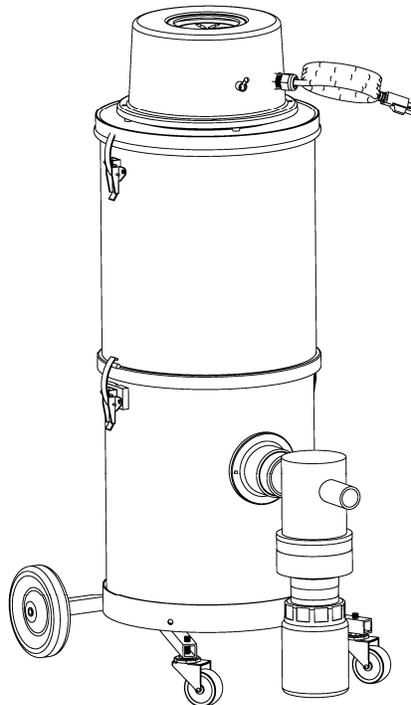


# ***NIKRO***

## **6 GALLON MERCURY RECOVERY VACUUM**

**MODEL # MV00688-SS**

## **INSTRUCTION MANUAL**





All Nikro Industries Inc. products that have rated efficiencies of 99.97% @ 0.3 microns and/or 99.99% @ 0.3 microns, have H.E.P.A. filters that have been individually tested to meet these minimum efficiencies.

Although all the filters have been pre-tested, the possibility of leaks or filter failure due to handling, transportation, punctures, loaded filters, moisture, wear and tear, etc., does exist.

Therefore, when using this equipment in highly sensitive areas or where any release of particles above and beyond the minimum efficiencies would be detrimental and harmful to humans, plants or property; it is strongly recommended that the units be individually tested prior to their use.

This is to assure that they are maintaining the efficiency levels, which they were designed to filter out.

**FAILURE TO DO SO COULD RESULT IN SERIOUS HARM TO HUMAN LIFE, PLANT LIFE AND/OR PROPERTY.**

**“READ AND SAVE THESE INSTRUCTIONS”**

**RISK OF FIRE, ELECTRIC SHOCK, OR PERSONAL INJURY**

1115 N. Ellsworth Ave., Villa Park, IL 60181  
Telephone: 630-530-0558 FAX: 630-530-0740 Toll Free: 800-875-6457

## IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:

### **READ ALL INSTRUCTIONS**

### **BEFORE USING (THIS APPLIANCE)**

**WARNING** – To reduce the risk of fire, electric shock, or injury:

1. Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.
2. Do not use outdoors or on wet surfaces
3. Do not allow to be used as a toy. Close attention is necessary when used by or near children.
4. Use only as described in this manual. Use only manufacturer's recommended attachments.
5. Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
6. Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces.
7. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
8. Do not handle plug or appliance with wet hands.
9. Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
10. Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
11. Turn off all controls before unplugging.
12. Use extra care when cleaning on stairs.
13. Do not use to pick up flammable or combustible liquids, such as gasoline, or use in areas where they may be present.
14. "Connect to a properly grounded outlet only. See Grounding Instructions."
15. "Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes."
16. "Do not use without dust bag and/or filters in place."
17. Do not wrap the cord around the dome. Wrapping the cord around the dome will restrict the motor from exhausting properly and will result in overheating and damaging the motor
18. This vacuum cleaner should never be used in explosion-hazardous areas or to pick up combustible or flammable liquids such as gasoline, etc.
19. This vacuum should never be operated without the proper filters installed in the manner described in the following pages of this manual.
20. This machine should never be serviced by anyone other than an authorized technician.
21. This vacuum is for commercial use only.
22. Use only original NIKRO replacement parts and attachments.
23. An approved mercury vapor detection device should be on hand at all times to determine the efficiency of the vacuum and its carbon filter.

# OPERATING INSTRUCTIONS

## INSPECTION

Thoroughly inspect your machine for any shipping damage. Your machine has already been thoroughly tested at the Nikro Industries manufacturing plant prior to shipping.

## ELECTRICAL SPECIFICATION

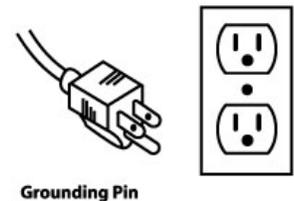
This machine is designed to operate on a 15 amp, 115V., 60 hz., AC circuit. A deviance of this could cause serious damage to the unit.

## GROUNDING INSTRUCTIONS

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

**WARNING** – Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This appliance is for use on a nominal 120-V circuit and has a grounding attachment plug that looks like the plug illustrated in sketch A in Figure 20. Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adaptor should be used with this appliance.



## MAINTENANCE

Lubrication of this motor is not required as it is equipped with sealed bearings.

Always keep the air cooling intake screen located on the top of the motor dome unobstructed, not allowing any restriction of airflow. Airflow restriction will over heat and damage the motor.

To prolong the life of the HEPA filter, empty, clean, and replace bags and filters regularly as described in the following sections.

## STORAGE

Before storing your Nikro vacuum disconnect from electrical outlet.

The tank should be emptied and cleaned.

The cord should be coiled and stored so as not to create a tripping hazard.

The vacuum should be stored indoors.

When not in use store vacuum in a cool, dry well ventilated room, with vacuum and vacuum openings properly sealed and placed in a sealed plastic bag.

## CAUTION

**Mercury and its vapors are highly toxic. Read and understand all information in the instruction manual before using this machine.**

- An approved Mercury Vapor Monitoring and Detection Device should be on hand at all times to determine the efficiency of the vacuum and its carbon filter.
- This vacuum should only be used by those who have been properly trained for handling mercury and mercury contaminated materials.
- Never use this vacuum in explosion hazardous areas.
- Do not use this vacuum to collect flammable material or liquids.
- Never substitute any parts or filters than those supplied.
- Use only Nikro Industries original replacement parts
- Never attempt to operate this vacuum without the charcoal filter module in place.
- Never attempt to operate this vacuum without the HEPA filter module in place.
- Do not attempt to open or empty the contents of this vacuum without personal protective clothing and respiratory protection approved for use with mercury and mercury vapor.
- Vacuum up Mercury slowly and carefully. Do not pick up more than 1/2 a jar of Mercury every ten minutes.
- When not in use store vacuum in a cool, dry well ventilated room, with vacuum and vacuum openings properly sealed and placed in a sealed plastic bag.

## TANK AND FILTER PREPARATION

- 1) Unlatch the activated carbon module and remove it from the tank assembly. (See Photo #1)



- 2) Take the paper collection bag #520033P (which is designed to collect dry contaminated dust and particulate) and set it in the bottom of the tank. Pull the cardboard/rubber collar on the bag over the intake down tube, pulling it just above the rib on the down tube. Gently pull apart the accordion-like pleats so that the bag is open. (See Photo #2)



- 3) Next, take the HEPA Filter Module #860917 (the HEPA Filter has been installed and secured to the module plate) (See Photo #3a) and slide the Impaction Filter #862006P over the HEPA Filter (See Photo #3b). Slide the Dacron Filter Bag #520037 over the HEPA Filter and let the elastic band of the bag rest securely on the filter mounting plate just below the filter module plate. (See Photo #3c).



- 4) Place the HEPA Filter Module on the rim of the tank, making sure the sealing gasket sits on lip on the tank. (See Photo #4a & #4b)



- 5) Next, place the activated carbon filter module #860918 on top of the HEPA Filter module and tank assembly and snap the latches into place, securing the module to the tank assembly. (See Photo #5)



- 6) Place the motor and lid assembly on top of the activated carbon filter module and snap the latches into place, securing the motor and lid assembly to the carbon module. (See Photo #6)



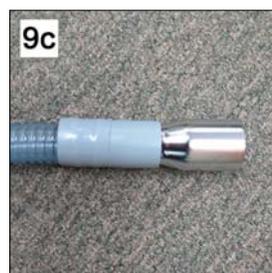
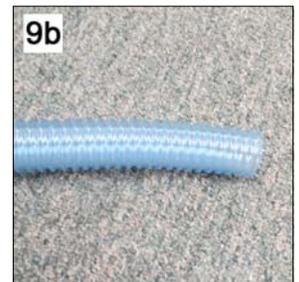
- 7) Take the liquid mercury separator #860916 and slide the 2" tube (larger of the two tubes) into the intake. Push it in and against the intake down tube (located within the intake) and tighten down and secure the intake knob. (See Photo #7)



- 8) Screw the provided jar #860904 onto the liquid separator until it seats securely against the jar-sealing gasket. DO NOT OVER TIGHTEN. (See Photo #8)



- 9) For liquid mercury recovery, connect the 1 1/4" clear PVC hose to the liquid separator. (See Photo #9a) The wands and tools will fit into the opposite end of the hose. If picking up dry particulate only, remove one of the hose end cuffs and replace it with the metal swivel hose end cuff (cuffs thread on and off hose) (See Photo #9b & #9c). Remove the liquid separator and slide the metal swivel hose end cuff into the intake and secure it with the intake knob. (See Photo #9d)



## PROCEDURES FOR REMOVING CONTAMINATED FILTERS

CAUTION: WHEN OPENING THE VACUUM AND REMOVING CONTAMINATED FILTERS, YOU SHOULD ALWAYS WEAR PERSONAL, PROTECTIVE CLOTHING AND RESPIRATOR APPROVED FOR USE WITH MERCURY.

- 1) With the vacuum running and the hose still connected to the vacuum, take the end of the vacuum hose and lift it above your head and shake and tap it to loosen and release any mercury that may be caught up in the hose.
- 2) Turn vacuum off.
- 3) Remove vacuum tools and attachments, place in a sealed plastic bag. Remove the hose and seal the hose with the provided sealing plugs. Place the hose in a sealed plastic bag.
- 4) Unlatch and remove the motor & lid assembly and activated carbon filter module from the tank assembly and immediately place these items into a sealed plastic bag. Remove the HEPA Filter module. Reach into the tank and slide the paper collection bag collar down and off the down tube. Immediately, place this bag in a sealed plastic bag and dispose of properly. Replace with a new bag.
- 5) Before removing the mercury separator jar, tap on the separator and jar to loosen and release any materials that may be in the separator. Hold the black threaded cap on the separator with one hand and unscrew the jar with the other hand. Immediately, place a threaded sealing cap on the jar and replace a new jar onto the separator.
- 6) Remove the Dacron filter bag by stretching the elastic end of the bag open and slide the bag over and off the HEPA Filter. Immediately, place the Dacron filter bag in a sealed plastic bag and replace it.
- 7) Remove the black impaction filter. Immediately place this filter in a sealed plastic bag and replace it.
- 8) Loosen the screws and nuts from the HEPA Filter flange and remove the HEPA Filter from the module plate. This filter cannot be cleaned. Place it in a sealed plastic bag and replace it.

ALL USED FILTERS, COLLECTED DEBRIS AND VACUUM COMPONENTS SHOULD BE CONSIDERED CONTAMINATED. CONSULT PROPER AUTHORITIES FOR REGULATIONS ON HANDLING AND DISPOSING OF THESE CONTAMINATED MATERIALS

### FILTER REPLACEMENT

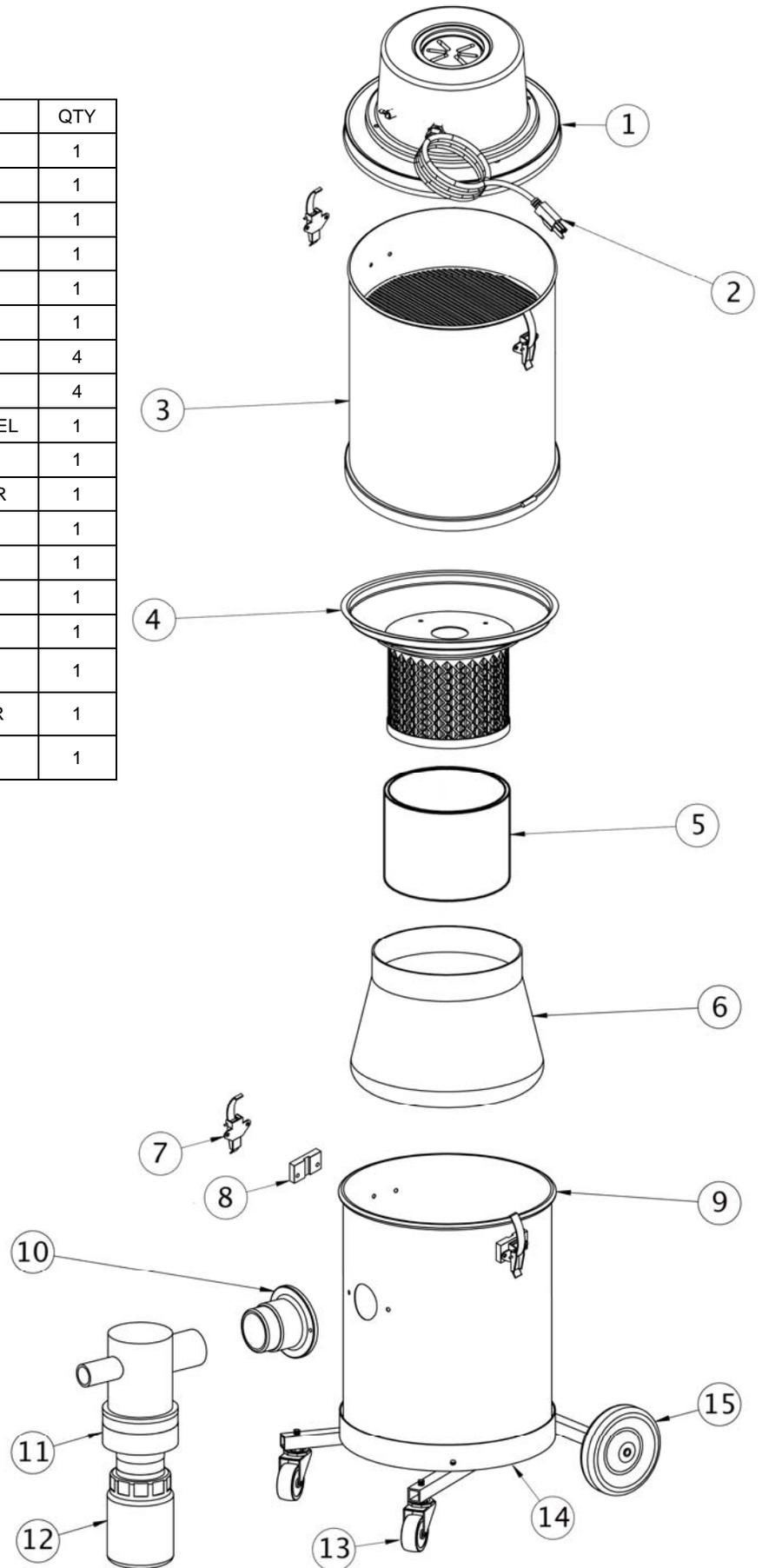
- 1) The paper collection bag should be changed when it is 1/3 full. Do not try to re-use this bag.
- 2) The Dacron filter bag should be replaced any time visual damage, such as a tear or excessive dirt build up exists.
- 3) The impaction filter should be changed every other time the collection bag is changed.
- 4) The HEPA Filter should last approximately one year, depending upon usage and provided all pre-filters are always used.
- 5) The activated carbon filter module is an oversized high capacity type filter. This filter cannot be visually inspected for efficiency. Therefore, it is of extreme importance to always have an approved mercury vapor detection device on hand to assure exhaust air quality.

### STORAGE

When the vacuum is not in use, clean or dispose of all filters, tools and attachments. Empty the tank and separator jar. Seal-off hose ends, intake opening and separator openings with the provided plugs. Place the vacuum and accessories in sealed plastic bags and store in a cool, dry, well-ventilated area.



PC NO	PART NO	PART NAME	QTY
1	862446	LID ASSEMBLY	1
2	520010	POWER CORD	1
3	860918	CARBON MODULE	1
4	860917	HEPA MODULE	1
5	862006	IMPACTION FILTER	1
6	520037	DACRON FILTER BAG	1
7	860803	LID LATCH	4
8	540069	STRIKE	4
9	520303	TANK – STAINLESS STEEL	1
10	520220	INTAKE	1
11	860916	MERCURY SEPARATOR	1
12	860904	COLLECTION JAR	1
13	520460	FRONT CASTER	1
14	520319	CART ASSEMBLY	1
15	860469	REAR WHEEL	1
NOT SHOWN	540001	UPPER DOWN TUBE ELBOW	1
NOT SHOWN	860468	DOWN TUBE COUPLER	1
NOT SHOWN	861546	LOWER DOWN TUBE ELBOW	1



## WARRANTY

Nikro HEPA Vacuums are warranted for 2 years from the date delivered to the original end user and may not be assigned or transferred.

Parts, which become defective due to faulty workmanship or materials during normal use in this period will be repaired or exchanged at no charge if returned and approved by an authorized Nikro service center. All replaced or repaired parts shall only be warranted for the remainder of the original two year warranty period.

After the expiration of the two year warranty. All warranties on this unit including fitness for a proposed usage or purpose will become void.

The end user shall be responsible for freight charges incurred to deliver warranted product to an approved Nikro service center. Nikro shall be responsible for freight charges incurred in returning unit to customer, but not to exceed the original freight charges to customer.

It shall be wholly Nikro's decision to repair, replace or refund the purchase price of any such defective goods.

This warranty does not apply to normal wear and tear, neglect, misuse, abuse or incorrect installation. If any other replacement parts, filters or attachments are used other than original Nikro parts, this warranty will become void.

Nikro disclaims responsibility for loss of production, profits, goodwill or any other costs that may indirectly occur due to the failure of this product.

## H.E.P.A. FILTER STANDARDS AND CERTIFICATION

Nikro H.E.P.A. filtered vacuums are built in accordance with ANSI Z9.2 standards.

All Nikro H.E.P.A. filters are manufactured and individually tested using the MIL-STD 282 D.O.P. test, or the IEST-RP-CC-001.3 test method.

Each filter is tested and certified to have a minimum efficiency of 99.97% @ 0.3 micron particles. All filters are then individually labeled and registered by the manufacturer.

All H.E.P.A. filters used in Nikro equipment meet, and in most cases, exceed the minimum standard of 99.97% efficiency @ 0.3 micron particles, and comply with OSHA and EPA standards for cleaning the air of toxic and nuisance dust such as mold, lead and asbestos