

Sept. 6, 2005

Important Memo

Duster Air Filtration With Wide Format Printers

The Duster Air Filtration units have a long tradition and history of customer satisfaction. For over 12 years our units have been improving air quality in the workplace across numerous industries. Many of our customers have purchased second and third units as their needs have grown. We have always taken great pride in that word of mouth has been one of our greatest tools for garnering customer interest. Therefore, we wish to ensure that your sales reps are taking the time to properly explain how our units work so that customers will be fully satisfied once they use the Duster.

Customer Expectations

There is a direct correlation between customer satisfaction and customer expectations regarding the use of our Duster Air Filtration units. When the customer is made fully aware of what to expect, and how the units function, then the success rate is generally assured.

To help illustrate how to avoid your sales reps creating an over-expectation of what our units will do we have put together this list of **frequently asked questions and answers**.

How Duster Air Filtration Units Work

Q: Will this unit remove all of the fumes and odors from my wide format solvent-based inkjet printer?

A: The Duster Air Filtration units are designed to remove the fumes and odors from wide format solvent based inkjet printers, however, it needs to be stressed that the fumes from these printers will always be in the air before our unit can clean them out. Therefore, there will always be a certain level of fumes and odors in the printer room. Once production has ended the Duster will remove all of the residual fumes, leaving a clean, fume free room.

The Duster air filtration units work by bouncing the air off of the ceiling and creating an over all air circulation affect that pushes all airborne contaminants down to floor level where they get carried by the air flow to the capture zone of the air filtration unit.

***it is important to note here that for printers that do not have drying attachments, as the outputs are drying they are still emitting fumes, so if they are drying in a room that is separate from the print room you will get fumes in that room also. If the outputs dry in the same room as the printers you should leave the Duster unit running while the outputs are drying to capture the fumes as they are emitted. If you turn off the Duster once the printer is finished all of the fumes that are emitted while the outputs are drying will build up in the room and can permeate to other areas, thus giving the impression that the Duster unit is not

working properly. Dusters are engineered to run indefinitely, therefore, they do not need to be turned off.

How Effective Are the Duster Air Filtration Units

Q: How much of the fumes will it remove?

A: This varies with the type of printer, and type of solvent based ink used but because the Duster continuously cleans the air the concentration levels of fumes in the print room will be reduced by approximately 95%. This means that you may be able to smell the remaining 5%. Once production has finished the Duster will eventually clean out all of the fumes in the print room.

How Long Should The Unit Run

Q: How long should I let the Duster run once production is finished?

A: The Duster unit is fire and safety tested, and the motor is thermally protected so it won't overheat. You should always run the Duster unit while production is occurring. Since the Dusters have been engineered to run 24 hours a day, they will give you a clean room with very fresh air when you re-enter your facility in the morning.

Will The Fumes Spread

Q: Will I still get fumes in my offices and other areas?

A: Generally speaking, and depending upon the layout of a particular facility, when the Duster Air Filtration Unit is running it will contain the fumes to the print room, and stop them from permeating to the rest of the facility. Fumes that have been in an office area prior to using a Duster can usually be removed by opening a front door. Fumes should no longer permeate the office area because they will be contained in the print room by the Duster. The effectiveness of the Duster is best when doors and windows are closed.

Choosing The Correct Unit To Use

Q: If my printer room is small can I use a smaller Duster unit?

A: Due to the nature and volume of fumes produced by wide format solvent-based inkjet printers the most effective unit to utilize is the Duster 2000 Fume Control Unit. This unit was specifically designed to house 2 large (32 lbs each) Activated Carbon filters. This level of carbon is necessary to ensure that the fumes are removed effectively and efficiently. Our smaller units have smaller Activated Carbon filters that simply can't handle the volume of fumes produced.

How To Locate the Unit

Q: Where is the best place to put the Duster in relation to the printer?

A: The best place to put the Duster is in such a location that the airflow created by unit is coming down over top of the printer. If the Duster unit is too close to the printer the fumes may get caught in the air flow and circulate around the room

before getting cleaned out. Conversely, if the Duster unit is too far away, the air flow will have to drag the fumes across the worker area before it can clean them out of the air. You can experiment by moving the unit closer or further away from the printer until you attain the desired results. Best results are usually achieved when Duster is with-in 5-6 feet of the printer

Setting The Speed Correctly

Q: What speed should I be running the unit at?

A: It has been our experience that when employing the Duster with a wide format solvent based inkjet printer the lower speeds are more effective at capturing fumes and odors. The speed at which the fumes and odors pass through the Activated Carbon filters increases the exposure time of the fumes to the carbon pellets thus increasing the ability of the carbon to absorb the fumes. Cross currents and air flows from HVACs and open doors can reduce the effectiveness of the Duster.

*****the most effective speed when used with solvent based printers is between 1000 and 1200 CFM on the gauge.*****

Activated Carbon Filter Lifespan

Q: How do I know when the Activated Carbon filters are saturated and need to be re-filled?

A: The only way to tell when an Activated Carbon filter is saturated and needs to be refilled is by weight. For your convenience the original weight of the filter has been placed on the filter frame. You will then need to weigh the filter once every month, and when the filter gains approximately 50% of its original weight then it is saturated and needs to be replaced.(for example, if Activated Carbon filter and frame will weigh approximately 40 lbs when it is new, once it gains 15-20 lbs it has become saturated and should weigh approximately 55-60 lbs). The activated carbon filters are re-fillable, so you only need purchase the refill pack once the carbon is saturated.

Fume Pro Attachment

Q: What is the Fume Pro Attachment and when should I use it?

A: The Fume Pro attachment is a device that will allow the Duster 2000 Fume Control unit act as a source capture system while still cleaning the overall ambient air in your printer room. This attachment is perfect for use with Solvent Based printers that have exhaust ports on the unit or its drying attachment. The Fume Pro can be used when the equipment that is causing you fumes is equipped with its own exhaust system. If so, you can run 4" ducting from the exhaust ports on your equipment to the intake ports on the Fume Pro Attachment. If the equipment does not have its own exhaust ports then the Fume Pro attachment is not required.

How Duster units work

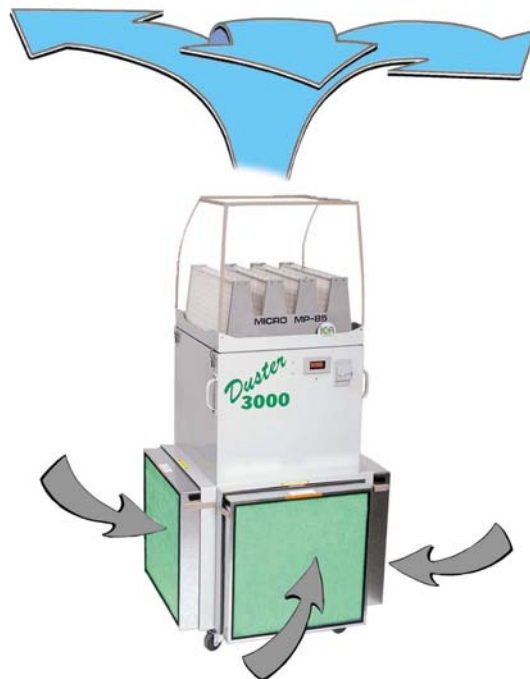
“Invisible airborne pollutants are heavier than air”

This is the most important fact to understand with respect to the operation of the Duster units. It means that all airborne particulate will eventually settle to the floor.

The Duster units employ “floor level pickup” and utilize the mushroom cloud effect. Clean filtered air is directed towards the ceiling which acts as a diffuser, spreading out and forcing the “dirty” air back down towards the floor, assisted by gravity. The air, together with invisible pollutants is drawn in through the intake filters and re-circulated.

This continuous process allows the Duster to clean all the ambient air in the workplace. The size and number of units required can be calculated based on the prevailing conditions.

Duster units with multi stage filtration provide an efficient, cost effective solution to many problematic workplace conditions. All too frequently the emphasis is on “source capture” of pollutants and little attention is given to the dangerous invisible dust particles and gas phase pollutants. Duster units have long lasting cleanable intake filters and refillable carbon filters to ensure many years of reliable service.



Where to position a Duster unit

To maximize the benefits of using a Duster, positioning of the unit is crucial, In general the unit should be positioned so that it draws contaminated air away from the source creating pollution and directs the airflow towards the ceiling. It may take some experimentation to establish the best position.

Duster Air Flow Diagram

