

India

Asea Brown Boveri Limited

Annual Report 2002



ABB

Contents

1	Board of Directors and Other Information
2	Five Year Highlights
11	Notice to Members
14	Directors' Report
39	Management Discussion and Analysis
43	Auditors' Report
46	Balance Sheet, Profit and Loss Account and Schedules
56	Notes to the Accounts
71	Cash Flow Statement

Asea Brown Boveri Limited

Report and Accounts – 2002

Board of Directors

Peter Smits, Chairman
Ravi Uppal, Vice Chairman and Managing Director
N S Raghavan
Dinesh Paliwal
Nasser Munjee
Umesh Prasad Singh
Peter Leupp
BoonKiat Sim

Company Secretary

B Gururaj

Corporate Management Committee

Ravi Uppal
I K Sadhu
Biplab Majumder
Amresh Dhawan
K Rajagopal
V Swamy
Bazmi Husain
P C Rajiv
K S S Rajan
P P Gomes

Bankers

Bank of Baroda
Canara Bank
Hongkong & Shanghai Banking Corporation Limited
HDFC Bank Limited
ICICI Bank Limited
Standard Chartered Bank
Union Bank of India

Solicitors

Crawford Bayley & Co.

Auditors

Bharat S Raut & Co.

Registered Office

Plot No. 22-A, Shah Industrial Estate, 1st Floor
Off Veera Desai Road
Andheri (West)
Mumbai – 400 053

Corporate Office

Khanija Bhavan
2nd Floor, East Wing,
49, Race Course Road,
Bangalore – 560 001

Registrar & Share Transfer Agent

Tata Consultancy Services
Lotus House
6, New Marine Lines
Sir Vithaldas Thackersey Marg
Mumbai – 400 020

5 Year Highlights

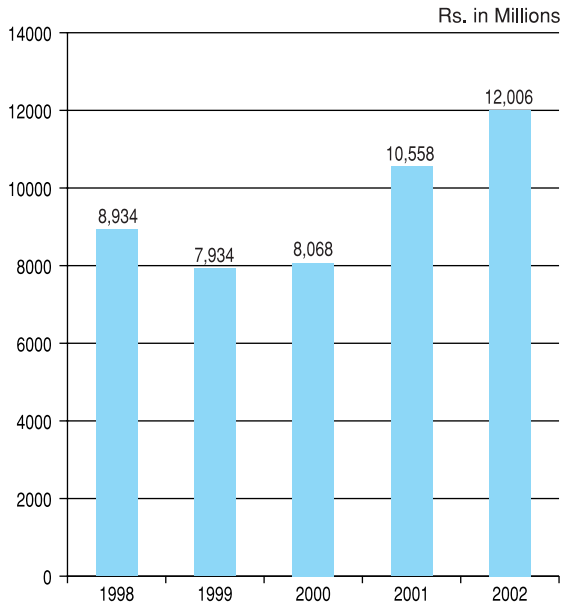
	(Rs in Millions)				
Description	2002	2001	2000	1999	1998
Sources of Funds					
Share Capital	423.8	498.8	414.2	414.2	414.2
Reserves	4,539.2	3,805.4	3,478.4	3,192.2	4,099.0
Net Worth	4,963.0	4,304.2	3,892.6	3,606.4	4,513.2
Borrowings	123.7	108.0	165.6	416.3	175.0
Funds Employed	5,086.7	4,412.2	4,058.2	4,022.7	4,688.2
Income and Profits					
Sales & Other Income	12,005.7	10,557.6	8,068.5	7,933.5	8,934.1
Operating Profit Before Interest and Depreciation	1,418.9	1,105.9	911.8	751.2	764.9
Profit Before Tax	1,229.7	850.8	705.1	532.0	492.3
Tax	416.2	197.5	165.0	160.0	115.0
Profit After Tax	813.5	653.3	540.1	372.0	377.3
Dividend / Dividend Tax	259.1	228.2	253.9	231.9	227.8
Retained Earnings	554.4	425.1	286.2	140.1	149.5
Other Data					
Gross Fixed Assets	2,707.0	2,747.9	2,442.3	2,253.5	2,771.3
Debt Equity Ratio	0.02:1	0.03:1	0.04:1	0.12:1	0.04:1
Net Worth Per Equity Share - Rs	117.1	99.8	94.0	87.1	109.0
Earnings Per Equity Share - Rs	19.1	15.5	13.0	9.0	9.1
Dividend Per Equity Share - Rs	6.0	5.0	5.0	5.0	5.0
Profit After Taxes as % to Average Net Worth	17.6	15.9	14.4	9.2	8.5

Notes :

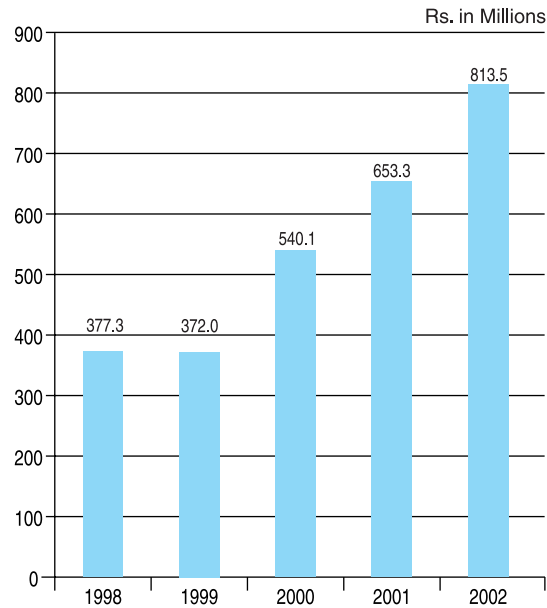
- 1) Excludes revaluation of fixed assets, revaluation reserve and extraordinary items.
- 2) Above highlights includes figures till 31 March, 1999, the date of demerger of Power Generation business and merger of four entities with the Company from 1 April, 2001.

5 Year Highlights

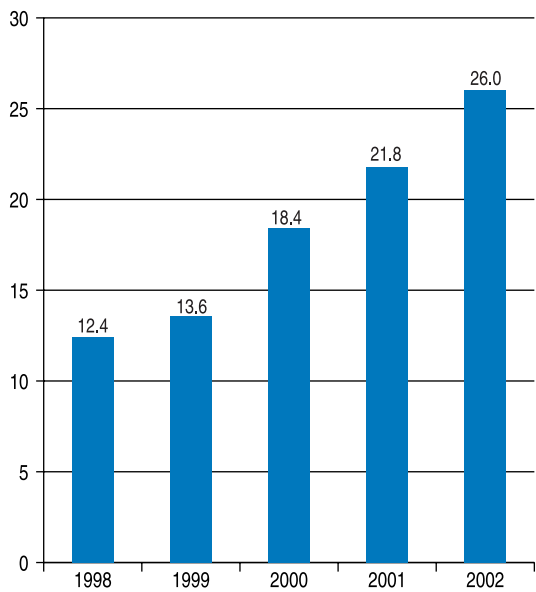
Revenues



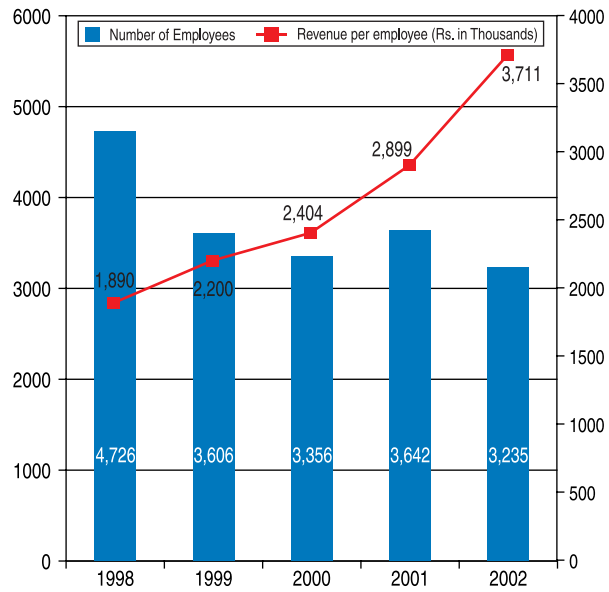
Profit After Tax



Return on Capital Employed (%)



Employees & Productivity



Notes :

- 1) Excludes revaluation of fixed assets, revaluation reserve and extraordinary items.
- 2) Above highlights includes figures till 31 March, 1999, the date of demerger of Power Generation business and merger of four entities with the Company from 1 April, 2001.

The Value Creator

A new simpler ABB

ABB is a leader in Power and Automation technologies that enables utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in more than 100 countries and employs about 139,000 people.

ABB's vision is to be 'The Value Creator'. Working closely with our customers, understanding their business needs and local market conditions, we are committed to ensuring their success through innovative products, systems, services and complete solutions, combining our cutting edge technologies and proven expertise with our strong local insight. By ensuring our customers' success, we in turn create value for our other stakeholders i.e. shareholders, employees and the communities in which we operate.

In 2002, ABB simplified its organisational structure with the key objective of leveraging our domain expertise and building on our clear market leadership in power and automation technologies. This

reorganisation will enable us to serve our utility and industry customers across the value chain with our world-class products, systems and solutions, faster and more efficiently.

Power Technologies

ABB is the world No.1 in Power Technologies serving utility and industry customers in more than 70 countries



High Voltage Products



Medium Voltage Products



Power Transformers



Distribution Transformers



Utility Automation Systems



Power Systems

Automation Technologies

ABB is a world leader in Automation Technologies with a complete range of product, service and solution offerings for industry and utility customers across the globe



Control Platform Products



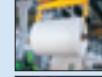
Drives & Motors



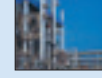
Low Voltage Products & Instruments



Robots, Automotive & Manufacturing Industries



Paper, Metals, Marine & Turbocharger



Petroleum, Chemical & Consumer Industries

ABB and Technology

ABB has been recognised as a technology leader for over a century, with many pioneering breakthroughs to its credit. We invest around 7% of our Group turnover in research and order related development, which is weaved into the fabric of our business offering. We have an excellent track record when it comes to 'intensity of innovation', with around 75% of our business being based on products developed in the past five years. The ultimate aim of all our technology initiatives is to make our utility and industry customers more competitive while reducing environmental impact.

In today's competitive business environment, all businesses are seeking radical productivity and efficiency improvements through increased automation and integration

of manufacturing and business processes. ABB is spearheading this effort through its open architecture based Industrial IT platform aimed at real-time, seamless integration of plant operations and business processes across the entire value chain. We combine our knowledge of their industry and business processes with world-class products, systems and services. This domain competence has been gained through years of experience across industries and in all parts of the world. ABB is also "information enabling" its products, which forms an integral part of the automated manufacturing processes of many industries.



Thinking Global, Acting Local

ABB in India

ABB India serves utility and industry customers with the complete range of ABB's offerings. The company has a vast installed base, extensive local manufacturing at 8 units and a countrywide marketing and service presence. As a strategic thrust to standard products business, ABB has developed a national channel partner network, which ensures geographical reach and penetration of its products and services.

In order to leverage India's intrinsic technology strengths and the vast pool of highly qualified software professionals, ABB has set up a global R&D Centre in Bangalore, which focuses on Industrial IT development and deployment. It also helps maintain and support a range of software intensive products and acts as a partner for the ABB R&D centers as well as business areas within the group.



- 3,200 Employees
- 8 Manufacturing Units
- 25 Marketing Offices
- 4 Service Centres
- 3 Training Centres



Maneja, Vadodara manufacturing unit



Peenya, Bangalore manufacturing unit



Faridabad manufacturing unit



Nashik manufacturing unit

Power Technologies

The Power Technologies division serves electric, gas and water utilities as well as industrial and commercial customers, with a broad range of products, services and solutions for power transmission and distribution. The portfolio includes transformers, switchgear, breakers, capacitors and cables, as well as high and medium voltage applications.

ABB's solutions facilitate the flow of electrical power from generating stations, transmitted through cross-country power lines. ABB's distribution systems further help to bring electricity from high voltage substations to end-users. ABB delivers end-to-end solutions, playing a key role in electrification and energy projects – both new and retrofit – for urban and rural utilities as well as for industrial and commercial customers.

ABB has pioneered several technologies in India including the introduction of self-blast SF6 technology, first HVDC back-to-back converter station, first SVC, first HVDC transmission line, first 400 kV switchyard, India's first IPP, turnkey substation for the first barge mounted IPP and many more.

ABB India has also delivered several turnkey substation solutions upto 400 kV for Central and State power utilities across the country and beyond. Recent international successes include significant orders in Syria, Bhutan and Iceland. Our focus on technological innovation helps us provide world-class products and solutions to our customers, making them more efficient and competitive.

As part of our global optimisation philosophy, ABB India's state-of-the-art manufacturing facility in Vadodara has been designated as a global sourcing base for 72.5 kV outdoor circuit breakers. The Nashik unit has also been named a global focused feeder factory for 11 kV and 33 kV outdoor vacuum/SF6 circuit breakers, Magnetic Actuators and indoor HPA SF6 breakers. Several other products and components manufactured in India are increasingly being exported across the world. As part of our strategic business thrust on projects and services we have broken new ground in international markets, winning significant orders and consolidating our position globally.



Automation Technologies

The Automation Technologies division serves customers across the industry spectrum in the automotive, chemicals, consumer, electronics, life sciences, manufacturing, marine, metals, minerals, paper, petroleum, turbocharging and utilities. ABB's competitive edge is its unparalleled domain expertise and cutting-edge technologies which include a comprehensive portfolio comprising Industrial IT-based measurement, control, instrumentation, process analysis, drives, motors, power electronics, robots, software, low voltage products, field maintenance and asset management services.

ABB offers complete solutions, fully integrating industrial processes that are backed by world-class platforms. The offering includes complete electricals, process control & automation and a broad range of software applications.

We are committed to harnessing the power of information technology, Internet and eCommerce to deliver faster and more effective solutions, moving ahead along with our customers, into knowledge based economies of the future.



Sustainability

Living our commitment to sustainability

An integral part of ABB's mission statement is to create value for the communities and countries in which it operates, by *living* its commitment to sustainability. Sustainability is about securing our common future. It involves working in three dimensions: environmental, economic and social. The right balance of the three will ensure prosperity and improve the quality of life of the communities in which we operate.

Our sustainability platform rests on two main planks of environmental and community development programmes. It encompasses a broad range of initiatives like the supply of eco-efficient products and systems, adherence to environmental laws and regulations, contribution to social development efforts and continuous improvement of the company's own sustainability performance.

Environmental initiatives

All our manufacturing units in India are ISO 14001 certified and more than 20 environmental management projects are at various stages of implementation across all ABB units. Through these projects we have adopted a multi-pronged approach to managing environment. The main areas of focus include recycling, energy conservation, work area improvement, greening initiatives, etc.

The company has put in place a system for controlling and monitoring pollutants at its factories to ensure compliance with environmental standards and legislation. ABB India is also implementing programmes that focus on conservation of natural resources such as energy, water and paper. Use of ozone depleting substances have either been eliminated or significantly reduced. Management of hazardous waste has

been undertaken through the setting up of effluent treatment and incinerator plants, exhaust systems with scrubber and safe storage facilities.



Green initiative, Delhi

ABB India is undertaking a unique integrated quality, environment and safety policy implementation (ISO 9000 + ISO 14000 + OHSAS 18001) reinforcing the company's commitment to superior quality and high environmental and safety standards.

Key sustainability initiatives

ABB is involved in several community projects, which aim at improving the lives of people who do not have access to basic amenities like food, healthcare and education. We believe that our efforts must go beyond mere financial assistance and include active participation with NGOs at the grassroots level so as to ensure that our sustainability initiatives truly benefit the people they target.



World Environment Day celebrations, Delhi



Earthquake relief initiative, Zadiyana school, Gujarat

ABB India is implementing education and community development programmes in Zadiyana, a village that was devastated in the Gujarat earthquake. ABB helped resurrect the school and constructed a new school building in Zadiyana using state-of-the-art earthquake-proof materials. The infrastructure will also be used for women education & vocational training.



Rural school adoption, Peenya, Bangalore

With a focus on spreading literacy, we have adopted a school on the outskirts of Peenya, Bangalore. The scope of our activities include

undertaking teacher training programmes, providing scholarships for students, computer teaching aid, greening of surroundings, expansion of school premises and supporting infrastructure improvement initiatives. We also support a mid-day meal scheme at the school.



Rural health camp, Peenya, Bangalore

ABB India is implementing a programme to provide free weekly medical consultation to the inhabitants of the village in cooperation with an NGO. Apart from dispensing medicines, qualified doctors also address other health issues like immunisation, cataract operations and tuberculosis awareness.



ABB Sustainability Report & Flyers (Hindi & English)

The company also actively participated in several other community development projects including training and development of women, healthcare and mobile clinics.

In order to give further impetus to its corporate social responsibility initiatives, ABB India is setting up a dedicated Corporate Sustainability Responsibility Trust (named ABB India Foundation) with the mandate to ensure that its community development programmes are carried out in a planned and strategic manner on a sustained basis. By institutionalising the objective of Creating Value for the communities in which it operates, the Foundation will facilitate the planning and implementation of the company's wide spectrum of sustainability initiatives by giving sustainability a distinct identity within the overall business framework and ensuring continuity of efforts on a longer time horizon.



Green initiative, Faridabad

Corporate Management Committee



Ravi Uppal
Vice-Chairman and
Managing Director



I K Sadhu
Power Technologies –
Systems



Amresh Dhawan
Power Technologies –
Products



Biplab Majumder
Automation Technologies



Bazmi Husain
Automation – Control
Platform Products and R&D



V Swamy
Building Systems and
Group Service Centre



P P Gomes
National Service
Organisation



K S S Rajan
Marketing



K Rajagopal
Finance



P C Rajiv
Human Resources

Notice to Members

NOTICE is hereby given that the FIFTY-THIRD ANNUAL GENERAL MEETING of the Members of **Asea Brown Boveri Limited** will be held at Rama Watumull Auditorium, Kishinchand Chellaram College, Dinshaw Wacha Road, Churchgate, Mumbai 400 020 on Thursday, the **10 April, 2003 at 3.00 p.m. (IST)** to transact the following business:-

Ordinary Business

1. To receive, consider and adopt the Balance Sheet as at 31 December, 2002 and the Profit and Loss Account for the year ended on that date and the Reports of the Directors and the Auditors thereon.
2. To declare a dividend on equity shares.
3. To appoint a Director in place of Mr. N S Raghavan, who retires by rotation at this Annual General Meeting, and being eligible, offers himself for re-election.
4. To appoint M/s. Bharat S Raut & Co., Chartered Accountants, as Auditors of the Company to hold office from the conclusion of this Annual General Meeting until the conclusion of the next Annual General Meeting and to fix their remuneration.

Special Business

5. To consider and if thought fit, to pass with or without modification(s), the following resolution as an Ordinary Resolution:

“Resolved that Mr. Umesh Prasad Singh who was appointed as Director of the Company by the Board of Directors, pursuant to Article 151 of the Articles of Association of the Company to fill in the casual vacancy on the Board, caused by the resignation of Mr. Vijay Karan and who holds office up to the date of this Annual General Meeting, pursuant to Section 262 of the Companies Act, 1956 and in respect of whom the Company has received a notice in writing from a member proposing his candidature for the office of Director, be and is hereby appointed as a Director of the Company, liable to retire by rotation.”

6. To consider and if thought fit, to pass with or without modification(s), the following resolution as an Ordinary Resolution:

“Resolved that Mr. Peter Leupp who was appointed as Director of the Company by the Board of Directors, pursuant to Article 151 of the Articles of Association of the Company to fill in the casual vacancy on the Board, caused by the resignation of Mr. Eric Drewery and who holds office up to the date of this Annual General Meeting, pursuant to Section 262 of the Companies Act, 1956 and in respect of whom the Company has received a notice in writing from a member proposing his candidature for the office of Director, be and is hereby appointed as a Director of the Company, liable to retire by rotation.”

7. To consider and if thought fit, to pass with or without modification(s), the following resolution as an Ordinary Resolution:

“Resolved that Mr. BoonKiat Sim, who was appointed as Additional Director by the Board of Directors of the Company pursuant to Article 152 of the Articles of Association of the Company and who holds office up to the date of the ensuing Annual General Meeting under Section 260 of the Companies Act, 1956, and in respect of whom the Company has received a notice in writing from a member proposing his candidature for the office of Director, be and is hereby appointed as a Director of the Company, liable to retire by rotation.”

By Order of the Board
For Asea Brown Boveri Limited

B Gururaj
Assistant Vice President &
Company Secretary

Mumbai
30 January, 2003

Registered Office:
Plot No. 22A,
Shah Industrial Estate, 1st Floor,
Off Veera Desai Road, Andheri (West),
Mumbai 400 053.

Notes:

1. The relative Explanatory Statement pursuant to Section 173(2) of the Companies Act, 1956, setting out the material facts in respect of business under items No. 5 to 7 is annexed hereto.
2. A MEMBER ENTITLED TO ATTEND AND VOTE AT THE MEETING IS ENTITLED TO APPOINT ONE OR MORE PROXY(IES) TO ATTEND AND VOTE INSTEAD OF HIMSELF/HERSELF AND A PROXY NEED NOT BE A MEMBER OF THE COMPANY. PROXIES IN ORDER TO BE EFFECTIVE MUST BE RECEIVED AT THE COMPANY'S REGISTERED OFFICE NOT LATER THAN FORTY-EIGHT HOURS BEFORE THE COMMENCEMENT OF THE MEETING.
3. The members should bring the duly filled in attendance slips sent herewith for attending the meeting.
4. The Register of Members and the Share Transfer Books of the Company will remain closed from **Tuesday the 1 April, 2003 to Thursday, the 10 April, 2003 (both days inclusive)** for the purpose of payment of dividend.
5. The dividend, as recommended by the Board, if declared at the Annual General Meeting will be paid on or after Saturday, the 12 April, 2003 to those members whose names stand registered on the Company's Register of Members:-
 - a) as Beneficial Owners as at the end of business on Monday, the 31 March, 2003 as per the list to be furnished by National Securities Depository Ltd. (NSDL) and Central Depository Services (India) Ltd.(CDSL) in respect of shares held in demat form.
 - b) as Members in the Register of Members of the Company after giving effect to valid share transfers lodged
6. Pursuant to the provisions of Section 205A of the Companies Act, 1956, dividends for the financial year ended 31 December, 1995, and thereafter which remain unclaimed for a period of 7 years will be transferred to '*Investor Education and Protection Fund*' established by the Central Government pursuant to Section 205C of the Companies Act, 1956.

Members, who have not yet encashed the dividend warrant(s), for the financial year ended 31 December, 1995 or any subsequent financial years are requested to forward their claims to the Company's Registrar and Share Transfer Agents. **It may be noted that once the unclaimed dividend is transferred to the Government as above, no claim shall lie with the Company in respect of such amount.**
7. Members are requested to intimate, indicating their folio number, the changes, if any, of their registered addresses to the Company or its Registrar and Share Transfer Agent, viz.
M/s. Tata Consultancy Services (Unit: Asea Brown Boveri Limited), Lotus House, 6, New Marine Lines, Sir Vithaldas Thackersey Marg, Mumbai 400 020 or to their respective Depository Participant (DP) in case the shares are held in demat form.
8. Members holding shares in physical form can avail of the Nomination facility by filing Form 2B (in duplicate) with the Company or its Registrar & Share Transfer Agents which will be made available on request and in case of shares held in demat form the nomination has to be lodged with their Depository Participant.
9. The particulars of Directors retiring by rotation and/or eligible for re-appointment are given in the Corporate Governance Section, of this Annual Report.

Annexure to Notice

Explanatory Statement under Section 173(2) of the Companies Act, 1956.

Items No. 5 & 6

Mr. Umesh Prasad Singh was appointed as a Director by the Board in its meeting held on 24 July, 2002, pursuant to Article 151 of the Articles of Association of the Company, to fill in the casual vacancy caused by the resignation of Mr. Vijay Karan. Since Mr. Vijay Karan was to retire by rotation at the ensuing Annual General Meeting, Mr. Umesh Prasad Singh would cease to hold office at this meeting pursuant to Section 262 of the Companies Act, 1956.

Mr. Peter Leupp was appointed as a Director by the Board in its meeting held on 25 October, 2002, pursuant to Article 151 of the Articles of Association of the Company, to fill in the casual vacancy caused by the resignation of Mr. Eric Drewery. Since Mr. Eric Drewery was to retire by rotation at the ensuing Annual General Meeting, Mr. Peter Leupp would cease to hold office at this meeting pursuant to Section 262 of the Companies Act, 1956.

The Company has received notices under Section 257 of the Companies Act, 1956, alongwith the deposits of Rs 500/- each from members of the Company, proposing the candidature of Mr. Umesh Prasad Singh and Mr. Peter Leupp respectively for the office of Director.

The Board considers that their association as Directors will be beneficial and in the interest of the Company.

The Directors recommend the ordinary resolutions at Items no. 5 & 6 for your approval.

Except Mr. Umesh Prasad Singh and Mr. Peter Leupp, none of the other Directors is, in any way concerned or interested in the respective resolutions.

Item No. 7

Mr. BoonKiat Sim was appointed as an Additional Director with effect from 25 October, 2002 by the Board of Directors of the Company.

In terms of Section 260 of the Companies Act, 1956 and Article 152 of the Articles of Association of the Company, Mr. BoonKiat Sim holds office as a Director upto the date of the ensuing Annual General Meeting of the Company and is eligible for re-appointment as a Director.

The Company has received a notice under Section 257 of the Companies Act, 1956, along with the deposit of Rs 500/- from a member proposing the candidature of Mr. BoonKiat Sim for the office of Director.

The Board considers that his association as a Director will be beneficial and in the interest of the Company.

The Directors recommend the ordinary resolution for your approval.

Except Mr. BoonKiat Sim, none of the other Directors is, in any way, concerned or interested in the said resolution.

By Order of the Board
For Asea Brown Boveri Limited

B Gururaj
Assistant Vice President &
Company Secretary

Mumbai
30 January, 2003.

Registered Office:
Plot No. 22A,
Shah Industrial Estate, 1st Floor,
Off Veera Desai Road, Andheri (West),
Mumbai 400 053

Directors' Report

The Directors have pleasure in presenting their Fifty-third Annual Report and Audited Accounts for the year ended 31 December, 2002.

Financial Results

	(Rs in Thousands)	
	For the year ended 31 December, 2002	For the year ended 31 December, 2001
Profit Before Tax and Extraordinary Item	1,229,682	850,789
Extraordinary Item – Profit on sale of Air handling business	158,259	–
Profit Before Taxation	1,387,941	850,789
Less: Provision for Tax		
- Current Tax	405,000	200,000
- Deferred Tax	11,200	(2,470)
Profit After Tax	971,741	653,259
Less: Transfer to Foreign Projects Reserve Account	1,000	5,000
Add : Reversal of Corporate Dividend Tax provided	21,123	25,680
Balance Brought Forward from last year	245,630	249,906
Amount available for Appropriation	<u>1,237,494</u>	<u>923,845</u>

Appropriations

General Reserve	720,000	450,000
Dividend Paid – Preference Shares	4,813	–
Proposed Dividend – Equity Shares	254,290	207,092
Corporate Dividend Tax	–	21,123
Balance Carried Forward	258,391	245,630
	<u>1,237,494</u>	<u>923,845</u>

Dividend

The Directors recommend payment of a dividend at the rate of Rs 6.00 per equity share for the year ended 31 December, 2002 on 42,381,675 equity shares of Rs 10 each (Previous year at the rate of Rs 5.00 per share on 41,418,356 equity shares). This dividend is subject to deduction of tax, if any.

The Company has paid Rs 4,813 thousand during the year as dividend on 750,000 11% preference shares of Rs 100 each redeemed on 31 July, 2002.

Performance Review

Total orders received during the year at Rs 13,050 million were 20% higher compared to Rs 10,920 million in the previous year.

Order backlog at the end of 2002 increased to Rs 8,794 million compared to Rs 7,750 million at the end of the previous year.

Sales and other income for the year was 14% higher at Rs 12,006 million compared to Rs 10,558 million in the previous year.

Profit before tax and extraordinary item was significantly higher at Rs 1,230 million compared to Rs 851 million in the previous year. Growth in profit was mainly attributable to volume growth, improvement in interest income and focused control over overheads.

Capital gain on sale of Air handling business was Rs 158 million. Profit after tax was also higher at Rs 971 million compared to Rs 653 million in the previous year.

For detailed analysis of the performance, please refer to management's discussion and analysis section of the annual report.

Divestment of Businesses

Consequent to the approval of the shareholders for the sale of Air handling equipment business by way of postal ballot and on completion of necessary formalities, the said business was divested during the year under review. An amount of Rs 259 million was realised from the divestment. The Company has invested Rs 215 million in Bonds of Rural Electrification Corporation Limited and accordingly no capital gain tax is payable as per Section 54EC of the Income-tax Act, 1961.

Pursuant to the ABB Group's decision to sell its Metering business worldwide to Ruhrgas Industries GmbH of Essen, Germany, the Board of Directors of the Company in its meeting held on 7 January, 2003 has decided to divest Company's Metering business. The requisite consent of the shareholder has since been obtained through postal ballot, the details of the results are provided in the Corporate Governance section of this report.

Change of Name and Registered Office of the Company

The Board of Directors in their meeting held on 7 January, 2003 had approved the change of

name of the Company from Asea Brown Boveri Limited to ABB Limited and shifting of the Registered Office of the Company from state of Maharashtra to the state of Karnataka. The requisite consent of the shareholder has since been obtained through postal ballot, the details of the results are provided in the Corporate Governance section of this report.

Redemption of Preference Shares

The Board of Directors of the Company in its meeting held on 20 February, 2002 had decided to redeem the 11% 750,000 preference shares of Rs 100 each held by ABB Holdings (South Asia) Limited aggregating to Rs 75,000,000. These shares have been redeemed at par as on 31 July, 2002 by crediting Rs 75,000,000 to Capital Redemption Reserve Account.

Transfer to the Investor Education and Protection Fund

In terms of Section 205C of the Companies Act, 1956, an amount of Rs 2,051 thousand, being unclaimed fixed deposits and unclaimed debentures along with interest accrued thereon, was transferred during the year to the Investor Education and Protection Fund established by the Central Government.

Fixed Deposits

Fixed deposits totalling Rs 59 thousand due for repayment on or before 31 December, 2002 were not claimed by the depositors as on that date. As on the date of this report, no claims have been received for the payment of these deposits. The Company has stopped accepting fixed deposits in 1998.

Conservation of Energy, Technology Absorption, Foreign Exchange Earnings and Outgo

The particulars as prescribed under sub-section (1)(e) of Section 217 of the Companies Act, 1956, read with the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988, are given in Annexure – A, forming part of this report.

Environment Compliance

The Company has in place a system for controlling and monitoring pollutants at all factories complying with environmental

standards and legislation. All the manufacturing units of the Company had received certificates for ISO 14001 (EMS).

Particulars of Employees

The statement under sub-section (2A) of Section 217 of the Companies Act, 1956, read with the Companies (Particulars of Employees) Rules, 1975, as amended, and forming part of this report is given in the Annexure – B.

Directors' Responsibility Statement

Pursuant to Section 217 (2AA) of the Companies Act, 1956, the Directors to the best of their knowledge and belief confirm that:

- i. in the preparation of the annual accounts, the applicable accounting standards have been followed by the Company;
- ii. appropriate accounting policies have been selected and applied consistently and such judgements and estimates have been made that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company as at 31 December, 2002 and of the profit of the Company for the year ended on that date;
- iii. proper and sufficient care has been taken for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956, for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities; and
- iv. the annual accounts have been prepared on a going concern basis.

Corporate Governance

Pursuant to clause 49 of the listing agreement, a report on corporate governance and a certificate from the auditors of the Company is given in the Annexure – C and Annexure – D respectively, which forms part of this report.

Board of Directors

Mr. K.N. Shenoy resigned as Chairman and Director of the Company with effect from 25 October, 2002.

Your Directors place on record their appreciation of the valuable contributions made by Mr. Shenoy during his long and illustrious tenure firstly as Managing Director of the Company and subsequently as Chairman of the Company.

Consequent to the resignation of Mr. Shenoy, the Board of Directors has appointed at its meeting held on 25 October, 2002, Mr. Peter Smits as the Chairman of the Company. At the same meeting, the Board has also appointed Mr. Ravi Uppal as the Vice Chairman and redesignated him as Vice Chairman and Managing Director of the Company.

Mr. Vijay Karan resigned as Director effective 22 June, 2002 and Mr. Umesh Prasad Singh has been appointed in the casual vacancy caused due to the resignation at the Board Meeting held on 24 July, 2002.

Mr. Eric Drewery resigned as Director effective 9 October, 2002 and in his place, Mr. Peter Leupp has been appointed in the casual vacancy caused due to resignation at the Board Meeting held on 25 October, 2002.

Mr. BoonKiat Sim was co-opted as Additional Director by the Board at its meeting held on 25 October, 2002 and he holds office upto the conclusion of the ensuing Annual General Meeting. Necessary resolution is being placed before the shareholders for the approval of his appointment.

The Directors also place on record their appreciation of the valuable services rendered by Mr. Vijay Karan and Mr. Eric Drewery as Directors of the Company.

Your Directors regret to inform about the sad demise of Mr. A. Ramamurthy on 23 February, 2003. He was a Director on the Board of your

Company since April, 2001. The Directors place on record the valuable guidance and support extended by him during his tenure as a Director.

Mr. N.S. Raghavan, Director, retire by rotation at ensuing Annual General Meeting and is eligible for re-appointment.

The particulars of Directors retiring by rotation and/or eligible for reappointment are given in the Corporate Governance section of this report.

Reconstitution of Committees of the Board

Consequent to the resignation of Mr. K.N. Shenoy as Chairman and also as Director, he ceased to be a member of Audit Committee, Transfer and Investors' Grievance Committee and Remuneration Committee of the Board. Consequently, your Directors at their meeting held on 25 October, 2002, have reconstituted these committees of the Board, the details of which are provided in the Corporate Governance section of this report.

Auditors

The Company's Auditors M/s. Bharat S Raut & Co. hold office upto the conclusion of the ensuing Annual General Meeting. The Company has received a requisite certificate pursuant to Section 224(1B) of the Companies Act, 1956, regarding their eligibility for re-appointment as Auditors of the Company.

For and on behalf of
the Board of Directors

Peter Smits
Chairman

Zurich
27 February, 2003

Annexure - A to Directors' Report

Conservation of Energy, Technology Absorption, Foreign Exchange Earnings and Outgo - Companies (Disclosure of particulars in the Report of Board of Directors) Rules, 1988.

(A) Conservation of energy

(a) Energy conservation measures taken during the year

Area of work during the year were installation of compressed air system and improvements in air cooling plant and office air conditioning units. Conversion of electric ovens to gas fired ovens was taken up. The manufacturing process of Instrument Transformer was taken up for cycle time reduction leading to energy savings. Unnecessary heating in certain areas was eliminated. Energy audit at Vadodara factory was carried out. Training programs were also conducted to increase awareness on energy saving.

(b) Proposals being implemented for reduction of consumption

Proposed areas of work include power factor improvement up to 0.99, air conditioning system, air cooling plants, electrical motors, solar heating system, water saving activity, selection of energy efficient plant and machinery, manufacturing processes, compressed air system.

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

Total energy saving is estimated at around **167,000 kWh** of energy per annum. This saving, however, has no appreciable impact on cost of goods, as the Company's production processes are not energy intensive.

(B) Technology absorption

(a) Research and Development (R&D)

(1) Specific areas in which R&D is carried out by the Company

R&D effort is carried out in almost all the products and processes, specifically, in the major areas given below:

Time lag relays for railways, improvements in Motor protection and Numerical relays, Trip circuit supervision relays, introduction of higher frame size and cost reduction and standardisation of Motors frames, embedded controllers using DSPs, Dynamic reactive power compensator - STATCON improvements and upgrades, Energy meters (three phase), software for energy meters, Shunt capacitors (higher ratings) and HV capacitor components like bushings, Series capacitors, substation earthing design using finite element techniques, substation location optimisation in distribution systems, 420kV isolators, pole mounted capacitor switch, Seismic design for isolator/circuit breaker using FEM techniques, Development of turbocharger components for export, design and development of 36kV outdoor SF6 circuit breaker, design and development of 12kV pole mounted capacitor switch, prototype development and type testing of 420kV, 2000A, HCB Disconnecter Type SDF420p 128, Retrofitting solution and redesign of SERIES installation BAY with 145kV Disconnecter Type SGF145 and 12kV, 40kA indoor vacuum circuit breaker with switchgear cubicle.

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

The benefits to the Company resulting from R&D activities is manifold. The Company absorbed new and upcoming global technologies, which resulted in increased technical base.

Benefits have been reflected also in terms of

- Improvement of product reliability
- Reduction in material cost
- Adaptation of imported design to suit local markets
- Lower cycle time for manufacturing

(3) Future plan of action

Efforts will be made by integrating R&D with business needs for offering better value added products and services for our customers.

Introduction of new features and range for STATCON, indigenisation of PP film used in capacitors, and reduction in capacitance tolerance in HT capacitors, increased safety motors fed through VSD, development of roller table motor in frame 225, popular ratings with EFF1 higher efficiency motors, restricted earth fault relays, development of higher rating STATCONs and LV distribution quality and efficiency improvement solutions, wider range of metering solutions and range extensions, optimised network planning for overhead and underground distribution systems, dynamic stability study of large power systems, improvements in transformers tank design, development of economical design for 245kV and 400kV circuit breakers, special designs of higher MVA transformers and design and development of 12kV pole mounted capacitor switch.

(4) Expenditure on R&D

(Rs. in Thousands)

i) Capital	2,692
ii) Revenue	23,139
iii) Total	25,831
iv) Total R&D expenditure as a percentage of turnover	0.22

(b) Technology absorption, adaptation and innovation

(1) Efforts made towards technology absorption, adaptation and innovation

Extensive training and skill building exercises were conducted in-house and at collaborators' end to improve design, development, production, commissioning and servicing. Some of them are:

Development of the components for high and medium voltage circuit breakers, development of indigenous components for electromechanical relays, localisation of components and monitoring field operation of turbochargers, type testing of relays, HT capacitors technology from the collaborator utilised and the range extended from present 132kV to 400kV voltage, technology adoption for making LT power capacitors and higher frequency applications, FAT (higher kVAR capacitor)

designs and standardisation, extension of series capacitors technology for 400kV installations and improvements in Instrument transformer first pass yields.

(2) Benefits derived as a result of above efforts

(i) Product improvement

As a result of the above efforts, product quality, performance and reliability have improved.

(ii) Cost reduction

Substantial cost reduction was achieved through design changes, standardization of components, indigenisation of components, and development of energy meters, relay and switchgear components.

(iii) Product development

Important products developed were 400kV shunt and series capacitors, 200Hz capacitors, frame size M2BA400L motor and motors with EFF1 efficiency level, time lag relay SRX-Q44, 420kV isolator, 12kV VD4E CB with VG5 interrupter, Outdoor 33kV SF6 CB type OHB, Single phase 240,50 Hz, +/-210A Dynamic reactive power compensator, 30MVA 220kV railway traction supply transformer, 30 MVA Single phase 220 kV traction supply transformer with OLTC on HV side etc.

(iv) Import substitution

Import substitution was carried out for electromechanical relays, various components of VTC304 turbocharger.

(3) Imported Technology (imported during last five years)

(i) Technology imported

Power and traction transformers	1998
SF6 CB Types ELF-SP, SP 4-1, ELF SP 6-21 and ELF SP 6-22	1998
Relays	1998
EDF SK1 36 to 72.5kV	1999
Switch fuses 200 Amps to 800 Amps	1999
Magnetic actuator Type A2 for circuit breakers up to 36kV	2000
Medium voltage air insulated switchboard type UNISAFE	2000
400kV Power Transformer	2002

(ii) Has technology been fully absorbed ?

Yes, except in the case 400 kV Power Transformer.

(C) Foreign exchange earnings and outgo

(a) Activities related to Exports; initiative taken to increase exports; development of new export markets for products and services; export plans

Orders received and revenues for the physical exports were higher by 24% and 30% respectively during the year.

Apart from traditional areas of exports, significant exports orders were received for engineering and projects execution in the areas of metals, cement, pulp and paper and petrochemicals from China and other South East Asian countries.

Export of high and medium voltage apparatus were also made to new countries like Algeria, Belgium, Lebanon, Malawi, New Zealand and Ukraine. MV vacuum and SF6 breakers were well received in the export markets.

In the beginning of the year 2003, Company has received its single largest

export order to date valued at Rs.1,680 million for six new substations at Syria.

With continued thrust to export, it is expected that exports will form significant proportion of Company's revenues in coming years.

(b) Total foreign exchange used and earned

(Rs. in Thousands)

a)	Foreign Exchange earned (including deemed exports)	1,278,850
b)	Foreign Exchange used	2,601,590

For and on behalf of the
Board of Directors

Peter Smits
Chairman

Zurich
27 February, 2003

Annexure - B to Directors' Report

Statement under Sub-section (2A) of Section 217 of the Companies Act, 1956, read with the Companies (Particulars of Employees) Rules, 1975, as amended, and forming part of the Directors' Report for the year ended 31 December, 2002

Name of the Employee	Designation/ Nature of Duties	Remuneration Received (Rs.)	Qualification	Expe- rience (Years)	Date of Commen- cement of Employment	Age (Years)	Previous Employment	
							Name of the Company	Designation
Chandel I.H. *	Watchman	406,871	V Std.	28	10/11/75	57	Bombay Port Trust	Watchman
Chandrababu M.K. *	Stenographer	553,416	SSC	12	01/05/90	39	-	-
Chauhan M.K. *	Workman	277,227	Non Matric	19	20/04/83	57	-	-
Das B.N. *	Workman	498,021	HSC	30	02/02/72	56	-	-
Dhawan A.	Sr. Vice President - Power Technology Products Division	2,434,363	B. Sc, Engg. (Elec.)	30	15/12/73	54	-	-
Gaikwad V.H. *	Supervisor	452,367	SSC	37	02/12/65	57	-	-
Jadeja K.A. *	Workman	569,408	-	24	01/12/78	51	-	-
Joshi N.S. *	Workman	325,091	Non Matric	19	23/07/83	51	-	-
Krishnan P.M. *	Stenographer	558,190	SSC	12	01/11/90	43	-	-
Narkhede R.V. *	Workman	266,798	SSC, ITI	32	05/11/70	58	-	-
Parmar G.R. *	Workman	497,757	VI Std.	22	01/05/80	56	-	-
Parmar K.M. *	Workman	271,072	IV Std.	20	01/01/83	57	-	-
Patanwadia R.C. *	Supervisor	472,670	IV Std.	37	01/12/65	56	-	-
Patel A.S. *	Supervisor	542,429	SSC	36	20/02/82	56	Apar Private Ltd.	Supervisor
Patel R.N. *	Supervisor	532,522	Non Matric	35	02/03/67	56	-	-
Patwardhan V.B. *	Supervisor	400,779	SSC	29	01/04/73	57	-	-
Pawar D.B. *	Workman	455,559	V Std.	29	06/06/77	56	Sucessen Textile Bearings Ltd.	Fitter
Punjabi S.F. *	Supervisor	498,221	VII Std.	33	10/10/69	56	-	-
Sadhu I. K.	Executive Director - Corporate Affairs and Head, Utility Division	2,600,619	B. Sc. (Engg.)	38	01/02/70	58	B.H.E.L	Commercial Engineer
Salunke F.K. *	Workman	358,137	SSC	32	01/06/70	57	-	-
Shah P.C. *	Supervisor	510,163	SSC, Wireman	37	09/04/65	56	-	-
Shah R.M. *	Supervisor	480,307	ITI	33	01/07/70	56	Hindustan Tractors Ltd.	Fitter
Solanki R.S. *	Workman	288,879	SSC	36	01/07/66	57	-	-
Thakur H.A. *	Watchman	471,994	IX Std.	37	12/06/84	56	Bundy Tubing of India Ltd.	Watchman
Uppal Ravi	Vice Chairman and Managing Director	4,467,134	B. Tech. (Electrical & Electronics), M.B.A.	28	01/10/01	50	Volvo India Pvt. Ltd.	Managing Director
Utekar K.S. *	Workman	548,135	VII Std.	36	04/07/66	56	-	-

* Voluntary Retirement Cases

Notes:

- (1) Nature of employment is contractual for all employees. Other terms and conditions are as per Company's Rules.
- (2) None of the above employee is related to any of the Directors of the Company.
- (3) Remuneration received includes Salary, Bonus, House Rent Allowance, Privilege Leave Encashment, Personal Allowance, Overtime, Value of rent free accommodation, Contribution to Provident Fund, Superannuation, Health Insurance Premium, Personal Accident Insurance, Voluntary Retirement Compensation. Leave Travel Assistance, Medical Assistance and Company's Car perquisites evaluated in accordance with the Income-tax Rules as applicable.

For and on behalf of the Board of Directors

Zurich
27 February, 2003

Peter Smits
Chairman

Annexure - C to Directors' Report

Report on Corporate Governance

(A) Corporate Governance Philosophy

The Company is committed to good Corporate Governance. The Company fully realises the rights of its shareholders to information on the performance of the Company and considers itself a trustee of its shareholders. The Company provides detailed information on various issues concerning the Company's business and financial performance to its shareholders.

The basic philosophy of Corporate Governance in the Company is to achieve business excellence and dedicate itself for increasing long-term shareholder value, keeping in view the needs and interests of all its stakeholders. The Company is committed to transparency in all its dealings and places emphasis on business ethics.

(B) Board of Directors

(i) The composition of the Board of Directors as at 31 December, 2002 is as follows:

Sr. No.	Name of Director	Executive/ Non-Executive	No. of other	
			Directorships	Committee memberships
1	Mr. Peter Smits (Chairman)	Non-Executive	NIL	NIL
2	Mr. Ravi Uppal (Vice Chairman & Managing Director)	Executive	5	NIL
3	Mr. A. Ramamurthy	Non-Executive & Independent	3	NIL
4	Mr. N.S. Raghavan	Non-Executive & Independent	2	NIL
5	Mr. Dinesh Paliwal	Non-Executive	NIL	NIL
6	Mr. Nasser Munjee	Non-Executive & Independent	12	5*
7	Mr. Umesh Prasad Singh	Non-Executive & Independent	1	NIL
8	Mr. Peter Leupp	Non-Executive	NIL	NIL
9	Mr. BoonKiat Sim	Non-Executive	NIL	NIL

* Includes Chairmanship in 2 committees

None of the non-executive and non-independent Directors have any pecuniary relationship or transaction with the Company except for holding Directorship and/or employment in ABB Group Companies

(ii) Changes in the composition of the Board of Directors since the last Annual General Meeting

- Mr. K.N. Shenoy resigned as Chairman and Director of the Company with effect from 25 October, 2002. Mr. Shenoy has been with the Company for nearly four decades in various capacities which included as Managing Director and Executive Chairman of the Company before becoming a Non-Executive Chairman since 1996.
- The Board elected Mr. Peter Smits as Chairman of the Board and redesignated Mr. Ravi Uppal as Vice Chairman and Managing Director of the Company with effect from 25 October, 2002.
- The Board has appointed Mr. Umesh Prasad Singh and Mr. Peter Leupp as Directors of the Company with effect from 24 July, 2002 and 25 October, 2002 in place of Mr. Vijay Karan and Mr. Eric Drewery respectively who resigned as Directors with effect from 22 June, 2002 and 9 October, 2002.
- The Board has also appointed Mr. BoonKiat Sim as Additional Director of the Company effective 25 October, 2002.
- Mr. A Ramamurthy ceased to be a Director effective 23 February, 2003 consequent to his demise.

(iii) Meetings held in financial year 2002 and Attendance of Directors

The Board meets at least once in a quarter to consider amongst other business, the quarterly performance of the Company and financial results. The Board has held four meetings during the financial year 2002 on 20 February 2002; 24 April 2002; 24 July 2002 and 25 October, 2002.

The attendance of each Director at these meetings and at the last Annual General Meeting was as follows:

Sr. No.	Name of Director	No. of Board Meeting attended	Attendance at last AGM
1	Mr. Peter Smits - Chairman (w.e.f. 25.10.2002)	2	Absent
2	Mr. Ravi Uppal - Vice Chairman & Managing Director	4	Present
3	Mr. K.N. Shenoy (upto 25.10.2002)	4	Present
4	Mr. N.S. Raghavan	3	Absent
5	Mr. Dinesh Paliwal	2	Present
6	Mr. Nasser Munjee	4	Present
7	Mr. Umesh Prasad Singh (appointed w.e.f. 24.07.2002)	2	N.A.
8	Mr. Peter Leupp (appointed w.e.f. 25.10.2002)	Not Attended	N.A.
9	Mr. BoonKiat Sim (appointed w.e.f. 25.10.2002)	1	N.A.
10	Mr. Sune Karlsson (upto 18.01.2002)	N.A.	N.A.
11	Mr. K.K. Kaura (upto 24.04.2002)	NIL	N.A.
12	Mr. Vijay Karan (upto 22.06.2002)	1	Absent
13	Mr. Eric Drewery (upto 9.10.2002)	2	Absent
14	Mr. A. Ramamurthy (upto 23.02.2003)	2	Present

(C) Committee of Directors

(i) Audit Committee

The Audit Committee consists of three non-executive independent Directors. Consequent to the resignation of Mr. Vijay Karan as Director, he ceased to be a Member of the Audit Committee as well. Mr. Umesh Prasad Singh was appointed as Member of Audit Committee in his place by the Board with effect from 24 July, 2002.

Consequent to the resignation of Mr. K.N. Shenoy as Chairman and Director, he also ceased to be the Chairman as well as Member of the Audit Committee of the Board. Mr. Ramamurthy ceased to be a member consequent to his demise.

Mr. Nasser Munjee was appointed as member of the Audit Committee of the Board w.e.f. 24.04.2002 and at meeting held on 29 January, 2003, he was elected as the Chairman.

Four Audit Committee Meetings were held during the financial year 2002 on 19 February, 2002; 24 April, 2002; 19 July, 2002 and 24 October, 2002.

The Composition of the Audit Committee and the attendance of each Director at these meetings were as follows:

Sr. No.	Members of Audit Committee	No. of meetings attended
1	Mr. K.N. Shenoy (upto 25.10.2002)	4
2	Mr. Vijay Karan (upto 22.06.2002)	1
3	Mr. A. Ramamurthy (deceased on 23.02.2003)	3
4	Mr. Nasser Munjee (member with effect from 24.04.2002 and Chairman w.e.f. 29.01.2003)	2
5	Mr. Umesh Prasad Singh (w.e.f. 24.07.2002)	1

The Audit Committee is responsible for overseeing the Company's financial reporting process, reviewing with the management the financial statements and adequacy of internal audit function and to discuss significant internal audit findings. The Committee acts as a link between the management, external and internal auditors and the Board of Directors of the Company.

The Committee discussed with the external auditors their audit methodology, audit planning and significant observations/suggestions made by them. The Audit Committee also discussed major issues related to risk management and compliances.

(ii) Remuneration Committee

As reported earlier, the Remuneration Committee of the Board, was constituted in the year 2000 to recommend to the Board the remuneration package of Executive Directors.

Remuneration of Executive Directors is governed by the external competitive environment, track record, potential and performance of the executive and performance of the Company.

The Company does not have a scheme for stock options either for the Directors or its employees. The Vice Chairman and Managing Director shall be entitled to an annual performance related bonus based on comparing annual targets with the results achieved and determined by the Board of Directors. Under the best performance targets, the bonus amount shall not exceed the total annual salary for the year.

The contract of service entered into by the Company with Mr. Ravi Uppal is valid for five years effective 1.10.2001 and that the Company and Mr. Uppal shall be entitled to terminate the agreement by giving to the other party 180 days notice in writing.

The Committee had one meeting during the financial year 2002 on 20 February, 2002 wherein all the then Committee Members were present. The Committee reviewed and recommended to the Board of Directors, for its consideration, the remuneration of the Executive Directors for the year 2001.

Consequent to cessation of Mr. K.N. Shenoy, Mr. Eric Drewery and Mr. Vijay Karan as Directors of the Company, they ceased to be the Members of Remuneration Committee which was reconstituted by the Board in its meeting held on 25 October, 2002 and it now comprises of Mr. Peter Smits as Chairman and Mr. N.S. Raghavan as Member.

(iii) Remuneration paid to Directors for the financial year 2002

(Rs in Thousand)					
Sr. No.	Name	Sitting Fees (includes for Committee Meetings)	Salary & Perks	Commission	Total
1	Mr. K.N. Shenoy	55	N.A.	300	355
2	Mr. Ravi Uppal	Nil	4092	1700	5792
3	Mr. A. Ramamurthy	25	N.A.	300	325
4	Mr. Vijay Karan	10	N.A.	N.A.	10
5	Mr. N.S. Raghavan	20	N.A.	300	320
6	Mr. Nasser Munjee	30	N.A.	300	330
7	Mr. U.P. Singh	20	N.A.	300	320

(iv) Transfer and Investors' Grievance Committee

The Company's Registrar & Share Transfer Agents, Tata Consultancy Services are fully equipped to carry out the transfers of shares and redress investor complaints. The Transfer and Investors' Grievance Committee has been authorised to approve the transfer of shares. In order to expedite the process, the Board of Directors has also delegated the authority to approve the share transfers to the Vice Chairman & Managing Director (VCMD)

and accordingly, the VCMD approves the transfer/transmission at a frequency of about thrice a month.

Four meetings of Transfer and Investors' Grievance Committee were held during the financial year 2002 on 26 March, 2002, 25 June, 2002, 14 August, 2002 and 20 December, 2002.

Consequent to the resignation of Mr. K.N. Shenoy as Chairman and Director and Mr. Vijay Karan as Director, they also ceased to be the Members of the Committee. The Board of Directors at its meeting held on 25 October, 2002, has re-constituted the Committee which now comprises of Mr. Ravi Uppal, Chairman, Mr. N.S. Raghavan and Mr. Umesh Prasad Singh as members.

As required by the Listing Agreement(s) executed with Stock Exchange(s), Mr. B. Gururaj, Asst. Vice President & Company Secretary, has been appointed as Compliance Officer with effect from 1 October, 2002 in place of the former Company Secretary.

The composition of Transfer and Investors' Grievance Committee and attendance of the Committee members at these meetings were as follows:

Sr. No.	Members of Transfer and Investors' Grievance Committee	No. of meetings attended
1	Mr. K.N. Shenoy (upto 25.10.2002)	3
2	Mr. Ravi Uppal (Chairman w.e.f. 25.10.2002)	4
3	Mr. Umesh Prasad Singh	1
4	Mr. N.S. Raghavan	1
5	Mr. Vijay Karan (upto 22.06.2002)	NIL

No. of investor complaints received in the year 2002	Pending at the end of the year	No. of pending share transfers
1,349	4*	Nil

*since resolved

(D) Annual General Meetings

The Annual General Meetings (AGMs) of the Company have been held at the following places in last three years.

For the year	Venue	Day & Date	Time
2001	Patkar Hall, SNDT Women's University, 1, Nathibai Thackersey Road, Mumbai 400 020.	Wednesday, 24 April, 2002	3.00 p.m. (IST)
2000	Y.B. Chavan Centre, General Jagannath Bhosale Marg, (Near Mantralaya), Mumbai 400 021.	Wednesday, 27 June, 2001	3.00 p.m. (IST)
1999	Patkar Hall, SNDT Women's University, 1, Nathibai Thackersey Road, Mumbai 400 020.	Tuesday, 2 May, 2000	3.00 p.m. (IST)

Postal Ballot

During 2002, consent of the Shareholders was obtained by way of postal ballot in terms of Section 192A of the Companies Act, 1956 read with the Companies (Passing of Resolution by Postal Ballot) Rules, 2001 for the sale of air handling equipment business of the Company by way of Ordinary Resolution under Section 293(1)(a) of the Companies Act, 1956. Mr. N.L. Bhatia, Practising Company Secretary was appointed as the scrutinizer by the Board.

The voting pattern was as under:

Votes in favour 99.55% – 29,443,260 votes

Votes against 0.04% – 12,181 votes

Votes invalid for 0.41% – 123,067 votes

The result was declared by the Chairman on 24 April, 2002 at the 52nd AGM of the Company.

During the year 2003 consent of the Shareholders was obtained by way of postal ballot in terms of Section 192A of the Companies Act, 1956 read with the Companies (Passing of Resolution by Postal Ballot) Rules, 2001 for the following items :

- i) Ordinary Resolution under Section 293(1)(a) of the Companies Act, 1956, for the sale of metering business;
- ii) Special Resolution under Section 21 of the Companies Act, 1956 for the change of name of the Company from Asea Brown Boveri Limited to ABB Limited; and
- iii) Special Resolution under Section 17 of the Companies Act, 1956 for shifting of registered office of the Company from the State of Maharashtra to the State of Karnataka.

Notice of Postal Ballot along with the postal ballot forms and the prepaid business reply envelope was despatched to the shareholders on 20 January, 2003. The last date fixed for the receipt of postal ballot forms duly completed was 24 February, 2003 and the results of the postal ballot was declared by one of the Directors on 27 February, 2003. Dr. S.D. Israni, Practising Company Secretary, was appointed as Scrutinizer for the postal ballot.

All the resolutions were approved by the shareholders with requisite majority. The details of the voting pattern were as under :

Item No.	ASSENTED		DISSENTED		Invalid Votes
	%	Votes	%	Votes	
Item No. (i)	99.91	29,175,317	0.09	26,824	143
Item No. (ii)	99.95	29,181,864	0.05	14,154	144
Item No. (iii)	99.68	29,100,815	0.32	94,274	143

(E) Disclosures

(i) Disclosures on materially significant related party transactions

There were no materially significant related party transactions during the year having conflict with the interests of the Company.

(ii) Details of Non-Compliance by the Company, penalties, and strictures imposed on the Company by the Stock Exchange, SEBI or any statutory authorities or any matter related to capital markets

The Company has complied with all the requirements of the Listing Agreement with the Stock Exchanges as well as regulations and guidelines of SEBI. No penalties or strictures have been passed by SEBI, Stock Exchanges or any other Statutory Authority on matters relating to capital markets in the last three years.

(F) Means of Communication

(i) Financial Results

The quarterly unaudited financial results, the half-yearly unaudited financial results with limited review and annual audited financial results are normally published in The Economic Times and the Maharashtra Times (Marathi) besides Business Standard, Times of India and Navbharat Times. The half-yearly report is however not sent to each household of shareholders. The results are also placed on the Company's website as well as SEBI's website.

(ii) Other Information

The Company has its own website www.abb.com/in wherein other related information is available. The Company has a dedicated help desk with email ID: investor.helpdesk@in.abb.com in the Secretarial Department for providing necessary information to the investors. The Company also holds press meets/analysts meets to apprise and make public the information relating to the Company's working and future outlook.

(G) Management's Discussion & Analysis

The Management's Discussion & Analysis report forms part of the Annual Report.

(H) General Shareholders' Information

(i) Annual General Meeting

Day, date and time	Thursday, 10 April, 2003 at 3.00 p.m. (IST)
Venue	Rama Watumull Auditorium, Kishinchand Chellaram College, Dinshaw Wacha Road, Churchgate, Mumbai – 400 020
Agenda	1) Adoption of Audited Accounts, Directors' & Auditors' Report 2) Declaration of Dividend 3) Re-appointment of Directors 4) Re-appointment of Auditors 5) Appointment of Directors

(ii) The profile of Directors retiring by rotation/eligible for reappointment.

Director retiring by rotation

● **Mr. N.S. Raghavan**

Mr. N.S. Raghavan, 59, is a graduate in Electrical Engineering. He served in the Ministry of Defence, Government of India, for 9 years handling various responsibilities in the Corps of Electrical and Mechanical Engineers.

Mr. Raghavan worked as an Engineer in Andhra Pradesh State Electricity Board and as Head of Electrical Department in Kothari Sugars and Chemicals Limited, Trichy. He was the Joint Managing Director of Infosys Technologies Limited for 19 years.

Directorships in other Companies are :

Corporate Board, Murugappa Group	Non-Executive Director
Syndicated Research Group Inc., USA	Board Member
Syndicated Research Worldwide Pvt. Ltd.	Director
Nadathur Holdings and Investments Pvt. Ltd.	Director
Nadathur Fareast Pte Ltd.	Director
N.S. Raghavan Centre for Entrepreneurial Learning.	Chairman, Advisory Council

Reappointment of Directors

- **Mr. Umesh Prasad Singh**

Mr. Umesh Prasad Singh, 65, Masters in Science (Statistics) and Masters in Law (First Class First), also holds professional qualification of diploma in A.C.D. Institute of Accountancy and Computer Engineer. Mr. Singh has undergone International Export Development Training Programme at Irish Export Board in Ireland and Management by Objectives in India. He has also to his credit publication in Taxation in U.S.A. and West Germany.

Mr. Singh has held diverse Senior positions in the Central Government like Joint Secretary, Ministry of Welfare and Ministry of Finance; Director, Ministry of Commerce; Deputy Secretary, Ministry of Textiles; Under Secretary, Third Pay Commission, Ministry of Finance. Mr. Singh was a Member of Telecom Regulatory Authority of India and the M.R.T.P. Commission. He also held the position of Chief Commissioner of Income-Tax, Delhi and a Lecturer, Post Graduation, Department of Statistics, Patna University.

Mr. Singh visited a number of countries in connection with official work including United Nations Meetings.

Presently Mr. Singh is the Director of NTC (UP) Limited and Oswal Chemicals & Fertilizers Limited.

- **Mr. Peter Leupp**

Mr. Peter Leupp, 51, an Electronics Engineer and Masters in Business Administration, has been associated with ABB group since 1977.

He has held various senior positions since then in the Group. Mr. Leupp brings with him considerable expertise in the field of Medium Voltage and High Voltage Technologies.

At present he is also the Chairman and President of ABB (China) Limited, People's Republic of China.

- **Mr. BoonKiat Sim**

Mr. BoonKiat Sim, 44, holds a Masters of Science degree in Management from Durham University Business School, U.K.

Mr. Sim has been associated with ABB Group since 1981. He was instrumental in the development of ABB Singapore's capability and delivery of large projects to industries.

In his twenty-one years with ABB Group, Mr. Sim has held various responsible positions within the ABB Group and was responsible for growth in sectors such as electronics, petrochemicals, container terminals and pulp & paper.

Presently, Mr. Sim serves as President of ABB Industry Pte Ltd., and Director of ABB Holdings Pte Ltd.

(iii) Financial Calendar

Indicative calendar of events for the year 2003 (January-December) excluding Extra Ordinary General Meeting(s), if any, is as under:

Fourth Quarter Financial Results (Fin. Year 2002)	30 January, 2003
First Quarter Financial Results	April, 2003
Annual General Meeting	10 April, 2003
Second Quarter Financial Results	July, 2003
Third Quarter Financial Results	October, 2003

(iv) Book Closure

The Company's Register of Members and Share Transfer books will remain closed for the purpose of dividend.	Tuesday, 1 April, 2003 to Thursday, 10 April, 2003 (both days inclusive)
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(v) Dividend

The dividend recommended by Directors, on approval by the members at ensuing Annual General Meeting will be paid to those shareholders whose names appear on the Company's Register of Members as on Thursday, 10 April, 2003.

(vi) Listing on Stock Exchanges

<p>The Company's equity shares are listed on the following Stock Exchanges located at:</p> <ul style="list-style-type: none">● Mumbai - (BSE and NSE)● Ahmedabad● New Delhi● Kolkata <p>(The Company has paid, till date, the listing fees of all the above Stock Exchanges)</p>	<p>Addresses of the Stock Exchanges:</p> <p>The Stock Exchange, Mumbai (BSE) Phiroze Jeejeebhoy Towers Dalal Street Mumbai 400 001</p> <p>The National Stock Exchange of India Ltd., (NSE) Exchange Plaza, 5th Floor, Plot No. C/1, G Block, Bandra-Kurla Complex, Bandra (E), Mumbai 400 051</p> <p>The Stock Exchange – Ahmedabad Kamdhenu Complex Near Polytechnic, Panjara Pole, Ahmedabad 380 015</p> <p>The Delhi Stock Exchange Association Ltd., DSE House, 3/1, Asaf Ali Road, New Delhi 110 002</p> <p>The Calcutta Stock Exchange Association Ltd., 7, Lyons Range, Kolkata 700 001</p>
<p>The Stock Code of the Company is</p>	<p>BSE 002 NSE ABB</p>
<p>The ISIN No. for Company's Equity Shares in Demat Form</p>	<p>INE 117A 01014</p>
<p>Depositories Connectivity</p>	<p>NSDL and CDSL</p>

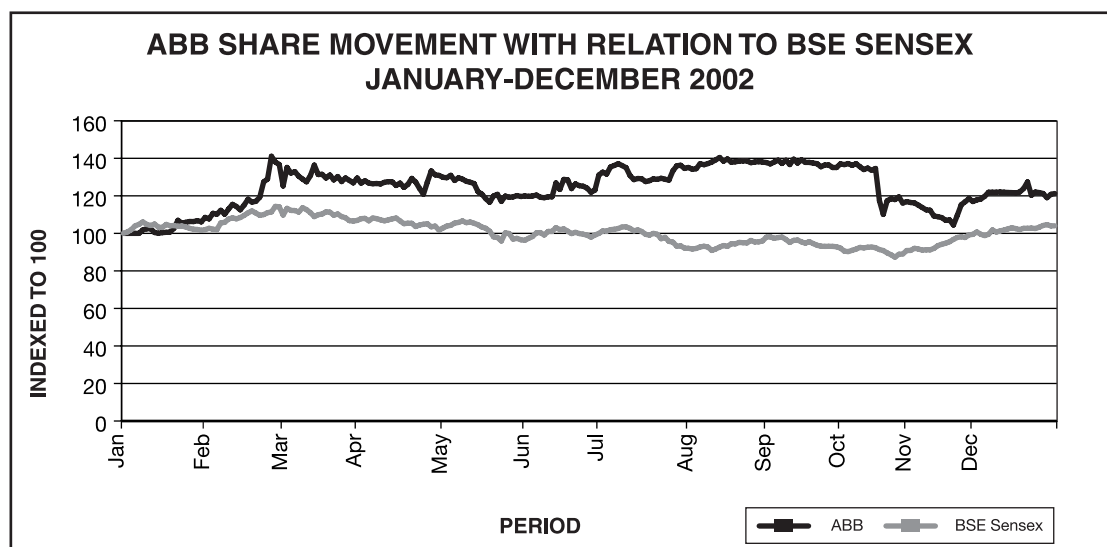
(vii) Market Price Data

(1) The market price and volume of the Company's shares traded in the Stock Exchange, Mumbai and the National Stock Exchange during the year 2002 was as follows:

Year 2002	BSE		NSE		Volume	
	High	Low	High	Low	BSE	NSE
Month	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Nos.)	(Nos.)
January	224.50	204.30	225.00	203.50	245311	388239
February	291.95	220.00	292.00	220.00	902001	1217343
March	287.75	244.00	288.00	255.05	319531	333046
April	276.00	247.00	279.30	248.00	244638	492239
May	275.00	230.00	275.00	230.00	78800	240384
June	274.00	244.00	274.00	244.00	189105	266388
July	268.85	236.00	287.00	253.10	313791	504051
August	287.00	253.10	291.00	270.00	263730	289536
September	287.35	275.20	287.35	275.20	15102	196619
October	282.40	217.00	286.00	219.90	1260641	1735120
November	245.00	213.10	246.00	218.00	649238	939385
December	257.00	238.50	257.00	232.00	246246	390755

(2) The market capitalisation of the Company's shares as on 31 December, 2002, was Rs.10538 million on The Stock Exchange, Mumbai (BSE), and also on National Stock Exchange, Mumbai (NSE).

(3) Performance in comparison with Broad Indices



(viii) Shareholding Pattern

Equity Shares of Rs.10 each.

Sr. No.	Shareholders	As on 31.12.2002		As on 31.12.2001		Variation	
		No. of shares	%	No. of shares	%	No. of shares	%
1	ABB Asea Brown Boveri Ltd. Zurich & ABB Technology FLB AB, Sweden	22,084,057	52.11	22,084,057	52.11	0	0.00
2	Non-Resident Individuals / OCBs	36,931	0.09	40498	0.09	-3,567	0.00
3	Directors and their relatives	172	0.00	4457	0.01	-4,285	-0.01
4	LIC / UTI/Other Insurance Cos.	9,735,146	22.97	9,458,156	22.32	276,990	0.65
5	Nationalised Banks/Other Banks	47,957	0.11	37,400	0.09	10,557	0.02
6	Mutual Funds	1,185,454	2.80	877074	2.07	308,380	0.73
7	Foreign Institutional Investors	1,962,710	4.63	1,621,284	3.82	341,426	0.81
8	General Public	7,329,248	17.29	8,258,749	19.49	-929,501	-2.20
	Total	42,381,675	100.00	42,381,675	100.00	0.00	0.00

(ix) Distribution of Shareholding (as on 31 December, 2002)

No. of Equity shares held	No. of shareholders holding shares in		No. of shares held		% age of equity capital held in	
	Physical Form	Demat Form	Physical Form	Demat Form	Physical Form	Demat Form
1-1000	22,138	21,397	2,160,867	3,034,705	5.10	7.16
1001-5000	169	530	290475	972,669	0.69	2.30
5001-10000	4	35	26,206	259,447	0.06	0.61
10001-50000	2	25	53,589	576,723	0.13	1.36
50001-100000	1	8	97,216	558,163	0.23	1.32
100001-1000000	0	15	0	6,210,916	0.00	14.65
1000001 and above	6	2	21,120,738	7,019,961	49.83	16.56
Total	22,320	22,012	23,749,091	18,632,584	56.04	43.96
Total	44,332		42,381,675		100%	

(x) Share Transfer Process

The Company's shares being in compulsory demat list are transferable through the depository system. Shares in physical form are processed by the Registrar and Transfer Agent, Tata Consultancy Services (TCS) and approved by the Transfer and Investors' Grievance Committee. The share transfer process is reviewed by the said committee.

(xi) Dematerialisation of Shares

The Company has signed a tripartite agreement with National Securities Depository Limited (NSDL) on 5 November, 1997 and with Central Depository Services (India) Ltd., (CDSL) on 22 October, 1999 to provide trading of shares in dematerialised form.

As per SEBI's instructions, with effect from 15 February, 1999 trading of the Company's shares for all investors is compulsorily carried out only in dematerialised form.

As on 31 December, 2002, 18,632,584 shares have been dematerialised representing 43.96% of the total shares. (17,151,427 shares were in dematerialised form representing 40.47% of the total shares as on 31 December, 2001).

(xii) Outstanding GDR, ADR or Warrants

There are no GDR, ADR or any Convertible Instruments pending conversion or any other instrument likely to impact the equity share capital of the Company.

(xiii) Plant Locations

The Company's plants are located at Bangalore, Faridabad, Mumbai, Nashik and Vadodara.

(xiv) Address for Correspondence

(1) Registrar and Transfer Agent:

(For share transfer, dividend related queries)

Tata Consultancy Services
(Unit: Asea Brown Boveri Limited)
Lotus House,
6, New Marine Lines,
Sir Vithaldas Thackersey Marg,
Mumbai 400 020.
Phone: 022-2203 9136 Fax : 022-2201 6689
E-Mail : tcs_corpoffice@mumbai.tcs.co.in

(2) Company

(For any other matter, unresolved complaints)

Asea Brown Boveri Limited
Khanija Bhavan, 2nd Floor, East Wing,
No. 49, Race Course Road,
Bangalore 560 001.
Phone: 080-225 0295/225 4543/225 4546 Fax : 080-228 1103
Corporate Secretarial E-mail ID: investor.helpdesk@in.abb.com
Corporate Website: www.abb.india.com/in

(xv) Non-mandatory requirements

- (1) The Company reimbursed the expenses of the Non-Executive Chairman incurred in performance of his duties.
- (2) The Company has a Remuneration Committee to determine the remuneration package of Executive Directors.
- (3) The Company complied with the requirements of Postal Ballot in the past. The Company will comply with the said requirement as and when such matters arise in future which would require the approval of the shareholders by such process.
- (4) The Company uploads the financial results, shareholding pattern and other information on its website.

For and on behalf of the Board

Peter Smits
Chairman

Zurich
27 February, 2003

Annexure - D to Directors' Report

Auditors' Certificate compliance of conditions of corporate governance per clause 49 of the Listing Agreement with the stock exchanges.

To the Members of Asea Brown Boveri Limited

We have examined the compliance of conditions of corporate governance by Asea Brown Boveri Limited ("the Company") for the year ended on 31 December, 2002 as stipulated in clause 49 of the Listing Agreement of the Company with the stock exchanges.

The compliance of conditions of corporate governance is the responsibility of the management. Our examination was limited to procedures and implementation thereof, adopted by the Company for ensuring the compliance of the conditions of Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the Company.

In our opinion and to the best of our information and according to the explanations given to us, we certify that the Company has complied with the conditions of Corporate Governance as stipulated in the above mentioned Listing Agreements.

We have been explained that no investor grievances are pending for a period exceeding one month against the Company as per the records maintained by the Company.

We further state that such complinace is neither an assurance as to the future viability of the Company nor the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For Bharat S Raut & Co.
Chartered Accountants

Bangalore
27 February, 2003

Pradip Kanakia
Partner

Management's Discussion and Analysis

Operating Results of the Company

During the year, the Company secured orders worth Rs 13,050 million compared to Rs 10,920 million in the previous year, registering a growth of 20%. Order growth was seen in all segments despite the overall macro economic scenario, sluggish industrial growth and competitive business environment. The order backlog at the end of the year was further strengthened to Rs 8,794 million compared to Rs 7,750 million at the end of the previous year.

Sales and other income for the year at Rs 12,006 million was higher by 14% compared to previous year with all segments showing growth.

Profit before tax for the year was Rs 1,388 million, 63% higher than the previous year. Profit before tax and extraordinary items was Rs 1,230 million (previous year Rs 851 million). Capital gain on sale of air handling business was Rs 158 million. An amount of Rs 259 million was realised from the divestment. The improvement in profits resulted mainly from volume growth, cost control measures, operational efficiencies from SAP implementation and other measures as well as higher interest income. The Company invested Rs 215 million in Bonds of Rural Electrification Corporation Limited and accordingly no capital gain tax is payable as per Section 54EC of the Income-tax Act, 1961. Profit after tax was also higher by 49%, at Rs 972 million compared to Rs 653 million the previous year.

Earnings per equity share increased significantly from Rs 15.50 to Rs 22.81.

Outlook for the Company

Despite the current macro economic scenario the Company believes that in the medium and long-term significant investments will flow into power infrastructure and industry. The passing of the Electricity Bill 2001 is expected to provide an overall direction and give a fillip to the power reform process. The proposed reforms of power sector in India range from delicensing power generation and allowing direct sale of power to customers as well as encouraging electricity trading. Further, the ongoing Accelerated Power Development and Reforms Programme (APDRP) will also help ensure significant investments in the power sector as well as spur reforms in the states, in the short and medium term. The early signs of industrial recovery are encouraging. Increased industrial production should lead to efficiency improvement demands and capacity expansions in the medium term. The overall business outlook for the Company is promising with improvement in the overall economic environment. The Company shall continue to build on the success of its strategic focus initiatives in exports, value enhancing projects, standard products and service. Efforts towards higher operational efficiencies shall continue. The benefits of SAP implementation across the Company, which was completed during the year, shall also be leveraged for ongoing efficiency and productivity improvements.

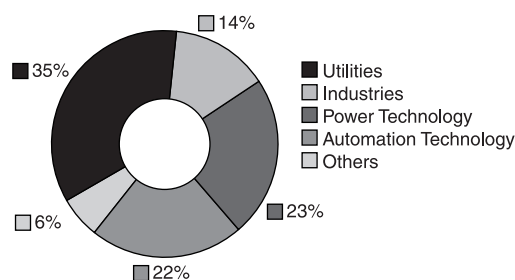
Business Segment Analysis

ABB is a leader in power and automation technologies. The Company's business is organised around providing products, solutions and services to utility and industry customers. The segmentwise distribution of revenues is as under:

Utilities

The summarised performance of the segment is as under.

Segmentwise Revenue Distribution - %



	(Rs in Millions)	
	2002	2001
Orders Received	6,130	3,754
Order Backlog	5,190	4,070
Revenues	5,010	3,214

This segment provides turnkey solutions for integrated power systems, high voltage and medium voltage sub-stations, power line career communication equipment, relay control panels, networking management and services to utilities.

Power sector reforms, shift in focus from power generation to transmission and distribution, the increasing use of IT based solutions and the government's Accelerated Power Development and Reforms Programme (APDRP) are some of the factors which contributed to the growth in orders and revenues of this segment during the year 2002. Major projects executed during the year included the complete electrification of phase I of prestigious Delhi Metro Rail Project and the Supervisory Control and Data Acquisition (SCADA) system for Andhra Pradesh Central Power Distribution Company Ltd.

ABB was awarded a prestigious contract by Powergrid Corporation of India Ltd. (PGCIL) to design, build and install a new power transmission system at Vishakapatnam. The Vizag II High Voltage Direct Current (HVDC) back-to-back East- South Interconnector III system to be installed besides an existing HVDC station will increase capacity for high-voltage power exchange between the two power grids by 500 MW. The total value of the order was Rs 2,350 million which includes Rs 1,300 million worth of local supplies and services. ABB India's scope includes the supply of capacitors, shunt reactors, converter transformers and AC switchyard equipment as well as civil work, erection and commissioning services. The segment also received other large and medium size transmission and distribution orders from utilities for sub-stations, power transformers, high voltage and medium voltage switchgear etc. Augmenting its domestic success, this segment also booked significant export orders from South Asia, West Asia, Syria etc.

The shift in focus from power generation to transmission and distribution, the unbundling and corporatisation of the sector, the reform process, tariff rationalisation, the impending Electricity Bill, the replacement of aging equipment, the urgent need for reduction of transmission and distribution losses, the development of a national transmission grid and the leveraging of information technology are some of the positive developments which offer continued opportunities for growth.

Industries

The summarised performance of the segment is as under.

	(Rs in Millions)	
	2002	2001
Orders Received	2,549	1,585
Order Backlog	1,341	840
Revenues	2,048	1,982

This segment serves the entire industry spectrum, covering all major industries like cement, metals, minerals and mining, pulp and paper, chemical and petrochemical, marine, automotive and manufacturing industries etc. The scope of offering includes turnkey process automation, optimisation solutions and complete electricals.

Given the industrial scenario and the lack of new capacity addition in core sectors, the market for the segment remained challenging during the year. By focusing on value addition, efficiency improvements, exports and service, the segment achieved significant growth in these areas. Key orders booked included an electrolytic cleaning line from TISCO, an aluminum smelter rectifier order from Binani Zinc and other turnkey orders from ONGC and Toyo amongst others. Export successes included orders from China, Taiwan, Malaysia and Vietnam.

Despite a competitive market environment, the segment increased its order intake and revenues significantly compared to previous year. This was made possible through a focused thrust on efficiency improvement solutions, exports, service and customer focus programmes. Aggressive cost reduction initiatives and higher operational efficiencies had a positive impact on the margins.

Signs of industrial recovery, capacity augmentation, plant efficiency improvements, the globalisation of Indian industry standards and the increase in consumer spending and derived demand are positive signs for this business. Meanwhile the focus on leveraging the Company's technology leadership and domain expertise in enhancing plant efficiency alongwith building on the export and service initiatives shall continue.

Power Technology Products

The summarised performance of the segment is as under.

	(Rs in Millions)	
	2002	2001
Orders Received	4,469	3,040
Order Backlog	3,067	1,817
Revenues	3,219	2,770

This segment manufactures world-class power transformers, high and medium voltage switchgear, instrument transformers, high voltage capacitors as well as other products for high and medium voltage applications.

The increased focus on power transmission and distribution, tariff rationalisation, thrust on reduction of T&D losses, sectoral reforms and unbundling of power utilities led to an increased demand for medium voltage products, power transformers etc.

The overall order booking for the segment increased significantly. The Power transformers business was ramped up and capacity enhanced to 400 kV range. Revenues saw a growth of 16%. The segment booked significant orders for 400 kV and converter transformers from Narmada Hydro Electric Development Corporation Ltd. and Powergrid Corporation of India Limited respectively.

ABB India's role as a global sourcing base was enhanced during the year. In addition to Vadodara being a global source for 72.5 kV outdoor circuit breakers, the Nashik unit has also been named a global factory for 11 kV and 33 kV outdoor vacuum/SF6 circuit breakers, Magnetic Actuators and indoor HPA SF6 breakers. Several other products and components manufactured in India were also exported across the world, in line with the Company's focus on exports.

Operations of the segment showed significant improvement in the areas of working capital and cash flow management, cost control and overall improvement in margins.

Given the age of power transmission and distribution equipment, focus on system improvements and reduction of technical losses as well as the need for upgrading technology, this market is expected to show continued promise. There are also business opportunities in the areas of renovation and modernisation of the grid. Further, the focus on exports shall be further strengthened and the segment shall continue to focus on improved productivity and efficiency in its own operations.

Automation Technology Products

The summarised performance of the segment is as under.

	(Rs in Millions)	
	2002	2001
Orders Received	3,193	2,659
Order Backlog	1,029	996
Revenues	3,160	2,787

This segment provides products, solutions and services for the automation and optimisation of discrete, process and batch manufacturing operations and related aspects. The portfolio of offering includes motors, drives, relays, power electronics, low voltage products, transducers, robotics, force measurement, control products, instrumentation and analytics.

Despite a challenging market environment and sluggish industrial growth during the year, the segment increased its order intake and revenues. This was largely due to the Company's strategic focus on standard product sales through the channel partner network and e-Business initiatives. Over 120 channel partners were added during the year and several brand-building initiatives undertaken. Volume enhancements, lowering of the cost base and higher operational efficiencies impacted the margins positively.

Some of the other highlights of the year included the last phase completion of the Hindalco rectifier project and the commissioning of first static excitation system for the 250 MW NTPC, Talcher generator.

The early signs of industrial revival and increasing focus on efficiency and quality bode well for this business. Coupled with the ongoing strategic thrust on standard products, greater market penetration, channel partner initiatives, increased emphasis on e-business, customer financing solutions and introduction of new products and technologies, the outlook for this segment appears to be promising.

Finance

The Company initiated several steps to optimise the investment in networking capital, which resulted in improvement in cash position. Throughout the year, the Company maintained a cash surplus. Net interest income during the year was Rs 98 million compared to net interest outflow of Rs 63 million in the previous year. Net cash position (cash and bank balances less loan fund) at the end of the year had significantly increased to Rs 2,683 million compared to Rs 1,317 million at the end of the previous year. The Company significantly reduced its networking capital compared with 2001, mainly through improved receivables and inventory management. During the year the Company redeemed preference shares amounting to Rs 75 million having a high dividend rate of 11%.

Human Resources

The Company firmly believes that Human Resources and knowledge capital are vital for business success and creating value for stakeholders. The Company's philosophy is based on a pluralistic leadership and empowerment model, a performance driven and transparent culture, a gradeless structure and competency based skill enhancement and development. During the year several initiatives were undertaken in line with this philosophy. The compensation structure moved to the Cost-to-Company (CTC) concept. Internal rules, perquisites entitlements and grades were rationalised to flatten the organization further. The performance management system was streamlined with a clear 'goal setting' and 'review' process, in order to build a truly performance driven culture. Other HR initiatives included improvement in work environment, interactive employee transaction through SAP etc.

The Company had 3,235 employees at the end of 2002. As in the past, industrial relations continued to remain cordial across all Company locations.

Internal Control System

The Company has an elaborate system of internal controls to ensure optimal use of Company's resources and protection thereof, facilitate accurate and speedy compilation of accounts and management information reports and compliance with laws and regulations. The Company has an exhaustive budgetary control system and actual performance is reviewed with reference to budgets and short-term forecasts by the management periodically. The Company has a well-defined organization structure, authority levels and internal guidelines and rules for conducting business transactions. The Company's internal audit department conducts regular audits to ensure adequacy of internal control systems, adherence to management instructions and compliance with laws and regulations of the country as well as to suggest improvements.

Audit plans, internal/external auditors' observations and recommendations, significant risk area assessments and adequacy of internal controls are also periodically reviewed by the Audit Committee of the Board of Directors.

Auditors' Report to the Members of Asea Brown Boveri Limited

We have audited the attached Balance Sheet of Asea Brown Boveri Limited ("the Company") as at 31 December, 2002 and also the Profit and Loss Account for the year ended on that date annexed thereto. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Auditing Standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As required by the Manufacturing and Other Companies (Auditor's Report) Order, 1988 issued by the Central Government of India in terms of sub-section (4A) of Section 227 of the Companies Act, 1956, we enclose in the Annexure a statement on the matters specified in paragraphs 4 and 5 of the said Order.

Further to our comments in the Annexure referred to above, we report that:

- (i) we have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purposes of our audit;
- (ii) in our opinion, proper books of account as required by law have been kept by the Company so far as appears from our examination of those books;

- (iii) the Balance Sheet and Profit and Loss Account dealt with by this report are in agreement with the books of account;
- (iv) in our opinion, the Balance Sheet and Profit and Loss Account dealt with by this report comply with the Accounting Standards referred to in sub-section (3C) of Section 211 of the Companies Act, 1956;
- (v) on the basis of written representations received from the Directors, as on 31 December, 2002, and taken on record by the Board of Directors, we report that none of the Directors is disqualified as on 31 December, 2002 from being appointed as a Director in terms of clause (g) of sub-section (1) of Section 274 of the Companies Act, 1956; and
- (vi) In our opinion, to the best of our information and according to the explanations given to us, the said accounts give the information required by the Companies Act, 1956, in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:
 - a. in the case of the Balance Sheet, of the state of affairs of the Company as at 31 December, 2002; and
 - b. in the case of the Profit and Loss Account, of the profit of the Company for the year ended on that date.

For Bharat S Raut & Co.
Chartered Accountants

Pradip Kanakia
Partner

Bangalore
30 January, 2003

Annexure to the Auditors' Report - 31 December, 2002

With reference to the Annexure referred to in paragraph 3 of the Auditors' Report to the Members of Asea Brown Boveri Limited ('the Company') on the financial statements for the year ended on 31 December, 2002, we report following:

1. The Company has maintained proper records of fixed assets showing full particulars, including quantitative details and location. The Company has a regular programme of physical verification of fixed assets which, in our opinion, is reasonable having regard to the size of the Company and the nature of its assets. In accordance with this programme, certain fixed asset were physically verified by Management during the year and we are informed by the Management that no material discrepancies were identified on such verification.
2. None of the fixed assets have been revalued during the year.
3. The stocks of finished goods, stores and maintenance spares, components and raw materials have been physically verified by Management during the year. In respect of stocks lying with third parties, confirmation for most of the stocks held has been received. In our opinion, the frequency of such verification is reasonable.
4. In our opinion and according to information and explanations given to us, the procedures of physical verification of inventories are reasonable and adequate in relation to the size of the Company and the nature of its business.
5. The discrepancies identified on physical verification of inventories between the physical inventories and the book records were not material and have been properly dealt with in the books of account.
6. On the basis of our examination of inventory records, we are of the opinion that the valuation of inventories is fair and proper in accordance with normally accepted accounting principles and is on the same basis as in the previous year.
7. According to the information and explanations given to us, the Company has not taken or given any loans, secured or unsecured from or to companies, firms or other parties listed in the register maintained under Section 301 of the Companies Act, 1956, or Companies under the same management as defined under Section 370 (1B) of the Companies Act, 1956.
8. The parties to whom loans or advances in the nature of loans were given by the Company are regular in repaying the principal amounts as stipulated and interest where applicable.
9. In our opinion and according to the information and explanations given to us by Management, there are adequate internal control procedures commensurate with the size of the Company and the nature of its business for the purchase of stores, spares, raw materials including components, plant and machinery, equipment, other assets and for the sale of goods.
10. In our opinion and according to the information and explanations given to us and having regard to the fact that some of the items purchased are of a special nature and suitable alternative sources do not exist for obtaining comparative quotations, the transactions of the purchase of goods and materials and sale of goods, materials and services made in pursuance of contracts or arrangements entered in the register maintained under Section 301 of the Companies Act, 1956 and aggregating during the year to Rs. 50,000 or more in respect of each party, were made at prices which are reasonable having regard to the prevailing market prices as available with the Company for such goods, materials or services or the prices at which transactions for similar goods or services were made with other parties.
11. As explained to us by Management, the Company has a regular procedure for the determination of unserviceable or damaged stores, raw materials and finished goods and adequate provision in this regard has been made in the accounts.
12. In our opinion and according to the information and explanations given to us,

the Company has complied with the provisions of Section 58A of the Companies Act, 1956 and the Companies (Acceptance of deposits) Rules, 1975 with regard to the deposits accepted from the public.

13. In our opinion, reasonable records are maintained by the Company for the sale and disposal of realisable scrap. The Company has no realisable by-products.
14. The Company has an internal audit system commensurate with the size and nature of its business.
15. We have carried out a limited review of the books of account and cost records maintained by the Company, pursuant to the Rules made by the Central Government for the maintenance of cost records under Section 209(1)(d) of the Companies Act, 1956, in respect of electronic goods, electrical motors and power transformers and are of the opinion that, *prima facie*, the prescribed accounts and records have been maintained. We have, not, however, made a detailed examination of the said records with a view to determine whether they are accurate or complete.
16. According to the information and explanations given to us by Management and on the basis of the examination of the Books of Account, the Company has been generally regular in remitting the Provident Fund and Employees' State Insurance dues to the appropriate authorities.
17. According to the information and explanations given to us, there are no undisputed amounts payable in respect of income tax, wealth tax, sales tax, customs duty and excise duty which are outstanding at 31 December, 2002, for a period of more than six months from the date they became payable.
18. According to the information and explanations given to us by Management and on the basis of the examination of the Books of Account carried out by us, no personal expenses of employees or directors have been charged to the profit and loss account, other than those payable under contractual obligations or in accordance with generally accepted business practices.
19. The Company is not a sick industrial company within the meaning of Section 3(1)(o) of the Sick Industrial Companies (Special Provisions) Act, 1985.
20. In our opinion, for its service activities, the Company has, commensurate with the size and nature of its business, reasonable system of:
 - (a) recording receipts, issues and consumption of materials and stores and allocating materials consumed to each project;
 - (b) allocating man-hours utilized to each project; and
 - (c) authorisation and control over the issue of stores and allocating stores and labour costs to each project.
21. As explained to us by Management, the Company has a regular procedure for the determination of damaged traded goods (project items) and adequate provision in this regard has been made in the accounts.
22. The clauses mentioned in paragraph 4(D) of the aforesaid order are not applicable to the Company.

For Bharat S Raut & Co.
Chartered Accountants

Pradip Kanakia
Partner

Bangalore
30 January, 2003

Balance Sheet

As at 31 December 2002	Schedule	2002	(Rs in Thousands) 2001
Sources of Funds			
Shareholders' Funds			
Share Capital	1	423,817	498,817
Reserves and Surplus	2	<u>4,697,902</u>	<u>3,978,658</u>
		5,121,719	4,477,475
Loan Funds			
Finance Lease Obligations	16(10)	44,597	32,882
Unsecured Loans	3	<u>79,101</u>	<u>75,085</u>
		123,698	107,967
		5,245,417	<u>4,585,442</u>
Application of Funds			
Fixed Assets	4		
Gross Block		2,866,762	2,962,630
Less: Depreciation		<u>1,428,247</u>	<u>1,400,417</u>
Net Block		1,438,515	1,562,213
Capital Work in Progress and Advances on Capital Account		<u>41,353</u>	<u>11,624</u>
		1,479,868	1,573,837
Investments	5	275,752	127,778
Current Assets, Loans and Advances			
Inventories	6	1,117,990	1,204,458
Sundry Debtors	7	4,695,805	4,207,560
Cash and Bank Balances	8	2,806,621	1,425,155
Loans and Advances	9	<u>927,826</u>	<u>908,190</u>
		9,548,242	7,745,363
Less: Current Liabilities and Provisions			
Current Liabilities	10	5,604,487	4,451,878
Provisions	11	<u>303,687</u>	<u>270,587</u>
		5,908,174	4,722,465
Net Current Assets		3,640,068	3,022,898
Net Deferred Tax Liability	16(12)	(150,271)	(139,071)
		5,245,417	<u>4,585,442</u>
Notes to the Accounts	16		

Per our report attached
For Bharat S Raut & Co.
Chartered Accountants

Pradip Kanakia
Partner

Bangalore, 30 January, 2003

For and on behalf of the Board

Peter Smits Chairman
Ravi Uppal Vice Chairman and Managing Director
Nasser Munjee Director
A. Ramamurthy Director
Umesh Prasad Singh Director
Peter Leupp Director

K. Rajagopal Sr. Vice President - Finance

B. Gururaj Company Secretary

Mumbai, 30 January, 2003

Profit and Loss Account

		(Rs in Thousands)	
For the year ended 31 December 2002	Schedule	2002	2001
Income			
Sales and Services	12	11,757,576	10,415,990
Other Income	13	248,153	141,589
		12,005,729	10,557,579
Expenditure			
Cost of Materials and Erection Services		7,715,038	6,745,606
Personnel Expenses	14	1,207,895	1,130,397
Other Expenses	15	1,663,918	1,575,742
Depreciation		186,104	185,521
Less: Transfer from Revaluation Reserve		2,881	3,038
		183,223	182,483
Interest		5,973	72,562
		10,776,047	9,706,790
Profit Before Tax and Extraordinary Item		1,229,682	850,789
Extraordinary Item - Profit on Sale of Air Handling business	16(3.1)	158,259	—
Profit Before Tax		1,387,941	850,789
Provision for Tax:			
Current Tax			
(after adjusting Rs 1,103 thousand for excess provision, Previous Year - Rs 4,797 thousand for short provision in respect of earlier years)			
		405,000	200,000
Deferred Tax		11,200	(2,470)
Profit After Tax		971,741	653,259
Less: Transfer to Foreign Projects Reserve Account			
		1,000	5,000
Add: Balance Brought Forward			
		245,630	249,906
Reversal of Corporate Dividend Tax provided (2001)			
		21,123	25,680
Amount available for appropriation		1,237,494	923,845
Appropriations			
General Reserve		720,000	450,000
Dividend Paid - Preference Shares		4,813	—
Proposed Dividend - Equity Shares		254,290	207,092
Corporate Dividend Tax		—	21,123
Balance Carried Forward		258,391	245,630
		1,237,494	923,845
Basic and Diluted Earnings per Equity Share (in Rs)			
(Par value Rs 10 per share)			
Basic and Diluted Earnings per Equity Share excluding Extraordinary Item (in Rs)			
(Par value Rs 10 per share)			
Notes to the Accounts		16	
Per our report attached For Bharat S Raut & Co. Chartered Accountants		For and on behalf of the Board	
		Peter Smits	Chairman
		Ravi Uppal	Vice Chairman and Managing Director
		Nasser Munjee	Director
		A. Ramamurthy	Director
		Umesh Prasad Singh	Director
		Peter Leupp	Director
Pradip Kanakia Partner		K. Rajagopal	Sr. Vice President - Finance
		B. Gururaj	Company Secretary
Bangalore, 30 January, 2003		Mumbai, 30 January, 2003	

As at 31 December 2002		2002	(Rs in Thousands) 2001
Schedule 1 - Share Capital			
Authorised			
42,500,000	Equity Shares of Rs 10 each	425,000	425,000
750,000	11% Redeemable 10 year, Cumulative Preference Shares of Rs 100 each	<u>75,000</u>	<u>75,000</u>
		<u>500,000</u>	<u>500,000</u>
Issued, Subscribed and Paid-up			
42,381,675	Equity Shares of Rs 10 each	423,817	423,817
	Nil (Previous Year - 750,000) 11% Redeemable 10 year, Cumulative Preference Shares of Rs 100 each	<u>—</u>	<u>75,000</u>
		<u>423,817</u>	<u>498,817</u>

Notes:

Share Capital includes:

a) Shares issued at par to the shareholders of the following erstwhile amalgamating companies:

Company	Number of Shares	Year of Issue
i) Equity shares of Rs 10 each		
Asea Limited	4,585,590	1989
Flakt India Limited	3,688,196	1994
Introl (India) Limited (INTRO)	234,000	2001
ABB Instrumentation Limited (ININS)	172,271	2001
ABB Lenzohtm Service Limited (INSER)	249,356	2001
ABB Analytical Limited (INEBA)	307,692	2001
ii) Preference Shares of Rs 100 each		
ABB Instrumentation Limited (ININS) (redeemed during the year)	750,000	2001
b) 8,443,893 and 10,354,589 equity shares of Rs 10 each issued as fully paid-up bonus shares by capitalisation of the General Reserve Account and Share Premium Account respectively.		
c) 200,000 equity shares of Rs 10 each issued at a premium of Rs 10 each to the holders of 40,000 – 8.57% cumulative preference shares of Rs 100 each on cancellation of the preference shares in terms of a Scheme of Compromise between the Company and its preference/equity shareholders in 1988.		
d) 19,575,991 equity shares held by ABB Asea Brown Boveri Limited, Zurich, (Switzerland), the holding company and 2,508,066 equity shares held by ABB Technology FLB AB, Sweden, a subsidiary of the holding company.		

Schedule 2 - Reserves and Surplus

Capital Reserve Account:

Per last Balance Sheet	10,971	9,171
Transferred from Capital Reserve Account (ININS) on amalgamation	<u>—</u>	<u>1,800</u>
	10,971	10,971

Capital Redemption Reserve Account:

Per last Balance Sheet	—	—
Transferred from General Reserve Account	<u>75,000</u>	<u>—</u>
	75,000	—

Revaluation Reserve Account:

Per last Balance Sheet	173,264	76,958
Transferred from Revaluation Reserve Account (ININS) on amalgamation	—	100,858
Transferred to Profit and Loss Account	<u>(2,881)</u>	<u>(3,038)</u>
Adjustment on account of assets sold	<u>(11,636)</u>	<u>(1,514)</u>
	158,747	173,264
Carried Forward	244,718	184,235

As at 31 December 2002	2002	(Rs in Thousands) 2001
Schedule 2 - Reserves and Surplus (Contd.)		
Brought Forward	244,718	184,235
Share Premium Account:		
Per last Balance Sheet	593,990	552,174
Transferred from Share Premium Account (ININS) on amalgamation	<u>—</u>	<u>41,816</u>
	593,990	593,990
Foreign Projects Reserve Account:		
Per last Balance Sheet	78,500	76,500
Transferred from Profit and Loss Account	1,000	5,000
Transferred to General Reserve Account	<u>(3,000)</u>	<u>(3,000)</u>
	76,500	78,500
General Reserve Account:		
Per last Balance Sheet	2,876,303	2,590,640
Adjustments on account of the amalgamation of INTRO, ININS, INSER and INEBA with the Company:		
Transfer from General Reserve Account:		
INTRO	—	76,183
ININS	—	2,100
INSER	—	2,562
	<u>—</u>	<u>80,845</u>
Transfer from Profit and Loss Account:		
ININS	—	(153,320)
INSER	—	19,556
INEBA	—	(1,945)
	<u>—</u>	<u>(135,709)</u>
Surplus/(deficit) arising on amalgamation:		
INTRO	—	1,260
ININS	—	34,454
INSER	—	(1,181)
INEBA	—	36,923
	<u>—</u>	<u>71,456</u>
Adjustments for differences in accounting policies of INTRO, ININS, INSER and INEBA with the Company		
	<u>—</u>	<u>(31,236)</u>
	<u>—</u>	<u>(14,644)</u>
Adjustment on account of accumulated Net Deferred Tax Liability as on 1 January 2001	—	(152,693)
Transferred to Capital Redemption Reserve Account	(75,000)	—
Transferred from Foreign Projects Reserve Account	3,000	3,000
Transferred from Profit and Loss Account	<u>720,000</u>	<u>450,000</u>
	3,524,303	2,876,303
Profit and Loss Account:		
Balance Carried Forward	258,391	245,630
	<u>4,697,902</u>	<u>3,978,658</u>
Schedule 3 - Unsecured Loans		
Sales tax deferral loans		
(Due within one year Rs 8,147 thousand - Previous Year Rs 798 thousand)		
	<u>79,101</u>	<u>75,085</u>

As at 31 December 2002

(Rs in Thousands)

Schedule 4 - Fixed Assets

Description	Gross Block				Depreciation				Net Block	
	As at 1 January 2002	Additions/ Adjustments	Deductions/ Adjustments	As at 31 December 2002	As at 1 January 2002	For the Year	Deductions/ Adjustments	As at 31 December 2002	As at 31 December 2002	As at 31 December 2001
Freehold Land	141,431	—	3,916	137,515	—	—	—	—	137,515	141,431
Leasehold Land	2,232	—	—	2,232	180	7	—	187	2,045	2,052
Leasehold Improvements	35,617	34,273	33,692	36,198	13,960	4,744	13,779	4,925	31,273	21,657
Factory Buildings	309,693	5,306	11,661	303,338	103,814	9,759	8,906	104,667	198,671	205,879
Other Buildings	96,369	3,997	34,304	66,062	25,010	1,444	11,300	15,154	50,908	71,359
Residential Quarters	13,565	925	100	14,390	3,308	466	49	3,725	10,665	10,257
Plant and Machinery	1,898,071	57,719	145,525	1,810,265	955,508	122,558	111,697	966,369	843,896	942,563
Furniture and Fixtures	104,776	7,118	15,060	96,834	68,927	4,247	9,761	63,413	33,421	35,849
Vehicles	12,959	812	3,333	10,438	7,548	848	2,430	5,966	4,472	5,411
Technical Know-how Fees	231,562	16,923	3,794	244,691	183,467	17,527	4	200,990	43,701	48,095
Capitalised Software	77,155	579	659	77,075	36,241	15,634	348	51,527	25,548	40,914
	<u>2,923,430</u>	<u>127,652</u>	<u>252,044</u>	<u>2,799,038</u>	<u>1,397,963</u>	<u>177,234</u>	<u>158,274</u>	<u>1,416,923</u>	<u>1,382,115</u>	<u>1,525,467</u>
Assets Acquired Under Finance Lease										
Plant and Machinery	31,360	21,531	—	52,891	2,167	8,675	—	10,842	42,049	29,193
Vehicles	7,840	6,993	—	14,833	287	195	—	482	14,351	7,553
	<u>2,962,630</u>	<u>156,176</u>	<u>252,044</u>	<u>2,866,762</u>	<u>1,400,417</u>	<u>186,104</u>	<u>158,274</u>	<u>1,428,247</u>	<u>1,438,515</u>	<u>1,562,213</u>
Previous Year	<u>2,554,438</u>	<u>444,966</u>	<u>36,774</u>	<u>2,962,630</u>	<u>1,137,993</u>	<u>185,521</u>	<u>(76,903)</u>	<u>1,400,417</u>		
Capital Work in Progress and Advances on Capital Account									41,353	11,624
Total									<u>1,479,868</u>	<u>1,573,837</u>

Notes :

1. Certain freehold and leasehold land, factory and other buildings and residential quarters were revalued during 1985, 1986 and 1996.
2. Residential Quarters include cost of shares in Lotus Court Private Limited Rs 56 thousand.
3. Previous year figures of Additions/Adjustments in Gross Block and Deductions/Adjustments in Depreciation block include Rs 300,162 thousand and Rs 105,545 thousand respectively on account of Amalgamation (Refer Note 2 to the Accounts).
4. Deductions/Adjustments in Gross Block and Depreciation block include Rs 137,803 thousand and Rs 93,627 thousand respectively on account of sale of Air Handling business.

As at 31 December 2002	2002	(Rs in Thousands) 2001
Schedule 5 - Investments (Long term)		
At Cost :		
Trade –		
Quoted :		
249,997 Equity Shares of Rs 10 each fully paid up in National Switchgears Limited	—	2,500
280,500 Equity Shares of Rs 10 each fully paid up in Integra Hindustan Control Limited	2,805	2,805
Unquoted :		
10,000 Equity Shares of Rs 10 each fully paid up in Haryana Oxygen Limited	—	100
	2,805	<u>5,405</u>
Non-Trade –		
Government Securities:		
Quoted :		
6.5% Central Government Loan 2005	26	26
Unquoted :		
12 Year National Savings Certificates	11	11
12 Year National Defence Certificates	2	2
7 Year National Savings Certificates	7	7
5 1/2 Year Indira Vikas Patras	15	16
8.7% 5 Year Cumulative Non-Convertible Redeemable Bonds of Rural Electrification Corporation Limited	52,894	52,894
7.85%/7.10% 5 Year Non-Cumulative Non-Convertible Redeemable Bonds of Rural Electrification Corporation Limited	215,000	—
	267,955	<u>52,956</u>
Others:		
Quoted:		
496,320 units of Rs 10 each fully paid up in Unit Trust of India	6,678	6,678
Unquoted:		
1,000 Shares of Rs 25 each fully paid up in Co-operative Bank of Baroda	25	25
14% Secured Redeemable Non-Convertible Debentures - 2001 of Wachovia Investments Private Limited	—	67,000
Nil (Previous Year - 2,500) Equity Shares of Rs 10 each fully paid up in Citizen Co-operative Bank Limited	—	25
6.5% Non-Redeemable Debentures of Bengal Chamber of Commerce and Industry	2	2
	6,705	<u>73,730</u>
	277,465	132,091
Less: Provision for diminution in the value of Investments	1,713	4,313
	275,752	<u>127,778</u>
Notes :		
Quoted Investments aggregate (Market value Rs 9,267 thousand; Previous Year - Rs 13,421 thousand)	9,509	12,009
Unquoted Investments aggregate	267,956	120,082

As at 31 December 2002	2002	(Rs in Thousands) 2001
Schedule 6 - Inventories		
Stores and Maintenance Spares	5,713	7,031
Raw Materials	31,741	62,009
Components	607,177	607,511
Finished Goods	84,061	65,049
Work and Contracts-in-progress	389,298	462,858
	<u>1,117,990</u>	<u>1,204,458</u>
 Schedule 7 - Sundry Debtors		
Unsecured :		
Debts outstanding for a period exceeding six months		
- Considered Good	1,755,418	1,190,485
- Considered Doubtful	171,952	201,799
	<u>1,927,370</u>	<u>1,392,284</u>
Other Debts - Considered Good	2,940,387	3,017,075
	<u>4,867,757</u>	<u>4,409,359</u>
Less: Provision for Doubtful Debts	171,952	201,799
	<u>4,695,805</u>	<u>4,207,560</u>
 Schedule 8 - Cash and Bank Balances		
Cash and Cheques on hand	12,956	22,099
Balances with Scheduled Banks		
- On Current Account	1,140,308	830,817
- On Deposit Account	1,651,840	567,498
- On Margin Account	1,517	4,741
	<u>2,793,665</u>	<u>1,403,056</u>
	<u>2,806,621</u>	<u>1,425,155</u>

As at 31 December 2002 **(Rs in Thousands)**
2002 2001

Schedule 9 - Loans and Advances

Unsecured :		
Loans, Considered Good	1,692	1,463
Advances recoverable in cash or in kind or for value to be received:		
- Considered Good	579,127	661,632
- Considered Doubtful	16,905	14,980
	<u>596,032</u>	<u>676,612</u>
Less: Provision for Doubtful Advances	<u>16,905</u>	<u>14,980</u>
	579,127	661,632
Interest Accrued on Investments and Fixed Deposits	25,273	12,212
Advance Tax (net of provision)	251,452	188,314
Balances with Customs, Port Trusts and Excise authorities	70,282	44,569
	<u>927,826</u>	<u>908,190</u>

Schedule 10 - Current Liabilities

Acceptances	1,634,175	574,728
Sundry Creditors		
Due to Small Scale Industrial Undertakings	65,955	132,395
Others	3,407,826	3,376,520
	3,473,781	3,508,915
Advance Payments from Customers	491,189	361,621
Investor Protection and Education Fund shall be credited by the following amounts when due :		
Unclaimed Dividends	5,283	4,527
Unclaimed Debentures	—	1,230
Unclaimed Fixed Deposits	59	857
	<u>5,604,487</u>	<u>4,451,878</u>

Schedule 11 - Provisions

Proposed Dividend	254,290	207,092
Corporate Dividend Tax	—	21,123
Leave Encashment	49,397	42,372
	<u>303,687</u>	<u>270,587</u>

For the year ended 31 December 2002

Schedule 12 – Capacities, Production, Stock and Turnover (Refer Note 13 to the Accounts)

(Figures in brackets are in respect of previous year)

Class of goods	Annual Capacities		Opening Stock of Finished Goods		Production of Finished Goods		Closing Stock of Finished Goods		Turnover of Finished Goods	
	Quant. Denom.	Installed	Quantity	Rupees in Thousands	Quantity	Quantity	Rupees in Thousands	Quantity	Rupees in Thousands	
Motors/Alternators/Generators upto 20 MW	HP	450,000 (450,000)	62,517 (44,891)	43,389 (31,681)	512,928 (486,694)	47,723 (62,517)	35,301 (43,389)	511,068 (437,160)	427,692 (380,432)	
Switchgear of all types	Nos.	642,333 (642,333)	10,216 (13,302)	3,852 (7,330)	576,179 (415,990)	10,216 (10,216)	6,605 (3,852)	423,161 (409,062)	3,130,039 (2,614,930)	
PLCC Equipment	Nos.	2,850 (2,850)	— (—)	— (—)	1,055 (998)	— (—)	— (—)	1,054 (983)	216,482 (193,475)	
Measurand Convertors	Nos.	90,000 (90,000)	— (620)	— (4,183)	53,042 (53,959)	— (—)	— (—)	41,496 (52,058)	245,369 (348,717)	
Multiplexures	Nos.	50 (50)	— (—)	— (—)	12 (5)	— (—)	— (—)	12 (5)	16,478 (7,156)	
Telemetry Equipment	Nos.	150 (150)	— (—)	— (—)	38 (9)	— (—)	— (—)	27 (9)	15,099 (5,164)	
Turbochargers	Nos.	150 (150)	— (—)	— (—)	122 (150)	— (—)	— (—)	122 (150)	142,845 (177,659)	
Power Transformers	MVA	4,000 (4,000)	— (—)	— (—)	2,243 (1,215)	— (—)	— (—)	2,243 (1,215)	466,261 (277,470)	
Traction Transformers	Nos.	15 (15)	— (—)	— (—)	5 (4)	— (—)	— (—)	5 (4)	47,254 (39,265)	
Electronic Control and Supply Units for Variable Speed Drives and other applications	Nos.	25,000 (10,000)	— (—)	— (—)	15,105 (6,276)	— (—)	— (—)	14,923 (6,276)	490,842 (520,998)	
Mini Computer/Microprocessor based Systems	Value Rs in Thousands	500,000 (500,000)	— (—)	— (—)	328,341 (338,513)	— (—)	— (—)	— (—)	328,341 (338,513)	
Non-Microprocessor Based Electronics (Analog and Digital) for Weighing, Batching and Force Measuring Systems and Sub-Systems	Value Rs in Thousands	70,000 (70,000)	— (—)	— (—)	9,500 (—)	— (—)	— (—)	— (—)	9,500 (—)	
Power Capacitors of all types	MVAR	2,700 (2,700)	— (—)	— (—)	2,216 (2,722)	— (—)	— (—)	1,987 (2,722)	121,078 (201,056)	
Pollution and Environment Control Equipment	Nos.	— (10,562)	162 (244)	2,596 (2,226)	953 (3,414)	— (162)	— (2,596)	991 (3,496)	67,152 (242,922)	
Robotics	Nos.	15 (15)	— (—)	— (—)	— (6)	— (—)	— (—)	— (6)	— (12,982)	
Control Valves	Nos.	2,750 (2,750)	— (—)	— (—)	275 (284)	— (—)	— (—)	241 (284)	27,049 (14,294)	
Gas Analysers and Systems	Nos.	300 (300)	— (—)	— (—)	78 (64)	— (—)	— (—)	67 (64)	85,001 (62,509)	
Process Control Instruments	Nos.	24,975 (24,975)	450 (—)	6,085 (—)	14,477 (9,796)	— (450)	— (6,085)	14,496 (9,616)	266,744 (217,141)	
Others				— (766)			— (—)		660,879 (639,210)	
Project Items				9,127 (19,363)			42,155 (9,127)		4,101,572 (3,589,967)	
Erection and Other Services									891,899 (532,130)	
				65,049 (65,549)			84,061 (65,049)		11,757,576 (10,415,990)	

Note : The Company's products are exempt from licensing requirement under the industrial policy by virtue of notification No. 477 (E) of 25.07.91

	(Rs in Thousands)	
For the year ended 31 December 2002	2002	2001
Schedule 13 - Other Income		
Income from Trade Investments		
Dividend	281	505
(Tax deducted at source Rs 29 thousand, Previous Year Rs Nil)		
Income from Non-Trade Investments		
Dividend	4	515
Interest		
(Tax deducted at source Rs 867 thousand, Previous Year Rs Nil)	11,749	2,724
	<u>11,753</u>	<u>3,239</u>
Interest		
On Deposits with Banks		
(Tax deducted at source Rs 9,679 thousand, Previous Year Rs 783 thousand)	54,820	5,143
Others	37,594	1,895
	<u>92,414</u>	<u>7,038</u>
Profit on Sale of Fixed Assets (net)	2,871	52,715
Miscellaneous Income	140,834	78,092
	<u>248,153</u>	<u>141,589</u>

Schedule 14 - Personnel Expenses

Salaries, Wages and Bonus	921,862	835,673
Contribution to Gratuity Fund	50,191	54,502
Contribution to Provident and Other Funds	67,981	64,898
Workmen and Staff Welfare Expenses	135,371	145,219
Other Personnel Expenses	32,490	30,105
	<u>1,207,895</u>	<u>1,130,397</u>

Schedule 15 - Other Expenses

Tools and Stores	149,360	148,005
Royalty	15,591	36,944
Freight and Forwarding	44,217	54,767
Postage, Telephone and Telex	65,525	83,997
Commission and Discount	122,060	90,225
Power, Fuel and Water	95,228	93,438
Travelling and Conveyance	257,503	256,734
Insurance	50,266	39,098
Rates and Taxes	33,843	34,347
Rent	79,218	95,591
Repairs : Buildings	10,933	8,609
Plant and Machinery	32,065	42,123
Others	12,948	13,261
Provision for Doubtful Debts and Advances	(27,922)	1,670
Bad Debts/Advances Written Off	162,051	87,915
Provision for Diminution in the Value of Investments	(2,600)	(4,256)
Investments Written Off	2,600	5,970
Printing and Stationery	28,418	28,496
Bank Charges	52,969	49,712
Legal and Professional	31,685	27,516
Trade Mark Fees	58,795	52,080
Miscellaneous	389,165	329,500
	<u>1,663,918</u>	<u>1,575,742</u>

Schedule 16 - Notes to the Accounts

1. Significant Accounting Policies

1.1 Basis of Preparation of Financial Statements

The financial statements have been prepared on the accrual basis of accounting, under the historical cost convention, except for revaluation of certain fixed assets, in accordance with the accounting principles generally accepted in India and comply with the mandatory accounting standards issued by the Institute of Chartered Accountants of India, as applicable, and the relevant provisions of the Companies Act, 1956.

1.2 Fixed Assets

Fixed Assets are stated at the cost of acquisition, except for revaluation of certain Land and Building, less accumulated depreciation. Cost of fixed assets comprises purchase price, duties, levies and any directly attributable cost of bringing the asset to its working condition for the intended use. Borrowing costs related to the acquisition or construction of the qualifying fixed assets for the period up to the completion of their acquisition or construction are capitalised. Advances paid towards the acquisition of fixed assets outstandings at each balance sheet date and the cost of fixed assets not ready for their intended use before such date are disclosed under capital work in progress.

Capitalised software includes costs on Enterprise Resource Planning (ERP) Project and other costs relating to software, which provide significant future economic benefits. ERP Project costs comprise licence fees and cost of system integration services.

All costs relating to upgradations/enhancements are generally charged off as revenue expenditure unless they bring significant additional benefits of lasting nature.

Assets acquired under finance lease from 1 April 2001 are capitalised at the lower of their fair value and the present value of the minimum lease payments.

1.3 Depreciation/Amortisation

Depreciation on assets (except those described below) is provided on the straight line method at the rates and in the manner prescribed in Schedule XIV to the Companies Act, 1956.

The following assets are amortised on the straight line method over a period of their estimated useful lives:

- Leasehold assets over the primary period of the lease.
- Technical know-how fees over a period of six years from the year in which they become payable.
- Capitalised software costs over a period of five years.

1.4 Investments

Long term investments are valued at cost. Provision is made for any permanent diminution in the value of investments.

1.5 Inventories

Inventories are stated at the lower of cost and net realisable value. The cost of various categories of inventories is arrived at as follows:

- Stores, spares, raw materials and components - at rates determined on the weighted average method.
- Work-in-progress and finished goods - at full absorption cost method based on annual average cost of production. Excise duty is included in the value of finished goods inventory.
- Packing materials, loose tools and consumables are charged off at the point of purchase.

Provision for obsolescence is made wherever necessary.

1.6 Retirement Benefits

Contributions to Provident Fund/ Superannuation Fund are made at pre-determined rates to the Provident Fund Trust/Superannuation Fund Trust and is charged to the profit and loss account.

Contributions to the Gratuity Fund and provision for leave encashment are made on the basis of actuarial valuations and is charged to the profit and loss account.

1.7 Revenue Recognition

- Sales of products and services are recognised on despatch of goods or when the services are rendered. Sales are stated at contractual realisable values, net of excise duty, sales tax and trade discounts.
- Revenues from long term contracts are recognised on the percentage of completion method. Corresponding contract costs are recognised in a manner such that the profit recognised is the lower of the actual cumulative profit realised and overall expected contract margin, based on technical and other estimates.
- Full provision is made for any loss in the year in which it is first foreseen.
- Liquidated damages/penalties are provided for wherever there is a delayed delivery.
- Commission income is recognised as per contracts/receipt of credit note.
- Dividend income is recognised when the right to receive dividend is established.
- Interest income is recognised on the time proportion method.

1.8 Warranties

Provision for the estimated liability in respect of warranty costs is made in the

year in which the revenues are recognised, based on technical evaluation and past experience.

1.9 Research and Development

All revenue expenses pertaining to research and development are charged to the profit and loss account in the year in which they are incurred and expenditure of capital nature is capitalised as fixed assets.

1.10 Foreign Currency Transactions

Foreign currency transactions are recorded by applying the respective monthly average rates.

Exchange differences arising on foreign currency transactions settled during the year are recognised in the profit and loss account for the year, other than exchange differences related to the liabilities for acquisition of fixed assets that are adjusted to the cost of the related fixed assets.

All foreign currency denominated monetary assets and liabilities are translated at the exchange rates prevailing on the balance sheet date. The resultant exchange differences are recognised in the profit and loss account for the year, other than exchange differences related to the liabilities for acquisition of fixed assets that are adjusted to the cost of fixed assets.

1.11 Taxation

Provision for current Income-tax is made on the basis of the results of the year although the actual liability will be computed and paid on the basis of the results for the year ending 31 March 2003.

The deferred tax for timing differences between the book and tax profits for the year is accounted for using the tax rates and laws that have been enacted or substantively enacted as of the balance sheet date. Deferred tax assets arising from temporary timing differences are recognised to the extent there is reasonable certainty that the assets can be realised in future.

2. Amalgamation

The High Courts of Judicature at Bombay and Chandigarh had approved in the year 2001 the Arrangement as embodied in the Scheme of Amalgamation ("the Scheme") of the erstwhile Introl (India) Limited ("INTRO"), ABB Instrumentation Limited ("ININS"), ABB Lenzohm Service Limited ("INSERT") and ABB Analytical Limited ("INEBA"), the transferor companies, with the Company ("INABB"). The Scheme became operative from 1 April 2001. All the assets, liabilities and reserves of the transferor companies were recorded by the Company at their respective carrying amounts. These values were adjusted, against General Reserve Account of the Company, by Rs 31,236 thousand for the differences in the accounting policies of the transferor companies. An amount of Rs 71,456 thousand being the excess of the value of the assets over the value of the liabilities of the transferor companies, after adjusting for the aggregate face value of the new shares issued by the Company, was credited to General Reserve Account of the Company, in accordance with the Scheme.

3. Sale of Undertakings

3.1 Air Handling Business

Pursuant to the ABB Group's decision to sell worldwide Air Handling business to Global Air Movement (Luxembourg) SARL, which became effective from 1 February 2002, the Company, upon approval by the shareholders, divested this business in India to Flakt (India) Limited on 31 May 2002. The total consideration received for sale of Air Handling business is Rs 258,963 thousand. This divestment has resulted in a capital gain to the Company of Rs 158,259 thousand, reported as profit on sale of Air Handling business in Profit and Loss Account as an extraordinary item. Moreover, the operating loss of Air Handling business of Rs 22,667 thousand in the interim period between 1 February 2002 and 31 May 2002 has been reimbursed to the Company by the buyer, which has been reported as miscellaneous income under "Other Income". The entire amount of capital gain has been invested by the Company as per provision of section 54EC of the Income-Tax Act, 1961 and accordingly no tax provision has been made on the capital gain from this divestment.

3.2 Metering Business

Pursuant to the ABB Group's decision to sell its Metering business worldwide to Ruhrgas Industries GmbH of Essen, Germany, the Board of Directors of the Company in its meeting held on 7 January 2003 has decided to divest Company's Metering business, subject to the consent of the shareholders.

2002

2001

4. Earnings Per Share

a) Calculation of Weighted Average number of Equity Shares of Rs 10 each

Number of shares at the beginning of the year	42,381,675	41,418,356
Shares issued on 31 December 2001 to shareholders of ININS, INTRO, INSERT and INEBA on their amalgamation with the Company (Appointed date of amalgamation 1 April 2001)	—	963,319
Total number of equity shares outstanding at the end of the year	42,381,675	42,381,675
Equity shares outstanding for three months	42,381,675	41,418,356
Equity shares outstanding for nine months	42,381,675	42,381,675
Weighted Average number of equity shares outstanding during the year	42,381,675	42,140,845

b) Net profit after tax and preference dividend available for equity shareholders (Rs in thousand)		
Net Profit after tax	971,741	653,259
Less: Dividend on Preference Shares	4,813	—
	966,928	653,259
c) Basic and Diluted Earnings Per Share (in Rs)	22.81	15.50
d) Net profit after tax and preference dividend available for equity shareholders excluding Extraordinary Item (Rs in thousand)		
Net Profit after tax	971,741	653,259
Less: Dividend on Preference Shares	4,813	—
Less: Profit on Sale of Air Handling business	158,259	—
	808,669	653,259
e) Basic and Diluted Earnings Per Share excluding Extraordinary Item (in Rs)	19.08	15.50

5. Segment Reporting

A) Primary Segment Reporting (by Business Segments)

i) Composition of Business Segments

The Company's business segments are organised around customers on industry and product lines as under:

Utilities (UT) Segment manufactures, engineers, supplies and provides solutions for high voltage and medium voltage substations, power line carrier communication equipments, relay control panels, networking management and services to utilities.

Industries (IN) Segment serves the chemical, pharmaceutical, petroleum, gas, marine, metals, minerals, mining, cement, pulp, paper, printing, automotive and manufacturing industries with a variety of power, automation and unique process industry technology products.

Power Technology Products (PT) Segment produces power transformers, switchgears, breakers, capacitors as well as other products and technologies for high and medium voltage applications.

Automation Technology Products (AT) Segment provides products, systems, software and services for the automation and optimisation of discrete, process and batch manufacturing operations and related business aspects. Key technologies include measurement control, instrumentation, process analysis, drives and motors, power electronics, robots and low voltage products, all geared towards a common industrial IT architecture.

ii) Inter Segment Transfer Pricing

Inter segment prices are normally negotiated amongst the segments with reference to the costs, market prices and business risks, within an overall optimisation objective for the Company.

iii) Figures in brackets are in respect of the previous year.

iv) Segment Revenues, Results and Other Information

(Rs in Thousands)

	UT	IN	PT	AT	Total of Reportable Segments
External sales	4,916,424 (3,165,272)	2,017,119 (1,916,394)	1,811,369 (2,349,874)	2,472,780 (2,251,533)	11,217,692 (9,683,073)
Inter Segment Sales	72,111 (30,982)	21,664 (5,917)	1,388,209 (405,405)	668,370 (522,712)	2,150,354 (965,016)
Other Income	21,398 (17,383)	9,233 (59,341)	19,606 (14,861)	18,606 (12,716)	68,843 (104,301)
Segment Revenues	5,009,933 (3,213,637)	2,048,016 (1,981,652)	3,219,184 (2,770,140)	3,159,756 (2,786,961)	13,436,889 (10,752,390)
Segment Results	368,499 (349,332)	207,978 (215,746)	239,716 (200,715)	365,399 (270,206)	1,181,592 (1,035,999)
Segment Assets	2,552,286 (1,984,967)	987,175 (1,174,952)	1,974,298 (2,155,231)	1,644,611 (1,687,326)	7,158,370 (7,002,476)
Segment Liabilities	2,056,412 (1,291,157)	732,766 (753,293)	1,161,891 (972,909)	966,903 (880,992)	4,917,972 (3,898,351)
Capital Expenditure	1,348 (11,335)	22,253 (11,443)	52,981 (20,210)	19,346 (30,894)	95,928 (73,882)
Depreciation/Amortisation	9,786 (15,568)	10,344 (12,050)	63,060 (67,179)	39,844 (42,265)	123,034 (137,062)

v) **Reconciliation of Reportable Segments with the Financial Statements**

(Rs in Thousands)

	Revenues	Results/Net Profit	Assets	Liabilities
Total of Reportable Segments	13,436,889 (10,752,390)	1,181,592 (1,035,999)	7,158,370 (7,002,476)	4,917,972 (3,898,351)
Corporate - Unallocated/ Others (net)	919,411 (775,093)	54,063 (-112,648)	4,145,492 (2,444,502)	1,140,473 (963,185)
Inter Segment Sales*	-2,350,571 (-969,904)	— (—)	— (—)	— (—)
Interest Expense	— (—)	-5,973 (-72,562)	— (—)	— (—)
Extraordinary Item – Profit on sale of Air Handling business	— (—)	158,259 (—)	— (—)	— (—)
Provision for tax	— (—)	-416,200 (-197,530)	— (—)	— (—)
As per Financial Statements	12,005,729 (10,557,579)	971,741 (653,259)	11,303,862 (9,446,978)	6,058,445 (4,861,536)

* Includes inter segment sales to non-reportable segment of Rs 200,217 thousand (previous year Rs 4,888 thousand)

B) Secondary Segment Reporting (by Geographical Segments)

(Rs in Thousands)

	Domestic	Exports	Total
Revenues	11,043,564 (9,752,837)	962,165 (804,742)	12,005,729 (10,557,579)
Total Assets	11,303,862 (9,446,978)	— (—)	11,303,862 (9,446,978)
Capital Expenditure	157,281 (143,062)	— (—)	157,281 (143,062)

(Rs in Thousands)

As at 31 December 2002

2002 **2001**

6. Amounts due from companies under the same management as defined in sub-section (1-B) of Section 370 of the Companies Act, 1956, are as under:

a) Sundry Debtors

- ABB Industrial IT Development Center Limited	10	—
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b) Advances and Current Accounts

- Universal ABB Power Cables Limited (Maximum amount due during the year Rs 7,371 thousand, previous year Rs 391 thousand)	—	30
- ABB Industrial IT Development Center Limited (Maximum amount due during the year Rs 332 thousand, previous year Rs 332 thousand)	—	332
- ABB Holdings (South Asia) Limited (Maximum amount due during the year Rs 280 thousand, previous year Rs 183 thousand)	—	35

7. Sundry creditors include amounts due to Small Scale Industrial Undertakings (SSI's) to the extent such parties have been identified from available information with the Company. Names of the SSI's to whom the Company owes any sum, which is outstanding for more than 30 days as at 31 December 2002 are as per attached Annexure.

8. Contingent Liabilities

i) Claims against the Company not acknowledged as debts	323,592	209,981
ii) Bills discounted	167,938	176,342
The above excludes bills co-accepted by the customers' bankers/guaranteed by the State Governments Rs 956,484 thousand (Previous Year Rs 870,731 thousand)		
iii) Income tax matters in dispute	141,522	134,629

9. Estimated amount of contracts remaining to be executed on capital account and not provided for (net of advances)

119,926	31,200
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As at 31 December 2002

(Rs in Thousands)

10. Finance Lease Obligations

The Company normally acquires computers and vehicles under finance lease with the respective underlying assets as security. Minimum lease payments outstanding as of 31 December 2002 in respect of these assets are as under (Figures in brackets are in respect of the previous year):

Due	Total Minimum Lease Payments outstanding as on 31 December 2002	Interest Not Due	Present Value of Minimum Lease Payments
Within one year	23,849 (13,814)	3,909 (2,768)	19,940 (11,046)
Later than one year and not later than five years	28,051 (24,747)	3,394 (2,911)	24,657 (21,836)
	51,900 (38,561)	7,303 (5,679)	44,597 (32,882)

11. The Company has non-cancelable operating lease obligations of **Rs 2,203 thousand** (previous year Rs Nil) payable within one year and **Rs 7,709 thousand** (previous year Rs Nil) later than one year but not later than five years as on 31 December 2002.

12. Deferred Tax

- i) The break up of net deferred tax liability as at 31 December 2002 is as under (Figures in brackets are in respect of the previous year):

	Deferred tax asset	Deferred tax liability
Timing differences on account of:		
Difference between book depreciation and depreciation under the Income-tax Act, 1961		268,476 (257,683)
Expenditure under Section 43B of the Income-tax Act, 1961	16,966 (16,482)	
Lease Finance	16,389 (11,739)	
Provisions for doubtful debts and advances	69,405 (77,390)	
Others	15,445 (13,001)	
	118,205 (118,612)	268,476 (257,683)
Net Deferred Tax Liability		150,271 (139,071)

13. Capacities, Production, Stock and Turnover (Refer Schedule 12)

13.1 Capacities

- a) Installed capacities are as certified by the Managing Director, but not verified by the Auditors, being a technical matter.

13.2 Production

- a) Production of finished goods is inclusive of production for captive use.
b) "Others" represent internally manufactured components, sold during the year. The Company considers these 'meant for sale' when actually sold. Since the quantitative denominations of these items are dissimilar, it is impracticable to disclose the quantitative information in respect of production and turnover.

13.3 Project items

- a) These comprise sale of trading items, equipment and miscellaneous items meant for execution of projects. Since the quantitative denominations of these items are dissimilar, it is impracticable to disclose the quantitative information in respect thereof.
b) Purchases of these items during the year aggregated to **Rs 3,761,132 thousand** (Previous Year Rs 2,726,777 thousand).

13.4 Work and Contracts-in-Progress

The work and contracts-in-progress at the beginning of the year amounted to **Rs 462,858 thousand** (Previous Year Rs 471,497 thousand).

		(Rs in Thousands)	
For the year ended 31 December 2002		2002	2001
14. Earnings in Foreign Exchange			
(on accrual basis)			
i)	Export of Goods		
	- Direct on FOB basis	756,805	684,857
	- Deemed Exports	302,442	1,397,153
ii)	Goods supplied/services rendered locally against foreign exchange remittances	76,781	74,439
iii)	Erection and other services	79,160	89,159
iv)	Other Income:		
	a. Commission	54,927	23,235
	b. Others	8,735	32,083
		<u>1,278,850</u>	<u>2,300,926</u>

15. Consumption of Raw Materials and Components

		Quantity	Rs in Thousands	Quantity	Rs in Thousands
Ferrous Metals	MT	2,810	153,969	3,077	152,213
Non-Ferrous Metals	MT	1,273	199,468	1,314	185,351
Components		*	3,788,366	*	3,393,986
Others			530,309		458,458
			<u>4,672,112</u>		<u>4,190,008</u>
		%		%	
Imported		40.77	1,904,647	42.31	1,772,675
Indigenously acquired		59.23	2,767,465	57.69	2,417,333
		<u>100.00</u>	<u>4,672,112</u>	<u>100.00</u>	<u>4,190,008</u>

For the purpose of para 4D (c) of Part II of Schedule VI to the Companies Act, 1956, components and spare parts are assumed to mean those incorporated in the product finally sold and not those used as spares for the repairs and maintenance of Plant and Machinery.

* Since the quantity denominations and the type of components are dissimilar in nature, it is impracticable to disclose the quantitative information in respect thereof.

16. Value of imports on CIF basis

(on accrual basis)		
Raw Materials and Components	1,559,338	1,534,655
Finished Goods	217,793	105,240
Maintenance Spare Parts	—	570
Capital Goods including Technical Know-how	13,391	14,005
Software	15,728	10,341
Project items	519,550	218,359
	<u>2,325,800</u>	<u>1,883,170</u>

17. Expenditure in foreign currency

(on accrual basis)		
Royalty	15,591	36,944
Trade Mark and Technical Know-how Fees	93,293	72,912
Erection Services	1,582	1,284
Commission	1,395	3,683
Professional/Consultancy fees	13,637	16,446
Others	55,248	71,996
	<u>180,746</u>	<u>203,265</u>

	(Rs in Thousands)	
For the year ended 31 December 2002	2002	2001
18. Amount remitted during the year in foreign currency, on account of dividend		
i) Number of shareholders	3	3
ii) Number of equity shares held by them on which dividend was paid	21,120,879	21,120,879
iii) Year ended to which the dividend related	31 December 2001	31 December 2000
iv) Net amount remitted (tax deducted at source Rs 10,560 thousand , previous year Rs Nil)	95,044	105,604
19. Managerial Remuneration		
a) i) Directors' fee	160	175
ii) Other remuneration		
Salary	1,980	1,715
Commission to Managing Director	1,700	1,105
Commission to Non Executive Directors	1,500	—
Contribution to Provident and other funds	617	541
Other perquisites	1,495	1,997
	<u>7,292</u>	<u>5,358</u>
	<u>7,452</u>	<u>5,533</u>
b) Computation of Net Profit as per Section 349 of the Companies Act, 1956		
Profit Before Tax as per Profit and Loss Account	1,387,941	850,789
Add : Managerial Remuneration	7,452	5,533
Loss on Sale of Fixed Assets	11,534	5,671
	<u>18,986</u>	<u>11,204</u>
	1,406,927	861,993
Less: Reversal of provision for diminution in the value of investments	—	4,256
Extraordinary Item – Profit on Sale of Air Handling business	158,259	—
Profit on sale of Fixed Assets	17,820	56,578
	<u>176,079</u>	<u>60,834</u>
Net Profit as per Section 349 of the Companies Act, 1956	1,230,848	801,159
Commission to Managing Director	1,700	1,105
Commission to Non Executive Directors	1,500	—
	<u>3,200</u>	<u>1,105</u>
20. Auditors' Remuneration (excluding service tax)		
i) Audit Fee	3,875	3,875
ii) Tax Audit Fee	1,975	1,550
iii) Other Services	2,745	1,715
iv) Reimbursement of out of pocket expenses	885	548
21. Interest charge for the year includes Rs Nil (Previous Year Rs 17,293 thousand) being interest on Debentures and Fixed period loans.		
22. Net foreign exchange loss of Rs 29,652 thousand (Previous Year gain Rs 1,503 thousand) has been accounted for in the profit and loss account.		
23. Research and development expenditure of Rs 23,139 thousand (Previous Year Rs 20,274 thousand) on revenue account has been incurred during the year.		

24. Related Party Disclosures

a) List of Related Parties

Parties where control exists:

ABB Asea Brown Boveri Limited, Zurich (Holding Company)

Other Related parties with whom transactions have taken place during the year:

Fellow subsidiaries:

ABB (China) Engineering Co. Limited, China	ABB Inc., Canada
ABB (Honkong) Limited	ABB Industria S.P.A., Italy
ABB (Pty) Limited, Southern Africa	ABB Industrial IT Development Centre Limited
ABB A/S, Skovlunde, Denmark	ABB Industries AB
ABB AG, Austria	ABB Industry Oy, Sweden
ABB AS, Automation Technology Products, Norway	ABB Industry Pte. Limited, Singapore
ABB AS, Tallinn	ABB Installation Materials Co. Limited, China
ABB Asia Pacific Services Limited, Hongkong	ABB Instrumentation Limited, U. K.
ABB Assist AB, Sweden	ABB Instrumentation Spa, Italy
ABB Australia Pty Limited	ABB International Marketing limited, Switzerland
ABB Automation Co. Limited, Saudi Arabia	ABB K.K. Japan
ABB Automation E. C., Bahrain	ABB Karebo Manufacturers (Pty)
ABB Automation Inc, U.S.A.	ABB Kraft Distribution AS
ABB Automation Products, Germany	ABB Limited Hr, Croatia
ABB Automation Technology Products, AB,	ABB Limited, Ireland
ABB Beijing Drive Systems Co, Limited	ABB Limited, New Zealand
ABB Business Centre, Switzerland	ABB Limited, Norway
ABB Calor Emag Hochspannung GmbH	ABB Limited, Thailand
ABB Capacitors AB, Sweden	ABB Limited, U.K.
ABB Capital BV, Amesterdam	ABB Limited. Taiwan
ABB Control Valves Inc. USA	ABB LLC, Oman, Muscat
ABB Control, Siege Social, France	ABB Logistics Center Europe GmbH, Germany
ABB Corporate Management Services AG, Switzerland	ABB Ltda, Brazil
ABB Distribution Limited, Thailand	ABB Lummus Global Inc., USA
ABB EJV S.R.O	ABB Lummus Heat Transfer B.V.
ABB Electrical Co. S.A.L., Lebanon	ABB Magda Limited , UK
ABB Elektrik Sanayi A.S., Turkey	ABB Malaysia Sdn Bhd, Subang Jaya, Malaysia
ABB Energy Automation S.P.A., U A E	ABB Manufacturing & Consumer Industries AB, Sweden
ABB Energy Engineering AG	ABB Motores S.A., Barcelona
ABB Engineering Technologies Co., Kuwait	ABB Motors and Machines AB, Vasteras Sweden
ABB Eutech Limited, U.K.	ABB Motors Central Stock Nordic AB, Sweden
ABB Group Process Limited, Zurich	ABB Motors Oy, Finland
ABB Group Services Center S.A.E., Egypt	ABB Netting Centre, Zurich
ABB High Voltage Co. S.A.E., Egypt	ABB Oy Electrical Machines, Finland
ABB Hochspannungstechnik, Zurich	
ABB Holdings (South Asia) Limited	
ABB Hongkong Limited	

ABB OY Services, Finland
 ABB Oy Substation Automation, Finland
 ABB OY, Finland
 ABB Power Automation Ltd
 ABB Power T & D Company, Inc, USA
 ABB Power Technolodgy S.A., Spain
 ABB Power Technology Products AB
 ABB Power Technology Products Management Limited
 ABB Process Industries Division, Norway
 ABB Process Industries, Germany
 ABB S.A., Panama
 ABB S.R.O.
 ABB SA, Paris La Defense, France
 ABB Sace S.P.A., Italy
 ABB Schaltanlagentechnik GmbH, Germany
 ABB Sechron SA, Switzerland
 ABB Semiconductors AG, Switzerland
 ABB Service (Private) Limited
 ABB Service AB, Västerås, Sweden
 ABB Service Co. Limited, Saudi Arabia
 ABB Servomotors S.R.L., Italy
 ABB Sia Riga, Latvia
 ABB Sistemas Industries S.A., Spain
 ABB Solutions S.p.A., Italy
 ABB Solyvent Ventec, France
 ABB Stotz-Kontakt, Germany
 ABB Switzerland AG
 ABB Switzerland Limited, Switzerland
 ABB T&D Technology Limited, Zurich
 ABB T&D, Indonesia
 ABB Technologies Limited
 ABB Technology FLB AB, Sweden
 ABB Technology Products
 ABB Trade S.A., Greece
 ABB Transformatoren GmbH, Germany
 ABB Transmission and Distribution Sdn. Bhd., Malaysia
 ABB Transmit OY, Finland
 ABB Trasmissione & Distribuzione S.p.a, Italy
 ABB Turbo-Systems AG, Switzerland
 ABB Utilities AB, Sweden
 ABB Utilities GmbH, Mannheim, Germany
 ABB Vecto Gray Canada Inc., Canada
 ABB Vietnam Rep. Office, Vietnam
 ABB Xiamen Ele Contrl., China
 ABB Xiamen Low Voltage Equipment Co. Limited. China
 ABB Xiamen, China
 ABB Z.war, Poland
 Asea Brown Boveri SA, Argentina
 Asea Brown Boveri BV, Rotterdam, Netherlands
 Asea Brown Boveri Jumet S.A., Jumet
 Asea Brown Boveri Limited S.A.
 Asea Brown Boveri Limited, Bogota
 Asea Brown Boveri Limited, Korea
 Asea Brown Boveri Limited, Zurich
 Asea Brown Boveri N.V. Zaventem
 Asea Brown Boveri S.A.
 Asea Brown Boveri S.A. Ve Caracas
 Micapel Vakkumtechnik AG
 Pucaro Elecktro-Isolierstoffe GmbH
 Striebel & John GmbH & Co. Limited, Germany
 Universal ABB Power Cables Limited

Associates:

Integra Hindustan Control Limited
 National Switchgears Limited

Directors:

Mr. Peter Smits
 Mr. Ravi Uppal
 Mr. A.Ramamurthy
 Mr. N.S.Raghavan
 Mr. Dinesh Paliwal
 Mr. Nasser Munjee
 Mr. Umesh Prasad Singh
 Mr. Peter Leupp
 Mr. BoonKiat Sim
 Mr. K N Shenoy (resigned w.e.f. 25.10.2002)
 Mr. Vijay Karan (resigned w.e.f. 22.6.2002)
 Mr. Eric Drewery (resigned w.e.f. 9.10.2002)

		(Rs in Thousands)	
		2002	2001
b)	Transactions with related parties		
i)	Sales, Services and other income		
	Fellow Subsidiaries	742,413	531,446
	Associates	8,005	9,199
ii)	Purchases of Raw Materials, Components and Project items		
	Fellow Subsidiaries	1,698,983	1,363,963
iii)	Expenditure on Royalty, Trademark, Technical and Consultancy Services		
	Holding Company	93,293	72,912
	Fellow Subsidiaries	15,591	36,944
iv)	Expenditure on Other Services		
	Fellow Subsidiaries	15,601	15,341
v)	Capital Expenditure for Technical Know-how		
	Fellow Subsidiaries	11,740	9,191
vi)	Capital Expenditure		
	Fellow Subsidiaries	1,824	—
vii)	Outstanding balances as at 31 December 2002		
	Debtors		
	Holding Company	—	384
	Fellow Subsidiaries	246,368	113,493
	Associates	2,220	1,943
	Creditors		
	Holding Company	41,662	45,022
	Fellow Subsidiaries	506,918	286,770
viii)	Provision for doubtful advance written back		
	Associates	9,934	16,558
ix)	Amount written off during the year		
	Associates (net of Rs 9,934 thousand written back, previous year Rs 16,558 thousand)	—	960
x)	Provision for Investment written back		
	Associates	2,500	—
xi)	Investment written off during the year		
	Associates (net of Rs 2,500 thousand written back)	—	—
xii)	Dividend Paid during the year		
	Holding Company	93,063	93,063
	Fellow Subsidiaries	17,353	12,540
xiii)	Shares Issued on amalgamation		
	Holding Company – Equity Shares	—	9,633
	Fellow Subsidiaries – Preference Shares	—	75,000
xiv)	Redemption of Preference Shares		
	Fellow Subsidiary	75,000	—
xv)	Part consideration received for sale of Air Handling business		
	Holding company	171,164	—
xvi)	Managerial Remuneration	7,452	5,533

25. The figures of the previous year have been regrouped/reclassified, where necessary, to conform with the current year's classifications.
26. In view of the amalgamation of INTRO, ININS, INSER and INEBA with the Company effective from 1 April 2001 in the previous year as described in note 2 above and the sale of Air Handling business as described in note 3.1 above, the figures of the current year are not directly comparable to those of the previous year.

Signature to Schedules 1 to 16

For and on behalf of the Board

Peter Smits	Chairman
Ravi Uppal	Vice Chairman and Managing Director
Nasser Munjee	Director
A. Ramamurthy	Director
Umesh Prasad Singh	Director
Peter Leupp	Director

K. Rajagopal	Sr. Vice President - Finance
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B. Gururaj	Company Secretary
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Mumbai, 30 January, 2003

Annexure to Schedule 16 - Notes to the Account (see Note 7)

Names of the Small Scale Industrial Undertakings to whom the Company owes any sum which is outstanding for more than 30 days as at 31 December 2002.

A.K.Industries	Deepak Engineering Works
Abhay Engineering Industries	Desai Engineers
Accutech Auto Private Limited	Dharia Swtichgear & Controls Private Limited
Adept Fluidyne Private Limited	Dhaval Electricals
Advance Electronics Systems	Diakem Products Bombay Private Limited
Advance Engg.-Fab. Industries	DV Enterprises
Aero Pack Corporation	Eapen Joseph & Company
Agate Electroinsulants Private Limited	Eastern Electricals
Agro Auto Forging (Baroda) Private Limited	Ecomix Hitech Components
Agya Enterprises	Elcot
Ajay Enterprises	Electrohms Private Limited
Alfeco	Engineering Manufacturers Private Limited
Amba Industries	Engineers India Industries
Amey Innovatives	Enterprising Engineers
Amit Forging Works	Eskay Wires
Andhra Electronics Limited	Exalt Engineering Industries
Ani Stamping & Lamination	Excel Graphics Private Limited
Anugraha Agencies	Exel Process Private Limited
Anulok Engineers Private Limited	Expert Engineers
Aress High Duty Forgings Private Limited	F S Engineers
Aress Trading Company Private Limited	Fabionix India Private Limited
Arthai Engineers	Ferro-Tic Dies & Moulds
Arun Enterprises	Fibertek Communications Private Limited
Ashutosh Engineering	Fluo Lite Private Limited
Avn Tools & Instruments Private Limited	Garda Tools
B.B.Electrotechnic	Gartels Werke Limited
Baroda Bushings & Insulators	General Foundries
Bartronics India Limited	Global Weighing Private Limited
Beardsell	Globe Scott Motors Private Limited
Bengal Technocrafts Private Limited	Goa Resistors Private Limited
BGL Engineering Works	Golden Insulation And Engineering
Business Links	Gunnam Subba Rao Private Limited
Brassoforge	Guru Tools
Bri Electricals Private Limited	Harshad Fabricators
Bumper India Private Limited	Hi Tech Insulators Private Limited
Business Links	Hindustan Polythene & Plastic Works
Capso Engineers	Hybrid Metals Private Limited
Cermet Resistronics Private Limited	Industrial Enterprises
Charu Chemical Laboratories	Industrial Tapes & Fabrics Private Limited
Chemicals & Lacquers	J. K. Springs
Chetna Engineering Company	J.Khushaldas & Company
Consult Techniques India Private Limited	J.S.Auto Engg. Works
Control Dynamics	Jayvir Engineers
Control-Touch Electronics	Jig Hitek Components
Copper Metal Corporation	Jupiter Electricals
D V Enterprise	JVS Electronics Private Limited
Dalal Auto Cast	Jyoti Pattern Works

Kabeer Engineering Works	Perfect Engineering & Allied Works Private Limited
Kalpa Electricals Private Limited	Phenoplast Corporation
Kalpana Engineering Works	Placka Instruments India Private Limited
Kamal Engineering Works	Power Max
Kanksha Glass Industries	Power Technologies
Kartikeya Engineering Works	Prajapati Electro Industries
Kee Auto Industries	Prajapati Engineering Works
Kel Tools	Pranay Insulations & Packaging
Keltron Crystals Limited, Cannore	Prathoma Switchgears Private Limited
Khoday Control System Private Limited	Pratibha Engineers Private Limited
Khosla Engineering Private Limited	Precision Autowares Limited
Mahesh Vidyut Udyog	Precision Engineering Company
Manisha Engineering Enterprise	Precision Spring Works
Maruti Engineers	Precision Tools Maker
Maruti Technical Services	Press-N-Forge
Mascot Plast O Therm	Press-O-Parts Industries
Mathura Switchgears Private Limited	Priyam Switchgears
Meck Industries	Protecta-Controls
Meera Engineering Works	Pulse Magnetic & Power Electronics
Mega Switchgears	Quality Castings
Metal Craft Engineering	Rahul Enterprises
Metal Décor	Raj Auto Industries
Metalcraft Engineering & Spring	Rajendra Industries
Metpress Engineering	Raju Convertors Private Limited
Micro Craft Engineering	Ramson Instruments
Micron Industries	Ravi Industries
Microsign Sales & Services	Real Thoughts
Milind Engineering Works	Recherche Industries
Minal Electrical & Engineering	Reliable Electronics Components Private Limited
Mita Fasteners Private Limited	Resistors Mfg Co
Modern Engineering and Spring Company	Rittal India Private Limited
Monal Equipment Engineers Private Limited	Rumika Engineering Company
Monarch Industries	S D Enterprises
Motherson Pudenz Wickmann Limited	S.N. Enterprise
Multi Metal Industries	Sahyadri Starch & Chemicals
Nanubhai & Company	Sai International
Narkhede Udyog	Sameer Paints
Niktech Electronics	Sant Engineering Works
Nootan Engineering Industries	Scope T&M Private Limited
Okay Tools Private Limited	Sealvel Rubber Products Private Limited
Omax Fusions Limited	Shah Electrical Engineers
Omco Enterprises Private Limited	Shanmugha Precision Forgings
Orion Packaging	Sharda Engineering Works
Pace Exim Corporation	Shinograph
Panchal Engineers	Shivam Engineering
Panetronics Corporation	Shivam Polymers
Par Excellence	Shree Durga Industries
Paramount Seals and Packings	Shree Ozone Enginnering Private Limited
Peenya Indl Gases Private Limited	Shree Sai Engineering Works

Shreeji Engineers
Shreyas Engineers
Shri Ganesh Iron Industries
Shrijay Udyog
Siemag Industries
Somesh Forge Private Limited
Soni Enterprises
Specialised Components Private Limited
Sri Ganesh Switch Gear Private Limited
Star Plating Industries
Stardrive Busducts Private Limited
Sungrace Electricals Private Limited
Super Auto Electricals Private Limited
Surinco Enterprises
Swambe Chemicals
Swastik Industrial Works
Swastik Metcast
Swastika Castal Limited
Switron Devices
Switzer Instrument Limited
Symcom Engineers
Systronics
Tas Foundries Private Limited
Tee-Vee Tools & Engineering Industries
Thermocon Enterprises
Thermoplastic Surgical & Scientific
Tilak & Tej Industries

Tirupati Rubber Products
Transvick Industries
Tushar Engineering Works
Tushar Industry
Tushar Metals Private Limited
Uma Enterprises
Uni-Packs
United Heat Transfer Private Limited
Utsav Electro-Mech Private Limited
V.N. Enterprises
Vaibhav Engineers Private Limited
Vandan Engg
Vee Aar Engineers
Veeke Engineering Corporation
Veevee Control Private Limited
Vikas Industrial Products
Vinmech Industries
Vinod Industries
Vinsan Packers
Virus Electronics
Volco Industries
Wezmann Engineering
Wezmann Industries
Win Tech Engineers
Windston Springs Private Limited
Wizard Electronics
Yasho Electric Work

Balance Sheet Abstract and Company's General Business Profile

I Registration Details

Registration No. State Code
 Balance Sheet Date
 Date Month Year

II Capital Raised during the year (Rs in Thousands)

Public Issue Rights Issue
 Bonus Issue Private Placement

III Position of Mobilisation and Deployment of Funds (Rs in Thousands)

Total Liabilities Total Assets

Sources of Funds

Paid-up Capital Reserves and Surplus
 Secured Loans Unsecured Loans

Application of Funds

Net Fixed Assets Investments
 Net Current Assets * Misc. Expenditure
 Accumulated Losses

* Net of deferred tax liability of Rs 150,271 thousand

IV Performance of the Company (Rs in Thousands)

Turnover Total Expenditure
 +/- Profit/Loss Before Tax +/- Profit/Loss After Tax
 Earnings per Share in Rs Dividend Rate %

V Generic Names of Three Principal products/Services of Company

(as per monetary terms)

Item Code No. (ITC Code)	85.35
Product Description	Switchgears of all types
Item Code No. (ITC Code)	85.04
Product Description	Electronic Control and Supply Units for Variable Speed Drives and other applications
Item Code No. (ITC Code)	85.01
Product Description	Motors/Alternators/Generators up to 20 MW

Cash Flow Statement

	(Rs in Thousands)	
For the year ended 31 December, 2002	2002	2001
A. Cash Flow from Operating Activities:		
Net Profit Before Tax and Extraordinary Items	1,229,682	850,789
Adjustments for:		
Depreciation	183,223	182,483
Unrealised Gains on Restatement of Monetary Assets	(2,923)	(1,202)
Unrealised Losses on Restatement of Monetary Liabilities	9,064	1,204
Profit on Sale of Fixed Assets (net)	(2,871)	(52,715)
Interest Income	(104,163)	(9,762)
Dividends Received	(285)	(1,020)
Interest Expense	5,973	72,562
Provision for Diminution in the value of Investments	(2,600)	(4,256)
Investments Written Off	2,600	5,970
Preliminary and Pre-operative Expenses Written off	-	21
Operating Profit before Working Capital Changes	<u>1,317,700</u>	<u>1,044,074</u>
Movement in Working Capital:		
Decrease/(Increase) in Sundry Debtors	(485,322)	214,097
Decrease/(Increase) in Inventories	86,468	67,858
Decrease/(Increase) in Loans and Advances	56,563	(26,371)
Increase/(Decrease) in Current Liabilities and Provisions	1,149,814	761,450
Working Capital Items Transferred on Sale of Air Handling business	(49,980)	-
Cash Generated from Operations	<u>2,075,243</u>	<u>2,061,108</u>
Direct Taxes Paid (net of refunds)	(468,138)	(260,538)
Net cash from Operating Activities	<u><u>1,607,105</u></u>	<u><u>1,800,570</u></u>
B. Cash Flow from Investing Activities:		
Purchase of Fixed Assets	(192,353)	(143,064)
Proceeds from sale of Fixed Assets	40,729	68,059
Purchase of Investments	(215,000)	(52,894)
Sale/Maturity of Investments	67,026	23,004
Interest Received	91,102	6,823
Dividends Received	285	1,020
Cash and Cash Equivalents transferred from transferor companies on amalgamation	-	(21,147)
Consideration Received from Sale of Air Handling business	258,963	-
Net cash from Investing Activities	<u><u>50,752</u></u>	<u><u>(118,199)</u></u>
C. Cash Flow from Financing Activities:		
Proceeds from new Borrowings	38,892	49,416
Repayment of Borrowings	(23,161)	(182,303)
Redemption of Preference Shares	(75,000)	-
Interest Paid	(5,973)	(74,796)
Dividend paid	(211,149)	(228,215)
Net Cash used in Financing Activities	<u><u>(276,391)</u></u>	<u><u>(435,898)</u></u>
Net Increase in Cash and Cash Equivalents (A+B+C)	<u><u>1,381,466</u></u>	<u><u>1,246,473</u></u>

As at 31 December, 2002	2002	2001
Cash and Cash Equivalents (Opening Balance)	1,425,155	178,682
Cash and Cash Equivalents (Closing Balance)	2,806,621	1,425,155
Components of Cash and Cash Equivalents as at 31 December	2002	2001
Cash and Cheques on Hand	12,956	22,099
Balances With Banks- on Current Account	1,140,308	830,817
- on Deposit Account	1,651,840	567,498
- on Margin Account	1,517	4,741
	<u>2,806,621</u>	<u>1,425,155</u>

Notes

- 1 The amalgamation of INTRO, ININS, INSER and INEBA with the Company in the previous year was cash neutral and did not affect the cash flow. In consideration of the transfer of and vesting of the undertakings of the transferor companies, shareholders of transferor companies were issued fully paid up equity and preference shares of the Company.
- 2 The figures of the previous year have been regrouped/reclassified, where necessary, to conform with the classification of the current year.

For and on behalf of the Board

Peter Smits	Chairman
Ravi Uppal	Vice Chairman and Managing Director
Nasser Munjee	Director
A. Ramamurthy	Director
Umesh Prasad Singh	Director
Peter Leupp	Director

K. Rajagopal Sr. Vice President - Finance

B. Gururaj Company Secretary

Mumbai, 30 January, 2003

Auditors' Certificate

To
The Board of Directors
Asea Brown Boveri Limited
Plot No. 22A, Shah Industrial Estate
1st Floor, Off Veera Desai Road
Andheri (W)
Mumbai - 400 053

We have examined the attached Cash Flow Statement of Asea Brown Boveri Limited ("the Company") for the year ended 31 December, 2002. The statement has been prepared by the Company in accordance with the requirement of the listing agreement Clause 32 with the Stock Exchanges and is based on and in agreement with the corresponding profit and loss account and balance sheet of the Company covered by our report of even date to the members of the Company.

For Bharat S Raut & Co.
Chartered Accountants

Pradip Kanakia
Partner

Bangalore
30 January, 2003





ABB

Asea Brown Boveri Limited

Registered Office:
Plot No. 22-A, Shah Industrial Estate,
1st Floor, Off Veera Desai Road,
Andheri (West),
Mumbai 400 053
Tel: +91 22 26730964
Fax: +91 22 26730965

Asea Brown Boveri Limited

Corporate Office:
Khanija Bhavan, 2nd Floor,
49, Race Course Road,
Bangalore 560 001
Tel: +91 80 2254546, 2250295
Fax: +91 80 2281103

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