



Transforming Glass Plant Maintenance

with ZIPPE's zmart®360°

In today's fast-paced industrial environments, optimising the performance and reliability of glass plant equipment is more critical than ever. To meet this challenge, Zippe has developed zmart®360°, a comprehensive digital service and maintenance platform designed to transform how operating personnel interact with system data, documentation, and support services. The Zippe zmart®360° tool goes far beyond a digital filing cabinet. It is a fully integrated, interactive platform created to simplify service and maintenance workflows in glass production. By combining electronic documentation storage, maintenance planning, spare parts enquiries, real-time service communication, and historical tracking, zmart®360° enables plant teams to make faster, more informed decisions - anytime, anywhere. Whether

addressing urgent repair needs, scheduling preventive maintenance, or accessing equipment documentation, zmart®360° functions as a constant digital assistant. The web-based platform is accessible 24/7 via PC, tablet, or smartphone, ensuring support is always within reach.

A SMARTER WAY TO MANAGE A PLANT

Time-consuming email exchanges, paper manuals, and delayed phone responses can hinder efficient plant management. With zmart®360°, teams gain immediate access to essential information within a single environment.

What zmart®360° Includes: Electronic storage of system documentation - All essential files, including manuals, wiring diagrams, and repair instructions, are centrally organised and instantly retrievable.

- Maintenance plans - Scheduled maintenance

Digital transformation is reshaping glass manufacturing. Here ZIPPE's zmart®360° platform brings service and maintenance fully into the connected era. By integrating documentation, ticketing, QR-based access and optional AI-driven support, the system reduces downtime, accelerates problem resolution and enables smarter, data-informed plant management worldwide.

tasks can be monitored and managed without manual tracking;

- Direct spare parts enquiry option - The correct parts can be identified and requested promptly, reducing ordering errors and delays;
- Direct service call enquiries - Service requests can be raised quickly and tracked directly within the

platform;

- Service history tracking - A complete record of open and completed service cases supports analysis and informed decision-making.
- Electronic ticket function - Issues can be submitted and tracked, ensuring structured communication between plant teams and service experts.



WHY ZMART®360° IS AN EXCELLENT CHOICE

The objective behind zmart®360° is clear: streamline processes, reduce downtime, and increase productivity.

Key Benefits:

- Instant access to data - System-related information is available digitally at the touch of a button;
- Short response times - Issues can be reported and addressed quickly, minimising communication delays;
- Faster problem resolution - Comprehensive documentation and historical data improve troubleshooting efficiency;
- Paperless documentation - Electronic storage reduces administrative effort and potential manual errors;
- Reduced travel and effort - Mobile access eliminates unnecessary movement between machines and offices;
- Time savings and efficiency - Less time spent searching for information means more time focused

on production;

- Minimised downtime - Faster issue detection and resolution help maintain continuous operation.

HOW IT WORKS - SIMPLE, SMART AND EFFECTIVE

Each relevant plant component is labeled with an individual QR code. When scanned via smartphone or tablet, the code provides direct access to real-time, component-specific information. This includes:

- Current component status

- Past service history
- Maintenance checklists
- Spare parts lists
- Direct links to raise a ticket or order parts

All information is also accessible via a secure web portal, ensuring equal usability from the office. Data is updated in real time as service cases are opened, processed, and resolved.

INTEGRATED COMMUNICATION WITH ZIPPE EXPERTS

The integrated ticket function allows users to:

- Submit service enquiries



- to specific departments
- Request support calls
- Enquire about or order spare parts
- Track ticket progress
- Receive documented feedback and updates

When maintenance or repair work is required, all relevant information is already stored within the platform, eliminating the need to search through emails or paper files.

AI SUPPORT TO SUPERCHARGE MAINTENANCE

To further enhance performance, zmart®360° includes optional AI-based features designed to support troubleshooting and plant operations.

AI-Driven Features:

- Natural language queries - Users can ask questions in plain language and receive precise answers;
- Multilingual support -

The system supports 60 languages, automatically translating documentation and responses;

- Contextual problem solving - The AI prioritises plant-specific documentation and references previous service cases to recommend solutions;
- 24/7 availability - Immediate assistance is available at any time;
- Cited references in every answer - Responses include links to the exact document sections for further review.

Rather than functioning as a generic chatbot, the AI component continuously learns from plant data, enhancing its accuracy and relevance over time.

ONE PLATFORM, UNLIMITED POSSIBILITIES

For plant managers, mainte-

nance technicians, and service engineers, zmart®360° centralises service and maintenance processes within a single digital environment. The result is faster decision-making, transparent communication, reduced operational stress, increased equipment uptime, and improved long-term planning. zmart®360° represents a comprehensive digital transformation of service and maintenance workflows. By integrating automation, connectivity, and intelligent data access, it positions glass plants to respond more effectively to current operational demands while preparing for future maintenance strategies.

IN SHORT

Zippe's zmart®360° is a digital platform designed to streamline maintenance and service operations.

Through QR code integration, digital documentation, ticketing and service history tracking, it simplifies workflows and enhances response times.

AI-driven features, including multilingual support and natural language processing, further extend its capabilities across diverse, global workforces. As the glass industry advances toward digital-first solutions, zmart®360° offers an adaptable and forward-looking approach to service and plant management.



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The 35th China International Glass Industrial Technical Exhibition

Shanghai New International Expo Centre
April 7th-10th, 2026

Host: The Chinese Ceramic Society
Organizer: Beijing Zhonggui Exhibition Co., Ltd.

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