DUROVAC

Processing
SOLUTIONS FOR PROCESS MANUFACTURERS

POWERED BY: ENDEAVOR BUSINESS INTELLIGENCE

STATE OF THE MARKET REPORT

DuroVac Report on Industrial Housekeeping Practices

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A Letter from our CEO

"After two decades of touring the heavy-duty industries we serve, I have observed that housekeeping, though necessary, is addressed as a last resort. A lack of housekeeping can quickly lead to lost productivity with downed equipment or worse, from injured personnel to plant explosion risks with the discovery of more combustible dusts by the day.

Our powerful industrial vacuum systems can help with big messes. However, as we are entering a generation where productivity demands are growing, access to personnel is diminishing. Our aim is to educate hardworking manufacturers on the hidden but very real dangers of dust accumulation, along with the associated productivity loss and operational costs.

I hope this study helps plant leaders recognize the gap between awareness and action, encourages adoption of more engineered housekeeping solutions, and gives you practical insights you can apply in your own operations."



Introduction

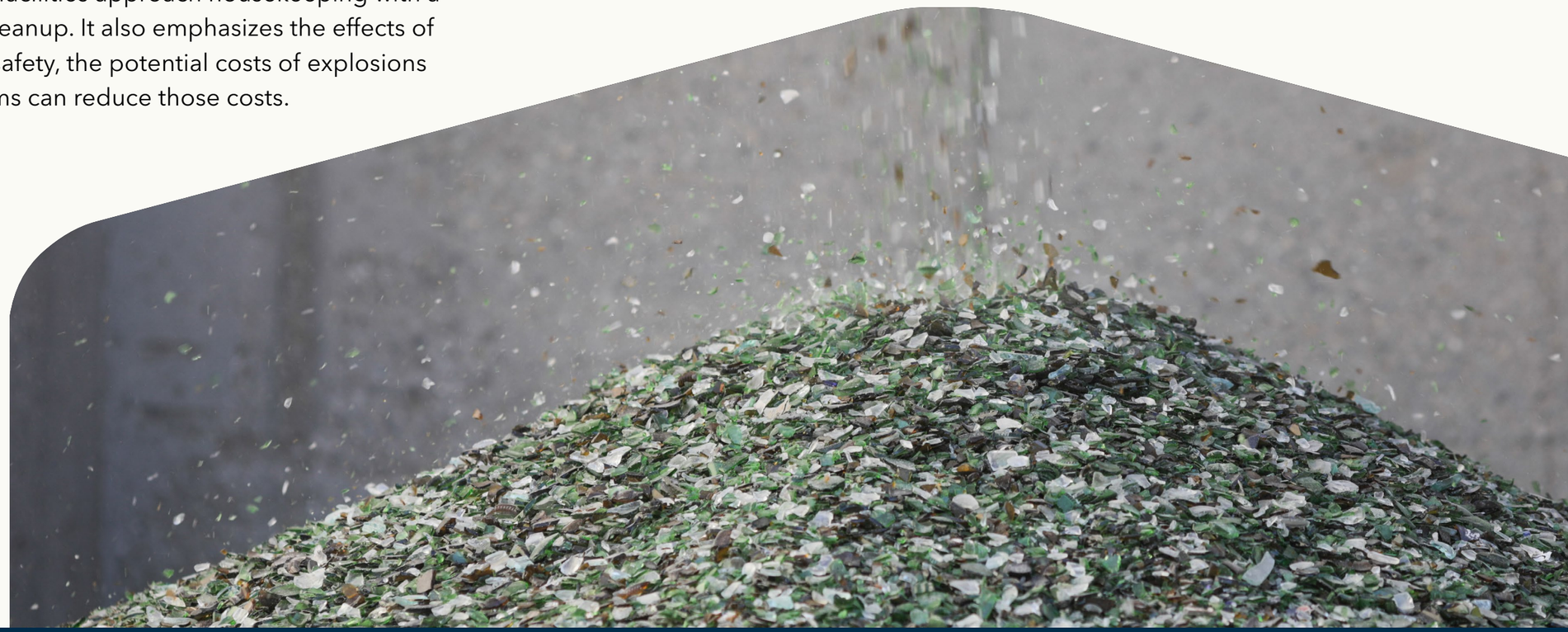
The DuroVac Report on Industrial Housekeeping Practices revolves around one central question: What do housekeeping practices and decision-making dynamics look like in modern manufacturing facilities?

Most manufacturers are aware of dust and debris and the dangers to employee health, regulatory compliance, and a company's bottom line. Even so, the results of our survey show clear evidence that plants need better housekeeping practices to minimize those dangers.

This report examines how manufacturing facilities approach housekeeping with a focus on dust, debris, and material spill cleanup. It also emphasizes the effects of dust on worker health and general plant safety, the potential costs of explosions and downtime, and how industrial vacuums can reduce those costs.

We'll take a look at which housekeeping methods are most prevalent and why, how those methods affect safety and productivity, what's holding facilities back from upgrading their housekeeping processes, and more.

Whether you're reevaluating your own processes or want to compare against the average plant, we hope this study will help you find meaningful opportunities for improvement in industrial housekeeping and spillage management.



Key Findings



Manual housekeeping methods are dominant. The **broom-and-shovel method** is almost universal in manufacturing plants.



Those that use more specialized equipment show uneven capability and awareness, relying heavily on **shop vacs or using vac trucks** in a limited but intensive way.



The biggest barriers to improvement are competing internal priorities, **a "good enough" attitude** towards housekeeping, and trouble justifying costs or ROI.



It's common for **material spillage to cause downtime**, maintenance disruptions, and safety risks in manufacturing plants.



When looking for ways to improve housekeeping, respondents typically request **more or dedicated staffing** and better processes before equipment.



Respondents show a growing interest in engineered housekeeping solutions, but they need a **clear ROI or cost-savings business case** and safety benefits to justify the investment.

Research Methodology

DuroVac conducted this study in collaboration with Endeavor Business Intelligence using standard market research methodologies. We surveyed a group of qualified industrial professionals who work in processing and plant services.

We sent an e-blast survey between February 19–March 4 2026. It produced 160 qualified responses supported by a $30 incentive and rigorous quality controls, including attributed links to prevent duplicate entries, straight-line checks, AI-comment screening, and validation questions. The survey was fully branded to ensure credibility and transparency.

Who were our respondents?

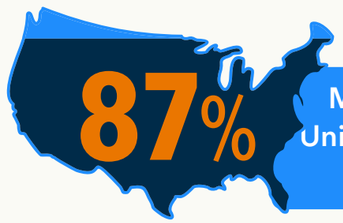


A mix of professionals who influence plant-facing decisions tied directly to maintenance and housekeeping.

Key manufacturing segments such as **food processing, construction materials, chemical, metalworking, and pharma.**



Operations and maintenance leaders (77%), engineering, facilities, and EHS and other safety roles.



Most respondents were based in the United States (87 percent) with a smaller share in Canada (13 percent).

Large, established operations – typically 50+ employees, with many sites exceeding 500 and operating for 20+ years.

The resulting data set reflects a broad cross-section of US-based industrial facilities and provides both quantitative results and rich qualitative insight through open-ended responses.

Why the Results Matter

The dangers of material dust range from ergonomic to respirable and combustion hazards, and facilities need to pay attention to these hazards from both a health and financial perspective.

The health and financial consequences of improper cleanup in industrial environments are well-documented. A 2024 advisory from the Center for Disease Control (CDC) explicitly advises against dry sweeping and compressed air during housekeeping where silica dust may be present, because it increases airborne dust exposure risk. The US Chemical Safety Board (CSB) identified hundreds of dust incidents with fatalities, injuries, and extensive facility damage, noting that inadequate dust control contributes to diseases like silicosis and references economic losses associated with exposure.

This study reflects how widespread the problem is and highlights some of the barriers to correcting it. It also proposes industrial vacuums as a relatively simple solution with low cost of ownership, especially when compared to the costs of safety and compliance failures.

2.3 million people **in the US are exposed to silica at work.**

https://www.osha.gov/silica-crystalline

From 2023–2024, *946,290 DART cases* in the US were caused by overexertion, repetitive motion, and bodily conditions.

https://www.bls.gov/news.release/pdf/osh.pdf



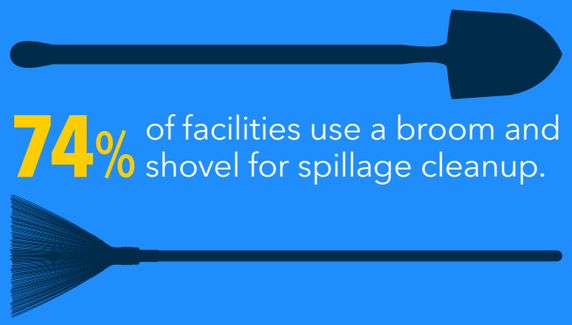
In 2024, US employers reported more than *54,000 cases* of occupational respiratory illness.

https://www.bls.gov/news.release/pdf/osh.pdf

From 2023–2024, *224,450 US workers* were exposed to harmful substances and environments, and 87.6% of those cases required at least one day away from work.

https://www.bls.gov/news.release/pdf/osh.pdf

The Survey's Findings



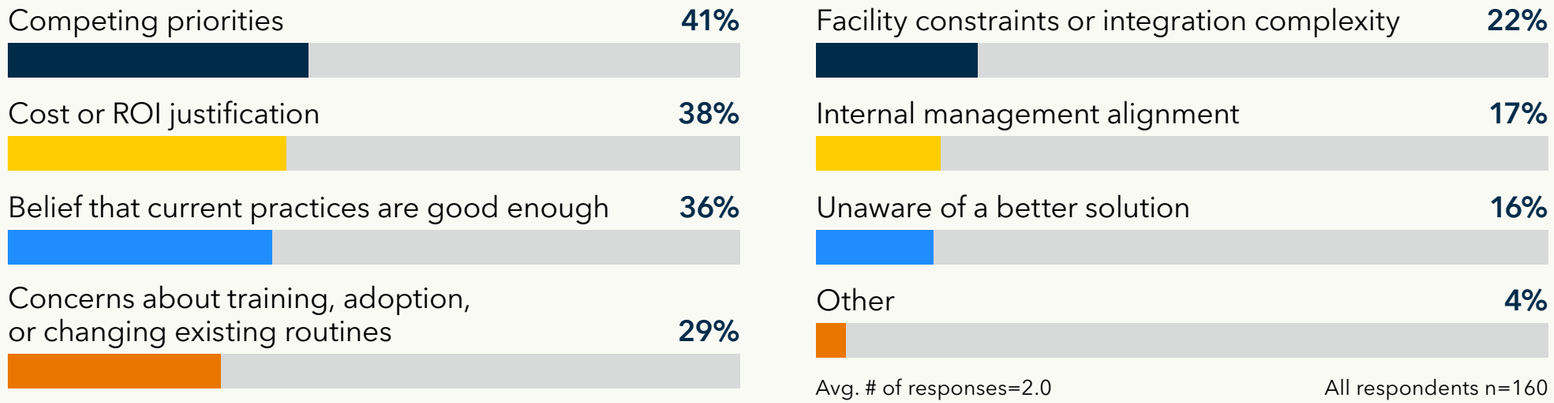
74% of facilities use a broom and shovel for spillage cleanup.

Manual Methods and Barriers to Improvement

Even in serious applications such as spillage cleanup, where spilled materials present a clear and present health danger, 74 percent of respondents still use a broom and shovel.

Most respondents expressed moderate confidence in their housekeeping budgets: 56 percent described it as adequate and 32 percent said it was robust. Forty-one percent of respondents said competing operational priorities presented a challenge, while 38 percent reported difficulty justifying costs or ROI.

Overall, what are the biggest barriers to improving housekeeping practices in your facility?



Avg. # of responses=2.0

All respondents n=160

In the opinions of 36 percent of respondents, stakeholders feel less urgency to make changes because they believe their existing housekeeping practices are already sufficient.

On average, respondents said they face approximately **two of these barriers simultaneously.**

INSIGHT:

Automated cleanup methods can have a huge impact on the bottom line by reducing the number of days missed and number of injuries, not to mention reducing the risk of explosions or other dangerous situations.

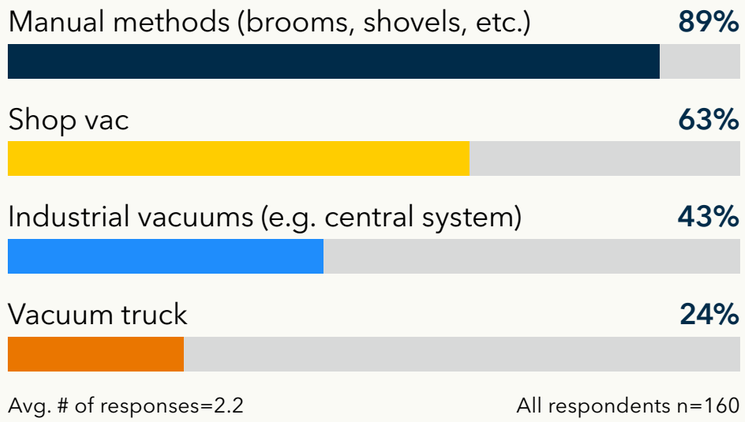
How are Housekeeping Methods and Tools Used?

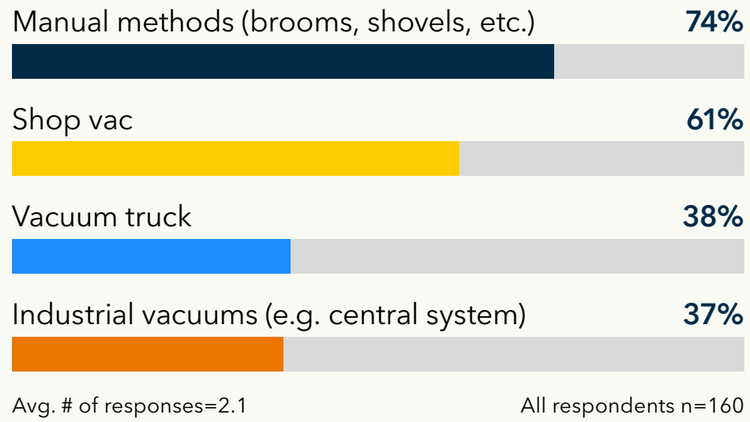
Manual methods dominate housekeeping activities across industrial facilities. Eighty-nine percent of respondents rely on manual methods for general housekeeping tasks, and 74 percent use manual approaches for spillage cleanup. Industrial vacuum systems are used less frequently, with 43 percent of facilities employing them for general housekeeping and 37 percent using them for spillage cleanup.



89% of plants rely on manual methods for general housekeeping tasks.

Which of the following does your facility currently use for general housekeeping and to manage material or product spillages?





INSIGHT:



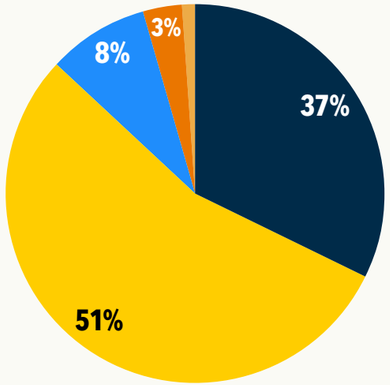
Manual methods are time-consuming and require continuous use. Since they are less labor-intensive and need to be used less frequently, mechanized equipment like industrial vacuums can save more time.

How are Housekeeping Methods and Tools Used? *(Continued)*

Where industrial vacuum systems are in use, workers rely on them heavily. Of the respondents who use industrial vacuums, 66 percent reported using them daily. Manual methods are even more prevalent, with 88 percent of respondents reporting daily use.

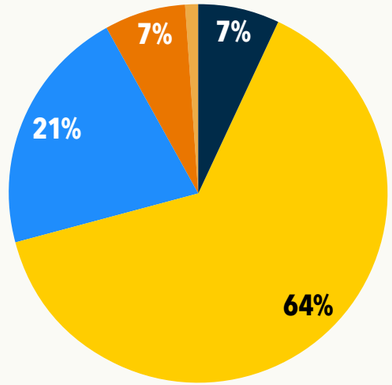
Which of the following best describes how frequently these tools are used in your facility for general housekeeping?

Manual methods (brooms, shovels, etc.)



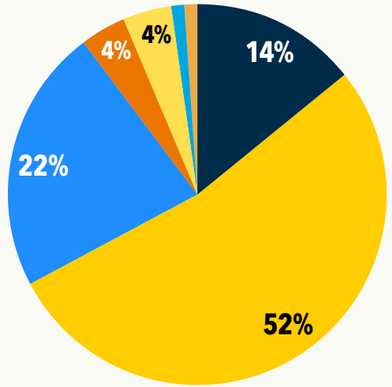
(n=142)

Shop vac



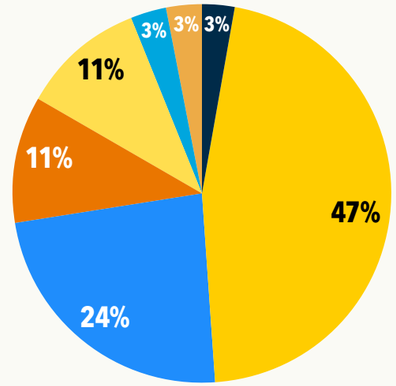
(n=100)

Industrial vacuums (e.g. central system)



(n=69)

Vacuum truck



(n=38)

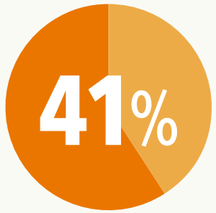
Hourly or More Often
Daily
Weekly
Monthly
Quarterly
Annually or Less Often
Not sure

Based on respondents identified as using the tool

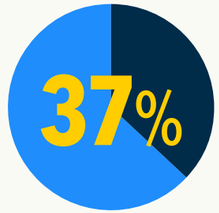
INSIGHT:

When introducing new housekeeping technologies, it's important to demonstrate both practical feasibility and financial value. Plant leaders can get their foot in the door by citing the time savings and subsequent money savings of industrial equipment compared to antiquated methods like brooms and shovels.

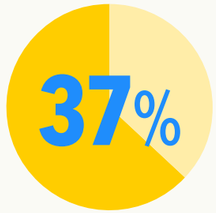
For facilities that don't use industrial vacuum systems, respondents cited various reasons:



Facility constraints or complexity



Cost or ROI uncertainty



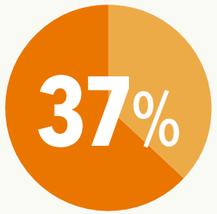
Confidence in existing practices

Who is Responsible for Housekeeping?

Responsibility for housekeeping tasks is often distributed across facility staff. Forty-four percent of facilities rely on general employees to perform housekeeping in addition to their primary duties, while 38 percent employ dedicated housekeeping personnel. The remaining facilities use a mix of internal staff and third-party services.

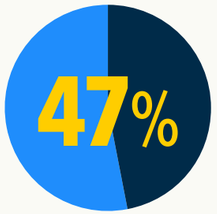
Approaches to housekeeping vary widely. Respondents described their practices like this:

Highly proactive



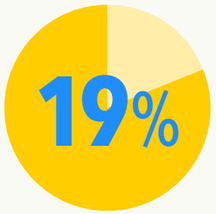
…with an emphasis on prevention and routine maintenance.

Somewhat proactive



…with some effort towards prevention.

Primarily reactive



…addressing spills and debris only after problems occur.



44%

of facilities have general employees who perform housekeeping in addition to their primary duties.





INSIGHT:

Are your personnel constantly being taken away from more important tasks to sweep the floor? Better equipment can dramatically speed up cleaning and keep workers focused on the jobs they do best.

How Does Spillage Impact Operations?

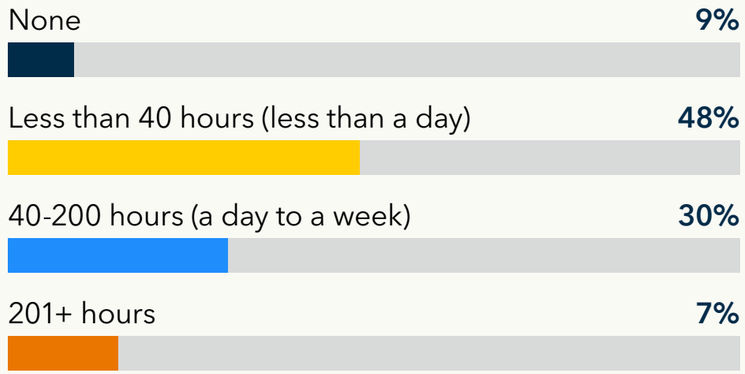
Material spillage is a recurring operational challenge that affects uptime, labor efficiency, safety, and overall plant performance.

Sixty-one percent of respondents reported experiencing maintenance issues caused by spillage at least occasionally. Nearly half (47 percent) reported downtime related to spillage incidents within the past year.



47% of plants reported downtime related to spillage within the past year.

How much downtime related to material or product spillage would you estimate your facility experienced in the past 12 months?



All respondents n=160

The impact is not evenly distributed. While 48 percent of respondents experienced less than one day of downtime, 12 percent reported more than one week of downtime due to spillage. These longer disruptions point to underlying challenges such as material handling inefficiencies, cleanup bottlenecks, and limited capacity to respond quickly and safely.

INSIGHT:

Even short periods of downtime can add up over the course of a year, contributing to lost production hours, increased maintenance demand, and ongoing operational inefficiencies.

INSIGHT:



Beyond downtime, spillage puts added strain on teams. Manual cleanup increases labor demands and ergonomic risk, while unmanaged dust and debris create safety and compliance concerns. *Spillage is not an isolated issue but a cross-functional one that requires a coordinated approach across operations, maintenance, and safety.*

What Types of Spillages are Most Common?

Spillages are not limited to large debris or visible material. While general debris was the most commonly reported type at 71 percent, 41 percent of respondents reported respirable dust as a frequent spillage type, and 44 percent reported bulk processing materials. This is an important distinction. Unlike larger debris, fine dust can become airborne, travel beyond the immediate spill area, and remain suspended or settle in hard-to-reach spaces.



41%
of facilities reported respirable dust as a frequent type of spillage.

In the open-ended survey responses, many respondents were aware of the long-term health risks of respirable dust exposure (e.g., occupational lung disease), as well as the fire and explosion hazards of combustible dusts. Many respondents called out dust and fine particulate materials that presented elevated safety risks. These materials are not just harder to clean — they're also harder to contain, making them more likely to spread, accumulate, and create secondary risks over time.

Learn how to assess your facility's risk.

Explore our combustible dust resource page and download the combustible dust checklist and e-book.

INSIGHT:



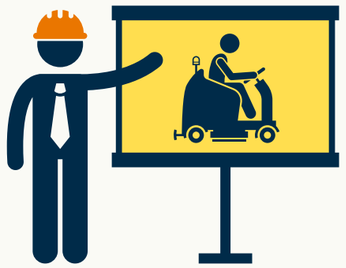
OSHA and the NFPA both recognize combustible dust as a serious workplace hazard. Improper cleanup methods like sweeping or compressed air can increase risk by dispersing dust into the air and allowing it to accumulate in hidden or hard-to-reach areas.



What Type of ROI Can You Expect from an Industrial Vacuum System?

Despite the operational and health impacts of spillage, many facilities struggle to clearly quantify its cost and calculate the ROI time frame for an industrial vacuum system purchase. Several case studies demonstrate that ROI for industrial vacuums is fast, especially when factoring in potential losses caused by employee health issues, production downtime, or explosions.

While 46 percent of respondents expect at least a moderate return from improved housekeeping approaches, confidence remains limited. Eleven percent do not expect a return at all, often citing budget constraints or uncertainty around measurable outcomes.

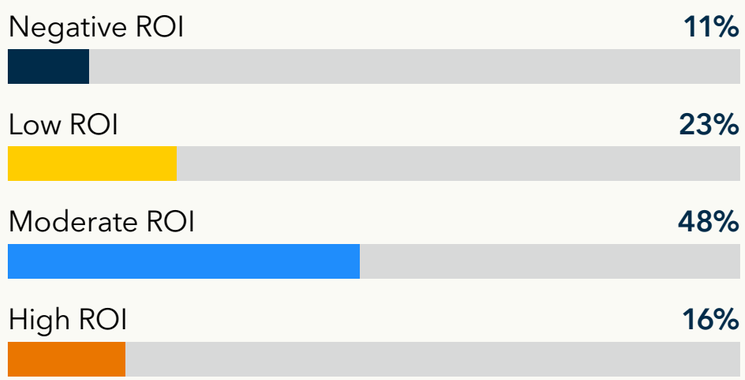


46%
of plants expect at least a moderate return from improved housekeeping approaches.

INSIGHT:

The main barrier to housekeeping improvements is not a perceived lack of impact, but a lack of visibility into where and how that impact shows up.

Which of the following best describes your ROI expectations for investing in engineered housekeeping solutions (e.g., industrial vacuum systems) at your facility?



All respondents n=160

When asked what would justify investment, respondents most frequently requested clear data, such as cost savings analyses, productivity improvements, reduced downtime metrics, and enhanced safety outcomes.

Many emphasized the importance of quantifying:

- Avoided incidents
- Material recovery
- Labor reduction
- Compliance improvements

Across hundreds of qualitative responses, common answers included:

- Fewer injuries
- Improved regulatory compliance
- Increased throughput
- Reduced maintenance burden
- Prevention of catastrophic events such as combustible dust explosions

Respondents repeatedly emphasized that **proactive housekeeping is ultimately more cost-effective** than reactive cleanup and incident response.

CASE STUDY

Animal feed manufacturer gets an NFPA compliance boost

The Problem:

Piling grain dust poses an explosion hazard and slows productivity in multiple facilities owned by a manufacturer of animal nutrition products.

The Solution:

Robust central vacuum systems boost NFPA compliance in several plants while minimizing interruptions in the production process.

The Details:

An animal feed manufacturer was spending hours of downtime cleaning piles of grain and accumulating dust, which made it difficult for employees to access their equipment. The dust also presented a fire and explosion hazard by NFPA classifications.

As it expanded and opened new facilities globally, the company needed reliable industrial vacuums to keep its facilities clean, productive, and NFPA compliant.

DuroVac stepped up to provide a fleet of tough, user-friendly central vacuum systems configured for the individual needs of each facility, all fully equipped to handle combustible dust safely.

The company has never had to change a single filter on its DuroVac systems, which are known to last for several years without maintenance. Workers and managers praised the vacuums' durable build and ease of use.

One General Manager highlighted the vacuums' "European" build – that is, their slick look and feel and high-quality finish, which puts them in a class above the rest.



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Conclusion

The survey results demonstrate that while housekeeping is widely recognized as critical to safety, compliance, and operational performance, many facilities are constrained by outdated methods of dust control, labor-intensive practices, perceived complexity, and ROI uncertainty. Manual methods continue to dominate, and spillage-related downtime and risk remain significant challenges.

Facilities that successfully upgrade their housekeeping practices tend to quantify losses and align improvements with broader operational goals, and they clearly communicate both the financial and safety benefits. By doing so, they are better positioned to move toward safer, more efficient, and more compliant operations.

