



GOVERNMENT OF PAKISTAN
PAKISTAN ORDNANCE FACTORIES
TENDER ENQUIRY

To

Dear Sirs,

Reference: - TENDER ENQUIRY NO. 3521-2-13-50-Capt-Pur-AA, dated 30-4-2021

You are requested to submit sealed quotations for the item noted on the Schedule to the Tender. Please note the following instructions for filling the tender:-

1. **SUBMISSION OF TENDER**

- 1.1 Tenders will be opened at 1230 hours on 10-6-2021 and must reach this office on or before that time. The tender received late will not be entertained. You may witness the opening of the tender if you so desire. If a representative is deputed, he should bring a letter of authority from you.
- 1.2 Only one tender should be included in one envelope. The outside of the envelope should be inscribed with: -

Tender Enquiry No: 3521-2-13-50-Capt-Pur-AA, dated 30-4-2021

Tender to be opened on: 10-6-2021

Address as follows:-

**Managing Director
Artillery Ammunition Factory
Pakistan Ordnance Factories,
Wah Cantt, Pakistan.
Fax : 051-9314100 & 051-9271400
Email : mdaa@pof.gov.pk**

- 1.3 If envelope do not indicate reference of TE or received late, the same will be returned un-opened.

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2. **GENERAL INSTRUCTIONS REGARDING PREPARATION OF QUOTATIONS**

- 2.1 For materials, the prices should be filled in column 5 and delivery date in column 6 of the schedule to this Tender Enquiry. The undertaking should be signed at the bottom of the Schedule which shall form the Quotation. You may use a separate sheet if necessary.
- 2.2 For Plant & Machinery, you are required to quote in two parts:-
- Part-I "TECHNICAL OFFER" It should exclusively give technical details and literatures/brochures of the offered plant, machinery and equipment; validity date; delivery schedule; and signed undertaking given on the schedule to this Tender Enquiry. It must not indicate price, costs etc.
- Part-II "COMMERCIAL OFFER" It should indicate the commercial terms e.g. price, terms of payment, mode of payment, mode of supply.
- Each part should be placed in a separate sealed cover. The envelope should be inscribed with Part-I "Technical Quotation without Price" and Part-II "Commercial Quotation with Price".
- 2.3 The quotation must remain valid for, at least 90 days from the date of opening of tenders.
- 2.4 The quotation should hold good for any reduced or enhanced quantities without notice.
- 2.5 In the event of non-acceptance of offer, intimation may be given to the Tenderers on their request.
- 2.6 Conditional offers or alternative offers are likely to be ignored.
- 2.7 Quotations should be based on FOB. The consignment will be shipped through Pakistan National Shipping Corporation (PNSC). In case there is no PNSC service in the country of shipping, please quote on C & F basis. The freight should be indicated separately. Insurance premium should not be included in the quoted price. However, where insurance is considered necessary, advice to that effect should be given in the quotation.
- 2.8 Submission of the offer through an agent in Pakistan should be avoided. In case it is considered inevitable, the agent's quotation must invariably be accompanied by the original proforma invoice from the principals/ manufacturers. **However, contract will be placed on principals / manufacturers.**
- 2.9 Country of origin and port of shipment to be stated.
- 2.10 The offer of principal must clearly indicate whether the rate quoted is inclusive of agent's commission, and if inclusive rate of commission included be specified.
- 2.11 Supplier will render necessary information regarding hazardous effects on environment, of the materials/products supplied by them, in their quotations and shipping/despatch documents.
- 2.12 If the requisite information is not furnished on the TE form or offer received is not in conformity with the requirement of the TE, the offer shall be ignored.

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3. **INSPECTION**

- 3.1 Pre-shipment inspection / acceptance of the furnace at firm's premises will be conducted by the team deputed on training.
- 3.2 The supplier will provide Warranty / Guarantee Certificate of the furnace, equipment & accessories which will be valid for a period of 12 x months after successful installation & commissioning of the furnace.

4. **ACCEPTANCE OF OFFERS**

- 4.1.1 The procuring agency may reject all bids or proposals at any time prior to the acceptance of a bid or proposal. The procuring agency shall upon request communicate to any supplier or contractor who submitted a bid or proposal, the grounds for its rejection of all bids or proposals, but is not required to justify those grounds.
- 4.1.2 Procuring agency shall incur no liability, solely by virtue of its invoking sub-rule (1.1) towards suppliers or contractors who have submitted bids or proposals.
- 4.1.3 Notice of the rejection of all bids or proposals shall be given promptly to all suppliers or contractors that submitted bids or proposals.

4.2 **PERFORMANCE BOND**

- (a) The successful bidder will provide Performance Bond at the rate of 10% of FOB value of the contract in favour of Controller of Military Accounts (CMA), Wah Cantt. The Performance Bond will be furnished in the form of Deposit At Call Receipt (CDR) from any scheduled Bank in Pakistan or an unconditional bank guarantee on prescribed Proforma covered by any schedule bank in Pakistan. The Performance Bond shall be furnished within 45 days from the date of opening of Letter of Credit. The same will be got extended upto 12 x months after successful installation & commissioning of the furnace accordingly. If the Performance Bond is not furnished within the above mentioned prescribed time, the Purchaser reserves the right to cancel the contract and make other arrangements for purchase of the stores at the risk and expense of the Supplier.
- (b) No Performance Bond will be required if the total FOB value of the contract is less than US \$ 50,000 and contract is placed directly on the foreign supplier.

4.3 **FAILURE TO SUPPLY THE STORES**

All deliveries must be completed by the specified date. If the failure to deliver the stores within the scheduled time should have arisen from "Force Majeure", which the Purchaser may admit as reasonable ground for further time, he will allow such additional time as he may consider to have been required by the circumstances of the case. Otherwise, he will be entitled, at his discretion, to cancel the contract; and/or, claim liquidated damages upto 2% but not less than 1% of the contract price of the items and their quantities for each and every month or part of a month, beyond the specified delivery date, during which these may not be delivered, subject to a maximum of 10% of the total contract value of particular store which remained unsupplied either in part or in full or, to purchase, from elsewhere, the unsupplied stores at the risk and cost of the Supplier.

4.4 **PAYMENT**

- i. 70% payment will be released through LC against shipping documents including Acceptance Certificate signed by PSI team, confirming satisfactory pre-shipment inspection.
- ii. 30% payment will be paid through LC upon final acceptance subject to the following certifications signed by Inspection Team and MD-AA:-
 - a. Successful installation & commissioning of the furnace at POF premises
 - b. Successful heat treatment of 1000 x components on the furnace

All Bank charges incurred in Pakistan in connection with the establishment of LC will be borne by the Purchaser, whereas all Bank charges incurred in connection with drawing of payment including charges for confirmation of LC by the advising Bank/Foreign Bank will be borne by the Supplier.

5. **SECURITY OF INFORMATION**

The tenderer and his employees must not communicate any information relating to the sale/purchase of stores under this enquiry to any person other than the manufacturer or to any press or agent not authorized in writing by POFs to receive it.

Please return the Schedule to the Tender duly signed by the specified date, along with the specifications drawings etc. if any, enclosed herewith - even if you are unable to quote.

WARNING

In case the firm abstain from making offers or fail to return/acknowledge the tender form by the specified date on three consecutive occasions, no further tender enquiry may be issued to them and their names would liable to be removed from the approved list.

Yours faithfully,

(Waqas Ahmad)

Managing Director-AA

For and on behalf of the President
of Islamic Republic of Pakistan

PAKISTAN ORDNANCE FACTORIESSCHEDULE TO TENDER NO. 3521-2-13-50-Capt-Pur-AA, Dt. 30-4-2021**(1) FOR PLANT AND MACHINERY**

(1)	(2)	(3)	(4)	(5)		(6)
Item No.	Description with Specs etc.	Unit	Qty	Price Per Unit (FOB Value)		Delivery Date
				In Figures	In Words	
1	High Frequency Induction Furnace with Solid State Power Converter 1000 KW for heating of Steel Billets to Spec. DEF-Stan-13/47, Issue-5, SS/A-21. Automatic Feeding System with variable speed control.	No.	01			

- (2) Specifications: Enclosed as Annexure-'A'
 (3) Special Conditions: Enclosed as Annexure-'B'
 (4) Tech. Comparison: Enclosed as Annexure-'C'

Note:- SINGLE STAGE-TWO ENVELOPE PROCEDURE:

- i. The bid shall comprise a single package containing two envelopes. Each envelope shall contain separately the technical and financial proposal.
- ii. The envelope shall be marked as "Technical Proposal" & "Financial Proposal" in bold and legible letters to avoid confusion.
- iii. Initially, only the envelope marked "Technical Proposal" shall be opened.
- iv. The envelope marked as "Financial Proposal" shall be retained in the custody of Bid Centre.
- v. During the technical evaluation, no amendments in the technical proposal shall be permitted.
- vi. The financial proposals of bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance.

(5) UNDERTAKING:

Should our offer be accepted, we hereby undertake to supply the stores/render the services contracted on the basis of Conditions of Contract embodied in Form POF 1282, and to deposit the performance bond within the prescribed time, failing which it will constitute a breach of contract, and POF will have the right to purchase the stores/services elsewhere at our risk and cost.

Place _____
 Date _____

Signature of Tenderer _____
 Name _____
 Position _____
 Address _____
 Income Tax G.I.R No. _____

SPECIFICATION

1. Nomenclature:

High Frequency Induction Furnace with Solid State Power Converter Qty. 01 off

2. Technical Requirements:

Solid State Power Converter		
i.	Power output	1000 KW
ii.	Frequency	1000 HZ
iii.	Input Voltage	400 Volts 3 Phase
iv.	Output Voltage	(800 Volts min Single Phase) or according to the production rate at required temperature
Induction Heating Furnace		
i.	Temperature range	1300° C Maximum
ii.	Heating Zone	03
iii.	No. of Coil / Zone	01
iv.	Heating Coil	Copper Heating Coils with Water Channel
v.	Job Diameter	100mm
vi.	Job Material	According to Spec. DEF-Stan-13/47, Issue-5, SS/A-21
vii.	Method for job feeding and ejection	Automatic Feeding System with variable speed control
viii.	Cooling Tower	Package type Cooling Tower to work at 27° C, Wet Bulb temperature alongwith Water Pumps and Electric Motor of suitable capacity
ix.	Water temp at outlets of Cooling Tower	Minimum 8° C below Ambient Temp.

3. Machine Features:

The furnace should be equipped with:-

- i. Standard Safety Devices
- ii. Electric Control Panels with cooling / exhaust system
- iii. Digital Temperature Indicator
- iv. Set points and alarms display on operator panel
- v. Main and auxiliary circuit breakers
- vi. Start / stop push buttons and power control knobs
- vii. Emergency stop push button which trips the main circuit breaker
- viii. Auxiliary circuit fault indicators.
- ix. Pressure / temperature gauges and flow rate meter at outlets of raw and distilled water lines
- x. Heat Exchanger for temperature control of water in heating coils

4. Accessories:

Descaling unit

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5. **Tooling:**

01 x Tool Kit for running & planned maintenance of the furnace

6. **Spares:**

Electrical, Electronic & Mechanical spare parts for 02 x years running maintenance

7. **Documentation:**

04 x sets of following documents in English language are required:-

- i. Electric Control Circuit Diagram
- ii. Details of motors and their control
- iii. Operating, maintenance and service manual

8. **Site Condition & Available Services:**

- i. The available electric system on site for functioning of the furnace is:
 - a. 400 ± 5% VAC, 50Hz, 3 Phase, 4-Wire System
 - b. 220 ± 5% VAC, 50Hz, 1 Phase
- ii. The available compressed air supply on site for functioning of the furnace is 6 bar.

The available climatic conditions for functioning of the furnace are:

- i. Temperature:
 - a. Winter = - 3⁰ to + 20⁰ C
 - b. Summer = 30⁰ to 50⁰ C
- ii. Relative Humidity = 25 to 90%
- iii. Earthquake Value = 8.5 on Richter scale

9. **Safety:**

- i. High Temp Tripping System
- ii. Over Current Tripping System (fast blow fuses)
- iii. Under voltage tripping protection
- iv. Temperature and pressure switch at water inlet / outlet manifold
- v. A surge absorber at input protection
- vi. The electric equipment should be earthed.
- vii. Equipment should have line protection circuit breakers with thermally delayed overload release as required. It should be followed by cut off power supply and safety fuses.
- viii. All motors should be appropriately protected.
- ix. The industrial electrical measuring instruments, wherever used should have an accuracy of Class-I or better.

10. **Training:**

Free of cost training for 02 x weeks for 02 x POF Engineers / Technicians on operation and maintenance of furnace.

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11. Pre-shipment Inspection:

- i. Pre-shipment inspection / acceptance of furnace at firm's premises will also be conducted by the team deputed on training. The inspection team besides others will particularly carry out dry run of the furnace and it will be considered acceptable subject to satisfactory heat treatment of 500 × components according to Spec. DEF-Stan-13/47, Issue-5, SS/A-21 on the furnace.
- ii. The components heat treated on the furnace will be inspected for hardness. Provisioning of testing facilities for hardness of components will be made by supplier.
- iii. The provisioning of components of equivalent material for trial run at firm's premises will be made by the firm.
- iv. Air tickets, Boarding & Lodging, DA and inland transportation in respect of training / PSI teams would be the responsibility of the supplier.

12. Installation & Commissioning:

- i. Installation & commissioning of the furnace is the responsibility of supplier.
- ii. POF will provide services and manpower to help during installation & commissioning.
- iii. All safety risks associated with installation & commissioning are the responsibility of supplier.
- iv. Needed material for installation & commissioning would be managed by the supplier.
- v. The supplier will provide information regarding total man-weeks of his engineers/technicians required for installation, commissioning and trial production run of the furnace. All expenses including boarding & lodging, travel and daily allowances of the engineers/ technicians are to be borne by the supplier. However, local transportation shall be arranged by the purchaser.
- vi. The supplier will indicate the time schedule for installation and commissioning of the furnace.
- vii. The furnace after installation and commissioning shall be accepted on firm's warranty / guarantee. The warranty / guarantee shall be binding on the supplier for a period of 12 × months reckoning from the date of commissioning of the furnace.

13. Final Acceptance Test:

- i. Final acceptance test will be performed at purchaser's premises.
- ii. The furnace will be run for trial to check abnormal noise, vibration, heat up, leakages etc.
- iii. The furnace will be run for trial and heating of 1000 × components according to Spec. DEF-Stan-13/47, Issue-5, SS/A-21 will be carried out. The components annealed on the furnace will be subjected to hardness test and visual inspection. The components will be provided by POF.
- iv. Based on successful inspection report, a certificate will be issued by purchaser in respect of successful installation and commissioning of the furnace.
- v. The firm will provide on job training on the furnace to Engineers / Technicians at purchaser's premises.

14. Payment Terms & Conditions:

- i. Payment terms and conditions are negotiable. 70% payment will be released through LC against shipping documents including Acceptance Certificate signed by PSI team, confirming satisfactory pre-shipment inspection.
- ii. 30% payment will be paid through LC upon final acceptance subject to the following certifications signed by Inspection Team and MD-AA :-
 - a. Successful installation & commissioning of the furnace at POF premises
 - b. Successful heat treatment of 1000 x components on the furnace
- iii. The firm will provide performance bond @ 10% FOB value of the contract in the shape of bank guarantee before shipment. Same guarantee will be valid for 12 x months after successful installation and commissioning of the furnace.

15. Delivery Schedule:

- i. Delivery of the furnace will be made within 06 x months from placement of contract. However, the same can be negotiated.
- ii. Delivery of the furnace will be made on C&F basis.

16. Country of Origin:

Europe, UK, USA, Japan, China & Korea

17. Colour:

Green RAL-6011

SPECIAL CONDITIONS

- a) **TO BE FULFILLED AT THE TIME OF BIDDING / REPLY OF TENDER ENQUIRY**
- i. It may be confirmed that you will be able to obtain export license from your Govt. in the event of successful bidding.
 - ii. OEM/authorized suppliers with company profile/brochure.
 - iii. Performance of such type of furnace supplied to various customer.
 - iv. Backup service in Pakistan.
 - v. Item wise price of furnace, equipment & accessories alongwith Electrical, Electronic and Mechanical Spare Parts for 02 x years running maintenance should be quoted as part of commercial offer (Part-II). Essential maintenance & operational spares shall be supplied and ensure backup support for provisioning of spares for 10 years.
 - vi. Reference Column 2.2 of Tender Enquiry Form No. 1262, any indication whatsoever of the price in Part-I of the quotation will render it invalid and void.
 - vii. The supplier must fill in the Proforma of Technical Comparison enclosed as Annexure-'C' to the specifications and submit alongwith the offer for our instant evaluation of the offer and enclose it alongwith technical offer.
 - viii. The supplier will provide necessary brochures and technical literature alongwith Part-I of the offer (Technical Offer).
 - ix. POF shall deal directly with the manufacturer / supplier of the furnace. In case of manufacturer / supplier chooses to have a local agent, payment of agent's commission etc., shall be supplier's responsibility and shall not be included in the price quoted in Part-II of the offer (Commercial Quotation).
- b) **CONDITIONS TO BE PART OF FORMAL CONTRACT AND MAY BE KEPT IN VIEW BEFORE BIDDING**
- i. 70% payment will be released on submission of shipping documents including Acceptance Certificate signed by PSI team, confirming satisfactory pre-shipment inspection.
 - ii. 30% payment will be paid through LC upon final acceptance subject to the following certifications signed by Inspection Team and MD-AA:-
 - a. Successful installation & commissioning of the furnace at POF premises
 - b. Successful heat treatment of 1000 x components on the furnace
 - iii. Item wise price of furnace, equipment & accessories alongwith Electrical, Electronic and Mechanical Spare Parts for 02 x years running maintenance should be quoted as part of commercial offer (Part-II). Essential maintenance & operational spares shall be supplied and ensure backup support for provisioning of spares for 10 years.
 - iv. The manufacturer / supplier will train at his premises 02 x POF Engineers/Technicians on operation and maintenance of the furnace at supplier's premises, free of cost for 02 x weeks.

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- v. Pre-shipment inspection / acceptance of the furnace at firm's premises will also be conducted by the team deputed on training. The inspection team besides others will particularly carry out dry run of the furnace and it will be considered acceptable subject to satisfactory heat treatment of 500 x components on the furnace.
- vi. The components heat treated on the furnace will be inspected for hardness. Provisioning of testing facilities for hardness of components will be made by supplier. The provisioning of components of equivalent material for trial run at firm's premises will be made by the firm.
- vii. Air tickets for both sides, boarding & lodging, inland transportation and provisioning of payment of 30 % Daily Allowance in respect of training & PSI teams would be the responsibility of the supplier.
- viii. The manufacturer / supplier will ensure supply of foundation drawings and installation manual to the consignee at least two months before shipment of the furnace.
- ix. The furnace will be installed & commissioned at POF by the supplier's Engineers. Needed material for installed & commissioning would be managed by the supplier. The furnace will be run for trial and heating of 1000 x components will be carried out. The components annealed on the furnace will be subjected to hardness test and visual inspection. The components will be provided by POF. The furnace will be run for trial to check abnormal noise, vibration, heat up, leakages etc. POF will pay 75% of commissioning charges in foreign exchange through LC after successful installation & commissioning of the furnace against Commissioning Certificate jointly signed by Commissioning Engineer(s) of the supplier, user of the furnace & counter signed by MD-AA. The remaining 25 % of the commissioning charges will be paid in Pak. Rupees on successful commissioning of the furnace to the Commissioning Engineer(s) to meet their boarding & lodging charges during their stay at POF-Guest House. Any amount incurred over and above the said amount during boarding & lodging at POF-Guest House will be paid by the Commissioning Engineer(s) themselves against claim bills at the time of check out. Travelling expenses for Commissioning Engineer(s) for both sides will also be borne by the supplier.
- x. The manufacturer/supplier will undertake regarding backup support for provisioning of Mechanical, Electrical & Electronic Spare Parts for 10 years maintenance after commissioning of the furnace as and when required by POF. The undertaking shall be furnished by the firm in the shape of a certificate to be issued on the letter head of the firm alongwith the accepted copies of the contract (to be returned to the buyer).
- xi. Four sets of documentation in English language inclusive of Electric Control Circuit Diagram, details of motors & their control and operating, maintenance & service manual are required to be provided with the furnace. These manuals must include comprehensive instructions regarding Operation and Maintenance containing detailed Electrical, Electronic, Pneumatic and Hydraulic Diagrams / Assy. & Sub-Assy. drawings in so far these are related to maintenance of the furnace supplied. The maintenance manuals may also include planned preventive maintenance program based on number of Operating Hours or Time Span.
- xii. The manufacturer/supplier will provide performance bond in the shape of Bank Guarantee @ 10% of net FOB (LC) value which will be valid for 12 x months after the date of expiry of letter of credit. The same will be got extended upto 12 x months after successful installation & commissioning of the furnace accordingly.

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- xiii. The spare parts will be properly tagged with Part No. / Serial No. for identification.
- xiv. The furnace must be packed in seaworthy packing and protected adequately & appropriately to the mode of despatch against damages from water or other substances during sea voyage and over land journey to withstand the rough handling involved in transit and provide proper preservation of the furnace while held in storage by the consignee.
- xv. The furnace must include complete tool kit for running & planned maintenance.
- xvi. POF will hold no responsibility for any damage occurred during shipment of the furnace.
- xvii. The supplier will provide on letter head duly signed and stamped declaration of fees, commissions & brokerage etc. alongwith the accepted copies of the contract.

Signature of the Supplier:

Name _____

Status in the Firm _____

Address _____

Place _____

Date _____

TECHNICAL COMPARISON
(TO BE FILLED BY SUPPLIER)

Sr. #	TENDER SPECIFICATIONS	OFFERED SPECIFICATIONS WITH REFERENCE TO PAGE NO. OF QUOTATION