



Clean, Calibrate and Test (CCT) Sentry™1510 Atmospheric Diffusion Furnace Controller

Hardware

Why run your furnace at less than optimum performance?

With your Brooks Automation, Inc. Sentry™ 1510 (or S1510) Atmospheric Diffusion Furnace Controller operating at peak performance, you experience a sealed system, repeatable process pressures, no back streaming from house exhaust, fast response, and automatic set point control that delivers unmatched furnace process control and quality production.

The diffusion furnace exhaust environment is a harsh one. As with your car, without regular maintenance of your S1510, equipment performance diminishes over time. Any downtime is extremely costly to a fab, but unplanned downtime is particularly expensive and disruptive.

Brooks' Clean, Calibrate and Test (CCT) program, in concert with S1510 trained fab technicians, delivers the most consistent, high value process operation from your equipment. Additionally, the fab maintains complete control over their tool time through a regularly scheduled preventive maintenance program.

Clean, Calibrate and Test (CCT) and more

The S1510 unit requires precise assembly and testing. As such, preventive maintenance must be performed in a certified S1510 manufacturing facility. Brooks recommends the following preventive maintenance program for S1510s.

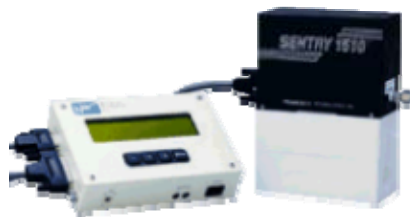
BENEFITS:

S1510 Clean, Calibrate and Test (CCT) Benefits

- > No unplanned downtime
- > Consistent, continuous process operation
- > Factory direct quality

Sentry™ 1510 Atmospheric Diffusion Furnace Controller Process Benefits

- > Reaches setpoint quickly – enables rapid recipe changes
- > Improves process repeatability
- > Improves oxide quality through contamination-free work environment
- > Increased usable load size



SENTRY™1510
Atmospheric Diffusion Furnace Controller

Technician Training

The first step to achieving optimum performance and value from your S1510 is to have fully trained technicians in your fab. Brooks offers training for fab technicians to insure that they are fully trained in S1510 installation, inspection and troubleshooting. This on-site training course involves both classroom and hands-on activities working directly with your specific equipment and process environment.

Preventive Maintenance in your Fab

Once fully trained, your fab technicians can perform the S1510 Preventive Maintenance in the Fab and utilize their troubleshooting skills to achieve the highest furnace control performance by insuring proper S1510 operation.

Preventive Maintenance in the Fab consists of inspecting the piston for particles or contamination, looking for loose or damaged connections in wiring and circuit boards, checking the internal nitrogen line for proper connection and for leaks, inspecting the Sense line for any bend or loose connection, insuring that the piston is free floating and, as appropriate, checking the condenser.

Preventive Maintenance at the Brooks Factory

Annually, or more often depending on your process environment, S1510 units require Preventive Maintenance at the Brooks Factory, which is called a Clean, Calibrate and Test (CCT). In the Brooks focused factory, a certified technician performs an evaluation that compares current test data with original shipment test data, cleans the piston and cylinder, tests for tolerances, cleans the body and housing, replaces all O-rings, reassembles the unit, recalibrates transducer, recalibrates regulator for bias and air bearing, performs tests and records

data.

Repair

During the CCT but not included in the standard CCT price, the Brooks factory certified technician identifies and performs all necessary repairs required to return the S1510 unit to peak performance.

The program works like this

Start with trained fab technicians who are certified to install, inspect and troubleshoot S1510s.

Use on-hand, or newly purchased, spare S1510 units, in order to initiate swapping out the production units requiring preventive maintenance. The number of spare units required to achieve the desired preventive maintenance schedule is determined by discussion between Brooks and the fab and is based on the process environment and the number of S1510s in production.

After CCT and repair are completed, the factory certified unit, with an additional 3-month warranty, is returned to the fab. The process from this point forward is a continuous flow of production units going through CCT and being returned to production.

Talk with your Brooks sales representative to find out how to initiate the CCT program at your facility, including

- > Fab Technician Training
- > Spare S1510 units
- > Clean, Calibrate and Test (CCT)
- > Repair



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