



# Model CI-1000

## Central-Feed Liquid Chemical Injection System



Historically,  
industrial laundries  
are labor-intensive,  
high-stress operations.  
**Custom Control  
Systems**  
has changed that.

### For more information:

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## CI-1000 SPECIFICATIONS

### INJECTION CAPABILITIES

**Chemicals** Each rack can support up to 16 chemicals. Each system (up to four racks) can support as many as 32 chemicals.

**Washers** Each rack can support up to 16 washers. Each system (up to four racks) can support as many as 32 washers.

**Injections** Injections performed by volume, quantities 1oz-25 gal.

**Flush Method** Air or water; individual flush times can be configured for each washer

### UTILITY REQUIREMENTS

**Power Source** 90 - 150/200 - 250 Volts AC @ 5 amps, 50 - 60 Hz

**Water** Requires pressurized water connection to fill holding tank on system; hot and cold water connections required for tempered water system

**Air** Requires 1/2" air line, 60-80 PSI

### CONSTRUCTION

**Enclosure** 1/8" stainless steel rack for chemical valves and pump; NEMA 4 enclosure for control system

**Mounting** Requires 3/8" concrete anchors at each corner of the base

**Control** Pentium® 333MHz industrial PC with 10.4 inch color active-matrix LCD display and resistive touchscreen.

**Washer Valves** 1/2" Teflon® piston valves; air-to-open, spring return actuator

**Chemical Valves** 1/2" Teflon® piston valves; air-to-open, spring return actuator

## PRODUCT DESCRIPTION

The Custom Control Systems CI-1000 is a liquid chemical injection system designed specifically for use with CCS industrial washer controls and washer interfaces. A standard CI-1000 can provide 16 chemical supplies (liquid or diluted solid) to each of 16 washers. Up to four injection racks can be connected to a single computer, allowing you to increase the number of chemicals per washer, increase the number of washers, or set up redundant systems for improved uptime. In a fully-populated redundant system (four racks with 16 chemicals and 16 washers, 2 primary and 2 backup racks), the CI-1000 can deliver 32 chemicals to 32 washers.

### Designed with you in mind

The Custom Control Systems chemical injection system was designed from the ground up to serve industrial laundries and textile processing plants. The injection system rack is designed to take up as little space as possible, and all components are easy to access for inspection and maintenance. The touchscreen control gives you instant information about the current status of the system, and shows a history of the chemicals that have recently been injected.

### Digital Convenience

The CI-1000 is backed by over ten years of microprocessor design experience. Like other CCS products, it is designed to work with the Report Center data collection and reporting system. And, like CCS washer and dryer controls, the CI-1000 works with WashComm for easy configuration and formula programming. The CI-1000 communicates with standard CCS washer controls or washer interfaces using RS-485, and connects to your office network using 10Base-T Ethernet for remote report printing. The CI-1000 includes the chemical and washer modules of Report Center, giving you chemical use, chemical cost, formula run time, turnaround time and error log reports right out of the box. These reports can be installed on a manager's or engineer's computer for remote printing, or can be generated right on the system itself. In redundant systems, the chemical computer will use both the primary and backup racks during normal operation to reduce chemical wait times, then switch over to using only one rack for maintenance.

## CI-1000 FEATURES

**Chemicals** supports up to 32 liquid or dilute chemicals per system in a multi-rack configuration (16 chemicals per rack maximum)

**Washers** supports up to 32 washers with CCS controls or CCS washer interfaces in a multi-rack configuration (16 washers per rack maximum); includes individual proof-of-flow switches and check valves for each washer

**Injection Method** injection by volume using a flowmeter; can be configured to inject by time in the event of flowmeter failure

**Pump** air-operated double-diaphragm

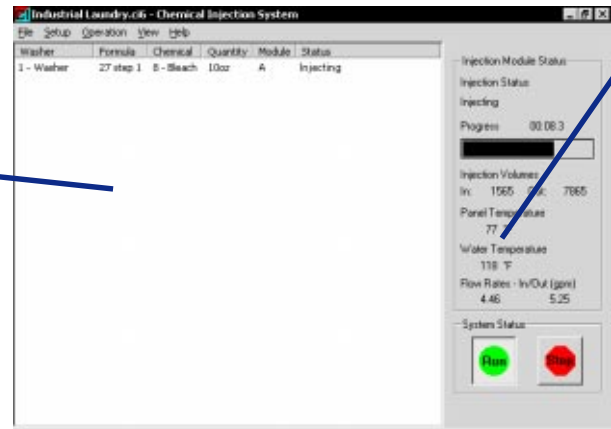
**Chemical Flush** either water or air may be used to flush chemicals to the washers

**Control** Touch-screen computer with 10.4" color LCD display

**Valves** Teflon® piston valves and valve manifolds

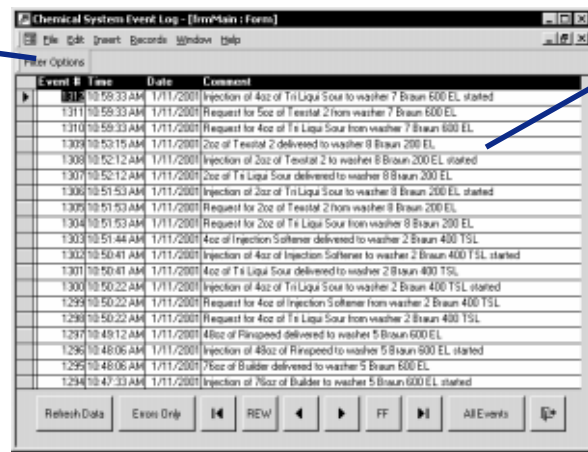
**Communication Interface** RS-485 to CCS washer controls and washer interface units; 10Base-T Ethernet to office computer network

**Injection list display** shows current, future, and past injections to give a more complete picture of what the system is doing.



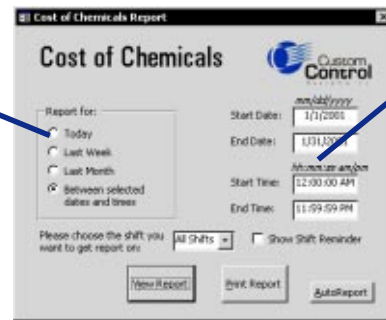
**Injection module status** shows you what the injection module is currently doing - including flow rates and temperatures.

**Event display filters** let you eliminate the noise and get right to the thing you want to see.



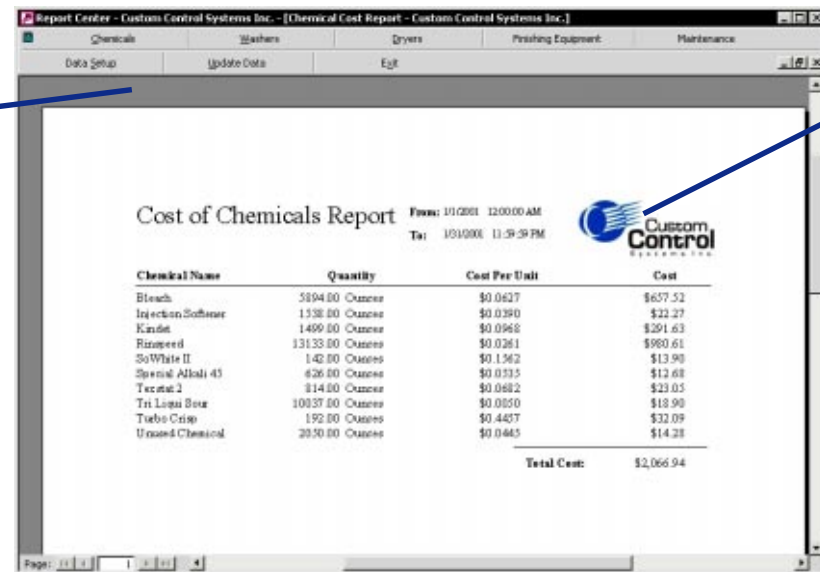
**System event log** shows you just about everything that's happened on the chemical system - from errors to setup changes to injection starts and completions.

**Chemical reporting system** gives you quick, convenient access to the most important information - like the cost of chemicals used during a given interval.



**Flexibility and convenience** are everywhere you look in Report Center. In this report generation screen, you have the option of quickly printing a daily cost report for all shifts, or breaking down the report over a range of hours and days.

**Print your reports out**, or view them on-screen to get a quick snapshot of where your plant is right now.

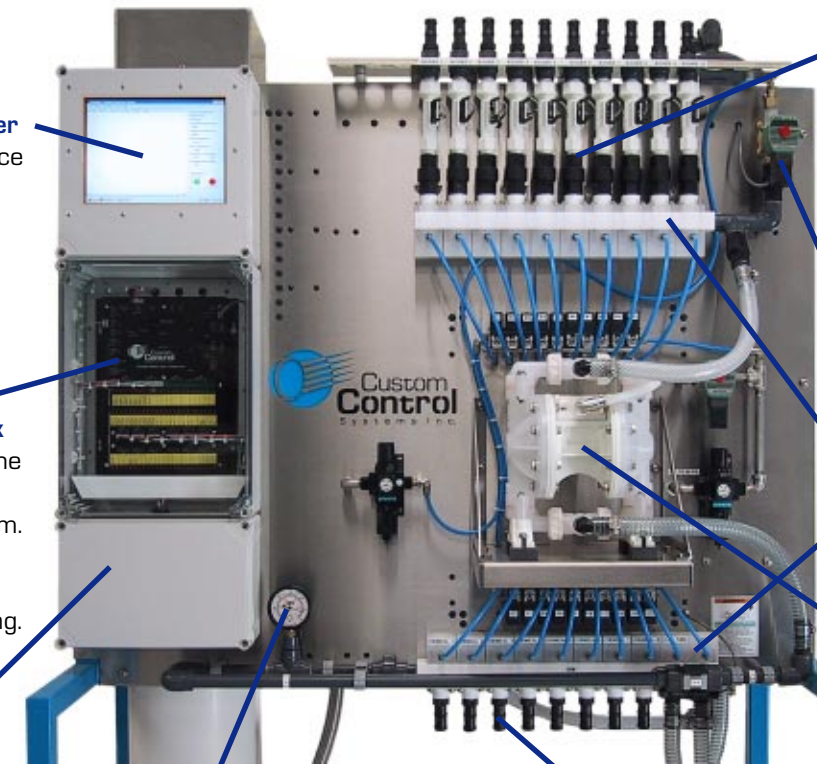


**Reports are clear and concise** to keep paper use and information overload under control.

**Touch-screen computer** brings extra convenience and ease-of-use to configuration and operation.

**Clear cover on injection control box** lets you quickly see the status of inputs and outputs on the system. All I/O points are clearly marked to speed troubleshooting.

**NEMA 4-rated electrical enclosures** let you use a water hose to clean off the system.



**Vacuum gauge** to assist in setup and troubleshooting.

**Hose barb fittings** for each chemical and washer make hookup fast and easy.

**Individual flow switches and check valves for each washer** help verify that chemical hoses to the washers are not clogged, and keep chemical from flowing back into the system and damaging the valves.

**Flush system supports both air and water flush** letting you choose which is more effective for your laundry.

**Teflon® valves** for both chemical intake and washer distribution provide superior chemical resistance.

**Double-diaphragm pump** means no worries about priming the system when it sucks air out of an empty chemical drum.

**Calibration tube** for setup and system tuning after flowmeter changes.

**Sealed wiring junction boxes** mean you don't have to worry about things getting wet.

**Welded tube-steel frame** supports the injection rack and allows for flexible mounting.



**Stainless steel system rack** reduces opportunities for corrosion and improves durability.

**Tempered water tank** provides consistent water temperatures for dilution.

**Hot and cold water inlets** allow control to automatically temper chemical dilution water.