



MD			BKC	<input checked="" type="checkbox"/>
CS	<input checked="" type="checkbox"/>		DPY	<input checked="" type="checkbox"/>
RO	<input checked="" type="checkbox"/>		FIV	<input checked="" type="checkbox"/>
TRA	<input checked="" type="checkbox"/>		AC	<input checked="" type="checkbox"/>
ACM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	SHI	<input checked="" type="checkbox"/>
YE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

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J. K. Synthetics LTD.
Annual Report
1996-97



BOARD OF DIRECTORS

Dr. Gaur Hari Singhania	<i>Chairman & Managing Director</i>
Govind Hari Singhania	<i>Vice Chairman & Managing Director</i>
Yadupati	<i>Wholetime Director</i>
Ramapati	<i>Wholetime Director</i>
Bharat Hari	
Shiromani Sharma	
V.B.L. Mathur	
N.C. Singhal	<i>Nominee of I.C.I.C.I.</i>
B. Surender Naidu	<i>Nominee of G.I.C.</i>
A.K. Thakur	<i>Nominee of U.T.I.</i>
A.C. Ahuja	<i>Nominee of I.F.C.I.</i>
A.C. Jain	<i>Nominee of S.B.I.</i> <i>Director (Finance)</i>
Dr. K.B. Agarwal	
<i>Secretary & Sr. Vice President (Admn.)</i>	
J.P. Bajpai	

**BANKERS**

State Bank of India
Central Bank of India
The Bank of Tokyo-Mitsubishi Limited
The Bank of Rajasthan Limited
Syndicate Bank
Punjab National Bank
State Bank of Bikaner & Jaipur
Bank of Baroda
ANZ Grindlays Bank
The Hongkong and Shanghai Banking Corporation Limited

AUDITORS

Messrs. P.L. Tandon & Co.
Chartered Accountants

REGISTERED OFFICE

Kamla Tower,
KANPUR-208 001

WORKS

Kota
(Rajasthan)

Padam Synthetics
J.K. Staple & Tows
Gopal Synthetics
Sir Padampat Research Centre
(PSG)

J.K. Tyre Cord
J.K. Acrylic
(ATC)

Jhalawar
(Rajasthan)

J.K. Fibres
J.K. Industrial Yarn
J.K. Utilities & Technical
Development
(ATC)

Kanpur
(Uttar Pradesh)

Syntex Tube Works

Nimbahera
(Rajasthan)

J.K. Cement Works
New J.K. Cement Works
(Cement)

Gotan
(Rajasthan)

J.K. White Cement Works
(Cement)

Bamania
Shambhupura
(Chittorgarh)

J.K. Power
(Cement)

J. K. Synthetics LTD.**NOTICE**

NOTICE is hereby given that the Annual General Meeting of the Members of J.K. Synthetics Ltd., will be held in the Auditorium of the Merchants' Chamber of Uttar Pradesh, 14/76, Civil Lines, Kanpur on Tuesday, the 30th December, 1997 at 12.00 Noon to transact the following business:

1. To receive, consider and adopt the Report of the Directors and Auditors and the Audited Profit & Loss Account for the year ended 31st March, 1997 and the Balance Sheet as at that date.
2. To appoint a director in place of Shri Yadupati, who retires by rotation and is eligible for reappointment.
3. To appoint a director in place of Shri Ramapati, who retires by rotation and is eligible for reappointment.
4. To appoint a director in place of Shri K.B. Agarwal, who retires by rotation and is eligible for reappointment.
5. To appoint Auditors to hold office from the conclusion of this Meeting up to the conclusion of the next Annual General Meeting and to fix their remuneration and in that connection, to pass the following resolution as a **Special Resolution**:

"RESOLVED that pursuant to the provisions of Section 224A (1) of the Companies Act, 1956, M/s. P.L. Tandon & Company, Chartered Accountants, Kanpur, the retiring Auditors of the Company, be and are hereby reappointed as Auditors of the Company to hold office from the conclusion of this Meeting up to the conclusion of the next Annual General Meeting of the Company, on such remuneration as may be determined by the Board of Directors in addition to reimbursement of travelling and other out of pocket expenses actually incurred by them in connection with the audit."

AS SPECIAL BUSINESS:

To consider and, if thought fit, to pass with or without modification(s) the following resolution:

AS ORDINARY RESOLUTION:

6. "RESOLVED that pursuant to the provisions of Sections 198, 269, 309, 310, Schedule XIII and other applicable provisions, if any, of the Companies Act, 1956, and subject to the approval of the Central Government and Financial Institutions, if required, the approval of the Company be and is hereby accorded to the increase in remuneration payable to Shri Govind Hari Singhania, Vice Chairman & Managing Director, by way of reimbursement of additional expenses incurred by him in connection with his illness to the extent of Rs. 26,60,479/- over and above the amount payable to him in accordance with the resolution passed at the Annual General Meeting held on 28.9.1994 and the agreement entered into with him."

"RESOLVED FURTHER that in the event of absence or inadequacy of profit in any financial year, the payment/reimbursement of the aforesaid additional medical expenses, together with remuneration already sanctioned to him, shall be deemed to be the minimum remuneration."

By Order of the Board


(J.P. BAJPAI)
Secretary

New Delhi
Dated: 29th November, 1997

NOTES:

- i) The relative Explanatory Statement pursuant to Section 173 of the Companies Act, 1956 in respect of Special Business under item No. 6 of the accompanying Notice dated 29th November, 1997 is annexed hereto.
- ii) Copy of Agreement referred to in the above Notice is available for inspection of the Members at the Registered Office of the Company between 2.00 p.m. and 4.00 p.m. on any working day except Saturday, till the conclusion of the Annual General Meeting.

- iii) The Register of Members and Share Transfer Books of the Company will remain closed from 16th December, 1997 to 30th December, 1997, both days inclusive.
- iv) Members are requested to bring their copy of the Annual Report, as copies of the Report will not be distributed again at the Meeting.
- v) Members seeking any information with regard to the accounts of the Company are requested to write to the Company at its Registered Office so as to reach at least 10 days before the date of Meeting to enable the Management to keep the information ready.
- vi) Intimation of any change in address of Members should be sent to the Company immediately.
- vii) **A MEMBER ENTITLED TO ATTEND AND VOTE AT THE MEETING IS ENTITLED TO APPOINT A PROXY TO ATTEND AND VOTE INSTEAD OF HIMSELF AND THE PROXY NEED NOT BE A MEMBER OF THE COMPANY.**

EXPLANATORY STATEMENT:

As required by Section 173 of the Companies Act, 1956, the Explanatory Statement sets out all material facts concerning the Special Business referred to in item No. 6 of the accompanying Notice dated 29th November, 1997.

ITEM NO. 6

Some time in May, 1983, Shri Govind Hari Singhania, Vice Chairman & Managing Director, developed Cardiac problem and had to undergo bypass surgery. While all precautions were being taken thereafter, in June, 1996, when he was going on a business visit to Germany, Italy and U.K., he was taken ill at London and had to be immediately hospitalised. The clinical examinations indicated that he needed a second surgery soon. After being discharged from the Hospital, he completed his business trip and returned to India. As he was not keeping absolutely well, he got a checking done at Escorts Heart Institute, New Delhi, where the Doctors advised him immediate coronary bypass surgery. He accordingly proceeded to Texas Heart Institute, U.S.A., for a coronary bypass surgery. After the successful bypass surgery, Shri Govind Hari Singhania has returned back to India. A sum of Rs. 26,60,479/- has been incurred in this regard.

The Shareholders in their meeting held on 28th September, 1994 have already approved the appointment of Shri Govind Hari Singhania as Managing Director of the Company for a period of five years effective from 1st September, 1994, pursuant to the Schedule XIII to the Companies Act, 1956 on the terms and conditions and remuneration including perquisites as contained therein. Accordingly, he is entitled to get reimbursement of the expenses incurred on medical treatment for himself and his family, subject to a ceiling of one month's salary, i.e., Rs. 15,000/- in a year or three months' salary over a period of three years.

The payment/reimbursement of the medical expenses to the tune of Rs. 26,60,479/- requires further approval of the Shareholders and the Central Government subject to necessary approval of the Financial Institutions, if required.

The resolution at item No. 6 is, therefore, commended for your approval.

None of the Directors of the Company except Dr. Gaur Hari Singhania and Shri Govind Hari Singhania is concerned or interested in the above resolution.

By Order of the Board


(J.P. BAJPAI)
Secretary

New Delhi
Dated: 29th November, 1997



DIRECTORS' REPORT

TO THE MEMBERS

Your Directors submit the Annual Report and Audited Statements of Account for the year ended 31st March, 1997.

2. FINANCIAL RESULTS

	31.3.1997 (Rs./Lacs)
Sales	91641
Other Income	953
Loss before Interest, Depreciation and Extraordinary items	172
Add: Interest	7240
Loss before Depreciation and Extraordinary items	7412
Add: Depreciation	4293
Loss for the year before Extraordinary items	11705
Add: Extraordinary items	3841
Loss before tax	15546
Provision for Wealth tax	4
Loss after tax	15550
Less: Transfer from Investment Allowance Utilisation Reserve	2292
Balance from previous year	(7906)
Balance carried to Balance Sheet	(21164)

3. OVERALL PERFORMANCE

The performance during the financial year under review has been the worst in the history of your Company. Recession in synthetic fibre industry remained unabated. Your plants being of small capacities had greater impact on operations. The shortage of working capital funds aggravated the situation and compelled most of man made fibre units to run at very low capacity and production had to be suspended in Acrylic and Tyre Cord plants at Kota w.e.f. August/September, 1996. While White Cement maintained its performance, Grey Cement operations suffered adversely on account of reduced margins. In the absence of revival package, the interest cost has gone up further. All these factors resulted in a net loss of Rs. 117.05 crores before Extraordinary items during the year under review.

4. DIVIDENDS

In view of the loss for the year, your Directors regret their inability to recommend payment of any dividend for the year.

5. FINANCE

5.1 PREFERENCE SHARE CAPITAL

After the close of the year:

- (i) Pursuant to the order dated 13th May, 1997 of the Hon'ble Company Law Board, your Company allotted

on 16.7.1997 new 1,45,562 – 11% Cumulative Redeemable Preference Shares of Rs. 100/- each effective from 23rd May, 1994 in lieu of existing 1,00,000 – 11% Cumulative Redeemable Preference Shares of Rs. 100/- each and arrears of dividend upto the date of maturity i.e. 22nd May, 1994 on the same terms and conditions as are applicable to existing 1,00,000 – 11% Cumulative Redeemable Preference Shares of Rs. 100/- each. Consequent upon this new allotment the above existing 1,00,000 – 11% Cumulative Preference Shares of Rs. 100/- each shall be deemed to have been redeemed, extinguished and cancelled.

- (ii) Pursuant to the order dated 13th May, 1997 of the Hon'ble Company Law Board, your Company allotted on 16.7.1997 new 1,49,294 – 15% Cumulative Redeemable Preference Shares of Rs. 100/- each effective from 23rd July, 1993 in lieu of existing 1,00,000 – 15% Cumulative Redeemable Preference Shares of Rs. 100/- each and arrears of dividend upto the date of maturity i.e. 22nd July, 1993 on the same terms and conditions as are applicable to existing 1,00,000 – 15% Cumulative Redeemable Preference Shares of Rs. 100/- each. Consequent upon this new allotment the above existing 1,00,000 – 15% Cumulative Redeemable Preference Shares of Rs. 100/- each shall be deemed to have been redeemed, extinguished and cancelled.

5.2 REDEMPTION OF DEBENTURES AND INTEREST THEREON

During the period under report:

- (i) Your Company paid redemption of 1st instalment @ Rs. 35/- per debenture on 3,715 – 15% Secured (Vth Series) Non-Convertible Redeemable Debentures of Rs. 100/-, which were extended for 7 years w.e.f. 14.4.1991.
- (ii) Your Company paid Rs. 60/- per debenture on 22,950 debentures towards repayment of 1st instalment and further Rs. 60/- per debenture on 3,476 debentures towards repayment of 2nd instalment of 12.5% Secured (P.C.D.) Non-Convertible part "B" debentures of Rs. 180/- each.
- (iii) Your Company fully repaid 21,532 – 15% Secured ("A" Series) Non-Convertible Redeemable Debentures of Rs. 100/- each, which were extended for three years with effect from 10.11.1993.

- 5.3 Your Company as far as possible has been redeeming the debentures of III, V, VI, 'A' and 'B' Series received from the dissenting Debentureholders except Financial/other Institutions, Banks, Mutual Funds etc. from time to time. These debentures have been kept alive for purpose of reissue.

- 5.4 Due to the liquidity/financial crunch faced by the Company in last few years, your Company could neither pay interest nor redemption amount on their due dates on various series of debentures. Major part of this interest and redemption amount are payable to Financial Institutions, Banks, Mutual Funds. Repayment plans, however, are to

J. K. Synthetics LTD.

be proposed in the rehabilitation package to be finalised in consultation with the Financial Institutions and other concerned Authorities.

- 5.5 Consequent upon a meeting convened and held on 24th July, 1997 at the behest of ICICI, New Delhi, Trustees for the holders of 14% Secured ('B' Series) Redeemable Debentures, Company received a communication dated 29th July, 1997 from the said Trustees calling upon the Company to repay dues of the debentureholders within one month thereof or furnish a concrete proposal for clearing the dues before the Hon'ble High Court of Judicature at Allahabad in Special Appeal No. 163 of 1997 filed by IL&FS, which notice has been disputed by your Company and not acted upon. The Company, however, asserted to submit proposal for repayment of total dues including clearance of "B" Series debentures at appropriate time.

- 5.6 The deposits received from the public remaining unclaimed as on 31.3.1997 amounted to Rs. 62.88 lacs in the accounts of 1,122 depositors against which deposits amounting to Rs. 6.59 lacs have since been repaid and/or renewed. Your Directors are happy to report that all public deposits are being regularly repaid by the Company.

6. RESTRUCTURING

As reported last year, the Company submitted various proposals for restructuring from time to time including the one based on unified cash flow under single management. In the month of March, 1997 the management was informally advised that the Financial Institutions would prefer to entrust the management of the Company to a professional Chief Executive Officer (CEO). The Board of Directors in their meeting held on 30.7.1997 approved the revised management structure and Chairman was entrusted to act as CEO during interim period. Efforts are being made to appoint a professional CEO from outside at the earliest possible. In the meantime, the Company has received notices of recall of advances from ICICI and other Financial Institutions. Their notices have been suitably replied alongwith the copy of the rehabilitation proposal. The Company has since appointed a reputed merchant banker for preparation of rehabilitation package which may include divestment of any business line. Sincere efforts are being made with the help of merchant banker to find buyers for any complex so that the proceeds can be utilised for repayment of borrowings and providing much needed working capital to run the remaining units.

7. REFERENCE TO BIFR

As per the audited accounts as at 31.3.1997 the Company's net worth stands fully eroded and accordingly the Company is required to make a reference to BIFR u/s 15 of the Sick Industrial Companies (Special Provisions) Act, 1985. A reference would, therefore, be filed within the mandatory time to BIFR.

8. OPERATIONS

8.1 NYLON FILAMENT YARN

Production and sales of nylon filament yarn during 1996-97 decreased by 6.3% and 10.8% respectively compared to last

year, mainly due to the paucity of working capital. Sales of value added yarn was higher resulting in the division earning a small net profit for the second consecutive year, inspite of low production.

8.2 POLYESTER YARN

1996-97 was another bad year for the polyester filament yarn industry not only in India but all over the world. The production and sales during the year decreased by 38.42% and 34.98% respectively over the last year. Consequently the losses were substantially higher. Paucity of working capital was the main reason for under-utilisation of the capacity.

PFY industry suffered adversely due to over-capacity and global recession, so much so that despite lowering of excise duty and reduced in-put prices, margins were squeezed further. There was stiff competition from large and new producers as well as substantial imports through VABAL route resulting in low prices of yarn. The position was worse for our old plant, which does not enjoy Sales tax, Octroi benefit etc. compared to new plants.

8.3 POLYESTER STAPLE FIBRE

Polyester Fibre Industry continue to face a substantial over-supply situation in the current year also. Production and Sales of PSF during the year were lower by 72.92% and 62.80% respectively as compared to last year. Fibre production in Gopal Synthetics remained suspended during the year.

Both PSF plants of the Company suffered losses due to steep fall in finished product prices due to cut throat competition among the major producers and lower production on account of non-availability of working capital.

8.4 ACRYLIC STAPLE FIBRE

The production and sales were lower compared to last year mainly due to under-utilisation of capacities for want of working capital and suspension of production in Kota Acrylic plant w.e.f. August, 1996.

8.5 NYLON TYRE CORD

Inspite of a good market of Nylon Tyre Cord in the country, both the units could not perform upto the expectations due to shortage of working capital resulting in lower capacity utilisation. The production in Tyre Cord plant, Kota was suspended from September, 1996.

8.6 GREY CEMENT

After remaining buoyant for two years, the cement industry took a beating during 1996-97. Addition of new capacities without related surge in demand led to over-supply position, which was more profound in the northern region. This together with poor sales realisation led to squeezed margins and dismal performance of almost all the major players. Due to poor demand, increase in cost of production could also not be passed on to the consumers, which further affected the bottom-line. Inspite of adverse market conditions, the Grey Cement Unit could achieve capacity



utilisation of 110.84% compared to 115.32% during last year.

8.7 WHITE CEMENT

J.K. White Cement Works, Gotan reached pinnacle of its consolidation process by attaining the highest ever Clinker production of 1.70 lacs MT and the Cement production of 1.75 lacs MT. It achieved a major feat by recording production and despatch figures of over 20,000 MT in January, 1997. The Unit could maintain its market leader position and firm prices throughout the year, could absorb the major hike in price of fuel without much adverse impact on profitability. However, due to increase in production capacities, the supply far exceed the demand thereby squeezing the margins, which has a negative effect on profitability in the current year.

8.8 SYNTEX TUBE WORKS

Recession in the nylon industry, constant power cut and insufficient order position have affected the working of this Unit.

8.9 EXPORTS

Exports during the year amounted to Rs. 327 lacs only.

9. RESEARCH & DEVELOPMENT

Sir Padampat Research Centre continued its efforts to develop new fibres and yarns with improved properties and also to successfully implement these processes on the plant scale. However, research activities have been suspended on account of lock out declared by the management since September, 1997.

10. AWARDS

You will be happy to note that Padam Synthetics unit producing NFY and POY won first National Energy Conservation Award from Ministry of Power in the textile sector for the year 1996.

11. CURRENT YEAR WORKING

On account of continuous losses suffered by man-made fibre units during last three years, the working capital shortage reached its peak level. This coupled with depressed industrial scenario in respect of all man-made fibres/yarns through out the world and non-cooperative approach of workers' union and staff association compelled the management to continue suspension of production in Acrylic and Tyre Cord plants both at Kota and Jhalawar while due to labour agitation in case of other Kota plants the management has to declare lock out from September, 1997.

In case of Grey Cement, the demand position, which was expected to improve, did not materialise as a result of which the prices of cement further declined during the current year. Increased cost of transportation and other inputs further squeezed the margins. Similar is the situation in case of White Cement. All these have adverse impact upon the profitability during the current year.

12. CONSERVATION OF ENERGY, TECHNOLOGY ABSORPTION, FOREIGN EXCHANGE EARNINGS AND OUT GO

Particulars with regard to Conservation of Energy, Technology Absorption, Foreign Exchange Earnings and Outgo in accordance with the provisions of Section 217(1)(e) of the Companies Act, 1956 read with the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988 are annexed and form part of the Report.

13. PROJECTS UNDER IMPLEMENTATION CEMENT PROJECTS—SIDHI AND SHAMBHUPURA

Due to adverse market conditions and general liquidity crunch, the work on these projects has been deferred for the time being and would be reviewed at appropriate time.

14. SUBSIDIARIES

The accounts of J.K. Satoh Agricultural Machines Ltd., subsidiary company, are annexed alongwith statement pursuant to Section 212 of the Companies Act, 1956. However, the accounts of other subsidiary company namely Jaykay Tech Ltd. are yet to be finalised.

15. CONTRIBUTION TO THE EXCHEQUER

Contribution to the Exchequer during the year under report by way of Excise duty, Customs duty, Sales tax etc. aggregated Rs. 245.83 crores.

16. PERSONNEL

16.1 INDUSTRIAL RELATIONS

Industrial relations during the year and also after the close of the year generally remained cordial in both Cement complexes. In respect of Jhalawar complex, the industrial relations improved during the year and remained cordial after labour unrest during the last year, which was subsided. In Kota, due to suspension of production in Acrylic and Tyre Cord plants, the workers were not paid wages from October, 1996 which created industrial unrest. These plants are still not operating. In respect of other plants at Kota i.e. Padam Synthetics, SSF and Gopal Synthetics, the industrial relations were cordial during the year under review. However, from April, 1997 the labour situation at Kota complex deteriorated due to various factors. All efforts made by the management through regular dialogues and meetings with union and representatives of staff association could not resolve the grievances of the workers and staff due to adamant approach of union/staff association. Ultimately, the management had to declare lock out in Padam Synthetics, SSF, Gopal Synthetics, SPRC and Steam & Power units from September, 1997. Industrial relations both at Kota and Jhalawar complexes at present are far from satisfactory.

16.2 PARTICULARS OF EMPLOYEES

Information as per Section 217(2A) of the Companies Act, 1956 read with Companies (Particulars of Employees) Rules, 1975 as amended, forms part of this Report.

J. K. Synthetics LTD.

However, as per the provisions of Section 219(1) (b) (iv) of the Companies Act, 1956 the Report and Accounts are being sent to all Shareholders of the Company excluding the aforesaid information. Any Shareholder interested in obtaining such particulars may write to the Company.

17. AUDITORS' REPORT

With regard to non-provision of interest liability as referred to in para (d) (i) of the Auditors' Report, Directors state that the determination of these liabilities has to be finally worked out as a part of a revival package for the Company and as the exact amount of such liability is not ascertainable as on date, the required provision could not be made in the books of account.

The other observations of the Auditors are self explanatory and have been appropriately dealt within the notes on accounts.

18. COST AUDIT

Cost accounting records have been maintained in respect of all the units except Nylon Tyre Cord, Kota. However, cost audit could be completed only in respect of Cement units. The cost audit in respect of other units could not be taken up due to non-accessibility to the records and vouchers of these units, which are lying at plants and are since closed/under lockout.

19. DIRECTORS

- 19.1 Shri N.C. Singhal and Shri A.C. Ahuja have joined the Board as Nominee Directors of ICICI and IFCI vice Shri K.A. Chaukar and Shri Vijay Karan respectively. Your Directors while welcoming the new incumbents, wish to place on record warm appreciation for the valuable services rendered by Shri K.A. Chaukar and Shri Vijay Karan.

- 19.2 Shri F.C. Rustagi and Shri Shailendra Swarup ceased to be the Directors of the Company w.e.f. 7th February, 1997

and 29th November, 1997 respectively consequent upon their resignations. Your Directors wish to place on record warm appreciation for the valuable services rendered by them during their tenure.

- 19.3 Three of your Directors namely Shri Yadupati, Shri Ramapati and Shri K.B. Agarwal retire from the Board and being eligible offer themselves for re-election.

20. AUDITORS

M/s. P.L. Tandon & Company, Chartered Accountants, Kanpur, Auditors of the Company, retire from their office. They are, however, eligible for re-appointment. They have furnished a Certificate to the effect that their appointment will be in accordance with limits specified in sub-Section (1B) of Section 224 of the Companies Act, 1956. You are requested to consider their appointment.

21. COST AUDITORS

Pursuant to the directives of the Central Government and provisions of Section 233(B) of the Companies Act, 1956, qualified Cost Auditors have been appointed to conduct the cost audit of Cement and all the products covered under Man-made Fibres and Yarns except Acrylic Staple Fibre for the year ended 31st March, 1997.

22. ACKNOWLEDGEMENTS

Your Directors wish to place on record their appreciation for the valuable support received from the Financial Institutions, Bankers, Suppliers and Customers. The Board also thanks the employees at all levels for their contribution.

FOR AND ON BEHALF OF THE BOARD



CHAIRMAN

New Delhi
Dated : 29th November, 1997



INFORMATION REQUIRED UNDER SECTION 217(1) (e) OF THE COMPANIES ACT, 1956

A. CONSERVATION OF ENERGY

(a) Energy conservation measures taken

(i) Synthetic Fibres & Yarns

Nylon/Polyester Filament Yarn/P.S.F.

- Installation of A.C. motor variable speed drives.
- Refrigeration load reduction by installing effective Cooling Coils in old cooling Chimney Air washer.
- Filter Water saving in Poly Dryers.
- Use of Electronic Ballast in Tube lights.
- Replacement of under-loaded motors to lower capacity motors.
- 'Switching Off' Godet Heating of S2-16 machines.
- Reduction in Steam consumption by reducing L.P. Steam pressure from 6 kg/cm² to 4kg/cm² for Poly (Nylon).
- Recycling of Waste Water.
- Metallic Fans replacement by Hollow FRP blade fans for Cooling Tower in Gopal.
- Effective monitoring of Steam Traps.
- Optimisation in Air Conditioning System.
- Boiler efficiency improvement by regular monitoring and audit.
- Modification of spray system of Sentry Cooling Tower.
- Use of low Air Pressure for cleaning purposes at various locations in Plant.
- Auto 'Switching Off' of lighting.
- Thermostatic Control of cooling Tower Fans.
- Conversion of two electrical heated air drying units into heat of compression type.
- Reduction in no. of lighting points.

J.K. Tyre Cord, Kota

- Redesigning of Air Cooling System of T/C Poly & Spg., reducing power consumption by 22% & 21% respectively.
- Reduction in Compressed Air consumption in Loom area by 30%.
- Two nos. Cording Machine Motors modified to reduce Power on each machine by 10-12%.

J.K. Acrylic, Kota

- Recycling of Waste Water in Effluent Treatment Plant, reduction in consumption by 110 M3 per day.
- Recycling of Poly & Solvent Recovery Effluent Water in the process to reduce DM Water consumption by approx. 200 M3 per day.

J.K. Utilities, Jhalawar

- One Condensate Pump of 45 KW replaced by 15 KW pump, reduction in power by approx. Rs. 0.45 lacs per month.
- One 75 KW Chilled Water Pump replaced by 30 KW pump, reduction in power by Rs. 0.56 lacs per month.

J.K. Fibre, Jhalawar

- Cooling Water pump isolated in 2000 area by increased water pressure in utility block saving of power by 11 KWH.
- One exhaust fan in 7000 area motor load reduced from 35 KWH to 11 KWH, saving of power by 24 KWH.
- One zone out of six zones blinded after optimised efficiency of dryer, saving in steam by 25 Tons per day.
- One idle (RD system) shell & tube Heat exchanger installed in 5000 area for used condensate heat, saving of steam by 5 Tons per day.
- E 5008 efficiency increased by providing two traps in parallel, saving of steam by 10 Tons per day.
- All 4 Ejector, Condensor & Heat exct. cleared by acid and by water pressure Machine in 5000 area by which we achieve target vacuum in column, saving of steam by 20 Tons per day.
- All steam idle lines, valve & traps identified and removed by which we avoid stoppage losses, saving of steam by 5 Tons per day.

I.Y.F., Jhalawar

- Re engineering in Spinning Air Conditioning system from 28300 TR per day to 13300 TR per day.
- Poly Jet furnace modified resulting in saving of power by 864 KW per day.
- D.M. Water consumption reduced from 350 M3 per day to 50 M3 per day.
- Nitrogen consumption reduced from 750 NM3 per day to 350 NM3 per day.

(ii) Grey Cement

- Efforts were made to improve plant performance to bring down power consumption.
- Envirocare system in all Kilns to improve performance of ESPs.
- Mechanical transport for Kiln feed No. 3.

(b) Additional investments & proposals being implemented for reduction in conservation of energy.

Grey Cement

- Folex cooler retrofit for heat saving & increase the production of Kiln No. 3.
- High efficiency fan in place of conventional fan in preheater exhaust gases.
- LP Twin cyclone for power saving in line 3 & 4.
- Kiln outlet Seal.

(c) Impact of the measures at (a) and (b) above for reduction of energy consumption and consequent impact on the cost of production of goods.

Grey Cement

- Nil (Measures are under observation).

B. TECHNOLOGY ABSORPTION

(i) Research & Development, specific area in which R & D has been carried out.

(a) Synthetic Fibres & Yarns

Nylon/Polyester Filament Yarn/P.S.F.

- To increase the productivity of polyester POY by using modified Polyester Polymers.
- Commercialization of speciality fibres such as easy Dyeable Polyester Fibres, Coloured Polyester Fibres and Low Pill Polyester Fibres.
- Reduction in energy conservation and cost reduction by continuous improvements.

J.K. Tyre Cord, Kota

- Elimination of (Pre Poly) for lower production (10 MT/day) for mechanical and electrical energy saving.
- Comoli Winder installed for 7-8 kg. yarn package similar to Spindraw for market competition and productivity.

J.K. Acrylic, Kota

- Developed Tow packing system in existing Staple Fibre Baler to develop Tow marker in the tune of 100 MT/Month.
- Established Waste Fibre reprocessing (RD) with a capabilities to process spg. line for waste recovery.

I.Y.F., Jhalawar

- Lactum extraction from Oligomer.
- Extractor Heating System modified.
- Installation of Sieve Test machine for Jet preparation.
- Installation of Hydraulic Press for Jet assembling and dismantling.
- Godet Roller Sleeves modified (Copper Sim).
- Computerisation of two Tensile Testing machines.
- Additional Filter installation in Monomer Suction System.
- Three more Depoly Reactor 90 KW Heaters modified.

(b) White Cement

- Three new Dust Collectors were installed at Cement Mill Circuit.
- New maintenance system implemented.
- Pneumatic feeding system of Raw Mill Silo is replaced by new mechanical elevator system.
- Steam exhaust System modified.

(ii) Benefits derived as a result of above R&D

White Cement

- The production in Kiln increased from 22.40 MT per hour in 1995-96 to 27.12 MT per hour in 1996-97 i.e., an increase of 21% approx.
- The fuel consumption per MT of Cement reduced from 142.40 Ltr. in 1995-96 to 134.59 Ltr. per MT in 1996-97 i.e., a reduction of 7.81 Ltr. per MT of Cement which amounts to Rs. 84.30 lacs approx.
- The power consumption per MT of Cement reduced from 131.76 KWH per MT in 1995-96 to 128.15 KWH per MT in 1996-97 i.e., a reduction of 3.61 KWH per MT of Cement amounting to Rs. 15.15 lacs approx.

(iii) Future Action Plan

Grey Cement

- Detailed Engineering for mechanical transport system for CM 3,4.
- Continued efforts for output enhancement of each section.
- Close circuiting of cement mills.
- Removal of Dampers from the system.
- High efficiency fan for raw mill-4.
- Dynamic separator for vertical raw mill.
- External circulation for vertical raw mill.
- Swirl burner for Kilns.
- White Cement
- Enhancing of Clinker Capacity from 700 MT per day to 900 MT per day.
- Reduction in fuel consumption by way of change in preheater system and installation of Clinker Cooling heater system, to see the possibility of improving the quality of final product by recycling the clinker coating in kiln.
- Reducing the power consumption in Raw Mill installing an additional crusher to ensure that feed size of Raw Mill reduces from -25mm to -7mm.
- To reduce the power consumption in cement mill by installing high efficiency separator in cement mill screening.

(iv) Expenditure on R&D

	Rs./Lacs
(a) Capital	7.12
(b) Recurring	156.77
(c) Total	163.89
(d) Total R&D expenditure as % total turnover	0.18
(v) Efforts in brief, made towards Technology Absorption, Adaptation and Innovation.	

(a) Synthetic Fibres & Yarns

- Development of technology for the manufacture of Low Pill Polyester fibre.
- Development of technology for the manufacture of High Shrinkable Polyester Fibres.
- Development of Coloured Fibres for non-wovens.
- Optimization and Stabilization of Process for the manufacture of Nylon 6 Staple Fibre.

(b) Cement

- (i) Daily monitoring of power consumption.
- (ii) Condition monitoring of all critical equipments.
- (iii) Better "Inventory control" by computer.

(vi) Details of Imported Technology

NIL

C. FOREIGN EXCHANGE EARNINGS AND OUTGO

- (i) Activities relating to exports, initiatives taken to increase exports development of new export market for products and services and export plans. Mentioned in the main report
- (ii) Total foreign exchange used and earned:
 - (a) Total foreign exchange used
 - (b) Total foreign exchange earned
 Mentioned in Notes on Accounts