

Catalytic Products Service Solutions



A flexographic printer recently contacted Catalytic Products for help solving a recurring problem. They had purchased a competitor's RTO 2 years prior. While the unit did run and did process their VOCs, it had never been able to pass a stack test, and the company was out of compliance. Any calls for assistance in getting the RTO to be compliant by the original manufacturer went unanswered.

CPI did a complete evaluation of the RTO and came to several conclusions; There were some minor issues with a fatigued burner and deteriorated expansion joints, gaps in the RTO media, and a very weak isolation damper assembly that had broken several times and been repaired inadequately. The main culprit, however, were valves that did not seal properly in 3 out of 4 positions.

CPI analyzed the valve construction and actuation, and determined that the issue was not with the valve platens, nor was it with the shaft/bearing assembly. They seemed to be mounted and moving straight and true. The plenum wall that the valve seats against was not straight, and the valve seat ring could not possibly close up and seal against the platen.

Our solution: CPI manufactured a slip-ring to fit inside the valve seal ring. We designed it so that when installed, it could be adjusted to give the best possible contact against the valve platen to provide a seal. Once the slip ring was adjusted properly, it could be locked in place using set screws. Heat-resistant gasket material was also used to provide additional sealing against thermal expansion.

The work was performed over a weekend by CPI's highly qualified technical staff. By Monday Morning, the RTO was back up to heat and the printer was back in production. A stack test performed a few short weeks later proved that CPI was able to repair the RTO and bring it completely into compliance.

For more information about this or any of our other custom engineered solutions, please contact us.

Thermal Oxidizers, Regenerative Thermal Oxidizers, Catalytic Oxidizer's, Heat Recovery Systems, Energy Conservation, Repair and Retrofit Services, Maintenance Services, Custom Engineering