



SARVAJANIK UNIVERSITY
Sarvajnik College of Engineering and Technology
Electronics and Communication Engineering



INDUSTRIAL VISIT
REPORT
ON



Sumul Dairy Surat Private Limited

DEPARTMENT
OF
ELECTRONICS AND COMMUNICATION ENGINEERING,
SARVAJANIK COLLEGE OF ENGINEERING AND TECHNOLOGY
Dr R.K. Desai Road, Athwalines, Surat - 395001,
India.

Starting Date & Time: 10 April 2023, 9:30 AM

Starting Point: Sarvajnik College of Engineering & Technology, Surat

Venue & Place of Company: Sumul Dairy Surat Private Limited, Surat

Duration: 1 Day

Faculty Members: Prof. (Dr) Chirag N Paunwala, Prof. Pritesh N Saxena

Total Number of Students: 38 Students from B.Tech II EC

Organized By: Electronics & Communication Department, SCET

Sumul or Surat Milk Union Limited, which is now renamed as The Surat District Co-operative Milk Producers' Union Ltd, is one among the 17 district unions which acts as manufacturing units of dairy products for Gujarat Co-operative Milk Marketing Federation Limited, the marketers of Amul brand of product. Sumul came into existence on August 22, 1951.

Vision Statement of Sumul

We are socially responsible organization with commitment to milk producers by providing good returns and services to consumer's safety and delight through implementation of food safety and quality management system. We believe in growth and continual improvement through team work, trust and excellence, without compromising food, safety, quality, honesty and integrity.

Objective of Sumul

To provide year round milk market for their surplus milk and to earn reasonable returns for the milk to improve their quality of life.

To procure milk and process it into good quality milk and milk products to market it at most economically and efficiently to give maximum overall net returns to the producers and general satisfaction to the consumers.

To provide essential technical inputs and services to the producers at their door steps in an economic and efficient manner and also in a way most acceptable to them to increase milk production and to reduce the cost of production.

PRODUCTS

In total Sumul produces 112 different products in dairy industry. It has total 4 plants located in Gujarat and Maharashtra

Amul gold milk, Amul shakti milk, Amul tazza milk, Amul slim 'N' trim Sumul cow milk, Sumulya high fat milk, Tea Top Milk are few types of Milk being dispatched by Sumul

Panner, Ghee, Cow ghee , Probiotic skimmed milk dahi , Probiotic Dahi, Fat free dahi , Dahi , lassi , Chhash , Premium Chhash, khoya

Faculty of Electronics and Communication Engineering Department organized industrial Visit to SUMUL DAIRY for B.Tech II year Students accompanied by two faculties.

We reached Sumul Dairy, Surat by 9:30 AM and were told to wait for some time in waiting hall within the industry premises. The industrial visit started with a welcome drink provided by sumul and then a brief introduction about sumul dairy was presented whereby we got to know variety of products being produced by sumul. The session lasted for around 1 hour. We were then taken to the section where cream butter and milk were produced. There was a cream storage tank at the entrance and a churning machine which was used to produce butter was in the next room after that ghee was produced in the next room and its packing was done. A big milk pasteurizing machine was situated where many pasteurization pipes were processing 20000 litres of milk/hour to produce butter, 10000 litres of milk/hour to produce cream and 4 units were processing 40000 litres of milk/hour .

There were two boilers of which one was in working condition and the other was being inspected. The boilers were controlled by processor using PLC panel. The logic was in the form of ladder diagram having stand a lot system in which primary and secondary processor were present so that if one processor stops working the other starts on its own. Each boiler was controlled through software made by SCADA systems.

Near boiler house washing section was there where the baskets were being washed. They were being passed from three sections in which the first section was cleaning through normal water and the second was cleaning through foam after cleaning through foam the baskets were again cleaned through clean water. On the outer side of the washing section tanker were being unloaded. The tankers were containing milk which came from villages. They were being unloaded through a tanker unloading machine which than passes the milk through storage tank. There were four storage tanks with the capacity of about 15 Lacs litres in total. Three storage tanks were for storing normal milk and one was ice sylo having storage of 120000 litres was storing cooled milk. From there we were taken to milk cooling plant which was also operated through same software made by SCADA systems. Milk having temperature of about 6-7°c was being supplied and the cooling plant was decreasing the temperature to 1.1 °c and it was sent for pasteurization .The cooling was done through PHE (plate heat exchange) in which ammonia was used.

Finally the visit was completed at 1:30 PM and it was a great experience.



