



**Source Capture Systems**

## **Operation and Maintenance Manual**

### **PCFS Portable System**



**MONOXIVENT - SOURCE CAPTURE SYSTEMS**

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**RECEIVING:**

Please inspect all components for possible shipping damage. Any damage needs to be noted immediately and the shipping papers must be noted as such. This is the receiver's responsibility.

**REMOVAL:**

Carefully lift the unit from its wooden crate and place on the floor. Check all wheels and braking mechanisms for smooth action.

**FUNCTION:**

The PCFS unit is pre-wired and ready for use. Your PCFS may have been supplied with an extraction arm. See arm manual for assembly and adjustment. The PCFS unit has all the operations buttons located on the lower front. On/off button, run time meter, green power light, red filter monitor light. Plug unit into 115/120 outlet and put switch into ON position. Unit will take several seconds to get up to full RPM. If extension cord is to be used, use heavy gauge cord suited for 1-1/2 HP 15-20 amp service.

**FILTER REMOVAL:**

Unit is supplied with the standard 12" x 24" polyester and cellulose media. Filter access is by means of the upper cabinet. Remove the two small accord nuts and flat washers from the upper cabinet. Swing the upper door open which then allows access to the cartridge filter. Back out the bolt threaded into the black filter holding bracket. The bracket has two long legs reaching down to the side of the filter. Each leg has a hole that slips over a mating pin. Spread each leg out away from the filter so the legs will clear the holding pin. Please note that the filter you are removing has an allen bolt, washers, and nut mounted in the end of the filter. Remove this hardware and install on the new replacement filter. Install new filter by placing the filter into the filter centering ring in cabinet. Install the black filter holding bracket and snug bolt into the allen head bolt. Do not over tighten since all you need is for the filter gasket to seal and hold filter firmly in place.

**FILTERS: Standard:** 1224- CF      12"x24" Polyester/cellulose  
Optional: 1224- CFF      12"x24" Flame Retardent Media  
Optional: 1224- CFPT      12"x24" Special Coated Media for moisture and oil  
Applications

**CLEAN OUT TRAY:**

The PCFS is supplied with a clean out tray and the access door is located in the middle section of the cabinet. Simply pull on the center section door by using the indented pull groove on the end of the door. Once the door has been opened, please note there is an allen wrench in the lower right corner mounted in a holding grommet. The allen wrench also has a grommet on the body. Leave the grommet on the allen wrench, as this is for holding the allen wrench in place. Remove the allen wrench and place wrench into the allen head bolt located in the center opening at bottom. Turn allen wrench counter clockwise until the clean out tray frame and tray bottoms out. Pull tray out and dump all dirt into a bag or other suitable container. Replace the clean out tray back onto the track and slide back until tray stops. Using allen wrench and turning clockwise, raise the frame and tray until the tray becomes snug with the upper frame in the center cabinet. Place allen wrench back into the rubber grommet for future use.

**MOTOR AND CONTROL ACCESS:**

The PCFS offers easy access to the motor and other electrical controls. The lowest section of the cabinet has two small acorn nuts located on the right side of the door. Remove the nuts and washers and pull open the door to access all controls and motor.

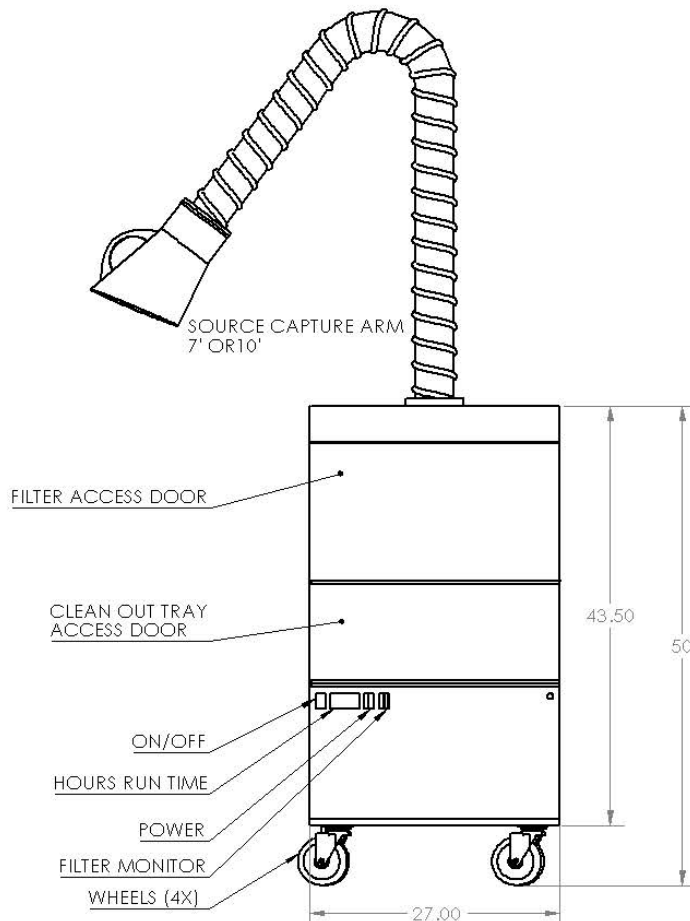
**AIR PULSE FILTER CLEAN:**

The PCFS is supplied with a manual air clean filter system. Located on the handle side of the unit is a hinged air plenum door. The door has a latch on the side of the unit. Open the latch and swing the air plenum door to its open position. Please note that the clean inside of the filter is now exposed. Using a simple air wand (by others) you can quickly blow off the filter by inserting the wand into the filter after opening. The filter is sealed in the cabinet thus controlling the dust blowing off the dirty side of the filter. Be sure the gasket on the air plenum door is kept in good shape as the cleaned filtered air passes through this chamber from the filter to the fan. This air plenum is under negative pressure.

**NOTE:                    SEE DRAWINGS FOR LOCATIONS OF ACCESS DOORS AND  
OTHER COMPONENTS.**

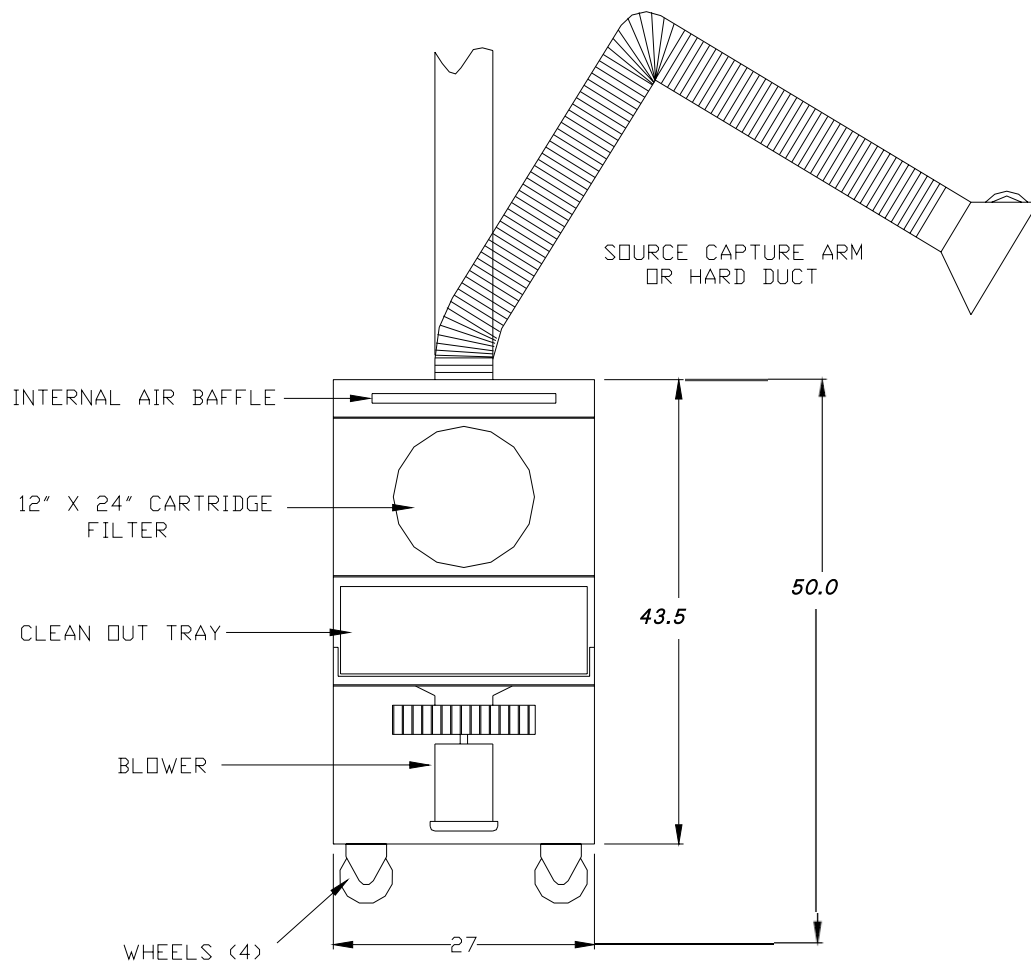
**FRONT VIEW OF PCFS:**

PCFS-7 Unit with 7' Arm Complete  
PCFS-10 Unit with 10' Arm Complete  
PCFS-14 Unit with 14' Arm Complete  
PCFS Unit less Arm for Duct Connection 3450  
Blower: RPM, 1.5 FP, 115/120  
CFM: 750 - Actual  
Color: Blue and White, Industrial Epoxy  
Filter: 12" x 24" Cartridge  
Cabinet: 18-Ga. Steel

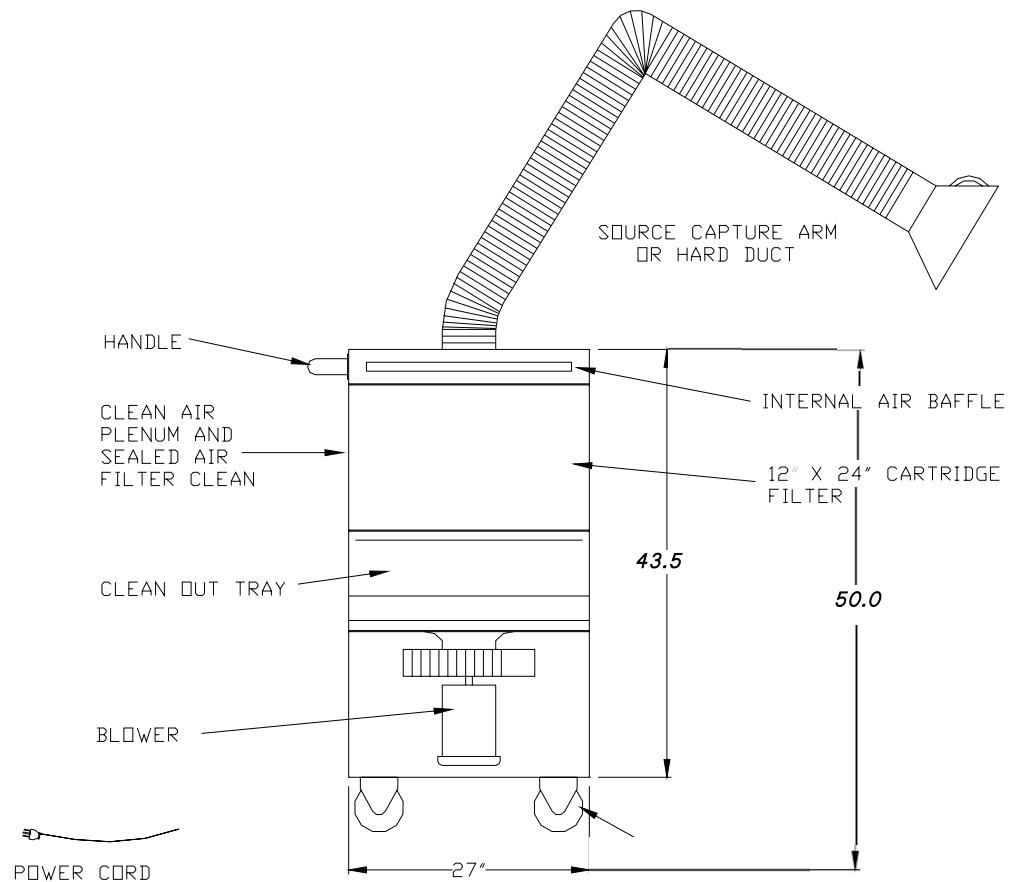




## Exploded Front View



## Exploded Side View



# Assembly Information

## General Information for the Portable Fume Arm

There will be some assembly required for the arm. Please check for all components before starting.

**1. Check components for duct mount arms.**

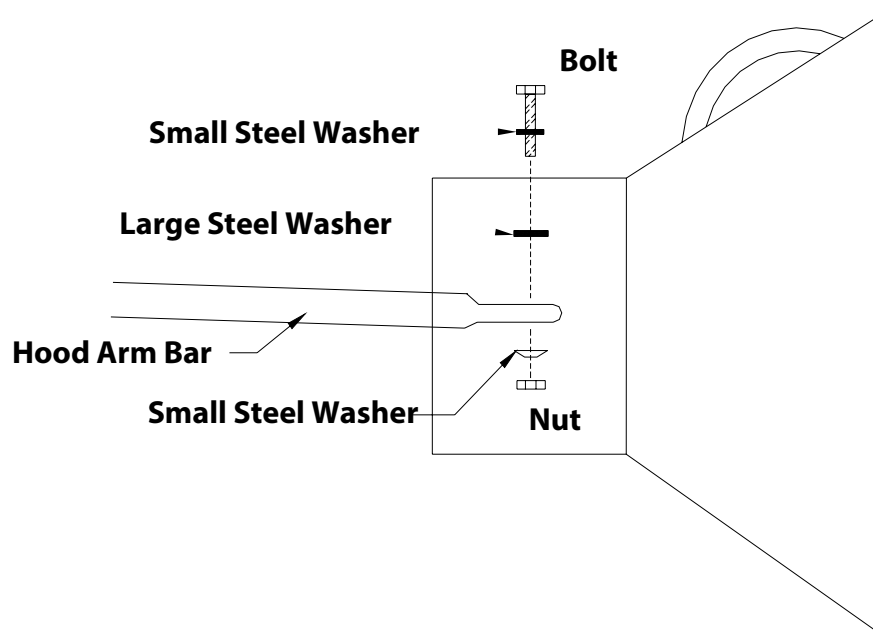
- 1.** Arm with internal support structure
- 2.** Base bracket mounted to arm
- 3.** Hood mounted to arm
- 4.** Hose Installed on arm
- 5.** Black nylon swivel collar mounted on base

**2.** Slide hose back from base bracket. Be sure to see if red bolt is located in Hole 2. If red bolt is not in Hole 2 – then remove bolt and rotate the base bracket 90-degrees so hole in bracket will align with Hole 2. Install red head bolt and snug. Arm is normally shipped with red head bolt in Hole 2 (see following page).

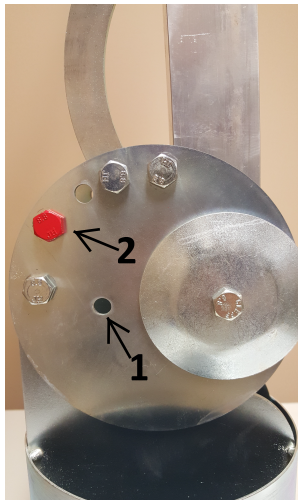
**3.** If mounting arm on Monoxivent portable unit – the 8 holes in the black nylon swivel will align with the 8 holes in the top of the portable unit. Using hardware supplied with the arm, bolt the arm to the top of the unit. Tighten bolts evenly and bring to snug. **Do not overtighten bolts.** Be sure arm swivels easily 360-degrees.

**4.** The arm will need final adjustment/tuning for easiest movement and to stay in place upon positioning. You will find friction pads and adjustment pivot joints in four (4) places. 1. Pivot point at the bracket. 2. Pivot point in the center of the arm. 3&4. Pivot point at the hood location. Only put enough tension on these pivot joints to hold the arm in any position it is placed. The arm final adjustment is key to the arm being user friendly. **Do not over tighten the pivot joint friction discs.** Depending on arm usage and movement, occasional adjustments may be required. Based upon the arm's application, cleaning of the internal support structure may require scheduling.

## Assembly of Hood to Hood Arm Bar on Arm



The drawing shows how the base bracket should be positioned for the arm to mount on a portable or other top mount surface. The arm for portable/top mount should have been supplied as shown. If it is not, then remove the red bolt head bolt and rotate base bracket 90-degrees and line up Hole 2 with hole in bracket and replace the red bolt head and snug.



**Red Bolt Head location for Portable/ Top Mount Arm, mount in hole 2, as shown**

