



Government of Kerala
Directorate of Dairy Development Department
Pattom, Thiruvananthapuram

Notice Inviting Tender

Ref : File No: DDDKER/3114/2023-F1 Dated.....

e-Tenders (online bids only) are invited through Kerala Government official e-Procurement portal <https://etenders.kerala.gov.in> for the **Supply of Muffle Furnace** as per the details and terms and conditions given below.

TENDER DETAILS

Sl No	Description	
1.	<i>Mode of Tender submission</i>	<i>Online through e-Procurement portal at https://etenders.kerala.gov.in</i>
2.	<i>Tender inviting Authority</i>	<i>Director, Dairy Development Department</i>
3.	<i>Date & Time of Publication of Tender</i>	<i>27/1/25 ,3pm</i>
4	<i>Last date with time for receipt of Tender</i>	<i>10/2/25 ,4pm</i>
5	<i>Date of opening of Tenders</i>	<i>11/2/25</i>

6	Estimate Amount	3,60,000/-	
7	Earnest Money Deposit (EMD)	3600/- 1% (rounded to the nearest rupees) of the total cost, subject to a minimum of 1,500	Online Remittance only through https://etenders.kerala.gov.in
8	Tender Fee	0.15% OF COST. ROUND TO NEAREST 100. Max. Rs.25000 Rs.540+ GST@ 18% Rs.97= Rs. 637/-	
9	Contact Person of Department of Dairy Development for inquiry of technical details	Smt. Sheeba Khamer Joint Director (SDL) Directorate of Dairy Development, Pattom, TVM Ph:0471 2440074	
10	Name & address where queries/correspondence concerning this tender is to be sent	Department of Dairy Development, Pattom Palace P O, Pattom, Thiruvananthapuram . 695004 e-mail: jd-sdl.dairy@kerala.gov.in, cru.ddd@kerala.gov.in n Phone: 04712440074 Website: www.dairydevelopment.kerala.gov.in	

TECHNICAL SPECIFICATION

	A muffle furnace generates the high-temperature up to 1100 °C and turns the sample into ash. The chemical composition can be determined easily after determining the ash content. It is the best way to determine the quality and levels of silica of the food products.		
SI NO	MINIMUM REQUIREMENTS		COMPLAINCE YES/NO
	PARAMETERS	REQUIREMENTS	
1.1	Inside Chamber Volume	≥12 L	
1.2	Temperature	Ambient Temperature - 1100°C	

		with continuous operation at 1000 °C	
1.3	Insulating Material	Alumina ceramic / High quality fiber material	
1.4	Heater	<ul style="list-style-type: none"> • 2/4-side moulding wire • The chamber section should be heated by six to eight Super Kanthal Molybdenum disilicide heating elements (Super 1800 grade MoSi2)/ AF wire - Heating from two sides by ceramic heating plates suspended in a chamber made of high temperature refractory fiber lined with a combination of ceramic fibre blankets • Heating coil should be insulated 	
1.5	Furnace Housing	Rust Resistant Textured stainless steel sheets/ Metal with Chemical and Corrosion Resistant Coating	
1.6	Air inlet	Should have Adjustable air inlet available with instrument as standard	
1.7	Exhaust air	Should have Exhaust air Outlet	
1.8	Power Consumption	5000 Watts (Maximum)	
1.9	Temperature accuracy	+/- 5.0 °C	
1.10	Thermocouple	N / K Type	
1.11	Temperature Control	Touch Screen PID automatic and programmable power control with necessary safety features · Over-temperature limiter with adjustable cut-out temperature for thermal protection class 2 in accordance with EN 60519-2 as temperature limiter to protect the furnace and load	
1.12	Other Features	<ul style="list-style-type: none"> • Ramping • Timer Control • Minimum 5 programs and 5 steps. • Controller and furnace should be from same • Possible to set the rate of 	

		<p>temperature change ($^{\circ}\text{C}/\text{min}$) (Ramp function) to control it</p> <ul style="list-style-type: none"> • Precision temperature control with a 3-point calibration process or Better • Timer(wait on, wait off) and Ramp(temperature increase rate) function. • Possible to set the rate of temperature change ($^{\circ}\text{C}/\text{min}$) (Ramp function) to control it. • ceramic insulation materials or Better. • Stable temperature control through digital PID control. • High-precision temperature control over a wide range of temperatures through a 3-point calibration process. • A safety door lock function that opens only below the door lock temperature set by user. • A built-in electronic overheat protection system that prevents the equipment from being damaged due to overheating.. • The equipment stops working when the door is opened for safe use • Should Work at 240 V, 50 Hz , Single Phase Power Supply 	
1.13	Operation Temperature Time	35 -90Min from Ambient Temperature to 1000 Degree Celcius	
2	ACCESSORIES		
2.1	Al ₂ O ₃ Sample Plate	1 Set	
2.2	Crucible Clip	2 Nos	
2.3	Protection Glove	2 Pair	
2.4	Crucibles 50 ml	12 Nos	

	All other Accessories and Components for Proper Working of Equipment at Full Fledge.		
3	Operating manuals, service manuals, other manuals	Should provide: - 7. User, technical and maintenance manuals in English language 8. List of equipment and procedures required for local calibration and routine maintenance 9. Service and operation manuals to be provided Advanced maintenance tasks documentation, if any. 10. Application Book is Available	
4	Recommendations or Warnings	Any warning signs would be adequately displayed	
5	Warranty	3 year after satisfactory installation and working. With 3 Free Preventive Maintenance per Year Under Warranty Period. The Warranty Includes all the Parts Except Consumables. ** Provision should be there to extend the warranty up to 2 years (at least)	
6	AMC	Amc Quote for next 7 years after warranty	
7	List of Spares and Accessories	List of all spares and accessories (including minor) with part numbers and price, required for maintenance and repairs in future after	

		guarantee/warranty period should be attached	
8	Training	The supplier will have to carry out successful Installation at the laboratory premises (where ever the system has to be installed) and provide on-site comprehensive training for a minimum of two scientific personnel operating the system till customer satisfaction	
9	Quality Requirement	<p>7. Should be compliant with the requirements of FDA/CE/BIS Electrical safety conforms to the standards for electrical safety IEC 60601- General requirements (or equivalent BIS Standard)</p> <p>8. Should have necessary certification for safety and quality standards from national /International bodies</p>	
10	Declaration of Conformity	Should have CE certificate and the following harmonized standards were applied DIN EN 61010-1 (07.2011) DIN EN 61000-6-1 (10.2007), DIN EN 61000-6-3 (09.2011)	
11	Thermal protection class Furnace	Should be according to DIN EN IEC 60519-1	
12	IQ/PQ/OQ	On site IQ, OQ,of instrument along with document to be provided & supplier to assist till satisfactory PQ of instrument	
13	After sales service/ Post warranty	<p>7. Contact details of manufacturer, supplier and local service persons, with mobile number</p> <p>8. Details of Service centres</p>	

		<p>in INDIA and Minimum 2 service Engineers in South India with their names and mobile numbers</p> <p>9. Should have a good after sales service/technical support capable of reaching at short notice the places where instrument is installed. Visits and unlimited breakdown calls by service/application support, engineers should attend immediately without fail.</p> <p>10. Service and spare availability of brand for 10 years to be given as agreement on stamp paper</p>	
14	Compliance statement	The quote should also include a compliance statement vis-à-vis specifications in a “tabular form” clearly stating the compliance and giving justification, if any supported by technical literature. This statement must be signed, with the company seal, for its authenticity and acceptance that any incorrect or ambiguous information found submitted will result in disqualification.	
15	Outage conditions	<p>After 3 years of warranty period, 7 years of AMC shall be undertaken by the supplier. This would also include:</p> <p>7. Preventive maintenance service: The seller will provide a minimum of 2 Preventive Maintenance Service visits during a year to the operating base to carry out functional checkups and minor adjustments/tuning as may</p>	

be required.

8. Breakdown Maintenance

Service: In case of any breakdown of the equipment/system, on receiving a call from the buyer, the seller is to provide maintenance service to make the equipment/system serviceable.

9. Response time: The response time of the seller should not exceed 48 hours from the time the breakdown intimation is provided by the Buyer.

10. Maximum repair turnaround time for equipment/system would be 3 days. However, the spares should be maintained in a serviceable condition to avoid complete breakdown of the equipment/system.

11. Company/Brand should have an experience of 8 years in the supply .

12. OEM authorization certificate is required

13. The delivery challan shall indicate the model number & serial number of items delivered

14. All equipment's should be from a reputed OEM of non-Chinese origin as per MHA guide lines

15. Bidder must have minimum 1cores or above Turnover (Attach Proof)

16. Buyer reserves the right to reject/accept the items based on the market survey

17. The bidder should clearly mention the make and

		<p>model number in BOQ compliance</p> <p>18. The firm should clearly satisfy the warranty terms and the quoted items should meet all the technical specifications.</p> <p>19. Quoted price should be inclusive of all taxes ,installation, training, freight loading and unloading</p>	
16	Additional Requirements	<p>7. The bidders must show technical demonstration of the quoted model onsite or other labs at the time of Technical evaluation of bids .If Requested</p> <p>.</p> <p>7. The instrument shall be delivered with a Verification Test document that certifies that instrument has been performance tested in factory (confirming analysis performance).</p> <p>8. The Instrument shall strictly confirm to the specifications with relevant brochure and photograph and website information of the product</p>	
17	Payment	Payment only after installation, validation and performance	
18	Delivery	21 Days From the Date of Work Order	
	**List of Consumables	<p>7. Crucibles</p> <p>8. Gloves</p>	

Tender- 1 - Dairy Development Department

Supply of Muffle Furnace

Mandatory documents required to be uploaded

Proposed product specifications shall be included as scanned signed copies in the e portal along with Tender

1. Covering Letter
2. General Information of the company and company profile,
3. Detailed component wise technical specification of Muffle Furnace with brochures and compliance statement
4. Experience pertaining to supply of quoted model Muffle Furnace for at least 5 years.
5. No. of installations / supplied to Government firms / institutions last year
6. Copy of work orders(at least 3 nos for last 2 years.
7. Details of service centers and service personnel in Kerala with contact details.
8. Warranty details offered (Minimum 3 year)
9. Details of Annual turn over of 1 crores for last 2 years.(proof needed)
10. If the supplier is not the original manufacturer ,authorization certificate has to be submitted along with tender .
11. Undertaking that the Company will give necessary installation and training onsite.
12. Compliance statement

Important Terms and Conditions:

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1. Bids and Tender Documents, signed physically and/or digitally with a valid Digital Signature Certificate, are to be submitted online only in the designated covers on the official web portal of e Tenders Kerala.
2. **Bidders who apply for Muffle Furnace will only be considered for technical tender evaluation. Others will be rejected.**
3. Financial Bids should be uploaded only in the specific BOQ form available on the web portal against this Tender. Tenders, which are not in the prescribed BOQ form, are liable to be rejected.
4. Payment of the Total amount of EMD & Tender Fee should be made through Online Payment mode as a Single Transaction only.
5. An agreement should be executed and signed by the Tenderer in the Kerala Stamp Paper of value Rs.200/-. A specimen form of agreement is given in the Tender Documents. Hard Copy of this agreement should be send to the Tender Inviting Authority on award of contract.

6. Online Opening of the Tenders will be done on the specified Date and Time through the official web portal of Tenders Kerala.
7. All items quoted must comply with the respective Specifications mentioned in the Tender notice and Bidders should upload the details and specifications of their items quoted.
8. Rate of the item should be quoted for delivery throughout the state.
9. The final total rate of Muffle Furnace will be considered for selection of L1 bidder.
10. The successful tenderer should supply the Item within 21 days of execution of agreement of contract
11. The Tender Inviting Authority (TIA) will not be responsible for any sort of the delay or the difficulties faced during the submission of bids through online by the bidders.
12. In addition to these all other General Conditions annexed in the Stores Purchase Manual of Government of Kerala are also applicable to this tender.

DIRECTOR