

## INSTRUCTION SHEET DUST CHASER LEAK DETECTION SYSTEM

### GETTING STARTED

1. Locate an inlet port in the dirty air stream to the baghouse, (on the negative side of fan) just before the baghouse inlet. The port should be at least 3" in diameter. If Dust Chaser test is being done on a new collector or one that has just been rebagged, go to step No. 3.
2. When doing a Dust Chaser test on a unit that has been in use, turn off the bag cleaning mechanism leaving a dust cake on the bag to give a high-pressure differential between the clean and dirty side of the bag. This will encourage tracer compound to flow through any holes. Visually check the clean air plenum for heavy dust buildup and remove if possible so it won't hide the Dust Chaser powder that will mark the leakage points.
3. Start the fan and introduce 1 pound of tracer compound per 1,000 sq. ft. of filter cloth. (On positive pressure systems, inject before the fan.) The quantity of tracer compound required may vary depending on the length of the ductwork from the fan to the baghouse.
4. After injection of the powder, the fan should be left on for approximately 45 seconds, but no longer than on minute. After shutting the fan off, inspect, using the light. For pulse type units, inspection requires opening the top door and shining the light over the clean air plenum. (Note: test must be performed in darkness for outside inspections.) For shaker or reverse air units, inspection takes place from the inside, starting with the lower level and concentrating the light around the thimble sheet.
5. Areas where leaks or holes exist, allow the tracer compound to pass through to the clean side of the bag where it fluoresces brilliantly when exposed to the UV Light. These areas of fluorescence mark the location of leaks. Bleed-through of the tracer compound that sometimes occurs in woven material or bags that have been in service a long time, may give the appearance of a ruptured bag. You will quickly learn to differentiate between the two effects.
6. After all repairs have been completed, rerun the Dust Chaser test using a different contrasting color to ensure that no leaks remain. The second color will clearly show any areas that may have been missed.

### DUST CHASER COMPOUND USAGE FORMULA

To determine the quantity of tracer compound needed to run one Dust Chaser test, simply follow the formula below:

#### Formula:

Diameter in inches (A) x 3.14 x length in feet (B) : 12 x # of filter bags (C) = Sq. Ft. Cloth area (D)

Since 1 lb. of Dust chaser powder per 1,000 sq. ft. of cloth is required, then (D) : 1,000 = # of lbs required for test.

#### Example:

(A) Diameter = 5", (B) Length = 8', (C) # of bags = 350

$3663 : 1000 = 3.7$  lbs of Dust Chaser Powder (round to 4 lbs)

#### Note:

If the square footage of filter cloth per compartment of baghouse is already known simply divide by 1,000 to obtain the number of pounds of Dust Chaser powder to use.

On positive pressure systems, inject tracer compound before the fan. Quantity of tracer compound may vary depending on length of duct work between the fan and the baghouse. Contact U.S. Air Filtration for recommended usage.

[www.usairfiltration.com](http://www.usairfiltration.com)

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