Maximizing Results in Cement Manufacturing

Eliminate Bottlenecks
Minimize Downtime
Use Multiple Fuel Types
Optimize Logistics
Improve Quality
Achieve Higher Volume
Produce More Products

Professional Services make the difference...

Work Together
Manage Information
Optimize
Understand and Control
Measure
Cement Manufacturing

ABB
What's on your mind...

SALES FORECAST?  SHIPING?  TODAY'S PRODUCTION PLAN?

SILO LEVELS?  FUEL STOCKS?

RAW MATERIAL CHEMISTRY?  RAW MATERIAL INVENTORIES?

TONS THIS MONTH?  KILN DOWNTIME STATISTICS?

Kilowatt Hours?  ALKALI CYCLES?

FUEL CONSUMPTION?  EMISSIONS RECORD?

DISPATCH?  CYCLONE BLOCKAGES?

PROCESS DISTURBANCES?  CLINKER FREELIME?

PRODUCT DEMANDS THIS WEEK?

CEMENT STRENGTH?

TEAM PERFORMANCE?

We have learned that when you help your people get the most from their machines, effectiveness appears like magic.
Bring all your operations into focus

Better, Faster, More
That’s what today’s competitive cement marketplace demands: consistently higher quality product, and more of it. Now.

Successful cement manufacturing requires more than well-designed and properly installed machinery. Achieving your full potential is a matter of focus. Bring clarity to your entire operation and effectiveness will be yours.

ABB has helped build and upgrade hundreds of cement plants around the world. Our in-depth understanding of the cement manufacturing process and proven ability to maximize measurement, control, optimization and information management can help you make your operations as effective as possible.

Bring new clarity to every purpose and process
Imagine the possibilities when it all comes together...materials, equipment, systems and people achieving their maximum effectiveness. ABB’s dramatic results will have you believing it’s magic.

Most suppliers stop at the plant automation level. For ABB, that’s just the beginning. Frequently, advisors lack the insight that comes from both understanding the process and building electrical and control systems themselves.

It’s one thing to keep systems running—any good supplier will do that—it’s another thing to help re-engineer the way your plant operates and how your people work together. No matter who supplied your equipment, the ABB approach will refine your work processes and help move you ahead of the competition.

Professional Services make the difference...
Maximizing results
Automating cement manufacturing...

Bringing it all into focus
An effective manufacturing execution system is developed starting with the most basic measurements. We work with you, step by step, to expertly design and install reliable information and control platforms for dependable and accurate views of your entire process.

This comprehensive, integrated process overview, helps you make decisions and formulate strategy at all levels.

---

Level 1
Measure your Process Variables
Accurate measurements and consistently verified information is a fundamental and frequently underutilized step in cement manufacturing. We recognize that only that which is measurable can be improved upon.

Level 2
Be Consistent in Every Process Step
With measurement established, AEB delivers the technologies for control of the entire process. We use your existing control system as the focal point for consolidating and viewing key process measurements.

The ABB approach strengthens your control over your operations and opens up new reservoirs of vital information.

Level 3
Achieve the Process Optimum
With the entire plant under full control, AEB professionals work with you to optimize individual process steps and increase your production and productivity.

We work to maximize operations from quarry to dispatch including raw meal preparation, clinker burning, and cement grinding.
Integrate Information Effectively

With measurement, consistency and control, your strong foundation is in place. Now, ABB brings the plant to your fingertips by integrating every information stream for your manufacturing facility.

By creating an information model, we identify critical information and reporting channels. ABB gives you an integrated reporting methodology that organizes and brings together the many different kinds of information needed to maximize your operation. You see it all. And, all that you see is under your control.

Level 5

Working Together to Maximize Results

Here’s where it all comes together. You are placing the right information in the hands of the proper people. Your people have a common vision of the process by which they work with each other, and with their machines.

Result: Priorities are mutually understood. Now, you can make decisions that improve the work process itself.

ABB provides the professional support you require to apply advanced process enhancement methods to your manufacturing approach.

The knowledge we’ve gained from our theoretical and practical experience in the cement industry is transferred in workshops and training classes on-site. This cuts the time it takes to maximize the return on your automation solution investment.

ABB shortens the time you need to reach a full understanding of your plant’s potential, and maximizes that potential in record time.

...and Work Processes

Achieving a competitive advantage in today’s complex marketplace requires the right decisions from the first step of measurement to the final step of work process design.

ABB can help you achieve the results you’ve always considered potential. We define maximum effectiveness and help you bring the possibilities into focus.

True competitive advantage comes with your work processes engineered to yield the full potential of your plant’s production capability. That potential is measured in tons of production gained, kilowatt hours of energy saved, and labor efficiency.

Professional Services make the difference...
We commit ourselves to achieve results...

We are a qualified partner

We have provided automation solutions to over 150 cement plants all over the world.

We are continuously in touch with our customers, visit their plants, and see the challenges they face.

We have insight in cement plants, automation systems and information technology.

We organize our own work processes—inside ABB—along the principles of Total Quality Management, Time-Based Management and Total Optimization of Processes.

We know how to achieve results

We are able to help cement producing companies by providing professional services to achieve maximum results from their production plants.

We not only have the ability to analyze production situations and work out practical solutions, we have the vision to find solutions that pay back in the short- and long-term. And we have the ability to execute the action we recommend.

Our problem solving approach is based on teamwork—working together and sharing expertise—with the customer's staff.

We truly accompany the customer in his improvement efforts towards more effective work processes and equipment utilization.

Our methodology is characterized by taking the following steps together:

1. **Analyze**
   the production situation

2. **Identify**
   the improvement potential

3. **Draft**
   improvement concepts and strategies
...at the customer’s bottom line

We offer professional services...

...to enable the customer to get more from the installed equipment.

Training courses
- process control systems such as the Advant® Cement System
- process optimization systems, for instance, L1NKman®, AutoLab
- information management systems such as CIMS

...to support the customer in the improvement of work processes.

Customized workshops
- production logistics and business process re-engineering
- process technology and work processes
- information management, database structuring and networking

...to assist the customer in staying successful in the long run.

Special services
- plant studies and return-on-investment analysis
- technology assessment and requirements definition
- automation system and information system strategies

Execute the required actions

Enhanced Cement Manufacturing

Your future success will be determined by the decisions you make today. You require information, insight and options.

Ask for professional services from ABB.
People are your — and ABB’s — strongest asset. We are dedicated cement industry professionals, and our track record has made ABB the leading provider of cement automation solutions in this market.

We understand — and share — your quest for excellence. ABB’s proven methods and approaches can help you extend your reach and achieve the results defined by your operation’s true potential.

Focus on maximum effectiveness.
Look to ABB.

Bottlenecks Eliminated
Downtime Minimized
Multiple Fuel Types Used
Logistics Optimized
Quality Improved
Higher Volume Achieved
More Products Produced

For more information on ABB’s Cement Industry Solutions, contact:

ABB Industrie AG
Building Materials, Mining and Mineral Industries
Cement Industry Headquarters
CH-5491 Baden-Dättwil, Switzerland
Tel: +41 56 486 8444
Fax: +41 56 486 7333