



# Crystal clear advantages

Efficient automation solutions  
for the glass industry



- Highest productivity and safety with our control systems
- Cost savings through improved energy efficiency

# Expertise for the glass industry

## Our solutions and products

### Process control systems

- Scalable and compact
- Object-oriented open software structure
- Integration of subsystems
- Uniform engineering from the field instrument to the operator interface
- Standardized libraries and ready-made blocks
- Maintenance and diagnostics
- Conventional I/O, remote I/O or fieldbus solutions
- Optional redundancy

### Open for future requirements

Through the open system structure and the use of common industrial standards the systems are enabled for capacity extensions.

### Effective engineering

Configuration and commissioning of software and hardware by means of one central engineering tool:

- Integrated fieldbus management
- Configuration languages according to IEC 61131-3

### Monitoring and operation

- User-friendly operator interface
- Overview, graphic and group displays
- Easy access with quick select window and shortcuts
- Faceplates for operation and operator intervention
- Alarm and event displays
- Trend history and displays
- Logs
- Diagnostics of the overall system
- Aspect View
- Superimpose of live videos

### Intelligent field instruments

Extensive range of field instruments for every measuring task:

- Stainless steel and explosion-proof versions
- Fieldbus-capable
- Integrated maintenance management

### ABB analyzers

- Emission monitoring, NO<sub>x</sub>, CO<sub>2</sub>, CO, O<sub>2</sub>
- Process monitoring

### Electrical drives and motors

- All performance classes and explosion-proof versions
- Energy saving motors according to efficiency classes 2, 3, 4
- Frequency converters and soft starters
- Drive package with synchronous reluctance motor and frequency converter

### Power distribution

- Low voltage main distribution boards
- Motor control center (MCC)

### Energy management

### Services

- Project-specific hardware engineering for process control and electrical installations
- User-specific software applications
- Project management
- Erection, installation, commissioning
- Documentation, training
- On-site service, on-call duty, maintenance
- Repairs, spare parts logistics
- Plant optimization and maintenance strategies
- Operation and supervision of plants
- Life cycle management

# ABB – Your partner for the glass industry

## Competent and reliable

Glass is a vital economic asset and manufacturing high-quality products is a complex and demanding process. To this end, we support our customers with complete electrical and process control solutions.

### **Increase efficiency and productivity – stay competitive**

We know the challenges our customers in the glass industry face as a result of the tough competition: Narrower timeframes for the planning, assembly and commissioning of new plants, cost reductions and boosting their efficiency and productivity.

Staying competitive calls for the support from an experienced partner like ABB. That is because we offer more than tailor-made, future-oriented solutions based on cutting-edge technology. We also offer the competent solutions for project management and the provision of services.

### **From fiber optics to container glass – experience and know-how**

As market leader in the automation sector, ABB has decades of experience and process control know-how in the glass industry. Many glassworks worldwide use the cutting-edge automation and power engineering of ABB for the flawless operation of their facilities.

### **Competence Center for glass**

For many years, the producers of container glass, household glass, plate glass and fiber optics have relied on ABB as a competent and dependable partner. Our experts at the Competence Center for glass in Ratingen, Germany, look forward to supporting you in word and deed. Working closely together with an ABB team near you, we come up with the solution that works best for you.

### **Crystal-clear advantages**

- Efficient project management
- Use of standardized, pre-configured packages and libraries
- Conventional wiring, remote I/O or use of fieldbus technology
- Future-proofing and investment protection through state-of-the-art technology and life-cycle concepts

### **Think globally, act locally**

ABB is present throughout the world with a large number of service and support locations. The best precondition for smooth global project management for internationally operating companies as well:

- Globally operating team of professionals
- Standardized engineering tools, methods and solutions
- ABB solutions are reproducible worldwide
- Support and service – worldwide

### **ABB is your partner**

Whether you want to automate your new glass furnace, extend your capacity or modernize your existing plants: Our customers can rely on ABB as a reliable partner with industrial expertise and excellent implementation.

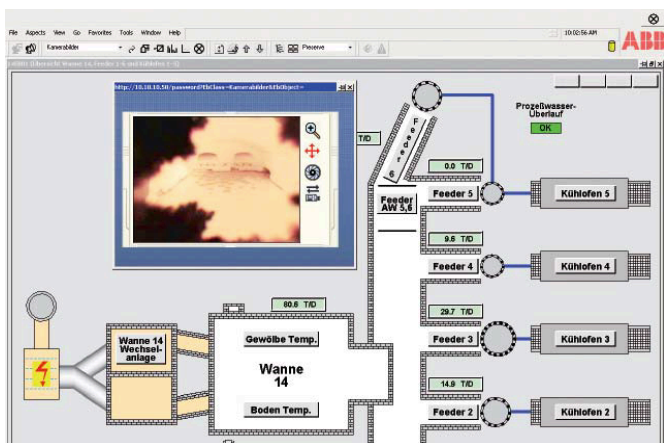
### **Our experts stand for:**

- Expertise and experience
- Tailor-made solutions
- Advanced, future-oriented technology
- International references

### **Come talk to us!**

Contact your local ABB office or our Competence Center for glass in Ratingen, Germany.





# Automation solutions

## Tailor-made and efficient

Automation solutions based on cutting-edge technology form the basis for the highest productivity, the best possible return on investment, future proofing and investment protection.

### Tailor-made automation solutions

We offer an extensive portfolio of products, systems as well as pre-configured solutions for automation and safe operation in all areas of the production process such as:

- Batch house
- Furnace
- Electrostatic filters
- Feeders
- Annealing lehrs
- Cold ends
- Storage of the raw materials and end products
- Auxiliary plant areas such as compressors, vacuum pumps, cooling water supplies

### State-of-the-art technology

Our product portfolio contains advanced process control enabling continuity from the field to production right through to the business management level, process instrumentation (optionally fieldbus-based), analyzer technology for quality and emission monitoring as well as power distribution and motor control center.

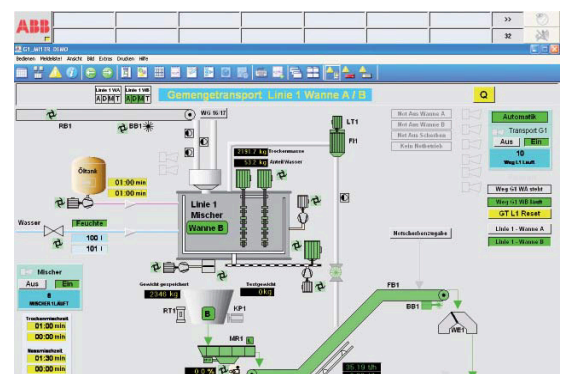
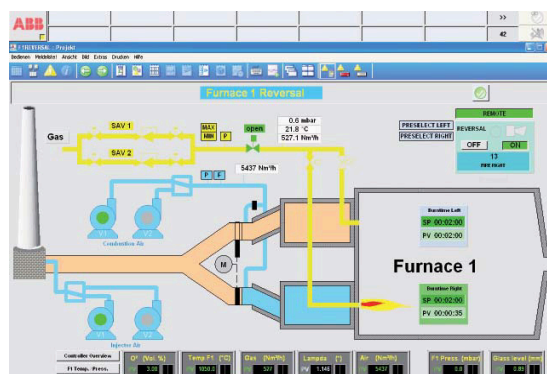
### The highest productivity and safety through ABB's process control

- Operationally safe and highly available
- Easy and user-friendly
- Compliance with environmental and safety standards
- Open to future requirements and enabled for capacity extensions of your plant

### For improved energy efficiency

Glass production requires lots of energy. The energy management system of ABB makes it possible to use resources in a much more efficient way:

- Calculation of energy consumption (oil, gas, electrical energy)
- Peak load control with deactivation of non-essential consumers
- Generation of load forecasts
- Electricity management





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