

AMCU SPECIFICATION

		Earlier specification			Revised specification
Sr.No	Particulars	Specification	Sl No	Particular	Specification
1.0	Basic Operations at Society	<p>All operations are manual or semi-automated at society level. No regular power supply is available and fluctuation in power supply is very high. Clean and dust free environment cannot be guaranteed. The operators may not be IT savvy. Major Activities at Society.</p> <ul style="list-style-type: none"> . Purchase of Milk . Payments to producers for milk poured, government subsidies, incentives for quality etc. . Purchase of Cattle feed. . Purchase of Ghee . Other Purchases . Expenditure for Services . Other Expenditures . Local Sale of Milk . Supply/Sale of Milk to the Union . Sale of Cattle Feed . Sale of Ghee . Support of AH,Aletc . Income from Services . Other Income 	1.0	Basic Operations at Society	<p>All operations are manual or semi-automated at society level. No regular power supply is available and fluctuation in power supply is very high. Clean and dust free environment cannot be guaranteed. The operators may not be IT savvy. Major Activities at Society.</p> <ul style="list-style-type: none"> . Purchase of Milk . Payments to producers for milk poured, government subsidies, incentives for quality etc. . Purchase of Cattle feed. . Purchase of Ghee . Other Purchases . Expenditure for Services . Other Expenditures . Local Sale of Milk . Supply/Sale of Milk to the Union . Sale of Cattle Feed . Sale of Ghee . Support of AH,Aletc . Income from Services . Other Income
2.0	AMCU-Functional Requirements	<ul style="list-style-type: none"> . The Unit should be suitable for instant weighing of milk, measuring record fat content, calculating the amount payable to the member based on fat & weight, printing the amount calculated thereof with member identification details. .This unit should also be used for maintaining the complete record of the collection centre as above together with the details of all transactions of the producers/MCC. .Recommended to incorporate capability for online data transfer to Milk Union and designated local Banks for transfer of payments to milk producers in their bank accounts directly. 	2.0	AMCU-Functional Requirements	<ul style="list-style-type: none"> . The Unit should be suitable for instant weighing of milk, measuring record fat content, calculating the amount payable to the member based on fat & weight, printing the amount calculated thereof with member identification details. .This unit should also be used for maintaining the complete record of the collection centre as above together with the details of all transactions of the producers/MCC. .Recommended to incorporate capability for online data

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					transfer to Milk Union and designated local Banks for transfer of payments to milk producers in their bank accounts directly.
3.0	Computer Hardware and Software	Models of PC offered should be of Enterprises/Business Class Desktop PC (OEM).Home/SMB Class Desktop PC shall not be accepted with Manufacturer Warranty	3.0	Computer Hardware and Software	Model of PC offered should be Enterprises / Business Class Desktop PC (OEM) like .. Dell , HP, Lenovo,ACER etc., assembled desk top PC shall not be accepted with Manufacturer Warranty.
3.1	Processor	. 11 th Generation Intel Core,64 Bit, I-5 Processor	3.1	Processor	. 11 th Generation Intel Core,64 Bit, I-5 Processor
3.2	Form Factor	. Tower Model	3.2	Form Factor	. Tower Model
3.3	Chipset	.Intel Chipset supporting the above processor	3.3	Chipset	.Intel Chipset supporting the above processor
3.4	Memory	. 8 GB DDR3 1333 MHz SDRAM expandable to 16 GB	3.4	Memory	. 8 GB DDR3 1333 MHz SDRAM expandable to 16 GB
3.5	Internal Storage	. 1 TB SATA II Hard Disk 512 GB SSD	3.5	Internal Storage	. 1 TB SATA II Hard Disk 512 GB SSD
3.6	Removable Media	. DVD+/- RW Writer	3.6	Removable Media	. DVD+/- RW Writer
3.7	Graphics	. Integrated Intel HD Graphics supporting 1600x1200 Resolutions	3.7	Graphics	. Integrated Intel HD Graphics supporting 1600x1200 Resolutions
3.8	Audio	. Integrated high definition audio	3.8	Audio	. Integrated high definition audio
3.9	Network	. 10/100/1000 Mbps Gigabit Ethernet	3.9	Net work	. 10/100/1000 Mbps Gigabit Ethernet/ with Wi-Fi Connectivity (802.11n or higher)
3.10	Display Monitor	. 18.5" wide screen LCD/LED Backlit TFT Color HD Monitor with 1366x 768 native resolutions.	3.10	Display Monitor	. 18.5" wide screen LCD/LED Backlit TFT Color HD Monitor with 1366x 768 native resolutions
3.11	Input Devices	. USB Standard Keyboard and USB Optical button Scroll Mouse with Pad.	3.11	Input Devices	. USB Standard Keyboard and USB Optical button Scroll Mouse with Pad.
3.12	Ports &	. 3 Serial Port, 1 Parallel Port, 1 VGA	3.12	Ports &	. 3 Serial Port, 1 Parallel Port, 1

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	Connectors	Port, 1 Microphone/ Headphone Jack, 1 RJ45 Port		Connectors	VGA Port, 1 Microphone/ Headphone Jack, 1 RJ45 Port
3.13	USB Ports	. 6 USB 2.0 Ports (Min. two on front and two on rear side)	3.13	USB Ports	. 6 USB 2.0 Ports (Min. two on front and two on rear side)
3.14	PCI Slots	. Minimum 1 free PCI Slots	3.14	PCI Slots	. Minimum 1 free PCI Slots
3.15	Compatibility	. Window 11	3.15	Compatibility	. Window 11
	Particulars	Specification		Particulars	Specification
3.16	Operating System-11	. Licensed Windows 11 professional 64 bit Preloaded with OS Recovery Media Driver CD.	3.16	Operating System-11	. Licensed Windows 11 professional 64 bit Preloaded with OS Recovery Media Driver CD.
3.17	Anti Virus	.Norton,Symantec,etruat,Macfee,Trend Micro,Quick Heal Latest version with three (3) years license.	3.17	Anti Virus	.Norton,Symantec,etruat,Macfee ,TrendMicro,Quick Heal Latest version with three (3) years license.
3.18	Warrantee obligation	. call should be attended by next business day. .problem resolved within 48 hours of attending the call. .within 48 hours in case any part is to be replaced.	3.18	Warrantee obligation	. call should be attended by next business day. .problem resolved within 48 hours of attending the call. .within 48 hours in case any part is to be replaced.
3.19	Scope of work	. Installation and configuration	3.19	Scope of work	. Installation and configuration
3.20	Application Software	. Supplier to develop and provide Integrated AMCU Software for all functions & requirements of Milk collection centre. Supplier to finalize requirements from EIA for all Milk Collection centers, develop/modify a software and install in each AMCU with a testing period of software for 6 months from the date of installation of software and subsequent one time modifications in the software based on feedback /request from EIA/Milk Collection centers to be done without extra charges. .Software should be Bi-Lingual (English Language) . Data generated from the new system should be compatible with the format in which the data is accepted by the existing system. .The Software should be user friendly, menu driven and provide help facility in local language. .The data input forms, reports, menus etc. should be in English. . The application software, if felt	3.20	Application Software	. Supplier to develop and provide Integrated AMCU Software for all functions & requirements of Milk collection centre. Supplier to finalize requirements from EIA for all Milk Collection centers, develop/modify a software and install in each AMCU with a testing period of software for 6 months from the date of installation of software and subsequent one time modifications in the software based on feedback /request from EIA/Milk Collection centers to be done without extra charges. .Software should be Bi-Lingual (English Language) . Data generated from the new system should be compatible with the format in which the data is accepted by the existing system. .The Software should be user friendly, menu driven and provide help facility in local language. .The data input forms, reports, menus etc. should be in English. .The Software should be user

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		<p>essential by the user may be modified/upgraded to meet the need of the milk collection centre.</p> <ul style="list-style-type: none"> • The software should have provision of connectivity of such milk collection center with milk collection agencies head office in the future. • The supplier should also make necessary changes on case-to-case basis, wherever required. The application package should contain legal copy of the database used. 			<p>friendly, menu driven and provide help facility in local language.</p> <ul style="list-style-type: none"> • The data input forms, reports, menus etc. should be in English. • The application software, if felt essential by the user may be modified/upgraded to meet the need of the milk collection centre. • The software should have provision of connectivity of such milk collection center with milk collection agencies head office in the future. • The supplier should also make necessary changes on case-to-case basis, wherever required. The application package should contain legal copy of the database used.
4.0	DOT MATRIX PRINTER		4.0	DOT MATRIX PRINTER	Impact dot Matrix external printer
4.1	Print Method	Impact dot Matrix external printer	4.1	Print Method	24 pins
4.2	Pins in head	24 pins	4.2	Pins in head	Bi-direction parallel interface USB 2.0 (Full speed)
4.3	Print Direction	Bi-direction parallel interface USB 2.0 (Full speed)	4.3	Print Direction	300 cps high speed draft, LQ and other features
4.4	Print Speed	300 cps high speed draft, LQ and other features	4.4	Print Speed	80 (10 cpi)
4.5	Printable column	80 (10 cpi)	4.5	Printable column	Pull tractor unit
4.6	Paper Handing	Pull tractor unit	4.6	Paper Handing	Manual insertion front or rear in top out: Push Tractor front or rear in top out –front or rear or bottom in and top out.
4.7	Paper path	Manual insertion front or rear in top out: Push Tractor front or rear in top out – front or rear or bottom in and top out.	4.7	Paper path	10000 POH (25% Duty)
4.8	MTBF (Hrs at 25% duty cycle)	10000 POH (25% Duty)	4.8	MTBF (Hrs at 25% duty cycle)	10000 POH (25% Duty)

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4.9	Copy Capability	Original 3 copies	4.9	Copy Capability	Original 3 copies
4.10	Cartridge	Ribbon cartridge Black with 2.5 million characters	4.10	Cartridge	Ribbon cartridge Black with 2.5 million characters
4.11	Compatible OS with Drivers	MS Windows 8/7/Vista/XP(32bit/64 bit),Windows Server 2003/2008/2012 (32 bit/64 bit)	4.11	Compatible OS with Drivers	MS Windows 8/7/Vista/XP(32bit/64 bit),Windows Server 2003/2008/2012 (32 bit/64 bit)
4.12	Accessories	Roll Stand	4.12	Accessories	Roll Stand
5.0	Electronic Weigh Scale		5.0	Electronic Weigh Scale	
5.1	Functional Requirement	To Electronically weigh & digital display of milk quantity in litre in a container	5.1	Functional Requirement	To Electronically weigh & digital display of milk quantity in litre in a container
5.2	Capacity	200 kg	5.2	Capacity	200 kg
5.3	Least Count	20 gm	5.3	Least Count	20 gm
5.4	Weight Accuracy	20 gm as per Standards of W & M Rules 1987 medium accuracy Class III	5.4	Weight Accuracy	20 gm as per Standards of W & M Rules 1987 medium accuracy Class III
5.5	Certification & Stamping	Duly Certified and stamped by W&M Dept. and confirming to IS:9281(pt 1&2) 1979, IS:9281 and IS:9281 (pt.4) 1983 as amended up-to-date.	5.5	Certification & Stamping	Duly Certified and stamped by W&M Dept. and confirming to IS:9281(pt 1&2) 1979, IS:9281 and IS:9281 (pt.4) 1983 as amended up-to-date.
5.6	Display Resolution	1/10,000 (accuracy, Class-III)	5.6	Display Resolution	1/10,000 (accuracy, Class-III)
5.7	Load Cell	300kg S/S ADI	5.7	Load Cell	300kg S/S ADI
5.8	Over Load & shock Load Protection	300% to take impact of loading with audio (beep) visual indication	5.8	Over Load & shock Load Protection	300% to take impact of loading with audio (beep) visual indication
5.9	Platform Size	600 mm X 600 mm	5.9	Platform Size	600 mm X 600 mm
5.10	Platform Moc	AISI SS 304,1.6 mm thick,150 grit top plate	5.10	Platform Moc	AISI SS 304,1.6 mm thick,150 grit top plate
5.11	Platform under frame material/d	.Cold rolled mild steel box of adequate size, Hot dip galvanized after fabrication . All screw/bolts/nuts to be of SS.	5.11	Platform under frame material/de	.Cold rolled mild steel box of adequate size, Hot dip galvanized after fabrication . All screw/bolts/nuts to be of

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	esign		sign	SS.	
5.12	Indication in display EWS Unit	Quantity-7 segment RED LED,6 digits,minimum 1.3 mm height,display for mode of operation zero,tare,kg/litre,by default KG.	5.12	Indication in display EWS Unit	Quantity-7 segment RED LED,6 digits,minimum 1.3 mm height,display for mode of operation zero,tare,kg/litre,by default KG.
5.13	Display Unit Mounting	.Pole mounted type with sturdy base and SS 304,38 mm dia,pipe 1.2 m high. . SS 304 Body IP 55,Tactile Switch keys with feedback response, auto calibration & auto span with drift correction . RS 232 Serial port with protocol to meet requirement of IBM compatible.	5.13	Display Unit Mounting	.Pole mounted type with sturdy base and SS 304,38 mm dia,pipe 1.2 m high. . SS 304 Body IP 55,Tactile Switch keys with feedback response, auto calibration & auto span with drift correction . RS 232 Serial port with protocol to meet requirement of IBM compatible.
5.14	Calibration protection & Sealing Arrangement	.Special arrangement to house PCB & Sealing arrangement	5.14	Calibration protection & Sealing Arrangement	.Special arrangement to house PCB & Sealing arrangement
5.15	Load Cell Cable	Load Cell cable from platform to display unit with reinforced heavy duty PVC conduit.	5.15	Load Cell Cable	Load Cell cable from platform to display unit with reinforced heavy duty PVC conduit.
5.16	Battery for working on power failure	In built, 6 V capacity minimum for 6 hrs.	5.16	Battery for working on power failure	In built, 6 V capacity minimum for 6 hrs.
5.17	Power Supply	As given above with minimum 1 m power cable with plug top AC/SC	5.17	Power Supply	As given above with minimum 1 m power cable with plug top AC/SC
5.18	Model Approval Certificate	Manufacturer to have model approval certificate of regulatory authority/ Govt of India (Weight & Measure Unit)	5.18	Model Approval Certificate	Manufacturer to have model approval certificate of regulatory authority/ Govt of India (Weight & Measure Unit)
5.19	Stamping at Site	Supplier to arrange stamping of each scale at site from local weights & measure inspector before installation. Supplier should include the cost of stamping in the unit of AMCU for the 1 st year only. Stamping of each weighing scale from 2 nd year onwards will be in the scope of EIA.	5.19	Stamping at Site	Supplier to arrange stamping of each scale at site from local weights & measure inspector before installation. Supplier should include the cost of stamping in the unit of AMCU for the 1 st year only. Stamping of each weighing scale from 2 nd year onwards will be in the scope of EIA.

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5.20	Repairing License		5.20	Repairing License	
Sl.No	Particulars	Specification	Sl.No	Particulars	Specification
6.0	Milk Analyzer:	(Single Unit) with Blue tooth wi-Fi facility with Price display	6.0	Milk Analyzer :	(Single Unit) with Blue tooth/ Wi-Fi facility ,Mobile application, CE Certified & Performance certificate must be certified by NDDB CALF
6.1	Analyzer Type	Ultrasonic principle based milk analyzer for testing FAT,SNF and added water.	6.1	Analyzer Type	Ultrasonic principle based milk analyzer for testing FAT,SNF and added water.
6.2	Analyzer CPU	32- Bit Dual ARM Cortex Processor	6.2	Analyzer CPU	N A
6.3	Analyzer CPU Speed	120 MHz or Above	6.3	Analyzer CPU Speed	N A
6.4	Power Supply	External power supply adapter to avoid power line interference and easy maintenance. 12v, 30W (Average power during measurement)	6.4	Power Supply	230Volt AC or 12 V DC
6.5	Rate chart facility	Facility to create rate chart using 5- methods and import/exportRate chart via USB flash drive directly.	6.5	Rate chart facility	N A
6.6	Per Liter Price on Analyzer.	Analyzer Display per liter Price As Omfed Kg fat and Kg snf price structure	6.6	Per Liter Price on Analyzer.	N A
6.7	Data Storage	Option to store customer ID, Quantity (Manual), and at least 4000 test results.	6.7	Data Storage	N A
6.8	Computer Interface	RS232 & USB Connectivity	6.8	Computer Interface	RS232 & USB Connectivity
6.9	WiFiCloud connectivity	Real time cloud based app. Test result updation(Test result updation, Offset correction, Chart updation, Password updation and machine statistics updation)	6.9	WiFiCloud connectivity	Real time cloud based app. Test result updation(Test result updation, Offset correction, Password updation and machine statistics updation)

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6.10	Bluetooth Android app connectivity	Real time android app. Test result updation	6.10	Bluetooth Android app connectivity	Real time android app. Test result updation
6.11	Android app. Machine operational control	Testing, cleaning and password change Remotely control the machine	6.11	Android app. Machine operational control	Testing, cleaning and password change Remotely control the machine
6.12	OTP based login facility	OTP send to the android app. All settings and correction	6.12	OTP based login facility	OTP send to the android app. All settings and correction
6.13	Measuring Method	Ultrasonic technology	6.13	Measuring Method	Ultrasonic technology
6.14	Password protection	Setup, Calibration	6.14	Password protection	Setup, Calibration
6.15	Centralized Rate chart updation	From Cloud server.	6.15	Centralized Rate chart updation	N A
6.16	Display	High contrast blue back light 4-line LCD display.	6.16	Display	High contrast blue back light 4-line LCD display.
6.17	Samples per hour	120 samples	6.17	Samples per hour	90 to 120 samples
6.18	Sample volume	20 ml	6.18	Sample volume	20 ml
6.19	Measuring cycle	Under 27 Seconds at specified conditions	6.19	Measuring cycle	NA
6.20	Sample milk Temperature	1 Deg. To 40 Deg. Celsius (+/- 1 Deg. C)	6.20	Sample milk Temperature	1 Deg. To 40 Deg. Celsius (+/- 1 Deg. C)
6.21	Fat	0.5% to 15% (+/- 0.1%)	6.21	Fat	0.5% to 15% (+/- 0.1%)
6.22	Fat Repeatability	0.5% to 12% (+/- 0.1%) 12% to 15% (+/- 0.2%)	6.22	Fat Repeatability	0.5% to 12% (+/- 0.1%) 12% to 15% (+/- 0.2%)
6.23	Solid Non-Fat (SNF)	3% to 15% (+/- 0.15%)	6.23	Solid Non-Fat (SNF)	3% to 15% (+/- 0.15%)
6.24	CLR	15 to 40 (+/- 1)	6.24	CLR	15 to 40 (+/- 1)
6.25	SNF Repeatability	0.15% (+/- 0.15%)	6.25	SNF Repeatability	0.15% (+/- 0.15%)

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6.26	Added Water in Milk	0% to 99% (+/- 3%)	6.26	Added Water in Milk	0% to 99% (+/- 3%)
6.27	Protein	2% to 7% (+/- 0.1%)	6.27	Protein	2% to 7% (+/- 0.1%)
6.28	Lactose	0.01% to 6% (+/- 0.2%)	6.28	Lactose	0.01% to 6% (+/- 0.2%)
6.29	Per Lt Price	Show On Display, Per Liter cost display on screen. As Omfed Kg fat Kg Snf Price.	6.29	Per Lt Price	.NA
6.30	Cleaning methods	Automatic & Manual with plunger	6.30	Cleaning methods	Automatic & Manual with plunger
Sr.No	Particulars	Specification	Sr.No	Particulars	Specification
6.31	Calibration and correction control	Separate function for calibration and correction (Password protected)	6.31	Calibration and correction control	Separate function for calibration and correction (Password protected).Secured calibration through Mobile app.
6.32	Cleaning Time and count control	Programmable Cleaning Time and count	6.32	Cleaning Time and count control	Programmable Cleaning Time and count
6.33	System operational history	Show total tests, cleanings, cleaning skip	6.33	System operational history	Show total tests, cleanings, cleaning skip
6.34	Test sample take	Automatic Intake	6.34	Test sample take	Automatic Intake
6.35	Output Readings	Fat, SNF, CLR, Protein, Lactose, Temperature, Added water etc..(Show/Hide programmable Display arrangement) Enable/Disable	6.35	Output Readings	Fat, SNF, CLR, Protein, Lactose, Temperature, Added water etc..(Show/Hide programmable Display arrangement) Enable/Disable
6.36	Separate Channel for calibration and correction	COW, BUFFALO and MIX	6.36	Separate Channel for calibration and correction	COW, BUFFALO and MIX
6.37	Advance	Manual	6.37	Advance	NA

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	weight entry facility			weight entry facility	
6.38	External peripheral connectivity	Interface with multimedia keyboard and Pen drive connectivity (Export reports/Chart update)	6.38	External peripheral connectivity	N A
6.39	External Display connectivity	Wired	6.39	External Display connectivity	N A
6.40	Multiple Analyzer output format	Selectable multiple models analyzers output data facility and serial printer connectivity	6.40	Multiple Analyzer output format	N A
6.41	Result Printing format	Output printing Parameters can be Programmable (Enable / Disable) External receipt printer	6.41	Result Printing format	N A
6.42	Real time clock	Day Collection Manual updation and Server time updation	6.42	Real time clock	N A
6.43	Enclosure	Corrosion Free, Light weight Portable ABS Plastic	6.43	Enclosure	AISI 304 0.75MM thick minimum
6.44	Reports	Collection report, Farmer report, shift report, Dispatch report and collection summary (Generate farmer ID based or Date to date)	6.44	Reports	N A
6.45	Cleaning solution	One set of Daily and weekly cleaning solution should be provided.	6.45	Cleaning solution	One set of Daily and weekly cleaning solution should be provided along with holding bottom tray for spillage one No and measuring Mug 2 Nos
6.46	Warranty	3-Year	6.46	Warranty	3-Year
7.0	Ultrasonic Milk Sample Stirrer		7.0	Ultrasonic Milk Sample Stirrer	

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7.1	Functional Requirement	To remove air from fresh milk sample by vibrations created in the milk before testing of milk.	7.1	Functional Requirement	To remove air from fresh milk sample by vibrations created in the milk before testing of milk.
7.2	Type	Table Top,Ultrasonic Stirrer	7.2	Type	Table Top,Ultrasonic Stirrer
7.3	Stirrer for Ultrasonic Stirrer	Frequency and Timer setting	7.3	Stirrer for Ultrasonic Stirrer	Frequency and Timer setting
7.4	Ultrasonic Frequency	20-25 KHz (Variable)	7.4	Ultrasonic Frequency	20-25 KHz (Variable)
7.5	Timer	1-99 Sec selectable	7.5	Timer	1-99 Sec selectable
7.6	Environment	Suitable for dusty/humid village environment, operating temperature -5 to 50 Degree C	7.6	Environment	Suitable for dusty/humid village environment, operating temperature -5 to 50 Degree C
7.7	Complete Ready to Use	Item complete in all respect with required electric/electronic parts, ready for use at site.	7.7	Complete Ready to Use	Item complete in all respect with required electric/electronic parts, ready for use at site.
7.8	body	Poweder Coated Metal , 1.2 mm thick minimum	7.8	body	AISI 304 1.2 mm thick minimum
7.9	Operating Voltage	230 Volts +/-10, AC,50 Hz and 12 Volts DC	7.9	Operating Voltage	230 Volts +/-10, AC,50 Hz and 12 Volts DC
8.0	REMOTE DISPLAY UNIT (RDU)		8.0	REMOTE DISPLAY UNIT (RDU)	
8.1	Functional Requirement	To display pourer members milk collected & milk testing and other selected parameters in English/ Local Language	8.1	Functional Requirement	To display pourer members milk collected & milk testing and other selected parameters in English/ Local Language
8.2	Type	Wall mounted type	8.2	Type	Wall mounted type
8.3	Display Parameters -8 No	7 Bright segments, Red LED,	8.3	Display Parameters -8 No	7 Bright segments, Red LED,
8.4	Labels for display	Screen Printed	8.4	Labels for display	Screen Printed
8.5	Environment	Dusty, Humid, preferably housing to be with IP 55 or equivalent protection, rust proof powder coated metallic.	8.5	Environment	Dusty, Humid, preferably housing to be with IP 55 or equivalent protection, rust proof powder coated metallic.
8.6	Connecting Cables	Minimum 5 m Power cable with plug top with connector at both ends,	8.6	Connecting Cables	Minimum 5 m Power cable with plug top with connector at both

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		Minimum 5 m Data cable with connector at both ends			ends, Minimum 5 m Data cable with connector at both ends
9.0	Inverter & Battery		9.0	Inverter & Battery	
9.1	Functional Requirement	To give regulated AC power to AMCU from mains or attached battery	9.1	Functional Requirement	To give regulated AC power to AMCU from mains or attached battery
9.2	Type	Line-Interactive type	9.2	Type	Line-Interactive type
9.3	Capacity	1500 VA minimum	9.3	Capacity	1500 VA minimum
9.4	Back up time (Full Load)	3-hrs minimum (in one shift)	9.4	Back up time (Full Load)	3-hrs minimum (in one shift)
9.5	Output Wave Form	Sine Wave/Quasi Sine wave	9.5	Output Wave Form	Sine Wave/Quasi Sine wave
9.6	Voltage at input	160-280 V (+10%)	9.6	Voltage at input	160-280 V (+10%)
9.7	D C Voltage Bus	24 V	9.7	D C Voltage Bus	24 V
9.8	Voltage at output (With Mains as well as with Battery)with in-built AVR	220V +/- 10%	9.8	Voltage at output (With Mains as well as with Battery)with in-built AVR	220V +/- 10%
9.9	Full protection	Inbuilt protection - Under / Over voltage, Short-circuit, Overload Cut off, Low Battery Cut-off , Spikes cut-off	9.9	Full protection	Inbuilt protection - Under / Over voltage, Short-circuit, Overload Cut off, Low Battery Cut-off , Spikes cut-off
9.10	Warning (LED+ Sound)	Low Battery & Overloads	9.10	Warning (LED+ Sound)	Low Battery & Overloads
9.11	Input/ Output Frequency	50Hz +/- 3Hz,No Correction	9.11	Input/ Output Frequency	50Hz +/- 3Hz,No Correction

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	y				
9.12	Battery switch over	Battery switch over in 3-10 milli seconds	9.12	Battery switch over	Battery switch over in 3-10 milli seconds
9.13	Battery Charging	Preferably to take place even at 130& 300 V with SMPS charger <ul style="list-style-type: none"> • Boost charging at minimum 7A • Battery overcharge protection 	9.13	Battery Charging	Preferably to take place even at 130& 300 V with SMPS charger <ul style="list-style-type: none"> • Boost charging at minimum 7A • Battery overcharge protection
9.14	Battery No and Type	2 No 100 AH Tubular, Acid filled, low maintenance battery with level indicator (Maintenance free Battery desirable)	9.14	Battery No and Type	2 No 100 AH Tubular, Acid filled, low maintenance battery with level indicator (Maintenance free Battery desirable)
9.15	Charging Indicator	Battery charging indicator plus low battery/ fault indicator to be provided	9.15	Charging Indicator	Battery charging indicator plus low battery/ fault indicator to be provided
9.16	Battery Steel Rack	Required	9.16	Battery Steel Rack	Required
9.17	Leads between UPS & Battery	Flexible, Cu conductor PVC, Minimum 1 m with lugs at both ends.	9.17	Leads between UPS & Battery	Flexible, Cu conductor PVC, Minimum 1 m with lugs at both ends.
9.18	Warranty of Battery	3 years against manufacturing defect.	9.18	Warranty of Battery	3 years against manufacturing defect.
9.19	Steel rack for UPS	Required to place UPS above floor	9.19	Steel rack for UPS	Required to place UPS above floor
9.20	No load loss at 24 Volt when UPS is ON	Minimum	9.20	No load loss at 24 Volt when UPS is ON	Minimum
10.0	Earthing -	Earth Electrode (Gel type) (Optional)	10.0	Earthing -	Earth Electrode (Gel type) (Optional)

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10.1	Technology	Earth Electrode (Gel type) maintenance free earthing. Mineral Filling Compound (MFC), surrounded to earth electrode creates low resistance zone so that output is constant for longer life.	10.1	Technology	Earth Electrode (Gel type) maintenance free earthing. Mineral Filling Compound (MFC), surrounded to earth electrode creates low resistance zone so that output is constant for longer life.
10.2	Pipe Material	Galvanized Pipe as per IS : 1239	10.2	Pipe Material	Galvanized Pipe as per IS : 1239
10.3	Class of Pipe	Class-B	10.3	Class of Pipe	Class-B
10.4	Diameter (Outer Dia.)	48 mm	10.4	Diameter (Outer Dia.)	48 mm
10.5	Length	2 Meter	10.5	Length	2 Meter
10.6	Wall Thickness	2.5 mm	10.6	Wall Thickness	2.5 mm
10.7	Primary Electrode	Mild Steel Strip	10.7	Primary Electrode	Mild Steel Strip
10.8	Mild Steel Strip	2.12 m long, 32 mm wide and 6 mm thick	10.8	Mild Steel Strip	2.12 m long, 32 mm wide and 6 mm thick
10.9	MS Strip hot dip Galvanized thickness	110 micron	10.9	MS Strip hot dip Galvanized thickness	110 micron
10.10	Gel Filled	Highly non-corrosive compound	10.10	Gel Filled	Highly non-corrosive compound
10.11	Earth wire to connect Electrode with Power Supply.	Copper 8 m long & 8 mm dia suitable for interconnection	10.11	Earth wire to connect Electrode with Power Supply.	Copper 8 m long & 8 mm dia suitable for interconnection
10.12	Filling compound	Adequate	10.12	Filling compound	Adequate
10.13	Civil works	chamber to secure the earthing			

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

AMCU SPECIFICATION

10.15 Training – The supplier shall ensure proper and accurate functioning of all the components of the AMCU and impart training to the operating staff in operation, maintenance and routine check till the operating staffs are confident in operation and routine maintenance.

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

AMCU SPECIFICATION