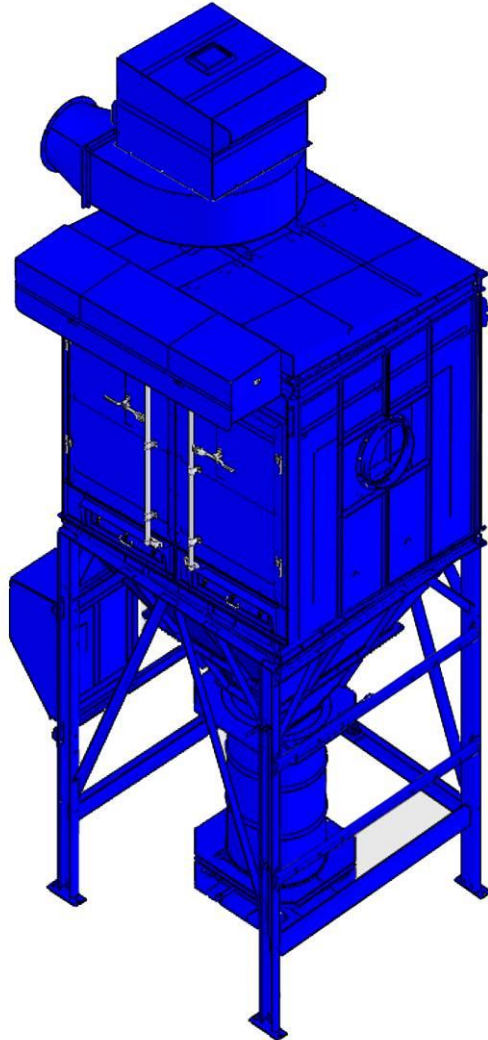


# AVANI Large Cartridge Collector



Customer:	CMC STRUCTURAL KIFFER- Hope, AK		
Customer PO#:			
AVANI SO#:	9250	Tested By:	
Serial #:	142803		
Ship Date / Install Date:	Shipped 2014/07/10		

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.



# AVANI Large Cartridge Collector

## General Safety Information

### MACHINE WARNING SIGNS

#### **▲ DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

#### **▲ WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

#### **▲ CAUTION**

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

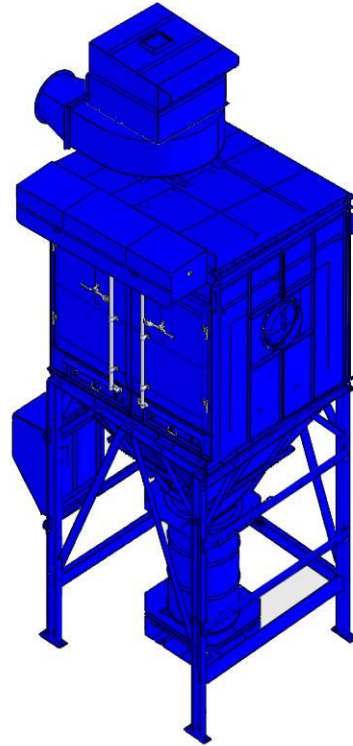
Used without the safety alert symbol (▲) indicates potentially hazardous situation which, if not avoided, may result in property damage.



Warning of electric shock



Do not expose the equipment to rain or use in damp locations.



**Figure 1**



Do not use the equipment around flammable products, if not avoided, sparks can ignite vapors from flammable products. Read and understand all warnings and operating instructions before using this equipment. Failure to follow all instructions may result in electric shock, fire, and/or serious personal injury or property damage.



# AVANI Large Cartridge Collector

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## Specifications

Motor .....	15 HP x 1pc
.....	<b>460V / 60Hz / 3Ph</b>
Air Volume (C.F.M.) .....	10,000 Ft <sup>3</sup> /Min @ 8" SP
***Inlet Size ( round inlet on left side of unit.) .....	16.1" (409mm)
UL Individual Control Boxes for Cartridge Collector and Blowers	

Cartridge Filter: Ø380mm x 1320mm x 16cs (Ø15" x 52" x 16pcs)

Material: Polyester with TEFLON coating.

Filter Area: 19m<sup>2</sup> x 16= 304 m<sup>2</sup> (3071.04 ft<sup>2</sup>)

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.



# AVANI Large Cartridge Collector

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Pleat Depth: 48mm

Horizontal Positioned Filters,  
Continuous Welded Seams,  
Gasket and Latched Doors,  
Powder Coated Paint and  
Reverse Jet Pulse Cleaning

Include:

- Drum & Jack Lifting Tool
- Filter Chamber
- Hopper
- Inlet Square Pipe (need dimensions)
- Fan/motor combinations

No. of Valves: 4

Compressed Air Requirement: 90 PSI

Compressed Air Reservoir: 15.8 gallon

Inlet Air: 3/4"

Construction: 13 Gauge for panel; 11 Gauge Steel Cabinet

Max. Operating Temp.: 120°C

Paint Color: Blue

Dimension (L x W x H): 111.4" x 99.22" x 218.2" (2826.48 x 2518.2 x 5538mm)

\*\*\*1-1/2" connector welded to the collector.

\*\*\*pulse control box run off of 120V, 1-phase, no transformer inside pulse box.  
Pulse box located at the left side of the collector when facing the unit.

# AVANI Large Cartridge Collector

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\*\*\*blower control box: 460V / 60Hz / 3-phase, with transformer. Blower box located inside the building.

- \*\*\* Having 3-Phase Monitoring Relay system in order to ensure the motor rotate in right direction.
- \*\*\* Need to confirm main power cables on correct phase when the unit can't turn on.
- \*\*\* Need to change R-Phase, S-Phase and T-Phase until the motor rotate in the right direction and the unit can be operated.

# AVANI Large Cartridge Collector

## General Safety Information

(Continued)



***Use this product carefully to effectively avoid any possible danger. Observe the following safety regulations to avoid bodily injury due to electrocution during use.***

Read this Manual carefully before operating the product and preserve the Operation Manual properly.

1. Keep work area clean and organized.
  - A disorderly working environment will cause inconvenience and danger during operation.
2. Check if the working environment is suitable for using the product.
  - Do not use the product in a humid environment.
  - Use the product in a good working environment to reduce risks.
  - Do not use the product in a flammable gas or liquid environment to avoid danger.
3. Keep other persons away from the product, except for the operator, to avoid danger.
  - Do not let children get close to the product. All wires used by the product shall be in a safe location to prevent children from touching them.
4. All tools shall be safely stored.
  - When the tools are not used, please store them in a dry place safely beyond the reach and access of children.
5. If the machine breaks down, contact a service technician. Do not attempt to repair and possibly damage the machine.
6. When using the product, be sure to put on a suit and mask.
7. Use the electrical wires correctly.
  - During use, do not drag the electrical wires forcefully. Do not use these wires if fraying or current leakage occurs to avoid injury to the operator.
8. Before replacing parts, shut off power to the machine.
  - Check that the switch is in "on" or "off" position. Do not attempt the replacement when the machine is running. To replace parts or filter material, make certain that the switch is "off".

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.



# AVANI Large Cartridge Collector

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9. Use the power cord correctly. The total length of power cord shall not exceed 10 feet to avoid low power due to a drop in voltage and to prevent a possible hazard.

**▲WARNING**

***When connecting  
the product,***

***always follow the instructions in the  
Operation Manual to avoid injuries.***

10. Care and Maintenance:

- Confirm that the parts/accessories have been fully assembled and will not adversely affect the machine operation.
- Check if the machine is operated properly.
- Replace damaged parts or accessories according to the instructions of the Manual. If the said instructions are not specified in the Manual, have a professional technician carry out the maintenance or replacement.
- Check that the electrical specifications of this machine meet safety requirements, and that the maintenance is carried out by a professional technician. Use original manufacturer's parts and accessories to avoid injury.
- If a problem occurs, contact your

dealer immediately.

## **ADDITIONAL CARTRIDGE COLLECTOR SAFETY RULES**

The Cartridge Collector can be dangerous if it is operated incorrectly. Therefore, the product must be used cautiously to avoid causing a hazard or damage. Unnecessary injuries may occur by failing to follow the instructions of the Safety Rules Manual. Be sure to put on protection equipment or suit that can protect your body, such as helmet and eye mask to avoid injuries from occurring. If any doubts or any unfitness occurs during use, be sure to stop the operation immediately. Keep in mind that the user shall be liable for using according to the specified safety rules and for operating the machine correctly.

1. Read this Manual carefully before operating the product.
2. Be sure to follow local electrical and safety regulations and observe the electrical safety standards practiced in the relevant area. All electrical wire connections and installation shall be carried out by a professional technician.
3. Do not operate the product near flammable materials, as sparks may ignite these materials and cause an

# AVANI Large Cartridge Collector

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explosion. Please confirm there aren't any flammables near the working site to avoid hazard.

4. This product is suitable for collecting smoke and oil gas. Do not use it in collecting iron chips and dust at the same time to avoid producing sparks.
5. Before replacement of parts or filter materials, be certain that the switch is disconnected.
6. Do not kink the power cord and keep it away from oil, chemicals or flammables.
7. Check that the voltage, phase count and grounding wire match the machine requirements.
8. When the fan blades are operated at high speed, do not reach hand near these blades to prevent finger from breaking or clothes/necktie from getting caught. Do not put the hand or foreign matter into the air inlet to avoid getting caught in the high-speed rotation of fan blades.
9. When not in use, all air inlets of Cartridge Collector shall be covered.

## Assembly

***Do not connect the Cartridge Collector before the assembly is finished and***

## **▲WARNING**

***you have read and understood all of the precautions stated in the Manual.***

**NOTE:** For correct assembly, refer to the Assembly Procedure on pages 14~22.

## Installation

### MOVING AND TRANSPORTATION

The net weight of this machine is about 5,414.25 lbs. It CANNOT be handled and transported without the help of lifting tools. For your safety, read all instructions carefully.

***Do not move without the help of others to avoid causing danger.***

## **▲WARNING**

### ELECTRICAL INSTALLATION

#### POWER CONNECTION

1. Confirm that the power is properly connected under normal power supply condition. It is recommended to provide manual shutdown device before connecting power.
2. It is recommended to protect the control equipment with suitable grade of fuse, and the length of fuse and power cord shall not be over 10 feet.

#### SHUTDOWN

1. Disconnect power by manual method.
2. When stopping operation, check if the



# AVANI Large Cartridge Collector

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switch is under off status.

## **EARTHING WIRE**

Connect yellow/green wires to the earthing wire power jack. Confirm that the earthing wire has been properly connected before connecting main power cord to the machine at all times.

### **▲ WARNING**

***Do not disconnect  
the wiring jack***

***before cutting off power!***

## **POWER INSTALLATION AND STORAGE**

The electrical power is configured as following. If conditions are beyond the scope stated below, then it is required to ensure that the power is well arranged and safe.

- Ambient temperature: Between 41°F and 131°F. If the time is over 24 hours, then the ambient average temperature shall not be over 122°F.
- Humidity: Between 30% and 95%
- Altitude: 3,280 feet
- Moving and Storing: -13°F to 131°F. For short-time storage (less than 24 hours), the storage temperature can be up to 158°F.

## **Operation**

### **PRIOR TO START UP**

Purpose: The Cartridge Collector is specially

suitable for treating the smoke generated during ordinary processing work, which can effectively collect and screen the smoke resulting from the work in maintaining the air quality of the working environment.

- Before starting the machine, be sure to read this Manual carefully.
- Before starting the machine, check if relevant safety protection measures have been taken according to the Manual.
- Before starting the machine, watch the motor turning direction according to the instruction of arrow direction.

### **START UP**

1. To ensure satisfactory performance for the Cartridge Collector, please confirm the air volume, power and the matching table of the Cartridge Collector.
2. Connect power according to electrical installation procedure after installing the Cartridge Collector and the blower. Disconnect power according to electrical installation procedure when the machine is not used.
3. The Cartridge Collector shall be turned on and off by pushing I/O button. Under normal operation status, use such I/O button.

# AVANI Large Cartridge Collector

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## Unpacking

The machine should be unpacked carefully. Check if the machine and components are consistent with those indicated in the Parts List. If any doubt arises or when the components are incomplete, contact your dealer.

## OPERATION – Filter Cleaning

1. Verify that compressed air is attached to the unit for cleaning purpose at a pressure of 90PSI.
2. During operation, the pressure gauge should maintain a reading of 4" WIC pressure or less.

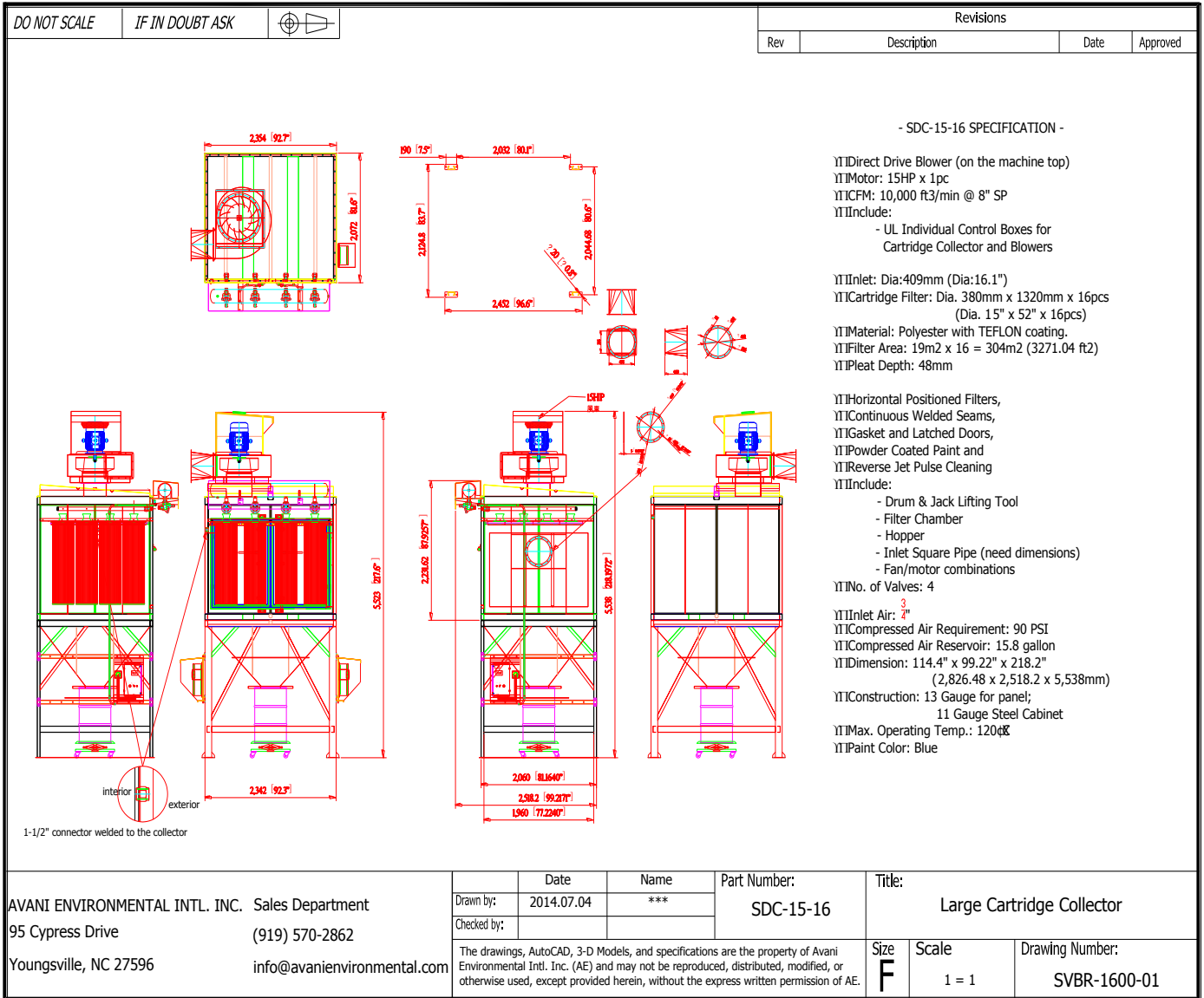


3. If pressure exceeds 4" WIC, or you experience a reduction in vacuum, proceed with the following action(s)

- Adjust cleaning frequency via the timer board by increasing the frequency of pulses
  - Turn off ONLY the motor power and leave the main power on. Then, the air pulse jet will clean the cartridge filters for three circulations. This ensures the cartridge cleaning frequency when you turn on the power next time.
  - Cleaning as noted above should be daily or as any decrease in vacuum is observed.
4. If pressure exceeds 4" WIC with the collector at maximum cleaning frequency and/or vacuum is not sufficient for optimal operation, contact AVANI for filter replacement. (See contact information in this manual).

# AVANI Large Cartridge Collector

## Dimensions (in mm/inches)



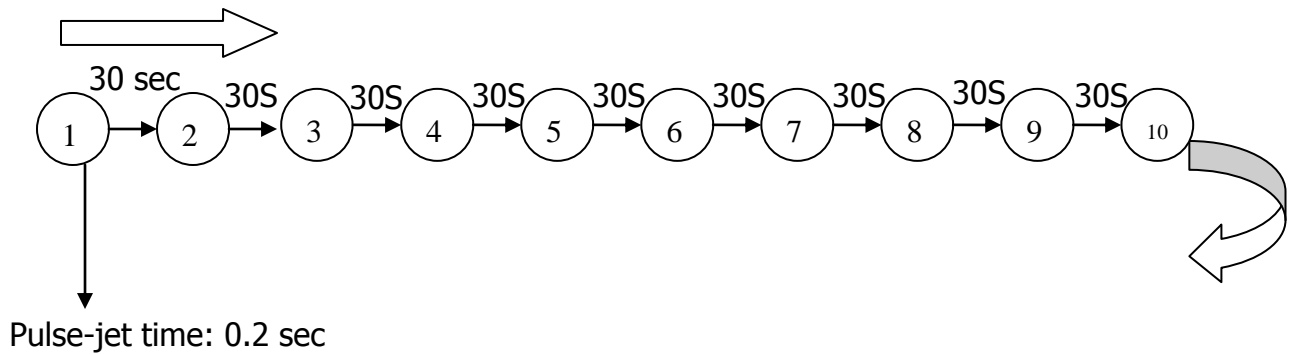
# AVANI Large Cartridge Collector

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## Control Panel

Time Setting for Valve (Pulse-Jet):

1. No. of Valves: 4 (circulation)
2. Pulse-jet Time for each Valve: 0.2 sec
3. Valve Interval: 30 seconds (pulse-jets first cycle when turning on the power and circulate in every thirty seconds).
4. Turn off ONLY the motor power and leave the main power on. Then, the air pulse jet will clean the cartridge filters for three circulations. This ensures the cartridge cleaning frequency when you turn on the power next time.



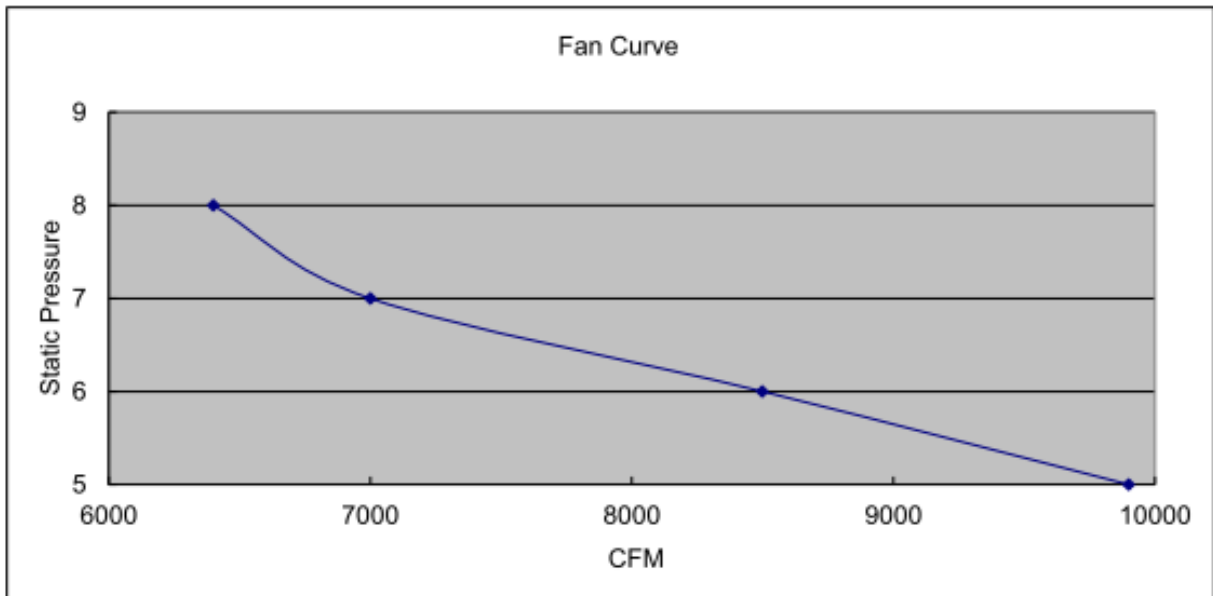
# AVANI Large Cartridge Collector

## Blower Curves

### SDC-15-16 DUST COLLECTOR

Model	Max static pressure (inch/H2O)	Max CFM	Hp	Volts	Hz	Impeller	Inlet
SDC-15-16 DUST COLLECTOR	8"	6400	15HP x 1 pc	460V	60		

SDC-15-16	Static pressure (Inch/H2O)	8	7	6	5
	CFM	6400	7000	8500	9900



# AVANI Large Cartridge Collector

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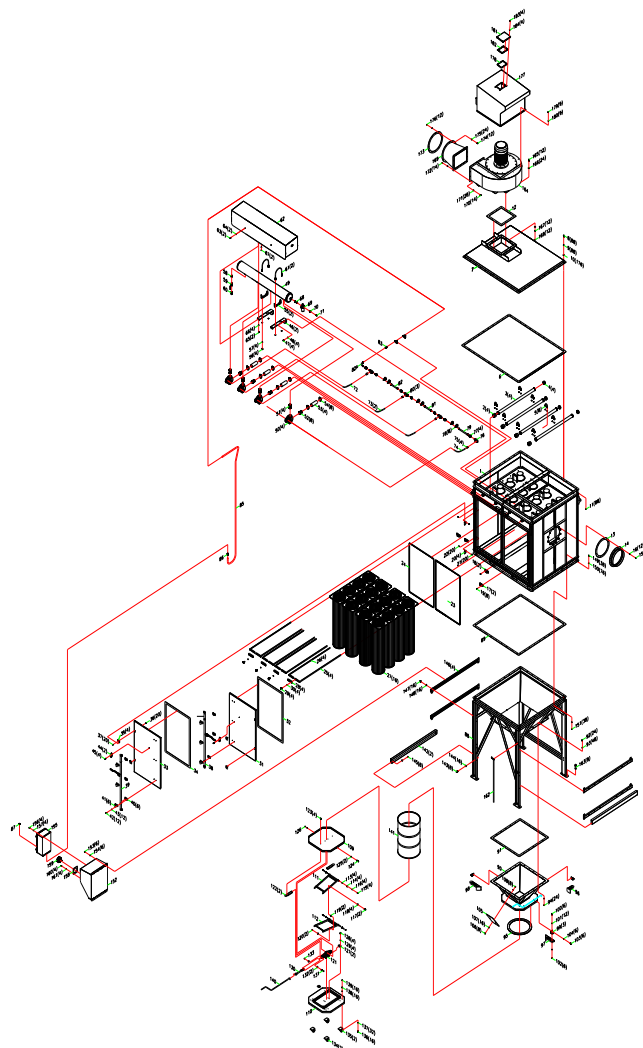
## Repair Parts Illustration

***For Repair Parts, call +1-919-570-2862***

**24 hours a day – 365 days a year**

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list



# AVANI Large Cartridge Collector

## Repair Parts List

### Repair Parts List for Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
1	Machine Body	AVANI-01-SDC-15-16-L-1	1
2	Connector	AVANI-01-SDC-15-16-L-2	4
3	Nipple	AVANI-01-SDC-15-16-L-3	4
4	Cap	AVANI-01-SDC-15-16-L-4	4
5	U-shaped Clamp	AVANI-01-SDC-15-16-L-5	8
6	Gasket	AVANI-01-SDC-15-16-L-6	1
7	Motor Base Cover	AVANI-01-SDC-15-16-L-7	1
8	Hex Screw (1/2"*1-1/2")	AVANI-01-SDC-15-16-L-8	50
9	Rubber Gasket (M12)	AVANI-01-SDC-15-16-L-9	50
10	Flat Washer (1/2"*OD28*2T)	AVANI-01-SDC-15-16-L-10	100
11	Hex Nut (1/2")	AVANI-01-SDC-15-16-L-11	50
12	Gasket	AVANI-01-SDC-15-16-L-12	1
13	Gasket	AVANI-01-SDC-15-16-L-13	1
14	Outlet Flange	AVANI-01-SDC-15-16-L-14	1
15	Flat Washer (3/8"*OD25*2T)	AVANI-01-SDC-15-16-L-15	12
16	Hex Nut (3/8")	AVANI-01-SDC-15-16-L-16	12
17	Compression Latch (left)	AVANI-01-SDC-15-16-L-17	2
18	Compression Latch (right)	AVANI-01-SDC-15-16-L-18	2
19	Countersunk Philips Head Screw (5/16"*5/8")	AVANI-01-SDC-15-16-L-19	8
20	Hinge	AVANI-01-SDC-15-16-L-20	4
21	Hex Screw (1/4"*3/4")	AVANI-01-SDC-15-16-L-21	20
22	Hex Nut (1/4")	AVANI-01-SDC-15-16-L-22	20
23	Seal	AVANI-01-SDC-15-16-L-23	1
24	Seal	AVANI-01-SDC-15-16-L-24	1

## AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
25	Filter Handle (right)	AVANI-01-SDC-15-16-L-25	4
26	Filter Handle (left)	AVANI-01-SDC-15-16-L-26	4
27	Cartridge Filter (380x1320)	AVANI-01-SDC-15-16-L-27	16
28	Filter Handle Fixing Plate	AVANI-01-SDC-15-16-L-28	4
29	Flat Washer (5/16"*OD23*2T)	AVANI-01-SDC-15-16-L-29	4
30	Knob (5/16"*1")	AVANI-01-SDC-15-16-L-30	4
31	Door (right)	AVANI-01-SDC-15-16-L-31	1
32	Foam Tape	AVANI-01-SDC-15-16-L-32	1
33	Door (left)	AVANI-01-SDC-15-16-L-33	1
34	Foam Tape	AVANI-01-SDC-15-16-L-34	1
35	Hinge	AVANI-01-SDC-15-16-L-35	4
36	Countersunk Inner Hex Screw (1/4"*5/8")	AVANI-01-SDC-15-16-L-36	20
37	Hex Nut (1/4")	AVANI-01-SDC-15-16-L-37	20
38	Door Lock (right)	AVANI-01-SDC-15-16-L-38	1
39	Door Lock (left)	AVANI-01-SDC-15-16-L-39	1
40	Door Lock Base (lower)	AVANI-01-SDC-15-16-L-40	6
41	Door Lock Base (upper)	AVANI-01-SDC-15-16-L-41	6
42	Hex Screw (5/16"*3/4")	AVANI-01-SDC-15-16-L-42	12
43	Flat Washer (5/16"*OD23*2T)	AVANI-01-SDC-15-16-L-43	12
44	Compression Latch	AVANI-01-SDC-15-16-L-44	2
45	Countersunk Philips Head Screw (M6*20)	AVANI-01-SDC-15-16-L-45	4
46	Fixing Base for Air Tank	AVANI-01-SDC-15-16-L-46	2
47	Hex Screw (3/8"*3/4")	AVANI-01-SDC-15-16-L-47	4
48	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-48	4



## AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
49	Air Tank	AVANI-01-SDC-15-16-L-49	1
50	Magnetic Valve	AVANI-01-SDC-15-16-L-50	4
51	Nipple	AVANI-01-SDC-15-16-L-51	4
52	Connector	AVANI-01-SDC-15-16-L-52	8
53	Hose	AVANI-01-SDC-15-16-L-53	4
54	Clamp	AVANI-01-SDC-15-16-L-54	8
55	Air Tank Base	AVANI-01-SDC-15-16-L-55	2
56	Hex Screw (3/8"*3/4")	AVANI-01-SDC-15-16-L-56	4
57	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-57	4
58	Nipple	AVANI-01-SDC-15-16-L-58	1
59	Switch Valve	AVANI-01-SDC-15-16-L-59	1
60	Connector	AVANI-01-SDC-15-16-L-60	1
61	U-shaped Clamp	AVANI-01-SDC-15-16-L-61	2
62	Air Tank Cover	AVANI-01-SDC-15-16-L-62	1
63	Hex Screw (3/8"*3/4")	AVANI-01-SDC-15-16-L-63	2
64	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-64	2
65	Hex Screw (3/8"*1")	AVANI-01-SDC-15-16-L-65	2
66	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-66	4
67	Hex Nut (3/8")	AVANI-01-SDC-15-16-L-67	2
68	Nipple	AVANI-01-SDC-15-16-L-68	1
69	Dehumidifier (Air Regulator)	AVANI-01-SDC-15-16-L-69	1
70	Bushing	AVANI-01-SDC-15-16-L-70	1
71	Nozzle	AVANI-01-SDC-15-16-L-71	1
72	Nylon Conduit	AVANI-01-SDC-15-16-L-72	1
73	Nylon Conduit	AVANI-01-SDC-15-16-L-73	1
74	Nylon Conduit	AVANI-01-SDC-15-16-L-74	1

## AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
75	Nylon Conduit Connector	AVANI-01-SDC-15-16-L-75	4
76	Conduit Body (LR)	AVANI-01-SDC-15-16-L-76	1
77	Male To Female Union	AVANI-01-SDC-15-16-L-77	4
78	Conduit Clamp	AVANI-01-SDC-15-16-L-78	6
79	Conduit, EMT	AVANI-01-SDC-15-16-L-79	1
80	Conduit Body (T)	AVANI-01-SDC-15-16-L-80	2
81	Conduit, EMT	AVANI-01-SDC-15-16-L-81	1
82	Conduit, EMT	AVANI-01-SDC-15-16-L-82	1
82A	Conduit, Elbow	AVANI-01-SDC-15-16-L-82A	1
83	Conduit Fitting	AVANI-01-SDC-15-16-L-83	1
85	Flexible Steel Conduit	AVANI-01-SDC-15-16-L-85	1
86	Conduit Fitting	AVANI-01-SDC-15-16-L-86	1
87	Locknut	AVANI-01-SDC-15-16-L-87	1
88	Lower Unit	AVANI-01-SDC-15-16-L-88	1
89	Gasket	AVANI-01-SDC-15-16-L-89	1
90	Lower Hopper	AVANI-01-SDC-15-16-L-90	1
91	Gasket	AVANI-01-SDC-15-16-L-91	2
92	Hex Screw (3/8"*1")	AVANI-01-SDC-15-16-L-92	24
93	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-93	48
94	Hex Nut (3/8")	AVANI-01-SDC-15-16-L-94	24
95	Foam Tape	AVANI-01-SDC-15-16-L-95	1
96	Drum Fixing Bracket - 3	AVANI-01-SDC-15-16-L-96	1
97	Drum Fixing Bracket - 2	AVANI-01-SDC-15-16-L-97	1
98	Drum Fixing Bracket - 1	AVANI-01-SDC-15-16-L-98	1
99	Drum Fixing Bracket - 5	AVANI-01-SDC-15-16-L-99	3
100	Hex Screw (3/8"*3/4")	AVANI-01-SDC-15-16-L-100	6

## AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
101	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-101	12
102	Hex Nut (3/8")	AVANI-01-SDC-15-16-L-102	6
103	Hex Screw (3/8"*3/4")	AVANI-01-SDC-15-16-L-103	6
104	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-104	6
105	Hopper Lexan Window	AVANI-01-SDC-15-16-L-105	1
106	Hex Screw (3/8"*3/4")	AVANI-01-SDC-15-16-L-106	8
107	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-107	16
108	Hex Nut (3/8")	AVANI-01-SDC-15-16-L-108	8
109	Tray	AVANI-01-SDC-15-16-L-109	1
110	Trolley	AVANI-01-SDC-15-16-L-110	1
111	Tray Supporting Bracket - 1	AVANI-01-SDC-15-16-L-111	1
111A	Hex Screw (3/8"*1")	AVANI-01-SDC-15-16-L-111A	2
111B	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-111B	4
111C	Hex Nut (3/8")	AVANI-01-SDC-15-16-L-111C	2
112	Tray Supporting Bracket - 2	AVANI-01-SDC-15-16-L-112	1
112A	Hex Screw (3/8"*1")	AVANI-01-SDC-15-16-L-112A	2
112B	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-112B	4
112C	Hex Nut (3/8")	AVANI-01-SDC-15-16-L-112C	2
113	C Buckle	AVANI-01-SDC-15-16-L-113	4
114	Spherical Rod Ends	AVANI-01-SDC-15-16-L-114	1
115	Hex Screw (1/4"*3/4")	AVANI-01-SDC-15-16-L-115	4
116	Flat Washer (1/4"*OD19*2T)	AVANI-01-SDC-15-16-L-116	4
117	Hex Screw (1/2"*1-1/4")	AVANI-01-SDC-15-16-L-117	1
118	Flat Washer (1/2"*OD34*3T)	AVANI-01-SDC-15-16-L-118	4
119	Flat Washer (1/2"*OD34*3T)	AVANI-01-SDC-15-16-L-119	2
120	Nylon Lock Nut (1/2")	AVANI-01-SDC-15-16-L-120	2

## AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
121	Jack Lifting Tool	AVANI-01-SDC-15-16-L-121	1
122	Gusset	AVANI-01-SDC-15-16-L-122	2
123	Round Phillips Head Screw (1/4"*3/4")	AVANI-01-SDC-15-16-L-123	4
124	Cap Screw (1/4"*2-1/2")	AVANI-01-SDC-15-16-L-124	1
125	Flat Washer (1/4"*OD19*2T)	AVANI-01-SDC-15-16-L-125	2
126	Nylon Lock Nut (1/4")	AVANI-01-SDC-15-16-L-126	1
127	Trolley Fixing Plate	AVANI-01-SDC-15-16-L-127	2
128	Hex Screw (3/8"*3/4")	AVANI-01-SDC-15-16-L-128	4
129	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-129	4
130	Pawl	AVANI-01-SDC-15-16-L-130	1
131	Hex Screw (1/2"*3-1/2")	AVANI-01-SDC-15-16-L-131	1
132	Flat Washer (1/2"*OD34*3T)	AVANI-01-SDC-15-16-L-132	2
133	Nylon Lock Nut (1/2")	AVANI-01-SDC-15-16-L-133	1
134	Caster w/ Brakes	AVANI-01-SDC-15-16-L-134	2
135	Caster	AVANI-01-SDC-15-16-L-135	2
136	Hex Screw (5/16"*1")	AVANI-01-SDC-15-16-L-136	16
137	Flat Washer (5/16"*OD23*2T)	AVANI-01-SDC-15-16-L-137	32
138	Lock Washer (5/16")	AVANI-01-SDC-15-16-L-138	16
139	Hex Nut (5/16")	AVANI-01-SDC-15-16-L-139	16
140	Iron Bar	AVANI-01-SDC-15-16-L-140	1
141	50 Gallon Drum	AVANI-01-SDC-15-16-L-141	1
142	Support	AVANI-01-SDC-15-16-L-142	2
143	Hex Screw (1/2"*3/4")	AVANI-01-SDC-15-16-L-143	8
144	Flat Washer (1/2"*OD25*2T)	AVANI-01-SDC-15-16-L-144	16
145	Hex Nut (1/2")	AVANI-01-SDC-15-16-L-145	8

## AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
146	Fixing Plate for Control Box Base	AVANI-01-SDC-15-16-L-146	4
147	Hex Screw (1/2"*3/4")	AVANI-01-SDC-15-16-L-147	16
148	Flat Washer (1/2"*OD25*2T)	AVANI-01-SDC-15-16-L-148	16
149	Hex Screw (3/8"*3/4")	AVANI-01-SDC-15-16-L-149	42
150	Flat Washer (3/8"*OD28*2T)	AVANI-01-SDC-15-16-L-150	82
151	Hex Nut (3/8")	AVANI-01-SDC-15-16-L-151	42
152	Pulse Control Box Base and Cover	AVANI-01-SDC-15-16-L-152	1
153	Hex Screw (3/8"*3/4")	AVANI-01-SDC-15-16-L-153	4
154	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-154	4
155	UL Control Panel	AVANI-01-SDC-15-16-L-155	1
156	Hex Screw (1/4"*3/4")	AVANI-01-SDC-15-16-L-156	4
157	Flat Washer (1/4"*OD13*2T)	AVANI-01-SDC-15-16-L-157	4
158	Gauge Cover Plate	AVANI-01-SDC-15-16-L-158	1
159	Snap Bushing	AVANI-01-SDC-15-16-L-159	2
159A	PVC Tub	AVANI-01-SDC-15-16-L-159A	2
160	Hex Screw (1/4"*3/4")	AVANI-01-SDC-15-16-L-160	4
161	Flat Washer (1/4"*OD13*2T)	AVANI-01-SDC-15-16-L-161	4
162	Filter Remover	AVANI-01-SDC-15-16-L-162	1
163	Sleeve Anchor	AVANI-01-SDC-15-16-L-163	8
164	15HP Blower	AVANI-01-SDC-15-16-L-164	1
165	Hex Screw (1/2"*1")	AVANI-01-SDC-15-16-L-165	12
166	Flat Washer (1/2"*OD25*2T)	AVANI-01-SDC-15-16-L-166	24
167	Lock Washer (1/2")	AVANI-01-SDC-15-16-L-167	12
168	Hex Nut (1/2")	AVANI-01-SDC-15-16-L-168	12
169	Outlet Square to Round	AVANI-01-SDC-15-16-L-169	1

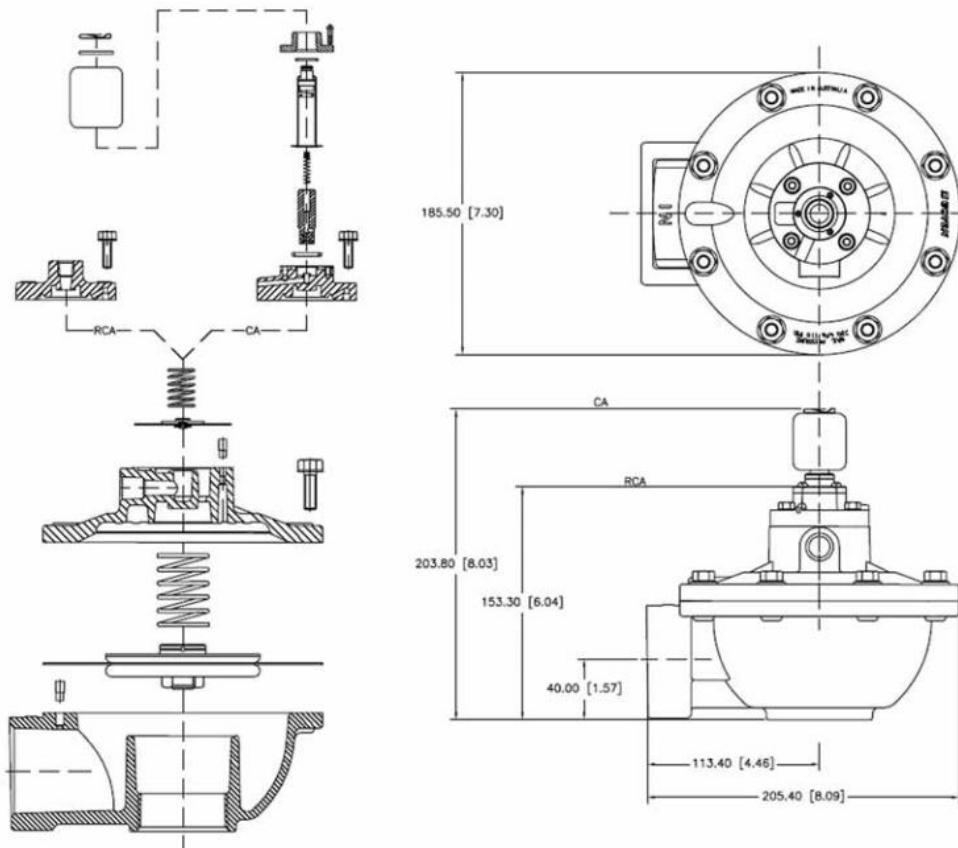
## AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
170	Hex Screw (3/8"*1")	AVANI-01-SDC-15-16-L-170	12
171	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-171	24
172	Hex Nut (3/8")	AVANI-01-SDC-15-16-L-172	12
173	Outlet Flange	AVANI-01-SDC-15-16-L-173	1
174	Hex Screw (3/8"*1")	AVANI-01-SDC-15-16-L-174	12
175	Flat Washer (3/8"*OD23*2T)	AVANI-01-SDC-15-16-L-175	24
176	Hex Nut (3/8")	AVANI-01-SDC-15-16-L-176	12
177	Motor Cover	AVANI-01-SDC-15-16-L-177	1
178	Seal	AVANI-01-SDC-15-16-L-178	1
179	Hex Screw (5/16"*3/4")	AVANI-01-SDC-15-16-L-179	9
180	Flat Washer (5/16"*OD23*2T)	AVANI-01-SDC-15-16-L-180	9
181	Blower Lexan Window	AVANI-01-SDC-15-16-L-181	1
182	Foam Tape	AVANI-01-SDC-15-16-L-182	1
183	Knob (5/16"*1-1/2")	AVANI-01-SDC-15-16-L-183	4
184	Flat Washer (5/16"*OD18*2T)	AVANI-01-SDC-15-16-L-184	4

# AVANI Large Cartridge Collector

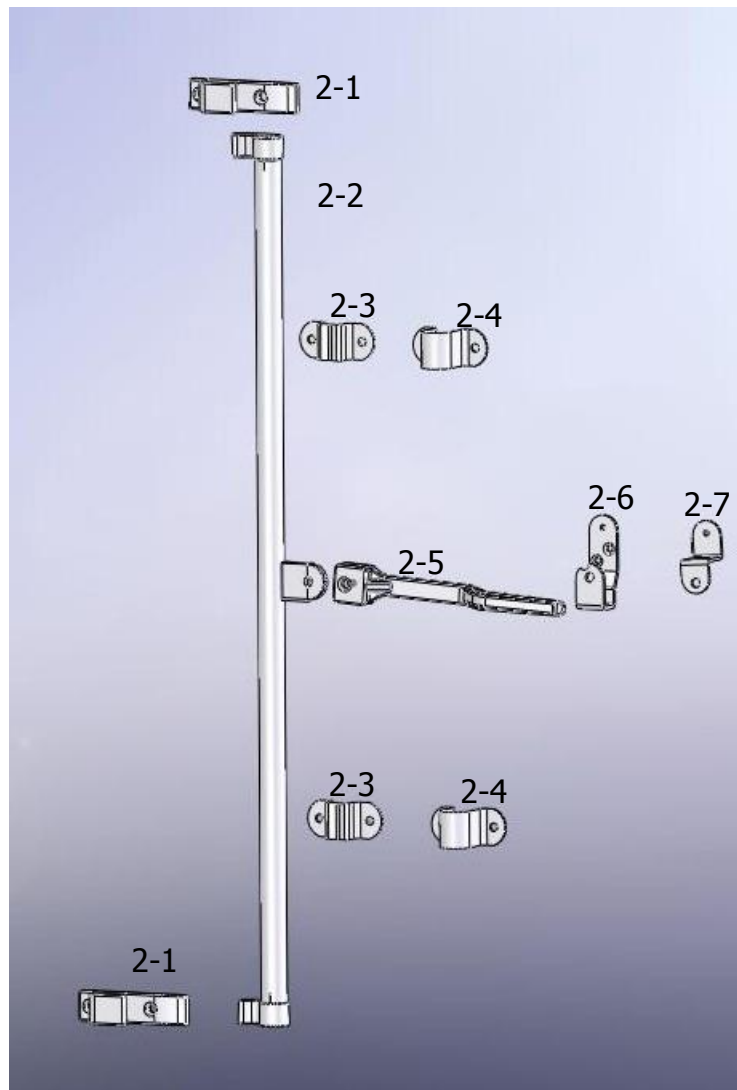
## Technical Data for Repair Parts

Reference Number	Description	Part Number	Quantity
50	Magnetic Valve	AVANI-01-SDC-15-16-L-50	4



# AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
38 / 39	Door Locker	AVANI-01-SDC-15-16-L-38	1
		AVANI-01-SDC-15-16-L-39	1





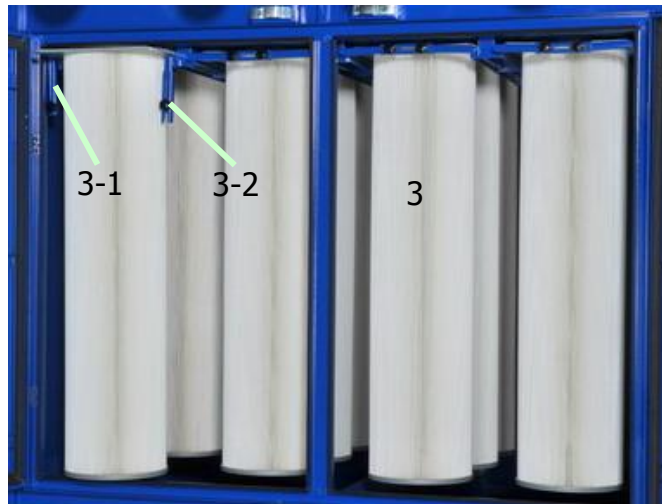
# AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
27	Cartridge Filter	AVANI-01-SDC-15-16-L-27	16



PF TYPE (Measurement m/m)

Diameter	Fold Depth	A	B	C	D	E	F	Weight kg	Filtering Area M <sup>2</sup>
380	48	1307	1320	12.8	421.4	459.2	382.4	17	19

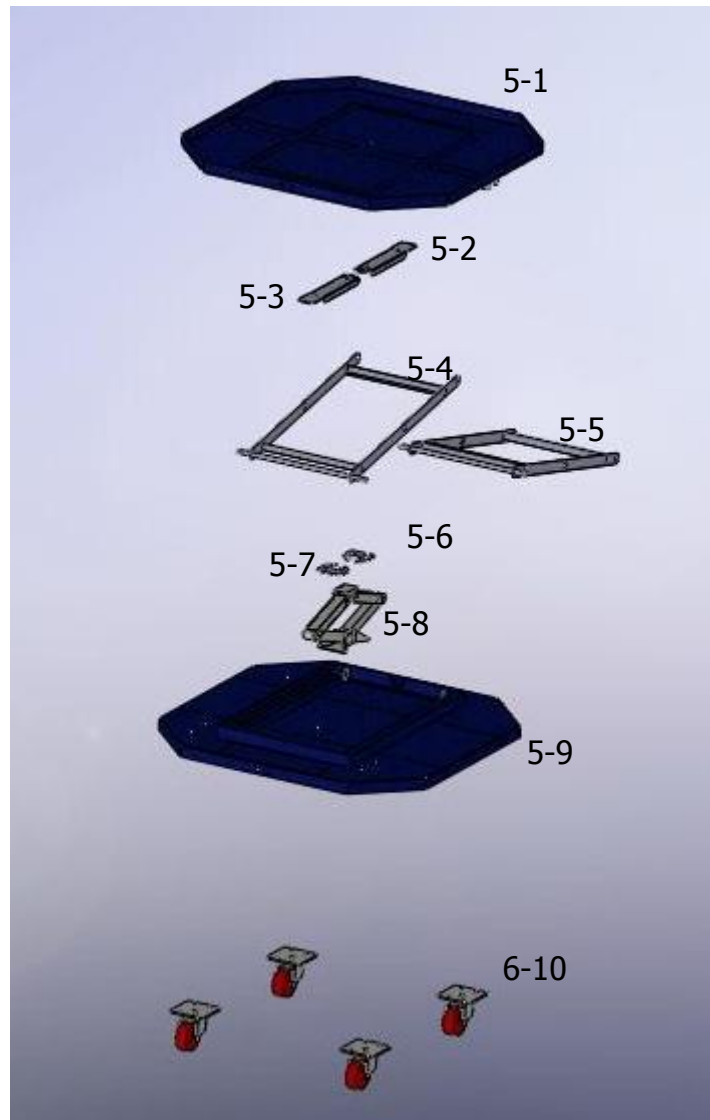


Reference Number	Description	Part Number	Quantity
155	Control Box for Air Pulse Solenoid Valves of the Large Cartridge Collector	AVANI-01-SDC-15-16-L-155	1

See appendix for wiring diagram.

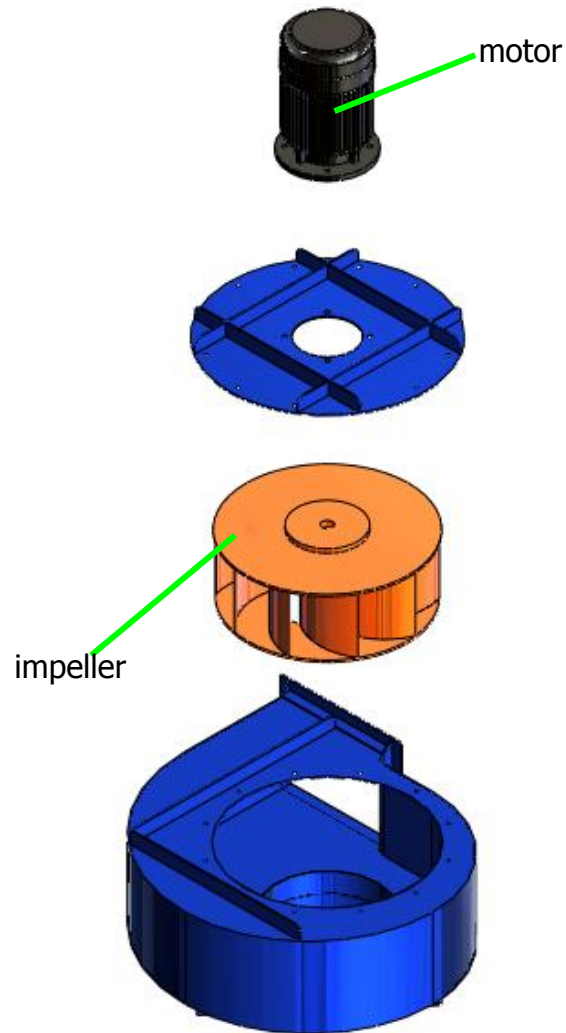
# AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
110	Trolley	AVANI-01-SDC-15-16-L-110	1



# AVANI Large Cartridge Collector

Reference Number	Description	Part Number	Quantity
164	Blower and Motor	AVANI-01-SDC-15-16-L-164	1



# AVANI Large Cartridge Collector

<i>DO NOT SCALE</i>	<i>IF IN DOUBT ASK</i>		Revisions			
			Rev	Description	Date	Approved
			<p><b>DBN-150 blower</b></p> <p><b>15HP x 1pc*4P*60Hz*230/460v</b></p>			
AVANI ENVIRONMENTAL INTL. INC. Sales Department 95 Cypress Drive (919) 570-2862 Youngsville, NC 27596 info@avanienvironmental.com			Drawn by: Checked by:	Date: 2010-09-20 Name: ***	Part Number: DBN-150	Title: <b>Blower</b>
			The drawings, AutoCAD, 3-D Models, and specifications are the property of Avani Environmental Intl. Inc. (AE) and may not be reproduced, distributed, modified, or otherwise used, except provided herein, without the express written permission of AE.		Size: <b>A</b>	Scale: 1 = 1 Drawing Number: SDC-15-16 (Norco)

Reference Number	Description	Part Number	Quantity
155	Control Box for Blower and Motor	AVANI-01-SDC-15-16-L-155	1

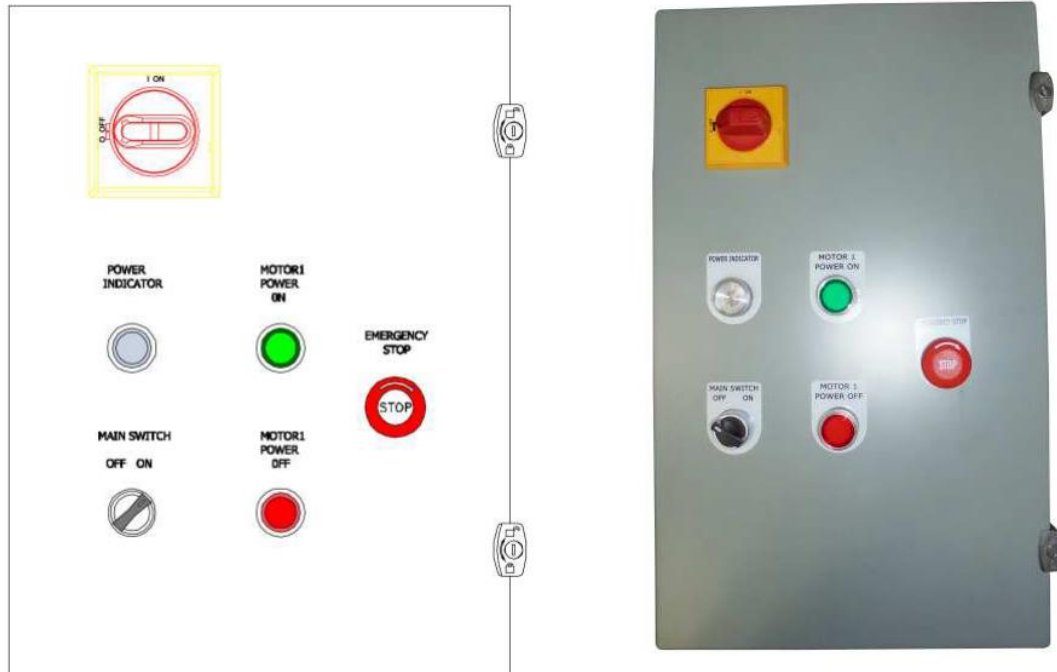
See appendix for wiring diagram.

# AVANI Large Cartridge Collector

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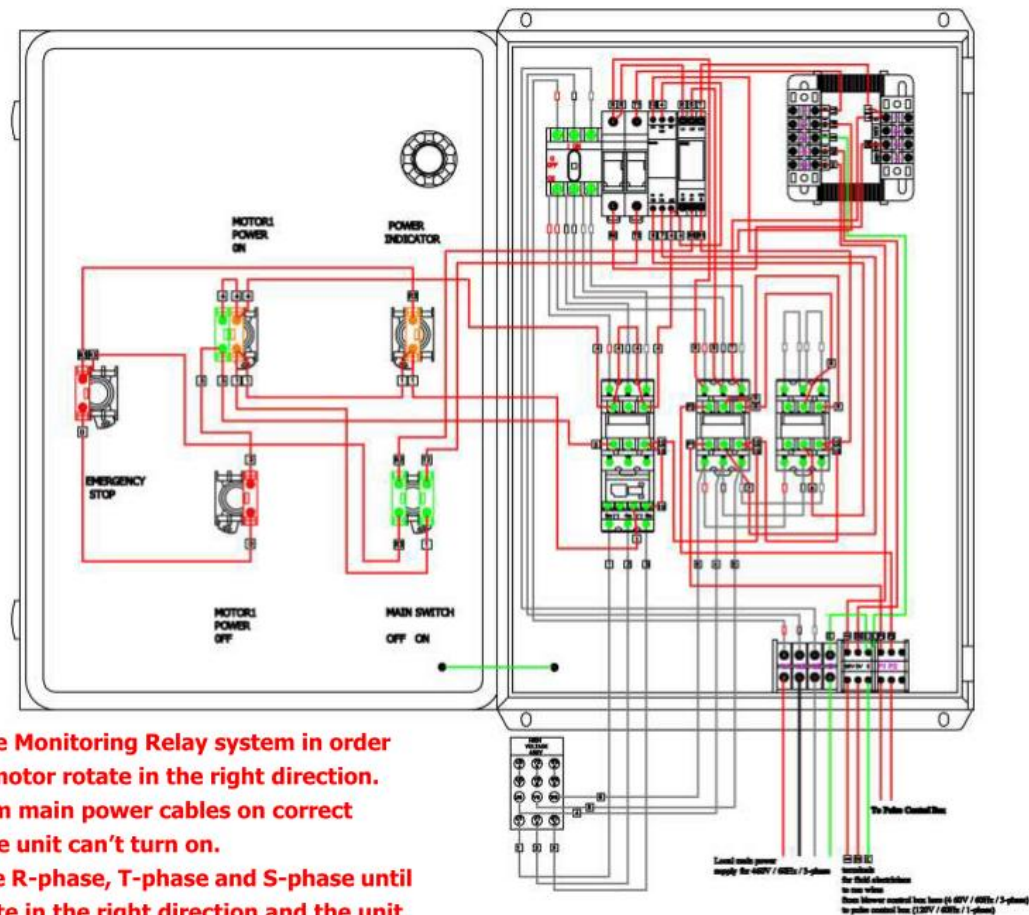
## Appendix 1 - Electrical Circuit Diagram

### Main Electrical Components for SDC-15-16 Blower Control Box



# AVANI Large Cartridge Collector

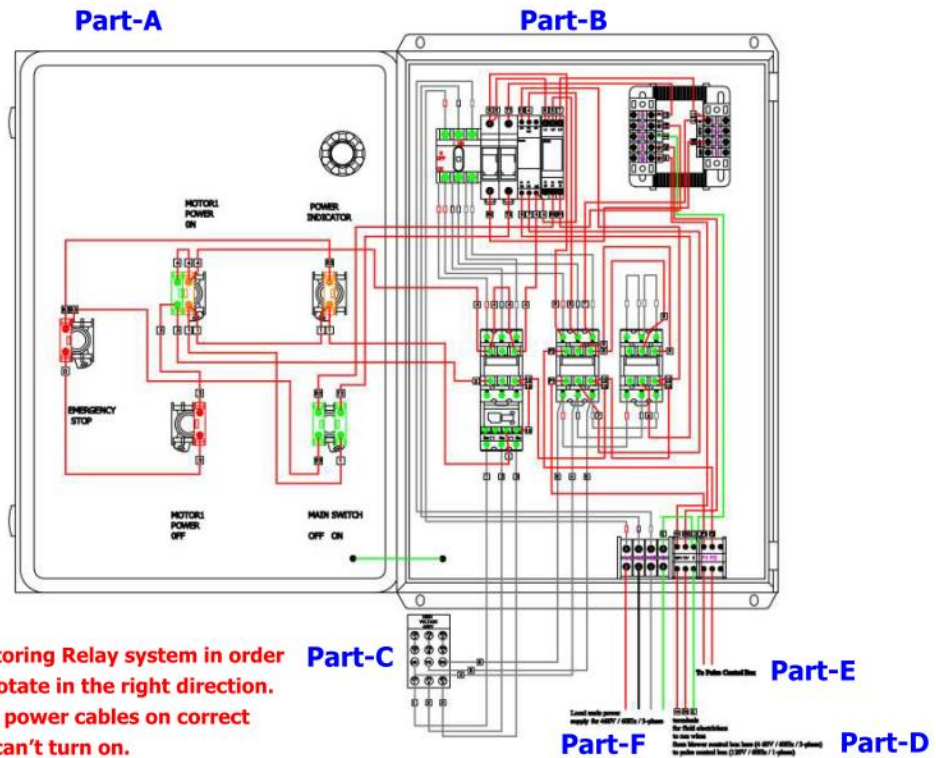
## Main Electrical Wiring diagram for SDC-15-16 Blower Control Box



Having 3-Phase Monitoring Relay system in order to ensure the motor rotate in the right direction. Need to confirm main power cables on correct phase when the unit can't turn on. Need to change R-phase, T-phase and S-phase until the motor rotate in the right direction and the unit can be operated.

# AVANI Large Cartridge Collector

## Main Electrical Wiring diagram for SDC-15-16 Blower Control Box



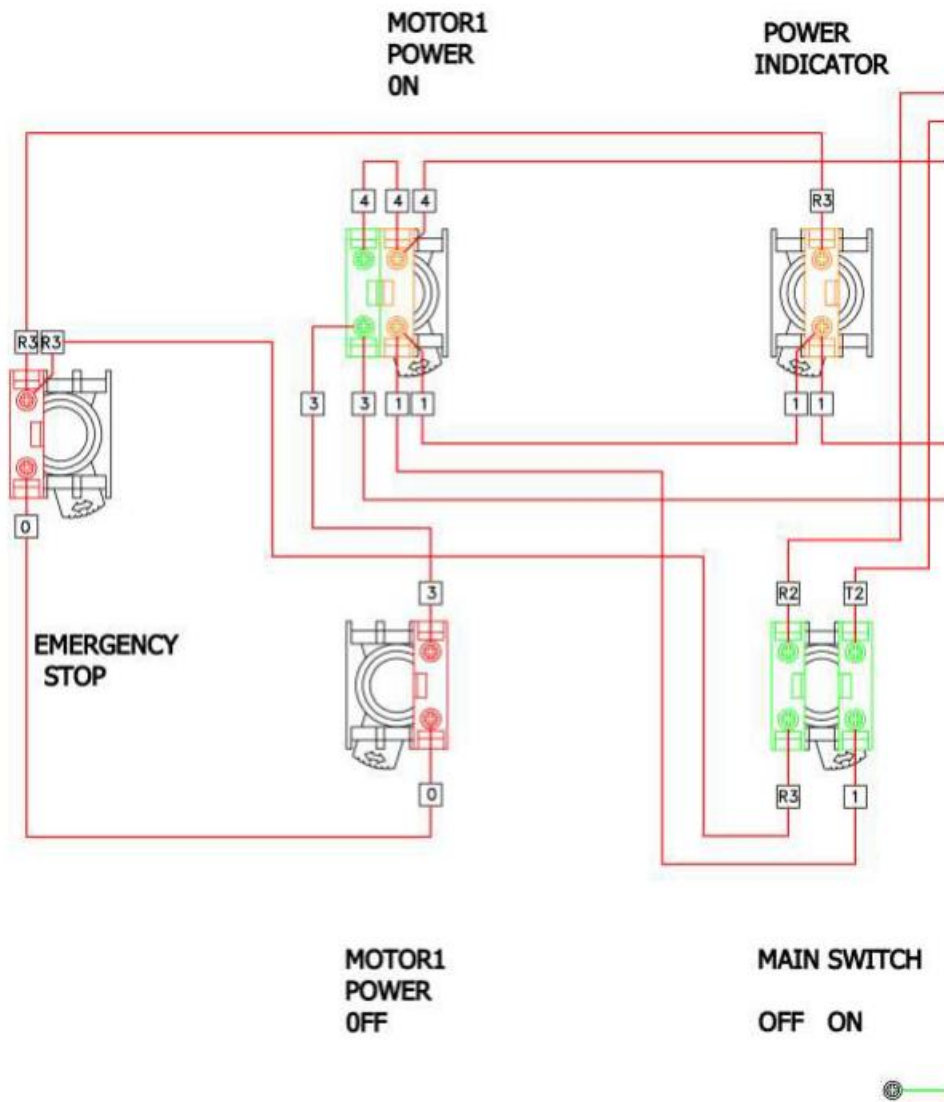
Having 3-Phase Monitoring Relay system in order to ensure the motor rotate in the right direction. Need to confirm main power cables on correct phase when the unit can't turn on. Need to change R-phase, T-phase and S-phase until the motor rotate in the right direction and the unit can be operated.



# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Blower Control Box

### Part-A





# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Blower Control Box

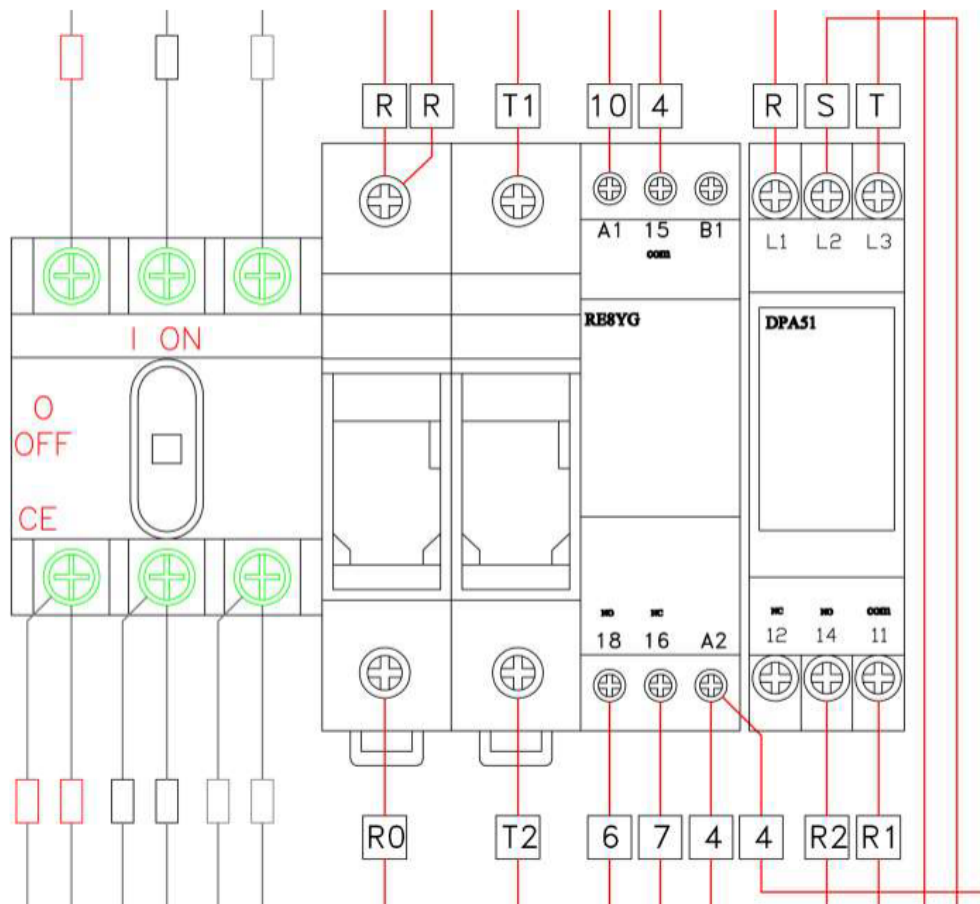
**Part-B-1 :**

**Panel disconnect switch.**

**Fuse Holder.**

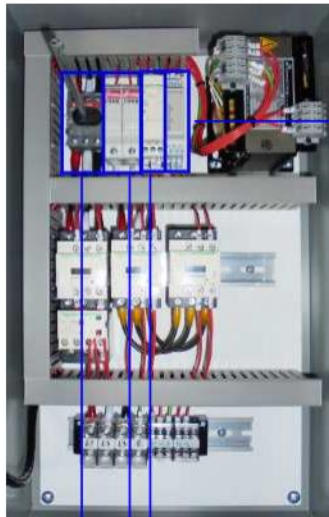
**Timer.**

**3-Phase Monitoring Relay.**



# AVANI Large Cartridge Collector

## Main Electrical Components for SDC-15-16 Blower Control Box



◆ 3-Phase Monitoring Relay.



◆ Panel disconnect switch.



◆ Fuse Holder.



◆ Timer.



**Having 3-Phase Monitoring Relay system in order to ensure the motor rotate in the right direction.**

**Need to confirm main power cables on correct phase when the unit can't turn on.  
Need to change R-phase, T-phase and S-phase until the motor rotate in the right direction and the unit can be operated.**



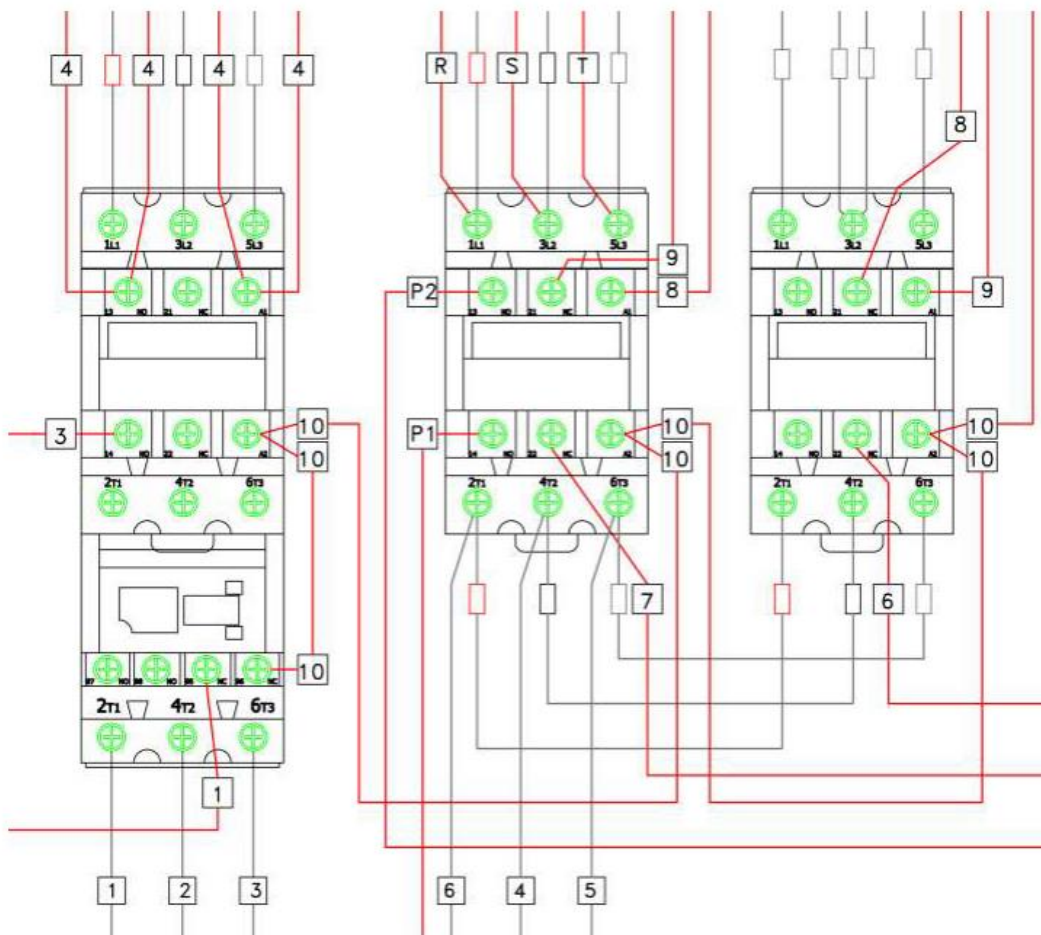
# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Blower Control Box

Part-B-3 :

Magnetic Contactor

Overload Relay

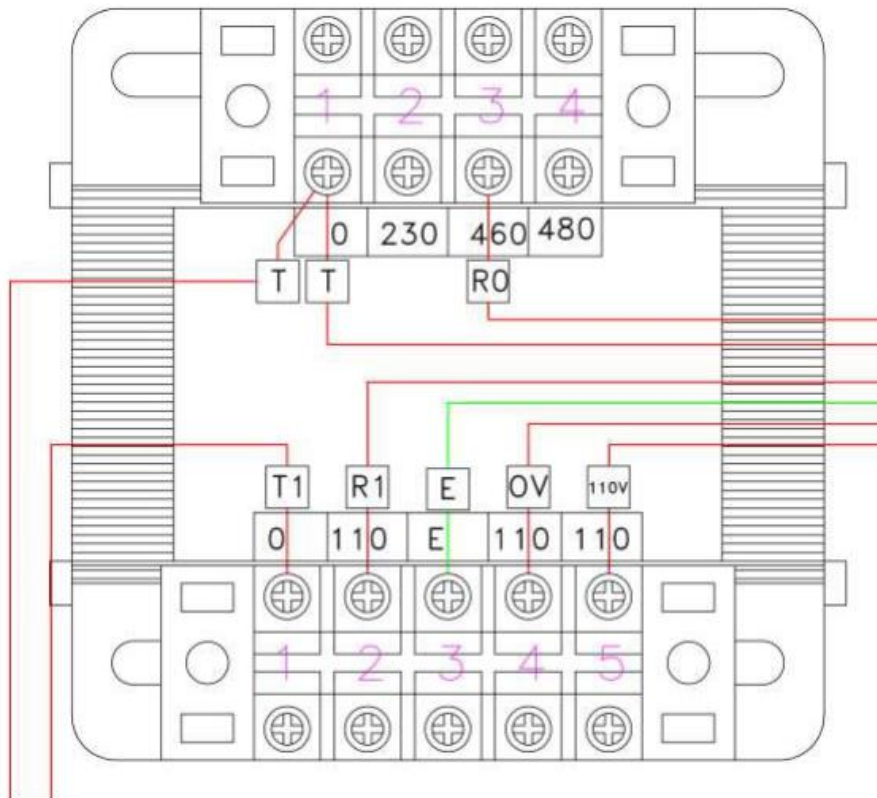


# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Blower Control Box

Part-B-4 :

Transformer for 460V



# AVANI Large Cartridge Collector

## Main Electrical Components for SDC-15-16 Blower Control Box



◆ Transformer for 460V.

◆ Overload Relay for motor of 15HP.

◆ Magnetic contactor.

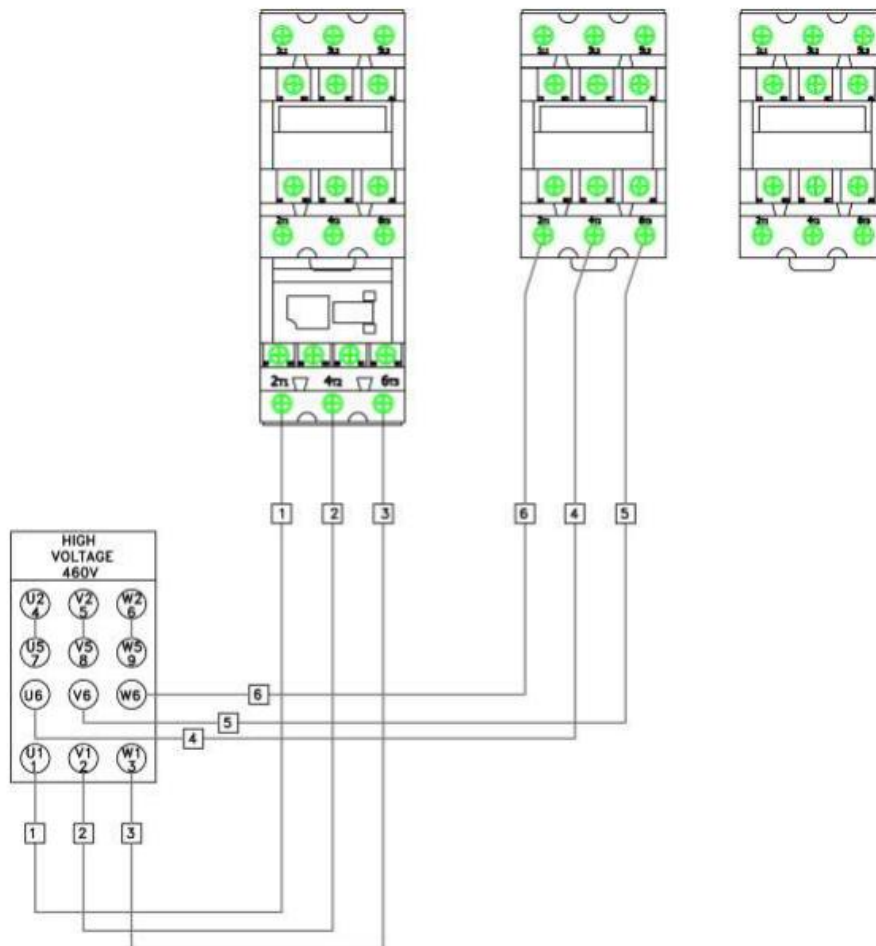


# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Blower Control Box

**Part-C :**

**Connect to motor.**



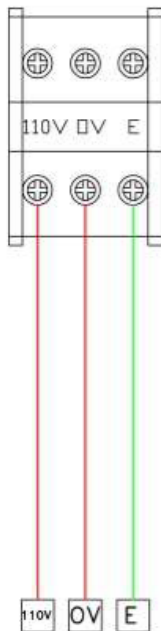
# AVANI Large Cartridge Collector

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## Main Electrical Wiring Diagram for SDC-15-16 Blower Control Box

**Part-D :**

**Connect to pulse control box.**



**terminals**

**for field electricians**

**to run wires**

**from blower control box here (460V / 60Hz / 3-phase)**

**to pulse control box (120V / 60Hz / 1-phase)**



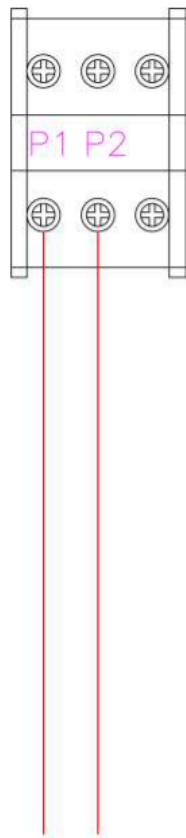
# AVANI Large Cartridge Collector

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## Main Electrical Wiring Diagram for SDC-15-16 Blower Control Box

### Part-E

Connect to pulse control box.



**terminals  
for field electricians  
to run wires  
from pulse control box to blower control box**

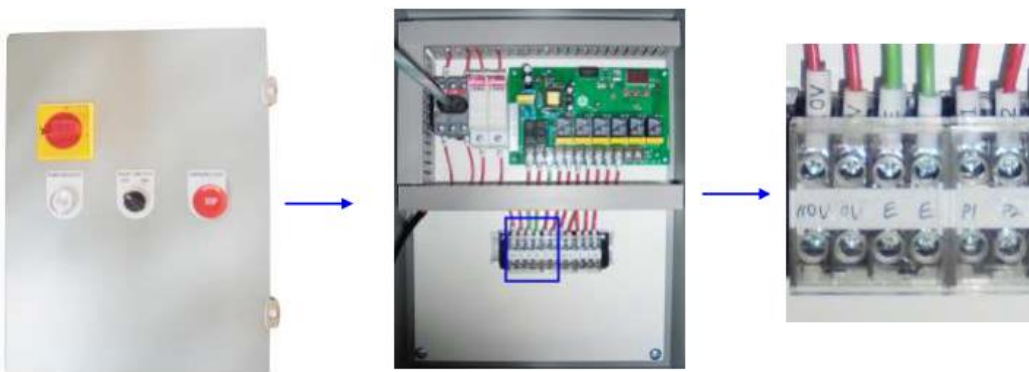


# AVANI Large Cartridge Collector

## Main Electrical Components for SDC-15-16 Blower Control Box



### ◆ Pulse Control box



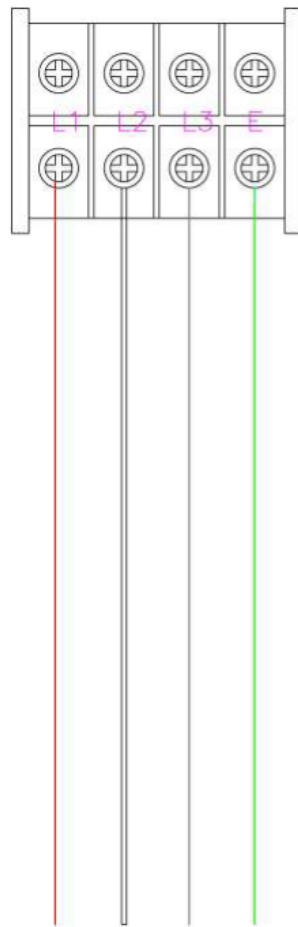
# AVANI Large Cartridge Collector

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## Main Electrical Wiring Diagram for SDC-15-16 Blower Control Box

### Part-F

Connect to main power supply for 460V / 60HZ / 3-Phase

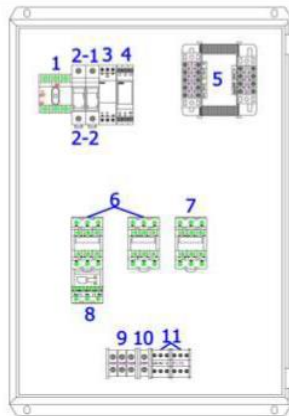


Local main power  
supply for 460V / 60Hz / 3-phase

# AVANI Large Cartridge Collector

CMC Structural Kiffer SDC-15-16 Blower Control Box

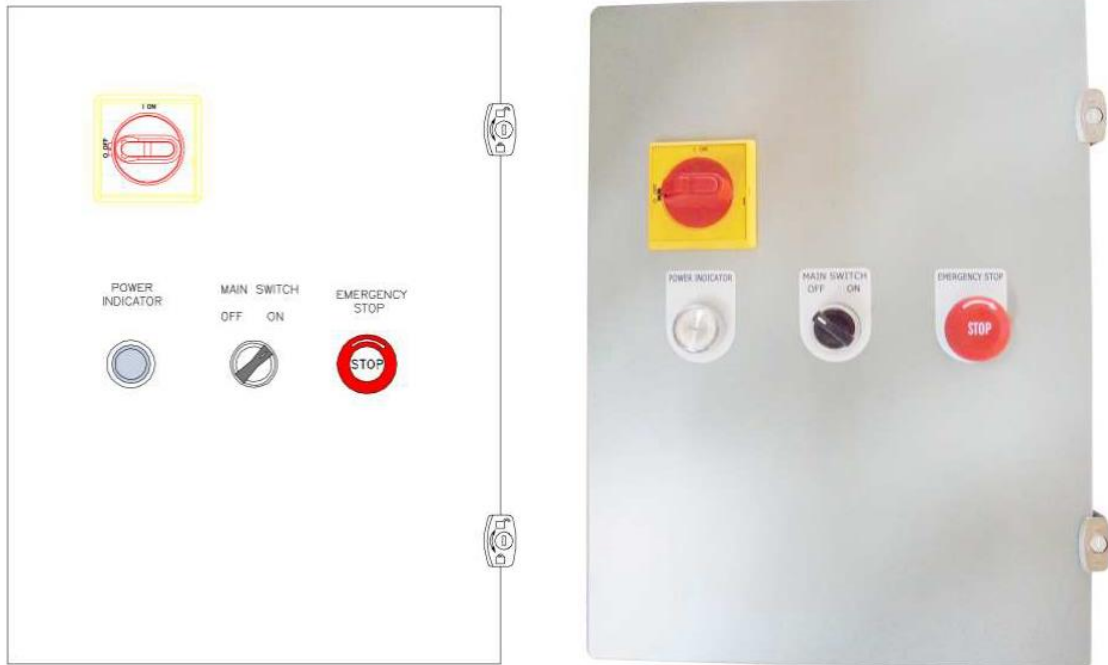
Number #	Part Name	Description	Q'ty	Voltage	Brand	item #	Web
1	Switch-disconnector	OT25F3	1		ABB	1SCA104857R1001	<a href="http://www.abb.com">www.abb.com</a>
	Selector type handles	OHYS2AJ	1		ABB	1SCA105296R1001	<a href="http://www.abb.com">www.abb.com</a>
	Shafts	OXS6X180	1		ABB	1SCA101659R1001	<a href="http://www.abb.com">www.abb.com</a>
2-1	Fuse : KTK	4A	2	600VAC	Grainger	6F132	<a href="http://www.grainger.com">www.grainger.com</a>
					Bussmann	KTK-4	<a href="http://www.cooperindustries.com">http://www.cooperindustries.com</a>
2-2	Fuse Holder	30A	2	600VAC	Grainger	13M221	<a href="http://www.grainger.com">www.grainger.com</a>
					Bussmann	CHM1DIU	<a href="http://www.cooperindustries.com">http://www.cooperindustries.com</a>
3	Zello Timer Relay	Timing relay : 0.3~30s	1	110~240VAC	Schneider-electric	RE8YA32FUTQ	<a href="http://www.schneider-electric.com">www.schneider-electric.com</a>
4	3-Phase Monitoring Relay	208-480VAC 50/60HZ	1	208-480VAC	Garlo Gavazzi	DPA51CM44B003	<a href="http://www.gavazzi-automation.com/">http://www.gavazzi-automation.com/</a>
5	Transformer	220VA (0.230V.460V.480V / 110V. OV / 110V. OV)	1	15HP/460V	San Ford		
6	Contactora	110V	2	15HP/460V	Schneider-electric	LC1D25F7	<a href="http://www.schneider-electric.com">www.schneider-electric.com</a>
7	Contactora	110V	1	15HP/460V	Schneider-electric	LC1D18F7	<a href="http://www.schneider-electric.com">www.schneider-electric.com</a>
8	Overload Relay	16-24A	1	600VAC	Schneider-electric	LRD-22	<a href="http://www.schneider-electric.com">www.schneider-electric.com</a>
					Schneider-electric	LR3D-22	<a href="http://www.schneider-electric.com">www.schneider-electric.com</a>
9	Terminal Strip : 1 Pole	50A (85A)	3	600VAC	Grainger	25CC04	<a href="http://www.grainger.com">www.grainger.com</a>
10	Terminal Strip : 1 Pole	60A (85A)	1	600VAC	Grainger	25CC04	<a href="http://www.grainger.com">www.grainger.com</a>
10	Terminal Strip : 3 Pole	20A	2	600VAC	Grainger	6ZEG7	<a href="http://www.grainger.com">www.grainger.com</a>
Terminal Block Accessories	Mounting Channels	35mm x 1M	1		Grainger	5B357	<a href="http://www.grainger.com">www.grainger.com</a>
	Terminal Block End Barrier		2		Grainger	5B361	<a href="http://www.grainger.com">www.grainger.com</a>
	Screw On End Clamp		2		Grainger	5B373	<a href="http://www.grainger.com">www.grainger.com</a>





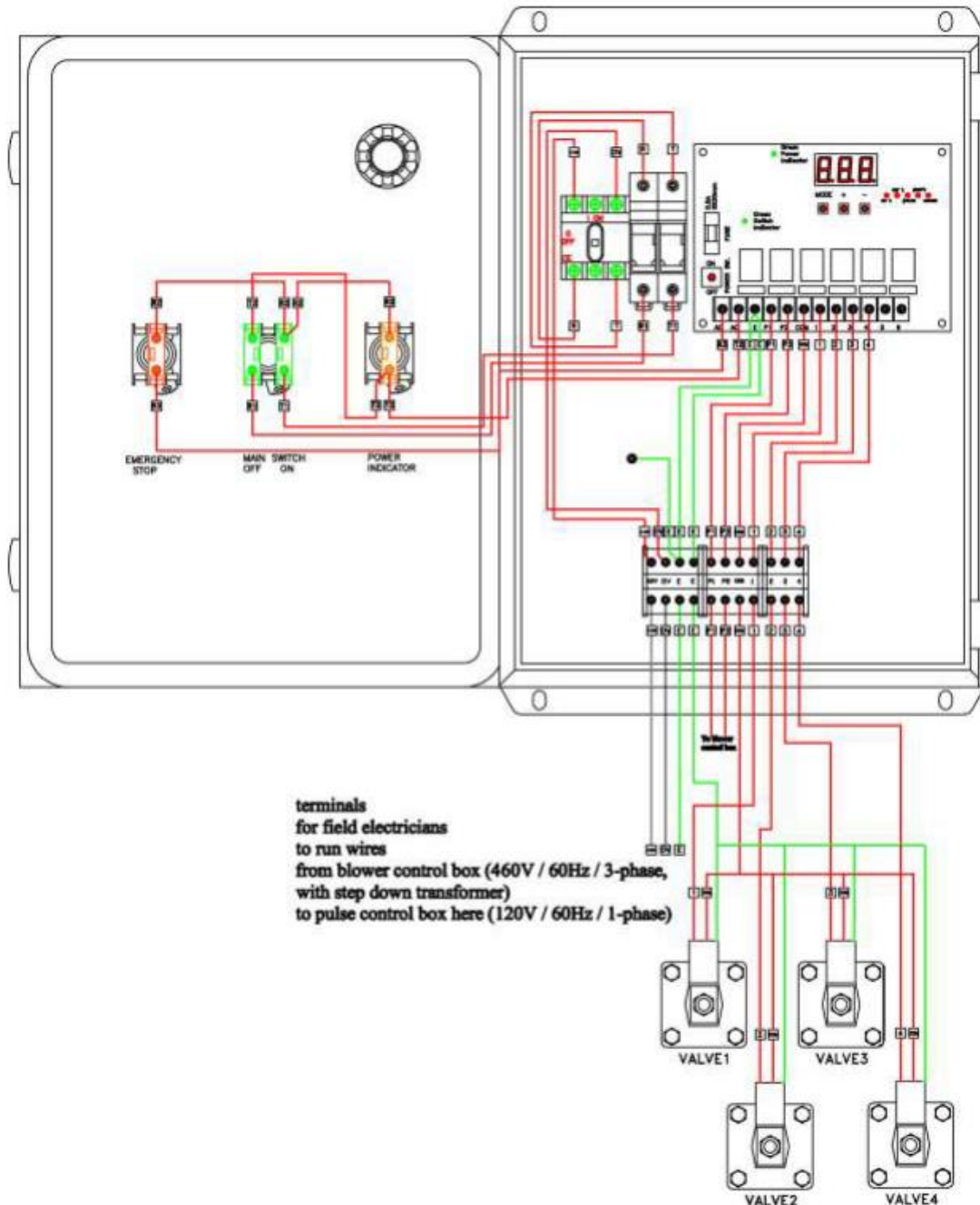
# AVANI Large Cartridge Collector

## Main Electrical Component for SDC-15-16 Pulse Control Box



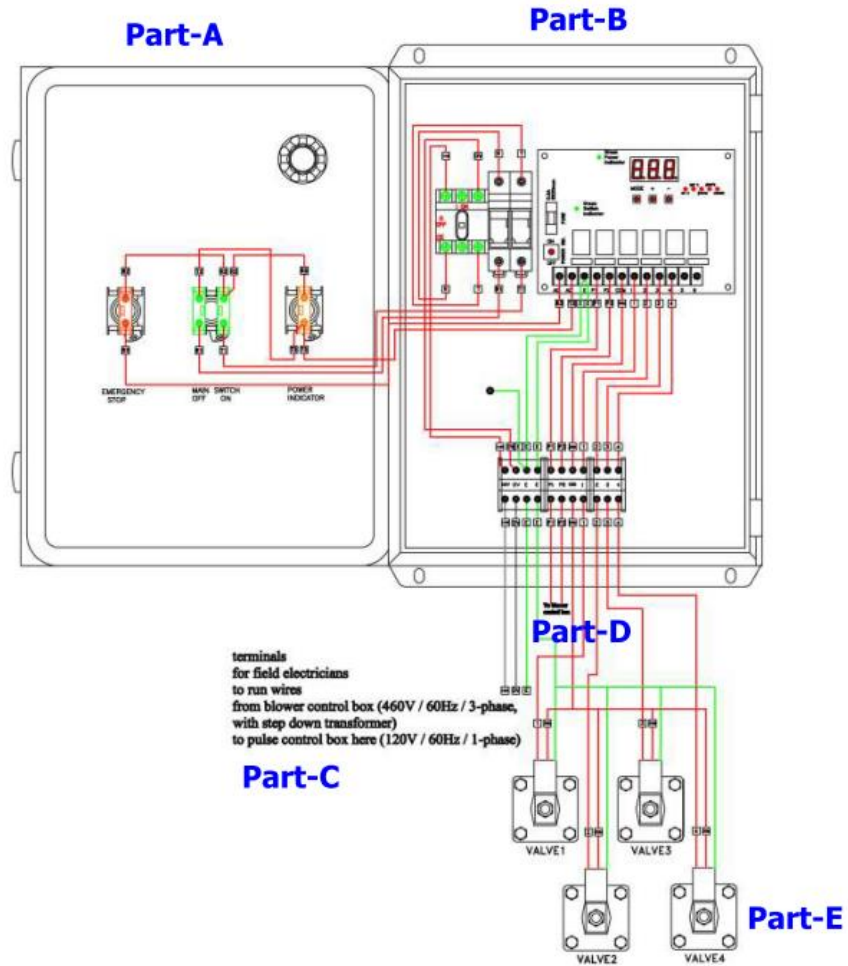
# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Pulse Control Box



# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Pulse Control Box

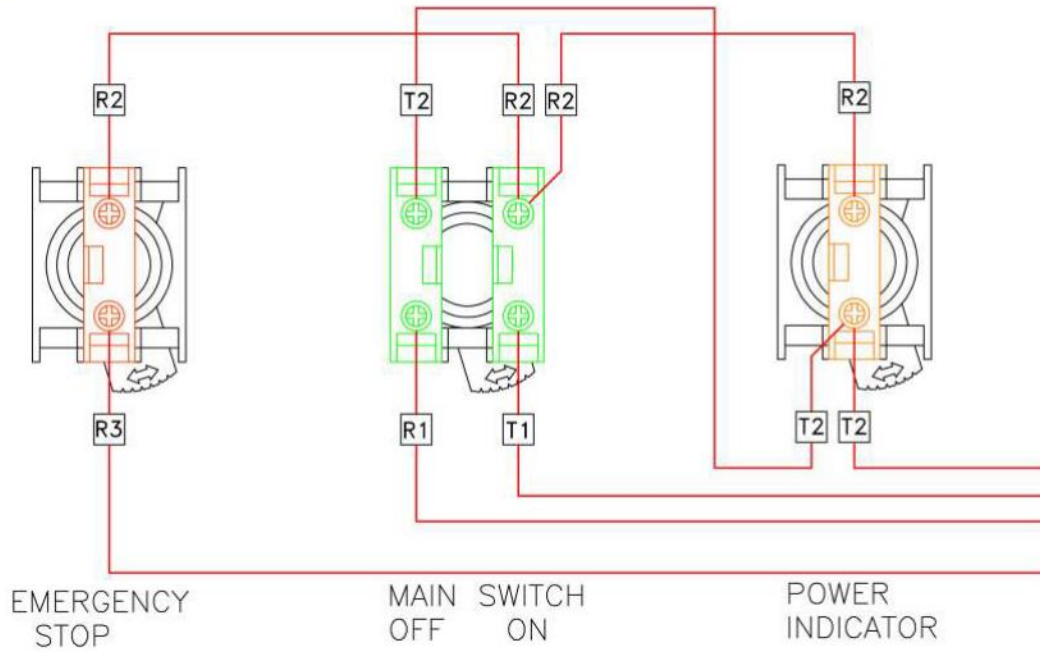




# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Pulse Control Box

**Part-A**





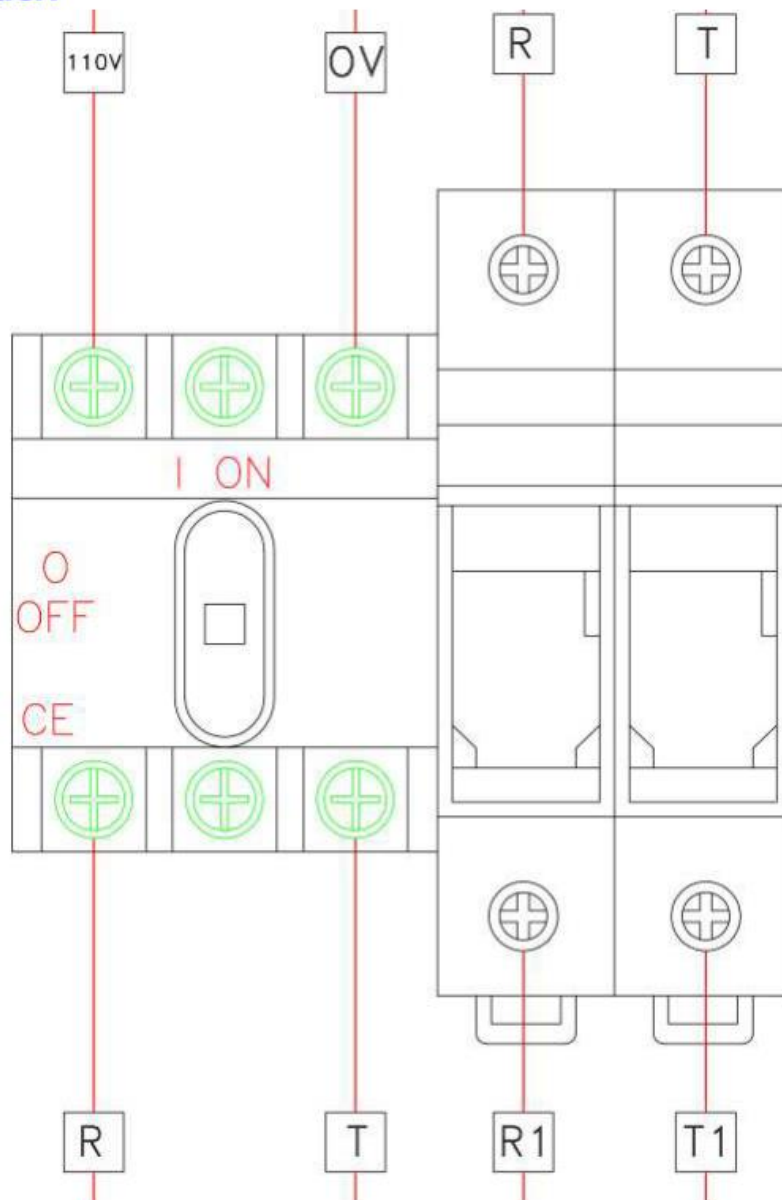
# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Pulse Control Box

**Part-B-1 :**

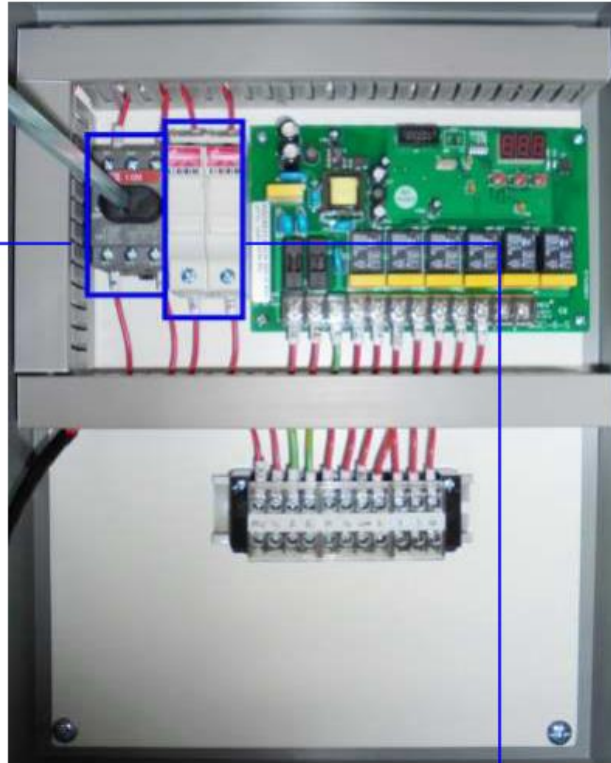
**Panel disconnect switch.**

**Fuse Holder.**



# AVANI Large Cartridge Collector

## Main Electrical Components for SDC-15-16 Pulse Control Box



◆ Panel disconnect switch.

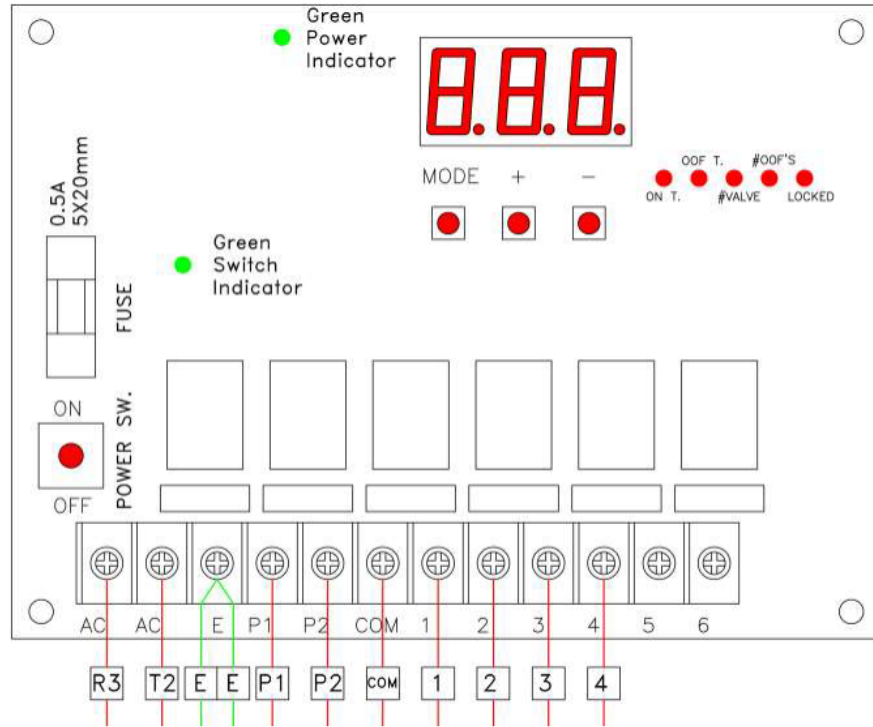
◆ Fuse Holder.



# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Pulse Control Box

Part-B-2 :  
IC Board.



# AVANI Large Cartridge Collector

## Main Electrical Components for SDC-15-16 Pulse Control Box

◆ Sequential Controller (Front).



◆ Sequential Controller (Back).



# AVANI Large Cartridge Collector

## Main Electrical Components for SDC-15-16 Pulse Control Box



- ◆ A : Power Indicator.
- ◆ B : Power Indicator.
- ◆ C : Fuse.
- ◆ D : Power Terminal.
- ◆ E : Grounding.
- ◆ F : Connection Terminal for Blowers.
- ◆ G : Valves.
- ◆ H : Mode.
- ◆ I : Digits Adding Button.
- ◆ J : Digits Decreased Button.
- ◆ K : Digits shown
- ◆ L : Air Pulse Jet Sprayed Length.
- ◆ M : Pulse Jet Intervals.
- ◆ N : Number of Valves.
- ◆ O : Air Pulse Jet Cleanses Cartridges after Machine Stops Operation.(preserved function)
- ◆ P : Setting completed.

**Pulse Box starts pulsing after Blower Control Box shuts off.**

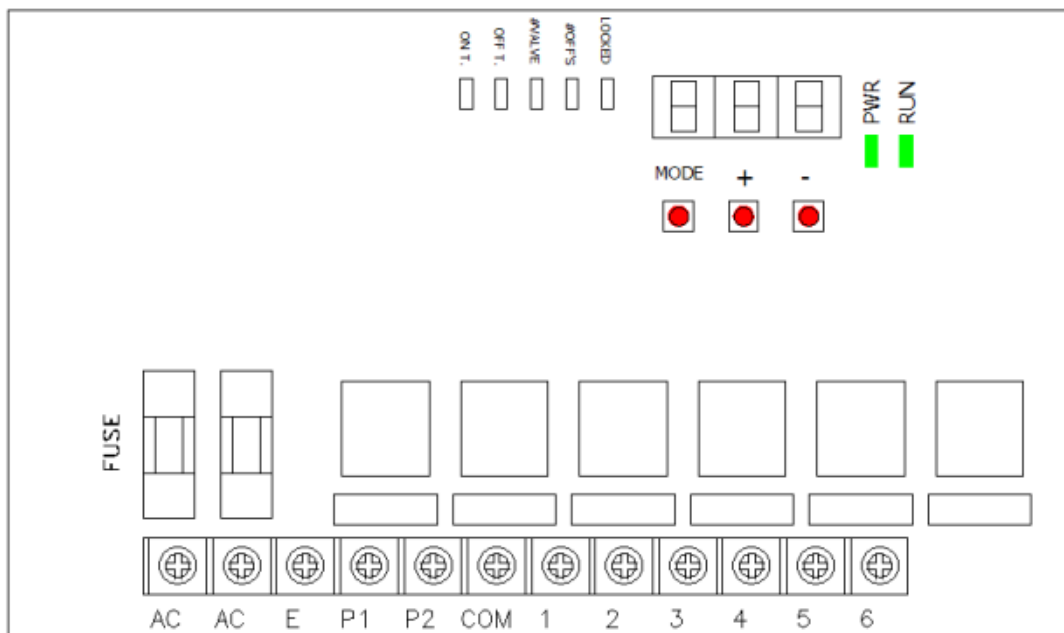
**Air Pulse Jet Cleanses Cartridges after Machine Stops Operation.(preserved function)**

**Please find illustration by next page for Air pulse jet operation & setting.**

# AVANI Large Cartridge Collector

## Air Pulse Jet Timer Setting Procedure

- ◆ As you turn on the power, the "PWR" (Power Indicator) will light up.



**Figure 1**

When the blower/fan starts up, the "RUN" (Switch Indicator) will light up. The Air pulse jet will begin to operate and clean the cartridge filters.

The Air pulse jet will clean the cartridge filters for three circulations after the blower/fan is shut down.

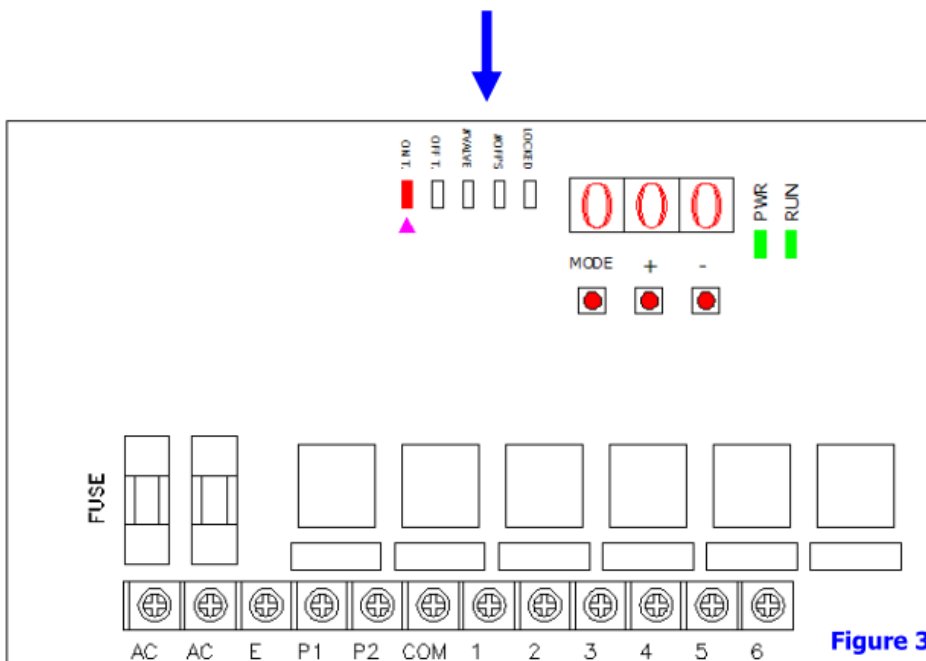
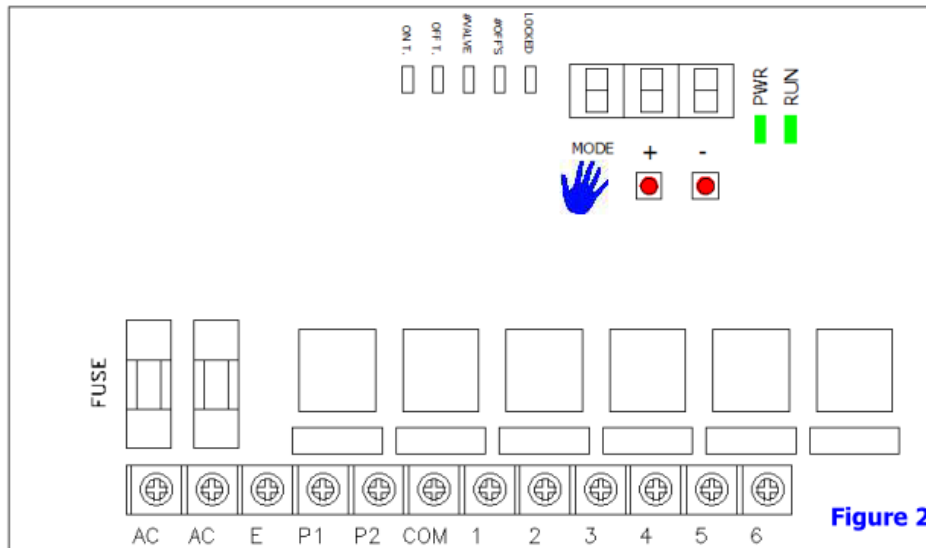
The setting above for the Air pulse jet is done by the following procedure:



# AVANI Large Cartridge Collector

## Air Pulse Jet Timer Setting Procedure

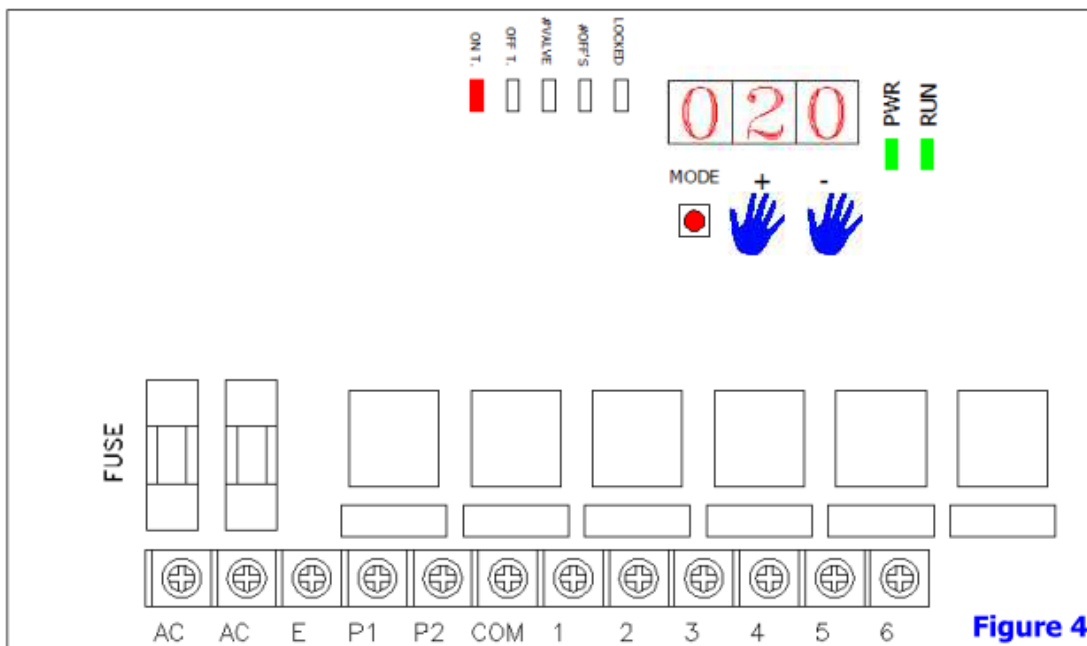
- ◆ Set the time of air pulse jet for each valves :
  - Press MODE ( figure 2 ) , The "ON T." will flash up that represents it is in the air pulsing time setting mode (pink triangle) (figure 3).



# AVANI Large Cartridge Collector

## Air Pulse Jet Timer Setting Procedure

- Press "+" or "-" to adjust the time of the air pulsing for each valves (figure 4).
- The parameter of the air pulsing time was preset on 0.2 sec.
- The time scope for the air pulsing : 0.01 sec ~ 9.99 sec.

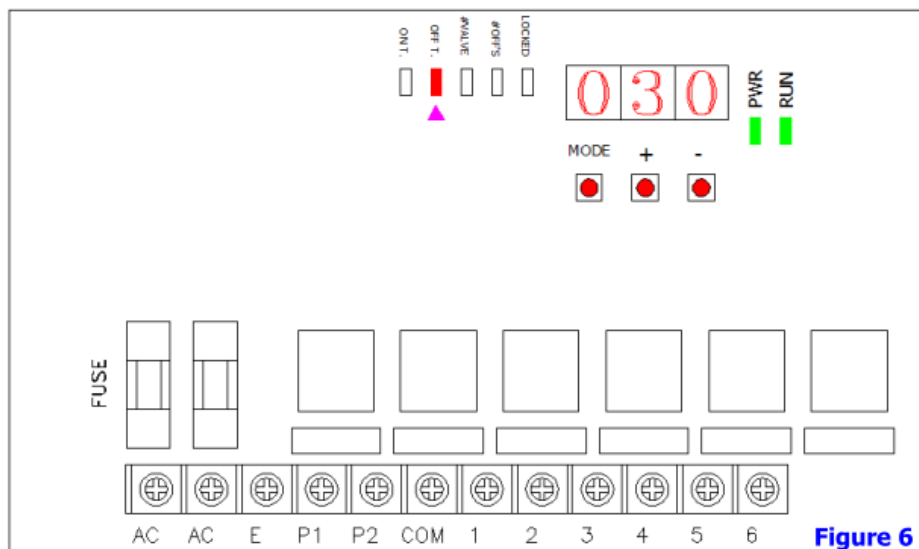
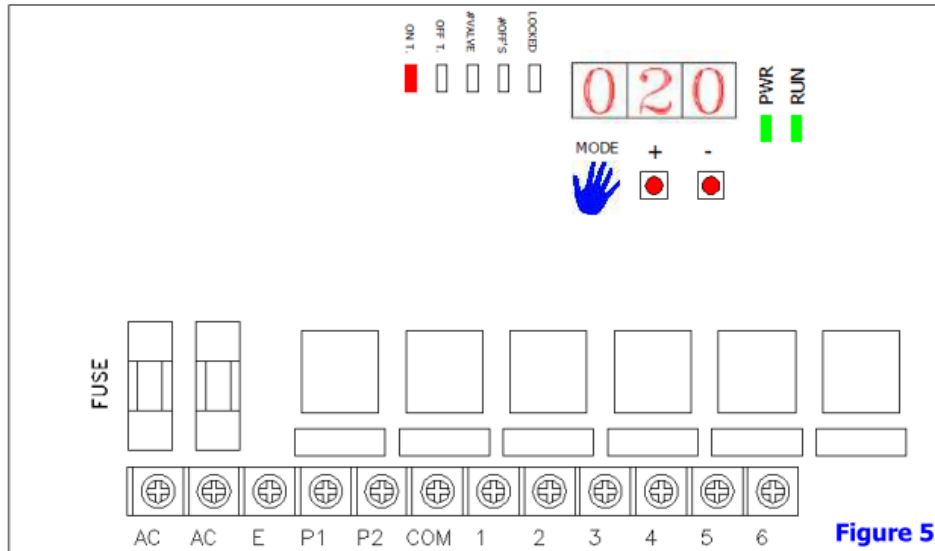




# AVANI Large Cartridge Collector

## Air Pulse Jet Timer Setting Procedure

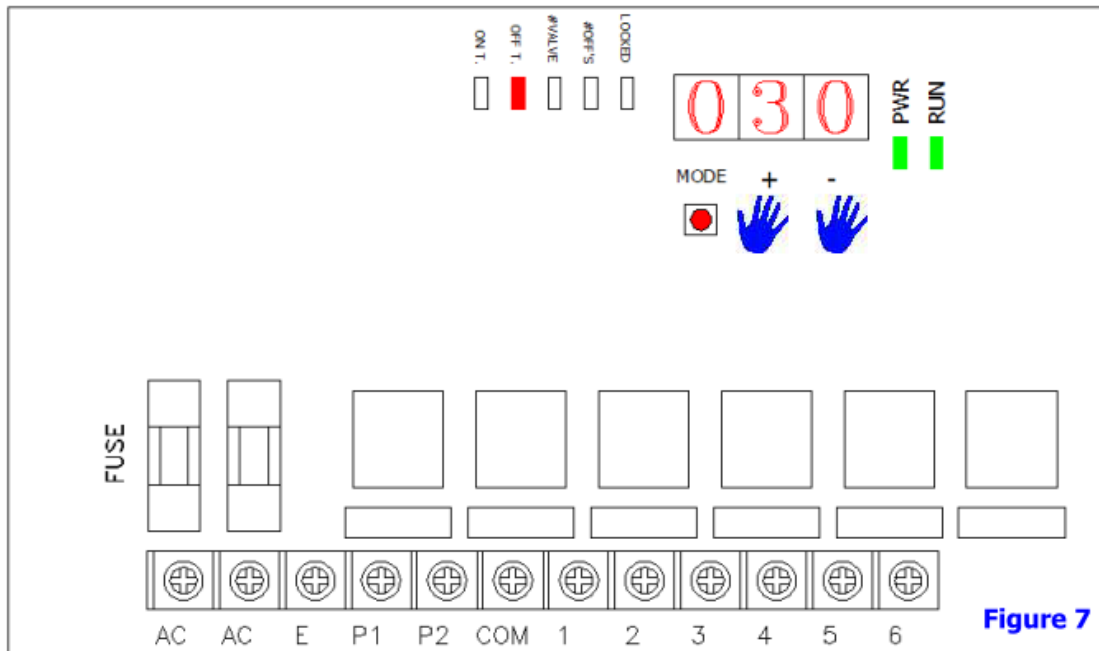
- ◆ Valves interval time setting :
  - Press MODE ( figure 5 ) . The "OFF T." will flash up that represents it is in the valves interval time setting mode (pink triangle) ( figure 6).



# AVANI Large Cartridge Collector

## Air Pulse Jet Timer Setting Procedure

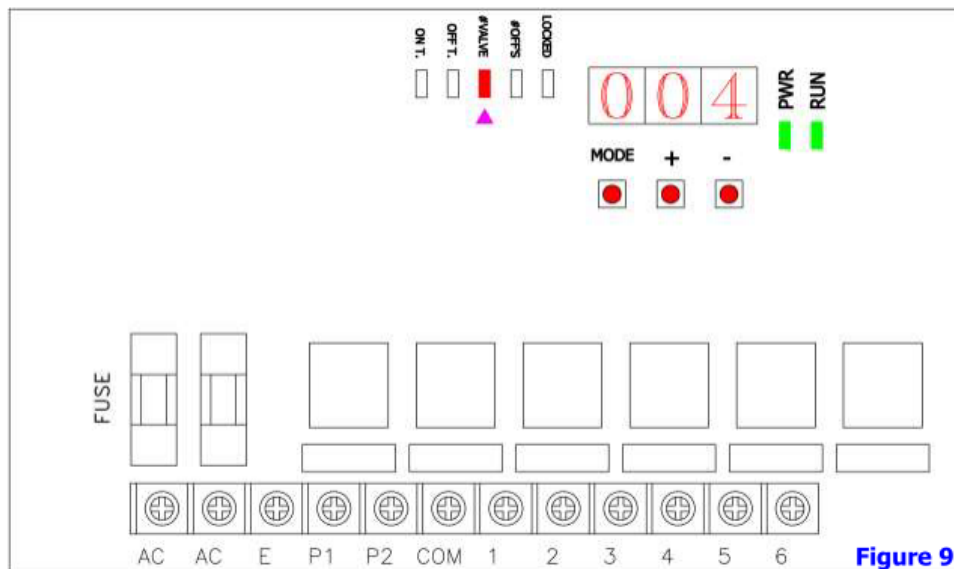
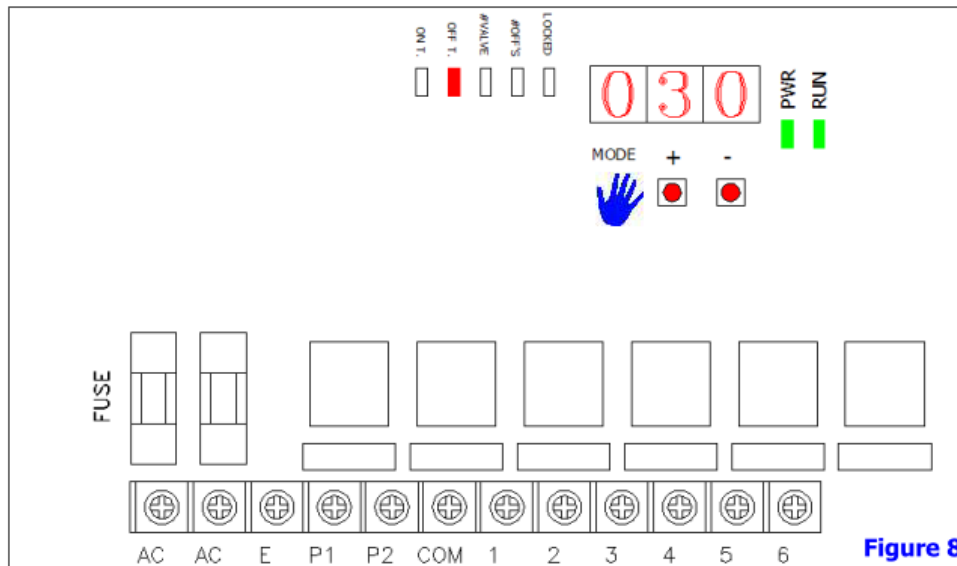
- Press "+" or "-" to adjust the valves interval time (figure 7).
- The parameter of the valve interval time was preset on 30 sec.
- The scope of the valve interval time : 1 sec. ~999 sec.



# AVANI Large Cartridge Collector

## Air Pulse Jet Timer Setting Procedure

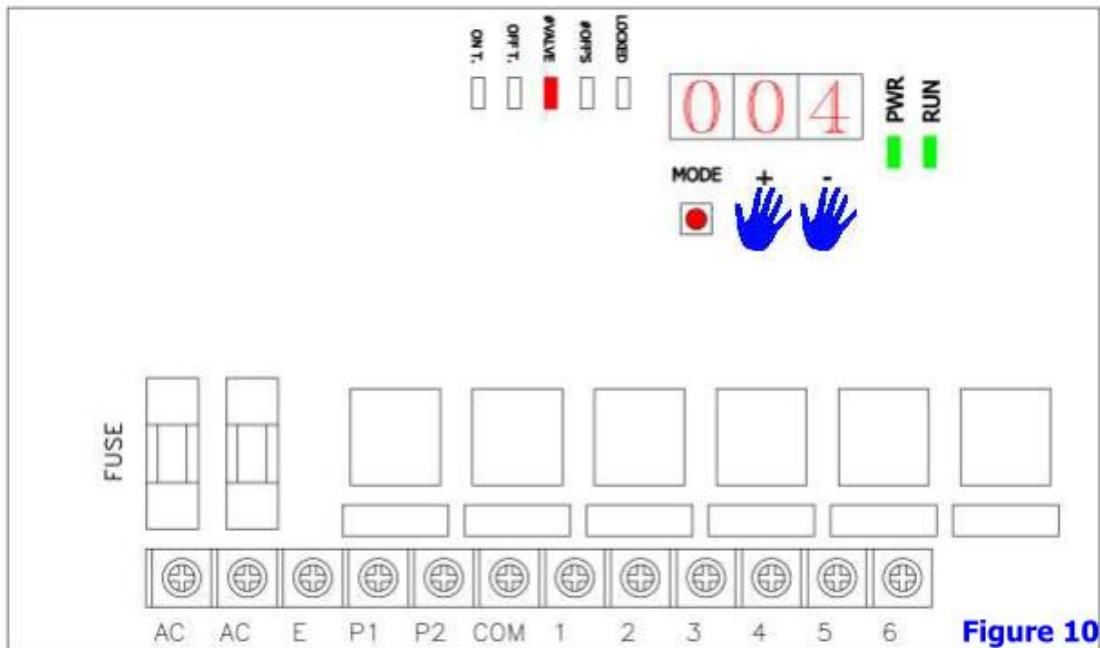
- ◆ The valve quantities setting :
  - Press MODE ( figure 8 ) . The "#VALVE" will flash up that represents it is in the valve quantities setting mode (pink triangle) (figure 9).



# AVANI Large Cartridge Collector

## Air Pulse Jet Timer Setting Procedure

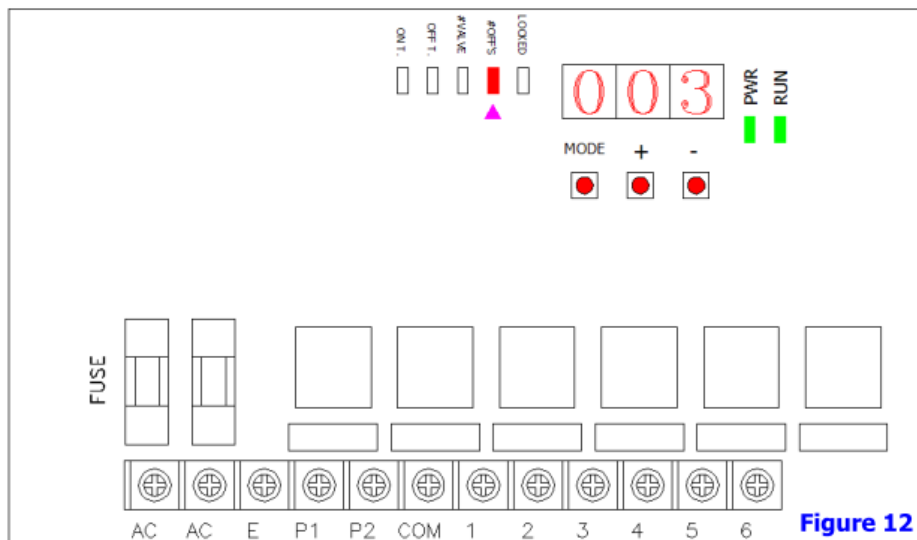
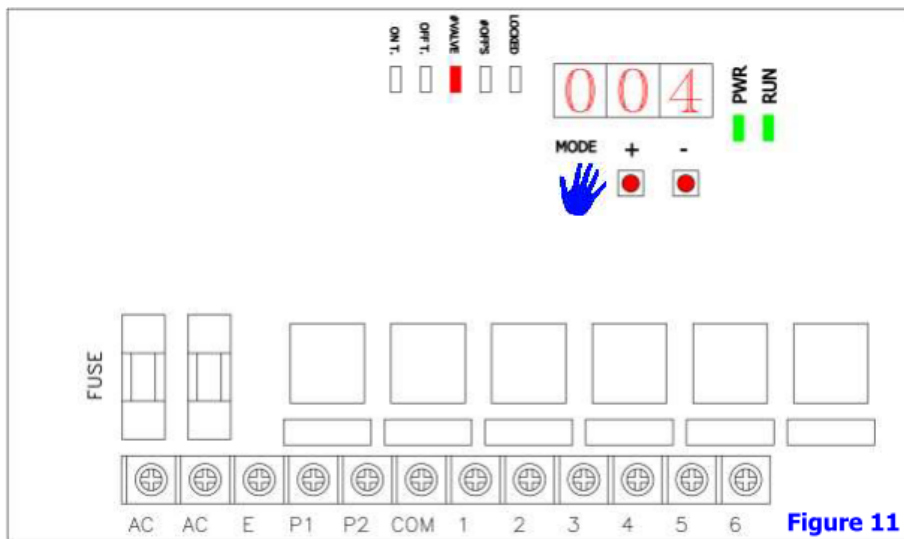
- Press "+" or "-" to adjust the valve quantities (figure 10).
- The parameter of the valve quantities was preset on 4.
- The scope of the valve quantities : 1~6.



# AVANI Large Cartridge Collector

## Air Pulse Jet Timer Setting Procedure

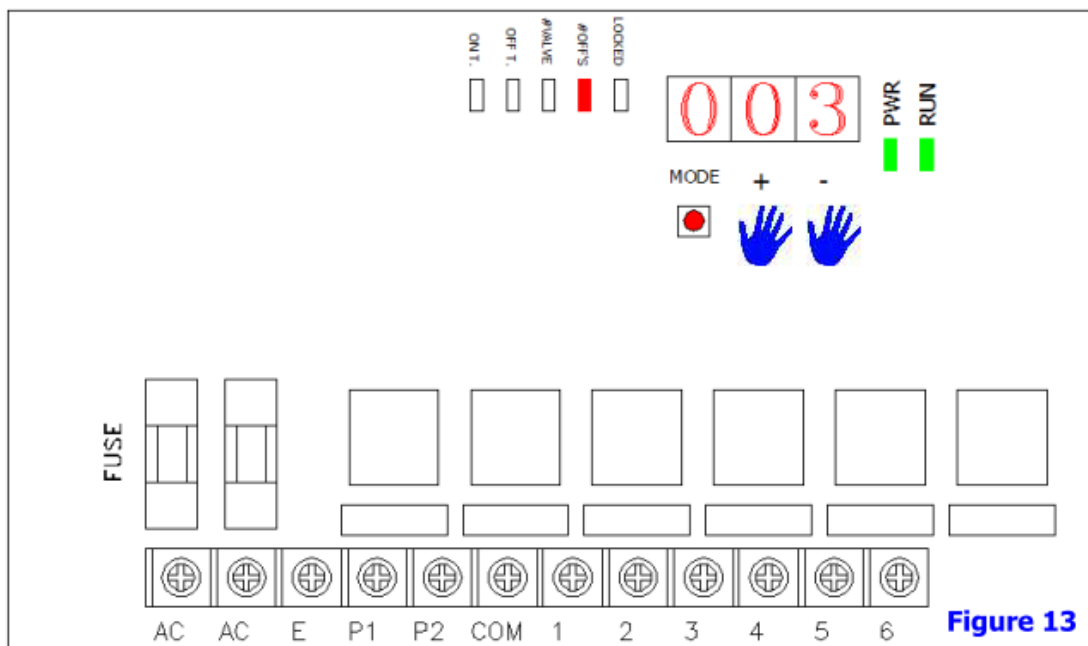
- ◆ Set the circulation of the air pulse jet that cleans cartridge filters after stopping operation :
  - Press MODE (figure 11) . The "#OFF'S" will flash up that represents it is in the circulation of the air pulsing setting mode (pink triangle) (figure 12).



# AVANI Large Cartridge Collector

## Air Pulse Jet Timer Setting Procedure

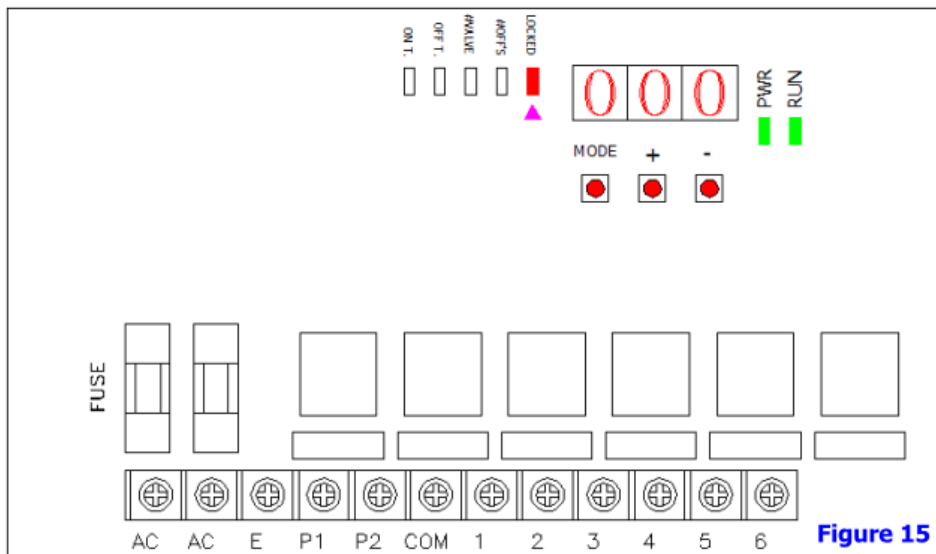
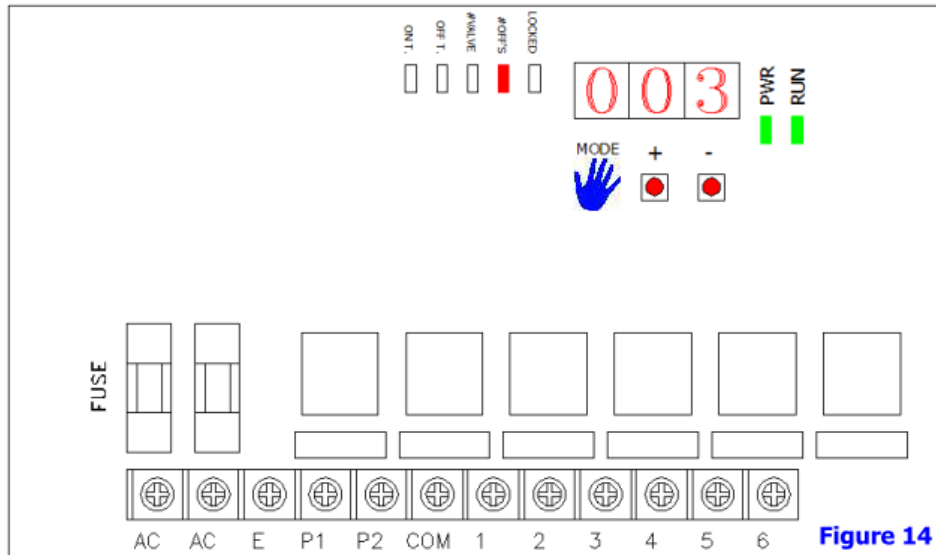
- Press "+" or "-" to adjust the circulation of the air pulsing that cleans cartridge filters after stopping operation (figure 13).
- The parameter for the circulation of the air pulsing was preset on 3.
- The scope for the circulation of the air pulsing : 0~25.



# AVANI Large Cartridge Collector

## Air Pulse Jet Timer Setting Procedure

- ◆ Setting completed :
  - Press MODE (figure 14) . The "LOCKED" will flash up that represents all parameters setting completed (figure 15).



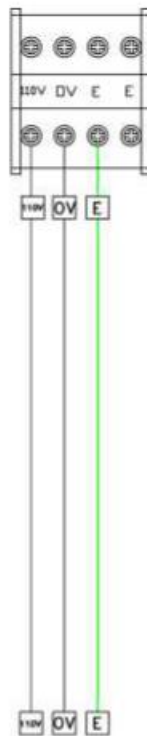
# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Pulse Control Box

### Part-C :

Connect to main power supply from blower control box

step down to pulse control box (120V / 60HZ / 1-Phase)



terminals  
for field electricians  
to run wires

from blower control box (460V / 60Hz / 3-phase,  
with step down transformer)  
to pulse control box here (120V / 60Hz / 1-phase)

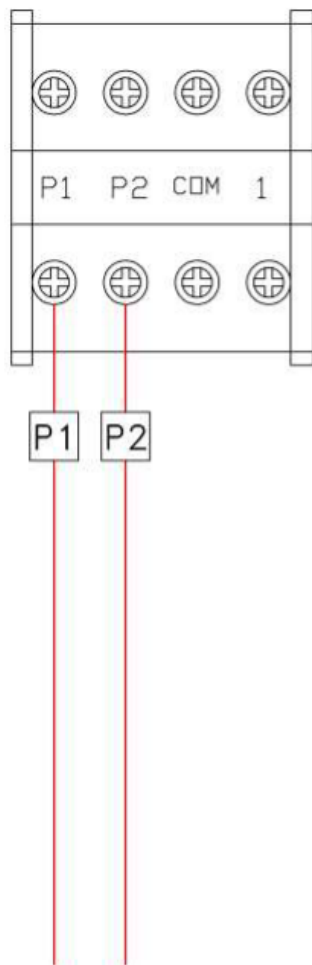


# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Pulse Control Box

### Part-D :

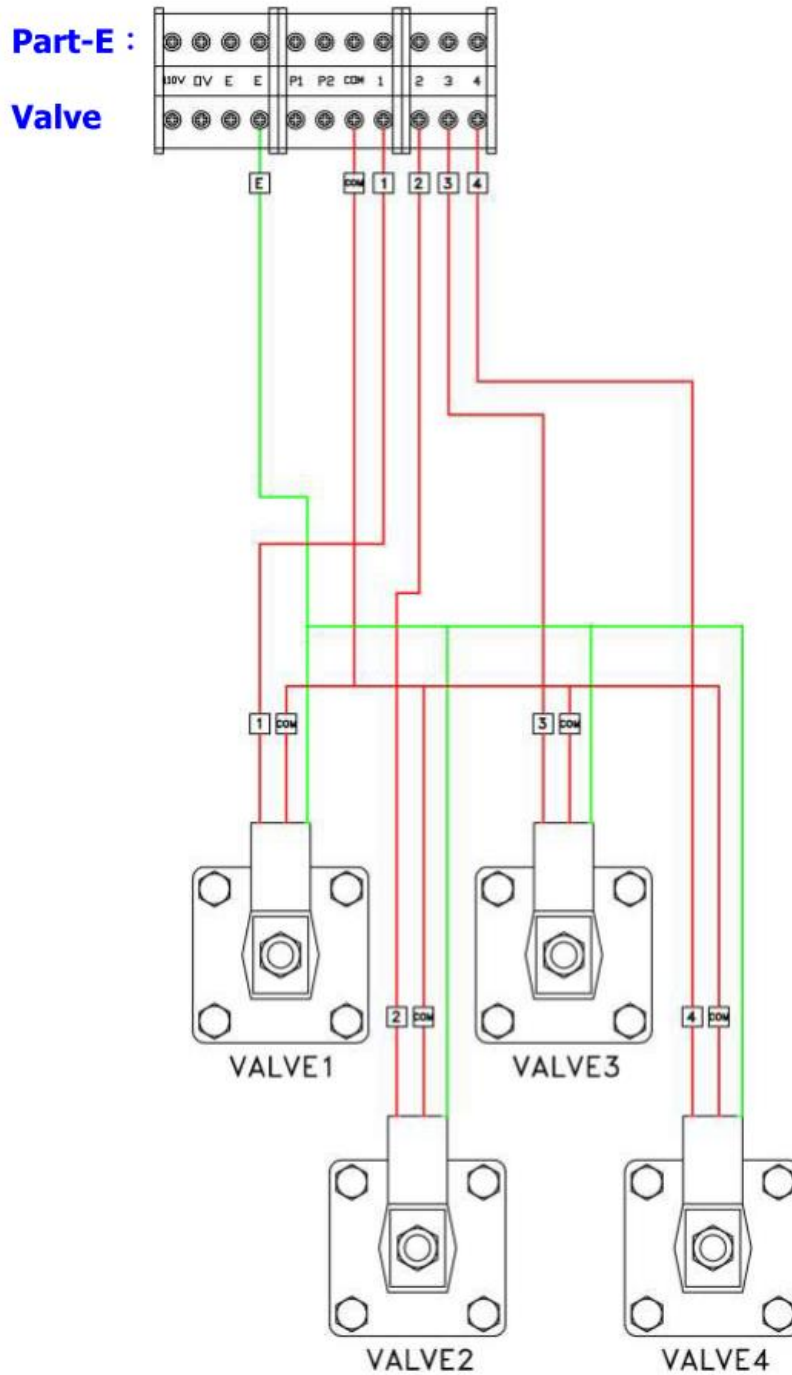
### Connect to blower control box



**terminals  
for field electricians  
to run wires  
from pulse control box to blower control box**

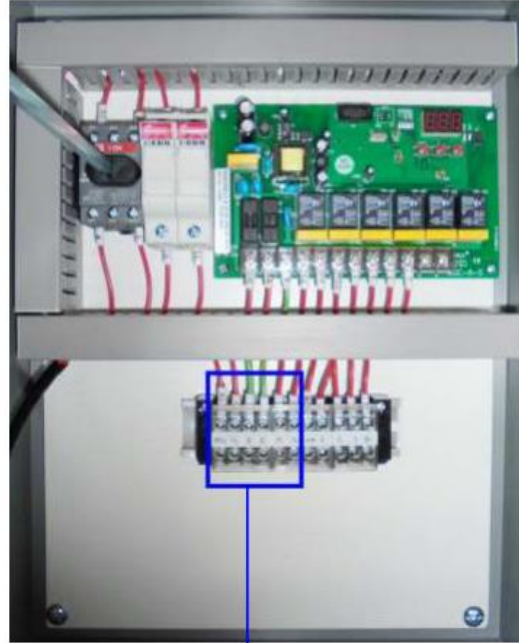
# AVANI Large Cartridge Collector

## Main Electrical Wiring Diagram for SDC-15-16 Pulse Control Box



# AVANI Large Cartridge Collector

## Main Electrical Components for SDC-15-16 Pulse Control Box

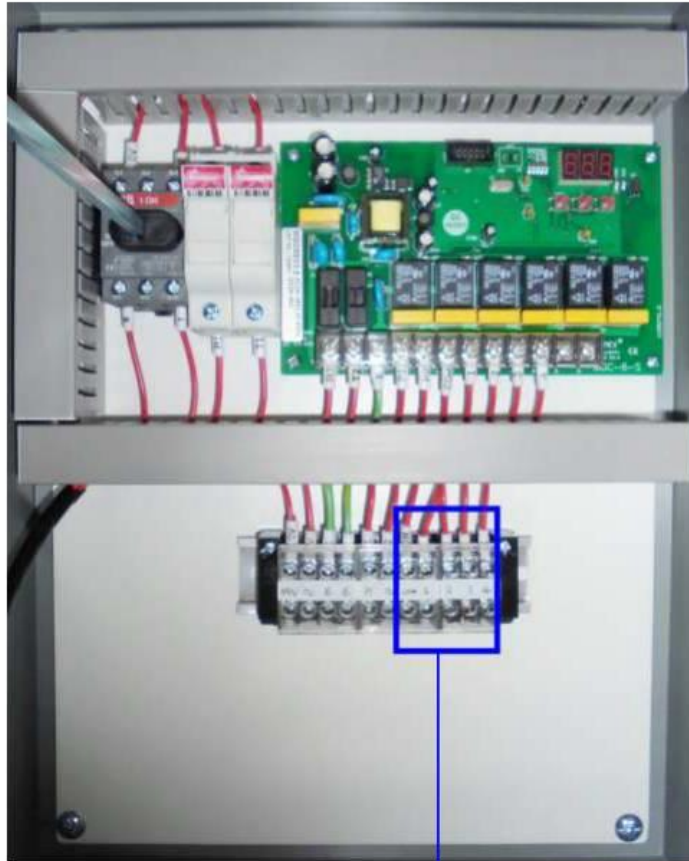


◆ **Blower Control box**



# AVANI Large Cartridge Collector

## Main Electrical Components for SDC-15-16 Pulse Control Box



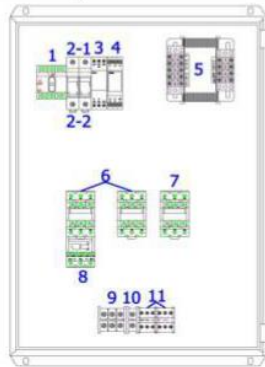
◆ Valve



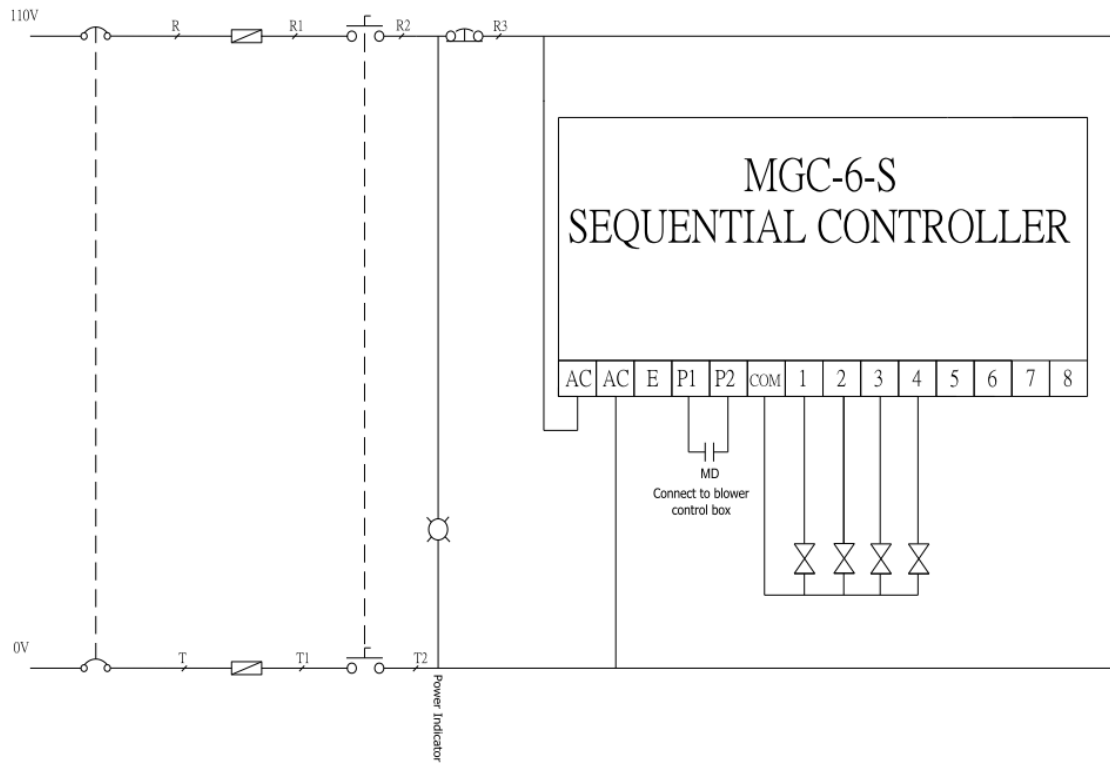
# AVANI Large Cartridge Collector

CMC Structural Kiffer SDC-15-16 Blower Control Box

Number #	Part Name	Description	Q'ty	Voltage	Brand	item #	Web
1	Switch-disconnector	OT25F3	1		ABB	1SCA104857R1001	<a href="http://www.abb.com">www.abb.com</a>
	Selector type handles	OHYS2AJ	1		ABB	1SCA105296R1001	<a href="http://www.abb.com">www.abb.com</a>
	Shafts	OXS6X180	1		ABB	1SCA101659R1001	<a href="http://www.abb.com">www.abb.com</a>
2-1	Fuse : KTK	4A	2	600VAC	Grainger	6F132	<a href="http://www.grainger.com">www.grainger.com</a>
					Bussmann	KTK-4	<a href="http://www.cooperindustries.com">http://www.cooperindustries.com</a>
2-2	Fuse Holder	30A	2	600VAC	Grainger	13M221	<a href="http://www.grainger.com">www.grainger.com</a>
					Bussmann	CHM1DIU	<a href="http://www.cooperindustries.com">http://www.cooperindustries.com</a>
3	Zelio Timer Relay	Timing relay : 0.3~30s	1	110~240VAC	Schneider-electric	RE8YA32FUTQ	<a href="http://www.schneider-electric.com">www.schneider-electric.com</a>
4	3-Phase Monitoring Relay	208-480VAC 50/60HZ	1	208-480VAC	Garlo Gavazzi	DPA51CM44B003	<a href="http://www.gavazzi-automation.com/">http://www.gavazzi-automation.com/</a>
5	Transformer	220VA (0.230V.460V.480V / 110V. OV / 110V. OV)	1	15HP/460V	San Ford		
6	Contactor	110V	2	15HP/460V	Schneider-electric	LC1D25F7	<a href="http://www.schneider-electric.com">www.schneider-electric.com</a>
7	Contactor	110V	1	15HP/460V	Schneider-electric	LC1D18F7	<a href="http://www.schneider-electric.com">www.schneider-electric.com</a>
					Schneider-electric	LRD-22	<a href="http://www.schneider-electric.com">www.schneider-electric.com</a>
					Grainger	3EA12	<a href="http://www.grainger.com">www.grainger.com</a>
8	Overload Relay	16-24A	1	600VAC	Schneider-electric	LR3D-22	<a href="http://www.schneider-electric.com">www.schneider-electric.com</a>
					Grainger	3EA12	<a href="http://www.grainger.com">www.grainger.com</a>
9	Terminal Strip : 1 Pole	50A (85A)	3	600VAC	Grainger	25CC04	<a href="http://www.grainger.com">www.grainger.com</a>
10	Terminal Strip : 1 Pole	60A (85A)	1	600VAC	Grainger	25CC04	<a href="http://www.grainger.com">www.grainger.com</a>
10	Terminal Strip : 3 Pole	20A	2	600VAC	Grainger	6ZEG7	<a href="http://www.grainger.com">www.grainger.com</a>
Terminal Block	Mounting Channels	35mm x 1M	1		Grainger	5B357	<a href="http://www.grainger.com">www.grainger.com</a>
	Terminal Block End Barrier		2		Grainger	5B361	<a href="http://www.grainger.com">www.grainger.com</a>
Accessories	Screw On End Clamp		2		Grainger	5B373	<a href="http://www.grainger.com">www.grainger.com</a>



# AVANI Large Cartridge Collector



# AVANI Large Cartridge Collector

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## **Contact Information**

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