

**Bharat Heavy Electricals Limited**

(A Government of India Undertaking)

Electronics Division

P B NO 2606, Mysore Road, Bangalore - 560026

Tel 080 26746117 / 26998366 Fax 080 26740137

Tender document for supply of : SELECTIVE SOLDERING MACHINE

R F Q Number : TRSM900037Tender Qty : **1 Number**

Tender Due Date and Time : 24.12.2008 13.00 Hrs

Tender Opening Date and Time : 24.12.2008 13.30 Hrs

Place of opening of Tender : SA – MM Conference hall

1. Two part Bid - Tender shall be submitted in two parts :

- a. Part I – Techno commercial bid without prices.
- b. Part II – Price bid

Tender (quotation) shall be submitted in a sealed envelope super scribed with **RFQ NUMBER / and DUE DATE** on it and the same must reach our office on or before the due date by **13:00 hrs**. Quotation can also be dropped in the tender box placed in the Reception area with caption “**Sub Assembly**”. Late quotations are liable to be rejected.

Tender shall be addressed to **Sr.DGM / EM - Coml**, Electronics Division, Bharat Heavy Electricals Ltd., Mysore road, Bangalore 560026.

2. Delivery Period: Equipment shall be delivered during Sept 2009.**3. Warrantee period :** Equipment shall have a comprehensive warrantee of one year from date of Commissioning.**4. Terms and conditions:**

1. All the Bidders shall meet the **pre-qualification criteria** and Comply with **Technical Specification** mentioned in this specific tender.
2. Indian Bidders are required to comply with the **general terms and conditions** as per **SA – 01 (Annexure –I)**
3. Foreign Bidders are required to comply with the **general terms and conditions** as per **SA – 02. (Annexure –II)**



Pre qualification criteria

1. The vendor shall be an Original Equipment Manufacturer (OEM)
 - a. Based in India
 - b. Foreign OEM with Authorized Indian dealer(s) / representative(s) for sales & service. The authorization letter for the dealer/ representative shall be provided.
 - c. Offer can be submitted by the OEM or their authorized dealers in India along with an authorization letter. However Purchase Order will be placed on the lowest technically acceptable bidder on the OEM only.
 - d. If the offer is from an authorized representative in India , the Indian representative cannot quote for the same equipment from 2 or more different OEM's
2. The offer shall be only for new equipment and not for any refurbished / used equipment.
3. All the parts used in the machine shall also be new and not used / refurbished ones. A declaration to the above effect to be furnished.
4. The vendor should have already supplied and installed 5 nos. of similar machines and operating satisfactorily for at least one year during the last three years. The details of the customers with contact details, machines installed, date of installations etc. to be provided.
5. The vendor shall be in a position to provide service and spares support for the installations in India.
6. The vendor or their authorized service representatives should have trained engineers in India for commissioning & service for the offered equipment.
7. The vendor shall be in a position to undertake AMC for the equipment with BHEL after the expiry of the warranty/ guarantee period either directly or through a service representative.
8. The vendor shall arrange for a demonstration of the machine or a similar system operating in India, if required by BHEL. Alternately the vendor shall furnish a complete video of the operation of the machine, in case of no installations in India.
9. The vendor shall furnish a comprehensive warranty for at least 12 months from the date of commissioning or 18 months from the date of delivery, whichever is early.
10. The vendor shall guarantee the performance of the equipment for at least 12 months from the date of commissioning.

NOTE:

1. Pre qualification will be carried out based on the details furnished by the vendor / feedback from their customers / inspection of the company / product if required by BHEL and at its sole discretion.
2. The Pre qualification criteria are mandatory requirements and the technical bids will be evaluated only when the Pre Qualification criteria are met.

A. Scope:

Supply, Installation and commissioning of Selective soldering machine as per the following specifications.

B. Technical Specifications:

The offer shall be corresponding to the parameters under the specifications below or better. Point wise compliance to the following specification is required

Sl No	PARAMETER	REQUIREMENT
1	BASIC REQUIREMENT	
a	Maximum PCB Width	350mm
b	PCB thickness	0.8 to 3.2 mm
c	PCB top side clearance	Minimum 75 mm
d	Bottom	20mm
e	Edge	3 mm
f	Air Pressure	Less than 6 bar
g	Mode of transport	Conveyor and Robotic Arm
h	Direction	Left-right or Loop back with adjacent loading & unloading points
I	Power Requirement	415 V AC 3 phase or 230 V AC 1phase (50 Hz)
j	Environmental conditions for operation	Ambient Temperature up to 40 deg C , RH up to 95 %
k	Compatibility	The machine should be lead free compatible
l	Mode of operation	Stationary PCB with moving nozzles or stationary nozzles with moving PCB
m	Application	Soldering of through- hole components on a PCB.
n	Mode of operation	Stand alone
2	CONSTRUCTION	a) Modular and fully enclosed construction.
3	STAGES OF MACHINES	
a	DROPJET FLUXER	a) In this unit, individual drop of flux has to be sprayed on to the pcb pads. b)The technology should be precise enough to spray the sufficient quantity of flux drops to cover the whole pad c) The nozzle should be self cleaning d) Fluxing should have a accuracy of +/- 0.25 mm e) Solder tank of suitable capacity to be provided f)Nozzle should be capable for different types of fluxes

	b SPRAY FLUXER	a) The machine should have air atomizing spray fluxer unit. The fluxing area should be programmable. b) The nozzle should be self cleaning. c) Solder tank of suitable capacity to be provided.(Internal/external to be indicated)
	c PRE HEATER	Two number of pre-heaters preferably quartz heater for instant transfer of heat.
	d SOLDER MODULE	
	a)Select wave	a)In this module individual points will be soldered b) Different set of nozzles for soldering different types of components to be provided. c) The nozzle should be able to do point to point soldering as well as drag soldering etc. d) solder point should have a accuracy of +/- 0.25 mm e) Suitable arrangement for storing different types of nozzles in the machine and changing the nozzle as per the requirement of the program.
	b)Multi wave	a) Multiple nozzles to be provided for soldering different types of components / PCB to increase the speed. b) Provision for fixturing with pre-fixed nozzles.
	c)Additional features (for solder unit)	a)Both the solder unit should have nitrogen cover to provide inert atmosphere and aid in soldering process b)solder module should purge the nozzles before soldering to prevent clogging of nozzles c) Preferably nozzles should remain under a preventive cover and open only when the actual pcb comes for soldering. d) Option to switch off a particular nozzle in the fixture by nozzle cap.

	d)Solder level controller	a) Suitable mechanism to maintain the level of solder in the solder bath. b) Suitable error message if solder level is below the desired level.
	e)Dross control	Suitable mechanism or tools to control and clean the Dross from solder pot.
4	TEACHING AND CALIBRATION CAMERA	The machine should have a teaching and calibration camera for programming different types of pcb
5	SOLDER HEIGHT MEASUREMENT SYSTEM	The machine should have a solder height measurement system for accurate soldering.
6	CONVEYOR SYSTEM	a)The machine should have a suitable conveyor with stopper for accurate positioning of PCB b)Separate loading and unloading points for PCB/assembled card
7	PCB HANDLING SYSTEM /ROBOTIC ARM	a) Suitable mechanism to calibrate the robotic arm to negate the effect of temperature. b)The robotic arm should have soldering angles up to 7 degrees and c) The robotic arm should have suitable horizontal turning capability. d) The arm should have capability to handle the pcb as well as pcb with pallets. e) The arm should have adjustable gripper arrangement to handle pcb of different types. f) Suitable arrangement to support the components from top to avoid tilting and dropping during soldering g) Suitable clamping arrangement to support the pcb before taking for soldering operation. Robotic arm accuracy x-y-z – 0.2 mm Rotation accuracy 0.1deg

8 PROGRAMMING	a) Option to program and teach PCB on the machine with the help of camera system. b) Suitable system for programming offline and manual data entry. c) Suitable system to transfer the data from external PC to machine and vice versa via a USB port. d) Option to program the machine with CAD and other data formats. e) option to teach the coordinated of components with respect to fiducials
9 PROCESS VIEWING	A suitable camera vision system for process viewing. Option to capture the image and recording.
10 SUITABLE EXHAUST SYSTEM	Exhaust provision to handle solder fumes as well as flux fumes.
11 CONTROL UNIT	a) Suitable interfaces to control the speed of conveyor, programming fluxing area etc. b) Machine diagram, display for error messages, maintenance menu c) Suitable controls for each heating units d) Suitable calibration system for solder wave height measurement.
12 SAFETY	a) Suitable Multi color Signal tower to be provided b) Emergency stop to be provided at suitable locations c) Safety interlocks to be provided d) Suitable exhaust at appropriate location

13	Spares	
	O & M	Operational and Maintenance spares for 2 years of operations to be provided.
	Tools	a) All necessary tools for operation & maintenance to be provided. b) One additional set of nozzle to be provided c) Nozzle cap for all the nozzles to be provided d) A set of tools for dross removal to be provided.

C. Details to be furnished along with the technical offer

1. Equipment parameters with brief explanation of features.
2. If more than one model is quoted, separate offer with complete technical details shall be submitted.
3. Additional Accessories, which will enhance the performance of the system, shall be quoted separately with price break up.
4. A clauses wise deviation, if any, has to be brought out clearly. If there are no deviations, the vendor has to positively certify compliance to the specifications in toto.
5. The complete technical information and catalogue shall be given.
6. Authorisation letter from the OEM to be provided, if applicable.
7. Details of authorized service agents in India to be furnished
8. Reference list of customers to be furnished.
9. List of recommended spares for maintenance purposes to be indicated

D. Documents to be furnished along with Equipment

1. Operation, Maintenance, Service & spare parts manual have to be supplied along with the equipment
2. Pre-shipment Calibration certificates, if any shall be furnished. The subsequent calibration process and periodicity shall be furnished along with the authorized calibration agencies.
3. Supplier shall guarantee for one year of trouble free performance of the instrument from date of installation.
4. The equipment and accessories shall carry comprehensive warranty of one year from the date of installation including spares and service.
5. Training of the operators to be provided at BHEL / EDN for the operations and maintenance of the machine.
6. The requirements of civil, electrical, compressed air connections exhaust etc. for the machine need to be provided.
7. Terms of Annual maintenance contract to be indicated.

Annexure - I**General Terms and conditions for supply of Capital items : (indigenous -Two part bid) SA-01**

Bidders are required to read the general terms & conditions carefully and submit their quotation covering all the points. Any order resulting from this enquiry shall be governed by the general terms and conditions listed below.

1. **TWO PART BID:** Quotation shall be submitted in two part bid.

(a) Techno-commercial i.e., un priced Bid: Techno-commercial bid shall be submitted with complete description of the equipment, specification compliances to the enquired specification and all the commercial terms & conditions indicated in the **QUOTATION FORMAT** (Annexure I (b)) preferably in the same format. Samples if asked and any other enclosures, which the supplier wish to submit like product catalogue etc., in a sealed envelope super scribed clearly as “**TECHNO-COMMERCIAL BID**” with **RFQ No. and DUE DATE**.

Un priced copy of price bid shall be enclosed with the techno-commercial bid. Deviations to the specification / item description, if any shall be brought out clearly indicating “**DEVIATION TO BHEL SPECIFICATION**” without fail as a part of technical offer. Compliance / comments on all the clauses is essential.

Compliance to pre qualification criteria shall be part of Techno-commercial bid.

Manufacturer's name, their trade mark and brand if any should be invariably mentioned in the tender and illustrative leaflets giving technical particulars etc., are to be attached to the tender to facilitate consideration of the offer.

(b) Price Bid: Price bid should contain basic prices, discount if any, applicable taxes & duties, packing & forwarding charges (if applicable), Freight & insurances (if applicable) etc., in a sealed envelope super scribed clearly as “**PRICE BID**” with **RFQ No. and DUE DATE**. Erection and commissioning charges if any shall be included in the price bid.

Please indicate the rates in both figures and words. However in case of difference, the lowest of the two rates will be considered as correct.

Both these envelopes [(a) Techno-commercial i.e., un-priced BID (b) Price Bid] shall be kept in a single sealed envelope and super scribed clearly with **RFQ No. and DUE DATE**.

2. Tender (quotation) shall be submitted in a sealed envelope super scribed with **RFQ NUMBER / and DUE DATE** on it and the same must reach our office on or before the due date by **13:00 hrs.** Quotation can also be dropped in the tender box “**Sub Assembly**”. Late quotations are liable to be rejected.



Tender shall be addressed to **Sr.DGM / EM - Coml**, Electronics Division, Bharat Heavy Electricals Ltd., Mysore road, Bangalore 560026.

3. The rates quoted against each item shall be in the same units stated in the enquiry. If the quotations are submitted in any other unit than specified, relationship between two sets of units must be furnished in the offer.
4. As far as possible, the quotations shall be free from corrections / overwriting. Corrections if any should be initialed with your seal and signature. Any typographical errors, totaling mistakes, currency mistakes, multiplication mistakes, summary mistakes observed in your priced bids, BHEL may consider whichever is beneficial to BHEL for evaluating of the lowest quote.
5. Please sign the offers. Unsigned bids/offers are liable for rejection.
6. All the bidders or their authorized representatives can witness opening of techno-commercial bid on the due date.
7. After evaluation of techno-commercial bids, price bids of only those who are technically accepted will be opened on a subsequent date, which will be intimated to the concerned in advance for witnessing of price bid opening.
8. The quantities in each item to be purchased may vary from quantities enquired according to the actual requirement at the time of placing the purchase order. Quantity discount if any should be mentioned in your offer.
9. BIDDERS shall indicate clearly Excise duty, Education cess, Sales Tax/VAT, Octroi, Entry tax, Service Tax as applicable for the quoted items. In the absence of clarity of these, any claim at a later date will not be entertained. Any changes in Taxes and duties after award of the contract will not be considered except such of those, which are imposed by Govt., notification within the contractual delivery. Seeking price amendments for change in Excise duty due to crossing of turnover limits will not be considered under any circumstances.

10. TOTAL COST TO BHEL: Lowest Bid (L1) is determined on the basis of the total cost to BHEL. Total cost to BHEL = Total basic value + Packing & forwarding charges + Excise duty + Education cess + sales Tax/VAT + Octroi / Entry tax+ Freight + Insurance (as per BHEL Insurance premium) + Service Tax (as applicable) + Loading factors for deviations to commercial terms & conditions.

Purchase order will be placed on Lowest bidder (L1) only.

11. **FIRM PRICE:** Rates quoted should be firm and no enhancement in the rates and changes in the techno-commercial terms will be allowed once the quotation is accepted and order placed.

If Erection & Commissioning is in supplier's scope, then the price shall remain FIRM till commissioning & handing over of the complete system. PVC clause is not acceptable.

12. **TERMS OF PAYMENT:** The terms of payments are as follows.
- (a) 90% within 30 days from the date of acceptance of equipments & balance 10% against submission of PBG.
- (b) In case where 90 % & 10% payment terms are opted instead of PBG, 90 % Payment will be released within 30 days of acceptance. Balance 10% payment will be paid against submission of supplementary invoice after 12 months of warranty period + 6 months claim period.
13. **ADVANCE PAYMENT:** Quotations with payment terms of “**Advance**” or “**Inland letter of credit**” will not be considered and such offers are liable for rejection commercially.
14. **PENALTY:** Failure to supply the item within the delivery date specified in the purchase order will make the supplier liable to an unconditional penalty of ½% (One half percent) of the value (basic material cost) of the goods in arrears per week subject to a maximum of 10%.
- If pre-shipment inspection is involved, date of issue of pre-shipment call by the vendor along with test certificates / test reports / certificate of conformance / calibration reports as proof of completion will be treated as date of dispatch for penalty calculation.
- In the absence of reports stated above, actual date of inspection will be considered as date of dispatch for penalty calculation.
15. **PBG:** Performance Bank Guarantee (PBG) to be submitted as per the BHEL prescribed format (Annexure I (c)) for 10% of the basic equipment value obtained from any BHEL member banks.
- PBG shall be valid for 12 months + 6 months claim period (totally 18 months) from the date of dispatch.
16. **WARRANTY:** Goods dispatched shall have warranty period of 18 months from the date of dispatch or 12 months from date of commissioning, whichever is earlier.
17. **TERMS OF DELIVERY:**
- For Vendors in Bangalore jurisdiction : Equipment shall be delivered free at EDN / BHEL, Bangalore, inclusive of packing & forwarding charges.
- All other vendors :
1. Packing shall be Road / Air / Rail worthy, to take care of any transit damages.
 2. Dispatch the consignments through EDN/BHEL approved transporters (Annexure I (a))
 3. Small consignments can be dispatched through M/S First Flight Couriers Ltd or any other carrier approved by BHEL.
18. **DELIVERY PERIOD:** Equipment shall be delivered as per the requirement of specific R F Q / tender. Offers such as ex-stock subject to prior sale or delivery at the earliest will not be entertained.
- 15 days time will be granted for giving order acknowledgement beyond which it will be treated as delay and considered as penalty zone if overall delivery does not take place in agreed delivery period.
19. **VALIDITY:** Quotation should remain valid for a period of **90 days** from the due date of tender.



20. **RISK PURCHASE:** The purchaser at his discretion may also make purchase of the materials **NOT** supplied in time at the **RISK & COST** of the supplier. In this event, it will be obligatory on the part of the supplier who fails to supply the goods in time to make good to BHEL any loss due to such risk purchase.
21. BHEL reserves the right to RE-FLOAT/REJECT/CANCEL this TENDER ENQUIRY (RFQ) without assigning any reason or cause thereof. Quotes received against this TENDER ENQUIRY are subject to and governed by all these terms and conditions. BHEL's decision will be final in awarding of the contract and binding on all vendors.
22. **REVERSE AUCTION** : BHEL reserves the right to go for reverse auction at any point of time before opening of price bid.
23. BHEL reserves the right to Accept / Reject the offer in full or part there off depending on BHEL's requirement.
- 24 **POST ORDER REQUISITS:**
- (a) Pre-shipment inspection at your works, if required, will be done by BHEL. Required assistance to be provided at the time of pre-shipment inspection.
 - (b) Test certificates and warranty certificates as stipulated at the time of ordering shall be furnished.
 - (c) Items shall be dispatched with road/air/sea worthy packing. Any rejection due to poor packing shall be to supplier's account.
 - (d) Any rejection should be made good or replaced immediately without any extra cost to BHEL.
 - (e) Wherever commissioning is involved, it shall be carried out on a turnkey/supervisory basis. Scope of work includes design, fabrication, supply, installation, commissioning and trial run till satisfactory performance level is reached as certified by the user department.
 - (f) Copies of operation & instruction manuals to be supplied along with the equipment or before as per specification.
 - (g) BHEL will not be responsible for any loss, damage or injuries to staffs sustained during erection/commissioning. Supplier shall ensure compliance with all statutory requisites as laid down by local bodies, state & Central Government.
 - (h) Original invoice (2 copies) to be submitted at the office of DGM / EM -Coml for arranging payment.
 - (i) As BHEL is also making payment through EFT, banker details in the prescribed format to be submitted.
 - (j) Performance Bank Guarantee to be executed on Rs.100/- non-judicial stamp paper as per BHEL prescribed format (Annexure –I (c)).
- 25 . **PAST SUPPLIES / PERFORMANCE:** Detailed list of past supplies of quoted equipments for the last three years shall be enclosed along with the bid indicating customer, quantity supplied and year of supply. Performance certificate issued by customers may also be enclosed along with the bid.
- 26 Any dispute arising out of this shall be referred to the sole arbitration of Head of Materials Management, SA - EDN, Bangalore or any other officer nominated by him and his decision shall be final and binding on the parties. The venue of the arbitration in all cases shall be Bangalore.

27. All suits in respect of this lie in the court of Bangalore only.

28. **LOADING FACTORS:**

Loading factors as detailed below will be added to the quoted price (basic) to evaluate the lowest quote for non compliance of BHEL standard commercial terms.

A. For non compliance of BHEL standard Terms of payment:

Sl. No.	BHEL standard term	If you quote	Loading factor in % for non-compliance
1	100% within 30 days from the date of acceptance (credit payment)	Payment through bank	2 %
		Payment against proforma invoice	1.25 %
2	90% within 30 days from the date of acceptance + 10% against PBG (wherever PBG is involved)	Payment through bank	2 %
		Payment against proforma invoice	1. 25 %
		100% within 30 days from the date of acceptance & PBG	Nil

B. For non compliance of Penalty clause:

Sl. No.	BHEL standard term	If you quote	Loading factor for non-compliance
1	Penalty of 0.5% per week subject to max. of 10% on the value of the items not supplied / delayed	Not agreed	10 %
		5% max., agreed	5%
		Other than the above	10% - agreed max. %

C. For non compliance of Performance Bank Guarantee (PBG):

Sl. No.	BHEL standard term	If you quote	Loading factor for non-compliance
1	PBG for 10% of the basic material cost shall be furnished in the BHEL prescribed format	Not agreed	10 %
		5% agreed	5 %
		Other than the above	10% - (minus) agreed max. %

D. Non conformance to delivery requirement of BHEL

BHEL requires the delivery of items within 4 months from the date of commercially clear PO. Delivery quoted more than 4 months will be subjected to a loading factor of 0.5 % per week as under:

Sl. No.	BHEL standard term	If you quote	Loading factor in % for non-compliance
1	4 months form date of PO	5 months	2 %



Annexure – I(a)

BHEL / EDN, BANGALORE APPROVED TRANSPORTERS

1. M/s Awagaman Road Carriers Ltd., Bangalore. (AWG)
2. M/s BLR India pvt., Ltd., Bangalore. (BLR)
3. M/s Delhi Assam Roadways corporation Ltd., Bangalore. (DRL)
4. M/s Indo Arya Central transport Ltd., Bangalore. (IACT)
5. M/s Prakash parcel Services, Bangalore. (PPS)
6. M/s Road Carrier of India, Bangalore. (RCI)
7. M/s Union Roadways Ltd., Bangalore. (URL)


Annexure – I(b)
QUOTATION FORMAT PART – A TECHNICAL BID (INDIGENOUS)

Sl. No.	Particulars	Bidder's confirmation
1	Price basis: Firm i.e., from the date of PO to completion of supply (Price Variation Clause not acceptable)	Acceptable / Not acceptable
2	Excise duty & Education cess: If applicable indicate %.	Applicable / Not applicable ED: _____ % Edu. Cess _____ %
3	Sale tax: If applicable indicate %	Applicable / Not applicable (a) VAT _____ % (b) CST _____ % against form C
4	Payment terms: (a) 90 % basic + 100% taxes, duties & freight charges within 30 days from the date of acceptance of equipment & balance 10% against submission of PBG. (b) Deviation if any please specify Note: As per clause 12	(a) Acceptable / Not acceptable (b)
5	BHEL's penalty clause: (a) Delay in delivery as per PO delivery date will result in penalty of 0.5 % per week subject to maximum of 10% on the value of the items not supplied/delayed. (b) Deviation if any Please specify Note: As per clause 14	(a) Acceptable / Not acceptable (b)
6	Performance Bank guarantee (PBG): PBG for 10% of the basic material cost shall be furnished in the BHEL prescribed format as per clause 15.	Yes / No
7	Terms of delivery: (a) Ex EDN / BHEL, Bangalore (Free delivery to EDN/BHEL Bangalore including packing & forwarding charges) (b) Deviation if any Please specify Note: As per clause 17	(a) Acceptable / Not acceptable (b)
8	Warranty: (a) 3 years from date of acceptance /commissioning, (b) Deviation if any Please specify	(a) Acceptable / Not acceptable (b)
9	Delivery period: Indicate number of weeks from the date of issue of Purchase order	_____ Weeks
10	Validity: (a) Quotation should remain valid for a period of 90 days from the due date (b) Deviation if any Please specify	(a) Acceptable / Not acceptable (b)

Signature of tenderer / with stamp



PERFORMANCE BANK GUARANTEE
(FOR INDIGENOUS PURCHASE ORDERS)

ANNEXURE-I(c)

- Note: 1) To be executed in Rs 100/- Non-Judicial stamp paper.**
2) To be submitted to purchase Dept. directly.
3) Do not enclose with Bank document.

PERFORMANCE GUARANTEE
(PROFORMA OF BANK GUARANTEE)

THIS DEED OF GUARANTEE made and executed on the _____ day of _____ (year), by the _____ (Bank), registered under the Companies Act 1956/Nationalised Bank constituted under the Banking Companies (acquisition and transfer of undertakings) Act constituted under the State Bank of India Act / Subsidiary Banks Act, having its registered / head office at _____ represented herein by its Branch Manager / authorised representative Sri. _____ & Sri. _____ (Hereinafter called 'guarantor ' which term shall mean and include its successors and assigns)

IN FAVOUR OF BHARAT HEAVY ELECTRICALS LIMITED

_____ (Buyer's Name), a company registered under the companies Act, 1956 having its registered office at BHEL House at Siri Fort , New Delhi-100 049 and its Electronics Division at Mysore road, Bangalore-26 (hereinafter referred to as the 'Company' Which term shall include its successors and assigns):

Whereas the company has placed an order on _____ (State the name of the company / firm and its address) (hereinafter referred to as the 'Supplier' which term shall mean and include its liquidators, successors and assign) for the supply of system under order / Contract No _____ Dt _____.

AND WHEREAS the supplier has agreed to supply the materials and carryout the works as detailed and in accordance with the terms set out in the said order/contract.

AND WHEREAS the company is not required to pay to the supplier a sum of Rupees _____ being the 10% of the value of the goods supplied / Works performed / Services rendered under the said order / contract between the supplier and the company, till the company is satisfied with the mechanical Warranties and the performance standards stipulated in the said order / contract between the company and the supplier has been duly fulfilled, except against a Bank Guarantee for the said sum of Rs _____ in favour of the company by reputed Bank, in which



case the company has agreed to make payment to the supplier of the said sum of Rupees _____ being (...%) of the value of the goods supplied / Works performed / Services rendered under the agreement between the supplier and the company and the Guarantor has at the request of the supplier, agreed to furnish this Guarantee subject to the terms and conditions stated below:

NOW THIS DEED WITNESSES THAT IN pursuance of the above said agreement, the guarantor hereby agrees and covenants With company is as follows :-

- 1) That during the period this contract of Guarantee remains effectual, the guarantor shall be liable in respect of the amount due and owing to the company in respect of the payments to the extent of Rs _____ (in words) _____ against any loss or damage caused to or suffered by the company by reasons of any breach of the terms of the said order / contract / Agreement by the supplier.
- 2) The Guarantor hereby undertakes to pay the amounts due and payable under this guarantee without any demur, merely on demand from the company intimating that the amount claimed is due by way of loss or damage caused to or suffered or would be caused or suffered by the supplier of any terms contained in the said order / contract. Any such demand made on the guarantor shall be conclusive as regards the amount due and payable by the Guarantor irrespective of the fact whether the Contractor / supplier admits or denies.
- 3) The Guarantor further agrees that the agreement herein contained shall remain in force and effect till all the supplies to be made / Works to be performed / Services to be rendered under the said order / contract / agreement are completed to the entire satisfaction of the company or till company certifies that the terms and conditions of the said order / contract / agreement have been fully and properly carried out by the said supplier and accordingly discharges the Guarantee. Unless a demand or claim under this guarantee is made on the guarantor in writing on or before the expiry of claim period indicated in clause 6 below , the guarantor shall be discharged from all the liability under this guarantee thereafter.
- 4) The guarantor further agrees with the company that the company shall have the fullest liberty without the consent of the guarantor and without effecting in any manner the obligations of the guarantor hereunder to vary any of the terms of the said order / contract / agreement or extend the time of performance by the said supplier from time to time or refrain from exercising the power exercisable by the company against the said supplier or to forebear or omit to enforce any of the terms and conditions relating to the said order / contract / agreement, and the guarantor shall not be relieved of its liability in whole or in part , by reason of any act, commission or forbearance on the part of the company or by reason of any such variation, or extension being granted to the said supplier or by reason of any such matter or thing whatsoever which under



the law relating to sureties would but for this provision have effect of so relieving the guarantor.

- 5) The guarantor undertakes not to revoke this guarantee during its currency except with the previous consent of the company in writing.**
- 6) Notwithstanding anything herein above contained, the liability of the guarantor under these presents is restricted to Rs_____. The guarantee shall be in force till its expiry on _____ unless a demand is made on the guarantor within SIX months from the date of expiry, all the liability of the guarantor under this guarantee shall stand fully discharged. The decision of the claimant in regard to breach of contract is final and binding on the Bank.**

IN WITNESS whereof, the guarantor, acting through its authorised representative has executed this deed of Guarantee on the day, month and year first above written.

(Seal of the Bank to be affixed)

WITNESS

1.

2.

Annexure - II**General terms and conditions for the supply of Capital items (Imported – Two part bid)SA-02**

Bidders are required to read the general terms & conditions carefully and submit their quotation covering all the points. Any order resulting from this enquiry shall be governed by the general terms and conditions listed below.

1. **TWO PART BID:** Quotation shall be submitted in two part bid.
(b) Techno-commercial i.e., un priced Bid: Techno-commercial bid shall be submitted with complete description of the equipment, specification compliances to the enquired specification and all the commercial terms & conditions indicated in the **QUOTATION FORMAT** (Annexure II (b)) preferably in the same format. Samples if asked and any other enclosures, which the supplier wish to submit like product catalogue etc., in a sealed envelope super scribed clearly as “**TECHNO-COMMERCIAL BID**” with **RFQ No. and DUE DATE**.

Un priced copy of price bid shall be enclosed with the techno-commercial bid. Deviations to the specification / item description, if any shall be brought out clearly indicating “**DEVIATION TO BHEL SPECIFICATION**” without fail as a part of technical offer.

Compliance to pre qualification criteria shall be part of Techno-commercial bid.

Manufacturers name, their trade mark and brand if any should be invariably mentioned in the tender and illustrative leaflets giving technical particulars etc., are to be attached to the tender to facilitate consideration of the offer.

(b) Price Bid: Price bid should contain basic prices, discount if any, applicable taxes & duties, packing & forwarding charges (if applicable), Freight & insurances (if applicable) etc., in a sealed envelope super scribed clearly as “**PRICE BID**” with **RFQ No. and DUE DATE**. Erection and commissioning charges if any shall be included in the price bid.

Please indicate the rates in both figures and words. However in case of difference, the lowest of the two rates will be considered as correct.

Both these envelopes [(a) Techno-commercial i.e., un-priced BID (b) Price Bid] shall be kept in a single sealed envelope and super scribed clearly with **RFQ No. and DUE DATE**.

2. Tender (quotation) shall be submitted in a sealed envelope super scribed with **RFQ NUMBER / and DUE DATE** on it and the same must reach our office on or before the due date by **13:00 hrs.** Quotation can also be dropped in the tender box “**Sub Assembly**”. Late quotations are liable to be rejected.



Tender shall be addressed to Sr.DGM / EM - Coml, Electronics Division, Bharat Heavy Electricals Ltd., Mysore road, Bangalore 560026.

3. The rates quoted against each item shall be in the same units stated in the enquiry. If the quotations are submitted in any other unit than specified, relationship between two sets of units must be furnished in the offer.
4. As far as possible, the quotations shall be free from corrections / overwriting. Corrections if any should be initialed with your seal and signature. Any typographical errors, totaling mistakes, currency mistakes, multiplication mistakes, summary mistakes observed in your priced bids, BHEL may consider whichever is beneficial to BHEL for evaluating of the lowest quote.
5. Please sign the offers. Unsigned bids/offers are liable for rejection.
6. All the bidders or their authorized representatives can witness opening of techno-commercial bid on the due date.
7. After evaluation of techno-commercial bids, price bids of only those who are technically accepted will be opened on a subsequent date, which will be intimated to the concerned in advance for witnessing of price bid opening.
8. The quantities in each item to be purchased may vary from quantities enquired according to the actual requirement at the time of placing the purchase order. Quantity discount if any should be mentioned in your offer.
9. BIDDERS shall indicate clearly Excise duty, Education cess, Sales Tax/VAT, Octroi, Entry tax, Service Tax as applicable for the quoted items. In the absence of clarity of these, any claim at a later date will not be entertained. Any changes in Taxes and duties after award of the contract will not be considered except such are those, which are imposed by Govt., notification within the contractual delivery. Seeking price amendments for change in Excise duty due to crossing of turnover limits will not be considered under any circumstances.
10. **TOTAL COST TO BHEL:** For imported scope of supply, **lowest Bid (L1)** is determined on the basis of the total cost to BHEL.
Total cost to BHEL = Total basic value in foreign currency + FOB charges if any + Packing & Forwarding charges if any + Cost Insurance Freight (CIF) + Basic Custom Duty (BCD) + Counter Veiling Duty (CVD) + Educational Cess + Special Additional Duty (SAD) + Entry Tax + Loading factors for deviations to commercial terms & conditions.
Purchase order will be placed on lowest bidder (L1) only.
Note: Exchange rate ruling on the date of Tender opening (Techno-commercial / un-priced Bid) will be considered for converting foreign currency to Indian currency. Exchange rates published in Economic Times (TT selling) will be considered.
11. **FIRM PRICE:** Rates quoted should be firm and no enhancement in the rates and changes in the techno-commercial terms will be allowed once the quotation is accepted and order placed.
If Erection & Commissioning is in supplier's scope, then the price shall remain FIRM till commissioning & handing over of the complete system. PVC clause is not acceptable.

12. **TERMS OF PAYMENT:** Payment will be made against “**SIGHT DRAFT**” on presentation of documents to our bankers. Payment through LC is also made subject to loading factors as per clause 28 (a).
The payment terms are as follows.
(a) 90% within 30 days from the date of acceptance of equipments & balance 10% against submission of PBG.

(b) In case where 90 % & 10% payment terms are opted instead of PBG, 90 % Payment will be released within 30 days of acceptance. Balance 10% payment will be paid against submission of supplementary invoice after 12 months of warranty period + 6 months claim period.
13. **ADVANCE PAYMENT:** Quotations with payment terms of “**Advance**” will not be considered and such offers are liable for rejection commercially.
14. **PENALTY:** Failure to supply the item within the delivery date specified in the purchase order will make the supplier liable to an unconditional penalty of ½% (One half percent) of the value (basic material cost) of the goods in arrears per week subject to a maximum of 10%.
If pre-shipment inspection is involved, date of issue of pre-shipment call by the vendor along with test certificates / test reports / certificate of conformance / calibration reports as proof of completion will be treated as date of dispatch for penalty calculation.
In the absence of reports stated above, actual date of inspection will be considered as date of dispatch for penalty calculation.
15. **PBG:** Performance Bank Guarantee (PBG) to be submitted as per the BHEL prescribed format (Annexure-II c) for 10% of the basic equipment value obtained from any BHEL member banks.
PBG shall be valid for 12 months + 6 months claim period (totally 18 months) from the date of dispatch.
16. **WARRANTY:** Goods dispatched shall have warranty period of 18 months from the date of dispatch or 12 months from date of commissioning, whichever is earlier.
17. **TERMS OF DELIVERY:** Price offered shall be for goods packed and delivered **F.O.B.** (named international Airport/Seaport) including packing, forwarding, Handling, Ancillary charges like processing of Sight Draft, Letter of credit (L/C), negotiation of bank documents, Export declaration, Certificate of origin etc.
Packing shall be Airworthy/Seaworthy, best suitable for transshipment and to take care of transit damages.

Indicate name of International Airport/Seaport

Note: Name of Airport to be selected from any one of the ports indicated in Annexure-IIa, which are acceptable BHEL ports.

BHEL will do customs clearance after payment of customs duty as applicable at the time of customs clearance.

18. **DELIVERY PERIOD:** Equipment shall be delivered, as per the requirement of the specific R F Q / tender. Offers such as ex-stock subject to prior sale or delivery at the earliest will not be entertained.
In case of PO involving LC, 15 days will be granted for giving order acknowledgement beyond which it will be treated as delay and considered as penalty zone if overall delivery does not take place in agreed delivery period.
Delivery will be reckoned from the date of acknowledgement from freight forwarder after receipt of goods / AWB
19. **VALIDITY:** Quotation should remain valid for a period of **90 days** from the due date.
20. **RISK PURCHASE:** The purchaser at his discretion may also make purchase of the materials **NOT** supplied in time at the **RISK & COST** of the supplier. In this event, it will be obligatory on the part of the supplier who fails to supply the goods in time to make good to BHEL any loss due to such risk purchase.
21. BHEL reserves the right to RE-FLOAT/REJECT/CANCEL this TENDER ENQUIRY (RFQ) without assigning any reason or cause thereof. Quotes received against this TENDER ENQUIRY are subject to and governed by all these terms and conditions. BHEL's decision will be final in awarding of the contract and binding on all vendors.
22. **REVERSE AUCTION** : BHEL reserves the right to go for reverse auction at any point of time before opening of price bid.
23. BHEL reserves the right to Accept / Reject the offer in full or part there off depending on BHEL's requirement.
24. **POST ORDER REQUISITS:**
- (a) Pre-shipment inspection at your works, if required, will be done by BHEL. Required assistance to be provided at the time of pre-shipment inspection.
 - (b) Test certificates and warranty certificates as stipulated at the time of ordering shall be furnished.
 - (c) Items shall be dispatched with road/air/sea worthy packing. Any rejection due to poor packing shall be to supplier's account.
 - (d) Any rejection should be made good or replaced immediately without any extra cost to BHEL.
 - (e) Wherever commissioning is involved, it shall be carried out on a turnkey/supervisory basis. Scope of work includes design, fabrication, supply, installation, commissioning and trial run till satisfactory performance level is reached as certified by the user department.
 - (f) Copies of operation & instruction manuals to be supplied along with the equipment or before as per specification.
 - (g) BHEL will not be responsible for any loss, damage or injuries to staffs sustained during erection/commissioning. Supplier shall ensure compliance with all statutory requisites as laid down by local bodies, state & Central Government.
 - (h) Original invoice (2 copies) to be submitted at the office of DGM / EM -Coml for arranging payment.
 - (i) As BHEL is also making payment through EFT, banker details in the prescribed format to be submitted.



(j) Performance Bank Guarantee to be executed on Rs.100/- non-judicial stamp paper as per BHEL prescribed format (copy attached).

- 25 . **PAST SUPPLIES / PERFORMANCE:** Detailed list of past supplies of quoted equipments for the last three years shall be enclosed along with the bid indicating customer, quantity supplied and year of supply. Performance certificate issued by customers may also be enclosed along with the bid.
26. Any dispute arising out of this shall be referred to the sole arbitration of Head of Materials Management, SA - EDN, Bangalore or any other officer nominated by him and his decision shall be final and binding on the parties. The venue of the arbitration in all cases shall be Bangalore.
27. All suits in respect of this lie in the court of Bangalore only.

28. LOADING FACTORS:

Loading factors as detailed below will be added to the quoted price (basic) to evaluate the lowest quote for non compliance of BHEL standard commercial terms.

A. For non compliance of BHEL standard Terms of payment:

Sl. No.	BHEL standard term	If you quote	Loading factor in % for non-compliance
1	100% against "SIGHT DRAFT" on presentation of dispatch documents to our Bankers and issue of PBG.	(a) 100% Through Letter of Credit (LC) & issue of PBG	(a) 3.5 %
2	90% against "SIGHT DRAFT" + Balance 10% (wherever PBG is not accepted) in lieu of PBG	(b) 90% Through Letter of Credit (LC)	(b) 2.25 %

B. For non compliance of Penalty clause:

Sl. No.	BHEL standard term	If you quote	Loading factor for non-compliance
1	Penalty of 0.5% per week subject to max. of 10% on the value of the items not supplied / delayed	Not agreed	10 %
		5% max., agreed	5%
		Other than the above	10% - agreed max. %

C. For non compliance of Performance Bank Guarantee (PBG):

Sl. No.	BHEL standard term	If you quote	Loading factor for non-compliance
1	PBG for 10% of the basic material cost shall be furnished in the BHEL prescribed format	Not agreed	10 %
		5% agreed	5 %
		Other than the above	10% - (minus) agreed max. %



D. For Non conformance to delivery requirement of BHEL

BHEL requires the delivery of items within 4 months from the date of commercially clear PO. Delivery quoted more than 4 months will be subjected to a loading factor of 0.5 % per week as under:

Sl. No.	BHEL standard term	If you quote	Loading factor in % for non-compliance
1	4 months form date of PO	5 months	2 %

ANNEXURE-II(a)
LIST OF INTERNATIONAL AIRPORTS

Sl. No	Country	Air Ports
1	Austria	Vienna, Linz, Graz
2	Australia	Sydney, Melbourne, Perth
3	Belgium	Antwerp, Brussels
4	Canada	Toronto, Montreal
5	China	Shangai
6	Cyprus	Lamaca
7	Czech Republic	Prague (Via Frankfurt)
8	Denmark	Copenhagen
9	Egypt	Cairo
10	Finland	Helsinki
11	France	Paris (Rossey), Lyon
12	Germany	Darmstadt, Manihem, Nurnberg, Hamburg, Stuttgart, Munich, Koln, Dusseldorf & Hannover, Frankfurt, Berlin
13	Hongkong	Hongkong
14	Italy	Rome, Milan, Turin, Bologna, Florence
15	Ireland	Dublin
16	Isrel	Telaviv
17	Japan	Tokyo, Osaka
18	Malaysia	Kaulalampur, Penang
19	Neatherlands	Amsterdam, Rotterdam
20	Newzealand	Auckland
21	Norway	Oslo
22	Oman	Muscat
23	Philippines	Manila
24	Romania	Bucharest
25	Russia	Moscow
26	Saudi Arabia	Riyad
27	Singapore	Singapore
28	Slovakia	Bartislawa
29	South Africa	Johannesburg, Durban
30	South korea	Kimpo
31	Spain	Barcelona
32	Sweden	Stockholm, Gothenburg, Milano
33	Switzerland	Basle, Zurich, Geneva
34	Taiwan	Taipei
35	U.A.E.	Dubai
36	U.K.	Landon (Heathrow), Newcastle, Oxford, Cheltham, Bristol, Wellingborough, Birmingham, East Midland, Manchester, Leeds, Glasgow.
37	U.S.A.	Newyork, Chicago, Sanfrancisco, Los Angeles, Atlanta
38	Ukraine	Kiev



Annexure II(b)

QUOTATION FORMAT PART – A TECHNICAL BID (IMPORTED)

Sl. No.	Particulars	Bidder's confirmation
1	Price basis: Firm i.e., from the date of PO to completion of supply [Price Variation Clause (PVC) not acceptable]	Acceptable / Not acceptable
2	Terms of Payment: Against “ SIGHT DRAFT ” on presentation of documents to our bankers. (a) 90 % is payable on negotiation of complete set of original documents on receipt and acceptance of equipment & balance 10% against submission of PBG (b) Deviation if any please specify Note: as per clause 12	(a) Acceptable / Not acceptable (b)
3	BHEL's penalty clause: (a) Delay in delivery as per PO delivery date will result in penalty of 0.5 % per week subject to maximum of 10% on the value of the items not supplied/delayed. (b) Deviation if any Please specify Note: as per clause 14	(a) Acceptable / Not acceptable (b)
4	Performance Bank guarantee: PBG for 10% of the basic material cost shall be furnished in the BHEL prescribed format as detailed in clause 15.	Yes / No
5	Terms of delivery: (a) F.O.B international Airport/Seaport as per clause 17 Indicate name of International Airport/Seaport (b) Deviation if any Please specify	(a)Acceptable / Not acceptable (b)
6	Warranty: (a) 3 years from date of acceptance / commissioning, (b) Deviation if any Please specify	(a)Acceptable / Not acceptable (b)
7	Delivery period: Indicate number of weeks from the date of issue of Purchase order	_____Weeks
8	Validity: (a) Quotation should remain valid for a period of 90 days from the due date (b) Deviation if any Please specify	(a) Acceptable / Not acceptable (b)

Signature of tenderer / with stamp



PERFORMANCE BANK GUARANTEE
(FOR FOREIGN PURCHASE ORDERS)

ANNEXURE-II (c)

BANK NAME AND ADDRESS

Electronics Division
Bharat Heavy Electricals Limited ,(B.H.E.L.)
Mysore Road, P.B.No. 2606
BANGALORE- 560 026
INDIA

Dear Sirs,

Ref: CONTRACT PERFORMANCE GUARANTEE.

WHEREAS you have entered into a contract reference No PO NO. _____ with M/s _____ having its registered office at _____ for the supply of _____ as detailed in your purchase order No. _____ which is hereinafter referred to as "the said contract" and **WHEREAS** M/s _____ has undertaken to produce a Bank Guarantee for 10% (Ten Percent) of the contract price amounting to _____ (_____) to secure its obligations to Electronics Division, BHEL having its registered office at New Delhi for the performance of the contract including the warranty of the equipment supplied, We _____ Bank , _____ hereby expressly, irrevocably and unreservedly undertake and guarantee as principal obligors on behalf of M/s _____ that in the event Bharat Heavy Electricals Ltd. (B.H.E.L.) declares to us in writing that M/s _____ has not fulfilled any obligation according to the contractual obligation of the said contract, to pay you on demand and without demur to Bharat Heavy Electricals Ltd., Electronics Division , Mysore Road, P.B.No. 2606, Bangalore-560 026, India an amount of _____ (in _____ words _____) subject to as may be determined below:



- 1) Notwithstanding any right M/s. _____ may have directly against you or any disputes raised by M/s _____, Your written demand shall be conclusive evidence to us that repayment is due under the terms of the said contract and shall be binding on us.
- 2) We shall not be discharged or released from this undertaking and Guarantee by any arrangements, variations made between you and M/s. _____ with or without our consent and Knowledge or by any alterations in the obligations of M/s. _____ by any forbearance whether as to payment, time, performance or otherwise.
- 3) This guarantee shall remain valid until the end of twenty-four weeks after the close of the warranty period or until the same is reported by BHEL to us whichever is earlier.
- 4) We agree and undertake not to revoke this guarantee during its validity unless discharged in writing by you subject to the provision of clause (7) below.
- 5) This guarantee shall be a continuing guarantee subject to the foregoing and shall not be discharged by any change in the constitution of the Bank or M/s. _____.
- 6) This guarantee shall be governed by and constructed in accordance with the Laws of India.
- 7) At any time _____ Bank may render this guarantee null and void by paying to Bharat Heavy Electricals Ltd. the full amount being _____ (in _____ words)

**For and on behalf of Bank
by its Authorised Signatory.**



Annexure - II (d)

BHEL MEMBER BANKS
PBG SHALL BE ISSUED FROM THE FOLLOWING BANKS OR THEIR
BRANCH OFFICES ONLY

State Bank of India, CAG Branch 10 th Floor, Vijaya Building Barakamba Road, NEW DELHI - 110 001	Deutsche Bank, Tolstoy Marg, NEW DELHI - 110 001
Canara Bank, 74, Janpath, NEW DELHI - 110 001	HDFC Bank Ltd, 5 TH floor, H T House, K G Marg, ,NEW DELHI - 110 001
Punjab National Bank, 74 Janpath, NEW DELHI - 110 001	CITI Bank NA, Jeevan Vihar Building, Sansad Marg NEW DELHI - 110 001
Bank of Baroda, Corporation Banking Branch, 11 th Floor, BOB Building, Sansad Marg, NEW DELHI - 110 001	Standard Chartered Bank, H2, Block Connaught Place NEW DELHI - 110 001
State Bank of Hyderabad, Surya Kiran Building, K G Marg, NEW DELHI - 110 001	ICICI Bank Ltd, ICICI Tower, Bisham Pitamah Marg, Pragati Vihar, NEW DELHI - 110 003
State Bank of Mysore, Antrikash Bhawan, K G Marg, NEW DELHI - 110 001	IDBI Bank Ltd, 19 K G Marg, Surya Kiran Building, NEW DELHI - 110 001
State Bank of Mysore, Industrial Finance Branch, 18, Ramanashree Arcade,, M G Road, BANGALORE 0 560 001	HSBC Ltd, ECE House, 28K G Marg, NEW DELHI -110 001
State Bank of Travancore, Travancore House, IF Branch, NEW DELHI - 110 001	