



Situation Analysis for SME
Sector



Dairy Cluster -North
Gujarat

Submitted to
TERI

By

 **ACNielsen ORG-MARG**

FIELD OBSERVATIONS

Field Observation

- ✓ Gujarat is an leading state for milk production in the country. North Gujarat is one of the major hubs in milk processing. Asia's second largest dairy 'Dudhsagar Milk Cooperative Dairy' and largest market yard 'Unjha' are located in Mehsana.
- ✓ At village level 12,057 Milk Co- operative societies 43 chilling centers and 13 Dairy processing units at district level (Dairy) are functioning in the state. On an average the total milk collected is 76.49 Lakh Liters per day (LLPD) which is being processed.
- ✓ In North Gujarat 7 to 8 processing units are existing.
- ✓ Maximum units are functioning from 15 to 20 years with expansions as well as modernization. Some units are also running on contract basis for AMUL.
- ✓ Milk is collected from local villages / milk co-operative societies.
- ✓ The processing units are working round the clock.
- ✓ The Dairy cluster is not coming under the SME category as the minimum processing plant cost is app. Rs. 40 to Rs. 50 crs.

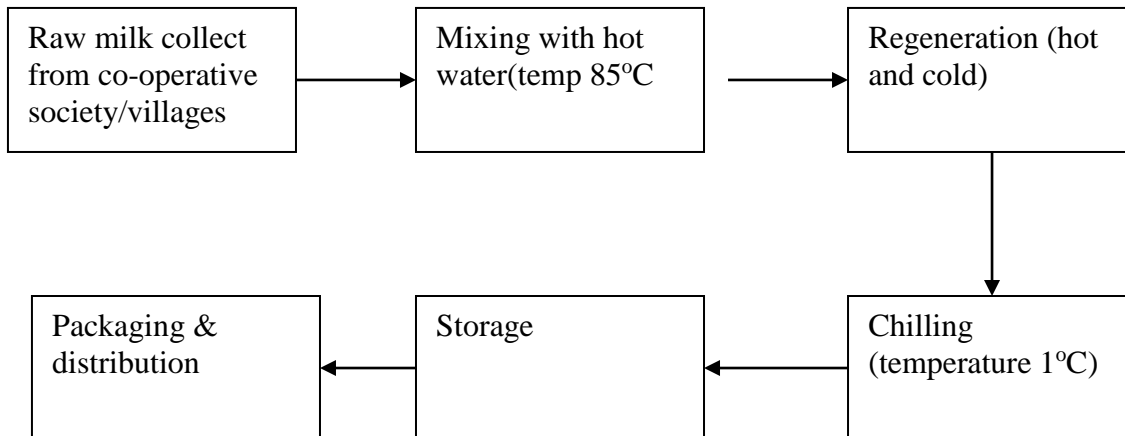
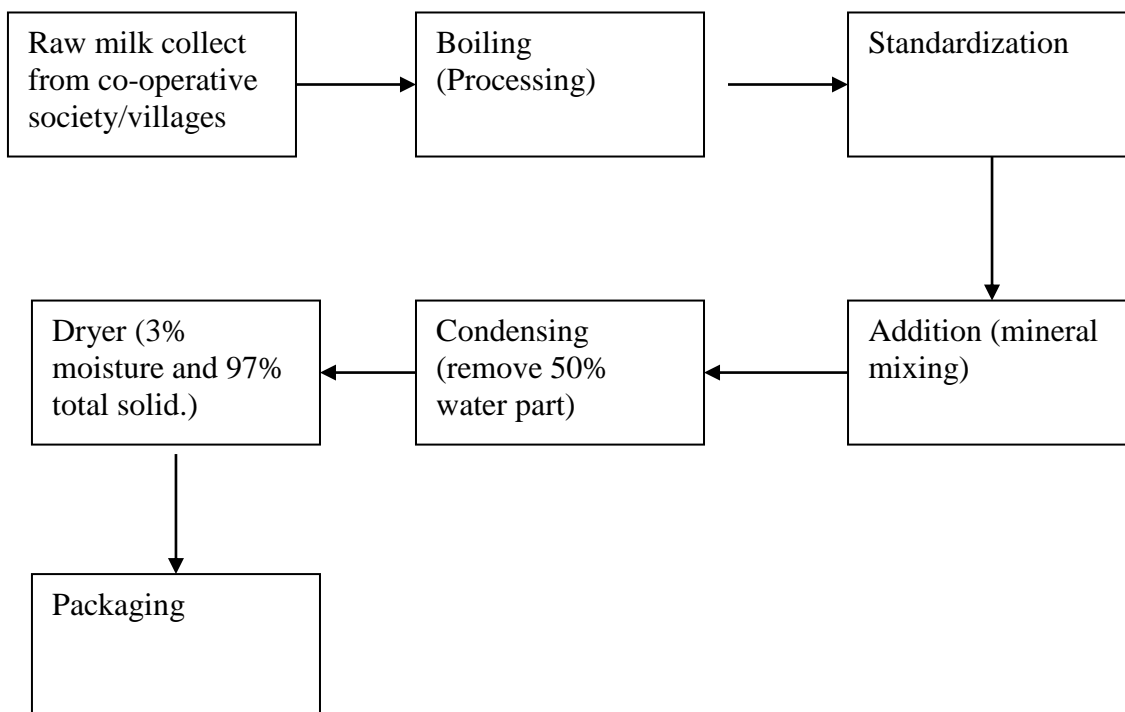
Electricity

Power Supplied by Gujarat State Electricity Board, there is no power problem, weekly one day power cut.

Equipments

- ✓ Cream Separators (Capacity upto 1500 ltr/hr.)
- ✓ Fat Testing Machines
- ✓ Valona machines (Capacity 200 ltr/hr.)
- ✓ Milk fat analysers,
- ✓ Packaging machine
- ✓ Boilers

- ✓ Auxiliary equipments - (Roller / Power Can conveying system, straight through / rotary Can washer, Can scrubbers, milk tanks, Can drip saver, feed milk pumps.)
- ✓ Equipment for processing, (Plate heat exchangers for milk, cream, buttermilk, ice cream mix, HTST pasteurizers for milk, cream etc, SS centrifugal pumps for transfer of milk, cream, ghee, buttermilk, ice cream, Cream separators, flow diversion valve.)
- ✓ Equipment for storage, (Milk storage tanks, milk storage capacity up to 1,00,000 Ltrs.)
- ✓ Instant Milk Chilling Unit, (Capacity up to 5000 LPD.)

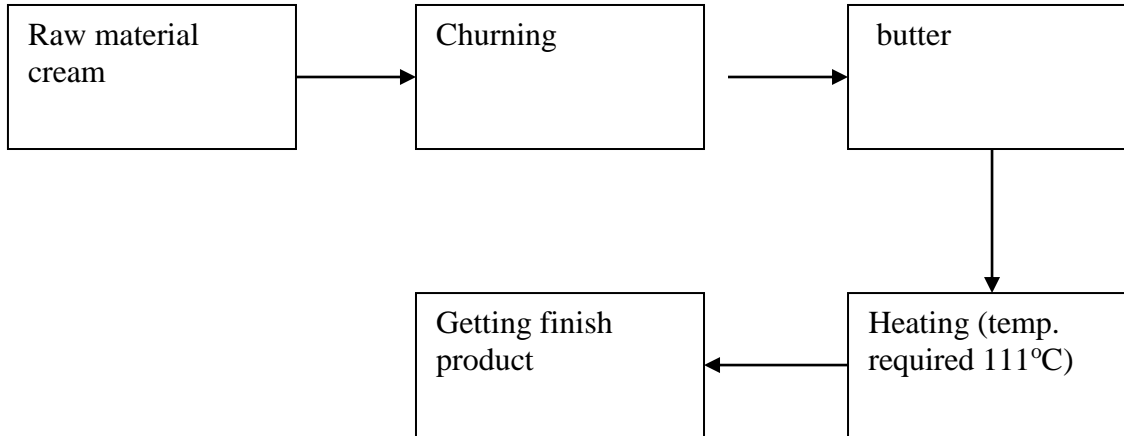
Pasteurizer milk process**Milk powder process****Type of machinery required for power plant.**

1. Milk cylo
2. Condensing plant
3. Drying plant
4. Powder cylo
5. Powder packaging machine

Plant capacity (The entire processing units, the app. investment required. Is
Rs. 60 to 70 cr.)

1. 30 tpd
2. 10 tpd

Ghee process



Machinery required

Top churn (cost app. 7 to 8 lac.)
Continuous butter maker (CBM) (cost 28 lacs)

Equipment supplier

L & T Pune (install total dairy plant)

IDMC, Anand (Installed total dairy plant)

Alfa Laval
4 , Sobhana nagar,
Vasna road,
Baroda-390015
Ph-0265-2250068/69.
Mr. Tinkesh Kosti.

CHILLING UNITS

Field observation

- ✓ The main areas are Viramgam, Dehgam, Katodan, Dhanduka, Kapadvanj, Bayad, Dhansura, Shamalji, Idar, Khed brahma, Prantiz, Kheralu, Kadi where the chilling units are situated.
- ✓ The North Gujarat Area was covered.
- ✓ Main raw material is Milk

- ✓ 15 chilling Units belong to Sabar Dairy Himmat nagar, Dudhsagar dairy in Mehsana, Uttam dairy in Ahmdabad.
- ✓ Milk is collected from village societies.
- ✓ In chilling unit the milk is chilled and dispatched to main plant.
- ✓ The chilling units work in 2 shifts (Morning 7 am to 12 pm & evening 7 pm to midnight 12)
- ✓ Approx capacity of each chilling unit start 30,000 ltr. to 2lac. Ltr. Per day.
- ✓ Some Chilling units are using capacitors for energy saving.

Equipments

- Compressor
- Condenser (5 hp to 25 hp motor)
- Boiler (110 psi)
- Chiller (5 hp to 12.5 hp motor)
- IBT (Ice built tank)
- Agitator (5 hp to 10 hp motor)
- Cooling tower (7.5 hp)

Energy

Electricity

- ✓ Uttar Gujarat Vij co. ltd.
- ✓ Price 4.10 to 5/- per unit
- ✓ Power available 23 to 24 hr.
- ✓ Power quality very good

Alternate power source

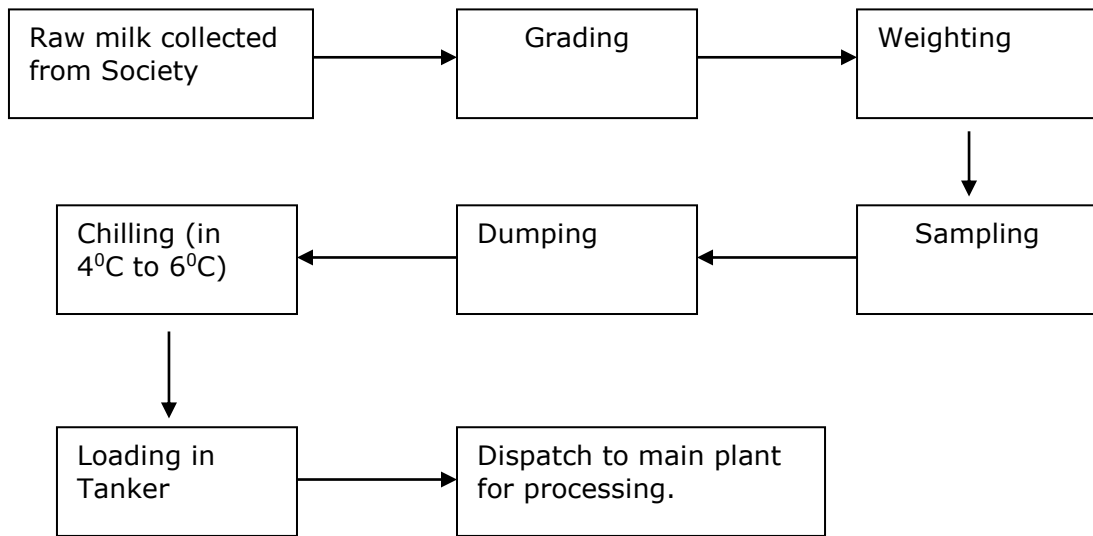
- ✓ D.G. Sets (60 kv to 100kv.)

Fuel

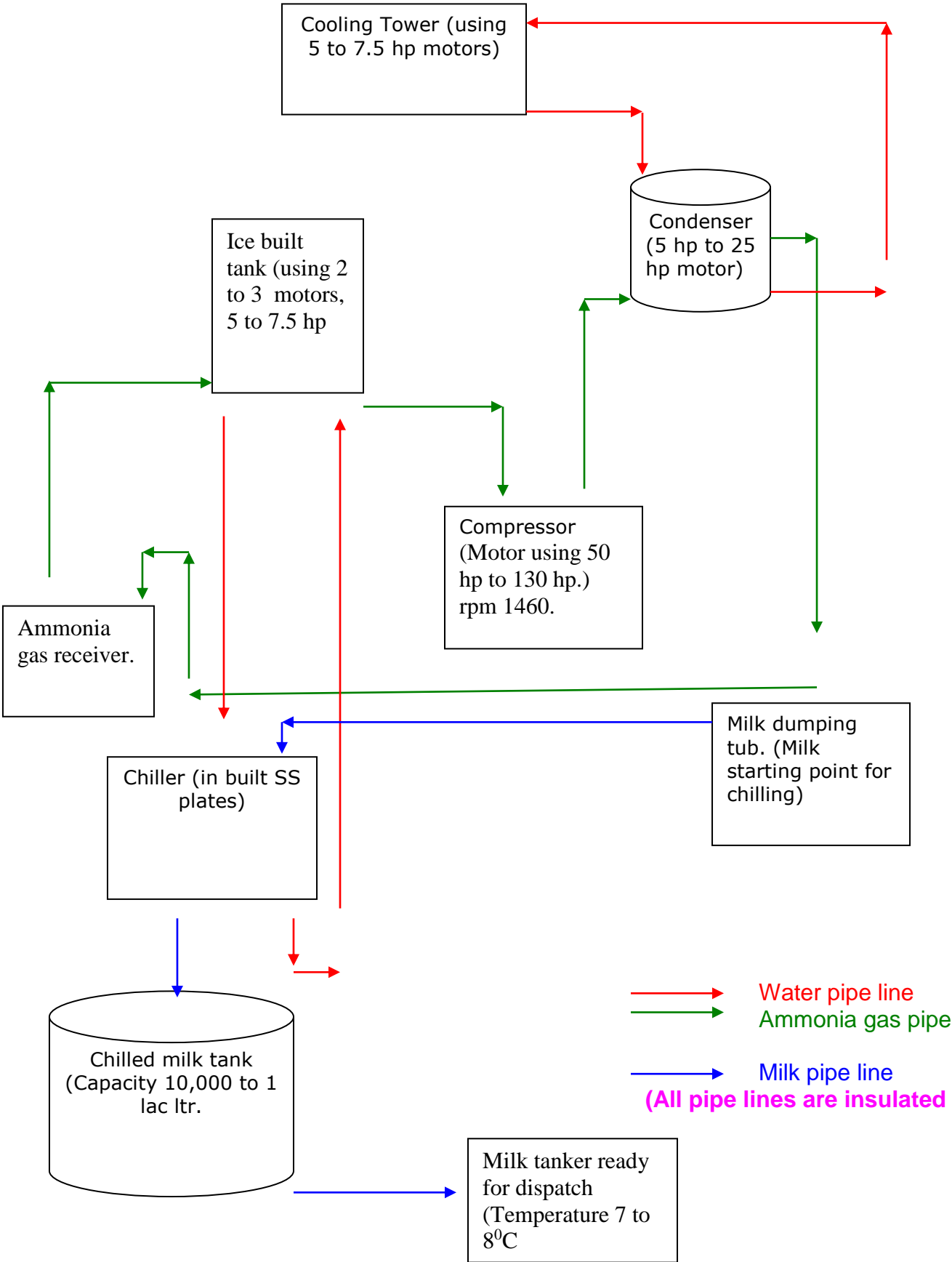
- ✓ For Boiler they are using FO. (Price 28 to; 32/- per ltr.)
- ✓ Ammonia Gas for Water chilling (Price 32.50/- per kg)

Service Provider

Process



Chilling process



SERVICE PROVIDERS

Equipment Supplier

- ✓ Suryoday Engineering
Mr. Suresh Babubhai Panchal
B-2, Agrawal Industrial Estate,
Beyond Govt. Photo - Lithopress Road,
Dudheshwar Road,
Ahmedabad – 380004
Ph-079-25624985, M-9998423093.

- ✓ VCS India Pvt. Ltd
S- 5, Ravi Randal Society,
Nr. Jashoda Nagar cross road,
Ahmedabad-380026.
Mr. Hasmukh Gajjar
Ph-079-25892957.

- ✓ Mahesh Engg. Works
Modi estate-1, Nr. Mahakali temple,
Dudheshwar road,
Ahmedabad
Ph-079-25626688.

- ✓ Goma Engineering Pvt. Ltd
Thane,
Mumbai
Ph-022-21731800, M-9322654232.

- ✓ Tetra Pak India Pvt Ltd

Cooperative Dairy Federations/Unions

- ✓ Mehsana District Cooperative Milk Producers' Union Ltd

Compressor & condenser

Kriloskar Ltd

708,7th Floor, SakarIII, Near Income Tax Circle,
(Opp Old High Court), Off Ashram Road, Ahmedabad
Ph-079-27541428,27541653.

Air Control & Chemical engineering co. Ltd

Borejacli, Nr. Western Railways
p.o- Nandej, Ahmedabad.
Ph-02718255306.

Frick India Ltd

Mathura road, Faridabad

Indian Dairy Machinery Co.Ltd.

C-1/11-12, GIDC Estate, Vithal
Udyognagar,
Ph-0269- 246375/46312.

Thermax Limited

409-411, Mahakant, Opp. V.S. Hospital
Ashram Road, Ahmedabad
Ph- 079-26575408

Filtron Engineers Limited

124/3, Vitthalwadi road,
Pune
Ph- 020-4338643/44.

Zeutech India

EI- 26/4, J- Block, M.I.D.C, Bhosari, Pune
Ph-020-27128909/27125647

Kadam Dairy Equipments Private Limited

612, Vakil Nagar, Erandwana, Pune
Ph- 020-25448796

IDMC Limited

Plot No. 124-128, G.I.D.C Estate
Vithal, Udyognagar
Ph-02692-236580

Larsen & Toubro Ltd

501, Sakar Complex I, Ashram Road,
Ahmedabad , Ph-079-6630 4000

Alfa Laval (India) Ltd

Dapodi, Mumbai-Pune Highway, Pune
Ph- 27107366

Kulp Mark

Navrangpur, Ahmedabad.

Super Freeze

Ahmedabad

Jyothi Engineering

Vadodara

Ammonia gas Supplier

Vadila Ammonia Gas Supplier
Gomti pur, Ahmedabad.



Milk processing



Milk processing



Milk processing Plant



Milk processing



Milk chilling units



Milk storage tank.



Milk storage tank



Milk cream separator



Milk can conveyer



Lab



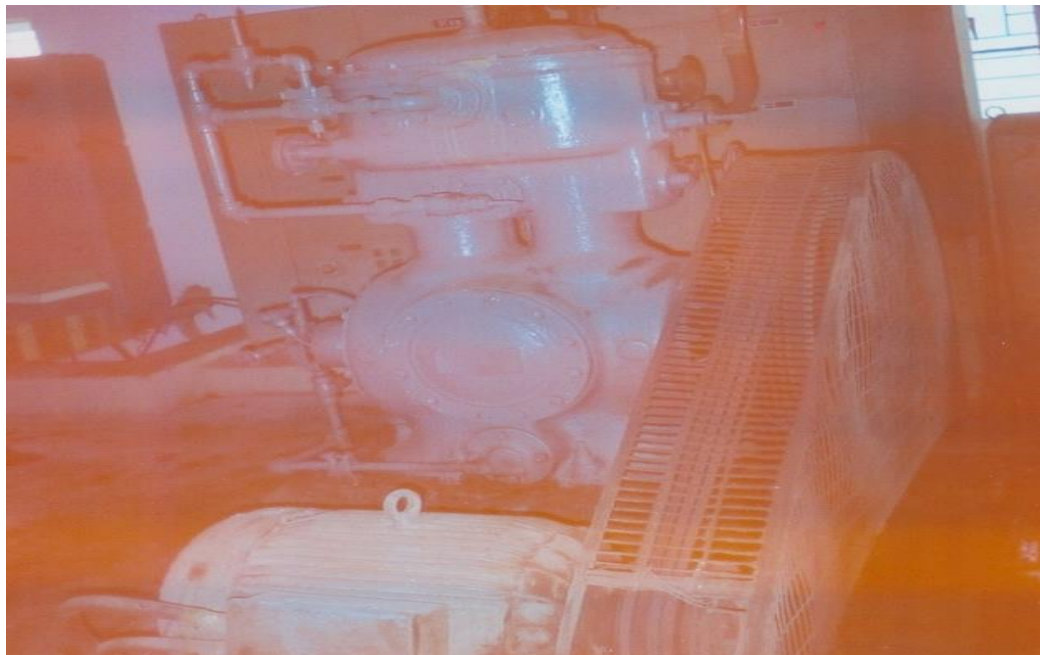
Finish products



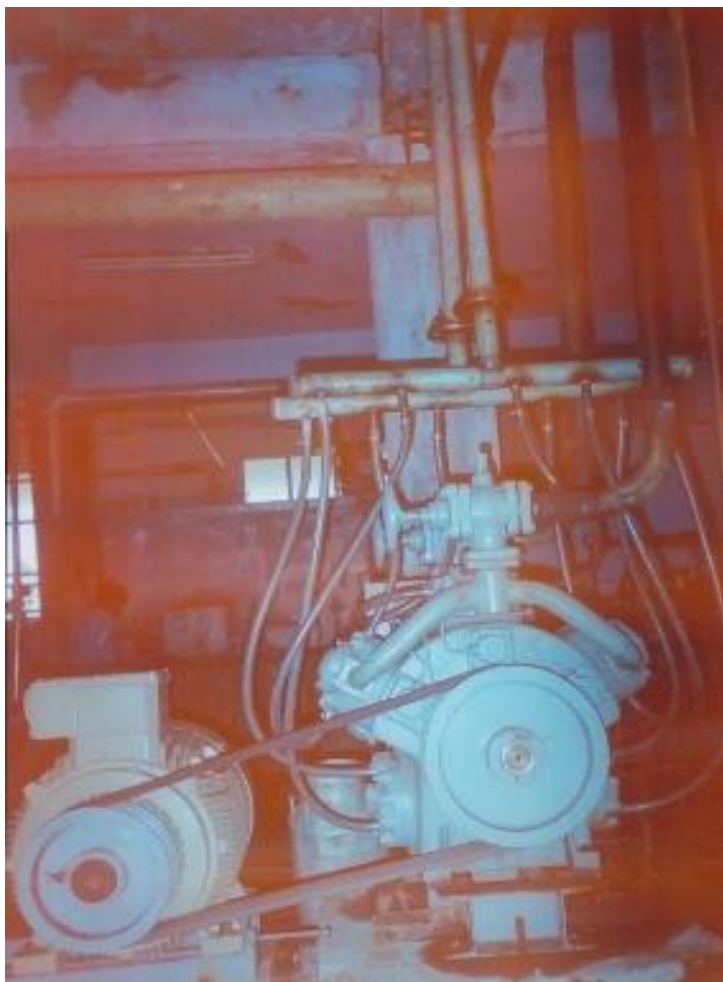
Lab



Condenser



Compressor



Compressor



Chiller



Ice built tank



Ice built tank



Water filter for boiler



Chilled milk tanks with insulated covered



Can washer



Milk chilling units

Bankers

The 7 units operating in North Gujarat are largely dealing with

- ✓ Mehsana Co-operative Bank Ltd
- ✓ Axis Bank
- ✓ State bank of India.