

First Prize

General Category

GAJRA DIFFERENTIAL GEARS PRIVATE LIMITED

Dewas (Madhya Pradesh)

Unit Profile



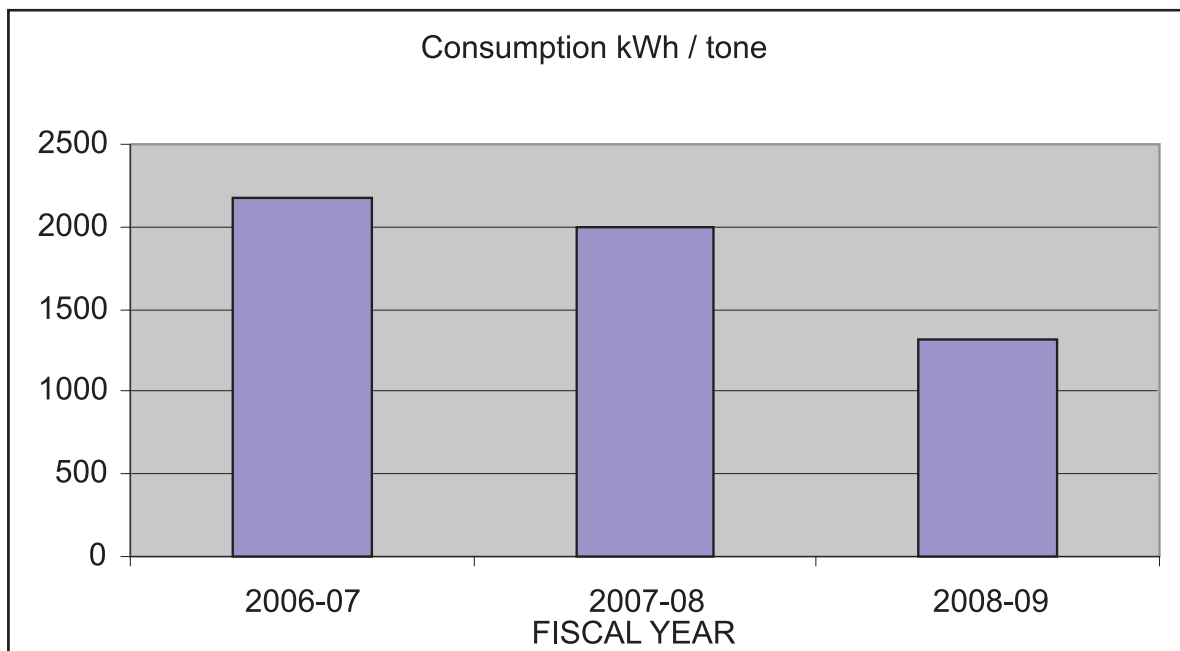
GDGPL s formed in 1991 to cater to the ever-growing needs of the Differential / Axle Gears market for Trucks, Tractors, MCVs, LCVs, Jeeps & Cars. GDGPL manufactures a wide range of Crown Wheel & Pinion sets (CWPs), Spider Kit Assemblies (SKAs) and accessories developed through the process of Reverse Engineering. Gajra Group has two manufacturing units located at Dewas (M.P)



Energy Consumption

Description	Unit	2006-07	2007-08	2008-09
Annual equivalent Production	M Tones	1249	1589	1580
Total Electrical energy consumption per annum	Lac KWH	2720519	3138415	2044966
Specific Electrical energy consumption	KWH/Tone	2178.00	1998.00	1310.80

Year	Electrical Energy	
	Consumption kWh / tone	% reduction over 2006-07
2006-07	2178.00	Base
2007-08	1998.00	8.26
2008-09	1310.80	39.81



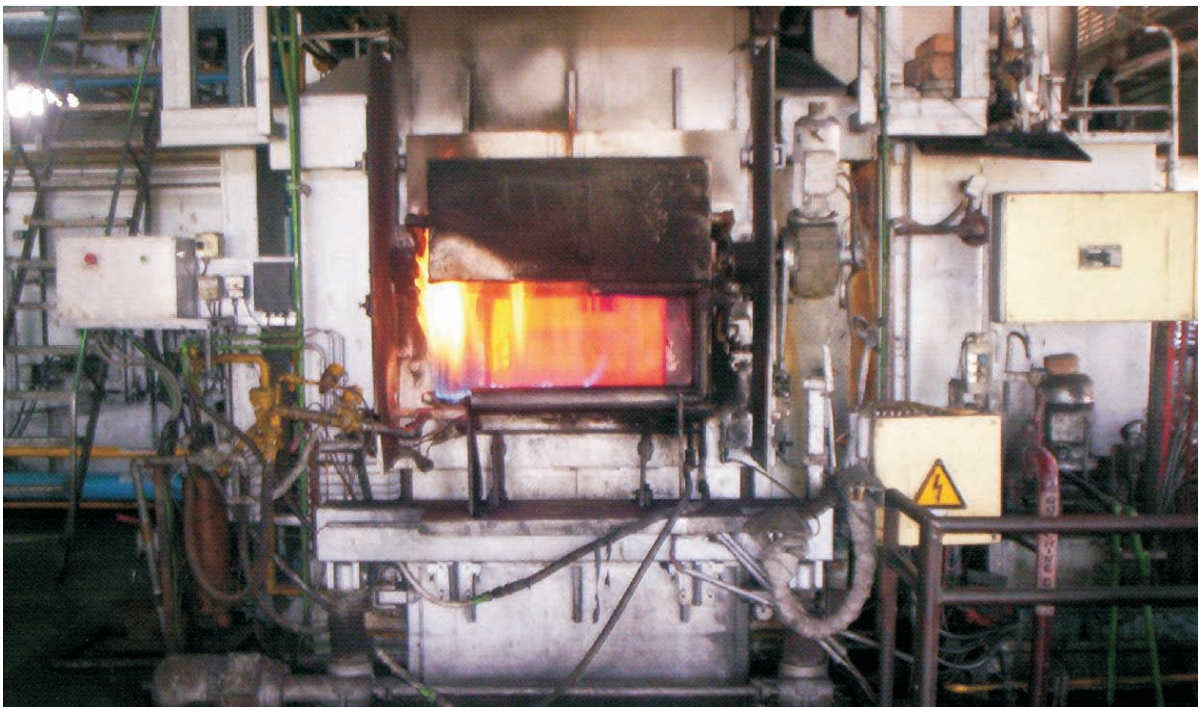
Energy Conservation Commitment, Policy and Set Up

Gajra Differential Gears Pvt. Ltd., Dewas unit strongly believes that energy saving is a multi disciplinary approach. The Plant's energy profile consist of electricity, compressed air and water. Even smallest energy conservation in Furnace (Heat Treatment) is going to add directly to its bottom line profit. Energy management policy, conservation plans (ENCON), its implementation & periodic status reviews are closely monitored by the top management. Energy audits are regularly conducted by in-house energy manager's audit.

Energy Management policy is displayed everywhere in the plant for creating energy conservation awareness. Energy ENCON is taken to implementation and the best ENCON is identified & rewarded/award accordingly. The company has formed energy saving team headed by senior executive for cost reduction through energy savings.

The unit has implemented various modifications in machines & Furnace for saving of energy and reduced its consumption from 250000 units per month to 150000 units per month. The major modifications are:

1). Direct quenching of job from C.G.C.F to press quenching m/c i.e. eliminated two no's rotary furnace of 125 KW each.



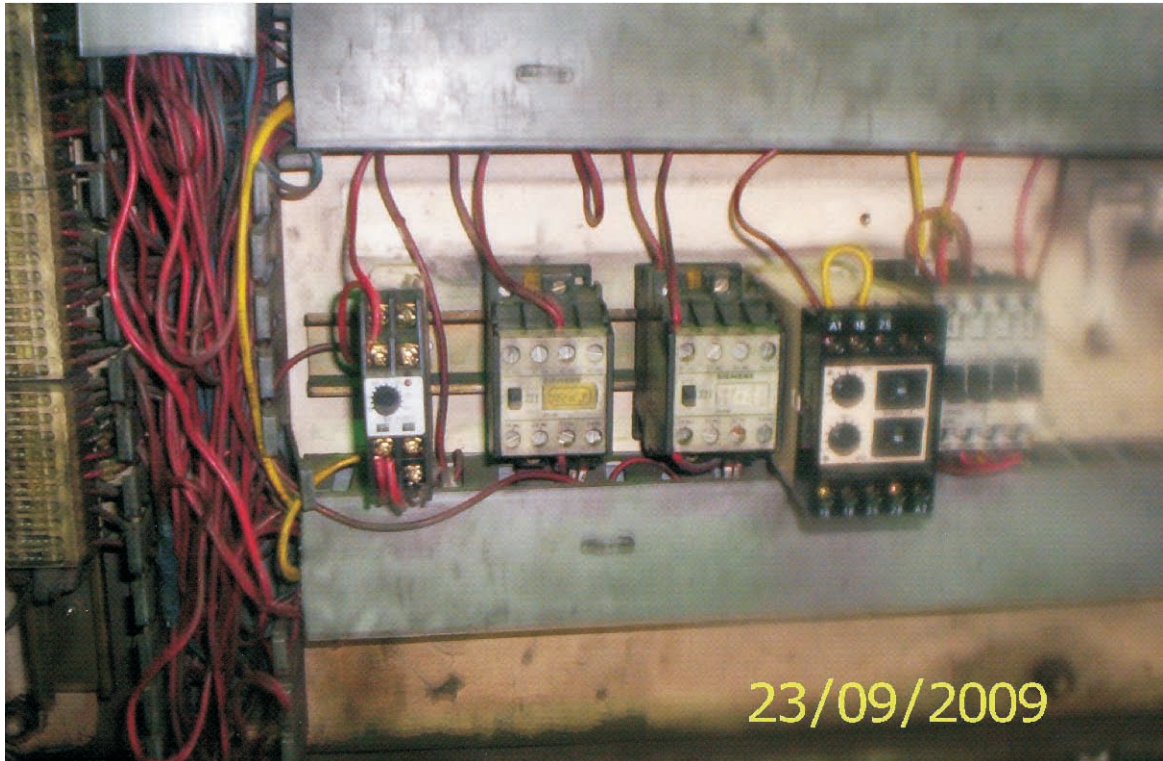


Rotary Furnace No.1 of 125 KW which is eliminated by C.G.C.F



Rotary Furnace No.2 of 125 KW which is eliminated by C.G.C.F

2). Provided timer in hydraulic circuit of all machines to cut the power of Hydraulic when m/c is not in operation



- 3). Control of lighting by providing sun light system in day.**
- 4). Reduce cycle time of m/c through effective maintenance system.**
- 5). Improved the power factor unity etc.**

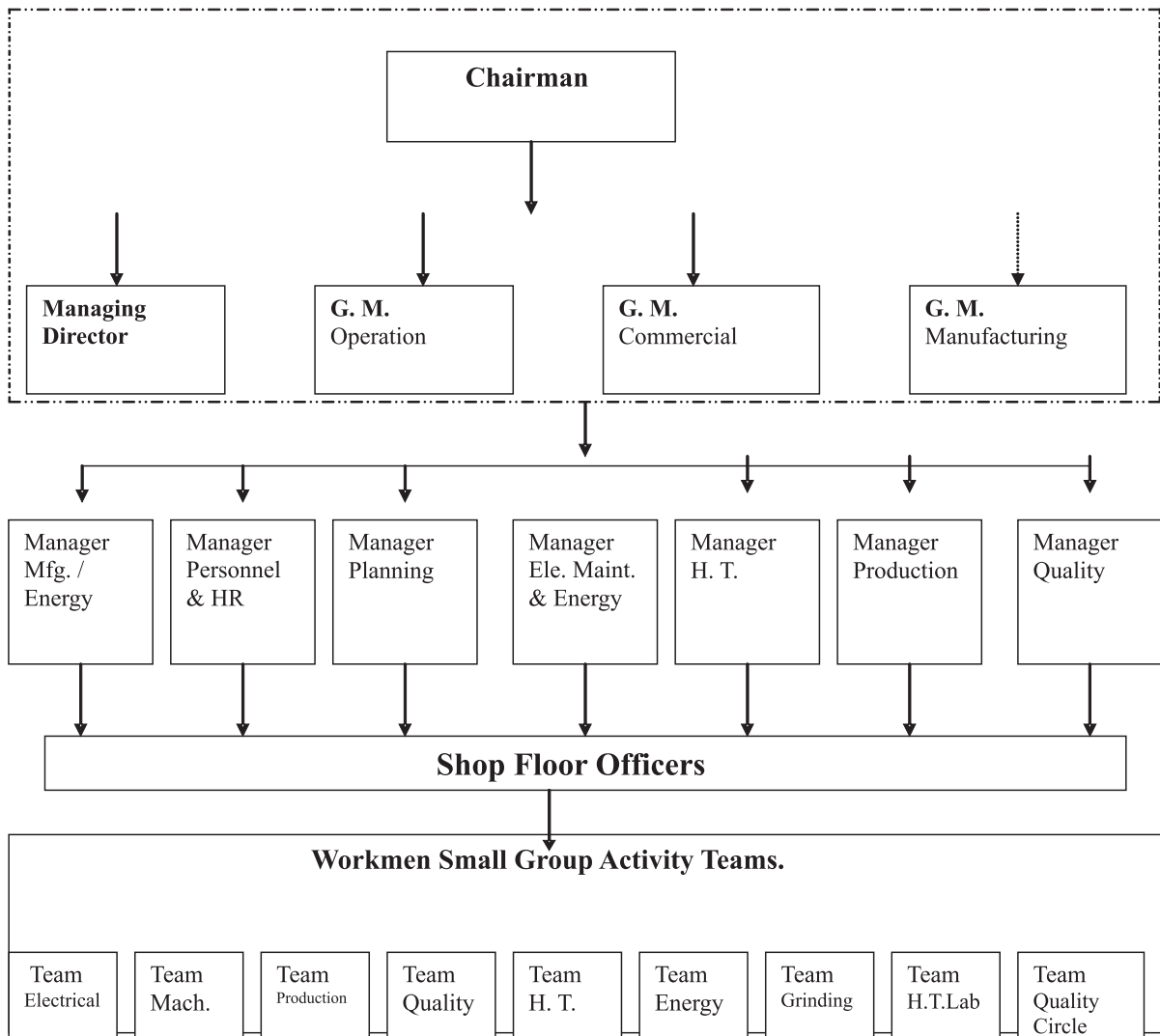
Energy Management Policy

- Form small group activities to increase employee involvement.
- Conduct regular energy audits to optimize them.
- Reduce energy cost continuously every year by adopting effective "Energy Management System" etc.

Plant is continuously working on energy conservation and trying to reduce its consumption by control of lighting, using lower horse power motor at machine, where ever it is feasible and minimize the wastage of power providing new energy saving equipment in plant and machinery.

ECON Cell is formed by the top management to establish, implement and maintain the energy conservation initiatives.

Energy Conservation (ENCON) – Cell Structure



**NICCO CORPORATION LIMITED
(Cable Division)
Shyam Nagar, Distt. 24-Parganas (N) (West Bengal)**

Unit Profile

Established in 1942, NICCO Group of companies is widely known in India and also in the international market as a multi-dimensional enterprise. The group enjoys an enviable track record of industrial activities ranging from manufacturing of Electrical cables to Turnkey projects, from engineering services to Software solution and HR activities and from Financial Services to Amusement parks. This group has a large workforce which includes qualified and experienced professionals.

The cable Division of the groups Flagship Company-NICCO CORPORATION LIMITED, commenced manufacturing cables, conductors and wires in 1942 at Shamnagar in West Bengal and subsequently the manufacturing facilities extended by setting up two more units at Baripada (Orissa) and at Kalyani (West Bengal)

However, the unit at Shyamnagar is the mother unit of the company - NICCO CORPORATION LIMITED where we are producing a wide range of cables, wires and conductors. Our major customers include: Indian Railway, Indian Navy, Defence, M/s Suzlon/ Enercon etc in the wind mill sector, Mining area, Modern Commercial Malls, Nuclear Power plant etc.

The Shyam Nagar, unit has the facility for production of electron beam irradiated cables for Ship Wiring, Railway coach wiring etc and also the in-house state-of-the-art Polymer Compounding plant.

Energy Consumption

In NICCO, activities on energy savings have been initiated for last six-seven years. The Energy System is being audited by CII auditors and had arranged detailed audit for consecutive two years (2006-7 and 2007-08) subsequently starting implementing the recommendations of the Energy Audit. Sometimes, it was not possible to address the total recommendation as the investment requirement is high, in that case, the issue has not been excluded but an attempt to reduce the energy wastage has been made (even 50% at nominal investment).

From the following table, it is clearly indicated:

Year	Power Consumed	Bill Amount	Max Demand AVKW	MAX Demand AVKVA	AV PF	AV Load Factor
2005-06	6728624	31135025	1535.8	1878.9	92.35	49.62
2006-07	6063464	27947362	1417.3	1830.1	93	48.99
2007-08	6186240	28388153	1436.5	1810.8	93.13	48.92
2008-09	6025368	29286159	1439.6	1742	94.5	41

Environment and Safety

NICCO Corporation limited- Cable Division Shyamnagar is committed to:

- A clean environment by minimizing adverse effects of processes, products, activities and services.
- The efficient use of resources, effective management practices and technological measures to prevent pollution.
- Compliance with or surpass all applicable environmental, legal regulations and other requirements at all times and to continually improve our environmental performance.
- Environmentally acceptable management of waste in such a manner as to prevent pollution.
- Communicating the policy, objectives and targets to relevant interested parties.

A total of 19 Environment Management Program has been undertaken on 19 identified environmental issues which were having the considerable impact on environment. One of the 19 Environment Management Program was on 'ENERGY SAVINGS'.

NICCO has Environment Management System certification (14001: 2004) in the year 2006. As a major industry having more than 700 persons in three shifts, the unit also has a dispensary working for 24 hours to ensure first aid in case of accident inside the factory. Also, there is a provision of an ambulance to serve during emergency. The unit has a 'SAFETY COMMITTEE' comprising of members from both Management and all the Worker Unions. This committee meets every quarter to discuss the safety related issues and also discuss about the accidents (if any) during the quarter. Appropriate actions are also taken so as to avoid repetition of accidents in the shop floor. The action plans are being implemented by the chairman of the Safety Committee (who is also the engineering head) after getting approval for fund for the job, if any.

KIRLOSKAR OIL ENGINES LIMITED

**Large Engine Plant
Nashik (Maharashtra)**

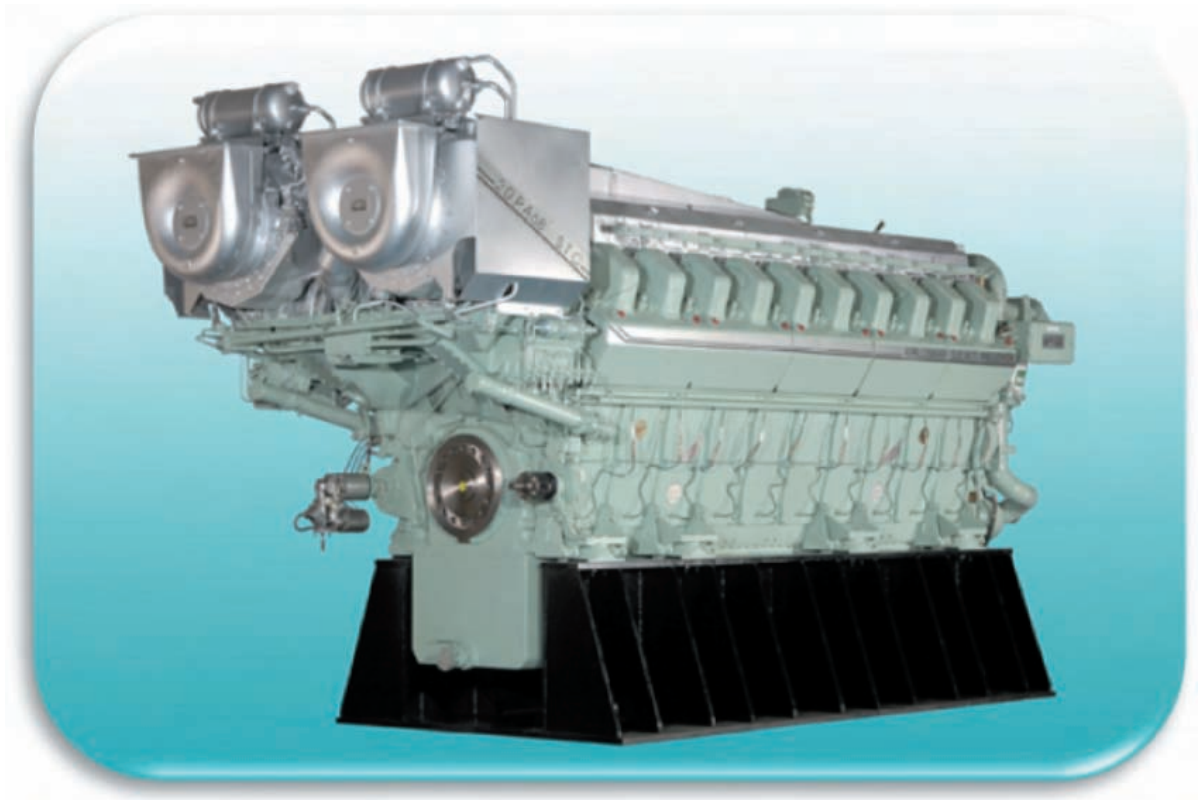
Unit Profile

KOEL LE is only diesel engine manufacturer in India having facilities to manufacture Large Horse Power Diesel Engines from 2400 to 11000 HP and having capability to offer turn-key solutions to all Stationary Power Plants and address Marine Propulsion and Auxiliary power needs of Marine customers.

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- **Marine Propulsion and Auxiliary Power requirements**
- **Stationary Power plants**

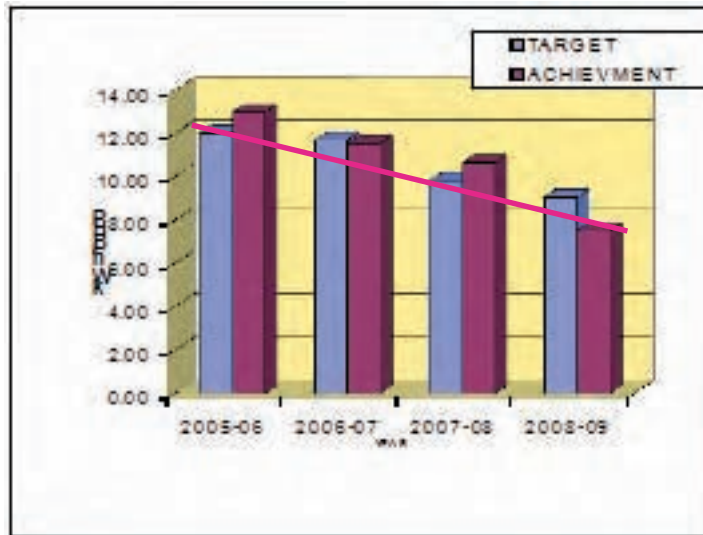


**Range
2400 BHP to 11000**

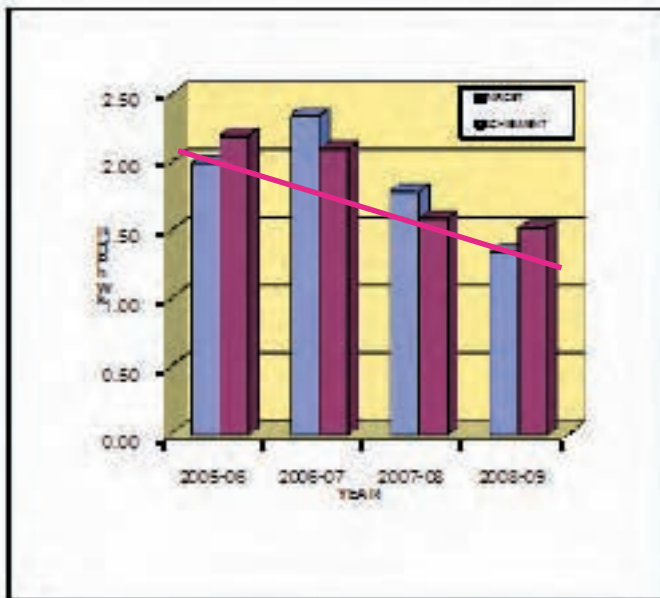
Specific Energy Consumption (Targets Achieved)

Details	Year 05-06		Year 06-07		Year 07-08		Year 08-09	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Power (kWh/BHP)	12.00	12.97	11.67	11.53	9.80	10.64	9.04	7.5
Water (kL/BHP)	0.78	0.80	0.68	0.45	0.38	0.31	0.26	0.24
Comp.Air (kWh/BHP)	2.00	2.20	2.35	2.10	1.79	1.59	1.35	1.52
Diesel (Lit/BHP)	---	---	---	---	---	9.57	8.09	6.55

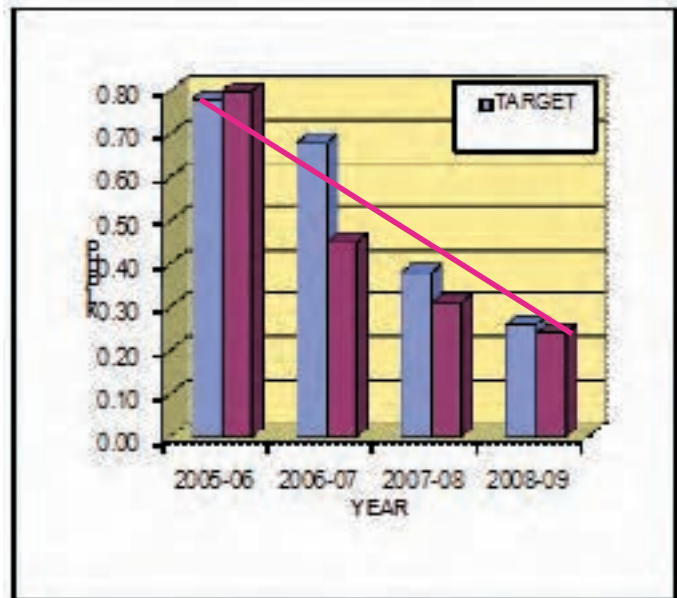
Specific Power Consumption



Specific Air Consumption Trend



Specific Water Consumption Trend



- Preventive maintenance
- Identification & Leakage rectification
- Compressor audit
- Actual Energy Measurement by Energy Meter

- Monthly monitoring & control
- Use of auto flush in toilets
- Tap water leakage control
- Employee awareness
- ETP water for gardening.

Achievement:Encon Activities Fy 08-09

SR. NO.	Total No. Of ENCON Activities Completed (Electrical)	Total Investment in Rs.	Total Units (kWh) Saved/Year	Total Saving Rs/Year
1	17	6,70,380	77,519	11,52,172

Total Units Saved = 77,519

SR. NO.	Total No. Of ENCON Activities Completed (Thermal)	Total Investment in Rs.	Total Fuel saved Ltr//Year	Total Saving Rs/Year
1	02	Nil	284907	9971745

Elements of Energy Management Programme



KIRLOSKAR OIL ENGINES LIMITED



Enriching Lives

ENERGY POLICY

Achieving optimum use of energy in our operations and bringing about improvements in the energy Efficiency of our processes and products will form an important component of the continuous improvement efforts in our organization.

We shall strive to reduce energy consumption per unit of value added by:

- Minimizing Wastage.
- Using energy efficient processes and equipment.
- Conducting periodic energy efficiency improvement studies and implementing improvement measures.
- Involvement of employees of all levels in the energy conservation efforts.
- Effective dissemination of information.
- Establishing norms and initiating programme to reach these norms.
- Promotion to renewable energy resources within & outside KOEL.

In achieving these, we shall utilize the knowledge and expertise available from various sources including sister organization, collaborators and outside experts.

We shall make efforts to bring continuous improvement in the energy efficiency of our products.

Date: 10-05-2005

Atul Kirloskar
Chairman & Managing Director

INDIA GOVERNMENT MINT

(A Unit of Security Printing and Minting Corporation of India Limited), Mumbai (Maharashtra)

Unit Profile

India Government Mint Mumbai was established in 1820 AD and was under the control of his Excellency, the Governor of Bombay Presidency. It was then transferred to British Government of India by Finance Department resolution No. 247 dated 18.05.1876. In February 2006, India Government Mint Mumbai became a Unit of Security Printing and Minting Corporation of India Ltd. a wholly owned company of Government of India. All coins of Government of India are issued under the Indian Coinage Act. 1906 and are put into circulation by the Reserve bank of India on behalf of Government of India.



India Govt. Mint, Mumbai

India Government Mint Mumbai is continuously engaged in the phased replacement of old and outdated machineries and efforts are put to modernize and update the technology. Mumbai Mint has a rich and long history of contribution to the nation by handling Coinage production, manufacturing of different Commemorative Coins and Medals to various ministries, Organization, universities. Temple Trusts etc engaged in Melting, Refining & Assaying of GOLD and Silver.

Mumbai Mint also manufactures Reference, Secondary and Working Standards of Metric, Weights, Capacity and Linear Measures as per Weights and Measures Act of 1988 for all the states and union of territories of India. In November 2008 India Government Mint Mumbai got certified with ISO 9001:2008 Quality Management System.

Energy Consumption

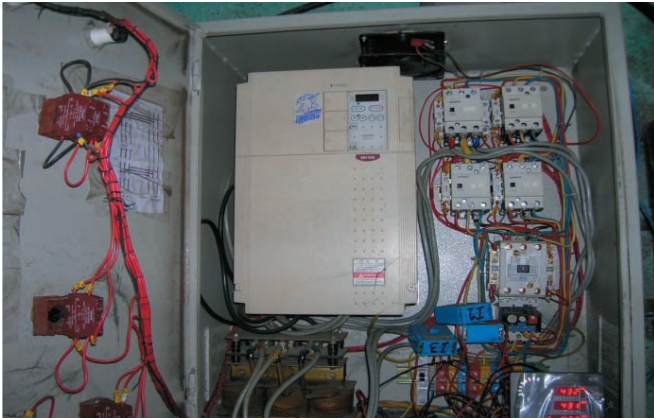
Months	kWh/Mpcs 2007-08	kWh/Mpcs 2008-09
April	3265.58	2562.35
May	3826.32	2795.83
June	3341.49	2752.5
July	3780.95	2326.5
August	3606.97	2483.54
September	3328.45	2386.67
October	3573.33	2595.08
November	2999.32	2227.10
December	2677.66	2034.71
January	2457.17	1924.82
February	2300.22	1610.15
March	2773.24	1925.89

Energy Conservation Achievements

Measures are taken to achieve target with 5% reduction in consumption of Energy every year by reducing:

1. Plugging the Air Leakages in the Air pipe line and in the machines.
2. Retrofitting Tube lights of 80W/40W with CFL lamps of 11W/20W.
3. Inside the Factory Task Lighting introducing so that good illumination where the persons are carrying the work.

4. Idle running of the motors/machines/Drives etc., to be reduced by bringing awareness to the machine operators.
5. Setting the AC temperature to 26 degrees centigrade thereby reducing the power consumption.
6. Installation of new VFD Screw compressor to the existing reciprocating type compressor.



Variable Frequency Drives (VFD) for Water Pumps at Various Locations.



The HPMV and HPSV of 400W and 250W respectively have been replaced along the perimeter or boundary of the Mint premises by 85W/65W/45W CFL fittings.



HPMV & HPSV High Bay Fixtures have been retrofitted by suitably modifying with 2 pin porcelain Lamp Holder to suit the 85W/65W CFL Lamps.

7. Also 40 W Tube Lights along the corridors and passages have been replaced with 11W/20W CFL Lamps

Environment and Safety

India Government Mint, Mumbai is situated in the Heart of Mumbai.

- The unit has 2nos. of ETP (Effluent Treatment Plant) for use in Pickling and Polishing of the Blanks. The waste mixture is passed through the Plant and neutralized to pH=7.
- The unit has procured a new machine from Spaleck , Germany, wherein the ETP plant treats the acid water and made to reuse the treated water for the process once again thereby saving the water. Sludge is removed separately.
- Every year a workmen is sent for the training in the Fire Fighting course to get awareness and acquaintance in the Institute of Fire Fighting, Mumbai.
- Safety Day is celebrated by displaying the safety wall posts, distributing the pamphlets and Safety Dairy to all the members of the India Government Mint, Mumbai.

Safety Committee is formed with the Management and workmen participate to emphasis on the safety and improve in the critical areas of material movement from one department to another department.

Certificate of Merit

General Category

ITI LIMITED **Mankapur, Gonda (Uttar Pradesh)**

Unit Profile

With state-of-the-art manufacturing facilities spread across six locations and a countrywide network of marketing/service outlets, the Company offers a complete range of telecom products and total solutions covering the whole spectrum of Switching, Transmission, Access and Subscriber Premises equipment. In tune with the technology trend, it has embarked on manufacture of mobile infrastructure equipment based on GSM (Global System for Mobile) technology.

ITI Limited is India's pioneering venture in the field of telecommunications. Born in 1948, this premier PSU has contributed to 50% of the present national telecom network.

Established in 1983 for the manufacture of large digital switches (E10B). This Plant has modern vertically integrated infrastructure for manufacturing. The OCB 283 / CSN exchange in technical collaboration with Alcatel is manufactured in this Plant.

ITI joined the league of world class vendors of GSM technology with the inauguration of mobile equipment manufacturing facilities at its Mankapur Plant, which opened a new era of indigenous mobile equipment production in the country. These two lines will augment the capacity to more than nine million lines for catering to both domestic as well as export markets.

Typical Volumes of Production

Switching

- Large Digital Switches -2.5 Mn Lines.
- Small and Medium Switches -1.2 Mn Lines

Transmission

- Digital Microwave Systems -2500 TRS
- Optical Fibre Systems -2200 NOS

Telephones

- 1.2 Mn

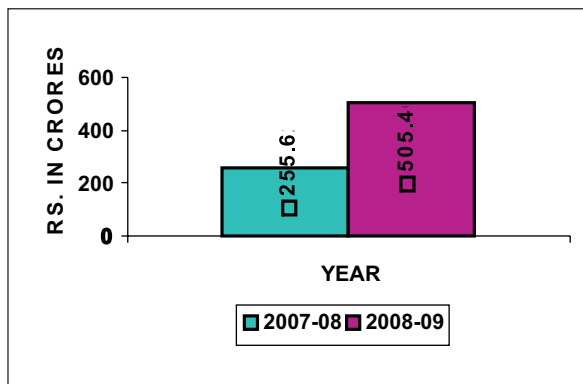
Energy Consumption

The unit is well aware of energy efficiency & its benefits, which not only provides a highly cost effective and environmentally benign solution to meet energy demand, but also help in reduction of power cost. The Unit has accorded priority for reduction in energy consumption by putting consistent efforts towards monitoring of production / non-production operations / activities as well as company assets management. The details depicts continual reduction simultaneously over last two years (i.e.2007-08 & 2008-09) Specific Energy Consumption (KWH/Rs. lakh Production) as below:

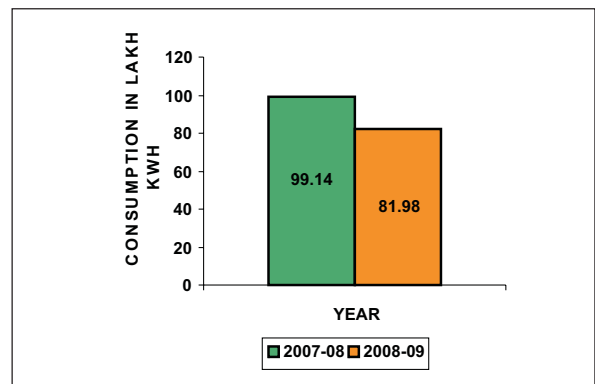
Description	2007-08	2008-09
Total Power Consumption (Lakh kWh)	100.69	84.61
Sales turnover (Rs. Lakhs)	25562.93	50546.11
Specific Energy Consumption in (KWH/Rs.Lakh Production)	393.88	167.40

The generation cost has increased due to steep rise in fuel/lub.oil cost and enhancement of imported spare of 05X1450KVA'Yanmar- Toyo Denki' make captive power plant. Though there is not considerable saving in consumption over last year but plant have achieved saving in respect of last year in spite of capacity addition & extended working hours of factory to meet the production Plan.

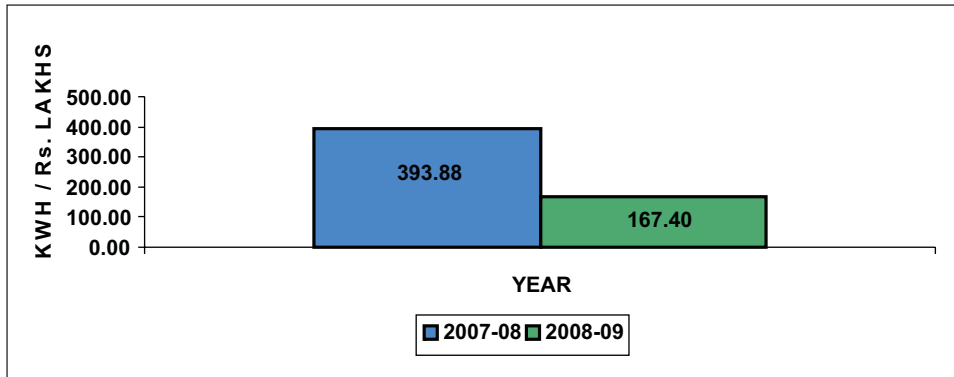
Sales Turnover



Power Consumption



Specific Energy Consumption



Energy Conservation Commitment, Policy and Set Up

Commitment:

- The Unit is committed to promotion of energy efficiency and to reduce the need to create new capacities which require mobilization of huge resources.
- To intensify the in-house efforts for improving energy efficiency, Energy Conservation Cell and Core Committee have been set up by the Management.

EC Mechanism

- **Monitoring and targeting** is the key to energy conservation on daily basis.
- **Norms** are set up on the best performance and practices in past three years.
- **Process Modifications** are focused to conserve the environment, economy and energy & use of non- hazardous chemical.
- **Small Group Activities** are conducted in -house for CAPA (corrective and preventive action) on the basis of planned and actual performance.
- **Brainstorming** - To promote the innovative ideas from brainstorming sessions of various groups.
- **Volunteers participation schemes** from all individuals, suggestions are invited for improvement in a constructive structured manner.
- **Six -Sigma Approach** is adopted to maintain the improvement techniques.
- **Create awareness** among employees and their families by conducting programs on the eve of National Energy Conservation Day.

Energy Conservation Achievements

Major energy conservation achievement in the Unit during FY: 2008-09 is as follows:

Project description	Achievement of energy savings per year basis		Investment incurred on the project Rs. (Lakh)
	Electricity (Lakh kWh)	(Rs. Lakh)	
Installation of Small capacity Air Compressor for Routing Section in Circuit Division	0.375	1.50	0.50
Installation of Small capacity ELGI Make Air Compressor & Window air-conditioners for CNC m/c's in Component Division	1.39	5.56	2.50
Installation of Small capacity ELGI Make Air Compressor for Card Testing in Mobile Division	0.37	1.48	0.45
De-scaling of 300mm dia. Valves and retrofit modification Condenser pumps in Central air conditioning plant	0.79	3.16	0.40
Operation reduced for central a/c units subject to production requirement	2.76	11.04	NIL
Total	5.31	22.74	3.85

Energy Management Policy

We, at ITI Limited Mankapur Unit are committed to adopt energy conservation measures in all our activities, products and services across the unit.

Our Mission is:

- To control energy consumption by adopting best practices and energy efficient processes.
- To control energy consumption by producing energy efficient products.
- To conduct regular management reviews to ensure continual improvement.
- To conduct energy conservation awareness programs throughout the unit.
- To recognize efforts of our employees and their families in energy conservation initiatives.
- To ensure energy consumption reduction by 05% each year.

Date : 29.09.2009

Place : ITI Limited, Mankapur

(R.K.PURWAR)

UNIT HEAD

Environment and Safety

Environment

- The Unit has been accredited ISO: 14001 certificate in 2008-09.
- The Unit has installed ultramodern Effluent Treatment Plant.
- The Unit is dedicated for safe environment and has an "Environment Policy".
- The Unit has been getting NOC from U.P. Pollution Control Board regularly.
- The Unit is continuously managing itself ` ECO- Friendly ` and is committed for decrease in utilization of hazardous chemicals and consistent efforts are being made to replace these by Non – hazardous chemicals in planned phased manner.

Safety

The ITI Limited Mankapur believes that the Safety of the employees is of the greatest interest to the Organization and ranks in importance with production, quality of products and cost. The Unit has its Safety Policy

- Plant safety index is calculated at every quarter for assessing the Safety performance of different divisions.
- Joint fire safety inspection is conducted to assess the potential hazards on monthly basis.
- Safety training is conducted regularly and many awareness programmes are conducted regularly to create awareness among employees and their families.