

कीटनाशक सूत्रीकरण प्रौद्योगिकी संस्थान

**Institute of Pesticide Formulation Technology (IPFT)**

(An Autonomous Institution)

Department of Chemicals & Petrochemicals,

Ministry of Chemicals & Fertilizers

Sector-20, Udyog Vihar, Gurgaon – 122 016 (Haryana)



**T E N D E R**

FOR

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF

LABORTORY INSTRUMENT

FOR

INSTITUTE OF PESTICIDE FORMULATION TECHNOLOGY

SECTOR – 20, UDYOG VIHAR

GURGAON – 122 016 (HARYANA)

**DOCUMENT – I**

Invitation to Tender

General Condition of Tender

Special Condition of Tender

Technical Specifications

# **INVITATION TO TENDER**

Dear Sir / Madam,

**Reference No. : IPFT / PLAN / 2014-15 / MAJOR-EQUIP / 2014 / 2**

**Description of Work :** Supply, Installation, Testing & Commissioning of Lab Instruments for Institute of Pesticide Formulation Technology at Sector 20, Opposite Ambience Mall, NH-8, Udyog Vihar, Gurgaon-122016, Haryana.

With reference to your letter dated ..... we enclose here with blank tender forms.

**Please note that :**

(a) Tenders are to be submitted in two bids in sealed envelopes.

**Envelope No. 1** : Containing covering letter, invitation to tenders, terms & conditions of tender, Technical specifications and EMD.

**Envelope No. 2** : Containing Commercial Bid.

**Please quote separately for each instrument (both envelope No. 1 & 2).**

The name of the **Equipment** for which tender are submitted, shall be **written clearly on the sealed cover**. Tender shall be received in the Office of the Director, IPFT at Sector – 20, Opposite Ambience Mall, NH-8, Udyog Vihar, Gurgaon – 122 016, Haryana upto 2.30 PM on **16<sup>th</sup> January, 2015**. The tender received after the due date and time is liable to be rejected.

(b) The tender will be opened on **16<sup>th</sup> January, 2015** at 3.00 PM in the Office of the Director, IPFT at Sector – 20, Opposite Ambience Mall, NH-8, Udyog Vihar, Gurgaon 122016, Haryana in the presence of those tenderers or their agents who may choose to be present.

(c) Any particulars or information regarding the proposed supply can be obtained from the Office of the Director, IPFT at Sector – 20, Opposite Ambience Mall, NH-8, Udyog Vihar, Gurgaon 122016, Haryana on any working day during office hours.

(d) The tender should be accompanied by necessary Earnest Money Deposit (EMD) in the form of Crossed Demand Draft / Banker's Cheque in favour of **Institute of Pesticide Formulation Technology** payable at Gurgaon / New Delhi.

(e) No interest will be payable on Earnest Money.

(f) Tender forms are not transferable.

(g) The tender should remain valid for acceptance for a period of six months from the date of opening the tender.

(h) Relevant information/certificate called for in the enclosed instruction sheet should be annexed to the tender promptly. Non-receipt of any information or certificates with tender, may entail rejection of the tender.

(i) Canvassing in any form will entail disqualification.

Thanking you,

Yours faithfully,

(Dr. S.K. Raza)  
Director  
Institute of Pesticide Formulation Technology (IPFT)  
Gurgaon – 122 016 (Haryana)

# **SUBMISSION OF TENDER**

From :

M/s .....

.....

.....

To,

The Director  
Institute of Pesticide Formulation Technology  
Sector – 20, Opp. Ambience Mall, NH-8  
Udyog Vihar, **Gurgaon – 122 016 (Haryana)**

1. I / We hereby tender for execution of the **Works of Supply, Installation, Testing & Commissioning of \_\_\_\_\_ for Institute of Pesticide Formulation Technology at Sector 20, Opp. Ambience Mall, NH-8, Udyog Vihar, Gurgaon-122016, Haryana as per TENDER DOCUMENT** within the time schedule of completion of work for jobs, as separately signed and accepted by me/us, at the schedule of rates quoted by me/us for the whole work in accordance with Notice/Letter inviting Tender, Terms & Conditions, Schedule of Rates, Specifications for materials and workmanship, time schedule of completion of job and other documents and papers all as detailed in the Tender Documents.
2. It has been explained to me/us that the time stipulated for jobs and completion of Works in all respects and in different stages mentioned in the “Time Schedule” of completion of jobs and signed and accepted by me/us is the essence of the contract. I/We agree that in the case of failure on my/our part to strictly observe the time of Completion mentioned for jobs or any of them and to the Final Completion of work in all respects accordingly to the schedule set in the said “Time Schedule” of completion of jobs, I /We shall pay compensation to IPFT as per the provisions and stipulations contained in General Conditions of Contract and I/We agree to recovery being made as specified therein. In exceptional circumstances, extension of time which shall always be in writing may, however be granted by the Director at his entire discretion for some items of work, and I/We agree that such extension of time will not be counted for the extension of completion dates stipulated in the said “Time Schedule” of completion of jobs.
3. Should this tender be accepted, I/We hereby agree to abide by and fulfill all terms and conditions referred to above and in default thereof, to forfeit and pay to IPFT such sums of money as are stipulated in conditions contained in General Tender Notices and other Tender Documents.
4. I / We hereby pay the Earnest Money Deposit (EMD) of ₹ ...../- (Rupees ..... only) by Demand Draft / Banker’s Cheque No. .... dated ..... in favour of “**Institute of Pesticide Formulation Technology**” payable at **Gurgaon / New Delhi**.

I/We enclose herewith evidence of my/our experience of execution of works of similar nature and magnitude carried out by me/us in the prescribed Performa.

Dated the ..... day of.....

Yours faithfully,  
Signature of the Tenderer  
with seal of the firm

Name and designation of authorized  
Person signing the tender on behalf  
of the Tenderer

## **PART - I**

### **GENERAL CONDITIONS OF TENDER**

1. We are interested in material of indigenous manufacture or of foreign make available from ready stock.
2. In case of imported material, mention the price of goods as FOB basis and stating packing/forwarding/documentation charges etc. (each one) separately, if applicable. Insurance and airfreight charges upto IGI Airport, New Delhi should be mentioned separately. If exact value is not known, approximate charges may be mentioned. **Where there is no mention of packing, forwarding, freight, insurance charges offers shall be rejected as incomplete.** Based on previous supplies to various customers, please mention chargeable weight of the final consignment, in commercial bid. This will help us to calculate approx. freight charges, in case FOB order is placed with you. Foreign manufacturers should quote in foreign currency.
3. In case of **imported material**, the dispatch of the goods should be preferably through Air-India. In case the facility of Air-India is not available in your country, specific mention to this effect should be mentioned in your proforma invoice. The port of shipment should be the country of origin. Trans-shipments and part shipments are not permitted
4. In case of **imported material**, indicate the percentage of Indian Agency commission, which shall be payable in Indian Rupees directly by us to the authorized Indian Agent, after installation, testing and commissioning of the instrument. In case Indian Agent submits the quotation, valid authorization letter must accompany the same from principals.
5. One Agent cannot represent two suppliers or quote on their behalf for a particular equipment.
6. The validity of the offer should not be less than 180 days.
7. A Demand Draft / Banker's cheque as EMD amount drawn in favour of "Institute of Pesticide Formulation Technology" payable at New Delhi / Gurgaon, must be enclosed with the Technical Bid and photocopy of the same to be enclosed with commercial bid. All tender received without EMD shall be summarily rejected. Micro & Small Enterprises (MSEs) registered with NSIC will be allowed exemption from payment of tender document fee, EMD and submission of Performance Bank Guarantee in accordance with the rules/policies of the Govt. of India. Firms registered with Government/PSU's are not exempted from payment of EMD.
8. Operation / Maintenance Manual and IQOQ data sheet to be supplied along with the equipment.
9. Copy of the latest price list, applicable in India, must be enclosed with your offer (in Commercial Bid only).
10. Please ensure the quoted price is not more than the price offered to any other customer in India to whom this particular item has been sold, particularly to Government Organization.
11. Enclose with your offer a certificate that the equipment is of latest technology and will not be obsolete and accessories & spare parts will be supplied as and when required.

12. It may be confirmed that essential spare parts of this equipment are available in India with your Indian Agent along with the Engineer for after sale service of equipment. It should be noted that the installation of the equipment has to be carried out immediately.
13. Provide the list of users in India, particularly Govt. Organization. Also enclose performance certificate, if available.
14. The offer must be submitted in two separate envelopes, one containing Technical bid along with EMD and second containing Commercial bid, duly sealed from outside and kept in an envelop. The outer envelope must specify the technical/ commercial bid, as the case may be. It may be noted that in case of non-compliance of any of these conditions, the offer is liable to be rejected.
15. The commercial bid must mention the prices of all items asked for individually and then summed up at last i.e. package deal for all items which are essential for the system as per our tender upto Ex-works / FOB or FOR / CIF should be mentioned. Optional items asked for can be submitted separately in the commercial bid.
16. Pre-installation requirement if any, should invariably be mentioned clearly. Installation/Training will be the full responsibility of the supplier/Indian Agent. If any short-shipment etc. are noticed, the same will be arranged immediately with all charges to this effect to be borne by Supplier / Indian agent. The refund of EMD will become due only after satisfactory receipt and installation of the equipment.
17. **The last date of receipt of tenders is January 16, 2015.** The technical bids will be opened on due date in the office of Director – IPFT in the presence of representatives of tenderer, if any, by a committee. Late / Delayed tenders shall not be opened and returned back to the bidders. Request for postponement is not likely to be entertained.
18. The Technical Bid and Price Bid in two separate sealed cover should be put in a third cover superscripting as under :

**Tender Enquiry No.** : IPFT / PLAN / 2014-15 / MAJOR-EQUIP / 2014 / 2

**Date of Opening** : **16<sup>th</sup> January, 2015**

**Name of Equipment** : \_\_\_\_\_

To,

**THE DIRECTOR  
INSTITUTE OF PESTICIDE FORMULATION TECHNOLOGY  
SECTOR – 20, UDYOG VIHAR,  
OPP. AMBIENCE MALL, NH-8,  
GURGAON – 122 016 (HARYANA)**

19. In case of indigenous supplies, the rates quoted should be on FOR Destination basis including insurance and freight pre-paid.
20. In case of indigenous supplies, the rates of Sales Tax (in full), Excise Duty etc. should be clearly indicated. Form C & D is not applicable to us.
21. The date of delivery should be strictly adhered to otherwise the Director, IPFT reserves the right not to accept delivery in part or full and claim liquidated damages of 1% per week subject to maximum of 10% of the total value of supply order.

22. In case of indigenous material, payment will be made by Account payee cheque after successful installation, testing and commissioning of the equipment.
23. In case of imported material, payment will be made through Letter of Credit. All the bank charges outside India will be borne by the beneficiary.
24. Printed conditions of the quotation shall not be binding on us.
25. Quotation must be clearly written or typed without any cutting or over-writing; All cutting/over-writings must be initialed and stamped.
26. If the items are not covered under Open General License (OGL) of exim policy, the same may also be mentioned clearly to obtain prior Special Import License (SIL) from DGFT, otherwise demurrage accrued due to delay in the clearance of consignment will be your responsibility.
27. Kindly mention approx. weight of the consignment, to calculate freight charges etc. through our consolidation, if required (Applicable in case of imported instrument).
28. If the vendor has supplied identical or similar equipment to other Government Labs/Institute the details of such supplies for the preceding three years shall be given together with the prices eventually or finally paid (price to be disclosed in commercial bid).
29. All correspondence in this regard must bear our reference number, failing which queries cannot be answered to.
30. Conditional tenders shall not be accepted.
31. Enclose the Compliance Statement in the following format along with technical bid : failing which offer will be treated as incomplete and is liable to be ignored.

**Format of Compliances Statement**

<i>Tender Enquiry Specifications</i>	<i>Specifications Offered</i>	<i>Compliance to Tender Enquiry Specifications : Whether Yes or No</i>	<i>In case of Non-compliance, deviation from Tender Enquiry Specifications to be included in un-ambiguous terms.</i>

32. The acceptance of the quotation/offer will rest with the Director, IPFT, who does not bind himself or accept the quotation and reserves the right to himself to reject or partially accept any or all the quotations received, or to any condition without assigning any reason.

**33. JURISDICTION :**

This contract shall be subjected to the jurisdiction of the Courts of Haryana only.

**34. ARBITRATION :**

All disputes or difference whatsoever which shall at any time arise between the parties hereto in relation to or connected with this contract (other than those in respect of which

the decision of DIRECTOR is by this CONTRACT expressed to be final and binding) shall after written notice by either party to the CONTRACT to the other and to the Appointing Authority herein before mentioned be referred for adjudication to a sole arbitrator to be appointed as herein after provided.

For the purpose of appointing the Sole Arbitrator referred to above, the Appointing Authority (Director – IPFT) will send within thirty days of receipt of the notice, to the SUPPLIER a panel of three persons name who shall all be presently unconnected with the organization for which the WORK is executed.

The SUPPLIER shall on receipt of the names as aforesaid, select any one of the persons named to be appointed as a sole Arbitrator and communicate his name to the Appointing Authority within thirty days of receipt of names. The Appointing Authority shall thereupon without any delay appoint the said person as the Sole Arbitrator. If the SUPPLIER fails to communicate such selection as provided above within the period specified, the Appointing Authority should make the selection and appoint the selected person as the Sole Arbitrator.

If the Appointing Authority fails to send to the SUPPLIER the panel of three names as aforesaid within the period specified, the supplier shall send to the appointing Authority a panel of three names of persons who shall all be unconnected with either party. The Appointing Authority shall on receipt of the names as aforesaid select as one of the persons named and appoint him as the Sole Arbitrator. If the Appointing Authority fails to select the person and appoint him as the Sole Arbitrator within 30 days of receipt of the panel and inform the SUPPLIER accordingly, the SUPPLIER shall be entitled to appoint one of the persons from the panel as the Sole Arbitrator the communicate his name to the Appointing Authority.

If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever, another Sole Arbitrator shall be appointed as aforesaid.

The WORK under the CONTRACT shall, however, continue during the Arbitration proceedings and no payment due or payable to the SUPPLIER shall be withheld on account of such proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties fixing the date of the first hearing.

The Arbitrator may, from time to time, with the consent of the parties, enlarge the time for making the publishing the award.

The venue of arbitration shall be in Haryana.

The fee, if any, of the Arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The costs of the reference and of the award including the fee, if any, of the Arbitrator shall be in the discretion of the Arbitrator who may direct to and by whom and in what manner, such costs or any part there of shall be paid and may fix or settle the amount of costs to be so paid.

The award of the Arbitrator shall be final and binding on both the parties. The provisions of the Indian Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force, shall apply to the arbitration proceeding under this clause.

## **PART – II**

### **SPECIAL CONDITION OF CONTRACT :**

In addition to the General Conditions of contracts contained in Portion I above, the following special conditions shall apply to contracts for supply of plant/machinery/manufactured equipment. These special conditions where they differ from the general conditions in part I shall override the latter.

### **FINAL TEST :**

The final tests as to performance and guarantee shall commence immediately after completion of installation.

### **REJECTION OF DEFECTIVE CONSIGNMENT :**

If the completed instrument or any portion thereof before it is finally accepted is found to be defective or fails to fulfill the requirements of the contract. The purchaser shall give supplier notice setting forth the details of such defects or failure and the supplier shall forthwith rectify the defective instrument to be replaced in place of plant or alter the same to make it comply with the requirements of the contract. Should the supplier fail to do so within a reasonable time the Purchaser may reject and replace at the cost of the supplier, whole or any portion of the plant as the case may be, which is defective or fails to fulfill the requirements of the contract. Such replacement shall be carried out by the purchaser within a reasonable time and at reasonable price and where reasonably possible to the same specifications and under competitive conditions. The supplier shall be liable to pay to the Purchaser the extra cost if any of such replacement delivery and or/or erected as provided for in the contract, such extra cost being the difference between the price paid by the purchaser, under the provisions above mentioned for such replacement and the contract price for them. Supplier shall refund to Purchaser any sum paid by the Purchaser to the supplier in respect of such defective instrument to be replaced in place of instrument.

### **WARRANTY :**

The supplier has to provide warranty for a period as specified in the technical specification after the instrument has been put into operation. The supplier shall be responsible for any defects that may develop under conditions provided for by the contract and under proper use, arising from faulty materials, design or workmanship in the plant or from faulty erection of the instrument by the supplier, but not otherwise and shall rectify such defects at his own cost when called upon to do so by the purchaser who shall inform in writing such defects.

If it becomes necessary for the supplier to replace or renew any defective portions of the instrument for the purpose of rectification under the clause, the provisions of this clause shall apply to the portions of the plant so replaced or renewed till the end of the above mentioned period. If any defects be not rectified within reasonable time, the purchaser may proceed to get the work done at supplier's risk and expenses but without prejudice to any other rights which the Purchaser may have against the supplier in respect of such defect.

### **GUARANTEE FOR SPARE PARTS :**

The supplier shall undertake that before going out of production of the spare parts he will give adequate advance notice to the Purchaser so that the latter may order his requirement of spares in one lot if he so desires.



The supplier shall further guarantee that if he goes out of production of spare parts, then he will make available blue-prints, drawings of spare parts and specifications of materials at no cost to the Purchaser, if and when required in connection with the equipment to enable Purchaser to fabricate or procure spare parts from other sources.

The provision of the clause shall remain effective and binding upon the supplier even after the completion or expiration of the contract and till the instruments supplied under the contract is in use by the Purchaser.

**TRAINING :**

The supplier has to provide complete training at site for operation (including trouble shooting) of the instrument.

## **EMD DETAILS**

### **For Laboratory Instruments**

<i>Sr. No.</i>	<i>Description of Items</i>	<i>Quantity</i>	<i>EMD (In ₹)</i>
1.	GC – FID	01 No.	60,000.00
2.	Scanning Electron Microscope	01 No.	2,40,000.00
3.	Air Jet Mill	01 No.	60,000.00
4.	Extruder System with Dryer, Sieve Shaker	01 No.	1,00,000.00

# **TECHNICAL SPECIFICATION OF LABORATORY INSTRUMENTS**

## **1. Gas Chromatography – Flame Ionization Detector (GC – FID) :**

GC should be capable of installing at least two injectors and two detectors.

### **A. OVEN :**

1. Capable of housing at least 2 columns.
2. Temperature : 450 °C or more.
3. Cooling down rate: from 450 to 50 °C within 4.0 min.
4. Set point : 0.1°C or less.
5. Temperature programming facility.
6. Ramps : 20 or more.
7. Max. ramp rate : 120 °C/min or more.

### **B. INJECTION PORT :**

#### **(a) Capillary Port (Split / Splitless)**

1. Facility to fit 50 µm to 530 µm columns.
2. Pressure range : 145psi or more.
3. Pressure set point and control precision : 0.001 psi or better.
4. Maximum temperature : 400°C or more.
5. Separate heating zone.
6. Digital display of gas flow, temperature etc.
7. Electronic Pneumatic Control (EPC) or Equivalent.
8. Temperature setting through computer software.
9. Split ratios upto 7500:1 or more.

#### **(b) Auto Sampler**

1. Auto sampler tray for 100 vials or more.
2. User installable.
3. Sample tray positioned away from GC to prevent heating of samples.

### **C. DETECTORS :**

#### **(a) Flame Ionization Detector (FID)**

1. Should be optimized for capillary column.
2. Electronic pressure and flow control of all gases.
3. Maximum temperature : 400°C or more.
4. Flame out detection and auto re-ignition.
5. Minimum Detection Limit: 1.5 pg C/sec or less.
6. Linear Dynamic Range :  $> 10^7$

**(b) Electron Capture Detector (ECD)**

1. Electronic pressure and flow control of auxiliary purge/make up gases.
2. Suitable for all types of column (capillary and megabore).
3. Maximum Temperature : 400°C or more.
4. Electron Source : <sup>63</sup>Ni, < 15 mCi.
5. Minimum Detection Limit : 5 fg/mL lindane or less.

**(c) Flame Photometric Detector (FPD)**

1. Single wavelength flame photometric detector, specific to sulphur and phosphorous containing compounds.
2. Electronic pressure and flow control of auxiliary purge/make up gases.
3. Suitable for all types of column (capillary and megabore).
4. Maximum temperature : 400°C or more.
5. Minimum Detection Limit : 100 fg P/s, 5 pg S/s or less.

**D. THREE WAY SPLITTER :**

Electronic Pneumatic Control (EPC) or equivalent controlled three way splitter should be installed at the detector end of column. Simultaneous data collection from all the three detectors from single injection or swap module for user changeable detector should be provided.

**E. CHROMATOGRAPHY SOFTWARE / WORKSTATION INSTRUMENT CONTROL SOFTWARE :**

1. Software should be GLP compliant and compatible with Windows OS (7 or higher).
2. Capable of working both online and offline for data acquisition and manipulation.
3. Separate CD/DVD of the instrument software with specific registration number should be provided.

**F. PC WITH PRINTER :**

Data Station : Intel core i5/i7 processor, 2.0 Ghz or more, 4GB RAM DDR-III, 500 GB hard disk, light scribe compatible DVD writer, 22" LCD display, Windows 7 ultimate, MS Office Professional 2013, Multifunctional B&W Laser Printer with Scanner & Copier.

(Separate DVD of the operating system with specific registration number or backup DVD if preinstalled operating system; Separate CD/DVD with specific registration number for MS Office 2013).

**G. START UP KIT :**

1. Installation kit must be included.
2. Gas purification panel with following cylinders (volume or water capacity of 46.7 L) and appropriate dual stage steel diaphragm regulators (one for each type of gas) :

Helium (≥99.9995%)	–	2 No.
Nitrogen (99.999%)	–	2 No.
Air (99.999%)	–	2 No.
Hydrogen (99.999%)	–	2 No.

Cylinders should be provided with gas purity certificate.
3. Copper/SS tubing, nuts and ferrules for all the gases.

**H. ACCESSORIES & CONSUMABLES :**

1. Syringe for auto sampler injection (10 No. each).
2. Auto sampler vials : 500 vials with screw cap.
3. Graphite ferrules for capillary columns (0.25 mm i.d.) injector end and suitable ferrule for splitter end (20 No. each).
4. Septa for injector (50 Nos.).
5. Appropriate nuts to fit capillary columns to the injector and splitter and detector (10 each).
6. Inlet liner for Splitless, Split (with glass/quartz wool at optimum position) (10 No.).
7. O-ring for injector liner (10 No.)
8. Gold seal or equivalent injector seal, if present (10 No.)
9. Gas tube cutter.
10. Tool kit.
11. GC Column (95% Dimethyl polysiloxane, 5% phenyl, extremely low bleed suitable for GC system 30m X 0.25mm X 0.25 $\mu$ m) – 5 No.

**I. WARRANTY :** Two years warranty from the date of installation and final acceptance and three years AMC after warranty period should be offered.

**J. TRAINING :** Training and demonstration about application and maintenance of the equipment at customer site.

**K. OPTIONAL ITEMS :**

**Suitable online UPS system for complete back up of the GC system :**

1. Suitable online constant voltage (220 volts) 10 KVA UPS with minimum 4 hour backup at full load with maintenance free Exide battery provided with rack.
2. Suitable online constant voltage (220 volts) 10 KVA UPS with minimum 2 hour backup at full load with maintenance free Exide battery provided with rack.

## **2. Scanning Electron Microscope :**

1. Resolution : 0.6nm-1.2nm (around 1.0nm preferred)
2. Magnification : 100mm x 150mm printed micrograph
3. Accelerating voltage : 0.5kV to 30kV
4. Electron gun : Pre-centered filament
5. Condenser lens : Zoom condenser lens
6. Objective lens : Conical objective lens
7. Specimen stage : Eucentric specimen stage
8. X-Y : 80mm – 40mm
9. Z : 5mm to 48mm
10. Rotation : 360 degree
11. Tilt : -10 degree to +90 degree
12. Vacuum system : High vacuum model DPx1, RPx1
13. Warranty : 3 Years from the Date of Installation
14. Data System with complete software package.
15. Assurance for the availability of spares and consumables for 10 years.
16. 3D Measurement Software.
17. Oil free scroll and turbo vacuum pump system.
18. High-performance electronics for faster image acquisition and signal processing.
19. Many types of sample including the most non-conducting or contaminating materials, can equally be characterized or analyzed.
20. STEM Detector
21. UPS of suitable capacity to give 10-12 hrs. backup.
22. Warranty : Three year from the date of installation and final acceptance.
23. Training : Free Training to Two Scientists for operation and maintenance of the equipment at manufacturer's site.

### 3. Air Jet Mill :

Air Jet Mill should be suitable to install in Plant / Pilot Plant for fine grinding of Pesticides.

1. Grinding Chamber : Grinding chamber of 250 mm or more diameter. Bolted assembly, adjustable setting pipe with screw at outlet for fitness control. Sealing with silicon "O" rings.
2. Feeder : Ventury assembly and feeding cone.
3. Pulse Jet Dust Collector :
  - (i) Automatic dust collector with butterfly valve below it. Provision for automatic bags cleaning by utilizing pressurized air from pulse tank.
  - (ii) Bag house of circular design comprising of central circular cylinder.
  - (iii) Polyster + PTFE coated bags.
  - (iv) Pulse Tank provided with flexible hoses, blow pipe, ball valve and flexible pipe.
  - (v) Lug to support assembly on stand.
4. Ducting : Ducting from jet mill to pulse jet dust collector.
5. Air Piping : Main piping with one main valve to lead compressed air to the jet mill. Pipe divided in two parts for grinding air and feeding air. Both pipe assemblies complete with pressure gauges, valves etc. Attached to the grinding chamber and ventury feeder respectively.
6. Container : A container of suitable volume below pulse jet dust collector.
7. Main Stand : Suitable for mounting the whole unit.
8. MOC : All contact parts of Stainless Steel and non-contact parts of MS or better.
9. Control Panel : To control feeder and other accessories.
10. Air Compressor : Air compressor to be supplied with mill.  
(Screw Compressor along with filters, dryer, valves, pipes etc. Pressure - 7 kg/cm<sup>2</sup> or more at inlet of jet mill).
11. Production Capacity : 25 kg. / hr. or more.
12. Installation, Demonstration & Warranty :

Equipment to be installed (including all civil and electrical work) by the supplier at IPFT site and demonstrate the functioning with a Warranty/extended warranty of Three years from the date of installation and final acceptance.

#### **4. Extruder System with Dryer, Sieve Shaker :**

Equipment should be suitable to install in Plant / Pilot Plant for producing Water Dispersible Granules of Pesticides.

##### **A. Basket Extruder :**

- (i) Processing Capacity : 25 kg to 100 kg per hr or more.
- (ii) Extruder assembly should be transferring roller rotating and pressing the material on mesh. The bearing & oil seal should not come in contact with material.
- (iii) Mesh : Interchangeable sieve, size 1 to 2 mm.
- (iv) Extruder assembly should be attached with suitable feeding hopper and discharge tray for collection of fines.
- (v) Gear Box & Motor Assembly : Gear box speed variator from 20-100 R.P.M., Motor 10 H.P. or high with speed of 1400 or more.
- (vi) Control Panel : ON / OFF button & digital RPM display.

##### **B. Tray Dryer :**

- (i) Material of Construction : External walls Stainless steel 316 quality, internal walls 2 mm or more thickness stainless steel 316 quality.
- (ii) Opening : Door at front with ball latches and having gasket to prevent leakages.
- (iii) Capacity : 45 trays or more, Minimum 50 tray to be supplied with equipment.
- (iv) Drier should be provided with axial Blower fans, electrical heating, sturdy trolley etc.
- (v) Control & Display : Digital temperature controller & indicator.

##### **C. Sieve Shaker (Sifter) :**

- (i) Sieve shaker should be suitable for gradation of product as per granules size fitted with vibrating screen assembly.
- (ii) Diameter : min 36".
- (iii) Deck : Three deck.
- (iv) Material of Construction : Stainless steel 316 quality.
- (v) Motor : 1.5 H.P. or more.

##### **D. Power :**

AC Single / Three phase for all the above three units.

##### **E. Installation & Demonstration :**

Extruder System with Dryer and Sieve Shaker to be installed (including all civil and electrical work) by the supplier at IPFT site and demonstrate the functioning.

##### **F. Warranty :**

Warranty / Extended Warranty of three years from the date of installation and final acceptance.



**कीटनाशक सूत्रीकरण प्रौद्योगिकी संस्थान**

**Institute of Pesticide Formulation Technology (IPFT)**

(An Autonomous Institution)

Department of Chemicals & Petrochemicals,

Ministry of Chemicals & Fertilizers

Sector-20, Udyog Vihar, Gurgaon – 122 016 (Haryana)



**T E N D E R**

FOR

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF  
LABORATORY INSTRUMENTS

FOR

INSTITUTE OF PESTICIDE FORMULATION TECHNOLOGY  
SECTOR – 20, UDYOG VIHAR  
GURGAON – 122 016 (HARYANA)

**DOCUMENT – II**

**COMMERCIAL BID**

**BILL OF QUANTITIES**  
**FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING**  
**OF LABORATORY INSTRUMENT**

<i>Sr. No.</i>	<i>Description of Items</i>	<i>Unit</i>	<i>Rate in Figures &amp; In Words</i>	<i>Amount (In ₹)</i>
1.	GC – FID			
2.	Scanning Electron Microscope			
3.	Air Jet Mill			
4.	Extruder System with Dryer, Sieve Shaker			

Photocopy of the Demand Draft / Banker's Cheque No. .... dated .....  
for ₹ ..... towards EMD is enclosed.

**Note :** Kindly quote for all the items as specified in the technical specifications.

Yours faithfully,

Signature of the Tenderer  
with seal of the firm

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## TENDER NOTICE

(TE No. : IPFT / PLAN / 2014-15 / MAJOR-EQUIP / 2014 / 2)

Director, IPFT invites sealed tenders for the purchase of the following instruments :

<i>Sr. No.</i>	<i>Description of Items</i>	<i>Quantity</i>	<i>EMD (in ₹)</i>
1.	GC – FID	01 No.	60,000.00
2.	Scanning Electron Microscope	01 No.	2,40,000.00
3.	Air Jet Mill	01 No.	60,000.00
4.	Extruder System with Dryer, Sieve Shaker	01 No.	1,00,000.00

Tender documents together with the terms & conditions and specifications in respect of the above items can be downloaded from our official website [www.ipft.gov.in](http://www.ipft.gov.in) and also obtained from the Office of Director – IPFT on all working days between 10.00 AM to 3.00 PM on cash payment of ₹ 500/- (Non-refundable). In case tender document is downloaded from the website, please attached DD of ₹ 500.00 favouring “Institute of Pesticide Formulation Technology” payable at Gurgaon / New Delhi towards tender fee with the Technical bid. **Tender without tender fee will be rejected out rightly.** The last date of submission of tender document is upto 2.30 PM on **16<sup>th</sup> January, 2015** and will be opened on the same day at 3.00 PM. Director, IPFT reserves the right to reject any or all the tenders items without assigning any reason, whatsoever.

DIRECTOR  
IPFT, GURGAON