

# CHHOTU RAM POLYTECHNIC, ROHTAK

## DEPARTMENT OF MECHANICAL ENGG.

### Brief report of Industrial Visit of 5<sup>th</sup> semester students



Industrial visit of 5<sup>th</sup> semester students has been organized on 12.12.2022 at Amul Milk Plant Project (Sabar Dairy). Total 36 students have participated in the visit under the mentorship of Sh. Sonu Nandal (Lecturer) and Sh. Vivek Deswal (Lab Instructor)

Sabar Dairy constructed a Milk based product plant in IMT (Industrial Model Township) Rohtak (Haryana). Till now it donot share any joint ventures. But in coming time Escort enter into Joint venture with Amul group of 4% on BSE.



To give remunerative milk price to member producers, union induced to expand business outside Gujarat. In 2007 Union started milk packing operations from Kwality Dairy, Haryana to cater packed milk demand in Delhi NCR. Considering such demand in Delhi NCR Union started milk procurement from Rajasthan state from 16-4-2011. At present union packs more than 6LLPD milk & milk products at Satellite Dairies located in Rajasthan, Uttar Pradesh & Haryana on job work basis. Looking to successful development of the market to sell more than 6.0 LLPD milk & milk products in Delhi & NCR, union's own Milk Processing Plant with modern technology has



been established at Rohtak (Haryana) and is in operation since Jan 2015.

It is one of India's largest dairy products manufacturing company. It had reported a turnover of Rs 53,000 crore in the preceding fiscal, said GCMMF, which markets products under the Amul brand. According to the federation, GCMMF and its constituent member unions registered a group turnover of Rs 61,000 crore in 2021-22, a rise of Rs 8,000 crore compared to Rs 53,000 crore in 2020-21.

Sr.No.	Details	Capacity
1	Milk processing plant	6 LLLPD
2	Packed Milk	5 LLLPD
3	Masti Dahi	20 MTPD
4	Butter Milk	100 TLPD
5	Lassi	20 TLPD
6	Yoghurt	3 MTPD

The 1st chilling center of the Union was established near Dhansura. The chilling center was commissioned in October, 1976. The milk processing capacity of this chilling center was 30,000 liters of milk per day.

The 2nd chilling centre of the Union was established at Khedbrahma; one of the four tribal talukas. The initial milk processing capacity of this chilling center was 25,000 liters of milk per day.

The 3rd chilling centers of the Union was established at Shamlaji, another tribal dominated area. The milk processing capacity of this chilling centers was 25,000 liters of milk per day. The milk processing capacity of these two chilling centers was further expanded with the financial support from the State Government.

Besides the above three milk chilling centers the Union presently operates three other milk chilling centers at places like Bayad, Prantij and Idar to cover all the milk collected from the entire district. Besides these milk chilling centers, the Union also got installed Bulk Milk Cooling Units (BMCUs) in large numbers to keep the sour percentage of milk to "zero" level.

Amul Dairy received CII National Award for Food Safety 2013 for its Outstanding Performance in the Dairy Sector Manufacturing, Large Food Business Category. Besides Global standards & Indian Regulations on Food Safety Systems, the model includes



assessment of Social compliance & Organisational Improvement initiatives. The award was received on December 3, 2013. In August 2019, Amul became the first Indian dairy company to enter Rabobank's Global Top 20 Dairy Companies list.

Amul was formally registered on December 14, 1946. Its objective was to provide proper marketing facilities for the milk producers of the district.

## The Amul Model

The Amul model of dairy development is a three-tiered structure with the dairy cooperative societies at the village level federated under a milk union at the district level and a federation of member unions at the state level.

- ❖ Establishment of a direct linkage between milk producers and consumers by eliminating middleman.
- ❖ Milk producers (Farmers) control procurement, processing and marketing).
- ❖ Professional Management.

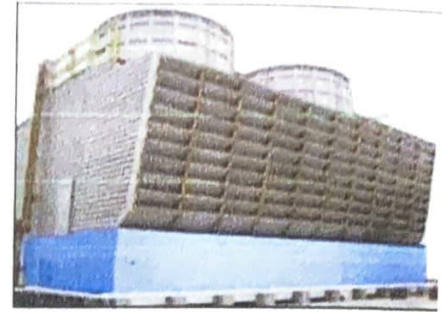


## Synopsis

<b>Company</b>	Amul Milk Plant construct by Sabar Dairy
<b>Status</b>	Dairy Milk products
<b>Location</b>	IMT Rohtak (Haryana)
<b>Beneficiary</b>	Haryana, Uttar pradesh, Tamil Nadu, Gujrat, Maharashtra
<b>Milk Source</b>	Through Farmers
<b>Power Evacuation</b>	300 – 500 K.W using Transformers and Solar energy
<b>Special Features</b>	<ol style="list-style-type: none"> <li>1. Dual fuel Boiler</li> <li>2. Induced Draft Cooling Tower</li> <li>3. R.O plant for recycling the waste water</li> <li>4. 800-10000L Screw Compressor</li> <li>5. Accumulator capacity upto -42 degree Celsius</li> </ol>

## **Cooling Water source Requirement**

Make up water requirement for the project is available using Ground and supply water from Bohar Canal. In Rohtak Amul plant there are 6 induced draft cooling tower use. 9.085 L of water per minute of operation per 100 tons of cooling.



## **Power Transmission**

Two 300KW Transformers are use to supply the power in entire plant.



## **Milk Collection**

A dairy cooperative society at the village level is responsible for collecting the milk; the District Milk Union to which the village dairy is affiliated procures and processes the milk; and the State milk federation markets the milk and milk products

## **Beneficiary**

Product generated from the project is mostly supplied to Gujrat, Haryana, Uttrakhand etc. almost in each state of India. Also it's product get export outside the world like butter and icecream.

## **Environmental Aspects**

- AMUL is a zero-discharge industry. This is achieved by the reuse of water from the various processes. He stressed how the water extracted from the milk, in the milk factory, is fully utilized in other processes and not wasted. As he said, "When using 5 million liters of milk, the groundwater usage is only 1 to 1.5 million liters of water whereas normally groundwater usage


can go as high as 5 million liters of water.” This is one aspect of reuse at the source.


- Moving on to the second most widely used resource, **Energy**. The design of the building also played a major role in the conservation of energy by incorporating the usage of natural light and ventilation in the design of the premises.
- Thirdly is the use of **renewable energy**. They have placed solar cells on all their rooftops which generate 500 kWh of power and 300 kWh amongst all the factories in total. They are also using biofuels for all their heating processes.

### **Community Development Activities**

- **Cattle feed manufacturing plant:** To feed the balanced cattle feed to the animals (cow & buffaloes) a cattle feed manufacturing plant of 100 metric ton per day capacity was established under Operation Flood-III programme of the Indian Dairy Corporation through the Government of Gujarat.
- **Employment:** : A large number of local people are engaged through various agencies. Co-operative societies of land oustees are formed to whom work of plant is awarded. To uplift the social and economic status of women of project affected villages, self-employment training classes are being conducted.
- **Education:** Under the project, digital literacy & skilling interventions will be provided to over 100,000 children and adolescents via computer labs set up across 60 schools, 250 teachers to receive training.



  
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