



GOVERNMENT OF PAKISTAN
PAKISTAN ORDNANCE FACTORIES
TENDER ENQUIRY.

To

M/s _____

Dear Sirs,

Reference: TENDER ENQUIRY NO. **5167-48-FP-CAPT-SJL** DATED **26-02-2018**

You are requested to submit quotations for the items(s) noted in the Schedule to the Tender. Offers should be sent duly sealed in an envelope. Please note the following instructions for filling the tender:-

1. **SUBMISSION OF TENDER**

- 1.1 Tenders will be opened at 1230 hrs on **03-04-2018** and must reach this office on or before **1230** hour upto due date. 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: **5167-48-FP-CAPT-SJL** DATED. **26-02-2018**
Tender to be opened on: **03-04-2018**
Address as follows:-

MANAGING DIRECTOR POF SANJWAL
DISTT. ATTOCK

- 1.3 If envelope does not indicate reference of TEs or received late the same may be returned un-opened.

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 and 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 envelopes 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 F.O.B. 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.
- 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 Suppliers will render necessary information regarding hazardous effects on environment, of the materials/products supplied by them, in their quotations and shipping/Dispatch documents.
- 2.12 If the requisite information is not furnished on the T.E form or offer received is not in conformity with the requirement of the T.E such offer shall be ignored.

3. INSPECTION

- 3.1 Supplies shall be subject to the inspection and acceptance by the competent inspection authority nominated by the Purchaser, who will arrange it at his own cost, inspection facilities such as tools, test equipment, instruments etc will, however, be provided by the Suppliers in accordance with the relevant specifications.
- 3.2 Where considered necessary by the Purchaser, stores may be obtained Warranty/Guarantee, subject to inspection on receipt. Rejected stores will be removed and replaced with the acceptable stores by the Supplier at his own expense, within a specified time.

3.3 TENDER SAMPLE

Where required offer must accompany tender sample strictly according to the description given in tender Enquiry. Offer not accompanied by tender sample will NOT be entertained excepting the established and reputable firms who have either previously satisfactorily supplied the same or similar stores or have submitted an acceptable samples thereof against previous T.E.

4. ACCPETANCE 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 bidders will provide Performance Bond at the rate upto 10% of F.O.B. value of contract in favour of the Controller Military Accounts (CMA) POF 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 scheduled bank in Pakistan. The Performance Bond shall be furnished within 45 days from the date of opening of Letter of Credit. It shall be valid for a period of 12 months after the date of expiry of letter of credit. If the Performance Bond is not furnished within the prescribed time of 45 days, the Purchaser reserves the right to:
- i) Impose penalty @ 1 % per month of the value of CDR/BG.
(Clause-4.2 (a i) is not applicable in case of procurement of Plant / Equipment / Machinery items)
- OR
- ii) 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

Payment will normally be made by means of irrevocable letter of credit. Unless otherwise stated 70% payment will be released on submission of Dispatch documents to Bank while balance 30% payment will be released on receipt and acceptance of store by the consignee.

All Bank charges incurred in Pakistan in connection with the establishment of L.C. will be borne by the Purchaser, whereas all Bank charges incurred in connection with drawing of payment including charges for confirmation of L.C. 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, alongwith 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,

(MUHAMMAD AYUB)
GENERAL MANAGER- PPC
POF SANJWAL

Tele:

Fax: 0092-51-9316252

E-mail address: - missanjwal@hotmail.com

Cable:

Schedule to tender enquiry no. **5167-48-FP-CAPT-SJL** DATED: **26-02-2018**To be opened on **03-04-2018**

S.No	DESCRIPTION OF STORE	A/U	QTY	PRICE/ UNIT FOB / C&F	Delivery Date/Period
1.	Tempering/Annealing Furnace Detail as per Annex-A attached	No.	01		
2	Low Temperature Conditioning Chamber Detail as per Annex-B attached.	No.	01		

SPECIAL TERMS & CONDITIONS

- A Technical offer should be sent to MD POF Sanjwal and Commercial offer should be sent to SOC – POF Wah Cantt.
- B Authorization letter:- Firm will provide authorization from OEM
- C In case of foreign make units the firm will provide export permit for Pakistan .
- D In case pre-shipment Inspection /training is required to be carried out prior to shipment Supplier will be bound to bear the charges incurred in Air Traveling to and fro, Boarding/Lodging, Inland TPT charges and general medical to POF team.
- E Supplier will submit alongwith the offer an undertaking that he will provide spares sufficient for two years on free of cost alongwith the machine and supplier will also ensure availability / supply of spare for the machine being supplied upto a period of 10 years.

UNDERTAKING

should our offer be accepted, we hereby undertake to supply the stores/render the services contracted on the basis of general conditions of contract embodied in form pof-1281, 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

PLACE-----
DATE-----

SIGNATURE OF THE TENDERER-----
NAME-----
POSITION:-----
ADDRESS:-----

TECHNICAL SPECIFICATION

1. Designation:

Furnace designated to perform Tempering / Annealing operation during the manufacturing of Steel Cartridge Case of 12.7mm on intermediate Stages Steel Cake, Cup & 1st Draw as per attached drawing no. PDO/H/COM-894, 895 & 898.

2. Technical Data of Input Components:

i) Steel Case Cake:

- a) Input Component is the Product of “Salt Bath Hardening Furnace” with hardness ranging from 80 to 120 HRB.
- b) Drawing No. PDO/H/COM-894
- c) Required Hardness of output Component: Below 105 HRF
- d) Output component required to be drawn in cup shape on Cupping Press (Stroke force: 200 Ton).

ii) Steel Case Cup:

- a) Input Component is the Product of Press Work on Steel Case Cupping Press, with Stroke Force 200 Ton.
- b) Drawing No. PDO/H/COM-895
- c) Required Hardness of output Component: Below 105 HRF
- d) Output component required to be drawn on 1st Draw Press (Stroke force: 100 Ton).

iii) Steel Case 1st Draw:

- a) Input Component is the Product of Press work on Steel Case Cupping Draw Press (200 Ton).
- b) Drawing No. PDO/H/COM-898
- c) Required Hardness of output Component: Below 105 HRF
- d) Output component required to be drawn consecutively on 2nd & 3rd Draw Presses without inter-stage annealing. (Stroke force: 100 Ton).

3. Practical output: 15Mn / Year (2000 working Hrs)
08 hrs single shift basis
60000 components / 08 hrs shift

4. OEE: 85%

5. Technical Data of the Plant:

- i) Automatic component loading / feeding into the Furnace should be provided.
- ii) Automatic component collection System after Tempering / annealing in the furnace
- iii) Digital temperature Control system with automatic temperature sensors / Controllers.
- iv) PLC controlled driving system to run the Furnace
- v) Automatic Balancing / Leveling System
- vi) Automatic dust collection system

6. Safety:

- i) Furnace should be equipped / provided with all safety gadgets/accessories according to latest international safety standards.
- ii) Noise level: less than 85 db or as per international standards.
- iii) The Furnace should be cost effective and environmental friendly as per international standards.
- iv) System should be safe to handle spikes and surges.(Transient)

- v) A/Cs should be installed in panel/system (where necessary).
- vi) Protections: The equipment should have line protection circuit breakers with thermally delayed overload release and or electro-magnetic quick acting release, as required. It should be followed by cut-out and safety fuses to provide optimum selectivity, if necessary. All motors should be appropriately protected.
- vii) Earthing: The equipment should be earthed.
- viii) Protection Clause: IP-54
- ix) Insulation: The requirement is for Class-B.
- x) Accuracy: The industrial electrical measuring instruments, wherever used should have an accuracy of Class 1 or better.
- xi) All safeties against electrical hazard, operator and setter safeties. Arrangement of setting / re-setting the furnace in case of any abnormality / accident during the operation.

7. Input & Support material:

Steel Cake (Hardened) and Cup & 1st Draw (products of press work) and as per attached drawings no. PDO/H/COM-894, 895 & 898 having quantity mutually agreed between both parties for the use of Training and PSI at supplier's premises will be provided by the purchaser.

8. Spares:

- i) Two years essential maintenance and operation spares shall be required.
- ii) It shall be guaranteed that spares shall be available for at least 15 years after furnace is handed over and successfully commissioned.

9. Climatic Conditions:

- i) Temperature:
 - Winter = - 3 to + 20⁰ C
 - Summer = 30 to 50⁰ C
- ii) Relative Humidity = 25 to 90%
- iii) Earthquake Value = 7.5 on Richter scale

10. Utilities Available at Site:

- i) Electricity 400 ± 5% Volts, 50 Hz, Three Phase.
- ii) Electricity 220 ± 5% Volts, 50 Hz, single Phase.
(Variation may go up to 10% in contingency)
- iii) Steam 05 bar
- iv) Compressed air pressure = 6 bar (Max)
- v) Natural gas – Available

11. Pre-Shipment Inspection & Training:

i) Supply will be subject to the Pre Shipment Inspection (PSI) and acceptance by the competent Inspection authority nominated by the Purchaser. Training expenses of POFs personnel, **04 x men for 02 x weeks** in the field of operation, maintenance and inspection of the furnace at Supplier's premises and other relevant production facilities as well. Expenditure including boarding, lodging, return Air Tickets & Daily allowance etc. will be borne by the Supplier. Inspection facilities such as tools, test equipment, instruments etc. will be provided by the Suppliers in accordance with the relevant specifications.

ii) The supplier shall inform the purchaser when the Furnace is ready for dispatch. The Furnace will be subjected to pre delivery inspection and trials at supplier's premises in the presence of rep(s) of Purchaser. The Furnace must clear the capacity & quality test for of the components for the consistent production as mentioned below within the specified time (08 hours single shift basis):

Tempering / Annealing of Steel Cake, Cup & 1st Draw components as per drawing no. PDO/H/COM-894, 895 & 898.

60000 compts / day for 06 days (08hrs single shift basis)
(02 day trial for each Component)

The components produced from the input material supplied by the purchaser must clear the inspection requirements as per relevant specifications.

- iii) The Furnace will be dispatched only after the supplier's receives the pre-delivery trials acceptance certificate issued by the purchaser, certifying that the furnace has qualified the capacity & quality test and components produced have cleared all relevant gauging and visual requirements.
- iv) PSI team of Supplier's Engineers comprises of **02 x men for 02 x week**. All expenses at Supplier's and its sub contractor's premises will be borne by the Supplier; Expenditure including boarding, lodging, return Air Tickets & Daily allowance etc. Inspection facilities such as tools, test equipment, instruments etc. will be provided by the Suppliers in accordance with the relevant specifications.
- v) Purchaser will provide the Gauges for Pre-Shipment Inspection at supplier's premises.
- vi) During stay on site, supplier's engineers shall train the concerned production, maintenance, instruments and Inspection personnel for satisfactory and safe use of Furnace.

12. Technical Support:

The supplier shall confirm that after handing over of the Furnace there shall be technical support at least 15 years as and when required by the purchaser. In addition the purchaser shall be kept informed regarding latest advancement in the related technology for further improvement in the production and operation of the Furnace.

13. Literature: Literature must be inclusive but not limited to:

- i) 04 x sets of operating manuals
- ii) 04 x sets maintenance manuals
- iii) Details of electric schematics
- iv) PCBs
- v) Brochures of the offered model

14. Terms of Delivery:

The Furnace will be delivered as per following terms:

- i) The delivery will be on FOB/C & F Karachi sea port or Islamabad Airport basis. In case of C & F, Freight should be mentioned separately.
- ii) Partial shipment within the delivery period will be permitted.
- iii) Machine parts would be lettered in English and / or internationally recognized symbols.

15. Installation, Commissioning and Trial Production run:

- i) Supplier shall be responsible to provide the details of space requirement, foundation drawings and layout within one month after the finalization of the contract.
- ii) Lifting Arrangement: Plant should be equipped with suitable lifting arrangements for installation and commissioning.
- iii) The Furnace shall be installed by the purchaser under the supervision of the supplier's engineers and technicians.
- iv) The Furnace will be commissioned and trial production of the plant shall be carried out by supplier's engineers. Purchaser shall provide required number of operators and technicians for the commissioning and trial production of the Furnace.
- v) The supplier is to indicate the total man-weeks of his engineers / technicians required for installation, commissioning and trial production of the Furnace. Terms and conditions are to be stated clearly. All expenses, including boarding & lodging, air travel and daily allowances of the engineers / technicians are to be borne by the supplier. Local transportation and on site refreshment shall be arranged by the purchaser.
- vi) The supplier is to indicate the time schedule for the completion of whole project.

16. Final Acceptance:

Final acceptance test will be performed at purchaser premises. This test will be carried out with the technical assistance of the supplier and will comprise successful production of acceptable quality at the quoted capacity as mentioned below within the specified time:

Pickling and Phosphating of Steel Cartridge Case components as per drawing no. PDO/H/COM-894, 895 & 898

60000 compts / day for 15 days (08hrs single shift basis)
(05 days trial for each Component)

(Successful performance of next Cupping and drawing operations of steel case 12.7x108mm without damaging the tooling or component is the criteria of acceptance of Tempering / Annealing).

If the specified trial production of the furnace is not achieved within stipulated period after the effective date of contract, the supplier experts will stay, at supplier cost till the production has been achieved provided such delays are attributable to supplier. The process lubricants consumed during trial production run will be borne by the supplier. In addition to delay in delivery, delay penalty will also be imposed @ 1 % per month of contracted value for the delayed period of achievement of production run of the furnace beyond the schedule date of final acceptance and will be deducted from balance payment connected with production run.

17. Warranty Guarantee:

- i) The supplier shall render Warranty / Guarantee certificate in duplicate to the Purchaser on the enclosed Proforma attached as annexure A/1 as soon as Plant has been dispatched/delivered. This Warranty/Guarantee shall be binding on the Supplier for a period of 12 months reckoning from the date of commissioning and successful trial run of the Furnace.
- ii) In case the Furnace on checking / test after receipt at Consignee's warehouse is found not conforming strictly to the relevant specification and other particulars are found damaged during transit, the Supplier shall immediately replace the rejected/damaged Furnace by acceptable Furnace, free of cost, and without any obligation to the Purchaser. Rejected Plant shall be disposed off by the Supplier under his own arrangements.
- iii) The supplier shall warrant the good quality of all equipment supplied against all defects or failures due to faulty design, material, or workmanship.
- iv) The supplier shall also provide Guarantee for meeting the requisite quality and quantity of products. In case of any deficiency in term of quality or quantity of products, all related expenditure to fulfill commitment shall be borne by the supplier.
- v) In case of C & F offer, the supplier will be responsible for insurance of the consignment upto Karachi.

TECHNICAL SPECIFICATIONS FOR LOW TEMPERATURE

CONDITIONING CHAMBER

1. **Designation:**

Low Temperature Conditioning Chamber

2. **Purpose:**

Conditioning chamber is intended for testing/prooing of ammo at extreme low climatic conditions (-50 °C), in Proof Range 12.7 mm Ammo.

3. **Technical Specification:**

- | | |
|--|--|
| a. Temp Range | Ambient to -65 °C |
| b. Temperature deviation | $\leq \pm 1.5$ °C |
| c. Temperature achieving time Cooling rate | +40 °C ~ -65 °C finished within
45 min
(No load) |
| d. Chamber Door | Single door |
| e. Inner Dimensions | 700 x 500 x 550mm |

i. **Technical Features:**

- Energy-Saving Design:** Adopting intelligent automatic conversion expansion servo system. According to the load, automatically adjust the refrigerant flow rate and the intelligent electric heating power value (%) to match cooling (load) to automatically simulate the output power value.
- Insulation Layer Design:** Adopting T=100mm German Bayer fire resistant high strength PU polyurethane foam insulation material. Thermal insulation coefficient: less than 0.0212kcal/m·hr.
- Frost Proof Design:** Evaporator cooling circuit multiple circuit time-sharing design. This can reduce the frosting effect.

ii. **Control System:**

- Control:** Adopting intelligent microcomputer PID+SSR/SCR can be used for both the positive and negative bidirectional synchronous output, control accuracy is stable and précised, and contains advanced slope control logic, to avoid the testing samples condensation.
- Data set:** Touch screen man-machine interface dialog set mode, the operation process be simple and clear, built-in program directory management, facilitate the establishment, change, check and run of the program data.
- Operation mode:** Operating modes, such as fixed value / program / connection, etc., which can meet the requirements of various temperature conditions.
- Power reset:** Equipped with power off memory device and restart mode BREAK (interrupt) ,COLD (Cold start), HOT (Hot start) can be selected.
- Failure case:** Can display and record failure history data.
- External independent protection:** The electronic over temperature protection device, which is independent to the main controller, can set temperature upper limit protection of the testing product, so as to achieve the function of multiple protection.
- Display Language:** English only.

iii. **Safety:**

- Safety protection devices:**
 - Zero crossing gate fluid power controllers.
 - Water shortage protection switch.

- c. Over current and short circuit protection.
 - d. Compressor HP protection switch.
 - e. Compressor overheat protection switch.
 - f. Compressor over current protection switch.
 - g. Over voltage protection switch.
 - h. Test chamber over temperature protection.
 - i. Fuse.
 - j. Breaker.
 - k. Three-color warning lights (yellow means boot; green means running; red means fault).
 - l. Water level protection (prevent water tank water shortage).
 - m. Emergency cut-out switch.
 - n. Compressor Oil Protection.
 - o. All safeties against electrical and thermal hazards for human protection.
 - p. The equipment should be earthed.
- b. **Safety measures:**
- a. Rare gas sensor/smoke alarming device.
 - b. The sensor be equipped with alarm function when sensing abnormal temperature.
- c. **Protection clause:** IP-54
4. **Environment Temperature:** Extreme -5°C to 55°C in winter and summer respectively. The equipment will be installed inside the building. Therefore factors must be added.
5. **Available Power:** 220VAC ±5%, 50Hz, 1-Phase & 400VAC ±5%, 50Hz, 3-Phase.
6. **Documentation:**
- a. Drawing for complete Electrical circuit (04 x sets).
 - b. Drawing for refrigeration system Circuit (04 x sets).
 - c. Operation/Maintenance Manuals (04 x sets).
 - d. List of recommended machine spares.
 - e. 02 x copies of software backup.
7. **Spares:** Recommended spares for 02 x year will be part of supply.
8. **Confirmation of spares:** Firm will provide confirmation of availability of spares from OEM up to 10 x years from supply of equipment.
9. **Country of origin:** Europe/U.S.A/China/Australia/Korea
10. **Training:** Training of 01 x technician for one week

11. **PSI:** 01 x Engineer for 03 x days at OEM premises.
12. **Installation and Commissioning:** Installation and commissioning will be carried out by the Seller.
13. **Acceptance Test:** OEM will demonstrate the full load performance according to requirements at POF for capacity run at least 03 x days after commissioning.
14. **Payment:** 90% against shipment and 10% after installation & Commissioning.
15. **Performance Bond:** The supplier will provide a bank guaranty to the tune of 10% of FOB value of the contract.
16. **Warranty / Guaranty:** 02 x years operational warranty/guaranty

Special Point To be Considered While Preparing Commercial Bid

Commercial offers in the line with the following clarification would be considered acceptable otherwise the same will stand rejected.

- a. FOB & C&F Cost of Machine alongwith accessories etc.
- b. List & Cost f Tooling.
- c. List & Cost of Spare Parts for two years.
- d. Cost of Training & installation / Commissioning charges.
- e. Acceptance of Travelling expenditure of PSI team including boarding / lodging, air ticket, inland traveling charges & 30% DA.
- f. Confirmation regarding terms of payment 70% against shipping documents & 30% after installation & successful commissioning at POF Sanjwal.
- g. Confirmation regarding obtaining of export permit.
- h. Confirmation regarding submission of 10% Performance Bond.