

REQUEST FOR QUOTATION (RFQ)

Supply, Installation, Testing and Commissioning of a Continuous Centrifugal Cream Separator

Ref No.: LDFCS/05/RFQ/2026

Purchaser: LIMURU DAIRY FARMERS COOPERATIVE SOCIETY LTD

Country: KENYA

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1. Introduction

Limuru Dairy Milk Processing Plant (LMPL) invites quotations from qualified manufacturers, authorized distributors and dairy equipment suppliers for the supply, installation, testing and commissioning of one (1) Continuous Centrifugal Disc Stack Cream Separator suitable for continuous industrial milk processing. The separator shall continuously separate whole milk into cream and skim milk with automatic solids discharge and full integration into the existing processing line.

2. Design Conditions

Parameter	Requirement
Separator Type	Continuous Centrifugal Disc Stack Cream Separator
Product	Raw Milk
Processing Capacity	5,000 Litres per Hour (LPH)
Separation Capacity	5,000 LPH (Continuous Operation)
Product Inlet Temperature	55–65°C
Separation Principle	High-Speed Continuous Centrifugal Disc Stack Separation
Bowl Type	Self-Cleaning Solid-Wall Disc Stack Bowl
Solids Discharge	Automatic Partial and Total Sludge Ejection
Cream Fat Content	Adjustable 35–45%
Residual Fat in Skim Milk	≤0.05%
Bowl Speed	6,300–7,500 RPM
Inlet Pressure	Approx. 0.05 MPa
Outlet Pressure	0.1–0.4 MPa via Integrated Centripetal Pumps
Motor Rating	7.5–15 kW, IE3 Premium Efficiency or Better
Product Contact Parts	AISI 316L Stainless Steel
Separator Bowl	Duplex Stainless Steel or Equivalent
Housing Frame	Polished AISI 304 Stainless Steel
Sealing System	Hermetic or Semi-Hermetic Hydro-Hermetic
Standardization	Automatic Cream Standardization
Cleaning	Fully Automatic CIP Compatible
Automation	Fully Automatic PLC Controlled
HMI Language	English

PLC Programming Documentation	English
Operation & Maintenance Manuals	English

3. Scope of Work

A. Continuous Centrifugal Cream Separator

- Continuous centrifugal disc stack separator with 5,000 LPH capacity.
- Continuous cream and skim milk discharge.
- Automatic cream standardization.
- Automatic partial and total sludge discharge.
- Hermetic product inlet with low aeration.
- Heavy-duty hygienic dairy construction.
- Preferred manufacturers: Alfa Laval, GEA Westfalia, Tetra Pak, SPX Flow, HAUS, Reda or approved equivalent.

B. Separator Bowl Assembly

- Solid-wall disc stack bowl.
- Automatic opening and closing mechanism.
- Precision balanced rotating assembly.
- Wear-resistant disc stack.
- Dynamic balancing certificate.

C. Drive System

- 7.5–15 kW premium efficiency motor.
- Direct drive or equivalent.
- Heavy-duty bearings.
- Vibration isolation.

D. Automation & Control

- PLC (Siemens, Allen-Bradley, Schneider or equivalent).
- Colour touch-screen HMI.
- Automatic sludge discharge control.
- Automatic cream standardization control.
- Pressure and speed monitoring.
- Alarm diagnostics and maintenance reminders.
- All HMI screens, alarms, manuals and PLC documentation shall be in English.

E. CIP Integration

- Fully compatible with plant CIP system.
- CIP inlet and outlet connections.
- Self-cleaning product passages.
- Supplier to specify cleaning chemicals, temperatures, flow rates and cycle durations.

F. Installation Works

- Mechanical installation.
- Electrical installation.
- Testing and commissioning.
- Performance trials.
- Operator and maintenance training.

4. Schedule of Supply and Prices

Item	Description	Qty	Unit	Unit Price (KES)	Total Price (KES)	Make/Model	Country	Remarks
1	5,000 LPH Continuous Centrifugal Cream Separator	1	No.					
2	Disc Stack Bowl Assembly	1	Set					
3	Cream Standardization System	1	Set					
4	PLC/HMI Control Panel (English)	1	No.					
5	Instrumentation Package	1	Set					
6	Installation, Testing & Commissioning	1	Lot					
7	Operator Training	1	Lot					
8	Operation & Maintenance Manuals (English)	3	Sets					
9	One-Year Recommended Spare Parts	1	Lot					
10	Warranty (24 Months)	1	Lot					

Sub-Total _____

VAT (if applicable) _____

Grand Total (KES) _____

5. Performance Guarantee

- Continuous processing capacity of 5,000 LPH.
- Residual skim milk fat $\leq 0.05\%$.
- Cream fat adjustable between 35–45%.

- Automatic sludge discharge.
- Stable operation at 6,300–7,500 RPM.
- Full CIP compatibility.
- English HMI, PLC documentation and manuals.
- 24-month warranty.

6. Documentation

- Technical Datasheets
- GA Drawings
- Foundation Drawings
- P&IDs
- Electrical Schematics
- PLC Software Backup
- HMI Backup
- Operation & Maintenance Manuals (English)
- Spare Parts Catalogue (English)
- Warranty Certificate

7. Commercial Requirements

- Equipment Cost
- Installation Cost
- Commissioning Cost
- Delivery Period
- Warranty
- Quotation Validity
- Local After-Sales Support
- Availability of Spare Parts

8. Completion

The project shall be deemed complete after successful installation, testing, commissioning, operator training and formal acceptance by LMPL.