

Eurotherm[®]
by Watlow

Sustainable Performance for Glass Manufacturing

Power Control,
Process Automation and
Digital Solutions for a
Lower-Carbon Future



eurotherm.com/glass

Glass Manufacturing Spans a **Wide Range of Applications**, each with Distinct Process Demands, Energy Profiles, and Quality Requirements.

From flat and container glass to tube glass and fiberglass, manufacturers need scalable control, power, and digital solutions that support efficient, consistent production.

Eurotherm helps manufacturers apply the right technologies across these processes to improve performance and prepare for future change.

Flat Glass

- Float
- Ultra-thin
- Display
- Optical
- Sapphire
- Coating

Hollow and Pressed Glass

- Borosilicate
- Crystal
- Tableware
- Jars and Bottles
- Flaconage
- Pharmaceutical

Fibreglass

- Reinforcement
- Insulation
- Optical
- Biomedical

Tube Glass

- Pharmaceutical
- Lighting



Prepare for the **Next Generation** of Glass Manufacturing

Glass manufacturing is changing rapidly.

Rising energy costs, decarbonization targets, electrification, and higher customer expectations are reshaping how plants are designed and operated. Investing in scalable technologies today helps improve efficiency, support future requirements, and strengthen competitiveness throughout the life of the furnace.

Technology Designed for Long-Term Performance

Aging control and power systems may reduce short-term investment, but they can also limit flexibility, increase energy consumption, and make it harder to respond to changing business needs. Modern, scalable technologies help improve performance now while creating a foundation for future electrification, digitalization, and growth.

For more than 55 years, Eurotherm has helped glass manufacturers optimize power control, process automation, and digital performance. As part of Watlow, we combine that expertise with more than 100 years of thermal engineering experience to deliver integrated solutions for the glass industry.

Advanced power control
Precision process automation
Intelligent combustion control
Energy management and digitalization
Industrial heating and thermal solutions
Scalable architectures for future expansion



Reduce Energy Costs and Carbon Footprint

Glass melting is one of the most energy-intensive industrial processes.

Aging power and combustion systems can increase energy consumption, operating costs, and emissions while reducing the flexibility needed to adapt to changing production and regulatory demands.

Eurotherm and Watlow deliver integrated solutions spanning industrial heating, sensing, power control, process automation, and digital technologies to help improve efficiency, reduce operating costs, and support future electrification.

Efficient Power System Design

- Latest-generation components support improved energy efficiency and reduced maintenance
- Proven system design helps minimize energy losses and maximize operational efficiency
- Redundant architectures improve availability and reduce the risk of unplanned downtime

Power Management and Combustion Solutions

- Predictive load management and load shedding help prevent tariff exceedance
- Intelligent combustion control helps optimize combustion and reduce emissions
- Scalable architecture makes it easier to add furnace power when required

Delivering Measurable Energy Savings

- Reduce energy costs while supporting environmental compliance
- Improve system availability and reduce downtime risk
- Increase production capacity as demand grows
- Track and report energy, production, and sustainability KPIs



Upgrading to the latest Eurotherm power control solution could reduce your energy bill by 10%*

* Based on average savings seen in retrofit electric heating applications

Achieve Sustainability while Optimizing Productivity

Improving productivity, reducing waste, and lowering energy consumption all depend on understanding what is happening throughout the process. Accurate measurement and reliable data are essential for improving OEE, product quality, and operational performance.

Measure Accurately

Measurement accuracy depends on more than the sensor itself. Operating conditions, installation practices, wiring, and hardware performance all affect data quality. Eurotherm products and system designs are engineered to deliver reliable, high-accuracy measurement in demanding glass manufacturing environments.

Efficient 24/7 Process Control with High-Quality Output

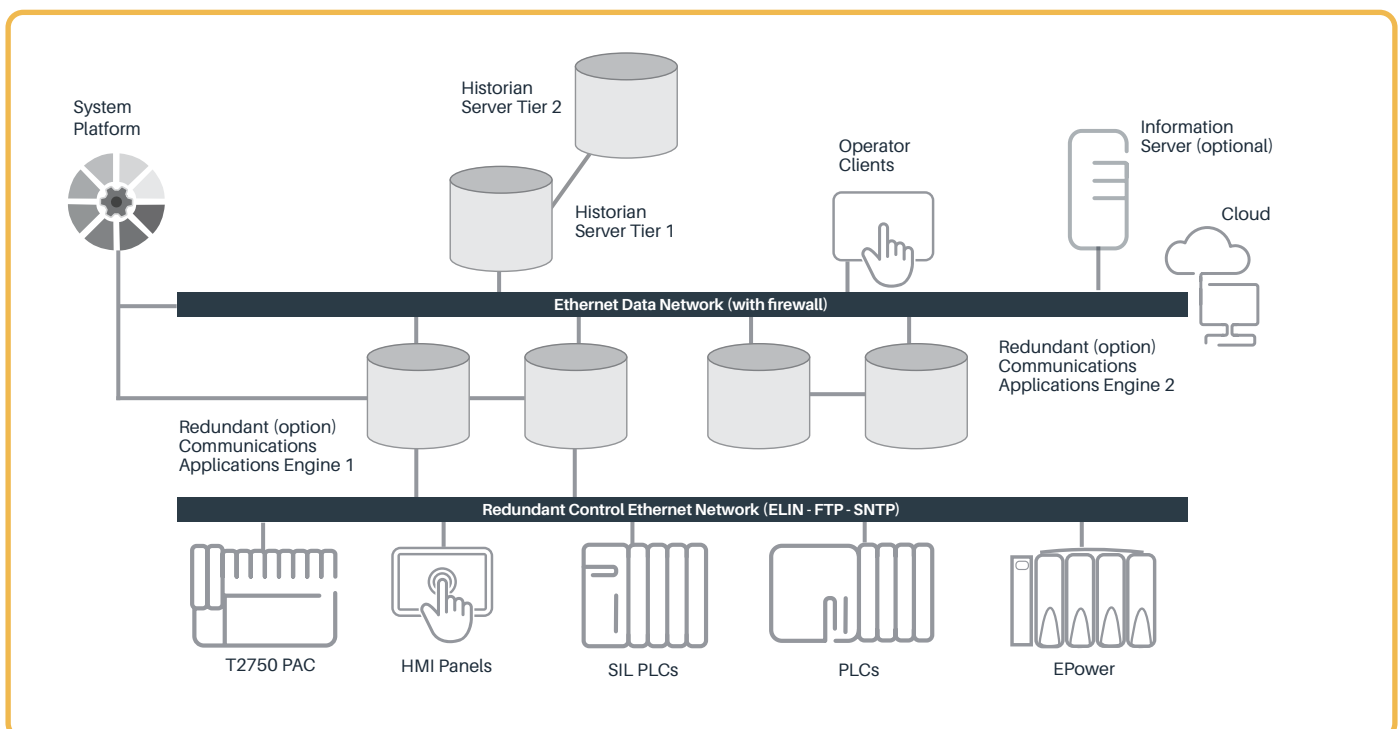
Eurotherm control strategies are designed to prevent common temperature-related issues in high-temperature applications, delivering process stability and repeatability. Combined with redundant architecture and glass process expertise, they help support continuous, high-quality production at the optimum rate with minimal waste.

Precision Process Control and Automation Systems

- Batch house control
- Furnace combustion control
- Annealing lehr control
- Intelligent IS-cooling systems
- Environmental monitoring
- Process control

Power Control

EPower™ and EPack™ power controllers provide intelligent networked control for electrical heating applications. Plant-wide monitoring, measurement, and power management help optimize energy consumption, improve power quality, and reduce operating costs while staying within site energy constraints.



Digitalization for Energy Efficiency and Decarbonization

Digitalization is becoming a key enabler of energy efficiency, operational excellence, and decarbonization in the glass industry. Yet many plants still rely on disconnected systems, limiting visibility into performance and making it harder to identify improvement opportunities.

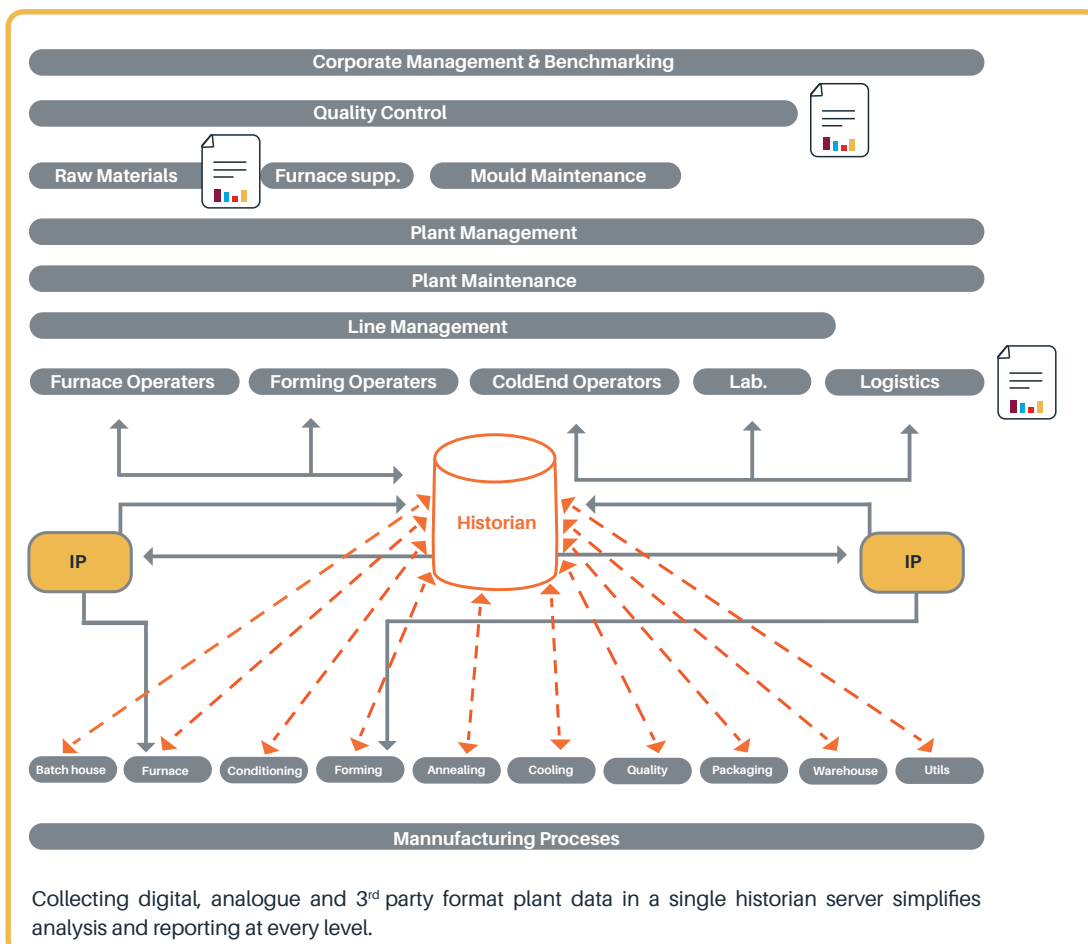
Connecting these systems through a unified data platform helps manufacturers turn operational data into better-informed decisions.

Connectivity for Operational Intelligence

Eurotherm solutions bring together operational and energy data from across the glass plant into a single, accessible platform. From raw materials and melting to forming, annealing, and warehousing, historical and real-time information can be collected, contextualized, and analyzed to support better decision-making.

Seamless Data Acquisition

Reliable data acquisition is essential for effective analysis and reporting. Eurotherm continuously records data in internal memory, and Store and Forward technology automatically backfills data to the historian when communications are restored.



Reliable Data Management

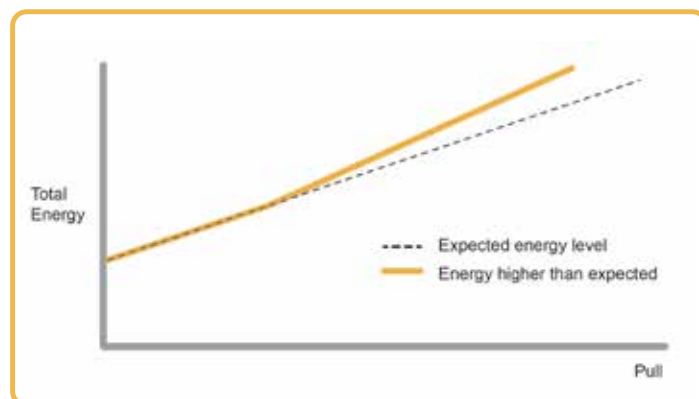
- Connect data from multiple automation systems
- Preserve data during temporary communication loss
- Automatically backfill historian servers when communications are restored with Store and Forward technology
- Centralize plant-wide data for analysis, benchmarking, and reporting

Improve with Data Analytics

Once process, power and energy data are accurately measured, recorded and archived, they can be analyzed in real time and historically to improve energy efficiency, productivity and product quality.

Continuous benchmarking helps identify trends caused by equipment ageing, changing raw material characteristics or variations in operating practices.

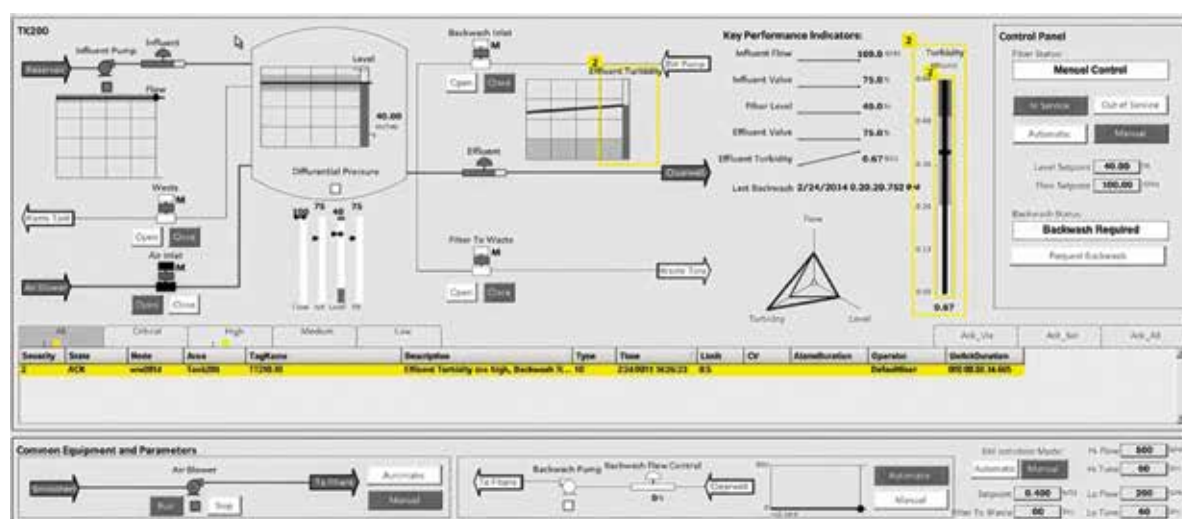
Comparing live performance with historical benchmarks helps validate improvements, identify emerging issues early and support continuous operational improvement.



What Can You Do with Data Analytics?

Comparing live process data with historical benchmark data allows you to:

- Detect process deviations before they impact quality or increase waste
- Monitor, predict and report energy and environmental performance
- Identify rising energy consumption caused by equipment degradation or inefficient operation
- Plan maintenance activities to improve OEE and reduce unplanned downtime



Insight When It Matters Most

Modern HMIs must present the right information at the right time. Eurotherm engineers develop intuitive visualizations that improve situational awareness and help operators respond quickly and effectively.

Automated Reporting & KPI Dashboards

Automated reporting and dashboard tools help demonstrate the impact of energy, production, and process improvements while reducing manual effort. Reports and dashboards can be generated on demand or automatically from predefined templates using historian data.

Technology Partner for Glass Manufacturing

The success of a glass manufacturing project depends on more than selecting the right technology. It requires a partner who understands your process, operational challenges and long-term business objectives.

Eurotherm's global team combines decades of glass industry experience with deep application expertise. From concept and design through commissioning and lifecycle support, we help deliver consistent process performance across your operations.

Project Delivery

- System design, testing, installation and commissioning
- Pilot studies, R&D and full-scale industrial projects
- ISO 9001 quality-managed project execution

Glass Process Expertise

- Extensive glass process application knowledge
- High-efficiency process automation and control
- Energy-efficient power and combustion control strategies

Services

- Training
- Technical support
- Engineering support
- Calibration services
- Energy surveys
- Global Alliance Agreements
- Spare parts
- Service Level Agreements (SLAs)

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Contact your local sales representative



Watlow, W & Design (W in Diamond) , ADAPTIVE THERMAL SYSTEMS, ASPYRE, ASSURANT, ATS and Design (Signaling Pulse), COMPOSER, Chessell, DIN-A-MITE, Eurotherm, EurothermSuite, EFit, EPack, EPower, Eycon, ECO-HEAT, EHG, E-SAFE, EXACTSENSE, EXSTREAM, EZ-ZONE, EZ-LINK, F4T, FIREBAR, FIREROD, FLUENT, FREEFLEX, HELIMAX, HYDROSAFE, MINICHEF, MULTICELL, Mini8, nanodac, OPTIMAX, piccolo, PM LEGACY, PM PLUS, POWERED BY POSSIBILITY, POWERGLIDE, POWERSAFE, RAYMAX, SELECT, SERV-RITE, SERIES EHG, STREAMLINE, STRETCH-TO-LENGTH, SURETEMP, TRU-TUNE, ULTRAMIC, versadac, VISUAL DESIGNER, WATCONNECT, Watlow. com, XACTPAK, are all trademarks and property of Watlow Electric Manufacturing Company, its subsidiaries and affiliated companies. All other trademarks are the property of their respective owners.