

A N N U A L R E P O R T 2 0 0 1 - 0 2

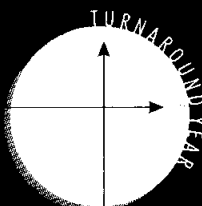


*Because commitment always
shines through.*

WE MEAN BUSINESS



Crompton
Greaves



Crompton Greaves Limited

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**Annual General Meeting on Wednesday, 28th August, 2002
at 3.30 pm at Patkar Hall, Mumbai**

Board of Directors

K. K. Nohria
Chairman

S. M. Trehan
Managing Director

P. C. Gupta
R. Nirula
J. Shaw
G. Thapar
K. Thapar

Chief Financial Officer

B. R. Jaju

Company Secretary

W. Henriques

Registered Office

6th Floor, CG House, Dr. Annie Besant Road,
Prabhadevi, Mumbai 400 025.

Auditors

Sharp & Tannan

Solicitors

Crawford Bayley & Co.

Bankers

ABN - Amro Bank N. V.
Bank of Baroda
Bank of India
Bank of Maharashtra
BNP Paribas
Canara Bank
Citibank N.A.
Corporation Bank

Deutsche Bank
HDFC Bank Limited
HSBC Limited
Standard Chartered Grindlays
Bank Ltd.
State Bank of India
Union Bank of India
Vijaya Bank

DIRECTORS' REPORT FOR THE YEAR ENDED 31ST MARCH, 2002

To,

The Members,

The Directors present their Sixty-fifth Report with the audited accounts for the year ended 31st March, 2002.

OPERATIONS

In spite of stiff market competition and no major changes in the market demand characteristics during the year, through several efforts at restructuring of the Company's businesses and aggressive improvement in operational efficiencies, together with a re-direction of the Company's marketing efforts and thrust on exports, the Company has returned to profitability after a span of two years.

FINANCIAL HIGHLIGHTS

(Rs. Crores)

	2001-2002	2000-2001
Gross Income	1615.84	1383.19
Operating Profit/(Loss) Before Tax	10.45	(199.70)
Exceptional Items (Net)	(3.57)	126.79
Profit/(Loss) Before Tax	6.88	(72.91)
Provision for Tax		
Current Year Tax	(0.25)	(0.25)
Deferred Tax	(2.50)	—
Profit/(Loss) After tax	4.13	(73.16)
Transfer to/(from) Reserve	2.44	(1.95)
Balance carried to Profit & Loss Account	6.57	(75.11)

The improvement is more significant in some Strategic Business Groups, as reflected by the profit before interest and tax, as under:

(Rs. Crores)

SBU	2001-2002	2000-2001
Power Systems	53.29	(-) 44.04
Industrial Systems	19.88	(-) 11.19
Consumer Products	41.75	2.32
Digital	8.99	(-) 1.96

A detailed review of the operations and performance of each Business Group is contained in the Management Discussion & Analysis Report, which forms a part of this Report.

DIVIDEND

Considering the accumulated losses, the Directors regret their inability to recommend a dividend for the year under review.

RESERVES

The Reserves at the beginning of the year were Rs.272.46 crores. The Reserves at the end of the year are Rs.364.90 crores, which includes Rs.89.90 crores due to Deferred Tax Credit.

DIRECTORATE

Mrs R Nirula has been nominated by ICICI Ltd to represent its interests on the Company's Board of Directors, as its Nominee Director, in place of Mr DC Sanghi. Mrs Nirula was appointed a Director on 24th July, 2001, and will not be subject to retirement by rotation.

Mr S Crowther was a Director on the Board as a representative of Invensys plc, the Company's foreign promoter. Consequent to his resignation from Invensys, Mr Crowther has resigned from the Board with effect from 1st February, 2002. Till date, Invensys has not intimated its nominee in place of Mr Crowther.

The Board places on record its appreciation for the guidance, support and valuable contributions of Mr Sanghi and Mr Crowther during their tenure as Directors of the Company.

Mr SM Trehan's tenure as Managing Director was for a period of two years upto 2nd May, 2002. Considering the visible impact of Mr Trehan's leadership on the Company's performance and financial results, the Board of Directors has approved his re-appointment as the Company's Managing Director for a further period of three years. Members' approval is being sought to his re-appointment and the terms related thereto; the details are contained in the accompanying Notice of the forthcoming Annual General Meeting.

Mr K Thapar and Mr SM Trehan retire by rotation at the forthcoming Annual General Meeting, and being eligible, offer themselves for re-appointment to the Board. Mr Trehan, being the Managing Director, would not ordinarily be liable to retire by rotation. However, considering the total number of Directors on the Company's Board and the number of Nominee Directors as a proportion thereto, in view of the provisions of the Companies Act and the Company's Articles of Association, Mr Trehan is required to retire by rotation. In terms of Clause 49 of the Listing Agreement with Stock Exchanges, the details of Directors to be re-appointed are contained in the accompanying Notice of the forthcoming Annual General Meeting.

QUALITY STANDARDS & ACHIEVEMENTS

During the year, six of the Company's Divisions have upgraded their Quality Standards Certification to the new ISO 9001:2000 version. After the realignment of the Company's manufacturing locations, in all, twenty-seven Divisions/Regions of the Company are accredited with ISO 9001 Certification, out of which three Divisions are also accredited with ISO 14001 Certification.

RESEARCH AND DEVELOPMENT

The Company recognises that for an enhanced presence, in the industrial and consumer market, both at home and abroad, a continuous flow of new products is essential. Towards future sustainability, Research and Development (R&D) is an area where the Company plans to progressively increase its expenditure and the intensity of its efforts. In this direction, the investments in R&D are on the increase, with a thrust on recruitment of an increasing number of professionals. A redirection in R&D has also been initiated towards translatable benefits for the recipient Divisions and market requirements. The Company's efforts to patent its developments and processes continues.

SUBSIDIARY COMPANIES

Consequent to the transfer of investments to CG Capital & Investments Ltd, the Company's wholly owned subsidiary, as indicated in last year's Annual Report, CG-PPI Adhesive Products Ltd and CTR Manufacturing Industries Ltd have become subsidiaries of CG Capital & Investments Ltd, and in terms of the provisions of the Companies Act, 1956, also continue as the Company's subsidiaries. Pursuant to Section 212 of the Companies Act, 1956, the Annual Reports of these three companies for the year ended 31st March, 2002 are annexed to this Report.

CONSOLIDATION OF ACCOUNTS

As required by Accounting Standard 21 of the Institute of Chartered Accountants of India, consolidated financial statements in respect of the Company and its three subsidiary companies mentioned above, are annexed to this Report. These consolidated financial statements conform to the requirements of the Accounting Standard.

THAPAR GROUP SHAREHOLDING

Pursuant to the Thapar Family Settlement Agreement approved by the Securities and Exchange Board of India, the voting rights in respect of 29.14% of the Company's shares, previously held by various Thapar Group companies have been transferred in favour of Mr Brij Mohan Thapar.

CONSERVATION OF ENERGY, TECHNOLOGY ABSORPTION AND FOREIGN EXCHANGE EARNINGS AND OUTGO

As required by the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988, the relevant data pertaining to conservation of energy, technology absorption and foreign exchange earnings and outgo are given in the prescribed format as an Annexure to this Report.

PARTICULARS OF EMPLOYEES

The statement of particulars required pursuant to Section 217(2A) of the Companies Act, 1956 read with the Companies (Particulars of Employees) (Amendment) Rules, 2002, forms a part of this Report. However, as permitted by Section 219(1)(b)(iv) of the Companies Act, 1956, the Report and Accounts are being sent to all Members and other entitled persons excluding the above statement. Those interested in obtaining a copy of the said statement may write to the Company Secretary at the Registered Office and the same will be sent by post. The Statement is also available for inspection at the Registered Office during working hours upto the date of the Annual General Meeting.

AUDITORS' REPORT & CERTIFICATE

The Company's explanations to the Auditors' observations in their Report have been detailed in Note Nos. 1, 29, 31(c), 33 and 36(a) in the Notes on Accounts contained in Schedule B to the Accounts, which forms part of the Annual Report. The Auditors have certified the Company's compliance of the requirements of Corporate Governance in terms of Clause 49 of the Listing Agreement and the same is enclosed as an Annexure to the Corporate Governance Report.

DIRECTORS' RESPONSIBILITY STATEMENT

The Directors would like to assure the Members that the financial statements for the year under review conform in their entirety to the requirements of the Companies Act, 1956.

The Directors confirm that:

- the Annual Accounts have been prepared in conformity with the applicable Accounting Standards;
- the Accounting Policies selected and applied on a consistent basis, give a true and fair view of the affairs of the Company and of the profit for the financial year;
- sufficient care has been taken that adequate accounting records have been maintained for safeguarding the assets of the Company; and for prevention and detection of fraud and other irregularities;
- the Annual Accounts have been prepared on a going concern basis.

AUDITORS

The Company's Auditors, Sharp & Tannan, hold office upto the conclusion of the forthcoming Annual General Meeting and, being eligible, are recommended for re-appointment on terms to be negotiated by the Audit Committee of the Board of Directors. They have furnished the requisite certificate to the effect that their re-appointment, if effected, will be in accordance with Section 224(1B) of the Companies Act, 1956.

FIXED DEPOSITS

1148 persons had not claimed repayment of their matured deposits amounting to Rs.106.53 lacs as at 31st March, 2002. At the date of this Report, an amount of Rs.31.26 lacs therefrom has been claimed and repaid and/or renewed. Sharepro Services continue to be the Company's Registrars for all matters related to Fixed Deposits.

LISTING ARRANGEMENTS

The Company's shares are listed on the Mumbai, Delhi, Calcutta and Madras Stock Exchanges as well as on the National Stock Exchange. The Company's Global Depository Receipts are listed on the London Stock Exchange. The Listing fees to all Stock Exchanges have been paid upto date.

ACKNOWLEDGMENTS

The Directors wish to place on record their appreciation to the shareholders, dealers, customers, suppliers, bankers and other business associates for their steadfastness and support to the Company.

The Directors also wish to thank all the employees for their unflagging spirit and tireless efforts, without which the Company's turnaround would not have been possible.

On behalf of the Board of Directors

Mumbai, 28th May, 2002.

KK NOHRIA
Chairman



ANNEXURE TO DIRECTORS' REPORT

Under Section 217(1)(e) of the Companies Act, 1956

A. CONSERVATION OF ENERGY

(a) Energy Conservation Measures taken:

Reduction of power consumption and effective utilisation of power in all operations continues to be of primary importance. Installation of power quality improvement equipment has been initiated at all Divisions. On-going efforts are being made to improve the power factor to over 0.98 by installation of capacitor banks. Wherever feasible, a switch-over to energy efficient fuels like natural gas and super light diesel oil has been effected. Efforts have also been made to improve the life of equipment by installation of additional heat exchangers and reduction in operating loads of equipment. Success in balancing of loads in many operational areas and implementation of optimum start timings for major loads like autoclaves has contributed to a reduction in maximum demand. Continuous monitoring of power factor and power quality is undertaken through energy audits for identification of further areas in which consumption of energy can be reduced.

(b) Additional investments and proposals, if any, being implemented for reduction in consumption of energy:

The energy conservation measures, for the present, are considered adequate. In view of the overall financial priorities of the Company, no new investments in this area are proposed in the short term. However, the Company will continue its efforts to optimise energy consumption through the several measures already mentioned above, and progressive deployment of power quality improvement equipment.

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

The Company's endeavour towards

effective management and utilisation of energy resources as mentioned above has yielded a reduction in consumption of energy units across the Company. Creation of increased awareness towards shift to high efficiency fuels, power factor improvement and utilisation of equipment towards power quality improvement is on going, for betterment of energy efficiencies.

B. TECHNOLOGY ABSORPTION

Research and Development (R & D)

1. Specific areas of significance in which R&D is carried out by the Company:

During the year under review, the emphasis was on achieving cost competitiveness and fulfillment of customer discernment as regards quality aspects such as surface finish, sealing and packing of existing products. Several new products have also been developed and introduced in a market increasingly exacting on energy efficiency, safety, noise pollution and reliability. The major areas of work were in Materials & Processes, Analytics, Insulation Systems, Optics & Electronics.

2. Benefits derived as a result of the above R&D:

New products developed

Power Systems

- ♣ Neutral grounding reactor with air cored magnetically shielded construction
- ♣ 500 kVA, 11 kV/433 V pre-fabricated unitised substation
- ♣ 400 kVA, 11 kV Cast Resin distribution transformer
- ♣ Earthing transformer with sandwich type winding in 6.9 kV & 20 kV class
- ♣ State-of-the-art 630 kVA distribution transformer, with corrugated tank
- ♣ 12 kV, 1250 Amps, 25 kA, Indoor, Magnetic Actuator Vacuum Circuit Breaker with electronic controller
- ♣ 145 kV, 40 kA SF6 gas circuit breaker with spring/spring mechanism
- ♣ 30 kV, 5 kA porcelain housed lightening arresters with 5 kA pressure relief

- ♣ Distribution class polymeric housed lightening arresters upto 24kV, 5kA
- ♣ Class 2 polymeric housed lightening arresters upto 66 kV, 10 kA
- ♣ Cast Resin vacuum interrupter upto 7.2 kV
- ♣ Dry type capacitors
- ♣ Static VAR Compensators

Industrial Systems

- ♣ 150 kW Arno converter
- ♣ Bar wound Slip Ring motor
- ♣ MVRH/MVMT blower units for Railways
- ♣ 4.5 kW & 25 kW Electronic Rectifier & Regulator Units for Railways
- ♣ 25 kVA on-board inverters – AC coaches for Railways
- ♣ Cylindrical rotor hydro generators of polarity 10 & 8 in 750 kW and polarity 6 in 625 kW rating
- ♣ KMR 560 motors for re-rolling mill applications
- ♣ QBBA1 12 V 4 F/4 B, QECX 11, QECI Relays for Railways
- ♣ 52 kg clamp clock for Railways
- ♣ DC Traction Motor Type 7362A, for 3300 HP broad gauge Diesel Electric Mixed Traffic Locomotive Type WDM3D
- ♣ High efficiency motors for export market

Consumer Products

- ♣ 9" & 12" Trans – Air (Economy) Model
- ♣ Tower fan (Deluxe)
- ♣ Sappy Table Fan
- ♣ 110 Volts Brushless DC Fans for Railways
- ♣ Lighting systems with 16mm dia for higher lumen per watt and longer life
- ♣ Ultra slim light weight aluminium extruded luminaire
- ♣ IP-66 street light luminaire
- ♣ Decolux – decorative spherical street light, with optics reflector assembly and control gear
- ♣ Petrolux – metal halide luminaire with symmetrical & asymmetrical lighting distribution, for petrol pump lighting

- ♣ Heavy duty open type High Intensity Discharge ballast
- ♣ Monobloc pumpsets with mechanical seal for industries – 10 ratings
- ♣ 4" submersible pumpsets – new economy range – additional 24 ratings
- ♣ Mini Star II – 0.5 HP Economy Model pumpset

Digital

- ♣ New version of the wall set as well as compact base station for the Wireless Local Loop systems based on CorDECT technology.
- ♣ High-bit rate Digital Subscriber Loop (HDSL) with various interfaces
- ♣ 2/8 Mbps and 2/34 Mbps Optimuxs with (1+1) Hot Standby as well as (1+0) configuration
- ♣ Economy model telephone
- ♣ Coral Series EPABX Systems with WLL connectivity
- ♣ TDMA based Digital Multi Access Rural Radio Systems

Technology Competence Achieved

- ♣ Technology for Cast Resin transformers
- ♣ Technology for reduction of noise in transformers
- ♣ Technology for Cast Resin vacuum interrupter
- ♣ Design of Compact low voltage vacuum contactors
- ♣ Process for single stage vacuum brazing
- ♣ Development of fault tolerant voltage regulators
- ♣ Pack building on expanded mandrels
- ♣ Design of drives for Railway applications
- ♣ Design of small permanent magnet motors with drives
- ♣ Manufacturing technology of Rare earth permanent magnets
- ♣ Heat treatment cycle for improved magnetic properties of electrical steel
- ♣ Indirect lighting for glare free lighting environment

- ♣ Development of access and transmission products
- ♣ Application of elastomeric material for sealing
- ♣ Non ceramic insulation for HV apparatus
- ♣ Surface engineering – substrate & painting
- ♣ Solutions for power quality improvement

Patents

In addition to the 7 patents received and reported upto last year, 4 patents were received during the year. Registration is awaited for 6 patents including 1 filed during the year.

3. Future Plan of Action

The Company plans to progressively augment its R&D efforts, both in terms of intensity and expenditure. Integration of R&D with business needs in response to market demands for new products and value additions to the existing products, will be the areas that the Company will concentrate on in its efforts to remain competitive and increase its customer base.

4. Expenditure on R & D

31st March, 2002

(Rs. Crores)

(a) Capital	0.17
(b) Revenue	7.58
(c) Total (a + b)	7.75
(d) Total R & D expenditure as a percentage of total turnover	0.48%

Technology Absorption, Adaptation and Innovation

1. Efforts and Benefits :

Structured efforts exist for introduction by the Divisions of new products, and improvements in existing products, from the Company's R&D efforts mentioned above, and also as a result of imported technology. These R&D efforts continue to be supplemented by collaborations with other reputed research laboratories and academic institutions. The benefits derived have resulted in a range of new products, improved processes, technologies and quality of products; cost reduction and material substitution, for improved market response.

2. Imported Technology :

Year of Import	Product	Imported From	Status of Absorption
1997-98	Indoor Circuit Breakers	Mitsubishi Electric Corpn., Japan.	absorbed.
1997-98	Gang Operated Gas Circuit Breakers	Mitsubishi Electric Corpn., Japan.	absorbed.
1997-98	Gas Circuit Breakers	Mitsubishi Electric Corpn., Japan.	absorbed.
1998-99	Metalclad Switchgear Panels	Mitsubishi Electric Corpn., Japan.	absorbed.
1999-2000	Amorphous Core Transformers	Allied Signal Technologies Inc. USA.	in progress.
2001-2002	Gas Insulated Switchgear	Hyundai Heavy Industries Co. Ltd. Korea	in progress.