



NEUNDORFER
PARTICULATE KNOWLEDGE

GLOWStream™

Leak Detection Powder for Fabric Filter Bags

INJECTION PROCEDURE

GLOWStream 100% fluorescent powder can detect tears, holes or improper seals in fabric filter bags related to incorrect installation, significantly reducing downtime and possible non-compliance issues. The ultra-fine GLOWStream powder is 3X as concentrated as competitive leak detection powder—**one pound treats 3,000 square feet** (compared to just 1,000 square feet with competitive products).

Once injected into the airstream, the highly concentrated GLOWStream powder accumulates around any leak(s). By simply inspecting the collector using a high intensity ultraviolet black light (such as a Neundorfer SEARCHLight), the location and severity of the bypass leakage can be pinpointed and corrected.

Injection Instructions:

1. Determine the amount of GLOWStream leak detection powder needed by calculating the total filter bag cloth area to be treated. For every 1,000 square feet of filter cloth, 1/3 pound of GLOWStream powder is required (i.e., one pound treats 3,000 ft²). If the total square footage of filter cloth is unknown, use this formula:

$$\text{Total Cloth Area (ft}^2\text{)} = [(\text{Bag Diameter (inches)} \times 3.14 \times \text{Bag Length (inches)}) / 144] \times \text{Total \# Bags}$$

2. Injection of GLOWStream

- Identify suitable injection ports or access doors on the inlet (dirty) side of the baghouse.
- A 2- to 3-inch diameter nipple located in inlet duct or hopper to compartment/collector is ideal. If no port is available opening an access door may be necessary for injection. **Caution: Ensure that the access door can be safely held open during injection procedure**
- By connecting a hose to the injection port, the GLOWStream powder can be vacuumed from the container using the suction from the system. If an access door is used, the open container of GLOWStream needs to be poured into the open door and the suction will transfer the powder into the baghouse.
- Note: If the baghouse operates under positive pressure, a material-conveying blower or inductor is needed for injecting GLOWStream into the baghouse.

3. Ensure the compartment/bag cleaning system is not operating during leak detection testing.
4. Determine that the fan or system air flow can be shut down quickly once the GLOWStream is injected.
5. Confirm that the clean-air plenum side of the compartment can be isolated from excessive background light. This may require temporarily covering this area during the inspection process.
6. Ensure availability of a NIOSH-approved respirator or mask with a HEPA filter cartridge, safety glasses, coveralls and a high-intensity, portable ultraviolet light (such as a SEARCHLight).
 - Note: It is not recommended that the same technician performs the injection and visual leak-checking due to possible contamination of boots and clothing with fluorescent powder during the injection process.
7. Start the system fan if injecting into a single compartment or open the outlet damper in a multiple compartment collector with the system fan already running.
8. Immediately after completing injection, isolate the baghouse compartment by closing the damper or shutting down the system fan to avoid inaccurate indication from excessive filter bag bleedthrough.
9. Safely isolate the compartment and secure a confined space permit (if required).

10. Using a portable, high-intensity black light (such as Searchlight), inspect the compartment's clean side for signs of GLOWStream compound that visibly identifies leaks, holes or structural cracks.
11. Record bag failures (based on the presence of GLOWStream) on a failed bag chart.
12. Repair leaks and re-test filter bags in the baghouse using an alternate, contrasting color to ensure all leaks have been identified and corrected.