

Kanco Overseas Gujarat

M/S KANCO OVERSEAS is a BIS certified ISO 9001.2000 cotton spinning mill manufacturing 100 % combed cotton yarn of different counts for weaving and hosiery industries. The Installed spindle capacity of the mill is 27456 and targeted daily production is about 14 Tons. The company is equipped with latest machinery which are indigenous as well as imported make.

The power requirements of the company are fulfilled by a 2.5MW Furnace Oil Captive Power plant and having purchased power contract Demand of 1100KVA with Gujarat electricity board which is used at the time of emergency. Company also has 2x 1525KVA Skoda DG sets working on LDO which are kept as stand by.

ENERGY MANAGEMENT POLICY

We at Kanco Overseas , Walthera (Gujarat) are committed to Minimize specific energy consumption for our products through the following Positive approaches:

1. Maximizing capacity utilization of machinery.
2. Wastage reduction with effective process control.
3. Regular scheduled preventive maintenance and spreading awareness in workers in machine utilization.
4. Technology up-gradation and adoption of energy efficient technologies & equipments.
5. Motivation and imparting training to our employees to reduce specific energy consumption.
6. Monitoring power consumption in different areas on regular basis.
7. Good House keeping and reduction of losses.
8. Promoting use of resources for protecting Environment and safeguarding society.

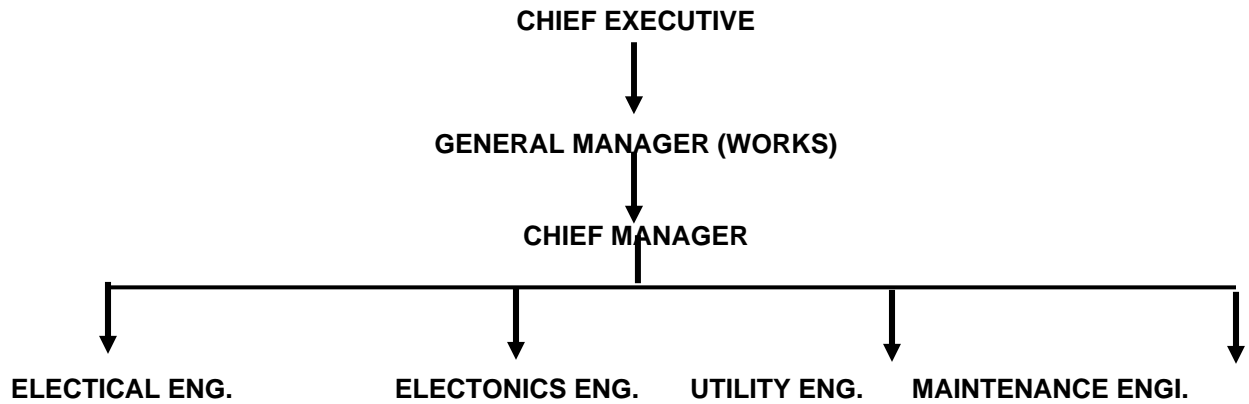
ORGANISATIONAL SET UP FOR ENERGY CONSERVATION:

ENERGY CONSERVATION CELL

The company has Energy conservation cell at plant which is headed up by the Chief Executive, assisted by the General Manager (W) and Chief Engineer and supported by a team of experienced Engineers . This team finds out various energy saving possibilities in their working area. Proposals are discussed jointly by the cell for further fine tuning operation & maintenance procedures continuously to achieve the savings in totality time to time Technology up gradation and adoption of energy efficient process and equipments are taken Care. Our company is having daily monitoring energy accounting procedure for different department and engineering department. It is totally responsible to maintain records.

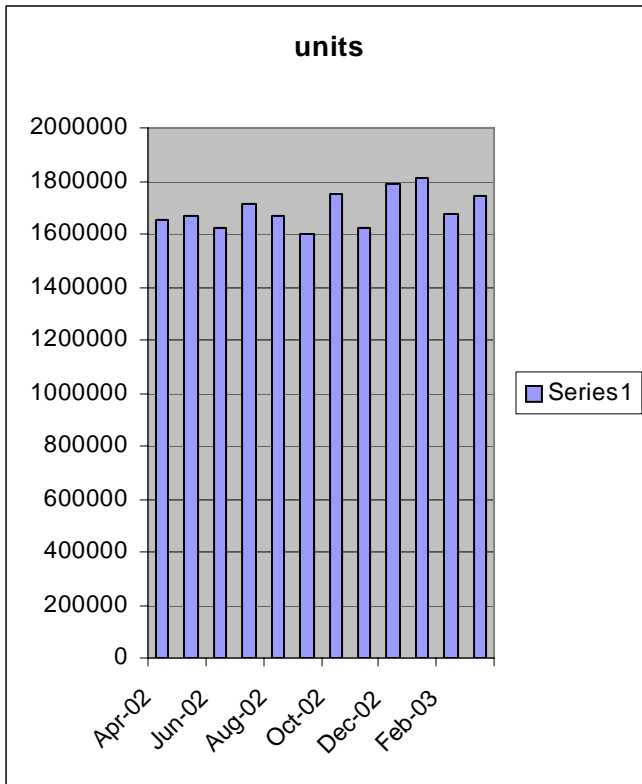
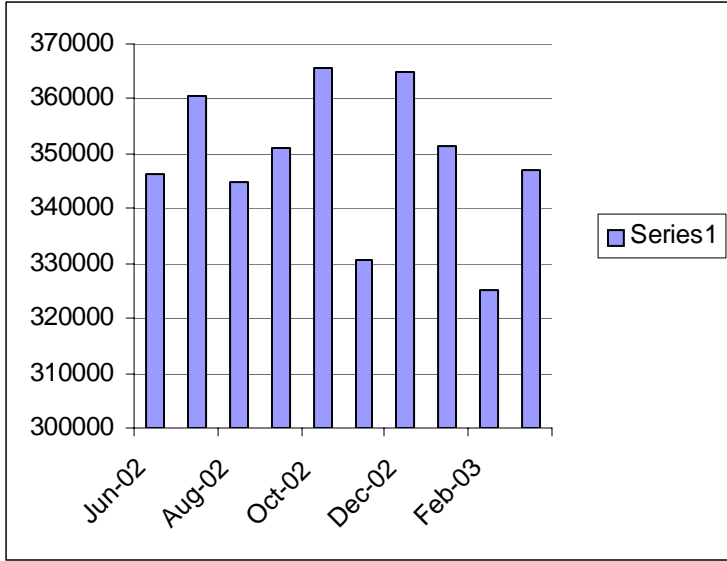
Our Chief Engineer is responsible to take care for the energy conservation measures With good efforts of Engineers in a team spirit.

ENERGY CONSERVATION STRUCTURE



Power saving achived in 2002 to 2003

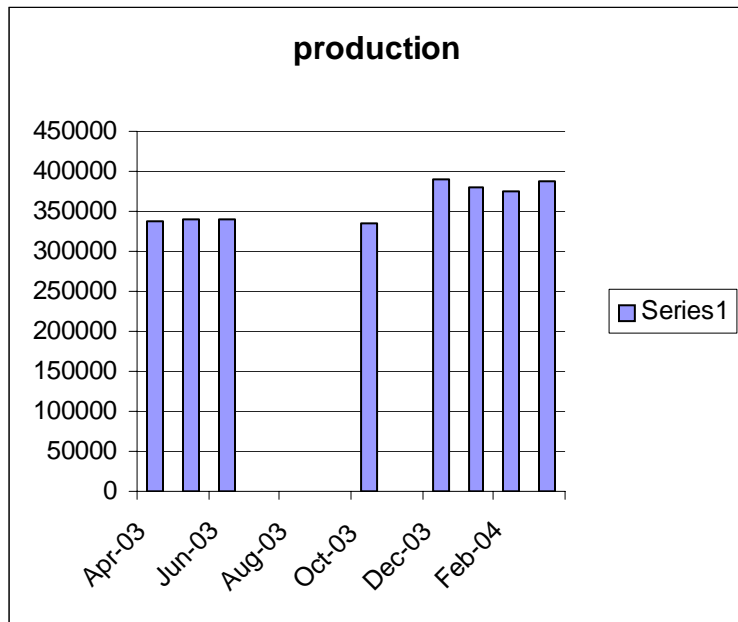
Sr. no	Location of power saved	Units /day	Rate/ Kwh	Working Day / Year	Saving / Year KHH	RS.	Investment in Lacs
1	Modification of Humidification plant.	960	3	360	345600	1036800	
2	Cooling tower Energy saver in skoda DG sets	40	3	360	14400	43200	
3	Improving power factor in DG set	120	3	360	43200	129600	10.9
4	By putting Stabilizer in lighting load	90	3	360	32400	97200	
5	Reduction in contract Demand of GEB supply From 1600KVA to 1100 KVA	400KVA	-	365		1128000	
				Total	435600	2434800	

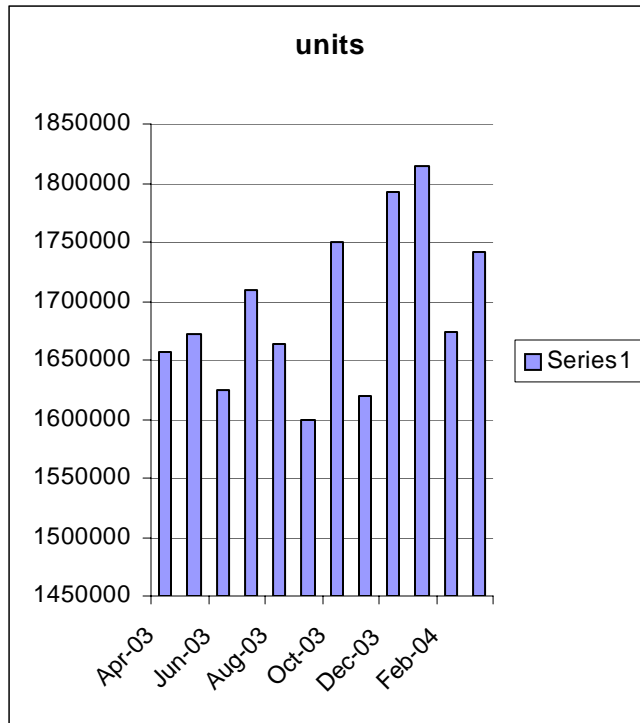


Power saving achived in 2003 to 2004

Sr. no	Location of power saved	Units /day	Rate/ Kwh	Working Day / Year	Saving / Year KHH	RS.	Investment in Lacs
1	Conventional copper chokes and ordinary low lumen flourescent	690	3	360	248400	745200	

	tubes are replaced by Electronics ballast and High Lumen Flourscent Tubes						
2	We have stopped 50% tube lights every where in the plant by using electronics ballast and High Lumen Tube Lights.	288	3	360	103680	311040	38.0
3	power saving from street lighting Sodium vapour Lamp of 125 watts replaced by 2x36 W Flourecent Tube light 8 nos	10	3	180	1800	5400	
4	Replaced 40 W Incondensate Lamps by 20 W Flourecent Tubes in Toilets 20 nos	1.6	3	360	576	1728	
				Total	354456	1063368	

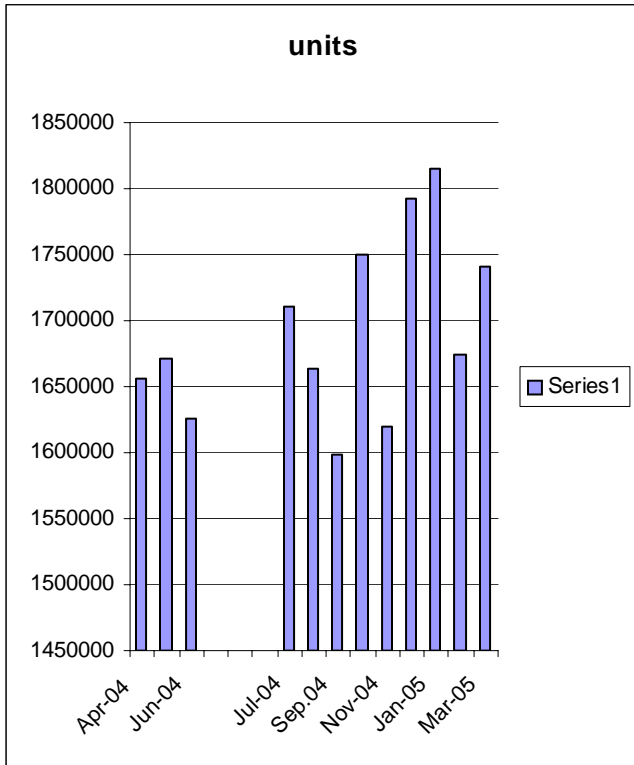
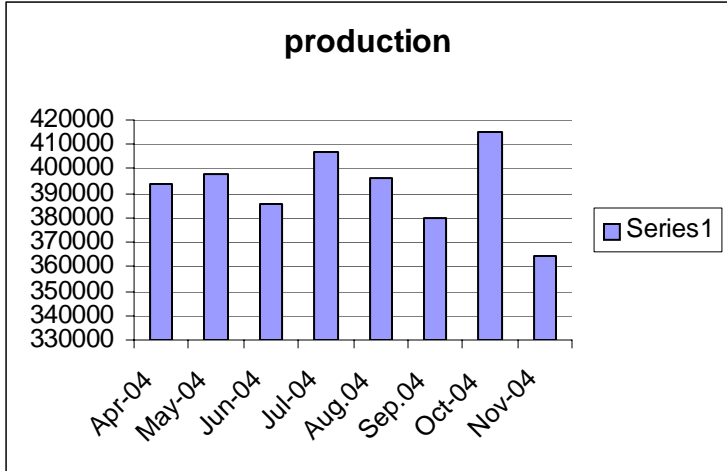




Power saving achieved in 2004 to 2005

Sr. no	Location of power saved	Units /day	Rate/ Kwh	Working Day / Year	Saving / Year KHH	RS.	Investment in Lacs
1	By putting Inverter in Autoconer 7 m/cs	350	3	360	126000	378000	
2	Stopped 30kw pump motor to feed water from U/G Tank to O/H tank. Water supply to O/H tank maintained by direct feeding with Submercible Tube well pump.	30	3	360	10800	32400	
3	Water supply reduced from 24 Hrs to 6 Hrs for Workers colony	360	3	360	129600	388800	
4	We have Installed Waste Heat Recovery Boiler to utilise Hot Gases of DG set for making Steam						
	The following saving achieved.						
	1. Stopped Hot water generator which was in use for Xorella yarn conditioning m/c.						
	(a) LDO saving 90 Ltrs / day	90	20	360	32400	648000	
	(b) Power saving from Hot water generator	60	3	360	21600	64800	

	(c) Power saving from yarn cond. m/c as conditioning time saved by using steam heating in placed of Hot water.	60	3	360	21600	64800	
	2. Power saving by Eliminated m/c heaters of 100kw (working day 15 in a month)	44	3	180	7920	23760	45.5
	3. Steam heaters installed in humidification plants in the Blow room , carding , Combers dept. We have stopped InfraHeating Lamps used for localised heating on diff. m/cs	45	3	180	8100	24300	
	4. Power saving from HFO storage tanks F.O Heating by Installing steam Heaters inplace of Elecric Heaters	450	3	360	162000	486000	
5	Energy Efficient spindle Tape W-8 used in Ring Frame m/cs.	1105	3	360	397800	1193400	
6	Suggestion implimented in Humidification plant	2220	3	360	799200	2397600	
7	In Compressors m/cs , Carben filter removed after Air Receiver tank, and Air leakages attended by Altrasonic Air Detector Tester.	320	3	360	115200	345600	
8	Reduction of suction capacity in VXL waste collection system, This new VXL capacity is Higher.	125	3	360	45000	135000	
9	Used of Cogged 'V' Belts inplace of ordinary belts	150	3	360	54000	162000	
10	Reduction of system power loss by improving power Factor at different load end.	84	3	360	30240	90720	
11	Reduction of suction capacity in comber E 7/4 WCS	75	3	360	27000	81000	
12	Cable Nutral Burning attended	27	3	360	9720	29160	
13	We have modofy central waste collection system of OHTC in Ring frame m/cs.	14	3	360	5040	15120	
	Total				2003220	6560460	
	Grand Total (for 03 Year)				27,26,436	1,00,58,628	94,40,000



ENERGY CONSUMPTION :

POWER CONSUMPTION DETAILS	UNIT	2002-2003	2003-2004	2004-2005
Annual Production	Ton	4166.65	4315.8	4771.8
Total Energy consumption per Annum	Kwh Lakhs	203.86	200.42	199.03
Energy cost as % of Manufacturing cost.	%	11.33	9.04	10.46

Total Energy Cost	Rs. Lakhs	543.77	524.00	591.86
Power consumption per Ton yarn	KWH	4893	4644	4171

M/S Kanco overseas has implimented many energy saving proposals and intended to continue these efforts in future . We have conducted energy audit studies from the out side agencies and implimented several suggestions . We have achived appriciable energy saving in the past 03 years .

i. e Energy = 27,26,436 KWH and Amount Rs. = 1,00,58,628

Mazor Energy conservation project implemented during the year 2004-2005

1. Installation of waste Heat Recovery Boiler ; set which is running contineuosly with this arrangement we could recover 779300 Kcal/Hr heat which was earlier going in the ambient stack. On the other hand we have saved the following energy by stopping Hot water generator working on LDO , Electric Heaters of F.O Storage tanks by incorporating steam heaters in all the tanks and infra Lamps heating in the different production centres.

Sr. no	Specific saving Heads	Saving / year	
		KWh	Rs
1	Power saving by stopping Hot water generator	21600	64800
2	Power saving from yarn conditioniing due to steam	21600	64800
3	Power saving by eleminating 100kw electric Heaters of YCP used for 15 days in as year	7920	23760
4	LDO saving used in hot water generator 90 L/Day		648000
5	power saving by installing steam heaters and stopping Elect. Heaters for F.O Heating of 04 nos storage tanks.	198000	594000
6	Power saving by installing steam heating batteries for dept. Heating during winter and monsoon (180 day) Infra Heating Lamps 60 x250 watts stopped.	16200	48600

Total saving	265320	1443960
Investment in Rs.		40,00,000

2. Installation of W-8 Spindles Tapes on R/Frame m/cs.

We have replaced existing spindles tape by power saving W-8 spindle tape which are developed by M/s HABASIT from Coimbatore
First of all we have taken studies with power saving tape on one m/c having 1056 spindles and found power saving about 2 to 3 % . There after this activity wxtended and installed other 17 m/cs.

Power consumption ;

Before power consumption	: 22500 units / day
After replacing W-8 spindle tapes	: 21395 units / day
Saving / day	: 1105 units /day
@ cost / unit 3.00	: Rs. 3315 / day
Total Amount saving / annum	: Rs 11,93,400
Investment	:

3. Power saving from Compressors ;

We have eliminated carbon filters which was installed in the pressure line after Air receiver further we are checking and rectifying control circuits in the m/cs on regular basis. Energy saving details are as under

Before power consumption	: 3160 units / day
After eliminated carbon filters	: 2840 units / day
Saving / day	: 320 units / day
@ cost / unit	: Rs 3.00
Total Amount saving / Annum	: Rs. 3,45,600
Investment	: Nill

4. Power saving from waste collection system of VXL

Waste collection system of VXL is installed for the suction of carding m/cs LC300 Licking and flates waste by maintaining suction pressure 10 paskal , Now we have reduced pressure from 10 to 8 paskal by reducing 45kw fan speed. Power saving details are as under.

Before power saving consumption of 45 kw motor	: 40.5 kw
After replacing pulley consumption	: 35.3 kw
Units saving / day	: 125 units
Total saving / annum	: Rs 1,35,000
Investment	: Rs 1500

5. Used of Cogged 'V' belts inplace of Ordinary belts :

We have replaced ordinary 'V' belts by Cogged 'V' belts for various m/cs and power saving is achived as under.

Before power consumption	: 37.56 kw
After replacing cogged 'V' belts	: 32.36Kw
Power saving / day	: 125 units /day
Total Amount saving / Annum	: Rs. 1,35,000
Investment	: Rs. 12,000

6. Reduction of system power losses.

We have improved plant power factor from 0.94 to 0.97 by installing New MOMAYA capacitors and repaired low cells for Asian capacitors with this improvement of power factor Drop voltage between sending and receiving ends of main cable has reduced resulting improvement in system voltage and reduction in losses.

Voltage drop reduced from 5 volts to 2 volts	
saving / day 3.5 kw	: Rs 90,720
saving / Annum	: Rs 90,000
Investment	

7 Reduction of fan suction capacity of E 7/4 combers m/cs waste collection system

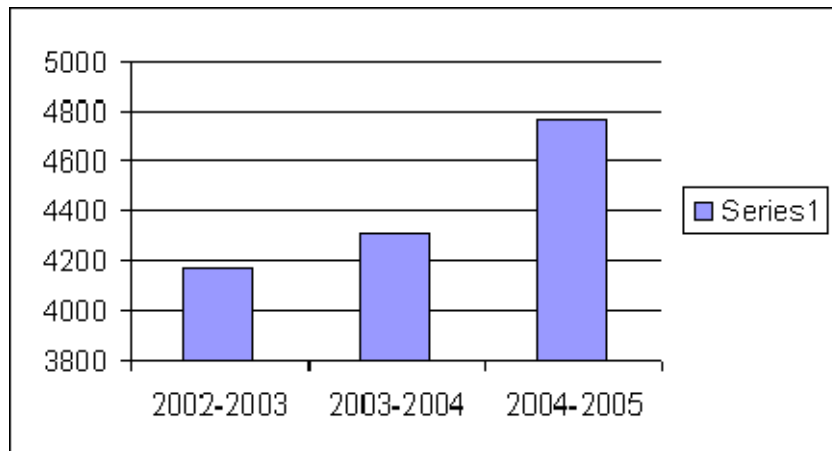
We have reduced suction of ventilator fan by reducing pulley from 194mm to 184mm and achived power saving as under.

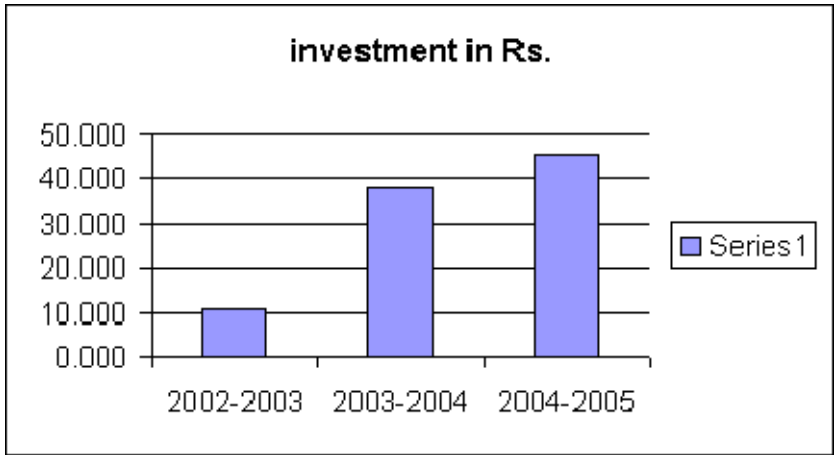
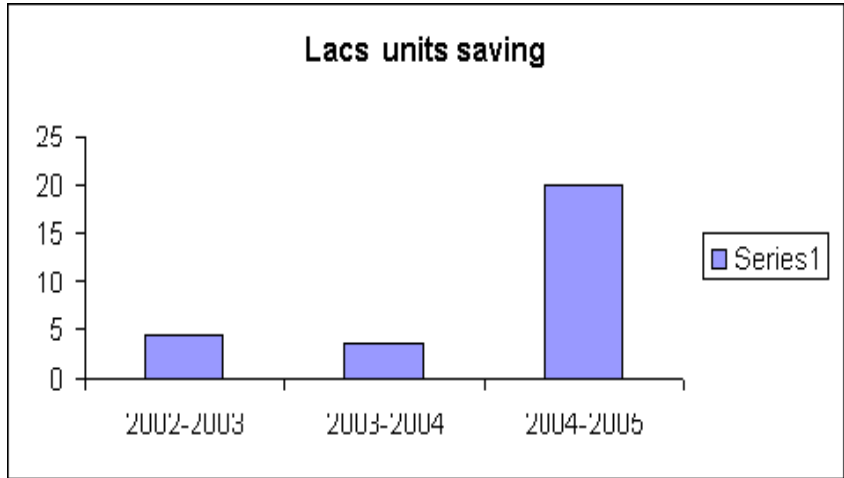
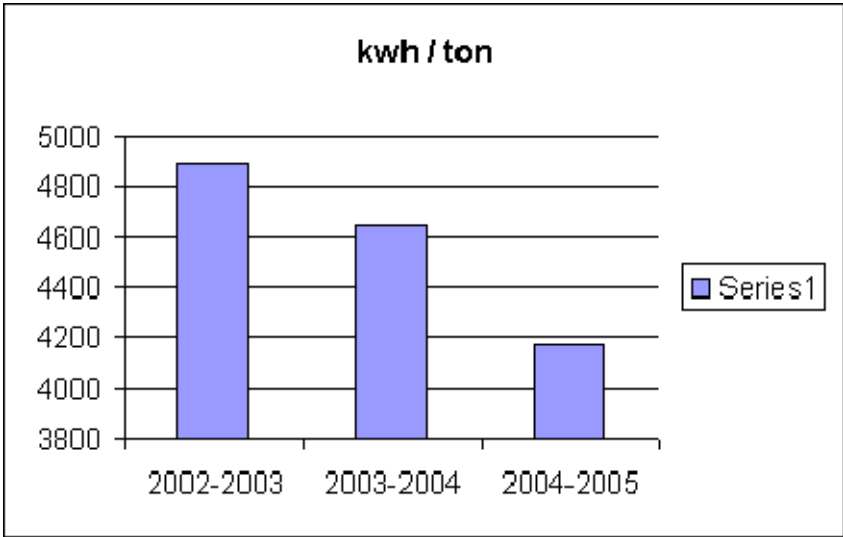
Before power consumption	: 9.4kw/hour
After replacing pulley	: 6.275 kw/hour
Saving / day	: 75 units
Total saving / Annum	: Rs. 81,000
Investment	: Rs 1200

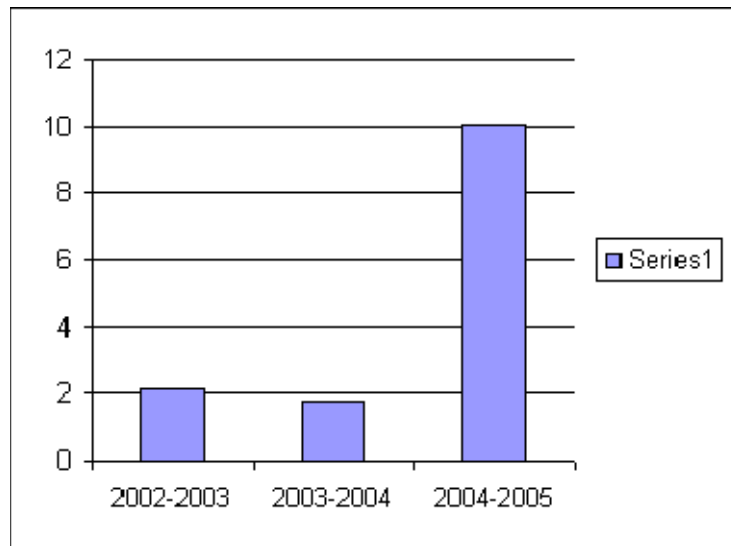
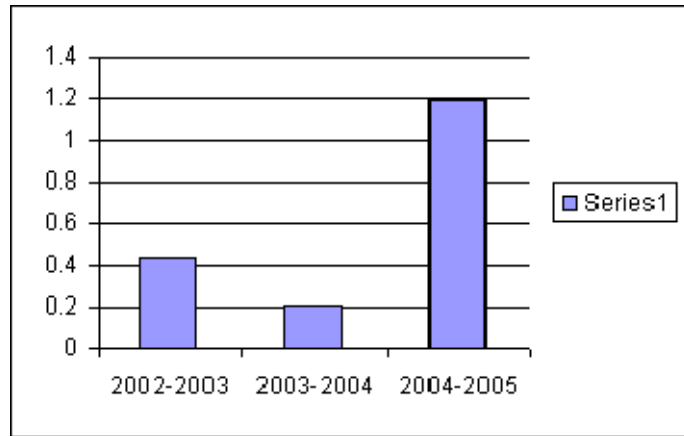
8. Power saving from Humidification plant :

We have taken various measures as per the recommendation of SITRA for power saving from Humidification plants. Details are as under.

Sr. no	Measures recommended	Units saving / year		Action plan	Remark
		Assessed	Achieved		
Prep H plant					
1	Reduction of S. A capacity	60000	59100	Blade angle reduced	cfm reduced from 176411 to 101363
2	Reduction of R.A capacity	200000	208405	R.A both ths fans blade angle reduced	dfm recuded from 119000 to 80640
Spinning H plant					
1	Reduction of R.A capacity	280000	290600	out of 3 fan one fan stopped	cfm reduced from 248680 to 239950
T/W H plant					
1	Reduction of R.A capacity	232000	244000	out of 2 fan one fan stopped	cfm reduced from 104480 to 50600
Total saving / year		772000	802105		







22 Summary

NATIONAL ENERGY CONSERVATION AWARD –2005

SUMMARY SHEET

Unit Name KANCO OVERSEASSub-Sector TEXTILE PLANTS

Implementation of energy conservation measures & investment [S.No.16, and S.No. 9.3(i)]					
No. of measures implemented, investment made & savings achieved.					
Year	No.of measures implemented (S.No. 16) (i)	Investment made (S.No. 16) (Rs. Lakhs) (ii)	Savings achieved (S.No. 16) (Rs. Lakhs/ year) (iii)	Energy Cost S.No. 9.3 (i) (Rs.lakhs/year) (iv)	%Savings of Energy Cost (iii / iv x 100)
2002 - 2003	5	10.9	24.35	543.77	4.48
2003 - 2004	4	38	10.63	524	2.03
2004 - 2005	13	45.5	65.6	591.86	10.77
Remarks (if any):					

2 Energy savings (S.No.16, S.No. 9.1C(a) and S.No. 10R(k)

a. Absolute Savings

Year	Elect. Saving (Lakh kWh) (S.No.16) (i)	Thermal (Fuel) Saving (MkCal) (S.No.16) (ii)	Elect.Consumption (Lakh kWh) (S.No.9.1C(a)) (iii)	Thermal (Fuel) Consumption (MKCal) (S.No.10R(k)) (iv)	% Elect.Saving (i) / (iii) x 100	% Thermal (Fuel) Saving (ii)/ (iv) x 100
2002 - 2003	4.355	NA	203.86	NA	2.14	NA
2003 - 2004	3.55	NA	200	NA	1.77	NA
2004 - 2005	20	NA	199.03	NA	10.05	NA

2.b. Specific Energy Consumption (SEC) Reduction during the period 2002 - 2004 (S.No. 11)

Year	Product	*kWh/ Tonne	% Reduction over 2002 - 2003	*MkCal/ Tonne	% Reduction over 2002 - 2003
2002 - 2003	4166.46	4893	--	NA	--
2003 - 2004	4315.8	4644	5%	NA	NA
Remarks (if any):					

2.c. Specific Energy Consumption (SEC) Reduction during the period 2003 - 2005

(S.No. 11)					
Year	Product	*kWh/ Tonne	% Reduction over 2003 - 2004	*MkCal/ Tonne	% Reduction over 2003 - 2004
2003 - 2004	4315.8	4644	--	NA	--
2004 - 2005	4771.8	4171	10%	NA	NA
Remarks (if any):					

2.d. Specific Energy Consumption Comparison with National & International Best Values (S.No.12)

Unit's values *National / International Best values

Product	Figures for the Current Year (2004-2005)	National	International
100 % Greay Cotton yarn	Electrical:	Rs. 100.58 Lacs	
	Thermal:	NA	
Remarks (if any)			

4 Specific Energy Consumption Target as achieved during 2004-05 [Ref. S.No. 19(a)]						
Specific energy consumption or use actual units						
Planned target for 2004 - 05 (a)		Actually achieved in 2004-05 (b)		% Reduction (+) or Increase (-) $\frac{(a-b)}{a} \times 100\%$		Money saved during 2004-05
*kWh/ tonne	*Mkcal/ tonne	*kWh/ tonne	*Mkcal/ tonne	*Electrical	*Thermal	Rs. Lakhs
5% of the year 2003-2004 i.e. 4644 Kwh/Tonne to 4411 Kwh/Tonne	NA	4171	NA	5.4	NA	3435120

* use appropriate units

5 Planned Specific Energy Consumption Target for the year 2005-06 & 2006-07 [Ref. S.No. 19(b)]				
Year	Electrical*	Thermal*	Reduction over the year 2004-05	
			Electrical %	Thermal %
2004-05 (Base year)			-	-
2005 - 06	200000 Kwh /Year	NA	1	NA
2006 - 2007	180000 Kwh/Year	NA	0.9	NA