

TAMIL NADU FISHERIES UNIVERSITY

Lr.No. 212/FITT/Extruder,Mixer & Dryer/2017, dated 25.04.2017

THE SCHEDULE

I. GENERAL REQUIREMENT

Last date for submission of Tender is 23.05.2017 upto 3.00 PM. Date of opening of tender is on 23.05.2017 at 3.30 PM. If the tender Opening date is declared as a Holiday by the Government, then the next working day will be the day for opening of tenders. Tenders should state in the body of their letter whether they are:

- i. Manufacturers (or)
- ii. Manufacturers authorized agents (or)
- iii. Holders in stock of the stores tendered for
- iv. TNGST Number should be quoted
- v. The offer should be submitted to two separate envelopes, one for technical bid and the other for commercial bid (marked on top of the envelope as TECHNICAL BID and COMMERCIAL BID). Both the bids should be submitted in sealed closed cover.
- vi. The second cover (Commercial bid containing the Price quotation will be opened only if the technical bid found qualified).
- vii. Indian agents of Foreign Principals should submit their offer / tender along with original proforma invoice from their Principals. Tender should be submitted as per detailed specification for the equipment / item with Earnest Money as specified in this document, through FDR / Demand Draft and should be enclosed.
- viii. A certificate should be submitted to the effect that spares of the equipment will be available upto 7 years (3 years warranty, 2 year guarantee, 2 year comprehensive AMC) after warranty is over, otherwise the equipment will be replaced under buy back scheme at 50% of the original price of the item / equipment.
- ix. The tenderer should furnish a list of supply of such instruments to reputed / accredited institution / industries in the last three years since January 2014 and should be working satisfactorily. Documentary evidence to this effect should be provided with the tender.

II. DEVIATION FROM SPECIFICATION

The tenderers are requested to study the specification stated below:

Tender for the supply of **AQUA FEED TWIN SCREW EXTRUDER (1 No), AQUA FEED INGREDIENTS MIXER (1 No) AND AQUA FEED DRYER (1 No.)** with accessories for each equipment are invited.

SPECIFICATIONS

A. Aqua Feed Twin Screw Extruder with accessories

- Twin screw extruder should be able to produce feeds using wide range of raw materials.
- Capacity of Twin Screw Extruder -100 – 200 kg per hour
- Capable of producing floating and sinking fish feeds.
- Floating rate : 100%--DEPENDS ON FORMULATION AND RAW MATERIAL
- Expansion coefficient – 1.2-1.8
- Size of feeds- 1 – 6 mm feeds
- Gelatinisation – more than 95%
- Emergency discharge device to arrest the uneven material entering in to the extruder assembly and prevent the increase in motor load and blockage of machine.
- Fully computerized automatic control system to precisely control the flow rate and proportions of raw feed ingredients of different origin.
- Touch screen control system.

Twin screw extruder should be composed of

- Feeder
- Conditioner
- Extruder device
- Electric Control panel

FEEDER

Feeder should consist of feeding bin, anti-bridging device, frequency convertor motor, screw conveying device, discharge outlet.

Anti- bridging device to prevent generating blockage of feed ingredients to the maximum

Conveying capacity of feeder should be 50- 200 kg per hour

Motor power not less than 1 KW

CONDITIONER

Twin shafts with variable speed.

It should consist of speed reducing motor, feeding inlet, water inlet, steam inlet, stirring shaft, conditioning cylinder, discharge outlet.

Agitation of feed ingredients through back cross movement.

Conditioning time- 3-5min.

Power of the motor- not less than 3.0kw.

EXTRUDING DEVICE

It should the components like frequency conversion motor, speed reducer, bypass, extruding assembly, cutting device, discharge assembly.

The **extrusion assembly** should consist of feeding section, kneading section, ripening section, temperature sensor, pressure sensor.

The twin screw should consist of main shaft, short double screws, double screws, feeding screws, negative shearing block, positive shearing block.

The above screw assembly should be exchangeable and screw combination can be done based on feed ingredients used and feed formulations.

Diameter of screw- not less than 56mm

Length diameter ratio – not less than 20

Power – not less than 22 kw

Cutting device should consist of cutter driving unit, screw moving device, slide rail.

Cutter driver unit consist of cutting knives, variable speed frequency control motor.

Cutting speed – adjustable - 200 – 2500 r/min.

Power of cutting device – not less than 0.55 kw

Discharge device – two nos.

Discharge device should consist of "8" shaped busbar and five die plates of 1.0 mm, 1.5 mm, 3.0 mm, 4.0 mm and 6.0 mm.

Electric control system – to operate the whole twin screw extruder components.

B) AQUA FEED INGREDIENTS MIXER WITH ACCESSORIES

Capable of mixing powdery and granular materials with different specific gravity

Type of Mixer – Single shaft paddle mixer/Double circle paddle mixer/Horizontal batch mixer

Protecting device to prevent accident during working

Pressure between outer and inner of the mixer can be well balanced when feeding and discharging.

Power - not less than 3 KW

Mixing capacity per batch - 100 kg

Mixing period – 45-60 sec.

Volume- 0.2 cu.m

Mixing period – 45-60 seconds

Mixing homogeneity – CV below 5 %

Large variable range of filling factor - Filling coefficient – 0.4-1

Material residue - < 0.05-0.15% - Prevent from cross contamination.

Large access doors facilities to clean mixing chamber and replace paddles.

C) AQUA FEED DRYER WITH ACCESSORIES

The dryer should perfectly match the aqua feed twin screw extruder supplied

Micro Wave operated Dryer

Power input : $\leq 22\text{KW}$

Power output : $\geq 22\text{KW}$

Dimension – Length x weight x height : 1500×1500×2000 mm

Effectiveness : 25Kg—30Kg moisture per hour

Capacity – 100-200 kg /hour

Contact part should be made of stainless steel

Structure

Good quality branded air cooled magnetrons.

Not less than 20 air cooled magnetrons

Corrosion resistant dryer body.

Anticorrosive coating with stable material of polytetrafluoroethylene

Multi - tube microwave field strength for accurate mesh analysis

Big gate, and equipped with choke device, to avoid Microwave leakage

Make sure that the air runs smoothly in order to provide the best performance.

Control

Equipped with control panel, the microwave and drying time could be controlled.

The meter should monitor the working condition of the main parts and give feedback frequently.

Time control system.

NUMBER REQUIRED : ONE (EACH)

III. SERVICE CONDITION:

Warranty for three years and Guarantee for two years has be furnished.

IV. AMC: Comprehensive AMC for next two years to be quoted separately along with consumables.

1. In case of deviation or alteration the same should be brought out boldly and prominently in the offer made.
2. Any terms or conditions not brought out in the body of the offer will not be considered.
3. In case any condition or terms of contract applicable in the invitation of Tender is not acceptable to the Tendering firm they should specifically state deviation therein from the body of their tender.
4. In the body of the letter, the tenderer should specifically state that he/she agrees for sole arbitration by the Finance Officer, Tamil Nadu Fisheries University, Nagapattinam.

V. PRICE

- a) Prices must be in terms of Rupees / equivalent currency.
- b) The unit prices should be for the equipment / accessories as indicated in the schedule of tender enquiry / items basically needed for AQUA FEED TWIN

SCREW EXTRUDER, AQUA FEED INGREDIENTS MIXER AND AQUA FEED DRYER and not for any other equipment. It should also include all minor accessories to produce floating, semi sinking and sinking feeds.

- c) Prices quoted should be for delivery at site, as specified in the supply order inclusive of charges such as packing and forwarding.
- d) Discount if any, should be indicated prominently.
- e) Prices quoted shall be firm in all respects and for each equipment/item.
- f) Tenders with price variation basis will not be accepted.
- g) The offer should be kept valid for six months from the date of tender and supply and installation is expected before 31.08.2017.

The tender is solely responsible for the equipment till delivered and demonstration of the equipment to be conducted with full satisfaction of the customer.

VI. EARNEST MONEY TO BE DEPOSITED ALONG WITH THE TENDER.

Each tender should be accompanied by an Earnest Money Deposit of @ 1% of price offered by them in the form of Demand Draft, bankers cheque, specified small savings instruments or where the procuring entity deems fit, irrevocable bank guarantee in a prescribed form drawn in favour of The Director, Fisheries Technology, Training and Incubation Centre, failing which the tender will not be considered. Cheques will not be accepted. If for any reason the tenderer withdraws the tender before or after being selected or before being rejected by the competent authority, the Tamil Nadu Fisheries University reserves the right to forfeit the deposit in part or in full. The Earnest Money deposited will be refunded to the unsuccessful tenderer. In the case of successful tenderer, the amount will be adjusted towards Security Deposit.

VII. SECURITY DEPOSIT:

The successful tenderer (hereinafter referred to as contractor) shall also furnish a security deposit of not less than five per cent of the value of the orders placed in the form of Demand Draft, bankers cheque, specified small savings instruments or where the procuring entity deems fit, irrevocable bank guarantee in a prescribed form drawn in favour of the Director, Fisheries Technology, Training and Incubation Centre, Vaniyanchavadi, OMR Road, Sirucher, Kelampakkam Post, Kancheepuram Dist – 603 103 within 15 days from the date of intimation of the acceptance of the tender. The Security Deposit will be inclusive of the Earned Money Deposit, already remitted.

The Security Deposit at 5% will be refundable only after the expiry of a period of One Year from the date of handing over the stores in working conditions/ completion of the work to the full satisfaction and upon the Tamil Nadu Fisheries University, issuing a Certificate that no amount is due from the contractor under the agreement and that the contract executed an agreement on a non-judicial stamp paper of the value to be fixed incorporating the terms and conditions of the contract within one month from the date

of intimation of the acceptance of the tender. In case of default of these conditions i.e. remitting security deposit and executing agreement within the time allowed, the earnest money deposit will be forfeited without prejudice to any other right of the University service. The University will also be entitled to make other arrangement for obtaining these items from others and recover from the contractor any excess expenditure or cost incurred by the University over the contract price together with all charges, expenses and damages attending to such purchase, provided the Director, Fisheries Technology, Training and Incubation Centre, Vaniyanchavadi, in specific application from the contract grant extension of time in specific circumstances in the matter of payment of security deposit and execution of agreement.

VIII. DELIVERY

The supplies shall be subject to inspection and acceptance or rejection by the Finance Officer, Tamil Nadu Fisheries University or such other person as Finance Officer, Tamil Nadu Fisheries University shall from time to time name and appoint for the purpose, the said person to be named and appointed being hereinafter referred to as the Inspection Officer.

The supplies made by the tenderer which in the opinion of the Finance Officer, Tamil Nadu Fisheries University or the Inspecting Officer in bad order, unsound in quality or description or not in accordance with specifications as have been prescribed in that behalf or otherwise faulty or unfit for use, shall be rejected.

The supplies so rejected shall be removed by and that the expenses of tenderer within 15 days after he has been given notice of the rejection. If not taken away, the Finance Officer, Tamil Nadu Fisheries University may cause the goods to be removed and disposed off in the manner he may deem fit and recover from the tenderer the expenses incurred in such removal and disposal.

The substitution of supplies which have been rejected by the Finance Officer, Tamil Nadu Fisheries University or the inspecting Officer in whole or in part under the provisions herein before contained the tender shall and will within the time permitted by the Finance Officer, Tamil Nadu Fisheries University or the inspection officer after such rejection shall have been notified to him as aforesaid supply and delivery without causing any extra cost of expenditure. If not so supplied and delivered by the tenderer or substitution, as aforesaid and also in case of failure by the tenderer to supply and deliver supplies demanded from him under this tender within the period prescribed for supply and delivery, Finance Officer, Tamil Nadu Fisheries University or the Inspecting Officer shall have the power to purchase from others in lieu of rejected or not delivered goods and any excess expenditure or cost incurred by the University over and above the tenderers price together with all charges and expenses attending to the purchase

shall be recoverable from the tenderer. Nothing herein contained shall prejudice any other right of the University on that behalf under the tenderer or otherwise.

IX. PAYMENT:

The payment will be made in two parts through irrevocable letter of credit (L/C) or sight draft.

90 per cent of the payment will be made on submission of the shipping documents to the Bank. 10 per cent of payment will be made after the effective performance of the equipment.

- X.** A guarantee towards the supply of spare parts if any when required on the agreed basis for on agreed price.

XI. THE TENDERER SHALL FURNISH THE FOLLOWING GUARANTEE

A guarantee to the effect that articles supplied shall be of the best quality and workmanship and shall be in with such quantities and such price. A guarantee for the period of one year or more from the date of handing over the equipments for the proper functioning of the equipment and systems and any defects in their proper function during the guarantee period should be rectified by the tenderer at free of charge. If during the guarantee period, the supplies are found not to the description and quality offered, the University will be entitled to reject the articles and the supplier shall replace or pay the tenderer, University such damages that may arise including the replacement of cost and towards delay and damages. Nothing herein contained shall prejudice any other right of the University on that behalf under the tender or otherwise.

XII. TRANSFER OF SUPPLY

The tenderer shall not transfer or assign the supply or any part there or any interest therein directly or indirectly to any person or persons whomsoever without the written consent of the University.

XIII. If the supply order is placed on a higher tenderer as a result of the inability of the tenderer then he will be liable to pay the University the difference between the supply rate and that the lowest acceptable tender and incorporated in the supply. This is in addition to and without prejudice to other rights under the terms of the tender.

XIV. INSTALLATION AND TESTING

- a) The time allowed for completion of supply and delivery as prescribed including demonstration under the conditions of the tender is the essence of the tender. The tender should include the installation, commissioning and trial production of floating, semi sinking and sinking feeds.
- b) Without prejudice to other rights under the terms of this tender or otherwise.

- c) If the tenderer fails in the due performance of his supply within the time fixed in the supply or any extension thereof, the tenderer is liable to pay as liquidated damages up to 2% per month of the supply value of such portion of the materials as have not been delivered, installed and commissioned and having been delivered and commissioned can not in consequence of the delay be used efficiently during each month between the appointed or extended time as the case may be and the actual time of delivery installation.

The tenderer is not entitled for any enhancement of the rates once accepted. It shall be lawful for the purchaser to set off any loss or expense or cost of damages sustained or incurred by the purchaser by reason of the cancellation of the tender form and out of any nominees for the time being payable or due to the tenderer from the University otherwise apart from forfeiting the security deposit furnished by the tenderer. All sums found due to the University under or by virtue of these presents shall be recoverable from the tenderer in any manner as the University may deem fit.

XV. Any notice or communication to the tenderer shall be deemed to be sufficiently served if given or left in writing at his usual or last known place of abode.

XVI. All questions disputes or differences arising under out of or in connection with the supply, if not concluded shall be subject to the exclusive jurisdiction of the place from which the acceptance of the tender is issued, is situated.

INSTRUCTIONS TO TENDERERS & GENERAL CONDITIONS OF THE TENDER

- 1.1. Tenderers are required to submit their tenders by registered post acknowledgement duly addressed to The Director i/c, Fisheries Technology, Training and Incubation Centre, OMR Road, Vaniyanchavadi, Kelampakkam Post, Kancheepuram Dist – 603 103 in sealed envelope marked OFFER FOR as indicated in tender notice OR put tender personally in Tender Box available in office upto 3.00 P.M. on or before date as indicated in tender notice. All offers should be complete in all respects accompanied with illustration having full technical specifications of the offered equipment.
- 1.2. Tenderers are instructed to read these instructions and the whole of tender document carefully before submitting their tenders. No erasing or alteration the text of the tender document is permitted and any such erasure and/or alteration will be disregarded / or tender the whole tender void at the option of the purchaser. If the tenderers want any modification in the tender, he should state them on separate sheet clearly indicating the clause number and modification suggested.

- 1.3. The tenderers are required to provide their tender with complete specifications for all equipments to be supplied together with the general supply schedules to enable the institute to compare tenders and assess the performance of the equipment. Salient features of the machine with additional accessories fitment etc. may be clearly specified with detailed list of tools etc.
- 1.4. Tenderer should also enclose with their offers the test report if any from any recognized agency with respect to their equipment. Tenderers should clearly indicate their experience of manufacturing and assembling of the items quoted by them. Test report of machine from Govt. testing centre will be preferred in consideration of technical bid.
- 1.5. The tenderers should give in writing the name of their authorized agency who shall represent them along with a proof of his identity and his signatures duly verified by the Bankers of the tenders.
- 1.6. Tenderers should quote rate for the equipment / item as per specifications mentioned. In case the offer deviates from the specifications as indicated, details in this respect may be clearly specified. If Bureau of Indian Standards have fixed norm or specifications for the machine given then supply has to be made as per BIS Standards in addition to specification mentioned.
- 1.7. The supply of spare parts of machine will always be made directly by the manufacturers of respective make of machine to the Institute at least for a period of 5 years initially subject to revision to ensure originality of spare parts and their timely availability to the users.
- 1.8. Trial production of feeds with different ingredients is need to be shown to the customer satisfaction.
- 1.9. **QUOTATION OF RATE**
 - 1.9.1 The prices must be firm and no variation in the same shall be permitted on any account except on account of imposition of any tax or duty by the Govt. after the date of submitting the tender.
 - 1.9.2 The prices quoted should include packing, forwarding, and insurance charges F.O.R. destination. The tenderers shall be responsible for the safe delivery of goods at site.
 - 1.9.3 If it is desired to ask for excise duty/or any other charges, as extra, this must be specifically stated. In the absence of any such stipulation, it will be presumed

that the prices include all such charges and no subsequent claims will be entertained.

1.9.4 The system has to be installed in Fisheries Technology, Training and Incubation Centre, Muttukadu, ECR, Kancheepuram District. Installation charges along with terms and conditions may also be quoted separately, if any.

1.9.5 The tenders are to be submitted in two separate sealed envelopes – one envelope containing only the technical Specifications of the equipment offered along with photocopies of test reports and other details of the orders executed in the past and job in hand and the other one containing the prices. In the first instance, the sealed envelope containing the technical specifications and other details will be opened as indicated in tender notice in the presence of the representatives of the parties who may wish to attend. After its evaluation the tender containing the prices will be opened and the date of the opening, if any, would be communicated to the parties concerned. At the top of the envelop, tenderers should mention in the following manner.

TENDER FOR THE SUPPLY as indicated in Tender Notice(TECHNICAL)
ON THE OTHER ENVELOP "TENDER FOR THE SUPPLY..... as indicated
in Tender Notice(Price). In case, this requirement is not fulfilled by any of
the tenderer, his tender is liable to be rejected.

Both envelops may be kept in single envelop and Earnest Money draft should be enclosed with the technical bid envelop.

1.9.6. In case rebate can be given for large order, please indicate the same.

1.10 DELIVERY DATE

This equipment and installation is immediately required by the Director i/c, Fisheries Technology, Training and Incubation Centre. The tenders must state in his tender the period within which delivery / installation will be completed.

1.11 PERIOD FOR WHICH THE OFFER WILL REMAIN OPEN

The tenderers shall keep the offer open for acceptance for a period of at least 6 months from the date of opening of the tender. If the last date is declared a holiday in the office, the offer shall remain open for acceptance till the next working day.

1.12 TERMS OF PAYMENT

The standard payment terms shall be as follows:-

- a) 60% payment shall be made after the receipt of material in satisfactory condition and on completion of installation.
- b) 40% payment shall be made after commissioning and satisfactory performance during trial and testing.

Following documents shall be submitted for making the payment.

- a. Invoice (original) – Two copies
- b. List of items – Two copies
- c. Certificate from the responsible officer stating that equipments have been received in good condition and has been commissioned at the Institute and found in satisfactory working condition during trial and testing.
- d. Original inspection report

iii) Printed terms and conditions of the tender shall not be considered as forming part of the tender.

All supplies shall be according to the description and confirming to the specifications of the approved offer and design. The decision of the University shall be final as to the quantity of the supplies received and binding upon the supplier. In case any other article is supplied which is not according to the approved offer and design it shall be liable for rejection.

1.13 RIGHT OF ACCEPTANCE

The Institute does not bind itself to accept the lowest or any other tender and reserves the right to reject the whole tender or part thereof without assigning any reasons thereof.

1.14 LAST DATE OF RECEIPT OF TENDER AND OPENING OF TENDERS

The tenders should reach the office of the Director i/c, Fisheries Technology, Training and Incubation Centre, OMR Road, Vaniyanchavadi, Kelampakkam Post, Kancheepuram District – 603 103 on or before as indicated in Tender Notice at 23.05.2017 at 3.00 pm and tenders shall be opened at 3.30 PM on 23.05.2017 in the presence of such tenderers and their representative who wish to attend.

1.15.1 The tenderers shall not be permitted to withdraw their tender within the validity period of the offer. If they withdraw the same, their Earnest Money shall be forfeited.

1.15.2 The earnest money of unsuccessful tenderers shall be returned without interest, after the tenders are settled by means of a crossed cheque and the Institute will not be responsible for reimbursing to the tenderer, the Banks commission for encashing the same.

1.16 SUCCESSFUL TENDERERS

1.16.1 The acceptance of the tender will constitute binding contract between the Institute and the tenderers. However, the tenderers shall also execute the formal contract within 15 days in the prescribed form subject to such modifications as may have agreed to before acceptance of the offer. The cost of stamping the formal contract shall be borne by the successful tenderer.

1.16.2 If the successful tenderer fail to execute the formal contract within the prescribed time, his earnest money shall stand forfeited forthwith. The forfeiture of the EMD will not be in any way absolve tenderer from reimbursing the institute the damages which the Institute may suffer and the tenderer shall be liable to pay the same in accordance with the risk purchase clause contained in the contract prescribed.

Sd-
Director, i/c,
Fisheries Technology, Training and Incubation Centre,
OMR Road, Vaniyanchavadi,
Kelampakkam Post, Kancheepuram Dist. 603 103