

# SRI SRITHIK DAIRY PRODUCTS PVT LTD

REG NO : U74995AP2018PTC108624

Day wise milk and milk products manufacturing details :

SCNO	DETAILS OF MILK AND MILK PRODUCTS	QUANTITY/DAY
1	Different types of milks	10,000
2	Curd	5,000
3	Butter milk	2,000
4	Lassi	1,000
5	Flavoured milk	1,000
6	Paneer, Sweets and Ghee	1,000
TOTAL		20,000

General Manager

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## **OBJECTIVES OF THE PROJECT:**

The financial assistance is extended for processing of milk with the following objectives.

- To enhance the keeping quality of milk
- To avoid the economic losses to farmers by procuring the milk in time from them
- To manufacture various milk products as per market demand
- To provide quality products at affordable prices to the consumers.

## **MILK PROCUREMENT AND PROCESSING :**

The organized dairy sector (both cooperatives and private) is presently handles about 15 per cent of total milk production in the country. Thus it indicates, there is a wide scope for processing of milk and manufacture of milk products for domestic consumption as well as export.

## **TYPES OF PROJECT:**

The types of milk processing projects that are normally considered for financial assistance are:



- Bulk Milk Cooler (BMC) / Milk Chilling plants:

This involves collection of milk from villages, chilling the milk to 3-4 degree Celsius and transporting to the main dairy for further processing and manufacture of products. In majority of cases these are part of the milk processing facility

- Market Milk Plants / Milk Processing Plants :

It involves procurement of milk from the villages, chilling, standardization, homogenization, pasteurization, packing of market milks of various kinds (whole, standardised, toned and double toned milk) as well as manufacture of milk products.

## **PROJECT DETAILS**

### **Land and Location**

- Ample space is required for buildings, future expansion, parking of transport vehicles and for empty cans. About one acre of land is required for a milk processing plant handling about 20000 liters of milk per day (8 hours). However, the built-up area to total area should be normally around 1:3. The exact design and details of the built up area has to be decided in consultation with the plant and machinery supplier or with a professional dairy consultant.
- The location of a plant should be close to the milk producing area in case of products manufacturing unit and if liquid milk is the main product it should be close to the consumption centres.
- The location of site should have proximity to road facilities, services, such as water, electricity and effluent mains, social infrastructure, etc.
- Subsoil of the site should be firm with proper drainage. It is always advisable to conduct soil investigation for load bearing before setting up dairy processing plant.

## Site Development

- Preferably the entire site should be fenced with barbed wire or compound wall is constructed with gates at suitable places
- Internal roads should be of tar/bricks/WBM depending upon the soil conditions, rainfall and the number of vehicles moving every day.
- At the Raw Milk Reception area there should be provision for unloading cans from different types of vehicle.
- Proper drainage arrangements should be made to ensure cleanliness.

## Layout and Buildings

The civil works comprise of main processing building, which includes Raw Milk Reception Dock, Main processing hall, provision for manufacture of other products, cold storage, CIP, Laboratory, quarters, office, garages, security post etc. The factory building for the milk reception, quality control, processing, packing and storage of milk products should be as per BIS specifications. The total covered area depends on the processes involved, products manufactured, the quantity of milk handled and the equipment chosen product manufacturing.

The milk processing plant shall have the following essential facilities.

- **Raw Milk Reception Dock (RMRD)** - consisting of can conveyor, can washer, weighing balance, dump tank etc.
- **Processing Hall** - cream separator, chiller, homogenizer, pasteuriser and other related machinery are installed.
- **Storage area**- for milk storage tanks.
- **Products manufacturing area**-depends upon the type of products, quantity of milk handled and the machinery to be installed.
- **Packing area**-for packing of liquid milk and other products.
- **Cold storage**-for keeping the milk and milk products before sending to market.



- **Quality Control Laboratory**-for testing the quality of milk and milk products.
- **Utilities area**-for installing boiler, generator set, water treatment plant, maintenance and store area for spares.
- **Waste water treatment plant area**-for treating the dairy effluents before releasing to the fields
- **Quarters and office area**-for all the essential staff.
- **Vehicle parking area**-both for the milk procurement and distribution vehicles.
- **Input supply area**- for providing veterinary service, supply of feed, fodder seeds, etc.

### **Plant and Machinery**

Different machinery are required for the processing plant based on the type of milk received and products proposed. The machinery should be as per the BIS specifications.

### **Infrastructural Facilities for Raw Material and Utilities**

#### **Raw Material**

The principal raw material is milk. The extent of milk procurement area, milch animal population, average milk yield, percentage of animals in milk, marketed surplus etc. will determine the size of the plant. The method of procurement, transportation of milk and input supply to the farmers is required to be highlighted. The availability of other inputs such as packing materials, disinfectants and consumables should be ascertained.

## **Utilities**

### **Power**

Normally a three phase electricity supply is required for milk processing plants. The power requirement depends upon the load to be connected and the necessary approval from SEB should be obtained for connection. Depending upon the position of power supply, standby generators may be considered for connecting the essential sections.

### **Water**

A milk processing plant requires the water in the ratio of 2:1 (2 liters of water for 1 liter of milk processed) for cleaning of equipments, cold storage and drinking purposes (source of water supply, quantity available and suitability for the purpose has to be mentioned). Accordingly, the size of the well is required to be designed and depends on the quality of water, the water softening plant may be considered.

### **Steam**

The steam requirement (kg/hr) depends upon the processes involved and the source of steam may be met by coal/oil/gas fired / electric boiler.

### **Fuel**

The fuel is need for various processing operations. The type of fuel will depend upon the type of boiler used for steam generation. It is therefore necessary to assess the requirement of LDO/coal/gas and also ascertain the easy availability before purchase of boiler.

### **Compressed Air**

It will be required for various pneumatic operations flow control operations as well as for cleaning purposes. The total requirement of compressed air and the capacity of the compressors are required to be furnished.



## **Vehicles**

The vehicles required for procurement and distribution of milk depends on the quantity of milk to be handled. The number of vehicles required, source of supply, rental charges etc. need to be furnished. Depending upon the need, the requirement of vehicles may be considered in the project cost. Generally, insulated vehicles will be required to transport chilled milk and reefer vans for transport of finished products like ice cream, cheese, etc.

## **Other Services**

A maintenance workshop is an integral part of milk processing for carrying out repairs and maintenance of equipment.

## **APPROVALS AND PERMISSIONS**

The unit based on its location has to obtain various approvals and permissions from statutory agencies. An indicative list of approvals and permissions required are as under:

- NOC from fire services Department.
- Approval of plan by gram panchayat/municipality
- Clearance from Pollution Control Board.
- Registration with District Industries Centre or small industries department.
- License from Factory inspector for installation of boiler
- Approval of plan by Electrical department
- Approval of plan by Food Safety Department
- License from Labour commissioner
- License from Weights and Measures