



GOVERNMENT OF PAKISTAN
PAKISTAN ORDNANCE FACTORIES
WAH CANTT

“CORRIGENDUM - III”

1. Following amendment is hereby made in Corrigendum-II, dated 04-12-2020 against TE No. 0042-CRB(CAPT)-FP-50, Dated 11-11-2020.

Clause of TE	FOR	READ
Tender opening date	11-01-2021	25-01-2021

3. All other terms and conditions of the T.E will remain unchanged.

Director-SCM
Tel: 0092-51-9055-21088,
Fax: 0092-51-9271400,
E-mail:- dirscm@pof.gov.pk
Dated: 08 -01-2021



GOVERNMENT OF PAKISTAN
PAKISTAN ORDNANCE FACTORIES
WAH CANTT

“CORRIGENDUM - II”

1. Following amendment is hereby made in Corrigendum-I, dated 04-12-2020 against TE No. 0042-CRB(CAPT)-FP-50, Dated 11-11-2020.

Clause of TE	FOR	READ
Tender opening date	11-01-2021	11-01-2021
Payment Term	100% Payment will be made through irrevocable letter of credit. 80% payment will be released against provision of shipping documents to the bank including inspection / acceptance certificate issued by POF PSI team and 20 % payment will be made after receipt of machine alongwith accessories, satisfactory installation/ commissioning supported with inspection / acceptance certificate issued by GM Carbide and certificate to this effect issued by Director SCM. (These payment terms are negotiable).	100% Payment will be made through irrevocable letter of credit as per following:- i. 20% advance payment will be made against equal amount of “advance payment bank guarantee”. ii. 60% payment will be released against provision of shipping documents to the bank including inspection / acceptance certificate issued by POF, PSI team. iii. 20 % payment will be made after receipt of machine alongwith accessories, successful installation/ commissioning supported with inspection / acceptance certificate issued by GM Carbide and certificate to this effect issued by Director SCM. Note:- These payment terms are negotiable.

2. Corrigendum-II will supersede Corrigendum-I. Corrigendum-I may be treated as cancelled.
3. All other terms and conditions of the T.E will remain unchanged.

Director-SCM
Tel: 0092-51-9055-21088,
Fax: 0092-51-9271400,
E-mail:- dirscm@pof.gov.pk
Dated: 04-12-2020



GOVERNMENT OF PAKISTAN
PAKISTAN ORDNANCE FACTORIES
WAH CANTT

“CORRIGENDUM”

1. Following amendment is hereby made against TE No. 0042-CRB(CAPT)-FP-50, Dated 11-11-2020.

Clause of TE	FOR	READ
Tender opening date	21-12-2020	11-01-2021
Payment Term	100% payment will be made by means of irrevocable letter of credit after receipt and acceptance of store at POFs Wah Cantt Pakistan	100% Payment will be made through irrevocable letter of credit. 80% payment will be released against provision of shipping documents to the bank including inspection / acceptance certificate issued by POF PSI team and 20 % payment will be made after receipt of machine alongwith accessories, satisfactory installation/ commissioning supported with inspection / acceptance certificate issued by GM Carbide and certificate to this effect issued by Director SCM. (These payment terms are negotiable).

2. All other terms and conditions of the T.E will remain unchanged.

Director-SCM
Tel: 0092-51-9055-21088,
Fax: 0092-51-9271400,
E-mail:- dircsm@pof.gov.pk
Dated: 04-12-2020



**Government of Pakistan
PAKISTAN ORDNANCE
FACTORIES TENDER ENQUIRY**

To

M/s _____

Dear Sirs,

Reference: Tender Enquiry No. **0042-CRB(CAPT)-FP-50**, **dated 11-11-2020**

You are requested to submit quotations for the item(s) noted in the Schedule to the Tender. Offer 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 hours on 21-12-2020 and must reach Bid Centre adjacent to Rabita Hall on or before 1200 Hours up to 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: **0042-CRB(CAPT)-FP-50 dated 11-11-2020**
Tender to be opened on: **21-12-2020**
Address:- **GM-Purchase-I, POF Wah Cantt**

- 1.3 If envelope does not indicate reference of T.E or received late the same may be returned unopened.

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 according to two stages bidding procedure as per following:-

FIRST STAGE:-

- i. The bidders shall first submit, according to the required specifications, a technical proposal without price.
- ii. The technical proposal shall be evaluated in accordance with the specified evaluation criteria and may be discussed with the bidders regarding any deficiencies and unsatisfactory technical features.
- iii. After such discussions, all the bidders shall be permitted to revise their respective technical proposals to meet the requirements of the Purchase Officer.

- iv. The Purchase Officer may revise, delete, modify or add any aspect of the technical requirements or evaluation criteria, or it may add new requirements or criteria not inconsistent with the procedure and PPRA Rules:

Provide that such revisions, deletion, modifications or additions will be communicated to all the bidders equally at the time of invitation to submit final bids, and that 30 days time will be allowed to the bidders to prepare their revised bids:

- v. Those bidders not willing to conform their respective bids to the Purchase Officer's technical requirements may be allowed to withdraw from the bidding without forfeiture of their bid security.

SECOND STAGE:-

- i. The bidders, whose technical proposals or bids have not been rejected and who are willing to conform their bids to the revised technical requirements of the Purchase Officer, shall be invited to submit a revised technical proposal along with the financial proposal;
 - ii. The revised technical proposal and the financial proposal shall be opened at a time, date and venue announced and communicated to the bidders in advance; and
 - iii. The revised technical proposal and the financial proposal shall be evaluated in the manner prescribed above. The bid found to be the lowest evaluated bid shall be accepted.
- 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 will 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.
 - 2.9 Country of origin and port of shipment to be stated clearly.
 - 2.10 The offer of the 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 should 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, the stores may be obtained on 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.

4. **Acceptance of Offers**

- 4.1.1 POF may reject all bids or proposals at any time prior to the acceptance of a bid or proposal, POF shall upon request communicate to any supplier or contractor who submitted a bid or proposal, the grounds for its rejection of all bids or proposal, but is not required to justify those grounds.
- 4.1.2 POF shall incur no liability, solely by virtue of its invoking sub-rule (1.1) towards suppliers or contractor 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 upto 10% of F.O.B value of the contract in favour of 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 dates. 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 the particular stores which remained un-supplied 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) **100% Payment will be made by means of irrevocable letter of credit after receipt/acceptance of store at POF Wah Cantt Pakistan.**
- ii) 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, 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

(Gohar Kamal Ayub)
Director SCM
for Pakistan Ordnance Factories

Tele	051-9055-21088
Fax	051-9271400
Telex	5840 POF AC PK

Pakistan Ordnance FactoriesSchedule to Tender No. **0042-CRB(CAPT)-FP-50**Dated **11-11-2020****(1) For Materials**

(1)	(2)	(3)	(4)	(5)		(6)
Item No	Description with Specs. etc.	Unit	Qty	Price Per Unit FOB or C&F		Delivery Date
				In Figures	In Words	
1.	i. Nomenclature : Qty 01CVD Coating Plant for coating of TiC/TiCN/TiN and Al ₂ O ₃ on Tungsten Carbide inserts and Dies. ii. Specifications: Attached as Annexure-A	Nos	01 Off			

(2) For Plant & Machinery: Specification:-**(3) Special Conditions****03(A) General****i. PRE SHIPMENT INSPECTION AND TRAINING**

06 (02 For PSI + 04 For training) engineers / technicians will carry out pre shipment inspection and training at suppliers premises for a period of 04 working days this will include following

- All machine functions will be checked and performance will be assessed.
- Coating on the inserts quantity 3000 will be performed by OEM's and quality of coating will be checked at supplier premises. (Visual inspection, testing of physical properties, checking of metallographic structure and thickness of coating layers i.e 10-15 micron)
- The supplier will arrange following training courses.
 - Machine operation and programming.
 - Recipe setting.
 - Electrical and electronics maintenance mechanical repair and maintenance
- Air ticket, boarding loading and inland transportation in respect of training and PSI team would be responsibility of supplier.

ii. INSTALLATION, COMMISSIONING & FINAL ACCEPTANCE TEST:

- Installation and commissioning of the CVD Coating shall be the responsibility of the supplier. The supplier will also be responsible to provide complete installation materials/ accessories including piping along with the CVD Plant. Foundation drawings will have to be provided at 03 x months before shipment of the CVD Plant.
- Commissioning of the CVD Plant will be considered successful subject to trouble free & continuously capacity run for at least 02 complete production cycle.

- c. Final acceptance test of the plant will comprise following
 - i. Coating on Indexable inserts quantity 6000 to 8000
 - ii. visual inspection
 - iii. Testing of physical properties
 - iv. Checking of metallographic structure and thickness of coating layers i.e 10-15 micron.
 - v. Functional trial of coated inserts in machine shop.
- d. The supplier will provide Warranty/Guarantee Certificate, which will be valid for a period of 12 months after successful installation and commissioning of the CVD Plant.
- e. Air tickets, boarding/lodging and inland transportation in respect of supplier's engineers at purchaser's site would be the responsibility of the supplier.

iii. DOCUMENTATION, DRAWING & LITERATURE:

Supplier will provide 04 sets of documents:

- a. Operating Manual
- b. Maintenance Manual
- c. Trouble shooting manual
- d. Installation/commissioning drawings
- e. Schematics drawings of electrical/electronic circuits
- f. Technical data sheet of the installed parts and reference codes for future demands
- g. Spare parts catalogue of Mechanical, Electrical and Electronics for future ordering
- h. Software package and program of the parts
- i. Supplier will provide back up on CD and hard copy of all types of software used in control system.

- iv. **SPARE PARTS:** Suppliers will provide 02 years spares and list with item wise price and confirmation for the provisioning of spare parts for 10 years on as and when required basis
- v. The store must be protected adequately and appropriately against damages environmental effects, water or other substances during journey/transportation or withstand the rough handling involved in transit & provide preservation of material while held in storage by the consignee.
- vi. Store will also be inspected under functional test/trial in Carbide factory, after receipt of store at POF Wah Cantt Pakistan.
- vii. No offers received through e-mail would be entertained.
- viii. **All firms based in China and Hong Kong must quote in Chinese Yuan (CNY).**

03(B) FOR FOREGIN SUPPLIERS

- i. The firm entering into business with POFs first time, 100% payment will be made after acceptance of store at POFs.
- ii. The firm who is not capable to get export license from their respective department, is not allowed to participate in the tender.
- iii. Price must be quoted on FOB as well as C&F basis. **If quotation is on C & F basis, the freight should be indicated separately.**

03(C) FOR INDIGENOUS SUPPLIERS

- i. Price should be quoted in local currency on FOR Wah Cantt basis.
- ii. Bid money @2% (for registered suppliers) and @ 5% (for un-registered suppliers) of quoted value in favor of GM-Purchase-I, in the shape of CDR/pay order/banker cheque along with quotation is mandatory.
- iii. Tender fee Rs.500/- in favor of Director Admin POFs, in the shape of postal order is mandatory.
- iv. Only registered suppliers (with sales tax & income tax deptt.) who are on active tax payers list (ATL) of FBR are eligible to supply goods/services to government deptt.
- v. 100% payment will be made after receipt and acceptance of store at POFs through crossed cheque.

4. 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 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 the Tenderer _____

Name _____

Position _____

Address _____

Income Tax G.I.R. No _____

SPECIFICATION FOR CVD COATING PLANT

1. **NOMENCLATURE:** Qty 01 x CVD Coating Plant for coatings of TiC/
TiCN/TiN and Al₂O₃ on Tungsten Carbide inserts and Dies.
Quantity= 01 Off

2. **MAIN FEATURE OF MACHINE:**
 - 2.1 **Capacity:** 3000 – 4000 pieces @ ½ Inch/Piece per cycle
 - 2.2 **Max Load (Weight in Kg):** 75 Kg – 100 Kg / per cycle
 - 2.3 **Type of Coating:** TiC/TiCN/TiN/TiCN-MT-TRANS & Al₂O₃
 - 2.4 **Thickness of Coating:** 10 to 15 Microns

3. **EQUIPMENT / ATTACHMENT:**
 - 3.1 **Gas System:**
 - a. Purification system for feeding of required gases
 - b. Monitoring of impurities in process gasses
 - c. Cylinders station
 - 3.2 **Control System:** Siemens, PLC 300 series or above
 - 3.3 **Effluent Neutralization System:** Neutralization system to treat effluents.
 - 3.4 **Lifting Device:** Lifting mechanism for shifting of reactor and furnace for loading/unloading.
 - 3.5 **Cooling Water System:** Open/closed cycle water treatment and cooling system to provide clean water for CVD reactor at required pressure and flow rate.
 - 3.6 **Ventilation System:**
 - a. Gas and liquid cabinet ventilation system also for cleaning the cooling traps.
 - b. Auto purging system to avoid corrosion.
 - 3.7 **Valves:** All Pneumatic bellow valves, check valves, Hand Valves, Needle Valves and Valves with Pneumatic actuators should be of EU brand or equivalent
 - 3.8 **Piping network** Piping network must be suitable to deal with all gases and liquids being used in the process and must not get corroded due to interaction with flow media
 - 3.9 **Other Accessories:**
 - a. One set of standard Electronics / mechanical tool set
 - b. Oxygen & Moisture Trace Meters
 - c. Portable Hydrogen gas leak detector
 - d. Stand by vacuum pump to ensure proper vacuum
 - f. Suitable instrument for the measurement of thickness of various coating.
 - g. All critical parts (PLC, Pneumatics parts, electrical parts, MFC, pressure transmitter, reactor, Heating tapes, Furnace, Thermocouple, UPS, Liquid Pump, Oil pump, safety relays DC Power Supply and Pneumatic and hand Valves etc) must be from famous brands of EU or equivalent
 - 3.10 **Provisions in the HMI**
 - a. Display of pressure in the reactor
 - b. Display of temperature in the reactor
 - c. Monitoring of ongoing process (values and recipe) in the process layout on HMI
 - d. Display of flow rate /pressure of the gases in the circuit
 - e. Saving of recipe in the PLC
 - f. Display of Error / alarms

3.11 Safety in System:

Following Safeties should be available

- a. In case of failure of cooling water system
- b. Over temperature of reactor
- c. Alarm indicator and display of fault on PLC HMI
- d. UPS system to ensure safe operation of all units during shut down
- e. Alarms and shut down of plant in case gases flow in the reactor is at low or high pressure
- f. Short circuit protection
- g. Over current protection
- h. Over and under voltage protection
- i. Voltage Stabilizer
- j. Earthing be ensured
- k. Leak test of all line circuit
- l. Tubing to be suitable for operation of gases being used in the process
- m. System to run on complete vacuum creation
- n. Temperature uniformity in the reactor
- o. Emergency stop be available
- p. Equipment should be earthed.
- q. Equipment should have line protection circuit breaker with thermally delayed over load release and or electro-magnetic quick acting release as required. It should be followed by cut off and safety fuses to provide optimum selectivity, if necessary.
- r. All motors should be appropriately protected.
- s. The industrial electrical measuring instruments, wherever and used should have an accuracy of class-I or better.
- t. Protection in removal of furnace from reactor position
- u. Reactor / gas manifolds overpressure vent system for protection.
- v. Reactor flange clamping should not open in manual and automatic mode.
 - i. During coating process,
 - ii. H₂ inside reactor, without enough N₂ purge
 - iii. Reactor inside temperature 180 °C.
- w. Lifting device should not lift up working reactor when temperature in reactor is above 180 °C

3.12 Air Conditioning System:

All electrical cabinets should be equipped with small cabinet AC

4. AIR SUPPLY:

Available Air Supply Pressure: 05 to 06 Bar

5. OIL/ LUBRICANTS:

Oil/lubricants used in the plant should be of famous brands and cross reference to be provided.

6. MOTORS/INSTALLATIONS IN THE CABINET:

Should be of Siemens or EU brand/ equivalent

7. SPECIFICATION FOR ELECTRICAL EQUIPMENT:

7.1 Site and Operating Condition:

The temperature variation between winter and summer is from 0 to 50°C. The relative humidity varies between 15% to 90% RH. The high humidity does not exceed 2 x months in the year. The machine will be installed inside shop.

7.2 Specification:

The acceptable specification will be those being Governed by IEC recommendations.

7.3 Insulation:

The requirement is for class B insulation.

8. **SUPPLY SYSTEM:**

- a. Single Phase: 220 ± 05% Volts AC, 50 Hz
- b. 3 Phase: 400 ± 05% Volts AC, 4 Wire System
- c. Frequency:50 Hz.
- d. Standard electric supply voltage variation is +/- 5%.
Whereas in case of fluctuations, this variation may go upto +/- 10%.

9. **COUNTRY OF ORIGIN:**

USA/EU/Japan/China.