

India

ABB Limited

Annual Report 2004



**ABB**

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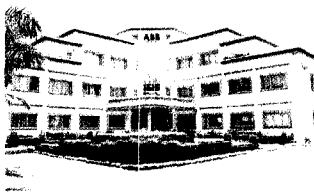
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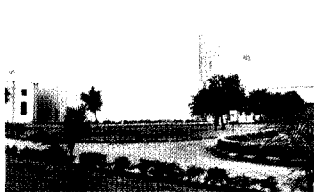
Bangalore facility



Nashik facility



Vadodara facility



Vadodara - Transformers



Faridabad - Instrumentation



Faridabad - Low voltage motors

# ABB Limited

## Board of Directors

Dinesh Paliwal, Chairman  
Ravi Uppal, Vice Chairman and Managing Director  
Peter Smits  
N.S.Raghavan  
Nasser Munjee  
Peter Leupp  
Tom Eric Sjoekvist

## 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  
Shyam Karmarkar  
P P Gomes

## Bankers

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

## Auditors

S.R.Batlboi & Company

## Registered Office

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

## Registrar & Share Transfer Agents

Karvy Computershare Private Limited  
No. 51/2, T.K.N.Complex  
Vanivilas Road  
Opp. National College  
Basavanagudi  
Bangalore - 560 004



## 5 Year Highlights

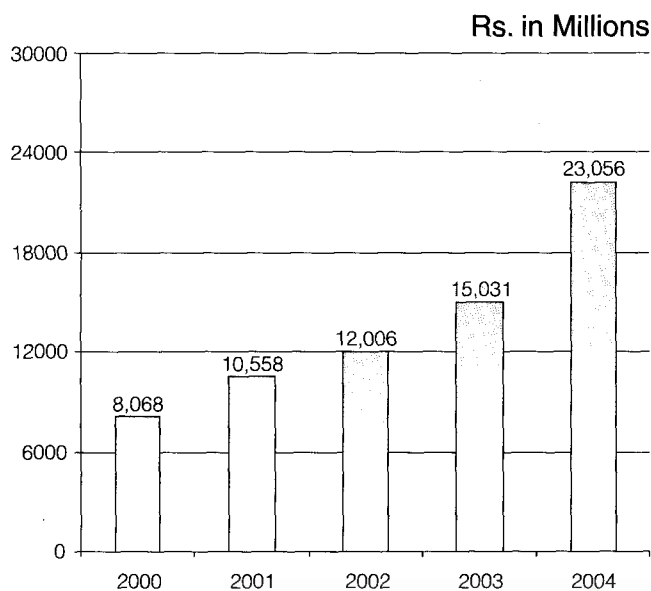
	(Rs in Millions)				
Description	2004	2003	2002	2001	2000
<b>Sources of Funds</b>					
Share Capital	423.8	423.8	423.8	498.8	414.2
Reserves	6,669.4	5,461.6	4,539.2	3,805.4	3,478.4
Net Worth	7,093.2	5,885.4	4,963.0	4,304.2	3,892.6
Borrowings	14.9	101.0	123.7	108.0	165.6
Funds Employed	7,108.1	5,986.4	5,086.7	4,412.2	4,058.2
<b>Income and Profits</b>					
Sales & Other Income	23,055.7	15,030.6	12,005.7	10,557.6	8,068.5
Operating Profit Before Interest and Depreciation	2,582.3	1,722.8	1,418.9	1,105.9	911.8
Profit Before Tax	2,365.2	1,528.9	1,229.7	850.8	705.1
Tax	860.0	520.0	416.2	197.5	165.0
Profit After Tax	1,505.2	1,008.9	813.5	653.3	540.1
Dividend / Dividend Tax	335.4	319.5	259.1	228.2	253.9
Retained Earnings	1,169.8	689.4	554.4	425.1	286.2
<b>Other Data</b>					
Gross Fixed Assets	3,428.1	3,037.9	2,707.0	2,747.9	2,442.3
Debt Equity Ratio	0.01:1	0.02:1	0.02:1	0.03:1	0.04:1
Net Worth Per Equity Share - Rs	167.4	138.9	117.1	99.8	94.0
Earnings Per Equity Share - Rs	35.5	23.8	19.1	15.5	13.0
Dividend Per Equity Share - Rs	7.0	6.0	6.0	5.0	5.0
Profit After Taxes as % to Average Net Worth	23.2	18.6	17.6	15.9	14.4

Note :

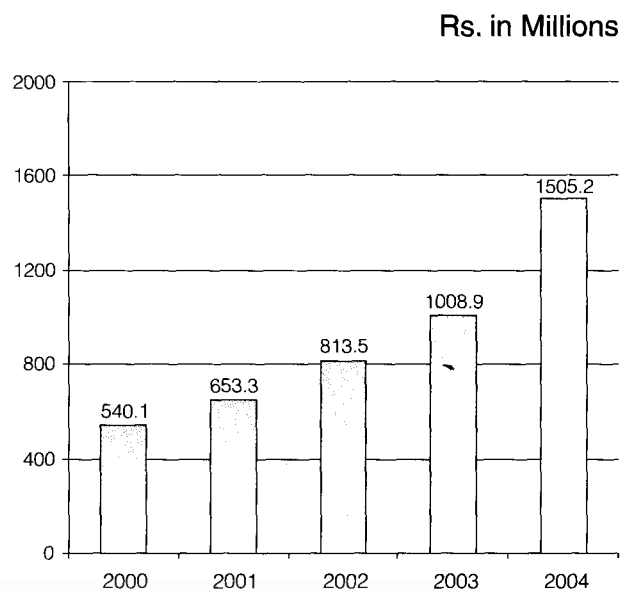
1) Excludes revaluation of fixed assets, revaluation reserve and exceptional items.

# 5 Year Highlights

## Revenues

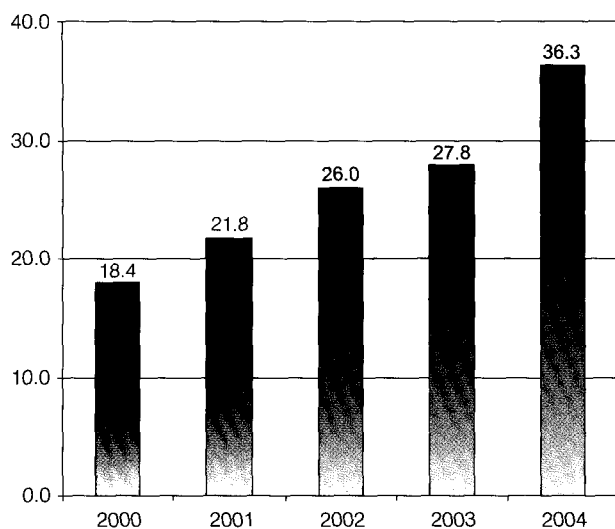


## Profit After Tax

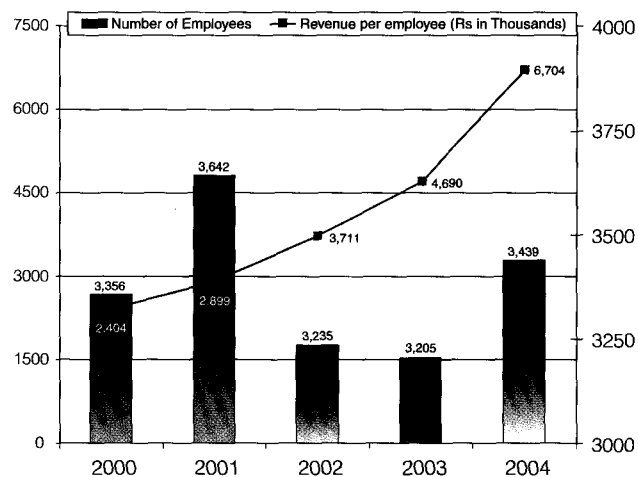


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## Return On Capital Employed (%)



## Employees & Productivity



Note:

1) Excludes revaluation of fixed assets, revaluation reserve and exceptional items.

# Corporate Management Committee

ABB Limited, India



Sitting (L to R): Amresh Dhawan -Head-Power Technologies (Products), K Rajagopal -Chief Financial Officer, Ravi Uppal -Vice Chairman & MD, Biplab Majumder -Head-Automation Technologies, Inder Sadhu -Head-Power Technologies (Systems)  
Standing (L to R): V Swamy -Head-Building Systems, Bazmi Husain -Head-Corporate Research Center, Peter Gomes -Head-Service, P C Rajiv -Head-Human Resources, Shyam Karmarkar -Head-Marketing.



# Welcome to ABB

## ABB - At home everywhere

ABB is a global leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and is committed to enhancing the competitiveness of its customers, combining cutting-edge technologies and proven domain expertise with strong local insight. ABB in turn creates value for other stakeholders ie. its shareholders, employees and the communities in which it operates.

ABB's two basic business principles, Responsibility, Respect and Determination are enshrined in the company's culture. ABB employees demonstrate personal, professional and corporate responsibility, showing respect for others and reinforcing their shared determination to work as a team to nurture ABB's traditional strengths - our technology leadership, our pioneering spirit and our ability to be at home everywhere !

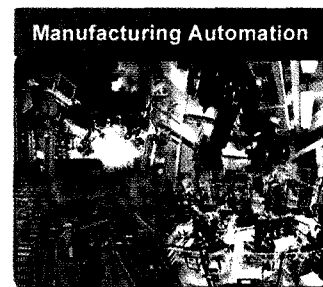
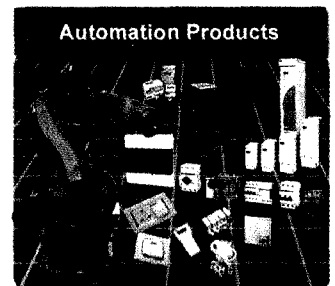
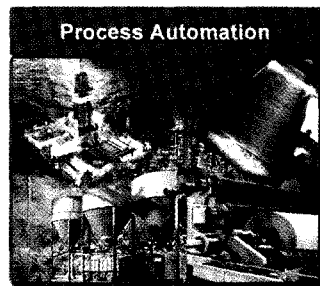
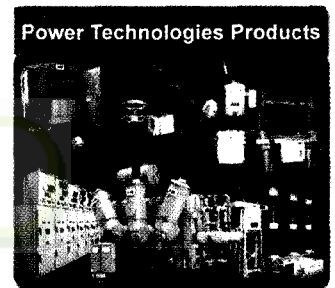
## Technology & Innovation

ABB has a 120 year record of innovation and technological leadership since its inception in 1883. Recent ABB innovations, on average, comprise over 70 per cent of the products and services marketed by the company today. ABB invests around one billion US dollars annually in research and order related development, weaved into the fabric of its business offering.

## A new simpler ABB

ABB has constantly adapted to change and in 2004, the company further simplified its organisation structure to enhance customer focus, increase competitiveness and drive operational excellence.

ABB's two core divisions, Power Technologies (PT) and Automation Technologies (AT), have been further simplified into two Business Areas for PT and three for AT.



# ABB in India

ABB has a long standing presence in India over several decades with extensive local manufacturing across 8 centers. This is supported by a countrywide marketing presence, including 26 marketing offices and a network of around 500 channel partners.

ABB India also has 8 service centers, customer training hubs and global R & D centers. ABB offers a complete range of Power and Automation technology solutions in the form of turnkey projects, products and services to utilities, industries and buildings across India and beyond.








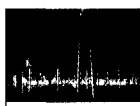
ABB controls and energizes power plants with automation systems and all instrumentation and electrical equipment. ABB holds the world record for current switching by generator circuit breakers.



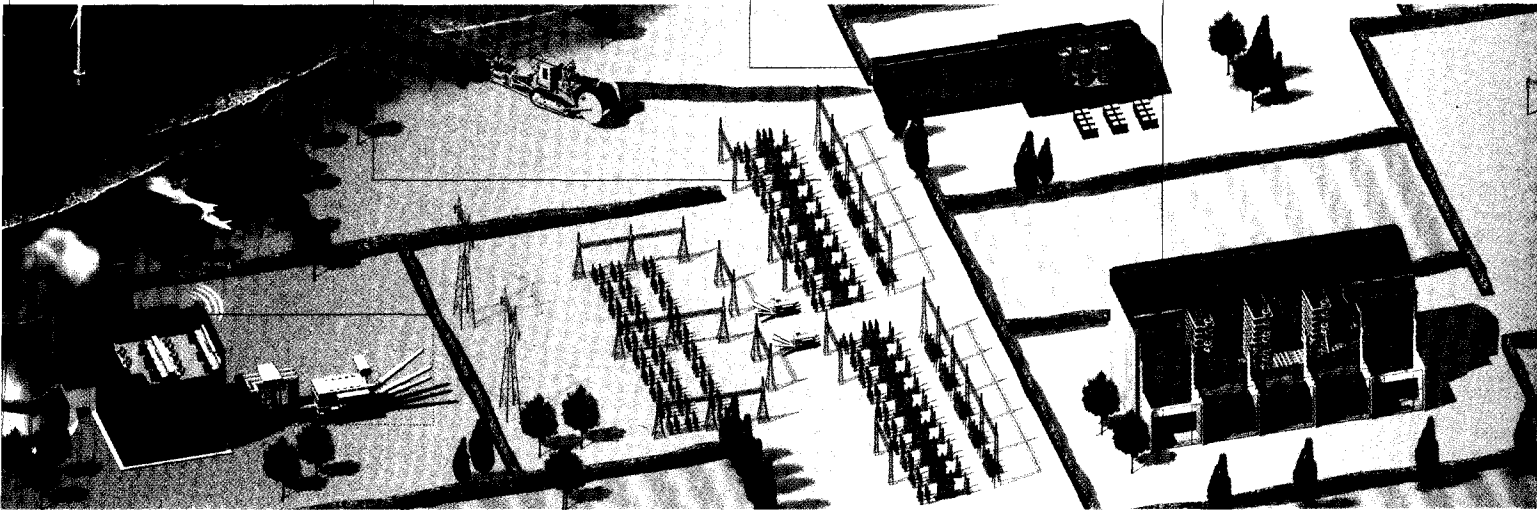
Transmission substations are used to raise voltages for long distance power transmission. ABB has built more transmission and distribution substations than any other company – well over 5,000.



ABB's unique HVDC Light system is designed for underground or underwater power transmission. Its environmental benefits include no overhead power lines and a neutral electromagnetic field.



High-Voltage Direct Current (HVDC) transmission is an efficient means for long distance bulk power transmission and for connecting asynchronous power grids. ABB pioneered this technology.





# Power Technologies

ABB India's Power Technologies division offers power and other utilities as well as industrial and commercial customers a wide range of products, system and services from the generating station and across the transmission and distribution network.

This includes Electrical Balance of Plant (EBoP) solutions for power generation plants, including automation, controls instrumentation and complete electricals.

ABB is clearly recognised as a global market leader in power transmission and distribution. The offering includes solutions like High Voltage Direct Current (HVDC) and Flexible AC Transmission System (FACTS) that facilitate higher capacity utilisation as well as efficient and reliable transmission of quality power.

ABB also offers turnkey solutions for substations, distribution automation and network management. This includes Supervisory Control & Data Acquisition (SCADA) systems, Wide Area Protection (WAP) and a host of technologies that help reduce T&D losses, increase uptime and improve the overall reliability of the grid.

ABB's product portfolio covers the entire voltage range and includes indoor and outdoor circuit breakers, air and gas insulated switchgear, disconnectors, capacitor banks, reactive power compensators, power and distribution transformers as well as instrument transformers.



Flexible AC Transmission Systems (FACTS) enhance the capacity of existing networks and increase power quality. ABB has more than 600 FACTS installations, or 50 percent of the world market.



High-voltage products switch power on and off and interrupt current. Gas insulated switchgear is very compact and particularly useful in indoor substations when space is scarce.



Transformers raise and lower voltage – an essential part of the transmission and distribution process. ABB produces 1,500 power transformers and 400,000 distribution transformers a year.



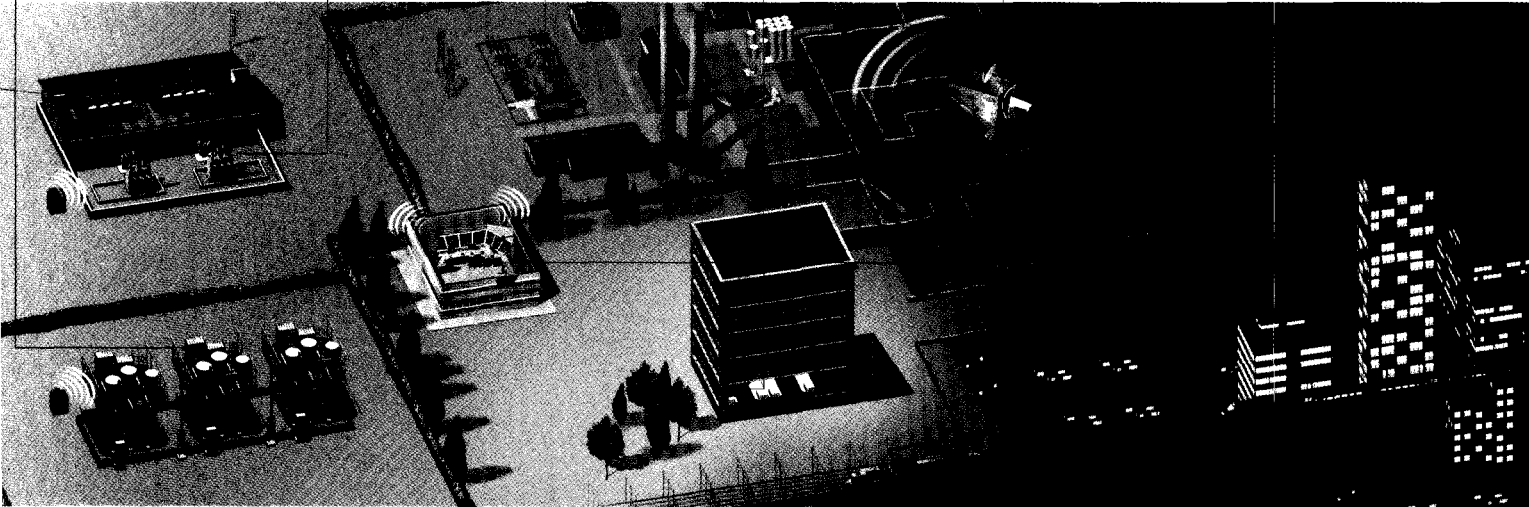
Medium-voltage breakers and switchgear turn electricity on and off to protect installations and electrical equipment. High-speed transfer switches protect critical power flow in hospitals and industries.



Our network management solutions keep power flowing around the world. The latest innovation is the satellite-based Wide Area Monitoring System. ABB's software also enables power trading.



ABB is a major supplier to railway networks and trains. High quality, medium-voltage distribution systems and special products like traction transformers ensure reliable power supply for rail transport.



ABB's Automation Technologies division serves customers across process, manufacturing and consumer industries as well as buildings and infrastructure. This includes turnkey automation solutions for sectors like metals, pulp & paper, cement, automotive, petroleum, chemicals & petrochemicals, pharma & life sciences, marine, mining & minerals and many more.

ABB also offers a comprehensive product portfolio encompassing motors, drives, power electronics, robotics, controls, instrumentation & analytics and a complete range of low voltage products all supported by a world-class service backup and asset management solutions. Unparalleled domain expertise backed by cutting-edge technologies and global experience are the hallmark of ABB's offerings, making it a global leader in industrial automation.



ABB power solutions deliver electricity from the grid to systems throughout the mill, and manage on-site generation of primary or backup power.



Our instruments, control systems and software ensure precision blending of process chemicals and raw materials. They can detect impurities as small as one part in 50 million.



ABB motors and drives provide correct motion and torque for rotating machinery while improving energy efficiency. Our products help to reduce harmful emissions by millions of tons annually.



Our analyzers and quality control systems monitor and adjust product characteristics to meet customer specifications, performing online measurements at up to hundreds of meters per minute.



ABB force measurement systems manage machine tension and balance for smooth operation at varying line speeds. Our first precision force measurement patents date back 50 years.

