



महाराष्ट्र राज्य सहकारी दूध महासंघ मर्यादित, मुंबई
महानंद दुग्धशाला, पश्चिम द्रुतगती महामार्ग, गोरेगांव (पूर्व), मुंबई - ४०० ०६५.
दुरध्वनी: २६८५ ६३६० /६१, २६८५ ६५८५ • फॅक्स: २६८५ ६७८०.
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Ref.No.MND/6/ENGG/ 2022-23 / 1744

Date: 01.09.2022

To,
M/s.

UNDER POSTAL CERTIFICATE

Dear Sir,

Kindly submit your lowest offer for the following items mentioned below. Quotations may please be sent to us on or before 12/09/2022. Quotation received after the due date mentioned here in will not be considered. Quotation should be send in sealed cover duly marked as "Quotation for calibration of measuring instruments.

Sr. No.	DESCRIPTION	QUANTITY REQUIRED
01.	Calibration work of various measuring instruments. <u>Scope of work</u> To calibrate, testing and to submit the necessary calibration test reports of measuring instruments like 1) Pressure gauge – 39 Nos. 2) Digital Temperature controller – 31 Nos. 3) Digital Temperature indicator – 15 Nos. 4) Dial Temperature gauge – 02 Nos. 5) Temperature Transmitter – 72 Nos. In Process. Boiler, Product, refrigeration section and Aseptic Plant. To fulfill the requirement of ISO-HACCP and should be traceable to NABL. The list of instruments to be calibrated is attached herewith. Note:- 1) The party should inspect the job and can have discussion for the clarification, if any. 2) Rates should be inclusive man, material and applicable taxes. 3) Payment will be made after completion and submission of test reports of the job.	159 Nos.


Act. Manager (Engg.)

CALIBRATION - LIST OF MEASURING INSTRUMENTS

Sr. No.	Instrument Name	Range	Working Range	L.C.	ID No	LOCATION	Make
1	DTC	'-20 to 50 °C	-.18 °C	0.1	PD-DTC-01	Deep Freezer No-A	Sub Zero
2	DTC	'-20 to 50 °C	-.18 °C	0.1	PD-DTC-02	Deep Freezer No-B	Sub Zero
3	DTC	0 to 100 °C	90 °C	0.1	PD-P3- DTC	Pasturiser 1000LPH-Product Heating	RADIX
4	DTC	0 to 100 °C	33 °C	0.1	PD-IQ-DTC	Dahi Incubator Old Product	SELEC
5	DTC	0 to 100 °C	90 °C	0.1	NPD-P2-DTC	Pasturiser-2 (5000 LPH) - Heating	RADIX
6	DTC	0 to 10 °C	3 °C	0.1	NPD-DTC-CS-1A	New Product cold Room 1	Dixell
7	DTC	0 to 10 °C	3 °C	0.1	NPD-DTC-CS-1B	New Product cold Room 1	Dixell
8	DTC	0 to 10 °C	3 °C	0.1	NPD-DTC-CS-2A	New Product cold Room 2	Dixell
9	DTC	0 to 10 °C	3 °C	0.1	NPD-DTC-CS-2B	New Product cold Room	Dixell
10	DTC	0 to 40 °C	33 °C	0.1	NPD-DTC-IQ-A	DAHI INQUBATOR-1 New Product	Carel
11	DTC	0 to 40 °C	33 °C	0.1	NPD-DTC-IQ-B	DAHI INQUBATOR-2 New Product	Carel
12	DTC	-.10 to 10 °C	-.4 °C	0.1	NPD-DTC-BF-1	Blast Freezer New Product	Dixell
13	DTC	0 to 200 °C	120 °C	0.1	NPD - DTC - GB	Ghee Boiler Old Product	DELTA
14	DTC	0 to 100 °C	70 °C	0.1	NPD - DTC - GBMV	Ghee Boiler - BUTTER MELTING VAT Old Product	RADIX
15	DTC	0 to 400 °C	200 °C	0.1	SWM-DTC-01	Shrink Wrapping Machine	SELEC
16	DTC	0 to 400 °C	250 °C	0.1	SWM-DTC-02	Shrink Wrapping Machine	SELEC
17	DTC	0 to 200 °C	50 °C	0.1	PK-CW-DTC-01	Crate Washer	ASABA
18	DTC	0 to 200 °C	50 °C	0.1	PK-CW-DTC-02	Crate Washer	ASABA
19	DTC	0 to 200 °C	50 °C	0.1	PK-CW-DTC-03	Crate Washer	ASABA
20	DTC	0 to 200 °C	50 °C	0.1	PK-CW-DTC-04	Crate Washer	ASABA
21	DTC	0 to 200 °C	50 °C	0.1	PK-CW-DTC-05	Crate Washer	ASABA
22	DTC	0 to 200 °C	50 °C	0.1	PK-CW-DTC-06	Crate Washer	ASABA
23	DTC	0 to 200 °C	50 °C	0.1	PK-CW-DTC-07	Crate Washer	ASABA
24	DTC	0 to 200 °C	50 °C	0.1	PK-CW-DTC-08	Crate Washer	ASABA

Sr. No.	Instrument Name	Range	Working Range	L.C.	ID No	LOCATION	Make
25	DTC	0 to 200 °C	50 °C	0.1	PK-CW-DTC-09	Crate Washer	ASABA
26	DTC	0 to 200 °C	50 °C	0.1	PK-CW-DTC-10	Crate Washer	ASABA
27	DTC	-50 to 50 °C	-5 °C	0.1	RS-GK1-DTC	Glykol Phe No-1 Outlet	RADIX
28	DTC	-50 to 50 °C	-5 °C	0.1	RS-GK2-DTC	Glykol Phe No-2 Outlet	RADIX
29	DTC	0 to 100 °C	75 °C	0.1	PS-DTC-1	Process - BUTTER MELTING VAT	RADIX
30	DTI	-50 to 50 °C	5 °C	1	RS-GK1-DTI-01	Glykol Phe No-1 Inlet	S.B.ELECTRO ENGG.
31	DTI	-50 to 50 °C	5 °C	1	RS-GK2-DTI-01	Glykol phe No-2 Inlet	S.B.ELECTRO ENGG.
32	DTI	0 to 100 °C	4 °C	0.1	PD-P3-DTI	Pasturiser 1000LPH-Product Milk Outlet	S.B.ELECTRO ENGG.
33	DTI	0 to 200 °C	4 °C	0.1	NPD-P2-DTI	Pasturiser-2 (5000 LPH) - Milk Outlet	RADIX
34	DTI	0 to 200 °C	120 °C	0.1	PD-ST1-DTI	Josh Sterilizer-1 - Old Product	RADIX
35	DTI	0 to 200 °C	120 °C	0.1	PD-ST2-DTI	Josh Sterilizer-2 - Old Product	RADIX
36	DTI	0 to 30 °C	3 °C	0.1	RS-CS1-DTI	Cold Storage No.1	RADIX
37	DTI	0 to 30 °C	3 °C	0.1	RS-CS2-DTI	Cold Storage No.2	RADIX
38	DTI	0 to 30 °C	3 °C	0.1	RS-CS3-DTI	Cold Storage No.3	RADIX
39	DTI	0 to 100 °C	0.5 °C	0.1	RS-CWT1-DTI-01	Chilled Water Tank No. 1 Inlet	MANIK
40	DTI	0 to 100 °C	3 °C	0.1	PK-MST6-DTI	Prepack Milk Storage Tank No.6	RADIX
41	DTI	0 to 100 °C	3 °C	0.1	PK-MST7-DTI	Prepack Milk Storage Tank No.7	RADIX
42	DTI	0 to 100 °C	3 °C	0.1	PK-MST8-DTI	Prepack Milk Storage Tank No.8	RADIX
43	DTI	0 to 100 °C	3 °C	0.1	PK-MST-DTI	Prepack Milk Storage Tank	RADIX
44	DTI	0 to 100 °C	0.5 °C	0.1	RS-CWT1-DTI-02	Chilled Water Tank No. 1 Outlet	MANIK
45	DTC	-20 to 50 °C	-18 °C	0.1	PD-BCS-DTC-A	Buutter cold Room - Product	Sub Zero
46	DTC	-20 to 50 °C	-18 °C	0.1	PD-BCS-DTC-B	Buutter cold Room - Product	Sub Zero
47	TT	0 to 100 °C	0 to 5 °C	0.1	PS-P1-TT-01	Pasturiser No.1 Milk Inlet	YUDIAN
48	TT	0 to 100 °C	0 to 65 °C	0.1	PS-P1-TT-02	Pasturiser No.1 Regen out	YUDIAN
49	TT	0 to 100 °C	0 to 80 °C	0.1	PS-P1-TT-03	Pasturiser No.1 Heating	YUDIAN
50	TT	0 to 100 °C	0 to 3 °C	0.1	PS-P1-TT-04	Pasturiser No.1 Milk out	YUDIAN
51	TT	0 to 100 °C	0 to 82 °C	0.1	PS-P1-TT-05	Pasturiser No.1 Hot Water	YUDIAN
52	TT	0 to 100 °C	0 to 2 °C	0.1	PS-P1-TT-06	Pasturiser No.1 Chilled Water Inlet	YUDIAN

Sr. No.	Instrument Name	Range	Working Range	L.C.	ID No	LOCATION	Make
53	TT	0 to 100°C	0 to 5°C	0.1	PS-P5-TT-01	Pasturiser No.5 Milk Inlet	YUDIAN
54	TT	0 to 100°C	0 to 65°C	0.1	PS-P5-TT-02	Pasturiser No.5 Regenout	YUDIAN
55	TT	0 to 100°C	0 to 80°C	0.1	PS-P5-TT-03	Pasturiser No.5 Heating	YUDIAN
56	TT	0 to 100°C	0 to 3°C	0.1	PS-P5-TT-04	Pasturiser No.5 Milk Out	YUDIAN
57	TT	0 to 100°C	0 to 82°C	0.1	PS-P5-TT-05	Pasturiser No.5 Hot Water Inlet	YUDIAN
58	TT	0 to 100°C	0 to 2°C	0.1	PS-P5-TT-06	Pasturiser No.5 Chilled Water Inlet	YUDIAN
59	TT	0 to 100°C	0 to 5°C	0.1	PS-P2-TT-01	Pasturiser No.2 Milk Inlet	YUDIAN
60	TT	0 to 100°C	0 to 65°C	0.1	PS-P2-TT-02	Pasturiser No.2 Regenout	YUDIAN
61	TT	0 to 100°C	0 to 80°C	0.1	PS-P2-TT-03	Pasturiser No.2 Heating	YUDIAN
62	TT	0 to 100°C	0 to 3°C	0.1	PS-P2-TT-04	Pasturiser No.2 Milk Out	YUDIAN
63	TT	0 to 100°C	0 to 82°C	0.1	PS-P2-TT-05	Pasturiser No.2 Hotwater Inlet	YUDIAN
64	TT	0 to 100°C	0 to 2°C	0.1	PS-P2-TT-06	Pasturiser No.2 Chilled Water Inlet	YUDIAN
65	TT	0 to 100°C	0 to 4°C	0.1	PS-S1-TT	Silo No.1	YUDIAN
66	TT	0 to 100°C	0 to 4°C	0.1	PS-S2-TT	Silo No.2	YUDIAN
67	TT	0 to 100°C	0 to 4°C	0.1	PS-S3-TT	Silo No.3	YUDIAN
68	TT	0 to 100°C	0 to 4°C	0.1	PS-S4-TT	Silo No.4	YUDIAN
69	TT	0 to 100°C	0 to 4°C	0.1	PS-S5-TT	Silo No.5	YUDIAN
70	TT	0 to 100°C	0 to 4°C	0.1	PS-S6-TT	Silo No.6	YUDIAN
71	TT	0 to 100°C	0 to 4°C	0.1	PS-S7-TT	Silo No.7	YUDIAN
72	TT	0 to 100°C	0 to 4°C	0.1	PS-S8-TT	Silo No.8	YUDIAN
73	TT	0 to 100°C	0 to 4°C	0.1	PS-S9-TT	Silo No.9	YUDIAN
74	TT	0 to 100°C	0 to 4°C	0.1	PS-S10-TT	Silo No.10	YUDIAN
75	TT	0 to 100°C	0 to 3°C	0.1	PS-CH1-TT-01	Milk chiller No.1 Milk Out	YUDIAN
76	TT	0 to 100°C	0 to 6°C	0.1	PS-CH1-TT-02	Milk Chiller No-1 Milk In	YUDIAN
77	TT	0 to 100°C	0 to 2°C	0.1	PS-CH1-TT-03	Milk Chiller No.1 Chilled Water In	YUDIAN
78	TT	0 to 100°C	0 to 3°C	0.1	PS-CH2-TT-01	Milk chiller No.2 Milk Out	YUDIAN
79	TT	0 to 100°C	0 to 6°C	0.1	PS-CH2-TT-02	Milk Chiller No.2 Milk In	YUDIAN
80	TT	0 to 100°C	0 to 2°C	0.1	PS-CH2-TT-02	Milk Chiller No.3 Chilled Water In	YUDIAN

Sr. No.	Instrument Name	Range	Working Range	L.C.	ID No	LOCATION	Make
81	TT	0 to 100°C	0 to 3°C	0.1	PS-CH3-TT-01	Milk chiller No.3 Milk Out	YUDIAN
82	TT	0 to 100°C	0 to 6°C	0.1	PS-CH3-TT-02	Milk chiller No.3 Milk In	YUDIAN
83	TT	0 to 100°C	0 to 3°C	0.1	PS-GK 1-TT	Glykol Milk Chiller No.1 Milk Outlet	YUDIAN
84	TT	0 to 100°C	0 to 3°C	0.1	PS-GK 2-TT	Glykol Milk Chiller No.2 Milk Outlet	YUDIAN
85	TT	0 to 100°C	0 to 4°C	0.1	NPD-S1-TT	New Product Storage Tank No-1	YUDIAN
86	TT	0 to 100°C	0 to 4°C	0.1	NPD-S2-TT	New Product Storage Tank No-2	YUDIAN
87	TT	0 to 100°C	0 to 4°C	0.1	NPD-S3-TT	New Product Storage Tank No-3	YUDIAN
88	TT	0 to 100°C	0 to 4°C	0.1	NPD-S4-TT	New product Sturage Tank No. - 4	YUDIAN
89	TT	0 to 100°C	0 to 4°C	0.1	NPD-S5-TT	New product Sturage Tank No. - 5	YUDIAN
90	TT	0 to 100°C	0 to 4°C	0.1	NPD-S6-TT	New product Sturage Tank No. - 6	YUDIAN
91	TT	0 to 100°C	0 to 4°C	0.1	NPD-S7-TT	New product Sturage Tank No. - 7	YUDIAN
92	TT	0 to 100°C	0 to 4°C	0.1	NPD-S8-TT	New product Sturage Tank No. - 8	YUDIAN
93	TT	0 to 100°C	0 to 4°C	0.1	NPD-S9-TT	New Product Storage Tank No - 9	YUDIAN
94	TT	0 to 100°C	0 to 4°C	0.1	NPD-S10-TT	New Product Storage Tank No-10	YUDIAN
95	TT	0 to 100°C	0 to 4°C	0.1	NPD-S11-TT	New Product Storage Tank No-11	YUDIAN
96	TT	0 to 100°C	0 to 4°C	0.1	NPD-S12-TT	New Product Storage Tank No-12	YUDIAN
97	TT	0 to 100°C	0 to 4°C	0.1	NPD-S13-TT	New Product Storage Tank No-13	YUDIAN
98	TT	0 to 150°C	0 to 120°C	0.1	NPD-ST1-TT-1	Sterilizer No.1 chamber	YUDIAN
99	TT	0 to 150°C	0 to 120°C	0.1	NPD-ST1-TT-2	Sterilizer No-1 Product	YUDIAN
100	TT	0 to 150°C	0 to 120°C	0.1	NPD-ST1-TT-3	Sterilizer No-1 Water Inlet	YUDIAN
101	TT	0 to 150°C	0 to 120°C	0.1	NPD-ST1-TT-4	Sterilizer No-1 Water Outlet	YUDIAN
102	TT	0 to 150°C	0 to 120°C	0.1	NPD-ST2-TT-1	Sterilizer No-2 Chamber	YUDIAN
103	TT	0 to 150°C	0 to 120°C	0.1	NPD-ST2-TT-2	Sterilizer No-2 Product	YUDIAN
104	TT	0 to 150°C	0 to 120°C	0.1	NPD-ST2-TT-3	Sterilizer No-2 Water Inlet	YUDIAN
105	TT	0 to 150°C	0 to 120°C	0.1	NPD-ST2-TT-4	Sterilizer No-2 Water Outlet	YUDIAN
106	TT	0 to 100°C	0 to 4°C	0.1	NPD-PH-TT-01	New product Preheater Milk Inlet	YUDIAN
107	TT	0 to 100°C	0 to 34°C	0.1	NPD-PH-TT-02	New product Preheater Milk Outlet	YUDIAN
108	TT	0 to 100°C	0 to 36°C	0.1	NPD-PH-TT-03	New product Preheater Hot Water In	YUDIAN

Sr. No.	Instrument Name	Range	Working Range	L.C.	ID No	LOCATION	Make
109	TT	0 to 100°C	0 to 4°C	0.1	NPD-P1-TT-01	New product Pasturizer P1 Milk Inlet	YUDIAN
110	TT	0 to 100°C	0 to 4°C	0.1	NPD-P1-TT-02	New product Pasturizer P1 Milk Out - Chilling	YUDIAN
111	TT	0 to 100°C	0 to 90°C	0.1	NPD-P1-TT-03	New product Pasturizer P1 Heating	YUDIAN
112	TT	0 to 100°C	0 to 2°C	0.1	NPD-P1-TT-04	New product Pasturizer P1 Chilled Water In	YUDIAN
113	TT	0 to 100°C	0 to 90°C	0.1	NPD-P1-TT-05	New product pasturizer P1 - Hot Water In	YUDIAN
114	TT	0 to 100°C	0 to 65°C	0.1	NPD-P1-TT-06	New product pasturizer P1 - Reg. Out	YUDIAN
115	TT	0 to 100°C	0 to 100°C	0.1	PH - TT - 01	POWER HOUSE SPARE	YUDIAN
116	TT	0 to 100°C	0 to 100°C	0.1	PH - TT - 02	POWER HOUSE SPARE	YUDIAN
117	TT	0 to 100°C	0 to 100°C	0.1	PH - TT - 03	POWER HOUSE SPARE	YUDIAN
118	TT	0 to 100°C	0 to 100°C	0.1	PH - TT - 04	POWER HOUSE SPARE	YUDIAN
119	PG	0 to 150 Kg/cm²		1 Kg/cm²	NPD-PG-01	Josh Sterelizer No. 01	BAUMER
120	PG	0 to 150 Kg/cm²		1 Kg/cm²	NPD-PG-02	Josh Sterelizer No. 01	BAUMER
121	PG	0 to 250 Bar		1.0 Bar	NPD-PG-01	Homogenizer NO. 1 Product	SPX
122	PG	0 to 100 Bar		1.0 Bar	NPD-PG-02	Homogenizer NO. 1 Product	SPX
123	PG	0 to 160 Bar		1.6 Bar	NPD-PG-03	Homogenizer NO. 1 Product	SPX
124	PG	0 to 160 Bar		1.6 Bar	NPD-PG-04	Homogenizer NO. 1 Product	SPX
125	PG	0 to 7 Bar		1.0 Bar	PD-PG-BMT	Butter Melting Tank - Product	
126	PG	0 to 25 Kg/cm²			BO-3-PG-01	Boiler 3 Steam Header	
127	PG	0 to 40 Kg/cm²			BO-3-PG-02	Boiler No. 3 Oil Inlet	
128	PG	0 to 25 Kg/cm²			BO-3-PG-03	Boiler No.3 Feed Pump	
129	PG	0 to 10 Kg/cm²			BO-3-PG-04	Boiler No.3 Receiver	
130	PG	0 to 40 Kg/cm²			BO-1-PG-01	Boiler Pump	
131	PG	0 to 42 Kg/cm²			BO-1-PG-04	Boiler No.1 Oil Inlet	
132	PG	0 to 21 Kg/cm²			BO-1-PG-02	Boiler No.1 Steam	Gluck
133	PG	0 to 21 Kg/cm²			BO-2-PG-01	Boiler No.2 Steam	
134	PG	0 to 42 Kg/cm²			BO-2-PG-02	Boiler No.2 Inlet	
135	PG	0 to 42.4 Kg/cm²			BO-2-PG-03	Boiler No.2 Oil Outlet	
136	PG	0 to 28 Kg/cm²			BO-SL-PG-07	Boiler Steam Line Header	

Sr. No.	Instrument Name	Range	Working Range	L.C.	ID No	LOCATION	Make
137	PG	0 to 10 Kg/cm ²			BO-SL-PG-08	Boiler Steam Line Heater	
138	PG	0 to 10 Kg/cm ²			BO-SL-PG-09	Boiler Main Steam Line	
139	PG	0 to 10 Kg/cm ²			BO-SL-PG-10	Boiler Steam Line	
140	PG	0 to 28 Kg/cm ²			BO-SL-PG-11	Boiler Steam Line	
141	PG	0 to 100 Bar			PS-H5-PG-02	Homegenizer No.5	
142	PG	0 to 160 Bar			PS-H5-PG-03	Homegenizer No.5	
143	PG	0 to 160 Bar			PS-H5-PG-04	Homegenizer No.5	
144	PG	0 to 400 Bar			PS-H4-PG-01	Homogenizer 4	
145	PG	0 to 160 Bar		5 Bar	PS-H1-PG-04	Homogenizer No.1	
146	PG	0 to 160 Bar			PS-H1-PG-03	Homogenizer No.1	
147	PG	0 to 400 Bar		1 Bar	PS-H1-PG-01	Homogenizer No.1	
148	PG	0 to 100 Bar			PS-H4-PG-01	Homogenizer 4	
149	PG	0 to 6 Bar		0.1Bar	PS-S4-PG-01	Separator No. 04	
150	DTG	0 to 200 °C	0 to 110 °C	2 °C	BO-3-DTG-01	Boiler No-3	TIC
151	DTG	0 to 250 °C	0 to 125 °C	2.5°C	BO-SL-DTG-03	Boiler Steam	FORBES MARSHELL
152	PG	0 t14 Kg/cm ²			PK-CW6-PG-01	CRATE WASHER NO. 6 - COLD WATER PRESSURE	GURU
153	PG	0 t14 Kg/cm ²			PK-CW6-PG-02	CRATE WASHER NO. 6 - AFTER RINSE PRESSURE	GURU
154	PG	0 t14 Kg/cm ²			PK-CW6-PG-03	CRATE WASHER NO. 6 - DETERGENT RINSE PRESSURE	GURU
155	PG	0 t14 Kg/cm ²			PK-CW6-PG-04	CRATE WASHER NO. 6 - FIRST RINSE PRESSURE	GURU
156	PG	0 t14 Kg/cm ²			PK-CW8-PG-01	CRATE WASHER NO. 8 - COLD WATER PRESSURE	GURU
157	PG	0 t14 Kg/cm ²			PK-CW8-PG-02	CRATE WASHER NO. 8 - AFTER RINSE PRESSURE	GURU
158	PG	0 t14 Kg/cm ²			PK-CW8-PG-03	CRATE WASHER NO. 8 - DETERGENT RINSE PRESSURE	GURU
159	PG	0 t14 Kg/cm ²			PK-CW8-PG-04	CRATE WASHER NO. 8 - FIRST RINSE PRESSURE	GURU