

Fax #. 0092-51-9271400

TELE#. 0092-051-9314101-20

EXTEN: 21044

E-mail:- mdfill@pof.gov.pk



(INDIGENOUS SUPPLIERS)

**GOVERNMENT OF PAKISTAN
PAKISTAN ORDNANCE FACTORIES
TENDER ENQUIRY**

Dear Sir,

Reference: **T. E # 008/LP/CAPT/PUR-FILL Dt. 29-04-2024**

You are requested to submit quotations for the item (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 **1100** hours on **08-06-2024** and must reach as per address given below on or before **1030** Hours 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: **008/LP/CAPT/PUR-FILL**

Tender to be opened on: **08-06-2024**

Address: - **Bid Center, CR Section, C-04 Building,
POF Wah Cantt**

Fax #. 0092-51-9271400

TELE #. 0092-051-9314101-20

1.3 The bids received in factories will not be entertained.

1.4 If envelope does not indicate reference of T.E or received late the same may be returned un-opened.

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

2.1 Case will be processed exactly as per **PPRA Rules 36(b)** in favor of most advantageous bid and **single stages two envelope bidding procedure** will be exercised for open competitive bidding. The prices should be filled in column 4 and delivery date in column 5 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 machine and related accessories, validity date, delivery schedule and signed undertaking given of the schedule to this Tender

Enquiry. It must not indicate price, costs etc. Only confirmation regarding submission of Bid Money may be notified with technical proposal (In case of F.O.R basis).

Part II "**COMMERCIAL OFFER**" It should indicate the commercial terms e.g. price, terms of payment, mode of payment, mode of supply. The commercial offer shall include separate price of;

1. Development of Pre-Heating Module for empty shells
2. Vibrating Hopper for Controlled feeding of TNT flakes
3. Control Room
4. Fume and Dust Extraction Module
5. IR/Thermal Profiling System (Optional)
6. Cargo Lift for TNT Shifting

Each part should be placed in a separate sealed envelope. 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 **180 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.R

a) **In case of F.O.R Basis Supply:**

- i. Free delivery at POF's stores at **Main Store (CMC), Factory, POF WAH CANTT.**
In this case Octori duty will be payable by the supplier.
- ii. Taxes and Duties etc. where applicable, must be shown separately, quoting reference to Registration No. in cases of Sales Tax and relevant authority in the case of others. Offer without these clarifications and inclusive of Taxes and Duties may be ignored.
- iii. Taxes and duties levied on or after Tender opening date or on or after the date offer was signed and dispatched will be allowed to include in the offered rates.
- iv. Suppliers will furnish a certificate, issued by Excise & Taxation Deptt, that he has cleared all Professional Tax payable by him" Offers received without this certificate will be rejected.
- v. Suppliers will render necessary information regarding hazardous effects on environment, of the materials/products supplied by them, in their quotations and shipping/dispatch documents.
- vi. If the requisite information is not furnished on the T.E forms or offer received is not conformity with the requirement of the T.E such offer shall be ignored.
- vii. Payment of duties/Taxes including professional tax (where applicable) must be supported by proof of having paid these to concern Govt. Taxation Deptt:
- viii. Date and Stamp of the Postal Order must be visible.
- ix. The payment to the registered supplier will be linked with the active taxpayer status of the supplier as per FBR database. If any registered supplier is not in ATL his payment would be stopped till he files his

- mandatory returns and appears on ATL of FBR.
- x. Status of your firm with POF (Registered/Un-Registered) should be mentioned in your offer.
 - xi. Registered firms are required to provide copy of valid registration letter with POF.
 - xii.
 - a. Only registered suppliers (with Sales Tax & Income Tax dept) who are on Active Taxpayers List (**ATL**) of FBR are eligible to supply goods/services to Govt. Deptts.
 - b. The payment to registered persons may be linked with the active taxpayer status of the suppliers as per **FBR** database. If any registered supplier is not in ATL his payment should be stopped till his mandatory returns and appears on **ATL** of **FBR**.
 - xiii. **TENDER FEE**
The tender must be accompanied by a non-refundable fee by means of a crossed postal order/pay order of **Rs 500/-** in favor of **Managing Director Filling Factory POF Wah Cantt.**
- b) **BID MONEY**
- i. Bid Money at the **rate of 2% (for registered firms) and 5% (for unregistered firms) of the quoted value**, should accompany the tender in the shape of Deposit At Call Receipt., from a scheduled Bank drawn in favor of **“General Manager, Filling Factory, POFs Wah Cantt”**
 - ii. Tenders received without Bid Money will be rejected.
 - iii. Bid Money of the unsuccessful tenderers will be returned as soon as the scrutiny of the tenders is completed. Bid Money of the successful tenderers will be retained until the contract is finalized. Bid Money will be forfeited in case the quotation is withdrawn before the expiry of its validity date.
 - iv. State owned organizations are not required to provide Bid Money.

3. **ACCEPTANCE OF OFFERS**

The purchaser may reject all bids or proposals at any time prior to the acceptance of a bid or proposals, but is not required to justify grounds for its rejection. The purchaser shall incur no liability towards suppliers or contractors who have submitted bids or proposals.

4. **FAILURE TO SUPPLY STORES**

The specified delivery period (time and date of delivery / dispatch of stores) is the essence of the contract. All deliveries must be completed by the specified date(s). In failure to deliver stores within the scheduled time shall have arisen from “Force Majeure” which the Purchaser may admit as reasonable ground for further time, he will allow such additional time (without imposing liquidated demurrage) as he may consider to have been required by the circumstances of the case, of which he will be the sole judge and his decision will be final, otherwise he will be entitled at his option:

- a. “In case of unsupplied portion of the contract and unsatisfactory performance, the contract shall be rescinded by forfeiture of security and guarantee by the authority which approved award of the contract”.
- b. “To recover liquidated damages when the government competent purchase officers on behalf of the government is satisfied that the failure to supply the stores within the scheduled delivery period has been for reason within the control of the suppliers and or if the government has suffered loss for reasons of belated delivery these

liquidated damages if imposed will be recovered up to the rate of 02% but not less than 01% of the value of unsupplied quantity of the items per month or a part of a month for the period exceeding the original delivery period subject to the provision that the total liquidated damages thus leviable will be not exceed 10% of the total contract value of the particular stores which remained unsupplied either in part or in full.”

OR

- c. To withhold any payment due to the supplier until the whole of the stores have been supplied and/ or to direct deduction or recover, where considered necessary.

OR

- d. To repurchase from elsewhere, at the risk and expense of the supplier, other articles of the same or similar description as he thinks fit to make good this default to the extent necessary, by canceling the contract, either wholly or for the unsupplied balance and with/ or without intimation to the supplier who shall be liable for any loss which the purchaser may sustain due to repurchase but shall not be entitled to any gain on repurchase.

5. **“FORCE MAJEURE”**

- 5.1 “Force Majeure” shall mean any event, Act / or other circumstances, not being an event, act or circumstances, under the control of the purchaser or of the supplier. The Supplier shall notify the Purchaser in writing of any such event within 15 days by Fax / Telex / Telegram of its commencement, which is relied upon by the supplier for its failure to comply with its obligation. The Purchaser shall have the right to conduct investigations to satisfy itself about the genuineness of the “Force Majeure” event. Non-availability of raw materials for the manufacture of stores, or of export permit for the export of the contracted stores from the country of its origin, shall not constitute “Force Majeure”.

5.2 **FRUSTRATION**

If by reason of “Force Majeure” any consignment shall not be delivered by the due date, then the delivery period may be extended appropriately for the purpose provided the said consignment shall be ready within four calendar months of the stipulated delivery date. If the said consignment shall not be ready after the lapse of four calendar months as aforementioned, then the Purchaser shall have the right to cancel the contract informing the Supplier of the cancellation in writing. This, however, will not apply to consignments already accepted and delivered according to the terms of this contract. The Supplier will not be entitled to any compensation whatsoever as a result of this cancellation.

6. **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,

(Asma Tasneem)
Managing Director Filling Wah,
PAKISTAN ORDNANCE FACTORIES,
WAH CANTT.
Tel # 051-9055-21044
Fax # 051-93144100.
E-mail: mdfill.@pof.gov.pk

PAKISTAN ORDNANCE FACTORIESSCHEDULE TO TENDER NO. **008/LP/CAPT/PUR-FILL, DATED: 22- 04-2024**(1) **FOR STORE**

ITEM NO.	Description	UNIT	QTY	PRICE PER UNIT FREE DELIVERY		DELIVERY DATE
				IN WORD	IN FIGURE	
01	Development of Pre-Heating Module for Empty Shells	NO	01 EACH			03 Month after placement of contract
02	Vibrating Hopper for Controlled Feeding of TNT Flakes					
03	Control Room					
04	Fume and Dust Extraction Module					
05	IR / Thermal Profiling System: (Optional)					
06	Cargo Lift for TNT Shifting					

2. Specifications: - As per attached Annexure-“A”
3. Scope of supply: - According to (but not limited to) Annexure-“B”

SPECIAL CONDITIONS/ BID EVALUATION CRITERIA:**(A) Eligibility Criteria:**

- i. Only firms registered with sales and income tax department who are on Active Tax payer list (ATL) of FBR are eligible to participate in bid. Documentary proof of the same must be attached with bids.
- ii. Firm/s will provide comprehensive solution of all modules and 2D & 3D drawings along with the offer. Reference drawings can be provided upon request after confirmation of the followings:
 - a) Complete company profile
 - b) Proof of any completed project of similar nature
 - c) Designing and manufacturing facility for delicate SS & Aluminum parts
 - d) CAD/CAM and simulation of whole project
 - e) Pressure Die casting facility
 - f) TIG welding and NDT facility

(B) For bid evaluation:

Firms having experience, capability and resources may participate along with the following information and documents.

i)	Rates and sales Tax must be shown separately otherwise rate will be considered inclusive of G.S.T.
----	--

ii)	Price escalation clause is not allowed. No fax or email offer will be accepted.
iii)	Offer without bid money (CDR) and tender fee will be rejected. Tender fee must be attached with Technical offer.
iv)	Complete company profile, business detail and annual turnover with documentary proof.
v)	Any quantity of store, if found defective functionally will essentially be replaced by the supplier free of cost under his own arrangements.
vi)	The store must be protected adequately and appropriately against damages from environmental effects, water or other substances during journey/transportation to withstand the rough handling involved in the transit and provide preservation of store while held in the storage by the supplier.
vii)	Participating firms should have not defaulted in any contract with POF or any other govt. organization.
viii)	Please clearly confirm our specs. Conditional or alternative offers with multiple rates are likely to be ignored.
ix)	Supplier must accept all the terms and conditions embodied in POF 1282 (General conditions of contract) and T.E general instructions Performa form POF 1262 A (indigenous supplies)
x)	Bids will be opened as per PPRA Rule 36 (b) "Single stages- Two Envelope Procedure" in which the bid shall comprise of two separate envelopes: Technical proposal and commercial proposal. Initially only Technical offer will be opened.
xi)	Photocopy of Bid money hiding the prices must be accompanied with technical bid to prove submission along with commercial offer.
xii)	Clearly mentioned your firm is direct importer of requisite store or the material will be arranged from local market. (Import document/ proof of import will be provided with delivery)
xiii)	Validity period will be considered after opening of commercial offer.
xiv)	Offer must remain valid for 180 days for any reduced or enhanced quantity.

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 From POF 1280, and to deposit the performance bind within the prescribed time, failing which it will constitute a breach of contact, and POF will have the right to purchase the stores/services elsewhere at our risk and cost.

Place _____.

Signature of the Tenderer _____

Date _____.

Name _____

Position _____.

Address _____

Income Tax G.I.R.NO. _____

**DETAIL SPECIFICATION OF MODULES FOR MODERNIZATION OF TNT FILLING PLANT
FOR CAL: 60MM, 81MM & 105MM HOW HE**

1. SCOPE OF WORK

To modernize and refurbish the existing TNT filling process for filling of Ammo (60mm, 81mm & 105mm HOW HE) to avoid the crystal formation & defects like cavity, porosity & cracks in the charge of TNT, ultimately improving the density / quality of the product by:

- i. Development of Pre-Heating Module for empty shells
- ii. Vibrating Hopper for Controlled feeding of TNT flakes
- iii. Control Room
- iv. Fume and Dust Extraction Module
- v. IR/Thermal Profiling System (Optional)
- vi. Cargo Lift for TNT Shifting

1.2 CAPACITY:

1600 shells per 8 hrs shift for 60 mm & 81 mm Mortars will be the benchmark of the plant. For 105 mm shells, production rate will be decided keeping in view the ease of inter-changeability of tooling and accessories of all the modules of plant.

2. DEVELOPMENT OF PRE-HEATING MODULE FOR EMPTY SHELLS

- 2.1 Empty products will be pre heated before filling to enhance adhesion of explosives to product interiors and eliminate casting defects. Shells will move on conveyer with enclosed tunnel and hot air blowing at one end. Necessary temperature controls and humidity sensors will be installed in the system. Conveyer to be designed so as to maintain required shell body temperature.
- 2.2 Tunnel Material: Stainless Steel 316L
- 2.3 Tunnel size: 2' x 2' Length: 40' Approx. (As per caliber requirement)
- 2.4 Conveyer Material: Stainless Steel 316L
- 2.5 Conveyer Type: Roller Chain with Pawl
- 2.6 Conveyer Drive: Explosion Proof Electric Motor & Gear Box with Adjustable speed
- 2.7 Heating: Hot Water to air heat-exchanger with air flow switch and Water flow switch temperature gauges with jacket on delivery line and suction line of air
- 2.8 Water Heating: Immersion Heaters
- 2.9 Doors: Pneumatic Shutter type with manual control
- 2.10 Temperature Sensing: Explosion Proof Digital Temp Controller with capacity control system
- 2.11 Shell body temperature: 50-60°C
- 2.12 Capacity: 1600 Shells/8hours shift
- 2.13 Hot Water Tank: SS 304 with Insulation
- 2.14 Accessories: Insulation, Safety Valve, Temp. & Pressure gauge
- 2.15 Heat Exchanger: With copper tubes and aluminum fins.

3. VIBRATING HOPPER FOR CONTROLLED FEEDING OF TNT FLAKES

After preliminary melting of TNT in melter, solid TNT flakes will be fed at controlled rate into two mixers using single hopper with mechanical control to feed both mixers alternatively. Hopper will be fitted with explosive screener for identification of ferrous / non-ferrous foreign particles and screens them in separate container.

- 3.1 Hopper Capacity: 50-70 Kg
- 3.2 Quantity: 01 Nos
- 3.3 Hopper Material: Stainless Steel 316L
- 3.4 Structure for installation of hopper: Stainless Steel 316L

3.5	Conveyer with vibrator:	Belt Driven conveyer
3.6	Quantity:	02 Nos.
3.7	Vibratory Conveyer System:	Pneumatically or electrical motor driven (R/F)
3.8	Air Compressor:	Reciprocating type Portable compressor with motor
3.9	Capacity:	6 bar Minimum
3.10	Safety:	Safety Valve, Moisture trap

4. **CONTROL ROOM**

The Control Room is required to be added in existing infrastructure for master control and monitoring of all engineering supplies i.e. Electricity, Steam, Water, Oil temperatures, pressures, safeties and humidity. Stirrers of mixers to interlocked with temperature and provision of emergency shutdown of complete plant. All controls will be interlocked with individual controls at respective station to ensure safe working. All the panels, circuits, switches and miscellaneous electrical/electronic equipment should be of Explosion Proof category and relevant IP standard.

4.1. **DATA ACQUISITIONING SYSTEM**

Data acquisitioning system is required to be installed to ensure real time control and monitoring of temperatures, humidity, steam & oil pressure and explosive temperature at different stages including pre-heating, filling & probing. The purpose is to ensure process data logging and error history tracing of complete plant.

5. **FUME AND DUST EXTRACTION MODULE**

Fume and dust extraction system will be required for all processes equipment where explosive fumes and dust are generated. This prevents contamination of the working environment.

5.1. Type: Blower with Explosion Proof Motor

6. **IR/THERMAL PROFILING SYSTEM: (OPTIONAL)**

In order to monitor solidification process and ensure bottom up cooling, installation of IR/Thermal cameras in solidification chamber is required to be installed. All installations will be of required Explosion Proof category and of relevant IP standard.

7. **CARGO LIFT FOR TNT SHIFTING**

Type:	Winch type
Height:	32'
Cabin dimension:	3'4" x 3'3" x 4' (L x W x H)
Capacity:	500 kg
Drive:	Explosion Proof Electric Motor with load limiter
Motor Power:	As per requirement
Construction:	

- | | |
|-------------------------|--------------------|
| i) Steel Structure: | Mild steel painted |
| ii) Cabin: | Mild steel painted |
| iii) Cabin guides: | Non-Ferrous |
| iv) Side reinforcement: | RSJ |

Explosion Proof Control: 3x station (ground, 1st & 2nd) with separate control panel

8. **SAFETY:**

- 8.1. Ingress Protection: IP-65 or as per module requirement but not below IP-54
- 8.2. Intrinsically safe
- 8.3. Spark / Flame proof
- 8.4. System should be equipped with necessary earthing, under/ over voltage protection and safe to handle spike, surge and transients etc.
- 8.5. Control system of the equipment should be at safe distance /isolated as per Explosive Standard.
- 8.6. Modules to be refurbished should be environment friendly, equipped/ provided with installed safety guards/ accessories to latest international standards.

8.7. Noise level up-to 70 dB at 50 Hz.

9. Available Utilities:

9.1. Electricity:

9.1.1 230 ± 5 % V AC, Single Phase, 50Hz

9.1.2 400 ± 5 % V AC, Three Phase, 50Hz

9.2. Compressed Air Pressure: 5-6 Bar

9.3. Steam: 15 – 20 Psi

10. CLIMATIC CONDITIONS:

10.1 Temperature range : 1 to 45°C.

10.2 Atmospheric relative humidity : 25 – 90%.

11. STANDARD TERMS AND CONDITIONS:

11.1. The firm should provide detailed timeline of the project in technical offer, clearly indicating completion dates of various stages.

11.2. The project completion period should be within 03-04 months after placement of contract.

11.3. Ideally the system should involve minimal interchangeability of tool /fixtures for conversion between 60 MM, 81 MM & 105 MM.

11.4. Inspection criteria / Quality plan of fabrication and manufacturing will be mutually decided at the time of contract placement and will be made essential clause of the contract.

11.5. Original manufacturer's service manuals, operational manual must be provided by the firm. Internet generated brochure will not be acceptable.

11.6. All pumps should be equipped with motor, starter along with all necessary protections.

11.7. Supplier to provide all pipes, gaskets, ejectors, fittings, valves, flanges and cables etc. (of compatible material) required for the installation & commissioning of the plant.

11.8. Start / Stop control station for all motors and pumps etc. (with volt & ampere meters, phase failure & phase reverse protection).

11.9. Utilities (Electricity & Steam etc.) items required during installation of the plant will be arranged by POF on payment basis.

11.10. Existing building will be utilized for installation of new modules with necessary modifications as per Supplier's requirement. Drawings/dimensions of the existing building will be provided during technical evaluation.

11.11. Make, Model, Part Number and country of origin of Mechanical, Electrical parts & Instruments should be included in the offer and prices and shelf life will be mentioned against each item separately.

11.12. The supplier should provide list of critical spares in technical offer and price to be included in commercial offer separately.

11.13. The supplier shall confirm that after installation of the unit, there will be continuing technical support as and when required by the purchaser.

11.14. It shall be guaranteed that spares shall be available for at least 15 years after successful installation of the unit.

12. TRAINING:

12.1 20 x officials including maintenance, instrument and production personnel of the purchaser at buyer premises for 05 working days.

12.2. Training charges will be intimated separately.

13. INSPECTION:

13.1 Material Inspection

After arranging the raw materials, the firm will provide samples to buyer for chemical and mechanical analysis. All 2D/3D drawings should be completed & vetted within 02 to 03 weeks of placement of contract.

13.2 Work Inspection

13.2.1 First Inspection of raw material will be carried out by the buyer technical team

13.2.2 Second Inspection will be carried out on completion of 50% of work (fabrication & welding)

13.3.3 Third Inspection will be carried out on completion of 100% of work (polishing & assembly)

14. FINAL ACCEPTANCE:

- 14.1. Final acceptance test of all the modules will be carried out by the supplier engineers at purchaser premises. This test will be carried out with the technical assistance of the supplier and will comprise successful inspection as per requirement of inspection agency.
- 14.2. During Final acceptance test, supplier will assure functional trial of all the modules for 03 working days on each caliber, conforming the quality & quantity criteria as per clause 1 & 1.2 above.

15. INSTALLATION AND COMMISSIONING:

- 15.1. To optimize the project, simulation of the whole production process be carried out and shared by the supplier, prior to erection and commissioning.
- 15.2. Supplier will install and commission the modules for satisfactory operation. All accessories / stores required for installation and commissioning will be the responsibility of supplier.
- 15.3. All utilities (Electricity, Steam, water etc.) up to battery limit will be provided by the buyer whereas inside the building all pipes, gaskets, ejectors, fittings, valves, flanges and cables etc (of compatible material) required for the installation & commissioning of the plant will be provided / arranged by the Supplier.
- 15.4. The supplier to indicate the total man-weeks of his Engineers/technicians required for the installation, commissioning and trial run of the plant. Terms and conditions are to be stated clearly. All expenses, including boarding, lodging, traveling and daily allowances of the supplier's engineers / technicians are to be borne by the supplier.
- 15.5. Supplier shall provide complete civil drawings (foundation & erection, if any) within 02-03 weeks after placement of contract.

16. BUYER RESPONSIBILITY:

- 16.1.1 Execution of civil works according to drawings.
- 16.1.2 Provisioning of steam and Raw water up to battery limit of plant/ building. Electricity will be provided by buyer up to main electrical panel by the supplier.

16.2. BATTERY LIMIT:

Battery limit means one meter outside the wall of the building up to which the buyer will provide the required utilities/services. The buyer will ensure to terminate all pipes with flanges at zero level of each building.

17. WARRANTY GUARANTEE:

- 17.1. The machine and accessories shall be accepted on Supplier's Warranty / Guarantee with regard to quality subject to these being technically checked/tested where necessary and accounted for on arrival at Consignee's ware-house in presence of supplier's rep (if desired by supplier) at their cost. The supplier shall render Warranty/Guarantee certificate in duplicate to the Purchaser on the Proforma (will be attached with tender documents) as soon as stores have been dispatched/delivered. This Warranty / Guarantee shall be binding on the Supplier for a period of 12 months reckoning from the date of acceptance after successful trial run.
- 17.2. In case, the stores on checking / test after receipt at Consignee's warehouse are found not conforming strictly to the relevant specification and other particulars or found broken during transit, the Supplier Shall Immediately replace the rejected/broken stores by acceptable stores, free of cost, and without any obligation to the Purchaser. Rejected/broken stores shall be disposed off by the Supplier under his own arrangements.
- 17.3. The supplier shall warrant the good quality of all equipment supplied against all defects or failures due to faulty design, material, or workmanship.
- 17.4. The manufacturer will sign the contract agreement for ensuring prompt after sales services. Facility of the firm should have company trained engineer in Pakistan. (Certificate should be attached with technical offer; otherwise it will be rejected).
- 17.5. Manufacturer/Supplier shall be responsible for rectifying, any defect or fault in the plant which may arise at any time during warranty period.

18. PERFORMANCE BOND

The successful bidder will provide Performance Bond at the rate of 10% of Total value of the contract in favor of CMA POF Wah Cantt within 45 days after placement of contract. It shall be valid for period of 12 months from date of FAT. If the Performance Bond is not furnished within the a/m prescribed time, the Purchaser reserves the right to cancel the contract and has the right to risk purchase action.

19. PAYMENT TERMS:

- i) Payment will be made on free delivery basis as following by CMA (POF) through cross cheque on prescribed bill form supported by receipt voucher.
- ii) 20% payment against Bank Guaranty will be made upon procurement of raw material and completion of 2D/3D drawings.
- iii) 80% payment will be subjected to successful FAT after installation and commissioning. The firm will assure the performance of all modules by successful running for 03 x days on each caliber, during FAT.

20. DOCUMENTATION:

The supplier will be required to furnish relevant technical data (4 copies each in English language) including the following;

- 20.1. Detailed Drawings & Specifications of modules
- 20.2. Maintenance, Lubrication and services manuals
- 20.3. Safety Instructions for protection of labor and equipment
- 20.4. Comprehensive operating manual of the machine & related equipment
- 20.5. Planning & Installation drawing
- 20.6. Detailed Electrical & Instruments Connection diagrams.
- 20.7. Existing building will preferably be used after modification according to the drawings provided by the supplier

<u>Scope of Work - TNT Plant</u>	
Sr. No.	<u>Development of Pre-Heating Module for Empty Shells</u>
1	SS Water Tank Cap. 200 liter, 02nos
2	Water Flow switch 05 no.
3	Air Flow switch 05 nos.
4	Immersion heaters 9kW, 20 nos.
5	Temperature controller along-with PT-100, 10 nos.
6	Ex-Proof Motor 03 no.
7	Tunnel type chain conveyer (as per requirement)
8	Pneumatic shutter (at both ends of conveyer) 02 nos.
9	Hot air blower 01 no
10	Flange type Globe valve, safety valves, piping etc as per requirement
11	SS Insulation of complete network
Sr. No.	<u>Vibrating Hopper for Controlled feeding of TNT flakes</u>
1	Electric motor (R/F) 01 no.
2	SS Hopper
3	Belt Conveyer 01 nos.
Sr. No.	<u>Control Room</u>
1	Master control of all modules
2	Interlocking with controls at individual stations of all modules
3	Ex-CCTV cameras at all three floors and display in control room
Sr. No.	<u>Fume and Dust Extraction Module</u>
1	Blower (Ex-category)
2	Ducting (as per requirement on all three floors)
Sr. No.	<u>IR/Thermal Profiling System (Optional)</u>
1	Standard equipment and accessories as per requirement
2	Synchronization with control room
Sr. No.	<u>Cargo Lift for TNT Shifting</u>
1	Winch type lift 01 no
2	Ex-category motor
3	RSJ side enforcement as per requirement
4	Electric control and standard safety on all three floors
Note:	Mirror Polish of all items of SS & Aluminum Alloy and Installation accessories / fittings (as per requirement) to be included in scope of supply