

COMPANY PROFILE

# **ABB in Thailand**



# **History of the ABB Group**

The ABB Group was formed in 1988 through a merger between Asea AB and BBC Brown Boveri AG. Initially founded in 1883, Asea AB was a major participant in the introduction of electricity into Swedish homes and businesses and in the development of Sweden's railway network. In the 1940s and 1950s, Asea AB expanded into the power, mining and steel industries. Brown Boveri and Cie. (later renamed BBC Brown Boveri AG) was formed in Switzerland in 1891 and initially specialized in power generation and turbines. In the early to mid-1900s, it expanded its operations throughout Europe and broadened its business operations to include a wide range of electrical engineering activities.

In January 1988, Asea AB and BBC Brown Boveri AG each contributed almost all their businesses to the newly formed ABB Asea Brown Boveri Ltd, of which they each 50 percent. In 1996, Asea AB was



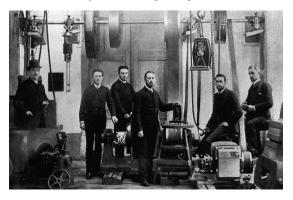
Transformer in the old Trafo Factory in Baden during the BBC years.

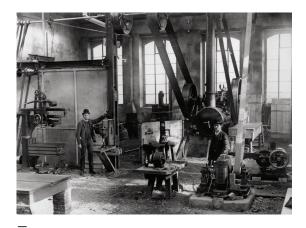


At the beginning of the 20<sup>th</sup> century, electric motors began to replace steam engines as the main source of power for machinery. BBC alternating current motors for one-, two- and three-phase current played an important part in this development.

renamed ABB AB and BBC Brown Boveri AG was renamed ABB AG. In February 1999, the ABB Group announced a group reconfiguration designed to establish a single parent holding company and a single class of shares. ABB Ltd was incorporated on March 5, 1999, under the laws of Switzerland. In June 1999, ABB Ltd became the holding company for the entire ABB Group. This was accomplished by having ABB Ltd issue shares to the shareholders of ABB AG and ABB AB, the two companies that formerly owned the ABB Group. The ABB Ltd shares were exchanged for the shares of those two companies, which, as a result of the share exchange and certain related transactions, became whollyowned subsidiaries of ABB Ltd. ABB Ltd shares are currently listed on the SIX Swiss Exchange, the NASDAQ OMX Stockholm Exchange and the New York Stock Exchange (in the from of American Depositary Shares).

Three pioneers in electrical engineering. In 1888, three years before the Swiss BBC company was founded, Charles E.L.Brown (left) and Walter Boveri (second from the left) met Oskar von Miller (third from the right) in Oerlikon near Zurich. The three were destined to play a central role in history of electrical engineering.





First workshop at BBC in Baden, 1892.

# **ABB in Thailand**

ABB has a history embedded in the development of Thailand's utility and industrial sectors since the first motor delivery to Siam Cement in 1913.



ABB's Thai manufacturing base is located in the Bangpoo Industrial Estate. Here, we have access to our own oil laboratory along with assembly plants for our myriad of products, ranging from low voltage capacitors, power transformers, to medium and low voltage switchgear.

To strengthen our after sales service and to serve our customers nationwide, ABB has established:

- Rayong Business Center in Rayong Province
- Services branches at Laem Chabang, Saraburi,
- Prachinburi and Khon Kaen
- Robotic Application Center in Samutprakarn
- ABB Robotics Machine-Tending in Rayong
- Marketing representative offices in Myanmar, Laos and Cambodia

For more than four decades that ABB has been collaborating with individuals, authorities, and organizations, especially customers in the utilities and industrial sectors as well as in the transport and infrastructure sector to support the growth of Thailand's economy. We will continue to deliver technologies and solutions that enable customers to develop their capabilities and improve competitiveness to ensure sustained profitable growth

#### **ABB** Thailand

- Registered capital over \$34 million
- Accumulated investment in Thailand is over \$80 million

# **Key milestones**

1978 ASEA established in Thailand

2006

2008

Center

established

**Rayong Business** 

established





1982



1988 ABB

1992

LV & MV

started

2012

started

Khon Kaen

Service branch

Switchgear

manufacturing

established in Thailand by merging of ASEA and BBC



1990 Capacitors

manufacturing at Bangpoo started



1991 Power Transformers manufacturing at

Bangpoo started



2014 Start business in Myanmar



2016

Start business in Cambodia



2001 Laem Chabang Service branch

Prachinburi Service branch started





2011 Robotics Application Center (RAC) at Bangpoo started



2018 Celebrating 40th Anniversary ABB in Thailand

40<sup>th</sup> Anniversary ABB in Thailand

2017 Start business in Laos



2017 **Robotics and Machine Tending** Limited at Rayong province

started





# Divisions

# **Electrification Products division**

ABB offers a full range of technologies across the electrical value chain from substation to the point of consumption to improve the reliability and efficiency for low- and medium-voltage electrical installations, including EV infrastructure, solar inverters, modular substations, distribution automation, switchgear, measuring and sensing devices, control products, including KNX systems for home and building control, wiring accessories, enclosures and cabling systems and power protection.

Our portfolio:

- Medium Voltage Products
- Low Voltage Products and Systems
- Solar Inverters
- UPS and Power Conditioning
- Electric Vehicle Charging Infrastructure

# **Robotics and Motion division**

The Robotics and Motion division provides products, solutions and related services that increase industrial productivity and energy efficiency. Its motors, generators, drives and robotics provide power, motion and control for a wide range of automation applications. The leading position in wind generators and traction converters complements the industrial focus, leveraging joint technology, channels and operations platforms.

Our portfolio:

- Drives
- Motors and Generators
- Robotics



## **Power Grids division**

A global leader in power technologies that help balance the growing need for electricity while reducing environmental impact as a partner of choice for enabling a stronger, smarter and greener grid. The division serves utility, industry, transportation and infrastructure customers and is focused on addressing key areas such as the integration of renewable energies, growing network complexity, grid automation and microgrids.

Our portfolio:

- Power Grids
- Semiconductors
- Substations and Electrification
- Substation Automation Protection and Control
- Transformers
- Communication Networks
- Enterprise Software
- FACTS
- High Voltage Products
- HVDC
- Distributed Energy Resources and microgrids



# Industrial Automation division

The main focus of the business is to provide customers with products and solutions for instrumentation, automation and optimization of industrial processes. The industries served include oil and gas, power, chemicals and pharmaceuticals, pulp and paper, metals and minerals, marine and turbocharging. Key customer benefits include improved asset productivity and energy savings.

Our portfolio:

- Control System
- Measurement Products
- Turbo Charging
- Programmable Logic Controllers
- Process Automation Service

# ABB Ability<sup>™</sup> Creating Value through Digitalization



ABB Ability<sup>™</sup> is our unified, cross-industry digital capability — extending from device to edge to cloud — with devices, systems, solutions, services and a platform that enable our customers to know more, do more, do better, together.

ABB Ability<sup>™</sup> used digitalization to close the loop between technology, services, and people, and thereby unlock value while building the framework for the future. We've been writing this future with our clients for years, with an installed base of 70 million connected devices and 70,000 control systems. ABB Ability<sup>™</sup> unifies our expertise and insights across multiple industry sectors and technology platforms

The digitized application of that expertise differs with each project – we apply combinations of our technology, services, and the data know-how address our clients' unique mission-critical needs, and then innovate over time – but our value proposition is consistent: Let's write the future. To find out more about some of the industries ABB Ability is used in, please scan the QR code below.

abb.com/abb-ability

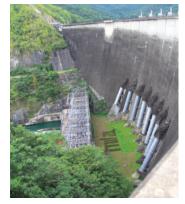


ABB Ability solution catalog



# **Key references**

### Utilities





#### **Bhumibol Dam**

ABB supplied 7 units of 230 kV 66 MVA single phase Generator Step-up Transformers and modernized DCS for unit 1 & 2 with ABB latest technology 800xA system which were installed at Bhumibol Dam in Tak province.

#### Electricity Generating Authority of Thailand (EGAT), Nan 2 Substation

ABB supplied 500 kV Gas Insulated Type ELK-3 including service of installation, commissioning supervisor and Control Protection & Relay Boards. This project is under Transmission System Development for Power Purchase from Hongsa Lignite Thermal Power Plant Project which is the first lignite Thermal Power Plant in Laos.

# **Oil, Gas and Petrochemical**



#### **IRPC Public Company Limited**

ABB dismantled and re-installed 6.8 MW, 6.6 kV motor, MV drive ACS5000 water cooled and transformer including testing and commissioning system for Wet Gas compressor at IRPC plant in Rayong province.

#### Thai Oil Public Co., Ltd.

ABB supplied an automation system for the Power Management System (PMS) to its refinery plant located near Laem Chabang Port in Sriracha, Chonburi.

### **Commercial Buildings**



Suvarnabhumi Airport

Suvarnabhumi Airport is powered and automated by an extensive range of ABB products and systems, including an energy-efficient intelligent system that controls and monitors every single light in one of the world's largest airport terminals.



#### MEGA Bangna

Mega Bangna, an IKEA Project, utilizes ABB's compact 69 kV GIS Substation together with our MicroSCADA Pro System, a futureproof system which lowers operation and maintenance cost.

#### Siam Paragon & other department stores

ABB supplied High Voltage GIS Substation including 115, 69 kV GIS, Power Transformer, 24 kV Switchgear to Siam Paragon and other department stores.

### Transportation





Mass Rapid Transit Authority of Thailand (MRTA), purple line Bangyai-Bangsue Section

ABB supplied Low Voltage Switchgear, ArTu K including Low Voltage equipment; Low Voltage circuit breaker and control products.

#### **Bangkok Metropolitan Administration**

ABB supplied the first SCADA and RTU for railway application to Traffic and Transport Department, Bangkok Metropolitan Administration under Bangkok Mass Transit Silom Extension Project (BTS Extension).

### **Process Industries**



#### Thai Toray Synthetics Company Limited (TTS) Ajinomoto Co., (Thailand) Ltd.

ABB supplied a Turnkey substation package including all major electrical equipment; 115 kV outdoor Gas Insulated Switchgear (GIS), Power Transformer, 6.6 kV switchgear, Scada System, relay protection, substation building, engineering, erection and test commissioning to its plant in Ayutthaya Province.



#### Siam Mortar Co.,Ltd.

ABB supplied the integrated system of LV Switchgear and 800xA system of which the formula program was developed and innovated by Siam Mortar and ABB.

#### Thainamthip Co., Ltd.

ABB supplied a Turnkey substation package including 115/22 kV Outdoor GIS substation, 115 kV Gas Insulated Switchgear, 20 MVA Power Transformer, 22 KV switchgear, Scada system, relay protection, substation building, engineering, erection and test commissioning.



Summit Auto Body Industry Co., Ltd. (SAB), Summit Group

ABB supplied IRB 6660, our fastest robot with press automation system for high-production press lines to SAB, Summit Group, the manufacturer of auto body parts in Laemchabang Industrial Estate, Chonburi Province.



#### Thai Summit Group (TSG)

ABB supplied Thai Summit Group(TSG), the leading auto parts manufacturer of Thailand with the IRB5400 Bumper paint robot at its plant in Samutprakarn. With IRB5400, it gives less paint consumption which creates a healthier environment for workers and leveling up paint quality from smooth robot motion.

# **Power Plants**



#### Amata B. Grimm Power (Rayong)

ABB supplied 115 kV Hybrid Switchgear Type PASS MO including service of installation and commissioning supervisor to Amata B. Grimm Power 1 Limited, Amata B. Grimm Power 2 Limited.

#### Bangkok Solar Power Co., Ltd.

ABB helped Bangkok Solar Power Co., Ltd. one of the largest Photovoltaic module manufacturers and EPC of solar power plants in Thailand, by delivery of the solar inverters, electrical products and service package for its 5 projects 22.75 MW totally.



#### Natural Energy Development Co., Ltd. (NED)

ABB helped NED, the world largest solar power plant (60 MW) by commissioning the MicroSCADA Pro substation automation system, electrical systems, power monitoring and control units, at the Lopburi photovoltaic solar power plant in central Thailand.

#### Gulf JP Co., Ltd.

ABB supplied 21 units of 46-54 MVA 115 kV power transformers to Gulf JP Co.,Ltd. for 110 - 120 MW Combined Cycle Power Plant at 7 sites in 4 provinces; Saraburi, Pathumthani, Chaechoengsao and Rayong.

# **ABB Service** ABB Ability<sup>™</sup> Collaborative Operations



Enabling customers to remotely collaborate & optimize with ABB domain experts 24/7 across industries

# **ABB Service Branches**







Installation and commissioning	3. Training	4. Spares and Consumables	5. Maintenanc	5. Maintenance 6. Repairs		7. Engineering and consulting		es	9. Extensions, upgrades and retrofit	
ABB Service Timelir	ne									
1975	1980	1985	1990	1995	200	0	2005	;	2010	
	<b>1978</b> Asea Co., Ltd. established in Thailand	<b>1982</b> BBC Brown Boveri Co., Ltd. established in Thailand	<b>1988</b> The Swedish Asea Limited and Swiss BBC Brown Boveri Limited merged to become Asea Brown Boveri Limited (ABB)	1992 - Workshop established in Rayong - ABB Service Division started	<b>1996</b> Investment in High Voltage GIS Commissioning tools and qualified Supervisor for the region	<b>2001</b> Prachinburi Service Brand	ch started	<b>2006</b> Laem Chabang Service Branch started	2009 Completed expansion of transformer service facilities for South Asia region	

### **Highlights of ABB Service**

- · All about service: www.abb.com/service
- · Information on ABB Ability™ Solutions : Customer portal
- · Customer Installed Base Management tools myABB and myIB
- $\cdot$  Over 200 professional services staffs available to support ABB's customers
- · Over 30 years of experience in service operations
- · Continuously develop and practice our service personnel through ABB global network
- · State-of-the-art service tools and facilities
- $\cdot$  Keep track customer life cycle phase through our own installed base tool · Utmost pride in our policy of providing the best service and reliability to our customers

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- Engineering Center
- Service Center
- Training Center
- Demonstration Facilities
- 2. Manufacturing Plants: Bangpoo Industrial Estate, Samutprakarn
- Power Transformers
- Low Voltage Capacitors
- Medium Voltage & Low Voltage Switchgear
- Robotics Application Center



- Complete Industrial Services
- Electrical & Instrument Contracting Services
- Complete Transmission & Distribution Services
- Automation Products Office
- Training & Demonstration Facilities





4. Laem Chabang Service Branch 5. Prachinburi Service Branch

6. Saraburi Service Branch



7. Khon Kaen Service Branch

10. End-of-life

11. Replacement

2015

2017

2011 Robotics Application Center (RAC) started

2012 Khon Kaen Service Branch started



# ABB Limited

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#### Manufacturing Plant

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