

Architectural Glass Systems

Architectural Control System/Upgrade/Retrofit

Original Glasstech Architectural Control System

Since its inception in 1971, Glasstech has utilized Motorola control technology, initially the 6800 series and later the 6809 series. Many 6809 systems are still in use today, but the technology has been overtaken and components are difficult to replace or service. New and improved control systems are now available and Glasstech has partnered with Rockwell Automation to offer the state-of-the-art Allen-Bradley Logix™-based solution.

The new control system is a complete solution featuring:

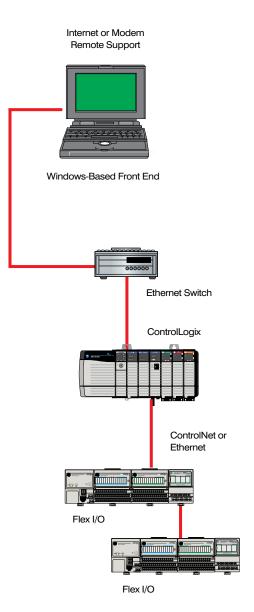
- ControlLogix[™] or CompactLogix[™] processor
- Flex I/O on ControlNet or Ethernet
- Optional Powerflex drives
- RSLogix5000 programming software
- Optional Panelview[™] Plus operator interface

Why Upgrade?

With the new control system, Glasstech's customers will have:

- Improved cycle time/increased production
- A single automation solution with widely accepted standard
- Long-term, stable solution
- Minimized spare parts inventory
- Local support and worldwide spare parts availability through Rockwell Automation distributors
- Minimized production downtime during retrofit with Glasstech streamlined retrofit process
- Standard PLC solution
 - Additional diagnostics for less downtime while troubleshooting
 - Supports Rockwell Automation integrated architecture/Factory Talk strategy
 - Simplified process modifications
 - Process and quality data available from additional packages like PlantMetrix/Historian

Architectural Retrofit System Diagram





Architectural Control System/Upgrade/Retrofit Technical Features

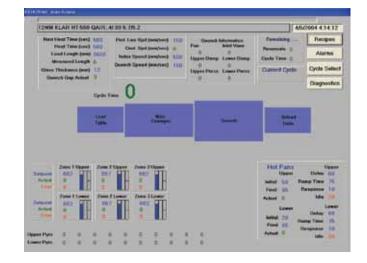
ControlLogix™ Upgrade

New Allen-Bradley System	Old 6809 System
Software	Software
Modem and software included as standard for remote diagnostics and program downloads	Not available
All programs downloadable from WBFE	Programs stored on chips or need to be downloaded from external computer
Improved glass heating time based for more constant cycles and better optics	Typically not available
Hardware	Hardware
Standard off-the-shelf Allen-Bradley hardware	Custom hardware from Glasstech
Operator Interface	Operator Interface
Color Graphics HMI	Text-based system
Recipes stored on hard drive; contains more description information	Recipes stored on 6809 board; allows for only one field of information
Historical information can be printed or saved on hard drive for later review	Typically information is either logged to printer or lost
Production monitor standard – includes number of loads in, loads out, time in cycle, time out of cycle and time in don't load.	Production monitor typically not available

Main WBFE Screen

The main screen contains the most typically changed parameters and feedback:

- Cycle mode and part run
- · Remaining cycle time
- Location of glass in furnace
- · Zone temperatures
- · Access to other screens



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