

VAISHAL PATLIPUTRA DUGDH UTPADAK SAHKARI SANGH LIMITED

PATNA DAIRY PROJECT

Feeder Balancing Dairy Complex, Phulwarisharif, Patna-801505

Ph: 0612- 2251622, 2252553, 2252542; Fax No.- 0612-2250325

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PDP:PUR:FBD: 7812

DATE- 03.02.2025

Dear Sir,

We are interested in purchasing of the following items. In case you can supply the same, you may send your quotation in sealed cover addressed to the Managing Director address given above superscribing on the top of the envelop quotation for item to **Supply of Horizontal milk storage tank/ lassi tank of Capacity 5000Litres complete with all accessories at FBD** as to reach as on or before **18.02.2025**.

All rates must be F.O.R FBD on door delivery basis. (PR. No. 2300001589 dt.25.01.2025)

S.No.	Item	Specification	Quantity
1	Horizontal milk storage tank – 5000Ltrs. (Technical specification attached as Annexure- 01)		01 nos.

Thanking You

Yours faithfully


4.2.25
Manager(MM)

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(An ISO 22000:2005 certified organization)

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E-mail-vpmunin@gmail.com

GST No. – 10AAAV8463B1ZV

Annexure-01

Horizontal milk storage tank or LASSI TANK OF CAPACITY 5KL (5000 Ltrs.)
complete with all accessories

Technical specification & scope of supply of LASSI TANK

Quantity required: 01 set

1.0 SCOPE OF SUPPLY:

Supply of Horizontal milk storage tank or LASSI Tank of Capacity: 5,000 Liters

2.0 Functional Requirement:

The Horizontal milk storage tank shall be used to store chilled milk at 4 degree centigrade temperature.

3.0 Design Requirement:

Capacity: 5000 Liter

The volume of the tank shall be such that after filling it up to the rated capacity the level of milk shall be at least 50 mm below the bottom end of sight / light glass.

4.0 Constructional features:

Double walled, insulated and welded construction of sanitary design.

• **Slope:**

1:50 slope towards the outlet at the bottom of the tank.

• **Metal contact:**

The only metal-to-metal contact between the inner and the outer shells shall be at the places where fittings for the tank are provided. At the places where mild steel stiffeners are provided insulated padding shall be fixed between the inner stainless-steel shell and stiffeners.

• **Finish:**

All welding joints shall be ground smooth. All stainless-steel surfaces shall be polished to 150 grits.

• **Joint Curvatures:**

The radii of all welded and permanent attachment joints shall be at least 6mm. Where the conical ends join the cylindrical shell the radii shall not be less than 25mm.

5.0 SCOPE OF SUPPLY:

• **Inner Cylindrical Body:**

The inner shell and conical ends shall be fabricated from 2 mm and 2.5 mm thick stainless-steel sheet conforming to AISI 304.

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- **Outer Cylindrical Body:**

The outer shell and conical ends shall be fabricated from 2 mm thick stainless-steel sheet conforming to AISI 304.

- **Insulation:**

The entire inner stainless-steel shell and the conical ends shall be insulated in three layers as follows:

Sl.No.	Description	
1.	First layer	15 mm thick PUF having density of 30-35 Kg/m ³ applied radially with bitumen.
2.	Second layer	50 mm thick expanded polystyrene having density of 16-20 Kg/m ³ applied longitudinally
3.	Third layer	50 mm thick expanded polystyrene having density of 16-20 Kg/m ³ applied radially.

6.0 ACCESSORIES:

- **Inlet-cum-outlet:**

51 mm dia cup type inlet cum outlet with stainless steel (AISI 304) two-way flanged type plug valve ending in complete stainless-steel union. It shall be provided at a height of 350 mm from the finished floor level. -1 No.

- **Air vent:**

Stainless steel (AISI 304) 150 mm dia air vent to prevent formation of partial vacuum during CIP and pressure during filling. -1 No.

- **Man way:**

Oval shaped stainless steel (AISI 316) man way of dimensions approx. 550 x 405 mm at the front end and provided with leak proof hinged insulated stainless steel (AISI 316) door with tightening and locking device along with proximity sensors. The man way door shall open inward but at the same time it can be taken out also when necessary. The gasket shall be of neoprene or nitrile rubber of good quality. -1 No.

- **Sight glass:**

Stainless steel (AISI 304) sight glass assembly shall be provided with toughened glass. It shall be provided in such a way that one can easily read from the zero level up to the rated capacity level mark. -1 No.

- **Sand blasted level marks:**

It shall be calibrated at 500 L intervals and provided on the inner rear end of the tank opposite to the sight glass. -1 No.

- **Light glass:**

Stainless steel (AISI 304) light glass assembly shall be provided with

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toughened glass and stainless-steel lamp shade for mounting 24 V, 100-Watt bulb the lamp holder shall be made from brass. -1 No.

• **Platform:**

A small platform of SS (AISI 304) with two steps on the front end of the tank and two nos. of SS handle 300mm below sight glass to enable view through sight glass.

• **Agitator:**

It shall be in stainless steel (AISI 304) construction complete with geared motor of adequate capacity and shall be able to uniformly agitate and mix MILK in the tank within 10 minutes. -1 No.

• **Spray balls:**

Removable stainless steel (AISI 304) cleaning device located at the apex of the conical top to provide flooding of liquid over the complete interior surfaces during CIP. It shall have stainless steel unions at the outer end connections. -2 Nos.

• **Sampling Cock:**

This shall be provided on the inlet cum outlet and shall be in stainless steel (AISI 304) construction with sanitary design. -1 No.

• **Thermowell:**

300mm long stainless steel (AISI 304) inclined pocket suitable for mounting stem type dial thermometer, it shall have 21 mm BSP male threads. (But the thermometer is not within the scope of supply) -1 No.

• **Level probes:**

Provision for mounting two nos. level probe for high level and low level should be provided.

• **Level indicator:**

Provision for mounting level indicator should be done

• **Legs:**

Conical stainless steel (SS 304) and stainless-steel ball feet provided at the bottom of the tank. The stainless-steel ball feet shall have provision for height adjustment of 50 mm. -4 Nos.

• **Ladder:**

A stainless steel (AISI 304) ladder for access to sight glass and geared motor assembly of agitator. -1 No.

• **Drain hole:**

The outer shell shall be provided with one or more drain holes at the lowest point. Any aperture in the shell shall be designed so as to prevent ingress of moisture.

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• **Lifting lugs:**

Stainless steel (AISI 304) lifting lugs shall be provided at top. – 4 Nos.

• **Painting:**

All the mild steel stiffeners used in the construction of the milk storage tank shall be painted with two coats of epoxy primer after through derusting.

7.0 LIST OF ACCESSORIES WITH TANK:

Sr. No.	Description	Qty.	Make
1	Manual operated two-way butterfly valve - MOC: SS 304, Size: 51 mm with one end flange & other end SMS weldable union end connection.	1	IDMC / JAYA/ Swastik/ L&T Valves/AUDCO
2	Sampling valve - MOC: SS 304, Size: 32mm socket end conn.	1	IDMC / JAYA/ Swastik/ L&T Valves/AUDCO
3	Rotary type spray ball, MOC: SS 304, Coverage -360 deg.	1	IDMC/Inoxpa/SPX
4	Top mounted agitator	1	IDMC/ Bonfiglioli/ LENKA

TESTS:

- The following test shall be conducted by at supplier works.
- Dye penetration test for welding joints.
- Water fill-up test for water tightness for the inner.
- Final inspection prior to dispatch including agitator trial.

Manager (Engg.)

