

Thank you for purchasing a RESPA system.

IN THIS MANUAL:

- Introduction - page 1
- Function- page 1
- Mounting Considerations & Examples- page 2
- RESPA Fresh Air Unit Installation - page 4
- RESPA Recirculation Unit Installation - page 6
- RESPA Maintenance - page 8
- Specifications - page 10
- Dimensions - page 10
- Filtration Options - page 10
- Troubleshooting - page 11
- Contact - page 11
- Warranty - page 12



Introduction

RESPA-SD takes fresh air through a dual-stage powered precleaner which ejects the majority of airborne particles from the air stream. The precleaned air is then filtered based on the selected filter option. Three filtration options are available: MERV 8/EU P1*; MERV16/EU P2*; and HEPA/EU P3*. The system provides a positive airflow without adding resistance. The most common use is to supply precleaned and filtered, fresh or make-up air to HVAC systems on enclosed cabs, thus reducing operator exposure to airborne contaminants. It is recommended that the Sy-Klone Cab Pressure Monitor System be installed to alert the operator when it is time for the RESPA filter to be changed. RESPA products may be used for other purposes as well. RESPA-SD includes a fresh air unit; RESPA-SDX includes the fresh air unit plus a recirculation filtration unit. **RESPA IS NOT CERTIFIED FOR USE IN EXPLOSION RISK ENVIRONMENTS.**

*SYSTEM RATING: RESPA system with specified filter produces air of rated quality with airflow ≤ 100 cfm (2.832 m3/m). System rating does not apply when filter is used in a recirculation system.

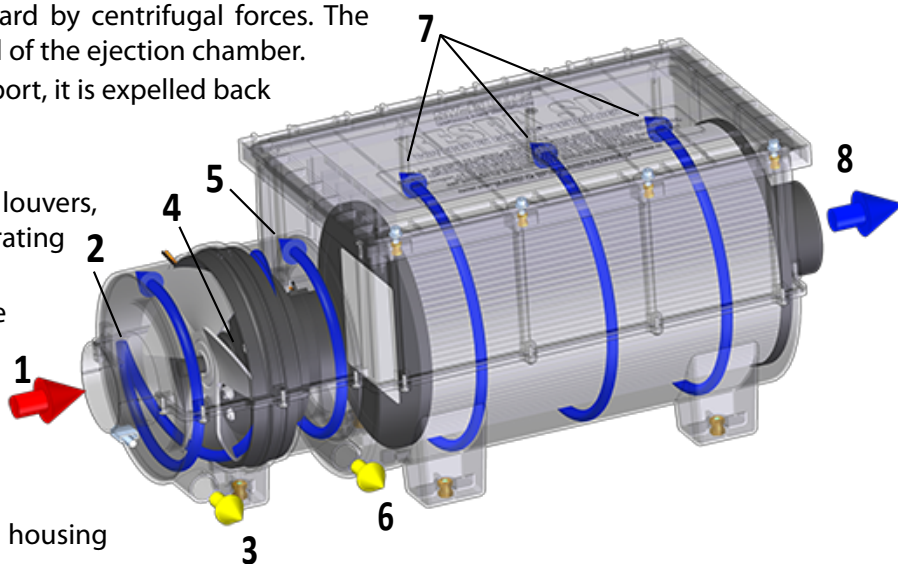
FUNCTION

1st ejection cycle:

1. Debris-laden air enters the primary ejection chamber. A rain cap prevents large debris from blocking the intake.
2. Debris particles are accelerated outward by centrifugal forces. The particles then ride along the outer wall of the ejection chamber.
3. When the debris reaches the ejection port, it is expelled back into the atmosphere.

2nd ejection cycle:

4. Air is accelerated as it passes through louvers, further enhancing the debris-separating forces.
5. Finer debris is then stratified in the secondary ejection chamber.
6. When the fine debris reaches the ejection port, it is expelled back into the atmosphere.



Filtration:

7. Clean air continues into the air filter housing and passes through the filter.
8. Fresh air continues through the RESPA air outlet, passing into the evaporator coil box for heating and cooling.

Mounting Considerations and Examples



When space is tight, vertical mounting may be the best option.

Fabricated vertical mounting bracket



Below: The flex hose goes from the unit to a hole cut into the low-pressure side of the HVAC plenum. The original air intake has been sealed off.



>> Horizontal sideways mounting of RESPA unit next to the air intake in the ROPS. It also makes it easy to change the filter and clean the system. Ejection ports point down - do not point ejection ports across door openings!
This Fresh Air Unit was painted by the owner to match the Harvester!



IMPORTANT CONSIDERATIONS:

Leave **adequate room** to remove the lid and filter.

The location should be selected to require the shortest possible length of flex hose, with as few bends as possible.

The RESPA unit can be mounted in a variety of locations and orientations, as long as the ejection ports ARE NOT oriented facing straight up or directly forward, or at surfaces in close proximity to the ports.

When mounted **vertically**, extra care must be taken when removing the filter to ensure that accumulated debris does not fall into the clean side of the fresh air inlet, which is at the bottom in this orientation.

If you are **plumbing the system with rigid piping**, you must use at least 8 inches (200 mm) of flex hose between the RESPA unit and the rigid piping. This is important to prevent mechanical stress of RESPA and air connections, and to allow for ease of disconnection/reconnection of flex hose on air inlets/outlets prior to filter exchange.

HVAC Settings:

To ensure optimum pressurization of cabin, the HVAC should be permanently locked to **operate at the lowest fan speed** after ignition.

If HVAC has a **recirculation setting or change-over flap**, it must be disabled or the flap should be removed/ locked in neutral position (**allowing combination of external and recirculated air**).

MOUNTING CONSIDERATIONS AND EXAMPLES, continued



>> Metal tubing frame protects the RESPA unit. Note how care has been taken to allow access to open the lid for filter changes.

<< Note how flex hose is wrapped where it goes around the sharp corners. Check for potential wear points and protect flex hose from abrasion or puncture.



IMPORTANT CONSIDERATIONS, continued:

Care should be taken to **prevent water from entering RESPA or Ejection Ports** during cleaning!

See Maintenance Section for **special instructions regarding filter changes.**

Protect flex hose from potential wear points.



Even the smallest cab can use a RESPA! This mount was fabricated to extend from the back of the roof rack. It allows easy access to the bolts underneath, so the unit can slide out sideways for filter changes.

<< This unit is mounted on two L-shaped angle iron brackets which project out from the body of the vehicle.



RESPA®-SD Installation Guidelines

FRESH AIR UNIT

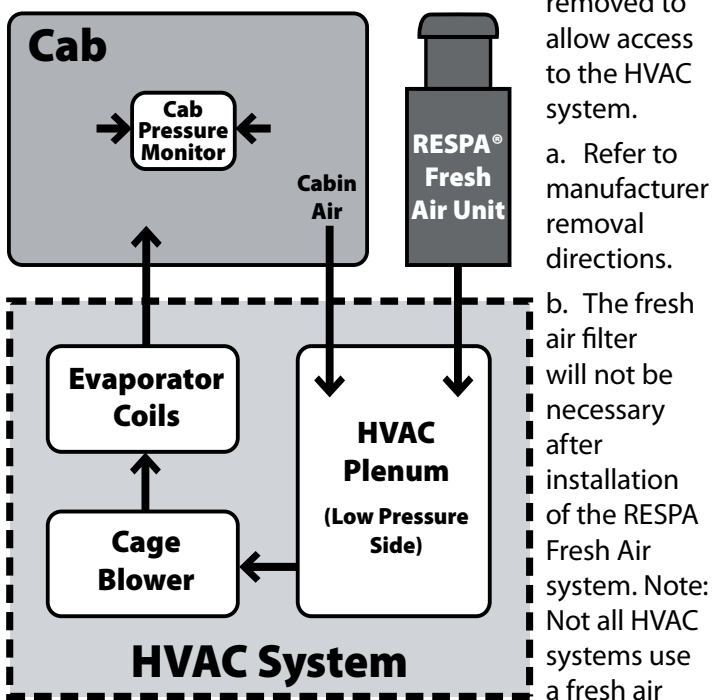
Please read all items before installation of the RESPA System.

FRESH AIR UNIT MOUNTING:

1. The machine should be off.
2. Consider the routing and destination of the plumbing when determining the mounting location for the RESPA System. (See Plumbing)
3. The RESPA system can be mounted in any orientation from horizontal to vertical.
 - a. Mounting the unit with the lid or inlet facing down may lead to difficulties when replacing filter and is not recommended.
 - b. Leave adequate room to remove lid and filter.
 - c. The RESPA unit ejects debris at a high rate. Make sure the ejection ports are pointed away from any surface and away from the operator's field of vision. Do not face ports directly forward.
4. A mounting plate with hardware is available when the unit's mounting holes are not accessible.
5. If welding the mounting plate:
 - a. The plate can be tacked in place with unit mounted. Take care not to heat the unit.
 - b. Remove the unit prior to final weld.
 - c. Allow mounting plate to cool before re-assembly.
6. Do not mount the unit such that it will greatly reduce operator visibility.
7. Avoid mounting the unit in high heat areas; unit operating temp. is -40° to 212° F (-40° to 100° C).
8. Consider vehicle clearances when mounting the RESPA unit.
9. There are 5 mounting hold-down bolts M8 x 1.25 x 5. To ensure mounting bushes/inserts are not damaged, bolt holes are drilled to a max. 8.5 mm. Do not disassemble RESPA or attempt to mount bolts from inside - bolts are mounted from under body only.
10. Do not use power tools - **tighten bolts by hand ONLY!!**
11. Use a minimum of 8 inches of flex hose (200 mm) to connect RESPA to air inlet due to movement or vibration that could cause stress/damage to RESPA unit and connected components.
12. Refer to Maintenance Section for special instructions before exchanging filter element.
13. Do not overtighten flexible hose connections and rain cap clamps, as doing so can cause "crush" damage.

FRESH AIR UNIT PLUMBING:

1. The machine should be off.
2. The factory fresh air and recirculation filters should be removed to allow access to the HVAC system.



- a. Refer to manufacturer removal directions.
- b. The fresh air filter will not be necessary after installation of the RESPA Fresh Air system. Note: Not all HVAC systems use a fresh air

- filter. The fresh air filter may also be referred to as a make-up air filter.
3. Clean the factory HVAC system and cab following the manufacturer approved methods before and after any fabrication. Note: Cleaning the HVAC system and cab when installing the RESPA system will improve the performance of the HVAC system.
4. Routing the clean air provided by the RESPA system: (See Diagram below)
 - a. If available, plumb the clean air into the fresh air cavity.
 - b. If the HVAC system does not include a fresh air cavity, plumb the clean air into to HVAC plenum between the recirculation filter cavity and the evaporator coils/cage blower. Note: In an HVAC system the position of the cage blower and evaporator coils can be reversed.
 - c. It is not recommended to plumb the clean air directly into the cab, recirculation filter cavity, or HVAC plenum if there is a recirculation setting in the HVAC system.

FRESH AIR UNIT INSTALLATION, continued

Note: The recirculation setting in the HVAC system greatly reduces the flow of fresh air into the system.

The clean air must enter into the fresh air cavity.

5. The universal adapter, provided in the RESPA installation kit, can be used to create a port into the fresh air cavity.
6. If using the universal flange adapter to plumb into the fresh air cavity, the port hole should be slightly larger than the adapter's tubing. Using a hole saw at low RPM's is ideal for large holes.
7. When plumbing into the fresh air cavity or HVAC plenum, ensure the cavity, plenum, fresh air inlet, and adaptation required are sealed from outside air. **Note: All fresh air must be drawn through the RESPA unit.**
8. The 100% RTV Silicon sealant provided with the RESPA installation kit, or an equivalent sealant, can be used to create gaskets or seal minor leaks.
9. A new recirculation filter should be installed.
10. Routing the hose:
 - a. 3" Tubing can be used for installations mounting the RESPA system up to 4 feet (1.2 metres) away.
 - b. 4" Tubing can be used for installations mounting the RESPA system up to 8 feet (2.4 metres) away.

- c. Each bend in the hose creates restriction, reducing the functional distance the RESPA can be mounted.
- d. Limit the hose route to two 90 degree bends.
- e. Avoid high heat areas, routing across walkways, tight bends in hose, and reducing operator visibility.
- f. Secure hose as routed; do not overtighten clamps as this can cause "crush" damage.

NOTES:

Protect flex hose at potential wear points.

To ensure optimum pressurization of cabin, the HVAC should be permanently locked to operate at the lowest fan speed after ignition.

If HVAC has a recirculation setting or change-over flap, it must be disabled or the flap should be removed/ locked in neutral position (allowing combination of external and recirculated air).

FRESH AIR UNIT WIRING:

1. The machine should be off.
2. Finding proper power is critical for system performance.
 - a. The unit must receive power when the ignition key is in the on position.
 - b. The power must terminate when the ignition key is in the off position.
 - c. Do not wire the unit to a variable voltage source.
 - d. A master system relay or ignition switch can be a good source of constant power when the ignition key is in the on position.
 - e. The source power must provide sufficient current.
3. The current requirement for the 12 volt system is 12 amps maximum initial draw with 6 amps constant.
4. The current requirement for the 24 volt system is 6 amps maximum initial draw with 3 amps constant.
 - a. An appropriate relay can be used to provide suitable power from a non-terminating constant source.
5. Ensure the input voltage correlates to the 12 or 24 volt unit being installed.
6. The RESPA system must be fused inline to at least twice the current requirements.
7. Use 16 GA or larger wire for the system.
 - a. Black wire = neutral (negative) and red wire OR white wire with red trace = active (positive)
 - b. Incorrect electrical connection will reverse motor direction and the RESPA will not function correctly.
8. The master power switch should be set to the off position after appropriate power is located and ignition key removed.
9. Finding a good ground is also critical to system performance. Use an existing grounding point if possible. If not, grind a small area to bare metal and use a self-tapping screw to ground the system.
10. Route the wiring, avoiding high heat areas, routing across walkways, and reducing operator visibility.
11. Use wire loom and grommets as necessary to protect wiring.
12. Secure wiring as routed.

INSPECTING THE FRESH AIR UNIT INSTALLATION:

Turn the master power switch ON to inspect the RESPA system.

1. If the system powers on with the ignition key off, an alternate power source must be located.

Turn the ignition key to the ON position and inspect the following:

1. System is running. If not, alternate power source must be located.
2. Remove the rain cap and ensure the fan blade is spinning in the counter-clockwise direction. If not, check the proper wire polarity (see #7 in Wiring section).
3. Airflow out both ejection ports is strong. If not, check that power source is not variable voltage.

4. Set HVAC to OFF, then check and record cabin pressure. Warning alert for Cab Pressure Monitor (if installed) should be OFF.
5. Set HVAC to ON (lowest fan setting), then check and record cabin pressure. Warning alert for Cab Pressure Monitor (if installed) should be OFF.
6. Set HVAC to ON (fastest fan setting), then check and record cabin pressure. Warning alert for Cab Pressure Monitor should be OFF.
7. If Cab Pressure Monitor alert does not turn off, or 0.2 inches of water column pressure (49 pascal) of pressure is not reached, then check for leaks, improve sealing of cabin and test again.

See troubleshooting section for more information.

RECIRCULATION UNIT INSTALLATION - FOR RESPA-SDX ONLY

RECIRCULATION UNIT MOUNTING:

1. The machine should be off.
2. Consider the routing and destination of the plumbing when determining the mounting location for the RESPA System. (See Plumbing)
3. The RESPA system can be mounted in any orientation from horizontal to vertical.
 - a. Mounting the unit with the rain cap downward is not recommended as it may collect water.
 - b. Mounting the unit with the lid or rain cap facing down may lead to difficulties when replacing filter.
 - c. Leave adequate room to remove lid and filter.
4. A mounting plate with hardware is available when the unit's mounting holes are not accessible.
5. If welding the mounting plate:
 - a. The plate can be tacked in place with the RESPA unit mounted. Take care not to heat the unit.
 - b. Remove the RESPA unit prior to final weld.
 - c. Allow mounting plate to cool before re-assembly.
6. Do not mount the unit such that it will greatly reduce operator visibility.
7. Avoid mounting the unit in high heat areas (unit operating temp. -40° to 100° C, -40° to 212° F), areas of high dirt concentration (wheel wells, undercarriage, etc), or near exhaust emissions.
8. Consider vehicle clearances when mounting the RESPA unit.
9. There are 5 mounting hold-down bolts M8 x 1.25 x 5. To ensure mounting bushes/inserts are not damaged, bolt holes are drilled to a max. 8.5 mm. Do not disassemble RESPA or attempt to mount bolts from inside - bolts are mounted from under body only.
10. Do not use power tools - **tighten bolts by hand ONLY!!**
11. Use a minimum of 8 inches of flex hose (200 mm) to connect RESPA to air inlet due to movement or vibration that could cause stress/damage to RESPA unit and connected components.
12. Refer to Maintenance Section for special instructions before exchanging filter element.
13. Do not overtighten flexible hose connections and rain cap clamps, as doing so can cause "crush" damage.

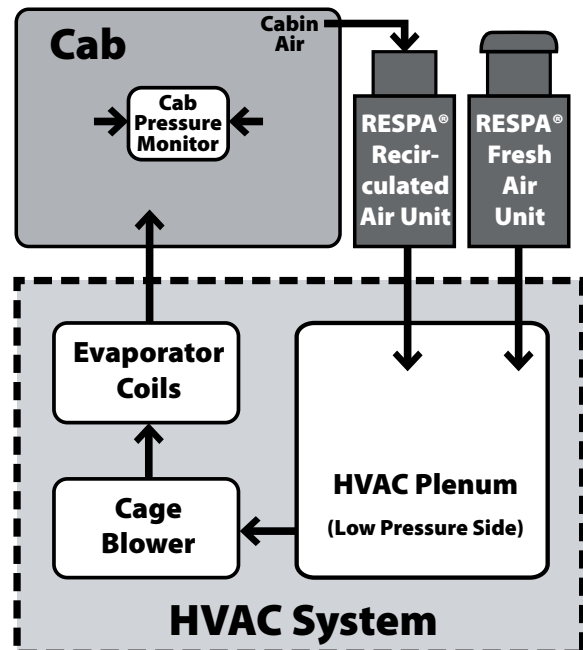
RECIRCULATION UNIT INSTALLATION continued, FOR RESPA-SDX ONLY

RECIRCULATION UNIT PLUMBING:

1. The machine should be off.
2. The factory fresh air and recirculation filters should be removed to allow access to the HVAC system.
 - a. Refer to manufacturer removal directions.
 - b. The recirculation air filter will not be necessary after installation of the RESPA Recirculation system. Note: Not all HVAC systems use a fresh air filter. The fresh air filter may also be referred to as a make-up air filter.
3. Clean the factory HVAC system and cab following the manufacturer approved methods before and after any fabrication. Note: Cleaning the HVAC system and cab when installing the RESPA system will improve the performance of the HVAC system.
4. The cabin air outlet to the RESPA system should be mounted at the lowest point possible.
5. Routing the clean air provided by the RESPA system: (See Diagram.)
 - a. If possible, plumb the clean air into to recirculation filter cavity.
 - b. If not, plumb the clean air into the HVAC plenum between the recirculation filter cavity and the evaporator coils/cage blower. Note: In an HVAC system the position of the cage blower and evaporator coils can be reversed.
6. The universal adapters, provided in the RESPA installation kit, can be used to locate the correct port location.
7. If using a universal flange adapter to plumb into the recirculation filter cavity or HVAC plenum, the port hole should be slightly larger than the adapter's tubing. Using a hole saw at low RPM's is ideal for large holes.
8. When plumbing into the recirculation filter cavity or HVAC plenum ensure the cavity, plenum, recirculation filter inlet, and any adaptation required is sealed from the cabin or outside air. Note: All recirculation air must be drawn through the RESPA unit.
9. The 100% RTV Silicon sealant provided with the RESPA

installation kit, or an equivalent sealant, can be used to create gaskets or seal minor leaks.

10. A new fresh air filter should be installed.
11. Routing the hose:
 - a. 4" tubing should be used for installations. Total inlet and outlet hose length should not exceed 8 feet.
 - b. Each bend in the hose creates restriction reducing the functional distance the RESPA can be mounted.
 - c. Avoid high heat areas, routing across walkways, tight bends in hose, and reducing operator visibility.
 - d. Limit the hose route to two 90 degree bends.
 - e. Secure hose as routed.
12. If air volume from vents is reduced after the RESPA Recirculation Unit is installed, then a booster fan must be installed in the RESPA Recirculation Unit's motor housing. Contact Sy-Klone for assistance.
13. Ensure that the Recirculation Unit's ejector ports are blocked with provided rubber plugs to ensure balanced airflow between cabin and RESPA; otherwise cabin may not meet required level of pressurization.



INSPECTING THE RECIRCULATION UNIT INSTALLATION:

1. Turn the master power switch on. Ensure that both the RESPA Fresh Air and Recirculation Units are operating.
2. Follow instructions and notes in "Inspecting the Fresh Air Unit Installation" section on page 6.

RESPA MAINTENANCE

WHEN TO REPLACE FILTER:

Replace filter when the cab pressure sensor light comes on and remains on even after the cab door is closed and the machine is turned on. (Refer to Pressure Sensor Installation Manual)

Change the RESPA filter after every 1000 hours of operating time, even if the pressure monitor does not alert and there are no noticeable changes.

Sy-Klone recommends the use of a Pressure Monitor System with all installations.

FILTER REPLACEMENT:

See video on how to change RESPA filter at www.sy-klone.com in Video Library.

1. Work in a clean covered area to reduce operator and HVAC exposure to harmful dust.
2. Wear appropriate personal protection equipment such as gloves, mask, and coverall to protect against contaminants.
3. Disconnect flex hose from RESPA air outlet. Plug or cover end of hose to prevent contaminants from entering the HVAC system.
4. Loosen the screws which hold the lid in place. The screws will remain attached to the lid after they are loosened.
5. When the lid is removed examine the rubber gasket that seals the lid to the filter housing. If the rubber gasket is torn or missing replace it.
6. Remove the filter by applying pressure in a motion away from the outlet of the filter box. The Filter is held firmly by the rubber "O" ring seal and will require gentle but firm pressure to remove.
7. Bag and seal used filter element and dispose of according to local regulation.
8. Remove loose debris using suitable vacuum unit and clean rags - never use compressed air.
9. Lubricate O-ring seal on filter element (lubricant provided with new filter). Place in housing with open end of filter towards outlet, lift slightly with fingers to align with inside of outlet and shift towards outlet until you feel positive abutment and the O-ring seats into the groove inside the RESPA outlet.
10. Replace the RESPA lid, ensuring that the filter element "stop" on the underside of the lid is secured behind the filter element.
11. Tighten screws by hand to seal RESPA Unit.
12. Reattach the flex hose to the RESPA outlet, ensuring that contamination of tubing, HVAC, and cabin air does not occur. Take care not to overtighten clamps, as this could cause "crush" damage.

Replace filter only!

Do not clean or re-use filters.

Re-using filters can create health hazards!

Replace with Sy-Klone filters only.

Order from your dealer or from Sy-Klone.

RAIN CAP INSPECTION AND CLEANING:

The rain cap should be regularly inspected to make sure that it is free from debris.

1. Remove the rain cap and inspect the air inlet.
2. If debris is detected remove cap and clean out debris.
3. Replace the rain cap, making sure that the clamp which holds the rain cap in place is snug. Take care not to overtighten clamp, as this could cause "crush" damage.

RESPA MAINTENANCE, continued

SYSTEM CLEANING:

When changing the filter, it is a good time to inspect and clean the whole system.

1. The machine should be off.
2. Remove any loose dirt from RESPA unit before removing any components.
3. Prior to removing filter, remove the hose from RESPA unit outlet and plug with rag, or equivalent, to prevent dirt from entering hose. For recirculation systems, also remove hose from inlet and plug.
4. Use rag to wipe/clean outside of RESPA unit.
5. Bag and seal used filter element and dispose of according to local regulation. See previous section on filter replacement for details.
6. Remove rain cap and inspect air inlet. Clean if

necessary, instructions listed below.

7. Inspect ejection ports and clear if necessary, instructions listed below. (Fresh air system only.)
8. Vacuum or wipe out filter cavity.
9. Apply power to unit. Check the rotation of the fan blade. Looking into the inlet, the fan blade should be spinning in a counter clockwise direction. (Fresh air system only). **DO NOT INSERT ANY OBJECTS INTO FAN/MOTOR HOUSING.**
10. Before installing the new filter, apply a small amount of lubricant, supplied with filter, to filter's o-ring.
11. Reassemble RESPA system and check for leaks and proper operation. Take care not to overtighten clamps, as this could cause "crush" damage.

WARNING:

When cleaning equipment, care should be taken to prevent water from entering RESPA Units or Ejection Ports!

Never use compressed air or water to clean RESPA. Instead, use a rag to wipe/clean.

EJECTION PORT INSPECTION AND CLEANING:

The round ejection ports may become impacted with debris. While this is a rare occurrence it is possible and will dramatically compromise the precleaning ability of the Powered Precleaner.

1. When changing the filter also inspect the ejection ports in the Powered Precleaner .
2. Make sure that the precleaner is turned off and that the key is out of the ignition. Using needle nose pliers reach up into each ejection port and remove the debris. Once all major obstructions have been removed turn on the precleaner by turning the key to the on position. When the Powered Precleaner turns

on the remaining debris will be ejected out of the ejection port.

3. If you can still see debris in the ejection port, repeat step 2, or try blowing out with compressed air.

If dirt is not being ejected out of the Fresh Air Unit ejection ports, perform the ejection port inspection regardless of the filter change interval.

FIELD SERVICE PARTS:

There are no service parts for the powered precleaner, and disassembling the product in any way voids the warranty.

1. Replacement Lid (Part number RE0004-L-SYK)
2. Lid Fasteners (Part number RE0004-L-LHW)
3. Foam gasket seal for lid (Part number RE0004-G)
4. Rain Cap (Part number RE0004-RC)
5. Filters (System Rated*):
EU P1 / MERV 8 (Part Number FEFF003)
EU P2 / MERV 16 (Part Number FEFF005)
EU P3 / HEPA (Part Number FEFF004)

***SYSTEM RATING:** RESPA system with specified filter produces air of rated quality with airflow ≤ 100 cfm (2.832 m³/m). System rating does not apply when filter is used in a recirculation system.

SPECIFICATIONS

Mounting:

- Can be installed on a variety of different types of machines, in a vertical or horizontal orientation.

Filter Efficiency

- Depends on filtration option selected, see below.

Performance:

- Operation range ideal: 25-75 CFM (0.71-2.12m³/m)
- Operation range extended: up to 100 CFM (2.83 m³/m)
- Operating temperature: -40°F (-40°C) to 176°F (+80°C) continuous; 212°F (+100°C) short exposure.

Weight:

- 11.2 lbs (5 kg) including filter.

Construction:

- Glass-filled injection molded engineered polymer exterior; metal fan blades; 80 watt 12V or 24V DC motor with sealed housing and sealed ball bearings.

- **NOT FOR USE IN EXPLOSION-PRONE ENVIRONMENTS.**

Cab Pressurization:

- Maintains designed cab pressurization over extended operating periods, even when HVAC is off. Will not over pressurize cab.

FILTRATION OPTIONS

EU P1 / MERV 8* (Part Number FEFF003)

- When new, filters down to 3.0 micron particle size with >90% arrestance.
- Typical controlled contaminants include mold spores, pollen, dust mites, sanding dust, spray paint dust, textile fibers, carpet fibers, etc.

EU P2 / MERV 16* (Part Number FEFF005)

- When new, filters down to 0.3 micron particle size with >98% arrestance.
- Typical controlled contaminants include respirable crystalline silica (RCS), diesel particulate matter (DPM), bacteria, auto emissions, welding fumes, lead dust, milled flour, etc.

EU P3 / HEPA* (Part Number FEFF004)

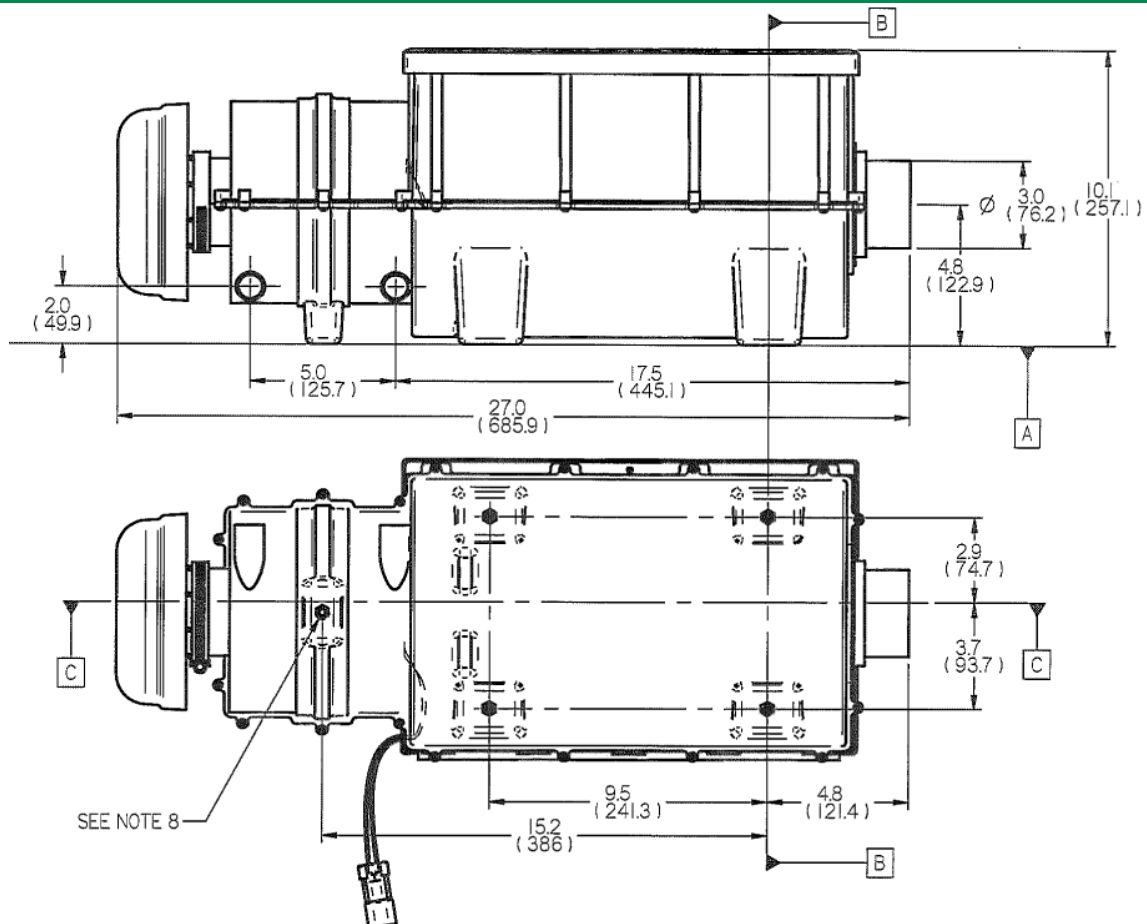
- When new, filters down to 0.3 micron particle size with >99.97% arrestance.
- Typical controlled contaminants include combustion smoke, radon progeny, carbon dust, carcinogenic materials, etc.



*SYSTEM RATING: RESPA system with specified filter produces air of rated quality with airflow ≤ 100 cfm (2.832 m³/m). System rating does not apply when filter is used in a recirculation system.

Dimensions

Units:
Imperial
(Metric)



Troubleshooting

The RESPA unit(s) must be correctly installed in order to provide satisfactory service. The following is a summary of common problems experienced during prototype and field installations.

Reversed Wiring:

To check for this, remove the rain cap and turn the RESPA on while looking into the inlet. The fan blade should turn counter-clockwise.

Broken Circuits:

Verify power is supplied to the unit.

Incorrect Voltage:

Make sure the correct voltage is used. Incorrect power to the RESPA can cause severe performance issues, which may include burning up the motor.

The 12V requires between 12 and 13.6 vdc and draws 5.4 amps at 12 vdc.

The 24V unit requires between 26 and 27.2 vdc and draws 3.1 amps at 24 vdc.

Variable power sources:

The RESPA power supply must operate at constant voltage. In order to maintain designed fan speed and to obtain optimum precleaning efficiency the RESPA must be connected to a power source that provides the specified voltage whenever the machine ignition is on.

If the operator sets the internal blower to a low or off setting, a properly wired RESPA will continue to run at constant speed and simply eject more air from its ports, thus increasing its efficiency.

Original fresh air intake not sealed:

Previous air intakes must be sealed off so that all air entering the system is passing through the RESPA.

Air leaks after the precleaner:

The evaporator box must be sealed. If there are leaks after the RESPA, this will allow dirt to enter the system and negate the value of the precleaner.

Cab must be sealed:

If the cab cannot hold pressure, the effectiveness of the RESPA system will be reduced.

Technical Support

www.sy-klone.com

Sy-Klone International

P.O. Box 550859

Jacksonville, FL 32255

USA

Tel: +1 (904) 448-6563

FAX: +1 (904) 448-6626

email: support@sy-klone.com

www.sy-klone.eu

Sy-Klone International, Europe

De Hofstede 13-15

4033 BT Lienden

the Netherlands

Tel: +31 (0)344 -60 45 50

(English , German and

Dutch spoken)

FAX: +31 (344) - 60 47 71

Email: info@vdlindenbv.eu

www.sy-klone.com.au

Sy-Klone International, Australia

Australian Distributor

LSM Technologies

Brisbane, QLD

Tel: +61 07 3277 6233

FAX: +61 07 3277 6433

Email:

tech@lsmtechnologies.com.au

Sy-Klone International Powered Precleaners

LIMITED LIFETIME WARRANTY:

Sy-Klone International warrants that its Gideon® Technology Powered Precleaners, its RESPA® Powered Precleaner & Filtration Systems and the Power-KLONE Powered Precleaners ("Sy-Klone Powered Precleaner") to be free from defects in material and workmanship. If a Sy-Klone Powered Precleaner fails because of a manufacturing or workmanship defect within the limited warranty period, Sy-Klone will replace the defective part or refund the purchase price, subject to the following conditions:

Warranty Period:

The Sy-Klone Powered Precleaner housings are warranted to be free of defects in material and workmanship for the operating life of the machine upon which the precleaner is initially installed. The motor and fan are warranted for a period of two (2) years or 5,000 operational hours, which ever expires first, from initial installation. Service parts are covered for a period of one (1) year from date of purchase.

What is covered:

This limited warranty covers the Sy-Klone Powered Precleaners.

What is not covered:

This limited warranty DOES NOT COVER –

- Failures resulting from incorrect application.
- Damage caused by improper installation, improper or abnormal use, misuse, neglect or accident or unauthorized repair.
- Failures resulting from parts not sold or approved by Sy-Klone.
- Damage to parts, fixtures, housings, attachments and accessory items that are not part of the air precleaner.
- Incidental or consequential losses.

This limited warranty is VOID if the Sy-Klone Powered Precleaner is altered or modified in any way including unauthorized repair efforts or the use of any service or repair parts other than those supplied by Sy-Klone.

Sy-Klone's responsibilities:

If a defect in material or workmanship not caused by an excluded failure is found in the Sy-Klone Powered Precleaner during the warranty period, Sy-Klone will provide, at Sy-Klone's option, new parts or Sy-Klone approved repair parts or assembled components needed to correct the defect. Sy-Klone reserves the right to provide a refund of the purchase price in lieu of replacement or repair at Sy-Klone's option. The replacement or repaired product will be sent to you freight prepaid or made available to you for pick up at a local dealer designated by Sy-Klone. Items replaced under this warranty become the property of Sy-Klone and shall be returned to Sy-Klone upon request.

User's responsibilities:

Report your issue to Sy-Klone's Technical Services Department at 1-800-351-8265 or by fax to 904-448-6626 immediately. After contacting Sy-Klone you may be required to deliver or send the air precleaner properly packaged, freight prepaid, to Sy-Klone. The user is responsible for the cost of packing, shipping, labor, and installation.

Exclusions and Limitations on Damages and Remedies:

THIS LIMITED WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, WHETHER EXPRESSED BY AFFIRMATION, PROMISE, DESCRIPTION, DRAWING, MODEL OR SAMPLE. ANY AND ALL WARRANTIES OTHER THAN THIS ONE, WHETHER EXPRESSED OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

SY-KLONE IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. REMEDIES UNDER THIS WARRANTY ARE THE EXCLUSIVE REMEDIES AVAILABLE AND ARE LIMITED TO THE PROVISIONS FOR REFUND, REPLACEMENT OR REPAIR OF THE WARRANTED PRODUCT AS SPECIFIED HEREIN.

This limited warranty gives you specific legal rights and you may also have other rights that vary from state to state.

Ltd_Warranty_Rev_2009

**We are proud
of the fact that
Sy-Klone's
products are
built to last!**