



*Better Air is Our Business®*

## **AmericanAirFilter® OptiFlo®**

### **Cartridge Dust Collector Bag-In/Bag-Out**

*A procedure for removing contaminated filter cartridges and installing clean cartridges*

#### *Installation, Operation and Maintenance Instructions*

##### **Important Warnings—Read First**

1. This document must be permanently displayed in a visible location on the access face of the OptiFlo Bag-In/Bag-Out dust collector housing. It must be accessible by maintenance personnel prior to opening the unit. **DO NOT** store it inside the housing.
2. Read this document thoroughly before removing any of the access covers.
3. Read the Introduction and Safety Precautions before proceeding.



### **1.0 Introduction**

The following instructions describe a general method for installing and replacing cartridge filters in OptiFlo® Bag-In/Bag-Out dust collectors. The housing used in these instructions is a single unit for illustration purposes only. Follow the same procedure for each opening in the OptiFlo unit.

A separate bag kit is required for each opening. These are supplied with the unit. A single bag accommodates both cartridges in each opening. Give careful consideration to handling of the contaminated filters after they have been removed from the unit to avoid tearing the bag.

As with all good maintenance practices, it is important that procedures be developed that take into account the specific equipment, application and installation involved. All personnel should be given adequate training and opportunities for practice before actually working on the equipment.

Before proceeding, the user shall ensure that:

- **Facilities are available for safe storage or disposal of the contaminated filters.**
- **Replacement cartridges are available and stored within the vicinity of the unit.**
- **An adequate supply of bag kits is on hand to complete the change out.**

Replacement bag kits can be obtained through your local AAF Sales Representative.

## Safety Precautions

By its very nature a Bag-In/Bag-Out dust collector is intended to clean air which contains hazardous contaminants in the form of particulates or gases. Such systems must be treated with the utmost care and respect by all who come in contact with them.

Before proceeding the owner/user/maintenance contractor MUST evaluate the nature of the contaminants contained within the Bag-In/Bag-Out housing and determine the hazards that these contaminants present to those who may come in contact with them. Depending upon the result of this evaluation, additional safety measures may be advisable.

Although it is highly reliable, the OptiFlo Bag-In/Bag-Out system is not foolproof. Accidents can happen. Bags may tear or be pulled away from the mounting collar exposing the area outside the housing to contamination from the inside. It is the responsibility of the owner/user/maintenance contractor to determine the extent and nature of any additional safety measures required; however, when necessary AAF recommends that at least the following safety precautions be followed:

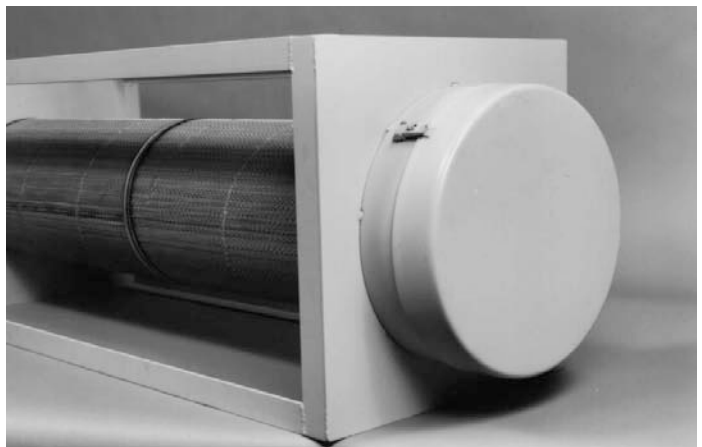
- **Implementation of security provisions to ensure that access to the OptiFlo dust collector is restricted to properly authorized and fully trained individuals.**
- **Use of protective clothing by maintenance personnel together with adequate facilities for sterilization, safe removal and disposal of contaminated clothing.**
- **Use of negative pressurization to prevent migration of contaminants into uncontaminated areas.**
- **Installation of alarms or other methods for detection of escaped contaminants.**
- **Development of procedures for controlling and cleaning up escaped contaminants.**
- **Preparation of evacuation and emergency response plans. Other measures may also be called for depending upon the application. This may include procedures such as sterilization of the system by flooding it with a gaseous compound designed to render the contaminants harmless (e.g. flooding with a disinfectant where the system has been used to capture living organisms such as bacteria).**

*This document is not intended to specify, describe or detail the "additional safety measures" that should be implemented in any particular application. AAF International accepts no responsibility for doing so. This is the responsibility of the system designer, the owner, the user and the maintenance contractor. The above list is offered by way of suggestion only and shall not be considered to be exhaustive or applicable in all situations.*

## **A procedure for removing contaminated cartridges and installing clean cartridges in OptiFlo Bag-In/Bag-Out dust collectors.**

The following is a step-by-step procedure for replacing cartridges in an operating OptiFlo Bag-In/Bag-Out system. The single unit module shown starts out with the filters and bag already installed.

It is recommended that at least two people be on hand to change out the cartridges.



*OptiFlo Bag-In/Bag-Out units are rated for 180°F (82°C) maximum operating temperature.*

### **Step 1**

Shut off airflow to the dust collector unit.

### **Step 2**

Release the latches (2) on the Bag-In/Bag-Out Cover



### **Step 3**

Remove the cover from the housing. With cover removed, the bag can be seen. The bag is secured to the housing collar by an elastic cord which is formed into the opening in the bag. The cord should be in the inner groove (nearest the housing). If it is not, carefully move it to the inner groove.



### **Step 4**

Attach the security strap (stored inside the cover) onto the collar. Place the strap between the two grooves in the collar. This provides an additional safety factor to prevent the bag from being accidentally pulled off the collar.



### **Step 5**

Extend bag from unit.



### **Step 6**

Insert one hand into the built in glove in the bag and loosen the knob on cartridge access cover.



### Step 7

Remove the access cover.



### Step 8

Put the access cover in the built in pocket inside the bag. This will keep the cover out of the way while removing the old cartridges, yet keep it readily accessible.



### Step 9

Using the second set of built in gloves, remove the first cartridge. Slide the cartridge to the end of the bag. Be sure that the bag stays securely attached to the collar as this is being done.



### Step 10

A number of methods for sealing the bag are commonly used. These include heat sealing the bag or tying off the bag using hose clamps or tape. The method illustrated here uses plastic ties and hose clamps. First use two (2) plastic ties to gather a 4-inch section of the bag as close as possible to the end of the cartridge.



### Step 11

Apply two (2) hose clamps in the center of the 4-inch section. The clamps should be separated by approximately one-quarter ( $1/4$ ) inch. Tighten the clamps as securely as possible without cutting the bag.

If tape is used, apply tape in three (3) places about three inches apart. Secure the tape as tightly as possible. Cut through the center piece of tape to separate the two portions of the bag.



**Step 12**

Cut the bag between the two hose clamps with a shears or utility knife.



**Step 13**

With both hands in the built in gloves, remove the second cartridge from the unit. Be sure the integrity of the bag attachment to the collar is maintained.



**Step 14**

Take the cartridge access cover out of the pocket inside the bag. Set it inside the collar so that the second cartridge can be tied off.



**Step 15**

Tie off the second cartridge with plastic ties and hose clamps in the same manner as the first cartridge. See Steps 10–12.



**Step 16**

Cut the bag between the hose clamps. Both cartridges have now been removed from the housing and are safely stored in sealed bags (the tied off bag stub is still attached to the collar).

Remove the security strap from the collar.



### Step 17

Note that the elastic cord is located in the inner groove on the collar, that is, the groove closest to the housing. The elastic cord in the bag stub must be moved to the outer groove. Carefully move the cord to the outer groove.



### Step 18

Insert two clean cartridges into a new bag with the gaskets facing towards the mouth of the bag. Install the bag, with clean cartridges inside, onto the collar.



### Step 19

Be sure the elastic cord on the new bag is placed in the inner groove (nearest the housing).



### Step 20

Install the security strap onto the collar between the two grooves.



### Step 21

With both hands in the built in gloves, carefully remove the old bag stub from the collar. Slide the stub to the bottom of the new bag. Note: the stub remains inside the bag. Place access cover into the built in pocket inside bag.



### Step 22

Using the built in gloves as necessary, insert the first clean filter into the housing by sliding it onto the suspension yoke. While installing the cartridge be careful that it does not contact the housing, handrails, open doors or any other objects which might damage or puncture the cartridge or bag.



### Step 23

Install the second cartridge in the same manner. Before the second cartridge is completely inside the collector, remove the access cover from the pocket inside the bag. Position the cover against the end of the cartridge. Use the cover to push the cartridge all the way into the unit. If any resistance is felt as the second cartridge is being pushed in, remove the access cover and check for obstructions. Pull the second cartridge out far enough to reposition the access cover and reinsert. Secure the cover by turning the knob until it is tight. **Hand tighten only – do not use a wrench.**



### Step 24

Fold up the bag and store it inside the collar. Remove the security strap. For convenience, the security strap should be stored inside the Bag-In/Bag-Out cover.



### Step 25

Reinstall the Bag-In/Bag-Out cover in the collar and secure the latches. This will protect the bag from physical deterioration from sunlight and weathering.



**Repeat this procedure for each opening in the OptiFlo Collector.**

**The OptiFlo cartridge change out procedure is now complete and the collector is ready to be put back into service.**

# AmericanAirFilter® OptiFlo®



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