

Polyplex Corporation Limited

Unit Profile

"Polyplex Corporation Ltd. Is one of the leading company in the business of manufacturing and marketing of PET Resin, Polyester Film, Metallized film, Yarn grade film and Corona treated film in the thickness range of 9 to 50 Micron and as well as also work in the field of generation of Hydro electric power, Khanna (Punjab).

PCL, have four BOPET film & PET Resin production lines. In India, it's plant in Khatima (Uttaranchal) with a capacity of 15000TPA with the sales turnover around 190 corers and rest of lines in Reyoung (Thailand).

The Khatima unit commenced the production in the year 1987 with a capacity of 6000TPA. After that the plant expanded to 15000 TPA in 1996 and followed by the backward integration of Chips plant of 15000 TPA capacity in the year 1997. Then after Metallized plant is commissioned in Nov 2002 with a capacity of 4500 TPA.

PCL, Khatima received QS (Quality-system) 9000 Certificate in the year 1996 & ISO 14000 EMS in year 2002 & also the up gradation of ISO 9001-2000 Quality system done in year 2003. And implemented TPM In year 2000 and ERP in year 2002.

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(ii) Energy Consumption

Include information on total energy consumption (i.e. coal, oil, gas, electricity and money value). Information on energy consumption in terms of percentage of manufacturing cost should also be presented. Also, it should highlight the specific energy consumption for the period 2002-2003, 2003-2004 & 2004-2005 Good Computer Graphic Presentation related to Specific Energy Consumption may also be incorporated.

Project no-1

Back ground of the project : To reduce the electrical energy by replacement 100 w indication lamps with 0 watt indication lamps company wide..

Observations made: No problem observed since it is for indication of operations.

Technical & Financial analysis : 792 Kwh/Annum energy saved (equivalent to Rs.1980) with negligible investment I.e.cost of zero watt lamp.

Impact of implementation: saving is assured future too with out on problem..

Project no-2

Back ground of the project : Saving of the thermal energy by optimising process conditions and operating conditions of TDO Ovens in Film Plant Line-A & Line-B

Observations made: Optimisation of process control and operating conditions of TDO Oven was done gradually with a sole aim of maximum utilisation of heat and minimum wastage of heat to atmosphere while operating the lines at high speed.Production increases and heat requirement remain almost constant

Technical & Financial analysis : Technically heat should be utilised in best possible manner and similarly wastage of heat kept to the very-very low. No investment involved.

Impact of implementation: Production increases by app. 7%. And FO Consumption remain almost constant.

Project no-3

Back ground of the project : T reduce the electrical energy by connecting underloaded motors to Star mode from Delta mode across the plant.

Observations made: No motor starting problem observed and power consumption is reduced by 12.5 KW.

Technical & Financial analysis : Theoretically the motor running load is reduced if motor loading is less than 47% if connected in star mode, the saving will always be there.No investment is required, only connection changes required.

Impact of implementation: No adverse impact observed on machine and the process.

Project no-4

Back ground of the project : To improve power factor of the grid supply to get the benefit of maintaining high power factor in the electricity bill.

Observations made: Power factor improved from 0.93 to 0.97.

Technical & Financial analysis : Lagging in power factor has reduced making grid in better condition.The investment was in form of insallation of capacitor banks which has pay back period if four months.

Impact of implementation: Electricity billing has reduced, so company has to pay less to electricity board.

Project no-5

Back ground of the project : To save electrical energy by reducing Root blower RPM to optimise according to the requirement in chips plant(37 A and 37B)

Observations
made:

The route blower is operating on the desired operating condition for process at low RPM and hence energy saving.

Technical &
Financial analysis :

Technically the reduction in RPM will reduce the energy consumption. Only the pulley of 200mm dia against 236mm dia was required which is of negligible cost.

Impact of
implementation:

Saving of 7.5 KW power.

