




 <b>eTendering System Government of Kerala</b> <b>Published Corrigendum Details</b>				
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<b>Organisation Chain :</b>	Kerala Co-operative Milk Marketing Federation Ltd  KCMMF Ltd Head Office, Pattom, Trivandrum  Projects			
<b>Tender ID :</b>	2025_KCMMF_727485_1			
<b>Tender Ref No :</b>	KCMMF/KHO/PROJ (533) /2025			
<b>Tender Title :</b>	10 KL Multi stage homogenizer Cream separator			
<b>Corrigendum Type :</b>	Date			
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eTendering System Government of Kerala					
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<b>Organisation Chain :</b>	Kerala Co-operative Milk Marketing Federation Ltd  KCMMF Ltd Head Office, Pattom, Trivandrum  Projects				
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<b>Tender Title :</b>	10 KL Multi stage homogenizer Cream separator				
<b>Corrigendum Type :</b>	Technical Bid				
Corrigendum Document Details					
Corr.No.	Corrigendum Title	Corrigendum Description	Published Date	Document Name	Doc Size (in KB)
1	CORRIGENDUM ON TECHNICAL SPECIFICATION	A duly signed copy of the bid query reply was submitted along with the tender document.	31-Jan-2025 03:13 PM	CGMSPECIFICATION.pdf 	431.26

**CORRIGENDUM**

**Design, Supply, Erection, Testing and Commissioning of 10 KL Multi-stage homogenizer(2500 psi) & Cream separator with all accessories and necessary training to the operating crew of our milk processing unit at Central Products Dairy, Alappuzha in LSTK basis.**

**Tender ID : 2025\_KCMMF\_727485\_1**

**Tender Reference Number : No. KCMMF/KHO/PROJ (533)/2025**

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A duly signed copy of the bid query reply was submitted along with the tender document.

**10 KL Homogenizer & Cream Separator machines procurements - Bid Query & Reply**

<b>SL No</b>	<b>Bidder's Query</b>	<b>KCMMF LTD reply</b>
<b>A</b>	<b>10 KL Homogenizer</b>	
1	Technical specification for Homogenizer sub clause 2.1 Capacity it is mentioned that 10, LPH skid mounted type-  We presume that "Machine mounting on foundation leg mounted with Vibration resistance pads"	Machine mounting on foundation legs or structure with vibration resistance pads required
2	As Per the specification 2.1.1.e, Homogenizing	

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	Head – two stages hydraulic actuated with stellite valve & valve seat. Impo, stellite mall rich.- <b>We requested to add the pressurized valve shall be Hydraulic/ Pneumatic by actuates.</b>	Pressure in both stages of the homogenizer head shall be hydraulically adjusted as per the requirements.
3	As per the specification vide item 2.1.1.f, the homogenizer valve materials requested of - Stellite – 20 materials- <b>We requested to add the materials of Tungsten Carbide which is more stronger materials than requested by the purchaser</b>	Any superior quality of materials used for the construction of the machine and associated components is acceptable. The Bidder may offer stellite/ tungsten carbide materials for the homogenizing device.
4	It is noticed a note in 2.1.1 design” <b>Note: - Pressure release need at the outlet of the homogenizer and in case of increase in outlet pressure, homogenizer need to switch of automatically”</b> <b>We presumed that it is requesting high pressure mechanical safety- We will provide high pressure relief mechanical safety valve in compression block.</b>	During the milk processing operation if pressure increases beyond the limit at the output of homogenizer, we require Pressure Relief valve to be automatically opened and at the same time Homogenizer needs to be switched off to safeguard the Pasteurizer.  Also during the milk processing operation, if the product pressure exceeds the set value at the homogenizing head, machine should not get jammed and there should not be milk leakage to drain. Hence, homogenizer should be so designed to include a hydraulic relief valve to ensure that no time will the product pressure exceed the set value.
5	We observed a discrepancy in the lubrication system vide item No 2.1.1.5 and 2.1.2.1. first requesting forced feed lubrication and other of	Suitable lubrication system to be provide as per

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	Splash lubrication- <b>we will provide Forced lubrication in crank case</b>	manufacturer design
<b>B</b>	<b>10 KL CREAM SEPERATOR</b>	
1	As per the specification vide clause 2.2.1, the milk inlet temperature is shown as 45-55 Deg C <b>with maximum 6-8% FAT-</b>  <b>We presume that the product incoming temperature as 52-55 Deg C. confirm</b>	There was a typing error in the specification it may be read as with minimum 3.8 % to maximum 6% FAT  The existing cream separator the incoming milk temperature is 35-45 Deg C and we were getting 72% FAT  <b>Hence comply specification.</b>
2	Obtaining cream with 70% to 72% fat.  <b>We presume that the percentage of cream obtained shall be of 28% to 45%- confirm</b>	We were now getting 72 % FAT from the old machine and hence expecting more efficiency with improved technology. Hence please comply the specifications.
3	The specification is seen as mixed type of cleaning refers 2.2.3 & 2.2.4.  <b>Please specify Milma required which type Manual or Self cleaning</b>	Specification requesting to supply with Manual cleaning type and the required may be read in conjunction with the technical requirement of manual type machine.
<b>3a (new)</b>	<b>2.2.2 B % fat in Skim milk – Can 0.05-0.08% can be delivered on rated capacity of 10.000l/h with preconditions mentioned below.</b>  <b>Pre-conditions raw milk</b> <ul style="list-style-type: none"> <li>• Quality of the raw milk Grade I</li> <li>• pH &gt; 6.6 – 6.8</li> </ul>	Not acceptable. The required percentage of FAT shall be obtained without any pre condition. Hence please comply specifications.

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- Total plate count  $\leq 1,000,000$  cfu / ml
- Cell count  $\leq 300,000$  / ml
- Taste & appearance Pure, natural
- No added water Freezing point  $\leq -0.520$  °C
- Storage time  $< 48$  hours
- Storage temperature  $\leq 6$ °C

If the raw milk has been in storage for  $\geq 48$  h the skimming efficiency can decrease by up to 10 % due to mechanical treatment during this period!

Any additions to the raw milk (i.e. buttermilk, homogenized milk, etc.) are not permitted.

The raw milk reception and milk treatment plant should be designed in that way that air is not incorporated into the product, which could be caused by:

- improper filling from the tank truck
- improper unloading of the silos
- improper pumps
- improper sized piping systems
- improper balance tanks (milk running volume = 3 % of feed capacity)

Aim is to have less than 1.5% air in the feed of the separator. Higher values lead to a reduction of the skimming efficiency.

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	<p>Machine parameters to follow:</p> <ul style="list-style-type: none"> <li>• Separation temperature should be between 52 – 58° C.</li> <li>• Feed capacity has to be constant.</li> <li>• Cream fat content has to be in a range of 28 - 45 % fat.</li> <li>• Machine must be properly CIP-cleaned according to the recommendation of the manufacturer.</li> </ul>	
4	<p>As per the specification vide item no, 2.2.5, centrifuge milk feeding shall be from the bottom.</p> <p>We request to correct as the feed from the top of centrifuge</p>	<p>The existing machine milk feeding also from the bottom side. Hence recommended to provide through bottom side for getting more efficiency. Comply with specifications</p>
5	<p>Specification calls with frame for the separator &amp; motor covers as steel cladded-</p> <p>We requested to change as Non cladded steel</p>	<p>The equipment required for milk processing. Hence upper part of and frame hood shall be of stainless steel. Lower part of the frame shall be encased in stainless steel- Must meet with food processing/ Dairy standards.</p>
6	<p>Item no 2.2.6 shall be modified as Belt driven centrifuge for the drive unit</p>	<p>Comply specifications (Shaft mounted)</p>
7	<p>Specification &amp; supply required for cream separator-</p> <p>But the features mentioned in 2.2.8 are mostly for clarifier. The minimum fat contentment is shown as Zero- it shall be 0.1 % minimum</p>	<p>We required cream separator and all standard features shall be provided by the supplier.</p> <p>The minimum fat content in the sludge shall be as per tolerance limit specified in the standard in which machine manufactured meeting Alpha Level.</p>

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8	2.2.7 Drive VFD Control – <b>Manual Machines comes with Star Delta start</b>	Suitable drive shall be provide for manual operation
9	As per clause 2.2.10-it is requesting- Vibration sensor for overall vibration monitoring, Frame mounted 4-20mA. –  <b>We will provide anti vibration pad and during the commissioning time will show zero vibration with full operation</b>	We required Vibration free machine with a mechanical design adequacy and requires Vibration monitoring system as specified.
10	We presume that vide item no 2.2.11 (10)- Flash light indicating bowl in rotation, Milma requires Speed & rotation of the machine-  <b>We will show the same in HMI display parameters- Manual Machines comes without HMI and panel will be simple star Delta panel without PLC.</b>	The supplier has to provide the integrated operation of the Pasteurizer, homogenizer and cream separator for which automatic operation required through HMI. Manual cleaning required only for cream separator and all other operation via automatically.  Further cream separator shall have a revolution counter to monitor the speed of the rotating bowl.  Hence please comply specification
11	Specification called for self supporting steel platform for the separator in vide item- 2.2.15.  <b>We will provide support for the separator</b>	The equipment shall be provided with suitable structure for stable operations.

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