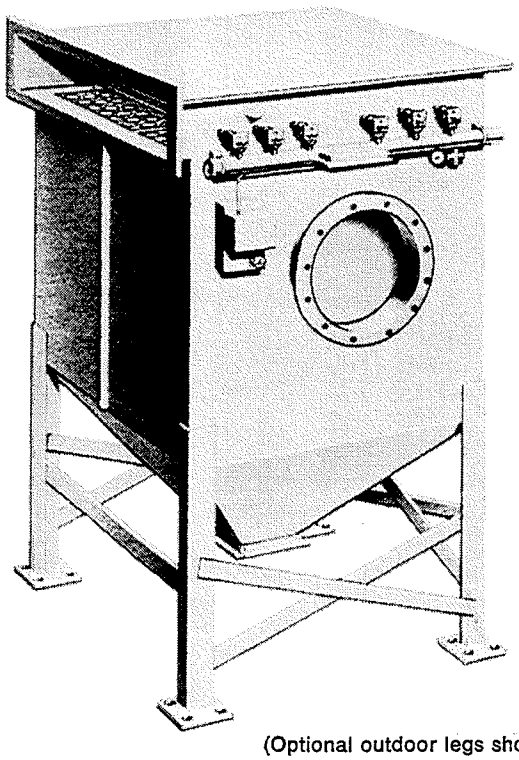
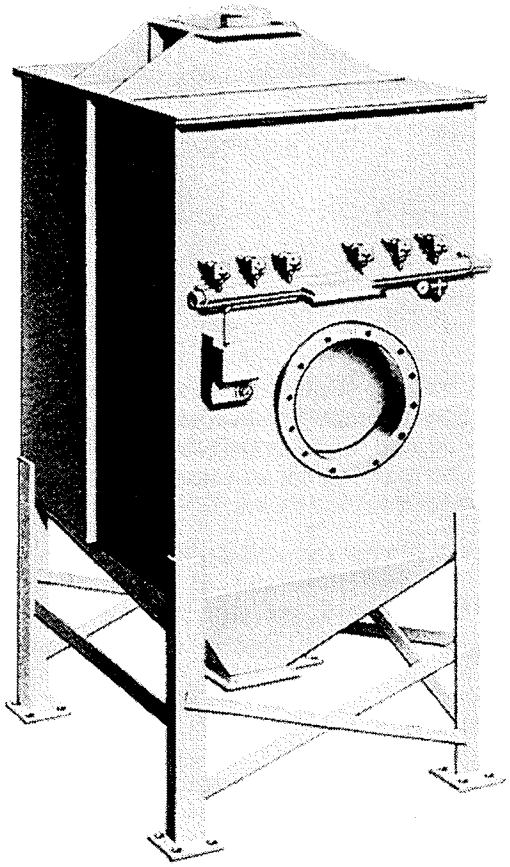
FCP-3-411D
(Formerly CAD-3-411C)

STANDARD UNIT



(Optional outdoor legs shown)

INTEGRAL FAN UNIT



FABRI-Pulse

DESIGN "M" (MODEL 2)

Installation, Operation and Maintenance Instructions

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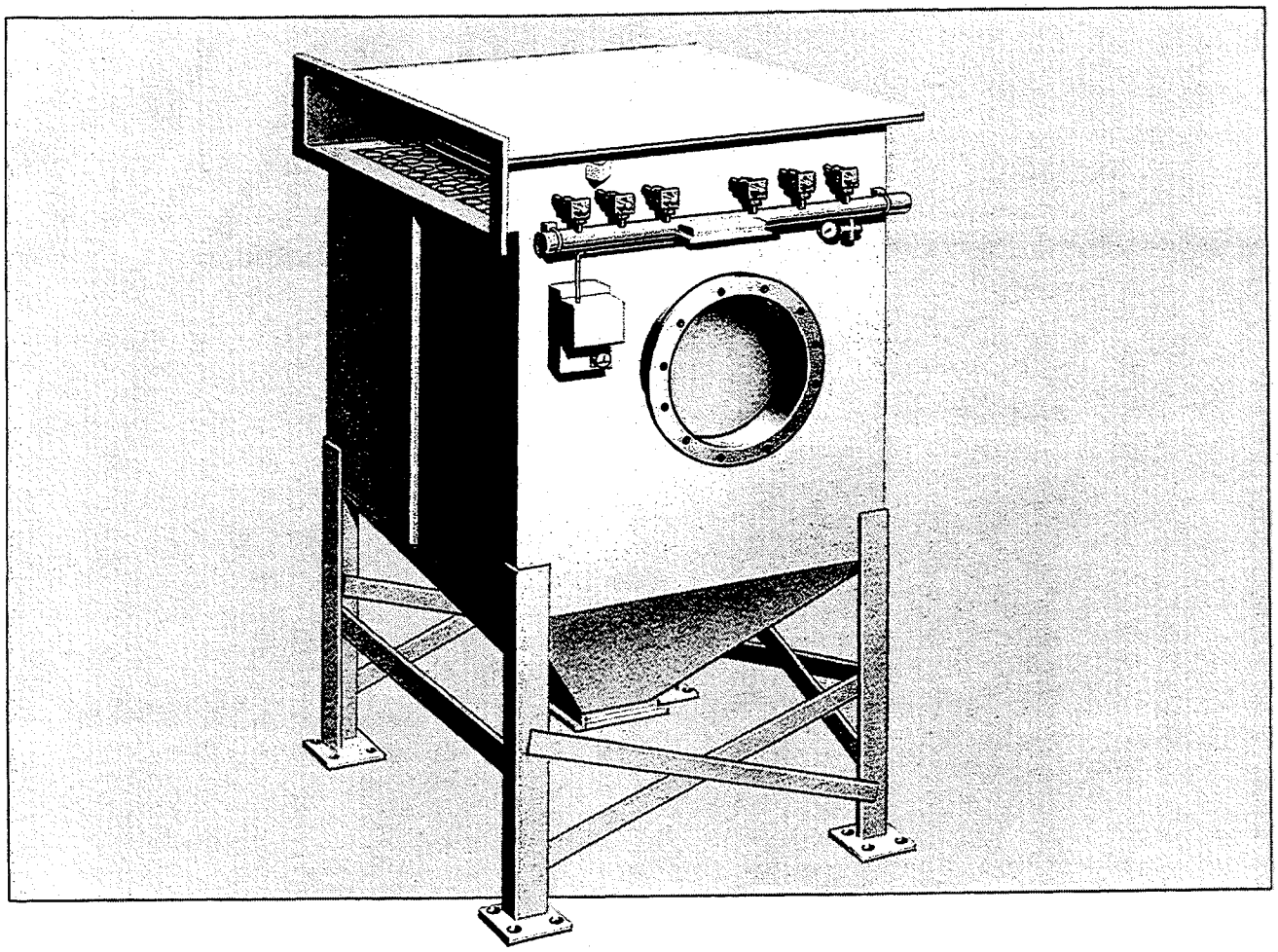


The Design "M" FABRI-Pulse is a pre-assembled continuous and automatic self-cleaning pulse-jet dust collector. This bulletin contains the information necessary for the installation, operation and maintenance of the Design "M" FABRI-Pulse.

Read the entire manual and check each carton and crate against the shipping sheet (Form 1281) before beginning installation.

SHIPMENT

The Design "M" FABRI-Pulse is packaged for domestic transit and shipped FOB factory. Notify your carrier immediately if there is any damage or discrepancy in the shipping papers.

FACTORY ASSEMBLY

All of the Design "M" FABRI-Pulse dust collectors are shipped factory assembled requiring only:

(1) Assembly of hopper section to housing, section on sizes 336 and 420,

(2) field bolting of the legs and braces,

(3) connection of ductwork and/or the fan,

(4) connection of hopper discharge device(s),

(5) mounting and wiring of the control box,

(6) connection of compressed air supply,

(7) differential and air pressure gauge connections,

(8) and installation of the filter elements.

Detailed instructions are given in subsequent sections.

General Information

Standard construction is 12 gauge, welded, hot rolled steel, braced for 16″ w.g. The 2.25″ diameter bags are arranged in a 3″ x 2.5″ spacing pattern. Bags are factory mounted over a galvanized steel support spring and attached to a venturi. Operating tempera-

ture is dependent on type of venturi and/or bag material specified. Inspection, maintenance and bag replacement is through hinged, side-mounted access doors.

The cleaning cycle of the Design "M" FABRI-Pulse is controlled by a solid state timer located in a NEMA 4 enclosure. Both the frequency and duration of the cleaning pulse are controlled through the timer.

The standard Design "M" FABRI-Pulse includes factory installation of the surge tank, air valves, pulse pipes, and solenoid pilot valves.

The solid state pulse timer requires 120 volt power and 80 to 100 psig clean dry air must be supplied to the surge tank. A pressure gauge for the compressed air supply is shipped installed on the manifold inlet fitting.

Installation Instructions

FOUNDATIONS AND ANCHORING

The foundation must be adequate to support the collector's operating weight which includes dust discharge device, wind load and snow load (if any), collected dust, and any optional equipment to be installed. Secure all anchor bolts to assure that the collector is firmly attached to the foundation. Legs bolt to the housing.

SPACE REQUIREMENTS

The minimum space necessary on the sides of the collector without any ductwork is illustrated on the planograph included in the installation package. More space may be required on the sides where inlet and outlet ductwork are located. One side of the unit is blank, permitting installation close to a wall.

DUCTWORK

Connect the inlet duct to the inlet on the collector. Connect the clean air duct to the collector outlet. Ductwork should be of sufficient gauge to withstand the system design pressure and should be independently supported. Flexible connections must be provided between the collector's inlet and outlet flanges and process ducting.

The Design "M" FABRI-Pulse is not designed to support ductwork. Consult the Industrial Ventilation Manual for detailed construction guidelines.

EXPLOSION VENT

The optional explosion vent(s) available are factory installed. A guard to contain and prevent damage from a rapidly opening vent can be provided as a separate item for field installation. Explosion vents should be installed in accordance with local, national and all other applicable codes.

INLET CONNECTIONS

Design "M" collectors are shipped with pre-drilled inlet and outlet flanges. The outlet and inlet are covered for shipping. The covers on the inlet and outlet should be removed when the ductwork is installed.

Hopper Discharge Device attach per manufacturer's instructions.

ELECTRICAL CONTROLS AND WIRING

CAUTION

Potential shock hazard. Disconnect power before servicing. Only qualified electrical personnel should work on this system.

The Design "M" FABRI-Pulse dust collector is normally supplied with NEMA 4 electrical solenoids and timer control (one control system per unit). Options available are NEMA 9 and pre-wiring to a single mounted junction box either NEMA 4 or 9.

On those units not factory pre-wired, control wiring must be field installed between the solenoid valves and the timer output terminals as shown on the electrical connection diagram.

The pulse timer panel (Fig. 1) has a set of normally jumpered terminals labeled "pressure switch" which are used only when an optional remote control device (called demand pulse option) is used. The metal jumper is removed and the "normally open" contacts of the optional pressure switch are then connected to the "PS" terminals — see wiring diagram provided with this option.

CAUTION

To avoid permanent damage to the solid state control:

(1) DO NOT connect 120v to the "PS" terminals.

(2) DO NOT connect 120v to any of the "Output" terminals.

(3) DO NOT connect an "Output" terminal to ground. The fuse on the panel does not protect from a direct short.

Check to be sure the program wire (top right of timer panel shown) is connected to the correct program pin. To do this, make sure that the program wire/pin matches the wiring diagram. Power should be supplied to the solid state timer board across terminals L1 and L2 as shown on the connection diagram. When the power is energized the "Power On" light should illuminate and the unit should start pulsing. With the demand pulse option, the pressure switch settings must be "zero" to start pulsing. The collector should not be allowed to pulse for any extended time without compressed air being supplied to the collector. **Operation without compressed air can damage the solenoid valves.**

The pulse interval and duration are controlled by the solid state timer. The pulse interval is factory set at 30 seconds (field adjust to 10 seconds for demand pulse option), which is satisfactory for most installations. However, since dust loads, media velocity and

other factors will vary from one installation to another, it may be necessary to readjust the pulse interval to meet individual requirements. Contact your AAF representative for assistance. The duration, preset at 60 milliseconds, is also adjustable. THE DURATION SHOULD NOT BE ADJUSTED WITHOUT CONSULTING YOUR AAF REPRESENTATIVE.

COMPRESSED AIR CONNECTION

The compressed air manifold has a pipe cross mounted on the underside of one end. The cross provides connections for the following: 1) a factory mounted pressure gauge, 2) a plugged 1″ NPT connection for condensate drain, and 3) a 1″ NPT supply line of 80 to 100 psig compressed air. It is important that the compressed air be clean and dry to prevent valve failure. The condensate drain need only be opened periodically for purging of condensed moisture which may collect in the compressed air manifold.

GAUGE INSTALLATION

If the factory pre-wired controls option was not ordered, the magnehelic gauge (or optional photohelic gauge/switch) must be installed before initial start-up. Using appropriate tubing and connectors (copper or aluminum tubing is recommended), connect the gauge high pressure port to the static tap in the housing side (lower pressure tap); connect the gauge low pressure port to the static tap on the side of the clean air plenum (upper pressure tap).

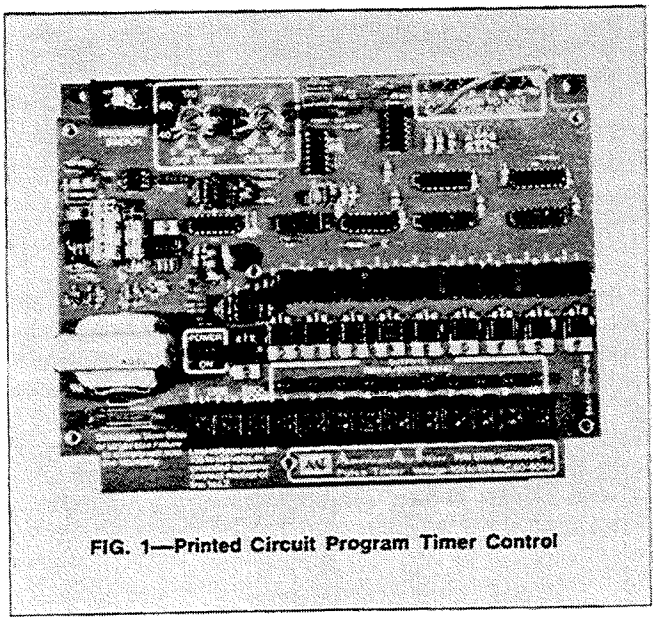


FIG. 1—Printed Circuit Program Timer Control

INTEGRAL FAN (Optional)

The fan motor should be connected to the power source through a fused disconnect, or combination motor starter with a rating sufficient to protect the motor. Refer to the fan motor junction box for proper wiring connections. Check the fan rotation against the rotation arrow for correct motor connections. **Fan rotation should always be clockwise when looking down from the top of the motor.** If incorrect, change the motor leads as indicated on the motor wiring instructions. Provide adequate grounding of unit.

WEATHER PROTECTION (With Integral Fan)

An additional top enclosure is available for sizes 42 thru 252 which is mounted to the top of the unit. For sizes 336 and 420 the top enclosure is included as standard equipment. An optional hood is available when return air ducting is not used.

When the units are located outside and the air is to be recirculated back to the building, the return air ductwork is merely brought to the outlet on the top enclosure of the unit. Check all mechanical and electrical connections and caulk as required.

FINAL FILTERS (Optional)

The final or secondary filter option consists of an outlet enclosure, final filter cartridge and sealing mechanism. The filter enclosures are shipped installed while the filter cartridges are shipped in separate cartons to ensure their protection. The filter(s) are installed in the outlet opening of the enclosure against its gasket surface and secured with a cross bar and fastener assembly (Fig. 2). The filter(s) **MUST** be installed with the corrugated separators vertical. **DO NOT STORE FILTER CARTRIDGES OUTSIDE.**

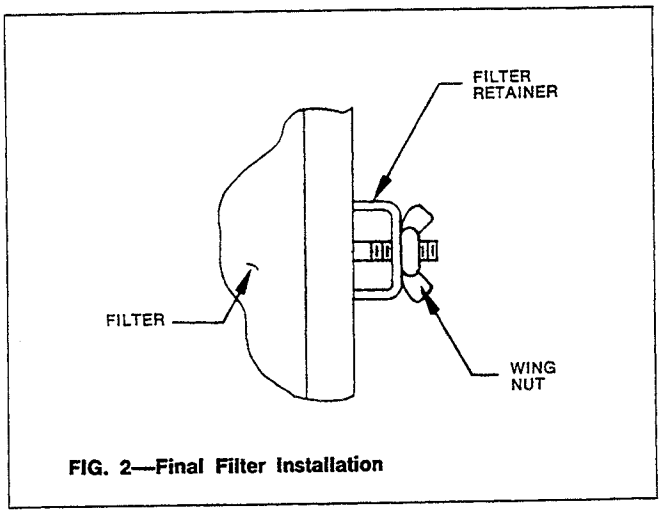


FIG. 2—Final Filter Installation

SLIDE GATES AND DRUM TOP ADAPTERS (Optional)

Slide gates and drum top adapters (Fig. 3) are optional equipment which ship loose for field assembly to the hopper discharge outlet.

Slide gates used alone should be closed while the collector is operating. When used in conjunction with a drum top adapter, the slide gate may be open as long as a drum is in place.

DRUMS (Optional)

55 gallon drums, when ordered, are shipped separately.

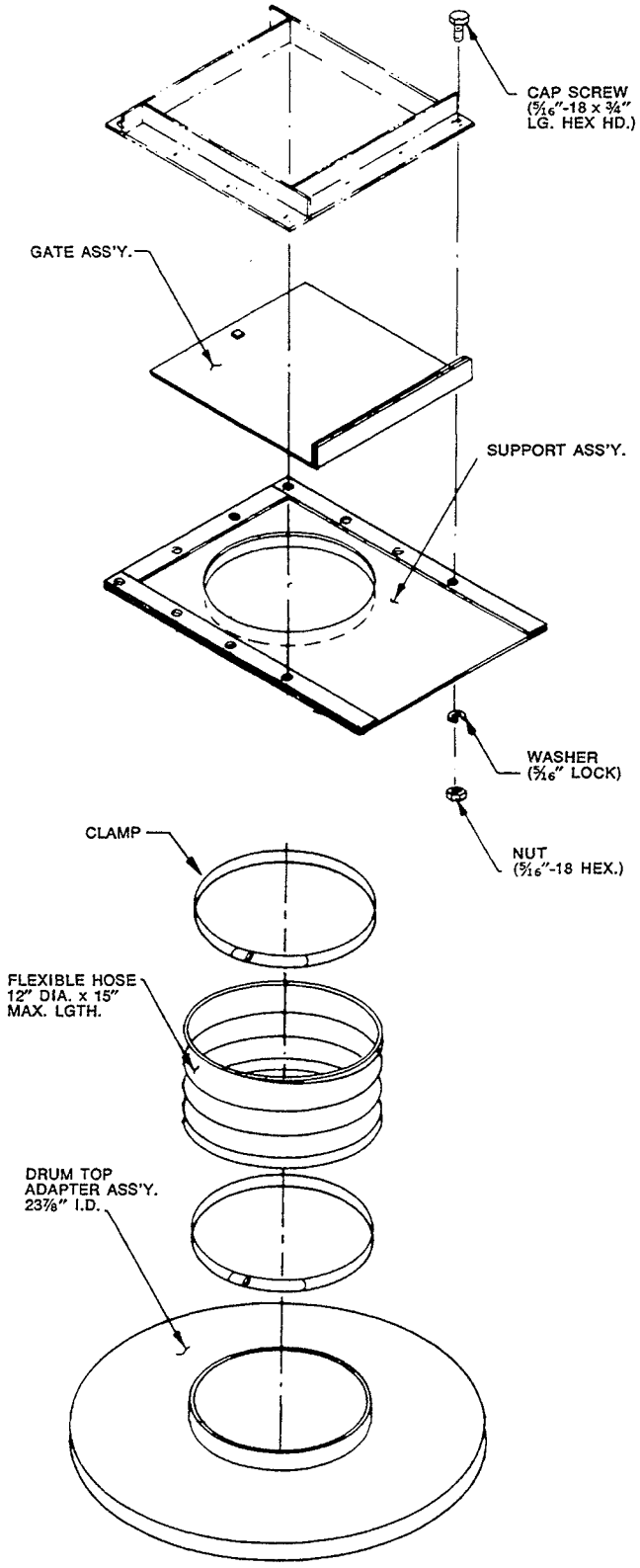


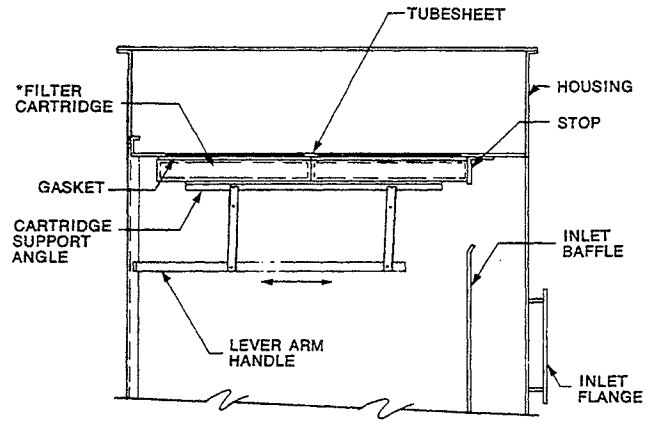
FIG. 3 — Drum Top Adapter With Slide Gate.

Bags and Cartridges

Check new cartridge assemblies for bag or venturi damage. The spring inside the bag should stretch from the venturi to the bottom of the bag. Also check for venturis that may have become unseated during shipping. Instructions for cartridge removal and replacement is illustrated below.

Normally, when the bags need replacing, the entire 42 bag cartridge is to be replaced with a new one. An entire cartridge can be replaced in minutes, eliminating a labor intensive procedure of replacing 42 individual bags. Also, since a new cartridge is equipped with new sealing gaskets, reuse of old, worn and leaking gaskets is also avoided.

There may be occasions when one or two bags become damaged and need to be replaced. Individual bag replacement is also illustrated below.



*TWO SHOWN—WITHOUT BAGS

FIG. 4
FILTER CARTRIDGE LOCKING MECHANISM (SHOWN IN LOCKED POSITION WITH ACCESS DOOR OPEN)

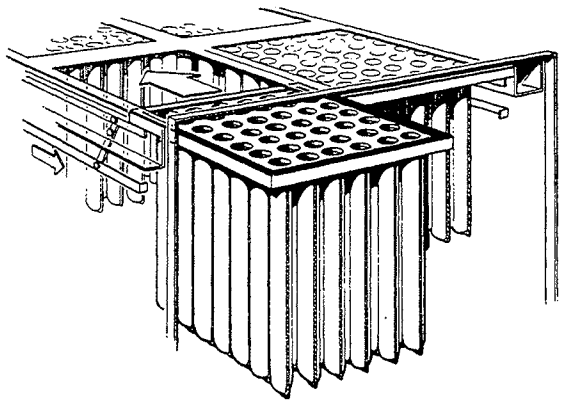


FIG. 5

NOTES

FOR CARTRIDGE INSTALLATION & REMOVAL (REF. FIG. 4 & FIG. 5)

1. Open the hinged door.
2. To remove the cartridge(s) release the sealing levers by pushing them toward the back of the collector. This will release the cartridge assembly for removal.
3. Slide the cartridge assembly toward the door opening and remove. If the unit has a second cartridge behind the first, it may also be removed by sliding it out the door opening.
4. The new cartridges are inserted by following the reverse procedure. Be sure the cartridges are located against the interior stop before securing the sealing lever.
5. Continue the above procedure for all cartridges.

IMPORTANT

6. Pull all lever arm handles outward until lever arm handle stops.
7. Close access doors and tighten hand knobs to seal door. Lever arm handles will be pushed in slightly by door, but will remain in "past center-locked" position.
8. Any cartridge that is removed and reinstalled in the collector shall be returned to its original place and orientation to insure sealing.

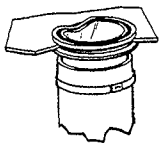


FIG. 6
BAG INSTALLATION OR REMOVAL VIEW, BAG ASSEMBLY WITH SYNTHETIC RUBBER VENTURI

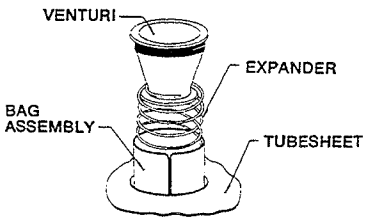


FIG. 7
BAG INSTALLATION OR REMOVAL VIEW

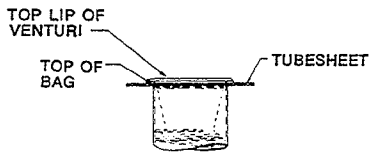


FIG. 8
INSTALLED VIEW

TO REPLACE INDIVIDUAL BAGS USING SYNTHETIC RUBBER VENTURI (REF. FIG. 6)

1. Compress the venturi and pull the bag down to remove it.
2. Position replacement bag and venturi under hole in cartridge plate.
3. Compress the venturi, insert the venturi groove into the hole, then apply pressure around inside periphery of venturi to fully seat groove in cartridge hole.
4. Check to be sure all venturis are properly sealed into the cartridge.

BAG ASSEMBLY WITH CAST METAL VENTURI

1. Unseat venturi/bag assembly, remove venturi from expander spring.
2. Push new bag/expander spring assembly up thru hole in tube sheet.
3. Snap the expander spring into the lower portion of the venturi as shown in Figure 7.
4. Slide venturi down into the bag.
5. Continue sliding venturi/bag assembly down into the tube sheet hole until the bag and grooved portion of venturi contact tube sheet.
   IMPORTANT: Top of bag must be folded over the top of the tube sheet so that the bag remains positioned between the top lip of the venturi and the top of the tube sheet. Leaks will occur if this is not accomplished.
6. Apply force to venturi/bag assembly to seat it into tube sheet. It may be necessary to place a block of wood over venturi and strike with a hammer.

Initial Start-up Instructions

1. Check the compressed air lines to be sure they are connected to the 1″ NPT connection on the surge tank. Turn on the compressed air supply to the surge tank.
2. Check the bag cartridge(s) to assure they are in sealed position in the collector. (The cartridges are shipped installed but not sealed.) Close the door(s) and secure tightly.
3. Be sure that the hopper discharge device is operating properly.
4. Energize the solid state timer panel. The "on" light inside the enclosure will be lit.
5. Listen for the firing of the diaphragm valves and pilot solenoid to determine that they are working properly. (Momentarily set demand pulse pressure switch to zero to check pulsing and then reset at 3″ to 5″ w.g.).
6. BEFORE INTRODUCING ANY DUST TO THE COLLECTOR, TURN THE POWER OFF TO THE TIMER PANEL.
7. Start the fan with the fan damper or duct blast gates partially open. At the same time observe the magnehelic (or photohelic) gauge. This gauge indicates the pressure drop across the dust cake and fabric. Rising pressure on the gauge shows that dust is being collected on the bag. When the gauge shows 3″ to 5″ w.g., the fan damper or duct blast gates may be opened to the full normal position. Simultaneously, the power should be turned on to the timer panel.
8. Check the magnehelic gauge again. It should read a minimum of 3″ to 5″ w.g. with slight fluctuations each time a pulse occurs. If the pressure drop is not 3″ to 5″ w.g., the factory preset pulse interval of 30 seconds must be changed. Decrease the interval for high pressure readings and increase the interval for low pressure readings. Should it not be possible to maintain the nominal 3″ to 5″ w.g., consult your AAF representative. DO NOT ADJUST THE PULSE DURATION BEFORE CONSULTING AN AAF REPRESENTATIVE.
9. The procedure should also be followed after rebagging the unit.

Operating Instructions

An understanding of the design and operating principle of the FABRI-Pulse is essential for effective operation and maintenance. Knowledge of the collector nomenclature is necessary so that parts can be easily identified and located.

The FABRI-Pulse is a single compartment, continuous automatic, self-cleaning cloth pulse-jet dust collector. The dirty air enters the collector through an inlet located on the side of the housing. As the dirty air passes through the filter media, the dust is deposited on the outside surface of the individual filter bags. The cleaned air leaves the filter media and rises through the inside of the bags to the clean air plenum and is exhausted through the outlet.

The filter bags are periodically cleaned by bursts of compressed air that are injected down the inside of the bags. Since only a few of the bags are cleaned at one time the unit remains in continuous operation. The collected dust falls into the hopper after each pulse.

Hoppers are designed to receive the dust and are not for storage. The recommended practice is to continuously empty the hopper. When flat bottom hoppers or barrels are used, they must be emptied on a periodic basis to prevent dust reintrainment. Reintrainment will decrease collector efficiency, reduce bag life, and result in increased operating pressure.

Maintenance

1. **Daily** — Record the collector pressure drop daily for at least the first 30 days of operation. Adverse operating conditions can be detected by a change in pressure drop. A magnehelic or photohelic gauge is supplied by AAF. This gauge will provide the pressure drop reading across the dust cake and fabric. After start-up, the pressure drop will gradually rise to its normal operating level which will be about 3″ to 5″ w.g.
2. **Monthly** — A regular inspection of the filter bags should be made at least every 30 days. Any faulty or worn tubes must be replaced to prevent damage to the collector. The compressed air line regulator, dryer and filter should be checked for proper operation. Also inspect the dust discharge device on the hopper outlet for proper operation.
3. **Six months** — Ducts leading to and from the collector should be inspected for dust build-up at least once every six months. In addition, the following inspections should be made:
   a) Examine the fabric tubes for wear with special attention to seams and stitching.
   b) Examine internal components for wear.
   c) Inspect all joints for evidence of air or dust leakage.
   d) Check for evidence of moisture or dust build-up within the collector.
   e) Check all electrical apparatus for proper operation.
   f) Check to see if the diaphragm and solenoid valves are pulsing when energized by the timer.
   g) Check discharge gas condition for signs of dust.

EXPLOSION VENTS

Latches must have the explosion-venting feature tested periodically to insure that corrosion and/or build-up of foreign materials has not affected the mechanism. Under normal operating conditions, lubricate the bearing pin within the laminated cam with a light (SAE 10-30) oil.

Refer to Bulletin CAD-3-410B2 for additional maintenance instructions.

LUBRICATION

The instruction envelope received with the unit contains the motor manufacturers recommendations for lubrication procedures for the fan motor.

Belted drive units with final filters are supplied with external fan grease fittings located at the front top center of the unit. Otherwise, all lubrication fittings are accessible.

Bearings on belted units should be lubricated with #2 grease every two months.

INSTALLATION AND ADJUSTMENT PROCEDURE FOR BELT DRIVE

STEP 1

After placing the set of matched belts in the sheave grooves, take up the slack in the belts by turning the adjustment bolt in the motor mounting base. Then start the drive. Tension the drive until the belts have only a slight bow in the slack side of the drive while it is operating under load.

STEP 2

Stop the drive and measure the belt span (see Fig. 10). Using a spring scale, apply a force to any of the belts in the center span. The force should be perpendicular to the span and toward the center of the drive. Measure the force required to deflect any one of the belts 1/64" for every inch of span length. For example, the deflection for a 32" span would be 1/64" multiplied by 32, or 1/2".

STEP 3

The amount of force required to deflect the belt should be 4-5½ pounds. There will normally be a drop in tension during the first 24 to 48 hours of operation. During the "run-in" period, the belts seat themselves in the sheave grooves and the initial stretch is removed. After a day or two, the drive should be stopped again and another check made for the correct amount of belt tension.

Note: Tension new drives at the maximum deflection force recommended. Check the tension at least two times during the first day's operation as there normally will be a rapid decrease in belt tension until belts have run in. Check the tension periodically after the first day's operation and keep tension in recom-

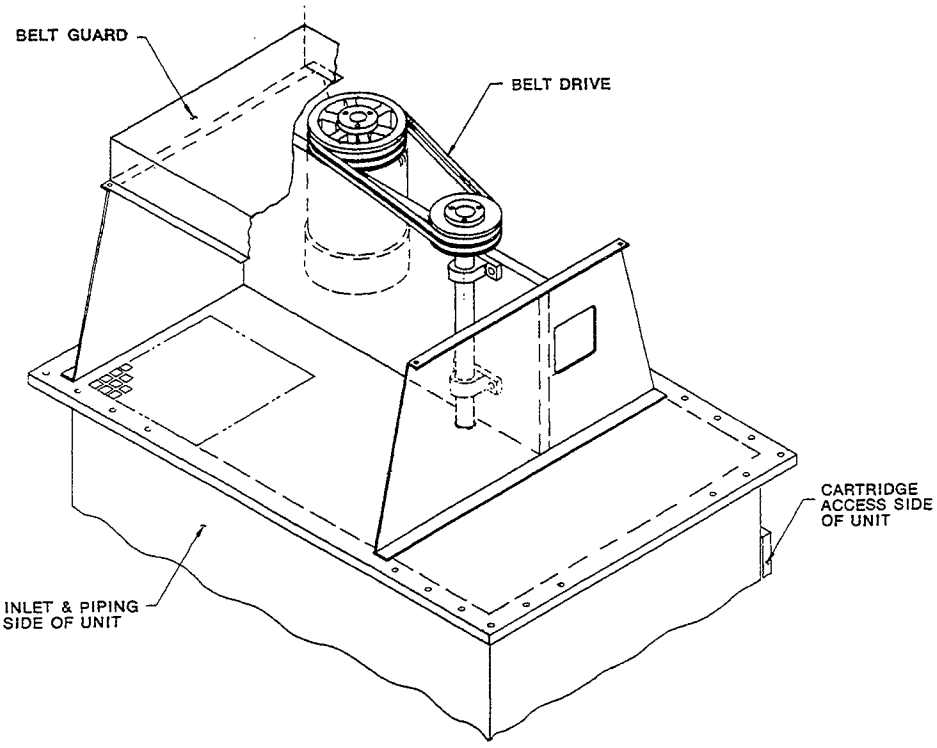


FIG. 9 — 25 and 30 H.P. Belt Drive

mended area. The correct operating tension for a V-belt drive is the lowest tension at which the belts will not slip under the peak local conditions.

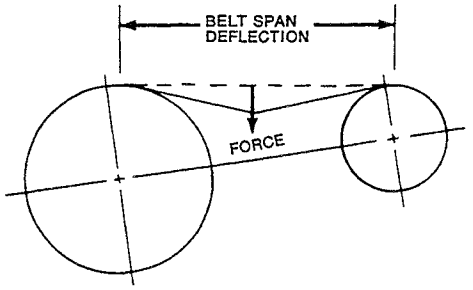


FIG. 10 — Belt Deflection Force

SPLIT TAPER BUSHING REMOVAL AND INSTALLATION (FIG. 11) (BELT DRIVE UNITS)

REMOVAL

1. Remove capscrews.
2. Put two capscrews in push-off holes in flange. Tighten until sheave has loosened.
3. Remove sheave from shaft.

INSTALLATION

1. Put bushing loosely in sheave and start capscrews.
2. Place sheave on shaft and line up drive along edge of both sheaves.
3. Tighten capscrews per instructions furnished with bushings.

FAN BEARING REPLACEMENT PROCEDURE — 25 AND 30 H.P. BELT DRIVE

1. Turn adjusting screw in motor base to loosen belts.
2. Remove sheave from fan shaft.
3. Remove set collar.
4. Note exact position of bearings before removing.
5. Remove bearings by loosening mounting bolts and Skwezloc rings and slide up off shaft.
6. Install new bearings with Skwezloc ring on top and pillow blocks against stops.
7. Replace set collar, sheave and belts.
8. Adjust belt tension.

INTEGRAL FAN AND MOTOR REPLACEMENT

(Please Refer To Figure 12)

Lock out electrical power to the motor. Remove top assembly. Remove the fan inlet cone. The fan wheel is now accessible for replacement. The fan motor is removable from the top of the unit.

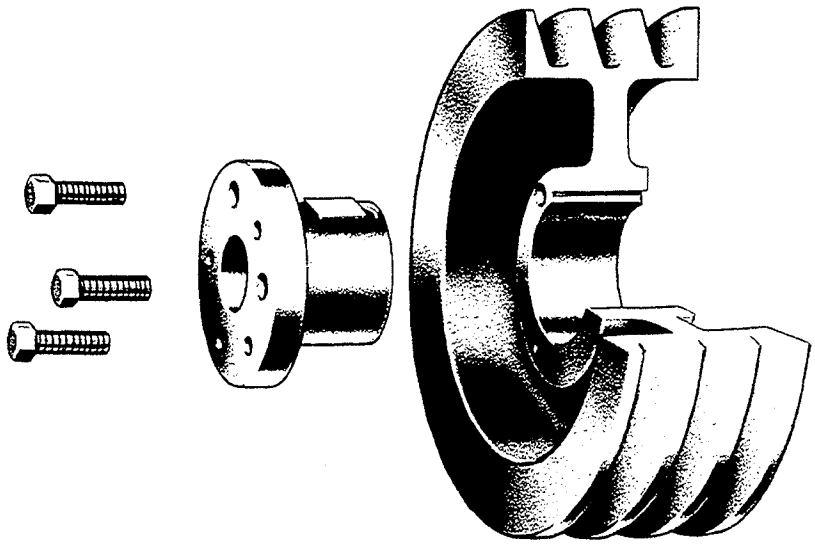
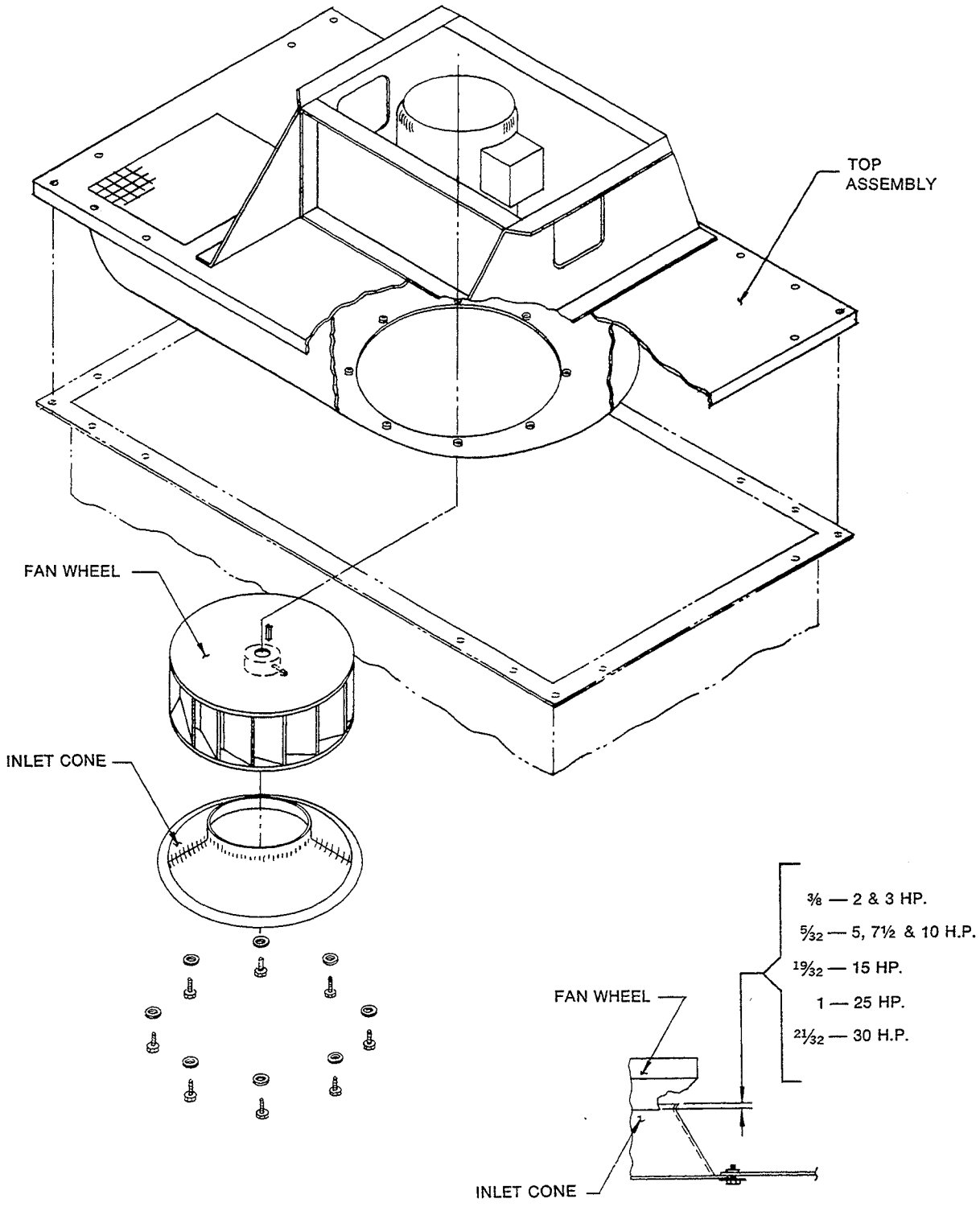


FIG. 11



NOTE:
TORQUE 3/8 DIA. SET SCREWS TO 210 IN./LBS.
TORQUE 5/16 DIA. SET SCREWS TO 125 IN./LBS.

SECTIONAL VIEW OF WHEEL & CONE INSTALLED

NOTE: VIEW DIFFERS SLIGHTLY FOR 25 H.P.

FIG. 12 — Sizes AR-30 and larger (AR-30/35 shown)

Trouble Shooting

1. HIGH PRESSURE DROP READING

IMPROPER TIMER OPERATION

Check the wiring, fuses, and setting of pulse duration and interval. DO NOT ADJUST THE PULSE DURATION WITHOUT CONSULTING AN AAF REPRESENTATIVE.

INSUFFICIENT COMPRESSED AIR

Check the air supply to be sure the compressor is providing 80 to 100 psig. Check for a plugged filter in the compressed air line.

SOLENOID PILOT VALVE MALFUNCTION

Listen to be sure the solenoids are firing. Check for momentary air venting each time it fires. Clean or replace if necessary.

LEAKY DUST DISCHARGE DEVICE

A leaking rotary lock, screw conveyor, slide gate, etc. can overload a FABRI-Pulse by preventing dust discharge. This will cause high pressure drop, excessive bag wear and reduced air volume.

CONDENSATION

High humidity will create blinded bags which results in excessive pressure drop. Run the cleaning mechanism with the fan off and program timer on to release the dust cake. If condensation is a recurring problem, pre-processing warm-up and post-processing purge periods of 15 to 30 minutes each may help. Exterior insulation may also be necessary. Sources of moisture may come from leaky process ductwork, moisture in the process gas stream, or moisture in the compressed air system.

STATIC ELECTRICITY

Static electric build-up can cause a high pressure drop. Increase the humidity if possible, using discretion to avoid creating condensation. Grounded bags may also be required.

COLLECTOR OVERLOADS

Too much air or too much dust will create high pressure drops across the collector. Check the fan speed, system design, pre-cleaners and the damper position. Also be sure the dust load and air volume are those the system was designed to handle.

2. VISIBLE DISCHARGE

IMPROPERLY INSTALLED OR DAMAGED BAGS

Check for holes or rips in bags. Replace damaged bags. Reseal bags as necessary.

IMPROPER SEALING OF THE CARTRIDGE

Vacuum dust from the clean air side of the collector. Inspect the cartridge seal. Clean or replace the seal if it is damaged.

INSUFFICIENT DUST CAKE

The unit could be pulsing too often resulting in over cleaning. Check to see if the pressure drop is at least 3″. Increase pulse interval until the unit is operating stably at 3″ pressure drop minimum. DO NOT ADJUST PULSE DURATION WITHOUT CONSULTING AN AAF REPRESENTATIVE.

3. INSUFFICIENT HOOD CONTROL

INCORRECT FAN ROTATION

The incorrect rotation of the fan will not provide the system static pressure or air volume required.

FAN V-BELT SLIPPAGE

Tighten the V-belts if necessary. Replace broken or stretched belts.

LEAKS

Leaking ductwork, access doors, explosion vents, dust discharge devices, or housing will cause insufficient suction at the pick-up point. Seal any leaks.

CLOSED AIR PASSAGES

Clogged ducts, closed dampers or closed gates will shut off the air flow.

UNDERSIZE DUCTS

Undersize ducts will create excessive pressure losses for which the fan may not have been sized. Duct size should be reviewed considering the design specifications and fan selection.

4. FABRIC BAG PROBLEMS

OVER TEMPERATURE

Operating temperatures should not exceed specified maximum.

HUMIDITY

Humidity can blind bags. Moisture will result in denser dustcake build-up or will cement dust to the bag. Drawing dry air through collector may dry the dust enough to allow the collector to clean with the fan off. If this doesn't work the bags must be dry cleaned or new bags installed.

DUST CHARACTERISTICS

Each bag material is selected for specific physical and chemical characteristics which are compatible with the gas stream composition and temperature.

DUST BUILD-UP HOPPERS

Dust build-up into the bag area will result in excessive abrasion on the bags. The build-up may be caused by a malfunction of the discharge device or condensation in the hopper. A vibrator or hopper heaters with insulation may have to be added to the hoppers.

BAG WEAR ON THE INSIDE

Dirt on clean side of bags will wear the bags out from inside. This could be the result of a broken bag, or incorrect bag installation or an improper tube sheet seal. Vacuum the clean air side, replace the bag, correct the seal and reseal the cartridge. Do not blow dirt inside the bags. If the bags have dust inside them, vacuum them out.

REPLACEMENT PARTS

PART NO.	DESCRIPTION	RECOMMENDED SPARES
118-1404086-2	4' Bag Cartridge Assembly*	1 Cartridge
118-1404086-3	6' Bag Cartridge Assembly*	1 Cartridge
111-963173-1	Diaphragm Valve Repair Kit	10% number required
2218287	Pilot Valve Repair Kit (NEMA 4)	10% number required
111-973214-1	Pilot Valve Repair Kit (NEMA 9)	10% number required
118-1328665-1	Printed Circuit Program Timer	1 Timer

*Either a 4' or 6' length required depending upon the collector size. Consult shipping documents for part numbers. Part numbers are for cartridge assembly without ground.

WARNING

Efficient fan sizing includes an allowance for pressure drop across filter media with a thin residual dust cake as the normal operating condition. During the initial dust caking period for NEW media, unit airflow may have to be restricted to avoid fan motor overload. Partial blank-off of the inlet or outlet will do. Fan motor amperage readings will indicate need and adequacy.

DO NOT OPERATE FAN FOR EXTENDED PERIODS WITHOUT IMPOSING THE PRESSURE DROP INDUCED BY CONDITIONED MEDIA OR CHECKING FAN MOTOR AMPERAGE.

American Air Filter has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice.

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