



THE ULTIMATE GUIDE TO
COMMERCIAL
VACUUM CLEANERS



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INTRODUCTION

Welcome! Thank you for downloading our **Ultimate Guide to Vacuum Cleaners!**

Vacuuming can represent between 15-25% of the total cleaning cost of your building. In most facilities, vacuuming is completed daily to remove abrasive soils and keep your facility looking great, but it also takes up a lot of your time and money.

According to a study completed by the American Institute of Cleaning Sciences, the average commercial cleaning worker uses a vacuum for approximately 1-3 hours per day.

With such a large amount of time and money spent on one cleaning procedure, it is critical that you are using the most efficient vacuum for each problem area.

This E-Book is packed with valuable information from industry experts and is designed to:

- Define what a vacuum is
- Review the different types of commercial vacuums
- Evaluate the factors that affect the price of a commercial vacuum
- Inform you of the problems you might run into after buying a commercial vacuum
- Discuss the best questions to ask before investing in a commercial vacuum

1

WHAT IS A VACUUM CLEANER? DEFINITION AND OVERVIEW

Floors are often one of the first things people notice when they enter your facility.

Maintaining the appearance of your facility's hard floors is critical to keeping your facility looking great. One of the most common and versatile pieces of equipment used to maintain floors is a vacuum. In this chapter, we provide a brief overview of vacuum cleaners.



They are used daily to remove soils, keep your floors looking great, and to protect them from damage.

As one of the most used pieces of floor equipment, it is important to select the best type or types for your facility. In some cases, you may need more than one type of vacuum.

The right commercial vacuum for various cleaning applications or areas will allow your staff to enjoy increased productivity and better results.

For the maintenance of carpeted or hard floor surfaces, vacuums can be used in place of sweeping to boost cleaning efficiency and productivity.

Determining the best vacuum will depend on the area, soil, and the level of traffic you are dealing with.

Takeaways:

- Vacuums are an integral part of a facility's maintenance program. They are used to quickly pick up dirt and debris that was tracked into the facility.
- Using a commercial vacuum can boost worker productivity and provide enhanced cleaning results.

2

WHAT ARE THE DIFFERENT TYPES OF COMMERCIAL VACUUM CLEANERS?

Determining the best vacuum will depend on the area, soil, and the level of traffic you are dealing with.

There are five primary types of vacuum cleaners, and in this chapter we will review each of the five types and where they are best utilized.



5 Primary Types of Commercial Vacuum Cleaners

1. Handheld Duster Vacuum Cleaner
2. Canister Vacuum Cleaner
3. Upright Vacuum Cleaner
4. Backpack Vacuum Cleaner
5. Wet/Dry Vacuum Cleaner

Each vacuum type excels in a specific type of area, performing a particular function.

1. Handheld Duster Vacuum

Handheld duster vacuums are small portable machines used for spot cleaning.

They are available in cord-electric or battery powered models.

What Type of Area Should a Handheld Duster Vacuum be Used to Clean?

These vacuums can be used to quickly remove small messes from the floor, blinds, chairs, stairs, and upholstery.

Handheld duster vacuums are convenient for spot cleaning in high traffic areas. They should only be used in small areas requiring light soil pickup.



2. Canister Vacuum

Canister vacuums have wheels at the bottom of the base allowing them to be easily transferred from one floor surface to the next.

For easy maneuverability choose a canister vacuum with fully-directional front wheels to eliminate drag.

Canister vacuums are typically cord-electric.

What Type of Area Should a Commercial Canister Vacuum be Used to Clean?

Canister vacuums are great for cleaning hard floors, carpeted floors, fixtures, and drapes.

They are also useful when dealing with multiple cleaning tasks that require specialized attachments, like extended length hoses and wands.

Canister vacuums are not the best choice for high-traffic or areas of large heavy soils.



3. Upright Vacuum

Upright vacuums are vertical standing machines with wheels, a brush roll on the bottom and a bag for soil collection on top.

They are typically cord-electric, but can be battery powered. There are two types of upright vacuums: single motor and dual motor.

SINGLE MOTOR

Single motor vacuums are great for the pickup of light to medium soils.

DUAL MOTOR

Dual motors have a separate motor for the brush roll. They are designed for medium soil pickup.

What Type of Area Should a Commercial Upright Vacuum be Used to Clean?

Upright vacuums are the best choice for carpeted floors. Some upright vacuums have a pick-up head that can be adjusted to allow you to toggle back and forth between carpeted and hard floors. Upright vacuums can be used for light to medium soil pickup.



4. Backpack Vacuum

Carried on the back of the operator, backpack vacuums allow for unrestricted movement in confined or congested areas.

Newer backpack models are lightweight and ergonomic, reducing user fatigue and increasing efficiency and productivity.

Backpack vacuums can be battery operated or cord-electric.

What Type of Area Should a Commercial Backpack Vacuum be Used to Clean?

Backpack vacuums are extremely portable and lightweight, making them the best choice when dealing with stairs or landings. They can also be a great choice for carpeted or hard floor surfaces. Backpack vacuums are a great option for high traffic or congested areas. They also allow for easy maneuverability, especially in hard to reach areas. Similarly to upright vacuums, they can be used for light to medium soil pickup.

Backpack vacuums can provide as much as a 230% increase in productivity when compared to the traditional upright vacuum.

Backpack vacuums provide janitorial staff with a range of benefits including increased versatility, a better range of motion, improved safety, reduced fatigue, and improved cleaner comfort that ultimately allows workers to complete more work in less amount of time.



5. Wet/Dry Vacuum

When dealing with areas that are wet, only use a vacuum that is specifically designed for wet residue pickup. These vacuums are designed to allow the liquid to bypass the motor, avoiding vacuum damage and potential injury to the user.

The most common commercial wet vacuums have a 16-20 gallon capacity.

Wet/dry vacuums can be battery operated or cord-electric.

Types of Wet/Dry Vacuums

There are two types of wet/dry vacuums: standard wet with hose and wand or the front-mounted squeegee.

STANDARD WET VACUUM

The standard wet vacuum has a hose and wand that sucks up the liquid. They perform best in tight areas.

FRONT MOUNTED SQUEEGEE

The front mounted squeegee is the best choice when removing the solution from cleaning procedures like mopping or hard floor stripping.



What Type of Area Should a Commercial Wet/Dry Vacuum be Used to Clean?

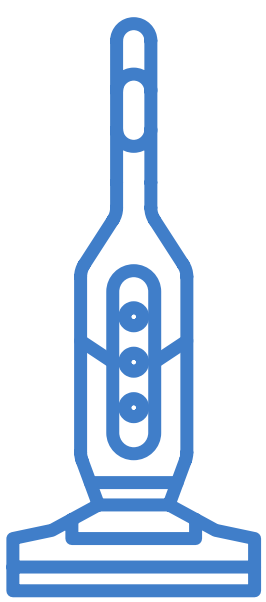
Wet/dry vacuums can be used for wet or dry soil removal on carpeted or hard floors.

Wet/dry vacuums are excellent for removing leftover water or cleaning solution from cleaning procedures such as scrubbing or wet mopping.

Pro Tip: To use a wet/dry vacuum for dry soil pickup make sure you insert the dust filter.



Takeaways:



Upright vacuums can tackle a variety of different procedures and offer the strongest dirt removal. When choosing an upright you will need to choose which has the right cleaning capacity and strength for your facility.



Backpack vacuums are the most productive and versatile. They can allow the user to easily transition from different floor types like commercial wood flooring to carpets or even stairways.

3

HOW MUCH DOES A COMMERCIAL VACUUM COST? FEATURES TO CONSIDER WHEN PURCHASING

After understanding the different types of commercial vacuum cleaners, you are likely interested in understanding how much each type costs as well as what affects the price.

In this chapter, we will cover the approximate cost range of each type of commercial vacuum as well as the features that will affect the price of the machine.

The cost of a commercial vacuum can range from \$125 to \$3,400. The price will be affected by several different factors.

The cost of a commercial vacuum will not only include the initial purchase price but the total cost of ownership. The best vacuum for your facility will not have the lowest initial price, but the lowest total cost of ownership.

The initial cost of your vacuum is the upfront cost or purchase price. This is impacted by the type of vacuum and the following features:

1. Power Source
2. Motor Size
3. Number of Motors
4. Filtration System
5. Body Construction Material
6. Available Cleaning Tools

The total cost of ownership is the initial cost plus aggregate total of expenses over the life of the machine. The total lifetime cost of a commercial vacuum can be lowered with:

- 7. Preventative Maintenance
- 8. Delivery, Set-Up, & Training
- 9. Warranty

Types of Commercial Vacuums

Type	Price Range
Handheld Duster Vacuum Cleaner	\$125.00 - \$300.00
Canister Vacuum Cleaner	\$300.00 - \$1,800.00
Upright Vacuum Cleaner	\$325.00 - \$3,400.00
Backpack Vacuum Cleaner	\$350.00 - \$800.00
Wet/Dry Vacuum Cleaner	\$435.00 - \$1,400.00

Handheld Duster Vacuum Price

How much does a handheld duster vacuum cost?

Handheld dusters are the smallest available vacuums. These are the least expensive vacuums, but their compact size restricts their use to small, hard to reach areas or upholstery cleaning.

A handheld duster will typically cost somewhere between \$125.00 and \$300.00.

The exact cost of the machine will vary based on size, manufacturer, material type, and other features installed.



Canister Vacuum Price

How much does a canister vacuum cost?

Canister vacuums have large filter bags and can be used to clean a variety of surfaces.

They typically come with various specialized attachments which make them useful for unique cleaning tasks.



The cost of canister vacuums are most heavily affected by the filter type and any additional attachments.

Canister vacuums will typically cost somewhere between \$300.00 - \$1,800.00.

The exact cost of the machine will vary based on size, manufacturer, material type, and other features installed.

Upright Vacuum Price

How much does an upright vacuum cost?

Compared to the other types of commercial vacuums, upright vacuums vary the most in cost due to the wide range cleaning path and filter bag sizes.

They can offer cleaning paths from 12-28 inches and filter bag capacities between 3.25 quarts and 36 quarts. Vacuums with smaller cleaning capacities will be less expensive but will not cover as much area per pass.

An upright vacuum will typically cost somewhere between \$325.00 - \$3,400.00.

The exact cost of the machine will vary based on size, manufacturer, material type, and other features installed.



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Backpack Vacuum Price

How much does a backpack vacuum cost?

The price of a backpack vacuum will heavily depend on whether it is cord-electric or battery powered.

Battery powered backpack vacuums are more expensive when compared to cord electric vacuums, but they can improve worker productivity by as much as 230%, allowing you to recoup expenses in saved labor costs.

A backpack vacuum will typically cost somewhere between \$350.00 - \$800.00.

The exact cost of the machine will vary based on size, manufacturer, material type, and other features installed.



Wet/Dry Vacuum Price

How much does a wet/dry vacuum cost?

Compared to other commercial vacuums, wet/dry vacuums are unique in that they are designed to pick up wet or dry soils without damage to the motor or vacuum. Other types of vacuums can be damaged by wet soil pickup.

A wet/dry vacuum will typically cost somewhere between \$435.00 - \$1,400.00.

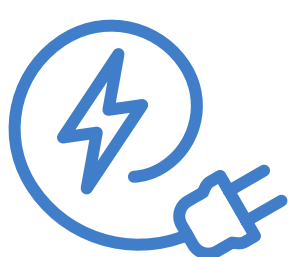
The exact cost of the machine will vary based on size, manufacturer, material type, and other features installed.



Factors that Affect the Price of a Commercial Vacuum

1. Power Source

One of the primary features that affect the price of commercial vacuums is the power source. Vacuums can be battery operated or cord-electric.



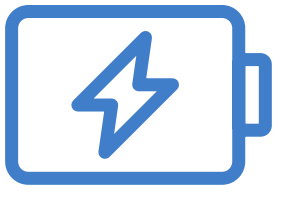
Cord-Electric

The majority of commercial vacuums are cord-electric. Cord-electric vacuums are typically less expensive than their battery-powered equivalents.

Even though cord-electric vacuums require a lesser investment upfront, large facilities or facilities maintaining wide-open areas will likely see a faster payback from a large battery-operated vacuum.

Power cords generally range between 50 and 75 feet long and will require the operator to manage the cord throughout a cleaning procedure. The additional time it takes to manage the cord leads to decreased productivity and longer cleaning times.

Battery powered backpacks will allow the operator to easily go beyond the length of the cord.



Battery Operated

Battery operated vacuums are more expensive than cord-electric machines, but they provide increased cleaning productivity by eliminating the need to manage the cord.

The cost of a battery powered machine can be affected by the type of battery. Battery power vacuums typically use lithium ion, gel, or AGM batteries.

LITHIUM ION

Lithium batteries are the most expensive, but offer the operator the increased convenience of no maintenance and a long battery life.

The increased cost of a lithium battery can be offset by the number of times it can be recharged. Lithium ion batteries will also reach a full charge more quickly when compared to gel or AGM.

GEL OR AGM

Gel or AGM batteries are also maintenance-free battery solutions. They are both less expensive than li-ion, but do not achieve as many charge cycles.

2. Motor Size

Vacuum motors are typically measured in amps. The higher the amp number, the more powerful the motor. More powerful motors can provide a better clean, enabling workers to clean more efficiently.

In general, the more powerful the motor, the more expensive the vacuum.

3. Number of Motors

Commercial vacuums can have either one or two motors.

Single motor vacuums contain one motor that drives both the vacuum and the brush. Dual motor vacuums have separate motors, one for the brush and one for vacuum suction.

Dual motor systems maintain equal power to both the brush roller and the suction motor throughout the entire cleaning procedure.

Most commonly found on upright vacuums, dual motor vacuums provide more power and increased efficiency. The ability to provide increased power enables them to better tackle heavier and deeply embedded soils on the first pass.

Dual motors are more expensive motors but can provide better cleaning results, lower cleaning times, and increased worker productivity.

4. Filtration System

Vacuums are equipped with some type of filtration system. The least expensive systems will have a reusable cloth bag.

More expensive commercial vacuums will have 2, 3 or 4 stage filtration systems.

Multiple level filtration systems work to capture and remove greater amounts of dust, soils, and other particles from the air. The more and particulates that are removed, the cleaner and healthier the air in your facility will be.

The best filtration systems include HEPA or High-Efficiency Particulate Air filters. These systems trap and contain 99.97% of all airborne particles larger than .3 microns.



5. Body Construction Material

The materials from which the vacuum is made from will affect the cost. The housing can be made from an inexpensive plastic to a more expensive chrome.

The construction of the vacuum can affect more than the initial price. Heavier materials will make the vacuum hard to use and more fatiguing to staff, lowering the amount of work staff will be able to get done during a shift.

Materials will also play a role in how easily the vacuum is damaged and maintained.

More durable materials may be more expensive upfront but will protect the vacuum, helping it to last longer and making it easier to maintain.

6. Available Cleaning Tools

Base model vacuums generally come equipped with a suction hose, stair brush, and extended wand piece.

For an additional price, vacuums can be paired with cleaning kits to help tackle specific cleaning tasks. For example, the ProTeam GoFree Flex Pro II can be paired with a cleaning kit that includes a 14" Xover® multi-surface floor tool, telescoping wand, 5" upholstery tool, 3" dust brush, and 17" crevice tool.

Additional tools will increase the initial cost of the vacuum but can lower the amount of time it takes staff to perform a cleaning procedure, ultimately reducing labor costs.



7. Preventative Maintenance

The life of your vacuum can be extended through preventative maintenance and routine servicing. Proper maintenance of your machine will reduce the need for more costly repairs, lowering the total cost of your machine over its life.

Although it may cost you more initially, services like preventative maintenance will also reduce unscheduled equipment downtime and lost worker productivity that downtime causes.

8. Delivery, Set-Up, & Training

When purchasing a vacuum, identify whether delivery, set-up, and training is an additional or built-in cost.

Training is important in ensuring employees understand the safest and best way to operate and maintain the equipment. Proper usage and training will reduce equipment damages, extend the life of your commercial vacuum, reduce risk of employee injury, and maximize employee productivity.



9. Warranty

Vacuums can be purchased with a warranty on parts. In general, a warranty will increase the initial cost of the machine, but it can help save you money in repair costs over the life of the machine.

Warranties are typically between 2-3 years, but can be as long as 8 years depending on the manufacturer.

They usually do not cover the replacement of expendable wearables such as carbon brushes, batteries, and filter bags.

Takeaways:



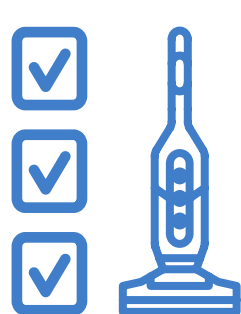
The average price of a commercial vacuum cleaner greatly varies and depends largely on the type.



The cost of a vacuum will also be heavily affected by the features of the vacuum such as size, cleaning capacity, and filtration system.



Start by asking yourself what the most important features of the machine are.



Are you looking for a cheap machine that will get the job done or are you looking for a machine that may cost more but save you on productivity costs?



Work with an expert to learn how a more expensive machine can save you more money over its useful life.

4

COMMON PROBLEMS THAT COULD AFFECT YOUR VACUUM

Vacuuming plays an important role in your facility's floor maintenance routine. Out-of-service machines lead to dirty and damaged floors, lost employee productivity, and greater costs to your business.



Fixing your vacuum can be as easy as diagnosing the problem. Taking a few minutes to diagnose, troubleshoot, and hopefully make a quick fix can save you time, money, and aggravation.

Below, we'll cover the most common problems with commercial vacuums and how to fix them.

1. Problem: Vacuum Cleaner Won't Turn On

Possible Cause: Not Plugged In

Although it may seem obvious, sometimes plugs are not actually plugged into the outlet; they may have fallen out or have been placed in a faulty outlet.

The Fix: Double-check that the issue is not originating from the outlet instead of the vacuum. If the outlet is not the issue, the problem may be with the cord of the vacuum. Is it frayed? Are the prongs bent?

Possible Cause: No Bag in Place

Due to a fail-safe trigger, some vacuums will not operate without a bag present. If there is a bag in place, how full is it? Bags should be replaced when they are more than half full.

The Fix: Check to make sure your vacuum has a bag in place and that it is not overfull. If neither or these seem to be the issue, the problem may be with the machine's pre-filter.

Possible Cause: Pre-Filter Needs to be Replaced

The pre-filter protects the motor and should be cleaned periodically to avoid damage and extend the life of your machine. The pre-filter is often easily forgotten.

The Fix: Inspect your machine's pre-filter. It should not be hard or full of dirt. Replace the filter if it is discolored, hard, or showing any other signs of damage.



2. Problem: My Vacuum Cleaner Won't Stay On

Possible Cause: Tripped Machine Circuit Breaker

A tripped wall circuit breaker is caused by a temporary overload on the circuit or a short circuit in some device plugged into the circuit. A circuit breaker on the machine is used to protect the motor.

If the motor draws high amperage the circuit breaker will stop the motor. Circuits pop when too much power is being drawn or too much strain is put on the circuit.

The Fix: Check your machine for its circuit breaker, usually located on the powerhead of the machine. Is the light red? Yes? It is likely that your vacuum is short-circuiting due to buildup of debris on your brush roll. Clear the blockage and reset the breaker.

Possible Cause: Frayed Power Cords

Frayed power cords or kinks in the line can also contribute to the intermittent power which your vacuum is experiencing.

The Fix: Inspect your power cord for any kinks, frayed areas, or damage. If there is any damage it should be replaced by a certified technician.

3. Problem: My Vacuum Cleaner Is Experiencing A Loss of Suction

Possible Cause: Wrong Height Setting

Sometimes inefficient suction may be misinterpreted as a result of using the wrong height setting.

The Fix: Ensure that the height of the vacuum is correctly aligned to the floor type. For most vacuums, the appropriate height is when the beater bar bristles just lightly sweep the surface of the floor.

If the height setting seems to be appropriately adjusted, ensure that the vacuum bag isn't too full or blocked.



Possible Cause: Vacuum Bag Is Too Full

The Fix: Remember, bags should always be replaced when they are more than half full. Change the vacuum bag if it looks like this could be the issue.

If the issue is not with the height setting or vacuum bag, review the remaining parts of the vacuum which could be susceptible to a blockage or an accumulation of debris.

Possible Cause: Blockage or Buildup of Debris

Blockages commonly occur in the filter, hose, or brush roll.

The Fix: The brush roll should be freed of all accumulation. Removing hair and other lodged items from the brush roll can be done using everyday items like scissors.

If your vacuum has a HEPA filtration system, examine the filter. The filter should be changed every 3-6 months depending on usage. If properly maintained the filter will be white.

Inspect the hose for blockages. Remove any foreign items.



4. Problem: My Vacuum Cleaner Is Leaving Debris Behind

Possible Cause: Brush Roll Wear and Tear

If your vacuum is not picking up materials, and there is a loss of suction, check the brush roll.

The Fix: Brush roll bristles experience wear and tear and should be replaced when they no longer extend just beyond the bottom surface of the vacuum. Remove any buildup.



Possible Cause: Blocked or Cracked Hose

Contributing to this issue could also be a blocked or cracked hose.

The Fix: Disconnect the hose, inspect for any debris left behind and try to dislodge it. If the inside of the hose is clear, look for any cracks or leaks in the hose.



5. Problem: My Vacuum Cleaner Is Making An Abnormal Noise

Possible Cause: Obstructed or Clogged Hose

One of the most common reasons for abnormal noises is an obstructed or clogged hose.

The Fix: Look for any obstructions and remove.

Possible Cause: Dislodged or Broken Belts

Dislodged or broken belts can also be the cause. Does the belt look worn out? Is it too loose or pulled too tight?

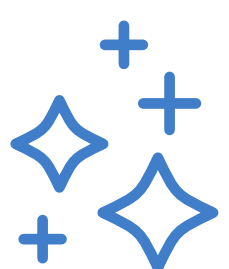
The Fix: If you are noticing any of these irregularities, it is time to replace your vacuum belt.



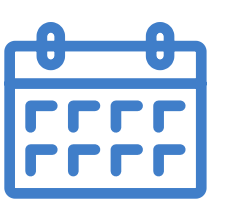
Takeaways:



The most common vacuum problems can often be attributed to simple fixes.



If you are not sure about the problem, do not try to fix the problem yourself or without professional guidance.



Bring your machine in for routine service and maintenance to prevent unplanned equipment downtime.



Contact a certified specialist with any questions.

5

RECOMMENDED VACUUMS

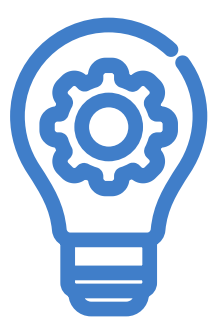
As one of the most used pieces of floor equipment, it is important to select the best type or types for your facility. In some cases, you may need more than one type of vacuum.

Now that you have a well-rounded view of vacuums, you may be interested in seeing what some of the best options are on the market today.

We review the best vacuum cleaners based on type and some key features like power source, cleaning capacity, air flow, and static lift.

To see a comprehensive review of the best vacuum cleaners, check out this article: [9 Best Commercial Vacuums of 2020: Identifying the Best For Your Business](#)

Takeaways:



Selecting the best vacuum for your facility will ultimately come down to which model will allow your staff to be most efficient.

6

IMPORTANT QUESTIONS TO ASK WHEN SELECTING A COMMERCIAL VACUUM CLEANER



After researching commercial vacuum cleaners and developing an understanding of the best type or types for your facility, you may be thinking about taking the next step.

It can be challenging to narrow down all the different commercial vacuum cleaners and ultimately come up with the best choice for your facility. Sometimes the best way to make sure you make the best choice is to consult with an expert so they can help you find the right fit for your facility.

During your consultation, you should be prepared to ask some questions that will help your specialist guide you in the right direction.

The next chapter will provide some examples of questions to have prepared to ask if you are interested in purchasing a commercial vacuum.

When buying a vacuum, you may want to have some of the following questions prepared:

1. Budget

a. I have a budget of \$\$\$\$\$. What commercial vacuum cleaners fall in that price range?

2. Facility Size

a. My facility is XXXX square feet. What type of vacuum will help my staff be most productive?

3. Area Type

a. I have _____ floors/surfaces in my facility. Which is the best type of vacuum to tackle these surfaces.

4. Warranty

a. Do you or the manufacturer offer warranties? What are they, and how do they compare across different manufacturers?

5. Common Problems

a. Are you aware of any issues that are more common with XXX machine compared to XXX?

6. Machine Life

a. What is the life expectancy of vacuum X compared to vacuum Y?

Takeaways:



Always ask questions.



Come prepared with your facility size, budget, and needs in mind.



WHAT'S NEXT?

If you're ready to take the next step towards investing in a commercial vacuum cleaner, the Specialists at Imperial Dade can equip you with everything you need to make the right investment for your company's needs, wants, and budget.

Our Team begins by understanding your needs and desired outcomes so we can suggest the best products and equipment for you. We will guide you through the decision-making process to ensure you make the right purchase.

After the purchase, our Team provides delivery, set-up, and in-service training to ensure you are utilizing best practices and the most up-to-date procedures.

We look forward to learning about your situation so we can help build an effective carpeted floor care program for your business.

Imperial Dade is the leading independent distributor of foodservice packaging, facilities maintenance supplies, floor equipment, and industrial packaging in North America. A provider of customized supply chain solutions, Imperial Dade serves customers in many business-to-business market segments including hospitality, healthcare, education, grocery, foodservice, and more. Value-added services include customer training programs, sustainability consulting, asset management, and technology. Our mission is to help our customers succeed and exceed their expectations.

Headquartered in Jersey City, NJ, the company's growing network of over 100 strategically located distribution centers serves customers across the continent.

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