

Water Leak Testing of New and Existing Grease exhaust vent systems.

Summary: A high pressure multi-nozzle spinjet in conjunction (where needed) with a 15 degree or wider single nozzle lance is to be passed through all new grease exhaust vent systems with the water spray contacting all interior portions of the duct. This is to check for any liquid leakage in the system plus to check for adequate access and other problems that can be repaired during the construction or leak testing phase. All water used in the test must be collected in some fashion for discharge to a sanitary drain.

1. The water testing job shall to be scheduled after the welded grease exhaust system with the hood and all access plates installed. The leaktesting can be done in multi stages for tall multi story runs or multi story multi duct runs, but there must be one final test of all connection joints.
2. All testing is to be done before any fire-wrap is installed or with fire wrap removed.
3. Testing Contractor shall verify water availability, building access, electrical availability, amount of high pressure hose needed to reach all areas of system, and any needed roof access with Job Superintendent when scheduling job.
4. The testing company should also re-verify during job reminder phone call that is to be made by Testing Contractor to the Job site Superintendent the working day before the job is scheduled.
5. A water source where a hose can be connected shall be available
6. A high pressure washer with minimum capabilities of 1000PSI @ 3GPM. (minimum requirements to run a multi nozzle duct cleaner(known as a spinjet or roto-nozzle)
7. Adequate high pressure hose along with a 6" or 12" spinjet (or Roto-nozzle) shall be required.
8. The work should normally start at the intake(Hood) portion of the system (or at the electrostatic precipitator where applicable). The leaktest may start from other areas of the system depending on layout.
9. The nozzles shall progress through the system at a rate of approximately one foot every five seconds until it reaches the end point.
10. With the hood in place, the Testing Company shall collect the wastewater similar to a routine cleaning with the hood taped and clamped up with at least two mil or thicker clear poly (Plastic) funneling into a large watertight brute (or similar) bucket.
11. A water vacuum shall be used to make sure all excess water is removed from hood and ductwork when done.
12. The general contractor's welder shall be on-site during the leaktesting with proper welding equipment(A MIG welder is highly recommended), a bright portable light, with access to all parts of the system.
13. A spotter with the welder shall access the outside of the ductwork to spot any leaks.
14. If the duct leaks, the leaks shall be repaired and the test is to be redone
15. Additional leaks shall continue to be repaired and re-tested until no leaks exist.
16. When testing is completed, The Testing Company shall dry out the duct, remove the plastic and return system to same condition as found (with leaks repaired).
17. The Testing Company will take pictures of the system and procedure, then e-mail them to Enviromatic to verify the job is done correctly.

- 18.** A leaktest form shall be filled out and signed that system is liquid tight as specified by NFPA96 guidelines.
- 19.** The leaktest form shall note number of leaks found, number of re-testing required in needed, rough drawing of the system with access plate locations and where the leaks were found and repaired. The form shall have signature lines for both the job site representative and the testing company representative.
- 20.** If any sealant (EX: JB Weld, epoxies,etc) is found in a welded duct, the test shall immediately fail and the leaktesting will cease immediately until all sealant is removed to bare metal or bare welds.
- 21.** For listed ducts with sealed joints, only the listed sealant shall be used. The leaktesting will progress in the same manner as the welded ducts EXCEPT leakage requiring sealant repairs will need to cure for the required time before re-testing.