

BHARAT HEAVY PLATE & VESSELS LIMITED.,
(A Subsidiary Bharat Heavy Electricals Limited)
A Government of India Enterprises
Visakhapatnam – 530 012 INDIA.
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NOTICE INVITING TENDER(NIT)

**Category of Tender: TWO BID
(PRICED + UN - PRICED)**

**SUB: Retrofit and Reconditioning of
Pipe Bending Machine**

Our Ref: **MM/2/10/2093/CAP/W-461/5286**

DATE: 06.01.2012

Sealed quotations in duplicate are invited from suppliers on **or before 14.02.2012 SUPERSCRIBING OUR REFERENCE AND CATEGORY OF TENDER** on the cover, for supply of the under mentioned stores within the above due date, otherwise send **REGRET LETTER**, strictly subject to the Terms & Conditions attached herewith.
LATE TENDERS ARE NOT ACCEPTABLE.

ITEM No.	DESCRIPTION / SPECN. / SIZE	QTY
1.	Retrofit and Reconditioning of Pipe Bending Machine (Estimated Cost of wok is Rs. 2 Crore)	1 No 's
	Encl: 1. Qualifying Criteria 3 pages 2. Technical Specifications 11 Pages 3. General Terms/ commercial terms and conditions 9 pages (INCLUDING CHECK LIST)	

For BHARAT HEAVY PLATE & VESSELS LIMITED,

For Dy. GENERAL MANAGER (MM)

RETROFIT AND RECONDITIONING OF PIPE BENDING MACHINE

PURPOSE:

To completely retrofit and recondition Pipe bending Machine – 1 No.

NOTES:

1. Vendor must submit complete information for all the clauses mentioned below. The offers meeting this clause would only be processed.
2. The column "**BIDDER'S OFFER WITH CONFIRMATION & COMPLETE TECHNICAL DETAILS**" of this Format shall be filled in by the Vendor and submit along with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications / requirements shall be treated as non-compliance and lead to disqualification of the offer without asking queries.
3. The offer and all documents enclosed with offer should be in English language only.
4. Vendors MUST visit BHPV, Visakhapatnam and study the existing machines before submission of quotation. The cut-off date for visit to BHPV for inspection of the Pipe bending Machine, clarification to the vendors to be completed 7 days prior to the tender due date.
5. Reconditioning of the machine should be completed within 6 Months from the date of receipt of PO. Vendor to mobilize resources accordingly to complete the job in 6 Months in all respects.
6. Vendors must indicate makes of all components that are being supplied as a part of this tender. Shall be clearly indicated in a separate sheet.

ADDRESS OF THE SUPPLIER :	ADDRESS OF THE INDIAN AGENTS :
TELEPHONE NOS.:	TELEPHONE NOS.:
FAX NOS.:	FAX NOS.:
E-MAIL ADDRESS:	E-MAIL ADDRESS :

RETROFIT AND RECONDITIONING OF PIPE BENDING MACHINE

QUALIFICATION CRITERIA FOR RECONDITIONING OF PIPE BENDING MACHINE

SL NO	PRE-QUALIFICATION	Bidders Offer
A.1.	<p>PRE-QUALIFICATION REQUIRMENTS</p> <p>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, the offer will be liable for rejection.</p>	
1.	<p>The party must be a reputed Manufacturer / Reconditioner of Pipe bending Machines, Medium / Heavy Hydraulic Machines with at least 7 Years of experience in this field (by 31.10.2011). The experience reference shall be for a period preceding immediately to the date given above. Party must submit at least one satisfactory performance certificate issued by customer during the above period. Copies of purchase orders/work orders and corresponding completion certificates should be submitted for verification. The dates of the P.O / certificates should be with in this period only. Offers with out these documents are liable for rejection. List of the customers along with respective contracting officers addresses (including Phone no. / E-Mail ID) for whom machines were manufactured / rebuilt should be enclosed with the offer.</p>	
2.	<p>The annual turnover during the last three Years ending March 31st 2011 should be at least Rs 4 Crores (CA certified copy of balance sheet / P&L statements to be enclosed).</p>	
3.	<p>Latest Bankers' solvency (not later than six months from the date tender notice) for an amount of Rs 3 Crores from any Nationalized bank.</p>	
4.	<p>Experience of having successfully completed similar works during the last 7 Years (by 31.10.2011) should be either of the following.</p> <p>Three similar completed works costing not less than the amount each equal to 40% of the estimated cost of the tender.</p> <p style="text-align: center;">or</p> <p>Two similar completed works costing not less than the amount each equal to 50% of the estimated cost of the tender.</p> <p style="text-align: center;">or</p> <p>One similar completed work costing not less than the amount each equal to 80% of the estimated cost of the tender.</p>	

RETROFIT AND RECONDITIONING OF PIPE BENDING MACHINE

QUALIFICATION CRITERIA FOR RECONDITIONING OF PIPE BENDING MACHINE

A.2	<u>Definition of similar works</u> Manufacture / reconditioning of Pipe bending Machines, medium / Higher capacity hydraulic machines of the following types <ol style="list-style-type: none">1. Medium / Higher capacity Pipe bending Machines.2. General purpose Hydraulic Presses, Plate bending Machines etc.	
A.3	BHPV reserves the right to verify the information provided by vendor (including visit by a team of BHPV Officials to the Customer Works of the Vendor). In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	

RETROFIT AND RECONDITIONING OF PIPE BENDING MACHINE

General:

M/s. BHPV is having one number of Pipe bending machine which needs to be completely retrofit and recondition with the scope mentioned below.

Details of Pipe bending Machine:

S. NO.	MAKE/MODEL	BRIEF SPECS	YEAR OF INSTALLATION
1.	Tube and profile cold Bending Machine Model: 'PERFEKT' Type WE 320 D M/s.PETER WIRTZ K.G. (West Germany) Supplied by I A E C,Mumbai	Capacity: 325mm Dia tube X 10mm wall thickness	1969

RETROFIT AND RECONDITIONING OF PIPE BENDING MACHINE

SPECIFICATIONS OF EXISTING TUBE COLD BENDING MACHINE

S. NO.	PARTICULARS	SPECIFICATION / DESCRIPTION
1.1	Power supply	415V AC, +-10% 3 Phase, 50Hz +-3%
1.2	Capacity	325mm tube Dia X 10mm wall thickness
1.3	Max bending radius	1500mm
1.4	Min bending radius	200mm
1.5	Mandrel holder length	9000mm
1.6	Max bending speed	0.5 rpm (stepless adjustment)
1.7	Max modulus of section	590 Cm ³
1.8	Max bending Angle	180°
1.9	Max tensile strength	35Kgs/mm ²
1.10	Drive of main pump	50HP(1500rpm)
1.11	Bending direction	Left & Right
1.12	Main pump motor	37KW, 1470rpm
1.13	Cooler motor	0.55KW, 2840rpm
1.14	Rope drum motor	1.5KW, 925rpm
1.15	Pump motor for oil circulation	4KW, 1440rpm

FUNCTION OF THE MACHINE:

This machine is being used for bending tubes to different profiles within its capacity. The function of this machine is as follows.

Bend former is mounted on the table and is to be fixed by using chuck nut. Mount the outer tube clamping jaw on the carrier. Minor adjustments can be carried out through the spindle. Mount the follower block on the follower block carrier and connect the follower block to the cylinder. The cylinder is meant for moving the follower block to and fro. The oil pressure for the follower block has been adjusted in our works at approx. 15 Kgs/cm². Mount the mandrel on the mandrel holder. Adjust the mandrel withdrawing unit according to the bending radius.

For the adjustment of the bending angle fix the switching stones provided on the periphery of the bending table for the desired bending angle. Using the automatic bending angle selector 8 or more bending angles can be adjusted in any sequence from the control panel. Each rotation of these knobs corresponds to a bending angle of 30°. For change over to another bending angle, the corresponding push button has to be pushed in. A pre selection switch for the bending direction is provided on the bending angle selector. The bending angle selector is also equipped with indexing device, which is used for adjusting the number of bending angles in a system.

RETROFIT AND RECONDITIONING OF PIPE BENDING MACHINE

For adjustment of the number of angles per system the bending angle selector is equipped with a program selector. Further, the bending angle selector is equipped with a selection switch for operating the bending angle selector in three different ways: over end switch- Automatic- Manual.

After the adjustments, the bending speed is regulated through the flow regulating valve. The desired bending angle is adjusted and a tube is pushed on the mandrel after the bore of the tube is lubricated and a bend is made in hand control as follows:

- Clamp the tube
- Clamp the follower block
- Bend
- Bending table is switched off after reaching desired bending angle
- Withdraw the mandrel
- Release the tube
- Return the bending table
- Eject the tube by means of the mandrel

The tube can also be bent in automatic control. We measure the bends by using vernier caliper. The ovality should be between 3 to 5%. In case of flat bend, the mandrel should be advanced. This is achieved by adjusting the spindle of the mandrel withdrawing unit millimeter by millimeter.

An emergency switch is also provided on the machine. The machine is provided with hand-automatic switches for selection of automatic or hand control. The machine is equipped with hydraulic aggregates manufactured by Ms. Vickers. The machine is equipped with double hydraulic pump having a capacity of shaft side: 150 Ltrs/min, 50 Kgs/Cm², lid side:65 Ltrs/min, 150Kgs/Cm².

The clamping units as well as bending table are connected to both sides of the pump. The discharge of the different pump sides allows automatically a higher working speed whenever a lower resistance exists. The adjustment of the pressure can be carried out with the safety valves provided for each side. For oil cooling, the machine is provided with a separate oil cooling unit complete with separate pump and motor. The working temp is between 50° and 60° and it can be adjusted by thermostat mounted on hydraulic tank. The hydraulic system is equipped with two oil filters. The heavy mandrels can be lifted by means of a hydraulic cylinder. For loading heavy tubes a rope drum is mounted on the mandrel withdrawing unit. With this rope drum, the tubes can also be unloaded. The mandrel withdrawing unit serves the purpose of withdrawing the mandrel after the bending operation for removal of bent tube. For adjustment of the mandrel position, a mandrel adjusting spindle is provided.

RETROFIT AND RECONDITIONING OF PIPE BENDING MACHINE

SCOPE OF WORK FOR RETROFIT & RECONDITIONING:

S. NO.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH CONFIRMATION
2.0	The following items are to be supplied as new and to be commissioned for the Machine.		
2.1	Screw rods and Clamping pads	New screw rods and clamping pads are to be provided for all job clamping devices.	
2.2	Oil seals	All oil seals shall be replaced with new ones.	
2.3	Holding jacks	To replace all defective job holding jacks and tube clamp holding block by new ones.	
2.4	Tool holding areas	To replace all defective tool holding areas.	
2.5	Electrical Panel board	New Panel board shall be provided with new PLC controls.	
2.6	Wiring	Complete wiring has to be changed with new wiring	
2.7	Motors and Drives	All motors and drives are to be replaced if required(to be quoted separately)	
2.9	Seals and Cylinders	All cylinders are to be replaced with new cylinders along with seals.	
2.10	Pumps & Power packs	All pumps and power pack elements are to be replaced with the latest standards.	
2.11	Lubrication	To provide automated centralized lubrication system with all points to be lubricated.	
2.12	Oil groves & piping	To provide oil grooves and necessary piping for the lubrication.	
2.13	Encoder	To provide encoder for bending angle feedback and control.	
2.14	New control station	To provide new control station with touch screen HMI for programming and operation of the machine.	
2.15	Customized screens	Customized screens with easy of operation shall be developed and installed.	
2.16	Bend angle	Increment and decrement of bend angle to take care of spring back while bending shall be provided	
2.17	Recording of data	All the values like tonnage, bend values against related pipe specifications shall be able to store for future usage with the same parameters.	

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S. NO.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH CONFIRMATION
2.18	Interlocks	Necessary interlocks shall be provided	
2.19	Motors and drives	All motors and drives are to be replaced if required	
2.20	Lighting	Proper lighting to be provided to the Machine with Industrial machine lamps for maintenance purpose.	
2.21	Servo Hydraulics	Servo hydraulics shall be provided for precise control of bending angle, speed and tonnage	
2.22	Valves	All the valves are to be replaced with new ones.	
2.23	Oil leakages.	There should not be any oil leakage in the total system.	
2.24	Fence	Suitable fence shall be provided in swinging area of the machine.	
2.25	Worn out parts	All Mechanical worn out parts are to be replaced with new by vendor to restore accuracy of the machine.	
2.26	PLC	Development of PLC & PLC software to suit our requirement.	
2.27	PLC Backup	Machine parameters, PLC/Ladder backup, file back up (soft copy)	
2.28	PLC Make	FANUC/ SEIMENS/ HAIDENHAIN.	Vendor to confirm
2.29	Interface cables, connectors, Switch gears	Make: LAPP / Finolex / BCH / Siemens	Vendor to confirm
2.30	Bearings	Make: SKF/ FAG	Vendor to confirm
3.1	Scrapping guide ways	Complete scrapping of guide ways, matching slides.	
3.2	Racks & Pinion	Reconditioning all racks and pinion in the machine where ever applicable.	
3.3	Gears & gear boxes	Complete reconditioning of gear and gear boxes. If found beyond repairable condition, to be replaced.	
3.4	Main bearings	To check the condition of main bearings and are to be replaced.	
3.5	Piston rods	Refurbishment of piston rods shall be taken up	

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S. NO.	PARTICULARS	SPECIFICATION / DESCRIPTION	BIDDER'S OFFER WITH CONFIRMATION
3.6	Follower clamps	All the follower clamps are to be reconditioned.	Vendor to confirm.
3.7	Follower clamp jaws	All follower clamp jaws have to be replaced with new ones.	Vendor to confirm.
3.8	Optional items for automatic Pipe loading System	<p>The following system shall be quoted as optional with separate price for this system.</p> <ol style="list-style-type: none"> a. Pipe loading stand / rack with automatic loading of pipe into the collet shall be provided. The feeding of pipe shall be from the rear of the collet. b. The type and arrangement of the system to be explained in detail in the offer. c. The machine shall have suitable sensors to sense the pipe end and load the pipe to the programmed length. d. Pipe loading when the mandrel is engaged to be explained in detail by the vendor. 	Vendor to confirm and specify
4.0	Painting of the Machines :	<p>The body and all the parts of the machine shall be painted with two coats of reputed brand of Premium enamel Apple Green color paint. Interior of the machine are to be painted with two coats of enamel paint (Color to be specified by BHPV at the time of PO). 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 color as required / as indicated by BHPV 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 finish should be ensured. Overall Machine aesthetic view should be taken care of.</p>	Vendor to confirm.

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S.No.	PARTICULARS / SPECIFICATION / DESCRIPTION	BIDDER'S OFFER (WITH CONFIRMATION & COMPLETE TECHNICAL DETAILS)
5.0	<p>1. Complete dismantling of the machine assemblies into individual parts, degreasing, chemically cleaning, pre-painting of structural parts, joint inspection to finalize the detailed list of</p> <ul style="list-style-type: none"> a. Spares to be bought out b. Spares to be manufactured <p>The list should be approved by BHPV. Drawings of spares to be manufactured and specifications for bought out items shall be submitted to BHPV by the vendor for approval.</p> <p>SPARES : For the above mentioned spare parts (electrical/ mechanical / hydraulic/ electronics) required to be replaced beyond the spares quoted as per scope of work specified by the vendor along with offer, approved by BHPV after joint inspection, BHPV will supply spares available with them or procuring the spares.</p> <p>2. A separate tender will be floated for these spares (bought out spares and spares to be manufactured). The vendor shall also compulsorily participate in the above tenders quoting for all the spares. The spares will be ordered on the lowest party and the spares will be given to the vendor for assembly into the machine. No extra cost will be paid for the fitment and assembly of these spares.</p> <ul style="list-style-type: none"> a. Spares required to be replaced other than those agreed to during joint inspection will have to be approved by BHPV before such replacement is affected. Cost of such spares shall be absorbed by the Contractor. BHPV will not pay for these items. b. Prior intimation has to be given to BHPV by the contractor for deputing the team for joint inspection at BHPV / contractor works. 	Vendor to confirm

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S.No.	PARTICULARS / SPECIFICATION / DESCRIPTION	BIDDER'S OFFER (WITH CONFIRMATION & COMPLETE TECHNICAL DETAILS)
5.1	Operational spares for 2 Years should be quoted separately.	Vendor to confirm
5.2	A spare parts manual should be provided along with the parts list.	Vendor to confirm
5.3	Any modifications carried out shall not sacrifice original traverses. Speed and feed ranges.	Vendor to confirm
6.0	Prove-out test	
6.1	Complete assembly and Geometrical testing (jointly), job trails etc to be carried out. A test chart performance report has to be made. The tests to be carried out in presence of maintenance and production personnel.	Vendor to confirm
6.2	After successful geometrical and job tests the machine would be handed over to production division for their trail run and regular production would begin on the machine. After completely satisfying themselves with regards to the accuracies, loading capacity etc. of the machine by shearing a few plates, the Production and maintenance personnel would then release the satisfactory performance certificates for the machine. Only on receipt of such certificate the work would be deemed as completed and the final bill would be processed.	Vendor to confirm
7.0	BHPV's Scope of work:	
7.1	Material handling facilities will be given during retrofitting at BHPV shop.	
7.2	Provide all utilities like air, light, power and gas required for retrofitting and testing/trail runs at BHPV shop.	
7.3	All necessary documents available with BHPV related to Machine will be given to vendor	
8.0	Miscellaneous	
8.1	The supplier should give a point-by-point reply to the specifications	Vendor to specify
8.2	The following manuals should be supplied along with the supply of Machine. 1. Electrical block diagrams – 3 sets 2. Circuit diagrams of all PCBs – 3 sets 3. O&M Manuals (hard copy & Soft Copy) for PLC system – 3 sets 4. Machine data(NC, PLC , setting & Alarm texts) & PLC program(Soft copy) – 3 sets 5. Details of all Mechanical modifications & fittings with drawings – 3 sets 6.Operational / maintenance / spare parts manuals – 3 sets each	Vendor to confirm

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S.No.	PARTICULARS / SPECIFICATION / DESCRIPTION	BIDDER'S OFFER (WITH CONFIRMATION & COMPLETE TECHNICAL DETAILS)
8.3	The maintenance manual should contain the system description and its working, trouble shooting, circuit diagrams, waveforms, test points etc along with the diagnostic features. Error codes of display, explanation of code and action to be taken.	Vendor to confirm
8.4	The supplier should provide at least 3 days training in operation, programming and interfacing and maintenance at supplier's works/BHPV in each area for production and maintenance personnel.	Vendor to specify
8.5	The supplier should provide 1 Year warranty from the date of acceptance of reconditioning the Machine.	Vendor to specify
8.6	Place of Work: The supplier can execute the complete reconditioning and retro fitment activity at BHPV, Visakhapatnam or at supplier's works. If the machine/parts are to be taken to the supplier's works, the transportation cost (to & fro, insurance) has to be borne by the supplier.	Vendor to specify
8.7	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.	Vendor to specify
8.8	Oiling points with periodicity, type of oil to be used shall be indicated on the machine.	Vendor to specify
8.9	Bar chart showing the time required for the following elements to be given covering the period of delivery quoted a) Dismantling of the machines at BHPV works b) Complete cleaning and joint inspection of components at BHPV 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 work e) Assembly, re-erection & commissioning of the machine f) Geometrical, positional accuracy testing g) Job trial and prove out	Vendor to confirm

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S.No.	PARTICULARS / SPECIFICATION / DESCRIPTION	BIDDER'S OFFER (WITH CONFIRMATION & COMPLETE TECHNICAL DETAILS)
8.10	Any modifications carried out shall not sacrifice original traverses, speed and shearing ranges	Vendor to specify
8.11	<u>REWORK IN LIEU OF REPLACEMENT :</u> Reworks in lieu of replacement on all parts (bushes, box nuts, screw rods etc.) by machine grinding preferably / chrome plating / welding / machining etc. identified initially and also during joint inspection. For such works, BHPV will not pay extra.	Vendor to confirm
8.12	BHPV reserves the right to inspect the progress as well as workmanship at any stage of the work. Decision of BHPV Representative shall be final in the matter of inspection at any stage. Contractor shall extend necessary co-operation to enable such inspection.	Vendor to confirm
8.13	All discarded / replaced parts shall be returned to BHPV.	Vendor to confirm
8.14	The price for each machine shall be quoted separately in the same price bid. BHPV reserves the right to place split orders (i.e separate orders for each of the Machines. Vendor to confirm for accepting part order.	Vendor to confirm
8.15	Any other work (mechanical and electrical) 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.	Vendor to specify
8.16	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 highlight the same to BHPV before submission of the offer.	Vendor to specify
8.17	Lodging & Boarding facilities for the contractor personnel are in Contractor's scope (during dismantling period, re-erection & re-commissioning period and for troubleshooting during performance guarantee period). BHPV is not responsible for this.	Vendor to confirm
8.18	Interpretation: Any dispute of difference of opinion in respect of the interpretation, effect or application of this particular condition of the Contract or of the amount recoverable hereunder from the vendor shall be decided by the Contractee and the decision shall be final and conclusive.	Vendor to confirm

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S.No.	PARTICULARS / SPECIFICATION / DESCRIPTION	BIDDER'S OFFER (WITH CONFIRMATION & COMPLETE TECHNICAL DETAILS)
8.19	Subletting: The vendor shall not sublet or assign this work or any part thereof without the written permission of BHPV. In the event of the vendor subletting or assigning this work or any part thereof without such permission, BHPV shall be entitled to cancel the contract and execute the contract elsewhere at the risk and account of the vendor and the vendor shall be liable for any loss or damage which BHPV may sustain in consequence of or arising out of such contract elsewhere .	Vendor to confirm

COMMERCIAL TERMS AND CONDITIONS FOR SUBMISSION OF OFFER**1.0 QUOTATIONS**

Bidders shall submit the offer in TWO INNER ENVELOPES as indicated below which shall be sealed in one outer envelope.

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 Un-priced commercial bid**” Indicating Tender 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 Tender No., Due Date and Address & Reference of the Bidder.

Both the envelopes (Part I & II) shall be put in one cover, duly sealed, super scribing as Part I and Part II of Tender No., due date of opening and the address and reference of the Bidder

The above offer should reach this office on or before the due date by 14.00 Hrs (IST)
Tender should not be addressed to any Individuals name but only designation to

Dy. General Manager (MM)
BHARAT HEAVY PLATE & VESSELS LIMITED
VISAKHAPATNAM - 530 012 (A P), INDIA.

Tenders should be free from CORRECTION AND ERASURES. Corrections if any must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.

Offers should be in ENGLISH and accompanied by technical literature catalogue and detailed dimensional drawings in ENGLISH or otherwise the offers will not be considered.

2.0 PART I (TECHNICAL & UN-PRICED COMMERCIAL BID)**2.1 Technical**

This part shall include / indicate the following:

- 2.1.1. Offer should contain complete scope of supply with all technical details, specifications, delivery and other commercial terms and conditions.
- 2.1.2. Point by point confirmation for the Technical Specification enclosed is to be provided. If there are any deviations the same should be clearly specified. Offers received without conformation to our specification will be rejected.
- 2.1.3. List of customers to whom same or similar equipment have been supplied along with performance certificates to be enclosed.
- 2.1.4. Relevant catalogue to be attached.
- 2.1.5. List of spares parts (with part numbers) for two years operation and maintenance should be attached.

2.1.6. Information on shipping weight and cubage (length, width & height) to be provided

2.1.7. In case of foreign bidder offer, the Principal's technical offer only should be enclosed.

2.2 Un-Priced Commercial

This part shall include / indicate the following

2.2.1. Port of shipment / Station of dispatch

2.2.2. Terms of payment

2.2.3. FOB/FCA price along with freight charges up to Chennai port (for foreign bidders) Ex-works/FOR Dispatch Station price along with freight charges up to BHPV Visakhapatnam (for Indian bidders)

2.2.4. Taxes, Service tax & duties including Cess applicable.

2.2.5 Delivery Schedule

2.2.6. Filled-in check list to be enclosed

2.2.7. Offer validity

2.2.8. Country of origin

2.2.9. Percentage of agency commission if any along with a copy of Agency agreement The FOB/FCA/CFR Prices quoted shall include the agency commission.

2.2.10. A copy of "Un-Priced Part II 'i.e., a copy of the Price Bid without the price details to be enclosed.

2.2.11 BHPV is eligible for availing CENVAT / VAT credit on both inputs and capital inputs. The suppliers invoice should separately indicate the amount of duty / taxes and should invariably mention the following details:

1. The Central excise registration number, range division and commission rate of the supplier's jurisdiction.
2. The rate of duty and 8 digit central excise tariff heading of the item supplied.
3. The TIN, VAT, CST registration number of the supplier.

The duplicate copy of the invoice is required for availing CENVAT credit and original copy for availing VAT credit, if purchased within the state.

In case of foreign bidders the duplicate copy of the electronic Bill of Entry along with TR6 challan should be made available for availing CENVAT credit on CVD, Cess (S) and SAD.

3.0 **PART II (PRICE – BID)**

This part should contain the schedule of price particulars and to be co-related to the technical details provided in Part-I

4.0 **OPENING OF TENDERS**

The Part I – Technical & un-priced commercial bid alone 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 Price Bid opening date. Clarifications if any required by BHPV FOR Technical evaluation / commercial evaluation would be sought from Bidders before opening of Part II – price bid.

GENERAL

5.1 Incomplete offers will not be considered.

5.2 **Fixed priced:** Prices quoted by the bidder shall be fixed and not subject to any escalation whatsoever during the period of bid validity and execution of the Purchase Order A bid submitted with an adjustable price will be treated as non- responsive and rejected Prices shall be written in words and figures. In the event of difference, the price in words shall be valid and binding. Unit prices shall be considered correct in the event of any discrepancy with regards to total price.

5.3 **Bid currency:** Indian bidders should submit the prices only in Indian Rupees. Foreign bidders may submit their bid in their home currency, which should be clearly indicated in the un-priced commercial bid as well as in the price bid.

- 5.4 **Terms of Delivery:** Bidders are required to quote their best delivery period. Foreign Bidders should submit their offer for net FOB/ FCA – Nearest Sea Port / Air Port as well as CFR / Chennai Seaport/ Airport. Freight charges up to Chennai port to be indicated separately. Indian Bidders should submit their offer for Dispatching station as well as FOR BHPV Visakhapatnam basis. Freight charges from works to BHPV Visakhapatnam to be indicated separately. Delivery from the date of Letter of Intent to be mentioned in the offer.
- 5.5 **Taxes and Duties:** 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.28280189432, APGST No. VSP/04/1/1023 dated 24.08.1968. CST No.VSP/04/1/1012 dated 24.08.1968 & BHPV ECC No AAA CB 7076 N-XM001. Assessment circle Visakhapatnam.)
- 5.6 **Validity:** The offers for main equipment and spares shall be kept open for acceptance for a period of 120 days (one hundred and twenty days) from the dates of opening of the tender (part I)
- 5.7 **Terms of Payment:**
- 5.7.1 **Indian Bidders:**
- 5.7.1.1 90% payment (90% of basic price + 100% Taxes) will be made within 45 days of receipt of material and balance 10% will be made after acceptance of material/commissioning of the equipment at BHPV, Visakhapatnam and on submission of Performance Bank Guarantee.
- 5.7.2 **Foreign Bidders**
An Irrevocable letter of Credit shall be established for 80% of FOB/FCA/CFR/ (excluding Indian Agent's commission) 2 months prior to shipment and valid for 3 months for negotiation against shipment Letter of Credit shall be opened through a branch of State Bank of India in the country where order shall be placed. In case, in the country where order is placed, State Bank of India is not there, Letter of Credit will be confirmed by foreign banker. Balance 20% of FOB/FCA/CFR value shall be paid through sight draft on Commissioning & acceptance of the equipment at BHPV Visakhapatnam, against submission of 10% performance bank guarantee. All Bank charges outside India are to supplier's account. Lump sum erection and commissioning charges if any, shall be payable after satisfactory erection & commissioning of the equipment by sight draft against certificate issued by the competent authority.
- 5.7.3 **Common to both India & Foreign Bidders.**
Erection & Commissioning (E&C) charges will be released after deduction of Income Taxes as per the Govt. of India rules. The TDS certificate will be issued by BHPV. Applicable service tax on E&C charges will be payable extra. The liability of depositing the same to the Govt. will be of the supplier.
- 5.7.4 **Loading criteria common to both Indian and foreign bidders:** Vendor should accept the payment terms specified above. However for any deviation to the payment terms offered with reference to the above criterion will be loaded with prime lending rate of SBI prevailing on date of opening of price bid + 2%, which shall be computed for the differential period between BHPV terms of payment and the offered basic price.
- 5.8 DUNS number (allotted by M/s. DUN & Bradstreet) shall be mentioned in your offer.
- 5.9 **Guarantee:** The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier.
Offers from vendors not accepting to the requested guarantee period will be rejected.

- 5.10 **Contract Execution Bank Guarantee (CEBG):** The successful tenderer shall furnish a Bank Guarantee from any Nationalized Bank for 5% of Purchase Order value (FOR Dispatching station value – Excluding taxes, duties, freight & insurance – for Indian bidders) & (FOB/FCA value – excluding freight & insurance – for foreign bidders) confirming that the order will be executed as per the terms and conditions and this should be valid till final dispatch date (LR/GR/BL/AWB) with additional 2 months claim period. Letter of Credit will be processed only after receipt of CEBG. The CEBG is to be furnished within 3 weeks from the date of Purchase order.
Offers from vendors not accepting to submit CEBG will be rejected.
- 5.11 **Performance Bank Guarantee (PBG):** The supplier shall furnish a Bank guarantee from any Indian Nationalized Bank approved by BHPV in the format, given by BHPV along with purchase order for 10% of the Purchase Order value (FOR Dispatching station value – Excluding taxes, duties, freight & insurance – for Indian bidders) & (FOB/FCA value – excluding freight & insurance – for foreign bidders) valid for period of guarantee with additional claim period of 2 months.
Offers from vendors not accepting to submit PBG will be rejected.
- The CEBG & PBG shall be obtained from any Indian Nationalized Bank
- 5.12 **Liquidated damages:** Delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional penalty at the rate of ½% of the value of goods for each week of delay subject to a maximum of 10% of the Purchase Order value.
- 5.12.1 **Loading Criteria for Liquidated Damages:** Any deviation from above LD Clause to the extent for which LD is not agreed by the vendor i.e., differential % value will be loaded on basic price, e.g. If some vendor agrees for say maximum of 6% LD then his price will be loaded by 4% (10 – 6) of his quoted basic price.
- 5.13 **Risk purchase:** If the supplier fails to deliver the goods within the delivery specified in the Purchase Order, BHPV 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 dispatch within the delivery period mentioned in the Purchase Order.
Offers from vendors not accepting the above Risk Purchase terms will be rejected.
- 5.14 **Indian Agent & Agency commission:** An Indian Agent can represent only one Foreign Manufacturer against a particular Tender. The FOB/FCA/CFR price quoted by the Foreign bidder shall include the agency commission. However, the agency commission component payable to their Indian Agents shall be shown separately in the offer. This will be paid by BHPV in India Rupees, on satisfactory commissioning & acceptance of the equipment. Copies of current Agency Agreement / Authorization Letter in respect of Agency Commission shall be furnished along with offer. For calculation of Rupee equivalent of Agency Commission exchange rate as prevailing on the date of Purchase Order will be taken.
- 5.15 **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 warrantee period shall be on FOR, BHPV - Visakhapatnam, basis.

- 5.16 **Inspection & Testing:** All goods shall be subject to inspection by BHPV or its authorized representatives at supplier's works or at BHPV stores. 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 BHPV, Visakhapatnam.
- 5.17 **Operating and Maintenance manuals:** The Bidders shall clearly mention in their offer that Operating Maintenance Manuals as called for in the Technical Specification in the required number of copies will be provided.
- 5.18 **Cenvat & VAT credit. (for Indian Bidders only):** The quotation must indicate Tariff item number and rate of Excise Duty applicable. The original Excise Duty Gate Pass will be required to be furnished in case charges to us. If the bidder is availing Cenvat credit for his input materials, the effect of proforma credit should be passed on to the purchaser.
- 5.19 **Packing:** The Supplier shall arrange for packing suitably in all respects considering the peculiarity of the material involves for normal transport by sea / air / rail road and suitably protected against effect of tropical salt laden atmosphere in the event of shipment being delayed at ports.
- 5.20 **Salient Points of HSE** (Health, Safety & Environment) that are to be considered while submissions of offer are:
- 5.20.1 Consumption benchmarks related to output shall be provided wherever applicable for key input resources (energy/fuels/chemicals)
- 5.20.2 Competency requirements for operation, maintenance and calibration, if any, shall be communicated
- 5.20.3 If any Hazardous chemicals as per MSIHC (Manufacturing, Storage and import of Hazardous Chemicals) Rules 1989/94/2000 are used, the MSDS shall be provided, along with on site & OFF site emergency plan (as applicable).
- 5.20.4 The noise level at operator level shall be within 90 Dba
- 5.20.5 OH&S (Occupational Health and Safety) control measures for safe working of machine as applicable shall be specified
- 5.20.6 The machine/equipment shall be fitted with guard for rolling and moving parts and shall comply with applicable OH&S legislations and Factories Act 1948
- 5.20.7 The supplier shall submit the layout drawing of operating controls, displays etc and operating instructions to enable ergonomics evaluation and approval
- 5.20.8 The recommended PPE (Personal Protective Equipment) for the equipment shall be furnished
- 5.20.9 Alarm System (both visual and audible) and Automatic switch off of the equipment shall be provided for any intrusion, overloading, short circuiting or any malfunctioning of the equipment.
- 5.20.10 Details of all hazardous / harmful substances discharges as by-products / wastes during operations of the machine / equipment, such as fumes, gases, dust particles, aerosols UV./IR (Ultra violet / Infra red) radiations, etc shall be furnished, along with their concentrations and their TLV, (Threshold Limit Value)

- 5.20.11 Appropriate pollution control measures shall be proposed to keep the emissions from the machinery / processes within the prescribed limit as stated in Environment Protection Rules 1986.
- 5.20.12 All furnaces, process units, DG sets, paint booths, shot blasting chambers, etc shall be provided with stack(s) of sufficient height as per guidelines laid down in the Environment Protection Rules 1986.
- 5.20.13 wherever industry specific standards are not available for control of pollutants, general emission standards shall be used
- 5.20.14 Chemicals banned due to their negative impact on the environment shall not be used on the process
- 5.20.15 Fuels with sulphur content less than 0.05% shall be proposed.
- 5.20.16 Details regarding nature of waste generated and appropriate disposal practices available shall be provided, along with the operation procedure of the plant / process.
- 5.20.17 Hazardous chemicals and flammable substances shall be transported only through authorized transporters and all safety practices as laid down in applicable legislative requirements such as Central Motor Vehicle Rules, Manufacture, Storage and Import of Hazardous Chemical 1989, etc. shall be followed.
- 5.20.18 Primary materials used in the equipment shall be specified and they shall be eco - friendly.
- 5.21 Evaluation of offers shall be on the basis of delivered cost (Net cash outflow to BHPV).
- 5.22 BHPV also reserves its right to allow to the Public Sector Enterprises ordering and price preference facilities as admissible under the existing policy.
- 5.23 BHPV reserves its right to reject a tender due to unsatisfactory past performance in the execution of a contract at another project / unit.
- 5.24 BHPV 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 BHPV.
- 5.25 BHPV reserves the right to go for a Reverse Auction (RA) instead of opening the submitted sealed bid, which will be decided after technical evaluation. Information and general terms and conditions governing RA are given below.

GENERAL TERMS AND CONDITIONS OF RA (REVERSE AUCTION)

Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications. BHPV 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. BHPV 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. BHPV will inform the vendor in writing in case of reverse auction, the details of service provider to enable them to contact & 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 format (provided by Service provider) before start of Reverse auction. Without this, the vendor will not be eligible to participate in the event.
 6. BHPV will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHPV like Packing & Forwarding charges, taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHPV standard Commercial terms & conditions) for each of the 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 scheduled 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 BHPV through Service provider within 24 hours of Auction without fail.
 10. Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHPV as per prevailing procedure.
 11. In case BHPV 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 BHPV shall be opened as per BHPV’s standard practice.
- 5.26 **Force Majeure clause:** If at the time during the continuance of this contract the performance in whole or in part by either party of any obligations under this contract shall be prevented or delayed by reason, of any war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, explosions epidemics, quarantine, restrictions or acts of GOD (hereinafter referred to as events) then provided notice of happening of any such events is given by either party to other within twenty one days from the date of occurrence thereof neither party shall reason of such events be entitled to terminate this contract nor shall either party have any such non performance and delay is resumed as soon as practicable after such events has come to an end or ceased to exist, if the performance in whole or part of any obligation under this contract is prevented or delayed by reason or any such event claims for extension of time shall be granted for period considered reasonable by the purchaser subject to prompt notification by the seller to the purchaser of the particulars of the events and supply to the purchaser if required of any supporting evidence. Any waiver of time in respect of partial installment shall not be deemed to be a waiver of time in respect of remaining deliveries.

CHECK LIST

Bidder's acceptance to BHPV's Standard Commercial Terms & Conditions.

Applicable for Indian bidders

(To be submitted along with the offer – please do not change the format)

BHPV Tender No: & Date:	Bidders Confirmation / response
Technical Confirmation to BHPV's Specification	Furnished /Not Furnished
Prices have been quoted on "FIRM PRICE" basis only.	Yes / No
Prices have been quoted on "F.O.R BHPV" basis only.	Yes / No
Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – please Specify)	
Sales Tax (please Specify)	
Excise Duty (please Specify)	
Delivery period from the date of Purchase Order (please Specify). A loading @ ½ % of the Purchase Order value per week will be done for the grace period requested. For evaluation 4 weeks will be considered as one month. Vendors quoting a delivery period beyond the 'the requested delivery plus the allowed grace period' is liable for rejection.	
Liquidated damages as per clause 5.12 (we require acceptance to @ ½% per week subject to a maximum of 10%).	
Risk Purchase as per clause 5.13 (Offers from vendors not accepting the Risk Purchase terms will be rejected)	Yes / No
Payment terms : 90% payment will be made within 45 days of receipt of material and balance 10% will be made after acceptance of material/commissioning of the equipment at BHPV Visakhapatnam and on submission of Performance Bank Guarantee.	
Contract Execution Bank Guarantee (CEBG) as per Clause 5.10 (Offers from vendors not accepting to submit CEBG will be rejected)	Yes / No
Performance Bank Guarantee (PBG) as per Clause 5.11 (Offers from vendors not accepting to submit PBG will be rejected)	Yes / No
Guarantee as per clause 5.9 (The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier). (Offers from vendors not accepting to the requested guarantee period will be rejected)	Yes / No
Approximate Net Weight of the total Consignment	
Approximate Gross Weight of the total Consignment	

Signature & Office Seal of the bidder

CHECK LIST

Bidder's acceptance to BHPV's Standard Commercial Terms & Conditions.

Applicable for foreign bidders (To be submitted along with the offer – please do not change the format)

BHPV Tender No: & Date:	Bidders Confirmation / response
Technical Confirmation to BHPV's Specification	Furnished / Not Furnished
Prices have been quoted on "FIRM PRICE" basis only.	Yes / No
Prices have been quoted on "F.O.R BHPV" basis only.	Yes / No
Validity of offer (we require a minimum period of 120 days from the date of Tender Opening – please Specify)	
Currency in which quoted (please Specify)	
Port of loading (please Specify)	
Country of Origin (please Specify)	
Sales Tax (please Specify)	
Excise Tax (please Specify)	
Delivery period from the date of Letter of Intent (please Specify)	
Liquidated damages as per clause 5.12 (we require acceptance to @ ½% per week subject to a maximum of 10%)	
Risk Purchase as per clause 5.13 (Offers from vendors not accepting the Risk Purchase terms will be rejected)	Yes / No
Payment terms (An irrevocable Letter of Credit shall be established for 80% of FOB/FCA/CFR (excluding Indian Agent's Commission) 2 months prior to shipment and valid for 3 months for negotiation against shipment. Letter of Credit shall be Opened through a branch of State Bank of India in the country where Order shall be Placed. In case, in the Country where order is placed State Bank of India is not there, Letter of credit will be opened through our bankers or as permitted by Government of India. Letter of Credit will not be confirmed by foreign banker. Balance 20% of FOB/FCA/CFR value shall be paid through sight draft on Commissioning. & acceptance of the equipment at BHPV, Visakhapatnam against submission of 10% performance Bank Guarantee. All Bank charges outside India are to Supplier's account. Lump sum erection and Commissioning charges, if any shall be payable after satisfactory erection and Commissioning of the Equipment by sight draft against Certificate issued by the competent authority as per clause 5.7.2)	
Agency commission (refer clause 5.14)	Acceptable / Not acceptable
Contract Execution Bank Guarantee (CEPG) as per Clause 5.10 (Offers from vendors not accepting to submit CEBG will be rejected)	Yes / No
Performance Bank Guarantee (PBG) as per Clause 5.11 (Offers from vendors not accepting to submit PBG will be rejected)	Yes / No
Guarantee as per clause 5.9 (The equipment shall be guaranteed for a period of 18 months from the date of supply or 12 months from the date of commissioning and acceptance whichever is earlier). (Offers from vendors not accepting to the requested guarantee period will be rejected)	Yes / No
Approximate Net Weight of the total Consignment	
Approximate Gross Weight of the total Consignment	

Signature & Office Seal of the bidder