate directly from their product principal's clearly mentioning about warranty for three years of the equipment to be delivered from the date of installation.
6. The details of the AMC after the warranty period should be clearly mentioned.
7. Cost for Installation and training at site, if needed, to be provided.
8. Validity of the quotation should be at least four months. Vendors will do the installation and demonstration of the equipment at IIT Delhi premises without any additional charges.
9. The delivery period to be clearly specified and should be at the earliest.

**Prof. Naresh Bhatnagar**

Head, Central workshop

IIT Delhi - 110016