

Industrial Services and Solutions Pulp and Paper



Power and productivity
for a better world™



Quality Control Solutions

- [Quality Control Systems](#)
- [Web Inspection Systems](#)

Control Systems

- [Services](#)
- 800xA
- Advant OCS with Master SW
- Advant OCS with MOD 300 SW
- Compact 800
- Freelance
- Safety Systems
- SATT
- Symphony DCI System Six
- Symphony Harmony INFI 90
- Symphony Melody
- Symphony Plus

Medium Voltage Products and Systems

- [Services](#)
- Circuit Breakers
- Compact Secondary Substations (CSS)
- Contactors
- Distributed Energy Storage Modules
- E-Houses (Application Modules)
- Fault Current Limitation & Arc Protection
- Fuses and Cutouts
- Instrument Transformers & Sensors
- OEM Switchgear Kits & Parts
- Reclosers & Sectionalizers
- Smart Voltage Components
- Surge Arresters
- Switches & Disconnectors
- Switchgear and Motor Control
- Vacuum Interrupters & Poles

Motors and Generators

- [Service](#)
- Energy Efficiency
- High Voltage Induction Motors
- IEC DC Motors
- IEC Low Voltage AC Motors
- Motors and Generators for Explosive Atmospheres
- Servomotors
- Synchronous Generators
- Synchronous Motors
- SynRM motor and drive package
- Traction motors and generators
- Wind Power Generators

Measurement Products

- [Service](#)
- Actuators and Positioners
- Analytical Instruments
- Device Management, Fieldbus and Wireless
- Flow Measurement
- Force Measurement
- Level Measurement
- Natural Gas Measurement
- Pressure Measurement
- Process Analytics
- Recorders and Controllers
- Temperature Measurement

High Voltage Products

- [Service](#)
- Capacitors and Filters
- Circuit Breakers
- Gas-Insulated Switchgear
- Instrument Transformers
- Surge Arresters
- Switchgear Modules

Transformer Components

- Bushings
- Composites
- Distribution Components
- Insulation Materials
- Oil Treatment
- Power Components
- Tap Changers

Turbocharging

- [Service](#)
- Turbochargers

Mechanical Power Transmission Products

- Bearings
- Conveyor Components
- Couplings
- Gearing
- PT Components

Robotics

- [Service](#)
- Application Equipment & Accessories
- Applications by Industry
- Controllers
- Robots
- Software Products

Collaborative Production Management

CPM Applications

- CPM Core

Drives, inverters and converters

- Drive Services
- DC Drives
- Drive Options
- Drive PC Tools
- Low voltage AC drives
- Medium Voltage AC Drives
- Solar inverters

Low Voltage Products and Systems

- [Service](#)
- Cable Distribution Cabinets
- Circuit Breakers
- Connection Devices
- Control Products
- Door Entry Systems
- Enclosed Switches
- Enclosures
- Fusegear
- Low Voltage Systems – IEC
- Low Voltage Systems – NEMA
- Modular DIN Rail Products
- Power Quality Products
- Software Tools
- Switches

Reactors

- Liquid-Filled

Power Protection & Automation Products

- Protection and Control (Distribution)
- Protection and Control (Transmission)
- Relion
- Substation Automation

Metallurgy Products

- [Service](#)
- Application Steel Strips
- Stirrers & Brakes for Steel
- Stirrers for Aluminium Furnaces

Generator Circuit Breakers

- Flexible Connection Kit
- HEC 7/8
- HECPS-S
- HECS
- HECS-R
- HGI
- HVR-63

Insulation Components

- Cast Epoxy
- Generator Insulation Kits

Power Electronics

- Control Systems
- Energy Storage & Grid Stabilization
- Excitation Systems & Combined Solutions
- Generation
- Grid interconnection
- High Power Rectifiers
- Power Electronics Service
- Power Quality
- Sensors
- SYNCHROTECT® Synchronizing Products
- Traction Converters

Transformers

- [Service](#)
- Dry-special
- Dry-type
- Liquid-filled

Semiconductors

- GTO
- IGBT and Diode Dies
- IGBT and Diode Modules
- IGCT
- Presspack Diodes
- Silicon Surge Voltage Suppressors
- Thyristor

Power Cables and Cable Accessories

- Cable Accessories
- Cable System (36 kV and above)

As a proven leader in the Pulp & Paper Industry, and with continued investment and expansion of service products and solutions, ABB is uniquely positioned to support and optimize the performance of your production systems throughout the entire lifecycle.

Contact us to learn more about how our services and solutions can help you to:

- **Keep production running:** Four ways to keep production running (video)
- **Maximize system performance:** How ABB service extends the lives of automated systems (video)
- **Optimize process performance:** ABB's three step optimization process (video)
- **Deliver operational excellence:** Energy efficiency (video)

Ask us about Consulting and Asset Centered Services:

- Crane maintenance services
- Data center equipment services
- Electrification & power distribution services
- Energy management services
- Environmental system maintenance and reporting services
- Motors & drives management services
- Plant network services
- Productivity management services
- Regulatory management services
- Reliability services
- Third party automation services
- Third party spares parts management services
- Transformer management
- Water treatment plant services

About this document



Scan this QR code, or visit <http://goo.gl/2xFXy>, to receive a PDF version of this document, which includes hyperlinks to additional ABB.com information.

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Why ABB Solutions are Better

In-depth industry expertise and solutions

Ask about: ABB's ranking as number one in supplier provided services*

ABB's broad portfolio of services for automation and power provide world-class support, the highest level of competence, and deep understanding of your systems, applications, and processes. ABB services improve equipment productivity, minimize costs throughout the complete lifecycle, and extend the useful equipment life.

The leader in control systems

Ask about: ABB's ranking as the number one control system supplier for more than ten years

As the #1 ranked distributed control system provider in the world for over 10 years, ABB lays claim to a broad knowledge base including hardware, software, applications (continuous control, batch, QCS and DCS-based SCADA), project services (project design through project management and startup), and non-contract maintenance services. ABB Leads the market in the following key industries; number one in Oil & Gas, Pulp & Paper, Cement & Glass, Mining & Metals, Continuous Applications; and number two in Electric Power, and Batch Applications*.

The gold standard for system evolution

Ask about: Automation Sentinel, control system lifecycle support and evolution program

No one's evolution program makes it easier and more affordable to evolve a control system. ABB system evolution makes it easy to remain competitive and position production operations for growth.

Evolution programs prepare ABB automation systems for new technology as it becomes available and continuously evolves systems to new levels of control and connectivity. Lifecycle support programs adapt to meet strategic requirements at every stage of a control system lifecycle. No other control system vendor can offer this level of flexibility.

Optimization services with documented ROI of 10% to 1,000%

Ask about: Optimization Services for Industrial Boilers, Paper Machines, Control Loops, Tuning and System Performance, Alarm/Event Management, Batch Processes, Advanced Process Control.

ABB Optimization Services deliver profitability. They use proven, continuous improvement methodology, special tools, and knowledge of systems and processes, to identify and release valuable improvement opportunities.

ABB optimization engineers are creative and single-minded. They enjoy improving processes, and hold the highest level of expertise in the field.

World-class best practices for preventive maintenance

Ask About: ServicePro

ServicePro provides best preventive maintenance programs for every ABB technology, developed by ABB R&D; and refined by customers and 1,000+ experienced ABB field engineers. Maintenance processes are continuously measured, reported, and tracked then synchronized with the ServicePro database. This process ensures that the latest and best maintenance procedures are available.

The application of these best practices ensures system and process availability are improved, downtime and maintenance cost reduced and automation life extended.

Cutting-edge service-enabling technology

Ask About: ServicePort

ABB ServicePort, a software/hardware device installed on site, enables ABB experts to provide local support through remote-enabled technology. ServicePort allows ABB assistance with system configuration, process optimization, preventive and corrective maintenance, work order tracking, spare parts, diagnostics, improvement implementation, condition monitoring, and allows faster response and more cost effective access to ABB experts.

*Rankings according to ARC's 2010 Distributed Control System Worldwide Outlook Report

ABB Optimization services provide documented savings of 5% – 20% and ROI of 10% – 1,000%

Optimization begins with a fingerprint

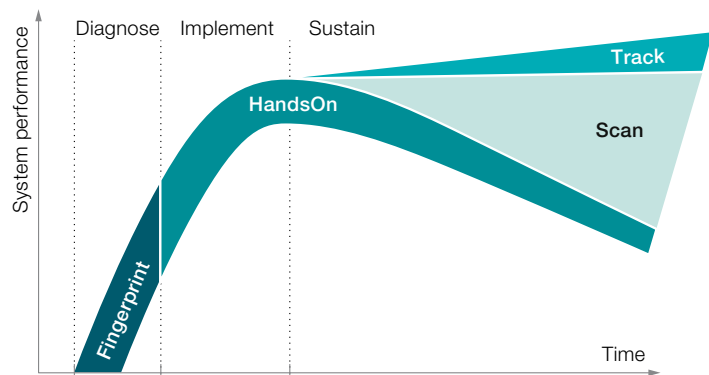
Paper making optimization has been the goal of the paper industry for many years. There are many barriers which can reduce production and conversion efficiencies, resulting in lost profits. The optimization process provides an engineered approach that allows ABB to identify these barriers through system and process analysis. Production disturbances and improvement opportunities are identified, and solutions are provided through a customized improvement implementation plan.

Once improvements have been made and optimization goals have been met, ABB expertise is available to sustain the financial and operational benefits gained through the optimization process.

The optimization process

Three step improvement process.

- **Diagnose.** Valuable diagnostic report to identify machine reliability problems
- **Implement.** Hands-on delivery of improvement services to increase reliability
- **Sustain.** Manage and continue the improvement process through renewable services



Scan and Track sustaining services enable system data to be captured and analyzed on a periodic or continuous basis.

Optimization report

The included detailed report, which contains collected system data and analyses as well as system performance improvement recommendations, is a valuable component of the optimization service.

Fingerprint	Savings Potential per Area
Industrial Boiler	\$50,000 – \$250,000
Batch Digester	not documented
Loop Performance	\$90,000 – \$220,000
Stock Approach	\$45,000 – \$160,000
Paper Machine (PM)	\$150,000 – \$350,000
Off-Machine Coater	\$75,000 – \$175,000
Pulp Dryer	\$100,000 – \$250,000
Supercalender	\$100,000 – \$250,000
Tissue Machine	\$150,000 – \$350,000
Color	\$150,000 – \$210,000
Transition MD Grade Change	\$60,000 – \$120,000
Profile Grade Performance	\$35,000 – \$110,000
Transition Profile Recovery	\$70,000 – \$150,000
PM Drives Runnability	not documented
PM Drives Speed	not documented
Alarm Management	not documented
800xA System	not documented
Harmony System	not documented

Service Offerings



Advanced Services

Plant automation provides access to valuable process, production and equipment data. The ability to analyze and utilize this data effectively is paramount to decision-making and response time. ABB Advanced Services use proven, continuous improvement methodology, specialized tools, and knowledge of the systems and processes in your operation to identify and release valuable improvement opportunities.

- Asset optimization:
 - [Loop Performance Service](#)
 - [LoopScan and LoopTrack](#)
 - [Optimization Implementation](#)
- [Fingerprint Diagnostics](#)
- [Energy efficiency](#)
- [Production optimization](#)
- [Power quality and grounding audit](#)
- [Microsoft patch management](#)
- [Cyber security:](#)
 - [Antivirus management](#)
 - [System backup/restore management](#)
 - [Control system security validation](#)
 - [Risk assessment](#)
 - [Remote monitoring and operations room](#)
 - [NIDS/HIDS management](#)
 - [User management](#)
 - [Virus removal](#)
 - [Support creation of a security organization](#)
 - [Security policy creation](#)
- [Operational excellence reliability](#)
 - [Service environment](#)
 - [Management of underpinning contracts](#)
 - [Plant integrity support](#)
 - [System ownership support, technical account management](#)
- [Criticality classification](#)

Spare Parts and Repair Services

ABB's global logistics network is strategically positioned to provide fast parts and repair service throughout the world, 24 hours a day. Our organization uses standardized processes, tools and metrics to ensure that components are delivered efficiently to your site.

- [Parts Repair Service](#)
- [Parts Refurbishment Service](#)
- [Remote Troubleshooting](#)
- [Corrective maintenance](#)
- [Parts inventory management](#)
 - [Inventory Access Program](#)
 - [Lease to own spare parts](#)
 - [Parts contracts](#)
- [Parts Fingerprint](#)
- [Pre-Owned Parts](#)
- [Parts Test Service](#)
- [Emergency Parts Service](#)
- [Parts exchange services](#)
- [Business OnLine](#)
- [Parts maintenance, repair, and overhaul \(MRO\)](#)
- [Spare Parts Service](#)
- [Parts kits](#)
- [Preventive Maintenance Kits](#)
- [Extended warranty time](#)

Service Offerings



Evolution and Retrofit Services

The ABB lifecycle management model provides framework used to develop evolutionary services that maximize availability and performance throughout the life of ABB equipment. This model enables ABB to provide optimum support to end-users and a smooth transition to new software and equipment when a product reaches the end of its lifecycle. Most ABB products provide useful service for twenty years or more, throughout that lifecycle, we work to provide solutions that expand the functionality and extend the lifecycle of your equipment.

- Quality Control Workplace Upgrades
- Sentinel Adder (QCS Application Software)
- Automation Sentinel
- System Extensions for System 800xA
- Control System Evolution Services
- 800xA Lifecycle Simulator
- Software upgrades
 - Software Graphic Conversion Service for Harmony
 - Software Graphic Conversion Service for Advant OCS with MOD300
 - Software license maintenance, software upgrade agreement
- Software management
- Retrofits
- Hardware upgrades
- Parts Kits

Engineering and Consulting

ABB offers consulting services to identify potential for improvement in the areas of industrial asset management, production processes and operations' infrastructure. Our highly qualified experts have an in-depth knowledge of the needs as well as best practice your industry, whether you have a single or a comprehensive technical/organizational issue.

- Installation and commissioning
- Project services
 - Engineering configuration
 - Engineering planning and specifications
 - Lifecycle Analysis
 - Site Audit
 - Site Survey
- Industrial Energy Efficiency
- Energy efficiency improvements
- Maintenance management systems consulting
- Operational excellence
 - Reliability Fingerprint
- Telecommunications
- Environmental Consulting
- Integrity management - pPRIME
- Operational improvement
- Safety
 - Advanced process control
 - Reliability and plant performance improvement
 - Automation systems
 - Control system manufacturing
 - Engineering, design and drafting
 - Health, safety and environment quality assurance
 - Project management, EPCI delivery for EICT
 - Validation Consulting
 - Application engineering

Service Offerings



Remote and Technical Support

The rapid advancement of automation and information technology in the Pulp & Paper Industry requires a high level of expertise in maintaining and managing resources. The ABB Service Environment™ has been developed specifically to meet these challenges.

Advanced remote technology delivers higher service value and performance. Remote Services extend assistance for a wide range of support needs. From telephone and self-service web support to direct and secure system interaction, remote services provide real-time access to technical specialists globally, and service experts 24 hours a day.

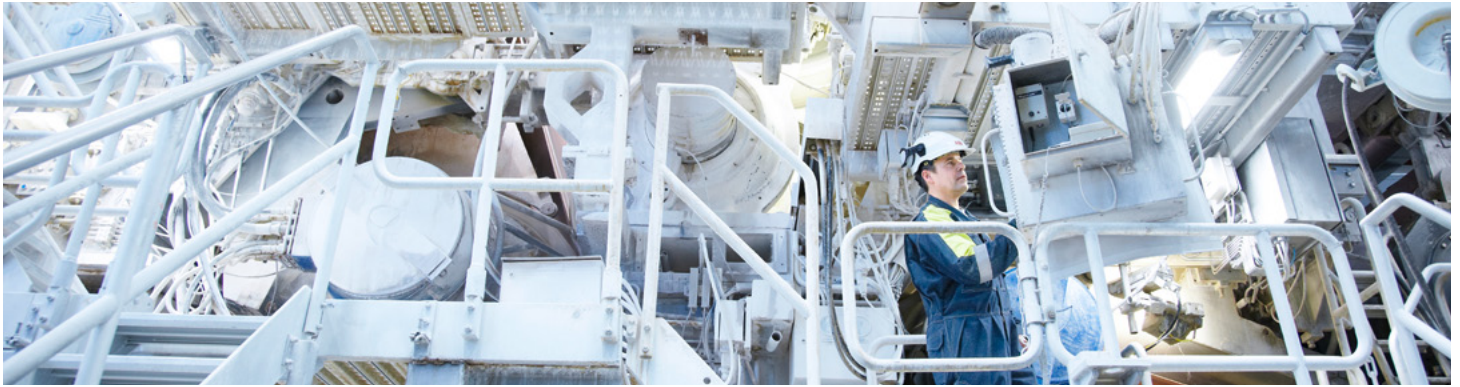
- Remote troubleshooting
- Technical Telephone Support: SupportLine
- Wireless remote diagnostic solution for analytical instruments
- Remote Access Link Connectivity
- Drive Monitor: Remote enabled service for MV Drives
- ServicePort Service Delivery Device
- Remote condition monitoring

Maintenance and Field Services

Effective predictive, preventive and corrective maintenance practices maximize the performance of your automation and production equipment. ABB service personnel are trained in the latest diagnostic, repair and maintenance practices to ensure adequate ROI. Maintenance solutions such as condition monitoring help to predict equipment failure and prevent costly downtime.

- Life Expectancy Analysis Program for motors
- Power quality and grounding audit
- Resident engineer program
- Resident field service engineer for analytical instruments
- ServicePro 3.0 Service Management System
- Predictive maintenance
- Preventive Maintenance
- Maintenance Contracts
- Mid-Life Refurbishment
- MACHsense-P condition monitoring for motors
- Inspection and diagnostics
- Diagnostics and Condition Assessments
- ABB Full Service®
- Service agreements
- End-of life services
 - Disposal and recycling
 - Resale
 - SF6 reclaim and recycling

Service Offerings



Training

A skilled and efficient workforce is a plant's most valuable asset. We help to increase workforce knowledge, providing a more proactive response to system and process challenges. Our training programs for engineers, programmers, maintenance, and operations personnel provide comprehensive and up-to-date technical expertise for existing and new products, processes, and technology advances. Training is available on-site at ABB training facilities, or locally, at your plant site.

- ABB University
- Discount programs
- Coaching services
- Classroom training
- On-site training
- E-Learning
- Authorization process training (expert FSE)
- Maintenance and Operator Training

Installation and Commissioning

ABB service engineers understand your process and system to deliver expert on-site installation and commissioning services for ABB products. Services range from self-maintenance support to consulting, support and full project management and outsourcing solutions.



Chemical Delivery

These complex installations are designed to optimize the use of chemicals while adding value to the base sheet. Installations comply with technical requirements like printability and brightness, while improving machine runnability.

Our Offering:

- Chemical Processing Stages
- Coating Kitchen and Working Station
- Stock Preparation (De-inking+ Wet End)
- Chemical Delivery Service



Composite Plant Solutions

The delivery for a pulp and paper mills cover basic as well as detailed engineering, supply site management, supervision, erection and the commissioning of the entire electrical, automation and instrumentation solution. The focus being on the customer, the Composite Plant Solution is always adapted to customer needs.

Our Offering:

- Electrification
- Instrumentation
- PM Drives
- Web Imaging System
- Collaborative Production Management
- Energy Management Systems
- Open Control System
- Quality Control System



Paper Machine Drive Solutions

ABB, the recognized leader in drive systems for the Pulp & Paper industry, pioneered digital sectional control solutions and was the first to introduce a fully digital AC drives system.

Our Supply:

- Paper Machine Drive PMC800xA Direct Drive
- Paper Machine Drive Systems
- Paper Machine Drive Products
- Paper Machine Drive Service



Energy Management

Winner of the 2010 Control Engineering “Engineers’ Choice” Award, cpmPlus Energy Manager helps customers, in all industries, monitor, manage and optimize their energy usage for maximum efficiency and savings. It addresses the business side of energy management by producing accurate energy demand plans and taking advantage of them in energy supply planning and optimization.

Our Offering:

- cpmPlus Energy Manager



Lorentzen & Wettre Products

The Pulp & Paper industry is highly competitive and faces great challenges in the form of higher energy and raw material prices. At the same time, the requirements for paper quality are rising. It has become increasingly important to reduce manufacturing costs – Lorentzen & Wettre's products contribute to improving paper quality, reducing costs, the consumption of raw materials and energy.

Products from Lorentzen & Wettre are a safe investment, and assist Pulp & Paper mills to satisfy customers and increase profitability, all over the world.

For more information about our products for Pulp & Paper quality measurements, please visit [L & W products](#).

Our Offering:

- [Paper Machine Optimization](#)
- [Pulp Testing](#)
- [Paper Testing](#)
- [Service and Support](#)



Collaborative Production Management

ABB's CPM solutions integrate business and production information providing real-time visibility into mill operations. They can greatly impact the profitability of a paper mill by optimizing the use of capacity, materials and energy.

Our Solutions:

- [Production Planning](#)
- [cpmPlus OEE](#)
- [Order Management](#)
- [Production Management](#)
- [Quality Management](#)
- [Customer Service Management](#)
- [Decision Support](#)
- [Process Data Management](#)
- [Energy Management and Optimization](#)
- [Quality Based Re-Trim Optimization](#)



Control Systems

Pulp & Paper controls have never been easier. ABB's Control System seamlessly integrates every component in the plant and provides instant access to information on the entire operation. It can stand-alone or be part of our integrated solution, Papermaking Suite.

Our Offering:

- Advanced Process Control
- OCS Service
- Process & Control Optimization
- Communications
- On-line Optimization
- Process Information Management



Electrification

When starting to plan an electrification solution, energy efficiency is a crucial factor. ABB offers complete power distribution and process electrification solutions for the Pulp & Paper industry.

Our Solutions:

- Power Distribution
- Process Electrification
- Project Services



Quality Control Solutions

ABB paper measurements and controls improve quality, increase production and reduce costs. Scanners, measurements, profilers and control software deliver optimum sheet characteristics and maximum production.

Our Offering:

- Actuators
- Life Cycle Management
- Measurements
- QCS 800xA
- Controls
- Measurement Scanners
- Quality Control Service



Web Imaging Solutions

ABB's web imaging solution offers state-of-the-art tools for the identification of web defects and provides advice on advance corrective actions, i.e. before unscheduled downtime or customer claims.

Our Offering:

- Web Imaging HDI800
- Pulp Defect Analyzer
- Automatic Braking System
- Complete Lifecycle Support

Contact us

→ 1 800 HELP 365

(1 800 4357 365)

Outside USA/Canada: +1 440 585 7804

Telephone menu options

1 Robotics:

- Paint, Powertrain, Body-in-White, Flexpicker, Press Automation, Weld.
- 1 Technical Support or Field Service
- 2 Parts
- 4 Training
- 5 General Inquiries

2 Process Control and

Network Management Systems:

Process Control Systems: Decathlno, Industrial IT System 800xA, Advant/ MOD 300, Symphony Harmony/INFI 90, Symphony DCI/DCI System Six.

Network Management Systems: EMS/ SCADA, DMS, BMS.

Service for Control Systems

- 1 Field Service
- 2 Parts
- 3 Technical Support
- 4 Training

3 Instrumentation and Process

Analytics:

Service for Measurement Products

- 1 Field Service
- 2 Parts
- 3 Technical Support
- 4 Training

4 Drives, Motors:

Field Service, Parts, Tech Support, Training.

Service for drives, inverters and converters

5 Quality Control Systems (QCS):

Quality Control Systems: Advant/ Master, Accuray, 1180, 1190, ULMA, Measurex.

- 1 Field Service
- 2 Parts
- 3 Technical Support
- 4 Training

6 Low Voltage Products and Systems

($\leq 480V$): Circuit & Motor protection, Electronic Controls, PLCs, Panel Switches, Capacitors, Relays, Soft s.
Brands Include: SSAC, Entrelec, SACE.
Service for Low Voltage Products and Systems

7 Power Products (>600V–800kV):

Medium and High Voltage Products: Transformers, Relays, Switchgear, Breakers, Capacitors, Switches.

Brands Include: ASEA, Westinghouse, BBC, ITE, BerMac.

Service for Medium Voltage Products and Systems

Service for High Voltage Products
Service for Transformers

8 Substation Automation:

PCM, Combiflex, IED, Protection Relays, Microscada, RTU Controls.

9 Power Generation and Water

Utilities:

Field Service, Parts, Tech Support, Training.

0 ABB Help Desk (General Assistance):

- 1 SupportLine
- 2 Subscriptions
- 3 New Products
- 4 Account Support
- 0 Speak to Representative

E-mail

Field Service:

USServiceRequest@us.abb.com

Parts and Repair:

PartServices@us.abb.com

Technical Support:

AutomationSupportLine@us.abb.com

ABB University:

ABBUniversity@us.abb.com

Help Desk:

ABB.HelpDesk@us.abb.com

Web

General Services:

www.abb.com/service

Parts and Repair:

<http://online.abb.com>

On-line Product Support:

<http://SolutionsBank.abb.com>

ABB University:

www.abb.com/abbuniversity

Other service links and contacts

Motors and Generators

sales.us@baldor.com

Power Electronics

Daniel Peters: 262 785 3440

Turbocharging

Tel (24/7): 281 930 8383

Metallurgy Products

Power and productivity
for a better world™

