

# NADAIR®

Since 1980



## User Manual Central Vacuum System

### IMPORTANT

Look on the side of the bottom protective foam in the box to find the mounting bracket



**Model Number:**  
**NADAIR-600AL-22**  
**NADAIR-700AL-22**  
**NADAIR-600AL-32**  
**NADAIR-700AL-32**



C 174405 US

To watch the installation  
video, scan the QR code or visit our YouTube channel at:  
[https://www.youtube.com/channel/UCb6zLDxRb\\_hgiOCKXTNCfuA](https://www.youtube.com/channel/UCb6zLDxRb_hgiOCKXTNCfuA)



# Index

1. Important Safety Instructions .....	3
2. General Guidelines and References.....	4
Electrical Grounding Specifications	
General Guidelines to be Respected at All Times	
3. Models/Hybrid Systems .....	5
4. Installation.....	6-7
5. System Operating Instructions.....	8
6. System Maintenance .....	8
Permanent Filter	
Filtration Bags	
7. Troubleshooting .....	9-10
General	
8. Low Voltage Technology .....	11
LED Indicator Interpretation Table	
9. Safety Notes .....	11

# 1. Important Safety Instructions

CAREFULLY READ ALL OF THESE INSTRUCTIONS BEFORE USING THIS CENTRAL VACUUM SYSTEM.

When using an electrical appliance, it is necessary to observe certain basic precautions.



## **WARNING - TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY:**

- Unplug the power cord from the electrical outlet before carrying out any power unit maintenance.
- Do not install outdoors, protect against weathering and do not use on wet surfaces.
- This appliance must not be used as if it were a toy. Exercise extreme caution when children use the system or when the system is in use in proximity to a child or infant.
- This system must be used according to the instructions provided in this manual. Only use accessories recommended by the manufacturer.
- Do not use the system if the power cord or if the electrical outlet is damaged or if the system does not function normally, was dropped, was left outdoors in bad weather for an extended period of time or was immersed in liquid; in these cases, the power unit must be sent to an authorized service centre.
- Do not use the power cord to pull or lift the power unit, nor use it as a handle. Be careful not to pinch it in a door, and do not let it hang on a sharp corner or edge.
- Examine openings for foreign objects which may have remained in the pipe. Remove any obstructing objects to ensure maximum air flow.
- Keep the power cord away from contact with any warm objects or surfaces.
- **Do not unplug the power cord by pulling on it; always remove directly at the electrical outlet.**
- **Do not use the system or its accessories with wet hands.**
- Keep hair, clothing, fingers and any other body parts or other objects out of or away from any openings or moving parts of the system.
- All functions of the system must be deactivated before removing the power cord from the electrical socket. Take necessary precautions when using the system on stairs.
- **Do not use the system to pick up flammable liquids or fuels (e.g. gasoline) or use the system in areas where such liquids may be present.**
- Only plug the power cord into a properly grounded electrical socket. For more information on this subject, please see "Electrical Grounding Specifications" in Section 2.
- **The exhaust of the power unit must not be positioned against a wall or ceiling, or in a closed space inside a building or structure. It is recommended that the exhaust be vented outdoors.**
- Do not pick up hot ashes, red ambers, smoking hot material, incandescent material, cigarettes, matches, etc.
- Do not put anything on top of the power unit or near it; this could cause the unit to overheat.
- DO NOT use the power unit if the pipe network is clogged. This will cause the unit to overheat.

**KEEP THESE INSTRUCTIONS IN A SAFE PLACE.**

**THIS POWER UNIT IS FOR DOMESTIC USE ONLY.**

## 2. General Guidelines and References

### ELECTRICAL GROUNDING SPECIFICATIONS

The system's power unit must be grounded. In the event of a malfunction or power unit failure, the grounding provides any electrical current a path of least resistance, minimizing the risk of electric shock. The power unit's power cord has a length of 65" (1.65 m) and is fitted with a grounding wire and grounding pin. The power unit's power cord must always be directly plugged into a suitable electrical outlet which is itself properly installed and properly grounded, in accordance with current local electrical standards.

**Do not use an extension cord to connect the power unit to the electrical outlet.**

#### WARNING

Improper connection of the power unit grounding wire can result in a risk of electric shock. If you are unsure whether the unit is properly grounded, contact a professional electrician. Do not modify the power cord supplied with this power unit. If this power cord connector does not fit your electrical outlet, have the proper electrical outlet installed by a professional electrician. This power unit is designed to be used on a nominal electrical circuit of 15 A, 110-120 VAC in 60 Hz. The power cord is fitted with a grounding pin. Make sure that the power cord is plugged into an electrical outlet with the same specifications. This appliance should be used without an adapter. We recommend installing this unit on its own independent circuit and breaker, but this is not necessary.

#### IMPORTANT

The manufacturer shall not be held responsible for damages caused by the inappropriate use of this system. The warranty does not cover damages caused by improper use of this system or problems resulting from an installation that does not meet specifications, or any structural or functional alterations made to the power unit. An inappropriate installation of the system or the power unit made without respecting the instructions in this document will also be considered misuse. All conditions and restrictions are laid out in the limited warranty and the user manual. To optimize the performance and the life of your Nadair power unit, it is important to perform regular maintenance and clean the filter according to the guidelines listed in this user manual.

#### General Guidelines to be Respected at All Times

1. The power unit must be installed in a well-ventilated area, protected from weathering and away from all sources of heat.
2. This central vacuum system is designed for dry surfaces and must not be used on wet surfaces or, under any circumstances, to pick up liquids or to clean wet carpets or wet ground.
3. The filter cage must be covered at all times by the permanent filter while the system is operating.
4. To prevent damage or overheating, the motor housing must never be obstructed in any way.
5. Do not use this system to pick up mud or similar substances. Vacuuming flour, talcum powder, cement or gypsum dust will obstruct and clog the filter material; you will have to clean the filter several times during and after such usages. Otherwise, the motor will overheat and may be damaged.
6. Do not attempt to shorten or modify the power cord in any way.
7. As a safety measure, unplug the power cord prior to maintenance or servicing.
8. In order for the warranty to remain valid, any repairs or servicing on the power unit must only be performed by an authorized service center.
9. The power unit must be positioned so that the power cord and electrical outlet are always easily accessible.
10. Pertaining to the use of an electrified valve (110 VAC) (intended for the connection of a current-carrying hose and electrically motorized brush):
  - Only connect a current-carrying hose to this wall valve.
  - Do not install a current-carrying valve outdoors.
  - Do not use a damaged hose; bring in the hose for repair at an authorized service center.



## 3.1 MODELS

### 22 L CANISTER

NADAIR 600AL-22  
NADAIR 700AL-22



### 32 L CANISTER

NADAIR 600AL-32  
NADAIR 700AL-32



## 3.2 HYBRID SYSTEMS

Can be used with or without disposable bags



- The permanent filter must be **IN PLACE AT ALL TIMES** even when using a filtration bag.
- The permanent filter must be washed every time the canister is emptied to prevent debris from accumulating on the filter and to avoid debris entering the motor compartment.
- The permanent filter must be changed for a new one every 2 years to maintain the warranty on the vacuum. It must be replaced with NADAIR filter FP-8-NAD (for NADAIR 600AL-22 and NADAIR 700AL-22) or FP-12-NAD (for NADAIR 700AL-32 and NADAIR 600AL-32).

USA

CANADA

To purchase bags and filters, scan the QR code or visit our website:

USA: [https://nadair.com/vacuum/product-category/bags\\_and\\_filter](https://nadair.com/vacuum/product-category/bags_and_filter)

CANADA: <https://nadair.ca/vacuum/en/product-category/bags-and-filters>



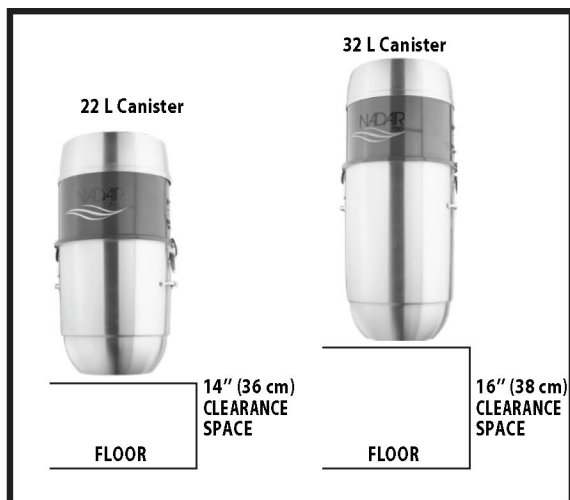
## 4. INSTALLATION



### NOTE

**APPLICABLE TO ALL POWER UNITS:** The power unit must be installed in a well-ventilated area, away from weathering. It must be easily accessible and away from any heat source. The power unit must be installed near an appropriate electrical outlet. You must have at least 6" (15 cm) of clearance space all around the unit.

1. Measure the bottom clearance space to be able to remove your bag and your canister easily.



*For 22 L canister (NADAIR 600AL-22 / NADAIR 700AL-22):*  
Minimum clearance space of 14" (36 cm)

*For 32 L canister (NADAIR 600AL-32 / NADAIR 700AL-32):*  
Minimum clearance space of 16" (38 cm)

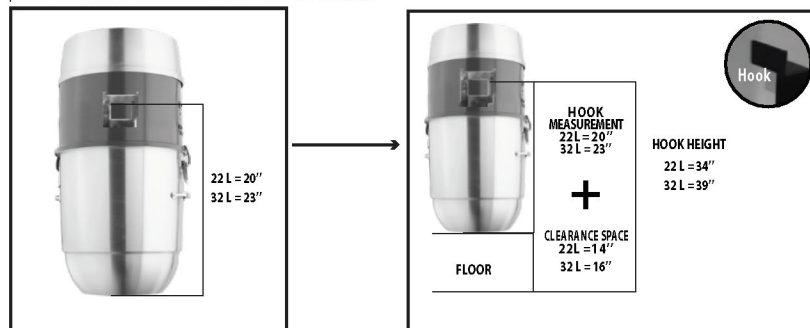
2. Measure where your bracket will be installed.



**NOTE:** We suggest installing a wooden board to strengthen the bracket.

Take the measurement from the bottom of the vacuum to the point where the hook will be inserted into the vacuum.

Add this measurement to the bottom clearance measurement.



### Installation on a gypsum wall (Gyprock):

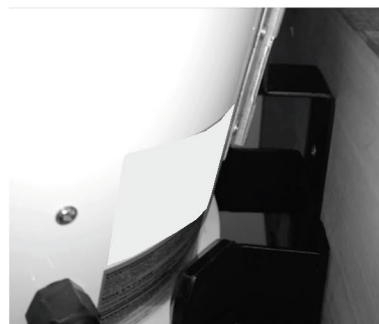
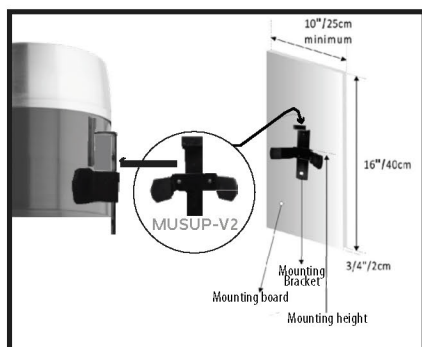
- Prepare the wall by installing a plywood mounting board (not included) wide enough to be screwed to at least 2 studs.
- Drill three (3) 3/8" (10 mm) holes with a wooden drill bit. Insert the supplied rubber inserts. Fasten the steel mounting bracket with the supplied screws.

### Installation on a concrete wall:

- Drill three (3) 3/8" (10 mm) holes with a concrete drill bit.
- Insert the supplied rubber inserts.
- Fasten the steel mounting bracket with the supplied screws.

3. Hang your unit on the bracket.

Insert the hook into the middle of the bracket on the vacuum.



## 4. INSTALLATION (Cont.)

### 4. Connect the top air and debris intake pipe to the PVC piping network.

We suggest using flexible pipes (SOLD SEPARATELY) for faster and easier installation.



**NOTE:** Our flexible pipes are 12" (30 cm) long and come as sets of 2 with PVC pipe pieces included. You can connect two (2) flex pipes together by using the PVC pipe and the provided metal ring. (DO NOT USE GLUE.)

#### Step 4.1



- Connect one side of the flex pipe to the piping network. Secure it with the ring. **DO NOT GLUE.**

#### Step 4.2



- In the top air intake of the vacuum, insert a coupling. **DO NOT GLUE.**

#### Step 4.3



- Insert a 2" (5 cm) PVC pipe piece into the coupling in the top air intake. **DO NOT GLUE.**

#### Step 4.4



- Connect the other end of your flex pipe to the PVC pipe piece and secure it with the provided metal ring. **DO NOT USE GLUE.**

#### If using a hard pipe

Firstly, determine the path the piping will take, then glue pipes and elbows along this path to the top air intake. You will need cement, 2" (5 cm) PVC pipes, sweep elbows and couplings.



Scan to purchase flex pipes or a piping installation kit from our website.

Canada website



US website



### 5. Connect your low-voltage wires.

**IF YOU HAVE MULTIPLE INCOMING WIRES, FOLLOW STEPS 5.1 TO 5.5.**

**IF YOU HAVE ONLY ONE INCOMING WIRE, FOLLOW STEPS 5.1, 5.4 AND 5.5.**



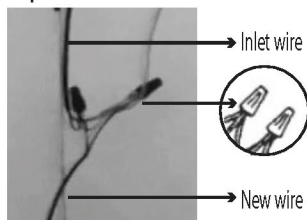
**Note:** Never connect more than one wire into the low-voltage socket.

#### Step 5.1



Take a new low-voltage wire and strip the conductors for about 3/8" (10 mm).

#### Step 5.2



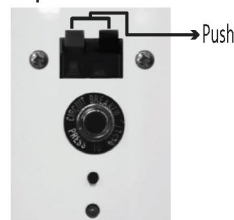
Connect one end of this new wire to the other wires by connecting all the positive sides together and all the negative sides together.

#### Step 5.3



Secure each end with electrical tape.

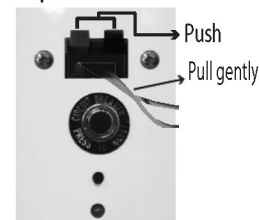
#### Step 5.4



Connect the other ends of your new wires (conductors) into the low-voltage socket on the vacuum while simultaneously pushing on their respective button. Gently pull on the wire to make sure that it is well secured in the terminal.

Place the live (negative) side in the black terminal and neutral (positive) side in the red terminal.

#### Step 5.5



To remove the conductors from the terminals, lightly press the button while gently pulling the wires out.

### 6. Plug in your vacuum.



Plug your vacuum into a regular electrical outlet.



The LED light will flash green, then show solid green.

**Your vacuum is ready to be used.**

**NADAIR®**  
Since 1980

## 5. SYSTEM OPERATING INSTRUCTIONS

Your new system is now ready to be used. Here are a few simple guidelines to follow when you are using your Nadair Central Vacuum System: insert the wall-end cuff of the hose into one of the vacuum wall inlets installed throughout your home, and when you are ready to start, press the ON-OFF switch on the hose handle!

NOTE: With regard to the low-voltage system, all vacuum inlets are fitted with two (2) spring-loaded metal pins. When the two (2) metal parts of the wall-end cuff of the hose are in contact with the two (2) pins inside the inlet, the system has power. You may now turn it on or off from the hose handle switch (if this option was selected). The low-voltage cable is connected in parallel from every inlet, running throughout the piping network and bringing power to the switch to remotely start or stop the power unit safely. A standard flexible hose, not fitted with a switch, will start the power unit as soon as it is inserted in the wall inlet opening.

## 6. SYSTEM MAINTENANCE

In order to maintain optimal air quality in your home, the power unit comes supplied with a high-efficiency HYBRID filtering system consisting of a washable and reusable polypropylene filter together with an optional 12.5 L OR 22.5 L disposable filter bag.



**NOTE: The permanent filter MUST BE IN PLACE AT ALL TIMES, and the filter securing strap must be tight and well-adjusted to ensure that debris does not enter the motor housing.**

### PERMANENT FILTER



The permanent filter must be washed every time the canister is emptied to prevent debris from accumulating on the filter and to avoid debris entering the motor compartment.

The permanent filter must be changed for a new one every 2 years to maintain the warranty on the vacuum. It must be replaced with NADAIR filter FP-8-NAD (for NADAIR 600AL-22 and NADAIR 700AL-22) or FP-12-NAD (for NADAIR 700AL-32 and NADAIR 600AL-32)

### FILTRATION BAGS

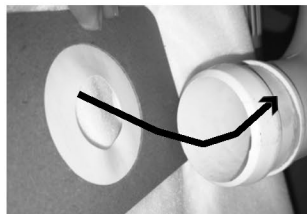


#### IMPORTANT

**When using with a disposable bag, the permanent filter MUST BE IN PLACE AT ALL TIMES. The filter securing strap must be tight and well-adjusted to ensure that debris does not enter the motor housing.**

This NADAIR hybrid power unit may be used with or without a disposable bag. Bags are sold in a pack of 3. For NADAIR 600AL-22 / NADAIR 700AL-22 units, FD-12.5L-3NAD filter bags should be used, and for NADAIR 600AL-32 / NADAIR 700AL-32 units, FD-22.5L-3NAD should be used.

1. Remove the debris canister.
2. Remove the full bag.
3. Install the new bag by twisting it into place.
4. Check and clean the permanent filter.
5. Replace the debris canister and secure the latches.



NOTE: When replacing the disposable bag, make sure that the rubber diaphragm is correctly installed onto the intake PVC pipe. Make sure that the bag is not cut or damaged. Make sure that the canister is secured in place prior to restarting the power unit. It is recommended to replace the disposable bag or to empty the debris canister well as to clean the permanent filter 3 or 4 times per year. If the system is used more frequently than normal, perform the above procedure more often.



#### IMPORTANT

**NEVER USE this system to pick up liquids, mud or combustible materials. Vacuuming flour, talcum powder, cement or gypsum dust will obstruct and clog the filter material; you will have to clean the filter several times during and after such usages. Otherwise, the performance of the power unit will be affected, and the motor will overheat and may be damaged.**



# 7. TROUBLESHOOTING

## GENERAL

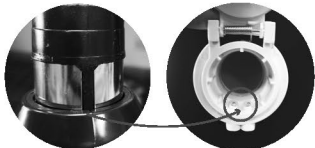

Either of the following may cause failure of the power unit:

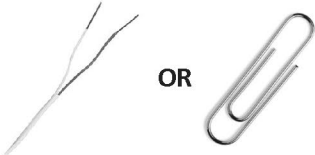

- Inadequate electrical power (voltage or current). Check that the electrical power supplied complies with the power unit's requirement.
- Malfunction of the electronic control module or the motor.

Before calling a service technician, in case of a malfunction, please review the following situations by running the following simple diagnostics:

SITUATION	VERIFICATION
THE POWER UNIT DOES NOT OPERATE	Check that there is power from the electrical outlet.
	Check the breaker or the fuse in the electrical panel.
	Check that the power cord is properly plugged into the electrical outlet.
	Check that the mini-breaker button on the side of the unit is pushed in.
	Short-circuit the low voltage connections on the side of the power unit. If the power unit starts, the problem is somewhere else in the valve network wiring or on the current carrying hose.
	Check that all low voltage connections are adequate at every valve location. Open every valve, one at a time, and connect the two (2) small pins with a metal object. If all the valves work properly, take a look at the low voltage circuit or switch on the hose.
	If the power unit still does not work after the above diagnostic, bring the unit to the nearest authorized service center.

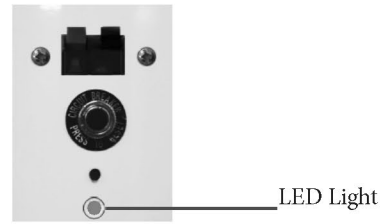
SITUATION	VERIFICATION
LOW OR NO SUCTION OR AIR FLOW	Check the cleaning tool or the hose for a possible obstruction. If the hose is obstructed, try to "massage" the clog out. Try to "reverse" the hose by inserting the cleaning end of the hose in the wall valve and connecting the two (2) small metal contact pins. Hold your hand around the opening for air tightness.
	Check if the disposable bag is full; if so, replace it. If not, the filter may be clogged; if so, clean the permanent filter.
	Check that the debris canister is properly placed in the unit, with no air leaks.
	Check that all other valves are shut and that there are no air leaks.
	If one of the vacuum valves has noticeably less power than the others, it is a sign of a blockage in this particular valve. Write different numbers on a few paper tissues and place one in every valve in the home; check the debris canister to see which is missing to find which valve is obstructed.
	If none of the valves function properly and the power unit is running, unhook the flexible pipe on the top of the power unit from the debris intake line. If you have plenty of power there, it is a sign that the blockage is between the last valve and the power unit.
	If the power unit still does not work after the above diagnostic, bring the unit to the nearest authorized service center.

SITUATION	VERIFICATION
VACUUM WILL NOT START OR STOP	<b>Option 1: Hose on/off switch</b> When setting the hose switch to OFF, you must wait 3 seconds before the vacuum shuts down. If the switch is pressed before this interval has elapsed, the vacuum will remain on. Wait three seconds after setting the switch to OFF and the unit will stop.
	<b>Option 2: Hose not properly plugged in</b> Ensure that the hose is properly connected to the inlet. (See below picture for proper connection method.) <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;"> <p>Make sure the black section is aligned to the midpoint between the two small pins.</p> </div> </div>
	<b>Option 3: The pin spring is broken</b> If the pins do not come up after being pushed, then their spring is probably broken, and this could cause the vacuum to fail to start or stop. In this case, the spring must be fixed. <div style="text-align: center;">  </div>
	<b>Option 4:</b> <b>If all of the above works, please perform a bypass. If the vacuum starts, see a technician, as there is a problem with the cable.</b>

SITUATION	VERIFICATION
HOW TO PERFORM A BYPASS TO TEST THE VACUUM	<b>Step 1:</b> Use wire or a paper clip <div style="text-align: center; margin-top: 10px;">  <p>OR</p> </div>
	<b>Step 2:</b> Insert one side of the wire or paper clip into the black terminal on the inlet and the other into the red terminal. The unit should then start. <div style="text-align: center; margin-top: 10px;">  </div>
	<b>Step 3:</b> Remove the wire and wait 3 seconds. The unit should stop.

FAQ and Troubleshooting Guide available on our website at:  
 USA: [nadair.com/vacuum/trouble-shooting/](http://nadair.com/vacuum/trouble-shooting/)  
 Canada: [nadair.ca/vacuum/en/trouble-shooting/](http://nadair.ca/vacuum/en/trouble-shooting/)

## 8. LOW VOLTAGE TECHNOLOGY



### LED Indicator Interpretation Table

This **NADAIR** Central Vacuum Power Unit is provided with an LED status indicator to keep you informed on the state and functioning of the unit.

The table below tells you how to read the LED indicator's signals.

Status	Color	Legend
	OFF	The power cord is not connected to an electrical outlet.
	GREEN	The power unit has just been connected (will change to solid green after a few seconds).
	GREEN	The system is operational and functioning normally.
	GREEN	Stop the power unit, change the bag or canister and clean the filter. Press the reset button. The light will stop blinking and return to solid green.
	ORANGE	Service due.
	ORANGE	Stop the power unit, change the bag or canister and clean the filter. Press the reset button. The light will stop blinking and return to solid orange.
	RED	Service overdue; stop use.
<div> <div> Solid  Operational/ Requirements </div> <div> Blinking slowly  Warning Action Required </div> <div> Blinking rapidly  Starting System </div> </div>		

## 9. SAFETY NOTES

Ensure that the work area is safe and clear before installing your new NADAIR Central Vacuum Power Unit.

Wear the necessary protective clothing and equipment before starting any work (goggles, gloves, etc.)

Use correct and properly functioning tools, including:

- Hammer
- Phillips head screwdriver (cross shape)
- Measuring tape
- Level
- Drill with wood or concrete bit of 3/8" (10 mm)
- Pliers
- Wire stripper



# NADAIR®

Since 1980



**USA: [www.nadair.com](http://www.nadair.com)**

**Canada: [www.nadair.ca](http://www.nadair.ca)**

**1-800-776-7891**

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## **TO REGISTER YOUR WARRANTY:**

**USA: <https://nadair.com/vacuum/warranty-general/>**

**Canada: <https://nadair.ca/vacuum/en/warranty-general/>**

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## **TO PURCHASE NEW BAGS AND FILTERS:**

**USA: [https://nadair.com/vacuum/product-category/bags\\_and\\_filter/](https://nadair.com/vacuum/product-category/bags_and_filter/)**

**CANADA: <https://nadair.ca/vacuum/en/product-category/bags-and-filters/>**

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**2044 Autoroute 440 West, Laval, QC, H7S 2M9**