



KERALA AGRICULTURAL UNIVERSITY
Department of Agricultural Engineering
College of Agriculture, Vellanikkara, Thrissur – 680 656.

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No. PMFME/CIF/T/03/2025

Dated 01-12-2025

TENDER NOTICE

Sealed competitive tenders are invited for supply and installation of “**Fat analyser cum Extraction Unit and reagents for extraction**” under the "PM Formalization of Micro Food Processing Enterprises Scheme (PM FME Scheme)" whose specifications are given below.

FAT ANALYSER CUM EXTRACTION UNIT (1 No.) AND REAGENTS FOR EXTRACTION

a. General Description

A Fat analyser cum Extraction Unit designed for rapid and accurate determination of fat and essential oil content using Soxhlet extraction and Clevenger distillation methods, in accordance with AOAC and ISO standards. The unit shall be suitable for extracting solid, semi-solid, and liquid food samples. It incorporates advanced safety features and offers precise, reproducible results, making it ideal for routine analysis and research applications in food, dairy, and oil laboratories.

SI No.	Specification	Quantity
1	Fat analyser cum Extraction Unit and reagents for extraction	1 No.
	A. Fat Analyser Unit	
	Technical Specifications	
	<ul style="list-style-type: none">High-quality borosilicate glass for the extractor body to ensure durability and thermal resistance.	6 Nos.
	<ul style="list-style-type: none">A heating mantle with a heating element and a temperature controller (energy regulator or a digital controller) to ensure uniform heating.	6 Nos.
	<ul style="list-style-type: none">Round-bottom flask with a capacity of 250ml.	6 Nos.
	<ul style="list-style-type: none">Reflux condenser to condense the solvent for continuous extraction.	5 Nos.
	<ul style="list-style-type: none">Cellulose thimble with 25 mm diameter and 80 mm height	5Nos.
	B. Extraction Unit	1No.
	Technical Specifications	
	<ul style="list-style-type: none">High-quality borosilicate glass Clevenger for the extractor body to ensure durability and thermal resistance.	3 Nos.
	<ul style="list-style-type: none">The apparatus is constructed from heat-resistant, low-expansion borosilicate 3.3 glass for durability and safety during heating and distillation.	
	<ul style="list-style-type: none">3. Condensers to cools and condenses the vaporised oil and water mixture (300mm in length with a 24/29 joint)	
	<ul style="list-style-type: none">4. A graduated receiver to collect the condensed oil (10 ml and 5 ml, with a stopcock for draining)	3 Nos.

C. Reagents for Extraction		
1. Separating Funnel – 500 ml & 250 ml		2 Nos.
2. Hexane		10 L
3. Ethyl acetate		5 L
4. Petroleum Ether		3 L
5. Acetone		3 L
6. Dysol 90%		10 L
7. Diethyl ether		2 L



[Signature]
Professor & Head
 Professor & Head
 Dept. of Agril. Engineering
 College of Agriculture K.A.U.
 Vellanikkara, Thrissur- 680656

The tender documents and conditions

1. The tender form may be downloaded from the following web link in the Internet:
<http://www.kau.in/tenders>.
2. The cost of tender form is rupees 0.20 % of PAC (rounded to nearest 100/- minimum Rs. 400/-) + 12% GST. A Demand Draft for the amount drawn in favour of The Professor and Head, Dept. of Agricultural Engineering, College of Agriculture, , Vellanikkara, Thrissur 680 656 payable at SBI KAU Main Campus, Vellanikkara (Code-70670) should be enclosed along with the tender submitted.
3. Earnest Money Deposit (EMD) @ 1% of the cost of the equipment offered may be remitted by a separate Demand Draft drawn as detailed above.
4. Agreement on Kerala Stamp Paper for Rs. 200.00 : Form of agreement can be downloaded from the website <http://www.kau.in/tenders> under the Related Documents section.
5. The purchase, installation and commissioning should indicate separately. Taxes, customs, excise duty and any other cost for its installation, if any should also be included.
6. The sealed cover containing the tender documents should be super scribed "Tender for supply and installation of **Fat analyser cum Extraction Unit and reagents for extraction** and sent to The Professor and Head, Dept. of Agricultural Engineering, College of Agriculture, Vellanikkara, Thrissur, Kerala - 680 656.
7. Tenders received late or incomplete in any respect will be summarily rejected without notice and the decision of the undersigned on such matters will be final.
8. Successful tenderers will have to execute an agreement and remit security deposit @ 5% of the value of the articles ordered, less the amount of EMD, drawn as DD or fixed deposit receipt.
9. The delivery of the item needs to be completed within the prescribed period

10. The service and maintenance details for the machine, along with the warranty period, should be provided.
11. Details of warranty, after sale service offered on expiry of normal warranty period, available should be mentioned.
12. The undersigned reserves the authority to accept or reject any or all the tenders without assigning any reason.
13. The decision of the undersigned in finalizing the tenders shall be final and binding.
14. Leaflets/ brochures/ catalogues of the equipment describing its features, applications, specifications etc. should be provided along with tender. A drawing of the table assembly should be provided along with tender
15. Tenders will be received up to 10.00 AM on 15.12.2025
16. Tenders will be opened at 11AM on 15.12.2025 in the presence of the tenderers present at that time.
17. The items should be supplied and bills submitted before 14.01.2026
18. All conditions of Kerala government tenders are applicable in this case also. Further information can be had from the web site <http://www.kau.in/tenders> or from the office of The Professor and Head, Dept. of Agricultural Engineering, College of Agriculture, Vellanikkara, Thrissur, Kerala - 680 656.




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