ABB (www.abb.com) is a 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 employs about 100,000 people.

ABB is headquartered in Zurich, Switzerland. ABB Ltd shares are traded on the stock exchanges in London/Zurich, Stockholm, Frankfurt and New York.

More than half of ABB’s revenues come from European markets. Asia and the North and South America regions each contribute about one-fifth, with the balance coming from the Middle East and Africa.

The ABB Group was formed in 1988, when the Swedish Asea and the Swiss BBC Brown Boveri merged under the name ABB. Asea’s history dates back to 1883. BBC Brown Boveri was founded in 1891.

Visit us on the web: www.abb.com/about
“ABB’s power and automation technologies help our customers get the most out of their power grids and factories. Together with our customers, we contribute to economic growth, environmental stewardship and societal development.”

ABB’s business has a very clear focus: our products, systems, solutions and services are designed to strengthen power grid reliability and improve industrial productivity.

Our aim is to drive profitable growth – both for ourselves and our customers. By becoming more efficient, we can increase customers’ competitiveness.

Every day, ABB produces and ships hundreds of thousands of products, ranging from tiny low-voltage switches and drives to huge transformers weighing over 1,000 tons.

We provide our utility and industry customers with high-efficiency, energy-saving products and systems which allow them to get the most from their grids and factories, while at the same time lowering environment impact. Together with our customers, we contribute to economic growth, environmental stewardship and societal development.

Our history of innovation goes back to the late 19th century, and we remain firmly committed to this pioneering approach to industrial technology.

We recognize that innovation, supported by strong investment in research and development, is key to maintaining our cutting-edge technologies and strengthening our market leadership positions today, and in the future.

As a global company present in about 100 countries, our manufacturing and research activities are carried out in all regions of the world.

Wherever our facilities are based, customers know the ABB brand stands for top quality power and automation technologies, a pioneering spirit that ensures we fulfill their business needs, and a company that is at home wherever it operates.

Fred Kindle, President and CEO, ABB Ltd

Fred Kindle, President and CEO, ABB Ltd
Keeping the power flowing

Within four years of setting up, BBC delivers its 1,000th electrical machine.

Industries we serve with power technologies:
- Automotive
- Cement, minerals and mining
- Chemical industries
- Commercial and industrial buildings
- Consumer industries
- Electric utilities
- Gas utilities
- Marine and turbocharging
- Metals and foundry
- Oil and gas
- Petrochemicals
- Pharmaceuticals
- Power generation
- Pulp and paper
- Refining
- System integrators
- Tele and data communication
- Water utilities

1893
Asea builds the first three-phase transmission system in Sweden.

1895
Within four years of setting up, BBC delivers its 1,000th electrical machine.
“Power is the lifeblood of our society, and the fuel of the world economy,” says Peter Smits, head of ABB’s Power Technologies division. “We cannot afford blackouts. ABB’s power technology products, systems and services ensure that power plants and power transmission and distribution grids operate reliably.”

Experience, innovation and dedication
Modern power systems are based on highly sophisticated and complex technologies. Dedicated scientists, innovative engineers and experienced business leaders ensure ABB power systems operate reliably. ABB has built its reputation on these capabilities.

Invention and innovation have a long tradition at ABB, and this pioneering spirit still drives us today.

Breakthrough technology
Recent breakthroughs include our HVDC Light technology, which allows for high-voltage direct current transmission both underground and underwater, and opens up new possibilities for improving stability in power grids.

T&D leader
Our utility and industrial customers around the world rely on proven power technologies, researched, developed and made by ABB. In power transmission and distribution ABB is the recognized leader, with a world market share of some 20 percent.

Blackout challenges
The power grids of the 21st century must incorporate such high-end technology if they are to meet all the challenges that lie ahead. The blackouts of 2003 served notice on the utilities, and demonstrated to the wider public, that power grids are vulnerable. In many countries, deregulation has all too often undermined the will to make necessary investments in high-end technology.

Faster and faster
ABB not only provides superior power products, systems and services, but something else that is just as important to customers - speed. Short delivery times, supported by our commitment to be the fastest in everything we do. Power consumers around the world do not want to wait, and should not have to wait, one moment longer for a reliable power supply.

Visit us on the Web:
www.abb.com/ptp

Did you know?
No. 1: ABB is the world’s market leader in power technology transmission and distribution.

World’s longest high-voltage underground cable: The Australian Murraylink used ABB’s HVDC Light technology and won an environmental award.

World’s biggest light switch: ABB holds the world record in switching high current - 200,000 Amps - with its generator circuit breaker using a new type of self-blast technology.

ABB produces 350,000 – 400,000 distribution transformers a year, 1,200 power transformers and hundreds of thousands of instrument transformers.

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<thead>
<tr>
<th>Year</th>
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<tbody>
<tr>
<td>1900</td>
<td>BBC expands abroad and establishes its first foreign subsidiary in Germany.</td>
</tr>
<tr>
<td>1932</td>
<td>Asea builds the world’s largest self-cooling transformer and expands its fan business by acquiring AB Svenska Fäktfabriken.</td>
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<tr>
<td>1933</td>
<td>BBC obtains a patent for turbine rotors constructed of individual steel disks that are welded together.</td>
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</table>
Raising productivity and lowering energy costs

1944
BBC continues to innovate in locomotive technology with the development of the first high-speed locomotive with driving shafts fitted exclusively in bogie frames.

1953
Asea is the first company in the world to manufacture synthetic diamonds.

Industries we serve with automation technologies:
- Automotive
- Cement
- Chemicals
- Commercial buildings
- Consumer industries
- Data communication
- Electric utilities
- Foundry
- Gas utilities
- Industrial buildings
- Life sciences
- Logistics systems
- Marine
- Metals
- Minerals
- Mining
- Oil and gas
- Paper
- Petrochemicals
- Power generation
- Printing
- Pulp
- Refining
- System integrators
- Telecommunication
- Water utilities
Automation technologies

“With ABB’s vast process expertise and broad portfolio of industrial solutions, we can help our customers increase the productivity of their assets while reducing the amount of energy they consume,” says Dinesh Paliwal, head of ABB’s Automation Technologies division.

Solutions made simple
ABB is a global leader in automation technologies. We enjoy both market and technical leadership in our businesses, which include electrical machines, drives and power electronics, low-voltage products, instrumentation, controls and robotics, and have an installed base valued at more than $100 billion.

Our customers use ABB products, systems, software and services to automate and optimize their industrial, commercial and utility operations.

Quality and reliability
ABB’s customers operate diverse and sophisticated plants. Discrete manufacturers like carmakers, or process producers like pulp and paper makers, need the most reliable equipment and control systems available. Since product quality is their competitive edge, our job is to deliver products and services that help them keep that edge.

Lower energy costs
Beyond improving quality and productivity, most ABB automation solutions have the added benefit of helping customers save energy. Our high-efficiency motors and drives reduce the amount of electricity consumed in industrial plants. Our marine propulsion systems cut fuel costs for large cruise liners by up to 15 percent. Our turbochargers boost engine output up to threefold, while saving gasoline or diesel fuel. Our control systems serve as the “brain” that optimizes complex plant processes.

Looking ahead
The future of automation research and development will be guided by customer demand and ABB’s Industrial IT approach – to link installed products and systems together with the information needed to operate and maintain them. Remote access to information about the performance of installed devices, combined with wireless networking and open communication standards, will offer ever-improving asset visibility to enterprise managers.

Visit us on the Web:
www.abb.com/atp

Did you know?
ABB ships more than one million automation technology products each day from 100 manufacturing sites all over the world.

ABB has installed more industrial robots than any other supplier (nearly 120,000) and contributes to the production of every major automaker in the world.

ABB analytical instruments help scientists manage the environment, taking measurements of changes in the earth’s ozone layer from a satellite over 600 kilometers in space.

ABB variable speed drives reduce CO₂ emissions by 68 million tons a year, more than the annual emissions of Finland.

1963
The first data transmission at carrier frequency is sent by BBC over a 735-kV high-voltage line to a power station control unit.

1974
Asea invents and launches one of the first industrial robots.

1984
Installation of the first of nine BBC generators in the world’s largest hydroelectric power station at Itaipú in Brazil.
ABB technology is the backbone of many industries

Take your car, for example. It’s very likely that ABB robots helped assemble the car you drive, in operations ranging from precision material handling, spot welding and production of assembly units to the application of high-quality, environmentally-friendly paint finishes.

Or the newspaper you read. Our most recent studies show more than 85 percent of pulp and paper mills in the world have ABB products installed and running. It could be a transmitter, a transformer or a complete automation system, but a part of the process depends on ABB.

All of this equipment is powered by electricity which probably passed through a substation using ABB transformers, switches or circuit breakers, which may in turn be controlled by our substation automation or network control systems for reliable, environmentally-friendly, cost-effective power transmission.

Increasing productivity

ABB’s research is concentrated on providing world-class devices, systems and services in power and automation technology, the core competence of the group.

ABB is building the foundation of future product development with intensive research in the areas of power device technology, power transmission and distribution applications, power electronics, mechatronics and robotics applications, control systems and optimization, automation networks and devices, software architecture and processes, advanced materials and manufacturing technologies.

Sharpening our competitive edge

ABB’s portfolio of more than 16,000 patents worldwide is constantly reviewed and updated by our 6,000 R&D engineers and scientists.

ABB’s Corporate Research Centers investigate the cutting edge of power and automation technologies. ABB’s global labs are in Raleigh, North Carolina and Wickliffe, Ohio in the United States; Västerås, Sweden; Baden, Switzerland; Ladenburg, Germany; Krakow, Poland; Oslo, Norway; Vaasa, Finland; Bangalore, India; as well as new research facilities in China, located in Beijing and Shanghai.

A global network also links our experts with scientists at prestigious universities and research institutions around the world, where we monitor the frontiers of technology to spot opportunities for our customers.

ABB/university cooperation

Universities are the incubators of future technology. The goal of ABB/university cooperation is to create a network that illuminates new technologies of interest to ABB, to shorten development times by combining our research resources with university research, and to recruit and train talented people.

Some of the collaborative projects underway include research on materials, sensors/micro-engineered mechanical systems, robotics, controls, manufacturing, software, oil and gas, distributed power and communication.

For example, ABB recently announced a long-term strategic collaboration with Imperial College in

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<tr>
<td>1988</td>
<td>Asea and BBC merge to form ABB (Asea Brown Boveri Ltd), one of the largest electrical engineering companies in the world.</td>
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<tr>
<td>1989</td>
<td>ABB acquires some 40 companies in its first year, including the power transmission and power distribution businesses of Westinghouse Electric Corporation.</td>
</tr>
<tr>
<td>1990</td>
<td>ABB commences a large-scale program of expansion in central and eastern Europe after the fall of the Iron Curtain in 1989.</td>
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London to look for joint approaches in the development of optimal power infrastructure, reliable power grids, and optimal manufacturing and customer processes.

ABB maintains long-term strategic collaborations with Cambridge University, the Massachusetts Institute of Technology, Carnegie Mellon University and Stanford University in the United States and the Federal Institute of Technology in Switzerland.

ABB also collaborates with more than 50 other universities, including Chalmers University and the Royal Institute of Technology in Sweden, RWTH Aachen, the Technical University Berlin and Karlsruhe University in Germany, and Tsing Hua University in China.

**Award-winning research**

ABB researchers have been recognized and given awards for innovative robot programming, safeguarding power transmission systems, creating faster and more efficient automation systems, improving electrical insulation, and finding industrial applications for nanotechnology and wireless technology.

Visit us on the Web:

www.abb.com/technology

**Did you know?**

ABB’s System 800xA makes traditional control systems more effective by making all automation functions available in a single user and engineering environment, so that plants and mills run smarter at substantial cost savings.

ABB has a wide area grid management system to stabilize power transmission, while our flexible AC transmission systems maximize transmission and protect installed grids.

ABB has pioneered a simple way of programming robots by using augmented reality, in which an operator can see program inputs overlaying the object being worked on.

ABB’s Azipod podded electric propulsion units improves ships' maneuverability and have logged more than 1.3 million hours of operation with a nearly perfect (99.75 percent) performance record in vessels ranging from icebreakers to car ferries and cruise ships.

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**1998**

ABB acquires Elsag Bailey Process Automation, the largest acquisition in its history, to become the market leader in the global automation market.

**1999/2000**

ABB divests its power generation and transportation businesses.

**2001**

ABB initiates transformation to focus on its core businesses, forming customer-specific divisions.
Sustainable development

A key element of our business
At ABB, sustainability means seeking a balance between economic development, environmental stewardship and social progress. Sustainability is built into different aspects of our business, including the manufacture of energy-saving products, systems and solutions, the sharing of technology throughout our group, particularly with developing countries, and joining multilateral efforts to raise living standards in developing countries.

Our contribution
One of our main contributions to sustainability lies in the strong environmental performance of our products over their complete life cycles. Using life cycle assessments, we supply products and systems that require less material, have greater efficiency and consume less energy, which means lower levels of harmful emissions – particularly during long operating lifetimes.

The triple bottom line approach
ABB follows the guidelines of the Global Reporting Initiative (GRI) – an international, multi-stakeholder undertaking supported by the United Nations. The GRI guidelines are based on a measurable “triple bottom line” reporting approach – covering environmental, economic and social performance. We report accordingly in our annual Sustainability review.

Common efforts
ABB is involved in a wide range of common efforts, partnering with other companies and non-governmental organizations in projects around the world. These include joint sustainable development projects in rural parts of Africa, where ABB provides electrification expertise, and an initiative among leading international companies to embed the protection and promotion of human rights in business activities.

Did you know?
The HVDC Light power system that is unique to ABB has no electromagnetic field, lowers transmission losses for connected AC grids, uses environmentally friendly oil-free cables and – because it can run underground or underwater – avoids unsightly overhead lines.

ABB turbine generators drive Finland’s largest windfarm, located in the Gulf of Bothnia. It is one of many windfarms that use ABB technology.

Chinese environmental authorities are using ABB water quality monitoring and analysis systems to help reduce river pollution.

ABB supports local schools and community projects with money and facilities in countries such as Brazil, India and South Africa, as part of its global social program.

Visit us on the Web: www.abb.com/sustainability

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<tr>
<th>2002</th>
<th>2003</th>
<th>2004</th>
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<tr>
<td>ABB combines its four core business divisions into two – Power Technologies and Automation Technologies.</td>
<td>ABB increases spending on Research and Development to strengthen core businesses. New R&amp;D centers open in India and Singapore.</td>
<td>ABB outlines new China strategy, strengthening its position in key Asian markets. Divestment program of non-core businesses continues.</td>
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Are you a customer seeking quick information about ABB’s products and services? Or an investor, journalist or researcher looking for the latest information about ABB?

ABB’s Web pages provide a wealth of in-depth information about our products, systems, solutions and services.

Customers can also access technical specifications, a local sales contact or an expert in their area of interest. And, of course, you can order ABB products online.

The Web site also serves other stakeholder groups with news and information about ABB, including the latest financial details, research developments and group sustainability policies.

A media section devoted to journalists and researchers includes press releases, speeches, webcasts, and downloadable pictures of our people and technology – an up-to-date library for publications and news services.

Another section is designed for investors, financial analysts and shareholders, and includes share price information, SEC filings, historical data, analyst presentations, credit ratings and contacts.

Two of the cornerstones of ABB - technology and sustainability – feature strongly on the Web site. And for those seeking employment, our careers portal provides details of jobs on offer and career prospects.

In total you will find more than 50,000 pages of facts, details and information about ABB and what we have to offer.

Visit us at www.abb.com

Contact us at www.abb.com