SPECIFICATION OF DAIRY EQUIPMENTS AND ACCESSARIES

SPECIFICATION OF ANALYZER

Analyzer& stirrer with Battery Backup Charging by Solar & Electricity

A. 1.0	**Milk Analyzer**	Analyzer with external Lithium Battery Backup Stand by –5 – 6 hours, virtual charging by Electric/ Solar panel Cap-50watt. Stirrer Runs with Same power supply to Analyzer with Wi-Fi/ Blue tooth enabled
1.1	Functional Requirement	To test & display FAT,SNF& Added water/ Lactose/Protein/ Salts, /Temp/Density sample Milk.
1.2	Type	Direct FAT:0.5%to12% accuracy+/-0.1% Measuring 12%to15% accuracy+/-0.2% Parameters:SNF:6%to15% accuracy: +/-0.15% Temperature: 1˚C to 40˚C Calculated: CLR:15 Parameters:Protein:2% to 7% accuracy+/-0.1 Lactose:0.01% to 6% accuracy+/-0.2 Resolution: Added Water in Milk 0% to 99% Accuracy:+/-3% FAT,SNF ,Lactose, Protein,Salts:0.01% Temperature: 1˚C CLR:0.5, Added Water:1% Repeatability: FAT:+/-0.07% SNF:+/-0.1%, CLR+/0 Milk Testing time (Measurement-**25sec to 40Sec** Milk price Per Liter on Display
1.3	Technical	Milk Temperature: 1 to 40˚C Measurement Time: **25 Sec to 40** Sample Volume:15 ml Average Speed: 90-120 samples/hr Number of Calibration: 3 Operation Time Limit: Continuous Display: High contrast blue/green
		Backlight4 /line 20-characterLCDDisplay. Average Speed: 90 to 120/hr Environmental: Ambient Temperature 10˚C to 40˚C Conditions: Relative Humidity30 to 80%
1.4	Price Per Liter	NA
1.5	Battery Charging Indicator	NA
1.6	Test & Cleaning Log	Can save test &Cleaning count
1.7	Storage Data on Analyzer	30 days minimum

1.8	Electricals	1.In Put Voltage100-264V 50Hz 2. Battery 12V12ahLi-FeP04 3. Output 2 output(1foranalyzer and 1 for Stirrer) 4. Backup>250sample 5. Solar input 50Wsolar panel 6. Solar charging :MPPT charge controlling 7. Charging source Mains +solar 8. Output voltage supply sequence Mains (Priority 1) (battery priority
1.9	Manual	Operating Manual each in English & Local language per AMCU supply
2.0	Cleaning	Auto Buzzer Required,
2.1	Storage	NA
B.2.2	**Ultrasonic Milk Sample Stirrer**	Detachable
2.3	Functional Requirement	To remove air from fresh milk Sample by vibrations created in the milk before testing of milk.
2.4	Operational Abilities	Mode selection for Type of Milk; (1) cow, Buffalo ,Mixed / single Curve with Cleaning calibration, System error list etc.
2.5	Type	Table Top, Ultrasonic Stirrer
2.6	Stirrer for Ultrasonic Stirrer	Frequency and Time Setting
2.7	Ultrasonic Frequency	20-25KHz(Variable)
2.8	Timer	1-99Sec selectable
2.9	Environment	Suitable for dusty/humid village environment, operating temperature -5to50DegreeC
3.0	Complete Ready to Use	Item complete in all respect with required electric/electronic parts, Ready for use at site.
3.1	MoC For body	AISI304,1.2mmthickminimum
3.2	Operating Voltage &power supply for Milk analyzer	230Volts+/-10,AC,50Hz and 12 Volts DC
3.3	Loose Accessories	Holding bottom tray for spillage-1No. Connectivity through Bluetooth AC Power cable with plug top-1 No. Measuring mugs-2 No Daily cleaning solution– No. of Bottle 3 (Quantity minimum 200ml or equivalent). Weekly cleaning solution- No. of Bottle 2(Quantity minimum 200ml or equivalent) OR Monthly Cleaning solution-No of bottle 2 minimum 200ml or equivalent)
3.4	Certificate	Milk Analyzer must be CE Certified
3.5	Performance Certificate	Performance certificate should be approved from NDDB calf

3.6	Secured calibration	Milk-Analyzer should be Bluetooth/WIFI enabled device and secured calibration is possible through mobile. Only authorized person can operate through secured mobile app, hence error free calibration without any manual intervention. All the historical data of calibration is stored on the cloud
3.7	Preventive	The system should be capable of recording Cleaning data and Error Log, which is stored on the cloud. This data may provide actionable alerts for preventive maintenance.
3.8	Mobile application	Blue tooth enabled Mobile Application
3.9	Warranty	3 Years
4	MOC for enclosure	AISI3040.75 mm thick minimum
4.1	Operational abilities	Mode selection for type of milk-(1) Cow, Buffalo, Mixed/Single curve with cleaning, calibration, system error list etc.

SPECIFICATION OF MICROPROCESSOR BASED DATA PROCESSOR UNIT WITH INBUILT THERMAL PRINTER .

4.2	**DPU** With inbuilt printer & 4G GSM Modem with external antenna with wi-fi, Bluetooth enabled	-Micro processor : 32-bit or higher, 1.5Ghz or higher - Operating System: AOSP/Linux Kernel - RAM: 128MB DDR2 or higher - Memory:256MB Flash - Storage: In Built SD card(8GB or higher) - Clock: Built-in RTC(Real time clock)with Battery - Display:3.2"or higher TFT/ Touch Screen Color LCD/Graphic LCD -Printer: Inbuilt Thermal Printer
	Main Components	DPU
4.3		- Modem:4G Modem with slot for external antenna - Ports:2xUSB,4xRS232 (Wired/wireless) - Key board: USBPC Keyboard - Battery Backup: Inbuilt - Wi-Fi: Wi-Fi Hotspot to transfer data when GSM net work is not available. - Bluetooth: Bluetooth communication capability with Ultrasonic milk analyser, Electronic weighing scale, Remote Digital display.
4.4	Remote Display	- LED height-12.5mm,7 Segment, - RS232 interface, along with 5- meter power and data cable
		Cabinet :ABS/GPSP powder coated rust free cabinet

4.5 The supplier should also provide Annual Maintenance Contract after warranty period on chargeable basis, if felt necessary by the purchaser.

4.6 Training – The supplier shall ensure proper and accurate functioning of all the components of the Milk analyser and impart training to the operating staff in operation,

maintenance and routine check till the operating staffs are confident in operation and routine maintenance.

4.7 Operational & Cleaning SOPs (including leaflet on troubleshooting) - Provide laminated wall chart indicating important steps involved in operation & cleaning of the Milk Analyzer for displaying in DCS.