

### **Bharat Heavy Electricals Limited**

Power Sector - Southern Region 690, Anna Salai, Nandanam, Chennai - 600 035. Phone: 044 - 24342458 Fax: 044 -24328516

Email: quna@bhelpssr.co.in boopathy@bhelpssr.co.in; rneelu@bhelpssr.co.in

#### **Tender Enquiry**

Sub: Tender document for Supply and Supervision assistance during Erection and Commissioning of Five nos. (05) ACID CLEANING PUMP (200 T/Hr.) for BHEL PSSR'S SITES (MALWA(MP) – 3 Nos. & Krishnapattinam(AP) –2 Nos.)  $D/\sin$ 

Sealed offers are invited by the undersigned on behalf of BHARAT HEAVY ELECTRICALS LIMITED for the subject supply. Please find enclosed tender documents as per following details: Tender document no: BHEL **PSSR: PUR: EC111019 Dtd. 22/07/2011** Comprising of following:

	SALIENT DETAILS OF NIT			
SLNO		Description		
1	Supply Description	Supply and Supervision assistance during Erection and Commissioning of Five nos. (05) ACID CLEANING PUMP (200 T/Hr.) for BHEL PSSR'S SITES (MALWA(MP) - 3 Nos. & Krishnapattinam(AP) -2 Nos.)		
2	Tender No	BHEL PSSR PUR EC111019 DT 22 07 2011		
3		Details of tender document		
3.1	PART - A	PRE QUALIFICATION CRITERIA		
3.2	PART - B	General Conditions of Contract (GCC)		
3.3	PART - C	Special conditions of contract and GTC of RA		
3.4	PART – D	Technical Specification		
3.5	PART – E	No Deviation Certificate		
3.6	PART – F	Price Schedule		
3.7	PART – G	SD cum PBG Format		
3.8	PART - H	EFT Format		
4.0	EMD AMOUNT	Rs 1.0 Lakhs		
5.0	COST OF TENDER	Nil		
6.0	TENDER DUE DATE	Last date of submission of offer is 15/08/2011 (14-00 Hrs). Techno-commercial bid shall be opened on 15/08/2011 at 15-00 Hrs.		

1. You have to deposit **Rs. 1,00,000.00 (One Lakh only) towards Earnest Money Deposit (EMD)** in the form of demand draft drawn in favor of "**Bharat Heavy Electricals Ltd.**" payable at Chennai. Tenders not accompanied with full EMD will not be considered.

#### EARNEST MONEY DEPOSIT (EMD)

- 1.EMD shall be furnished along with offer in full.
- 2.EMD to be paid in cash ( as permissible under Income Tax Act), Pay order or Demand Draft in favour of Bharat Heavy Electricals Limited' payable at Chennai
- 3. No other form of EMD remittance shall be acceptable to BHEL.
- 4. Supplier may opt to deposit one time EMD of Rs. 2.0 Lakhs (Rupees Two Lakhs only) with BHEL PSSR Chennai, which will enable them to participate in all the future enquiries for supplies from this office. Interested supplier may clearly send their consent for converting the present EMD in to a "One time EMD" in their offer.

Note: The One time EMD cannot be withdrawn by the tenderers with in 3 years from the date of deposit, under any circumstances, The tenderer who wishes to withdraw after three years will not be allowed to submit 'One Time EMD' again.

- 5. Tenderers who have already deposited such 'One Time EMD' of Rs. 2.00 Lakhs are exempted from submission of EMD for this tender. However a copy of 'One Time EMD' certificate issued by BHEL, PSSR Chennai office issuing the tender shall be enclosed along with the offer.
- 6.EMD submitted by the tenderer shall be forfeited if:
- a) After opening the tender, the supplier revokes his tender with in the validity period or increases his earlier quoted rates.
- b)The supplier is not suppliying/ not offering material for inspection as per order conditions and delaying unreasobly.
- 7. EMD shall not carry any interest.
- 8. The EMD will be refunded to the unsuccessful tenderer with in a reasonable time after acceptance of the award by the successful tenderer.

#### 2. The offers shall be sent in sealed envelopes in the manner prescribed below :

The offers shall be sent in three (3) separate sealed envelopes. Complete set of offer shall be addressed & sent to Sr. Manager / P&S, BHEL, PSSR, 690, Anna Salai, Periyar Maligai,

Nandanam, Chennai 600035 as per following details.

	ariam, Chemiai 600055 as per Tollowing details.	
SI	Description	No of copy
No		
Ι	COVER -1 TECHNO-COMMERCIAL OFFER in sealed envelope	
I a	Offer forwarding Letter	
Ιb	Duly filled-in 'No deviation certificate' as per prescribed format	
	(annexure-II) to be placed after document under sl no l.a above.	
	In case of any deviation, the same should be submitted separately	
	for technical & commercial parts, indicating respective clauses of	
	tender against which deviation is taken by bidder. The list of such	
	deviation shall be placed after document under sl no l.a above. It	
	shall be specifically noted that deviation recorded elsewhere shall	
	not be entertained.	
Ic	Techno-commercial offer enclosing supporting documents meeting	
	Pre Qualifying Crieteria / annexures / schedules/ drawing etc as	
	required in line with prescribed format. It shall be specifically noted	
	that all documents as per above shall be indexed properly	
Id	All volumes of tender document pertinent for the subject supply	
	including NIT together with subsequent changes in the tender in	
	the form of TCN, correspondences etc, signed on all pages.	
Ie	PART- F (Price Schedule in absolute value)-un-priced but	
	mentioning only `quoted/unquoted' against each item of	
	schedule	
If	Any other details preferred by bidder with proper indexing.	
	II. COVER-II (PRICE BID/ABSOLUTE VALUE)	
	Copy of offer forwarding/ covering letter (as referred in I.a)	
	Duly filled-in PART- F (Price Schedule in absolute value) together	
	with signed preamble in separate sealed envelope	
	COVER-III (EMD).	
	Demand Draft etc towards EMD as per inst ruction	
	COVER-IV.	
	All four aforesaid covers in sealed condition shall be enclosed	
	in this cover. This cover shall be super-scribed with (i) Cover	
	no; (ii) Details of enclosed covers and (ii) Name of the job,	
	tender document no. & due date of submission. ALONG WITH	
	NAME & COMPLETE ADDRESS (FAX NO. CONTACT NOS) OF	
	BIDDER	

#### SPECIAL NOTE:

**A)** Your offer & documents submitted with the offer shall be signed and stamped in each page by your authorised representative. No overwriting / correction in tender documents by bidders shall be allowed. However if correction is unavoidable, the same may be signed by authorized signatory.

**B)** All documents / annexure submitted with the offer shall be properly annexed and placed in respective places of the offer as per enclosure list mentioned in the covering letter. BHEL shall not be responsible for any missing documents.

Sl No	Description	Agreed	Remarks
3	BHEL reserve the right to reject the offer, if found unsatisfactory past performance in the execution similar supplies. BHEL's decision in this regard shall be final & binding		
4	BHEL reserves the right to accept or reject any or all offer without assigning any reasons thereof. BHEL also reserve the right to cancel the offer wholly or partly without assigning any reason thereof. BHEL also reserve the right to decreased the tender quantity while ordering		
5	You are free to visit the site and study the prevailing site condition including law & order etc. before quoting.		
6	For any clarification on the tender document, you may seek the same in writing from the office of the undersigned. Such letters should reach the office of the under signed <b>positively by 05/08/2011</b> .		
7	BHEL may decide holding pre-bid conference (PBC) with any/ all the intending bidders. On such communication from BHEL, the bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL		
8	In the event of any conflict between requirement of any clause of this specification / documents / drawings / data sheets etc or requirements of different codes / standards, specified, the same to be brought to the knowledge of BHEL by you in writing for such clarifications before you submit your bid; otherwise, more stringent requirements as may be interpreted by BHEL shall prevail and shall be binding on you.		
9	Price bids of those bidders will be opened who will be qualified for the tender on the basis of evaluation of Techno-commercial bids / pre-qualifying criteria and as considered suitable by BHEL		
10	While BHEL reserves the right to open the price bid of the offers .The date & time to open the tender opening shall be intimated to the bidders in case BHEL decides it to be 'Public opening' and in such a case, one authorized representative of the bidder shall be allowed to attend		

11	BHEL reserves the right to go for REVERSE
	AUCTIONING. Reverse Auction is the type of auction
	typically conducted to buy goods / items over Internet
	in which the lowest price bidders wins. The General
	Terms & Conditions of the Reverse Auction (RA) is
	enclosed with the tender as <b>Part C</b>

All the bidders are requested to note that all the errata / technical clarifications / corrigendum / extension etc shall be published in this web page only. As such, all the bidders are requested to be in continuous touch with this web page. Thanking you,

Yours faithfully,

For BHARAT HEAVY ELECTRICALS LTD

Sr. Manager (Purchase& Stores)

#### PART - A: PRE-QUALIFICATION CRITERIA FOR PARTICIPATING IN TENDER

Sl	Description	Agreed/proof
No		enclosed
01	PUMPS OF QUOTED CAPACITY AS PER TECHNICAL SPECIFICATION OR HIGHER CAPACITY ACID CIRCULATION PUMP SHOULD HAVE BEEN MANUFACTURED BY OEM AND THEIR APPROVED AGENCIES OR TRADERS AND SUPPLIED ANY WHERE IN INDIA DURING THE LAST 10 YEARS	
02	PERFORMANCE CERTIFICATE OF ATLEAST THREE PUMPS OBTAINED FROM THE PREVIOUS COSTOMER TO BE FURNISHED BY THE BIDDER .THE CERTIFCATE SHALL BE DULY SIGNED & STAMPED BY CONCERNED CUSTOMER	
	BIDDER SHOULD FURNISH PAN (PERMANENT ACCOUNT NO.)	
	NOTE:  • THE BIDDER WHO MEETS THE ABOVE PRE-QUALIFICATION CRITERIA CAN ONLY PARTICIPATE IN THE SUBJECT TENDER.  • BIDDER.S QUOTING IN INDIAN CURRENCY (INR) ONLY SHALL BE QUALIFIED	

PART - B: GENERAL CONDITIONS OF CONTRACT (GCC)

Sl No	Description	Agreed	Deviation
110	BHEL STANDARD TERMS		
01	Our requirement is for capital use at BHEL SITES FOR BHEL POWER SECTOR SOUTHERN REGIONS. Offers are invited to submit in three -parts. Part-I: TECHNICAL-CUM-COMMERCIAL AND UN PRICED BID: Consisting of complete technical details, catalogues, drawings and all commercial terms. (Money values shall not be indicated i.e; un price bid). Following formats are to be filled and submitted in a single cover super scribing as Technical - cum - Commercial and Un Priced Bid, Tender Enquiry No. and Due Date.: (i) EMD as per tender. Please arrange to submit EMD in a separate sealed envelop inside the envelop containing techno-commercial bid i.e PAR-I of tender. (ii) Technical Specification (Catalogues to be enclosed if any) (iii) BHEL Standard Terms & Conditions. (iv) Un Price Bid (v) Confirmation of pre-qualification criteria All		
	documents to be downloaded from our BHEL Web Site i.e. www.bhel.com		
02	PART- II: PRE-Q: All PRE-Q documents to be submitted		
03	Part-III: PRICE BID Price to be quoted in the format enclosed. (Any preconditions for price will not be accepted and the tender will be rejected). Techno-commercial & Pre- Q bids shall be opened first & afterwards price bid shall be opened for qualified bidder, who have qualified in Techno-commercial & pre-q bid. If the vendor submits offer i.e. Technical & Price bid together, the offer shall be liable for rejection. Note: In order to maintain sanctity of the tender system, it is advised that one Agent cannot represent two suppliers or quote on their behalf in a particular tender		
	BHEL keeps its right to reject/load any offer which is having deviations to BHEL Specifications, Standard Terms & Conditions. All the bidders shall submit their offers only by filling the original BHEL tender documents. No other offer will be entertained. In Technical-Cum-Commercial bid, copy of the price bid has to be used to indicate commercial terms without price.  The equipment offered shall be strictly conforming to the		
	specification and for complete unit. No offer for individual accessories or part machinery will be accepted.		

04	Terms of payment :	
a.	90% of basic price and full taxes, duties, Transit	
	Insurance& freight charges shall be payable within 90	
	days against receipt of Pumps & all accessories at site /	
	submission of following documents : i. Copy of lorry way	
	bill ii. Invoice in duplicate, iii. Receipted Delivery challan	
	in duplicate, iv. original test certificate, v. Copy of	
	inspection report or inspection waival from BHEL. vi.	
	Guarantee certificate vi. Catalogues and O&M manuals.	
b.	Balance 10% of basic price, payable on supervision	
	assistance of installation & successful commissioning at	
	site against the performance bank guaranty (PBG)	
	equivalent to 10% of basic price to remain valid till the	
	warranty period. Tenderers are requested to specifically	
	confirm these payment terms in their technical offer.	
	c. No advance shall be paid. Payment shall be paid in	
	INR only.	
	d. Payment shall be made through RTGS	
05	List for <b>recommended spare</b> parts as per O&M with	
	price break- up for two years operation beyond warranty	
	period, should be indicated in the price schedule. Bidder	
	should also submit un- priced list of recommended spares	
	along with Technical bid	
06	Warranty	
	Warranty will be for engineering, materials used, design	
	and stipulated performance of the equipment supplied	
	and will remain valid for a period of 12 months from the	
	day of commissioning or 18 months form the date of	
	delivery which ever is earlier.	
	In case of any defect arising out of above, supplier shall	
0.7	replenish the component / assembly, free of cost.	
07	Supervision for Commissioning / Erection charges shall	
0.0	be quoted as per price schedule.	
08	Delivery: Delivery period: 02 months from receipt of	
	PO. Offer with delivery period beyond <b>03</b> months shall be	
00	liable for rejection	
09	BHEL will have the option to <b>pre-inspect</b> the machine /	
	equipment at supplier's works by our own inspector . The	
	final inspection of performance will however be carried	
10	out at our site in India.	
10	The manufacturing progress will have to be furnished to	
1.1	us periodically in the form/ manner required by us	
11	The sealed tenders super scribing tender number and	
	due date should be addressed to Sr. Manager / P&S,	
	Bharat Heavy Electricals Limited, PSSR,	
	690,ANNASALAI,PERIYAR MALIGAI, NANDANAM,	
	CHENNAI-60035, Tamilnadu	

12	Sales Tax: Bidders are to quote VAT/CST in % format without considering 'C' form.	
13	The quotation should be valid at least for a period of 90- days from the due date of offer submission (including extension, if any). Price Variation Clause will not be entertained	
14	Offers should be submitted in Duplicate.	
15	Tenders will be received <b>up to 14.00hrs</b> on the said due date	
16	Bidder to consider the benefit on CENVAT in their quoted basic price. BHEL is eligible to take CENVAT Credit as per CENVAT Credit Rule. Bidders eligible to issue Excise Invoice to BHEL for any materials either as manufacturers, first stage or second stage dealer under the Central Excise Act, Rules etc. must furnish the CENVATABLE ED amount as mentioned in price schedule. CENVATABLE ED amount which can be passed on to BHEL by the bidder will not be considered for evaluation of the offer.	
17	Discounts Discounts offered by the vendor in price shall not be entertained by BHEL. The vendor should factor in his discount in the price offer only. In-spite of the same, if a discount is offered by the bidder, the same shall not be considered for evaluation of the offer, but purchase order shall be issued on bidder's final discounted price.	
18	a) Security Deposit (SD) Bank Guarantee: The successful tenderer should furnish a security deposit or bank guarantee from Bank for an amount of 10% of the ORDER price of the order in the form and manner desired by us (as per format) for the satisfactory execution of the same in accordance with the terms and conditions and delivery specified in the order, within 15 days from the date of L.O.I. This BG should remain valid till the date of successful commissioning of the equipment.	
	b) Performance Bank Guarantee (PBG): The successful tenderer should furnish a performance bank guarantee prior to commissioning of the equipment for an amount of 10% of the ORDER price valid till completion of the warranty period. SD - BG may be converted into PBG. "The original bank guarantee shall be sent directly by bank to BHEL under Registered Post (A.D.).	
19	Liquidated Damage (LD):  It is clearly understood among the parties to the contract	

	that the delivery of the goods specified in the purchase order should be made within the time limit prescribed. Where the seller supplies or dispatches the goods beyond the delivery period specified, the purchaser will have no obligation to accept the goods. If accepted liquidated damages at the rate of ½% (half percent) of the value of goods (Basic ex-works price) in arrears per week at the discretion of the purchaser, subject to a maximum of 10% (ten percent) of basic price, will be levied without prejudice to any other relief or compensation due to the purchase under any other condition to the contract	
20	TERMINATION CLAUSES: BHEL has a right to cancel the order for delay in supply beyond delivery period without any monetary or legal obligations. Obtaining the Export License, if any required is the responsibility of the supplier. In case of delay in supplying the equipment in time, due to this reason, BHEL has a right to cancel the order without any monetary/legal obligation. To this extent supplier has to give the undertaking.	
21	Force Majeure: The vendor shall be subject to force majeure clause defined as under: This force majeure is herein defined as any cause which is beyond the control of the tenderer which they would not have foreseen or with a reasonable amount of diligence could not have foreseen and which subsequently affect the performance of the contract such as SRCC (strike riot and civil commotion), earthquake, flood, acts of god, acts of any government, domestic or foreign including but not limited to war.  The tenderer shall not be liable for delay in performing his obligation resulting from any force majeure clause as referred to and/or defined above. The date of completion will be subject to hereinafter provided be extended by a reasonable time even though such cause may occur after tenderer's performance of his obligation has been delayed for other causes.	
22	<b>Arbitration</b> In the event of any dispute or difference arising between the parties to this contract regarding execution of the same or their respective rights and liabilities there under, the same shall except as otherwise expressly provided therein, be referred to the arbitration of sole arbitration of <b>Executive Director</b> , BHEL, PSSR, Chennai or any other person nominated by him and provisions of the "The Arbitration and Conciliation Act, 1996" of India or any statutory notification or re-	

	enactment therefore and rules framed there under from time to time shall apply to such arbitrations. The decision of arbitrator shall be binding both on seller and purchaser. The venue of arbitration shall invariably be Chennai, Tamilnadu, India.	
23	<b>Jurisdiction</b> : All disputes or differences arising under out of or in connection with the purchase order shall be subject to the exclusive jurisdiction of court at Chennai.	
24	Risk Purchase: Alternatively, the purchaser at his option, will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute therefore. The seller shall be liable for any loss which the purchaser may sustain by reason of such risk purchase in addition of LD at the rate mentioned in LD clause.	

Sl	LOADING FACTORS FOR DEVIATION TO BHEL	Agreed	Deviation
No	STANDARD TERMS & CONDITIONS		
1	Bank Guarantee : Non submission of 10% BG(SDBG &		
	PBG) will attract 10% loading on the offers.		
2	LD Clause: Non acceptance of penalty clause will attract maximum 10% loading on the offer and accordingly proportionate percentage will be loaded for accepting less percentage of penalty clause. Ex: If the supplier has accepted for maximum 5% penalty clause, then balance 5% will be loaded.		
3	For all other Terms & Conditions, if the offer is not confirming to the same, BHEL at its discretion shall load the same and the loading pattern shall be intimated to the bidders before price bid opening. However BHEL reserves the right to cancel a bid in case of non-acceptance of any terms and conditions finally arrived before price bid opening.		
	Note: The offers not complying the above Terms & Conditions will not be accepted.		

PART – C SPECIAL CONDITIONS OF CONTRACT (SCC)

SL	Description	Agreed	Remarks
NO 1	DELIVERY : DOOR DELIVERY AT RESPECTIVE SITES OF BHEL		
2	DELIVERY PERIOD : 2 MONTHS FROM THE DATE OF RECEIPT OF PO		
3	SUPERVISON OF INSTALLATION & COMMISSIONING OF EQUIPMENTS AT SITE (WITHOUT CIVIL WORKS).FOUNDATION DRAWING SHALL BE FURNISHED BY THE SUCCESSFUL VENDOR.		
4	DOCUMENTS REQUIRED BEFORE DESPATCH DETAIL QUALITY PLAN IS REQUIRED FOR SUBMISSION BEFORE INSPECTION. CERTIFICATION ABOUT THE FOLLOWING ARE REQUIRED DURING INSPECTION. 1. PUMP CALIBRATION & FLOW TEST 2. MACHINE NEWNESS 3. TEST CERTIFICATE (TYPE TEST & ROUTINE TEST)		
5	DOCUMENTS REQUIRED DURING DESPATCH  1. O & M MANUAL (3 SETS) 2 SETS FOR BHEL:PSSR:HQ Chennai & 1 SET FOR SITE for each equipment  2. GUARANTEE CERTIFICATE OR WARRANTY CERTIFICATE  3. NEWNESS & FITMENT GUARANTEE CERTIFICATE FOR THE EQUIPMENT		
6	BHEL reserves the right to go for <b>REVERSE AUCTION</b>		
7	CENVATABLE ED amount which can be passed on to BHEL by the bidder will not be considered for evaluation of the offer. (Ref. Cl. No. 16, PART-B).		
8	Discounts offer by the vendor in price shall not be entertained by BHEL. (ref. cl. 17. PART-B).		
9	Bidder should mention CENVATABLE ED amount as indicated above otherwise construed it will be NIL and/or CENVAT benefit cannot be passed on to BHEL by the bidder		
10	Bidder must quote the price elements mentioned in price schedule if any element left blank shall be construed as the price is included in all inclusive F.O.R. price		
11	Net Price (sl. No. 10 above) at destination shall be taken into account for evaluation		
12	Purchase order shall be issued on all inclusive FOR Destination price. Original excise invoice shall be submitted by the bidder to claim CENVATABLE ED amount.		

#### PART – C GENERAL TERMS AND CONDITIONS OF REVERSE AUCTION (RA)

Against this NIT for the subject work, tender may be processed through Reverse Auction mode i.e., ON LINE BIDDING ON INTERNET. The General Terms and conditions of the RA shall be as follows:

- 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 to the vendor in writing, in case of reverse auction along with 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.
- 6. BHEL will provide the calculation sheet (eg., EXCEL sheet) which will help to arrive at "Total Value Based on Rate Schedule".
- 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 BHEL through Service provider within 24 hours of Auction without fail.
- 10. During Reverse Auction, 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.
- 11. Sealed bid Reverse Auction: The opening bid (in the initial auction) of the bidders shall be same as the quoted in their Final Sealed price submitted to BHEL. The bidders shall confirm in writing to BHEL that their opening bid (in both cases) shall be same as that quoted in their final sealed price bids submitted to BHEL against this NIT along with Technical Bid (Part-I).
- 12. Bids-given by the bidders during the Reverse Auction process will be taken as an offer to execute the work. Bids once made by the bidder, can not be cancelled/withdrawn and bidders shall be bound to execute the work as mentioned above at the final bid price. Should be bidder (Lowest) back out and not execute the contract as per the rates quoted. BHEL shall take action as appropriate.
- 13. BHEL reserves the right to cancel Reverse Auction (RA) without assigning any reasons and resort to considering the sealed bids submitted by vendor for processing and finalizing the tender.
- 14. 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 BHEL as per prevailing procedure.
- 15. In case BHEL decides not to go for Reverse Auction procedure for the tender enquiry, the Price bids and price impacts if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.

#### PART - D

#### TECHNICAL SPECIFICATATIONS OF ACID CLEANING PUMP SETS - 200 T/HR

I. PUMP

01. CAPACITY : 200 TONS PER HOUR

02. TYPE : HORIZONTAL, CENTRIFUGAL, RADIAL

SPLIT CASING BACK PULL - OUT PUMP

OR

**CENTRIFUGAL, HORIZONTAL SPLIT** 

CASING PUMP

NO OF STAGE SINGLE OR TWO STAGE TO ACHIEVE THE

**PARAMETERS AS PER DESIGN** 

03. HEAD – DISCHARGE : 180 MWC

04. SUCTION : POSITIVE 1 METER TO 1.5 METER

05. SPEED : SUITABLE AS PER DESIGN TO ACHIEVE

THE ABOVE PARAMETERS

06. LIQUID TO BE HANDLED : WATER & WEAK HCL ACID SOLUTION OR

**4% AMMONIATED EDTA. (ETHYLENE** 

**DIAMINE TETRA ACCETIC ACID)** 

07. ACID : HYDROCHLORIC ACID 6% CONCENTRATION

08. TEMPERATURE OF THE MEDIUM: MAXIMUM 95° C

09. EFFICIENCY : ABOVE 70%

CONNECTION

10. TYPE OF GLAND SEALING : MECHANICAL SEAL

11. SUCTION & DISCHARGE : SIDE SUCTION & DISCHARGE VERTICAL

OR

SIDE SUCTION & SIDE DISCHARGE

12. BASE FRAME : SUITABLE TO ACCOMMODATE PUMP &

MOTOR

13. COUPLING : LOVE JOY COUPLING WITH COUPLING

**GUARD** 

14. COUNTER FLANGES : ONE SET EACH FOR PUMP SUCTION

AND DISCHARGE FLANGES WITH

**FASTNERS AND GASKETS** 

15. FOUNDATION BOLT : SUITABLE

16. VIBRATION LIMITES : 40 MICRONS

17. NOISE LEVEL : 85 db

**II. MOTOR AS PER IS: 325** 

01. TYPE : SQUIRREL CAGE INDUCTION MOTOR

HORIZONTAL FOOT MOUNTED AS

**PER IS 325** 

02. MAKE : SIEMENS OR CROMPTON GREAVES OR

**KIRLOSKAR** 

03. KW : SUITABLE AS PER DESIGN TO DRIVE THE

**PUMP TO MEET PARAMETERS AS GIVEN** 

**UNDER PUMP** 

04. VOLTAGE : 3 PHASE, 415 V ±10% 50 HZ

05. RPM : SUITABLE AS PER DESIGN

06. INSULATION CLASS : 'B'

07. ENCLOSURE : TEFC

08. TYPE OF COOLING : AIR

09. TERMINAL BOX FOR MOTOR : SUITABLE FOR ROTATION IN STEPS 90° TO

360°

10. MOTOR PROTECTION : INSTANT ANTANEOUS SHORT CIRCUIT

**PROTECTION FOR ALL PHASES** 

11. PULL OUT TORQUE : AS PER IS 325

12. ACCELARATING TORQUE : AS PER IS 325

13. MOTOR BODY EARTHING : AT 2 POINT

14. PERMISSIBLE NOISE LEVEL : AS PER IS 325

15. PERMISSIBLE VIBRATION LEVEL: AS PER IS 325

**III. STARTER** 

01. TYPE : AUTOMATIC STAR DELTA STARTER WITH

OVER LOAD & SINGLE PHASE PROTECTION WITH VOLT METER, AMMETER, WATT METER, SELECTOR SWITCH & INDICATIING LAMP

02. KW : SUITABLE TO MOTOR AS PER DESIGN

03. MAKE : L & T / SIEMENS / BCH

**IV. MATERIAL SPECIFICATION FOR PUMP** 

01. CASING : ASTM A 216 GR WCB

02. IMPELLER : ASTM A 216 GR WCB

03. SHAFT : SS AISI

04. SHAFT SLEEVE : SS

QUALITY PLAN : VENDOR SHALL SUBMIT THEIR QUALITY PLAN TO BHEL FOR

APPROVAL. INSPECTION WILL BE CARRIED OUT AS PER THE

**VENDOR'S QUALITY PLAN AS APPROVED BY BHEL** 

# PART - E NO DEVIATION CERTIFICATE

<i>I</i> ,	Of
M/s	_her
by certify that there is no deviation from the Tender conditions ei	ither
echnical or commercial and I am offering unqualified acceptance	e of
ıll the terms and conditions mentioned in the Tender Specificatio	n.
It is also confirmed that the price quoted in the format received	d
with the enquiry.(none of the column left blank,)	
Any deviation found subsequently at any time during execution	n

shall be treated null and void

## SIGNATURE OF THE TENDERER

PART - F

#### **PRICE SCHEDULE**

# ORDER MAY BE SPLIT AMONG L1 BIDDERS BHEL shall not issue C –form & hence quoted price shall be with CST without C form

Sl. No	Description of Item	M/S		
		Qty	Unit rate Rs.in Lahks	Total Rs in Lakhs
1	Supply of Five nos. (05) ACID CLEANING PUMP (200 T/Hr.) for BHEL PSSR'S SITES (MALWA(MP) - 3 Nos. & Krishnapattinam(AP) -2 Nos.)	5		
2	Supervision assistance during Erection and Commissioning of above Five nos. (05) ACID CLEANING PUMP (200 T/Hr.) for BHEL PSSR'S SITES (MALWA(MP) - 3 Nos. & Krishnapattinam(AP) -2 Nos.)			
Packing & Forwarding		%		
ED (	basic+ Packing+ forwarding) on sl no 1			
Cess	on ED			
conce	ST / VAT without C Form or any other essional form ce tax			
Freig	ht Charges (MALWA(MP) – 3 Nos. Krishnapattinam(AP) s.)			
Nos.)	nsurance (MALWA(MP) – 3 Nos. Krishnapattinam(AP) –2			
Total	FOR Destination Value.			
MODVAT benefit (applicable)				

#### **ANNEXURE - III**

BHEL : PSSR : CHENNAI  DETAILS OF CONTRACTOR/SUPPLIER FOR E REMITTANCE OF PAYMENTS  BY BHEL/PSSR/CHENNAI				
1	NAME & ADDRESS OF THE CONTRACTOR/SUPPLIER			
2	BANK A/C NO			
3	TYPE OF A/C (CC / CURRENT)			
4	NAME OF THE BANK			
5	NAME OF THE BRANCH			
6	BRANCH CODE			
7	BANKER'S ADDRESS			
8	MICR NO			
9	IFSC CODE			
NOTE : THE ABOVE DETAILS ARE TO BE FURNISHED IN THEIR LETTER HEAD BY THE CONTRACTOR /SUPPLIER ,DULY ATTESTED BY THEIR BANKERS				