



ABB Process Automation Service
Services that add life to your systems
and processes

Services that add life to your systems and processes

ABB has world-class experience in specifying, installing, maintaining, managing, developing and troubleshooting industrial process automation. This has allowed a long and proud tradition to be built, providing worldwide service support to industry.

As the world's largest provider of process automation services, ABB delivers a wide service portfolio to help process industries increase efficiency, competitiveness and profitability by:

- Keeping production running
- Maximizing system lifecycle
- Optimizing process performance
- Delivering operational excellence

ABB provides timely, predictable and knowledgeable responses to your service needs. Armed with a deep understanding of your systems, applications and processes, our engineers and consultants provide expertise and services—including site and remote-enabled service, training, tools, system lifecycle support, process optimization, business process consulting and more—to help you achieve sustainable business improvements.

Many successful chemical, life sciences, marine, metals, mining, oil and gas, pulp and paper, utilities and other industries have made ABB their trusted partner in process automation services.



Keep production running

ABB provides a reliable service response, high parts availability and proven tools to ensure maximum equipment uptime

The services you need, when you need them

Downtime is the enemy of all process industries. When equipment breaks down, you need quality repairs from expert, nearby service professionals. With an extensive services network of 20,000 trained experts in 60-plus countries, ABB can provide fast, reliable and knowledgeable response to your service needs. They are available to provide on-site support as needed or can use the latest remote-enabled diagnostic tools, such as loop and system scan analyzers, to quickly identify problems and get the job done right the first time.

Our comprehensive training and continuing education programs ensure that our service professionals are knowledgeable in key areas of process automation and have a thorough understanding of your processes. They have the knowledge, skills and experience to ensure your issues are resolved quickly, correctly and safely.

No demand services would be complete without a call center. ABB's call centers give you a single point of contact for your process automation service needs. Our call centers concierge staff train support personnel who evaluate your request and connect you with the right resources. We also offer web-based resources, email support and online chat so you can make inquiries from your smartphone or mobile device.

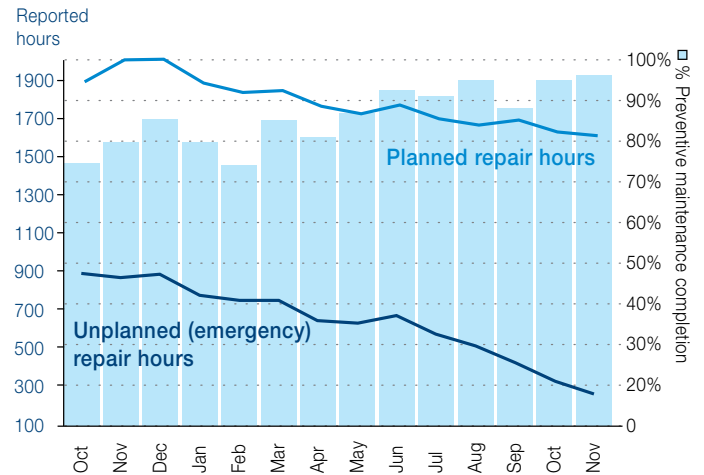
A winning spare parts strategy

Your supply of spare parts is a critical hedge against breakdowns. Spare parts stocking is a tricky balancing act: too many on hand and you waste capital too few and you risk a painful and costly shutdown. ABB can analyze your systems, identify the parts most prone to failure and help you implement a cost-effective spare parts and inventory management strategy that strikes the right balance between cost and efficiency.

Even if you don't have the part you need, we maintain an extensive inventory of certified spare parts worldwide to meet a wide range of needs—for your control systems, drives and motors to analyzers, propulsion systems and peripherals, such as sensors and scanners. We can help ensure you get the right high-quality, reliable parts to resume production quickly.

Expert resources and training to fill the knowledge gap

One of the biggest issues facing process industries, especially in developed nations, is the impact of attrition on intellectual capital. Older workers are leaving the workforce, and their younger counterparts often lack the knowledge, skills and experience to maintain complex equipment. ABB can provide knowledgeable resources to supplement your in-house maintenance capabilities.



As shown in this example at a Japanese-American steel mill, the ABB ServicePro Service Management System helps ensure that world-class preventive maintenance is completed for ABB process automation, cutting costs by reducing both planned and emergency repair hours.

Our experts can provide high-quality training to help your operators become proficient at understanding and maintaining your processes. ABB's wide range of training offerings includes:

- ABB product training
- Process and application training
- General technology training
- Training assessment programs

ABB's training options are flexible and delivered in the classroom, onsite, online through e-learning, and in many local languages. ABB University provides professional training centers in more than 25 countries.

Quality tools for increased reliability

Preventive maintenance is critical to minimizing problems and maximizing equipment life. ABB ServicePro is a reliable, convenient service management tool that ensures your automation equipment receives the service it needs. Based on ABB's best service practices, ServicePro scheduling provides access to reliable historical information and allows you to automatically schedule and implement service work orders. With ServicePro, your automation equipment and processes are serviced efficiently and cost-effectively, which helps increase equipment and process reliability and return on investment.

Maximize system lifecycle

ABB provides tools and expertise to help you analyze, optimize and extend the life of existing equipment

Extending the life of your equipment makes good fiscal sense. By relying on proven systems and processes, you gain confidence in your investments, and reduce the downtime associated with installing and training on new equipment. ABB provides services to help you manage system obsolescence, maximize equipment life and plan for system upgrades.

Automation Sentinel watches over your control system

Your control system is the brains behind your process, and maintaining its health and longevity makes good business sense. Automation Sentinel is an ABB control system support program that helps you manage your control system lifecycle. It provides the fundamental support you need to maintain operation and maximize the availability of your system. This program allows you to keep your control software up-to-date while maintaining a flexible path toward new system technology.

Creating a winning system lifecycle strategy

Determining what it costs to operate and maintain your equipment effectively is key to deciding how long to keep it,

how much to invest in it and when it's time to upgrade. ABB evolution experts help ensure the longevity of your equipment with lifecycle prediction and planning services. They help you build a lifecycle strategy to manage system updates, plan for system obsolescence and justify equipment upgrades. They can also assess your current situation, help you gauge future automation needs, and plan for expansion.

System optimization services extend equipment life

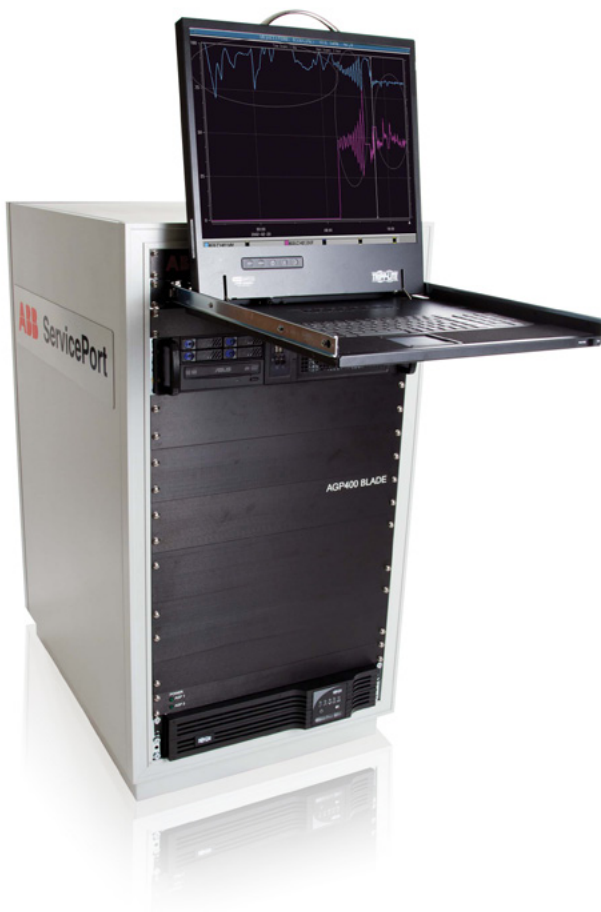
Because capital may be limited, your equipment must perform reliably for as long as possible. ABB optimization services help extend the life of your equipment by diagnosing issues that limit performance and help you implement improvements. ABB system optimization services use a three-phase methodology:

- Phase 1: Diagnose
The System Performance Fingerprint™ analyzes your control systems to identify improvement opportunities. The Fingerprint compares system performance to peak operating conditions, and compares actual operating data to designed capacities to identify optimum system operation. The resulting implementation plan identifies activities that improve performance.
- Phase 2: Implement
After reviewing the Fingerprint recommendations, ABB develops an improvement implementation plan. When the plan is approved, changes to control systems are implemented incrementally or all at once for immediate improvement to maximize system performance, extend its life and provide optimal return on investment.
- Phase 3: Sustain
ABB SystemScan service periodically scans your system to ensure improvements are sustained and searches for new or recurring issues. ABB SystemTrack service continually monitors system condition and sends proactive event and maintenance notifications to plant staff.

ServicePort enables remote services, reduces costs

ABB optimization services can be performed onsite or remotely. Remote-enabled optimization gives access to global experts 24/7.

ABB ServicePort is a remote-enabled service delivery device that provides your control system with an on-site connection to ABB experts. It lets you take full advantage of Scan and Track services. ABB ServicePort acts as an onsite “service coordinator,” providing access to ABB process automation services. As the focal point for service communications, ABB ServicePort runs applications for preventive maintenance, work order tracking, parts management, system and process optimization, maintenance reporting and alarm and message generation.



Remote ABB optimization services, such as those delivered through the ABB ServicePort Service Delivery Device, reduced product variations by 22% for a North American pulp and paper customer, helping the mill make a better product for less cost.

Optimize process performance

ABB provides diagnostic expertise and consulting services to help you optimize process performance

Services designed to streamline processes

Are your processes operating as efficiently as they should? ABB offers process optimization services to uncover issues that limit current system performance, help you implement time- and money-saving improvements and extend the life of your assets.

Optimization services are delivered by ABB experts who have deep technical experience and provide real-world solutions that can be readily implemented in a production environment. Engagements range from short-term to indefinite, and optimization can be performed both onsite and remotely through ABB ServicePort.

ABB process optimization services use three-phase series of platform-independent, non-invasive services that can be applied to any automated process methodology:

– Phase 1: Diagnose

ABB optimization engineers use the Process Fingerprint to analyze the response of automation equipment by comparing existing controls to industry standards and actual operating data to expected capabilities.

Using an extensive range of benchmarking data, ABB consultants analyze Key Performance Indicators (KPIs) and provide benchmarking and diagnosis services to help your organization operate closer to design constraints and

improve throughput, yield, energy usage and raw material consumption. ABB experts can also analyze your overall cost structure and help you achieve tighter control limits to reduce raw material cost and energy consumption while improving Cost of Poor Quality (COPQ).

Based on the Fingerprint findings, ABB develops an improvement plan that lists recommended activities to help you quickly achieve maximum performance benefits.

– Phase 2: Implement

After a review of the Fingerprint findings and recommendations, ABB develops an improvement implementation plan. As soon as the plan has been set, improvements can be delivered incrementally or all at once for immediate improvement.

– Phase 3: Sustain

In this phase, ABB helps ensure that improved performance does not diminish. ABB ProcessScan and ProcessTrack software ensure performance is not only maintained, but can also be improved through continuous monitoring and corrective actions. ProcessScan provides periodic diagnostic monitoring of loop performance levels and ProcessTrack provides continuous monitoring between ProcessScan periodic reporting deliveries.



Deliver operational excellence

ABB can be your long-term strategic partner, providing the knowledge and experience needed to drive organizational improvements

ABB provides consulting expertise to help your organization create a culture of continuous improvement and operational excellence. Whether you're looking for programs to improve safety, use energy more wisely or improve plant reliability, we can provide seasoned expertise, practical tools and proven methodologies to help you achieve strategic business objectives.

Programs to put safety first

ABB understands the importance of employee, plant and process safety as top priorities. We can help assess risks using studies or audits such as HAZOP, PHA, SIL, human factors assessments or our proprietary Process Hazard Review. Based on the results, we can develop and implement ongoing safety programs that reduce safety risks while minimizing process disruptions.

Increasing energy efficiency and reducing costs

With energy costs continually increasing, it makes fiscal sense to ensure your operations are as efficient as possible. However, a surprising number of companies don't have an energy plan. Our experts will analyze your energy needs and usage, and help you identify and prioritize thermal and electrical energy efficiency improvements across your entire plant or business. We will work with you to develop and implement a comprehensive energy-efficiency program.

Extending the life of total assets

ABB provides proven expertise and methodologies to help you analyze, optimize and extend the life of all your existing equipment and plant infrastructure. We help you to reduce plant failures, plan future expenditure and justify operating assets for extended periods, often 20 years beyond original design life.

Complying with regulations

The critical process of complying with increasing regulations is time-consuming and places an additional responsibility on existing resources. ABB services help you monitor new regulations, comply with existing ones, sustain operations and ensure that you maintain your license to operate.

Companies that engage ABB to develop an energy plan typically enjoy an average 20% savings on their energy bills.

Third-party maintenance labor expenses

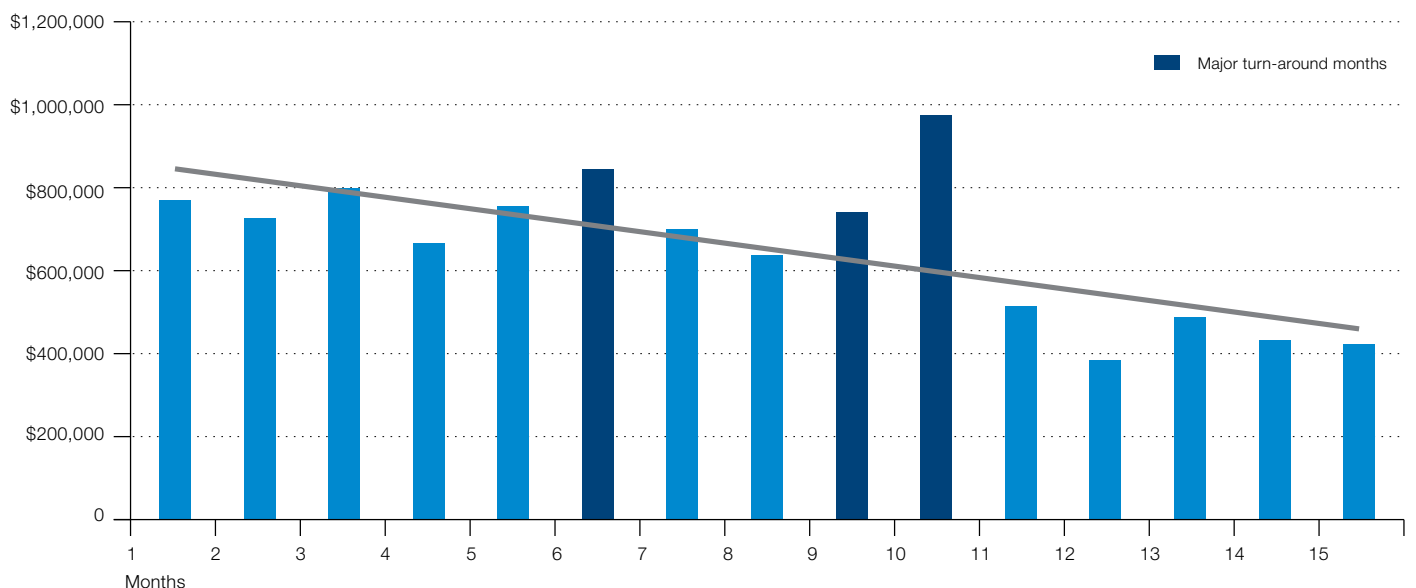


ABB Reliability Services helped a major European oil and gas company improve production and cut maintenance costs at one of its chemical plants, as demonstrated in this graph of reduced third-party maintenance labor expenses.

Deliver operational excellence

Increase productivity through improved reliability

ABB provides reliability consulting services to help your organization improve safety, compliance and profitability. Using ABB's proprietary World Class Reliability benchmarking process, our experts will identify best practices and compare your organization's performance in 10 critical areas with that of other companies and industries. Our experts will develop strategic and tactical plans to close performance gaps and create a business case that documents the financial impact of addressing these shortcomings.

Armed with this information, ABB consultants offer Total Plant Reliability (TPR), a proven improvement strategy for process industries. TPR is a multi-stage program to help your organization improve reliability by providing outstanding leadership and better management of assets and people. TPR can help your organization improve equipment availability, maximize process efficiency and increase product quality.

Enhancing IT systems for added reliability

ABB experts can evaluate and enhance your IT systems to help your organization achieve increased reliability. Our consultants are experts in CMMS and EAM technologies, and can help implement your maintenance and reliability processes within your organization's ERP environment.

Helping transform maintenance into a profit center

ABB Full Service is a performance-based plant reliability management service that can help your organization achieve increased operational excellence and turn maintenance operations into profit centers. By assuming responsibility for your plant's maintenance operations, ABB improves Overall Equipment Effectiveness (OEE) and reduces overall maintenance costs, yielding bottom-line results for your business.



A commitment to your success

Backed by more than a century of proven experience, ABB provides expert training, tools, parts and service to help process industry organizations achieve increased success. Our network of 20,000 trained experts have a thorough understanding of your systems, applications and processes and a singular commitment: to help your organization keep production running, maximize system lifecycle, optimize process performance and deliver operational excellence.

For more information, please contact:

North America Customer Service Center

29801 Euclid Avenue

Wickliffe OH 44092 1832, USA

Tel: 1 800 HELP 365

(1 800 435 7365) Option 4

Outside USA/Canada: +1 440 585 7804

Fax: +1 919 666 1377

E-mail:



3BUS095491 A A4