



Welcome to ABB



About ABB

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. ABB is present in around 100 countries.

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, nearly a fifth from Asia, the Middle East and Africa, while about a quarter of revenues come from North and South American markets.

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.

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1883 Ludvig Fredholm establishes Elektriska Aktiebolaget in Stockholm, manufacturers of electrical lighting and generators.

1890 Elektriska Aktiebolaget merges with Wenströms & Granströms Elektriska Kraftbolaget, later shortened to Asea.



“Innovation is the main reason ABB is a leader in power and automation technologies.”

Jürgen Dormann, chairman and CEO, ABB Ltd

ABB's history of innovation goes back more than a century and includes many breakthroughs: the world's first three-phase power transmission system; the world's first self-cooling transformer; the world's first high-speed locomotive with a direct drive system; even the world's first synthetic diamond.

This rate of innovation is the main reason ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact.

In power technologies, there is a greater focus today on high-quality, cost-effective products and processes that help power producers and distributors get the most from their existing plants or grids.

An example: our new GridView software simulates the way power markets work. It provides invaluable information for both generation and transmission planning, operational decision-making and risk management. Another good example is our package substation, which builds high-quality products into a modular design that is delivered faster and costs less to maintain.

In automation technologies, we are creating new services to optimize existing production lines and increase returns from the supply chain. For instance, our new high-voltage motors and direct drives are slashing costs and improving efficiency in pulp and paper, aluminum and chemical and petrochemical plants, while new heavy-duty robots are lifting everything from crates of beer and champagne to cars and heavy forged parts in foundries.

When our customers do well, we pride ourselves on being part of their success. Our people are driven by our customers' needs, meeting the challenge of developing innovative technologies and creating market-specific products and services year after year.

Sincerely,

1891 Charles E. L. Brown and Walter Boveri establish Brown, Boveri & Cie in Baden, Switzerland. Shortly afterwards, Brown, Boveri is the first company to transmit high-voltage AC power.

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



Power to the people

“It truly is all about speed. The Internet enables customers to receive quotes faster than ever before. They can even configure the products they want and get their own optimized design,” says Peter Smits, head of ABB’s Power Technologies division.

Taking the lead with speed

ABB is the recognized leader in power technologies. We provide industrial and commercial customers, as well as electric, gas and water utilities, with a broad range of products, services and solutions for power transmission and distribution.

Traditionally, ordering power equipment took a long time. As power markets deregulate, delivery times must get faster. Utility customers need complete and reliable information to make quick and decisive business plans.

1895 Within four years of setting up shop, BBC delivers its 1,000th electrical machine.

1900 BBC expands abroad and establishes its first foreign subsidiary in Germany.

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



Cleaner and cheaper power

ABB is shaping the future of this market by linking information systems and Internet technology with core production processes. As a result, customers have their orders delivered in weeks rather than months, days rather than weeks, and end-users get more reliable, cleaner and cheaper power.

Our portfolio includes transformers, switchgear, breakers, capacitors and cables, as well as high- and medium-voltage applications, many of which are sold through external channel partners like distributors, system integrators, contractors and original equipment manufacturers.

Looking ahead

Driven by ABB's Industrial IT initiative, information technology will increasingly permeate the research and development of all our products and systems. This will inevitably lead to more intelligent, communicative sub-systems, which can be more efficiently managed. New materials and new ways of manufacturing components with the help of nanotechnology will continuously improve ABB product performance.

Visit us on the web: www.abb.com/ptd

Did you know?

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

ABB generator circuit breakers can interrupt the largest existing short circuit currents – up to 190,000 Amps – with a new type of self-blast technology.

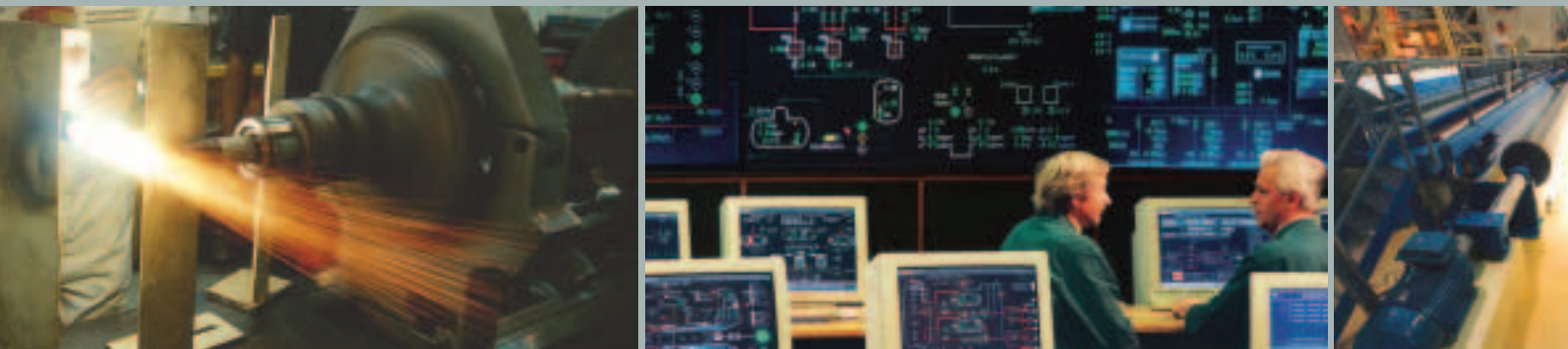
Pioneering work in transmitting power; ABB invented high-voltage direct current (HVDC) and HVDC Light transmission technology.

An environmental breakthrough in cable technology: ABB commissioned the first subsea HVDC cable with oil-free insulation, linking substations near New York and Long Island.

ABB's control and protection relays for medium-voltage switchgear – used to control power plants around the world – are now equipped with a short message system (SMS) to alert operators immediately in case of a problem.

1932 Asea builds the world's largest self-cooling transformer and expands its fan business by acquiring AB Svenska Fläktfabriken.

1933 BBC obtains a patent for turbine rotors constructed of individual steel disks that are welded together.



The enterprise autopilot

“Our deep process expertise and complete Industrial IT portfolio positions ABB as the preferred partner to create value for customers,” 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 segments including electrical machines, drives and power electronics, low-voltage products, instrumentation, controls and robotics, and have an installed base valued at more than US\$ 100 billion.

We provide products, systems, software and services for the automation and optimization of industrial, commercial and utility operations.

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



Quality and reliability

ABB's customers operate sophisticated plants. Discrete manufacturers like carmakers, or process producers like pulp and paper makers, need the most reliable equipment and control systems. The quality of their products is their competitive edge, and it is our job to deliver products and services to help them keep that edge.

Besides strong domain knowledge, we offer customers key technologies that include Industrial IT-based measurement, control, instrumentation, process analysis, drives, motors, power electronics, robots, software, low-voltage products, field maintenance and asset management services – sold both directly by ABB and external channel partners such as distributors, system integrators, contractors and original equipment manufacturers.

Looking ahead

The future of automation research and development will be guided by customer demand and ABB's Industrial IT vision – to link our products and services together with the information needed to run, service and maintain them. It will include data integration from device to enterprise level, as well as advanced process modeling for plant control and asset optimization.

Visit us on the web: www.abb.com/atd

Did you know?

ABB ships 600,000 automation technology products a day from 100 manufacturing sites all over the world.

ABB was the first company in the world to sell 100,000 robots. The latest addition is a heavyweight robot capable of lifting 500 kilograms.

ABB's wireless technology will allow robots to move around without cables, and frees technical operators to run factories with a pocket computer.

ABB services an installed base of more than 30,000 plants worldwide with programs for preventive maintenance, lifecycle optimization, and full service asset management.

ABB's way of measuring the density of paper – developed in 1950 and now used globally on paper machines – was the world's first peaceful application of atomic energy.

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.

Technology



ABB technology is the backbone of many industries

Take your car, for example. It's very likely 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.

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.

You might even operate your car with our "clean fuel," extracted from reservoirs using ABB's upstream equipment and processed in a refinery with ABB cracking technology.

Increasing productivity

Our power and automation technology platforms eliminate unnecessary research, and save both ABB and its customers money. A large part of our work is concentrated on Industrial IT, our patented concept for linking products and services together with the information needed to run, service and maintain them.

ABB is also building the foundations of future product development with intensive research in areas like wireless technology, Micro Electro-Mechanical Systems (MEMS), mechatronics, power electronics, and software development.

A global network links our experts with scientists at more than 50 prestigious universities and research institutions around the world, where we monitor the frontiers of technology to spot opportunities for our customers.

Visit us on the web: www.abb.com/technology

Did you know?

ABB has developed a high-speed method of making car windshields, which is faster and more efficient than manual assembly in a factory.

ABB has pioneered the installation of underground micro-sensors to detect micro-earthquakes and gather valuable information about oil and gas fields.

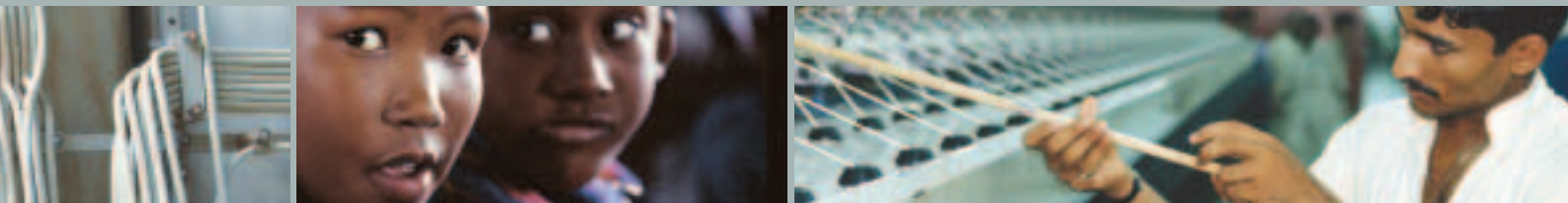
A high-speed transfer switch has been developed which reacts virtually instantly to a power failure and immediately switches to a second power source.

Azipod podded propulsion units, which eliminate the need for rudders in ships, are now being used by a wide variety of vessels.

1984 Installation of the first of nine BBC generators in the world's largest hydroelectric power station at Itaipú in South America.

1988 Asea and BBC merge to form ABB (Asea Brown Boveri Ltd), one of the largest electrical engineering companies in the world.

Sustainability



A key element of our business

At ABB, sustainability means sharing technology throughout our group, particularly with developing countries. We hope to make a practical contribution to raising the quality of life – economically, environmentally and socially.

Our contribution

Our main contribution 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 less harmful emissions – particularly during long operating lifetimes.

The triple bottom line approach

One of the biggest problems of reporting on sustainability performance has always been the lack of internationally agreed standards and measurements.

ABB follows the Sustainability Reporting Guidelines, first published in mid-2000 by the Global Reporting Initiative (GRI) – an international, multi-stakeholder undertaking supported by the United Nations. The GRI guidelines are based on a “triple bottom line” reporting concept – covering economic, environmental and social performance.

ABB is part of the UN Global Compact, working actively to integrate its principles into our activities around the world.

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

Did you know?

The world's longest underground high-voltage interconnection, the Murraylink power project, which uses ABB's HVDC Light technology, won a national environmental award in Australia.

Water quality monitoring and analysis systems are provided by ABB to Chinese environmental authorities to help reduce river pollution.

ABB helped restore street lighting to war-torn Kabul, delivering a total of 1,200 lamp posts and electrical equipment to the Afghan capital.

As part of a global social program, ABB supports a number of local projects and schools in Brazil with facilities and money.

1989 ABB acquires some 40 companies in its first year, including the power transmission and power distribution businesses of Westinghouse Electric Corporation.

1990 ABB commences a large-scale program of expansion in central and eastern Europe after the fall of the Iron Curtain in 1989.

Serving customers



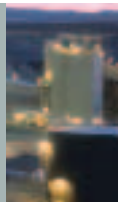
Creating value for customers

After ABB updated the distribution system of Cooperativa Eléctrica de Pergamino, a consumer-owned utility cooperative in Argentina, revenues rose so quickly that the multimillion dollar investment paid for itself within three years. "We selected ABB on the strength of their product excellence, local presence, total supplier capability and, not least, the fact that they quoted the best price," says Miguel Dalbó, the cooperative's technical manager.



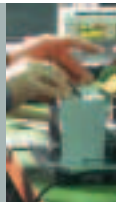
Technology is key to success

Netherlands-based multinational Basell Polyolefins is in little doubt about why it chose ABB's Industrial IT for a new, multi-million dollar HDPE pipe plant in Germany. "ABB Industrial IT solutions provide a full range of quality services and products for our plant. We chose ABB because of their knowledge and Industrial IT portfolio. We are confident of the usual good quality and smooth cooperation in the course of the project execution," said Dr. Michael Aulbach, project manager.



An eight-day "miracle"

A short circuit ruined an induction motor at an Indonesian cement mill, putting the company on the brink of financial disaster. Only eight days later a replacement motor, voltage regulation transformer and liquid starter had been shipped from Europe and were up and running at the mill. "The eight-day shutdown was a miracle and ABB's outstanding performance was a sign of a new generation in management and cooperation," said Rachid Hamdani, vice-president at the mill, PT. Semen Bosawa Maros.



Reliability and quality

When Tjumenenergo, Russia's second largest utility, needs high-quality power products that can be delivered quickly, it turns to ABB. Speed of delivery was key to winning an order for 38 dead-tank circuit breakers sent to Tyumen, a region about 2,000 kilometers east of Moscow. "We have a very good relationship with ABB. Our first concern is quality – because we must guarantee the flow of power to consumers – and ABB is very reliable," says Vlad Serejkine, the head of purchasing for Tjumenenergo.



Speeding up distribution

A new terminal management system from ABB will enable Petrobras Distribuidora to improve efficiency, and speed up the distribution of gasoline, oil and fuel to its 10,000 corporate customers and 7,000 service stations in Brazil. "ABB's ability to provide a complete terminal automation solution was an important consideration in awarding this contract," said Raul Delgrado, project manager for Petrobras Distribuidora.



Outstanding professionalism

ABB is supplying its AC drilling drive system to BP's Thunder Horse oil and gas platform in the Gulf of Mexico. When completed, it will be the largest semi-submersible platform in the world. "I have worked with ABB on similar projects before, and have experienced their professionalism to go beyond competitive solutions and project execution. The documentation of the projects is outstanding compared to other suppliers," said David Evans, project manager for BP America.

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.

ABB on the Internet



www.abb.com

Are you a customer looking for quick information on products and services? ABB's Web pages can help you find the product, technical specifications, a local sales contact in your country of origin and even an expert in your area of interest.

You can exchange information and download specific drawings or mathematical calculations. More, you can find the configuration data for a substation or get condition monitoring statistics for preventive maintenance on motors and machines.

In some cases, you can immediately order your product online and have it delivered in weeks or days. The site is also designed to serve other stakeholder groups.

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

Another part of the site is designed for investors, analysts and shareholders. It includes share price information, SEC filings, historical data, analyst presentations, credit ratings and contacts.

Other sections are devoted to academics and recruits, non-governmental organizations, and the everyday Web surfer. There are also some fun elements like online learning tools, electronic technology games and an interesting historical timeline covering ABB over the past 120 years.

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2001 ABB initiates transformation to focus on its core businesses, forming customer-specific divisions.

2002/2003 ABB focuses on its core power and automation technologies businesses.



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