

## GENERAL INFORMATION

The SYCLONE Negative Air Machine is designed for indoor use and to provide the most efficient air filtration with three stages of filtration. The final stage includes a HEPA (High-Efficiency Particulate Air) filter that can remove 99.97% of particles 0.3 micron or larger from the air stream.

### Specifications

**Housing** - galvanized steel or aluminum

**Power & Motors** - 115 volts, 60 Hz, 1625 rpm

- 1.0 HP, 2 Speed (9 amps)
- 0.5 HP, 2 Speed (5 amps)

### Control Panel Options

#### Economy Panel

- hi/low rocker switch
- circuit breaker/reset button
- inlet flange (plug receptacle)

#### Gauge Panel

- hi/low rocker power switch
- circuit breaker/reset button
- inlet flange (plug receptacle)
- minihelic pressure gauge

#### Full Feature

- hi/low rocker power switch
- circuit breaker/reset button
- inlet flange (plug receptacle)
- minihelic pressure gauge
- replacement light/alarm

## REPLACEMENT PART NUMBERS

**NC-MOTOR1HP** 1 HP motor/capacitor

**NC-MOTOR-5HP** 1/2 HP motor/capacitor  
(16x16 models only)

*Motor replacements come as a complete kit (includes band and three support arms).*

**NC-HANDLE** handle (4)

**NC-CASTER** rigid caster (2)

**NC-SWIVCASTER** swivel caster with brake (2)

**NC-OUTLETRING** outlet ring for exhaust

**Contact distributor for replacement filters and parts.**

## LIMITED WARRANTY

NC Filtration (FSNC LLC "Seller") warrants the SYCLONE Negative Air Machine shall be free from defects in material and workmanship for a period of one year after receipt of equipment.

### REMEDIES

Seller's sole obligations and the buyer's exclusive remedies with respect to goods determined to be defective shall be limited to repair or replacement.

### RETURN PROCESS

Buyer must call or email to receive an RMA# (return merchandise authorization) and return address information. Buyer assumes responsibility for return freight costs and must ship equipment pre-paid. The RMA# must be clearly marked on returned items.

phone – 704.822.4444

email – [customerservice@ncfiltration.com](mailto:customerservice@ncfiltration.com)

Returned equipment will be inspected for defects and contaminants by seller. If equipment is deemed defective by seller, the buyer will receive a reimbursement for return freight costs and replacement may constitute, at seller's option: new, refurbished, or functionally equivalent item(s).

**Releases & Notes May 2023** – The purpose of this document is to provide basic information regarding operation, maintenance procedures, and warranty details for the Negative Air Machine.

# SYCLONE<sup>®</sup>

## NEGATIVE AIR MACHINE

## OPERATING & MAINTENANCE MANUAL



## OPERATION

### ⚠ CAUTION ⚠

**DO NOT OPERATE THE SYCLONE WITHOUT THE HEPA FILTER INSTALLED! OPERATING WITHOUT THE HEPA FILTER INSTALLED OR USING NON-APPROVED POWER CORDS MAY CAUSE DAMAGE TO THE ELECTRICAL SYSTEM AND/OR MECHANICAL COMPONENTS. FAILURE TO COMPLY WILL VOID THE WARRANTY.**

#### ELECTRICAL REQUIREMENTS

The SYCLONE requires a minimum of 115 V, 60 Hz, 9.5 amp, power supply for normal operation. The unit requires an industrial grade 12/3 cord, in good condition. *Do not use a damaged cord.* The cord should be properly grounded (ground pin on the plug) and the continuous length should not exceed 50 feet in for proper operation. *Do not expose the unit or power cord to water.*

### UNIT SET UP & START UP

- The unit is to be operated away from doorways or other make-up air sources. Properly set up the exhaust and seal off any opening. Do not exhaust into uncontaminated or occupied areas.
- **Before powering the unit on:**
  - lock the two rolling casters to keep the machine in place
  - confirm the rocker switch is in the off position
  - plug in the power supply cord
- **To start the machine, select the speed by pressing the top for high and the bottom for low.**

## FILTRATION

### FIRST STAGE – PRE-FILTER PAD

- 24" x 24" x 1" – 1-Ply Pad
- Removes large particles up to 10 microns and larger from the air flowing through the unit, thereby preventing premature loading of the second stage and HEPA filters. The pre-filter pad is recommended to be changed as it becomes loaded and the airflow capacity of the unit decreases—or the pressure gauge at the control panel exceeds 2.6 inches at high speed or 1.9 inches at low speed, of W.C.



### SECOND STAGE – RING PANEL

- 24" x 24" x 1" – 2-Ply Ring Panel
- Removes particles up to 1 micron and larger from the air flowing through the unit, thereby protecting the more expensive, HEPA filter. The ring panel filter is recommended to be changed as it becomes loaded and the airflow capacity of the unit decreases—or the pressure gauge at the control panel exceeds 2.6 inches on high speed (1.9 inches on low speed) of W.C..



### THIRD STAGE – HEPA

- 24" x 24" x 11.5" (99.97%) Wood Frame HEPA Filter
- Removes smaller contaminated particles up to 0.3 microns from the air flowing through the unit and has an efficiency rating of 99.97%. The HEPA filter is recommended to be changed as it becomes loaded, the airflow capacity of the unit decreases, and the pressure gauge at the control panel exceeds 2.6 inches on high speed (1.9 inches on low speed) of W.C.



## FILTER REPLACEMENT

### ⚠ ATTENTION ⚠

**PERSONNEL RESPONSIBLE FOR CHANGING FILTERS, SERVICING, OR RELOCATING THE UNIT MUST WEAR APPROVED RESPIRATORS AND PROTECTIVE EQUIPMENT. THE REPLACEMENT FILTERS MUST BE THE SAME SIZE/TYPE AS THE ONE BEING REPLACED. WHEN THE HEPA FILTER IS REPLACED, THE PRE-FILTER PAD AND RING PANEL FILTER SHOULD ALSO BE REPLACED. THIS WILL HELP TO EXTEND THE LIFE OF THE HEPA FILTER.**

- *Turn the SYCLONE unit off* and make sure to *disconnect the power supply cord* from the machine.
- Watch for sharp edges, lift the door up and out of the channel. Remove the contaminated pre-filter pad, folding in the sides, and dispose of the filter properly.\*
- Next, carefully remove the contaminated ring panel filter. Fold in half before proper disposal.\*
- To remove the HEPA filter, loosen the four nuts and rotate the four tabs to the open position. Carefully, pull the HEPA filter out of the cabinet and dispose. To prevent contamination, wipe down all exposed surfaces and clean machine thoroughly BEFORE installing new filters.
- Inspect the gasket on the new HEPA filter housing before installation, to make sure there are no gaps, cracks, or defects. Any defects in the gasket will allow leakage of contaminated air through the unit.
- Place the new HEPA filter in the unit with the gasket end facing the fan. Check to see that the filter lies squarely on the base bracket.
- Push the HEPA filter against the HEPA flange bulkhead. Rotate the locking tabs to the closed position; tighten the nuts to ensure the HEPA tabs are secure. Install the ring panel filter and pre-filter pad. Place the door back into the channel, slowly dropping the door closed.
- Reconnect the power supply cord. Then turn the unit on and check the pressure gauge at the control panel.

*\*USED FILTERS ARE CONSIDERED CONTAMINATED WASTE AND MUST BE DISPOSED IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.*