

# TRION<sup>®</sup>

## Indoor Air Quality



### Installation Operation Maintenance Manual

Due to the nature and wide variety of dusts, it is impossible to list all of the potential hazards associated with dust control equipment or systems. Therefore, it is imperative that the application and use of this equipment be discussed with a TRION representative and that all personnel involved with the equipment be instructed to comply with the statements in this manual pertaining to worker safety.

READ AND SAVE THESE INSTRUCTIONS

**Air Boss<sup>®</sup>**  
**CA3000C & CA6000C**  
Cartridge Air Cleaners

# Cartridge Air Cleaners

## AIR BOSS® CA3000C & CA6000C

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## PRECAUTIONARY STATEMENTS ON APPLICATION AND OPERATION

1. Due to potential fire hazards, do not mix combustible materials with those that would be a potential source of ignition.

### Examples of Combustible Materials:

- Wood dust
- Paper dust
- Lint from fabrics or buffing wheels
- Grinding dust from painted surfaces
- Aluminum or magnesium dusts

### Examples of Potential Ignition Sources:

- Grinding dust from ferrous metals
- Hot ash from any source

2. This equipment should not be used for the collection of any materials where there is a risk of explosion. Pressure relief vents or explosion vents should not be applied to the equipment or any adjoining system.
3. Equipment location, installation and operation should comply with all National and Local Fire Codes. When in doubt consult the proper authorities.
4. Workers and machine operators should be instructed to keep any burning objects, such as cigarettes, safely away from air inlets leading to the equipment.
5. All those involved with the use of this equipment should comply with the statements pertaining to worker safety as noted in this manual.

## INTRODUCTION

The TRION Cartridge Air Cleaner is designed to filter dry solid particulates such as weld fume and dusts from plant ambient air, then circulate the cleaned air back into the work space. The unit may be ceiling suspended or base supported and utilized in free hanging or source capture installations. The backward inclined blower will handle additional static pressure (See Fig 14).

The unit is normally arranged for straight-thru horizontal air flow. If required, the normal discharge from the end of the blower section can be re-directed to the front or rear side of the blower section by interchanging the discharge grille with the front or rear side panels (see Fig 5).

Once mounted, the connection of electrical power and compressed air complete the installation.

The configuration of the filtering media provides a large surface area (2034 ft<sup>2</sup> total) for increased dirt holding capacity, which prolongs the time between cleanings. The cartridges are positioned for easy service when replacement is required.

## EXPLANATION OF OPERATION

During normal operation, contaminated air is pulled through the filtering cartridges and the particulate is collected on the outside of the filtering media. The filtered air then passes through the clean air plenum and is exhausted through a discharge grille.

When the cartridges require cleaning, a sequential timer is activated. This is accomplished with a manually operated switch or automatically with an adjustable automatic time control or a pressure switch/gage sensor. (See Optional Components, page 8). The timer sequentially opens and closes air valves, directing pulses of compressed air through the cartridges, from the inside-outward, which dislodges the collected contaminant from the filtering media. The alternating pulsing between the cartridges continues until the timer is turned off, either manually or automatically.

The dislodged contaminant falls to the bottom of the unit or into the optional hopper.

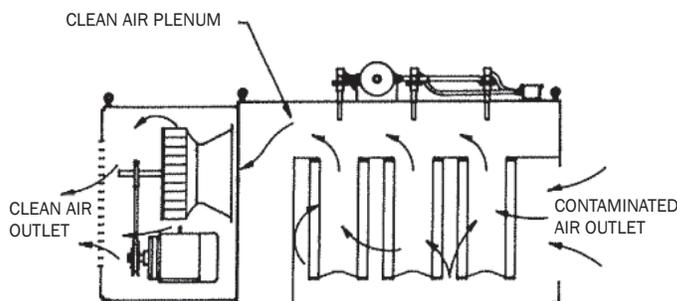


FIGURE 1  
AIR FLOW, NORMAL OPERATION  
(SIDE VIEW)

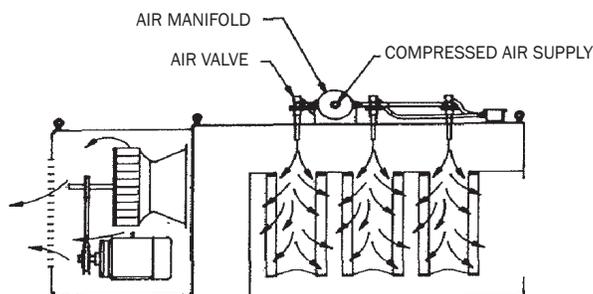


FIGURE 2  
AIR FLOW, PURGING/CLEANING CYCLE  
(SIDE VIEW)

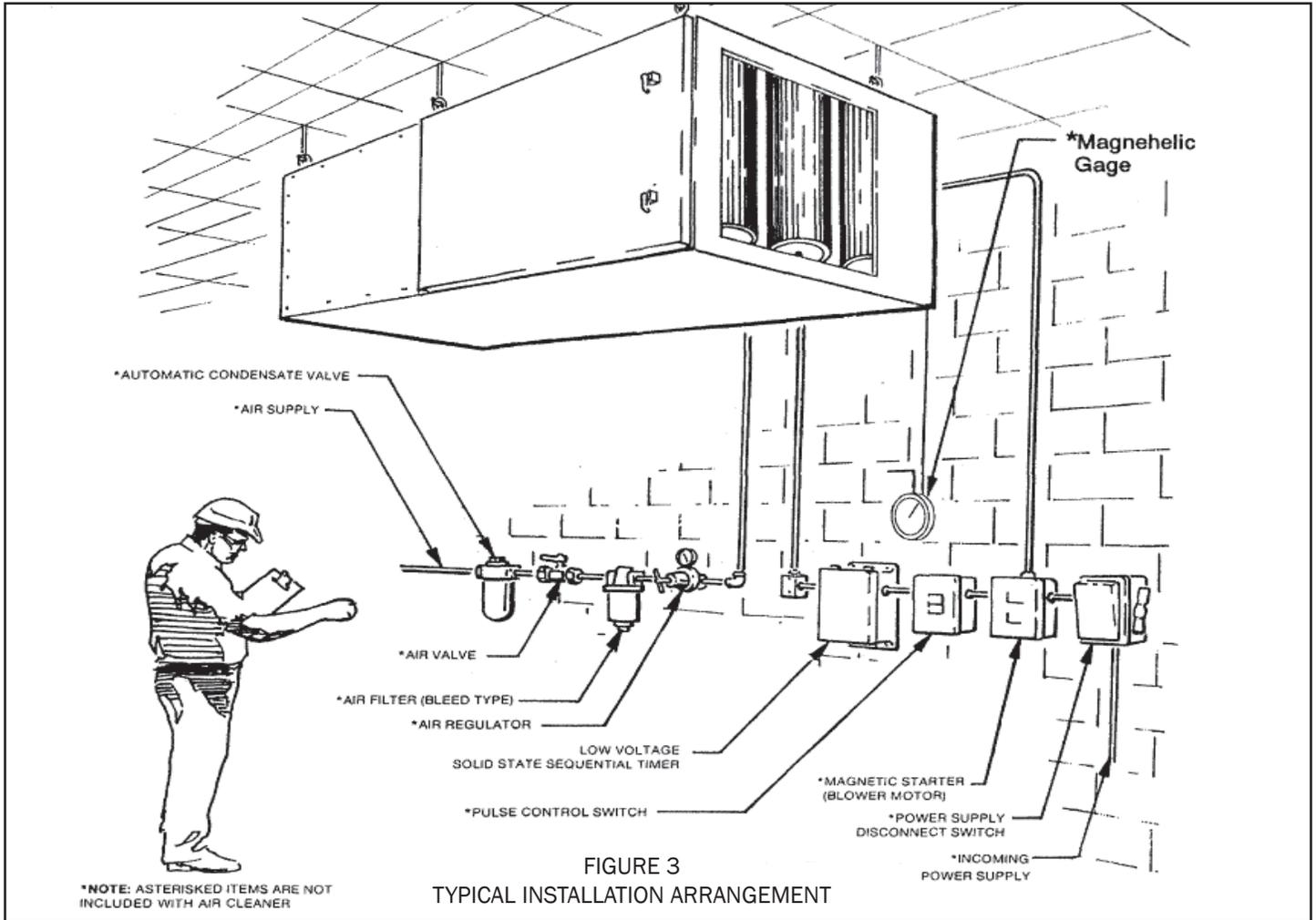
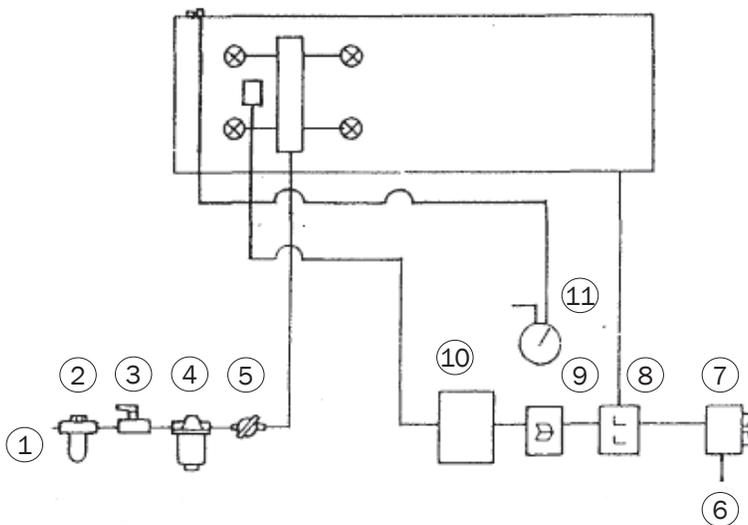


FIGURE 3  
TYPICAL INSTALLATION ARRANGEMENT



1. Compressed Air Supply
2. Automatic Condensate Valve
3. Air Shut-Off Valve
4. Air Filter (Bleed Type)
5. Air Regulator
6. Incoming Power Supply
7. Power Supply
8. Magnetic Starter (Blower Motor)
9. Cleaning (Air Pulse) Control Switch
10. Sequential Timer
11. Magnehelic Gage

**NOTE:** Items 1-11 above are not supplied with Air Cleaner

FIGURE 4  
TYPICAL INSTALLATION SCHEMATIC

**PRE-INSTALLATION CONSIDERATIONS**

The location of the unit(s) should be planned to maximize efficient operation. Consult your TRION representative for clarification of questionable situations.

In free hanging installations, the unit(s) should be positioned as close to the source of contaminant as practical and at the height where stratification of the particulate takes place. If more than one unit is to be installed in a given area, it is important to create a clockwise (or counter-clockwise) air flow pattern around the area.

When ducting is utilized, the static pressure created by the duct work must be considered in conjunction with the pressure that will be created by the build-up of contaminate on the cartridge filters. Refer to the Blower Curves FIG 14. The unit(s) should be positioned to provide adequate service space to the compressed air valves, access panels and doors. Ceiling hangers, wall mounting brackets and associated hardware must be capable of safely supporting the weight of the unit (1200 lbs.) plus the weight of any added options and any auxiliary equipment. Refer to the Optional Components list and unit specification sheet for weights and dimensions.

**INSPECTION**

Upon receipt, the unit should be inspected for any damage incurred in shipping. Damage should be noted and a claim immediately filed with the carrier.

**INSTALLATION**

The basic unit is shipped from the factory fully assembled with the air filtering cartridges installed. Depending on the installation and the duct work employed, it may be advantageous to remove the filter cartridges for protection against damage and to reduce weight. Refer to page 8 for cartridge removal and replacement.

As shipped, the unit is set-up for horizontal air flow through the cabinet from right to left (see FIG 5A). To change the direction of air flow from left to right simply rotate the cabinet 180° (See FIG. 5).

As shown in figures 5C and 5D the direction of the discharge air may also be changed 90° to either the front or rear of the cabinet by interchanging the cover panels with the discharge grille. In addition, the access doors to the cartridge filter compartment may be interchanged with the rear panel to best meet the service needs of the installation. For convenience, the rear cartridge compartment panel may

be replaced with an optional set of access doors permitting service from either the front or rear sides. Other options include perforated plate pre-filters, inlet plenum, adjustable louver outlet grille, hopper and controls as listed on page 9. When required, contact your TRION representative or the factory. All optional equipment is packaged and shipped separately.

Depending on the planned treatment of the incoming contaminant, additional sheet metal work may be required.

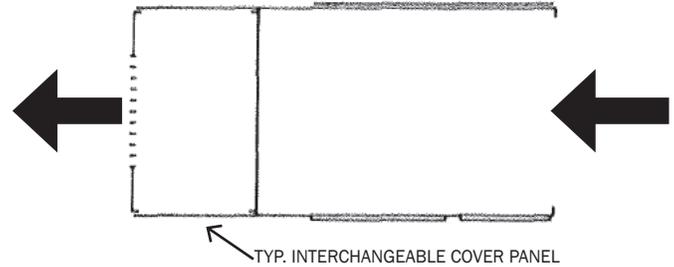


FIGURE 5A  
HORIZONTAL RIGHT TO LEFT

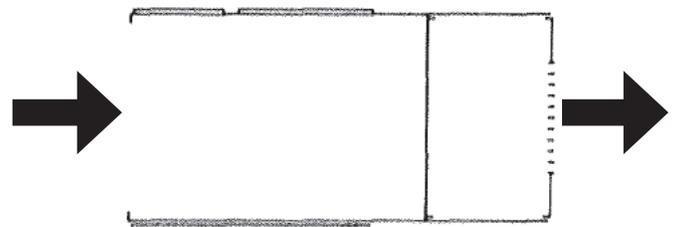


FIGURE 5B  
HORIZONTAL LEFT TO RIGHT

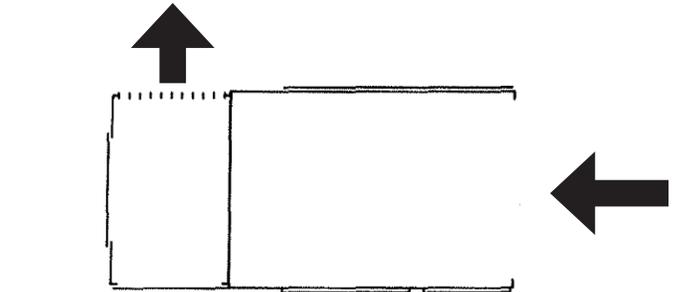


FIGURE 5C  
HORIZONTAL FROM RIGHT REAR DISCHARGE

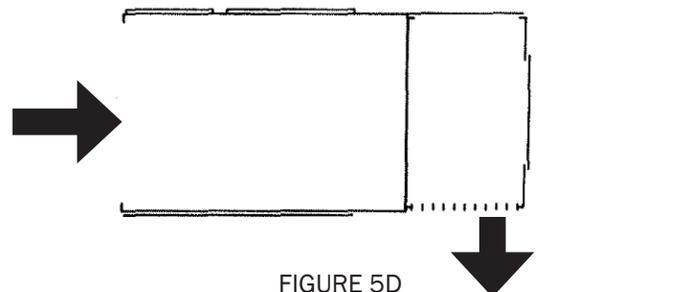


FIGURE 5D  
HORIZONTAL FROM LEFT FRONT DISCHARGE  
CABINET AIR FLOW ARRANGEMENTS (ALL TOP VIEWS)

## MOUNTING

Prior to mounting the unit it may be advantageous to consider installing any optional equipment to the unit cabinet. Usually the optional inlet plenum is installed prior to mounting and the optional cleaning hopper after mounting.

Also, it may be advantageous to remove the filter cartridges for protection against damage and to reduce weight during mounting and the attachment of any adjoining duct work.

Next, secure the unit in the planned location. The cabinet will lend itself to whatever means of support is best suited for the particular location. Whichever arrangement is used, it must safely support the weight of the unit (1200 lbs.), any of the options or auxiliary equipment used, plus the heaviest load of contaminant to be collected. Refer to unit specification sheet and consult authorities concerning building code restrictions.

Typically, most units will be suspended from the ceiling. For suspension, the top of the cabinet contains six places to receive 1/2"-13 threaded rod or mounting hardware. Remove and discard the factory installed bolts from these mounting points. See Figure 6 for a typical arrangement to secure threaded rod to the cabinet.

After the unit has been suspended, it should be adjusted to a level position and all fasteners tightened.

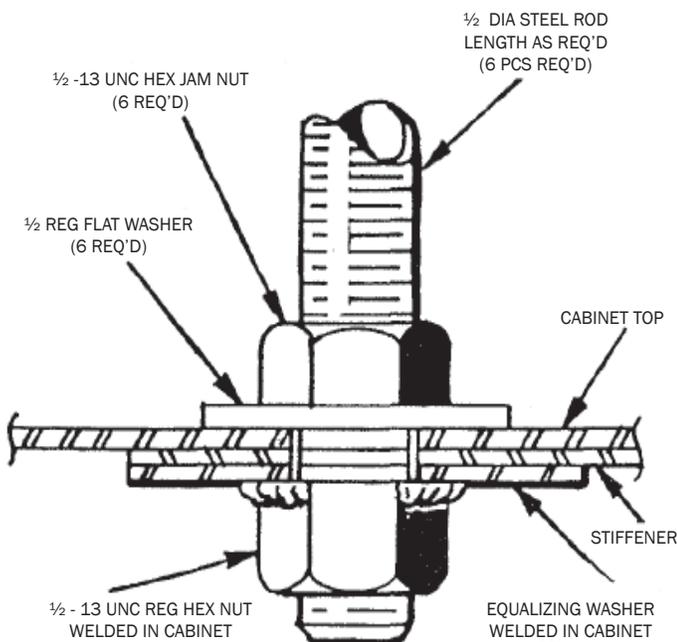


FIGURE 6  
TYPICAL SUSPENSION HANGER SECUREMENT

## PIPING

The compressed air supply for the pulse cleaning system should be free from oil and moisture. This is important because contamination in the air supply will reduce cleaning efficiency and result in a loss in performance.

**NOTE:** Purge the air line to remove all debris before completing the connection to the air manifold tank located on the top of the air cleaner. Use the piping connection either on the top or the end of the tank.

As shown in Figures 3 and 4, install an automatic condensate valve, shut-off valve, bleed type filter, regulator and gage in the air line leading to the air manifold tank on the air cleaner. These items, supplied by others, should be placed in a convenient location for easy service.

**NOTE:** These components should be sized to the maximum system requirement of 1 .1 SCF per pulse at 100 PSIG supply pressure and all connections sealed with thread sealing tape or a pipe sealant.

## MAGNEHELIC GAGE OPERATION

The magnehelic gage indicates the pressure drop across the cartridge filters, any optional pre-filters and any adjoining air inlet ducting. A metal mounting bracket is provided with the gage. The gage should be mounted in the vertical position and preferably at eye level near the cleaning (air pulse) control. When mounted, interconnect the unit to the "Low" port of gage with the fitting and tubing provided. To complete the connection at the unit, remove the hole plug from either one of the two holes centered above the cartridge compartment and located in the front and rear sides of the cabinet.

The "High" port on the gauge is vented to atmosphere. Refer to Figures 4 and 7 and the instructions included with the gage.

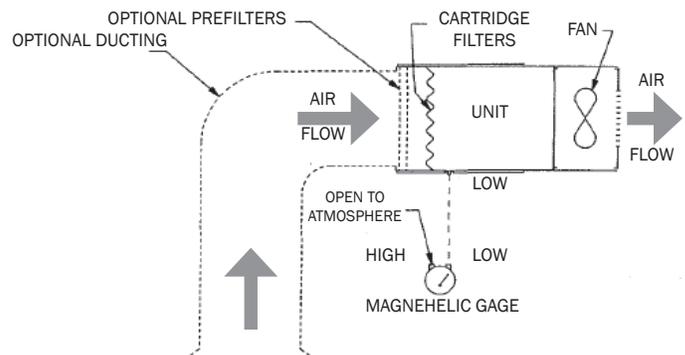


FIGURE 7

## ELECTRICAL

The blower motor (5HP or 7.5HP) operates on 208-230/460 volt, 60 cycle, 3 phase power. Remove the left hand air discharge grille and wire the motor in accordance with the connection diagram on the motor data plate and the governing electrical codes. For convenience, a knockout is provided on each side of the cabinet below the bottom level of the discharge grilles.

**NOTE:** The blower motor starter requires a low voltage (120 volt) control circuit unless the cleaning operation is to be completed manually with the blower off-line as discussed below.

When the cleaning cycle is initiated, a sequential timer controls the air solenoid valves causing the air to pulse (a back flush of cleaning air) to the filter cartridges. Normally the sequential timer is wired in parallel with the low voltage coil and the magnetic motor starter causes the pulse cleaning cycle to take place when the unit blower is running. If the cleaning cycle is to take place with the blower not running (or off-line), care should be taken to insure the contaminants are not pulsed off the cartridge filters and escape into an undesired area. Depending upon the makeup of the contaminants, pre-filtration and the arrangement of any ducting, it may be necessary to install dampers on the cabinet inlet.

The sequential timer may be initiated manually (with the blower on (or off-line), a 7 day time clock or a pressure switch gage. Refer to the typical installation Figure 4 and the applicable wiring diagram, Figures 9, 10, 11, 12 or 13, then complete the wiring as shown.

The blower should rotate in a clockwise rotation. The rotation can be viewed through the air discharge grille in the blower compartment. When the wiring is complete, electrically “bump” the blower motor to check the rotation and correct if necessary by interchanging any two of the three wires-T1, T2 or T3- in the motor starter.

**NOTE:** The electrical work must be performed by qualified personnel and in accordance with local codes.

## OPERATION

1. Turn the fan “on” and check the rotation. Rotation should be clockwise as viewed from the air discharge grille, (“blowing outward”). Correct if necessary by interchanging any two of the three wires - T1 , T2 or T3- leading to the fan motor in the motor starter.
2. Be sure the pulse cleaning control switch is in the “off” position and turn on the compressed air supply. Adjust the pressure to 80 PSIG.
3. Open the cover to the sequential timer and set the “on” time for 0.1 second and the “off” time for 5 to 10

seconds. Connect the red jumper wire to program pin 9 or to the pin corresponding to the last terminal used on the terminal board.

4. Check the operation of the air valves by closing the cleaning (air pulse) control switch. The valves should open and close continuously and in sequence in accordance to the time settings. When all of the valves have operated several times, open the cleaning (air pulse) control switch.

**NOTE:** The following step covers pretreatment of Replacement filter cartridges. The cartridges shipped with the unit have been pre-treated.

5. With the fan running, pretreat the filter cartridges with filter conditioning agent. Simply hold the exposed conditioner near the air intake of the unit and allow the fan to pull it to the filtering media. Use 2 lbs. of pretreatment per cartridge. The pretreatment improves the collection and cleaning efficiency of the cartridges.
6. The unit is now ready for operation. Note the pressure drop reading if the installation includes a magnehelic gage. This reading is a base reference reading with clean, preconditioned cartridges.

## CLEANING CYCLE

1. As contaminant is collected the system static pressure will continue to increase until there is a loss in the contaminant capture. If the installation includes a magnehelic gage the pressure drop reading should be noted and at this time the filter elements should be cleaned. (Subsequent cleanings and/or filter replacement should take place just prior to the noted loss in contaminant capture.) The length of time required to arrive at this condition is dependent upon the type and the amount of contaminant.
2. Start the cleaning cycle by closing the cleaning pulse control switch. Normally, cleaning is accomplished during plant non-scheduled work hours or between shifts. The unit fan normally remains running during the cleaning cycle.
3. During the cleaning operation a reduction in the pressure drop will be noted. When an equilibrium is obtained, open the cleaning control switch. The unit is now back in normal operation.
4. If the installation includes a pressure switch or 7-day timer option, settings should be made in accordance with the above.
5. In the event the cleaning cycle is to take place with the blower not running (or off-line), refer to paragraph three under ELECTRICAL.

**NOTE:** If the 7 -Day clock off-line cleaning option is used, it is necessary to manually push the blower “Start” button after the cleaning cycle.

## ADJUSTMENTS

### COMPRESSED AIR

Compressed air pressure above 80 PSIG should only be used when the equilibrium pressure drop exceeds 5 inches. Under these conditions increase the pressure in 5 PSIG increments. Allow sufficient “off time” (5 sec. or more) for the pressure drop to stabilize after each 5 PSIG increase.

**NOTE:** Do not increase the pressure beyond 100 PSIG. Damage to the filters may result.

The 0.1 second time “on” setting should not be altered. Longer pulse durations do not aid in cleaning.

### AIRFLOW

On the 5 HP unit the adjustable motor sheave is factory set at 6 turns open from the fully closed position, which allows for 6300CFM in unducted applications. In ducted applications, the adjustable motor sheave can be adjusted in increments, both on the 5HP and 7.5HP units, to compensate for the additional external static pressure produced by the system. Refer to Figure 14, page 16.

**NOTE:** Do not increase the air flow beyond 7000 CFM in unducted applications. Damage to the filters may result.

**NOTE:** When changing pitch diameter on the variable sheave or replacing sheaves and/or belts it is important to maintain accurate sheave alignment to prevent vibration.

## SERVICE

### CAUTION:

Before servicing any portion of the air cleaner:

1. Disconnect and lock out electrical power.
2. Shut off and bleed compressed air supply.

## CARTRIDGE REMOVAL AND REPLACEMENT

**NOTE:** Depending on the contaminant collected, it may be advisable to wear a dust respirator when handling dirty filters.

### CA3000C

1. Open access door.
2. Remove wing nut and cartridge filter end caps. Move cartridge filter slightly up and down to break the rear gasket seal. Rotate the cartridge 1/2 turn to permit any loose dust to fall from top of element.
3. Slide the filter out of the compartment.
4. Install new cartridges, replace and secure end caps, and close door.

### CA6000C

1. Open access doors.
2. Loosen wing nut located bottom end center until cartridge rests on guide rails. If necessary, slightly move cartridge back and forth to break gasket seal at top.
3. Slide cartridge out of cabinet on the guide rails.\*
4. Remove remaining cartridges in the same manner.
5. Install new cartridges by reversing procedure being sure each cartridge is centered between side clips at top.

\* Clean cartridge weighs 12 lb. Dirty cartridge will be heavier; the amount depending on the type and quantity of contaminant.

## CA3000C PARTS LIST (REFER TO FIGURE 8)

REF KEY	QTY/UNIT	PART NO.	DESCRIPTION
1	4	442285-001	Filter Mounting Bracket Assembly
2	1	345515-049	Motor, 5 H.P., 230-460V/60Hz/3ø
3	1	245583-014	Blower Wheel #135, 100% Width (Standard Blower Direct Drive)
4	1	449213-001	Inlet Cone Mtg. Panel (Standard Blower Direct Drive)
5	1	345585-003	Inlet Cone #135 Size (Standard Blower Direct Drive)
6	1	249031-001	Blower Wheel #150, 75% Width (High Static Direct Drive)
7	1	449214-002	Inlet Cone Mtg. Panel (High Static Direct Drive)
8	1	345585-004	Inlet Cone #150 Size (High Static Direct Drive)
9	1	249210-001	Inlet Stabilizer Grille (Direct Drive Blowers)
10	6	146229-001	Equipment Mount (Rubber Isolator) (Direct Drive Assemblies)
11	1	124053-059	Blower Sheave, 6.0 P.D. (Belt Drive Blower Assembly)
12	1	125699-025	Motor Sheave, 4.7-5.7 Variable P.D. (Belt Drive Blower Assembly)
13	2	243761-001	Pillow Block Bearing 15/16 Bore (Belt Drive Blower Assembly)
14	1	245584-004	Blower Shaft 15/16 Diameter (Belt Driver Blower Assembly)
15	1	234887-037	V-Belt, 47.3 Pitch Length
16	4	142397-001	Diaphragm Air Valve 3/4"
17	1	142399-001	Sequential Timer (Item 10 on Page 4)
18	2	142696-055	Hex Washer Head Screw 1/4-20 x 1 1/4" Long
19	2	237911-006	Self Retaining Nut 1/4-20
20	2	334562-003	Lift and Turn Latch
21	4	242423-002	Cartridge Filter - Cellulose Media (as Specified)
22	4	242424-002	Cartridge Filter - Cellulose/Polyester (as Specified)
23	4	248300-002	Cartridge Filter - Fire Retardant Media (as Specified)
24	4	249553-002	Cartridge Filter - Membrane Coated (as Specified)
25	8 lb.	242691-001	Filter Pre-Coat (Conditioner)

## CA3000C OPTIONAL COMPONENTS (NOT SHOWN)

PART NO.	WEIGHT LBS EA	DESCRIPTION
3000-8000-00	45	Source Capture Plenum with 14" Diameter Collar
225822-006	13	Perforated Metal Pre-Filter
224451-018	7	Aluminum Mesh Pre-Filter
342294-001	21	Spark-Resisting Pre-Filter (Standard Impinger)
342294-002	21	Spark-Resisting Pre-Filter (Reduced Airflow Impinger)
242372-001	2.5	Double Deflection Discharge Grille
344140-001	25	*Side Discharge Kit
349216-002	25	*Muffler Kit
349208-001	20	*Discharge Grille Adapter
CLEAN OUT ACCESSORIES		
442302-001	35	Hopper with Slide Gate
242692-001	0.6/Ft.	6" Flex Hose (Specify Length Required)
242690-001	10	Drum Connector (for 55 Gallon Drum)
24-8002-0002	65	Flex Source Pick-Up Arm, 8" Diameter
24-8400-0001	50	Dual Arm Plenum
CONTROLS		
146302-001	1.1	Magnehelic Gage (Shown on Page 4)
442712-001	8	Pressure Switch Gage
342750-001	2	7-Day Clock

\* Requires use of Double Deflection Discharge Grille, Part No. 242372-001

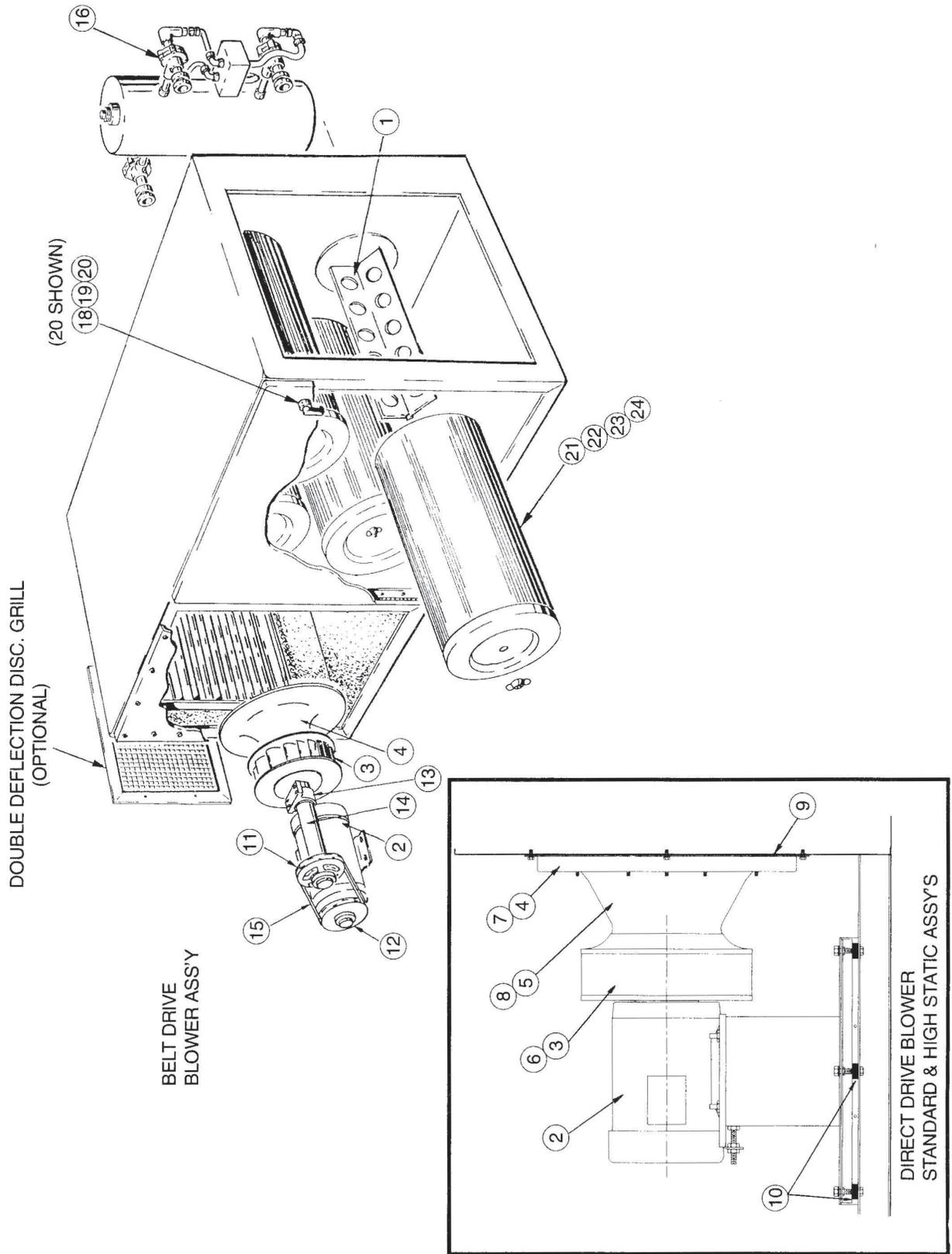


FIGURE 8  
CA3000C EXPLODED VIEW

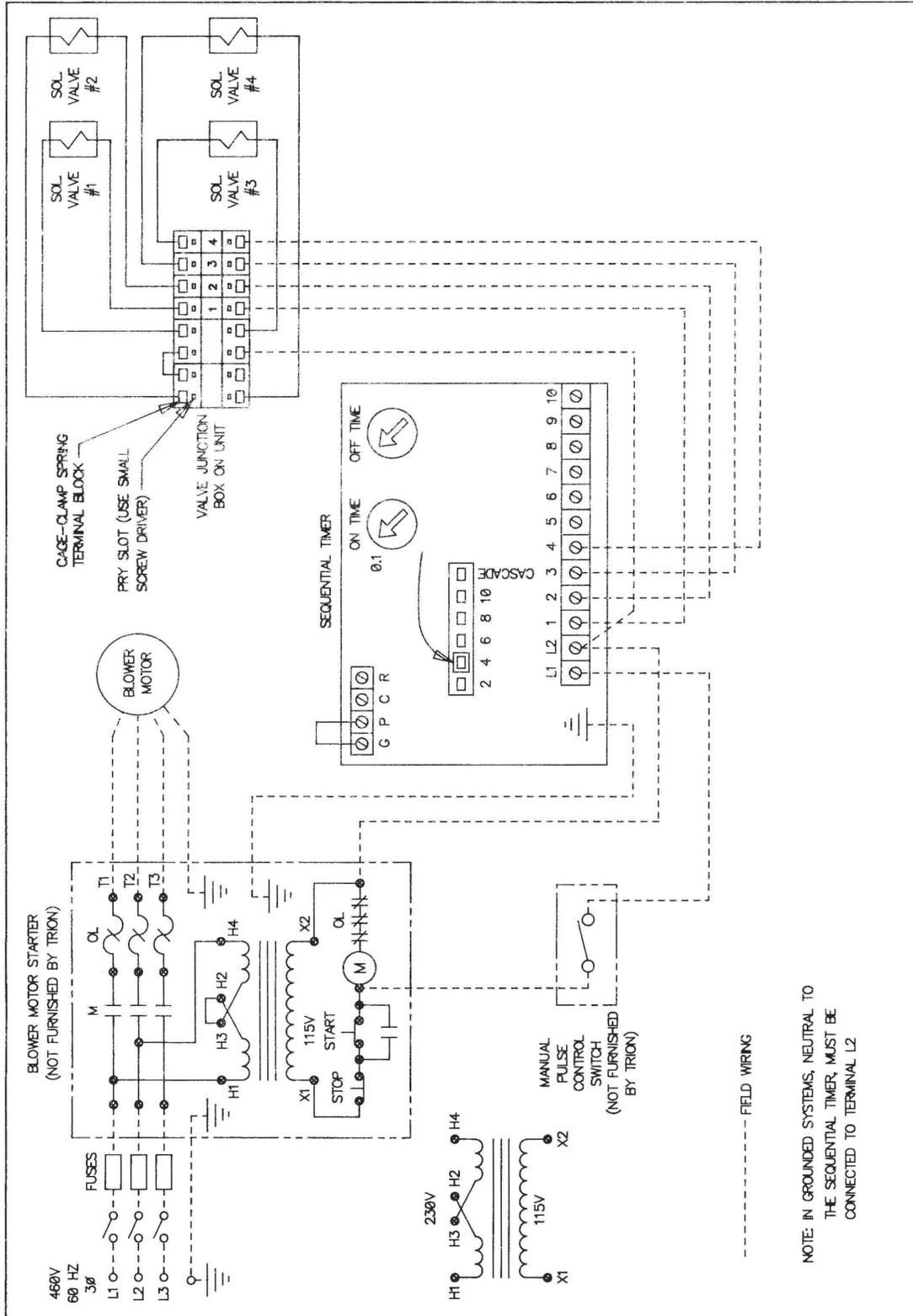


FIGURE 9  
CA3000C STANDARD WIRING - MANUAL CLEANING

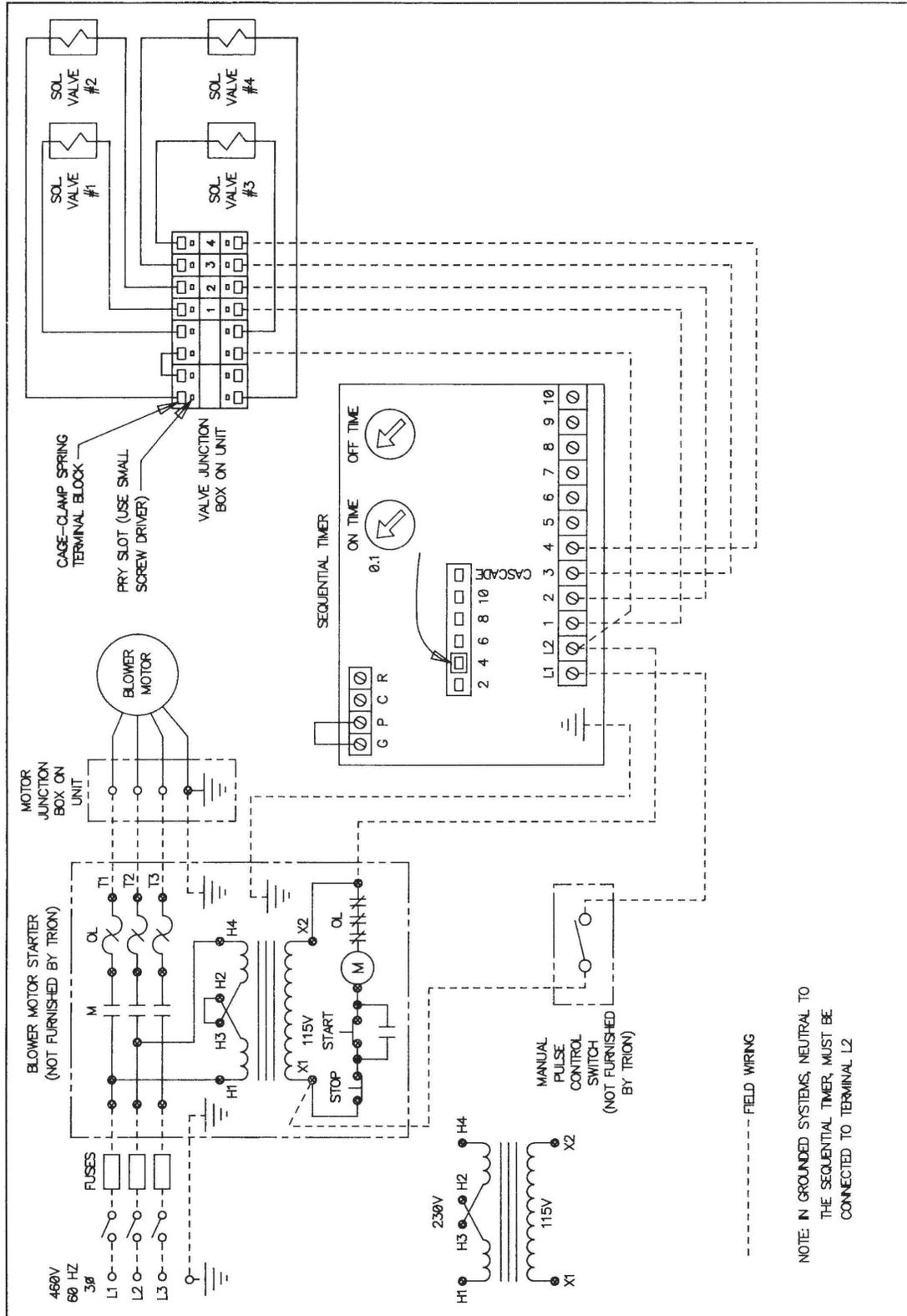


FIGURE 10  
CA3000C - MANUAL CLEANING OFFLINE

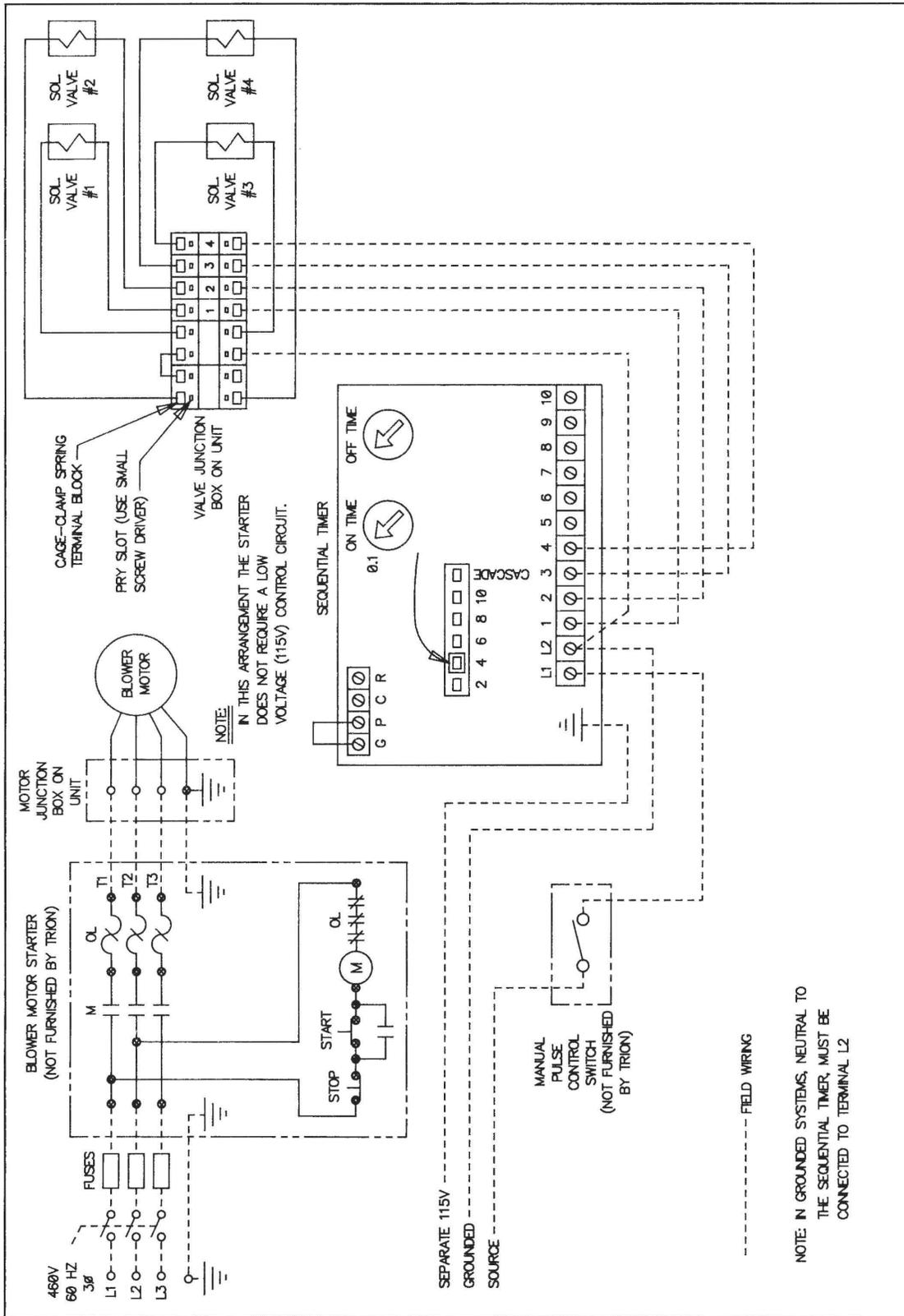


FIGURE 10A  
CA3000C - MANUAL CLEANING OFFLINE

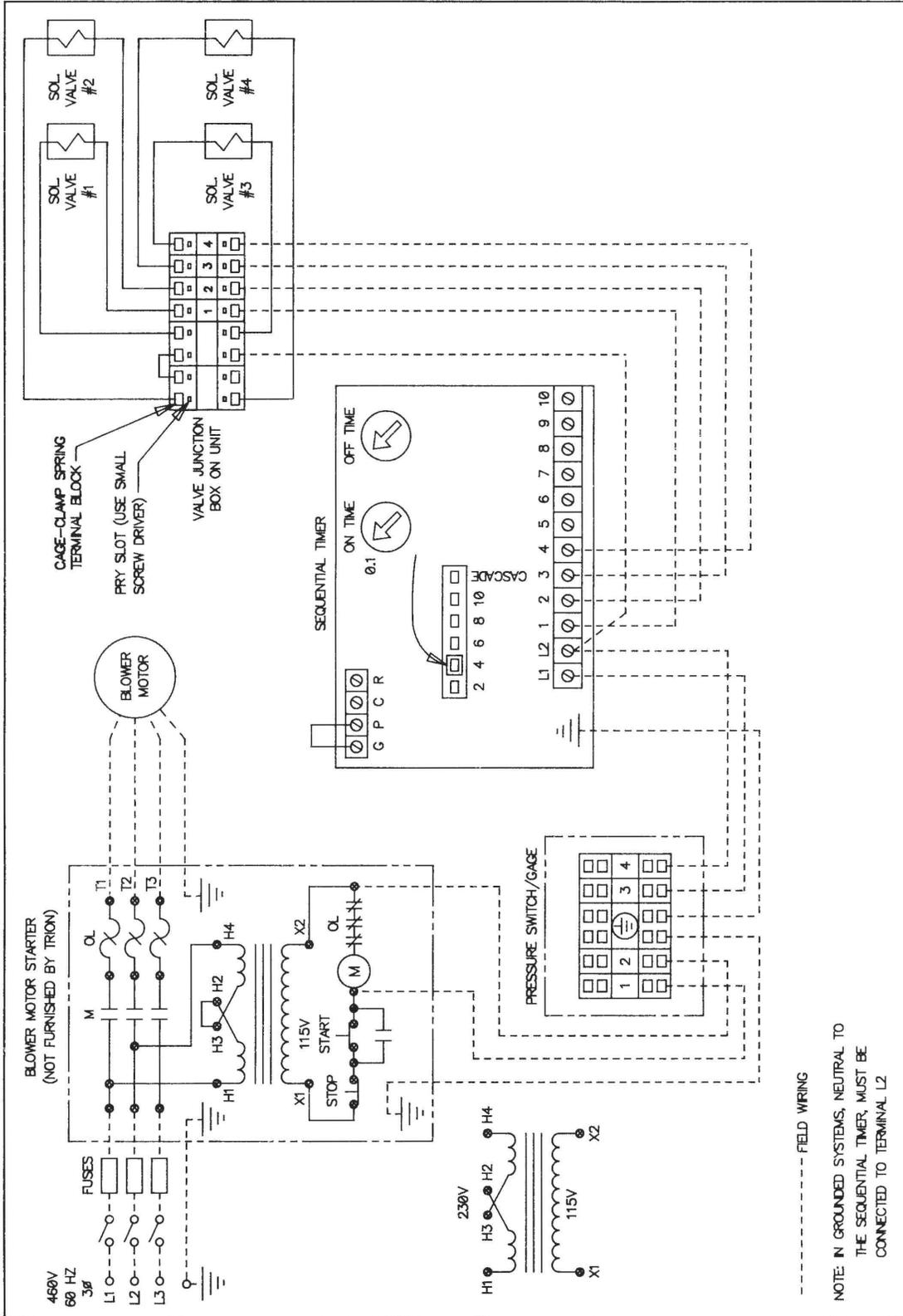


FIGURE 11

CA3000C OPTIONAL WIRING - PRESSURE SWITCH/GAGE CONTROL - AUTOMATIC CLEANING

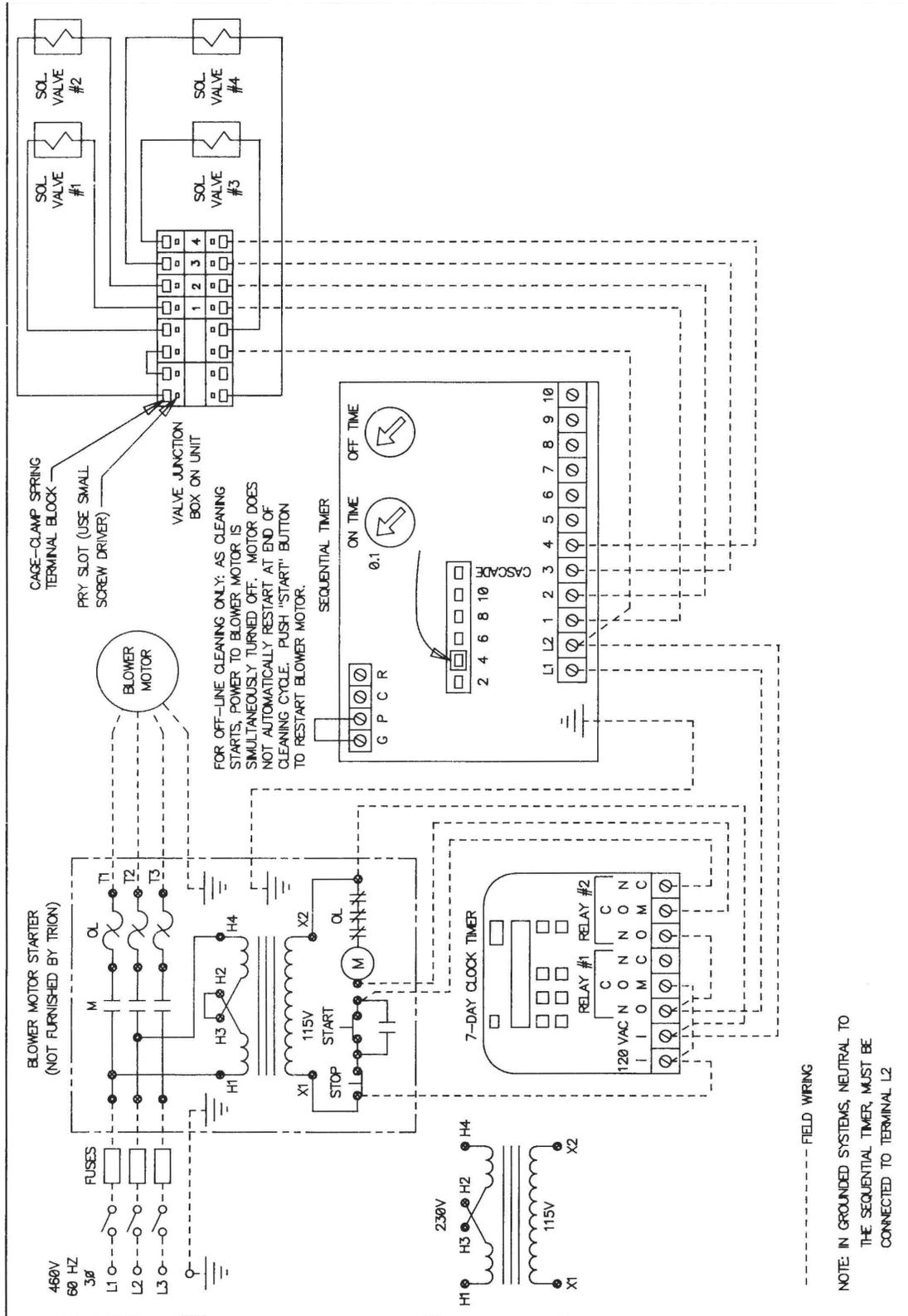


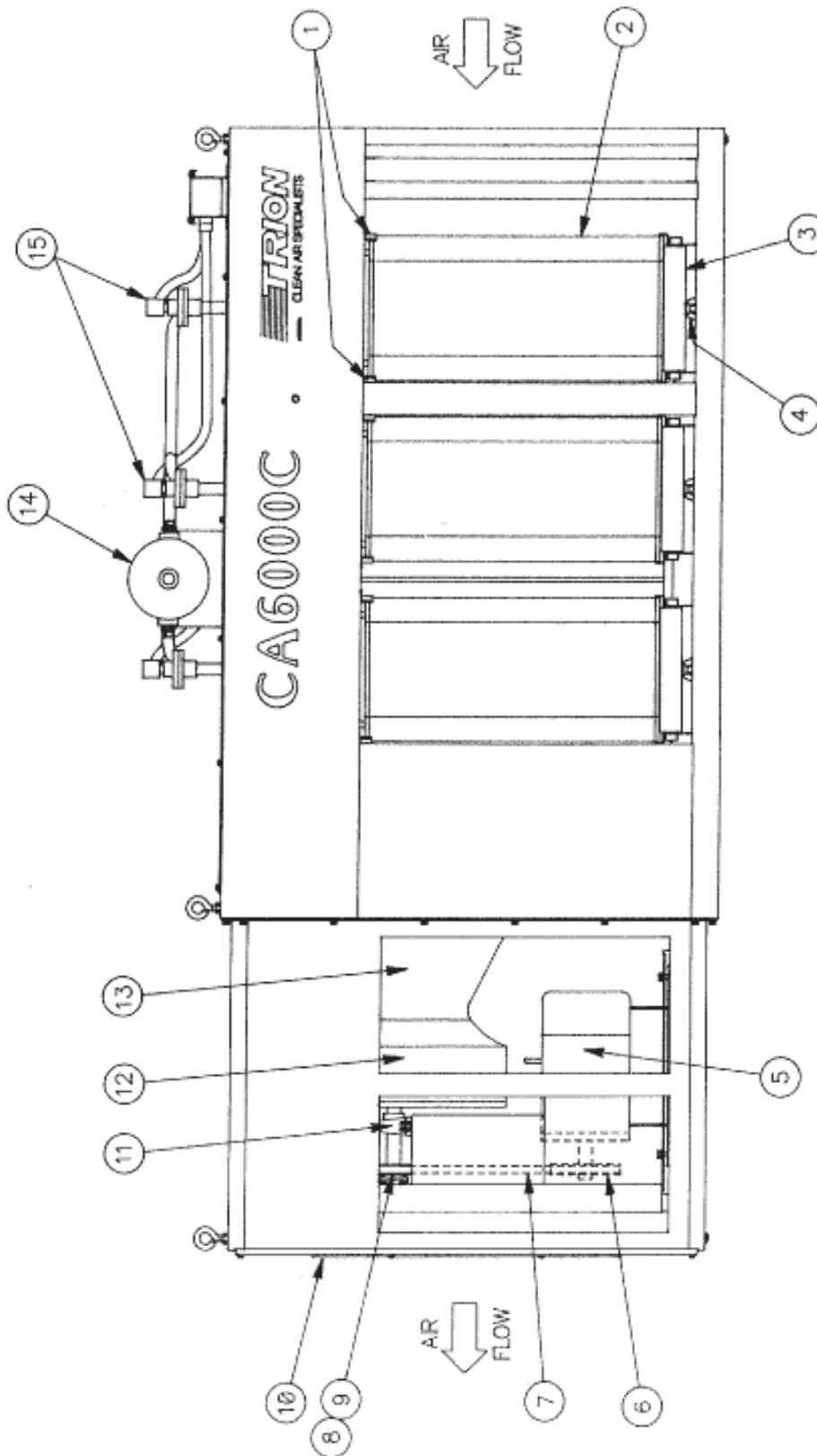
FIGURE 12  
 CA3000C OPTIONAL WIRING - 7-DAY TIMER

**CA6000C PARTIAL PARTS LIST (MAJOR COMPONENTS)  
REFER TO FIGURE 13**

REF KEY	QTY/UNIT	PART NO.	DESCRIPTION
2	9	242423-003	Cartridge Filter, Cellulose
3	9	246359-001	Cartridge Filter Compression Plate
4	9	120036-016	Hex Nut, 1/2-13
5	1	345515-051	Motor, 5HP, 208-230/460V, 60HZ, 3PH
6	1	125699-014	(5HP) Motor Sheave, V.P. 5.7-6.7 P.D., 1.125 Bore
6	1	125699-023	(7.5HP) Motor Sheave, V.P. 5.8-7.0 P.D., 1.375 Bore
7	1	323215-105	V-Belt, B X 51, 52.8 P.L.
8	1	124053-024	(5HP) Blower Sheave, 5.2 P.D.
8	1	124053-051	(7.5HP) Blower Sheave, 4.7 P.D.
9	1	228109-018	Split Taper Bushing, HX 1.187 Bore
10	2	446396-001	Blower Access Door
11	2	243761-002	Pillow Block Bearing, 1 3/16" Shaft Dia.
12	1	245583-005	Blower Wheel
13	1	345585-007	Inlet Cone
14	1	346473-001	Compressed Air Tank
15	9	142397-001	Diaphragm Valve
Not Shown	4	334562-003	Lift and Turn Door Latch

**CA6000C OPTIONAL COMPONENTS (NOT SHOWN)**

PART NO.	WEIGHT LBS EA	DESCRIPTION
446409-001	20	Access Door 32" H x 31 7/16"W
446410-001	16	Access Door 32" H x 23 5/16"W
446457-001	75	Source Capture Plenum with 20" Diameter Collar
225822-007	7.5	Perforated Metal Pre-Filter
224451-020	4.5	Aluminum Mesh Pre-Filter
CLEAN OUT ACCESSORIES		
446489-001		Cover Plate, Filter Section Bottom
224779-002	.06/FT	Neoprene Gasket 1" x 1/16"
142696-052	.02	Hex Washer HD THD Rolling Screw
446505-001	85	Hopper with Slide Gate
242692-001	19	6" Flex Hose x 10'
242690-001	9	Drum Connector (for 55 Gallon Drum)
129389-007	.125	Adjustable Hose Clamp (3 5/16" x 8 1/2")
CONTROLS		
346560-001	9.2	Sequential Timer Control Assembly
146302-001	1.1	Magnehelic Gage
442712-001	15	Pressure Switch Gage
342750-001	2	7 Day Clock



**FIGURE 13**  
**CA6000C SIDE VIEW WITH ACCESS DOORS AND BLOWER PANEL REMOVED**  
**RIGHT TO LEFT HAND AIR FLOW**

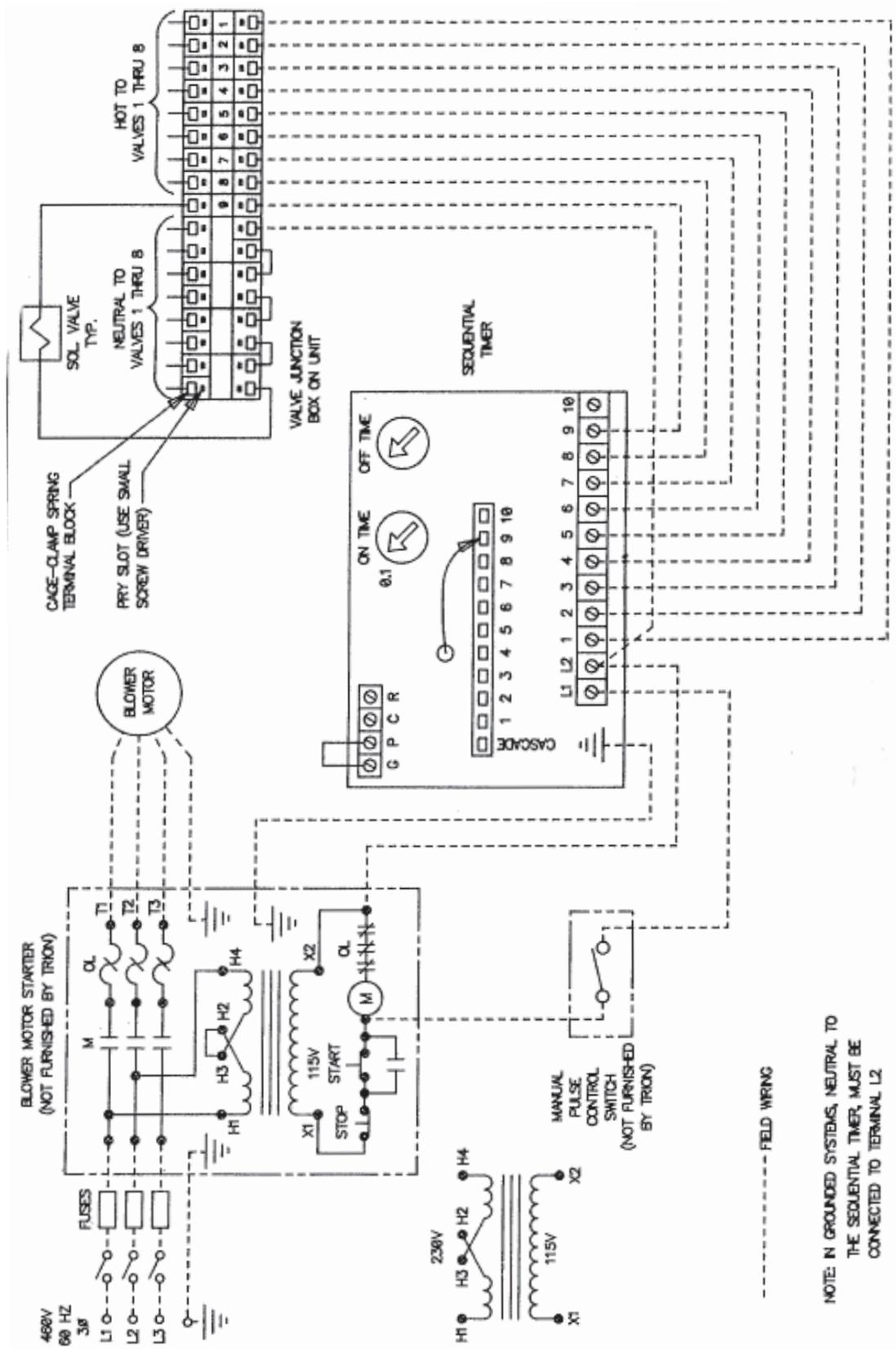


FIGURE 14  
CA6000C STANDARD WIRING - MANUAL CLEANING

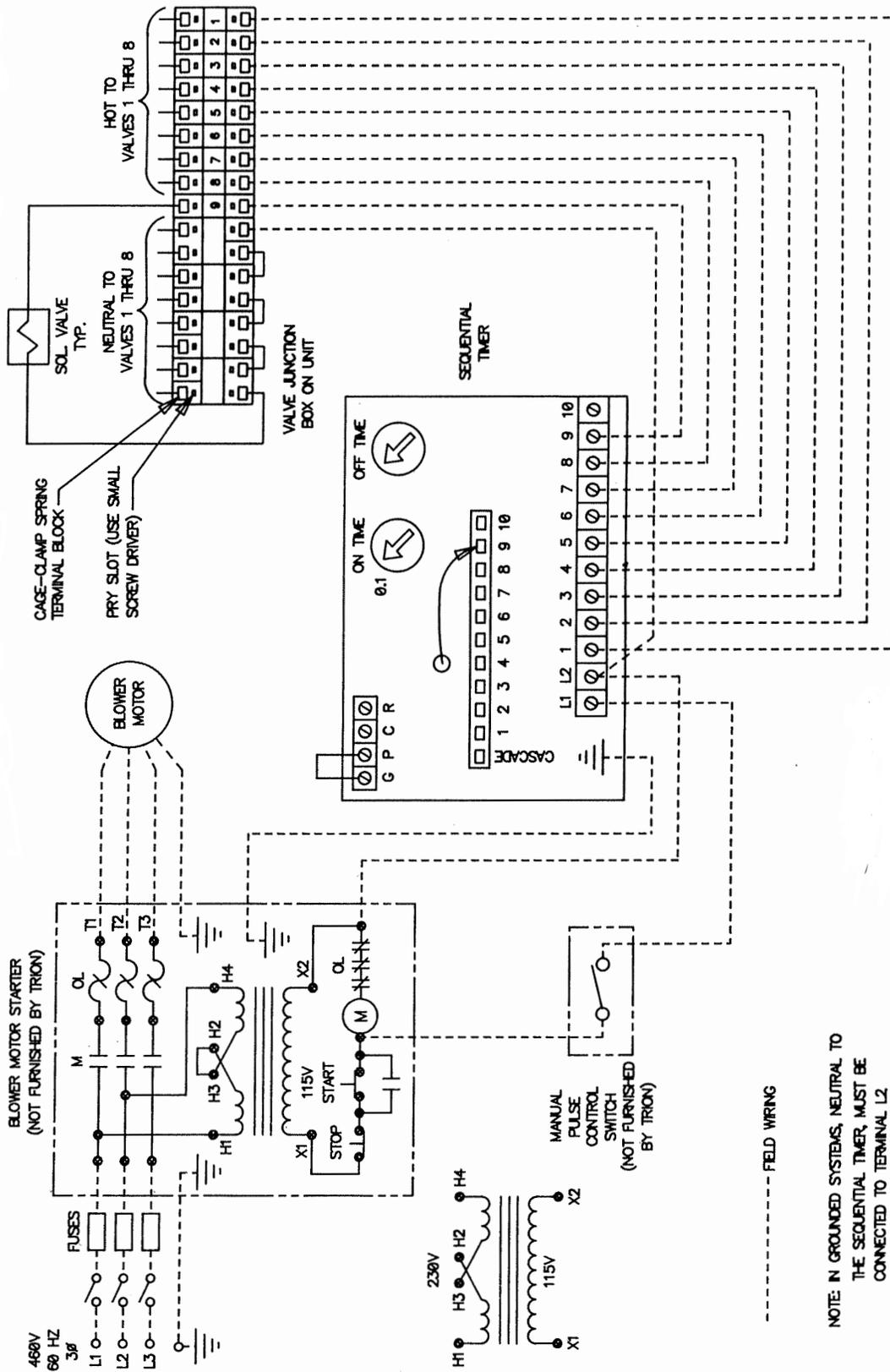


FIGURE 15  
CA6000C - MANUAL CLEANING OFFLINE

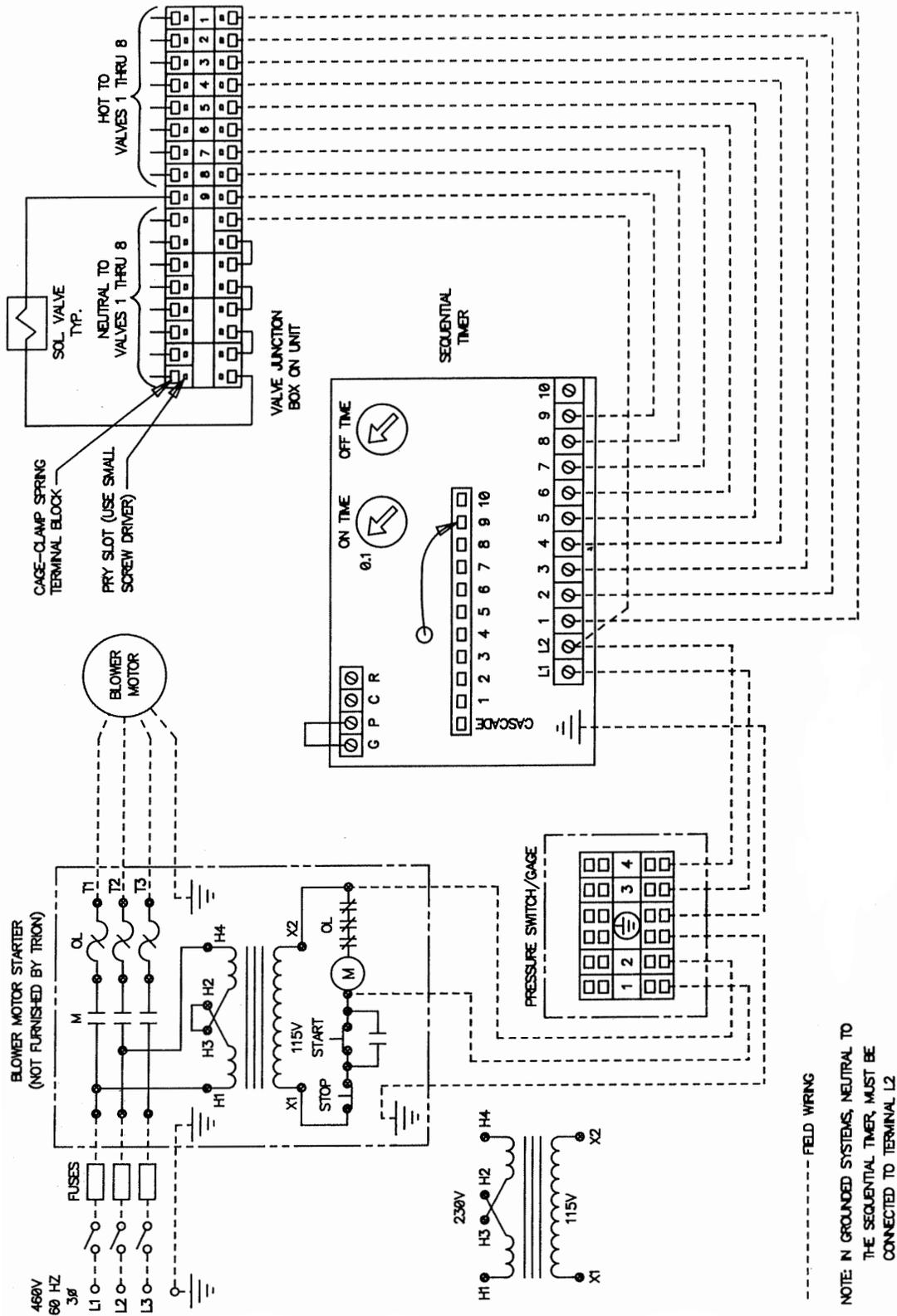


FIGURE 16

CA6000C OPTIONAL WIRING - PRESSURE SWITCH/GAGE CONTROL - AUTOMATIC CLEANING



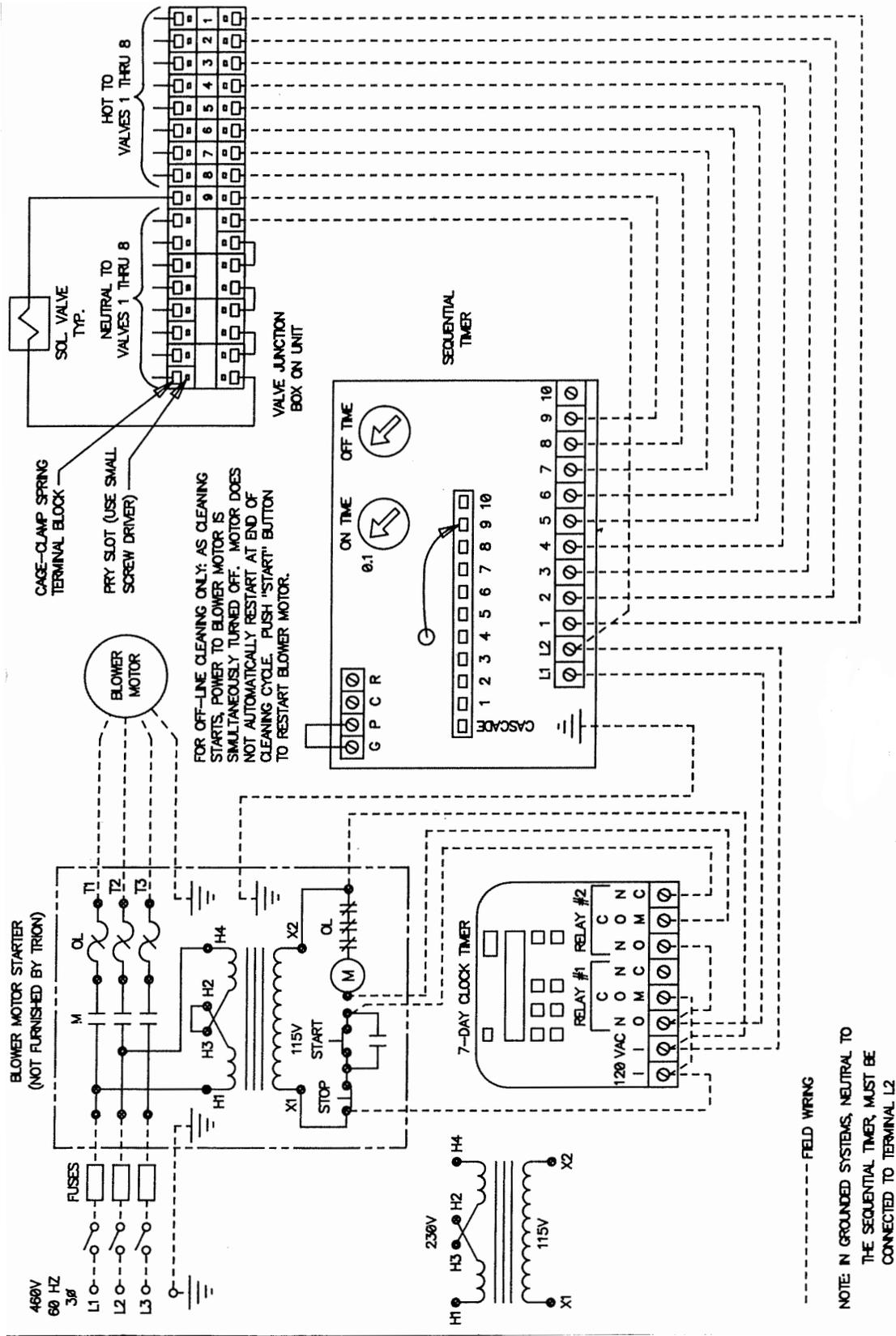
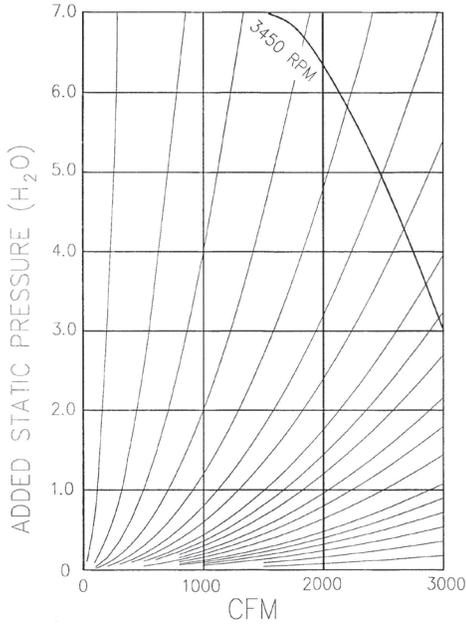


FIGURE 18  
CA6000C OPTIONAL WIRING - 7-DAY TIMER OFF-LINE

**FILTER COMBINATION  
PRECONDITIONED CARTRIDGE WITH EITHER**

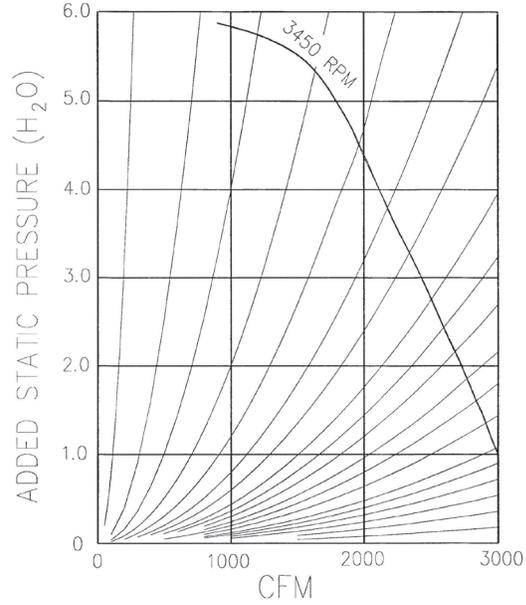
1. NO PRE-FILTER
2. PERFORATED BAFFLE OR
3. 2" ALUMINUM MESH PRE-FILTER



**DIRECT DRIVE - HIGH STATIC PERFORMANCE CURVE**

**FILTER COMBINATION  
PRECONDITIONED CARTRIDGE WITH EITHER**

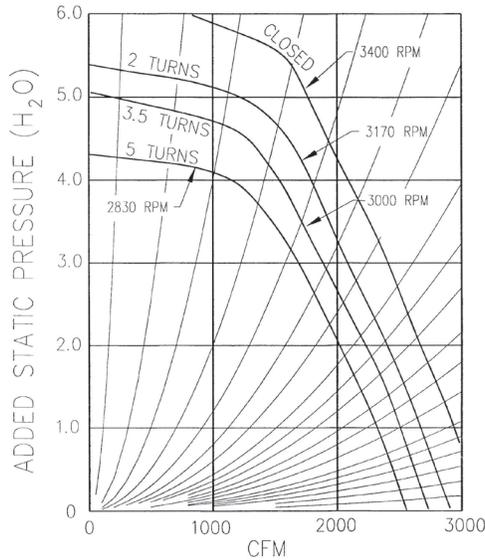
1. NO PRE-FILTER
2. PERFORATED BAFFLE OR
3. 2" ALUMINUM MESH PRE-FILTER



**DIRECT DRIVE - STANDARD PERFORMANCE CURVE**

**FILTER COMBINATION  
PRECONDITIONED CARTRIDGE WITH EITHER**

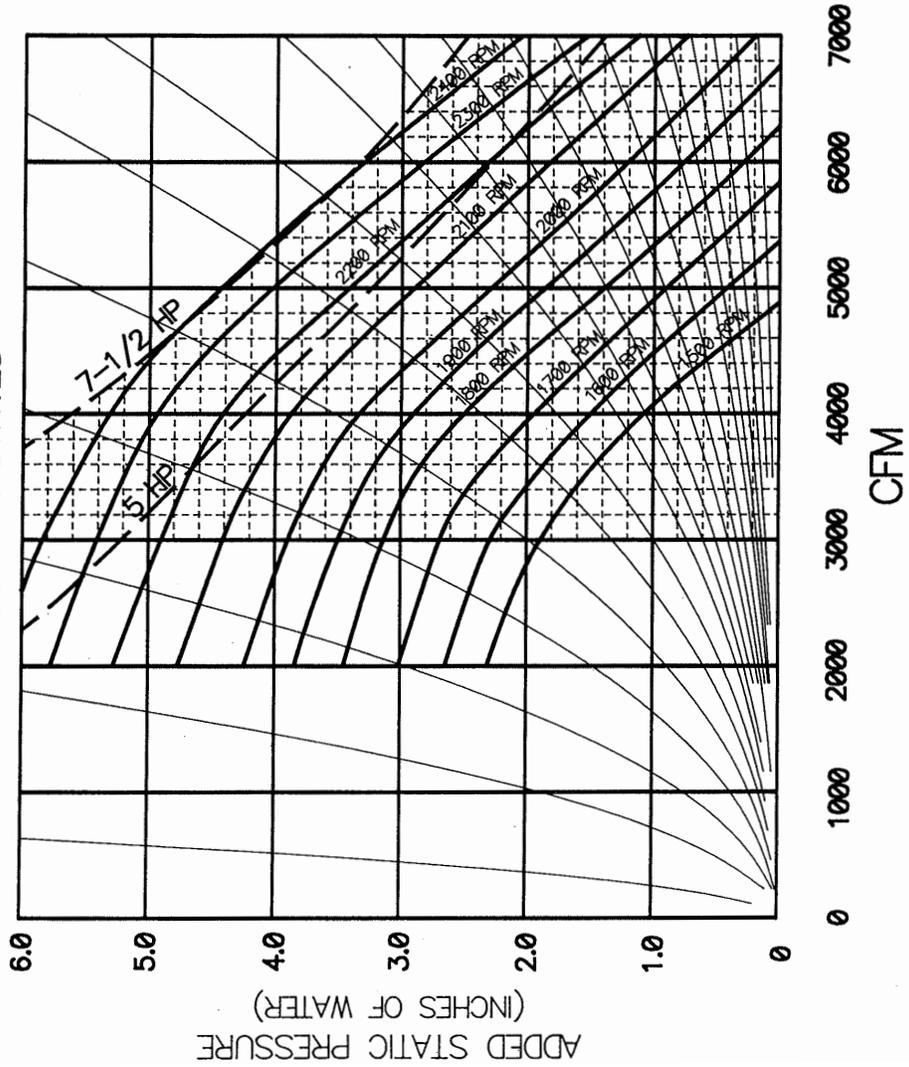
1. NO PRE-FILTER
2. PERFORATED BAFFLE OR
3. 2" ALUMINUM MESH PRE-FILTER



**VARIABLE DRIVE - PERFORMANCE CURVES**

**FIGURE 19  
CA3000C BLOWER CURVES**

**CA6000C**  
BLOWER CURVES



**FIGURE 20**  
**CA6000C BLOWER CURVES**

BLOWER RPM @  
SPECIFIED SHEAVE SETTINGS

1740 RPM MOTOR	5 H.P.	7-1/2 H.P.
VARIABLE PITCH MOTOR SHEAVE 5.8"-7.0" P.D.	BLOWER SHEAVE 5.6" P.D.	BLOWER SHEAVE 5.1" P.D.
FULLY CLOSED (7.0)	2175	2388
1 TURN OPEN (6.8)	2113	2320
2 TURNS OPEN (6.6)	2051	2252
3 TURNS OPEN (6.4)	1989	2184
4 TURNS OPEN (6.2)	1926	2115
5 TURNS OPEN (6.0)	1864	2047
6 TURNS OPEN (5.8)	1802	1979

WHEN CHANGING THE PITCH DIAMETER OF THE VARIABLE PITCH MOTOR SHEAVE, IT IS IMPORTANT TO MAINTAIN PRECISE BELT ALIGNMENT TO AVOID INTRODUCTION OF DRIVE RELATED VIBRATION.

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