



BHARAT HEAVY ELECTRICALS LIMITED
RAMACHANDRAPURAM :: HYDERABAD – 502032
M & S, F & P, CW, PULV. DIVISION
10-REPAIR SHOP, AIR-CONDITIONING

Phone No.: 040--23182769 Fax No.: 040–23020185 email : gvk@bhelhyd.co.in

TENDER NOTICE NO. HY/M&S/10-RS/RC/10-11/FP 16/0415/1 Date : 15-04-2010

Tender in two parts (Techno-commercial & Price Bid) will be received by the undersigned in sealed cover from the contractors satisfying the prequalification requirements. The following should be legibly written on the cover -- tender notice number, tender date, name of the work, due date of opening, techno commercial bid or price bid on top of cover. Tenders will be opened at 13.30 hrs on the due date in the presence of bidders or their authorized representatives in BHEL, Ramachandrapuram, Hyderabad.

1. Name of work : Reconditioning & Retrofitting of Plano Milling Machine
FP-16 (01- 1415) as per scope of work, terms & conditions enclosed
2. Earnest Money Deposit : Rs. 1,50,000/-
3. Estimated Cost : Rs 66.38 Lakhs (excluding taxes, duties & jt.inspn.spares)
4. Cost of tender documents : NIL
(non-refundable)
5. Tender sale starts from : Not applicable
6. Tender sale closes on : Not applicable
7. Last date of receipt of tenders: 06.05.2010 upto 11.00 Hrs.
8. Date and time of opening of tenders: 06.05.2010, 15.00 Hrs.
(techno-commercial bid only)

Name & Address of the firm :

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TENDERERS ARE REQUESTED TO SIGN AND PUT SEAL ON ALL PAGES OF TENDER DOCUMENT AND SUBMIT.

for BHARAT HEAVY ELECTRICAS LIMITED

(G.VIJAYA KUMAR)

Dy. MANAGER (M&S)10 RS,AC

EMD Payment : An amount of Rs.1,50,000/- (Rupees One lakh fifty thousands only) towards EMD shall be Deposited in cash at BHEL Cash office or by way of Demand Draft / Bankers cheque drawn in the name of M/S Bharat Heavy Electricals Limited payable at Hyderabad and shall be enclosed to the tender bid. No other means of payment will be accepted, no interest on EMD will be payable.

Cash office timings: 09.30 AM to 11.30 AM & 1.30 PM to 3.30 PM

TENDERING PROCEDURE

Tenders may be dropped before the due date & Time in the M&S Tender box kept in 02-Annexe (Ground floor), M&S (P&C Section) of BHEL, R.C.Puram, Hyderabad – 502 032

The bids shall be submitted in two parts.

1. Techno-commercial bid.
2. Price Bid

1. Techno-commercial Bid : The envelop shall contain the Techno-commercial Bid as per the enclosed technical bid pro-forma with relevant documents like copies of ESI, PF code, PAN No., Service Tax Regn. No., TIN No., CST No., Experience, turnover, (IT Returns along with Profit & Loss account copies duly certified by chartered accountant for the 3 previous years to meet turnover point) and **EMD**. The envelop shall be super scribed “Techno-commercial bid --- --- (name of work)”.

2. The second envelope shall contain only the price bid to be quoted. Any other information in the price bid shall not be considered and the quotation is likely to be rejected. Price bid document shall be signed by the bidder at the bottom of the page. The envelope shall be sealed and super scribed “Price Bid ----- (name of work)”.

Both the above two envelopes shall be kept in another sealed cover. The cover shall be super-scribed with “Quotation for ----- (name of work)” and shall be addressed to Sri G.Vijaya Kumar, Dy.Manager (M&S) / 10-Repair Shop, Bharat Heavy Electricals Limited, Ramachandrapuram, Hyderabad – 502032 to reach at or before 11.00 hrs on the due date and it should also contain Bidder address, Tender No. & due date.

Tender documents may be downloaded from BHEL website : <http://www.bhel.com>. BHEL is not responsible for any postal delay. The bids will be opened in BHEL R.C.Puram Hyderabad- 32 on tender due date at 15.00 hrs in presence of those bidders who choose to be present.

Date of Reverse Auction for price finalisation will be intimated after techno-commercial suitability.

The technical bid consists of technical schedule requiring documentary proof. In case the party has not satisfied all the conditions along with documentary proof, the bid will be rejected.

Bids received mixed with both technical & Price bid documents without individual envelop will be rejected.

BHARAT HEAVY ELECTRICAS LIMITED
RAMACHANDRAPURAM :: HYDERABAD-502 032
M & S, F & P, CW, PULV. DIVISION
10-REPAIR SHOP, AIR-CONDITIONING

TECHNO- COMMERCIAL BID

Tender Notice No : HY/M&S/10-RS/RC/10-11/FP 16/0415/1 dt.15-04-2010

NAME OF THE WORK : Reconditioning & Retrofitting of Plano Milling Machine (01-1415)
as per scope of work, terms & conditions enclosed

THIS IS AN INDIVISIBLE WORKS CONTRACT AND THE CONTRACTOR SHALL FILL REMARKS COLUMN AGAINST ALL ITEMS.

This tender schedule must be submitted along with the General Conditions, Special conditions etc. enclosed herewith duly signed and stamped on each page with bidder's covering letter. Quotations should be TYPED on tender schedules only. Any deviations / deletions should be brought out separately on bidder's letter pad and enclosed to the bid documents.

FP 16 Double column Plano milling machine (01-1415)

A) General data of machine:

Kind of machine		Double column milling machine
Type of machine		FP 16
Maker		ZPS, Hulin, Czechoslovakia
Floor Space Required	mm	4488x7400
Height of machine	mm	3800
Total net weight	kg	39,000

B) Specification:

Table

Clamping surface of table width length	mm	1250x3000
Clamping T slots number 7length of bed	mm	3200
Range of infinitely variable table feeds	mm/min	25-750
Rapid traverse of table	mm/min	4000
Max per permissible load of table	Kg	8000

Headstocks

Spindle taper	steep 50		
Dia of spindle sleeve		mm	220
Axial displacement of spindle sleeve		mm	250
Number of spindle	speeds 19		
Number of feeds of horizontal and vertical headstock	8		
Range of feeds		mm/min	20-500
Rapid traverse of horizontal and vertical headstock		mm/min	1000
Vertical displacement of cross rail		mm/min	1000

Main dimensions of machine:

Distance between columns		mm	1660
Distance between Clamping surface of table and bed bottom		mm	850
Distance between Clamping surface of table and face of vertical spindle		mm	100-1250
Distance between Clamping surface of table Horizontal spindle axes		mm	90-950
Distance between Both horizontal spindles		mm	900-1400
Distance between both horizontal head stocks		mm	1520
Min distance between axes of vertical spindles		mm	410
Head stock electric motor with 40 p.c. load factor /4 pieces	KW 5/13.5,	speed rpm	1400/2800

Ward- Leonard set for table displacement output KW 1-15 /speed rpm 50-1500
(Original, now it is changed to DC drive)

Electric motor for head stock displacement output KW 4/ speed rpm 1500

Electric motor for cross rail displacement output KW 7.5/ speed rpm 1500

Electric motor for locking the cross rail output KW 1.1/ speed rpm 1380

C) Technical specifications for milling Unit

Taper in spindle	Steep/ISA/50		
Diameter of spindle in front bearing		mm	110
Axial adjustability of the spindle quill		mm	250
Number of spindle speeds			19
Range of spindle speeds	rpm		14-900
Motor/change – speed	KW		5-13.5

Scope of Work in brief :

Dismantling of the machine at BHEL works, transportation of sub-assemblies (by BHEL) to contractor works, reconditioning of machine (mechanical, electrical and electronics), replacement of existing table motor and drive with suitable Siemens/FANUC/ABB/Indramat make AC Servo motor and drive, providing Heidenhain/Elektronika/Sony/Givi make DRO with magnetic scales for Horizontal movement of both Vertical heads, repair of left side vertical and horizontal heads with all new components (Castings only available), provision of Centralised lubrication system for all four heads, painting, prove-out of geometrical and job accuracies at Contractor works, dismantling into sub-assemblies, transporting to BHEL works (by BHEL), erection & commissioning & prove-out of geometrical and job accuracies and handing over the proved out machine to Production at BHEL Works by the contractor.

The following are to be filled up by the Bidder:

1	Name of the Contractor :	
2	Full Address	

3	Name of contact person	
4	Phone No. / Fax No.	
5	E-mail Id.	
6	Mobile no.	
7	PF CODE NO	
8	ESI CODE NO	
9	PAN No.	
10	Service tax regn. no.	
11	TIN No.	
12	CST No.	
13	Validity : 90 days from techno-commercial bid opening date.	
14	EMD : Rs.1,50,000/-, Cash receipt / bankers cheque details	
15	Security Deposit clause : acceptance (See terms and conditions for details)	
16	Taxes and duties : mention whether included and firm during contract period OR extra as applicable	
17	Payment Terms: Progressive payments as mentioned in the scope of work enclosed for the work completed successfully in all respects.	

PRE-QUALIFICATION REQUIREMENTS (Proofs to be enclosed for verification) :

All the following conditions are to be satisfied by the bidder. **Documentary proof** is to be enclosed with techno-commercial bid satisfying all these conditions. **In case the bidder fails to enclose the same his offer will be rejected.**

<u>S.No</u>	<u>Requirement</u>	<u>Contractor's Response</u>
<u>1</u>	1. The party must be a reputed Machine tool Builder / Reconditioner of Medium / heavy / super heavy Conventional / CNC machine tools with at least 3 years experience in the last 5 years (from 01.04.2005) in this field Dates of Purchase Orders and corresponding completion Certificates should fall in this period only. OFFERS WITHOUT THESE DOCUMENTS SHALL BE REJECTED. List of the customers along with respective contracting officer's addresses (including phone no. and e-mail Id) for whom machines were built / reconditioned shall be enclosed to the offer.	
<u>2A</u>	Average Annual financial turnover during the last 3 years, ending 31 st March 2009 should be at least 80% of estimated cost i.e. Rs.59.54 Lakhs (Balance sheet / P & L statements duly certified by Chartered Accountant should be enclosed).	
<u>2B</u>	Contractor shall be profit making for the last 3 years.	
<u>3</u>	Latest Banker's Solvency (not older than six months from date of tender notice) for an amount of Rs.20.0 lakhs from any nationalized / scheduled bank.	
<u>4</u>	Experience of having successfully completed similar works during last 5 years ending 31.03.2010 should be either of the following (Dates of Purchase Orders and corresponding completion dates should fall in this period only) :-	

	<p>a) Three similar completed works costing not less than the amount each equal to 40% of the estimated cost i.e. Rs.29.77 lakhs each. Or</p> <p>b) Two similar completed works costing not less than the amount each equal to 60% of the estimated cost i.e. Rs.44.66 lakhs each . Or</p> <p>c) One similar completed work costing not less than the amount equal to 80% of the estimated cost i.e. Rs.59.54 lakhs.</p> <p>Similar works definition : Manufacture / Reconditioning of Medium / Heavy / super heavy Conventional / CNC machine tools like</p> <ol style="list-style-type: none"> 1) Lathes of Job weight of 20 Tons / Bed lengths of 5 m 2) Horizontal Borers of Minimum Spindle Diameter 130 mm 3) Vertical Borers of table diameter 2500 mm 4) Multi Spindle Plano Milling machines with each spindle motor rating of 15 HP and Minimum table length of 2 m. 	
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DETAILED SCOPE OF WORK :

Sn.	Description of work / Activity	Contractor remarks Agreed/Not agreed
A.	<u>MECHANICAL :</u>	
1.	Noting condition of the machine including vibration / noise; and measurement & recording of geometrical accuracies as per manufacturer's charts before dismantling at BHEL by the contractor with his personnel and measuring instruments.	
2.	Removing the machine from foundation at BHEL works, dismantling into transportable lots and minimum packing required for transportation. The necessary personnel and tools are in contractor's scope. Transportation and transit insurance both ways in BHEL scope and cost.	
3.	Unpacking the transported parts at Contractor works, complete dismantling of machine assemblies into individual parts, degreasing, chemically cleaning; pre-painting of structural parts, joint inspection to finalise the detailed list of 1) spares to be bought out, 2) spares to be manufactured. The list has got to be approved by BHEL. Drawings of manufacturing spares and specifications for bought-out items shall be prepared and submitted to BHEL for approval. BHEL may procure and supply these items to the Contractor from any other sources as well.	
4.	Slide-ways have to be ground (like columns, bed, cross rail etc.) and blue-matched. Pasting of Turcite-B antifriction bearing material on ALL slides, wherever required. Deep scratches are observed on Column guide ways.	
5.	Scraping of all sliding parts like gibs, wedges, guide plates etc. including final and alignment scraping.	
6.	Spindles have to be lapped on bearing surfaces, if required.	
7.	Replacement of all bearings (SKF / FAG make only).	
8.	Checking and pre-loading of spindle bearings	

Sn.	Description of work / Activity	Contractor remarks Agreed/Not agreed
9.	Replacement of complete worn out gears with new ones with I.S. standards and specified quality materials complying with the original manufacturer's specified tolerances.	
10.	Replacement of lead screws and box nuts for all four heads and cross rail movement. One set of spare box nuts (with allowance) to be supplied.	
11.	Left side vertical and side heads to be repaired with all components like gears, shafts, quills & spindles etc. parts for full functioning of the heads (Castings are only available for both heads).	
12.	Checking and overhauling of all gear boxes. Heavy noise is observed in all gearboxes, to be rectified.	
13.	Gear shift failure of right vertical head, to be rectified.	
14.	Presently spindle quill in all the heads has rack on the quill itself. This is to be modified to separate rack fixed firmly on the quill in all four heads.	
15.	Rapid/feed selection of Table is not working. Presently, this selection is by electromagnet. This is to be modified to Hydraulic.	
16.	Table rapid not working, to be rectified.	
17.	Clutch plates for feed gear box to be replaced. One spare set of clutch plates to be supplied extra.	
18.	Checking and setting of cross rail clamping units	
19.	Replacement of all seals, O-rings, wipers and rubber Packings.	
20.	Automatic centralized lubrication system (reputed make) to be provided for all four heads separately. One spare pump shall be supplied extra.	
21.	Gear box lubrication pumps to be replaced with new ones (reputed make). One spare pump shall be supplied extra.	
22.	Table bed lubrication system to be replaced.	
23.	During milling operation, steps are formed on the job, to be rectified	
24.	Spindle of right vertical head coming down while taking milling cut, to be rectified.	
25.	While taking heavy milling cut, Right vertical head is tilting, to be rectified.	
26.	Complete new Coolant system is to be provided in place of existing one.	
27.	Counter weight rope to be replaced.	
28.	All levers and handles shall be Nickel-plated.	
29.	Dials, name plates, instruction plates shall be replaced with new ones. One plate with machine specifications in full, name & address of reconditioning party, year of reconditioning etc. should be riveted on top of the column surface.	
30.	Oiling points with periodicity, type of oil to be used shall be indicated on the machine.	
31.	Missing covering plates to be provided.	
32.	Any modifications carried out shall not sacrifice original traverses, speed and feed ranges	
33.	General assembly of machine.	
34.	PAINTING : Machine outside body shall be painted with two coats of Apcolite (Asian paints) Premium enamel opline green colour paint. Interior of the machine is to be painted with two coats of red enamel paint. Wherever oil comes in contact with interior of the body, oil resistant paint to be used. Letters, numerals etc. will have to be painted with a different colour as required / as indicated by BHEL at the time of final painting. For electrical panel boxes inside area is to be painted with two coats of white enamel paint. Painting should be carried out according to the standard procedure for painting including cleaning and removing old paint, applying metal primer putty etc. Good	

Sn.	Description of work / Activity	Contractor remarks Agreed/Not agreed
	finish should be ensured. Overall Machine aesthetic view should be taken care of.	
B.	<p>PROVE OUT OF RECONDITIONED & RETROFITTED MACHINE AT CONTRACTOR WORKS :</p> <p>This has to be carried out at Contractor Works as mentioned in Columns 'F1 to F3' below.</p>	
1.	Dismantling of machine after satisfactory final inspection; minimum packing required for transportation and dispatch by BHEL approved transporter, by Contractor.	
C.	<p>RE-ERECTION & RE-COMMISSIONING AT BHEL WORKS:</p> <p>a) The complete machine is to be re-assembled, re-erected and re-commissioned at BHEL works by the Contractor.</p> <p>b) The reconditioned & retrofitted machine shall be proved out at BHEL Works as mentioned in Columns 'F1 to F3' below.</p>	
D.	ELECTRICAL & ELECTRONICS :	
1.	Dismounting of existing table motor and drive, motors of all four heads, cross rail movement/clamping motors, feed motors, lub. motors and dismantling of electrical panels, operator panel, all the interconnected cables and complete wiring on the machine.	
2.	<p>TABLE FEED DRIVE :</p> <p>Existing DC motor ratings : (without Brake) MEZ VSETIN Power : 15KW Base speed :700RPM, Max. speed : 1500RPM Volts(Armature) : 230 V, 76 Amps Excitation voltage : 220vDC, Excitation current : 2.2/0.8amps</p> <p>Existing DC Digital Drive for the above motor : Siemens make Simoreg DC Digital drive 6RA7028-6DV62-0</p> <p>The Above combination of DC Motor and DC Drive are to be replaced with Siemens/FANUC/ABB/Indramat make AC Drive with AC motor (variable speed) with required Hardware, software, cables and accessories etc.</p>	
3.	<p>Provision of Heidenhain/Sony/Givi/Amo make DRO and suitable linear magnetic scales (with the following specifications) including cables for horizontal movement of both vertical heads.</p> <p>DRO :</p> <ol style="list-style-type: none"> 1) Counter should have two axes display. 2) Each axis to have 7 digit display with mode indicator 3) Counter should have provision for setting/display of three, two and one positions after decimal point. 4) Displayed digit's should be either in green or red in colour, be crystal clear and visible from a distance. 5) Counting direction should be indicated with + or - sign as the case may be. 6) In case of power failure, the last output should be stored in Non volatile memory. 	

Sn.	Description of work / Activity	Contractor remarks Agreed/Not agreed
	<p>7) The last stored value to be recalled by simple key operation.</p> <p>8. Provision for:</p> <p>i) Selection of absolute / increment value. ii) Selection of inch / metric conversion. iii) Selection of radius / diameter display. iv) Inversion of counting direction. v) Zeroing/reset of counter. vi) Multiplication / calibration factor. vii) Preset of desired value. viii) Backlash compensation.</p> <p>9. Counter should have provision to display alarms like :</p> <p>i) Auto / Manual test of counter. ii) Power interrupts. iii) Maximum response speed exceeded. iv) Scale disconnected. v) Transducer dirty. vi) Transducer fault.</p> <p>10. Operating voltage for counters should be 220V+/-10% V AC, 50 Hz, and SMPS power supply.</p> <p>11. Operating temperature of display counters shall be from 10° to 45° centigrade.</p> <p>12. Protection clause for display counters to be IP 67 for key board and IP 54 for back panel.</p> <p>13. DRO should support Transducer input of 5V TTL signal.</p> <p>Scales :</p> <p>1. Scales should have a resolution of 5 microns and accuracy of 10 microns per meter stable under operating temperatures from 10° to 45° C.</p> <p>2. The output signals should be differential TTL signal only (i.e., both signal and its complement).</p> <p>3. The scales should operate on +5V, +/-5% DC voltage.</p> <p>4. The degree of protection to be offered for scales should conform to IP54 clause.</p>	
4.	Design, manufacturing and mounting of brackets, couplings etc. to mount the table drive AC motor.	
5.	Design, manufacturing and mounting of brackets and fixtures to mount and align DRO and magnetic scales for horizontal movement of both vertical heads.	
6.	Design, manufacturing and mounting of suitable protective guards to protect all the feed back devices and motors.	
7.	Mounting the new table drive / motor.	
8.	Motors other than the replaced ones are to be serviced, if necessary they are to be rewound and bearings to be replaced with new ones. Insulation values to be improved. Terminal blocks to be replaced. All motors to be tested on no-load; and resistance values, insulation values, currents and voltages to be recorded.	

Sn.	Description of work / Activity	Contractor remarks Agreed/Not agreed
9.	Providing and mounting suitable new motors for left side vertical and side heads.	
10.	Replacement of Forward/Reverse/speed selection rotary switches of all four heads with new ones of reputed make.	
11.	Installation of new electrical control panels (stand alone type) and operator panels of Rittal make for mounting of switchgear and drive with IP65 degree protection.	
12.	All Electrics have to be replaced, which includes switch gear, terminals complete and new wiring. The LT Switch gear should be of SIEMENS make and rotary / program switches should be of Jyothi / Salzer make. Other electrics should be of standard make approved by BHEL.	
13.	All fuses and overload relays to be replaced with SIEMENS make motor protection circuit breakers. Necessary modification to be done in the circuit.	
14.	Complete replacement of electrical wiring of the machine i.e. between electrical panel, pendent, table drive, motors etc. All cables other than in-coming are in the scope of contractor.	
15.	Interfacing of the magnetic scales.	
16.	All the feedback cables i.e. for scales etc. shall be armoured high quality and shielded with double insulation and be provided with flexible oil resistant non-metallic conduits of reputed make.	
17.	All the indicating instruments shall be replaced with new equivalents.	
18.	Energy meter shall be provided to indicate and record total consumption of electric power for the machine including auxiliary systems.	
19.	Air Conditioning unit of RITTAL / WERNER FENLY make shall be provided for electrical panel (separately mounted).	
20.	Replacement of all limit switches with new equivalents.	
21.	Replacement of pendant hose & PVC flexible conduits with end fittings	
22.	Replacement of machine lamp unit with bulbs.	
23.	All equipment must be suitable to run with input voltage of 3 wire, 3-phase, 415 V \pm 10%, 50 Hz \pm 2 Hz.	
24.	All equipment shall be tropicalised and suitable for operation in shop condition, where temperature variation is between 10° to 45° C.	
25.	Earthing to be complied with as per IS for the complete machine. Double earthing to be provided for machine bed.	
26.	Each panel and the equipment mounted on each panel shall be securely connected to the earth bus. For this purpose, the earth wire shall be looped from equipment to equipment and both the ends of the earth wire shall be connected to the earth bus.	
27.	All non-current carrying metallic parts shall be earthed. All doors and movable parts shall be connected to the earth bus with flexible copper connections.	
E.	<u>SCOPE OF DOCUMENTATION:</u>	
1.	Operation, Description, connection, parameter, Maintenance & Diagnosis, Interface and Commissioning manuals for table drive--- 3 copies	
2.	Catalogues, data sheets and manuals for operation and maintenance of	

Sn.	Description of work / Activity	Contractor remarks Agreed/Not agreed
	DRO and Scales --- 3 copies	
3.	Detailed electrical circuit diagrams of control panels and pendant panels, machine wiring drawings along with location of components on machine --- 3 copies	
4.	Detailed component assembly drawings for modified portions -- 3 copies	
5.	Detailed lubrication, hydraulic and Mechanical drawings along with location of various components (lay out) – 3 copies	
6.	Catalogues of ALL bought-out items --- 3 copies	
7.	One set of above documentation (items 1 to 6) in CD form.	
F	<u>PROVE OUT OF RECONDITIONED MACHINE :</u>	
1.	The machine should be brought back to 100% of the original geometrical and job accuracies as specified by the manufacturer in the Test chart and the same to be recorded.	
2.	Two sample work pieces have to be machined to check the accuracy of the job from rebuilt machine. All these tests should be witnessed by BHEL representatives and certified.	
3.	The Contractor has to prove out all features / functions and demonstrate working of the machine to the satisfaction of BHEL and also functioning of all mechanical elements on the machine	
G.	<u>SPECIAL CONDITIONS :</u>	
1.	REVERSE AUCTION (NO TIES) : Reverse auction will be conducted on-line by BHEL authorised service provider among techno-commercially qualified bidders to arrive at optimum price bid. Information can be had from BHEL. Offers from contractors accepting for reverse auction only will be considered for evaluation. Other offers will be rejected.	
2.	EMD : Earnest Money Deposit of Rs.1.50 lakhs shall be deposited to BHEL account by the bidder along with the offer. In the event of acceptance of tender, and if the contractor/bidder fails to commence the work within promised period, BHEL shall without prejudice to any other right or remedy be at liberty to forfeit the said earnest money absolutely. EMD does not carry any interest. Offers without EMD will be rejected and will not be considered for evaluation.	
3.	SECURITY DEPOSIT FOR WORK : Successful bidder has to pay security deposit to BHEL before commencement of the work as per clause 8.2.2 of BHEL Works policy reproduced in terms & conditions. This amount shall be returned after successful completion of the contract work.	
4.	BANK GUARANTEE / ALL RISK INSURANCE COVERAGE (for safe custody of machine & material): The contractor has to submit Bank Guarantee / All risk Insurance coverage for Rs.40.00 lakhs from any nationalized bank / agency for safe custody of machine and materials for the period they are stationed at contractor works. Any damage / loss shall be made good by contractor.	
5.	All works connected to guideways of all axes (eg. Slideways, gibs) repair by machining (grinding, milling, hand scraping), suiting with turcite and matching are also covered under labour charges. However, bought-out items like turcite etc. are	

Sn.	Description of work / Activity	Contractor remarks Agreed/Not agreed
	<p>covered under spares.</p> <p>Repair of spindles by machining, chrome plating etc. are also covered under labour only</p>	
6.	<p><u>SPARES :</u></p> <p>a) The spare parts (electrical / mechanical / hydraulic / electronics) required to be replaced (manufacturing spares and bought-out spares) will be to BHEL account. Contractor has to quote for these spares along with manufacturing drawings for manufacturing items and specifications for bought-out items for approval. BHEL may procure and supply these items to the Contractor from any other sources as well. Spares not supplied by BHEL shall be purchased / manufactured by the Contractor.</p> <p>b) Spares required to be replaced other than those agreed to during joint inspection will have to be approved by BHEL before such replacement is effected. Cost of such spares shall be absorbed by the Contractor. BHEL will not pay for these items.</p> <p>c) Prior intimation has to be given to BHEL by the contractor for deputing the team for joint inspection at contractor works.</p> <p>d) Contractor must submit the quotation for joint inspection spares within a week of joint inspection</p>	
7.	<p><u>REWORK IN LIEU OF REPLACEMENT :</u></p> <p>Reworks in lieu of replacement on all parts (guideways / sliding surfaces like spindle, bushes, box nuts, screw rods etc.) by machine grinding preferably / chrome plating / welding / machining etc. identified initially and also during joint inspection are covered under labour charges only.</p> <p>For such works BHEL will not pay extra.</p>	
8.	<p><u>TIME SCHEDULE :</u></p> <p>a) Two weeks from the date of issue of work order for removing the machine from foundation, dismantling the same into transportable lots by contractor at BHEL works (transportation by BHEL).</p> <p>b) Two weeks for transporting the dismantled sub-assemblies of machine & rotary table to contractor works by BHEL</p> <p>c) Twenty Four weeks for reconditioning & retrofitting the machine, from the date of receipt of the same at contractor works to the date of inspection and acceptance of reconditioned & retrofitted machine at contractor works.</p> <p>d) Two weeks for transporting the reconditioned & retrofitted machine to BHEL works (transportation by BHEL).</p> <p>e) Two weeks for proving out the reconditioned & retrofitted machine at BHEL works by the contractor.</p>	
9.	<p>PAYMENT TERMS:</p> <p>1. 30% of Part-A order (i.e. 30% of labour cost and 30% of initial spares cost) shall be paid after joint inspection of fully dismantled machine for 1) identification of spares and 2) deciding detailed scope of repair / rework on various components / parts. This is subject to submission of Bank guarantee for like amount valid for the period till the reconditioned & retrofitted machine is handed over to Production at</p>	

Sn.	Description of work / Activity	Contractor remarks Agreed/Not agreed
	<p>BHEL works after which BG will be returned to the party.</p> <p>2. 60% of labour cost and 60% of initial spares cost along with taxes and duties at actuals (on submission of documents concerned for BHEL to avail credit) shall be paid after prove out and handing over the reconditioned & retrofitted machine to Production at BHEL works.</p> <p>3. Joint inspection spares / reworks shall be ordered separately (Part-B). However, 90% of Part B order shall be paid along with (2) above after prove out and handing over the reconditioned & retrofitted machine at BHEL works</p> <p>4. Balance 10% of Part-A & B orders shall be paid after submission of Performance Bank Guarantee of like amount valid for the guarantee period of 12 months (two-shift basis).</p>	
10.	<p><u>PENALTY:</u> 0.5% of the total contract value per week or part thereof up to a maximum of 10% of the contract value shall be levied beyond the time specified in G.8(c).</p>	
11.	<p><u>PERFORMANCE BANK GUARANTEE :</u></p> <p>a) Satisfactory performance of the reconditioned & retrofitted machine shall be guaranteed for 12 months (two-shift basis). If it is not satisfactory during the guarantee period, Contractor shall attend to the machine / replace failed parts free of charge as and when called upon to do so for defects / failures noticed and attributable to the Contractor's work & supplies (both manufactured and bought-out by them).</p> <p>b) The discarded parts (old) during the warranty period shall be taken back by Contractor at its expenses. Repairs, if any shall be carried out either at BHEL / Contractor works as agreed mutually but cost of transportation both ways shall be on Contractor's account.</p> <p>c) Performance bank guarantee for 10% of total contract value shall be submitted for the guarantee period of 12 months (two shift basis) which shall cease after the guarantee period.</p>	
12.	<p>The machine is to be reconditioned at Contractor works. Contractor personnel will be allowed to work inside BHEL premises only during checking and lifting of machine from foundation, re-erection and re-commissioning and any maintenance work during the guarantee period.</p>	
13.	<p>Existing table motor & drive shall be retained at BHEL while transporting the machine to Contractor works. These are BHEL's property.</p>	
14.	<p>General tools / instruments / gauges required for</p> <p>a) dismantling and packing of the machine parts at BHEL works for transporting the same to Contractor works for reconditioning</p> <p>b) Assembly, erection, commissioning and prove out of the reconditioned & retrofitted machine at BHEL works shall be arranged for by Contractor.</p> <p>c) Special tools / instruments / gauges for these works will be provided by BHEL.</p>	
15.	<p>General terms and conditions of BHEL as per enclosure shall be acceptable. They form an integral part of contract agreement.</p>	
16.	<p>BHEL reserves the right to inspect the progress as well as workmanship at any stage of the work. Decision of BHEL Representative shall be final in the matter of inspection at any stage.</p>	

Sn.	Description of work / Activity	Contractor remarks Agreed/Not agreed
	Contractor shall extend necessary co-operation to enable such inspection.	
17.	All discarded replaced parts shall be returned to BHEL.	
18.	<p>Bar chart showing the time required for the following elements to be given covering the period of delivery quoted</p> <ul style="list-style-type: none"> a) Dismantling of machine into transportable lots at BHEL works b) Complete dismantling, cleaning and joint inspection of components at Contractor works to identify parts for replacement and rework. c) Manufacturing, rework/repairing etc. of the components, completion of scraping work and sub-assemblies d) Complete reconditioning and retrofitting work e) Assembly of the machine f) Geometrical accuracies testing g) Job trial and prove out h) Dismantling the machine i) Re-erection & re-commissioning at BHEL works j) Geometrical accuracies testing k) Job trial and prove out 	
19.	Any other work (mechanical, hydraulics, electrical 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.	
20.	The contractor is required to study the machine, the scope of supply and certify the completeness of scope in order to execute the work. In case of any discrepancies in the scope of work, the contractor is required to high light the same to BHEL before submission of the offer.	
21.	Contractor may visit BHEL works to see the machine which is presently in working condition.	
22.	Lodging & Boarding facilities for the contractor personnel are at Contractor's scope (during dismantling period, re-erection & re-commissioning period and for troubleshooting during performance guarantee period). BHEL is not responsible for this.	
23.	Material handling facilities such as crane, battery truck, slings, lifting tackles etc. along with operator, consumables like cleaning solvents, cotton waste etc. and utilities like electric power, compressed air etc. shall be provided by BHEL for the works performed at BHEL works	
24.	The enclosed Electronic Funds Transfer Format shall be submitted along with offer. All payments will be made by EFT only as per CVC guidelines.	

PRICE BID FORMAT

PART-A

Sn.	Description of activity / material	Total Amount Rs.Lks
A. LABOUR : (Activities A-G of the scope of work) including engineering & design charges		
A.1	Mechanical Engineers -- __ nos. x __ months @ Rs.__/month	
A.2	Electrical Engineers -- __ nos. x __ months @ Rs.__/month	
A.3	Electronics Engineers -- __ nos. x __ month @ Rs.__/month	
A.4	Mechanical Skilled Artisans – __nos. x __ months @ Rs.__/month	
A.5	Electrical Skilled Artisans -- __nos. x __ months @ Rs.__/month	
A.6	Electronics Skilled Artisans – __nos. x __ month @ Rs.__/month	
A.7	Unskilled labour -- __ nos. x __ months @ Rs.__/month	
	Total	
A.8	Major machining charges like grinding guideways / slideways (A4) etc.	
	Total Labour cost (A) :	
B.Material :		
B.1.	Initial spares :	
B1.1	Mechanical :	
B1.1.1	Bearings as per list enclosed (A7), SKF / FAG make only	
B1.1.2	Table bed lub. System (A22), Column lubrication and Centralised lub. systems for all four heads (one spare pump to be supplied extra) including piping and accessories (A20)	
B1.1.3	Turcite-B (A4)	
B1.1.4	Screw rods & box nuts for all four heads and cross rail movement with one set of spare box nuts (with allowance) extra (A10)	
B1.1.5	Gears, shafts, shifters, quill and spindle, worm & worm wheels, Hand wheels, guide plates, cams, rachets, spacers, covers, scales, oil seals etc. parts for full functioning of left side vertical and side head (Both Castings only available) (A11)	
B1.1.6	Clutch plates for feed gear box with one spare set of plates extra (A17)	
B1.1.7	Gear box lubrication pumps for all four heads (one spare pump to be supplied extra) (A21)	
B1.1.8	Others like counter weight rope (A27), Hydraulics (A15), covers(A31), Dials, name plates, Inscription plates(A29), wipers, oil seals, O-rings (A19), coolant system complete (A26), painting material (A34), documentation (E1 to E7), Work pieces for testing (F2) etc.	
B1.2	Electrical :	
B1.2.1	Left side vertical & side head motors—2 nos., with coupling gears and adaptor plates (D9)	
B1.2.2	Control panel, operating stations (D11), LT Switch gear (D12, D13), rotary switches (D12) including those of four heads (D10), machine lamp unit (D22) etc.	
B1.2.3	Wiring, wiring accessories (D14, D25, D26, D27), Pendant hose (D21), PVC flexible conduits (D21) etc.	
B1.2.4	Limit switches (D20), electroplating (A28)	
B1.2.5	Electromagnetic Clutches and one set of spare clutch plates for all clutches (A15)	
B1.2.6	Others like control panel A.C.Unit (D19), indicating instruments (D17), energy meter (D18) etc.	
B1.3	Electronics :	
B1.3.1	Table AC Motor (variable speed) with drive	

	(Siemens/FANUC/ABB/Indramat make) (D2) including mountings (D4), protection guard (D6) and cables (D16)	
B1.3.2	DRO (Heidenhain/Sony/Givi/Amo make, accuracy of 10 μ /m and resolution of 5 μ) with suitable magnetic scales (D3) including cables (D16), mounting brackets (D5) and protection guards (D6) etc. for horizontal movement of both vertical heads	
	Total B1 (= B1.1 + B1.2 + B1.3) :	
	Grand Total (A+B1) :	
	Taxes & duties	Extra/Included

Note :

1. References mentioned in parentheses in description column of the above format refer to clauses in the scope of work enclosed.
2. The bidder should undertake careful study of machine before offering rates under categories A & B of above format.
3. L1 party (total lowest cost to BHEL) shall be arrived by Reverse auction (no ties) based on bids offered in the above format only (part-A of price bid format, both labour and initial spares together but joint inspection spares excluded).
4. **Price validity** shall be for **ninety days** from techno-commercial bids opening date.
5. Joint inspection spares shall be identified after **total** dismantling of machine at Contractor's works and Part-B order will be issued for these identified parts at mutually agreed values if found reasonable.
6. Excise duty and CST will be paid on Spares cost and service tax will be paid on Labour charges, at actuals. Edu. cess also will be paid. Related original documents to be submitted for availing credit by BHEL.
7. Transportation and transit insurance cost both ways will be borne by BHEL.

Signature of the Bidder with seal

PRICE BID FORMAT FOR BEARINGS TO BE REPLACED

Name of machine part	Bearing size	Qty (nos.)	Unit Rate, Rs.	Total, Rs.
<u>CROSS RAIL</u>				
	6016 x	2		
	6214	1		
	30205	2		
	30210	1		
	30211	1		
	30213	1		
	30214	3		
	51108	2		
	51310	4		
<u>COLUMNS</u>				
	6206	2		
	6209	4		
	6213	2		
	6214	2		
	30211	3		
	30212	1		
	30214	4		
	30318	2		
	31306	4		
	51113	2		
	51212	2		
<u>HEAD STOCK FEED BOX</u>				
	6208	1		
	6209	2		
	6210	2		
	30208	7		
	30209	3		
	30210	2		
	30212	2		
	30213	1		
	30307	1		
<u>BED</u>				
	6211	2		
	6214	4		
<u>Milling Unit</u>				
	6026	4		
	6222	4		



	30207	12		
	30305	4		
	30309	8		
	30311	4		
	32207	4		
	32210	4		
	32211	4		
	NJ215	4		
	2305	4		
	HJ218	4		
	NJ218 C08	4		
	NN3022K	4		
	51104	4		
	51105	4		
	51124	8		

Signature of the bidder with seal



NATIONAL ELECTRONIC FUND TRANSFER FORMAT

(To be furnished on Contractor's Letter head)

Ref No. :

Date :

Dy.Manager/Finance-CM
Bharat Heavy Electricals Limited
Ramachandrapuram
Hyderabad 502 032

Dear Sir,

Sub: Details for National Electronic Fund Transfer

We request and authorize you to effect payment through NEFT to our Bank account, subject to RBI Guidelines, as per the details given below.

- A. Supplier code (As per PO/SCO) :
- B. Beneficiary (Name as per PO/SCO) :
- C. PAN of Beneficiary :
- D. TIN of Beneficiary :
- E. e-mail address of Beneficiary :
- F. City (of Beneficiary) :
- G. Bank Name :
- H. Branch (of Bank) :
- I. A/c Number :
- J. A/c Type (Savings or Current) :
- K. MICR Code of the branch (9 digit) :
- L. IFSC for EFT (11 char) :
- M. IFSC for RTGS (if different from L) :

Thanking you,

(Signature with Seal)
Authorised Signatory

Name :
Designation :

Certified that the particulars furnished above are correct as per our records.

Date :

(Signature of authorized official of bank)
Bank Stamp

BHEL TERMS AND CONDITIONS**A. CONTRACTUAL :**

- 1) The Contractor will ensure that the employees deployed by him in the premises of BHEL are physically and mentally fit and do not have any criminal record.
- 2) The Contractor will maintain records of his employees deployed to carry out the job. The Contractor will provide employment card/Identity card with photograph duly attested by him to his employees.
- 3) In the event of termination of contract for any reason whatsoever, the contractor shall withdraw all his employees from the establishment of BHEL.
- 4) The Contractor will obtain insurance cover for his employees and take third party risk insurance coverage at his own cost.
- 5) The Contractor will be solely entitled to dictate such workers about the manner of carrying out the work.
- 6) The Contractor or his authorized representative will supervise the work allotted to him and being carried out by his employees or will post a Supervisor for this purpose.
- 7) The Contractor will be responsible for the good conduct of his employees. In case of any misconduct / misbehavior by any employee, contractor will replace such employee immediately.
- 8) The Contractor will keep watch on his employees and he will be liable for any pilferage / loss to BHEL due to acts of omission and commission by his employees. Similarly, liability for any compensation to outsiders on account of any act of omission and commission by the employees deployed by the contractor shall lie exclusively with him.
- 9) The Contractor will ensure that all precautions are taken for the safety of his employees.
- 10) The Contractor will provide to his employees all tools, tackles and equipments required to carry out the job under the contract at his own cost.
- 11) The Contractor will provide safety appliances at his own cost which may be required under the statute or otherwise.
- 12) The Contractor will provide all material at his own cost as mentioned in the contract to his employees for carrying out the job.
- 13) Transportation facility for the employees to come to BHEL works is in the scope of the contractor.
- 14) Consumables like air, water, power supply will be supplied by BHEL free of cost.
- 15) No accommodation will be provided by BHEL to the contractor personnel deputed for performing the contract work.
- 16) Shift timings : 1st shift – 06:45 to 15:15 hrs with lunch break from 11:30 to 12:00 hrs
2nd shift—15:00 to 23:30 hrs with dinner break from 19:30 to 20:00 hrs

B. STATUTORY :

- 1) The Contractor shall comply with all statutory requirements, rules, regulations, and notifications in relation to employment of his employees issued from time to time by the concerned authorities.
- 2) The Contractor shall provide PF passbook to his employees and ensure payment of PF, EDLI, and pension dues under EPF & MP Act, 1952 to the RPFC.
- 3) The Contractor shall produce proof of deductions as well as remittances of PF, EDLI, Pension, ESI contribution, administrative charges etc. wherever applicable and shall maintain proper records.
- 4) The Contractor shall furnish proper returns to the concerned statutory authorities.
- 5) The Contractor shall be solely responsible for non payment/delayed payment of wages, contributions under EPF & MP Act, ESI Act etc.
- 6) In case the contractor fails to make payment of wages to his employees or remittance of contribution to the concerned authorities, the security deposit/other dues under the contract can be utilized by BHEL to discharge the liability of the contractor.
- 7) The Contractor shall indemnify BHEL against all claims and losses under various statutes or any civil or criminal law in connection with employees deployed by him.
- 8) The liability for any compensation on account of injury sustained by an employee of the contractor will be exclusively that of the contractor.
- 9) The Contractor shall obtain license under CL(R&A) Act, 1970.

C. GENERAL :

- 1) The contractor shall pay minimum wages to workers as per minimum wages act. Contractor shall make PF, ESI contributions as per applicable rules. ESI Cards should be arranged to contract labour and their wards by the contractor. These records need to be preserved for a period of at least 3 years and made available even after the contract is over for any verification by the statutory authorities.

- 2) Contractor shall provide personnel protective equipment like safety uniform in blue colour, safety shoe in black colour and should ensure that they wear them daily while on work.
- 3) Contract operates on Unit rates, contract labour should get at least Daily Unit rate as per the minimum wages act from the contractor.
- 4) Contractor should pay double amount to the contract labour, if they are engaged more than 8 hours (normal).
- 5) Permissions for labour and materials shall be obtained in the prescribed formats.
- 6) **Break:** contract labour should be given break period for about 15 days once in every 6 months in case of long duration contracts, for one time/ short period contracts this clause will not apply
- 7) The contractor is wholly responsible for any loss of life or partial disability of any of their labour while on duty
- 8) In case of occurrence of any accident/ injury of contractor's staff, BHEL will not pay any compensation while they are on duty and contractor has to take care of health of workers under statutory obligation.
- 9) BHEL reserve the right to cancel the work order in part or in full without assigning any reason.
- 10) Upon awardal of the work, the contractor has to execute an agreement with BHEL on a non-judicial stamp paper worth Rs.100/- as per General Agreement Conditions before commencement of work.
- 11) BHEL shall have the privities of the contract with the contractor only and will give instructions to the contractor or his authorized representative. BHEL will have nothing to do or be concerned with the employment of employees working for the contractor. The relationship between BHEL and the Contractor will be that of independent entities and nothing herein contained will amount to joint venture, partnership or an employer-employee relationship.
- 12) The contractor shall maintain regular contact with the designated employee(s) of BHEL and will interact on matters relating to the work awarded under this contract.
- 13) In case the Contractor does not carry out the Contractual/Statutory obligations or the services rendered by him are found to be unsatisfactory, BHEL shall bring the same to his notice and he will be obliged to discharge the obligations and rectify the efficiency/anomaly within three days time failing which, BHEL reserves the right to terminate the contract without assigning any reason whatsoever. In such an event, no damages will be payable for short closure of the contract.
- 14) Notwithstanding anything contained in the contract Agreement which will be entered after awardal of work, the contract may be terminated by BHEL without assigning any reason thereof by giving a notice of 30 days to the contractor.
- 15) The Entry permits are to be issued to the Contract Labour by Assistant Commandant / CISF(Plant), based on the requisition submitted by Contract Executing Officer and forwarded by Dy.General manager / Personnel.
- 16) Every contractor shall submit a notice regarding commencement and completion of work in form – VI A&B [Rule 25 (VIII) & 81 (3)] to HR Department, IR section through his contract executing officer, for forwarding the same to State Labour Department.
- 17) Non – compliance of any provisions under the act / rule / instructions / guidelines shall make the contractor liable for penal action including termination of contract.
- 18) Contractor shall furnish in a separate letter his place of residence and postal address. The delivery at the above named place or posting in a Post box regularly maintained by the post and telegraph Department or sending letters registered for acknowledgement of any notice, letter or other communication to the contractor. Change in address shall come into force at any time by an instrument executed by the contractor and delivered to the Company official who has signed the contract.
- 19) The contractor must satisfy himself by personal study and examination of the drawings / specifications furnished and understand thoroughly the scope of proposed work in detail and all conditions affecting the work before entering into the contract. There shall not be at any time dispute / complaint of any misunderstanding with regard to scope of work and interpretation of specifications or any misunderstanding with regard to nature or omission of the work to be done not shall any application for compensation in terms of time and money shall be accepted by company regarding the above.
- 20) Contractor shall in his absence keep competent agent constantly on the works and any directions or explanations given by the "Contract Signing Officer" or his representative to such agent shall be held to have been given to the contractor himself.
- 21) It shall be contractor's sole responsibility to protect the public and his employees against accident from any cause and provide required safety equipments and shall indemnify, the company against any claims for damages for injury to the person or property resulting from any such accidents and shall, where the provisions of the workmen's compensation act apply, take steps to properly insure against any claims there under.
- 22) In the event of any accident in respect of which compensation may become payable under the workmen's compensation act VIII of 1923 whether by the contractor or by the company as principle employer, it shall be lawful for the company to retain out of monies due and payable to the contractor such sum or sums of money as may, in the opinion of the company shall be final in regard to all matter arising in this clause.

- 23) No work shall be done on Sundays or on other declared holidays of the company without the written permission of the company officer in-charge of the work. The contractor shall comply with the provisions of the Factories Act Rules framed there under if the same are applicable.
- 24) The contractor shall keep his work place clean and safe to avoid injuries to men and damage to finished products / equipments.
- 25) On the occurrence of an accident, which results in the death of any of the workmen employed by the contractor or which is so serious as to be likely to result in the death of any such workmen, the contractor shall intimate within 24 hours of the happening of such an accident intimate in writing to the company official in-charge of the work.
- 26) The contractor shall indemnify the company against all losses or damages sustained by the company resulting directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties or dues if any and become payable by the company, as a consequence of failure, the company to give notice under the workmen's compensation act or otherwise confirm to the provisions of the said act in regard to such accident.
- 27) The contractor shall ensure adherence to all statutory requirements applicable to BHARAT HEAVY ELECTRICALS LIMITED, RAMACHANDRA PURAM, HYDERABAD-502032.
- 28) Notwithstanding the clause, in case of any financial loss incurred by the company on account of contravention of the Provident Fund regulations or any regulations of rule touching the same by the contractor, the contractor shall submit an undertaking to indemnify the company to the extent of the loss incurred by the company.
- 29) The contractor should engage only those labourers who shall be more than 18(eighteen) years of age.
- 30) The contractor shall not resort to subcontracting under any circumstances. If found subcontracting at a later date, BHEL reserves the right to take whatever action it deems fit, including cancellation of the contract.
- 31) The contractor shall be responsible to settle any grievances of the labour deployed by him.
- 32) Whenever the term "CONTRACTOR" is used, it shall be understood to refer to the particular person, firm or corporation with whom an agreement has been made by the concerned company official for executing the work defined in the concerned agreement and for the purpose of instructions regarding compliance with contract conditions, it shall include the contractor's authorised agents, who are entrusted with the work by contractor.
- 33) The quantities mentioned in the agreement schedule are worked out from the relevant drawings in the company and may not be the actuals required for execution. The company does not expressly or by implication agree that the actual amount of the work to be done shall correspond therewith, but reserves the right to increase or decrease the quantity of any class or portion of the work as he deems necessary.
- 34) All the works shall be carried out in accordance with the directions and to the satisfaction of the company official in accordance with the drawings, specifications and instructions. Supplementing or explaining the same as may from time to time shall be done by the company official.
- 35) For all modifications, omissions or additions to the approved drawings and specifications, the company shall issue revised plans or written instructions and no modifications, omission or addition shall be made unless at any time before completion of the work.
- 36) All materials, articles, and workmanship shall be the best of their respective kinds for the class of work described in the contract specifications and schedule and materials to be obtained by the contractor shall be from sources approved by the company.
- 37) Sample of materials shall be furnished by the contractor at his expense to the company when called for before execution of any work.
- 38) The company shall have power to reject at any stage, any work which is considered to be defective in quality of materials of workmanship and shall not be debarred from rejecting wrong material by reasons of having previously passed them in an unworked condition. Any portion of the work or materials rejected or pronounced to be inferior or not in accordance with specifications shall be taken down and removed from the work site at the contractor's expenses.
- 39) The decision of the company shall be final and binding on the contractor on all technical questions which may arise in the contract with respect to material, workmanship, removal; of improper work, interpretation of the working drawings, specifications, notes, procedures etc.
- 40) The decision of the "Contract Signing Officer" or any officer deputed by him duly authorised on his behalf, in respect of the rate of progress and the quality of work or material shall be final.
- 41) Contracts shall be deemed to have included in his tender price of all the plant, machinery and appliances required for the purpose of all operations connected to secure a satisfactory quality of work within the opinion of the company will ensure the completion of the work within the time specified.
- 42) It is open to the company to lend or supply to the contractor any tools, implement, material and machinery that are needed by the contractor, which in the opinion of the company is essential to improve the quality or progress of work. The contractor shall pay such deposit or charges that may be fixed or determined by the company for any such articles or machinery lent or hired to the contractor.

- 43) All rubbish as it accumulates shall be removed from the site to the point of disposal as indicated from time to time by the company. If this is not adhered to, the company shall remove the scrap and recover the cost of these operations from the bills of the contractor.
- 44) Any sum due from the contractor on account of tools and plants, stores, or any other items provided by the company shall be deducted from the respective bill due to him.
- 45) In case the contractor does not execute the work awarded to him as per the terms and conditions of the agreement, the same shall be got executed by some other contractor and the excess cost incurred shall be recovered from the contractor's security deposit/pending bills.
- 46) In case of breach of any of the terms and conditions of the contract, a claim shall be lodged under the bank guarantee with the guarantor at the discretion of the competent authority of the company. On successful completion of the contract to the satisfaction of the company, the bank guarantee shall be released after due claim period.
- 47) In the event of any question or dispute or under this contract, the same shall be referred to a competent Authority in the company for sole arbitration and his decision shall be final and binding on the parties to the contract.
- 48) In case of any suit or other legal proceeding arising under this contract, the courts at Sangareddy (Medak Dist.) A.P only shall have the Jurisdiction.
- 49) Disputes, grievances between the contractor and his labour, will have to be settled by the contractor only.
- 50) The labour employed by the contractor, if found in abetting and fellow labour or contractors or any BHEL employee, the same shall be considered as an act of indiscipline. Such labourers shall be removed from the services of the contractor, on the advice of BHEL. Further the contractor shall initiate every necessary action in accordance with the relevant Laws, Rules & Regulations and enactments of State and Central Government.
- 51) Wherever, BHEL/COMPANY standards are mentioned shall be strictly followed.
- 52) Nothing contained in the contract agreement and its conditions shall be deemed to preclude or render inoperative the service of any notice, letter or other communication upon the contractor personally.
- 53) The decision of the "Contracting Signing Officer" shall be final and binding on the contractor on all technical questions which may arise touching the contract with respect to the quality of material, workmanship, removal of improper work, interpretation of the working drawings, specifications, notes, procedures etc.
- 54) All disputes, claims and demands arising in connection with the contract shall be settled by mutual consultation. If no such agreement is reached between the parties each party can appoint one Arbitrator and the Arbitrators so appointed can appoint a Presiding Arbitrator. The proceedings of the tribunal shall be in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and the rules made there under. The venue of the Arbitration shall be at BHEL, Hyderabad or at such place as the Arbitrators may direct. The Award to be given by the Arbitral Tribunal shall be a speaking award. The arbitration costs, fees and expenses shall be borne by both the parties equally. The award of the tribunal shall be final and binding on both the parties equally. The award of the tribunal shall be final and binding on both the parties. All questions, disputes, differences arising under, out of or in connection with this contract shall be exclusive jurisdiction of the Courts at Sangareddy, Medak District, Andhra Pradesh.

D. GENERAL INSTRUCTIONS REGARDING BHEL TENDERING PROCESS:

1. If the tender is made by an individual, it shall be signed with his full name and his address shall be furnished. If it is made by firm, it shall be signed with the co-partnership name by a member of the firm, who shall also sign his own name, also furnish the name and address of each member of the firm. If the tender is made by a corporation, it shall be signed by a duly authorized Officer who shall produce with the tender, satisfactory evidence of his authorization. Such tendering corporation/firm is required to furnish evidence of its existence along with bid.
2. The EMD will be refunded to the unsuccessful Tenderers after rejection of the tender is intimated. The earnest money will be retained in the case of the successful tenderers and either of the cases will not carry any interest. It will be dealt with as provided in the conditions attached to the tender.
3. Whenever a tender is to be accepted, the tenderer, whose tender is under consideration, shall attend the Office of " Officer Inviting the Tender " on the date fixed by written intimation to him. He shall forthwith, upon intimation being given to him by the " Officer Inviting the Tender" for acceptance of his tender, complete the execution of the agreement by signing all documents connected therewith. Failure to do so and not to commence the work within one month from the date of intimation shall entail forfeiture of the earnest money.

4. Tenderers shall pursue carefully the instructions and directions to the parties given in the tender document and the conditions thereof and all other relevant documents before quoting the rates for the work. The approximate quantity of work to be executed under each class is given in the schedule. The quantities are given with a view to enable tenderer to quote his overall rate for each class of work in the tender form and for a uniform comparison of tenders. It shall be definitely understood that the schedule is liable to alterations at the discretion of accepting authority.
5. Tenderers shall keep the offer valid for a period of 90 days from the date of opening of tender. After submitting the tender, he will not recall his offer or modify the terms and conditions thereof. Should the tenderer fail to observe or comply with the foregoing stipulations, the EMD shall be forfeited.
6. Tenderers have to quote their rates in the tender schedule legibly written in figures and words and those not submitted in proper form are liable for rejection.
7. The submission of tender shall be strictly in accordance with the terms and conditions stipulated in this tender notice. No counter conditions will be acceptable or valid.
8. Contractor shall be deemed to have included in his tender price of all the plant, machinery and appliances required for the purpose of all operations connected with the work embraced under the contract to secure a satisfactory quality of work and rate of progress which in the opinion of the " Contract Signing Officer" will ensure the completion of the work within the time specified.
9. The rates quoted by the contractor should be firm for the contract period. There shall be no revision in contract rates during the period of the contract. Any increase of statutory levies during the period of the contract will be reimbursed on production of relevant proof of incurring expenditure for the same.
10. **BHEL reserves the right to negotiate for price reduction with lowest quoted (L1) party and negotiated price will be considered as contract amount for all practical purposes.**
11. The contractor must have phone facility at his office/ residence or cellular phone for proper communication.
12. Withdrawal from contract during contract period in BHEL will entail forfeiture of security deposit.
13. The contractor should abide by the company's **CISF** Security / safety rules and provide such safety requirements as per statutory rules and requirements of the factories act.
14. In case of breach of any of the terms and conditions of the contractor, BHEL reserves the right to cancel the contract either in part or full.
15. Contractor shall provide uniform, shoes and other Personal Protective Equipments (like safety helmet) wherever applicable to their labour.
16. **Earnest Money Deposit** : Earnest Money is to be paid by each tenderer to ensure that the tenderer does not refuse to execute the work after it is awarded to him. The rate of earnest money deposit shall be as per tender schedule. EMD by the Tenderer will be forfeited as per Tender Documents if:
 - i) After opening the tender, the tenderer revokes his tender within the validity period or increases his earlier quoted rates.
 - ii) The tenderer does not commence the work within the period as per LOI / Contract. In case the LOI / contract is silent in this regard then within 15 days after award of contract.
 - iii) EMD shall not carry any interest

17. **Security deposit:** (Clause 8.2 of BHEL Works Policy)

8.2.1 Security Deposit should be collected from the successful tenderer. The rate of Security Deposit will be as below:

-- Upto Rs. 10 lakhs	: 10%
-- Above Rs. 10 lakhs Upto Rs. 50 lakhs	: Rs.1 lakh + 7.5% of the amount exceeding Rs.10 lakhs
-- Above Rs. 50 lakhs	: Rs.4 lakhs + 5% of the amount exceeding Rs.50 lakhs

The security Deposit should be collected before start of the work by the contractor.

8.2.2 Security Deposit may be furnished in any one of the following forms

- i) Cash (as permissible under the Income Tax Act)
- ii) Pay Order, Demand Draft in favour of **BHEL**.
- iii) Local cheques of scheduled banks, subject to realization.
- iv) Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras etc. (Certificates should be held in the name of Contractor furnishing the security and duly pledged in favour of **BHEL** and discharged on the back).
- v) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of **BHEL**.
1. Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/C **BHEL**, duly discharged on the back.
- vii) Security deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit should be collected before start of the work and the balance 50% may be recovered from the running bills.

(Note: In case of small value contracts not exceeding Rs.10 lakhs and all SAS jobs, work can be started before Security Deposit is collected. However, payment can be released only after collection / recovery of initial 50% Security Deposit)

- a. EMD of the successful tenderer can be converted and adjusted against the security deposit.
- b. The security deposit shall not carry any interest.

(NOTE : Acceptance of Security Deposit against Sl. No. (iv) and (vi) above will be subject to hypothecation or endorsement on the documents in favour of BHEL. However, BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

8.2.3 Security deposit shall not be refunded to the contractor except in accordance with the terms of the contract.

Signature of the Bidder with seal

**BUSINESS RULES FOR REVERSE AUCTION****ANNEXURE-I****GENERAL TERMS AND CONDITIONS OF REVERSE AUCTION**

Against this Enquiry for the subject item/system with detailed scope of supply as per our specification, BHEL-HYDERABAD may resort to "REVERSE AUCTION PROCEDURE" i.e. **ON LINE BIDDING on INTERNET.**

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
 2. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on Internet.
 3. BHEL will inform the vendor in writing in case reverse auction, the details of service provider to enable them to contact and get trained.
 4. Business rules like event date, time, start price, bid decrement, extensions, etc. also will be communicated through service provider for compliance.
 5. Vendors have to fax the compliance form in the prescribed (provided by service provider) before start of Reverse auction. Without this the vendor will not be eligible to participate in the event.
 6. BHEL will provide the calculation sheet (e.g.: EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like packing & forwarding charges, Taxes and duties, Freight charges, Insurance, Service tax for services and loading factors (for non-compliance to BHEL standard Commercial terms and conditions.) for each vendor to enable them to fill-in the price and keep it ready for keying in during the auction.
 7. Reverse auction will be conducted on schedule date & time.
 8. At the end of reverse auction event, the lowest bidder value will be known on the network.
 9. The lowest bidder has to fax the duly signed filled-in prescribed format as provided on case-to-case basis to BHEL through service provider within 24 hours of action without fail.
 10. Any variation between the on-line bid value and signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.
- N.** In case BHEL decides not to go for Reverse auction procedure for this tender enquiry, the price bids and price impacts, if any already submitted and available with BHEL shall be opened as per BHEL standard practice.

Business Rule for finalization of the procurement .

BHEL shall finalise the procurement of the item against this Tender through reverse auction mode. BHEL has made arrangement with **SERVICE PROVIDER** who shall be BHEL's authorized service provider for the same. Please go through the guidelines given below and submit your acceptance to the same along with your Commercial Bid.

1. Computerized reverse auction shall be conducted by BHEL, on pre-specified date, while the vendors shall be quoting from their own offices/ place of their choice. Internet connectivity shall have to be ensured by vendors themselves. In extreme case of failure of Internet connectivity, (due to any reason whatsoever may be) it is the bidder's responsibility / decision to send fax communication immediately to **SERVICE PROVIDER**. Furnishing the price the bidder wants to bid online with a request to the service provider to upload the faxed price on line so that the service provider will upload that price on line on behalf of the Bidder. It shall be noted clearly that the concerned bidder communicating this price to service provider has to solely ensure that the fax message is received by the service provider in a readable / legible form and also the Bidder should simultaneously check up with service provider about the clear receipt of the price faxed. It shall also be clearly understood that the bidder shall be at liberty to send such fax communications of prices to be uploaded by the service provider only within the closure of Bid time and under no circumstance it shall be allowed beyond the closure of Bid time / reverse auction. It shall also be noted that the service provider should be given a reasonable required time by the bidders, to upload such prices online and if such required time is not available at the disposal of the Service provider at the time of receipt of the fax message from the bidders, the service provider will not be uploading the prices and either BHEL or the service provider are not responsible for this unforeseen circumstances. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements / alternatives such as back – up

power supply whatever required so that they are able to circumvent such situation and still be able to participate in the reverse auction successfully. Failure of power at the premises of vendors during the Reverse auction cannot be the cause for not participating in the reverse auction. On account of this the time for the auction cannot be extended and BHEL is not responsible for such eventualities.

2. **SERVICE PROVIDER** shall arrange to train your nominated person (s), without any cost to you. They shall also explain you, all the Rules related to the Reverse Auction / Business Rules Document to be adopted along with bid manual. You are required to give your compliance on it before start of bid process.
3. **MATERIAL FOR BID:** 'Reconditioning Work as per scope of work and terms & conditions enclosed with the tender by BHEL.
4. Starting Bid/Bid Decrement: The opening price shall be the lowest price of sealed bids and the bid decrement shall be available to the bidders before 05 minutes of the start of the auction and same shall be displayed on the site.
5. **BIDDING CURRENCY AND UNIT OF MEASUREMENT:** Bidding will be conducted in **Indian Rupees (INR)** of the item. The price bid placed during the "Sealed Bid Auction" as well as "Reverse Auction" shall be the total price for each sl. No. separately.
6. **BID PRICE:** The Bidder has to quote the Total cost to BHEL for the items specified. Calculation sheet to arrive at the Total cost to BHEL will be provided by BHEL.
7. The technical & commercial terms are as per BHEL Tender No. -----, Vendors technical and commercial bid and subsequent correspondences between BHEL and the vendors regarding commercial terms & conditions.
8. **VALIDITY OF BIDS:** The Bid price shall be firm as quoted in the offer.
9. At the end of the reverse auction, bidder has to provide a detail break up for his lowest offer.
10. **Procedure of Reverse Auctioning**
 - i. **Sealed bid Reverse Auction:** The opening bid (In the initial auction) of the bidders shall place a bid which shall be same as that quoted in their Final Sealed price submitted to BHEL or less. The bidders shall confirm in writing to BHEL that their opening bid shall be same as that quoted in their final sealed price bid submitted against Tender No. ----- if it is found to be otherwise at a later date, the bidder will be disqualified from the tender.
 - ii. **English Reverse (no ties) {Reverse Auction}:** BHEL will declare its **Opening Price (OP)**, which shall be visible to the all vendors during the start of the reverse Auction. You will be required to start bidding after announcement of Opening Price and decrement amount.
 - iii. **Those vendors who have participated in the Initial Sealed Bid Auction, will only be eligible to participate in the subsequent English Reverse Auction.**
 - iv. Sealed Bid auction will be for 15 minutes and English Reverse auction (no ties) shall be for a period of one hour. If a bidder places a Bid in the last 10 minutes of Closing of the Auction, the auction shall get extended automatically for another 10 minutes. In case, there is no Bid in the last 10 minutes of closing of Auction, the Auction shall get closed automatically without any extension.
 - v. **The reverse auction will be treated as closed only when the bidding process gets closed in all respects for all the items listed in the tender.**
 - vi. The bid decrement amount shall be specified by BHEL before start of bidding.
 - vii. **Any commercial loading shall be intimated to bidders in advance and it shall be added to price during dynamic auction process. For evaluation purpose, commercial loading if any,**

shall be added to the quoted price of respective bidder. However for ordering only the final bid placed by you shall be considered.

- viii. After the completion of English Reverse auction (no ties), the **Closing Price (CP)** shall be available. **In case, any commercial loading was made to L1 bidder's price, it shall be de-loaded from the closing price of L1 bidder (CP) for further processing.**
- ix. The ratio of CP and originally quoted price shall be applied on all elements of originally quoted prices to arrive at the final price break up.
11. Successful vendor shall be required to submit the final prices, quoted during the English Reverse (no ties) in Excel Format (which will be provided during intimation of conducting Reverse Auction) after the completion of Auction to BHEL, duly signed and stamped as token of acceptance without any new condition other than those already agreed to before start of auction.
12. During English Reverse auction (no ties), if no bid is received within the specified time, BHEL, at its discretion, may decide to revise Opening price / scrap the reverse auction process / proceed with conventional mode of tendering.
13. Your bid will be taken as an offer to supply. Bids once made by you, cannot be cancelled / withdrawn and you shall be bound to supply as mentioned above at your final bid price. **Should you back out and not supply as per the rates quoted, BHEL shall take action as appropriate.**
14. You shall be assigned a **Unique User Name & Password** by **SERVICE PROVIDER**. You are advised to change the Password and edit the information in the Registration Page after the receipt of initial Password from **SERVICE PROVIDER** to ensure confidentiality. All bids made from the Login ID given to you will be deemed to have been made by your company.
15. You will be able to view the following on your screen along with the necessary fields in the English Reverse (no ties) {Reverse Auction}:
- Leading Bid in the Auction (only total price)
 - Bid Placed by you
 - Opening Price.
16. At the end of the Reverse Auction, BHEL will decide upon the winner. BHEL's decision on award of Contract shall be final and binding on all the Bidders.
17. BHEL shall be at liberty to cancel the reverse auction process / tender at any time, before ordering, without assigning any reason.
18. BHEL shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause.
19. Other terms and conditions shall be as per your techno-commercial offers and other correspondences till date.
20. You are required to submit your acceptance to the terms/ conditions/ modality given above before participating in the reverse auction.

D)

E) **TERMS & CONDITIONS OF REVERSE AUCTION**

1. **LOG IN NAME & PASSWORD:** Each Bidder is assigned a Unique User Name & Password by **SERVICE PROVIDER**. The Bidders are requested to change the Password and edit the information in the Registration Page after the receipt of initial Password from **SERVICE PROVIDER**. All bids made from the Login ID given to the bidder will be deemed to have been made by the bidder.

2. **BIDS PLACED BY BIDDER:** The bid of the bidder will be taken to be an offer to execute the work. Bids once made by the bidder cannot be cancelled. The bidder is bound to execute the work as mentioned above at the price that they bid. Should any bidder back out and not make the supplies at per the rates quoted, BHEL and / or **SERVICE PROVIDER** shall take action as appropriate.
3. **LOWEST BID OF A BIDDER:** In case the bidder submits more than one bid, the lowest bid will be considered as the bidder's final offer to execute the work
4. **AUCTION TYPE:** 1). Sealed bid Reverse Auction 2). English Reverse No Ties (refer Bidder Manual for details)
5. **DURATION OF AUCTION:** The duration of Auction will be for one hour. If somebody is bidding just before 10 minutes of Auction closing the Auction will get extended for another 10 minutes. (THIS SCHEDULE IS TENTATIVE. IF ANY CHANGE IN SCHEDULE, THE SAME SHALL BE COMMUNICATED TO YOU)
6. **BID DECREMENT:** The minimum Bid decrement shall be available to the Bidders at the start of the auction. The bidder can view the same by clicking on the Item details at the start of the auction. The bidder can bid lower than the Lowest Bid in the auction by a decrement, multiple of the minimum Bid decrement or at least of minimum bid decrement plus multiple of Bid Decrement.
7. **VISIBILITY TO BIDDER:** The Bidder shall be able to view the following on his screen along with the necessary fields during English Reverse –NO ties Auction:
 - Leading Bid in the Auction
 - Bid Placed by him
8. **AUCTION WINNER:** At the end of the Reverse Auction, BHEL will evaluate all the bids submitted and will decide upon the winner.
9. **PROXY BIDS:** Proxy bidding feature is a pro-supplier feature to safe guard the supplier's interest of any Internet failure or to avoid last minute rush. The Proxy feature allows Bidders to place an automated bid against other Bidders in an auction and bid without having to enter a new amount each time a competing Bidder submits a new offer.

The bid amount that a Bidder enters is the minimum that the Bidder is willing to offer. Here the software bids on behalf of the supplier.

- The proxy amount is the minimum amount that the Bidder is willing to offer. During the course of bidding, the Bidder cannot delete or change the amount of a Proxy Bid.
- Bids are submitted in decrements (decreasing bid amounts). The application automates proxy bidding by processing proxy bids automatically, according to the decrement that The auction originator originally established when creating the auction, submitting offers to the next bid decrement each time a competing Bidder bids, regardless if competing bids are submitted as proxy or standard bids.

GENERAL TERMS & CONDITIONS: Bidders are required to read the "Terms and Conditions" section of the auctions site using the Login Ids and passwords given to them.

10. OTHER TERMS & CONDITIONS:

- The Bidder shall not involve himself or any of his representatives in Price manipulation of any kind directly or indirectly by communicating with other suppliers / bidders.
- The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
- BHEL's decision on award of Contract shall be final and binding on all the Bidders.

- BHEL along with **SERVICE PROVIDER** can decide to extend, reschedule or cancel any Auction. Any changes made by BHEL and / or **SERVICE PROVIDER**, after the first posting will have to be accepted if the Bidder continues to access the site after that time.
- **SERVICE PROVIDER** shall not have any liability to Bidders for any interruption or delay in access to the site irrespective of the cause.
- **SERVICE PROVIDER** is not responsible for any damages, including damages that result from, but are not limited to negligence. **SERVICE PROVIDER** will not be held responsible for consequential damages, including but not limited to systems problems, inability to use the system, loss of electronic information etc.

N.B.

- All the Bidders are required to submit the Agreement Form (Annexure) duly signed to **SERVICE PROVIDER** before due date. After the receipt of the Agreement Form, Log in ID & Password shall be allotted to the suppliers (bidders).
- After the completion of the Auction event, all the Bidders have to submit the Price Breakup immediately to SERVICE PROVIDER for further proceedings.