



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)

HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

PHONE :2577938
GRAMS : BHARATELEC
FAX NO: 2520719
E-mail: tvenkat@bheltry.co.in
Web:

429-002/A

	Enquiry No 2681600014 - 79	Enquiry Date 16.06.2016	Due Date for Quotation 12.07.2016
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order. Bid should be submitted in two parts. 1.Techno-commercial bid (Part-I) and 2.Price bid(Part-II) in a separate sealed cover and both covers must be placed in a third cover and sealed. Our Enquiry No., Enq. date & Enq. Due date must be written on all three covers.			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	RETROFITTING AND RECONDITIONING OF MDW20 CNC SLANT BED LATHE M/C, BAY 3, BLDG 6. AS PER PRE QUALIFICATION CRITERIA IN ANNEXURE I AND SCOPE OF SUPPLY/WORK IN ANNEXURE II.	SET	1.000	1.00	31.12.16

General Note:

1. Please submit your detailed offer in two part bid system i.e Part-I. Technical bid + Checklist (Annexure-A) + Unpriced bid indicating taxes & duties (Annexure-B) in a sealed cover, super scribing on the cover as "TECHNICAL & COMMERCIAL BID / PART-I"

Part-II. Priced offer in another separate sealed cover super scribing on the cover as "PRICE BID / PART-II"

Both the covers shall be duly super-scribed with tender reference and due date of opening. These covers shall be put in a single cover duly super-scribed with tender reference and due date of opening and addressed to us.

2. Point-to-point confirmation to BHEL's specification and commercial terms & conditions shall be provided. The supplier must fill and send all the Annexures as indicated in the list of attachments. Annexure-A & Annexure-B (with taxes and duties, without indicating prices) should be filled and submitted along with the technical bid, else your offer is liable for rejection.

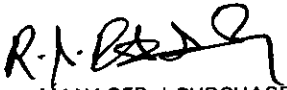
3. Offers with validity of less than 120 days and non-acceptance of LD & RP clause and reverse auction will lead to rejection of submitted offer.

4. If the due date of tender opening happens to be a holiday, the tenders will be opened on the next working day.

5. All clarifications may be sought at least ten days prior to tender due date, from the undersigned with due written request.

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED


MANAGER / PURCHASE
(FOSSIL BOILERS)
Yours faithfully,

R.I. PETER IRUDAYARAJ
Senior Manager

Materials Management /
BHEL, TIRUCHY - 620 014.



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23505

6. BHEL reserves the right to go for a reverse auction (RA) instead of opening the submitted sealed price bid, which will be decided after technical and commercial evaluation. Information and general terms and conditions covering RA are given in commercial terms and conditions (Annexure-A/Point No.18)

7. BHEL will consider MSE vendor as per Government guidelines.

8. Vendors are requested to avoid the following points while submitting the Bid Documents:

- Loose or spiral bound bid documents are not encouraged.
- In case of any corrections/overwriting in the tender documents, the same shall be duly attested by the bid submitter.

9. Corrigendum if any, with respect to this tender will be hosted only in the website <http://www.bhel.com> or <http://tenders.gov.in>. You are requested to visit the website regularly for updates.

10. List of Attachment:

- Pre-Qualification Criteria - Annexure-I
- Scope of Supply/Works - Annexure-II
- Commercial Terms & Conditions - Annexure-A
- Price Bid Format - Annexure-B
- CA certificate for MSE vendors - Annexure-C.

All the tenders may be addressed to the following address:

**The Tender Opening Cell / MM
Room No: 26, Building 24, Ground Floor
Bharat Heavy Electricals Limited
TIRUCHIRAPALLI 620014**

In case personal delivery of the offer, it shall be dropped into the respective box kept in Room No: 26, after duly entering the data in the system.

Offers will be accepted only up to 14.00 Hrs on the due date. Therefore, vendors shall ensure to submit the offers well before this time. All due date extension requirements should be addressed to the respective Purchase mail IDs. All the due date extension requests from vendors will be considered only up to 48 hours before the due date and time.

Vendors are requested to avoid submission of offers through e mail / fax. In case of any unavoidable situation, offers shall be sent through e mail to the following mail ID only tender_cell@bheltry.co.in.

As tenders are being opened by Common Tender Opening Cell, offer covers should be sealed with tenderer's distinctive seal and super scribed with correct Tender No. item of supply and due date of opening.

The offers will be opened at 14.30 hrs on the due date of the tender in the presence of tenderers who

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have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

The bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.

The supplier shall submit EI/EII forms to BHEL time to time as indicated by the BHEL and in case of inordinate delay in issuing EI/EII forms, then BHEL reserves the right to deduct 5% of the value of the supplied items against which EI/EII forms pending to be issued

Enclosures:

"LD clause has to be confirmed without fail."

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For **BHARAT HEAVY ELECTRICALS LIMITED**

MANAGER / PURCHASE

(FOSSIL BOILERS)

Yours faithfully,

R.I. PETER IRUDAYARAJ
Senior Manager

Materials Management /
BHEL, TIRUCHY - 620 014.

RETROFITTING & RECONDITIONING OF MDW20 CNC SLANT BED LATHE M/C.

ANNEXURE I

PRE QUALIFICATION CRITERIA

S.No	Description	Vendor comments
	<p>Vendors who satisfy the following pre qualification criterion are only eligible to participate.</p>	
1	<p>The vendor shall have experience of having successfully carried out CNC retrofitting & reconditioning work in India.</p> <p>Experience of having successfully completed similar works during last 7 years (ending last day of month previous to the one in which applications are invited) should be either of the following: -</p> <p>a. Three similar completed works, each costing not less than the amount INR 19.2 lakhs. or b. Two similar completed works, each costing not less than the amount INR 24 lakhs. or c. One similar completed work costing not less than the amount INR 38.4 lakhs.</p> <p>“Similar work” here means CNC retrofitting / reconditioning of machine tools.</p> <p>Documentary evidences like PO copy, Final MOM or Completion Report to be submitted in support of the above.</p>	
2	<p>The vendor should submit at least one Performance Certificate issued by customer regarding satisfactory performance of the retrofitted CNC machine within the last 7 years. (Hardcopy of the certificate or through Email directly from the customer).</p> <p>Copies of purchase orders/work orders should also be submitted for verification.</p>	

RETROFITTING & RECONDITIONING OF MDW20 CNC SLANT BED LATHE M/C.

ANNEXURE II

MACHINE SPECIFICATION & DETAILS OF EXISTING MACHINE PARTS

S.No	Description	
1	Machine specification: Supplier.....: MAXMULLER/GERMANY Comm.date.....: 30-Mar-95 Type.....: MDW 20 Centre height.....: 450mm Centre distance.....: 1500mm Swing dia.over bed.....: 850mm Longitudinal travel.....:1558mm Spindle dia./Bore.....: 200/128mm Speed range.....: 7-1400rpm No.of tool stn./ATC.....:12+1 Nos. Floor space.....: 7.5 x 4.2m	
2	CNC SYSTEM: SIEMENS Make SINUMERIK 840C CNC controlling 2 axes and 1 spindle	
3	X-axis	
3.1	Motor: INDRAMAT PERMANAENT MAGNET MOTOR, TYPE: MAC-090C-0-KD-2-C/110-A-1, N:2000UPM; MD:10.4NM; MB:6.5NM	
3.2	Drive: INDRAMAT MOD 1/1X113 – 008 CONTR: TDM 1.2-050-300-W1/000 MOTOR: MAC090C - . – KP I (CONT): 30A, I (PEAK): 50A N(operate) : 2000rpm, mA: 50mV/A	
3.3	Pulse Sensor: HEIDENHAIN : ROD 426.001B 10mA, 20V ± 5V, 2500 ppr	
4	Z-axis	
4.1	Motor: INDRAMAT PERMANAENT MAGNET MOTOR, TYPE: MAC-090C-0-KD-2-C/110-A-1, N:2000UPM; MD:10.4NM; MB:6.5NM	
4.2	Drive: INDRAMAT MOD 1/1X113 – 008 CONTR: TDM 1.2-050-300-W1/000 MOTOR: MAC090C - . – KP I (CONT): 30A, I (PEAK): 50A N(operate) : 2000rpm, mA: 50mV/A	
4.3	Pulse Sensor: HEIDENHAIN : ROD 426.001B 10mA, 20V ± 5V, 2500 ppr	
5	Spindle	
5.1	Motor: REXROTH 3N INDUCTION MOTOR *TYP: MAD225C-0150-SA-S2-KKO-35-N1 *P(N) 93,10KW P139,70KW, *I(N) 174,0A *n(N) II n max 1500 II 3750 min ⁻¹ *M(N) 593,0 Nm	
5.2	Drive: REXROTH DRIVE *HNK01,14075-E0146-4-500-NNNN *U 3Ae 500V, *f 50/60 Hz *I 146 A, *L 0.17 mH	
5.3	SPL External Encoder: HEIDENHAIN ROD 426.0013-2048 Id.Nr 254 048 52, Sr.No. 5336 826 A Ra	
6	Machine in-built with ATC / tool magazine for automatic tool exchange	
7	Isolation Transformer of 120kVA rating.	

8	Stabilizer Details: NEEL Servo Controlled Voltage Stabilizer: Rating: 120 KVA, Current: 167A	
9	Hydraulic oil chiller unit: SWASTIK ENGINEERING WORK MODEL NO: 0.0 15000, CAPACITY: 15000 K/CAL AMPERE: 15.5FLA, AMBIENT TEMP: 10 TO 45°C VOLT: 415V, PHASE: 3 REFRIGERANT: 22 5200GM	
10	Centralized lubrication system for the guide ways. Centralized Lubrication set (Includes Motor, Pump and accessories) Model no: MFE 5/BW3, Make: Vogel	
10.1	Centralized lubrication Piston distributors model no details. Piston Distributor Model No: 343.255.500 - Qty: 30 Nos (Make: Vogel) Piston Distributor Model No: 342.255.000 - Qty: 30 Nos (Make: Vogel) Piston Distributor Model No: 345.255.555 - Qty: 30 Nos (Make: Vogel)	
11	Hydraulic Motor 3 Phase induction motor: HINDUSTAN ELECTRIC MOTOR ECC NO. ADDFH 4206 NXM 001 AMB. 45°C IPSS INS. C1. F IS :325 – 1998 DUTY SZ, %EFF 85.0 FRAM – 112M BRG 6206 - ZZ / 6206 - ZZ Encl. TEFC HZ – 50 5%, KW/HP - 3.7/5.0, VOLTAGE – 415 DELTA 10% AMPS – 7.2, RPM – 1440, PF – 0.84	
12	Specifications of the Hydraulic valves available in the machine: 1. DC Valve 4 WE 6D XX/OFA G24 NZ4 - Qty: 4 Nos (Make: Rexroth) 2. DC Valve 4 WE 6D XX/A G24 NZ4 - Qty: 3 Nos (Make: Rexroth) 3. DC Valve WSE 13-12 ZP/E 24/0 D-H 1N - Qty: 1 No (Make: Hartmann+Lammle) 4. DC Valve WSE 13.1-12 ZPG 24/0 - Qty: 1 No (Make: Hartmann+Lammle) 5. Non-Return Throttle Valve Z 2-FS-6 XX -Qty: 5 No(Rexroth) 6. FCV 2 FRM 6B 36-20/16 QRV Qty-1 No(Rexroth) 7. FCV M20-12-8P Qty: 1No (Make: Hartmann+Lammle) 8. DCV 4 WE 6J XX/A G 24 NZ 4 Qty: 1 No(Rexroth) 9. Pressure Regulator ZDR 6 DP 1-XX/75 YM Qty: 1 No (Rexroth) 10. Pressure relief valve 40 351 -00 (Make: Hartmann+Lammle) 11. DC Valve, 4WE6 E XX / AG24NZ4, REXROTH - 1 NO 12. Pressure relief valve DBDS 6 K 1X/200 W1 Qty: 1 (Rexroth)	
13	The pressure switches existing in the machine are as follows: 1. PRESSURE SWITCH, MAKE :SUCO TYPE :TWO PIN CONNECTOR LINE CONNECTION :10MM MALE PILOT LINE OPERATED PRESSURE RATING:300-600KPa Supply :24V DC, 2.5 amps, Qty: 1 no 2. PRESSURE SWITCH MAKE :LAYHER TYPE :4 PIN CONNECTOR LINE CONNECTION :10MM MALE PILOT LINE OPERATED PRESSURE RATING:0-20 BAR Supply :24V DC, 2.5 amps, Qty: 1 no 3. Pressure Switch: HED 40 A XX/50 Z 14 SW 16, Qty: 5 No (Rexroth)	
14	Hydraulic Accumulator Model No: SBO 210-0.32 E 1/112-0/1 Qty: 1No (Make: Hydac)	
15	Hydraulic fitting in the machine are as follows 1. Banjo Model No: SWVE 10 LR -Qty: 25 Nos 2. Banjo Model No: SWVE 15 LR -Qty: 25 Nos 3. Parallel Male Stud coupling Model: GE 6LR -Qty: 25 Nos 4. Parallel Male Stud coupling Model: GE 8LR -Qty: 25 Nos	

SECTION A: SCOPE OF SUPPLY

S.No	Description	Vendor's Remarks / Compliance
1	Electrical & Electronics parts/accessories	
1.1	<p>Supply of CNC Controller, able to perform all the machine functions.</p> <p>CNC PACKAGE: Latest version of SIEMENS 828D or FANUC Oi F series CNC system with min 10.4" Colour display package only.</p> <p>The CNC system offered shall have the following features.</p> <ol style="list-style-type: none"> 1. Full Alphanumeric Keyboard and Colour Display (TFT/LCD monitor) of 10.4" or more. 2. MCP and other Operator controls having necessary Push Buttons with Indicating Lamps and Selector / Toggle Switches. 3. PLC configuration having at least 96 Inputs and 64 Outputs with necessary I/O cards. 4. Graphic Machining Simulation of tool paths in part programs. 5. Minimum 3MB user memory along with flash card 1GB or more for program storage. 6. Manual measurement and automatic storage of tool offsets in tool offset memory. 7. All turning operations and to cater all existing machine features. 8. CNC data can be transferred quickly and easily using USB, Compact Flash (CF) card and RJ45 interfaces 	
1.2	<p>Supply of AC servo motors of suitable capacity for X & Z axis with Built-in Encoder & Built-in Brake for both axes.</p> <p>Torque and other ratings shall be equal to or higher than the parameters of the existing servo motors.</p> <p>Any mechanical interfacing arrangement required to match the new motor with the existing mechanical drive system should be included in the offer. The type number / model of the motor selected should be indicated in the offer.</p>	
1.3	<p>Supply of external encoders for X and Z axes Make: Heidenhain/Fanuc/Siemens, PPR: 2500</p>	
1.4	<p>Supply of AC digital servo amplifier modules for X and Z axes. The rating of the drive modules selected should support the selected servo motors. The type number / model of the drive module selected should be indicated in the offer.</p>	
1.5	<p>Supply of AC spindle motor of suitable capacity to replace the existing AC spindle motor.</p> <p>The parameters and ratings of the offered motor shall be equal to or higher than the existing spindle motor and suitable to be interfaced with the CNC system offered.</p> <p>Any mechanical interfacing arrangement required to match the new motor with the existing mechanical drive system should be included in the offer. The type number / model of the motor selected should be indicated in the offer.</p>	
1.6	<p>Supply of external encoder for the spindle. Make: Heidenhain/Fanuc/Siemens, PPR: 1024</p>	
1.7	<p>Supply of latest digital servo amplifier module for spindle. The rating of the drive module selected should support the selected servo motor. The type number / model of the drive module selected should be indicated in the offer.</p>	
1.8	<p>Supply of necessary line filter and reactor units for the drive modules</p>	
1.9	<p>Supply of motor power cable, signal cables of sufficient length with end connectors for axes and spindle.</p>	
1.10	<p>Supply of necessary 24V SMPS units of Siemens/ Fanuc or any other reputed make.</p>	
1.11	<p>Supply of new operating pendant for mounting the new CNC system & keyboard.</p>	

1.12	<p>Supply of new Electrical panel for mounting the drives, power supply units and other switchgears. The panel should have the following features.</p> <ol style="list-style-type: none"> 1. The panel shall be metal enclosed, indoor, floor mounting and free-standing type. The panel shall be free from flaws, dents and undulations. 2. All mating surfaces shall be provided with neoprene gaskets. Panel shall be provided with three point locking arrangement. Hardware used shall be chrome/ nickel - plated. The anti-vibration pad shall be of hard rubber. 3. Panel shall be coated with two coat of anti- rust paint (primer) and two coat of acid alkali resisting epoxy based paint suitable for working in saline and corrosive atmosphere. 4. Removable cable entry shall be provided. 5. The bottom surface of the control panel should be free and no components should be mounted on it. 	
1.13	<p>Supply of air conditioning unit for the Electrical panel and operating panel of sufficient rating. Air conditioner shall be of following makes only.</p> <ol style="list-style-type: none"> i. Advanced cooling System pvt ltd ii. Werner Finley pvt ltd iii. Emmppe Associates iv. Sunbeam v. Rittal 	
1.14	Supply of suitable Hand held unit along with 5 mtr cable and adapter as required.	
1.15	Supply of suitable ratings of MCB, MPCB, contactors, relays, fuses and other control elements for all the auxiliary motors / equipments in the machine.	
1.16	Supply of new limit switches, proximity switches, flow switches etc for the replacement of all old sensors in the machine (for axes, ATC/tool magazine & other functions).	
1.17	Supply of voltage stabilizer and isolation transformer of rating 120 KVA. Makes: NEEL, AEI, POWER AID, DELTA, Servo max (or any other make acceptable to BHEL)	
1.18	Supply of necessary cables, wires, glands, sleeves, ferrules etc for complete rewiring of the machine	
1.19	Supply of new induction motors for replacing all the old motors in the machine.	
1.20	Supply of <ol style="list-style-type: none"> a) Three sets of manuals for the CNC system, servo motors, spindle motor, drives and manuals of bought-out components. b) Three sets of Electrical drawings for entire machine. c) Three sets of CNC parameter list and PLC program d) Three sets of Instruction manual and user alarm description 	
1.21	Supply of tools for maintenance of the machine. <ol style="list-style-type: none"> 1. Digital multi meter (AC/DC 0-600V) - 1 no 2. Clamp meter (AC/DC 0-600A) - 1 no 3. Hand driven analog insulation tester (Insulation Resistance: 0-2000 M ohm, Nominal Test Voltages d.c.: 250 V 500 V 1000 V) - 1 no 4. Electrician tool set 14 piece - 1 set 	
1.22	Any material not specified in scope of supply but required for successful commissioning in the scope of the contractor.	
S.No	Description	Vendor's Remarks / Compliance
2	Mechanical parts/accessories	
2.1	Supply of suitable brackets for mounting the new AC servo motors for axes/spindle.	

2.2	Supply of Hydraulic oil chiller unit of sufficient rating for the machine. Chiller of following makes only acceptable to BHEL i. M/s Advanced cooling System pvt ltd ii. M/s Werner Finley pvt ltd iii. Emmppe Associates, Coimbatore iv. Sunbeam v. Rittal	
2.3	Supply and installation of Centralized lubrication system (including pump, motor and piston distributors) for the guide ways. Vogel/SKF/Cenlub makes only acceptable to BHEL.	
2.4	Supply of new hydraulic valves to replace the old ones. The new valves shall be the same make or equivalent to the existing ones in Rexroth/Vickers Sperry makes only . Any modification required for mounting the valves (including supply of manifolds, if any) to be carried out by the vendor suitably.	
2.5	Supply of pressure switches & Hydraulic accumulator to replace the old ones in the machine. The new pressure switches shall be the same make or equivalent to the existing ones in Rexroth/Vickers Sperry makes only. Hydraulic Accumulator of Rexroth/Vickers/Hydac makes only acceptable to BHEL. Any modification required for mounting the pressure switches (including supply of manifolds, if any) to be carried out by the vendor. Any other pressure switch existing in the machine not included in the list above to be studied by the supplier during their visit to BHEL and to be included in the offer.	
2.6	Supply of Pump and Motor set for head stock circulating lubrication system. Pump Flow: 8.2 lpm (max), Pressure: 5 bar, RPM: 1400	
2.7	Supply of Tool magazine, Gripper assembly: Existing model no of tool gripper: ABGRF 2/125 - Qty required: 2 Nos (Make: Berg)	
2.8	Replacement of all axis guideway wipers for the machine.	
2.9	Supply and installation of chip Conveyor gearbox and motor unit for the existing conveyor. Type: RYY, Ratio: 200:1, Make: Miven Mayfran or Equivalent model in other makes.	
2.10	Supply of Hydraulic fittings equivalent to the existing ones in the machine. Make: Any standard make.	

SECTION B: SCOPE OF WORK

S.No	Description	Vendor's Remarks / Compliance
1	DESIGN & PREPARATION:	
1.1	Preparation of new circuit diagram for complete electrical systems with the new CNC/ Drives/ Motor.	
1.2	Design of brackets for motor for X/Z and spindle if required.	
2	DISMANTLING: Dismantling and removal of all drives, switch gears, CNC, all Relay logic, along with old cabling and wirings, cable trays etc. in the existing Electrical cabinet. Dismantling of feed motors and field devices.	
3	ASSEMBLY:	
3.1	Assembly of servo motors for X, Z and spindle with suitable mounting brackets.	
3.2	Erection and commissioning of the new Electrical Panel and Interfacing the machine control elements like limit switches, pressure switches, level switches, pushbuttons etc, with necessary wiring materials.	
3.3	Erection of the operating pendent and mounting the CNC system on it.	
3.4	Assembly of AC Drives and other switchgears in the new Electrical Panel.	
3.5	Mounting of X-Axis Rotary encoder, Z-Axis Rotary encoder and spindle Encoder.	

3.6	Replacing the limit switches, proximity switches and other sensors in the machine.	
3.7	Replacing the tool gripper unit assembly (ATC) of the machine and other supplied machine elements.	
3.8	Installation of all other supplied materials.	
4	CNC INTERFACING:	
4.1	Interfacing the CNC system, drives, motors, lubrication system and other accessories to establish the complete functioning of the machine.	
4.2	Complete rewiring of the machine to establish all the existing machine functions.	
4.3	Optimizing the drives parameters for X, Z and spindle	
4.4	Establishing the PLC program for the machine.	
5	CALIBRATION, PROVE OUT AND TRIALS.	
5.1	Calibration of X and Z axis for positioning accuracy and repeatability Using Laser interferometer before and after the work.	
5.2	The complete system will be integrated and proved out for performance With a standard test piece and also two regular production components.	
5.3	All the existing machine functions to be proved out.	
6	BACK UP: The back up of PLC program and parameters to be given in CD as well as in flash card compatible with the CNC system.	
7	TRAINING:	
7.1	Training shall be given for 2 Maintenance personels on CNC/ Drives maintenance & for 2 Production personels on Operation and Programming of the CNC at the OEM's works for 5 days.	
7.2	Training to be imparted to BHEL personels on operation, programming and maintenance of the CNC machine at BHEL for 2 days.	
8	GENERAL CONDITIONS:	
8.1	The equipments should be suitable for 415V, 3ph, 50Hz, a.c. supply	
8.2	Parties are advised in their own interest to visit BHEL, Trichy on any working day to inspect and study the machine before submitting their offer.	
8.3	Any other work (electrical, mechanical and electronics) not mentioned in this scope of work to keep the machine in working condition with all features and accuracies are in the scope of the contractor.	
8.4	Material to be used should be of reputed make or as per IS standards.	
8.5	Party shall bring all tools and testing equipment with them during erection and commissioning.	

BHARAT HEAVY ELECTRICALS LIMITED TIRUCHIRAPALLI

CAPITAL PURCHASE

Annexure-A

ACCEPTANCE OF COMMERCIAL TERMS AND CONDITIONS BY THE VENDORS.

(This should be essentially filled in and sent along with the techno-commercial offer without fail. If this check list is not filled and submitted along with techno-commercial offer (Part I) or if the vendor does not confirm acceptance to the terms and conditions proposed, BHEL reserves the right to reject such offer)

CHECK-LIST FOR VENDORS

Sl. No.	DESCRIPTION
1.	<p>The Bidders shall submit their offer in TWO INNER ENVELOPES as indicated below which shall be sealed in one outer envelope.</p> <ul style="list-style-type: none">❖ Envelope I: This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked "Part I - Technical and commercial bid", indicating Enquiry No., Due Date and Address & Reference of the Bidder.❖ Envelope II: This sealed envelope should contain Price Details. This envelope should be clearly marked "Part II - Price Bid", indicating Enquiry No., Due Date and Address & Reference of the Bidder. This part should contain the schedule of price particulars and must be co-related to the technical details provided in Part I. <p>All the two envelopes (Part I&II) shall be put in one cover, duly sealed, super scribing as "Part I and Part II of Enquiry No., Due date of opening" and the address and reference of the Bidder. The offer received without the above guidelines, will not be considered for opening.</p> <p>Offers will be accepted & received till 14.00 Hr. on the due date. Therefore Vendors shall ensure to submit the offers before this time. Late offers will not be considered.</p> <p>The Tenders should be addressed to the following address to The Tender Opening Cell/MM Room No-26 , Building – 24 , Ground Floor Bharat Heavy Electrical Limited Tiruchirapalli - 620014.</p> <p>In case personal delivery of the offer, it shall be dropped into the respective box after duly entering the data in the system kept in Room No 26.</p> <p>Vendors are requested to avoid submission of offers thro email / fax. In case of any unavoidable situation, offers shall be sent thro email to the following mail ID only "tender_cell@bheltry.co.in "</p> <p>As such Tenders are being opened by Common Tender opening Cell , offer covers should be sealed with tender's distinctive seal and super scribed with correct Tender NO, item of supply and due date of Opening</p> <p>Tenders should be free from CORRECTIONS AND ERASURES. Corrections if any, must be attested. All amounts shall be indicated both in words as well as in figures. In case of any difference between amount quoted in words and figures, amount quoted in words shall prevail.</p> <p>Offers should be in ENGLISH and accompanied by detailed technical literature, catalogue and detailed dimensional drawings in ENGLISH or otherwise, the offers will not be considered.</p>
2.	<p>OPENING OF TENDERS</p> <p>The Part I- Technical & commercial bid would be opened on the Tender opening date. The Part II - Price bid of Technically suitable Bidders alone would be opened. The Technically suitable Bidders would be informed about the tender opening date. Clarifications if any required by BHEL for Technical evaluation would be sought from bidders before opening of Part II - price bid.</p>
3.	<p>Taxes and Duties</p> <p>All Taxes and Duties payable as extra to the quoted price should be specifically stated in offers along with CST & TIN No / Tariff No. etc., failing which the purchaser will not be liable for payment of such Taxes and Duties. Our TIN No. 33243560005, TNGST No. 3560005, CST. No. 239383 Dt. 11-06-1991 & BHEL ECC No. AAACB4146PXM012, Service Tax Registration No (STC)- AAACB4146PST006. Assessment circle Tiruverambur.</p>
4.	<p>Special Provisions for Micro and Small Enterprises (MSE)</p> <ol style="list-style-type: none">1. 20% of the tendered quantity is earmarked for MSE suppliers in this tender.2. Out of the 20% tendered quantity reserved for MSE suppliers, 4% shall be earmarked for procurement from MSE owned by SC/ST entrepreneurs.3. In case MSE vendor participating in the tender quotes within the price band of L1+15%, they will be allowed to supply the portion of the requirement subject to acceptance of L1 price by MSE vendor. In case of more than one such MSE, the supply shall be shared proportionately.4. MSE suppliers can avail the intended benefits only if they submit along with offer, attested copies of either EM II (Entrepreneur Memorandum Part II) certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed as per Annexure - C) applicable for the relevant financial year (latest audited), certifying quantum of investment in plant and machinery within the permissible limit as per the act for relevant status (Micro or small) where the deemed validity of EM II is over. Date to be reckoned for determining the deemed validity will be the last date of technical bid submission. Offer/s received without these documents will lead to consideration of their offer at par with other bidders and MSE status of such suppliers shall be shifted to Non MSE supplier.

No row shall be left blank. Please indicate NA, in case the item is "Not Applicable"	Vendor's confirmation
5. Validity: Validity of the offer should be 120 days from the date of tender opening.	
6. Release of Purchase Order: <ul style="list-style-type: none"> ➤ Purchase Orders will be released on successful L1 vendor. ➤ Separate orders for supply & service will be released on the successful L-1 vendor for each line items. (Service order released only in the case of, Installation / erection / commissioning portion are applicable on tender scope & quoted separate charge for same by vendor). 	
7. Payment Terms for supply Portion: a) 80% of payment will be released within 45-90 days after receipt & acceptance of material. b) 20% of payment will be released after completion of successful commissioning of MDW20 CNC slant bed Lathe machine against submission of 10% PBG for a Warrantee period of 18 Months.	
Installation & Commissioning Portion (if applicable only): 100% of the installation / commissioning charges (in case contract involves erection / installation /commissioning) shall be paid only on completion of such erection / commissioning at BHEL, Tiruchirapalli.	
Any deviation in the above payment term will attract loading as mentioned below. "Base rate of SBI (as applicable on the date of bid opening. Techno commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.	
8. Performance Bank Guarantee (PBG): The bidder in the event of an order, should furnish a Bank Guarantee from an Indian Bank approved by BHEL, at no extra cost in a format prescribed by BHEL, along with the order, for an amount equivalent to 10% (Ten percent) of the value of the contract. The PBG shall be valid for a period of 18 months from the date of despatch or 12 months from the date of receipt / acceptance / commissioning of equipment at BHEL, Tiruchirapalli whichever is more, with a claim period of two months. The Performance Bank Guarantee shall be obtained from any one of the following banks which is a member bank in our consortium of Banks: List of Consortium Banks DEUTSCHE BANK, HDFC BANK, ANZ GRINDLAYS BANK, CITI BANK, STANDARD CHARTERED BANK, BANK OF AMERICA, ABN AMRO BANK, IDBI LTD, ICICI BANK LTD, THE HONGKONG & SHANGHAI BANKING CORPORATION LTD. List of Nationalised Banks ALLAHABAD BANK, ANDHRA BANK, BANK OF INDIA, BANK OF BARODA, BANK OF MAHARASTHRA, BHARAT OVERSEAS BANK, CANARA BANK, CENTRAL BANK OF INDIA, CORORATION BANK, DENA BANK, INDIAN BANK, INDIAN OVERSEAS BANK, ORIENTAL BANK OF COMMERCE, PUNJAB NATIONAL BANK, PUNJAB & SINDH BANK, STATE BANK OF INDIA, STATE BANK OF TRAVANCORE, STATE BANK OF MYSORE, STATE BANK OF BIKANER & JAIPUR, STATE BANK OF HYDERABAD, STATE BANK OF PATIALA, STATE BANK OF MAHARASTHRA, STATE BANK OF SOURASTHRA (SBI-13.09.08), SYNDICATE BANK, UCO BANK, UNION BANK OF INDIA, UNITED BANK INDIA, VIJAYA BANK. <u>If PBG is issued by foreign counter part of the BHEL consortium Indian Bank, in case of claim against the PBG, it will be lodge in any one of the Indian counters of the Foreign Bank which issued the PBG.</u>	
9. Liquidated Damages (LD): The delivery of the goods specified in the purchase order should be made within the time prescribed. LD for delay in 'Supply' and/or 'E&C' will be applicable to the delays attributed to vendor. LD will be considered separately for 'Delivery' and 'E&C'. Where the seller supplies or dispatches the goods, beyond the delivery period Liquidated damages shall be applicable 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value. Detail of LD mode are shown below Single Delivery Date (Material Dispatched after Due date) Once the delivery due date is crossed, bills have to be clubbed till final despatch and forwarded for processing of payment as a single bunch. LD percentage will be calculated from Delivery due date to final despatch date. (100% Order should be completed for processing the bill) Staggered Delivery LD shall be 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of the total order value. PO Pending value (each Bill Value) up to Max 10 % of Total PO value) <i>Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).For the purpose of Imposing LD, the FOB delivery (B/L date) shall be considered. Bidder should indicate the LD mode (single delivery or staggered delivery) on the confirmation column, otherwise single delivery date will be considered for further evaluation</i>	
10. Risk Purchase: Alternatively the purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or despatch within the time stipulated as aforesaid or if the same were not available from the best and the nearest available substitute. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.	
11. Delivery Terms and evaluation process: Indian Bidders should submit their offer for FOR-BHEL, Tiruchirapalli basis . Packing & Forwarding and Freight & Insurance charges from works to BHEL, Tiruchirapalli to be indicated separately if extra from basic rate. Applicable % of ED & Sales Tax, Commissioning Charges should be clearly indicated. Evaluation of offers shall be on the basis of delivered cost (Net cash outflow to BHEL-Trichy).	

12.	<p>Guarantee: Vendors shall provide a guarantee for a period of 12 months from the date of commissioning of the equipment or 18 months from date of supply, whichever is earlier. The date of B/L or AWB shall be taken as the date of supply. <u>Offers from vendors not accepting the requested guarantee period will be rejected.</u></p>	
13.	<p>Short shipment / Warranty replacement: In case of any short shipment in the main equipment / spares, customs duty levied on such supplies, shall be borne by the supplier. Any warranty replacement during the warranty period shall be on FOR-BHEL, Tiruchirappalli basis.</p>	
14.	<p>Inspection & Testing: All goods shall be subject to inspection by BHEL or its authorized representatives at supplier's works or at BHEL stores or at any other place in India indicated by BHEL as the case may be. The supplier will not charge for the facilities provided for inspection of goods. In case of machine tools, the machine would be inspected and proved at supplier's works prior to dispatch however, final inspection and acceptance of the machine will be carried after installation of the machine at BHEL, Tiruchirappalli.</p>	
15.	<p>Test certificates / Operating and Maintenance manuals : The Bidders shall clearly mention in their offer, that Test Certificates and Operating Maintenance Manuals, etc., as called for in the Technical Specification, in the required number of copies will be provided at no extra cost</p>	
16.	<p>Payment through Bank is not preferred. In case of Payment through Bank is opted by Supplier, BHEL prefers documents submission through bank with copy of LR and door delivery of Goods to Site/Stores with Consignee copy attached. In this case Loading will be 3% on the offered value. Offers of indigenous Suppliers with payment terms as LC/Advance Payment are liable for rejection.</p>	
17.	<p>BHEL will consider the ranking after the loading is applied as referred above wherever deviations are observed.</p>	
18.	<p>Reverse Auction (RA): BHEL reserve the right to conduct on-line internet Reverse Auction i.e. ONLINE BIDDING (THROUGH A SERVICE PROVIDER) for finalising the tender. This decision will be communicated to the techno-commercially qualified vendors after evaluation. Details / General terms / guidelines for conduct of RA are shown below: Vendors are requested to confirm their acceptance for BHEL proceeding with RA route for finalisation of the enquiry.</p> <ol style="list-style-type: none"> 1. Technically and Commercially acceptable Bidders shall only be eligible to participate in the Reverse Auction. 2. BHEL shall engage the services of a Service Provider, who shall extend all necessary training and assistance before commencement of ON-LINE-BIDDING through Internet, at NO extra-cost to the Bidders. 3. Eligible Bidders shall be informed in writing, about the details of Service Provider, to enable Vendors to contact the Service Provider and get trained. 4. Event Date, Time, Start Price, Bid Decrement, Time-Extensions, etc. shall also be communicated through the Service Provider for compliance by Bidders. 5. Vendors have to FAX the Compliance Form (Annexure-IV), before start of RA. Without furnishing the above Compliance Form, Bidders shall not be eligible to participate in the RA. 6. BHEL shall provide the calculation sheet through the Service Provider, which shall be helpful to arrive at "TOTAL COST to BHEL", like Packing and Forwarding Charges, Taxes and Duties, Freight Charges, Insurance, Service Tax and other loading factors (for non-compliance to BHEL Standard Commercial Terms and Conditions), for each of the Bidder, to enable them to fill in the price and keep it ready for inputting data during the RA. 7. RA shall be conducted on a pre-determined Date and Time. 8. At the end of RA, the lowest Bid Value will be known on the Network. 9. Lowest Bidder has to FAX the Prescribed Format, duly filled in and signed in, as provided, on a case-to-case basis, to the Service Provider, within 24 Hours of RA without fail. 10. Any variation between the ON-LINE Bid Value and the signed document will be considered as unethical the Tender process and will invite disqualification of Bidder, for further business dealings with BHEL as per the prevailing procedure. 11. In case BHEL decides not to go for Reverse Auction procedure for this tender, the Price Bids & Price Impacts, if any, already submitted & available with BHEL shall be opened as per BHEL's standard practice. 12. BHEL reserves the right to negotiate if need be, with the L-1 vendor of the RA. 13. <u>BHEL reserves the right not to consider offers from vendors not complying with the RA process for finalisation of the enquiry.</u> 14. If the Bidder or any of his representatives are found to be involved in Price manipulation / cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines shall be initiated by BHEL and results of the RA scrapped / aborted. 15. In case BHEL decided to go for Reverse auction, the H-1 bidder(s) (whose quote is highest in the online sealed bid) may not be allowed to participate in further Reverse Auction. 	
19.	<p>ARBITRATION: All disputes or differences whatsoever which may arise at any time during execution of the Contract shall be mutually settled by BHEL and Contractor as per provision of the Contract. However, in the event such disputes cannot be settled mutually, such disputes shall be settled as per the Arbitration and reconciliation Act, 1996 of the Govt. of India and it's subsequent amendments. In case of disputes with the Central PSUs, the same shall be settled at Tiruchirappalli as per the Guidelines of the Govt. of India. However, during the period such disputes are settled either by mutual discussions between the parties or by legal means, Contractor shall continue to do the work as per terms & conditions of Contract.</p>	

20.	<ul style="list-style-type: none"> ➤ Point to point confirmation for the Technical Specification enclosed to be provided. If there are any deviations, the same should be clearly specified. Offers received without confirmation to our specifications will be liable for rejection. If needed additional sheets shall be used. ➤ Equipment offered shall be "New". Re-built / Re-conditioned / Used equipment's will not be accepted. Incomplete offers will not be considered for further processing Fixed price: ➤ BHEL reserves its right to reject a tender due to unsatisfactory past performance in the execution of a contract at any of BHEL projects / units. ➤ BHEL shall be at liberty to reject or accept any tender, part or in full, at their own discretion and any such action is not liable for any question or claim against BHEL. ➤ The vendor shall provide necessary drawings, Test Certificates and Operating Maintenance Manuals etc., as called for in the Technical Specification, in the required number of copies at no extra cost ➤ The Supplier shall arrange for securely protecting and packing the stores to avoid loss or damages during transit. 																					
21.	<p>Company Details & Contact</p> <p>Full Address of the company for future correspondence / placing order. (Copy of address proof & PAN card shall be attached along with Part-I)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:35%;">Company Email ID:</td> <td style="width:35%;"></td> <td style="width:15%;">Phone No.:</td> <td style="width:15%;"></td> </tr> <tr> <td>Fax No</td> <td></td> <td>Pan No with copy</td> <td></td> </tr> <tr> <td>CST /TIN No</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Name of the contact person:</td> <td></td> <td>Mobile No.:</td> <td></td> </tr> <tr> <td>e-mail ID</td> <td></td> <td></td> <td></td> </tr> </table>	Company Email ID:		Phone No.:		Fax No		Pan No with copy		CST /TIN No				Name of the contact person:		Mobile No.:		e-mail ID				
Company Email ID:		Phone No.:																				
Fax No		Pan No with copy																				
CST /TIN No																						
Name of the contact person:		Mobile No.:																				
e-mail ID																						
22.	TO BE CONFIRMED BY VENDOR																					
	Country of origin:																					
	Station of dispatch / Port Of Shipment																					
	Delivery Terms (FOR Destination / Ex-works)																					
	Packing & Forwarding Charges in % or Lump sum, if extra from basic rate																					
	% of Excise Duty with cess																					
	% of TAX (CST / VAT) (TNGST with FORM-17 or CST with C-FORM)																					
	(If applicable only) Installation & Commissioning charge is inclusive (or) exclusive on basic rate.																					
	Service Tax extra or Not																					
	Freight & Transit insurance charges (if any, in Lump sum (or) percentage) from Dispatching station to BHEL Tiruchirappalli.																					
23.	<p>DELIVERY SCHEDULE:</p> <p>Supply Portion: Delivery schedule from the date of Letter of Intent / Purchase Order. (This should be inclusive of Order acceptance, drawing approval and time period required for receiving goods at BHEL Trichy etc.</p> <p>Time period required for Installation / Erection & Commissioning from date of site clearance given by BHEL, Trichy.</p>																					
24.	<p>Weight & Cubage of package:</p> <p>Approximate Net weight of the total consignment:</p> <p>Approximate Gross weight of the total consignment:</p> <p>Approximate volume of the total consignment:</p>																					
<p>For any queries / clarifications the bidders may contact us through our FAX NO. +91 431 2520719 or through e-mail <peterri@bheltry.co.in></p>																						

NOTE:-

- a) Your specific acceptances to our Payment terms, LD, Risk Purchase Clause are essential for consideration of your offer. Otherwise your offer is liable for rejection.
- b) No row shall be left blank. Please indicate NA, in case the item is "Not Applicable"

Declaration:-

We have gone through and understood the 'General guidelines & instructions to bidders for submitting offer' enclosed as a part of the Tender and confirm that our offer has been made in line with the same.

(AFFIX OFFICIAL SEAL HERE)

Signature with date:

Name:
Designation:
Department:

(Please Affix Your Signature with Seal on Each Page)

Annexure-B**Bharat Heavy Electricals Limited TIRUCHIRAPPALLI/CAPITAL PURCHASE****MODEL PRICE BID FORMAT FOR INDIAN BIDDERS**

Enquiry No. & Date:

Bidder's Offer No. & Date:

Sl. No.	Description of item	Unit (Set / No.)	QTY	Basic Rate / Qty. in Rs. (excluding all Taxes)	ED in %	VAT / CST in % (TNGST with FORM-17 or CST with C-Form)	Service Tax in %	Total Value in Rs. (Including all taxes & duties)
10	Supply Portion							
20	Installation & Commissioning Charges for Sl. No: 10 (if available in tender scope & exclusive from basic rate for supply portion)							
	Packing & Forwarding charges (if any) in percentage (or) Lamp sum							
	FOR Dispatching station value in Rs.							
	Percentage of Freight & transit insurance charges, if any (Lump sum or %) Freight & Insurance charges from Dispatching station to BHEL, Tiruchirapalli							
	Approximate Net weight of the total consignment							
	Approximate Gross weight of the total consignment							
	Approximate Dimensions of the Consignment							

Signature & Seal of Vendor

The price bid should be submitted only as per the above format. No row shall be left blank. Please indicate NA, in case the item is "Not Applicable".

Bharat Heavy Electricals Limited TIRUCHIRAPPALLI/CAPITAL PURCHASE

CERTIFICATE BY CHARTERED ACCOUNTANT

This is to Certify that M/s., hereinafter referred to as 'company') having its registered office at is registered under MSMED Act 2006, Entrepreneur Memorandum No (Part - II) dtd:....., Category :.....(Micro / Small)). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as on date as per MSMED Act 2006 is as follows:

1. For Manufacturing Enterprises: Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No.5.0.1722(E) dated October 5, 2006:

Rs.....Lacs

2. For Service Enterprises: Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006:

Rs.....Lacs

The above investment of Rs..... Lacs is within permissible limit of Rs.....Lacs for Micro / Small (Strike off which is not applicable) Category under MSMED Act 2006.

Date:

(Signature)

Name -

Membership Number -

Seal of Chartered Accountant