

Bajaj Auto Limited, Pune



Unit Profile :

Bajaj auto limited, Waluj, Aurangabad, is a division of Bajaj Auto Limited, Pune, a flagship company of Bajaj Group. Bajaj Group was formed by Mr. Jamanalal Bajaj in 1929. Bajaj Auto Limited, Pune started scooter production in 1960. As an expansion plan, Bajaj Auto Limited, Waluj Plant is started in 1985. In 1999, a State of Art Plant was started at Chakan.

Objectives of Bajaj Auto Limited are to cater the market needs of transportation by providing 2 wheeler and 3 wheeler vehicles. BALW has been producing the catalogue products to cater to the changing market requirements. Based on the customer feedback, improvements are being made continuously in the existing products. In the process of introducing new products, emission requirements are being taken into consideration and products manufactured are meeting the regulatory requirements.

The site of BAL-W is located in MIDC Waluj area.

Bajaj Auto Limited, is an ISO-9001 company, having ISO-9001 (2000) Quality Management certification.

A constant watch is kept on the technological developments taking place in the areas of energy reduction, waste reduction and pollution prevention. Environment Management System is integral part of overall management systems at BALW. ISO 14001 certification was awarded to BAL-W in 1997.

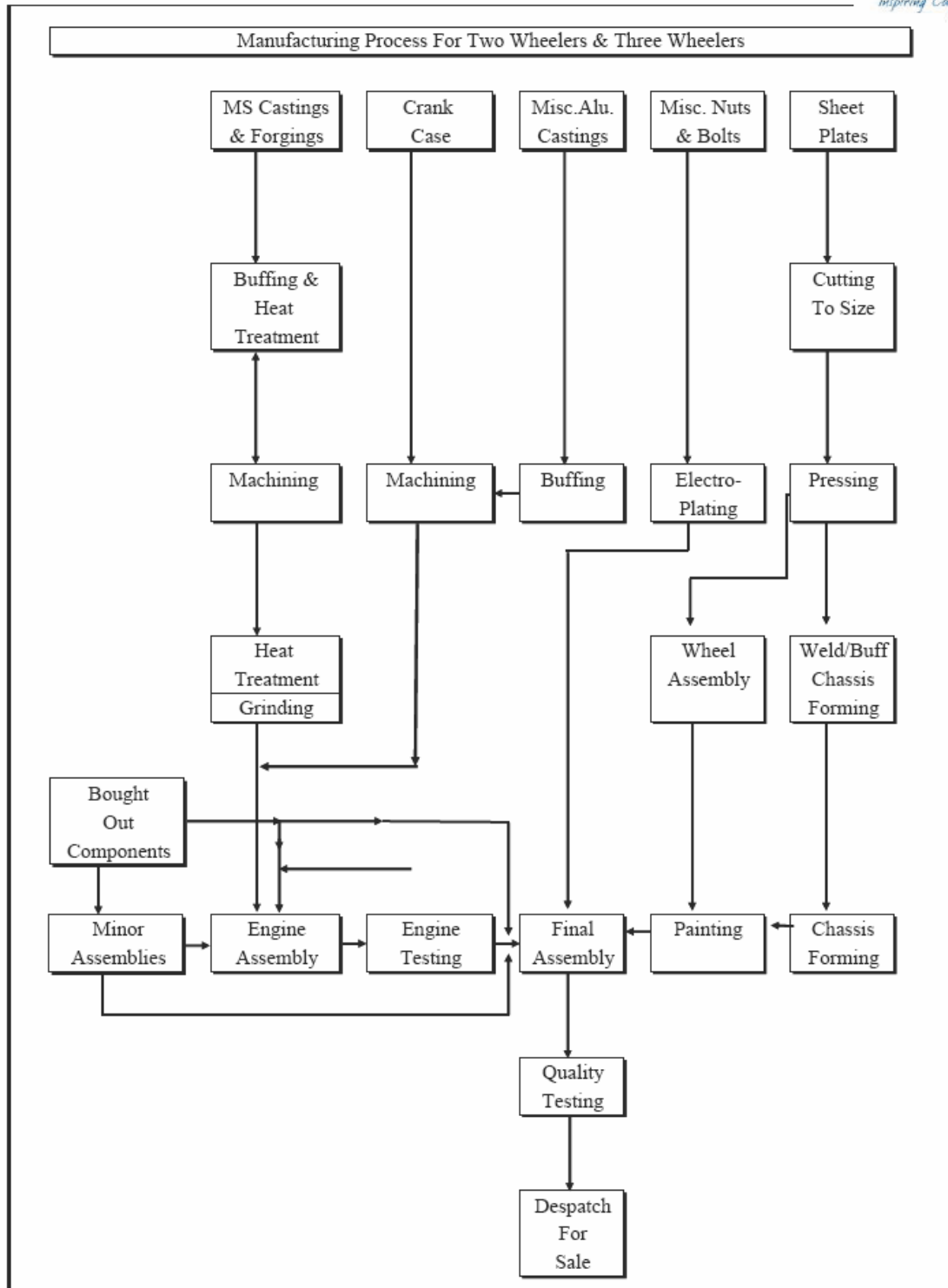
Bajaj Auto has resolutely engaged in a process of fundamental change. This has involved changes in the organisational structure; in product and models; in the approach to markets and consumer preferences, in R&D engineering, product design and speed to market; in rationalising of cost; and in a complete overhaul of the way in which Bajaj Auto do business. This change process is now epitomised by Bajaj Auto's new corporate identity.

Quality Policy, Environmental Policy and TPM Policy are guidelines for our working. Photographs of the same are attached. (For readability, the said policies are reproduced as it is).

Manufacturing Process

The industrial complex of Bajaj Auto Limited-Waluj is spread over an area of 906 acres. The manufacturing activity consists of manufacturing motorized 2-wheelers, 3-wheelers & parts thereof and also machine tools required for captive consumption. The scooter plant was started in 1985 and other plants were started subsequently.

The manufacturing process for 2-wheelers and 3-wheelers as well as machine building is basically metal cutting and metal forming. The basic raw materials are steel and aluminium. Surface treatment processes like heat treatment, painting and electroplating are carried out in the factory.



Energy Conservation : Method and working at BALW

Top Management Committee fixes Corporate Objective for Energy every year by comparing performance with National / International Benchmark and targeting for higher achievement.

The main objective is to operate most Cost Effective, Energy Efficient and Environment friendly Plant.

Continuous Improvement in Working and close monitoring through Energy Management System is carried out.

Energy audit and efficiency assessment is built-in Quality, Environment and TPM Policies.

Awareness of Energy Conservation of all levels is reflected in continuous reduction of conversion cost of the vehicles produced year to year.

Some of the activities are

- Technological upgradation - Usage of Flexible Machining Centers instead of Special Purpose Machines.
- Implementation of Streamline Manufacturing Systems. Re-organization of Machines/ Process as per Product Layout.
- Single Digit time in Minutes for Change of Dies/ Tool. Compactness in Working area
- Reduction in rejection less than 1000 PPM (Parts Per Million) and aiming for 'ZERO' PPM.
- Nurturing of 'Right First time Ok' culture.
- Increase in Productivity of the workmen.
- Improvement in Processes and working methods.
- Utilization of Idle time.
- Minimization of Losses by TPM.
- Introduction of Direct on Line of material and elimination of stores.

The Energy conservation team/cell holds posters competition on Energy & Water Conservation for all employees. This percolates the Energy saving aspects to workmen level. Awareness level of conservation of energy amongst employee is very high.

System Followed is :

- Through the systems of Kaizens, TPM Circle/Quality Circles & suggestions, Energy saving proposals are received.
- Economics & Technical Feasibility is studied by experts for above received proposals for implementation.
- Every department set objectives against environment management plan yearly to conserve Natural resources.
- Targets are set for Conservation of Natural resources.
- Posters are displayed at work places on awareness of conservation of Energy.
- Sharing of information through Intra-net among our other plants & horizontal deployment.

WRITE-UP ON ENERGY EFFICIENT PROJECTS CARRIED OUT IN OUR COMPANY

Sample Projects implemented during 2004-05:

1) Identification and replacement of over rated pumps :

Some Pumps used in the production process were over rated. These pumps were operated, by throttling suction and delivery valves. Identified those pumps and replaced them by properly rated pumps.



Pump Motors Replaced Total : 8 nos.
Investment : Rs.4.5 lakh
Saving : Rs.9.2 lakh

2)Installation of VFD for Pumps :

Installed Variable frequency drives for 100/75 HP Motors which resulted in energy saving. Installation of Variable frequency drives. This gives us variable frequency operation and around 40 to 50% saving due to optimum utilisation of energy.



VFD installed : 6 nos.

Investment : Rs.10.5 lakh

Saving : Rs.17.82 lak

3) Compressed Air :

- a) Use of localized Air Compressor : Because of this , we have made reduction of main compressed air grid pressure .Also, charging of the grid during night shift /OFF days only to cater few machines is avoided. The local compressors of required small capacity caters the requirement.



- b) Air leakage arresting : Vigorous efforts taken for arresting air leakages. Weekly air leakage audit is conducted to assess the leakages & to make the action plan. Weekly audit actions are reviewed and reaudit is done.

c) Installed soft starters for Air compressors : Use of soft start to compressor saves Energy by giving proportionate input to the compressor motor when it works in Energy saving mode.



Investment : Rs.4.74 lakh

Saving :11.27 lakh

4)Lighting :

a) Installation of timers to lighting, fans and other timely operated load such as Air replacement plants, cooling towers, etc. also avoids unnecessary operation of such loads.



c) Use of CFL & 150 W HPSV Lamps

d) Total investment : Rs.0.25 lakh

Saving : Rs.0.87 lakh

5) LPG :

a)Conversion of Electrical Heating to LPG heating :

Converted Electrical heating of Washing machine to LPG heating.



Investment :Rs.1.60 lakh

Saving : Rs.0.374 lakh

b) Conversion of Indirect heating burner to direct heating maxon burners :



Investment : Rs.13.00 lakh

Saving :Rs.0.84 lakh

6) Monitoring :

Above all, energy measurement plays very important role in energy management. Accurate recording of energy and continuous monitoring shows us whether the variations in the consumption are in proportion to the production targets.

