

Crompton Greaves Limited

Transformer Division (T1)
(Kanjurmarg [E], Mumbai – 400 042)

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Transformers for Every Need

Crompton Greaves is among the very few companies worldwide that designs and manufactures the widest range of Power & Distribution Transformers and Reactors from 160kVA to 415MVA, 500kV Class to fulfill the specific demands of the Power & Industrial sectors and the Railways. With an installed base of over 120 million kVA in Transformers, Crompton Greaves has emerged as the largest Indian supplier of a wide range of Transformers and Reactors for all critical applications. These Transformers and Reactors find use in industries such as Power Utilities, Process Industries, Railways, Mines, Electricity Boards, Industrial users etc in both the Domestic as well as Global markets.

Crompton greaves is today is growing multinational, engineering, organisation with multitude of product & process technologies available across its various manufacturing organisations.

Transforming Technology Energizing Power

The transformers division of Crompton Greaves began operations over 60 years ago with their first supply to the US Army. The initial inputs for technology came from collaborations with Brush Transformers and Hawker Siddeley Power Systems of U.K. The company then forged a technology arrangement with Westinghouse Electric Corporation U.S.A. for transformers of up to 400 kV to serve international demand. The Transformer Division is the highest exporter of Power Transformers from India, a position it has maintained consistently since 1997-98. Exports of the division amount to over 50% of the total transformer exports from India! Products of the Transformer division are exported to over 40 countries worldwide. The Crompton Greaves Transformer division is known for its wide range, reliable designs, excellent materials and globally benchmark manufacturing practices.



International Quality Specifications



The division has the capability to manufacture transformers from 400 kVA to 900,000 kVA (in a bank) 3.3 kVA TO 500kv class for various applications confirming to IS, IEC, EN, AS, BS, ANSI and other international standards. All the plant operations are certified under the ISO 9001,ISO 14,001 and OHSAS 18001.

The Division has technologically superior manufacturing facilities in Mumbai, Gwalior and Bhopal with a total installed capacity of 18,500 MVA. 5 plants are located out of India (Belgium, Canada, Indonesia, USA, Hungary) Crompton Greaves incorporates the latest technology, superior raw materials and state-of-art manufacturing facilities to build transformers of superior quality and with high degree of reliability.

Crompton greaves Transformer division (T1) is located at Kanjurmarg, Mumbai is manufacturing Transformers, reactors . CG has bagged various awards details of few awards are as under : -

- Government of India department of scientific & industrial research (DSIR) National award for best R & D efforts – 2007
- All India export award for its outstanding export performance during year 2005-2006 from engineering export promotion council
- Greentech Gold award 2007 for environmental management & its efforts for developing green products & process technologies
- HR excellent award by Amity International business school.
- Awarded significant achievements in HR excellence as per HR excellence model in line with CII- exam bank business excellence model based on EFQM model.

Details of the Transformer Division T1 plant, Kanjur - Mumbai



Annual sales turnover of the Of Transformer division T1 plant	2004-2005	2005-2006	2006-2007
(Rs. Lakhs)	25193	34008	52603
Plant Connected Load (kW)	8397	8397	8397
Energy Cost as % of manufacturing cost	0.98%	0.69%	0.70%

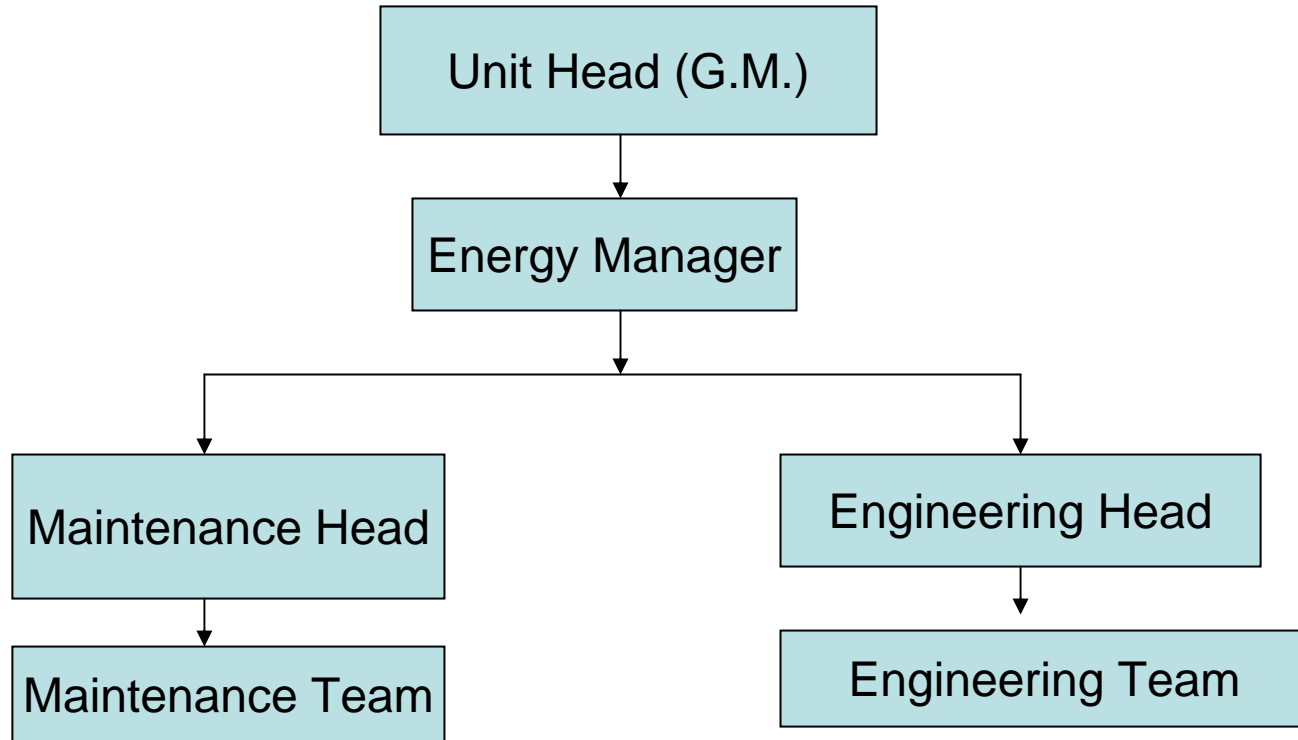
2004-2005		2005-2006		2006-2007	
Specific Energy Consumption		Specific Energy Consumption		Specific Energy Consumption	
Kwh/Mva	Kwh/Mva	Kwh/Mva	Mkcal/Mva	Kwh/Mva	Mkcal/Mva
447	0.23	443	0.164	395	0.184

ENERGY CONSERVATION

Energy conservation is ongoing continuous process. The total energy consumption has been reduced drastically by 57% from year 2000 to year 2007 by use of piped natural gas and other measures.

Following Energy Conservation Measures have been taken in our factory

Energy Conservation Cell



ENERGY CONSERVATION ACTIVITIES

Sr. no	Description	Saving in KWH Per annum	Saving per annum (Rs in Lakhs)	Investment (Rs in Lakhs)
1.	Maintaining p.f. of kanjur complex at unity	-	22	0.5
2.	Installation of timers for 17 ton Ac (10 Nos)	180000	8.1	0.3
3.	Conversion of electrically heated auto claves to thermic fluid heating	744000	33.48	30
4	Conversion of blower motor From delta to star run	40000	1.8	Nil
5.	Replacement of 45 nos. twin fittings with cfl fittings	26800	1.21	0.13
6.	Lighting load reduction in shop floor	25191	1.13	0.28
7.	Timers for toilet and washrooms	6100	0.27	0.085

ENERGY CONSERVATION ACTIVITIES

Sr. no	Description	Saving in KWH per annum	Saving per annum (Rs in Lakhs)	Investment (Rs in Lakhs)
8.	Use of transparent roofing sheet for natural light in shop floor	5600	0.25	1.2
9.	Replacement of safety barriers conventional bulbs to LED bulbs	24192	1.08	0.58
10.	Use of solar energy for canteen hot water and piped natural gas for cooking	33452	1.50	7.0
11.	To increase illumination level of transformer assembly and tanking bay 150 No of HPMV lamps replaced by Metal halide lamps	131040	5.9	9.48
12.	3500 CFL lamps distributed in kanjur village at concessional rate on world environment day On 05/06/2007	148190	6.66	3.5
	TOTAL	1364565	83.38	53.05

Saving through installation of timers



- Installation of timers for 17 ton AC units (10 nos).
- Investment : 0.3 lacks
- Saving : 8.1 lacks

Installation of timers for toilet and washroom



- Installation of timers for toilets and washroom
- Investment : 0.085
- Saving : 0.27

Reduction in Shop floor lighting load



- Reduction in lighting load by identifying non-precision work areas
- Investment : 0.28
- Saving : 1.13

Modification of illumination system



- Replacement of twin fluorescent fittings with CFL fittings
- Investment : 0.13
- Saving : 1.21

Conversion of Autoclaves from Electric to Thermic Fluid Heating



- Conversion from electrical to thermic fluid heating of autoclave
- Investment : 30 Lacs
- Saving : 33.48 Lacs

Capacitor Bank installed for Power factor Improvement



- 750 KVAR 6.6 KV capacitor Bank
- Got incentive of Rs 22 Lacs
- Investment 0.5 Lacs

ENERGY MANAGEMENT POLICY

- Crompton Greaves Ltd is committed to demonstrate excellence in Energy Management Performance on a continual basis.
To achieve this, we are committed for-
 - 1) Monitoring and control of consumption of energy through effective Energy Management System and periodic energy audit.
 - 2) Continuous up gradation of process with energy efficient and eco friendly technology to optimize the energy cost.
 - 3) Promoting and Propagating Energy Awareness among all the employees.
 - 4) Promote training and information sharing at all levels, to spread knowledge and information regarding Energy Management issues amongst employees and society.The policy will remain valid, until reviewed and modified, based on companies future requirements.

Dhirup Choudhary
General Manger (Transformer and Project)

Environment and safety :

- The unit is certified in ISO 14001 and OHSAS 18001.
- Company has 15 certified lead auditors for ISO 14001 and OHSAS 18001 continuous training is imparted to all employees / Contract employees.
- Complying with all the legal requirement of local bodies and government bodies such as office of Director Of Industrial Safety and Health and Maharashtra Pollution Control Board, Mumbai.

A) Water Effluent :

- The effluent are treated in effluent treatment plant and treated effluent is being reuse for gardening and no effluent is discharge out.
- Rain water harvesting is done for water conservation

B) Solid Waste Management :

- Environmental statement for year ending March-2007 is Submitted to MPCB and hazardous and non hazardous waste are dispose as per the consent conditions

C) AIR :

- Stack monitoring and ambient air monitoring is done and al the conditions of consent are complied
- 500 Trees and 700 Saplings are planted in and around Kanjur Complex on World Environment day 5th June,2007.