



Situation Analysis for SME
Sector

Jamnagar Cluster

Submitted to
TERI

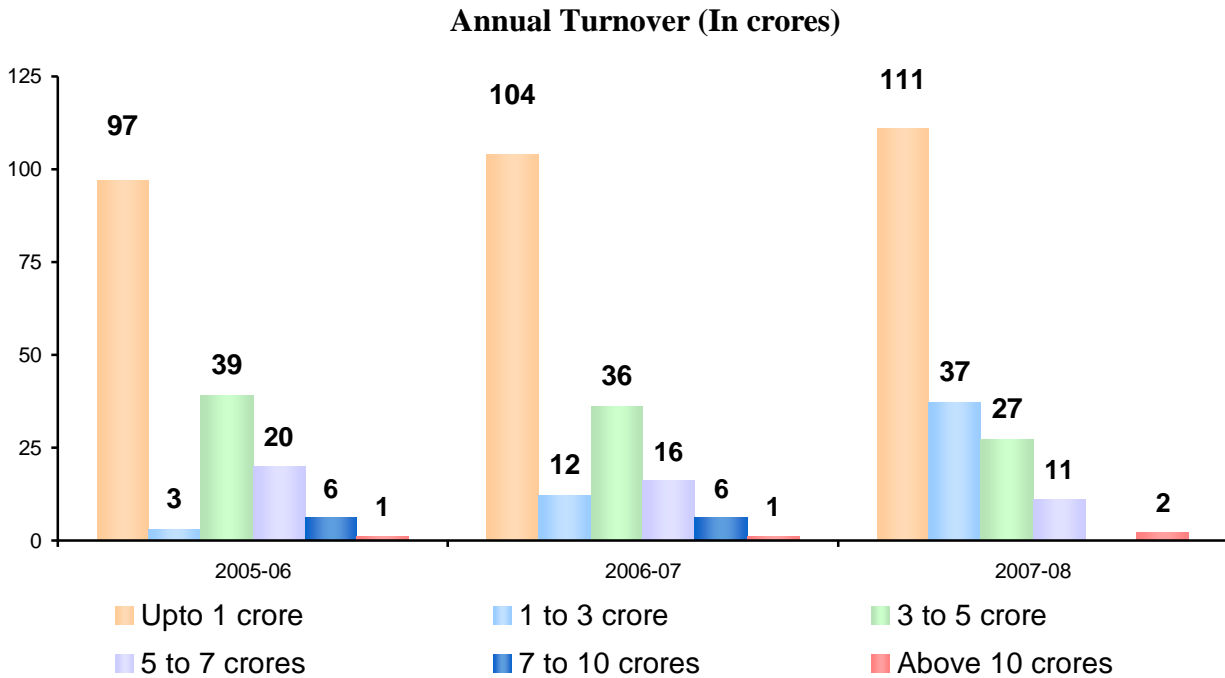
By

 **ACNielsen ORG-MARG**

SUMMARY OF FINDINGS

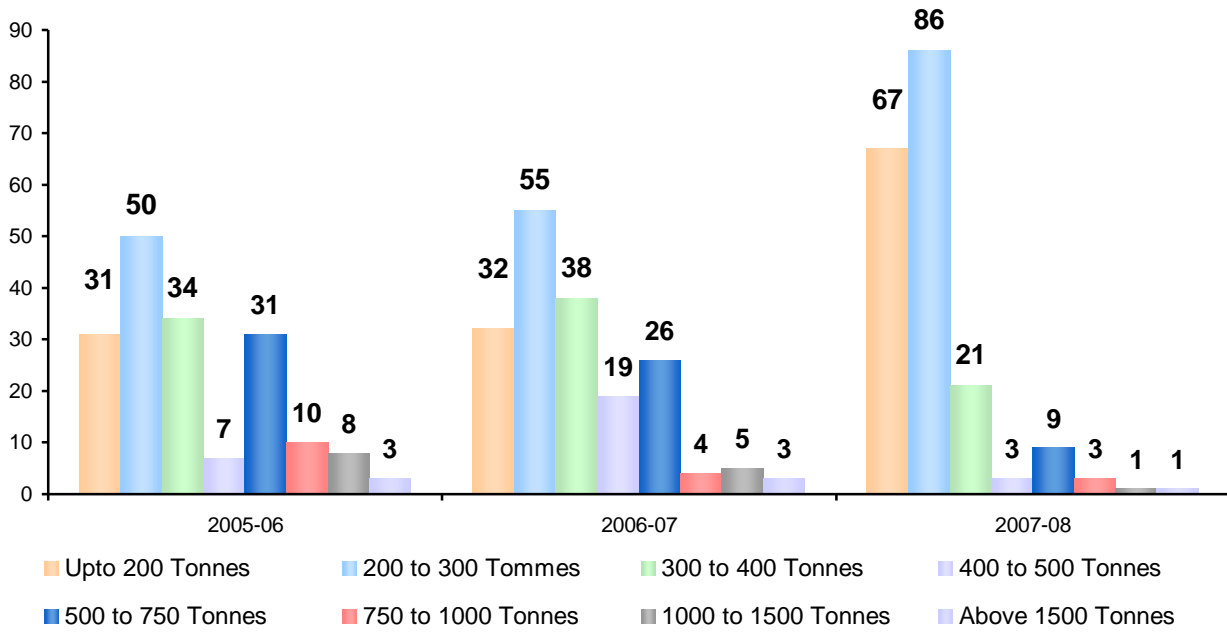
- There are approximately 1000 units in this cluster who are engaged in manufacture of various types of brass related products.

- **ANNUAL TURNOVER**



➤ **PRODUCTION**

Annual Production (In Tonnes)

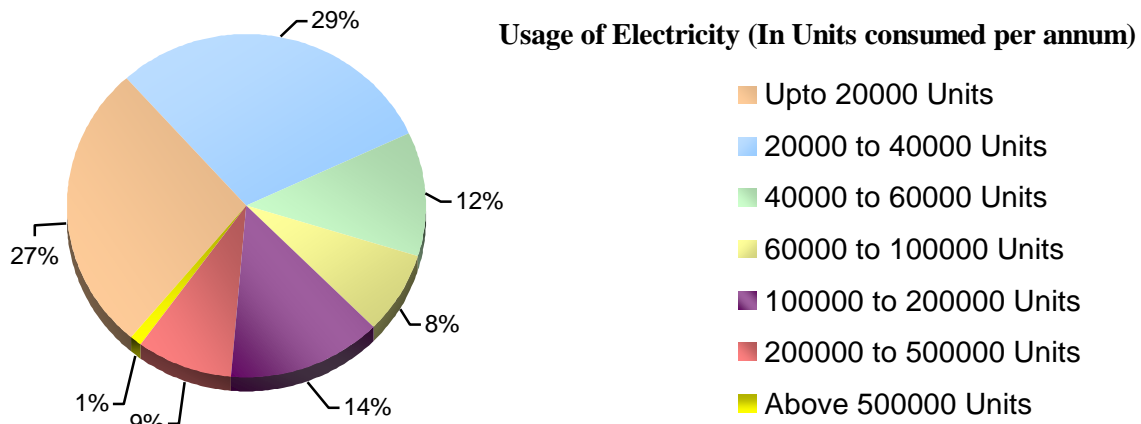


➤ **ENERGY REQUIREMENTS**

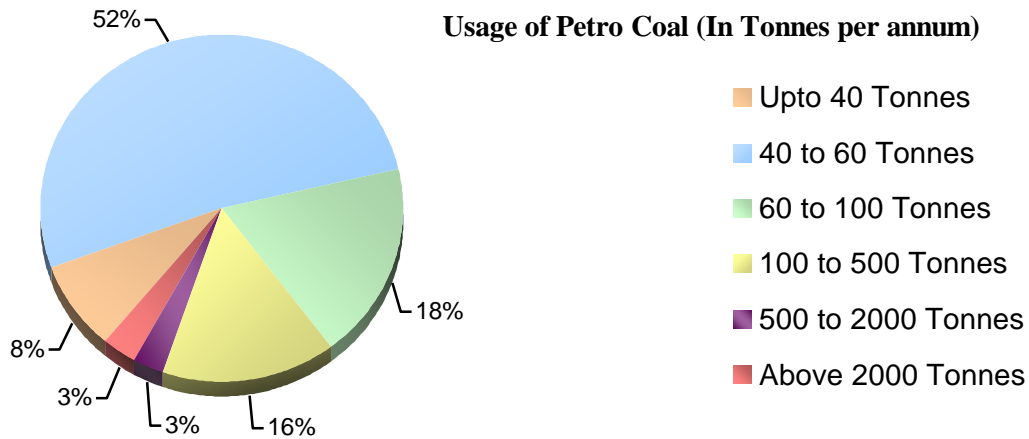
• CUMULATIVE FUEL USAGE

	<i>Qty consumer per annum</i>	<i>Number of Units using the fuel</i>
<i>Electricity</i>	<i>16275625 Units</i>	<i>198</i>
<i>Coal / Hard Coke</i>	<i>59777 Tonnes</i>	<i>191</i>
<i>Firewood</i>	<i>4425 Tonnes</i>	<i>7</i>

• USAGE OF ELECTRICITY (IN UNITS CONSUMED PER ANNUM)



• USAGE OF COAL / HARD COKE (IN TONNES PER ANNUM)

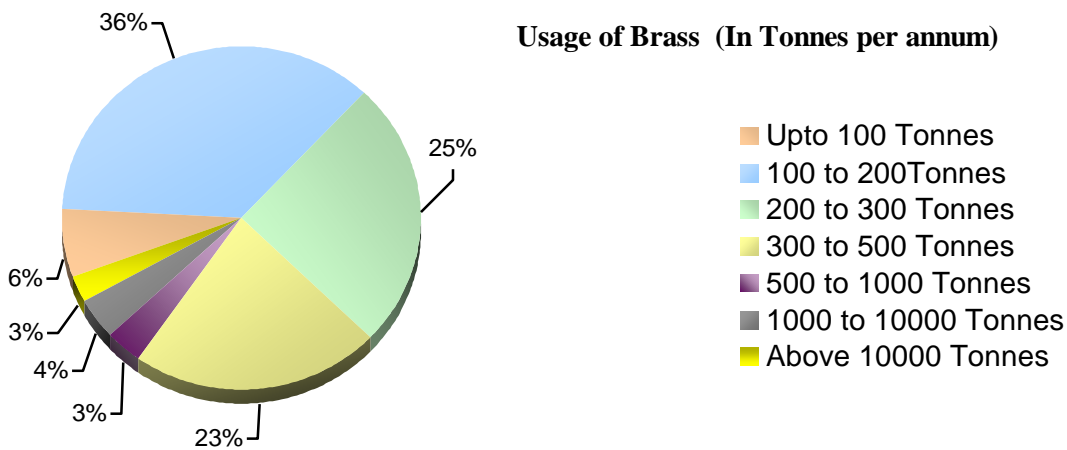


➤ **RAW MATERIAL REQUIREMENT**

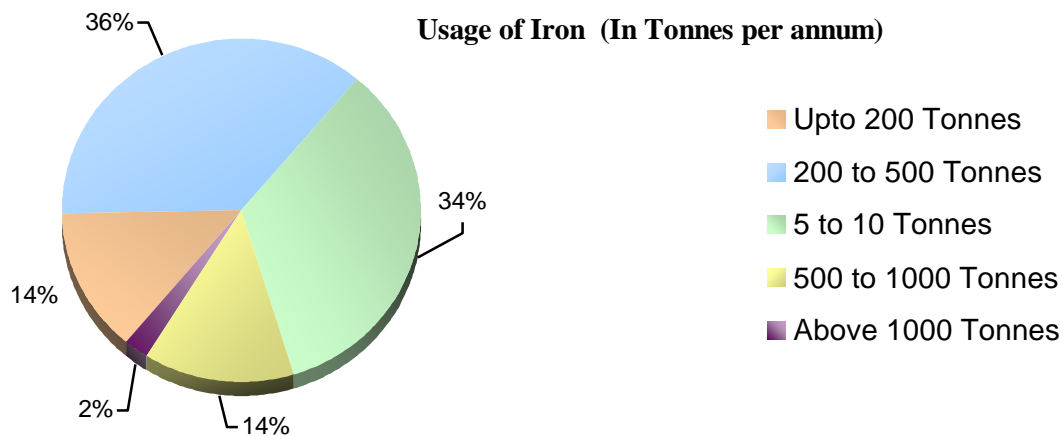
• CUMULATIVE RAW MATERIAL USAGE

	<i>Qty consumed per annum</i>	<i>Number of Units using the raw material</i>
Brass	295067 Tonnes	155
Iron	13850 Tonnes	29
Clay	41925 Tonnes	100
Sand	36521 Tonnes	49

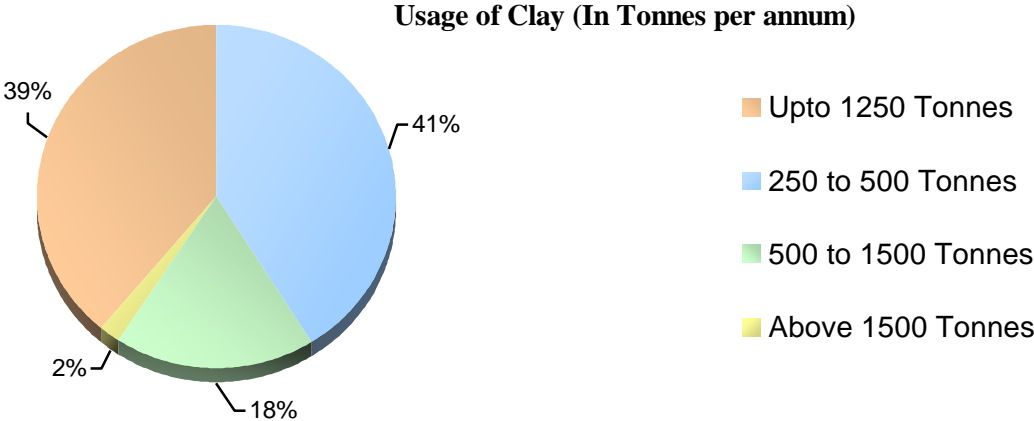
• USAGE OF BRASS (IN TONNES PER ANNUM)



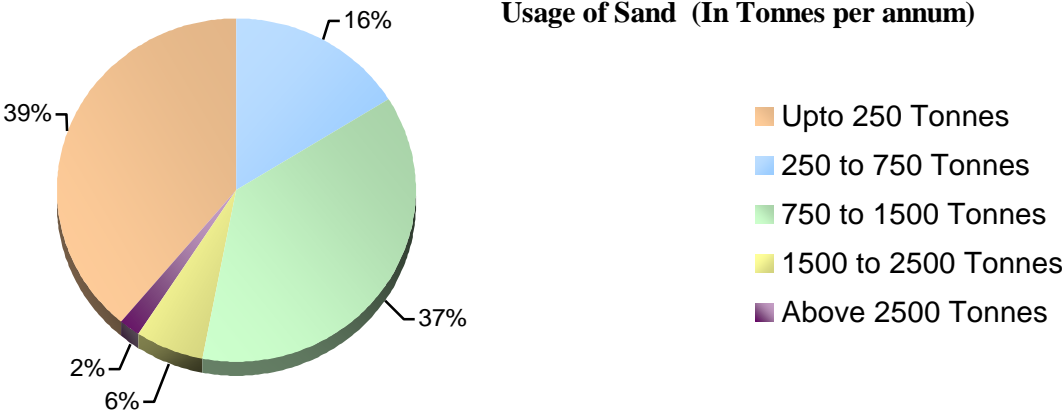
• USAGE OF IRON (IN TONNES PER ANNUM)



- USAGE OF CLAY (IN METRES PER ANNUM)



- USAGE OF SAND (IN TONNES PER ANNUM)



FIELD OBSERVATIONS

- ✓ Jamnagar is known as the hub of Brass components.
- ✓ The major areas where the units are located - GIDC (Phase-1, 2), Patel Colony, M.P.Shah Industrial Area, Hapa Industrial Area & 46 Digvijay Plot
- ✓ Majority of the units in this cluster are family owned business, which through experience, trials have grown over the years. All the units are using the local technology and there has been no outsource of technology.
- ✓ The units are normally working for 10-12 hours; very few units are running for all the shifts.
- ✓ Brass scrap, which is imported from Kandla port, has registered a hike of 300 per cent in the last two years from Rs 80 to Rs 265 per kg
- ✓ Major energy consuming equipments are Blower, Lathe machine, Cutting machine/ Pantograph, Electric Furnace, Annealing Furnace.
- ✓ The major raw material is scrap, which is being imported, and sometimes due to shortage as well as high price the units are working partially. Majority of the units are sourcing the scrap through brokers/ traders. The current rates have fallen by nearly 30%
- ✓ Customs duty on imported brass is now more than double. As a result, there has been a backlog of nearly 300 brass scrap containers lying at the Kandla Port in Kutch district.
- ✓ With a total brass consumption of 50 lakh containers per month, each weighing 20 tonnes, Jamnagar accounts for 80 per cent of the total brass components (electrical, automobile or sanitary) produced in India.
- ✓ There are two types of units, one that are completely integrated and have electric furnace & use scrap, waste have the testing facilities – spectrometer to test the content of Cu in the total melt. The other type of units which are spread across in each & every area that is melting in crucible / underground bhatti, wherein the raw material is machining waste / powder.
- ✓ The various grades being manufactured are IS 319 which has 56% Cu and is used largely for hardware products. Other grades such as IS3488 are used for locks wherein Cu is 50 –55%. IS3488 is the forging grade which has 60.5 –71% Cu used for LPG valves.
- ✓ The major products are Brass Rods, Profiles, and Sections etc.

- ✓ The normal time taken is 1 hour 20 min for melting 300 kg wherein the molten metal is pored in moulds for making billets.

Electricity

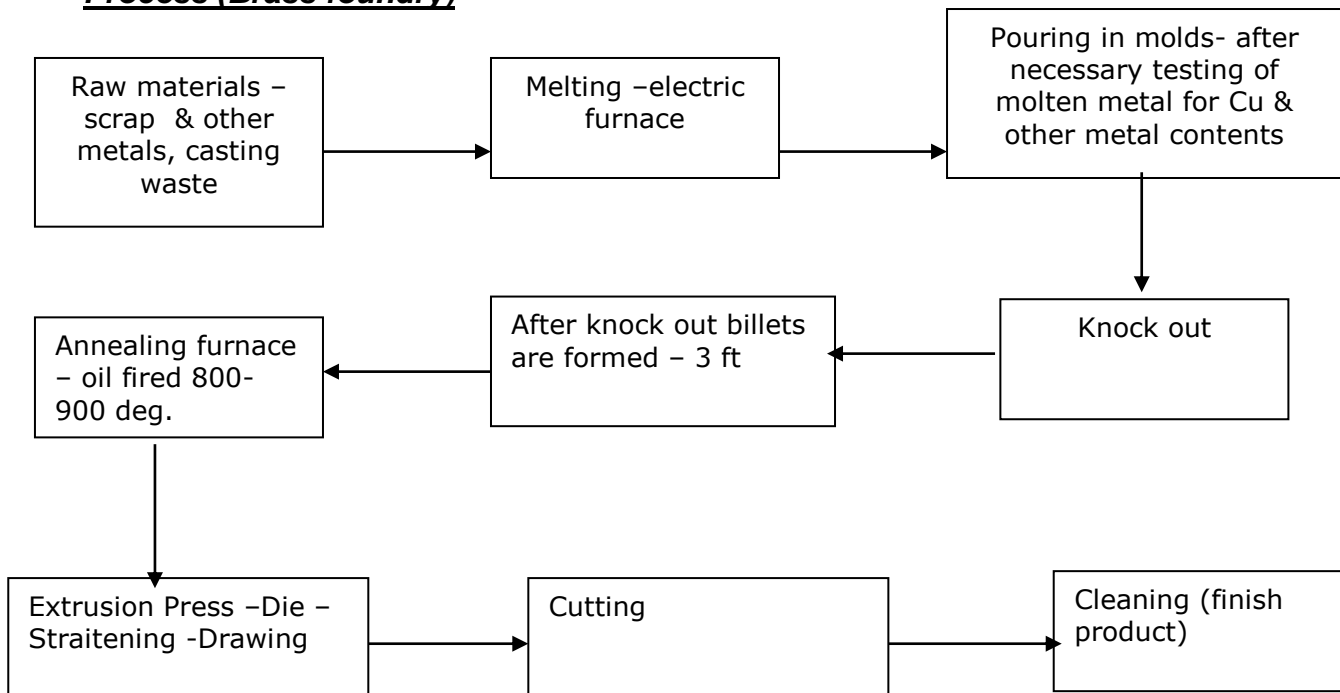
- ❖ Supplied by Gujarat State electricity board.
- ❖ Getting 24 hr power supply (weekly off on Wednesday)
- ❖ Per unit rate Rs. 5.50/-
- ❖ Energy/Fuel cost is 15 to 20% of total production cost.

Major equipments are

- ❖ Electric Furnace / Crucible/Bhatti
- ❖ Annealing Furnace
- ❖ Blower
- ❖ Extrusion Press
- ❖ Cutting machine
- ❖ Sand muller
- ❖ Pantograph/Lathe

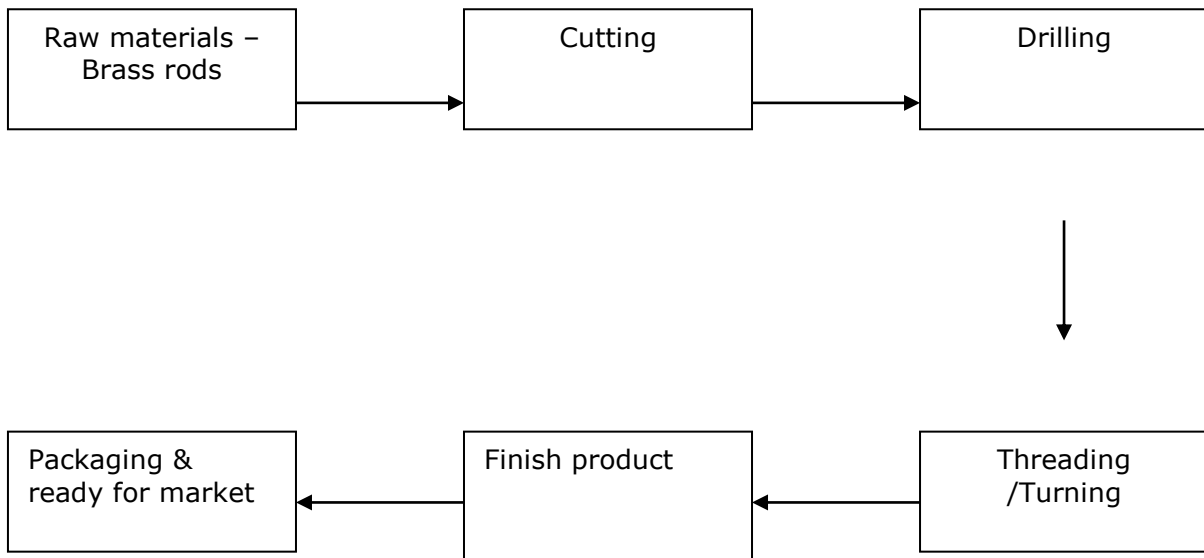
Raw materials

- ❖ Brass Scrap
- ❖ Zinc
- ❖ Aluminum
- ❖ Copper
- ✓ Major products like Brass Screws, Brass Nuts, Brass Fasteners, Brass Inserts, Brass Screws, Machine Screws India, Brass Fasteners, Brass Terminals, Brass Casting, Brass PPR inserts, Brass Moulding inserts, Brass hose fittings, Brass hose barbs, Brass Anchors, Brass turned parts, Brass turned components, Brass Neutral Links, Brass forged fasteners, Brass Pipe Fittings, Sanitary fittings, Brass Hex Bolts Hex Nuts, Brass washers, Copper Washers, Bronze Casting etc.

Process (Brass foundry)

In some case where the units are doing job work of making billets, majority of the units are using Crucibles – underground bhatti – MOOSE wherein maching waste scrap powder is being used, normal capacity is 380kg in 3 hours, pouring in molds and preparing the billets.

Process (Brass Parts)





Raw materials



Raw material (Scrap)



Sand Muller



Preparing for moulding



Knock out brass



Product from knock out



Press machine (Rod shape)



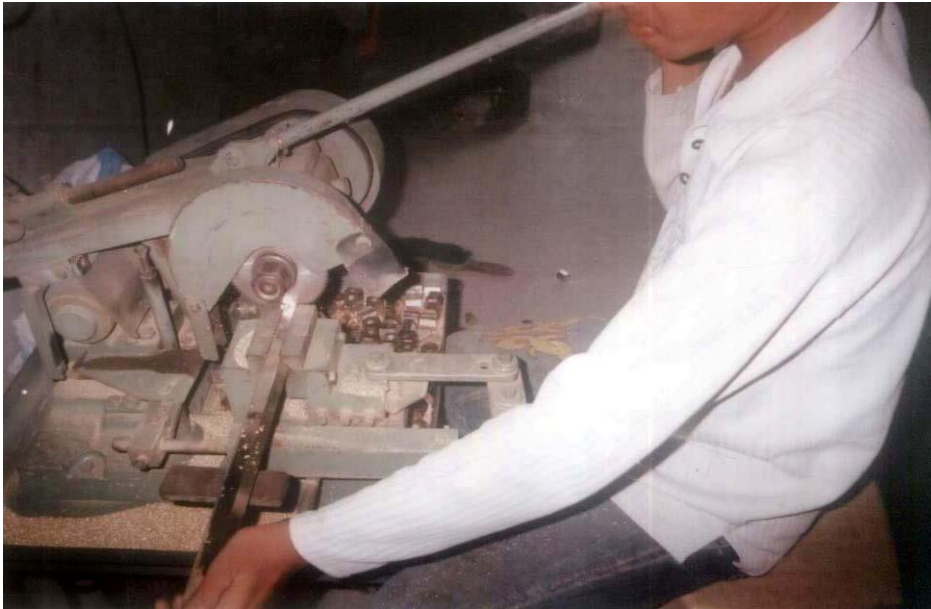
Electric furnace (700 °C)



Hammer sand mixing for moulding



Cutting machine



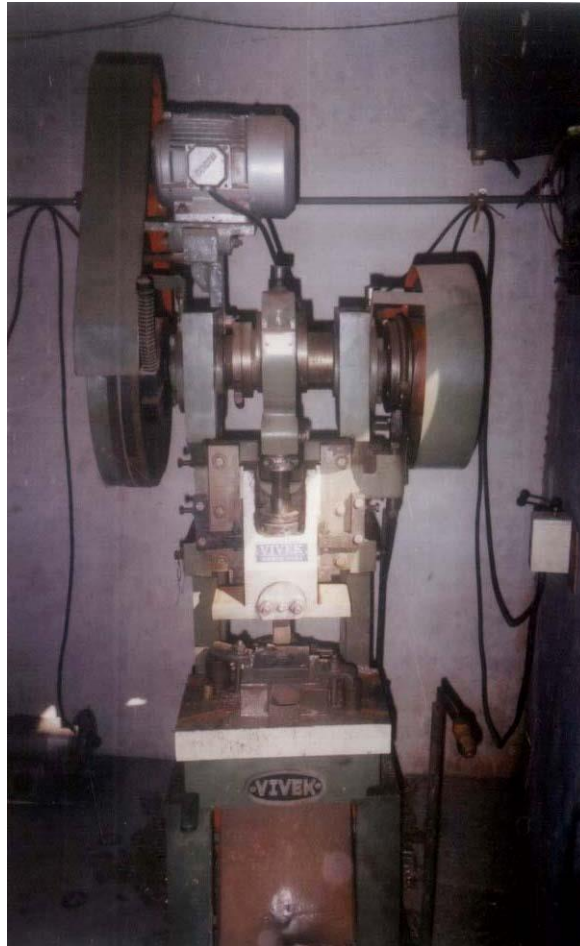
Cutting machine



Threading machine



Power press machine-1



Power press machine-2



Drill machine



Packaging machine

SERVICE PROVIDERS

Sidharth Extrusion

S.No. 492, WAGHAWADE ROAD,
MACHE,
BELGAUM - 590 014,

MICO Hydraulics

Jamnagar

SPM Hydraulics

1486/ A, 'Shraddha', Mahaveer Nagar, Piranwadi,
Belgaum - 590014,

Gupta Brass Trader

Shankar Tekri, Jamnagar, Ph-2561486

Sky press & metals co.

421/GIDC, estate, Jamnagar-361004
0288-254674/2561383

Prakash Impex

Panchvati Area, Jamnagar

Gujarat NRE Coke,

Panchvati area,
Saru section road,
Jamnagar.

Shiv Coal Trading co.

Char rasta,
Udyognagar,
Rajkot

Indian Enterprises

58, Udyognagar Road,
Near Hariya Engg, Bank of Baroda Street,
Jamnagar - 361 004 (Mr. Satish Nanda)

Ranjit Industries

C/2 - 114, Shanker Tekri,
Udyog Nagar,
Jamnagar - 361 004.
Ph-0288 - 2561199 / 2563099
Mr. Ravipal Singh

Marvel Metal corporation

120, 1st floor,
Manek Center, P. N. Marg, Jamnagar - 361 008
M-9925630333, Mr Milan Upadhyay

Raj Laxmi Industries

C-2/98, G.I.D.C. Industrial estate, Shankar Takeri, Udyog nagar,
Jamnagar - 361004
Ph-0288-2560001/2556850 , M-9824299991
Mr. Bijal Gada (Proprietor)

Brass product Jamnagar ltd

Plot- 1255, GIDC Industrial Estate,
Shanker tekri Jamnagar 361004

Association

Jamnagar Factory owener's Association

Plot no. 370/372, GIDC, Industrial area, Udyognagar, Jamnagar-361004

0288-2560002/3 (Mr. Ramji bhai Patel, President)

Jamnagar Brass components

C-2 Industrial Estate, Shanker Tekari,

Udyognagar,

Jamnagar,

BANKERS

Allahabad Bank

3, Nandanvan Society, Sadhana Colony,, Jamnagar

Ph-0288 – 2671874

ICICI Bank Limited

P N Marg, Solarium Road, Nr M P Shah Medical College, Jamnagar

Ph-0288 – 2660017

Indusind Bank Limited

Shivam Complex, Teen Batti, Jamnagar

Ph-0288 – 2664322

Union Bank Of India

4, Digvijay Plot, O/S Of Khambhalia Gate, Opp New School, Jamnagar-361005

Ph-0288 – 2676787

The Lakshmi Vilas Bank Ltd

1st Floor, Shree Dhan Palace, Nr Town Hall, P B No 116, Jamnagar-361001

Ph-0288 – 2661762

Syndicate Bank

Anjaria Chamber, K V Road, Jamnagar-361001

Ph-0288 – 2676756

Punjab & Sind Bank Ltd

B-8, Ajanta Society, Bedi Road,, Jamnagar-361002

Ph-0288 – 2676708

State Bank Of Saurashtra

S S I Branch, Shankar Tekri,, Jamnagar-361004

Ph-0288 – 2553503

Dena Bank

Hawai Chowk, Sheshth Fali,, Yadvendra Bhavan,, Jamnagar - 361 001

Ph-0288 – 2676580

State bank of India

Jamnagar- 361001, jamnagar, Gujarat – 361001

0288 – 2672919

UCO Bank

Woolen Mill Campus, Jamnagar

Ph-2677050

Punjab National Bank

Ranjit Road, Jamnagar

Ph-2558451, 2676751

Oriental Bank of Commerce

Unique Shopping Centre, Jamnagar

Ph-2673998, 2670958

Gujarat Industrial Co.Op. Bank

Jamnagar. Ph-2679518

Bank of Baroda

Manoj Chambers, Sumair Club Road, Jamnagar

Ph-2675172, 2552727, 2676676

Bank Of India

Shankar Tekri (SSI Branch), Jamnagar.

Ph-2561542

SIDBI Bank

4, Patel colony, Jamnagar

Ph-2753055