

A Report

On

**“Industrial Visit – Banas Dairy &
Duke Plasto Technique Pvt. Ltd.”**

For the Students of Mechanical Engineering Department.

(Semester – IV)

- **Objective:** “Training and Exposure on the various aspects of manufacturing of dairy products and uPVC pipes”
- **Venue:** “Banas Dairy & Duke Plasto technique Pvt. Ltd.”, Palanpur.
- **Number of Students:** 129
(IV-Semester - Mechanical Engineering)
- **Head of the Department:** Ms. Prexa H. Parikh
- **Faculty Coordinator’s:**
 1. Mr. Abrarkhan M. Pathan (Asst. Prof. Mechanical Engg. Dept.)
 2. Mr. Tushar M. Thakar (Asst. Prof. Mechanical Engg. Dept.)
 3. Mr. Sagar V. Choksi (Asst. Prof. Mechanical Engg. Dept.)
 4. Mr. Dhruvkumar H Patel (Asst. Prof. Mechanical Engg. Dept.)
 5. Mr. Chintan A. Patel (Asst. Prof. Mechanical Engg. Dept.)
 6. Mr. Deep B. Patel (Asst. Prof. Mechanical Engg. Dept.)

1. OVERVIEW:-

1.1 Banas Dairy

Late Galbabbhai Patel, founder chairman and the selfless sage cocooned a dream to uplift Socio-economical status of village farmers which is fulfilled through the creation of a Co-operative milk union for Banaskantha district, on the foot print of “Amul Dairy” of Kaira district, the ideal model of a co-operative. Consequently, eight village level co-operative milk societies in Vadgam and Palanpur taluka of district were registered and started collecting and pouring milk at DudhSagar Dairy, Mehsana from 3 October,1966. The milk union got registered under the Co-operative Act on 31st January,1969 as Banaskantha District Co-operative milk producers’ Union Limited, Palanpur, popularly known as “BANAS DAIRY”.

The foundation stone was laid down by late Galbabbhai Patel on 14th January.1971 at 122 acres land acquired near Jagana village in order to set up dairy plant under the Operation Flood programme launched by National Dairy Development Board. On 7th may,1971 the dairy started functioning at the same place with handling capacity of 1.5 lac liters of milk that was expanded later on with processing capacity of 4lac liters milk per day.

A small step, organizing some societies and collecting few hundred liters of milk in the year1966 has turned in to a quantum leap, when the ambitious and ultra modern automated dairy plant of Asia continent has been shaped adjoining to first plant (Banas II dairy) with cost of Rs.110 Crore to meet not only present but also future need to handle 10.5 lac liters milk per day.

Altogether Banas-I(Old Dairy) and Banas-II Dairy plant (10.5 llpd processing capacity) along with new venture Banas-III(805 LLPD processing capacity) and 4 milk Chilling Centers Khiman, Dhanera, Tharad and Radhanpur, Banas Dairy is able to process 22 lacs liters of milk per day.

In addition, it also presently Dairy whitener, Amul Spray powder Amul Whole milk Powder, Sagar\Amul Skimmed milk powder infants milk powder, Cheese (1 MT per day), Paneer (2 MT per day) Amul table Butter Amul Desi (white) Butter, Sagar\Amul Ghee, pasteurized milk (Full cream, Standardized, Toned, Double toned and skimmed milk), Flavored milk Butter milk, Peda Namkin ,Ice-cream etc. These products are mainly marketed under world famous brand names “Amul” and “sagar” The dairy has also started exports of ghee and milk powders to middle feather in the cap of Banas Dairy when it got ISO 9002 and HACCP certification.

1.2 Duke plasto Pvt. Ltd.

Duke Plasto Technique Pvt Ltd. Is synonymous for manufacturing quality consistent and reliable Products, and “National Quality Award” in 2007 from government of India has proved it . Duke's diligent and visionary workforce is committed for the highest quality production under a roof with an ambition to make an empire at world level. By getting customer satisfaction and simultaneously providing them unique product which is highly inspected with latest technology. Pouring Out Solutions for a lifetime While energy is indispensable for household chores and agribusiness, its scarcity poses a threat to human progress. Duke Plasto Technique Pvt. Ltd., therefore, reinvents newer ways through implementation of energy efficient pumps and pipes. These devices ensure progress, profitability, and eco- conservation. Established in 1989 by Shri Prabhudas Patel, Shri Shantibhai Patel, Shri Dineshbhai Patel and Rameshbhai Patel, Duke Plasto Technique Pvt. Ltd. started as a dream to provide quality pumping solutions across the globe. Today the dream is a global reality.

On 21st October 2016, the Mechanical Engineering Department (IV-Sem), L.J.I.E.T, arranged an Industrial Visit for the students of Mechanical. The main focus of this program was to enable the students to know about the various aspects of the manufacturing of dairy products and plastic pipes, their use and the precision and accuracy required for the same.

2. ORGANIZATIONAL STRUCTURE OF THE VISIT:-

The number of students who attended the visit was 129 accompanied by 5 faculty members. On the day, the students and the faculty left the college campus at 6:30 am and reached the Banas dairy at 10:30 am. A brief overview of Banas Dairy, was given by Mr. Kamlesh to the students, who were then further divided into 7 batches. Mr. Kamlesh, Mr. Pradip, Mr. Dhruv and Mr Tushar , Mr. Chintan, Mr. Sagar , Mr. Deep were then given few students under them to handle out the visit.

BANAS DAIRY

After reaching the venue at 10:30 am, Mr. Sikandar who is the proprietor of BANAS DAIRY gave a brief overview of their Industry and also he emphasized on the importance of Practical Knowledge in the field of Engineering. Thereafter, Mr. Kamlesh who is the In-charge of Quality and Control, took students to the Machine Shop, wherein, he explained in depth the working on pasteurized of milk. The students were eager to know more and more, which was appreciated by Mr. Kamlesh.

Mr. Kamlesh, then took another batch of students to the Boiler plant and Ash handling plant wherein, The minute parts that were being manufactured were really impressive and also, each part was flawless and perfect. Also, the students were taken to the Control room, where in the PLCs that are used for the controlling of whole plant were explained to the students.

The next sets of students were taken to the refrigeration plant and also the utility system. Also, they were explained about the packing machine. Thereafter, at 12:00 pm, the students were taken to the various other sectors of Mechanical Engineering namely, Casting, Pressure Vessel, Plastic, Cloth Making, Vertical Lathe, Boring, Planning and so on.

Some glimpses of BANAS Dairy are as under –



SAVE ENERGY



DUKE PLASTO PVT. LTD

The number of students was 129 in total; Mechanical. The visit in the BANAS DAIRY got over at 1:00 pm and thereafter, they were taken to the Duke Plasto Pvt. Ltd. A brief overview of Duke Plasto , was given by Mr. Vijay to the students, who were then further divided into 6 batches with their technical persons.

The students were first taken to Lunch which was arranged by the Duke group and then taken to the conference room , where-in they were explained about the company profile. importance of Plastic pipes and its properties and then they were shown the various processes and dies used for injection moulding.



Thereafter, they were taken to the different sections. There were two major sections in duke plasto, one for uPVC pipes and another was Submersible pump. the uPVC Pipes and their manufacture – inject raw material as resin powder form to final product as hollow uPVC pipes with different diameters. and finally to finishing and packing of the upvc pipes. Each and every student cleared his doubts and thus they were benefited by the same.

Next was the Submersible pump, where a Technician, explained the students as in how pumps and motor assembly were prepared. In next section, they were taken to the stator and rotor manufacturing , where number of rotors were assembled with press machine and their alignment was checked by mass balancing. The Further processes like as, Argon welding, grooving,coating, And last one varnishing were carried out.

Last few sectors , namely the winding and quality sections, which had huge number of machines for winding cables , approximately 25 machines which were winding a cable, which clicked various ideas in these young minds.

Lastly, the students were shown, the Lathe Machine, where internal threading of uPVC pipes were carried out.

Some glimpses of DUKE PLASTO are as under –





CONCLUSION

The visit ended at 6:20 pm on both the days and the faculties and students reached the college at around 10:30- 10:45 pm. The overall response of the students was positive – below are listed feedbacks of few of the students

Nice and Interesting Experience

Kindly arrange a visit in a Bigger Industry.

Excellent!!!! Explanation was awesome.

Submersible pump manufacturing Process was really a life time experience.

ACKNOWLEDGEMENT

The coordinators are grateful to the College authorities, Management and the Vice President – Dr. Manish Shah (LJK Trust) for supporting them to carry out such a program and for providing them with the transport. Secondly, the coordinators would like to thank Dr. A.C. Suthar – Director (L.J.I.E.T.), who encouraged the coordinators for this program. Also, the coordinators extend their gratitude to the Head of the Department – Ms. Prexa H. Parikh, who has played a major role by being there at the time of need. Last but not the least; the students did a wonderful job and the coordinators are proud of each of their students.

