



Conserve O Gram

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Choosing A Museum Vacuum Cleaner

Every museum needs at least one high quality vacuum cleaner. Before you purchase a vacuum, be sure to consider how your vacuum will be used and what options you want. This will ensure that you can make an informed choice.

Museum vacuum cleaners can be used for:

- general housekeeping
- dusting of collections
- removal of pest waste after an infestation
- responding to a mold outbreak
- flood cleanup

Consider the following options before you purchase a vacuum.

Filtration System

Dry Vacuums

Filtration systems for museum vacuums must be very effective to keep most of the dust and dirt (particulates) from blowing through the exhaust and back out into the air. High Efficiency Particulate Air (HEPA) filtration is a more effective kind of filtration for dry vacuums than regular vacuum bags. Vacuums with HEPA filters are recommended for all museum applications. They are especially essential if there is a possibility items may contain mold, pesticide dusts, lead, arsenic, asbestos, insect eggs, soot, or any other contaminants. A HEPA filter must remove

at least 99.97% of particulates 0.3 microns or larger in size. Any vacuum that you purchase should remove particles to at least 0.3 microns. ULPA (Ultra Low Penetration Air) filters remove particulates down to 0.12 microns and may be appropriate for specialized projects.

Dry vacuums will often have stages of bags and filters that remove more dirt and dust as the air moves through the vacuum cleaner. The large pieces are caught in a bag. There are high filtration bags available. The air continues to blow through the bag carrying small particles that are then caught in additional filters. The HEPA (or ULPA) filter will catch the smallest particles.

Wet Vacuums

Dental vacuums often use a water filter. Dirt is drawn down into a basin of water where it is caught and held. Such vacuums may be practical for specific uses because the power of the suction can be easily controlled and the nozzle size can be very small. Do not use regular water filtration floor vacuums, as they are not as effective as dry filtration vacuum cleaners with HEPA filters.

Wet-Dry Vacuums

Wet-Dry vacuums (Shop-Vac and other similar brands) that can pick up water can be very useful in initial recovery efforts due to flooding. Your park's maintenance division prob-

ably has one or more such vacuums that you can use in an emergency, but it is a good idea to acquire one solely for emergency museum use. Such vacuums are relatively inexpensive and can be purchased at most hardware, home improvement, farm supply, and department stores.

As with other types of regular water filtration floor vacuums, wet-dry vacuums do not provide the filtering effectiveness of dry filtration vacuum cleaners with HEPA filters. Use wet dry vacuums only for initial recovery efforts aimed at eliminating excess flooded water from *non-hazardous areas*.

Be sure to coordinate all recovery efforts with your park's Safety Officer and wear any required Personal Protective Equipment (PPE). Only properly trained personnel under the direction of your park's HAZMAT Officer should attempt to clean up areas contaminated with hazardous materials. See *Conserve O Gram 21/1 "Health and Safety Hazards Arising from Floods"* for additional information.

Size and Manageability

Are you vacuuming the whole museum or historic structure, all of the furnishings in the building, or merely a few objects on a table? Do you want to be able to pick up the vacuum cleaner to get into tight spaces or do you want to be able to easily roll it around? Consider the following options and how they will affect using the vacuum:

- **Weight.** How heavy is the vacuum? Can all staff maneuver it around adequately to do the job? Do you want to be able to lift it? If so, you should purchase a lightweight model. Do you want it to remain on the floor? If so, the vacuum should have

enough weight to remain stable even when the hose is tugged.

- **Casters.** Does it have casters and do they work well? You should be able to easily move the vacuum around the space.
- **Bumpers/padding.** Does the vacuum have rubber "bumpers" so that it will not damage furnishings (or you)? Remember to vacuum carefully near furnishings, don't rely on the bumpers alone.
- **Carrying straps.** Does the vacuum have a carrying strap to make it easy to carry around while working? There are also backpack models available.
- **Hoses and connections.** Ball joint connections make it move more smoothly and easily. Crush-proof hoses help eliminate damage to the hose.
- **Plug-in or battery powered.** Battery powered machines may give you more flexibility of movement, but batteries may add to cost. Battery-powered vacuums also may not possess the suction power of electric models.

Suction Strength and Variability

Textiles and other fragile collections should only be cleaned with a vacuum cleaner using low suction. (See *Museum Handbook*, Part I: Appendix K and your park's Housekeeping Plan for guidance.) You must be able to vary the suction strength either through an attached rheostat or a variable speed motor control. Many vacuums have a simple hole in the hose or wand that gives higher suction when covered. A variable speed model that also has a hose/wand hole provides even better suction control and flexibility.

Hoses and Attachments

There are a wide variety of hoses and attachments (wands, brushes, heads, and other tools). Crush-proof hoses are a good option to consider. Be sure that all hoses are long and flexible enough to use easily in the various spaces that will be cleaned. Anti-static wands and hoses are also available. Every museum should have a “micro-tool set” with assorted nozzles and tools that go down to a very small size. A tool set is inexpensive and these features can be very useful when cleaning museum artifacts. You can also buy additional nozzle attachments, so extras are available when you need them.

Adaptability

Consider a vacuum’s adaptability. Can you buy different kinds of bags and filters (with various costs) that suit the needs of your particular cleaning problem? Can you use it to vacuum floors and artifacts?

Note: If you use the same vacuum to clean both floors and collections, you should have separate hose and tool attachments: one set for floors, another set for objects. Thoroughly clean the vacuum and replace the bag and filter before using on collection items. Nozzles and attachments should also be cleaned regularly with soap and water.

Cost

This is always part of the decision. There are a large number of vacuum cleaners available. Decide which models and options are important for your uses first and you will be able to make informed choices. Then cost considerations can be used to decide between several options.

Purchasing a Vacuum Cleaner

There are a variety of places you can purchase vacuums: vacuum cleaner stores, department stores, home improvement centers, museum supply firms, and other outlets. Your best source of information is to visit your local vacuum cleaner store. The staff is usually factory-trained and very knowledgeable about their products. Explain what you are looking for, and they can give you a wide range of information on a variety of vacuum cleaners. HEPA filter vacuums are often sold as allergy control vacuums.

Note: Be aware that some vacuums sold as “museum” vacuums may not have HEPA filtration and other attributes that you may want.

Supplies

Backpack Vacuums:

Li'l Hummer Fanny-Vac
Miracle Marketing Corp.
1174 East 2760 South #41
Salt Lake City, UT 84106
(800) 634-6102

HEPA Vacuums:

The Air Filter Store
27 Essex Drive
Northridge, California 91324
(888) 246-8776
www.airfilterstore.com

Electrolux LLC
5956 Sherry Lane, Suite 1500
Dallas, Texas 75225
(800) 243-9078
www.electroluxusa.com

Eureka Company
120 East Bell Street
Bloomington, Illinois 61701
(800) 282-2886
www.eureka.com

Miele USA
9 Independence Way
Princeton, New Jersey 08540
(800) 843-7231
www.miele.com

Nilfisk of America
300 Technology Drive
Malvern, Pennsylvania 19355
(800) 645-3475
www.pa.nilfisk-advance.com

Oreck Corporation
100 Plantation Road
New Orleans, Louisiana 70123
(800) 289-5888
www.oreck.com

Vacuum Micro-Tool Attachment Kits:

Clotilde, LLC
PO Box 7500
Big Sandy, TX 75755
(800)-545-4002
www.clotilde.com

Micro-Mark
340 Snyder Ave.
Berkeley Heights, NJ 07922-1538
(800)- 225-1066
www.micromark.com

University Products
P.O. Box 101
Holyoke, Massachusetts 01041
(800) 628-1912
www.archivalsuppliers.com

Wet/Dry Vacuums:

Oreck Corporation
(see contact information above)

Sears, Roebuck, and Company
3333 Beverly Road
Hoffman Estates, Illinois 60179
(800) 697-3277
www.sears.com
or your local Sears store

Shop-Vac
2323 Reach Road
Williamsport, PA 17701
(570) 326-3557
www.shopvac.com

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